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**ANALYSIS TO SUPPORT PETITIONS BEFORE THE  
ENERGY FACILITIES SITING BOARD  
EFSB 22-03 and DPU 22-21**

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# **Greater Cambridge Energy Program Cambridge, Somerville & Boston**



## **Volume II - Appendices**

**Submitted to:**  
Energy Facilities Siting Board  
One South Station  
Boston, Massachusetts 02114

**Submitted by:**  
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**March 10, 2022**



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**March 10, 2022**

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**Appendix 1-1**

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Eversource Outreach Materials

| SUN                              | MON                                 | TUE  | WED   | THU  | FRI  | SAT  |
|----------------------------------|-------------------------------------|--|---|--|--|--|
| SEPT / OCT                       | 27                                  | 28<br>Whole Foods,<br><b>Cambridge</b> (11am-2pm)<br><br>Magazine Beach Park, <b>Cambridge</b> (130-330pm) | 29<br>Union Square,<br><b>Somerville</b> (9am – 2pm)<br><br>Honan Library,<br><b>Allston-Brighton</b> (3 – 6pm) | 30<br>Galaxy Park,<br><b>Cambridge</b> (9am – 2pm)<br><br>Lincoln Park,<br><b>Somerville</b> (3-630pm) | 1  | 2<br>Bow Street,<br><b>Somerville</b> (9am – 1pm)<br><br>Charles River Farmer's Market,<br><b>Cambridge</b> (10am – 2pm) |
|                                  | 3                                   | 4<br>Virtual Open House,<br><b>Cambridge</b> (7-9pm)   | 5<br>Virtual Open House, <b>Somerville</b> (7-9pm)  | 6<br>Allston Health Collaborative Farmer's Market,<br><b>Allston-Brighton</b> (2 – 630pm)              | 7<br>Virtual Open House,<br><b>Allston-Brighton</b> (7-9pm)                            | 8<br>Trader Joe's,<br><b>Allston-Brighton</b> (11am – 2pm)   |
| 10                               | 11<br><i>Indigenous Peoples Day</i> | 12<br>Virtual Open House,<br><b>Allston-Brighton</b> (noon – 2pm)  | 13<br>Virtual Open House, <b>Cambridge</b> (noon – 2pm)<br><br>ECPT stakeholder meeting (630-8pm)               | 14<br>Virtual Open House, <b>Somerville</b> (noon – 2pm)   | 15   | 16   |
| 17                               | 18                                  | 19   | 20  | 21   | 22<br><i>Head of the Charles</i><br><br>Cambridgeport stakeholder meeting (1230-130pm) | 23<br><i>Head of the Charles</i>   |
| 24<br><i>Head of the Charles</i> | 25                                  | 26   | 27  | 28   | 29   | 30   |

Key:



Virtual / Zoom Event



Pop-Up Event

| SUN                                | MON | TUE  | WED  | THU                       | FRI                       | SAT |
|------------------------------------|-----|--|--|---------------------------|---------------------------|-----|
| NOV / DEC                          | 1   | 2  | 3  | 4                         | 5                         | 6   |
|                                    | 7   | 8  | 9  | 10                        | 11<br><i>Veterans Day</i> | 12  |
| 14                                 | 15  | 16   | 17<br>Magazine Beach Partners stakeholder meeting (9-10am)<br>EEA Agency meeting (3pm) | 18                        | 19                        | 20  |
| 21                                 | 22  | 23   | 24   | 25<br><i>Thanksgiving</i> | 26                        | 27  |
| 28<br><i>First Day of Chanukah</i> | 29  | 30<br>Fresh Pond / North Cambridge stakeholder meeting * (tentative) | 1  | 2                         | 3                         | 4   |

Key:  Virtual / Zoom Event       Pop-Up Event

| Date            | Stakeholder  | Stakeholder Attendees  | Existing Conditions Data &/or Other Plans Provided by Stakeholder? | General Summary of Input from Stakeholder   | Meeting Outcomes |
|-----------------|--|--|--|---|------------------|
| <b>2019</b>     |  |  |  |   |                  |
| January 9, 2019 | East Cambridge Planning Team   | Chuck Hinds; ECPT members  |  | Project Services presented the Fulkerson-version of the project to members of the East Cambridge Planning Team. The feedback from residents was that of a general dissatisfaction with the choice of location for a new substation and what followed were primarily questions and suggestions about where a hypothetical substation could be better sited.  |                  |
| April 9, 2019   | State Delegation Meeting   | Sen. Sal DiDomenico and Rep. Mike Connolly   |  | In person meeting where slide deck on Fulkerson was presented to legislative staff in Sen. DiDomenico's office.   |                  |
| April 24, 2019  | East Cambridge Planning Team   | 40 attendees, including Cambridge City Councilors Quinton Zondervan and Jan Devereux   |  | Conversation centered on finding an alternative site for the substation; general feedback was that neighbors and Councilors were thus far unimpressed with Eversource's strategy for finding a suitable parcel.   |                  |
| 5/7/2019        | City of Cambridge  | City Manager Staff and Project Services  |  | High level overview for in-street work to support Fulkerson Substation Project. Meeting was productive effort to ensure that any project related in-street construction is coordinated closely with other city projects.  |                  |
| May 22, 2019    | Cambridge Transportation and Public Utility Committee Meeting          | Councilors Jan Devereux, Quinton Zondervan, Dennis Carlone, Alanna Mallon, Fred Kelly, Owen O'Riordin from Cambridge Public Works.   |  | Initial committee hearing to review the transmission system, load growth in Cambridge, existing substations serving the area, new infrastructure needs and parcel search. Next steps included commitments to continue engineering analysis and other potential locations for new substation, pursue BZA approval for Putnam project.  |                  |
| June 21, 2019   | City of Cambridge  | City Manager and key staff   |  | Brief update on project, solutions, alternate location search. Brief review of upcoming presentation material. General discussion on how best to accommodate electric load growth in Cambridge and electrification goals of the City.   |                  |
| June 25, 2019   | Cambridge Transportation and Public Utility Committee Meeting          | Councilors Jan Devereux, Quinton Zondervan, Dennis Carlone, Alanna Mallon, Fred Kelly, Owen O'Riordin from Cambridge Public Works.   |  | Project Services presented the latest iteration of the project on Fulkerson Street and it generated disapproval from members of the committee. Multiple Councilors went on record opposing the project because of the choice of location and in the public comment period, Chuck Hinds of the East Cambridge Planning Team also reiterated that the ECPT was opposed to the project.  |                  |
| June 27, 2019   | Ad-Hoc MIT Group Meeting   | Jim Gray, Marija Ilic, Catherine Zusy, Jan Devereux, Kathy Watkins, Nikhil Nadkarni  |  | Meeting hosted by Jim Gray in the MIT Language Lab. General discussion on overall need for increased supply and substation. After some discussion, including a lot of input and discussion from Marija Ilic and Bob Andrew, the attendees felt as if the need for additional electric supply and a new substation was justified. Conversations then turned to what creative ways a substation could be successfully integrated into the community. Denny Substation in Seattle was discussed as an interesting way to incorporate a substation into a community. Lot of discussion on what else could be done to incorporate positive aspects of a substation including an educational component of some sorts.   |                  |
| July 18, 2019   | Alexandria Real Estate Equities, Inc. (Alexandria)                     | Joe Maguire, Michelle Lower  |  | Meeting to discuss potential partnership in developing a site including a potential land swap, other creative parcel ideas. Discussed potential laydown, construction coordination concepts. Review adjacent parcels that might be viable and seek Alexandria help opening doors with those parcel owners to initiate discussions.  |                  |
| August 21, 2019 | Cambridge Transportation and Public Utility Committee Meeting          | Councilor Jan Devereux, Councilor Dennis Carlone, Councilor Quinton Zondervan, Councilor Tim Toomey, Councilor Craig Kelley, Councilor Sumbul Siddiqui, Lisa Peterson (City Manager's Office), Owen O'Riordin (Public Works Director), Kathy Watkins, Stephen Kenkaskas, Arthur Goldberg, Chris Attis (Mike Connolly Chief of Staff), Jim Henry (Sen. DiDomenico's office) |  | Chair Devereux started the meeting on a positive note, saying that Eversource had been regularly meeting with the stakeholders from the city and the developer community since the last meeting and thanked Eversource for their engagement. Councilors requested additional information about the need for a new substation and clarifying comments about grid capacity and shifting peak usage times. Councilor Toomey expressed hope that Eversource had heard loud and clear that a new site was the only viable option for winning city support.   |                  |
| 9/30/2019       | New England Development  | Sarah Lemke, New England Development; Kurt Sjustedt, NED; Bob Daylor, Tetra Tech / NED   |  | Galleria has 3 "big" service connections, all in vaults, switchgear, transformers, etc. Planned redevelopment of three corner buildings/parcels necessitates relocation of existing electric infrastructure to a central location. Best Buy location is easiest to redevelop first as it is not encumbered with parking or other mall operations. Other buildings (Sears, Macy's) plan to eventually be redeveloped but have more technical challenges to ensure parking, deliveries and mall activities are not impacted. Canal owned by City of Cambridge up to Land Blvd. Land Blvd owned by DCR as is the basin, which is considered DCR parkland.  |                  |
| 10/1/2019       | Cambridge DPW  | Iram Farooq, City of Cambridge<br>Seth Federspiel, City of Cambridge<br>Owen O'Riordin, City of Cambridge<br>Kathy Watkins, City of Cambridge<br>Suzanne Rasmussen, City of Cambridge<br>Nancy Glowa, City of Cambridge<br>George Olson, Olson Law Office<br>Stephen Wood, ESS Group   |  | Discussion largely centered on the status of finding an alternative site for the project. Attendees also reiterated requests for 10-year load growth trends and their historical accuracy, as well as information regarding efficiency that they could pass on to interested stakeholders and residents that summarizes the need for the project.   |                  |
| October 2, 2019 | Cambridge Transportation and Public Utility Committee Meeting          | Councilor Jan Devereux<br>Mayor Marc McGovern<br>Councilor Dennis Carlone<br>Councilor Alanna Mallon<br>Councilor Quinton Zondervan<br>Councilor Craig Kelley<br>Councilor Tim Toomey<br>City Manager Louis DePasquale<br>Public Works Director, Owen O'Riordin<br>Nancy Glowa, City Solicitor<br>Chief of Staff to Rep. Connolly, Chris Attis                             |  | The Transportation and Public Utilities Committee will meet to discussions on the future electricity needs of the Kendall Square area and progress toward identifying an alternate, viable location for a new substation other than the proposed site on Fulkerson Street.<br><br>Chair Devereux again started the meeting on a positive note, but also notes the Democratic Socialists of America's "Take Back the Grid Campaign" and said that there has been consistent feedback from the community that the Fulkerson Street location is unacceptable, but also noted that Eversource, City of Cambridge staff and stakeholders from the community have been meeting in between hearings to explore solutions. Chair Devereux also acknowledged growing demand the need for locating the new substation near Kendall Square.<br><br>The public comment period generated concern from those in attendance that, despite what was discussed in the meeting, Eversource would push forward at the Fulkerson site. Eversource team members attempted to assuage those fears throughout. |                  |
| <b>2020</b>     |  |  |  |   |                  |
| 1/28/2020       | City of Cambridge  | City Manager   |  | Jim Hunt of Eversource meetings with City Manager to provide big picture overview of project needs and proposal along with other Cambridge initiatives. Presentation provided and City Manager is understanding of project need.  |                  |
| 3/2/2020        | Cambridge City Council   | Members of the Cambridge City Council; members of the Cambridge Redevelopment Authority; City Manager Louis DePasquale; Tom Evans; Bob Reardon   |  | Members of the City Council expressed general satisfaction that stakeholders were able to come together to help facilitate a move away from the Fulkerson site. Letter from City Manager is included in Council packet applauding the coordination between Boston Properties, Eversource and the CRA in helping to address the electric reliability problem creatively and for efforts to move the location from Fulkerson Street. The Council, with little debate, approved the Alexandria petition unanimously.   |                  |
| 4/7/2020        | East Cambridge Planning Team / Cambridge Redevelopment Authority (CRA) | CRA led meeting supported by Eversource and Boston Properties; Charles Hinds and other ECPT members  |  | The Cambridge Redevelopment Authority facilitated a meeting with the East Cambridge Planning Team that was supported by Eversource and Boston Properties. The general feedback was one in which ECPT members were relieved that Eversource had elected not to pursue siting a new substation at the Fulkerson site. A general, high level discussion followed regarding the scope of the work and the commercial partnership between Eversource and Boston Properties.  |                  |
| 4/15/2020       | Cambridge Redevelopment Authority (CRA)                                | Tom Evans and the Board of CRA; members of the public; Project Services; Boston Properties   |  | Members of the Project Services team and Boston Properties presented an overview of the proposed underground substation and above ground commercial development on Binney St. in East Cambridge. Topics of discussion include safety and resiliency for the new substation, as well as an assurance by Eversource and Boston Properties that the plan would be reviewed by a third party.   |                  |
| April 21 2020   | Linden Park Neighbors  | Board of Directors   |  | Virtual meeting to provide an overview of Boston Properties / Eversource proposal and discuss community feedback.   |                  |
| 5/20/2020       | Cambridge Redevelopment Authority (CRA)                                | CRA Board members and staff  |  | Preliminary Zoning Changes. Board was given overview for zoning and ordinance amendments forthcoming related to Boston Properties / Eversource proposal.  |                  |
| 6/17/2020       | Cambridge Redevelopment Authority (CRA)                                | CRA Board members and staff  |  | CRA virtual Board meeting to discuss draft MXD Zoning Petition. Eversource provided SME support to answer any questions on utility infrastructure.  |                  |



| Date              | Stakeholder   | Stakeholder Attendees   | Existing Conditions Data &/or Other Plans Provided by Stakeholder? | General Summary of Input from Stakeholder  | Meeting Outcomes   |
|-------------------|---|---|--|--|--|
| 6/25/2020         | CRA Virtual Open House  | Board members and staff from CRA, Staff from Boston Properties, Eversource SME support, Councilor Dennis Carlone.         |  | CRA led virtual open house to answer general, high level questions from members of the general public. Those that attended included Cambridge City Councilor Dennis Carlone, who asked about floor plates for residential and commercial space, as well as the open space park that would sit atop the proposed substation. Eversource SME support provided to answer questions about utility infrastructure   |  |
| 7/22/2020         | East Cambridge Planning Team  | Charles Hinds and other ECPT members  |  | Station 8025 (former Fulkerson Street) Project: As part of an awareness campaign to promote the proposed underground station concept more broadly, members of the Project Team presented to the East Cambridge Planning Team (ECPT) on July 22nd. ECPT is a key neighborhood stakeholder that was a vocal opponent to the Fulkerson Street substation location but is generally supportive of the new site and proposed underground station. ECPT members appreciated the overview.  |  |
| 8/4/2020          | East Cambridge Business Association   | CRA/BP led with ES support; members of the ECBA.  |  | Presentation was led by representatives from the Cambridge Redevelopment Authority and Boston Properties and delivered an overview of the proposed substation site.  |  |
| 8/19/2020         | Linden Park Neighbors   | Matt Connelly; Members of Linden Park Neighbors   |  | A productive meeting was held virtually with the Linden Park Neighborhood Association to present an update on new substation site. The Project Team's subject matter experts were able to address limited questions, and the Neighborhood Association expressed overall support for the project.   |  |
| 8/5/2020          | Cambridge Redevelopment Authority (CRA)   | CRA Board and staff   |  | CRA Design Review meeting on MXD rezoning and BxP redevelopment plans  |  |
| 8/31/2020         | Kendall Square Association  | KSA Staff   |  | In advance of the regular meeting of the KSA, Project Services representatives presented an overview of the project to staff members of the Kendall Square Association.  |  |
| 9/2/2020          | Kendall Square Association  | General membership of the KSA   |  | Members of the Project Services team presented an overview of the project to the general membership of the Kendall Square Association.   |  |
| 9/3/2020          | Kendall Residents Association   | CRA/BP led with ES support; members of the KRA.   |  | CRA / BP led outreach to Kendall Residents Association members to discuss MXD rezoning petition. Solicited feedback on their proposed redevelopment. Eversource SME support to answer any questions on utility infrastructure.   |  |
| 9/16/2020         | City of Cambridge Department Heads and City Manager   | Rasmussen, Susanne, Watkins, Kathy, Jim Wilcox, Friedman, Jerry, Owen O'Riordan, Farooq, Iram, Federspiel, Seth           |  | Review of non-wires alternatives and broader discussion on energy efficiency efforts in Cambridge, renewable energy and other solutions outside a traditional transmission and distribution project.   |  |
| 9/16/2020         | Cambridge Redevelopment Authority (CRA)   | CRA Board; representatives from Linden Park Neighbors   |  | After hearing from the public, including a letter read in support by members of Linden Park Neighbors, the Cambridge Redevelopment Authority voted unanimously in favor of rezoning language that would then be advanced to the Cambridge City Council.  |  |
| 9/21/2020         | City Council  | Members of the Cambridge City Council; members of the Cambridge Redevelopment Authority.                                  |  | Eversource/BP/City Council "Working Session" - City Council voted in favor of the CRA's zoning petition to send the project to the Ordinance Committee and Planning Board.   |  |
| 10/22/20          | Cambridge Fire Department and Inspectional Services Department  | Ranjit Singanayagam, Sisia Dagalain, Lt. Chris Towski   |  | High level overview of Kendall Sq. substation and how cables would enter the structures, basic fire protection, NESC standards, etc.   |  |
| November 17, 2020 | Cambridge Planning Board  | Kathy Born, Tom Evans, Jeff Roberts, Mary Flynn, Ted Cohen, Steve Cohen, Hugh Russell, Lou Bacci                          |  | Kendall Center MXD Amendment Zoning Petition hearing. Eversource SME support to answer any questions on utility infrastructure.  |  |
| <b>2021</b>       |   |   |  |  |  |
| March 30, 2021    | CRA   | Design Review Committee   |  | Design Review Committee meeting to discuss MXD redevelopment proposal - Parcel 2 of the Kendall Square Urban Redevelopment Plan. Eversource SME support to answer any questions on utility infrastructure.   |  |
| April 1, 2021     | CRA/BP  | Tom Evans, Alexandra Levering   |  | A virtual open house centered on MXD redevelopment plans and rezoning. Eversource SME support to provide answers to any technical questions about utility infrastructure.  |  |
| 4/8/2021          | Somerville Representative Stakeholder Meeting   | Kate Byrne, Sarah Dunbar, Mike Katz, Jim McGinnis, Ann Camara, Philip Parsons, Michele Hansen                             |  | The purpose of this meeting was to obtain feedback regarding the current top-two Somerville Candidate Routes (Routes S1 and S11C). Eversource provided a project overview, including a general discussion of other Eversource upgrade projects in and around the Somerville Substation area. The stakeholders indicated that they have been significantly burdened with ongoing construction projects in this area of Somerville and asked for improved coordination and cooperation between project proponents, including within Eversource. Eversource described the steps and measures they are taking to improve such communication and coordination. As one example, Eversource explained the close coordination they are undertaking with the developer of the US2 site, MBTA and the City of Somerville to locate a segment of Route S1 across that development site. The stakeholders indicated a general preference from Route S1, indicating that on paper it appeared to be less impactful to businesses in the area. The Washington Street segment of Route S11C has experienced significant construction and traffic related impacts over the past couple of years. Eversource described the route selection process and how different criteria are evaluated and compared to identify a Preferred Route and Noticed Alternative Route. The stakeholders inquired as to how load forecasts are developed, given the incredible amount of development in the Somerville and Cambridge areas. There was also a discussion regarding efforts that could be undertaken by Eversource to beautify the Somerville Substation site (recognizing that it is located in the gateway to the Union Square area), including landscape and hardscape screening and art work. During construction, the stakeholders indicated that the "Union Square Neighborhood Council" would consider hosting a "Monitoring Committee" to monitor the construction process and ensure that Eversource is following through on its commitments.  | Eversource to continue comparing and contrasting Route S1 to S11C to identify the Preferred Route and Noticed Alternative Route.   |
| 6/8/2021          | Cambridge CRA   | Tom Evans, Alexandra Levering   |  | The purpose of this meeting was to provide an update on the status of routing along the Grand Junction Railroad Corridor(s) and along Broadway. Regarding the Grand Junction Railroad routes, Eversource noted that the trestle bridge routes would not likely be advanced further due to the complexities of the crossing and coordination issues/uncertainty with the MassDOT Multimodal Project, particularly through the "throat area", as well as ADA challenges and permitting and design challenges. Regarding Route S11C that would follow the Grand Junction Multi-Use Pathway project into Somerville, Eversource continues to advance the design of this route. The CRA staff and DPW previously provided Eversource with the 90% design drawings for the Binney Park portion of the route to coordinate the alignment and sequencing of work. Regarding the Kendall Routes along Broadway, the CRA staff indicated that they would be supportive of the alignment along the Volpe property line particularly if it would facilitate construction of a contiguous 14-foot wide sidewalk in front of the Volpe development site.   | Brighton routes involving the trestle bridge crossing of the Charles River not likely to be advanced further.  |
| 7/13/2021         | Magazine Beach Partners   | Catherine Zusy, Phil Michael, Ken Carson, Rebecca Bowey, Susan Lee  |  | The purpose of this meeting was to introduce the Project, and specifically work proposed on or near MassDCR's Magazine Beach property to the Magazine Beach Partners stakeholder group (see <a href="https://magazinebeach.org/">https://magazinebeach.org/</a> ). Eversource described the need for the project, the schedule and steps that have been taken to avoid, minimize and mitigate impacts to the maximum extent practicable including specifically Magazine Beach (Article 97 process, HDD, location of splice vaults and exit pit, avoid trees, avoid athletic and recreational facilities, restoration plans, timing of work to minimize impacts, etc.). In addition to a general discussion about the Project, the Partners posed the following questions to Eversource, which were subsequently discussed during the call: (1) What locations does the new transmission line need to connect, what is its planned voltage (kV), how much capacity (MVA) will it provide immediately, and how much capacity is planned for the future? Will the line bring power into Cambridge, away from Cambridge, or simply provide additional grid resilience? Is this planned as a one-time activity, or should we expect additional transmission lines every few decades? (2) How many underground utility vaults are planned over the distance of the line, and what is the maximum planned distance between these utility vaults? In the event of any problems in the transmission line, how do you locate the problem area and how much digging is required to identify and repair a problem. (3) How will the transmission lines be cooled? And what requirements/restrictions will there be on the land above the lines. (4) Assuming the transmission lines will be cooled with circulating oil, what mitigation plans does Eversource have in the event of a leak or other incident? (5) After this line is established, should we expect follow on activity, or has the lower voltage distribution out of the Putnam substation covered us for the next couple of decades? | Eversource will continue to coordinate closely with the Magazine Beach Partners as the design is advanced for the top Brighton routes. Magazine Beach Partners will also circle back with Eversource as they have follow up questions and comments.              |
| 7/27/2021         | Allston/Brighton Neighborhood Groups (Allston Civic Association, Harvard Allston Task Force, Friends of Honan Library)              | Cindy Marchando, Anthony D'Isidoro, Tom Lally, Paula Alexander, Mary Helen Block, Wayne Yeh, Ed Kotomori                  |  | The purpose of this meeting was to present the preliminary top routes within the Brighton Study Area within the City of Boston (Allston/Brighton area) and solicit feedback and input regarding the preferences of the represented neighborhood groups, and to respond to questions about the project. The discussion focused on Route B30 West in and around the Brighton Substation, including challenges of installing a new line down Franklin Street. There was a strong preference for the other routes that avoid coming into the substation from this direction (e.g., B29D West), noting that Route B30 West would be very impactful to residents in this area and would cause significant community disruption (only 2-way street in neighborhood, heavily travelled by cyclists) relative to other routes that follow Cambridge Street into the substation facility. There was also a discussion regarding the feasibility of putting some of the existing overhead distribution lines underground as part of the project, future outreach, how the project increases reliability in the area (without drawing power away from the Allston/Brighton area into Cambridge), how the project addresses existing and future growth, anticipated substation upgrades and opportunities to beautify the area particularly near the existing substation, existing infrastructure constraints, schedule and duration of construction.   | Additional stakeholder meetings will be scheduled including upcoming open houses. Eversource will also circle back to provide additional input regarding some of the questions asked about need, load growth, list of permits and potential mitigation measures. |
| 8/2/2021          | Cambridge Neighborhood Groups (Kendall Square Association, Linwood Park Neighborhood Association, MITMCO, CRA, MIT Campus Planning) | Bob Simha, Matt Connelly, Alex Barbat, Kelley Brown, Tom Evans, Ben Lavery, Jason Stockman, Charles Hinds                 |  | The purpose of this meeting was to present the preliminary top routes within each study area and solicit feedback and input regarding the preferences of the represented neighborhood groups, and to respond to questions about the project. The discussion around the top Brighton, Putnam and Kendall Routes focused on the shortest, most direct routes, potential route options in and around Broadway and Third Street (including the Volpe site), existing infrastructure constraints, schedule and duration of construction. A similar discussion occurred for the Somerville Routes S1 and S11C, along with questions about soil and groundwater management during construction, coordination with the future multi-use pathway project (including limits of work associated with each project), and duration of construction near residences along the pathway segment of Route S11C. Some of the stakeholders on the call whom about Route S11C indicated a preference for Route S1.   | Additional stakeholder meetings will be scheduled including upcoming open houses   |
| 8/4/2021          | CRA   | Tom Evans, Alexandra Levering   |  | The purpose of this meeting was to simply provide an overview of the top routes within each study area to CRA staff.   | N/A  |
| 9/28/2021         | Joint Planning Board / CRA Board meeting  | Catherine Preston Connolly, Planning Board Chair; Kathleen Born, CRA Board Chair, members and staff of both organizations |  | Hearing on amendment to the Infill Development Concept Plan (IDCP) by Boston Properties. Eversource SME support provided on some of the constraints redevelopment faced to provide space for utility infrastructure.   |  |

| Date      | Stakeholder                                   | Stakeholder Attendees   | Existing Conditions Data &/or Other Plans Provided by Stakeholder? | General Summary of Input from Stakeholder   | Meeting Outcomes |
|-----------|---|---|--|---|------------------|
| 9/28/2021 | Cambridge Pop-Up event - Whole Foods          | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | A resident of the Putnam Avenue area expressed that she was used to construction in the area and that she believed that, given the exponential growth and development across the region, projects like the GCEP are warranted. The resident was given the fact sheet and information about upcoming open houses; A resident stopped for a brief conversation and asked for an overview of the project. The resident did not provide a strong opinion regarding the project but expressed an interest in attending the upcoming open houses; A resident was given a detailed overview of the project, including potential routes. The resident was previously aware of the project during the Fulkerson phase but did not know of the current iteration of the project. The resident did not express a strong opinion on the project; he was given the fact sheet and information about upcoming open houses; A Somerville resident expressed that the amount of construction across the region had become severely inconvenient and frustrating. He expressed that there were instances in which information provided to him regarding area construction was either untrue or late to arrive. He acknowledged the need for the project on the heels of ample regional growth and development but expressed a desire for transparent and frequent communication between the project team and residents once construction commences.; A resident stopped briefly to ask if the hypothetical underground transmission lines would be installed on Franklin Street, where she lives. It was explained that, as of now, Franklin Street would not host new transmission lines and she was given the project fact sheet and information about upcoming open houses; A resident was given a detailed explanation of the scope of the project. He expressed that he has lived in the area for over 20 years and has seen the high levels of development up close, including in Kendall Square. With that in mind, he expressed a desire for the project to move forward, acknowledging the need. The resident was given a project fact sheet and information about upcoming open houses.  |                  |
| 9/28/2021 | Cambridge Pop-Up event - Magazine Beach       | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | Adverse weather conditions impacted the overall ability to make contact with the general public. A resident was given an overview of the project, including the dual need for an underground substation and new underground transmission lines. The resident as given a project fact sheet and information about upcoming open houses.  |                  |
| 9/29/2021 | Somerville Pop-Up event- Union Square         | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | A local cyclist stopped to receive information regarding the project. She lived in the area but did not express a strong opinion on the project but did express gratitude that our team was out briefing the community. She was given a project fact sheet and information regarding virtual open houses; A Haitian-Creole speaking resident was given a briefing of the project by members of the Project Services team through our on-site Haitian language interpreter. The resident asked high-level questions and was given an overview of the need and scope of the project. The resident was also given Haitian Creole fact sheets and information regarding virtual open houses; A local resident was given an overview of the need and scope of the project; he expressed that he understood the need for increased infrastructure in the area. He was given a project fact sheet and information regarding virtual open houses; Two Spanish-speaking residents stopped to ask if the Project Services team was in the area offering promotional vouchers for residential services. Through our on-site Spanish-language interpreter, it was explained that Project Services was seeking feedback regarding the GCEP; an overview of the project was given, and Spanish-language informational materials was given to the residents; An employee of an energy firm with an office local to Union Square approached the Project Services team for a briefing on the project. He himself was a resident of Brookline but nevertheless expressed an interest in the project as someone in the industry and as someone who commutes around the area that would potentially be impacted by work associated with the GCEP. He expressed approval that the project could potentially open the door to the use of renewables and – of interest especially to him because of his employment – battery storage technology. He was given a project fact sheet and information on virtual open houses in the hopes that he would join to lend his thoughts to the proceedings; A resident of Somerville was given an overview of the scope of the project and expressed general approval and acknowledged the need for additional grid capacity. He subsequently followed-up with a question regarding renewable energy and what Eversource was doing to increase the use of renewable energy in their services; the Project Services team explained that projects like the GCEP will contribute to the use of renewable sources of energy as a source of transmission for said energy. He was given a project fact sheet and information regarding virtual open houses; A resident who has lived in Somerville for decades was given an overview of the project. She acknowledged that there has been substantial growth and development in the area and broad acceptance and approval for the project. She was given a project fact sheet and information regarding virtual open houses; A Union Square resident stopped to receive information regarding the project. She is a long-time resident of the area and is close with community leaders like Mike Katz – organizer of the Fluff Festival, member of Union Square Main Streets, and participant in a community focus group regarding the GCEP – and thus likes to be kept in the loop on developments in the area. She was given a project fact sheet and information regarding virtual open houses and expressed that she will follow along with developments; A Spanish-speaking family stopped to inquire about our presence in the area, initially looking for information regarding the then-concluded Fluff Festival that was held in the same area the week prior. Our on-site Spanish-language interpreter provided information regarding the project and was sure to pass along the Spanish-language fact sheet and open house invitation; Members of the Project Services team and the on-site Mandarin-language interpreter visited an area Chinese food restaurant to provide information regarding the project. The team did not receive substantial feedback, but the operators were grateful for the information and took Mandarin-language informational materials; Members of the Project Services team and the on-site Spanish and Portuguese-language interpreter visited the nearby Reliable Market, an ethnic market catering to a primarily Central and South American clientele. Spanish and Portuguese-language materials were given to the operators. |                  |
| 9/29/2021 | Allston-Brighton Pop-Up event - Honan Library | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | An area resident was briefed on the scope of the project and expressed a sense of general fatigue with construction projects in the area, but also a resigned acceptance that exponential growth in the area rendered the GCEP a necessary endeavor. The project timetable was explained – notably that work would not commence in the area until 2024 at the earliest, which eased some of his exasperation. He was given a project fact sheet and information about upcoming virtual open houses; An area resident stopped to receive information about the project before entering the library. Upon hearing the scope of the project, as well as project timetables, the resident expressed his complete support for the GCEP. He was given a project fact sheet and information about upcoming virtual open houses; An area resident exiting the library stopped to receive information about the project, beginning by expressing a sense of construction fatigue. Notably, the resident expressed that she was concerned with Harvard University's increased construction footprint in the Allston-Brighton neighborhood. Following an explanation of the scope of the GCEP, the resident expressed approval, content that the project was less cumbersome than the Harvard multimodal project. She was given a project fact sheet and information regarding upcoming virtual open houses; An employee of the library came out to receive a briefing about the project. The employee was grateful for the update and sarcastically exclaimed that what Allston-Brighton really needs is more construction. She was given a project fact sheet and information regarding virtual open houses; A second library worker, after receiving initial information from the previously mentioned colleague, visited the Project Services team for an update on the project. She remarked that she did not live in the area, but that she commuted into Allston-Brighton and that the proposed work may make that commute more difficult. She understood the need and asked to be kept informed on the latest developments, giving over her contact details to the Project Services team; An area resident was given a briefing on the scope of the project. He asked high-level questions regarding the proposed line routes; the Project Services team explained the system of submitting a preferred route and a noticed alternative. The resident did not express his opinion on the proposed routes but thought he would like to remain informed on the project. He was given a project fact sheet and information regarding virtual open houses; An area resident walking his dog stopped to receive information from the Project Services team. He asked high-level questions about the decision to situate a substation underground before ultimately expressing general support for the GCEP. The resident was given a project fact sheet and information regarding virtual open houses; An area resident and HVAC professional stopped to receive information about the project. In a lengthy and free-flowing conversation with the Project Services team, the resident expressed strong opinions about some aspects of the project, including the proposed transmission line routes:<br>oHe expressed that he thought the Brighton 2 route was a bad idea because there were too many wealthy stakeholders that would be impacted, namely in the Mt. Auburn/Harvard area of Cambridge. He thought this would foster consternation amongst that population and that they would protest the idea.<br>oHe thought the route that traverses Western Ave. and Prospect Street would yield complaints because of an already considerable amount of traffic in the area. He suggested that traffic variables should be included in public materials and factor into route scoring.<br>oHe thought the Somerville 1 route should utilize Somerville Avenue because of the width of the street. He expressed his opinion that route evaluations and scoring should include the width of streets.<br>oHe expressed his opinion that it made more sense to go over a bridge rather than going under the Charles River to link routes from Allston-Brighton to Cambridge.<br>oHe asked whether the Binney Street plant generates electricity – the Project Services team explained that the electricity itself emanates from a variety of different sources before passing through stations.   |                  |
| 9/30/2021 | Cambridge Pop-Up event - Galaxy Park          | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | A retired MIT academic and his wife stopped to receive a briefing on the project, expressing a general sense of approval for the project, recognizing the need. They continue to live in the area and have seen the exponential growth in Kendall Square that has defined the area in recent years and acknowledge the need for the project. They were given a project fact sheet and information regarding virtual open houses; Two young men approached the Project Services team to inquire if the team was in the area to provide vouchers for residential services. The Project Team took the opportunity to explain why they were in the area, giving an overview of the GCEP. The young men did not express a strong opinion on the project but were nevertheless grateful to have been briefed on the scope of the project. They were given project fact sheets and information about virtual open houses; An area resident stopped to receive information about the project. Upon learning of the scope of the project, the resident expressed that he was broadly in favor of the project, but that area residents might need reassurances about an underground substation in a low-lying area like Kendall Square. He was given a project fact sheet and information regarding virtual open houses; A manager at a local Marriott hotel stopped to receive a briefing on the project. He asked high-level questions about the project scope. He noted he was new to his current hotel but acknowledged the explosive growth in the area and thus the need for the project. He was given a project fact sheet and information regarding virtual open houses.  |                  |

| Date      | Stakeholder  | Stakeholder Attendees   | Existing Conditions Data &/or Other Plans Provided by Stakeholder? | General Summary of Input from Stakeholder   | Meeting Outcomes |
|-----------|--|---|--|---|------------------|
| 9/30/2021 | Somerville Pop-Up event - Lincoln Park                 | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | An area resident at the park with her child stopped to receive information about the project. Members of the Project Services team provided the scope and timetable associated with the GCEP; the resident asked specifics about KV lines and how their installation impacts the community. Given that the installation of the lines will inevitably impact her day-to-day commute, the Community Relations representative on site provided her contact information to the resident as best to pass along key pieces of information regarding the project. Additionally, the resident was given a project fact sheet and information regarding virtual open houses; A local resident at the park with his young daughter received a briefing on the scope of the project, particularly the proposed Somerville line routes. The resident, when asked to offer an opinion on which line would be preferable, noted that either would result in inconveniences to himself and his neighbors. He nevertheless expressed that he understood the need for the project. He was given a project fact sheet and information regarding virtual open houses; A local resident was given information regarding the project. The crux of the conversation pivoted to the nearby Eversource station #402 and the need to, in the opinion of the resident, significantly improve the general aesthetics of the station. The resident expressed hope that Eversource would work with stakeholders to potentially install a mural or other form of improvement at the station. It was explained that ongoing work at that station has prompted discussions about the issue of the station aesthetics and that those conversations were ongoing. The resident gave members of the Project Services team his contact information and was given informational materials; An area resident walking her dogs was given a briefing on the project. She explained that new street work would surely serve to be a disruption to her and her neighbors. She explained that she took Washington Street to work and work associated with the GCEP would inevitably upend that commute. She expressed a sense of construction fatigue and noted that many streets in the area were already under construction, driving up traffic in the area. She was given a fact sheet and information regarding virtual open houses; An area resident that brought his young son to the park was given information about the project. He noted that he lives on Washington Street and would likely be impacted by construction; nevertheless, he also expressed a view that such construction was common in urban environments like theirs. He was given a project fact sheet and information regarding virtual open houses; An area cyclist stopped to receive information regarding the project. Members of the Project Services team engaged the cyclist in a long conversation highlighted by high-level questions about the scope and need of the project. The cyclist expressed a desire to be kept in the loop and assured the Project Services team that he would sign up to receive information via the QR code provided on informational materials. The cyclist thought the project was a good idea and supported the idea of an out-of-sight substation; An area jogger stopped to receive information about the project. She asked if the public space proposed to sit atop the underground substation in Kendall Square would be safe for the general public. It was explained that a similar station in Vancouver, BC, Canada encompassed a large public park after it was determined that it was a completely safe endeavor. She was given a project fact sheet and information regarding virtual open houses; A resident briefly stopped to receive information about the project. The resident asked if there had been a pushback from the public given that the Project Services team was appearing in public. It was explained that the solicitation of public feedback was a part of the EFSB application process and that, in fact, public feedback on the current iteration of the project has been broadly favorable. |                  |
| 10/2/2021 | Somerville Pop-Up Event - Bow Street                   | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | An area resident that recently relocated from Virginia noted that she received the invite in the mail and that she is in favor of anything that increases electric reliability; An area resident asked about how much if any the Prospect Street Substation would expand as part of the project. Project services explained the GCEP project tie-in as well as preliminary information on the Station 402 additional transformer project; An area resident in route to the farmers market nearby stopped to inquire if the lines would be underground and if so at what depth are they buried. He stated he has no strong opinion on the proposed routes other than he would not want to see the Grand Junction trail work delayed as a result of the project; A local resident and her son along with her father-in-law from out of state stopped by after visiting the post office and expressed that clean energy is a big priority for them. Project Services and Community Relations discussed the role that transmission plays with clean energy generation sources. Additionally, they were urged to visit the Eversource website to review other initiatives; Two young professionals visited after exiting Union Square Donuts who recently studied in the electric field inquired as to how many KV the proposed lines will be as well as what job opportunities the project may bring; An area resident stated that his opinion is that it would be less disruptive to go down through Brickbottom (S11C) and that it would likely require road closures and detours on Washington Street but he still felt that it would be a better option; An area resident commented that improvements to the intersection area at the Prospect Street substation as well as aesthetic improvements to the substation itself should be a priority. He stated that public open space options should be considered. He noted that he was an architect and that he also has contacts in the artist community. Project Services obtained his contact information to contact for a potential focus group.; An area resident stated no opinion on the proposed line routes but had questions on the average width and depth of the trench and wanted confirmation that in involved digging up the roads.; A resident commented that they would like to see the Prospect Street Substation moved elsewhere to allow the MBTA's green line to go to Porter Square. She commented that as part of the project a substation could be built on another parcel. The feasibility/logistics were discussed with Project Services; The former founder of Union Square Main Streets who lives next to the Union Square Donut Shop stopped by on her way back from the Farmers Market. She commented that she really liked to see that we were out in the community talking to people about what is happening. She said that as a resident of Bow Street and someone that loves living there she appreciates the proactive efforts so that people can be informed. She also commented that she had received the open houses invitation in the mail; A woman who lives in Cambridge at the Pleasant Street Condominiums stopped by as she was in the area running errands. She asked how this project compared to the scale/scope of work at the Putnam Avenue Substation. She also commented that she heard from fellow residents in her condominium that the transformer that was added to the Putnam Substation has allowed for power to be sent to Boston. Project Services helped to clarify the scope of the recently installed distribution line and new transformer at Putnam and gave an overview of the proposed routes, noting that the tie-in for the Putnam Routes does not use Putnam Avenue.  |                  |
| 10/2/2021 | Cambridge Pop-Up Event - Charles River Farmers Market  | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | Two area residents visiting the Farmers' Market with their dogs stopped to receive information about the project. The residents asked about the potential to bury existing above ground electrical poles that are ubiquitous in the area; Project Services explained that such work is extremely cumbersome and expensive. The residents asked if costs related to the GCEP would be passed on to rate payers such as themselves; Project Services explained optimism that any increases associated with any one project would be kept to a minimum and that increased grid capacity also helps keep rates lower. The residents were given project fact sheets and information regarding virtual open houses; A resident in line to purchase groceries from a stall briefly expressed his firm support for the project; A resident in line to purchase groceries from a stall expressed that she wished to be kept informed on the project. She was given a brief overview of the project and was given a project fact sheet and information regarding upcoming virtual open houses; Two area residents stopped to receive information regarding the project. When presented with materials, they expressed initial apprehension at work involving Magazine Beach. Project Services explained that the footprint for work at Magazine Beach would be small and that work could conceivably take place during the winter, as best to not disturb warm-weather recreation at the park. With that in mind, the residents ultimately expressed a preference for the transmission line route that included work in Magazine Beach and noted that they were impressed with the project and Eversource's willingness to solicit public feedback at an event like the Farmers' Market. They were given a project fact sheet and information about virtual open houses; A resident walking his dog near the market stopped to receive information. He asked high-level questions about the project, the potential use of renewables, and the general functionality of the underground substation and transmission lines. When asked to offer an opinion on the potential transmission routes that would impact the abutting area, he expressed a preference for the Magazine Beach route because it could be constructed in the winter. He refused informational materials and was not interested in attending the open houses; A resident of the Putnam Avenue area stopped to receive information on the project. He expressed relief when he found out that the Putnam Avenue area - home to a significant amount of street work in recent times - would not be subjected to additional disruptions in relation to this project. He then noted that he was an employee of Akami, which has an office building that immediately abuts the proposed site of the new underground substation. With that in mind, he wished to be kept informed regarding above-ground developments in the area. He was given a project fact sheet and information regarding virtual open houses; An area dog-walker stopped to receive information regarding the project. As a resident of the Putnam Avenue area, she expressed relief that no additional street work would be required in her neighborhood. She asked if Eversource had a plan to work with the elementary school to ensure that the project would be safe for students and staff; Project Services reassured the resident that the team would work closely with area stakeholders like the school to ensure all information regarding construction was made in a timely fashion and that public safety was our #1 priority. The resident was given a project fact sheet and information regarding virtual open houses.   |                  |
| 10/6/2021 | Allston-Brighton Pop-Up event - Allston Farmers Market | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | A resident that spoke Mandarin was given a high-level overview of the project by members of the Project Services team through the on-site Mandarin language interpreter. The resident was satisfied with the explanation of the project without offering strong opinions; she was given a Mandarin-language fact sheet and information in Mandarin regarding virtual open houses; A Haitian-Creole speaking resident was given a high-level overview of the project by members of the Project Services team through the on-site Haitian-Creole language interpreter. The resident was satisfied with the explanation of the project and was happy to accept Haitian-Creole language information in the form of the fact sheet and open house invitation; Anthony D'Isidoro, the president of the Allston Civic Association, visited the Project Services team. He noted that he had sent out information about the project and upcoming open houses through the Civic Association's social media channels. He thought that engagement outside Cambridge might be lower than usual because the project's formal title, the Greater Cambridge Energy Project, might make it less likely to capture the attention of residents in Allston-Brighton and Somerville; A local resident stopped to receive information about the project. She noted that she has lived in the area for many years and thus understands that exponential growth makes the project a necessity. She explained that she had recently had an unpleasant interaction with an Eversource representative that visited her apartment building in an effort to gauge which company was providing electric services to the building. The Project Services team provided the resident with the proper channels to lodge a formal complaint if she wished to do so, which she was grateful for. She was given a project fact sheet and information about virtual open houses.  |                  |
| 10/8/2021 | Allston-Brighton Pop-Up Event - Trader Joe's           | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | A local resident that lives in the adjacent apartment complex was given an overview of the project scope and timeline. She expressed that she had recently suffered from a variety of health issues and that her mobility has been greatly reduced. With that in mind, she expressed that while she generally supports the project based on the needs of the region, she is hopeful that the outreach team and others will keep in mind the needs of those that have different needs and mobility challenges. She was given a project fact sheet and information regarding virtual open houses; Two local residents were given a detailed project overview, including project scope and timelines. One of the residents lives in the adjacent apartment complex and wondered whether any future work would impact either her day-to-day ability to traverse her neighborhood or her work commute. The Project Team explained the proposed line routes in great detail and the pair ultimately expressed general favorability for the project. They were given project fact sheets and information regarding virtual open houses.  |                  |
| 10/4/2021 | Cambridge Virtual Open House #1 - PM                   | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | Members of the public joined for a presentation given by Todd Lanham and to ask questions of Eversource Subject Matter Experts. A resident asked for clarification regarding transmission line routes and the number that will be built; team members explained that they must submit a preferred option and a noticed alternative for regulatory consideration, but that only one will be constructed. Additional questions about public feedback were asked, such as whether there would be a public vote on the lines - it was stated that open houses and pop-ups serve as the opportunity for folks to voice their preferences or concerns, but that they would also have the opportunity to do so again when Eversource's filing becomes public. Multiple residents expressed a preference for route B-31 from Allston-Brighton because it avoids construction in high traffic areas. A resident asked about EMF concerns and what the strength of EMF emissions would be in Kendall Square - this person had their concern addressed and it was determined that a follow-up explanation would be made. Others asked safety related questions regarding the high water table in Cambridge and how the EFSB reviews safety features - these concerns were addressed by noting that Boston Properties will design the steel casing to house the new substation, just as they do for basement level areas in many of their other properties.   |                  |
| 10/5/2021 | Somerville Virtual Open House #1 - PM                  | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters. |  | Members of the public joined for a presentation given by Todd Lanham and to ask questions of Eversource Subject Matter Experts. A resident asked how these routes were chosen for Somerville - it was explained that the siting team examines a significant number of factors to narrow the universe of routes to a preferred and noticed alternative, including existing infrastructure and cost. A resident expressed her preference for route S11C because it would be less impactful to residential areas. A resident noted that the Prospect St. substation has long been considered a neighborhood eyesore and that the project should include efforts to beautify the area - Todd Lanham assured the resident that mitigation discussions were in early stages but considerations like that would be taken on board both for this project and for a parallel project happening at the station.   |                  |

| Date   | Stakeholder  | Stakeholder Attendees  | Existing Conditions Data &/or Other Plans Provided by Stakeholder?                   | General Summary of Input from Stakeholder  | Meeting Outcomes |
|--|--|--|--|--|------------------|
| 10/7/2021  | Allston / Brighton Virtual Open House #1 - PM                      | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters.    |  | Members of the public joined for a presentation given by Todd Lanham and to ask questions of Eversource Subject Matter Experts. A resident asked for clarification regarding the specific location of the substation in question, as they felt that it was otherwise unclear - they were informed that the station in this case is the one located on Lincoln Street. A resident also asked for a more detailed explanation of the substation aspect of the presentation, which was then given.  |                  |
| 10/12/2021   | Allston / Brighton Virtual Open House #2- lunchtime                | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters.    |  | Members of the public joined for a presentation given by Todd Lanham and to ask questions of Eversource Subject Matter Experts. Stephan Kaiser asked a series of questions regarding long-term forecasting by Eversource - it was determined that his questions would need to be answered by members of the planning and forecasting teams, who were not present on the meeting. Eversource vowed to set up a meeting specifically to address his and other questions regarding forecasting and the justification for the GCEP.  |                  |
| 10/13/2021   | Cambridge Virtual Open House #2 - lunchtime                        | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters.    |  | Members of the public joined for a presentation given by Todd Lanham and to ask questions of Eversource Subject Matter Experts. Stephan Kaiser asked a series of questions regarding long-term forecasting by Eversource - it was determined that his questions would need to be answered by members of the planning and forecasting teams - Mr. Kaiser was again assured that a separate meeting would be convened on those issues. Alex Barbat of the Kendall Square Association asked a series of questions regarding interruptions to access to the Kendall Square area during construction and, as with another resident on the call, asked about the timeline. The broad timeline of 2024 - 2028 was provided to the attendees, with the assurance that it is unlikely that individual line construction would take that long. Ms. Barbat was also assured that the team would work closely with the city of Cambridge and local stakeholders to ensure that work would be as minimally impactful as possible to their homes or businesses.  |                  |
| 10/13/2021   | East Cambridge Planning Team                                       | Chuck Hinds, Bob Simha, Ilan Levy, Fabrizio Gentii, James Williamson, Tom Joyce, John Paul                 |  | Chuck Hinds, President of the East Cambridge Planning Team, invited Eversource to present to the ECPT membership at a regularly scheduled ECPT meeting in lieu of members attempting to join Eversource open houses. Todd Lanham of Project Services delivered the presentation given to attendees at open houses before Chuck Hinds opened up the meeting to questions. Ilan Levy, a candidate for office in the city of Cambridge, asked about the timing of the project, as well as shifting trends in consumer energy delivery and whether those trends were incorporated into Eversource's planning. In reference to the proposed transmission line routes, Fabrizio Gentii asked which of the lines were being prioritized in terms of scheduling; the team explained that they were all vital to the project and the EFSB-governed procedure of submitting a preferred route and a noticed alternative. James Williamson noted that during previous projects, he and his neighbors felt that Eversource crews/contractors often left roads in very poor condition, in one case for over a year. He also wanted to know if the GCEP was a fait accompli, or if community feedback has a genuine impact on the regulatory process - our team noted in the first instance that we would work closely with each neighborhood, but also with each respective city, to determine ideal timing for work and coordination with other utilities; in the second, the team noted that open houses, pop-up events, and web options designed to generate feedback have been ongoing and that the comments the team have received will inform both the project and the regulatory application. Mr. Levy steered the conversation back to route timing and priority, wondering when each would be built and whether it would be sections at a time or if the team would finish one route before moving to another; members of the team explained that the Allston-Brighton and Somerville routes would, because of length and other factors, be built first and that they would be constructed in a linear fashion. Tom Joyce expressed that it appears the Grand Junction path would be the easier of the two Somerville routes to build, but because the area is less developed, he asked if he thought Eversource would have to return to install additional infrastructure. Team members noted the challenge of siting a line along a railroad corridor while other members noted that the other Somerville route would necessitate the re-location of existing utilities. John Paul had his question about construction phasing by a team member that reminded him that lines will be built in parallel if possible with an eye on traffic impacts. Paul's second question, which was regarding cost sharing for the project, was answered by a team member that explained that information regarding cost would be fully vetted during the filing process. Bob Simha, a co-owner of the Third Square apartment complex on Third Street argued that the Volpe route was preferable because Third Street had been under a considerable amount of construction recently and it would be difficult for residents to accept a new project on the street. He was thanked for his feedback.   |                  |
| 10/14/2021   | Somerville Virtual Open House #2 - lunchtime                       | Members of the general public; Spanish, Portuguese, Haitian-Creole, and Mandarin language interpreters.    |  | Members of the public joined for a presentation given by Todd Lanham and to ask questions of Eversource Subject Matter Experts. Jessica Eshelman of Union Square Main Streets asked about the potential of beautify the associated Prospect Street station as it serves as a gateway into the Union Square neighborhood and has long been thought to be in bad condition. Todd Lanham assured Ms. Eshelman that considerations about beautifying the station were under way on both the GCEP and the associated Station 402 third transformer project.   |                  |
| 10/22/2021   | Load Forecasting and Planning Meeting with Interested Stakeholders | Catherine Zusy, Stephen Kaiser, Ed Kotomori, Tony D'Isidoro, Paula Alexander, Phil Michael, Dirk Hentschel | This meeting was convened in response to previously asked questions by stakeholders. | Ed Kotomori began the meeting with a series of questions related to the Allston-Brighton portion of the project, as well as general questions about project infrastructure: "what is the function of a substation;" "why does the new substation need to be connect to the existing station in Allston?;" "Will this project provide additional power for the Allston-Brighton area?;" "Will this project lead to a rise in consumer energy bills?;" Team members were able to provide information about the functionality of substations and the logic behind connecting the new station to the Lincoln St. station and let Ed know that some of his other questions will be answered in the public filing. Ed then asked questions about mitigation - notably, the undergrounding of existing poles in the area - and a question about forecasting. The team emphasized that mitigation conversation were just beginning and that there will be a process for navigating the needs of each neighborhood, but that Eversource wants to keep the dialogue open; a team member explained aspects of Eversource's forecasting method, including how it works with "large customer additions."<br><br>Paula Alexander raised concerns about increased electrification and the cost of electric heat. Dan Ludwig explained that new electric heating is very efficient and cost effective.<br><br>Stephen Kaiser recalled seeing a slide in a presentation from ~2019 that documented increased electric demand - is forecasting information available in a form that can be shared? Dan Ludwig informed Mr. Kaiser that forecast information will be included in the EFSB petition and that forecasts are not generally otherwise made public. Mr. Kaiser reiterates seeing the slide in a past presentation, which Dan Ludwig acknowledges. Mr. Kaiser thinks that forecasts should include new infrastructure and consumer products, including electric car chargers. Todd Lanham expressed that he thought Mr. Kaiser was asking questions well outside the scope of an individual project and that Mr. Kaiser's questions might be more appropriate for ISO-NE. Mr. Kaiser asks whether forecasts include energy forecasts - they do.<br><br>Catherine Zusy asked whether Eversource would need to dig streets up again in, for example, 2035 after finishing the GCEP in 2028. She also wants to ensure that safety is prioritized in the project. Betty McKenna and Todd Lanham explained that while new transmission lines are rare, it is tough to gauge whether new work will be needed by other departments. Todd also reiterated the safety of the project, emphasizing that similar infrastructure exists in public areas as popular as Boston Common.<br><br>Mr. Kaiser asked how large the excavation area on Magazine Beach will be - Todd Lanham said that this information is still being worked out by engineers.<br><br>Ed Kotomori asks how long the Allston-Brighton line will take - Todd Lanham assures Ed it won't take four years, but the exact timetable is still being determined.<br><br>Tony D'Isidoro wonders if the project would benefit from the increased engagement that changing the name of it might produce. He feels people in Somerville and Allston-Brighton might, as a result of the GCEP name, think the project does not impact them as much as Cambridge. Todd Lanham thanked Tony for the suggestion and will take it on board. |                  |
| <b>BY THE TIME WE FILE:</b>                                |  |  |  |  |                  |
|  | <b>2019</b>  | <b>2020</b>  | <b>2021</b>  | <b>MEETING TOTAL</b>   |                  |
| Eversource ROUTING Meetings                                | 0  | 43   | 50   | 93   |                  |
| Eversource Project Services OUTREACH MEETINGS (green fill) | 13   | 11   | 23   | 47   |                  |
| Boston Properties REDEVELOPMENT Meetings (blue fill)       | 0  | 9  | 2  | 11   |                  |
|  |  |  |  | <b>151</b>   |                  |

**Appendix 4-1**

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Stakeholder Outreach Meetings Summary Table

| Date    | Stakeholder   | Stakeholder Attendees/Invitees  | Plans or Other Data Provided by Stakeholder? | General Summary of Input from Stakeholder   | Summary of Routing Updates and Follow Up Items with Stakeholder   |
|---------|---|---|--|---|---|
| 3/4/20  | Cambridge Department of Public Works (DPW)                            | Kathy Watkins, Jerry Friedman, Steve Lenkauskas, Jim Wilcox, Tom Evans (CRA)  | Yes (during meeting)                         | Cambridge recommended that to the greatest extent possible Eversource should avoid constructing the new lines on the following streets (or portions thereof) because of significant utility constraints and future roadway improvements: Cambridge Street, Broadway (from Springfield Street to Cambridge Street), Harvard Street, Cardinal Medeiros Avenue, Main Street, Hayward Street and certain segments of Grand Junction Railroad Corridor. Alternate streets and feedback on other routes with greater potential were also discussed at this meeting.   | Route segments changed from "Preferred" to "Not Preferred" on the following road segments in Cambridge: Cambridge Street, Broadway (from Springfield Street to Cambridge Street), Harvard Street, Cardinal Medeiros Avenue, Main Street and Hayward Street. |
| 3/16/20 | City of Somerville  | Richard E. Raiche, PE, PMP, Director of Infrastructure and Management<br>Jessica Fosbrook, Brian Postlewaite, Jesse Moos, Steven MacEachern, Eric Weisman, Sarah Lewis, Mark Lawhorne | Yes (4/21/20)                                | 4/21/20: Maps of known Somerville projects.<br>Somerville indicated that routes along Somerville Avenue to Medford Avenue are not likely feasible due to existing infrastructure, including installation of major box culvert. Somerville provided feedback on other routes with greater potential. Also provided information regarding future planned developments (Union Square, Boynton Yards, etc.). The City identified the intent of MBTA to install sheet-piling down to clay layer between Prospect Street bridge and Medford Street bridge to address flood management issues. Depths were uncertain but are assumed to be less than 20 feet.  | Within Somerville, route segments on Somerville Avenue to Medford Street changed from Preferred to Not Preferred.<br>Linwood Street to Washington Street added as a new potential Preferred route segment.  |
| 3/20/20 | Massachusetts Institute of Technology (MIT)                           | Frances Boyle, Vaughn Troid, Greg Walson, Traci McDevitt, Rich Lucas  | Yes  | MIT provided input relative to its existing utilities in or near the proposed routes and/or planned campus developments that might impact the proposed routes. For example, Hayward Street will not likely exist in 2021 as it will be converted to a non-vehicular pedestrian path; and there is an existing/abandoned steam line in the middle of Ames Avenue (from Main Street to bend in road); Vassar Street is congested with utilities; MIT owns a portion of Grand Junction Railroad corridor and suggested that if paralleling the tracks, Eversource should focus on the north side, as a second track line is planned for south side. At bend, there is a walk-thru tunnel (~20-ft deep and 4-5-ft to top of structure). MIT also provided information on the locations of existing electric and steam lines within the routing area.  | Hayward Street in Cambridge changed from Preferred to Not Preferred.  |
| 3/27/20 | Massachusetts Department of Transportation Highway Division (MassDOT) | Guy Rezendes, Michael O'Dowd  | No   | MassDOT provided preliminary feedback on route segments located on or near MassDOT facilities, including: Cambridge Street (south) - would need to be discussed with City regarding partially funded project thru 2024-2025. Lincoln Street extension - will share drawings for planned extension; Longfellow Bridge area - no major plans in this area that would appear to conflict with proposed routes; McGrath Highway - there may be work being planned but nothing funded yet (very preliminary); and Route 28 through Somerville - major duct bank lines in this area.  | Within Somerville, routes along Route 28/Somerville Avenue Extension to railroad tracks changed from Preferred to Not Preferred.  |
| 3/31/20 | Massachusetts Department of Conservation and Recreation (MassDCR)     | Yvonne Jones, Mark MacLean, Dan Driscoll, Jeff Parenti, Sean Casey, Jason Santos  | No   | MassDCR provided preliminary feedback on route segments located on or near MassDCR facilities, including: Memorial Drive - likely suitable route from a utility density perspective (it has the space for additional utilities), provided construction is coordinated with other planned MassDCR projects along this roadway segment. Eliot Bridge - MassDCR requested that Eversource focus its routing effort on existing disturbed pedestrian pathways located closer to the Charles River edge, if possible. It was noted that the Eliot Bridge presents space-constraints for construction equipment and the pedestrian pathways would have to be shut down during construction for safety purposes. MassDCR also provided feedback on proposed Charles River crossings and indicated that the Anderson Bridge was recently fully reconstructed and should be avoided, if possible.  | Within Cambridge, Brighton Study Area route segments moved from north side to south side of Memorial Drive, closer to the Charles River but still within the roadway limits.  |
| 4/2/20  | Boston Water and Sewer Commission (BWSC)                              | Irene McSweeney   | Yes (4/14/20)                                | 4/14/20: Project plans for the Allston Landing North Parcel (Harvard Parcels).<br>BWSC provided preliminary feedback regarding existing utilities and potential constructability constraints within the study area, including: Western Avenue - noting that it is very congested and should be avoided; North Harvard Street - potentially suitable from a utility density perspective but direct routing onto the bridge (if needed) could be impeded by major concrete bridge support structures within Soldier Field Road intersection; Franklin Street - very congested and significant telephone infrastructure; Everett Street - major drain replacement project previously conducted along this stretch and was found to be heavily congested with utilities, dense residential neighborhoods in this area; Aldie Road and Soldier Field Road may have sufficient space for a new line. BWSC noted that they are currently coordinating with Harvard regarding a new 84-inch diameter storm drain piping and outfall that would discharge into the Charles River near some of the routes being explored by Eversource. | Within Boston on west side of Charles River, Western Avenue and Everett Street in Boston changed from Preferred to Not Preferred.   |

| Date    | Stakeholder                                | Stakeholder Attendees/Invitees  | Plans or Other Data Provided by Stakeholder? | General Summary of Input from Stakeholder  | Summary of Routing Updates and Follow Up Items with Stakeholder   |
|---------|--|---|--|--|---|
| 4/8/20  | Massachusetts Bay Transit Authority (MBTA) | Kevin Biggins, Jack Martin, Ray Martin  | No   | MBTA provided preliminary input and observations regarding potential routes located near the new Green Line Station near Prospect Street, noting that it is part of a design-build project currently under construction. MBTA also discussed potential constructability issues associated with routes crossing above or below the Red Line within the Kendall Square area noting that the subway tunnel is relatively shallow.   | Within Cambridge, Main Street along Red Line MBTA subway tunnel changed from Preferred to Not Preferred, but some segments retained as potential Candidate Routes including potential crossings of the Red Line subway tunnel.  |
| 4/16/20 | Cambridge DPW                              | Kathy Watkins, Jerry Friedman, Steve Lenkauskas, Jim Wilcox, Tom Evans (CRA)  | Yes<br>(4/16/20, 4/26/20 & 4/28/20)          | 4/16/20: As-built plans depicting location of the steam line between Broadway and Main Street.<br>4/26/20: Written notes with feedback on potential routes.<br>4/28/20: Marked up utility maps.  | Updates to several Preferred and Not Preferred Route segments for each study area based on Cambridge DPW input (including but not limited to identifying Albany Street as challenging given MWRA sewer line interceptor (Vassar noted as better option), segments of Grand Junction Railroad, segments of Main Street). |
| 4/17/20 | MIT  | Frances Boyle, Vaughn Crayton, Greg Walson, Traci McDevitt, Rich Lucas  | Yes<br>(4/16/20)                             | 4/16/20: Maps depicting additional electrical crossings, steam, and telecommunications infrastructure.   | Routes added to collocate with MIT infrastructure (electric, steam, telecommunications, etc.). Additional utility mapping provided by MIT on 10-13-20.  |
| 4/22/20 | Harvard University                         | Bob Manning, Joe Migliosi   | No   | Harvard provided preliminary input relative to proposed routes on or near Harvard facilities, including: Western Avenue - contains dense utilities particularly on west side of Charles River and intersection on Cambridge side of river (noting that the bigger challenge will be space for proposed manholes). Harvard suggested that River Street may be more feasible; routes that potentially cross Harvard properties may be constrained by steam lines and potential thermal effects on rating of transmission lines; noted that Cambridge Street is scheduled to be relocated in a few years in a southerly direction from its current location as part of MassDOT's Allston Multimodal Project (Cambridge Street South).   | In Boston on west side of the Charles River, Western Avenue changed from Preferred to Not Preferred.  |
| 4/23/20 | City of Somerville                         | Richard E. Raiche, Jessica Fosbrook, Brian Postlewaite, Jesse Moos, Steven MacEachern, Eric Weisman, Sarah Lewis, Mark Lawhorne | Yes<br>(4/21/20)                             | 4/21/20: Email from Director of Engineering describing challenges of using Somerville Avenue as a potential route given high utility density and timing of re-paving in the future. Attached to this email was 3/30/20 email from Eversource (Tracy McDevitt) seeking information from Somerville regarding Union Square Development and Boynton Yards.<br><br>This was a follow up to the 3/16/20 meeting. Somerville provided additional input on potential routes, including: Somerville Avenue - very congested with utilities and not likely feasible, Linwood Avenue would provide a potential work-around; manhole installation will be a challenge on all routes; discussion ensued regarding potential routes across the so-called "Target" store site (private property) but determined that installing a new line across this property could constrain future development desired by Somerville on this parcel; discussed challenges of getting to the Somerville Substation site on Prospect Street noting that it is on a depressed parcel of land bordered by railroad tracks and that the Prospect Street / Webster Avenue bridge and intersection is very challenging to navigate; potential east-west routes were discussed through Boynton Yards (mixed use development on Earle Street) along planned roadway extensions (e.g., Windsor Place Extension). | No changes yet. Pending further analysis, Prospect Street between Webster Avenue and Newton Street could be changed to Not Preferred as connection into substation is particularly challenging in this location.  |
| 5/1/20  | BWSC                                       | Philip Larocque, Irene McSweeney  | No   | Follow up to 4/2/20 meeting. BWSC provided additional feedback and input on potential routes, including: Western Avenue (very congested with utilities including 5-foot diameter MWRA sewer line); Everett Street (contains a large 72-inch diameter storm drain); Aldie Street - contains same 72-inch diameter storm drain and several distribution lines, not likely feasible; Cambridge Avenue - consult with MassDOT to determine how this project might align with the planned improvements in this area. See meeting minutes for additional detail.   | Within Boston on west side of the Charles River, Western Avenue and Franklin Street changed from Preferred to Not Preferred.  |

| Date                                  | Stakeholder                                    | Stakeholder Attendees/Invitees   | Plans or Other Data Provided by Stakeholder? | General Summary of Input from Stakeholder  | Summary of Routing Updates and Follow Up Items with Stakeholder   |
|---------------------------------------|--|--|--|--|---|
| 5/5/20                                | Cambridge DPW                                  | Kathy Watkins, Steve Lenkauskas, Jerry Friedman, Tom Evans, Owen Oriordan, A. Levering, Jim Wilcox, Nikole Bulger, Ed Bulger | No   | Follow up to 3/4/20 meeting. Cambridge DPW provided additional feedback and input on potential routes, including: Grand Junction Railroad - not likely feasible between Main Street and Massachusetts Avenue, other segments work better; River Street - there are significant utility conflicts between Memorial Drive and Pleasant Street, not likely technically feasible but not opposed to it as a potential route per se; Western Avenue - would require relocation of utilities that were recently installed, recommend that Eversource avoid this stretch of roadway going forward; Binney Street - contains several gas lines (4 total), that may limit its use as a route unless gas lines were relocated and consolidated; Galileo Way (northern half) - very constrained by distribution lines; Cardinal Medeiros Avenue - Grand Junction Pathway preferred over this roadway segment given existing utilities (major MWRA sewer is large and deep (~20-feet) on this road, which limits the ability of installing a transmission line over it without affecting access to sewer in future). Eversource added a potential route on the southern half of Galileo Way, Cambridge indicated that it could be a challenge with existing steam and telecommunication lines.   | <p>Within Cambridge, Grand Junction Railroad between Massachusetts Avenue and Main Street changed from Preferred to Not Preferred.</p> <p>River Street between Pleasant St and Memorial Drive changed from Preferred to Not Preferred.</p> <p>Northern half of Galileo Way changed from Not Preferred (primarily because of challenges imposed by distribution lines) to Preferred for its entire length.</p> |
| 5/6/20                                | Massachusetts Water Resources Authority (MWRA) |  | Yes<br>(Cambridge & Somerville)              | Introductory meeting with MWRA. MWRA previously provided mapping depicting their infrastructure in Cambridge, which was overlaid onto the Universe of Routes map. MWRA will provide additional mapping information for Boston and Somerville. Based on preliminary review of mapping provided by Eversource, the MWRA indicated that routes along Western Avenue and North Beacon Street should be avoided. In addition, the MWRA described challenges of installing new infrastructure in densely developed areas like Cambridge and Boston and they looked forward to working closely with Eversource on a "street-by-street" basis to try and identify reasonable corridors to install a new transmission line and manholes. MWRA would prefer to see the lines installed over their infrastructure (versus beneath it), whenever possible notwithstanding constraints of shallow utilities and other design considerations.  | Within Boston, west of Charles River, Western Avenue changed from Preferred to Not Preferred. Status of North Beacon Street to be confirmed upon receipt of more data and input from MWRA. No changes made yet.   |
| 5/13/20                               | MWRA   |  | No   | This meeting was primarily used to touch base on the status of existing MWRA plan and profile data requests from Eversource within the identified study areas. MWRA indicated that some of the data to be provided would include profile data but not likely cross-sectional data. MWRA (Kevin McKenna) previously provided Eversource with a sample map of how they would like the routing data to be furnished to MWRA for ease of review relative to identifying potential utility conflicts. MWRA confirmed that infrastructure within Cardinal Medeiros Avenue in Somerville and Cambridge includes a very old 6-7-ft diameter brick-lined sewer pipe that will need to be considered from a routing and constructability perspective. There was a brief discussion about potentially locating the new transmission line(s) in roads where MWRA has known "not in service" (aka "abandoned") infrastructure but these opportunities are limited within the study area.  | No additional updates to routing analysis as a result of this meeting.  |
| 5/21/2020 & 8-14-20 (canvas feedback) | MBTA   | N/A<br>(canvas feedback)   | No   | <p>The MBTA provided feedback on the canvas review. Specifically, the MBTA reviewed four specific crossing areas, including: (1) Red Line (subway tunnel) along Main Street/Massachusetts Avenue in Cambridge; (2) Fitchburg Commuter Rail Line in Somerville; Grand Junction Railroad Line between Allston and Cambridge; and Worcester Commuter Rail Line in Allston/Brighton.</p> <p>On 5/21/20, the MBTA indicated that crossing over the Red Line subway tunnel in Central Square is not feasible due to the shallow depth of the tunnel roof beneath Massachusetts Avenue; the routing alongside the Worcester/Framingham Line commuter rail tracks in Allston is also not feasible due to the lack of clearance between the tracks and the retaining walls and bridge abutments that parallel the route; the use of the unused Grand Junction railroad bridge for crossing the Charles River is not likely feasible due to its poor condition and uncertain future of the bridge; and other locations at Harvard and Commonwealth Avenue, Kendall Square, Harvard Square, and Memorial Drive and Main Street in Cambridge, may be feasible subject to MBTA review of cross sections of the proposed crossings.</p> <p>On 8/14/20, MBTA Operations provided Eversource with consolidated comments from different departments within MBTA, including Power Department, Maintenance of Way Department, Signals Department, Red Line Operations Department, Bus Operations and Railroad Operations.</p> | No changes yet. Follow-up meeting with the MBTA to review preliminary comments and feedback and determine how it might effect certain routes, including trestle bridge crossing of the Charles River.   |



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|---------|--|---|--|--|---|
| 6/4/20  | City of Boston Engineering & Public Improvement Commission (PIC) Staff | Para Jayasinghe   | No   | Boston requested a summary of longest and shortest routes, routing and alternatives analyses that would be required through the EFSB, MEPA and environmental permitting process, and the nature of the proposed Charles River crossings. Boston emphasized importance of coordinating closely with BWSC relative to utility constraints and other stakeholders regarding aspects of work in their respective areas (i.e., state roads, state lands, rail, etc.). Boston asked that Eversource coordinate closely as public outreach meetings are scheduled in the future and that follow-up meetings be scheduled with this group at the appropriate time once the routing is further along.   | No specific routing changes as a result of this call, but the City of Boston asked to be kept informed as routes are narrowed down to Eversource's top routes.      |
| 6/12/20 | Harvard University   | Joe O'Farrell, Shalan Fitzgerald, Will Donham, Joe Beggin, Bob Manning, Joe Migliosi              | No   | Planning and utility folks from Harvard were present for this call. Harvard described concerns and challenges between known and unknown potential future developments on its properties and the encumbrance that a new electric transmission line (including manholes) would potentially place on such future developments (i.e., "immoveable object"). Discussed techniques and approaches to minimizing these potential future conflicts including locating the new line along the edges of its properties where it is more likely to be out of the way of any future development and the expected depth of the line; and avoiding manholes on Harvard properties to the extent practicable. Also discussed timing of Eversource's installation work relative to MassDOT's Allston Multimodal Project that is located on Harvard property, including how the proposed transmission line routes line up with the future location of Lincoln Street Connector, Cambridge Street and the commuter rail tracks. Harvard indicated that they are the fee-owner of these lands, with easements held by MBTA and MassDOT. Harvard noted that the segment of proposed preliminary Candidate Route B24/B25 that cuts across Harvard property (athletic facilities parking lot and access drives) between Soldiers Field Road and North Harvard Street could present a challenge to future development on those lands and Harvard suggested that Eversource explore other variations including locating the line closer to the property line(s) near the City of Boston athletic fields and accessing North Harvard Street via Spruce Street. Harvard further requested that manholes be minimized to the extent practicable. Next steps: Harvard requested that Eversource provide PDF(s) of the potential routes and any variations based on above feedback so they can review them further and provide additional guidance and input. | Added route variation B24A and B25A for review and comment by Harvard. Maps forwarded to Harvard on 6-22-20 for review and comment, along with typ. manhole detail. |
| 6/17/20 | MIT  | Rich Lucas, Arne Abramson, Frances Boyle, Stephanie Caress, Michael Owu, Julie Farrer, Ben Lavery | No   | This meeting primarily focused on three areas on or near MIT properties, including the Volpe Center; parcel of land directly across the street from the new substation site; and a parcel of land located adjacent to Fort Washington Park where one of the proposed routes may cross existing railroad tracks. With regard to the Volpe project site, MIT expressed concerns about future construction plans for the site and schedule implications. Other adjacent roadways were discussed too, including Rogers Street and Potter Street, each of which had significant constraints associated with distribution lines and steam lines making them less preferable than the Volpe Center site. Regarding a potential route between the new substation site between Broadway and Main (across an alleyway, to minimize work in Broadway and Main given significant utilities), MIT said they would look at that potential route further. Lastly, regarding the railroad crossing site near Fort Washington Park, MIT indicated that two residential hall buildings were proposed on those lots and a new stormwater outfall was recently installed in this area making it impracticable to locate a new transmission line across these parcels, without significantly constraining MIT's ability to develop the parcels in the future.   | Follow up discussion with MIT in 2-3 weeks as they look closer at these locations.  |

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|---------|--------------------|---|--|--|---|
| 6/25/20 | MassDOT            | Guy Rezendes, Michael O'Dowd, Joseph Doucette, Rex Bryant,  | No   | <p>This meeting focused on the Anderson, River and Western Avenue Bridges and MassDOT's Multimodal Project proposed at the Beacon Park Yard and Harvard properties. The routes under consideration in these areas include B2 East and B29 West. Regarding the Anderson Bridge, MassDOT indicated that a transmission line installation across that facility appears viable but requested additional details regarding depth of cover and the type of work that might occur to the concrete approach slab. MassDOT Bridge Section will review this information and provide feedback to Eversource. Regarding the Multimodal Project, MassDOT indicated that 2023 is the anticipated start of construction with a targeted completion date of 2030. MassDOT indicated that the alternatives are still being evaluated but did not anticipate major alignment changes to the existing Cambridge Street (to be lowered), the proposed Cambridge Street South and the proposed Lincoln Street Connector. The alternatives that are still in flux and under consideration primarily focus on the railyard and I-90 through the "throat" area along Soldiers Field Road, neither of which should have much of an impact on Eversource's routing analysis. MassDOT was amenable to identifying a viable utility corridor for the new transmission line(s) through these areas and understood that Eversource would attempt to line up the routes with the future location of the new roads. MassDOT noted that between the existing Cambridge Street and the proposed Cambridge Street South would likely be under the control of Harvard and City of Boston; south of the new road would likely be under the control of MassDOT. The Lincoln Street Connector would likely be under the control of the City of Boston.</p>  | <p>Eversource provided KMZ and PDF maps of the routes crossing through the referenced areas, along with a PDF of a typical detail of a shallow design configuration. Eversource posed two specific questions to MassDOT for follow-up: (1) What can the Anderson Bridge structure withstand width-wise? (2) What can the Anderson Bridge structure withstand height-wise?</p>   |
| 7/15/20 | Harvard University | Bob Manning, Joe Beggan, Joe Migliosi, Shalan Fitzgerald, Will Donham, Alexandra Toteva, Mark Handley | No   | <p>This meeting focused on potential routes B24A, B25 and B25A, all of which cross through or near the Harvard athletic field / complex properties generally located between Soldiers Field Road and N. Harvard Street in Boston. Route B25 bisects the Harvard property in an east west direction between the track and field facility and football stadium. Route B25A generally follows the Harvard property line that borders the City of Boston Smith Playground facility as it approaches Western Avenue. Route B24A substantially avoids Harvard athletic field properties, extending from Soldiers Field Road across a couple private properties including the WBZ Studio property that are scheduled for re-development. Potential routes B25A and B24 were developed in response to earlier feedback provided by Harvard whereas they indicated a preference that manholes be avoided on their properties whenever possible and that any proposed transmission line routes follow the edges of the properties whenever possible, in order to avoid potential conflicts with future re-development plans by Harvard. These potential routes also considered (avoided) Smith Playground and the need for Article 97 legislation if a route was to cross this land. Eversource expressed concerns about significant utility constraints once the routes following segments of Western Avenue. Harvard asked about timing of work across its track facility and whether or not such work could be conducted outside the track and field season. Eversource indicated that they would work closely with Harvard to accommodate their schedule(s).</p> <p>A similar discussion ensued regarding potential routes B2A, B21 and B31, that would cross over Harvard properties in the MassDOT Multimodal Project area near the Charles River. Proposed routes B2 and B31 would follow the approximate location of future roadways through this property (Cambridge Street South, Lincoln Street Connector). Route B26 would follow the existing MBTA railroad tracks. During this meeting, Harvard did not identify a preference for any of these routes (other than Route B25 that bisects the property is problematic), rather, they indicated they would look at them more closely upon receipt of more detailed information from Eversource and they re-stated their preference that proposed transmission lines and splice vaults be located off their properties or along their property edges to the maximum extent practicable.</p> | <p>A follow up meeting will be scheduled to discuss these routes in further detail, including coordination with MassDOT regarding routes crossing through the Multimodal Project area. Eversource will coordinate with City of Boston and developer of WBZ Studios property to better understand development plans for those lots and whether there is an opportunity install a new transmission line across those properties (Route B24A).</p> |

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| 7/27/20 | Cambridge DPW                               | Kathy Watkins, Jim Wilcox, Nikole Bulger, Steve Lenkauskas   | No  | <p>This meeting provided an update on the status of current preliminary Candidate Routes and potential variations to those routes. Regarding the Putnam Study Area, Cambridge indicated that Candidate Routes P11/P12, which follows Main Street for ~500 feet between Vassar Street and Ames Street, are less preferable to Candidate Route P13. More specifically, the MBTA Red Line subway tunnel and existing utilities on either side along this stretch of Main Street are a significant concern to the DPW, including potential implications associated with access to existing and future utilities and infrastructure. Regarding the Somerville Study Area, Cambridge DPW indicated that Candidate Route S13A through Inman Square is not a good option given the ongoing \$7 million rehabilitation project and utility constraints. There was a discussion that a trenchless crossing through this intersection, generally between the Inman Square Firehouse south of Inman Square and Springfield Parking Lot 14 (a distance of approximately 600 feet or longer) could mitigate some of these challenges. Eversource Engineering indicated that the distance was not likely a problem but the shallow nature of the transmission line approach to the intersection could be a challenge and would need to be evaluated further during the detailed design phase. Eversource described why other less preferable route segments were retained, such as Cardinal Medeiros Avenue and Hampshire Street/Broadway intersection, and that while these roads have challenges they open up possibilities to other routes in the study area with potentially fewer challenges. Regarding the Kendall Study Area, the Cambridge DPW indicated that minimizing the amount of work on Third Street and Binney Street was preferable and that Candidate Route K9 seemed to achieve this, provided it could navigate through Kendall Street. It was noted that Kendall Street is a private way that would require coordination with landowner and it has its own utility constraints (major steam infrastructure), as well as an underground parking garage. Regarding the Brighton Study Area, the Cambridge DPW indicated that they have a stormwater outfall that extends from Pearl Street, through the Morse Elementary School property, across Memorial Drive and Magazine Beach, before discharging into the Charles River. Eversource should have this utility information as it relates to Candidate Routes crossing through Magazine Beach and Memorial Drive. The Cambridge DPW indicated that Candidate Route B24A, the longest of the routes currently under consideration, is problematic given that it goes through Central Square and Harvard Square areas and dense residential neighborhoods, and thus seems disproportionately impactful relative to other potential routes.</p> | <p>Eversource will provide updated PDFs of the Candidate Routes specific to each Study Area and will schedule a follow-up call with Cambridge DPW towards the end of August. Cambridge DPW will review these PDF maps prior to the meeting and will provide any additional comments or suggestions regarding routing from a DPW/engineering perspective.</p>   |
| 7/28/20 | MIT   | Ben Lavery et al   | Yes (8-19-20)<br>(VHB existing conditions survey plan for Volpe Center) | <p>This meeting was a follow up to review potential routes crossing through or near MIT properties and facilities. Specifically, routes K7 and K8 within the Kendall Study Area were discussed. These routes would bisect MIT's Volpe Center site in Cambridge. MIT expressed reservations with routes bisecting this parcel because of the potential impacts the transmission line might have on re-development options being evaluated by MIT. There was also a discussion of routes that avoid the Volpe Center site by following Third Street to Broadway (routes K5, K6 and K9). The Third Street/Broadway intersection is significantly constrained by existing utilities. Eversource requested input from MIT regarding the feasibility of bringing the transmission line along the corner of the Volpe Center property to avoid potential utility conflicts in the intersection. MIT indicated they would take a closer look at this suggestion. There was also a brief discussion about other potential routes north of the Volpe site (for purposes of avoiding Volpe), generally following Rogers Street/Fulkerson Street/Sixth Street/Binney Street to the New Substation site. Eversource explained that routes like this and others located further north were analyzed early in the routing process but were determined to be inferior due to circuitous lengths, resultant added costs and inadequate space relative to planned distribution line work coming into and out of the New Substation along Binney Street. Regarding routes B29, B29A and B29B that cut across or adjacent to MIT properties in the Brighton study area between Vassar Street and Waverly Street/Albany Street in Cambridge, MIT indicated that routes B29 and B29A would directly bisect and affect redevelopment projects being advanced by MIT (student housing and other plans on the former "Cal-Paint" site / #290 Albany Street redevelopment project). Route B29B was more preferable to MIT but they would also take a closer look at Route B29A.</p>   | <p>MIT will review the previously provided PDF maps of the Kendall and Brighton Study Area routes; will consider the Kendall Routes that cross through a corner of the Volpe Site near the Third Street / Broadway intersection. Follow up meeting to be scheduled in about 3 weeks.</p> <p>On 8-19-20, MIT provided additional feedback to Eversource regarding routes and route variations that cross the Volpe Center property. Eversource to review these comments and schedule follow up meeting with MIT to determine how it might impact routing.</p> |
| 8/7/20  | Boston Planning & Development Agency (BPDA) | Manuel Esquivel, Gerald Autler, Anna Deminia, Matthew Martin, Jack Halverson, Jeong-Jun Ju, Michael Christopher, Rosa Herreroandres, John Read | No  | <p>The purpose of this introductory meeting was to provide BPDA with an overview of the project, including potential transmission line routes being evaluated in Boston and the status of discussions with other stakeholders (e.g., Harvard, BWSC, MassDOT, etc.). BPDA provided additional detail regarding projects planned in the study area including ongoing improvements to Smith Park and re-development of the WBZ Studio site.</p>  | <p>BPDA will provide Eversource with more specific feedback and comments on the routes being proposed in Boston. Follow up meeting to be scheduled in about 2 weeks.</p>   |
| 8/11/20 | National Development                        | Paige Graham, Naomi Mayeux, Sherry Clancy, Jeff Coventry, Rich Hollwith, Charlie Viona   | No  | <p>The purpose of this meeting was to discuss the feasibility of potentially locating one of the lines within the Brighton Study Area (e.g., variation to Route B24), across the existing WBZ Studio property that is being redeveloped by National Development (with a new studio, life science facility, greenspace). Locating a transmission line across this private parcel of land would potentially avoid work on the adjacent City of Boston playground property (Smith Playground) and Harvard athletic facilities. Access onto the site, south of the former Ground Round restaurant site (now owned by Harvard) would potentially align with National Development's planned utility corridor and interior circulation drive. There was a discussion regarding schedule, existing utilities (including MWRA and Eversource's existing overhead distribution lines), and future tenants (life science) and their facility needs.</p>  | <p>Eversource to evaluate a potential route variation across the National Development site. Eversource will provide National Development with additional detail regarding anticipated temporary and permanent easement requirements and approximate location and dimensions of transmission line infrastructure. National Development will provide its survey data and concept plans as they evolve in weeks ahead. Future meeting to be scheduled as information becomes available.</p>   |

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| 8/12/20 | MassDCR             | Jennifer Norwood, External Affairs<br>William Gode, Flood<br>Ginna Johnson, Deputy Chief<br>Sean Casey, Construction<br>Jeff Parenti, Deputy Chief<br>Jason Santos | No   | This meeting was a follow-up to the 3/31/20 meeting. Eversource provided an update on the status of routes located on or near MassDCR properties, including Memorial Drive, Magazine Beach, Herter Park and Soldiers Field Road. Eversource also discussed approximate work zone and space requirements for HDD setups on these properties, construction techniques, typical cable design and cable stringing space. MassDCR expressed concerns with routes located on Magazine Beach and Herter Park, primarily due to open space and environmental impacts pertaining to tree removal, soil compaction, cultural/archaeological resources, recreational impacts/public use of the park, land alteration from HDD staging area, impacts to recent improvements and upgrades to the park(s) (in addition to future planned improvements), concerns from park stewardship groups and management of contaminated sediment in Charles River from HDD work. MassDCR noted that work on Soldiers Field Road, outside of Herter Park, would result in short-term, albeit significant impacts during construction (particularly with regard to traffic management), but would avoid potential permanent impacts to the parkland and greenspace. There was also a general discussion regarding potential colocation opportunities to cross the Charles River should a pedestrian bridge be advanced in the future.  | Eversource to evaluate route variations that avoid or minimize impacts to Magazine Beach and Herter Park (by following utility corridors and locating HDD entry pits on existing paved parking area) and results in more work on developed areas, like Soldiers Field Road.<br><br>MassDCR will consult with legal regarding potential work in Memorial Drive and Soldiers Field Road pavement and median to determine what if any activity might trigger Article 97 review. Eversource will request publicly available utility data from MassDCR and MWRA for Magazine Beach. Eversource will provide more detail regarding conceptual landing and receiving pits and revised routes. Follow up meeting to be scheduled. |
| 8/13/20 | BioMed Realty (BMR) | Sal Zinno, Ken Stanley   | No   | The purpose of this meeting was to discuss potential work on Kendall Street, between Third Street and the East Cambridge Substation and Veolia's Kendall Cogeneration Station. Kendall Street is a private way owned by BMR. Eversource described potential routes leading from the existing East Cambridge substation to the new substation site. BMR described its planned gas pipeline relocation work and provided information regarding existing utilities and structures on Kendall Street, including a major steam line and a portion of an underground parking garage (Kendall Square South) associated with #350 Kendall Street. BMR also owns a small piece of land (parking lot) on Vassar Street that would potentially be crossed by Route B29B to reach Waverly Street. BioMed Realty currently leases a portion of the existing parking lot from Eversource. Eversource owns the adjacent parcel.  | BMR will provide Eversource with its existing conditions utility survey data and conceptual plans for relocated gas pipelines. Eversource engineers will review the data and determine how it effects the route from a constructability and workspace perspective. Eversource will also continue to coordinate with BioMed Realty regarding work on Kendall Street and Vassar Street parking lot.   |
| 8/21/20 | MIT                 | Ben Lavery (via email)   | No   | MIT indicated via email to Eversource that potential routes B-29 and B-29A, where they cross over MIT land on Vassar Street, were problematic because the new transmission line would potentially conflict with future re-development projects contemplated by MIT, and that potential route B-29B was potentially a better crossing location. MIT indicated that they would like to continue conversations relating to a B-29B routing.  | Schedule follow up discussions regarding route B29B.  |
| 9/8/20  | Harvard University  | Joseph Beggan, Willard Donham, Mark Handley, Kevin Casey, Robert Manning, Andrew Boyd, Joseph O'Farrell, Alexandra Toteva  | No   | This meeting was a follow-up to the 7-15-20 meeting and focused on proposed routes that cross Harvard properties at MassDOT's Allston Multimodal Project site. Harvard explained that the roadway alignments shown for Lincoln Street Extension, South Cambridge Street and Cambridge Street have not substantially changed beyond that which was described in MassDOT's 2018 MEPA DEIR. The Soldier's Field Road work ("throat area") is not as far along in the conceptual design process relative to these other roads. Harvard indicated that South Cambridge Street would be constructed on approximately 15-feet to 20-feet of fill whereas Lincoln Street Extension would essentially be at-grade relative to the new I-90 alignment. There will likely be two bridges/spans from Lincoln Street Extension spanning over the new I-90 alignment to square up with South Cambridge Street. Soldier's Field Road would likely be approximately 15-feet to 20-feet lower than existing conditions (below the elevation of the Charles River), functioning more as an underpass design. Harvard also indicated that there are a couple AUL sites in this location associated with contaminated soils that Eversource should be aware of relative to soil management practices. Regarding proposed routes that follow the location of existing Cambridge Street, Harvard indicated that the River Street reconstruction work was taken to 100% design by MassDOT and they should have good data for Eversource's review. Harvard further indicated that it was their understanding both River Street and Western Avenue bridges would be rebuilt following construction of the MassDOT Multimodal project. Harvard could not opine on the Multimodal Project schedule as MassDOT is leading that effort as it is technically the Commonwealth's project, with Harvard being the landowner. There was a discussion about depth of cover and how Eversource's transmission line ratings and modeling work is based on certain assumptions, HDD entry/exit pits relative to MWRA facilities and future roadway alignments, and future grade changes. | No significant routing changes contemplated as a result of this meeting. Harvard will coordinate a follow-up meeting with Eversource and MassDOT to focus on technical aspects of these routes and other routes being contemplated by Eversource near Harvard's athletic facilities. Harvard also indicated they would provide additional detail regarding the AUL sites discussed on this call.  |

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| 9/10/20 | MBTA              | Christine Bresnahan et al  | No   | This meeting was a follow-up to the preliminary feedback provided by MBTA to the project's canvas in May and August 2020 and introductory meeting in April 2020. The call focused on three distinct areas: MBTA Red Line subway tunnel crossings on Main Street in Cambridge; Grand Junction Railroad trestle bridge; and Union Station platform that is under construction near the Somerville Substation facility. Regarding the Red Line subway tunnel crossings, the MBTA indicated their preference would be to have the new line go over the tunnel, whenever possible, and that Eversource should be mindful of waterproofing membrane on the tunnel. The MBTA recommended that Eversource conduct some exploratory test pits to confirm depth of cover and location of tunnel in this location. The MBTA indicated that there is some uncertainty regarding the future of the MBTA railroad trestle bridge as it could be removed, modified or repurposed as part of other future projects including the MassDOT Multimodal Project. Railroad Operations could provide more detail on the status of the bridge. No specific feedback was provided regarding the proposed routes approaching the Somerville Substation including work near the under construction Union Station train platform. The MBTA did note that several of its duct bank cables may require replacement in the future and that it would be helpful to coordinate with Eversource relative to routing the new line, when feasible.                     | No changes to routing contemplated as a result of this meeting. Eversource will follow up with Railroad Operations (Mr. Jodie Ray) to discuss the railroad trestle bridge option. In addition, subsequent meetings will focus on a narrowed down set of Candidate Routes to facilitate the MBTA's review, including providing KMZ and PDF files of maps. Eversource will also update its canvas documents with the MBTA. |
| 9/21/20 | MBTA (site visit) | John D.  | No   | Purpose of site visit was to view the existing Grand Junction Railroad trestle bridge over the Charles River. The MBTA indicated that the bridge, or portions thereof, would likely be repaired and/or replaced in the future given its current condition. There has been discussions regarding a potential bike path along the open side of the trestle bridge. The MBTA did not express significant concerns relative to installing the cable on the pier structures, noting that existing clearances above the Charles River should be maintained. Along the track segment, the design should conform to the MBTA Directorate as much as possible. If the transmission line was installed along the inactive track-side of the trestle bridge, there is a chance the line would need to be relocated in the future should the MBTA install new tracks in that location. The Memorial Drive bridge would also likely need to be replaced in the future to accommodate a 2nd track. The Memorial Drive bridge is under the care and custody of MassDCR. The MBTA's primary concern would be potential interference with existing railroad signal lines.  | No significant changes to routing as a result of this meeting.   |
| 9/25/20 | Vicinity Energy   | Don  | No   | The purpose of this meeting was to view potential transmission line routes into the Kendall Substation facility, relative to existing infrastructure associated with Vicinity Energy's electric generating facility at the end of Kendall Street in Cambridge. There was a discussion of existing steam and electric lines and potential conflicts and utility corridors.   | No significant changes to routing as a result of this meeting. Eversource requested more detailed existing conditions plans from Vicinity to advance the new transmission line design and refine the station interconnection point. Vicinity requested additional details regarding Eversource's proposed routes and new substation facility.  |
| 10/2/20 | MWRA              | Kevin McKenna, Ralph Francesconi, Peter Yarossi, Rebecca Weidman | Yes  | The purpose of the meeting was to review more detailed mapping that Eversource provided depicting potential MWRA infrastructure crossings and/or co-location with transmission line Candidate Routes. MWRA indicated that on average, most of their wastewater facilities are about 15-feet below grade in the project area. The MWRA indicated that their preference would be for the new transmission line(s) to be installed above their wastewater facilities, whenever possible. Regarding HDD work on Magazine Beach, the MWRA indicated that their facilities have underdrains in that location (to prevent flooding) and requested that Eversource be at least 15-feet below their infrastructure to avoid impacts to these facilities. MWRA's water lines are typically at a shallower depth than wastewater, presenting a challenge to Eversource when constructing the new transmission line (e.g., shoring, hand digging, etc.). Regarding the MassDOT Multimodal Project, the MWRA indicated that they were not privy to any details from the project proponent regarding any planned relocation of MWRA facilities. The MWRA also indicated to Eversource that they had no plans to install a utility bridge across the Charles River to extend utilities between Boston and Cambridge. MWRA staff offered to schedule additional working-session meetings in the future after Eversource has advanced the detailed design for the top routes, including the development of section and profile views as appropriate. | MWRA staff offered to schedule future working-session meetings after Eversource has advanced the detailed design for the top routes, including the development of section and profile views as appropriate. The MWRA also provided information to Eversource regarding the process to obtain additional data from their files.   |

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| 10/6/20  | MassDCR     | Ginna Johnson, William Goode, Jason Santos, Raul Silva, Jeff Parenti | No  | <p>This meeting was a follow-up to the 8-12-20 meeting. Eversource provided additional information and conceptual graphics depicting potential HDD layouts and setup(s) on MassDCR's Magazine Beach property, Longfellow Park, Soldiers Field Road and Herter Park. The purpose of the HDD crossing(s) is to access the Brighton side of the Charles River with two new transmission lines. Eversource also provided an update on the status of the MWRA meeting (see 10-2-20 above), including confirmation that MWRA does not currently have plans to install a new utility bridge over the Charles River as part of its facility upgrades. Eversource indicated that given the costs and permitting challenges associated with separate utility bridge(s), it may not be practicable to install a new transmission line over the Charles River with this type of design. Accordingly, Eversource indicated to MassDCR that in the near term it continues to focus on existing crossings (vehicular bridges, trestle bridge) and HDD crossings. Regarding Magazine Beach, Eversource presented four potential HDD alignments referred to as B2, B2A, B2B and B2C. Of these four alignments, MassDCR indicated that B2 and B2C are substantially less desirable than the other alignments because they would pass beneath the foundation of the historic "1818 Powder Magazine" building and B2 would result in the removal of several large trees. MassDCR was concerned about potential vibration impacts beneath the old masonry building foundation. MassDCR staff also indicated that they would prefer not to have any additional utilities installed across Magazine Beach given its important open space value. MassDCR staff further indicated that should a proposed transmission line crossing over Magazine be advanced through Article 97, MassDCR would expect a robust mitigation package that results in an improvement over existing site conditions to parkland (e.g., athletic fields, pools, play areas, picnic areas, outdoor gathering space) and transportation enhancements (Memorial Drive, Soldiers Field Road, multi-use pathway), as appropriate. MassDCR will provide Eversource with additional utility detail depicting irrigation lines on Magazine Beach. If the existing playing field is disturbed it would need to be restored to a satisfactory playable condition and any manholes would need to be installed outside the field limits. Regarding potential routes B24, B25 and B24C that cross the Charles River via HDD from MassDCR's Longfellow Park to Herter Park or the Soldiers Field Road interchange area, MassDCR noted that their are future plans (at least 5 years out) to redesign the artery area with less pavement and more green space (i.e., "road diet"). Similarly, at Memorial Drive along the BU rotary, MassDCR indicated that 25% design plans are in the works proposing a redesign of that area up to the Grand Junction Railroad Trestle Bridge.</p> | <p>If advanced for further discussion, Eversource to evaluate feasibility of constructing routes B2 and B2C on Magazine Beach beneath the historic Magazine Powder building (including consideration of potential vibration impacts during HDD construction). MassDCR will provide Eversource with 25% design plans for Memorial Drive.</p>   |
| 10/13/20 | MIT         | Ben Lavery, Julie Farrer   | Yes<br>(PDF of utility data along Vassar and Waverly) | <p>This meeting was a follow-up to the 8-21-20 meeting and focused on two discrete locations: MIT properties along Waverly Road and #640 Memorial Drive that would potentially be crossed by candidate route B29; and candidate routes in the Kendall Study Area that would potentially cross the MIT Volpe Center parcel between Third and Broadway. Regarding candidate route B29, MIT indicated that the parcel of land (former Cal-paint site) that would be crossed by this route between the Grand Junction Railroad corridor and Waverly Street contains contaminated soils that would require project-specific handling and disposal procedures. The contaminated soils are currently covered by pavement and a concrete foundation. Further discussions should occur with MIT regarding the details of crossing this parcel to determine feasibility. MIT further indicated that there are substantial utilities in this area and that they can provide that information to Eversource to further inform ongoing constructability reviews. MIT will also provide utility data for #640 Memorial Drive (currently leased to Alexandria Properties). MIT indicated that it was their understanding a multi-use pathway is being contemplated for the north side of the Grand Junction Railroad tracks in this location.</p> <p>Regarding Volpe Center, MIT indicated that their re-development plans contemplate up to 3 million s.f. of new buildings, stormwater upgrades, utility work and so forth. In order to determine feasibility of installing a portion of the transmission line across a corner of this property (to avoid utility congestion in Third and Broadway) they requested dimensioned cross sections. MIT's plans are still in conceptual phase but with this additional detail from Eversource they will be in a better position to advise on feasibility and potential space for the new transmission line. MIT and Eversource also discussed the importance of scheduling and sequencing the transmission line work with the Volpe Center re-development work.</p>  | <p>MIT requested a section view of the alignment across #640 Memorial Drive parking lot to better understand potential effects to the use of their property.</p> <p>MIT to provide existing conditions survey data.</p> <p>Continue discussions regarding underlying contaminated soils on former Cal-paint parcel.</p> <p>Eversource to provide dimensioned cross sections of route that crosses over corner of Volpe Center site.</p> |
| 10/21/20 | MBTA        | Joe Guyder (via email)   | No  | <p>MBTA indicated via email that the conceptual duct bank cross sections provided by Eversource for the Red Line subway tunnel crossings resulted in acceptable clearances. The MBTA recommended that the team move forward with the development of the design and permitting process with the MBTA.</p>   | <p>Eversource to confirm the proposed cross section over the Red Line subway tunnel is acceptable from a transmission line operations perspective, as it advances the design.</p>   |

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| 10/30/20 | Alexandria Real Estate Equities, Inc. (Alexandria) | Joe Maguire, Bob Fitzpatrick, Terry Tolosko, Josh Snyder  | Yes (Planning Board Presentation)  | The purpose of this meeting was to discuss potential Somerville Candidate Routes S11A and S11B that follow the Grand Junction Railroad property past the Alexandria property located at #325 Binney Street. Alexandria is proposing to redevelop their property with an approximately 370,000 g.s.f 6 and 4-story building comprised of office and lab space and 2-story underground parking garage and geothermal well field. Alexandria is also providing \$11.3 million in funding to the City of Cambridge to assist with the design and construction of a multi-use pathway along the Grand Junction Railroad corridor, including conveyance of an approximately 14-foot wide strip of land on the west side of the tracks. Eversource noted that Candidate Route S11B would follow the east side of the existing railroad tracks whereas Candidate Route S11A would follow the west side of the railroad tracks. The Grand Junction multi-use pathway is proposed on the west side along this stretch. The project team also discussed potential Brighton routes that would cross over a portion of MIT-owned property leased to Alexandria at #640 Memorial Drive. Alexandria indicated they may have a detailed survey of the parcel that they could share with Eversource. Alexandria indicated that using this property would require the consent of MIT and Alexandria; and that Eversource should determine if the installation work could occur without modifying the existing generators and related electric connections to their building. Alexandria requested additional detail from Eversource regarding estimated limits of work and easement requirements, for follow-up discussions with Eversource and MIT.  | Eversource to continue evaluating the feasibility of constructing Somerville routes S11A and S11B adjacent to the Alexandria property, Grand Junction railroad tracks and planned multi-use pathway. Eversource to provide additional detail to Alexandria regarding estimated limits of work and easement requirements at #640 Memorial Drive.  |
| 11/12/20 | Harvard and MassDOT                                | Joseph Beggan, Willard Donham, Mark Handley, Kevin Casey, Robert Manning, Andrew Boyd, Michael O'Dowd | Yes (conceptual graphics from MassDOT Multimodal Interchange Project DEIR) | The purpose of this meeting was to provide Harvard and MassDOT with an update on the status of routing within the Brighton study area. This was a joint Harvard/MassDOT meeting because most of the discussion focused on routes located within and around the MassDOT Multimodal Project on the west side of the Charles River in Allston and Brighton. Harvard and MassDOT also invited their consulting engineers from WSP and TetraTech, respectively, to weigh in from an engineering and utility perspective. Eversource provided an overview of the current routes, including routes that follow the future location of Cambridge Street, Cambridge Street South and Lincoln Street Connector; and routes that cross the Charles River via HDD or via the MBTA railroad trestle bridge onto Soldiers Field Road area. MassDOT indicated that while the potential roadway alignments in the "throat" area adjacent to the Charles River remain in flux, they expect to identify a preferred alternative before the end of the year (TBD). The currently "preferred alignment" that Eversource is reviewing for route planning purposes may not be the ultimate selection by MassDOT. MassDOT indicated that the different alignments under consideration for the throat and Soldiers Field Road could present challenges for route following that segment from the trestle bridge. It was suggested that B29C may be in a better location than adjacent routes B28, B29, B29A and B29B; if these routes were shifted slightly to the northeast to align with B29C it could potentially avoid some of these constraints with realigned roadways. Harvard indicated that routes which follow the Lincoln Street Connector (e.g., Routes B2A, B2B, B28, B29, B29A and B29B) would likely result in fewer potential constraints to their properties and future development plans / utility connections relative to routes located along Cambridge Street South (e.g., Routes B2, B2C, B29C). MassDOT indicated that it could provide the potential footing designs for bridge / viaduct structures. Eversource needs to be mindful of existing MWRA infrastructure throughout this area including in and around Route B31. MassDOT and Harvard indicated that locating the HDD entrance pits for B2 and B2C further west, towards the future location of the "East Drive Connector", could potentially avoid certain constraints, utilities and future planned development areas by Harvard. It was noted that these HDD crossings were better situated because they avoid the challenges associated with the throat area. A similar recommendation was provided for HDD entry pits associated with Routes B2A and B2B, that is by locating it further west towards the future location of the East Drive Connector it is possible that they could avoid certain utility, grade-change constraints and future development by Harvard. Harvard's engineering consultant (WSP) indicated that if the Eversource lines were installed at 8-feet below grade, such a depth would likely minimize or avoid potential constraints associated with future Harvard utility connections. Regarding schedule and sequencing of work, MassDOT indicated that heavy construction was not anticipated to start until late 2023/early 2024 with an ~6-year construction duration. Cambridge Street South could be a phasing/coordination challenge with the Eversource project because it may not be modified until later in the construction process. Harvard emphasized that Eversource's project should not disrupt the schedule and coordination it is developing in consultation with MassDOT and other Multimodal Project stakeholders (DCR, City of Boston, etc.). MassDOT indicated that it could obtain the latest information on the Multimodal Project, including concept plans, via this link: <a href="https://www.mass.gov/lists/allston-multimodal-project-2020-meeting-materials#task-force-webinar---october-15,-2020-">https://www.mass.gov/lists/allston-multimodal-project-2020-meeting-materials#task-force-webinar---october-15,-2020-</a> . Eversource and Harvard also had a brief discussion about future easements and rights matters, acknowledging that a separate meeting will need to be scheduled with the right folks in the room to talk through those sorts of details. | Eversource to continue evaluating routes through the MassDOT Multimodal Project Area after the Commonwealth identifies its preferred roadway alignments.<br><br>Separate meeting to be coordinated with Harvard regarding necessary easements to construct and operate the transmission line where they cross Harvard properties.<br><br>Eversource to download current information from MassDOT's Multimodal Project website.<br><br>TetraTech will consult with MassDOT regarding existing utility data that it could share with Eversource, as well as footing locations. |
| 11/17/20 | Somerville Redevelopment Authority (SRDA) Staff    | Tom Galligani   | Yes (Boynton Yards and Union Square project(s) ppt slides)                 | The purpose of this meeting was to provide an update on route segments located in Somerville, specifically in the location of the Union Square and Boynton Yards development projects. Eversource provided an overview of the EFSB process, need for the project, current schedule and proposed substation work. SRDA provided a status report on the Union Square project and the role of the developer (USQ). The land will be officially sold from SRDA to USQ in December 2020; USQ hopes to start construction in spring 2021. SRDA suggested that Eversource look at two potential variations to Candidate Route S12, including (1) avoiding the triangular shaped private parcel at the corner of Columbia and Webster and continuing on Columbia Street as this parcel may be developed as greenspace in the future; and, (2) instead of turning west down the "alley" within the Union Square development onto Prospect Street, extend the route north down Milk Place, across Somerville Avenue, across the D1 parcel, onto Washington Street and then south on Prospect Street to connect to the substation. The purpose of this route variation would be to avoid having to remove and then replace the paver / "alley" surface materials so soon after USQ's initial installation.   | Eversource to schedule separate meeting with SRDA and USQ and evaluate the two route variations suggested by SRDA.   |

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| 11/20/20 | Cambridge DPW | Kathy Watkins, Jerry Friedman, Bill Deignan | Yes<br>(utility data, deed information and multi-use pathway 25% design information) | <p>The purpose of this meeting was to provide an update on route segments in the Somerville study area that propose to follow the Grand Junction Railroad corridor between Broadway in Cambridge to McGrath Highway in Somerville. Specifically, routes located on either side of the Grand Junction Railroad (S11A and S11B) were discussed relative to co-locating with the future alignment of the proposed multi-use pathway. Cambridge provided information relative to the pathway's location as it crosses from east to west over the tracks, including a discussion of easements obtained by the City from Alexandria properties (14-foot wide), Fulkerson parcel, Binney Street Park and the Cambridge Housing Authority (10-foot wide), to facilitate construction of the path. Eversource discussed the challenges of multiple crossings of the railroad corridor at generally 45-degree angles to follow the pathway's alignment (Binney Street, Cambridge Street and Medford Street/Gore Street), and related MBTA design criteria. There was a discussion about potentially locating the new line on Warren Street to avoid two trenchless crossing of the railroad tracks behind the Twin City plaza. There was also a brief discussion regarding potential Article 97 jurisdiction if the new line was located in the Binney Street park (to be determined based on a review of deeds and language regarding utility installations). Regarding Route S11A that follows Cardinal Medeiros Avenue in order to reach the west side of the Grand Junction railroad corridor, Cambridge strongly recommended that Eversource avoid the in-street portion of this route for new transmission line construction given the substantial utilities and challenges they faced with their unrelated water and drain line project. There was also a discussion regarding routes in the Brighton study area that would potentially follow the Grand Junction Railroad corridor across the Charles River via the existing MBTA trestle bridge or a new self-supporting utility bridge that could potentially be co-located with a multi-use pathway. Potential challenges that require further investigation include MBTA's desire for a 2nd track in the future; clearance issues between the BU Bridge and the railroad trestle bridge (to install a separate self supporting utility bridge), permitting with the MassDEP, Corps and Coast Guard, clearance and space constraints beneath the Memorial Drive overpass (to accommodate a future pathway, 2nd railroad track and new transmission line). Cambridge indicated to Eversource that co-locating the new transmission line with the multi-use pathway project (and facilitating its future installation) could be perceived by the community and stakeholders as a major net benefit for Cambridge residents and the region in general.</p>  | Eversource to continue to explore routes along Grand Junction Railroad corridor that could potentially co-locate with segments of future multi-use pathway.  |
| 12/2/20  | D2            | Greg Karczewski                             | Yes<br>(image overlay of Union Square Development)                                   | <p>This meeting was scheduled as a follow-up to the 11-17-20 with the SRDA. D2 is the developer of the Union Square project. Eversource is evaluating the feasibility of routing its new transmission line through this site in order to reach the Somerville Substation across Prospect Street. D2 indicated that they would be closing on the property soon and starting construction later this year, early next year. They anticipate being complete with their project by late 2023. The MBTA Green Line station platform is currently under construction and is expected to be complete by Q3 2021. D2 indicated that they would be willing to work with Eversource but sought additional details regarding Eversource's schedule and space requirements to install and operate the new transmission line. Eversource explained that the proposed transmission line alignment would ideally follow the alignment of D2's proposed roadway alignments and utility corridors, in order to avoid encroaching upon D2's building pads. Because D2 would likely be complete with their work before Eversource started its work, they expressed concerns about inconveniences to their tenants with another construction project and newly installed roadway(s) being dug up to install the transmission line. Eversource affirmed that the roadway would be reconstructed to the developer's specifications, following installation of the line. D2 also provided information regarding future development plans south of the MBTA commuter rail tracks. D2 indicated that they own the Green City Growers warehouse building located at 600 Windsor Place and have a path forward towards owning the adjacent Royal Hospitality Services laundry facility located at #520 Columbia Street (although they do not currently own the property so Eversource should coordinate with the current landowner). One of the Eversource routes would potentially run between these parcels. Eversource explained that they would ideally locate the transmission line as close as possible to the #520 Columbia Street easterly property line to minimize encroachments onto D2's development footprint. D2 indicated that these developments are still several years out and it is likely that Eversource would be complete with its work before they started work on these sites. The #520 Columbia Street site would still likely be a paved parking lot when Eversource went to construction. D2 requested that Eversource provide them with a PDF map depicting the proposed route(s) across their properties and a typical detail of the proposed duct bank. They would take this information and evaluate it for further discussion with Eversource. Eversource, in turn, requested D2's CAD data depicting its planned utility infrastructure so they could refine the transmission line alignment to minimize impacts to D2's alignments. NOTE: Subsequent to the meeting, D2 expressed a willingness to work with Eversource and requested that Eversource evaluate the feasibility of installing its transmission line along the southern portion of the Union Square site, generally parallel to the MBTA railroad tracks and new train station platform - with the goal of minimizing construction and schedule constraints with the D2 project that is going to construction in 2021.</p> | D2 to review additional routing and plan details provided by Eversource and provide feedback; Eversource to review utility CAD data provided by D2; Eversource to determine feasibility installing its transmission line along the southern portion of the Union Square site, generally parallel to the MBTA railroad tracks and new train station platform. Follow up meeting to be scheduled to continue discussions and refine routing through this area, as appropriate. |



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| 12/17/20  | MassDCR       | Sean Casey, Jeff Parenti, Rob Lowell, Ginna Johnson, Tom Valton, Jason Santos, William Gode, Raul Silva, Dan Driscoll, Jennifer Norwood | No   | The primary purpose of this meeting was to provide a project update and initiate mitigation discussions with MassDCR relative to transmission line candidate routes that cross Magazine Beach and trigger Article 97 review. Eversource provided an update on the status of its transmission line routing efforts, indicating that the westerly most candidate routes that cross through Longfellow Park and Herter Park were not the company's present focus and were less likely to result in the identification of a top route at this point in the analysis when compared to shorter, less expensive, and less impactful more direct routes between the New Substation site and the Brighton Substation. Eversource was therefore currently focusing its efforts on routes that cross Magazine Beach and the Charles River via HDD or as self supporting utility bridge. Eversource explained that they viewed the MassDOT Multi-modal Project area on the Boston-side of the Charles River as an opportunity to locate the new transmission lines in a manner that avoids and minimizes impacts to the environment by following planned future roadway alignments through existing disturbed areas via an HDD route beginning at Magazine Beach. Eversource also noted that they were in the early stages of assessing the feasibility of a second transmission line route that would potentially cross the Charles River via a self-supporting utility bridge installed adjacent to the existing MBTA railroad trestle bridge and collocating the utility line with a future multi-use pathway by others. Eversource described its intent to minimize the amount of open trench construction and necessary workspace (and thus direct impacts) on the Magazine Beach parcel and initiate the HDD work at the first practicable opportunity after transitioning from Memorial Drive. Eversource noted that manholes would not be located in the playing field area of Magazine Beach and the transmission line would be sufficiently deep to avoid impacts to surface features on Magazine Beach (e.g., trees, vegetation, pathways, parking areas, etc.), including siting the transmission line such that it avoids the historic 1818 building facility. Eversource further noted that the cable splicing and pulling would likely occur on the Boston-side of the Charles River where there is more room available for this activity within the multi-modal area. A general preliminary discussion ensued at a conceptual level about potential mitigation opportunities to address Article 97 Policy requirements should MassDCR support transmission line construction across Magazine Beach, including but not limited to a land swap, site specific enhancement opportunities (e.g., pathway reconstruction, interpretive signage, enhancement plantings along the riverbank, restoration requirements, water quality /green infrastructure improvements, etc.), and other potential mitigation opportunities commensurate with Article 97 and the proposed impacts. As a next step, MassDCR requested that Eversource provide a briefing package describing the current state of the project, including specific activities proposed in MassDCR jurisdictional areas and Magazine Beach. The briefing package would be reviewed by and circulated within MassDCR and would be used to facilitate future follow-on discussions between MassDCR, Eversource and other stakeholders on the topic of Article 97 and mitigation requirements. | Eversource to provide MassDCR with a briefing package describing the project and work within MassDCR jurisdictional areas, including Magazine Beach. A follow-up meeting will be scheduled in the future to discuss the project and potential mitigation opportunities after such information has been circulated and reviewed within MassDCR.   |
| 1/11/21   | Cambridge DPW | Kathy Watkins, Jim Wilcox, Nikol Bulger   | Yes  | The purpose of this meeting was to better understand the City's future plans associated with its drain up-sizing project (54" to 72" diameter pipe) on Broadway and existing drain lines, and how this infrastructure might effect the layout and design of the new transmission line(s) located on Broadway, particularly near the Third Street intersection and Volpe site. Cambridge DPW indicated that Eversource could design its transmission line crossing to go over the existing drain lines at Third Street intersection, as close to perpendicular as possible. The City indicated that Eversource should avoid installing its new line(s) above and parallel to the existing lines as much as possible, but select crossings should be ok. The City noted the complexity of crossing through the Third Street intersection given the presence of substantial existing utility infrastructure. Eversource also provided an update on the status of routing, including ongoing feasibility assessments of the potential routes that follow the Grand Junction Railroad corridor, potentially co-locating with the future multi-use pathway.   | Eversource to incorporate the referenced drain up-sizing project details relative to the design (horizontal and vertical) layout of the proposed transmission line in and around the Broadway and Third Street area.   |
| 1/22/2021 | MBTA          | Christine Bresnahan, Kevin Biggins, Jack Martin, Ray Martin, James Mellon, David Silva, Brian Phillips, Cornelius McEleney, Ed Baird    | No   | The primary purpose of this meeting was to discuss potential Route S11C. If feasible, this Somerville route would follow the alignment of the future Grand Junction Railroad Multi-Use Path being advanced by the City of Cambridge. The transmission line would potentially collocate with the proposed multi-use pathway on land/easements under the care and custody of the City immediately adjacent to the MBTA right-of-way. Eversource indicated to the MBTA that at this time, they are not contemplating the need for permanent easements from the MBTA for much of this route (other than at the three at-grade track / road crossings and north of Medford Street / Gore Street to Linwood Avenue), noting that Eversource is trying to locate the work on city-owned land between Binney Street and Medford / Gore Street. Eversource sought feedback from the MBTA regarding certain aspects of the MBTA Directorate, including the proposed roadway / at grade track crossings (perpendicular vs. less than perpendicular crossings based on cable bend limitations and minimum depth requirements), limit of work offsets from the tracks, supportive excavation requirements (e.g., the need for steel sheet pile), and open trench vs. jack-and-bore techniques. The MBTA recommended that as the detailed design is advanced, Eversource maintain a minimum 7 1/2 foot limit-of-work offset (defined by the steel sheet pile) from the centerline of the tracks, with 8 1/2 feet preferred. The MBTA also requested KMZ files of the top two routes in each study area (Somerville, Putnam, Kendall and Brighton), and additional information from Eversource regarding the locations and configuration of the proposed manhole structures and other similar design details. Based on the information presented during this call, and the specifications and design criteria outlined by the MBTA, the MBTA indicated that they were amenable to such an alignment and route. The MBTA also briefly discussed Route S1, noting that a portion of this route appears to run parallel with MBTA distribution lines feeding the MBTA Kendall substation, thus warranting further discussion as the design is advanced to ensure no utility conflicts. A subsequent meeting would be scheduled to discuss the Brighton Routes as the routing was further advanced.  | Eversource to provide the MBTA with supplemental information for further review and discussion, including: KMZ files of the top two routes in each study area; information describing the rationale behind the placement and layout of the proposed manholes; documentation that perpendicular crossings are not feasible at the at-grade track/road crossings (45 degree crossing vs. 90 degree crossing, cable bend constraints), and a narrative describing open cut vs. jack-and-bore rail crossing options. |
| 1/28/2021 | MIT           | Rich Lucas, Frances Boyle, Scott Stordy, Greg Walson  | No   | The purpose of this meeting was to provide a general update to MIT's utility group regarding the top routes within the Kendall, Putnam and Brighton Study Areas involving MIT infrastructure and assets. MIT appreciated being kept in the loop but noted that real estate group is more important at this juncture. Eversource provided an overview of the routing and currently proposed schedule. MIT utilities described the existing pedestrian tunnel on Ames Street that connects MIT campus building basements on either side of the road, and that Eversource will need to be mindful of its location and depth during the detailed design phase. MIT will review its files to determine if they have any detailed as-builts that might inform the current design. MIT did not express any reservations about the current preliminary design and recommended that a follow up meeting be scheduled as the design approaches 70%. MIT requested a PDF of the routing maps so they can provide internal updates to the MIT Directors.  | Eversource to provide MIT with a PDF of the current routing map relative to MIT facilities and assets.   |

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| 2/5/2021  | MIT                                     | Ben Lavery, Julie Farmer, Bryan Walsh (VHB)                             | No  | This meeting was a follow up to prior meetings regarding routes in the Kendall Study Area that would potentially cross a portion of the MIT Volpe site in order to avoid significant utility constraints in and around the Broadway and Third Street intersection. Eversource presented an updated routing map to MIT that depicts two Candidate Routes crossing a corner of the Volpe site (K5A and K6A), along the property line and pulled back from the center of the Volpe site to avoid potential constraints with MIT's future planned development of the parcel. MIT and Eversource discussed the potential impacts associated with shade tree removal along the Volpe property line and within the Broadway median. MIT indicated that they have detailed survey of the existing tree locations on the Volpe site and will provide the CAD file to Eversource for further evaluation to see if potential tree removal impacts might be further avoided or minimized. MIT further indicated that they recently submitted their special permit application with the Cambridge ZBA for Article 19 and Planned Unit Development approvals for the Volpe site. MIT indicated that they would continue to work with Eversource on this routing effort and requested additional detail for future discussions regarding construction schedule and sequencing (with ideally both projects lining up in the Q1 2024 timeframe, if possible), more detailed engineering design data (profiles, etc.), and separate discussions regarding future distribution line connections to the Volpe site. There was also a brief update and discussion regarding certain Brighton routes that potentially cross MIT properties between Waverly and Vassar Street (former CalPaint site). MIT asked if it was possible to more gradually route the transmission line across this property to avoid bisecting it. Eversource explained the challenge of crossing perpendicular to the railroad tracks in this location and limitations associated with the bend radius of the cable. There was also a brief discussion of the route segment that proposes to cross a portion of #640 Memorial Drive and whether MIT had as-builts depicting underground line connections from the generators to the building. MIT would follow up with the tenant (Alexandria Properties) to see if it had any data it could share. | Routes K5A/6A align closer to the Volpe site property line near Third Street and Broadway intersection. MIT will provide Eversource with tree survey data for Volpe Site and as-built data for #640 Memorial Drive, if they can locate it. Eversource to continue advancing engineering design and provide to MIT as it becomes available for further review. Eversource to provide MIT with PDF maps of latest routing effort across its properties and develop a conceptual construction schedule and sequence (high-level), relative to coordinating work on the Volpe site. Note: above information provided to MIT on 2-24-21. |
| 2/10/2021 | D2                                      | Justin Kunz, Greg Karczewski, Kara Pellaton, Patrick Nihan (ICO Energy) | Yes (mark up of potential route variation across D2 parcel, and screenshare during meeting)                 | The primary purpose of this meeting was to continue discussions with D2 regarding routing across their development parcel in Somerville (D2 parcel), located opposite the Somerville Substation on Prospect Street. D2 asked Eversource to consider variations to the current alignment of Candidate Route S1 that presently follows the future location of proposed roads through this development site, and evaluate an option that would generally follow the southern property line parallel to the new MBTA Green Line Station train platform and commuter rail tracks before turning north across the front of the site and then over to the substation. Eversource engineers described the challenges of accessing the substation along this suggested route given the presence of the MBTA infrastructure, Prospect Street bridge, conflicts within the substation equipment and planned distribution line work. That said, Eversource agreed to take a closer look and determine if such a route variation was feasible with the goal of minimizing impacts to the D2 parcel, knowing that it is under construction now and the soon-to-be constructed internal roadways would have to be excavated again to install the new transmission line duct bank work. D2 also expressed concern regarding the useable corridor width to install the new transmission line in its current alignment along the proposed Milk Alley, knowing that D2 was installing significant utilities in this same corridor as part of their project. Eversource committed to working closely with D2 regarding construction sequencing and scheduling to minimize impacts to the landowner and future tenants of the residential portion of the development, including assuring that suitable access would be maintained to the facility and proposed garage during construction and that detailed restoration plans would be developed following construction, in consultation with D2.  | Eversource to evaluate a potential variation to Candidate Route S1 (referred to as Route Variation S1A) that avoids work on Milk Alley and generally follows the alignment suggested by D2 on the call that comes around the front of the site where there are fewer utilities and planned roadway construction.  |
| 2/12/2021 | Cambridge Redevelopment Authority (CRA) | Tom Evans, Alexandra Levering, Steve Engle (Sasaki)                     | Yes (10% concept plans for planned streetscape designs near new substation site)                            | The purpose of this meeting was to coordinate future planned streetscape improvements contemplated by the CRA in and around the new substation site with Eversource transmission line construction contemplated on Broadway, Third and Ames Street area. The CRA, with assistance from their consultant (Sasaki) has prepared 10% design drawings for this area. The preliminary design includes reconfigured bike lanes, landscape plantings and street trees, and pedestrian access improvements (including sidewalks and crosswalks). The CRA indicated that one of their goals through this initial design was to avoid the need for tree removal along Broadway and within the median of Broadway. The CRA explained that these 10% preliminary designs would be advanced to a final design by others through the permitting process by Boston Properties as part of its development and MIT as part of its Volpe Center development. A discussion also ensued regarding proposed improvements by MIT on the Volpe Center site, drainage infrastructure improvements by the City of Cambridge within Broadway, and gas and steam line upgrades being advanced by BioMed Realty, and how this work might align with streetscape improvements and Eversource's transmission line construction.   | A follow up meeting will be scheduled to continue these discussions and coordinate with other developers in and around Broadway and Third Street, including the Volpe Center project.   |
| 2/22/2021 | Cambridge DPW                           | Kathy Watkins, Jerry Friedman, Nikole Bulger (STV, Inc.), Jim Wilcox    | Yes (2/22/21: as-built plans of recently installed MWRA infrastructure at Gore/Medford Street intersection) | The purpose of this meeting was to provide an update on the top two candidate routes within the Kendall, Putnam and Somerville Study Areas, with a particular focus on the Kendall Route segments on Broadway and recent discussions with the CRA regarding potential future streetscape improvements. Regarding Somerville Candidate Route S11C that predominantly collocates with the future location of the City's planned Grand Junction Railroad Multi-use Path, Eversource provided an update on the current preliminary layout and consultations with the MBTA. Cambridge indicated that they had relatively recent as-built plans of drainage work conducted by a private developer (Div. Co.), whereas MWRA infrastructure was modified. Cambridge will forward these plans to Eversource to incorporate into the design plans for Candidate Route S11C. Cambridge pointed out that the City's multi-use path easement across the Millers River Apartment property may need to be modified to include language allowing for the construction and operation of the transmission line (Cambridge will follow up on this point). The balance of the discussion focused on work along Broadway and how the new transmission line infrastructure aligned with planned improvements by the City and the MIT Volpe Center development, including possible colocation opportunities to minimize impacts particularly to street trees located along Broadway and within the median of Broadway. Cambridge DPW indicated that the portion of the median on Broadway between Ames Street and Galileo Way, where there are presently few shade trees, is scheduled to be removed (and not re-built) as part of a separate Boston Properties drain project. Follow up meetings to be scheduled on this topic.   | A follow up meeting will be scheduled to continue these discussions and coordinate with other developers in and around Broadway and Third Street, including the Volpe Center project. 2/22/21: as built plan data provided for Gore and Medford Street.   |

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| 3/5/2021  | CRA   | Tom Evans, Alexandra Levering, Steve Engle (Sasaki)   | No  | The purpose of this meeting was to provide a general overview of the EFSB process, primarily route selection, and an overview of the top two candidate routes within the Kendall, Putnam, Brighton and Somerville Study Areas, with a particular focus on the route segments located in Cambridge. The CRA inquired about potential opportunities for collocating transmission line infrastructure with the multi-use pathway along the Grand Junction Railroad. The CRA also inquired about opportunities to sequence and coordinate work with the City to avoid to the extent practicable having to trench or alter roads on separate occasions for separate projects. Eversource indicated that there would be opportunities to minimize impacts in that manner and they would continue to coordinate closely with the City as the different schedules develop further. There was a discussion about the portions of the Kendall Routes within the median of Broadway, and that the City would coordinate with MIT and Eversource to evaluate potential route variations that would avoid tree removal within the median (including possible accommodations within or adjacent to the Volpe Center project development that is currently under review by the City). The CRA inquired about possible transmission line routes exiting the New Substation site on Binney Street, with Eversource explaining that there is insufficient room in that location given the extensive distribution lines (48 circuits total) that are proposed to exit onto Binney Street, including associated heat / rating concerns with the transmission line infrastructure.   | A follow up meeting will be scheduled with the CRA as the routing process advances and design details are refined.  |
| 3/8/2021  | MassDCR   | Sean Casey, Jim Comeau, Steve Cyr, William Gode, Ginna Johnson, Jeff Perenti, Jen Norwood, Jason Santos, Tom Valton, Dan Driscoll, Tom Larosa | No  | Eversource provided MassDCR with an update on the top transmission line routes proposed in the Putnam and Brighton Study Areas relative to crossing MassDCR properties (Memorial Drive, Charles River Reservation including Magazine Beach and Paul Dudley White Bike Path). MassDCR provided feedback on the proposed trestle bridge/self supporting utility bridge crossing concept including a discussion of potential challenges with the existing pile supported bike path that travels beneath the B.U. Bridge and how the Eversource design would potentially transition onto it or over it (expressing concerns about the elevation changes and potential for significant ramps). The MassDCR further indicated that there was no room east of the B.U. Bridge because of the B.U. sailing pavilion. MassDCR noted that the Anderson Bridge was just recently restored and Eversource clarified that there would likely be space within the paved roadway deck to install the transmission line duct bank without materially affecting the facade of the bridge. MassDCR further noted that the Western Avenue and River Street Bridges would be repaired in the future, which Eversource was aware of, and that coordination would need to occur with MassDOT as the owners of the bridge. MassDCR indicated that they are a cooperating agency through the Federal FEIS process for the MassDOT Allston Multimodal Project. Eversource provided additional detail and clarification regarding the work that is contemplated on Magazine Beach and the west side of the Charles River for the proposed HDD crossing. MassDCR indicated that from their perspective the deeper the transmission line infrastructure the better, so as to avoid potential impacts to trees, cultural resources and future use of their facilities. MassDCR indicated that future work at the B.U. rotary should not effect Eversource's transmission line routing or construction through that area.   | A follow up meeting will be scheduled with MassDCR as the routing is refined and the design is advanced.  |
| 3/8/2021  | MWRA  | Kevin McKenna, Becky Weidman, Nitin Choksi, Stephen Cullen, Peter Yarossi   | Yes (utility information overlaid with top routes in each study area) | The purpose of this call was to provide the MWRA with an update on the top routes within each Study Area, including a review of MWRA infrastructure that would potentially be crossed by the routes. Regarding the MassDOT Alston Multimodal Project area, the MWRA indicated that it was not presently contemplating any relocated utilities in that location although that could change as MassDOT advances its design, particularly through the so-called "throat" area, and selects a preferred alternative. The MWRA indicated that they could provide more specific feedback after Eversource develops its plan and profile drawings. Generally speaking, the MWRA would ideally want the proposed transmission line duct bank above its facilities to the maximum extent practicable. This is particularly true for sewer infrastructure; less of a concern for water lines.   | Eversource will provide more detailed transmission line duct bank alignments to the MWRA. After the MWRA has a chance to review and compare against its facilities, a follow up meeting will be scheduled with Eversource. The MWRA will also provide a list of proposed / future MWRA projects in the Study Area(s). |
| 3/8/2021  | Somerville Dept. of Infrastructure & Asset Management ("IAM") | Rich Raiche, Brian Postlewaite  | No  | The purpose of this meeting was to provide a general overview of the EFSB process, primarily route selection, and an overview of the top two candidate routes within the Somerville Study Area, including in and around the D2 development site. Regarding the D2 site, IAM indicated that the developer will be installing extensive utilities along Milk Alley that could present a design and constructability constraint. IAM further noted that constructing route variations located towards the front of the D2 site approaching Prospect Street, should be sequenced to avoid impacts to pedestrian access onto the Green Line Extension train platform that is scheduled to be completed in late 2021. IAM also expressed concerns about the transmission line duct bank construction in this area (the main entrance to the Green Line train platform and D2 site) relative to altering the open space area that is scheduled to be installed by D2 in this location and then ultimately turned over to the City of Somerville. IAM indicated that the City would prefer not to see this area torn up shortly after it was installed. IAM and Eversource discussed possible sequencing and coordination that could occur to avoid and minimize these types of impacts. IAM did not identify any obvious constraints along Linwood Avenue or Washington Street, noting that they would be installing a large pump station in that area but it should not have any effect on the transmission line duct bank construction. IAM suggested that Eversource coordinate closely with the MBTA regarding the trenchless crossing of the commuter rail tracks, noting that the MBTA installed sheet pile in this area that Eversource should factor into its design and trenchless crossing construction methodology. IAM indicated that the parking lot/auto storage lot at the corner of Columbia Street that would potentially be crossed by Route S1, is scheduled to be developed as green space in the future and the proposed transmission line should not constrain that type of redevelopment. | Eversource will coordinate further with D2 and the City of Somerville regarding routes crossing the D2 site approaching Prospect Street.  |
| 3/10/2021 | BWSC  | Phil Larocque, Irene McSweeney  | City of Boston infrastructure previously provided.                    | The purpose of this meeting was to provide the BWSC staff with an update on the top routes within the Brighton Study Area, including potential routes and route variations being analyzed through the MassDOT Allston Multimodal Project area. The BWSC indicated that the currently proposed top routes do a good job of minimizing impacts to municipal utilities (sewer, water, etc.). The BWSC indicated its preference for keeping the transmission lines as deep as possible with at least 2-foot separation between the new transmission line and existing utilities. The BWSC noted that the 48-inch diameter MWRA cast iron water line on Franklin Street could present constructability challenges; and Eversource noted that the useable corridor width on Franklin Street is very narrow. The BWSC indicated that they would accept electronic copies of the design as it is advanced to 30% and 70%, and would be pleased to provide more detailed comments at those design milestones.  | Eversource to coordinate further with BWSC as design is advanced to 30% and 70%.  |

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| 3/11/2021 | Boston PIC  | Todd Liming   | 525 Lincoln Street Development Plans         | Like the BWSC meeting above, the purpose of this meeting was to provide PIC staff with an update on the top routes within the Brighton Study Area, including potential routes and route variations being analyzed through the MassDOT Allston Multimodal Project area. There was a general discussion about potentially collocating the transmission line over the Charles River on a self-supporting utility bridge paired with a future multi-use pathway, with PIC noting that such a structure would not be owned or maintained by the City and that MassDOT or MassDCR would likely need to take on that responsibility. The PIC further noted that they were not aware of any similar plans presently being advanced by the City or State. Regarding the River Street bridge crossing over the Charles River, Eversource explained that the transmission line would likely be located in the bridge deck versus attached to the side. Regarding routes through the Multimodal Project Area, the PIC indicated that to the extent those routes are constructable, from the City's perspective they are preferred because they avoid construction on city roads and neighborhoods. Transmission line construction on North Harvard Street and Cambridge Street will require comprehensive Traffic Management Plans and the work will likely be slow. At Lincoln Street, the PIC indicated that the existing parking lot at #525 is proposed to be redeveloped with a 6-story building (the PIC provided the permit drawings after this call).  | Eversource to coordinate further with BWSC as design is advanced to 30% and 70%. Eversource Engineering to review development plans for #525 Lincoln Street relative to utilities in the adjacent streets.   |
| 3/15/2021 | MassDOT   | Vivek Trivedi, Joe Doucette, Carrie Lavallee, Guy Rezendes, Mike O'Dowd   | MassDOT infrastructure previously provided.  | Eversource provided a general overview of the routing process conducted to date, including a more focused discussion on route segments located in or near MassDOT facilities (Multimodal Project Area, McGrath Highway, Massachusetts Avenue bridge approach onto Memorial Drive, River Street Bridge, Western Avenue Bridge). MassDOT indicated that Somerville is actually in District 4 (not District 6) and that coordination should also occur with the District 4 Engineer (April Antonelli). April can speak to McGrath Highway but MassDOT noted that a lot of work is planned in and around that roadway but that going beneath it with a trenchless crossing should be ok but that District 4 can provide more detailed plans, etc. MassDOT indicated that planned repair work to the River and Western Bridges (likely limited to deck replacement vs. full re-build) may be reinitiated in the near future, contingent upon funding. MassDOT indicated that they may add a pedestrian tunnel crossing to convey the existing bike path beneath the bridge and thus eliminate the existing at grade crossing. Eversource indicated that if the River Street bridge is used for the new transmission line, based on their review of the existing utility data there is likely sufficient space within the existing bridge deck to accommodate it. There was general consensus that the Eversource schedule aligns pretty well with the MassDOT schedule to repair these bridges. MassDOT provided an update on the different designs being analyzed for the Multimodal Project "throat" area, and that greater clarity will not be known until late summer / early fall 2021. MassDOT indicated that from their perspective, locating the transmission line on the River or Western Bridges is more favorable given the complexity, unknowns and coordination required to bring a new transmission line through the Multimodal Project Area (including a no-build scenario). Regarding a no-build scenario, MassDOT indicated that the transmission line should not be located in a manner that has the potential to hamper their future plans, which could be 25 years out. MassDOT further indicated that a multi-use pathway crossing of the Charles River is not part of the Multimodal Project Purpose and is not under consideration at this time. | MassDOT will put Eversource in touch with its Project Manager for the River and Western Bridge projects. Eversource will coordinate with the District 4 Engineer and will provide MassDOT with a typical duct bank detail, relative to lines utilizing the River or Western Avenue Bridges.  |
| 3/16/2021 | Harvard   | Joe Beggan, Ham Hackney, Will Donham, Kyle Higgins, Joe O'Farrell, Bob Manning, Shellan Fitzgerald, Mark Handley, Andy Boyd | Harvard infrastructure previously provided.  | The purpose of this call was to continue discussions regarding potential routes across the Allston Multimodal Project Area, on land that is owned by Harvard, specifically, the "No Build" Brighton route variation should the Multimodal Project not advance to construction. Harvard noted that the No-Build transmission alignment proposed by Eversource should be shifted further south closer to the MBTA tracks to avoid impacts to a potential Harvard "air rights" development that would span the MBTA tracks in this location (approximately 19-feet above the tracks supported by pile supported foundation). Harvard suggested that locating the No Build alignment within the layout of a future MBTA bypass road (the "middle bypass road") would likely avoid impacts to its foundation design and development layout. Harvard indicated that a parallel discussion should also occur with the MBTA to confirm that such a layout would not adversely impact their facilities.   | Eversource to adjust the alignment of its No Build Route variation (B2AN) across the Multimodal Project Area, coordinate with the MBTA regarding same, and continue discussions with Harvard.  |
| 3/18/2021 | MIT and Cambridge DPW   | Kathy Watkins, Jim Wilcox, Nikole Bulger, Ted Bulger, Jerry Friedman, Ben Lavery, Bryan Walsh                               | N/A  | The purpose of this meeting was to determine if there were other options available to Eversource to install the Kendall Transmission Line Route within Broadway or across the MIT Volpe Center development site to avoid removing mature public shade trees from the roadway median and utility conflicts. The City of Cambridge indicated that it would not support removal of those trees. Eversource described the space constraints within Broadway that make it very difficult to install a line in that roadway, given the high utility density (particularly at the Third and Broadway intersection) and future utility work being contemplated by Cambridge and adjacent developments (Volpe, BP project, etc.). MIT described the challenges of locating the line across its property, relative to its development plans. MIT suggested that it may be feasible to route the transmission line across the western edge of its property near the existing pedestrian pathway, while also avoiding mature trees along that segment. Under this scenario, the transmission line would cut across the Volpe site in a North - South direction from Broadway, turning east onto Potter Street and then north onto Fifth Street to Monroe Street, to Third Street to Linskey Way or Binney Street, as the line works its way over to the Kendall Substation via Second Street.  | MIT will provide Eversource with cross-sectional utility data it has generated along Broadway. Eversource will review this information to facilitate a follow up discussion with MIT and Cambridge regarding the feasibility of locating the line on Broadway. Eversource will also update its route mapping to reflect potential route variations across the Volpe site. Follow up meeting to be scheduled. |
| 3/24/2021 | Boston PIC and Inspectional Services Department (ISD), Architectural Access Coordinator | Todd Liming, Brian Ronan, Sarah Leung   | No   | The purpose of the meeting was to provide with an update on the top routes within the Brighton Study Area, including potential routes and route variations being analyzed through the MassDOT Allston Multimodal Project area. There was a general discussion about potentially collocating the transmission line over the Charles River on a self-supporting utility bridge paired with a future multi-use pathway. Eversource described the potential significant constructability challenges associated with such a design but that they continue to evaluate it. Eversource also described the other top routes involving an HDD crossing of the Charles River and bridge crossings via the River Street Bridge and Anderson Bridge. ISD indicated that from their perspective, using the River Street was pretty straightforward and that while the other roadway segments will present traffic management challenges during construction, they were likely manageable. When developing traffic management plans for construction, it was recommended that Eversource evaluate pedestrian access (sidewalk, crosswalks) and maintaining parking and access for persons with disabilities. It was further recommended that Eversource coordinate closely with the Mayor's Office of Neighborhood Services, particularly as it relates to work proposed on roads within residential neighborhoods.  | No specific routing changes as a result of this call.  |

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| 3/25/2021 | Cambridge DPW              | Kathy Watkins, Nikole Bulger, Ted Bulger, Jerry Friedman, Jim Wilcox  | No   | This meeting was a follow up to the 3-18-21 meeting with Cambridge DPW and MIT (MIT was unavailable for this meeting). This meeting focused on the Kendall Route segments within Broadway to determine if another slot existed within the roadway layout or adjacent MIT Volpe Site (or sidewalk) that could accommodate transmission line duct bank and manhole construction and avoid impacts to the mature public shade trees within the middle median of Broadway. Topics discussed included feasibility of utility relocation (including challenges of moving gravity-mains), utility survey status, generating section views for additional evaluation, and potential to locate the line on a portion of the MIT Volpe Site to avoid utility constraints, especially near the Broadway and Third Street intersection. The north side of Broadway appears to have more space, from a utility density perspective, when compared to the south side of Broadway. Cambridge DPW provided clarity regarding what they believe to be to the extent of existing utilities (noting that test pits may be necessary to confirm actual locations of utilities). Regular meetings will be held going forward with Cambridge DPW and MIT to advance this discrete routing segment.  | Eversource to evaluate the feasibility of an alternate slot within Broadway to avoid work in the tree-lined median. Future coordination meetings to be held with Cambridge DPW and MIT. Existing utility data provided by MIT.   |
| 3/30/2021 | MassDOT Highway District 4 | April Antonelli, Leonard Areisa, Eric Nora, Brian Fallon, John Gregg, Tim Paris, Jose Roza, Ray Stinson, Sara Timoner | Subsequent to the call, MassDOT provided PDF plans for the Prospect Street/Newton Street bridge area and McGrath Highway area. | The purpose of this meeting was to update MassDOT's District 4 office regarding route segments being advanced through Somerville, including Route S11C that travels beneath McGrath Highway in two locations and Route S1 that involves work near the MassDOT controlled bridge(s) at Newton Street and Prospect Street (adjacent to the Somerville Substation). MassDOT indicated that the Newton Street bridge will be rebuilt by MassDOT in the near future (currently in preliminary design phase). The bridge work is currently planned for October 2022. No immediate plans for McGrath Highway although MassDOT staff noted that there have been discussions in the past with stakeholders about eventually rebuilding this road to improve traffic flow and access through the Somerville area. Michael Trepanier at MassDOT is the point of contact. MassDOT indicated that plans of McGrath Highway can be obtained through their plans and records department. The proposed jack-and-bore crossing beneath McGrath Highway for S11C was discussed, and MassDOT suggested that as the design advances there may be opportunities to shorten it but it really depends on the bridge foundation design and the detailed design of the transmission line. Regarding the segment of S11C that travels beneath McGrath at Washington Street, MassDOT did not express any concerns.   | No specific routing changes as a result of this call. Eversource will incorporate McGrath Highway footing details in the transmission line design drawing set.   |
| 4/1/2021  | MIT & Cambridge DPW        | Kathy Watkins, Jim Wilcox, Nikole Bulger, Ted Bulger, Jerry Friedman, Ben Lavery, Bryan Walsh, Julie Farrer           | Utility and cross section details along Broadway   | The purpose of this meeting was to provide additional feedback to some of MIT's questions regarding potential routes across the Volpe property and/or along Broadway (paved limits or sidewalk). Topics discussed included avoiding impacts to existing trees and future landscape plantings on the Volpe property, the potential location and depth of the transmission line in Broadway and across the Volpe parcel, types of surface improvements that would be allowed over a transmission line, soil and groundwater management during construction, sequencing, schedule and general coordination of projects, relationship between MIT's planned gravity sewer line and connections to infrastructure in Broadway, etc.  | In consultation with MIT and the City, Eversource will evaluate a transmission line route that generally follows the edge of the Volpe Center property line along Broadway to avoid street trees in the middle median of Broadway. MIT to advance its design plans for utility connections onto Broadway, with the goal of potentially identifying a slot for the new Eversource line.   |
| 4/2/2021  | D2 & IAM                   | Justin Kunz, Greg Karczewski, Kara Pellaton, Patrick Nihan (ICO Energy), Brian Postlewaite                            | D2 previously provided elevator design plans for work near Green Line platform, including elevator.                            | This meeting was a follow up to the 3-8-21 meeting with IAM and focused on potential route variations on the D2 parcel. D2 indicated that Milk Alley will be congested with utilities from the development and was not optimistic that a slot could be found to accommodate the Eversource transmission line. There was also a discussion regarding the need to maintain access to the parking garage entrance and pedestrian access on Milk Alley to the Green Line platform. Milk Alley is the primary service entry for the proposed buildings. It will be comprised of asphalt; Bennett Court will provide vehicular access to Prospect Street and will be comprised of concrete and pavers. Bennett Court will have a heavy "pedestrian feel" to it, with limited vehicular traffic. Milk Alley is about 20-feet wide and main egress from the site. There are several gravity fed utilities (sewer, etc.) which are deep (~16-feet approaching the MBTA tracks). There was also a discussion regarding the route variation that brings the line towards Prospect Street and accessing the Somerville Substation with a jack-and-bore beneath Prospect Street, or looping the line in front of the D2 building following a proposed 6-8 foot wide pedestrian pathway. The proposed elevator presents a challenge for the jack-and-bore variation because its foundation is relatively deep (~8-feet plus another 12-feet of flowable fill to strengthen soil). There was also a discussion about construction sequencing and scheduling and how the work might be conducted to minimize disruption to the D2 parcel and future tenants.  | Eversource to continue to evaluate utility information and feasibility of constructing the new transmission line in Milk Alley, elevator foundation details and route variations across the D2 parcel.   |
| 4/8/2021  | MIT & Cambridge DPW        | Kathy Watkins, Jim Wilcox, Nikole Bulger, Ted Bulger, Jerry Friedman, Ben Lavery, Bryan Walsh, Julie Farrer           | No   | This meeting was a follow-up to the 4-1-21 meeting. The team continued to evaluate the feasibility of locating the new transmission line on Broadway, generally following a potential slot along the MIT/Volpe Center property line and adjacent sidewalk area to avoid removal of street trees and very dense utility congestion within Broadway and Third Street intersection. There was a discussion regarding the amount of space (or lack thereof) that might be available to construct the City's new storm drain and the new transmission line. There was also a discussion regarding the feasibility of relocating potentially unused infrastructure in Broadway to create space for the new transmission line (e.g., empty Eversource electric distribution line conduits or Eversource gas line(s)). Potential route variations across the Volpe Center site were also discussed, including a variation that exits the New Substation to the east, down the alley between the Biogen building and Thermo Fisher Scientific Building, across Loughrey Walkway and onto Potter Street. Eversource noted that a steam line exists in this location which could present a challenge to installing the new line, relative to ratings and constructability. In addition, this route should be aligned with the Volpe Center parcel that will ultimately be turned over to MIT to avoid crossing land that will remain with the federal government following construction of the Volpe Center site. MIT noted that the owner of the referenced steam line may be planning to relocate it as part of a separate upgrade project and recommended that Eversource consult with the owner (Vicinity) to confirm same. Regarding other route variations across the Volpe Center site, MIT noted that it is challenging to commit to such routes until they have received local approvals from Cambridge for the Volpe Center redevelopment, and encouraged Eversource to focus on more predictable routes that "hug" the property line along Broadway or perhaps the alley route variation described above. Lastly, there was also a brief discussion regarding the types of surface treatments that might be compatible with the underground transmission line as it relates to operation and maintenance of the line. | Eversource will continue to meet weekly with the City of Cambridge and MIT to explore route variations along Broadway, including a potential route that generally follows the MIT property line along Broadway. Eversource to also further explore relocating existing infrastructure, generating cross sections in Broadway to determine if there is sufficient space for the new transmission line and the City's drain line upgrade project, and other route variations (e.g., alley way and other locations across the MIT Volpe Center site). |

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| 4/8/2021  | Somerville Representative Stakeholder Meeting | Kate Byrne, Sarah Dunbar, Mike Katz, Jim McGinnis, Ann Camara, Philip Parsons, Michele Hansen               | No   | The purpose of this meeting was to obtain feedback regarding the current top-two Somerville Candidate Routes (Routes S1 and S11C). Eversource provided a project overview, including a general discussion of other Eversource upgrade projects in and around the Somerville Substation area. The stakeholders indicated that they have been significantly burdened with ongoing construction projects in this area of Somerville and asked for improved coordination and cooperation between project proponents, including within Eversource. Eversource described the steps and measures they are taking to improve such communication and coordination. As one example, Eversource explained the close coordination they are undertaking with the developer of the D2 site, MBTA and the City of Somerville to locate a segment of Route S1 across that development site. The stakeholders indicated a general preference from Route S1, indicating that on paper it appeared to be less impactful to businesses in the area. The Washington Street segment of Route S11C has experienced significant construction and traffic related impacts over the past couple of years. Eversource described the route selection process and how different criteria are evaluated and compared to identify a Preferred Route and Noticed Alternative Route. The stakeholders inquired as to how load forecasts are developed, given the incredible amount of development in the Somerville and Cambridge areas. There was also a discussion regarding efforts that could be undertaken by Eversource to beautify the Somerville Substation site (recognizing that it is located in the gateway to the Union Square area), including landscape and hardscape screening and art work. During construction, the stakeholders indicated that the "Union Square Neighborhood Council" would consider hosting a "Monitoring Committee" to monitor the construction process and ensure that Eversource is following through on its commitments.   | Eversource to continue comparing and contrasting Route S1 to S11C to identify the Preferred Route and Noticed Alternative Route.   |
| 4/12/2021 | BTD/DPW                                       | Amy Cording, Para Jayasinghe  | No   | The purpose of this meeting was to provide the Boston Transportation Department and Public Works Department with an update on the project and the status of transmission line routing through the City of Boston. There was a general discussion regarding schedule, project costs, coordination with other stakeholders and agencies, and proposed routes through the Allston Multimodal Project Area (including a recommendation from Boston for continued close coordination with MassDOT staff should the potential transmission line routes be advanced through the Multimodal area given the risks and uncertainty of that separate project and its overall implementation and schedule to the Eversource project).  | Eversource to continue coordinating closely with MassDOT, MassDCR, Harvard, MBTA and other stakeholders to determine feasibility of routing through the Multimodal project area.   |
| 4/16/2021 | MIT and Cambridge DPW                         | Kathy Watkins, Nikole Bulger, Ted Bulger, Ben Lavery, Bryan Walsh   | No   | This meeting was a follow-up to the 4-8-21 meeting. The team continued to evaluate potential route variations to avoid the dense utility congestion on Broadway and the removal of public shade trees in the middle median. Regarding the potential variation that exits the New Substation to the east, down the alley between the Biogen building and Thermo Fisher Scientific Building, across Loughrey Walkway and onto Potter Street, this route is likely infeasible with the steam line in its present location. If the steam line was relocated by others to facilitate adjacent development activities, it is possible that space would be available to install the new line notwithstanding the potential operational concerns that would need to be evaluated relative to this heat generating source. Eversource will discuss this potential alignment further with substation personnel (relative to the ability of the line to connect into the new substation from this direction) and Boston Properties (to determine if they have any plans to relocate the steam line). The team also discussed the status of existing distribution lines and gas lines in Broadway and if it was feasible to relocate or reconfigure (stacked vertically) this infrastructure within Broadway. The City of Cambridge provided photographs of recent manhole inspections showing the condition of existing distribution line duct banks. Eversource will discuss further with the distribution team. There was also a discussion regarding the status of gas pipelines in Broadway, and whether or not it was feasible to relocate these lines to accommodate the new transmission line.   | Eversource to continue evaluating the different route variations being contemplated along Broadway relative to the existing and future utility infrastructure and public shade tree constraints.   |
| 4/21/2021 | MIT and Cambridge DPW                         | Kathy Watkins, Nikole Bulger, Ben Lavery, Bryan Walsh, Julie Farrer, Ted Bulger, Jim Wilcox, Jerry Friedman | No   | The purpose of this call was to coordinate Eversource's different disciplines / subject matter experts on the topics of gas, distribution and transmission, and whether space exists or could be created to install a new transmission line in Broadway. Regarding existing gas lines, the team reviewed Eversource's GIS maps depicting existing gas line infrastructure. Eversource explained that the four separate gas lines within Broadway are all under different pressures and serve different uses and customers and it is not feasible nor practicable to consolidate this infrastructure. The large diameter cast iron gas pipes along Potter approaching Third Street do not result in the same concerns as smaller diameter gas pipes (from cracking, etc.), so some of these older pipes are not presently in Eversource's 5-year maintenance / upgrade plans to be replaced. The team also reviewed the cross sections of Broadway. Eversource to provide Cambridge DPW with depth information of gas lines and information regarding location of 10-inch diameter gas pipeline, from their existing records. Regarding electric distribution lines, Eversource provided information and presented GIS mapping information depicting the locations of existing infrastructure. Eversource explained that relocating distribution lines to create space, presents several challenges including the existing line that is located in the median (beneath existing street trees) should it be removed, would result in the tree removal the project is trying to avoid. Regarding the feasibility of relocating two other distribution lines, this work would require 6 x 10-foot manholes and two duct banks (~63-inches footprint) and would need to find its own slot (like the new transmission line). Could potentially be located along the Volpe Center property line/sidewalk along Broadway but this slot was being considered for the new transmission line. The distribution lines do not have the same operational concerns relative to impacts from trees (i.e., drawing moisture from ground) when compared to transmission lines. Regarding exiting the New Substation to the east via the alley onto Potter Street, Eversource explained that it was not feasible to use the alley route because the distribution circuits (48 total), ventilation equipment and large equipment egresses, restrict access / wall penetration from this direction. In addition, the route bend into the substation is unattainable and too narrow. | Eversource to provide Cambridge DPW with depth information of gas lines and information regarding location of 10-inch diameter gas pipeline, from their existing records. Eversource will forward the preliminary plan and profile design drawings for Broadway. Coordination to continue after Cambridge DPW and MIT have chance to review. |

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| 4/30/2021 | MIT and Cambridge DPW | Kathy Watkins, Nikole Bulger, Ben Lavery, Bryan Walsh, Julie Farrer, Ted Bulger, Jim Wilcox, Jerry Friedman                  | Yes   | <p>The call focused on the questions and comments provided by the Cambridge DPW subsequent to the 4-21-21 call and its consulting engineer regarding the transmission line alignment that follows the MIT/Volpe Center property line and sidewalk area along Broadway to Third Street (versus routes crossing through the MIT/Volpe Center site), reasoning that this was potentially a more likely routing scenario given other constraints and coordination issues with alternate routes and the opposite side of Broadway. MIT's consulting engineer also provided further analysis regarding utility connections/service connections to Broadway (water, fire, gas, electric, stormwater), building construction and other ancillary work associated with the Volpe Center redevelopment and Broadway. MIT noted that the existing trees within the Volpe Center site are proposed to be removed as part of their development and would thus not be impacted if the Eversource transmission line was located along the property line and sidewalk, noting that trees on the other side of the existing sidewalk would remain. Significant utility constraints exist at Third Street intersection which would still need to be addressed in the final route alignment. The final transmission line alignment (vertical) would also need to consider the perpendicular utility connections from the Volpe Center development to Broadway and the building foundation(s). The transmission line alignment could potentially shift further onto the Volpe property above the proposed city drain to provide greater separation from the trees that would remain. MIT asked if it was feasible for Eversource to consolidate and relocate certain existing electric distribution line duct banks and gas lines (active and abandoned) to create more space for the installation of the new transmission line. Eversource noted there is no room to add additional circuits to the existing distribution line duct bank in the median of Broadway. However, there was one section of empty distribution line duct bank that could potentially be relocated (subject to further evaluation) to create a slot for the transmission up to Third Street. This potential alignment would also potentially require the relocation of a 2nd distribution line to mitigate heat transfer issues, and finding space for that could be a challenge. The minimum separation distance / threshold that would effect the rating would need to be studied by Eversource to identify that minimum setback / encroachment. Further, there may be insufficient space on opposite side of median to relocate the distribution lines. Eversource to consider these suggestions related to feasibility, efficiency of space, schedule, cost, constructability, engineering and design, and report back on future call. Next call will also focus on utility constraints at the Third Street intersection and how the alignment navigates that intersection.</p> | Eversource to further evaluate its existing infrastructure and the feasibility of creating a slot for the new transmission line through the consolidation and relocation of other utilities.   |
| 5/7/2021  | MIT and Cambridge DPW | Nikole Bulger, Catherine Lewis (VHB), Ben Lavery, Julie Farrer, Ted Bulger, Jim Wilcox, Jerry Friedman                       | Yes   | <p>This call was a follow-up to ongoing discussions generated from the 4-30-21 call. MIT noted that there are still potential opportunities for navigating the Broadway/Third Street intersection at the corner of the Volpe Center site, while being mindful of tree removal in that location, the future municipal culvert and ongoing reviews by the Cambridge Planning Board. VHB will send out the concept plans in this location for additional review and analysis. There was also a follow up discussion regarding the feasibility of consolidating existing utilities in Broadway to create space for the new transmission line duct bank, including a rating analysis undertaken by Eversource to determine how close they could get to other live distribution infrastructure. A minimum 3-foot offset from the live distribution infrastructure would enable the transmission line to meet its design ratings; not clear yet if the existing distribution line can meet its rating requirements (to be determined by Eversource through further analysis). MIT's consultant, VHB, noted that the gravity sewer line corridor from the Volpe Center site to Broadway needs to be maintained (by lining existing sewer) and that the present survey is based on assumptions and requires additional accuracy (i.e., test pits to confirm locations of existing Eversource infrastructure). Cambridge noted that this type of information could advance the decision making process and finalize the route selection. Regarding gas line infrastructure on Broadway, Eversource reported that they continue to review GIS files and other sources of data regarding the existence and location of the 10-inch diameter high pressure gas line (ongoing). Eversource also presented its alignment through Third Street for review and discussion. Cambridge inquired about timing of plan and profiles and cross section views, particularly near the Biomed property and future services that could constrain the future transmission line corridor by Eversource.</p>   | Eversource to continue evaluating potential effects to ratings for transmission line and distribution line infrastructure. MIT to determine if they can advance test pit work. MIT will forward its development plans for corner of Volpe Site; Eversource will provide its existing conditions data for Third Street and Linsley Way segments to Second Street. Eversource will continue to research the location of the referenced 10-inch diameter gas line. Eversource will also coordinate with Biogen/Trimont Engineering regarding sharing of their future utility plans. |
| 5/14/2021 | Cambridge DPW         | Kathy Watkins, Nikole Bulger, Ted Bulger, Jerry Friedman, Jim Wilcox   |   | <p>The purpose of this meeting was to finalize the path of the transmission lines as they exit the New Substation onto Broadway, relative to existing and future utility work by Cambridge, such that Boston Properties can advance the design of their development site. Cambridge indicated that the route segment was acceptable from an engineering perspective and looks forward to reviewing the more detailed plan and profile drawings. Cambridge also asked Eversource to provide survey data associated with existing utility depths along Broadway.</p>  | When available, Eversource will provide the plan and profile drawings and utility survey data (vertical depths) on Broadway.   |
| 5/14/2021 | MIT and Cambridge DPW | Kathy Watkins, Nikole Bulger, Ben Lavery, Catherine Lewis, Bryan Walsh, Julie Farrer, Ted Bulger, Jim Wilcox, Jerry Friedman | Yes (conceptual routing sheets from MIT/VHB on Broadway in front of Volpe site) | <p>This meeting was a follow up to the 5-7-21 meeting and focused on alignment in Broadway. Eversource noted that its survey data has depths to its existing distribution lines, vertical and horizontal, with a level of accuracy of about 6-12" using ground penetrating radar (GPR) and will provide this data to MIT and VHB to facilitate ongoing design work by both parties. VHB/MIT will review the data and update its section view and then determine if supplemental test pits are needed. Plan and profile drawings for the Kendall Routes are a priority for Eversource and should be available for review in about 3-4 weeks. Regarding consolidation of existing Eversource infrastructure on Broadway, Eversource to assess future needs of this infrastructure in consultation with the distribution team and related costs of such work. Cambridge DPW noted that it would be a topic of discussion at the "Pole and Conduit Commission" in the future. Eversource further noted that it is important to understand what MIT's load growth requirements will be in the future as they develop the Volpe Center property as it relates to the need to maintain duct banks and our pathways in and around the Volpe site.</p>   | Eversource to provide the GPR survey data to MIT/VHB who will review it relative to its current utility connection layout and make any necessary adjustments (provided on 5-14-21). Eversource to also provide updates on schedule to generate plan and profile drawings. MIT to follow up with Eversource regarding planning for distribution load needs, relative to system planning.  |

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| 5/20/2021 | MBTA                  | Christine Bresnahan, Cornelius McEleney, Quyen Chung, Jack Martin                            | No   | Eversource provided an update on the project, including a status of the top routes relative to existing MBTA facilities within each study area. Do any of these routes require the relocation of an MBTA power duct bank? Does Eversource have current utility information from the MBTA, now that the routes have been narrowed down to a more workable set of top routes? Eversource to confirm same and follow up as necessary with the MBTA to ensure we have the most accurate data to facilitate the design, including as-built drawings of the Green Line station platform specific to Route S1A. Regarding S11C that follows the Grand Junction RR corridor and future multi-use pathway, Eversource noted that as the engineering is advanced they will consult accordingly with the MBTA regarding this work and the proposed at-grade road crossings. Regarding the Brighton routes, Eversource noted that they continue to advance the transmission line design such that it crosses over the top of the MBTA Red Line subway tunnel on Main Street, and that Route B29B over the Charles River trestle bridge does not look feasible given constructability, permitting, environmental and schedule constraints relative to the future potential use of the bridge and the unknown status of the Allston Multimodal Project throat design through this area. Eversource noted that B29D is being advanced as a potential alternate route in lieu of Route B29B. Regarding the no-build alternative across the multimodal project site, the MBTA pointed out that this route should be discussed with the commuter rail division. The MBTA noted that Route B30 through Harvard Square will require more coordination than other routes relative to existing utilities and infrastructure. The MBTA also looks forward to receiving construction details from Eversource as they become available in the future.  | Eversource to provide the MBTA with KMZ files of the top routes, a summary of the routing process, relevant sheets from the 30% design drawing sets, and Red Line subway tunnel crossing details. Eversource to also coordinate with the MBTA regarding utility survey data and as-builts at the new Green Line station platform.             |
| 5/28/2021 | MIT and Cambridge DPW | Nikole Bulger, Ben Lavery, Bryan Walsh, Julie Farrer, Ted Bulger, Jim Wilcox                 | No   | Discussions continued about potentially collocating closer to the existing distribution lines in Broadway. Eversource noted that a determining factor will be the anticipated distribution power needs for MIT's Volpe redevelopment, to ensure that distribution infrastructure is not prematurely consolidated or relocated when it might be needed to power Volpe and other adjoining properties/developments. MIT will provide its projected energy need estimates to Eversource with a reasonable degree of conservatism. MIT is also continuing to advance the schedule to perform confirmatory test pits along Broadway. Eversource will continue to evaluate the route segment through the Third Street intersection and navigating the corner of the Volpe project site based on the conceptual design of the City's drain line infrastructure project. Regarding the existing gas line infrastructure, Eversource continues to evaluate this and will confirm the location of the infrastructure through its record drawings and potential test pit work.   | MIT to provide update on status of test pits and projected load needs for the Volpe development. Third Street and Broadway intersection to be reviewed further on next call (Eversource will review the CAD files provided by MIT/VHB). Eversource to confirm location of gas line infrastructure.  |
| 6/2/2021  | Cambridge DPW         | Nikole Bulger, Jim Wilcox, Jerry Friedman  | No   | The purpose of this meeting was to discuss Eversource's separate distribution line "mitigation" project work and, secondarily, coordination / timing relative to the Grand Junction Multi-Use Pathway should Eversource identify transmission line Route S11C as the Preferred Route upon completion of the analysis, including cost estimating. Cambridge indicated that they are at about 25% design with the multi-use pathway design and presently working through public bidding and procurement process, with work starting potentially as early as 2022 from Binney to Cambridge Streets. Regarding distribution line work, Eversource presented an update on the potential alignment that follows Prospect Street and Harvard Street to a manhole in Broadway. There are currently 2 duct banks on Harvard Street, and the new duct bank will be located adjacent to the existing distribution line infrastructure within the street following the curb line to avoid work on sidewalks (where distribution infrastructure presently exists) and potential shade tree removal. Cambridge DPW noted it is planning utility work in Harvard Street and will coordinate further with Eversource regarding this work. Cambridge DPW will review the concept provided by Eversource and provide feedback regarding its feasibility relative to existing and future infrastructure, particularly within Harvard Street. Ideally the distribution line construction would start late summer / early fall 2021, with goal of being in-service by summer 2023, potentially working through winter months depending on weather conditions and City approvals given the scope of duct bank work to be installed. Cambridge noted that they would prefer Eversource to work over the winter on this project, given demand for police details during summer and ability to staff construction crews. Eversource noted that they would also likely work in multiple locations, depending on volume of work taking place and where it is advantageous to do so, being mindful of minimizing impacts to residents and businesses. | Eversource to provide a typical cross section view or plan view of the distribution duct bank along Harvard Street depicting the layout of the duct bank in the street; and copy of route map presented at the meeting. Cambridge DPW to review concept and provide feedback at future meeting. Distribution line route map dated REV 6-1-21. |
| 6/4/2021  | MIT and Cambridge DPW | Nikole Bulger, Ben Lavery, Bryan Walsh, Julie Farrer, Ted Bulger, Jim Wilcox, Jerry Friedman | No   | This meeting focused on transmission line installation along Broadway and through the Third Street intersection. MIT's consultant (VHB) overlaid the conceptual location of the storm drain mitigation project and the new transmission line, for further review and evaluation by Eversource. MIT also provided preliminary electric load requirements for its Volpe redevelopment project, relative to the need to preserve (or abandon) existing distribution line infrastructure along Broadway.  | Eversource to review the overlaid storm drain information and continue to assess use of a corner of the Volpe project site with the storm drain infrastructure to avoid utility issues in the Third Street intersection.  |
| 6/8/2021  | Cambridge CRA         | Tom Evans, Alexandra Levering  | No   | The purpose of this meeting was to provide an update on the status of routing along the Grand Junction Railroad Corridor(s) and along Broadway. Regarding the Grand Junction Railroad routes, Eversource noted that the trestle bridge routes would not likely be advanced further due to the complexities of the crossing and coordination issues/uncertainty with the MassDOT Multimodal Project, particularly through the "throat area", as well as ADA challenges and permitting and design challenges. Regarding Route S11C that would follow the Grand Junction Multi-Use Pathway project into Somerville, Eversource continues to advance the design of this route. The CRA staff and DPW previously provided Eversource with the 90% design drawings for the Binney Park portion of the route to coordinate the alignment and sequencing of work. Regarding the Kendall Routes along Broadway, the CRA staff indicated that they would be supportive of the alignment along the Volpe property line particularly if it would facilitate construction of a contiguous 14-foot wide sidewalk in front of the Volpe development site.  | Brighton routes involving the trestle bridge crossing of the Charles River not likely to be advanced further.   |



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| 6/24/2021 | MassDCR                 | Sean Casey, Keenan Brinn, William Gode, Ginna Johnson, Jeff Perenti, Raul Silva, Tom Valton       | No  | The purpose of this meeting was to review the work proposed on Magazine Beach and activities requiring Article 97 approval. Eversource walked MassDCR through a PowerPoint presentation describing the project including why it is needed, a review of top routes and where they cross on MassDCR properties, the routing analysis process, consultation meetings conducted to date with MassDCR, proposed mitigation measures (land exchange (6 parcels identified for evaluation)), and status of trestle bridge routes (B29B no longer proposed as a top route), and HDD methods (noting that splice vault located off Magazine Beach property and HDD entry pit located at extreme edge of Magazine Beach near Memorial Drive). Eversource also discussed routing across the Multimodal Project Site, including the no-build option (B2AN) should the multimodal project not be advanced by MassDOT. DCR noted that Memorial Drive may undertake a road diet in the future, and that work in Memorial Drive should be coordinated closely with staff. Eversource to coordinate with Jennifer Norwood regarding potential outreach. DCR inquired about construction duration and timing, noting goal is to file with EFSB by end of year with permitting completed by end of 2023, to be followed by 3-4 years of construction. DCR also asked if the work was year-round or seasonal; with Eversource noting that preference is to work year-round pending feedback from stakeholders and minimizing impacts to DCR facilities. Regarding work on Memorial Drive west of BU Rotary may be subjected to road diet, and the rotary itself might also be modified. DCR noted that there may be an opportunity to partner with DCR regarding timing of work and restoration plans for Memorial Drive (a possible benefit), and transportation component and conversations with Cambridge regarding final configuration of Memorial Drive.   | DCR to coordinate internally and report back on next steps.  |
| 7/1/2021  | MIT and Cambridge DPW   | Nikole Bulger, Ben Lavery, Bryan Walsh, Catherine Lewis, Julie Farrer, Jim Wilcox, Jerry Friedman | Yes (overlay of transmission line and drain infrastructure) | MIT proceeding to have Bond Bros. under contract to perform test pitting work in and around Broadway for the Volpe development and future City infrastructure projects. Data is expected in early August to share with the technical team. The team discussed the overlay of the transmission line with the City's drain project, as the facilities cross the corner of the Volpe site to avoid utility constraints in the Third Street intersection. Cambridge noted that they would entertain having a portion of the new transmission line located over the existing drain line and offset slightly for balance of route, to facilitate future access and maintenance. Sanitary service for Volpe also needs to be considered in the design and maintaining inverts for gravity flow. More flexibility for other services that are not gravity driven but still need to be mindful of space constraints. MIT wants to maintain existing storm drain because it would likely require the removal of trees in a substantive way, and removing the infrastructure would require the removal of the trees. There was also a discussion regarding timing of construction with Volpe starting in 2024 at the earliest. This generally aligns with the start of construction for the Eversource project in 2024. There was also a discussion regarding potential impacts from tree removal to navigate corner of Volpe site, and how the design(s) might be modified to minimize these potential impacts. Cambridge DPW explained that trees with a DBH of 6-inches or greater should be avoided to the maximum extent practicable, and that any proposals to remove such trees requires a comprehensive alternatives analysis and engineering justification supported by the City (high bar to meet). The trees along Broadway are also substantially large and not feasible to temporarily remove and re-plant. However, it may be feasible to work near mature trees and consult with the City Arborist about such work (including potentially temporarily modifying roots during construction). There was also a brief discussion regarding the existing gas line infrastructure. | MIT & Eversource to further consider the transmission alignment west of trees along Broadway, continuing diagonal across Volpe site to Third Street. MIT & Eversource will circle back with Eversource Engineering on this point.  |
| 7/8/2021  | MIT and Cambridge DPW   | Ben Lavery, Bryan Walsh, Jim Wilcox, Nikole Bulger  | No  | MIT described modifications to the conceptual design for the drainage infrastructure across the Volpe corner, including the location of the 54-inch diameter drain line and manholes, and where the 54-inch drain line transitions into a 72-inch drain line. There was also a discussion regarding design considerations to avoid and minimize alterations to trees on Broadway. The modified drain line design does create more space and potential opportunity to route the transmission line across the Volpe corner, while being mindful of existing trees and the future layout of the park. There was also a discussion of whether a section of the existing 54-inch drain line in Broadway could be abandoned and if it could be abandoned, how long would it need to remain active until the new infrastructure is installed. Eversource noted that it could explore repurposing the existing drain infrastructure, should it be abandoned, as a pathway for the new transmission line. One obvious challenge is the bend radius as the drain line pathway approaches the Third Street intersection. Regarding trees, some of the trees bordering Third Street have been identified by MIT as being in poor health and there may be an opportunity to route the transmission line through this area. Cambridge described the public hearing and permit review process for tree removal on private and public lands, including the assessment of alternatives to avoid trees, assessments to determine the health and vigor of trees by qualified arborists, and mitigation concepts. MIT noted that the Volpe redevelopment project does not presently contemplate the removal of any trees on public land. Trees to be removed are on private property within the Volpe site. Regarding test pits, MIT continues to move forward to identify existing utilities in Broadway (expected to start the week of July 19, and it is about a 2-week effort with the data likely available in August).  | Eversource to determine if the existing 54-inch diameter drain line could be utilized as a pathway for the new transmission line (should the drain line be abandoned).<br>MIT to add tree details to the conceptual plans for further discussion and re-send updated CAD file. |
| 7/13/2021 | Magazine Beach Partners | Catherine Zusy, Phil Michael, Ken Carson, Rebecca Bowey, Susan Lee                                | No  | The purpose of this meeting was to introduce the Project, and specifically work proposed on or near MassDCR's Magazine Beach property to the Magazine Beach Partners stakeholder group (see <a href="https://magazinebeach.org/">https://magazinebeach.org/</a> ). Eversource described the need for the project, the schedule and steps that have been taken to avoid, minimize and mitigate impacts to the maximum extent practicable including specifically Magazine Beach (Article 97 process, HDD, location of splice vaults and exit pit, avoid trees, avoid athletic and recreational facilities, restoration plans, timing of work to minimize impacts, etc.). In addition to a general discussion about the Project, the Partners posed the following questions to Eversource, which were subsequently discussed during the call: (1) What locations does the new transmission line need to connect, what is its planned voltage (kV), how much capacity (MVA) will it provide immediately, and how much capacity is planned for the future? Will the line bring power into Cambridge, away from Cambridge, or simply provide additional grid resilience? Is this planned as a one-time activity, or should we expect additional transmission lines every few decades? (2) How many underground utility vaults are planned over the distance of the line, and what is the maximum planned distance between these utility vaults? In the event of any problems in the transmission line, how do you locate the problem area and how much digging is required to identify and repair a problem. (3) How will the transmission lines be cooled? And what requirements/restrictions will there be on the land above the lines. (4) Assuming the transmission lines will be cooled with circulating oil, what mitigation plans does Eversource have in the event of a leak or other incident? (5) After this line is established, should we expect follow on activity, or has the lower voltage distribution out of the Putnam substation covered us for the next couple of decades?  | Eversource will continue to coordinate closely with the Magazine Beach Partners as the design is advanced for the top Brighton routes. Magazine Beach Partners will also circle back with Eversource as they have follow up questions and comments.                            |

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| 7/16/2021 | MIT and Cambridge DPW   | Kathy Watkins, Nikole Bulger, Catherine Lewis, Jim Wilcox, Jerry Friedman, Ted Bulger                     | Yes (MIT previously provided AutoCAD filings of Volpe drain infrastructure alignment) | Eversource provided a summary update regarding the status of routing along Broadway and across the Volpe site. The intent of the current alignment is to generally follow the location of the future sidewalk along the frontage of the Volpe site, while avoiding tree removal and existing and future utility conflicts to the maximum extent practicable. There was a brief discussion regarding other potential conceptual alignments across the western edge of the Volpe site that might result in fewer challenges (to be determined). A site visit will be scheduled in the next couple of weeks with the City of Cambridge to field truth some of these areas and get a better understanding on what, if any, trees might be impacted by the transmission line versus those that are proposed to be removed as part of the Volpe redevelopment and/or are otherwise determined to be in poor condition based on input from the City Arborist.   | Site visit to be scheduled with City of Cambridge DPW and Tree Warden to evaluate the routing alignments and trees potentially affected by its construction. Review and overlay Volpe Tree Mitigation Plan with the transmission line alignment.   |
| 7/27/2021 | Allston/Brighton Neighborhood Groups (Allston Civic Association, Harvard Allston Task Force, Friends of Honan Library)              | Cindy Marchando, Anthony D'Isidoro, Tom Lally, Paula Alexander, Mary Helen Block, Wayne Yeh, Ed Kotomori  | No  | The purpose of this meeting was to present the preliminary top routes within the Brighton Study Area within the City of Boston (Allston/Brighton area) and solicit feedback and input regarding the preferences of the represented neighborhood groups, and to respond to questions about the project. The discussion focused on Route B30 West in and around the Brighton Substation, including challenges of installing a new line down Franklin Street. There was a strong preference for the other routes that avoid coming into the substation from this direction (e.g., B29D West), noting that Route B30 West would be very impactful to residents in this area and would cause significant community disruption (only 2-way street in neighborhood, heavily travelled by cyclists) relative to other routes that follow Cambridge Street into the substation facility. There was also a discussion regarding the feasibility of putting some of the existing overhead distribution lines underground as part of the project, future outreach, how the project increases reliability in the area (without drawing power away from the Allston/Brighton area into Cambridge), how the project addresses existing and future growth, anticipated substation upgrades and opportunities to beautify the area particularly near the existing substation, existing infrastructure constraints, schedule and duration of construction.   | Additional stakeholder meetings will be scheduled including upcoming open houses. Eversource will also circle back to provide additional input regarding some the questions asked about need, load growth, list of permits and potential mitigation measures.  |
| 7/29/2021 | MIT and Cambridge DPW   | Ben Lavery, Bryan Walsh, Nikole Bulger, Catherine Lewis, Jim Wilcox, Jerry Friedman, Ted Bulger           | No  | Eversource provided a summary update regarding the status of routing along Broadway and across the Volpe site. MIT noted that test pit work had started in Broadway to confirm the location of utilities. The team reviewed the tree survey prepared as part of the Volpe redevelopment project, relative to the proposed drain line project and new transmission line project, with the goal of routing these facilities such that they avoid healthy trees to the maximum extent practicable. There was also a discussion regarding potential route variations along the western edge of the Volpe site, while being cognizant of MIT's development plans and existing mature trees in that area. MIT indicated that without further detail, they could not support a route along that portion of the site given planned utilities, foundation work, concerns with construction sequencing, and the status of their preliminary designs which have not yet received permits and approvals. MIT was also concerned about possible impacts to the mature trees bordering the property line in that location.   | A site visit will be scheduled in the near future with the City Arborist, DPW, MIT and Eversource to review the potential transmission line routes, utility information and existing trees.  |
| 8/2/2021  | Cambridge Neighborhood Groups (Kendall Square Association, Linwood Park Neighborhood Association, MITMCO, CRA, MIT Campus Planning) | Bob Simha, Matt Connolly, Alex Barbat, Kelley Brown, Tom Evans, Ben Lavery, Jason Stockman, Charles Hinds | No  | The purpose of this meeting was to present the preliminary top routes within each study area and solicit feedback and input regarding the preferences of the represented neighborhood groups, and to respond to questions about the project. The discussion around the top Brighton, Putnam and Kendall Routes focused on the shortest, most direct routes, potential route options in and around Broadway and Third Street (including the Volpe site), existing infrastructure constraints, schedule and duration of construction. A similar discussion occurred for the Somerville Routes S1 and S11C, along with questions about soil and groundwater management during construction, coordination with the future multi-use pathway project (including limits of work associated with each project), and duration of construction near residences along the pathway segment of Route S11C. Some of the stakeholders on the call whom about Route S11C indicated a preference for Route S1.   | Additional stakeholder meetings will be scheduled including upcoming open houses   |
| 8/4/2021  | CRA   | Tom Evans, Alexandra Levering   | No  | The purpose of this meeting was to simply provide an overview of the top routes within each study area to CRA staff.   |  |
| 8/9/2021  | MIT   | Ben Lavery, Amanda Strong, Amy Apfelbaum, Allen Breed   | No  | <p>The purpose of this call was to discuss Route B29D down Vassar Street where it crosses over MIT property referred to as the former "Cal-Paint" site. MIT expressed concern with potential soil contamination on this parcel, responsible parties for the remediation effort(s) should contaminated soils be identified during installation of the transmission lines, future development plans, and potential route variations that would not cross this parcel and potentially avoid these contaminated soils. Eversource proposed two route variations, referred to as B29E and B29F, for discussion and consideration. These route variations are located west of B29D. MIT indicated that B29F, as currently laid out, would potentially impact future development on this MIT owned parcel (no plans currently proposed by MIT, 10-15 years out, but concerned about how the transmission line might constrain future building layouts). This route would potentially be less impactful to future development on this parcel if it was shifted further south towards the property line following the sliver of MBTA land as much as possible before crossing beneath the railroad tracks onto the Alexandria parking lot on the Waverly Road side of the railroad tracks. B29E, in theory, would avoid MIT property including the former Cal-Paint site, provided MBTA granted relief to its crossing standards for the jack and bore of Grand Junction Railroad (less than perpendicular crossing).</p> <p>A brief discussion also occurred regarding the Kendall Routes across the Volpe site, and some modifications Eversource made to the alignments to further minimize potential impacts to MIT's development footprint and drain line mitigation project and trees. Eversource also inquired if it was possible to align the route parallel to the easterly property line for a longer distance to avoid less work on Third Street. To be reviewed further in the field with Cambridge DPW and Eversource.</p> | Eversource to evaluate these routes further, including conceptual footprints for jacking pits, to determine feasibility. Future meeting to be coordinated with MIT. MIT to provide additional information regarding any records or assessments they have in their files describing potential contamination issues on these parcels of land. Follow-up meeting to be scheduled. |

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| 8/10/2021 | MIT & Cambridge DPW | Kathy Watkins, Ben Lavery, Ted Bulger, Jim Wilcox, David Lefcourt, Andrew Putnam | No  | The purpose of this site visit was to review potential transmission line alignments (routes K5A/6A) between Broadway and Third Street, including across a portion of the Volpe Center site, and in consideration of protecting existing trees, future development activities, and existing and future utility constraints. There was a review of potential routing locations along Broadway (following the existing water line/gutter line), transition points across the Volpe Center site to avoid utility congestion at Third Street and Broadway where impacts to trees and future development plans would be avoided or minimized, and collocating with future sidewalk and greenspace areas. There was general consensus that these route alignments appeared workable and that Eversource would prepare conceptual graphics depicting same for future discussion. There was also a discussion of potential route variations across the western portion of the Volpe site (referred to as Routes K10 through K12). Conceptually, these routes would cut across the portion of the site that is presently turf grass, but which will be developed by MIT to accommodate subsurface groundwater recharge facilities, and surface treatments potentially consisting of basketball courts and other recreational components. It was noted that if a transmission line route was advanced across the Volpe property in this location to reach Potter Street, the limit of work would need to be at least past the existing canopy / drip line of the mature oaks that border the pedestrian walkway to avoid impacts. The design would also have to consider the above referenced facilities that MIT proposes to install, and which remain in flux pending ongoing City review and permitting. MIT further noted that constructing a transmission line along this segment of the Volpe site also presents construction sequencing and coordination challenges that would be minimized with the other routes (K5A/6A) that cut across the site approaching the Broadway/Third Street intersection. MIT indicated that given these challenges and concerns, its preference would be to see the new transmission line follow Broadway towards Third Street where it would ultimately turn to the northeast across the Volpe site (as described above). | Eversource to prepare a conceptual graphic depicting the potential alignment of Route K5A/6A across the Volpe Center site for further discussion and evaluation.  |
| 8/12/2021 | Cambridge DPW       | Nikole Bulger, Kathy Watkins, Jim Wilcox   | No  | The purpose of this call was to continue discussions regarding Third Street. Cambridge DPW provided Eversource with plans for future gas line improvement work on Third Street and adjacent side streets (e.g., Kendall Street, Atheneum Street) to make sure that work was being properly coordinated and that these planned gas line upgrades did not further constrain Eversource's ability to locate the new transmission line. Eversource noted that they were aware of the proposed gas line improvements on Atheneum and Kendall Streets, and that those streets were determined to have insufficient space for the new transmission line early on in the routing process and that Eversource did not contemplate locating the new transmission line on those roads. Regarding Third Street, based on an initial review of the plans provided by Cambridge DPW, it appeared that the gas line work would not affect Eversource's ability to install the new transmission line. Eversource will share the plans with its design engineers to confirm same. Cambridge DPW also provided drawings from recent Verizon fiber optic cable installation work that Eversource should be mindful of as it finalizes its transmission line design and layout. Cambridge DPW noted that they will likely require full time inspectors overseeing and monitoring Eversource's work during the construction period, would like to see the future distribution line and transmission line work depicted together on a map so they can understand the full scope of construction, and would continue to work closely with Eversource to define restoration plans following construction.   | Eversource's design engineers to confirm gas line work and future Verizon upgrades do not constrain future transmission line work.  |
| 8/16/2021 | MIT                 | Ben Lavery, Amanda Strong, Amy Apfelbaum, William Burns                          | No  | This call was a follow up to the 8-9-21 meeting regarding potential route variations to B29D (variations E and F). After some discussion and a review of the conceptual route alignments, it was agreed that Route B29F was preferable over B29D and E because it avoided the Cal-Paint site and had less potential to constrain MIT's future development plans at #351 and #640 Memorial Drive. It could also cross the MBTA Grand Junction Railroad tracks at a nearly perpendicular angle relative to the other routes, consistent with the MBTA's Directorate. There was also a discussion regarding the alignment of K5A/6A across the corner of the Volpe site to avoid utilities in Broadway and Third Street. The proposed conceptual alignment was acceptable to MIT and Eversource agreed to advance the design and generate a more refined route alignment that could be reviewed by MIT and its engineers for additional review. MIT noted that if feasible they would prefer to have the access agreements and easement documentations substantially complete on or before the EFSB filing later this year. Eversource indicated that they would work proactively with MIT to achieve that goal.   | Updated route alignments across MIT's Volpe Center site and MIT-owned land along Vassar Street. There was consensus that Eversource could move forward with route B29F and the adjusted alignments for routes K5A/6A across the Volpe Parcel. Eversource will continue to work closely with MIT to prepare and finalize any necessary access agreements and easement documents. |
| 8/19/2021 | MIT & Cambridge DPW | Ben Lavery, Bryan Walsh, Nikole Bulger, Kathy Watkins                            | No  | Eversource provided an update on Route K5A and indicated that they were refining the route further and would provide additional information prior to the next call. The Cambridge DPW requested maps depicting the current top routes in each study area and distribution lines. MIT noted that they were working with Eversource to advance easement documents.  | Eversource to refine Route K5A and provide update at next meeting.  |
| 9/2/2021  | MIT & Cambridge DPW | Ben Lavery, Bryan Walsh, Nikole Bulger, Kathy Watkins                            | No  | Eversource presented the updated alignment to Route K5A where it crosses the Volpe site. The alignment will be provided to MIT and the City in CAD and PDF format for further review. There was a discussion regarding the placement of the splice vaults (22'x7'x7') on the Volpe property and what sort of flexibility Eversource had to adjust them or offset them as MIT's development plans for this area are advanced. Eversource also described what would be visible at the surface (~36" diameter manhole covers, 4 total). MIT noted that if these could be located within hardscape areas (like a walkway) versus grassed areas, that would be preferable. Cambridge DPW noted that the splice vaults and transmission cable on Linskey Way are located pretty close to public shade trees that could result in impacts. Eversource will take a closer look at that segment. There was a discussion regarding utility information that should be added to the plan as such data becomes available.   | Eversource will provide CAD files and PDF map set of K5A for further review and discussion by MIT and Cambridge DPW. Updated route alignment across the MIT Volpe Center site.  |
| 9/16/2021 | MIT & Cambridge DPW | Ben Lavery, Bryan Walsh, Nikole Bulger, Jim Wilcox                               | Yes (VHB overlaid the K5A/6A alignment onto the Volpe development plans for further discussion) | There was a general discussion regarding next steps and ongoing coordination between MIT and Eversource relative to working through the design details including final locations of manholes on the Volpe site. MIT indicated that they could likely find a location / space to install the manholes on its property. There was also a discussion regarding the manholes and how the access covers might be incorporated / accounted for into the open space surface treatments MIT intends to construct (grassed areas vs. hardscape areas). MIT will consult with their landscape architects regarding conceptual plans for this area. Regarding the proposed stormdrains, MIT asked Eversource if it was possible to jog the transmission line cable slightly on Broadway to avoid conflicts with the drain manhole. Eversource noted that this seems doable and will take a closer look in next iteration of the design. Cambridge indicated that the northerly drain manhole would not likely be necessary as an intermediate manhole, creating more space for the transmission line cable. Eversource forwarded N. Bulger (SVT) a more readable version of the utility plans depicting the water line locations. The plans will be forwarded to Trimont Engineering to include the proposed gas line relocation work.   | MIT requested that Eversource further define the potential areas on the Volpe site where the manholes could be shifted on the Volpe property. Determine if the tree(s) on Broadway are likely to be impacted by the proposed transmission line construction based on field visit.   |

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| 9/29/2021  | MassDEP Boston                      | David Wong  | No  | The purpose of the meeting was to introduce the Project to the dredging group at DEP-Boston (relative to the potential HDD crossing), describe potential impacts during construction, proposed mitigation measures, approach to permitting, and overall schedule. DEP staff noted if a 401 dredge permit is determined to be necessary for the repositioning of sediment associated with the HDD work, they will require a contingency plan to avoid and minimize impacts to the Charles River and adjacent wetlands during construction. Eversource will schedule follow up meetings with DEP NERO staff as the project design details are advanced and the routes are finalized.  |   |
| 10/7/2021  | MIT & Cambridge DPW                 | Ben Lavery, Bryan Walsh, Kathy Watkins  | No  | Ongoing discussions regarding routing across the Volpe center site, including the locations of splice vaults and how they might be arranged to minimize potential constraints to MIT's future development plans. There was also a brief discussion regarding the status of top routes in Cambridge, including those that potentially cross the Volpe site (e.g., Routes K11 and K5A/6A) and the importance of avoiding impacts to the mature trees located along the westerly property line adjacent to the Loughrey bike path.   | Eversource will continue to work closely with MIT and the City of Cambridge to refine the layout and location of routes potentially crossing the Volpe site (K5A and K11).  |
| 10/4/2021  | MassDEP NERO                        | Jill Provencal  | No  | The purpose of the meeting was to introduce the Project to the wetlands analyst at DEP-NERO, describe potential impacts during construction, proposed mitigation measures, approach to permitting, and overall schedule. Because wetlands within the Project area are primarily associated with the Charles River, this meeting focused primarily on the top Brighton Routes including the potential HDD crossing. DEP NERO wetlands staff will consult with DEP Boston dredging staff to determine if an individual 401 WQC is required for the HDD crossing. Eversource will schedule follow up meetings with DEP NERO staff as the project design details are advanced and the routes are finalized.   | MassDEP NERO will coordinate with MassDEP Boston to confirm that an individual 401 WQC is required for the HDD crossing.  |
| 10/6/2021  | MEPA                                | Tori Kim  | No  | The purpose of the meeting was to introduce the Project to the MEPA office prior to filing the Environmental Notification Form ("ENF"), including a project overview, review of MEPA review thresholds and state permits and approvals (including Article 97), alternatives analyses, top transmission line routes, climate adaptation and resiliency considerations and environmental justice considerations (approach to outreach and communications) that will be described and analyzed in the MEPA filing.   | Eversource will submit the ENF in parallel with the EFSB Petition to commence the MEPA review process.  |
| 10/8/2021  | Harvard                             | Albert Ng, Will Donham, Andy Boyd, Ham Hackney, Bob Manning, and Mark Handley | No  | This was a check-in meeting to discuss Brighton Routes that cross over Harvard properties and the MassDOT Allston Multimodal Project Site. Eversource provided an update on the status of routing and shared prior graphics that conceptually show the transmission line alignments across the Multimodal Project Site. Harvard noted that the approximate locations of B2A and B2AN should continue to work, with the details and final alignments to be refined as the design is advanced. Eversource noted that they are coordinating with MassDOT now to obtain CAD data associated with the Multimodal Project design that can be overlaid with Eversource's proposed transmission line design.  | Eversource will continue to work closely with Harvard and MassDOT to refine the layout and location of routes potentially crossing MassDOT Allston Multimodal Project Site and Cambridge Street (Routes B2A/AN East and B29F West and B31 East).  |
| 10/13/2021 | East Cambridge Planning Team (ECPT) | Various community members of ECPT   | No  | The purpose of this meeting was to introduce the project to ECPT members following the Open Houses. The meeting focused primarily on routes in the Kendall Study Area although there was discussion about routes in the Somerville and Brighton Study Areas too. Much of the discussion focused on construction schedule and sequencing, route selection process, outreach and communications during construction. Some members of ECPT who live in the Third Square Apartments, indicated a preference for Route K11 over Route K5A because it would likely result in fewer impacts during construction by avoiding more of Third Street.  | Eversource will continue to keep ECPT updated as the Project is advanced through the siting and permitting processes and the selection of the Preferred and Noticed Alternative Routes are finalized.   |
| 10/15/2021 | D2                                  | Greg Karczewski, Pat Nihan, Justin Kunz, Kara Peloton                         | As-builts to be provided as follow up item to this meeting. | The purpose of this meeting was to continue discussion and coordination of Route S1 and Route Variation S1A across the D2 development site in Somerville, across Prospect Street from the Somerville Substation. The D2 team provided an update on the status of construction at their site, noting that all of their site utilities have been installed and that a binder coat of pavement would be installed soon. Some of the repaving work would have to be redone by Eversource after the transmission line is installed, along with other necessary restoration activities at the site. D2 indicated that they could provide Eversource with as-built drawings in about a month. D2 noted that access will need to be maintained to the Green Line Extension platform throughout construction. There was also a discussion regarding Route Variation S1A and how that work might be sequenced and coordinated with D2, who will have a large crane setup in that area for several months. Eversource will continue to explore opportunities to facilitate sequencing and coordination between the projects, with the goal of minimizing impacts and disruptions to the D2 site as much as possible. | D2 will provide as-built utility drawings to Eversource for its use in advancing the transmission line design of Route S1 and Route Variation S1A (when it becomes available). Eversource will also evaluate construction sequencing and installation schedule for transmission and distribution work.  |
| 10/19/2021 | Vicinity Energy                     | William Manning, Donald Silvia, Patrick Gillooly                              | No  | The purpose of this meeting was to provide an update on the project, specifically K11/K5A line routing within the fence line of the Kendall Substation facility as it relates to Vicinity's existing and potential future infrastructure upgrades. Eversource presented a concept plan, within the fence line, for discussion including the duct bank alignment and potential manhole location. Vicinity noted that the site is identified as an AUL, which Eversource will need to be mindful during construction. It was noted that a separate Eversource natural gas upgrade project is also planned at the Vicinity site.   | Eversource will coordinate with Vicinity to conduct survey and utility location work within the fence line. Follow up meetings to be scheduled as the project design is advanced including sequencing of work, schedules and construction coordination. Vicinity will review the materials provided by Eversource and circle back with Eversource with any follow up questions or comments. |

| Date       | Stakeholder             | Stakeholder Attendees/Invitees   | Plans or Other Data Provided by Stakeholder?                                    | General Summary of Input from Stakeholder   | Summary of Routing Updates and Follow Up Items with Stakeholder   |
|------------|-------------------------|--|---|---|---|
| 11/3/2021  | D2                      | Greg Karczewski, Pat Nihan, Justin Kunz, Kara Peloton  | Construction drawings of development site, including utility infrastructure.    | This meeting was a follow up to the 10-15-21 meeting. Additional discussions occurred regarding sequencing of the transmission line work relative to minimizing impacts to the D2 development and restoration requirements. Regarding Route Variation S1A, it was discussed that it could be potentially more impactful to D2 given the improvements planned in that area and related construction access and staging constraints for both D2 and Eversource (crane hoist setup, main entrance through Bennett Court). There was also a discussion of future distribution supply needs of D2 and other developments in the area, and how that future work could be collocated and sequenced with the separate transmission line work to minimize construction impacts. Eversource noted that its goal would be to install the new transmission line between the distribution line and water line that was recently installed by D2 on Milk Alley before turning onto Bennett Court. Regarding Route Variation S1A, shifting the turnaround further south might alleviate constraints at site entrance (Bennett Court); however, this would then require a trenchless crossing to get beneath concrete retaining wall of the Prospect Street bridge. It may also present challenges getting into the substation across the street.   | Eversource will evaluate potential adjustments to Route Variation S1A to determine its feasibility of avoiding work in Bennett Court site entrance (by shifting it further south). D2 will further analyze construction sequencing and scheduling, in consultation with its contractor. D2 will see if they have any preliminary as-built information for Mike Alley, primarily the distribution line and water line (as they current define Eversource's proposed transmission line corridor). |
| 11/10/2021 | MIT                     | Kelley Brown, Ben Lavery, Rich Lucas, Frances Boyle, Wade Berner, William Watts, Scott Stordy, Doug Tuttle, Kathryn Brown, Carlo Fanone, Janine Helwig | MIT previously provided its utility infrastructure maps for Vassar Street area. | This meeting was a follow up to prior meetings with the MIT utility group, and generally focused on routes proposed on Vassar Street. MIT noted that Vassar Street is congested with existing utilities and that MIT will likely install additional infrastructure in the road in the future for its central plant facility. Eversource described the utility survey data obtained to date, the size of the duct bank, the estimated depths of the duct bank, and the general depths of the manholes on Vassar Street to navigate the existing utility congestion. There was also a general discussion regarding the project schedule, filing process with the EFSB, and other roadway segments evaluated by Eversource in the area including Albany Street and the Grand Junction Railroad corridor, and a general review of the challenges each of these segments presented from a constructability perspective based on existing infrastructure.   | Future meeting to be scheduled with the MIT to review preliminary design drawings for the new transmission line and coordinate potential transmission line work on Vassar Street.   |
| 11/12/2021 | Army Corps of Engineers | Christine Jacek  |   | The purpose of this meeting was to introduce the project to the Corps of Engineers, including specifically those aspects of the project that are subject to Corps jurisdiction associated with the HDD work beneath the Charles River. The Corps confirmed that the proposed HDD work can be permitted as a Pre-Construction Notice ("PCN") under the General Permit that is in currently in effect for Massachusetts (see GP #9). The Corps also confirmed that the proposed geotechnical boring work in the Charles River can be conducted as a Self Verification Notification Form ("SVNF"). The Corps described the permit review process, including estimated review timeframes, consultation process with other agencies and the Tribal Historic Preservation Officer(s) ("THPO") and State Historic Preservation Officer ("SHPO"), and information needs/drawing requirements for the submittal.   | Eversource will coordinate further with the Corps after the HDD design work is sufficiently advanced for review and discussion. Subsequent to the meeting, the Corps issued the following file number for the project: NAE-2021-02941.  |
| 11/17/2021 | MassDOT                 | Guy Rezendes, Michael O'Dowd, Joseph Doucette, Rex Bryant, John McInerney, Carrie Lavallee, Vivek Trivedi, Robert Antico, Erin Kinahan                 | CAD Data of Multimodal Project Site   | Eversource provided an update on the top routes, including those that propose to cross the River Street Bridge and the MassDOT Allston Multimodal Project Site. MassDOT provided an update relative to the status of their design work for the River Street Bridge and how the projects could be coordinated. MassDOT noted that if the future Lincoln Street Connector is ultimately identified as a limited or controlled access highway, the federal highway administration may not permit the longitudinal installation of a transmission line in this location (requiring an alignment adjustment of Route B2A across the multimodal project site); not yet determined, should have additional direction/clarity by Q1/Q2 2022. MassDOT noted that construction of the multimodal project could commence in mid-2024 but more likely 2025 (which lines up pretty well with Eversource's schedule). MassDOT noted that from an alignment perspective, Cambridge Street South works best; Lincoln Street Connector works better for Harvard but less so for MassDOT; rail layover area no as convenient for MassDOT.   | Subsequent to the meeting, MassDOT provided Eversource with CAD data associated with the multimodal project site for its use in refining the routing through this area. MassDOT to reconfirm there is sufficient space in the River Street Bridge deck to accommodate the new transmission line duct bank. Eversource will provide MassDOT a typical cross section of the duct bank and River Street Bridge preliminary design drawings.  |
| 11/17/2021 | D2                      | Justin Kunz, Kara Pellaton, Greg Karczewski  | CAD Date of D2 development site, including utilities and other infrastructure.  | The purpose of this meeting was to continue discussions across the development site associated with Candidate Route S1, via Milk Alley or around the front of the development site approaching Prospect Street. Eversource indicated that it would continue to evaluate the feasibility of the different alignments being discussed along Milk Alley and the front of the site and that it would continue to work closely with the D2 team. There was a discussion regarding the challenges at the front of the site because of the elevator foundation, MBTA train platform, limits of work. Not likely feasible to install the new line between the elevator and the MBTA facility (existing infrastructure, etc.). D2 noted that it was not likely a viable path south of the elevator. There was also a discussion regarding D2's future distribution line needs for the development and how that separate work might align with the transmission line work. Distribution noted that it has more flexibility with route bends and how the duct bank transitions into the station. Eversource noted that the minimum depth of the distribution line is typically minimum 3-feet, but can go deeper. There was a brief discussion on the so-called "D3" parcel south of the railroad tracks that D2 contemplates redeveloping in the future. Eversource explained that it is coordinating with that landowner regarding access across the parcel, with the goal of locating the new transmission line as close to the easterly property line as possible. | D2 indicated that it would provide elevator foundation details, where new improvements are planned now and in the future at the plaza area, and geotechnical data to the extent available, to help facilitate Eversource's feasibility analysis. Eversource to evaluate feasibility further. D2 will also coordinate with its contractor regarding construction sequencing, schedule and coordination with Eversource and will provide more information at future meetings.                     |
| 11/18/2021 | MIT                     | Rich Lucas, Kelley Brown, Frances Boyle, Wade Berner, Doug Tuttle, Carlo Fanone, Janine Helwig   |   | This was a follow-up to the 11-10-21 meeting. The purpose of this meeting was to conduct a page turn of the preliminary engineering drawings developed by Eversource for Candidate Route B29F that follows Vassar Street. Comments and input were provided by MIT relative to existing and planned utility infrastructure, proposed manhole locations, proposed duct bank alignments, depth of duct bank installations, work on or near sidewalks, MIT facilities and shade trees, etc. There was also a general discussion regarding other routes that Eversource considered as part of its routing analysis in lieu of Vassar Street but ultimately did not select as top routes, including the Grand Junction Railroad corridor and Albany Street.   | Eversource and MIT will continue to coordinate efforts and share information regarding the transmission line work proposed on Vassar Street, transmission line routing in general, and other work proximate to MIT facilities in the project area.  |

| Date      | Stakeholder | Stakeholder Attendees/Invitees              | Plans or Other Data Provided by Stakeholder? | General Summary of Input from Stakeholder   | Summary of Routing Updates and Follow Up Items with Stakeholder   |
|-----------|-------------|---|--|---|---|
| 12/1/2021 | D2          | Justin Kunz, Kara Pellaton, Greg Karczewski |  | <p>The purpose of this meeting was to continue discussions across the development site associated with Candidate Route S1, via Milk Alley or around the front of the development site approaching Prospect Street. Regarding routes located along the southern edge of the site, Eversource indicated to the D2 team that some of these variations present challenges from a schedule, coordination and engineering perspective. The more southerly route variations at the front of the site that avoid the D2 hoist bay and cross directly under Prospect Street are not likely feasible from a substation and distribution infrastructure perspective. However, the northerly route variation across the front of the site would potentially work (identified as Route Variation S1A), potentially in a phased construction approach (to be determined). There is a crane pad and foundation along this alignment that would need to be avoided. The D2 team indicated to Eversource that its current preference, based on what was discussed on this call, is the route variation that follows the front of the site because it appears to be less impactful to their ongoing construction activities and site access than the route that follows Milk Alley and Bennett Court.</p> | <p>Follow up meetings will be scheduled to discuss timing and potential phasing of construction and refinements to the route variations at the front of the D2 site. D2 team will also provide a composite plan for use by Eversource to continue advancing the route alignment. Route S1A identified by D2 team as preferred alignment across the D2 site (to be analyzed further by Eversource and D2 team at subsequent working meetings).</p> |

**Appendix 4-2**

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Universe of Routes Summary Table

Appendix 4-2 Universe of Routes Summary Table

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS  | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS  | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS                   | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|--|---|---|---|--|
| B1 West  | Cambridge,<br>Boston                  | Broadway, I-90,<br>Buick Street,<br>Franklin Street,<br>Lincoln Street   | Grand Junction<br>Railroad, MBTA Red<br>Line Subway Tunnel,<br>MBTA Commuter Rail | None  | Charles River<br><br>(railroad trestle<br>bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto the Grand Junction Railroad corridor (following the southern edge), beneath Memorial Drive and onto the MBTA railroad trestle bridge crossing of the Charles River (beneath the Boston University Bridge). After spanning the Charles River and Soldier's Field Road, the route heads in a westerly direction through the City of Boston along the railroad corridor towards the Massachusetts Turnpike ("I-90"), where it crosses beneath the elevated roadway onto Buick Street towards the Beacon Park Yard Redevelopment Site (MassDOT Allston Multimodal Project Site). As the route approaches Lincoln Street, it heads north across I-90 via a trenchless crossing, onto Lincoln Street and then into the Brighton Substation from the south. |
| B2 East  | Cambridge,<br>Boston                  | Broadway, Ames<br>Street, Memorial<br>Drive, Soldiers<br>Field Road,<br>Allston<br>Multimodal<br>Project Site, I-90,<br>Cambridge<br>Street, Lincoln<br>Street | MBTA Red Line Subway<br>Tunnel  | Magazine Beach, Dr.<br>Paul Dudley White<br>Bike Path | Charles River<br><br>(trenchless<br>crossing)     | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route follows Ames Street to the intersection with Memorial Drive. At Memorial Drive, the route turns to the west following the east bound lanes to MassDCR's Magazine Beach property. At Magazine Beach, the route crosses the Charles River into the City of Boston via a Horizontal Directional Drill ("HDD") or micro-tunneling technique. After the route has crossed the Charles River, it would then follow the general alignment of the anticipated new location for Cambridge Street South that would be constructed as part of MassDOT's Allston Multimodal Project. The route then follows the existing Cambridge Street towards Lincoln Street, before connecting into the Brighton Substation from the south.          |



| ROUTE ID   | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS  | MAJOR<br>WATERBODY<br>CROSSINGS                | GENERAL ROUTE DESCRIPTION   |
|--|---------------------------------------|---|--|--|--|---|
| <p>B2A East<br/>(and route variations B2B East, B2C East, B2AN East)</p> | <p>Cambridge,<br/>Boston</p>          | <p>Broadway, Ames Street, Memorial Drive, Allston Multimodal Project Site, I-90, Lincoln Street</p> | <p>MBTA Red Line Subway Tunnel</p>       | <p>Magazine Beach, Dr. Paul Dudley White Bike Path</p> | <p>Charles River<br/>(trenchless crossing)</p> | <p>This route follows the same alignment as Route B2 East, up to MassDCR’s Magazine Beach property. At Magazine Beach, the route crosses the Charles River into the City of Boston via HDD or micro-tunneling. After the route has crossed the Charles River, it follows the general alignment of the anticipated new location for Lincoln Street Extension that is being constructed as part of MassDOT’s Allston Multimodal Project. The route then crosses existing Cambridge Street, towards Lincoln Street, before connecting into the Brighton Substation from the south.</p> <p>The Company also considered three minor alignment variations to Route B2A East specific to the orientation of the HDD path across the Magazine Beach property or the MassDOT Allston Multimodal Project Site. Alignment variation B2B East is located about 200 feet south of Route B2A East on the parking area at Magazine Beach, the purpose of which is to concentrate the workspace at the HDD receiving pit on previously developed paved areas and minimize the potential for tree removal. Like Route B2A East, the alignment variation B2B East aligns with the future location of Lincoln Street Connector on the west side of the Charles River.</p> <p>Alignment variation B2C East is reoriented slightly northward from Route B2A East, with no significant change in the HDD receiving pit location on Magazine Beach. This alignment variation aligns with the future location of Cambridge Street South on the west side of the Charles River. This alignment variation also avoids going beneath the historic 1818 Powder Magazine building foundation and tree removal along Memorial Drive.</p> <p>Lastly, alignment variation B2AN East proposes a slight alignment shift to either B2B East or B2C East relative to where those routes land on the MassDOT Allston Multimodal Project Site, west side of the Charles River. Unlike the other alignment variations, B2AN East does not follow the future potential roadway alignments through the multimodal site; rather, it generally runs parallel with the southerly property line of the Harvard property. This alignment variation provides routing flexibility should the Allston MassDOT Multimodal Project not be advanced into construction as currently proposed, while also minimizing potential future development constraints to the present landowner (Harvard) should they seek to develop this property in the future.</p> |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS                   | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS             | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|---|--|---|---|--|
| B3 West  | Cambridge,<br>Boston                  | Broadway,<br>Cambridge<br>Street, Prospect<br>Street, River<br>Street, Memorial<br>Drive, Western<br>Avenue, N.<br>Harvard Street,<br>Franklin Street,<br>Lincoln Street  | Grand Junction<br>Railroad, MBTA Red<br>Line Subway Tunnel | None  | Charles River<br>(Western Avenue<br>Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning north onto the Grand Junction Railroad corridor. The route turns west onto Cambridge Street, south onto Prospect Street and then across Route 2A onto River Street. At River Street, the route turns north onto Memorial Drive and then west onto the Western Avenue bridge that spans the Charles River into Boston. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the west side of the Charles River, the route follows Western Avenue to North Harvard Street, Franklin Street and Lincoln Street where it connects into the Brighton Substation from the south.   |
| B4 East  | Cambridge,<br>Boston                  | Broadway, Ames<br>Street, Main<br>Street, Sidney<br>Street, Franklin<br>Street, River<br>Street, Memorial<br>Drive, Western<br>Avenue, N.<br>Harvard Street,<br>Franklin Street,<br>Bradbury Street,<br>Mansfield Street,<br>Lincoln Street | MBTA Red Line Subway<br>Tunnel                             | Riverside Press Park                                  | Charles River<br>(trenchless<br>crossing)   | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route follows Ames Street to the intersection with Main Street. At Main Street, the route heads west before turning south onto Sidney Street, west onto Franklin Street and then southwest onto River Street. The route follows River Street to the Riverside Press Park (City of Cambridge park and playground area). From the playground area, the route crosses Memorial Drive and the Charles River in Cambridge and Soldier's Field Road on the Boston side of the river via HDD or micro-tunneling. The route then follows Western Avenue to North Harvard Street, Franklin Street, Bradbury Street, Mansfield Street and Lincoln Street before connecting into the Brighton Substation from the south. |
| B5 West  | Cambridge,<br>Boston                  | Broadway,<br>Prospect Street,<br>River Street,<br>Cambridge<br>Street, I-90,<br>Lincoln Street  | MBTA Red Line Subway<br>Tunnel                             | None  | Charles River<br>(River Street<br>Bridge)   | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street. The route follows Prospect Street across Route 2A (Massachusetts Avenue) onto River Street, and the River Street Bridge over the Charles River onto Cambridge Street in Boston. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. The route follows Cambridge Street over the I-90 ramps before exiting the shoulder of Cambridge Street onto Lincoln Street. At Lincoln Street, the route connects to the Brighton Substation from the south.   |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS                   | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS                    | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|---|--|---|--|--|
| B6 West  | Cambridge, Boston                     | Broadway,<br>Cambridge Street,<br>Peabody Street,<br>Massachusetts<br>Avenue, JFK Street,<br>N. Harvard Street,<br>Franklin Street,<br>Lincoln Street | Grand Junction Railroad,<br>MBTA Red Line Subway<br>Tunnel | None  | Charles River<br><br>(Anderson Memorial<br>Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway, before turning north onto the Grand Junction Railroad corridor to Cambridge Street. From Cambridge Street, the route heads west and then south onto Peabody Street and Massachusetts Avenue. The route then follows John F. Kennedy Street to the Anderson Memorial Bridge over the Charles River. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows North Harvard Street to Franklin Street and Lincoln Street where it connects into the Brighton Substation from the south.  |
| B7 West  | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Western Avenue,<br>Memorial Drive, N.<br>Harvard Street,<br>Franklin Street,<br>Lincoln Street                       | MBTA Red Line Subway<br>Tunnel                             | None  | Charles River<br><br>(Anderson Memorial<br>Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street. After crossing Route 2A (Massachusetts Avenue), the route heads in westerly direction along Western Avenue to Memorial Drive. The route then heads in a northerly direction along Memorial Drive before turning west onto the Anderson Memorial Bridge over the Charles River. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows North Harvard Street to Franklin Street and Lincoln Street where it connects into the Brighton Substation from the south.                                |
| B8 West  | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Harvard Street,<br>Massachusetts<br>Avenue, JFK Street,<br>N. Harvard Street,<br>Franklin Street,<br>Lincoln Street  | MBTA Red Line Subway<br>Tunnel                             | None  | Charles River<br><br>(Anderson Memorial<br>Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street. The route follows Prospect Street for a block before turning west onto Harvard Street. The route follows Harvard Street to Route 2A (Massachusetts Avenue) before turning south onto John F. Kennedy Street. The route follows John F. Kennedy Street to the Anderson Memorial Bridge over the Charles River. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows North Harvard Street to Franklin Street and Lincoln Street where it connects into the Brighton Substation from the south. |
| B9 West  | Cambridge, Boston                     | Broadway,<br>Cambridge Street,<br>Peabody Street,<br>Massachusetts<br>Avenue, JFK Street,<br>N. Harvard Street,<br>Franklin Street,<br>Lincoln Street | MBTA Red Line Subway<br>Tunnel                             | None  | Charles River<br><br>(Anderson Memorial<br>Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway and onto Cambridge Street for a short stretch before turning south onto Peabody Street and Route 2A (Massachusetts Avenue). The route continues in a southerly direction onto John F. Kennedy Street to the Anderson Memorial Bridge over the Charles River. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows North Harvard Street to Franklin Street and Lincoln Street where it connects into the Brighton Substation from the south.   |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                                 | MAJOR<br>WATERBODY<br>CROSSINGS            | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|---|--|---|--|--|
| B10 West | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Harvard Street,<br>Massachusetts<br>Avenue, Brattle<br>Street, Mt. Auburn<br>Street, Memorial<br>Drive, Soldiers<br>Field Road, Everett<br>Street, Aldie<br>Street, Bradbury<br>Street, Mansfield<br>Street, Lincoln<br>Street | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street. The route follows Prospect Street for a block before turning west onto Harvard Street. The route follows Harvard Street onto Route 2A (Massachusetts Avenue) before turning southwest onto Brattle Street and west onto Mt. Auburn Street. The route exits Mt. Auburn Street onto Longfellow (Riverbend) Park (a MassDCR park located within the Charles River Reservation adjacent to Memorial Drive). From Longfellow (Riverbend) Park, the route crosses Memorial Drive and the Charles River via HDD or micro-tunneling. On the Boston side of the Charles River, the route passes through MassDCR's Herter Park, largely running parallel with the Dr. Paul Dudley White Path, beneath the Eliot Bridge to Soldier's Field Road. The route follows Soldier's Field Road in a westerly direction before turning south onto Everett Street. The route follows Everett Street before turning east onto Aldie Street and then Bradbury Street. From Bradbury Street, the route heads south onto Mansfield Street and then west onto Lincoln Street before entering the Brighton Substation from the south. |
| B11 East | Cambridge, Boston                     | Broadway, Ames<br>Street, Main<br>Street, Sidney<br>Street, Franklin<br>Street, River<br>Street, Memorial<br>Drive, Kreggs Way,<br>Western Avenue,<br>Franklin Street,<br>Lincoln Street  | MBTA Red Line Subway<br>Tunnel           | Riverside Press Park  | Charles River<br><br>(trenchless crossing) | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route follows Ames Street to the intersection with Main Street. The route heads west on Main Street before turning south onto Sidney Street across Massachusetts Avenue. From Sidney Street, the route heads west on Franklin Street and then southwest on River Street across the Riverside Press Park playground area. From this playground area, the route crosses Memorial Drive and the Charles River in Cambridge and Soldier's Field Road on the Boston side of the Charles River via HDD or micro-tunneling. The route then heads in a northerly direction across Kreggs Way on the campus of Harvard University, before turning west onto Western Avenue. From Western Avenue the route heads in a southwesterly direction onto Franklin Street and Lincoln Street where it connects into the Brighton Substation from the south.  |
| B12 East | Cambridge, Boston                     | Broadway, Ames<br>Street, Main<br>Street, Sidney<br>Street, Franklin<br>Street, River<br>Street, Memorial<br>Drive, Soldiers<br>Field Road, I-90,<br>Cambridge Street,<br>Lincoln Street  | MBTA Red Line Subway<br>Tunnel           | Riverside Press Park  | Charles River<br><br>(trenchless crossing) | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route then heads west from Ames Street onto Main Street before turning south onto Sidney Street and west onto Franklin Street. The route follows Franklin Street and then turns southwest onto River Street up to the Riverside Press Park playground area. From the playground area, the route crosses Memorial Drive and the Charles River in Cambridge and Soldier's Field Road on the Boston side of the river via HDD or micro-tunneling. The route crosses the campus of Harvard University before turning southwest along the I-90 ramps to Cambridge Street. The route then follows Cambridge Street in a westerly direction before exiting the shoulder of Cambridge Street onto Lincoln Street. From Lincoln Street, the route connects to the Brighton Substation from the south.  |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS  | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                     | MAJOR<br>WATERBODY<br>CROSSINGS     | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|--|--|---|-------------------------------------|--|
| B13 West | Cambridge, Boston                     | Broadway, Prospect Street, Harvard Street, Massachusetts Avenue, Brattle Street, Mt. Auburn Street, Memorial Drive, Soldiers Field Road, Everett Street, Aldie Street, Bradbury Street, Mansfield Street, Lincoln Street | MBTA Red Line Subway Tunnel              | Longfellow (Riverbend) Park, Herter Park, Dr. Paul Dudley White Bike Path | Charles River (trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street. The route follows Prospect Street for a block before turning west onto Harvard Street. The route follows Harvard Street onto Massachusetts Avenue before turning southwest onto Brattle Street and west onto Mt. Auburn Street. The route exits Mt. Auburn Street onto Longfellow (Riverbend) Park. From Longfellow (Riverbend) Park the route crosses Memorial Drive and the Charles River via HDD or micro-tunneling. On the Boston side of the Charles River, the route travels through MassDCR's Herter Park, generally running parallel with the Dr. Paul Dudley White Path to Soldier's Field Road. The route then follows Soldier's Field Road in a westerly direction before turning south onto Everett Street. From Everett Street, the route turns east onto Aldie Street and then Bradbury Street. From Bradbury Street, the route heads south onto Mansfield Street and then west onto Lincoln Street before entering the Brighton Substation from the south. |
| B14 East | Cambridge, Boston                     | Broadway, Ames Street, Main Street, Sidney Street, Franklin Street, Magazine Street, Memorial Drive, Soldiers Field Road, I-90, Cambridge Street, Lincoln Street   | MBTA Red Line Subway Tunnel              | Magazine Beach, Dr. Paul Dudley White Bike Path                           | Charles River (trenchless crossing) | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route then heads west onto Main Street before turning south onto Sidney Street and west onto Franklin Street. The route follows Franklin Street before turning south onto Magazine Street. The route follows Magazine Street to Memorial Drive. At Memorial Drive, the route turns east and then sharply west across MassDCR's Magazine Beach property. From Magazine Beach, the route crosses the Charles River and Soldier's Field Road in Boston via HDD or micro-tunneling. On the Boston side of the Charles River, the route crosses a portion of Harvard University property and the I-90 ramp system, before turning west onto Cambridge Street and north onto Lincoln Street before connecting with the Brighton Substation from the south.  |
| B15 East | Cambridge, Boston                     | Broadway, Ames Street, Main Street, Sidney Street, Franklin Street, Brookline Street, Memorial Drive, Soldiers Field Road, I-90, Cambridge Street, Lincoln Street  | MBTA Red Line Subway Tunnel              | Magazine Beach, Dr. Paul Dudley White Bike Path                           | Charles River (trenchless crossing) | This route heads east from the New Substation Site in Cambridge and follows the same alignment as described above for Route B14 East. However, instead of following Magazine Street to reach Memorial Drive, this route follows Brookline Street up to MassDCR's Magazine Beach property. The balance of the route from this point forward is the same as described above for B14 East up to the connection point with the Brighton Substation.  |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS  | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS               | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                     | MAJOR<br>WATERBODY<br>CROSSINGS                | GENERAL ROUTE DESCRIPTION   |
|----------|---------------------------------------|--|--|---|--|---|
| B16 East | Cambridge, Boston                     | Broadway, Ames Street, Main Street, Sidney Street, Waverly Street, Soldiers Field Road, I-90, MassDOT Allston Multimodal Project Site, Cambridge Street, Franklin Street, Lincoln Street           | Grand Junction Railroad<br>MBTA Red Line Subway Tunnel | None  | Charles River<br><br>(railroad trestle bridge) | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. From Ames Street, the route heads in a westerly direction along Main Street before turning south onto Sidney Street. The route then turns east onto Waverly Street, across a parking lot and then sharply to the south onto the Grand Junction Railroad corridor, beneath Memorial Drive and onto the railroad trestle bridge crossing of the Charles River (beneath the Boston University Bridge and over the boardwalk portion of the Dr. Paul Dudley White Path). After spanning the Charles River and Soldier's Field Road, the route follows the railroad corridor towards I-90, where it crosses beneath the elevated roadway towards the Beacon Park Yard Redevelopment Site (MassDOT Allston Multimodal Project Site). The route follows the existing railroad corridor along the southern edge of the Multimodal Project Site, beneath the Cambridge Street / I-90 overpass to Franklin Street. From Franklin Street, the route would cross I-90 via HDD or micro-tunneling onto Lincoln Street where it would then connect to the Brighton Substation from the west. |
| B17 West | Cambridge, Boston                     | Broadway, Prospect Street, Western Avenue, Franklin Street, Putnam Avenue, Mt. Auburn Street, Soldiers Field Road, Everett Street, Aldie Street, Bradbury Street, Mansfield Street, Lincoln Street | MBTA Red Line Subway Tunnel                            | Longfellow (Riverbend) Park, Herter Park, Dr. Paul Dudley White Bike Path | Charles River<br><br>(trenchless crossing)     | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street and then southwest onto Western Avenue. From Western Avenue, the route heads west onto Franklin Street, north onto Putnam Avenue and west onto Mt. Auburn Street. The route follows Mt. Auburn Street to Longfellow (Riverbend) Park. From Longfellow (Riverbend) Park the route crosses Memorial Drive and the Charles River via HDD or micro-tunneling. On the Boston side of the Charles River, the route travels through MassDCR's Herter Park, generally running parallel with the Dr. Paul Dudley White Path, beneath the Eliot Bridge to Soldier's Field Road. The route follows Soldier's Field Road in a westerly direction before turning south onto Everett Street. From Everett Street, the route turns east onto Aldie Street and Bradbury Street. From Bradbury Street, the route heads south onto Mansfield Street and then west onto Lincoln Street before entering the Brighton Substation from the south.   |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                                 | MAJOR<br>WATERBODY<br>CROSSINGS            | GENERAL ROUTE DESCRIPTION   |
|----------|---------------------------------------|---|--|---|--|---|
| B18 West | Cambridge, Boston                     | Broadway,<br>Prospect Street,,<br>Green Street,<br>Putnam Avenue,<br>Mt. Auburn Street,<br>Soldiers Field<br>Road, Everett<br>Street, Aldie<br>Street, Bradbury<br>Street, Mansfield<br>Street, Lincoln<br>Street | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street and then west onto Green Street. The route follows Green Street to Putnam Avenue where it turns north and then west onto Mt. Auburn Street. From this point forward, the route is the same as described above for Route B17 West to the connection point with Brighton Substation.  |
| B19 East | Cambridge, Boston                     | Broadway, Ames<br>Street, Main<br>Street, Sidney<br>Street, Franklin<br>Street, River<br>Street, Memorial<br>Drive, Soldiers<br>Field Road,<br>Western Avenue,<br>Franklin Street,<br>Lincoln Street              | MBTA Red Line Subway<br>Tunnel           | Riverside Press Park  | Charles River<br><br>(trenchless crossing) | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route then heads west onto Main Street before turning south onto Sidney Street across Route 2A (Massachusetts Avenue). From Sidney Street, the route heads west on Franklin Street and then southwest onto River Street to Riverside Press Park playground area. From the playground area, the route crosses Memorial Drive and the Charles River in Cambridge and Soldier's Field Road on the Boston side of the river via HDD or micro-tunneling. The route then travels in a northerly direction across land owned by Harvard University before turning west onto Western Avenue. From Western Avenue the route travels in a southwesterly direction onto Franklin Street before entering the Brighton Substation from Lincoln Street to the south.   |
| B20 West | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>River Street,<br>Memorial Drive,<br>Soldiers Field<br>Road, Western<br>Avenue,<br>Cambridge Street,<br>Lincoln Street  | MBTA Red Line Subway<br>Tunnel           | Riverside Press Park  | Charles River<br><br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street and then southwest onto River Street after crossing Route 2A (Massachusetts Avenue). From River Street, the route travels towards the west onto Riverside Press Park playground area. At this location, the route would cross beneath Memorial Drive, Charles River and Soldier's Field Road on the Boston side of the Charles River via HDD or micro-tunneling. From Soldier's Field Road, the route crosses a portion of land owned by Harvard University before following Western Avenue in a westerly direction and then turning sharply to the south across the same parcel of Harvard University land onto Cambridge Street. The route then follows Cambridge Street in a westerly direction before exiting the shoulder of Cambridge Street onto Lincoln Street. At Lincoln Street, the route would connect to the Brighton Substation from the south. |

| ROUTE ID  | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                     | MAJOR<br>WATERBODY<br>CROSSINGS        | GENERAL ROUTE DESCRIPTION   |
|---|---------------------------------------|---|--|---|--|---|
| B21 West  | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Memorial Drive, MassDOT Allston Multimodal Project Site, Cambridge Street, Lincoln Street   | MBTA Red Line Subway Tunnel              | Magazine Beach, Dr. Paul Dudley White Bike Path                           | Charles River<br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Galileo Way and Vassar Street. The route follows Vassar Street to Memorial Drive, where the route then heads west on Memorial Drive to MassDCR's Magazine Beach property. At Magazine Beach, the route crosses the Charles River into the City of Boston via HDD or micro-tunneling. After the route has crossed beneath the Charles River, it then follows the general alignment of the anticipated new location for South Cambridge Street that would be constructed as part of MassDOT's Allston Multimodal Project. The route then follows the existing Cambridge Street, towards Lincoln Street before connecting into the Brighton Substation from the south. |
| B21 A<br>(crosses<br>Broadway from<br>New Substation<br>Site) | Cambridge, Boston                     | Broadway, Jordan Place, Galileo Way, Vassar Street, Memorial Drive, MassDOT Allston Multimodal Project Site, Cambridge Street, Lincoln Street   | MBTA Red Line Subway Tunnel              | Danny Lewin Park  | Charles River<br>(trenchless crossing) | This route follows the same alignment described above for Route B21 West. However, instead of turning west onto Broadway from the New Substation Site, the route crosses Broadway and passes through a small piece of private parkland (Danny Lewin Park) between the Akamai Technologies property and the Residence Inn property to reach Jordan Place. From Jordan Place, the route heads west and then south onto Galileo Way and eventually onto Vassar Street. From this point forward, the route follows the same roadway alignment and Charles River crossing as Route B21 West.   |
| B22 West  | Cambridge, Boston                     | Broadway, Prospect Street, Green Street, Putnam Avenue, Mt. Auburn Street, Dewolfe Street, Memorial Drive, Soldiers Field Road, Everett Street, Aldie Street, Bradbury Street, Mansfield Street, Lincoln Street | MBTA Red Line Subway Tunnel              | Longfellow (Riverbend) Park, Herter Park, Dr. Paul Dudley White Bike Path | Charles River<br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street and then west onto Green Street. The route follows Green Street to Putnam Avenue where it turns north onto Mt. Auburn Street. The route then heads south onto Dewolfe Street before turning west onto Memorial Drive. The route follows Memorial Drive to Longfellow (Riverbend) Park. At this location, the route turns sharply to the west to setup an HDD or micro-tunnel crossing of the Charles River. From this point forward, the route alignment is the same as described above for Route B17 West.   |



| ROUTE ID  | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                                 | MAJOR<br>WATERBODY<br>CROSSINGS            | GENERAL ROUTE DESCRIPTION  |
|-----------|---------------------------------------|---|--|---|--|--|
| B24 West  | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Green Street,<br>Putnam Street, Mt.<br>Auburn Street,<br>Memorial Drive,<br>Soldiers Field<br>Road, N. Harvard<br>Street, Western<br>Avenue, Franklin<br>Street  | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street, through the Central Square area, and west onto Green Street. The route follows Green Street to Putnam Street where it turns north and then west onto Mt. Auburn Street. The route follows Mt. Auburn Street to Longfellow (Riverbend) Park. From Longfellow (Riverbend) Park, the route crosses Memorial Drive and beneath the Charles River via HDD or micro-tunneling. On the Boston side of the Charles River, the route travels through MassDCR's Herter Park, largely running parallel with the Dr. Paul Dudley White Path, beneath the Eliot Bridge to Soldier's Field Road. The route then follows Soldier's Field Road in a westerly direction before turning east onto Harvard University's athletic facility complex. The route follows an existing access drive and parking lot in an east-west direction across the athletic field complex to reach North Harvard Street. From North Harvard Street, the route heads south across Western Avenue onto Franklin Street before entering the Brighton Substation from the west.  |
| B24A West | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Green Street,<br>Putnam Street, Mt.<br>Auburn Street,<br>Memorial Drive,<br>Soldiers Field<br>Road, Western<br>Avenue, Spurr<br>Street, Franklin<br>Street, Bradbury<br>Street, Mansfield<br>Street, Lincoln<br>Street | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street and then west onto Green Street. The route follows Green Street to Putnam Street where it turns north and then west onto Mt. Auburn Street. The route follows Mt. Auburn Street to Longfellow (Riverbend) Park. From Longfellow (Riverbend) Park, the route crosses Memorial Drive and the Charles River via HDD or micro-tunneling. On the Boston side of the Charles River, the route travels through MassDCR's Herter Park, generally running parallel with the Dr. Paul Dudley White Path, beneath the Eliot Bridge to Soldier's Field Road. The route follows Soldier's Field Road in a westerly direction up to the National Development / WBZ Studio property on Soldiers Field Road in Brighton. At this location, the route turns towards the southeast onto the commercial property (former restaurant site) via an existing curb cut, passing through the National Development / WBZ Studio property and Harvard University property (Podcast Garage recording studio), parallel to the City of Boston's William E. Smith Playground, to Western Avenue. The route then turns east onto Western Avenue and then southeast onto Spurr Street. From Spurr Street, the route turns to the southwest along Franklin Street before turning east to Bradbury Street, south to Mansfield Street and west to Lincoln Street before entering the Brighton Substation from the south. |

| ROUTE ID  | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                                 | MAJOR<br>WATERBODY<br>CROSSINGS            | GENERAL ROUTE DESCRIPTION  |
|-----------|---------------------------------------|---|--|---|--|--|
| B24B West | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Green Street,<br>Putnam Street, Mt.<br>Auburn Street,<br>Memorial Drive,<br>Soldiers Field<br>Road, Western<br>Avenue, Spurr<br>Street, Franklin<br>Street, Bradbury<br>Street, Mansfield<br>Street, Lincoln<br>Street | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This route is like Route B24A West, following the same alignment up to the National Development / WBZ Studio property on Soldiers Field Road in Brighton. At this location, instead of turning southeast from Soldiers Field Road via the existing curb cut at the former restaurant site, the route continues approximately 250-feet to the west on Soldiers Field Road before turning south across the existing grassed area on the National Development / WBZ Studio property. From this point forward, the route follows the same alignment as Route B24A West to the Brighton Substation facility located on Lincoln Street.  |
| B24C West | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Green Street,<br>Putnam Street, Mt.<br>Auburn Street,<br>Memorial Drive,<br>Soldiers Field<br>Road, Western<br>Avenue, Spurr<br>Street, Franklin<br>Street, Bradbury<br>Street, Mansfield<br>Street, Lincoln<br>Street | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This route follows the same alignment as described above for Route B24B West, with one exception. Instead of landing the HDD crossing from Longfellow (Riverbend) Park on the grassed space of Herter Park, the HDD lands just south of the Soldiers Field / Eliot Bridge interchange in grassed island areas located between the roadways. The intent of this alignment is to concentrate more of the HDD and trenching work on previously developed areas outside of Herter Park. Route B24C West continues along Soldiers Field Road in a southerly direction up to the National Development / WBZ Studio property where it then realigns with Route B24B West, following the same roadways to the Brighton Substation on Lincoln Street. |
| B25 East  | Cambridge, Boston                     | Broadway, Ames<br>Street, Memorial<br>Drive, Ash Street,<br>Mt. Auburn Street,<br>Soldiers Field<br>Road, N. Harvard<br>Street, Franklin<br>Street, Bradbury<br>Street, Mansfield<br>Street, Lincoln<br>Street  | MBTA Red Line Subway<br>Tunnel           | Longfellow<br>(Riverbend) Park,<br>Herter Park, Dr. Paul<br>Dudley White Bike<br>Path | Charles River<br><br>(trenchless crossing) | This routes heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street to Memorial Drive. This route crosses over the MBTA Red Line Subway tunnel at the Ames Street / Main Street intersection. At Memorial Drive, the route turns to the west (following the east bound lanes of Memorial Drive) to the Reid Rotary at the Boston University bridge, continuing west on Memorial Drive to Ash Street and Longfellow (Riverbend) Park. From this point forward, the route follows the same alignment described above for Route B24 West.  |

| ROUTE ID  | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS  | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS                            | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS                     | MAJOR<br>WATERBODY<br>CROSSINGS            | GENERAL ROUTE DESCRIPTION  |
|-----------|---------------------------------------|--|---|---|--|--|
| B25A East | Cambridge, Boston                     | Broadway, Ames Street, Memorial Drive, Ash Street, Mt. Auburn Street, Soldiers Field Road, Western Avenue, Spurr Street, N. Harvard Street, Franklin Street, Bradbury Street, Mansfield Street, Lincoln Street | MBTA Red Line Subway Tunnel   | Longfellow (Riverbend) Park, Herter Park, Dr. Paul Dudley White Bike Path | Charles River<br>(trenchless crossing)     | This route follows the same alignment described above for Route B25 East. However, instead of crossing the Harvard University athletic complex in an east-west direction, this route generally follows the existing Harvard University property line in a southerly direction onto Western Avenue. The route then crosses Western Avenue onto Spurr Street before turning south onto North Harvard Street. From this point forward, the route follows the same alignment described above for Route B25 East to the Brighton Substation.  |
| B26 West  | Cambridge, Boston                     | Broadway, Vassar Street, I-90, MassDOT Allston Multimodal Project Site, Franklin Street, Lincoln Street  | MBTA Red Line Subway Tunnel, Grand Junction Railroad, Commuter Rail | None  | Charles River<br>(railroad trestle bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Vassar Street. The route follows Vassar Street for most of its length leading up to Memorial Drive. However, before reaching Memorial Drive the route turns to the west across a parcel of land and parking lot owned by MIT (#620 Memorial Drive, laboratory facility). After crossing this property, the route then follows the Grand Junction Railroad trestle bridge over the Charles River (beneath the Boston University Bridge and over the boardwalk portion of the Dr. Paul Dudley White bike path). After spanning the Charles River and Soldier's Field Road, the route then follows the railroad corridor towards I-90, where it would cross beneath the elevated roadway towards the Beacon Park Yard Redevelopment Site (MassDOT Allston Multimodal Project Site). The route follows the existing railroad corridor along the southern edge of the Multimodal Project Site, beneath the Cambridge Street / I-90 overpass to Franklin Street. From Franklin Street, the route crosses I-90 via HDD or micro-tunneling onto Lincoln Street where it would then connect to the Brighton Substation from the west. |
| B27 West  | Cambridge, Boston                     | Broadway, Vassar Street, Massachusetts Avenue, I-90, MassDOT Allston Multimodal Project Site, Franklin Street, Lincoln Street  | MBTA Red Line Subway Tunnel, Grand Junction Railroad, Commuter Rail | None  | Charles River<br>(railroad trestle bridge) | This route follows the same alignment described above for Route B26 West. However, instead of crossing the MIT property at #620 Memorial Drive, the route would access the Grand Junction Railroad corridor sooner via Route 2A (Massachusetts Avenue). Otherwise, the route is the same as described above for Route B26 West.  |

| ROUTE ID  | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS             | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS            | GENERAL ROUTE DESCRIPTION  |
|-----------|---------------------------------------|---|--|---|--|--|
| B28 West  | Cambridge, Boston                     | Broadway, Vassar Street, Massachusetts Avenue, Soldiers Field Road, I-90, MassDOT Allston Multimodal Project Site, Cambridge Street, Empire Street, Lincoln Street                        | MBTA Red Line Subway Tunnel, Grand Junction Railroad | Charles River Reservation<br>(west of B.U. Bridge)    | Charles River<br>(railroad trestle bridge) | This route follows the same alignment described above for Route B27 West, up to the Grand Junction Railroad bridge trestle crossing of the Charles River. However, on the Boston side of the Charles River, this route would exit the railroad trestle bridge and cross beneath Soldiers Field Road with a trenchless crossing. On the south side of Soldiers Field Road, the route would turn to the west, crossing beneath the railroad tracks with another trenchless crossing, following the vegetated shoulder of Soldier's Field Road for about 2,000 feet +/-, before turning west beneath the I-90 overpass onto the Beacon Park Yard Redevelopment Site (MassDOT Allston Multimodal Project Site). From this point, the route follows the anticipated new location for Lincoln Street Connector that would be constructed as part of MassDOT's Allston Multimodal Project. The route then crosses over Cambridge Street, onto Lincoln Street before connecting into the Brighton Substation from the south.   |
| B29 West  | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Reardon Street, Waverly Street, Soldiers Field Road, I-90, MassDOT Allston Multimodal Project Site, Cambridge Street, Empire Street, Lincoln Street | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River<br>(railroad trestle bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Galileo Way to Vassar Street. The route follows Vassar Street before crossing northwest through an existing MIT parking lot (a portion of which is slated to be re-developed with future graduate student housing), and the Grand Junction Railroad Corridor to Reardon Street adjacent to Fort Washington Park. From Reardon Street, the route turns southwest along Waverly Street to the north side of the Grand Junction Railroad corridor generally following the same alignment described above for Route B28 West, including the railroad trestle bridge crossing of the Charles River (albeit on the opposite side of the trestle bridge), to the connection with Brighton Substation. Unlike Route B28 West, this route would follow the railroad tracks over Soldiers Field Road thus potentially avoiding work in MassDCR's Charles River Reservation and trenchless crossings in the grassed area adjacent to the B.U. Bridge. The route then follows the same alignment as Route B28 West above to the Brighton Substation. |
| B29A West | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Albany Street, Waverly Street, Soldiers Field Road, I-90, MassDOT Allston Multimodal Project Site, Cambridge Street, Empire Street, Lincoln Street  | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River<br>(railroad trestle bridge) | This route follows the same alignment described above for Route B29 West. However, it crosses the existing MIT parking lot and Grand Junction Railroad tracks from Vassar Street about 330 feet east of the crossing location referenced above for Route B29 West, onto Albany Street. The route then heads west from Albany Street onto Waverly Street. From this point forward, Route B29A West follows the same alignment as Route B29 West to the Brighton Substation.   |

| ROUTE ID   | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS             | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS         | GENERAL ROUTE DESCRIPTION   |
|--|---------------------------------------|---|--|---|---|---|
| B29B West (and route variations B29BN West and B29BT West) | Cambridge Boston                      | Broadway, Galileo Way, Vassar Street, Waverly Street, Soldiers Field Road, I-90, MassDOT Allston Multimodal Project Site, Cambridge Street, Empire Street, Lincoln Street | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River (railroad trestle bridge) | <p>Like Route B29A, this route follows the same alignment described above for Route B29 West with two exceptions. Route B29B West crosses two parcels of land / shared parking lot and the Grand Junction Railroad tracks about 620 feet west of the B29 crossing, adjacent to the MIT campus police building, onto Waverly Street. One of the parcels is owned by Eversource and the other is owned by BioMed Realty Trust. In addition, prior to transitioning onto the Grand Junction Railroad corridor from Waverly Street, this route continues southwest onto a parcel of land owned by MIT (#632 Memorial Drive) that is presently leased to Alexandria Properties (Sanofi-Genzyme is the current tenant). A portion of the existing parking lot is also used to park MIT campus police vehicles. The route runs along the easterly edge of the parking lot, avoiding a set of electrical generators before transitioning back onto the Grand Junction Railroad corridor. From this point forward, Route B29B West follows the same alignment as described above for Routes B29 West and B29A West to the Brighton Substation on Lincoln Street.</p> <p>The Company also considered two minor alignment variations to Route 29B West as it crosses through the Multimodal Project Area. Specifically, B29BT considers the various “throat” design alternatives being considered by MassDOT along Soldier’s Field Road, and generally aligns with the potential future location of the approximately 26-foot-wide Paul Dudley White pedestrian and bike paths along the Charles River, before following the anticipated new location for the Lincoln Street Connector through the Multimodal Project site.</p> <p>Route B29BN West does not follow the future potential roadway alignments through the multimodal site; rather, it generally runs parallel with the southerly property line of the Harvard property. This design variation provides routing flexibility should the Allston MassDOT Multimodal Project not be advanced into construction as currently proposed, while also minimizing potential future development constraints to the present landowner (Harvard) should they seek to develop this property in the future.</p> |
| B29C West  | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Waverly Street, Soldiers Field Road, I-90, MassDOT Allston Multimodal Project Site, Cambridge Street, Empire Street, Lincoln Street | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River (railroad trestle bridge) | <p>This route follows the same alignment described above for Route B29B West with two exceptions. Route B29C West does not cross #632 Memorial Drive; rather, it transitions directly onto the Grand Junction Railroad corridor from Waverly Street like Routes B29 West and B29A West. In addition, instead of following the future alignment of Lincoln Street Connector through the MassDOT Allston Multimodal Project Site on the west side of the Charles River, Route B29C West follows the future alignment of Cambridge Street South through the MassDOT Allston Multimodal Project Site. From this point forward, Route B29C West follows the same alignment as described above for Routes B29 West, B29A West, and B29B West to the Brighton Substation on Lincoln Street.</p>  |

| ROUTE ID  | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS  | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS             | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS        | GENERAL ROUTE DESCRIPTION   |
|-----------|---------------------------------------|--|--|---|--|---|
| B29D West | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Waverly Street, Brookline Street, Memorial Drive, Cambridge Street, Lincoln Street | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River<br>(River Street Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Galileo Way to Vassar Street. The route follows Vassar Street before crossing northwest through two parcels of land (parking lots) adjacent to the MIT campus police building. One of these parcels is owned by Eversource the other is owned by BioMed Realty Trust. From this point, the route crosses the Grand Junction Railroad using a trenchless construction technique to reach a parcel of land owned by MIT (former Cal-Paint site). The route then follows Waverly Street to Brookline Street through the Reid Rotary at the BU bridge, continuing west on Memorial Drive to the River Street Bridge. At this location, the route turns to the west across the River Street Bridge, over the Charles River, and onto Cambridge Street in Boston. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows the approximate location of Cambridge Street after it is reconstructed at-grade as part of MassDOT's Allston Multimodal Project (the road is currently elevated in this section). The route would then turn to the northwest onto Lincoln Street before terminating at the Brighton Substation. |
| B29E West | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Waverly Street, Brookline Street, Memorial Drive, Cambridge Street, Lincoln Street | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River<br>(River Street Bridge) | This route follows the same alignment as described above for Route B29D, except that it would cross the Grand Junction Railroad Tracks just south of the B29D crossing and former Cal-Paint site.   |
| B29F West | Cambridge, Boston                     | Broadway, Galileo Way, Vassar Street, Waverly Street, Brookline Street, Memorial Drive, Cambridge Street, Lincoln Street | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | Charles River<br>(River Street Bridge) | This route follows the same alignment as described above for Route B29D and E, except that it would cross the Grand Junction Railroad Tracks further south on Vassar Street across a parcel of land owned by the MBTA and MIT, before reaching Waverly Street.  |

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|----------|---------------------------------------|---|--|---|--|---|
| B30 West | Cambridge, Boston                     | Broadway,<br>Prospect Street,<br>Green Street,<br>Putnam Avenue,<br>Mt. Auburn Street,<br>JFK Street, N.<br>Harvard Street,<br>Franklin Street,<br>Lincoln Street | MBTA Red Line Subway<br>Tunnel           | None  | Charles River<br>(Anderson Memorial<br>Bridge) | This route heads west from the New Substation Site in Cambridge onto Broadway before turning south onto Prospect Street and then west onto Green Street. The route follows Green Street to Putnam Avenue where it turns north and then west onto Mt. Auburn Street. The route follows Mt. Auburn Street to John F. Kennedy Street. The route then heads south along John F. Kennedy Street to the Anderson Memorial Bridge over the Charles River. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows North Harvard Street to Franklin Street and Lincoln Street before connecting into the Brighton Substation.   |
| B31 East | Cambridge, Boston                     | Broadway, Ames<br>Street, Memorial<br>Driver, River<br>Street, Cambridge<br>Street, MassDOT<br>Allston Multimodal<br>Project Site,<br>Lincoln Street              | MBTA Red Line Subway<br>Tunnel           | None  | Charles River<br>(River Street Bridge)         | This route heads east from the New Substation Site in Cambridge onto Broadway before turning south onto Ames Street. The route follows Ames Street to the intersection with Memorial Drive. At Memorial Drive, the route turns to the west (following the east bound lanes of Memorial Drive) to the Reid Rotary at the Boston University bridge, continuing west on Memorial Drive to the River Street Bridge. At this location, the route turns to the west across the River Street Bridge, over the Charles River, and onto Cambridge Street in Boston. The bridge crossing would likely be accomplished by installing the cable in the bridge deck/roadway pavement or attaching the cable to the side of the bridge. On the Boston side of the Charles River, the route follows the approximate location of Cambridge Street after it is reconstructed at-grade as part of MassDOT's Allston Multimodal Project (the road is currently elevated in this section). The route would then turn to the northwest onto Lincoln Street before entering the Brighton Substation from the south. |
| P11      | Cambridge                             | Broadway, Ames<br>Street, Main<br>Street, Vassar<br>Street,<br>Massachusetts<br>Avenue, Memorial<br>Drive   | MBTA Red Line Subway<br>Tunnel           | None  | None   | This route heads east from the New Substation Site onto Broadway and then south onto Ames Street to the intersection with Main Street. At Main Street, the route heads west and then south onto Vassar Street. The route follows Vassar Street to Massachusetts Avenue, where it then turns towards the southeast on Massachusetts Avenue to Memorial Drive. At Memorial Drive, the route ends in a "T" configuration with the line being spliced into existing line(s) to the east and west on Memorial Drive.   |
| P12      | Cambridge                             | Broadway, Ames<br>Street, Main<br>Street, Vassar<br>Street, Memorial<br>Drive   | MBTA Red Line Subway<br>Tunnel           | None  | None   | This route would follow the same alignment described above for Route P11. However, instead of following Massachusetts Avenue to Memorial Drive, this route would follow Vassar Street all the way to Memorial Drive. At this point, the route ends in a "T" configuration with the line being spliced into existing line(s) to the east and west on Memorial Drive.   |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS             | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|---|--|---|---------------------------------|--|
| P13      | Cambridge                             | Broadway, Ames Street, Memorial Drive   | MBTA Red Line Subway Tunnel                          | None  | None                            | This route heads east from the New Substation Site onto Broadway and south on Ames Street, following Ames Street to the intersection with Memorial Drive. At Memorial Drive, the route ends in a "T" configuration with the line being spliced into existing line(s) to the east and west on Memorial Drive.   |
| P14      | Cambridge                             | Broadway, Ames Street, Vassar Street, Massachusetts Avenue, Memorial Drive  | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | None                            | This route heads east from the New Substation Site onto Broadway and south on Ames Street before turning west onto Main Street and then southwest onto Vassar Street. The route follows Vassar Street to the intersection with Massachusetts Avenue, where it turns northwest for one block and then southwest onto the Grand Junction Railroad corridor. The route follows the Grand Junction Railroad Corridor to Memorial Drive. At Memorial Drive, the route ends in a "T" configuration with the line being spliced into existing line(s) to the east and west on Memorial Drive.   |
| P15      | Cambridge                             | Broadway, Ames Street, Main Street, Sidney Street, Chestnut Street, Memorial Drive  | MBTA Red Line Subway Tunnel, Grand Junction Railroad | None  | None                            | This route heads east from the New Substation Site onto Broadway and south on Ames Street before turning west onto Main Street and then southwest onto Sidney Street. The route follows Sidney Street to its intersection with Chestnut Street. At Chestnut Street, the route turns to the southeast for one block to the Grand Junction Railroad corridor. The route follows the Grand Junction Railroad corridor to Memorial Drive. At Memorial Drive, the route ends in a "T" configuration with the line being spliced into existing line(s) to the east and west on Memorial Drive. |
| K1       | Cambridge                             | Broadway, Ames Street, Main Street, Vassar Street, Massachusetts Avenue, Memorial Drive, Edward H. Land Blvd., First Street | MBTA Red Line Subway Tunnel                          | None  | None                            | This route heads east from the New Substation Site onto Broadway before turning south on Ames Street and then west on Main Street. From Main Street, the route heads southwest on Vassar Street to Massachusetts Avenue. At Massachusetts Avenue, the route heads south and then east on Memorial Drive, following the east bound lanes to Edward H. Land Boulevard (beneath the Route 3 overpass and over the Broad Canal via the drawbridge) to First Street. From First Street, the route connects into the Kendall Substation from the east.   |



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|----------|---------------------------------------|---|--|---|---------------------------------|---|
| K2       | Cambridge                             | Broadway, Main Street, Hayward Street, Amherst Street, Wadsworth Street, Memorial Drive, Edward H. Land Blvd., First Street | MBTA Red Line Subway Tunnel              | None  | None                            | This route heads east from the New Substation Site onto Broadway before turning sharply to the southwest onto Main Street. The route follows Main Street for about one block to Hayward Street past a portion of MIT's campus (Martin Trust Center for MIT Entrepreneurship) to Amherst Street. The route then turns in an easterly direction onto Amherst Street for one block and then in a southeasterly direction onto Wadsworth Street to Memorial Drive. The route follows the east bound lanes of Memorial Drive to Edward H. Land Boulevard (beneath the Route 3 overpass and over the Broad Canal via the drawbridge) to First Street. From First Street, the route would connect into the Kendall Substation from the east. |
| K3       | Cambridge                             | Broadway, Ames Street, Memorial Drive, Edward H. Land Blvd., Linksey Way, Second Street                                     | MBTA Red Line Subway Tunnel              | None  | None                            | This route heads east from the New Substation Site onto Broadway before turning south on Ames Street, following Ames Street to Memorial Drive. The route follows the east bound lanes of Memorial Drive to Edward H. Land Boulevard (beneath the Route 3 overpass and over the Broad Canal via the drawbridge) to Linksey Way. The route follows Linksey Way for one block before turning south onto Second Street, with the route connecting to the Kendall Substation from the north.   |
| K4       | Cambridge                             | Broadway, Broad Canal Way, Kendall Street   | None                                     | None  | None                            | This route heads east from the New Substation onto Broadway, following Broadway to Broad Canal Way where the route heads north across the Broad Canal Walkway and outdoor gathering area(s) to Kendall Street (a private street owned by BioMed Realty Trust). At Kendall Street, the route turns sharply to the east where it connects with the Kendall Substation.  |
| K5       | Cambridge                             | Broadway, Third Street, Linskey Way, Second Street  | None                                     | None  | None                            | This route heads east from the New Substation Site onto Broadway before turning north onto Third Street. From Third Street, the route turns east onto Linskey Way and south onto Second Street, where it connects into the Kendall Substation.  |
| K5A      | Cambridge                             | Broadway, Volpe Site, Third Street, Linskey Way, Second Street  | None                                     | None  | None                            | This route follows the same alignment described above for K5, except that it crosses through the eastern edge of the Volpe Center within a future expanded sidewalk to towards Prospect Street, before transitioning back onto Third Street.  |
| K6       | Cambridge                             | Broadway, Third Street, Binney Street, Second Street  | None                                     | None  | None                            | This route heads east from the New Substation Site onto Broadway before turning north onto Third Street. The route follows Third Street to Binney Street, following Binney Street in an easterly direction for one block to Second Street. The route follows Second Street to its connection point with the Kendall Substation.   |

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|----------|---------------------------------------|---|--|---|---------------------------------|--|
| K6A      | Cambridge                             | Broadway, Volpe Site, Third Street, Binney Street, Second Street              | None                                     | None  | None                            | This route follows the same alignment described above for K6, except that it crosses through the eastern edge of the Volpe Center within a future expanded sidewalk to towards Prospect Street, before transitioning back onto Third Street.   |
| K7       | Cambridge                             | Broadway, Volpe Site, Potter Street, Fifth Street, Linskey Way, Second Street | None                                     | None  | None                            | This route heads east from the New Substation onto Broadway for about 300 feet before turning sharply to the north across the Volpe Center parcel. After crossing the Volpe Center parcel, the route continues north across Potter Street onto Fifth Street. From Fifth Street, the route turns east on Linskey Way and then south on Second Street. The route follows Second Street to its connection point with the Kendall Substation.                              |
| K8       | Cambridge                             | Broadway, Volpe Site, Potter Street, Third Street, Linskey Way, Second Street | None                                     | None  | None                            | Like Route K7, this route heads east from the New Substation onto Broadway for about 300 feet before turning sharply to the north across the Volpe Center parcel. After crossing the Volpe Center parcel, the route turns east onto Potter Street and then north onto Third Street. From Third Street, the route turns east on Linskey Way and then south on Second Street. The route follows Second Street to its connection point with the Kendall Substation.       |
| K9       | Cambridge                             | Broadway, Volpe Site, Third Street, Kendall Street                            | None                                     | None  | None                            | This route heads east from the New Substation site onto Broadway before turning north onto Third Street. The route follows Third Street for two blocks to Kendall Street where it then enters the Kendall Substation from the west.  |
| K10      | Cambridge                             | Broadway, Volpe Site, Potter Street, Third Street, Linskey Way, Second Street | None                                     | None  | None                            | This route heads east from the New Substation site onto Broadway before turning north across the Volpe Center property to Potter Street. From Potter Street, the route heads east to the Third Street intersection. At Third Street, the route turns north for two blocks to Linskey Way. The route follows Linskey Way in an easterly direction towards Second Street. At Second Street, the route heads in a southerly direction to the Kendall Substation facility. |
| K11      | Cambridge                             | Broadway, Volpe Site, Potter Street, Fifth Street, Linskey Way, Second Street | None                                     | None  | None                            | This route heads east from the New Substation site onto Broadway before turning north across the Volpe Center property to Potter Street. From Potter Street, the route heads east for one block before turning north onto Fifth Street. From Fifth Street, the route heads east onto Munroe Street, across the Third Street intersection, onto Linskey Way and then south onto Second Street where it enters the Kendall Substation facility.                          |

| ROUTE ID                           | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS                  | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS | GENERAL ROUTE DESCRIPTION  |
|------------------------------------|---------------------------------------|---|---|---|---------------------------------|--|
| K12                                | Cambridge                             | Broadway, Volpe Site, Potter Street, Fifth Street, Third Street, Binney Street, Second Street                             | None  | None  | None                            | This route heads east from the New Substation site onto Broadway before turning north across the Volpe Center property to Potter Street. From Potter Street, the route heads east for one block before turning north onto Fifth Street. From Fifth Street, the route heads east onto Munroe Street, before turning north onto Third Street, east onto Binney Street and then south onto Second Street where it enters the Kendall Substation facility.   |
| S1A<br>(and route<br>variation S1) | Cambridge,<br>Somerville              | Broadway,<br>Hampshire Street,<br>Columbia Street,<br>Cambridge Street,<br>Windsor Place,<br>Milk Alley, Bennett<br>Court | MBTA Commuter Rail  | None  | None                            | <p>This route heads west from the New Substation Site onto Broadway for about one block before turning northwest onto Hampshire Street. From Hampshire Street, the route heads north on Columbia Street. The route follows Columbia Street into Somerville, across Cambridge Street, to its intersection with Windsor Place. The route crosses Windsor Place and heads north across a private commercial parking lot towards the MBTA commuter rail tracks (Fitchburg Route Main Line). The railroad tracks would likely be crossed using a trenchless construction technique. After crossing the MBTA railroad tracks with a trenchless crossing, this route turns in a westerly direction across the D2 property, parallel to the MBTA railroad tracks and the new MBTA Green Line train station platform, before turning north parallel to Prospect Street (and around the approximate limits of the future D2 building footprint), and then west across Prospect Street where it enters the Somerville Substation property. The Company considered a trenchless crossing beneath Prospect Street directly into the Somerville Substation but was determined infeasible due to MBTA elevator shaft installation planned for the new Green Line train platform. This route would avoid some of the potential future utility constraints associated with route variation S1 described below and would potentially result in fewer construction sequencing and coordination challenges associated with the planned D2 development.</p> <p>The proposed route variation S1 crosses the railroad tracks in the same location as Route S1A but heads in a northwesterly direction generally following the approximate alignment of two proposed roadways associated with the D2 development identified as Milk Alley and Bennett Court, to Prospect Street. The route crosses over Prospect Street and accesses the Somerville Substation facility from the east.</p> |
| S3                                 | Cambridge,<br>Somerville              | Broadway, Cardinal Medeiros Avenue, Cambridge Street, Webster Avenue, Prospect Street                                     | MBTA Commuter Rail<br>(span on Prospect Street<br>bridge) | None  | None                            | This route heads west from the New Substation Site onto Broadway for about one block before turning north onto Cardinal Medeiros Avenue. The route follows Cardinal Medeiros Avenue to the intersection with Cambridge Street. The route turns west onto Cambridge Street and then north onto Webster Avenue into the City of Somerville up to the Prospect Street intersection. At this intersection, the route turns in a northeasterly direction before connecting into the Somerville Substation from the east.  |

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|----------|---------------------------------------|--|---|---|---------------------------------|---|
| S4       | Cambridge,<br>Somerville              | Broadway,<br>Cambridge Street,<br>Warren Street,<br>Medford Street,<br>South Street, Earle<br>Street, Linden<br>Street, Somerville<br>Avenue, Prospect<br>Street               | Grand Junction Railroad,<br>MBTA Commuter Rail                                      | None  | None                            | This route heads west from the New Substation Site onto Broadway for about 400 feet before turning north onto the Grand Junction Railroad corridor. The route follows the Grand Junction Railroad corridor to Cambridge Street. The route turns west onto Cambridge Street for one block, before turning north onto Warren Street. The route follows Warren Street to Medford Street, following Medford Street for one block before turning west onto South Street. From South Street, the route turns north onto Earle Street to its intersection with Windsor Street and Windsor Place. At this intersection, the route turns north across a private commercial parking lot towards the MBTA commuter rail tracks (Fitchburg Route Main Line). The railroad tracks would likely be crossed using a trenchless construction technique. After crossing the tracks, the route then heads north onto Linden Street and then west onto Somerville Avenue. From Somerville Avenue, the route turns south onto Prospect Street where it enters the Somerville Substation from the south. |
| S5       | Cambridge,<br>Somerville              | Broadway, Cardinal<br>Medeiros Avenue,<br>Cambridge Street,<br>Somerville Avenue<br>Extension (beneath<br>McGrath Highway<br>overpass),<br>Somerville Avenue,<br>Newton Street | Grand Junction Railroad,<br>MBTA Commuter Rail                                      | None  | None                            | This route heads west from the New Substation Site onto Broadway for about one block before turning north onto Cardinal Medeiros Avenue. The route follows Cardinal Medeiros Avenue to the intersection with Cambridge Street. The route heads east for one block on Cambridge Street before heading north onto the Grand Junction Railroad corridor up to the MBTA commuter rail tracks and beneath the McGrath Highway overpass. At this juncture, the route turns sharply to the northwest beneath the overpass onto Somerville Avenue Extension. The railroad tracks would likely be crossed with a trenchless construction technique. The route then follows Somerville Avenue Extension to Somerville Avenue before turning southwest onto Newton Street where the line would connect into the Somerville Substation from the west.   |
| S6       | Cambridge,<br>Somerville              | Broadway,<br>Cambridge Street,<br>Warren Street,<br>Medford Street,<br>Somerville Avenue,<br>Prospect Street   | Grand Junction Railroad,<br>MBTA Commuter Rail (via<br>Medford Street<br>underpass) | None  | None                            | This route heads west from the New Substation Site onto Broadway for about one block before turning north onto the Grand Junction Railroad corridor. The route follows the Grand Junction Railroad corridor to Cambridge Street where the route exits the rail and turns west onto Cambridge Street and then north onto Warren Street. The route follows Warren Street to Medford Street where it then turns to the northwest following Medford Street to Somerville Avenue. Prior to reaching Somerville Avenue, the route crosses beneath the MBTA commuter rail tracks via the Medford Street underpass (William J. Joyce Memorial Bridge). From Somerville Avenue, the route turns south onto Prospect Street where it enters the Somerville Substation from the south.   |

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|----------|---------------------------------------|--|---|---|---------------------------------|---|
| S7       | Cambridge,<br>Somerville              | Broadway,<br>Prospect Street   | Grand Junction Railroad,<br>MBTA Commuter Rail            | None  | None                            | This route heads west from the New Substation Site onto Broadway for about one block before turning north onto the Grand Junction Railroad corridor. The route follows the Grand Junction Railroad corridor to the MBTA commuter rail tracks near the McGrath Highway overpass. At this juncture, the route turns sharply to the west following the MBTA commuter rail tracks to the Prospect Street overpass before entering the Somerville Substation from the south.   |
| S8       | Cambridge,<br>Somerville              | Broadway,<br>Hampshire Street,<br>Webster Avenue,<br>Lincoln Street,<br>Prospect Street  | MBTA Commuter Rail<br>(span on Prospect Street<br>bridge) | None  | None                            | This route heads west from the New Substation Site onto Broadway before heading northwest onto Hampshire Street and Webster Avenue. The route follows Webster Avenue to Lincoln Street, where it turns to the west for about 500-feet before turning back to Webster Avenue heading north to Prospect Street. The route then heads east onto Prospect Street, over the MBTA commuter rail tracks, entering the Somerville Substation from the east.   |
| S9       | Cambridge,<br>Somerville              | Broadway,<br>Columbia Street,<br>Cambridge Street,<br>Webster Avenue,<br>Prospect Street | MBTA Commuter Rail<br>(span on Prospect Street<br>bridge) | None  | None                            | This route heads west from the New Substation Site onto Broadway before turning north onto Columbia Street. The route follows Columbia Street to Cambridge Street. After crossing through the Cambridge Street intersection, the route continues in a northerly direction onto Webster Avenue. The route then heads east onto Prospect Street, over the MBTA commuter rail tracks, entering the Somerville Substation from the east.  |
| S10      | Cambridge,<br>Somerville              | Broadway, Galileo<br>Way, Binney<br>Street, Prospect<br>Street                           | Grand Junction Railroad,<br>MBTA Commuter Rail            | None  | None                            | The route heads west from the New Substation Site onto Broadway before turning north onto Galileo Way. After following Galileo Way for about one block, the route turns to the northwest onto Binney Street and then north along the Grand Junction Railroad corridor. The route follows the Grand Junction Railroad corridor to the MBTA commuter rail tracks near the McGrath Highway overpass. At this juncture, the route turns sharply to the west following the MBTA commuter rail tracks to the Prospect Street overpass before entering the Somerville Substation from the south.   |
| S11      | Cambridge,<br>Somerville              | Broadway,<br>Linwood Street,<br>Washington Street,<br>Prospect Street                    | Grand Junction Railroad,<br>MBTA Commuter Rail            | None  | None                            | This route heads west from the New Substation Site onto Broadway for about one block before turning north onto the Grand Junction Railroad corridor. The route follows the eastern edge of the Grand Junction Railroad corridor to the MBTA commuter rail tracks near the McGrath Highway overpass. At this juncture, the route would likely cross beneath the MBTA railroad tracks using a trenchless construction technique to reach Linwood Street to the northwest. The route follows Linwood Street in a northwesterly direction across McGrath Highway and beneath the Route 28 overpass, where the route turns west onto Washington Street. The route follows Washington Street to Prospect Street, where it then turns south towards Union Square and into the Somerville Substation. |

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|----------|---------------------------------------|--|---|---|---------------------------------|--|
| S11A     | Cambridge,<br>Somerville              | Broadway, Galileo Way, Hampshire Street, Cardinal Medeiros Avenue, Binney Street, Linwood Street, Washington Street, Prospect Street | Grand Junction Railroad, MBTA Commuter Rail | None  | None                            | This route heads west from the New Substation Site onto Broadway, through the intersection with Galileo Way, to Hampshire Street. The route follows Hampshire Street for about one block before turning north onto Cardinal Medeiros Avenue. The route follows Cardinal Medeiros Avenue for about 550-feet before turning east onto Binney Street. The route follows Binney Street for about 500-feet before turning north along an access driveway associated with the One Kendall Square Garage. The route follows the access drive to its end where it then transitions onto the Grand Junction Railroad corridor that abuts the access drive and garage property. The route follows the western edge of the Grand Junction Railroad corridor predominantly to the McGrath Highway overpass and the MBTA commuter rail tracks. At this juncture, the route crosses beneath the MBTA railroad tracks using a trenchless construction technique to reach Linwood Street to the northwest. From this point forward, the route follows the same alignment described above for Route S11 to the Somerville Substation on Prospect Street.  |
| S11B     | Cambridge,<br>Somerville              | Broadway, Medford Street, Gore Street, Linwood Street, Washington Street, Prospect Street  | Grand Junction Railroad, MBTA Commuter Rail | None  | None                            | This route heads west from the New Substation Site onto Broadway for about one block before turning north onto the Grand Junction Railroad corridor. Segments of this route could potentially collocate with segments of the future location of the City of Cambridge's Grand Junction Railroad Multi-Use Pathway. The route follows the eastern edge of the Grand Junction Railroad corridor for about one-half mile, just past the Cambridge Street intersection, before exiting the railroad corridor in a northeasterly direction across a parking lot associated with the Cambridge Housing Authority's Millers River Apartment complex. The route continues in a northerly direction across Medford Street/Gore Street onto a second parking lot and perimeter access road/loading dock driveway associated with the Twin City Plaza retail complex. The route follows the access drive in a northerly direction towards the McGrath Highway overpass and the MBTA commuter rail tracks. At this juncture, the route would cross beneath the MBTA railroad tracks using a trenchless construction technique to reach Linwood Street to the northwest. From this point forward, the route follows the same alignment described above for Routes S11 and S11A to the Somerville Substation on Prospect Street. |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS   | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS       | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS | GENERAL ROUTE DESCRIPTION  |
|----------|---------------------------------------|---|--|---|---------------------------------|--|
| S11C     | Cambridge,<br>Somerville              | Broadway,<br>Medford Street,<br>Gore Street,<br>Linwood Street,<br>Washington Street,<br>Prospect Street  | Grand Junction Railroad,<br>MBTA Commuter Rail | None  | None                            | <p>The intent of this route alignment is to potentially collocate with the future construction of the City of Cambridge's Grand Junction Railroad Multiuse Pathway between Broadway and Medford/Gore Street, predominantly within City-owned properties and easements outside the MBTA ROW. Because the preliminary design drawings for the multiuse pathway identify the pathway on both sides of the railroad corridor, the proposed transmission line route mimics these crossovers at select street crossings. More specifically, Route S11C heads west from the New Substation Site onto Broadway for about one block before turning north onto the Grand Junction Railroad corridor. The route follows the eastern edge of the Grand Junction Railroad ROW to Binney Street where it then crosses over the railroad tracks at a roughly 45-degree angle onto the west side of the rail corridor (again, following the future alignment of Cambridge's multiuse pathway). Route S11C stays on the west side of the rail corridor until it reaches Cambridge Street where it crosses over the railroad tracks at a roughly 45-degree angle onto the east side of the rail corridor to collocate with the future multiuse pathway. Route S11C stays on the east side of the rail corridor until it reaches Medford Street/Gore Street. At this point, Route S11C crosses over the railroad tracks at a roughly 45-degree angle, following the railroad corridor across a commercial / industrial property to the MBTA commuter rail tracks. Route S11C would then cross the commuter rail tracks using a trenchless construction technique to reach Linwood Street to the northwest. From this point forward, the route follows the same alignment described above for Routes S11, S11A and S11B to the Somerville Substation on Prospect Street.</p> |
| S12      | Cambridge,<br>Somerville              | Broadway, Cardinal<br>Medeiros Avenue,<br>Cambridge Street,<br>Warren Street,<br>Medford Street,<br>South Street,<br>Columbia Street,<br>Windsor Place,<br>Milk Alley, Bennett<br>Court | MBTA Commuter Rail                             | None  | None                            | <p>This route heads west from the New Substation site onto Broadway for about one block before turning north onto Cardinal Medeiros Avenue. The route follows Cardinal Medeiros Avenue to the intersection with Cambridge Street. The route turns east onto Cambridge Street and then north onto Warren Street up to Medford Street. At Medford Street, the route heads northwest and then west onto South Street. The route follows South Street to Columbia Street where it turns north for about 100-feet before heading to the northeast across a private commercial parking lot, Windsor Place, and a second commercial parking lot north of Windsor Place. From this parking lot, the route crosses beneath the MBTA commuter tracks likely using a trenchless crossing technique. After crossing the tracks, the route then heads in a northwesterly direction around the eastern edge of the future site of the MBTA's new Union Square train station platform, across a parcel of land that is being redeveloped by the City of Somerville for mixed uses (Union Station Project), generally following the approximate alignment of two proposed roadways identified as Milk Alley and Bennett Court (slightly north than what is described above for Route S1), to Prospect Street. The route then turns south onto Prospect Street and enters the Somerville Substation facility from the east.</p>   |

| ROUTE ID | MUNICIPALITIES<br>CROSSED BY<br>ROUTE | STREETS  | MAJOR RAIL<br>CROSSINGS AND<br>CORRIDORS          | MAJOR<br>CONSERVATION<br>AREA/OPEN SPACE<br>CROSSINGS | MAJOR<br>WATERBODY<br>CROSSINGS | GENERAL ROUTE DESCRIPTION   |
|----------|---------------------------------------|--|---|---|---------------------------------|---|
| S13      | Cambridge,<br>Somerville              | Broadway, Inman Street, Hampshire Street, Springfield Street, Concord Avenue, Newton Street  | MBTA Commuter Rail (span on Newton Street bridge) | None  | None                            | This route heads west from the New Substation Site onto Broadway before turning north onto Inman Street. The route follows Inman Street across Hampshire Street to Springfield Street. From Springfield Street, the route heads northeast onto Concord Avenue and Newton Street, over the MBTA commuter rail tracks and into the Somerville Substation from the west.   |
| S13A     | Cambridge,<br>Somerville              | Broadway, Inman Street, Hampshire Street, Springfield Street, Concord Avenue, Newton Street, Prospect Street, Somerville Avenue, Milk Alley, Bennett Court | MBTA Commuter Rail (span on Newton Street bridge) | None  | None                            | This route follows the same alignment described above for Route S13; however, instead of entering the substation from the west on Newton Street, this route continues along Newton Street to Prospect Street. The route continues north on Prospect Street for about a hundred feet before turning east through Union Square onto Somerville Avenue and then south on Milk Place through the Union Station mixed use development described above. The route then follows the alignment described above for Route S12 to reach the Somerville Substation from the east.  |
| S14      | Cambridge,<br>Somerville              | Broadway, Columbia Street, Beach Avenue, Windsor Place, Milk Alley, Bennett Court, Prospect Street   | MBTA Commuter Rail                                | None  | None                            | This route heads west from the New Substation Site onto Broadway before heading north on Columbia Street. The route follows Columbia Street into the City of Somerville to Beach Avenue, where the route heads northeast across a private commercial parking lot, Windsor Place, and a second commercial parking lot north of Windsor Place. From this second parking lot, the route crosses beneath the MBTA commuter tracks likely using a trenchless crossing technique. After crossing the tracks, the route then heads in a northwesterly direction around the eastern edge of the future site of the MBTA's new Union Square train station platform, across a parcel of land that is being redeveloped by the City of Somerville and D2 for mixed uses ("D2 Project Site"), generally following the approximate alignment of two proposed roadways identified as Milk Alley and Bennett Court (following the same alignment as Route S12), to Prospect Street. The route then turns south onto Prospect Street and enters the Somerville Substation facility from the east. |
| S14A     | Cambridge,<br>Somerville              | Broadway, Columbia Street, Beach Avenue, Windsor Place, Milk Alley, Charlestown Place, Prospect Street   | MBTA Commuter Rail                                | None  | None                            | This route follows the same alignment described above for Route S14 up to the City of Somerville / D2 project development site. From this juncture, the route turns to the west, generally parallel to the MBTA's new Union Square train station platform along Charlestown Place, towards Prospect Street where it enters the Somerville Substation facility, likely through a trenchless crossing technique beneath Prospect Street.  |



**Appendix 4-3**

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Transportation Impacts Route Scoring Criterion Data

## Brighton Study Area East

Date: 9/28/2021  
Candidate Route: Brighton B-2A

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name         | Segment Limits   | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location   | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|---------------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|----------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 285.0         | Broadway            | Kendall Blue Garage to Ames Street   | 3                      | 1575  | 720         | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T1             | 410                                       | 336                               | 365                           | 309                   | 50                              | 59                      | 105                                  | 55                                | 134                       |
| 600.0         | Ames Street         | Broadway to Main Street  | 1                      | 2082  | 1482        | No              | NA  | Two-Way Alternating Traffic   | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T7             | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 1270.0        | Ames Street         | Main Street to Memorial Drive  | 1                      | 2854  | 1584        | No              | NA  | Two-Way Alternating Traffic   | 58                          | 6                             | 49                                 | 7                               | 7/22/2020                      | 12:30PM                        | 8/10/2021-8/12/2021 | T31            | 255                                       | 318                               | 230                           | 294                   | 25                              | 28                      | 195                                  | 30                                | 52                        |
| 125.0         | Memorial Drive      | Ames Street to Memorial Drive EB   | 3                      | 455   | 80          | Yes             | NA  | Road Closure - Detour         | 10                          | 0                             | 7                                  | 4                               | 9/4/2020                       | 1:00PM                         | 8/10/2021-8/12/2021 | T31            | 40  | 318                               | 40                            | 294                   | 0                               | 28                      | 30                                   | 15                                | 52                        |
| 1700.0        | Memorial Drive EB   | Memorial Drive EB to Mass Ave Intersection   | 3                      | 5264  | 164         | Yes             | NA  | Road Closure - Detour         | 197                         | 1                             | 36                                 | 23                              | 9/4/2020                       | 1:15PM                         | 8/10/2021-8/12/2021 | T34 EB-T36+T35 | 790                                       | 668                               | 790                           | 665                   | 5                               | 9                       | 145                                  | 90                                | 11                        |
| 2100.0        | Memorial Drive EB   | Mass Ave Intersection to Memorial Drive (undivided)  | 3                      | 6332  | 32          | Yes             | NA  | Road Closure - Detour         | 57                          | 0                             | 26                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T34 EB + T36   | 230                                       | 1062                              | 230                           | 1054                  | 0                               | 15                      | 105                                  | 70                                | 3                         |
| 2065.0        | Memorial Drive      | Memorial Drive (undivided) to Vassar Street  | 3                      | 6351  | 156         | No              | NA  | Two-way Lane Shift            | 198                         | 2                             | 21                                 | 10                              | 9/4/2020                       | 10:15AM                        | 8/10/2021-8/12/2021 | T34            | 1704                                      | 1733                              | 790                           | 1724                  | 10                              | 13                      | 85                                   | 40                                | 2                         |
| 880.0         | Memorial Drive      | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | 3                      | 2717  | 77          | Yes             | NA  | Road Closure - Detour         | 243                         | 1                             | 27                                 | 17                              | 9/4/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T34            | 1704                                      | 1733                              | 970                           | 1724                  | 5                               | 13                      | 110                                  | 70                                | 2                         |
| 465.0         | Memorial Drive      | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | 3                      | 1455  | 60          | Yes             | NA  | Road Closure - Detour         | 143                         | 3                             | 27                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T62            | 585                                       | 1236                              | 570                           | 1218                  | 10                              | 36                      | 110                                  | 70                                | 67                        |
| 580.0         | Memorial Drive      | Memorial Drive EB Exit Ramp to Reid Rotary to Magazine Beach   | 3                      | 1780  | 40          | Yes             | NA  | Road Closure - Detour         | 158                         | 7                             | 15                                 | 13                              | 9/4/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T44            | 660                                       | 1833                              | 630                           | 1827                  | 30                              | 30                      | 60                                   | 50                                | 5                         |
| 840.0         | Magazine Beach      | Memorial Drive to Charles River  | 0.5                    | 570   | 150         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 720.0         | Charles River       | Magazine Beach to Soldiers Field Road  | 0.5                    | 710   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 260.0         | Soldiers Field Road | Charles River to Allston Yard  | 0.5                    | 130   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 2475.0        | Allston Yard        | Soldiers Field Road to DCR Property  | 0.5                    | 1237.5  | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 210.0         | DCR Property        | Allston Yard to Lincoln Street   | 0.5                    | 105   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1350.0        | Lincoln Street      | DCR Property to Brighton Station   | 1                      | 2382  | 1032        | No              | NA  | Two-Way Alternating Traffic   | 77                          | 7                             | 3                                  | 0                               | 9/2/2020                       | 9:00AM                         | 8/10/2021-8/12/2021 | T47            | 335                                       | 366                               | 310                           | 348                   | 30                              | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 15925.00 |
| Total Impact Length (feet) | 35999.50 |
| Score                      | 2.26     |

Date: 9/28/2021

Candidate Route: Brighton B-2A

| Length (feet) | Street Name         | Segment Limits   | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification                        | Roadway Jurisdiction | Notes |
|---------------|---------------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|---|----------------------|-------|
| 285.0         | Broadway            | Kendall Blue Garage to Ames Street   | 22                            | 4               | 1                       | 140                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 570   | Full      | Yes                         | 10  | Principal Arterial-Other                              | Cambridge            |       |
| 600.0         | Ames Street         | Broadway to Main Street  | 30                            | 2               | 2                       | 160                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 900   | Full      | Yes                         | 22  | Major Collector                                       | Cambridge            |       |
| 1270.0        | Ames Street         | Main Street to Memorial Drive  | 26                            | 2               | 1                       | 70                                | 720                               | 720  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 0   | Full      | Yes                         | 74  | Major Collector                                       | Cambridge            |       |
| 125.0         | Memorial Drive      | Ames Street to Memorial Drive EB   | 22                            | 1               | 2                       | 80                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 0   | Principal Arterial-Other                              | DCR                  |       |
| 1700.0        | Memorial Drive EB   | Memorial Drive EB to Mass Ave Intersection   | 14                            | 2               | 1                       | 130                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 34  | Principal Arterial-Other                              | DCR                  |       |
| 2100.0        | Memorial Drive EB   | Mass Ave Intersection to Memorial Drive (undivided)  | 14                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 32  | Principal Arterial-Other                              | DCR                  |       |
| 2065.0        | Memorial Drive      | Memorial Drive (undivided) to Vassar Street  | 40                            | 4               | 3                       | 140                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 16  | Principal Arterial-Other                              | DCR                  |       |
| 880.0         | Memorial Drive      | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | 22                            | 1               | 1                       | 65                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Principal Arterial-Other                              | DCR                  |       |
| 465.0         | Memorial Drive      | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | 15                            | 1               | 1                       | 50                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 10  | Principal Arterial-Other                              | DCR                  |       |
| 580.0         | Memorial Drive      | Memorial Drive EB Exit Ramp to Reid Rotary to Magazine Beach   | 24                            | 1               | 1                       | 40                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 0   | Principal Arterial-Other                              | DCR                  |       |
| 840.0         | Magazine Beach      | Memorial Drive to Charles River  | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | Partial             | Yes  | 100   | Full      | Yes                         | 50  | None  | DCR                  |       |
| 720.0         | Charles River       | Magazine Beach to Soldiers Field Road  | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None  | DCR                  |       |
| 260.0         | Soldiers Field Road | Charles River to Allston Yard  | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | Principal Arterial-Other Freeways or Expressways/None | MassDOT/Private      |       |
| 2475.0        | Allston Yard        | Soldiers Field Road to DCR Property  | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None  | Private              |       |
| 210.0         | DCR Property        | Allston Yard to Lincoln Street   | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None  | DCR                  |       |
| 1350.0        | Lincoln Street      | DCR Property to Brighton Station   | 26                            | 2               | 4                       | 210                               | 400                               | 400  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 22  | Major Collector                                       | Boston               |       |

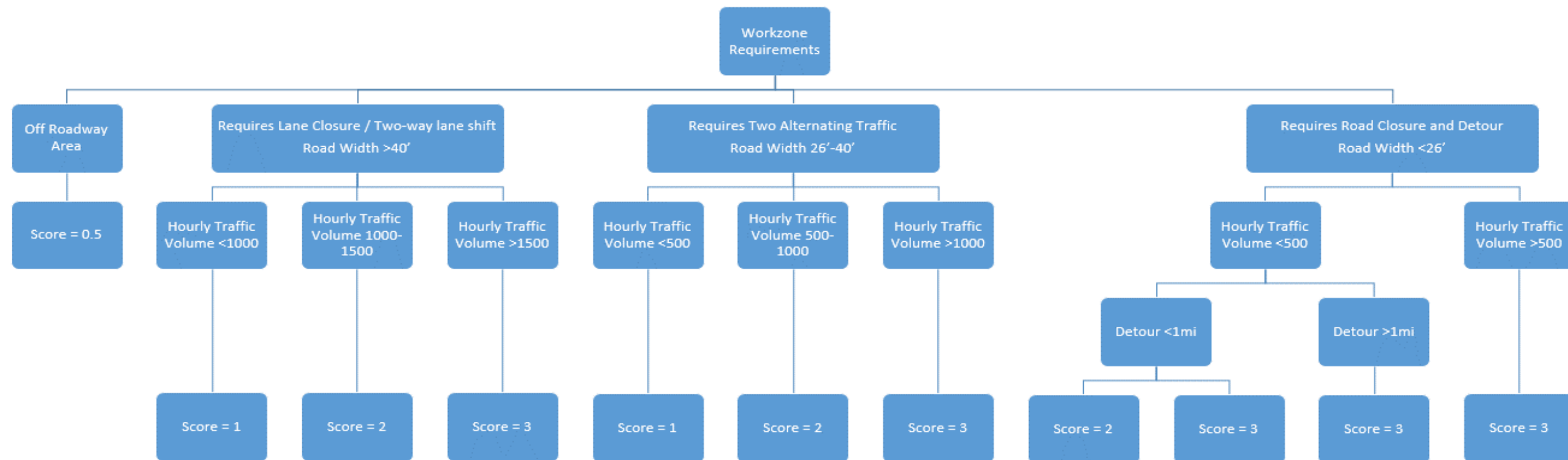
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| Roadway             |  | Intersection Name | Intersection Width (feet) |
|---------------------|--|-------------------|---------------------------|
| Broadway            | Kendall Blue Garage to Ames Street   | Ames Street       | 140                       |
|                     |  |                   |                           |
| Ames Street         | Broadway to Main Street  | Amherst Place     | 35                        |
|                     |  | Main Street       | 125                       |
|                     |  |                   |                           |
|                     | Main Street to Memorial Drive  | Amherst Street    | 70                        |
|                     |  |                   |                           |
| Memorial Drive      | Ames Street to Memorial Drive EB   | Memorial Drive WB | 55                        |
|                     |  | Memorial Drive EB | 25                        |
|                     |  |                   |                           |
|                     | Memorial Drive EB to Mass Ave Intersection   | Mass Ave          | 130                       |
|                     |  |                   |                           |
|                     | Mass Ave Intersection to Memorial Drive (undivided)  | None              |                           |
|                     |  |                   |                           |
|                     | Memorial Drive (undivided) to Vassar Street  | Audrey Street     | 50                        |
|                     |  | Amesbury Street   | 40                        |
|                     |  | Vassar Street     | 50                        |
|                     |  |                   |                           |
|                     | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | BU Bridge         | 65                        |
|                     |  |                   |                           |
|                     | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary       | 50                        |
|                     |  |                   |                           |
|                     | Memorial Drive EB Exit Ramp to Reid Rotary to Magazine Beach   | Parking Lot       | 40                        |
|                     |  |                   |                           |
| Magazine Beach      | Memorial Drive to Charles River  | None              |                           |
|                     |  |                   |                           |
| Charles River       | Magazine Beach to Soldiers Field Road  | None              |                           |
|                     |  |                   |                           |
| Soldiers Field Road | Charles River to Allston Yard  | None              |                           |
|                     |  |                   |                           |
| Allston Yard        | Soldiers Field Road to DCR Property  | None              |                           |
|                     |  | None              |                           |
|                     |  |                   |                           |
| DCR Property        | Allston Yard to Lincoln Street   | None              |                           |
|                     |  |                   |                           |
| Lincoln Street      | DCR Property to Brighton Station   | Lincoln Street    | 100                       |
|                     |  | Empire Street     | 30                        |
|                     |  | Royal Street      | 40                        |
|                     |  | Mansfield Street  | 40                        |

| Roadway        | Roadway Segment   | treatment                                   | location along road | length of facility | Width (feet) of facility |
|----------------|---|---|---------------------|--------------------|--------------------------|
| Broadway       | Kendall Blue Garage to Ames Street  | Ames Street                                 | 1                   | West               | 10                       |
| Ames Street    | Broadway to Main Street   | Ames Street at Broadway                     | 1                   | South              | 12                       |
|                |   | Ames Street at Main Street                  | 1                   | North              | 10                       |
|                | Main Street to Memorial Drive   | Ames Street at Main Street                  | 1                   | South              | 10                       |
|                |   | Ames Street (mid-block)                     | 1                   | North              | 10                       |
|                |   | Ames Street (mid-block)                     | 1                   | South              | 24                       |
|                |   | Ames @ Amherst                              | 1                   | North              | 10                       |
|                |   | Ames @ Amherst                              | 1                   | South              | 12                       |
|                |   | Memorial Drive                              | 1                   | North              | 8                        |
| Memorial Drive | Ames Street to Memorial Drive EB  |   |                     |                    |                          |
|                | Memorial Drive EB to Mass Ave Intersection  | Mem Drive (mid-block)                       | 1                   | N/A                | 12                       |
|                |   | Mem Drive (mid-block)                       | 1                   | N/A                | 12                       |
|                |   | Mass Ave                                    | 1                   | East               | 10                       |
|                | Mass Ave Intersection to Memorial Drive (undivided)   | Mass Ave                                    | 1                   | West               | 10                       |
|                |   | Mem Drive (mid-block)                       | 1                   | N/A                | 10                       |
|                |   | Mem Drive (mid-block)                       | 1                   | N/A                | 12                       |
|                | Memorial Drive (undivided) to Vassar Street   | Amesbury Street                             | 1                   | East               | 8                        |
|                |   | Amesbury Street                             | 1                   | West               | 8                        |
|                | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                           | Memorial Drive EB Entrance Ramp @ BU Bridge | 1                   | East               | 12                       |
|                | Memorial Drive BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary                                 | 1                   | South              | 10                       |
|                | Memorial Drive Exit Ramp to Reid Rotary to Magazine Beach   | None  |                     |                    |                          |
| Magazine Beach | Memorial Drive to Charles River   | Multi-use Path                              | 5                   | In Park            | 50                       |
| Charles River  | Magazine Beach to Allston Yard  | None  |                     |                    |                          |
| Allston yard   | Charles River to DCR Property   | None  |                     |                    |                          |
| DCR Property   | Allston Yard to Lincoln Street  | None  |                     |                    |                          |
| Lincoln Street | DCR Property to Brighton Station  | Lincoln Street @ Cambridge Street           | 1                   | North              | 10                       |
|                |   | Mansfield Street                            | 1                   | East               | 12                       |

| Roadway             |   | Intersection Name      | Number of crossings | location of crossing along road | Crossing Width (feet) |
|---------------------|---|------------------------|---------------------|---------------------------------|-----------------------|
| Broadway            | Kendall Blue Garage to Ames Street  | Bicycle Lane           | North               | 285                             | 5                     |
|                     |   | Bicycle Lane           | South               | 285                             | 5                     |
| Ames Street         | Broadway to Main Street   | Bicycle Lane (2 Lanes) | West                | 450                             | 5                     |
|                     |   | Sharrow                | East                | 450                             | 5                     |
|                     | Main Street to Memorial Drive   | None                   |                     |                                 | 0                     |
| Memorial Drive      | Ames Street to Memorial Drive EB  | None                   |                     |                                 | 0                     |
|                     | Memorial Drive EB to Mass Ave Intersection  | None                   |                     |                                 | 0                     |
|                     | Mass Ave Intersection to Memorial Drive (undivided)   | None                   |                     |                                 | 0                     |
|                     | Memorial Drive (undivided) to Vassar Street   | None                   |                     |                                 | 0                     |
|                     | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                           | None                   |                     |                                 | 0                     |
|                     | Memorial Drive BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | None                   |                     |                                 | 0                     |
|                     | Memorial Drive Exit Ramp to Reid Rotary to Magazine Beach   | None                   |                     |                                 | 0                     |
| Magazine Beach      | Memorial Drive to Charles River   | Multi-use path         | Various             | 100                             | 10                    |
| Charles River       | Magazine Beach to Soldiers Field Road   | None                   |                     |                                 | 0                     |
| Soldiers Field Road | Charles River to Allston Yard   | None                   |                     |                                 | 0                     |
| Allston Yard        | Soldiers Field Road to DCR Property   | None                   |                     |                                 | 0                     |
|                     |   | None                   |                     |                                 | 0                     |
| DCR Property        | Allston Yard to Lincoln Street  | None                   |                     |                                 | 0                     |
| Lincoln Street      | DCR Property to Brighton Station  | None                   |                     |                                 | 0                     |

# Segment Score Logic - Workzone Setup





Date: 9/28/2021  
Candidate Route: Brighton B-25

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name                        | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location   | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|------------------------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|----------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 285.0         | Broadway                           | Kendall Blue Garage to Ames Street  | 3                      | 1575.0  | 720         | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T2             | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 600.0         | Ames Street                        | Broadway to Main Street   | 1                      | 2082.0  | 1482        | No              | NA  | Two-Way Alternating Traffic   | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T7             | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 1270.0        | Ames Street                        | Main Street to Memorial Drive   | 1                      | 2854.0  | 1584        | No              | NA  | Two-Way Alternating Traffic   | 58                          | 6                             | 49                                 | 7                               | 7/22/2020                      | 12:30PM                        | 8/10/2021-8/12/2021 | T31            | 255                                       | 318                               | 230                           | 294                   | 25                              | 28                      | 195                                  | 30                                | 52                        |
| 125.0         | Memorial Drive                     | Ames Street to Memorial Drive EB  | 3                      | 455.0   | 80          | Yes             | NA  | Road Closure - Detour         | 10                          | 0                             | 7                                  | 4                               | 9/4/2020                       | 1:00PM                         | 8/10/2021-8/12/2021 | T31            | 40  | 318                               | 40                            | 294                   | 0                               | 28                      | 30                                   | 15                                | 52                        |
| 1700.0        | Memorial Drive                     | Memorial Drive EB to Mass Ave Intersection  | 3                      | 5264.0  | 164         | Yes             | NA  | Road Closure - Detour         | 197                         | 1                             | 36                                 | 23                              | 9/4/2020                       | 1:15PM                         | 8/10/2021-8/12/2021 | T34 EB-T36+T35 | 790                                       | 668                               | 790                           | 665                   | 5                               | 9                       | 145                                  | 90                                | 11                        |
| 2100.0        | Memorial Drive                     | Mass Ave Intersection to Memorial Drive (undivided)   | 3                      | 6332.0  | 32          | Yes             | NA  | Road Closure - Detour         | 57                          | 0                             | 26                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T34 EB + T36   | 230                                       | 1062                              | 230                           | 1054                  | 0                               | 15                      | 105                                  | 70                                | 3                         |
| 2065.0        | Memorial Drive                     | Memorial Drive (undivided) to Vassar Street   | 3                      | 6351.0  | 156         | No              | NA  | Two-way Lane Shift            | 198                         | 2                             | 21                                 | 10                              | 9/4/2020                       | 10:15AM                        | 8/10/2021-8/12/2021 | T34            | 1704                                      | 1733                              | 790                           | 1724                  | 10                              | 13                      | 85                                   | 40                                | 2                         |
| 880.0         | Memorial Drive                     | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                           | 3                      | 2717.0  | 77          | Yes             | NA  | Road Closure - Detour         | 243                         | 1                             | 27                                 | 17                              | 9/4/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T34            | 1704                                      | 1733                              | 970                           | 1724                  | 5                               | 13                      | 110                                  | 70                                | 2                         |
| 465.0         | Memorial Drive                     | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | 3                      | 1455.0  | 60          | Yes             | NA  | Road Closure - Detour         | 143                         | 3                             | 27                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T62            | 585                                       | 1236                              | 570                           | 1218                  | 10                              | 36                      | 110                                  | 70                                | 67                        |
| 3100.0        | Memorial Drive                     | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/River Street                                     | 3                      | 9520.0  | 220         | No              | NA  | Two-way Lane Shift            | 382                         | 4                             | 15                                 | 24                              | 9/3/2020                       | 2:30PM                         | 8/10/2021-8/12/2021 | T44            | 1545                                      | 1833                              | 1530                          | 1827                  | 15                              | 30                      | 60                                   | 95                                | 5                         |
| 6000.0        | Memorial Drive                     | River/Cambridge Street to Ash Street  | 2                      | 12494.0   | 494         | No              | NA  | Two-way Lane Shift            | 236                         | 1                             | 29                                 | 14                              | 9/3/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T53            | 950                                       | 1417                              | 945                           | 1411                  | 5                               | 37                      | 115                                  | 55                                | 4                         |
| 530.0         | Ash Street                         | Memorial Drive to Mount Auburn Street   | 3                      | 2410.0  | 820         | Yes             | NA  | Road Closure - Detour         | 3                           | 0                             | 6                                  | 1                               | 9/3/2020                       | 12:30PM                        | N/A                 | N/A            | 10  | N/A                               | 10                            | N/A                   | 0                               | N/A                     | 25                                   | 5                                 | N/A                       |
| 270.0         | Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street  | 1                      | 812.0   | 542         | No              | NA  | Two-way Lane Shift            | 67                          | 9                             | 66                                 | 5                               | 9/3/2020                       | 12:45PM                        | 8/10/2021-8/12/2021 | T58            | 305                                       | 386                               | 270                           | 361                   | 35                              | 51                      | 265                                  | 20                                | 26                        |
| 280.0         | Private Property                   | Mt Auburn Street to Charles River   | 0.5                    | 140.0   | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 415.0         | Charles River                      | Private Property to Private Property  | 0.5                    | 207.5   | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 2175.0        | Private Property                   | Charles River to Soldiers Field Road  | 0.5                    | 1087.5  | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 800.0         | Soldiers Field Road                | Private Property to Harvard Athletics Path/Parking  | 3                      | 2400.0  | 0.0         | No              | NA  | Two-Way Alternating Traffic   | 0                           | 0                             | 0                                  | 0                               | 9/3/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T65            | 0   | 1113                              | 0                             | 1095                  | 0                               | 25                      | 0                                    | 0                                 | 2                         |
| 1475.0        | Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street   | 0.5                    | 737.5   | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1500.0        | North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street   | 2                      | 6813.0  | 3813.0      | No              | NA  | Two-Way Alternating Traffic   | 113                         | 7                             | 12                                 | 10                              | 9/2/2020                       | 2:30PM                         | 8/10/2021-8/12/2021 | T61            | 480                                       | 613                               | 450                           | 545                   | 30                              | 116                     | 50                                   | 40                                | 47                        |
| 1500.0        | Franklin Street                    | North Harvard Street to Bradbury Street   | 1                      | 6972.0  | 5472.0      | No              | NA  | Two-Way Alternating Traffic   | 29                          | 1                             | 11                                 | 4                               | 9/2/2020                       | 12:30PM                        | 8/10/2021-8/12/2021 | T48            | 120                                       | 105                               | 115                           | 105                   | 5                               | 6                       | 45                                   | 15                                | 25                        |
| 440.0         | Bradbury Street                    | Franklin Street to Mansfield Street   | 1                      | 1185.0  | 745.0       | No              | NA  | Two-Way Alternating Traffic   | 7                           | 0                             | 3                                  | 0                               | 9/2/2020                       | 9:45AM                         | 8/10/2021-8/12/2021 | T50            | 30  | 29                                | 30                            | 27                    | 0                               | 3                       | 10                                   | 0                                 | 5                         |
| 820.0         | Mansfield Street                   | Bradbury Street to Lincoln Street   | 1                      | 2322.0  | 1502.0      | No              | NA  | Two-Way Alternating Traffic   | 8                           | 0                             | 3                                  | 0                               | 9/2/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T49            | 30  | 31                                | 30                            | 29                    | 0                               | 3                       | 10                                   | 0                                 | 3                         |
| 500.0         | Lincoln Street                     | Mansfield Street to Brighton Station  | 3                      | 1500.0  | 0.0         | Yes             | NA  | Road Closure - Detour         | 74                          | 1                             | 2                                  | 0                               | 9/2/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T47            | 300                                       | 366                               | 295                           | 348                   | 5                               | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 29295.00 |
| Total Impact Length (feet) | 77685.50 |
| Score                      | 2.65     |

Date: 9/28/2021

Candidate Route: Brighton B-25

| Length (feet) | Street Name                        | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|------------------------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 285.0         | Broadway                           | Kendall Blue Garage to Ames Street  | 22                            | 2               | 1                       | 140                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 570   | Full      | Yes                         | 10  | Principal Arterial-Other       | Cambridge            |       |
| 600.0         | Ames Street                        | Broadway to Main Street   | 30                            | 2               | 2                       | 160                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 900   | Full      | Yes                         | 22  | Major Collector                | Cambridge            |       |
| 1270.0        | Ames Street                        | Main Street to Memorial Drive   | 26                            | 2               | 1                       | 70                                | 720                               | 720  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 0   | Full      | Yes                         | 74  | Major Collector                | Cambridge            |       |
| 125.0         | Memorial Drive                     | Ames Street to Memorial Drive EB  | 22                            | 1               | 2                       | 80                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 0   | Principal Arterial-Other       | DCR                  |       |
| 1700.0        | Memorial Drive                     | Memorial Drive EB to Mass Ave Intersection  | 14                            | 2               | 1                       | 130                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 34  | Principal Arterial-Other       | DCR                  |       |
| 2100.0        | Memorial Drive                     | Mass Ave Intersection to Memorial Drive (undivided)   | 14                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 32  | Principal Arterial-Other       | DCR                  |       |
| 2065.0        | Memorial Drive                     | Memorial Drive (undivided) to Vassar Street   | 40                            | 4               | 3                       | 140                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 16  | Principal Arterial-Other       | DCR                  |       |
| 880.0         | Memorial Drive                     | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                           | 22                            | 1               | 1                       | 65                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Principal Arterial-Other       | DCR                  |       |
| 465.0         | Memorial Drive                     | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | 15                            | 1               | 1                       | 50                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 10  | Principal Arterial-Other       | DCR                  |       |
| 3100.0        | Memorial Drive                     | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/River Street                                     | 40                            | 4               | 4                       | 210                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 10  | Principal Arterial-Other       | DCR                  |       |
| 6000.0        | Memorial Drive                     | River/Cambridge Street to Ash Street  | 40                            | 4               | 8                       | 430                               | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Partial   | Yes                         | 64  | Principal Arterial-Other       | DCR                  |       |
| 530.0         | Ash Street                         | Memorial Drive to Mount Auburn Street   | 14                            | 1               | 1                       | 50                                | 380                               | 380  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | yes                         | 10  | Local                          | Cambridge            |       |
| 270.0         | Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street  | 40                            | 2               | 1                       | 80                                | 220                               | 220  | No                         | No                | 0                                 | None                | No   | 0   | Full      | yes                         | 22  | Principal Arterial-Other       | Cambridge            |       |
| 280.0         | Private Property                   | Mt Auburn Street to Charles River   | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 415.0         | Charles River                      | Private Property to Private Property  | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 2175.0        | Private Property                   | Charles River to Soldiers Field Road  | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 800.0         | Soldiers Field Road                | Private Property to Harvard Athletics Path/Parking  | 30                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Principal Arterial-Other       | Boston               |       |
| 1475.0        | Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street   | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | Full      | Yes                         | 0   | None                           | Private              |       |
| 1500.0        | North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street   | 30                            | 2               | 5                       | 365                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 3000  | Full      | Yes                         | 48  | Minor Arterial                 | Boston               |       |
| 1500.0        | Franklin Street                    | North Harvard Street to Bradbury Street   | 28                            | 2               | 8                       | 230                               | 1060                              | 1060                                       | No                         | No                | 0                                 | Sharrow             | Yes  | 3100  | Full      | Yes                         | 22  | Local                          | Boston               |       |
| 440.0         | Bradbury Street                    | Franklin Street to Mansfield Street   | 26                            | 2               | 1                       | 25                                | 360                               | 360  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Local                          | Boston               |       |
| 820.0         | Mansfield Street                   | Bradbury Street to Lincoln Street   | 28                            | 2               | 3                       | 90                                | 700                               | 700  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Local                          | Boston               |       |
| 500.0         | Lincoln Street                     | Mansfield Street to Brighton Station  | 24                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Local                          | Boston               |       |

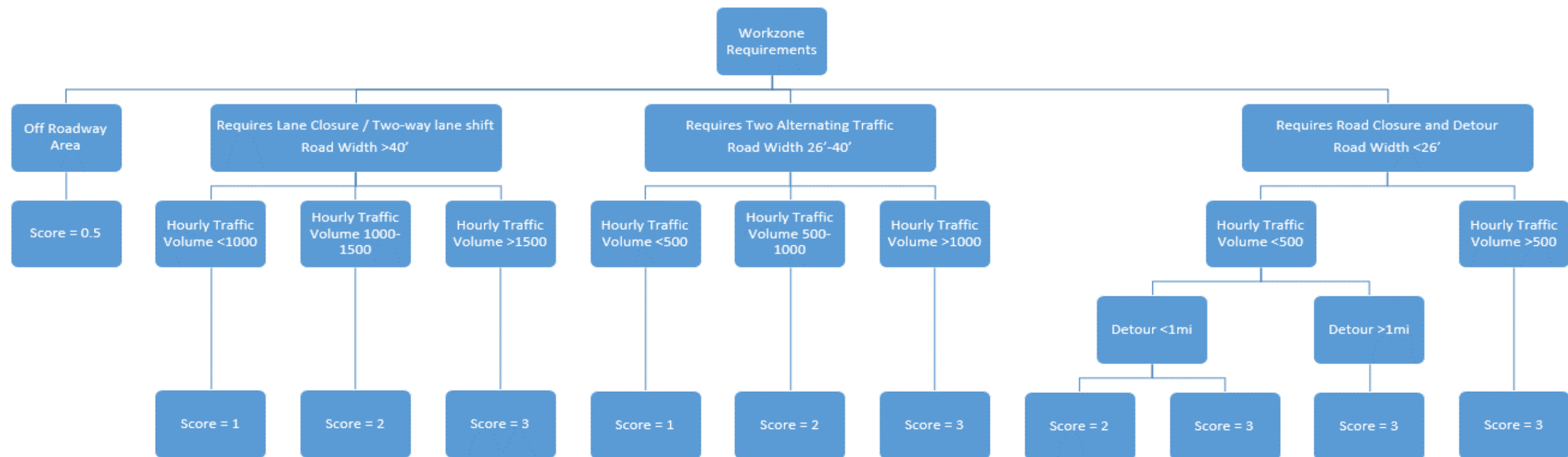
Calculated in Spreadsheet

| Roadway                            |  | Intersection Name                        | Intersection Width (feet) |
|------------------------------------|--|--|---------------------------|
| Broadway                           | Kendall Blue Garage to Ames Street   | Ames Street                              | 140                       |
| Ames Street                        | Broadway to Main Street  | Amherst Place                            | 35                        |
|                                    |  | Main Street                              | 125                       |
|                                    | Main Street to Memorial Drive  | Amherst Street                           | 70                        |
| Memorial Drive                     | Ames Street to Memorial Drive EB   | Memorial Drive WB                        | 55                        |
|                                    |  | Memorial Drive EB                        | 25                        |
|                                    | Memorial Drive EB to Mass Ave Intersection   | Mass Ave                                 | 130                       |
|                                    | Mass Ave Intersection to Memorial Drive (undivided)  | None                                     |                           |
|                                    | Memorial Drive (undivided) to Vassar Street  | Audrey Street                            | 50                        |
|                                    |  | Amesbury Street                          | 40                        |
|                                    |  | Vassar Street                            | 50                        |
|                                    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | BU Bridge                                | 65                        |
|                                    | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary                              | 50                        |
|                                    | Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge/River Street                                     | Parking Lot                              | 40                        |
|                                    |  | Magazine Street                          | 40                        |
|                                    |  | Pleasant Street Extension                | 30                        |
|                                    |  | Cambridge Street                         | 100                       |
|                                    | River/Cambridge Street to Ash Street   | Western Ave                              | 120                       |
|                                    |  | Hingham Street                           | 30                        |
|                                    |  | Akron Street                             | 25                        |
|                                    |  | Flagg Street                             | 35                        |
|                                    |  | Dewolfe Street                           | 45                        |
|                                    |  | Plympton Street                          | 30                        |
|                                    |  | JFK Street                               | 105                       |
|                                    |  | Ash Street                               | 40                        |
| Ash Street                         | Memorial Drive to Mount Auburn Street  | Mount Auburn Street                      | 50                        |
| Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street   | Hawthorn                                 | 80                        |
| Private Property                   | Mt Auburn Street to Charles River  |  |                           |
| Charles River                      | Private Property to Private Property   |  |                           |
| Private Property                   | Charles River to Soldiers Field Road   |  |                           |
| Soldiers Field Road                | Private Property to Harvard Athletics Path/Parking Lot   |  |                           |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street  |  |                           |
| North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street  | Intersection at 175 North Harvard Street | 100                       |
|                                    |  | Western Ave                              | 130                       |
|                                    |  | Bertram Street                           | 25                        |
|                                    |  | Spurr Street                             | 30                        |
|                                    |  | Kingsley Street                          | 80                        |
| Franklin Street                    | North Harvard Street to Bradburry Street   | Weitz Street                             | 35                        |
|                                    |  | Raymond Street                           | 30                        |
|                                    |  | Myrick Street                            | 40                        |
|                                    |  | Brentwood Street                         | 30                        |
|                                    |  | Fern Street                              | 20                        |
|                                    |  | Holton Street                            | 20                        |
|                                    |  | Easton Street                            | 30                        |
|                                    |  | Aldie Street/Bradburry Street            | 25                        |
| Bradburry Street                   | Franklin Street to Mansfield Street  | Bradburry Street                         | 25                        |
| Mansfield Street                   | Bradburry Street to Lincoln Street   | Coolidge Street                          | 30                        |
|                                    |  | Alcott Street                            | 25                        |
|                                    |  | Lincoln Street                           | 35                        |
| Lincoln Street                     | Mansfield Street to Brighton Station   |  |                           |

| Roadway                            |  | Intersection Name                           | Number of crossings | location of crossing along road | Crossing Width (feet) |
|------------------------------------|--|---|---------------------|---------------------------------|-----------------------|
| Broadway                           | Kendall Blue Garage to Ames Street   | Ames Street                                 | 1                   | West                            | 10                    |
| Ames Street                        | Broadway to Main Street  | Ames Street at Broadway                     | 1                   | South                           | 12                    |
|                                    |  | Ames Street at Main Street                  | 1                   | North                           | 10                    |
|                                    | Main Street to Memorial Drive  | Ames Street at Main Street                  | 1                   | South                           | 10                    |
|                                    |  | Ames Street (mid-block)                     | 1                   | North                           | 10                    |
|                                    |  | Ames Street (mid-block)                     | 1                   | South                           | 24                    |
|                                    |  | Ames @ Amherst                              | 1                   | North                           | 10                    |
|                                    |  | Ames @ Amherst                              | 1                   | South                           | 12                    |
|                                    |  | Memorial Drive                              | 1                   | North                           | 8                     |
| Memorial Drive                     | Ames Street to Memorial Drive EB   |   |                     |                                 |                       |
|                                    | Memorial Drive EB to Massachusetts Avenue  | Mem Drive (mid-block)                       | 1                   | N/A                             | 12                    |
|                                    |  | Mem Drive (mid-block)                       | 1                   | N/A                             | 12                    |
|                                    |  | Mass Ave                                    | 1                   | East                            | 10                    |
|                                    | Massachusetts Avenue to Memorial Drive (undivided)   | Mass Ave                                    | 1                   | West                            | 10                    |
|                                    |  | Mem Drive (mid-block)                       | 1                   | N/A                             | 10                    |
|                                    |  | Mem Drive (mid-block)                       | 1                   | N/A                             | 12                    |
|                                    | Memorial Drive (undivided) to Vassar Street  | Amesbury Street                             | 1                   | East                            | 8                     |
|                                    |  | Amesbury Street                             | 1                   | West                            | 8                     |
|                                    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                        | Memorial Drive EB Entrance Ramp @ BU Bridge | 1                   | East                            | 12                    |
|                                    | Memorial Drive BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | Reid Rotary                                 | 1                   | South                           | 10                    |
|                                    | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/River Street                                  | Cambridge Street                            | 1                   | South                           | 10                    |
|                                    | River/Cambridge Street to Ash Street   | Cambridge Street                            | 1                   | North                           | 10                    |
|                                    |  | Western Ave                                 | 1                   | North                           | 10                    |
|                                    |  | Dewolf Street                               | 1                   | East                            | 10                    |
|                                    |  | Dewolf Street                               | 1                   | West                            | 10                    |
|                                    |  | North Harvard Street                        | 1                   | East                            | 12                    |
|                                    |  | North Harvard Street                        | 1                   | West                            | 12                    |
| Ash Street                         | Memorial Drive to Mount Auburn Street  | Memorial Drive                              | 1                   | North                           | 10                    |
| Mount Auburn Street                | Ash Street to Private Proeperty @ Hawthorn Street  | Hawthorn                                    | 1                   | East                            | 10                    |
|                                    |  |   |                     | South                           | 12                    |
| Private Property                   | Mt Auburn Street to Charles River  |   |                     |                                 |                       |
| Charles River                      | Private Property to Private Property   |   |                     |                                 |                       |
| Private Property                   | Charles River to Soldiers Field Road   |   |                     |                                 |                       |
| Soldiers Field Road                | Private Property to Harvard Athletics Path/Parking Lot   |   |                     |                                 |                       |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street  |   |                     |                                 |                       |
| North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street  | Harvard Parking Lots Intersection           | 1                   | north                           | 16                    |
|                                    |  | Western Ave                                 | 1                   | north                           | 10                    |
|                                    |  | Western Ave                                 | 1                   | south                           | 10                    |
|                                    |  | Franklin Street                             | 1                   | north                           | 12                    |
| Franklin Street                    | North Harvard Street to Bradbury Street  | Franklin Street                             | 1                   | west                            | 12                    |
|                                    |  | Brentwood Street                            | 1                   | north                           | 10                    |
| Bradbury Street                    | Franklin Street to Mansfield Street  |   |                     |                                 |                       |
| Mansfield Street                   | Bradbury Street to Lincoln Street  | Lincoln Street                              | 1                   | North                           | 12                    |
| Lincoln Street                     | Mansfield Street to Brighton Station   |   |                     |                                 |                       |

| Roadway                            | Roadway Segment  | treatment              | location along road | length of facility | Width (feet) of facility |
|------------------------------------|--|------------------------|---------------------|--------------------|--------------------------|
| Broadway                           | Kendall Blue Garage to Ames Street   | Bicycle Lane           | North               | 285                | 5                        |
|                                    |  | Bicycle Lane           | South               | 285                | 5                        |
| Ames Street                        | Broadway to Main Street  | Bicycle Lane (2 Lanes) | West                | 450                | 5                        |
|                                    |  | Sharrow                | East                | 450                | 5                        |
|                                    | Main Street to Memorial Drive  | None                   |                     |                    | 0                        |
| Memorial Drive                     | Ames Street to Massachusetts Avenue  | None                   |                     |                    | 0                        |
|                                    | Massachusetts Avenue to Memorial Drive (undivided)   | None                   |                     |                    | 0                        |
|                                    | Memorial Drive (undivided) to Vassar Street  | None                   |                     |                    | 0                        |
|                                    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                        | None                   |                     |                    | 0                        |
|                                    | Memorial Drive BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | None                   |                     |                    | 0                        |
|                                    | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/River Street                                  | None                   |                     |                    | 0                        |
|                                    | River/Cambridge Street to Ash Street   |                        |                     |                    |                          |
| Ash Street                         | Memorial Drive to Mount Auburn Street  |                        |                     |                    |                          |
| Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street   |                        |                     |                    |                          |
| Private Property                   | Mount Auburn Street to Charles River   |                        |                     |                    |                          |
| Charles River                      | Private Property to Private Property   |                        |                     |                    |                          |
| Private Property                   | Charles River to Soldiers Field Road   |                        |                     |                    |                          |
| Soliders Field Road                | Private Property to Harvard Athletics Path/Parking Lot   |                        |                     |                    |                          |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street  |                        |                     |                    |                          |
| North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street  | Bike Lane              | East                | 1500               | 5                        |
|                                    |  | Bike Lane              | West                | 1500               | 5                        |
| Franklin Street                    | North Harvard Street to Bradbury Street  | Sharrow                | East                | 1550               | 5                        |
|                                    |  | Sharrow                | West                | 1550               | 5                        |
| Bradbury Street                    | Franklin Street to Mansfield Street  | None                   |                     |                    |                          |
| Mansfield Street                   | Bradbury Street to Lincoln street  | None                   |                     |                    |                          |
| Lincoln Street                     | Franklin Street to Brighton Station  | None                   |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Brighton B-25A

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name                        | Segment Limits   | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location   | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|------------------------------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|----------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 285.0         | Broadway                           | Kendall Blue Garage to Ames Street   | 3                      | 1575.0  | 720         | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T2             | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 600.0         | Ames Street                        | Broadway to Main Street  | 1                      | 2082.0  | 1482.0      | No              | NA  | Two-Way Alternating Traffic   | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T7             | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 1270.0        | Ames Street                        | Main Street to Memorial Drive  | 1                      | 2854.0  | 1584.0      | No              | NA  | Two-Way Alternating Traffic   | 58                          | 6                             | 49                                 | 7                               | 7/22/2020                      | 12:30PM                        | 8/10/2021-8/12/2021 | T31            | 255                                       | 318                               | 230                           | 294                   | 25                              | 28                      | 195                                  | 30                                | 52                        |
| 125.0         | Memorial Drive                     | Ames Street to Memorial Drive EB   | 3                      | 455.0   | 80.0        | Yes             | NA  | Road Closure - Detour         | 10                          | 0                             | 7                                  | 4                               | 9/4/2020                       | 1:00PM                         | 8/10/2021-8/12/2021 | T31            | 40  | 318                               | 40                            | 294                   | 0                               | 28                      | 30                                   | 15                                | 52                        |
| 1700.0        | Memorial Drive                     | Memorial Drive EB to Mass Ave Intersection   | 3                      | 5264.0  | 164.0       | Yes             | NA  | Road Closure - Detour         | 197                         | 1                             | 36                                 | 23                              | 9/4/2020                       | 1:15PM                         | 8/10/2021-8/12/2021 | T34 EB-T36+T35 | 790                                       | 668                               | 790                           | 665                   | 5                               | 9                       | 145                                  | 90                                | 11                        |
| 2100.0        | Memorial Drive                     | Mass Ave Intersection to Memorial Drive (undivided)  | 3                      | 6332.0  | 32.0        | Yes             | NA  | Road Closure - Detour         | 57                          | 0                             | 26                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T34 EB + T36   | 230                                       | 1062                              | 230                           | 1054                  | 0                               | 15                      | 105                                  | 70                                | 3                         |
| 2065.0        | Memorial Drive                     | Memorial Drive (undivided) to Vassar Street  | 3                      | 6351.0  | 156.0       | No              | NA  | Two-way Lane Shift            | 198                         | 2                             | 21                                 | 10                              | 9/4/2020                       | 10:15AM                        | 8/10/2021-8/12/2021 | T34            | 800                                       | 1733                              | 790                           | 1724                  | 10                              | 13                      | 85                                   | 40                                | 2                         |
| 880.0         | Memorial Drive                     | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                        | 3                      | 2717.0  | 77.0        | Yes             | NA  | Road Closure - Detour         | 243                         | 1                             | 27                                 | 17                              | 9/4/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T34            | 975                                       | 1733                              | 970                           | 1724                  | 5                               | 13                      | 110                                  | 70                                | 2                         |
| 465.0         | Memorial Drive                     | Memorial Drive BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | 3                      | 1455.0  | 60.0        | Yes             | NA  | Road Closure - Detour         | 143                         | 3                             | 27                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T62            | 585                                       | 1236                              | 570                           | 1218                  | 10                              | 36                      | 110                                  | 70                                | 67                        |
| 3100.0        | Memorial Drive                     | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/River Street                                  | 3                      | 9520.0  | 220.0       | No              | NA  | Two-way Lane Shift            | 382                         | 4                             | 15                                 | 24                              | 9/3/2020                       | 2:30PM                         | 8/10/2021-8/12/2021 | T44            | 1545                                      | 1833                              | 1530                          | 1827                  | 15                              | 30                      | 60                                   | 95                                | 5                         |
| 6000.0        | Memorial Drive                     | River/Cambridge Street to Ash Street   | 2                      | 12494.0   | 494.0       | No              | NA  | Two-way Lane Shift            | 236                         | 1                             | 29                                 | 14                              | 9/3/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T53            | 950                                       | 1417                              | 945                           | 1411                  | 5                               | 37                      | 115                                  | 55                                | 4                         |
| 530.0         | Ash Street                         | Memorial Drive to Mount Auburn Street  | 3                      | 2410.0  | 820.0       | Yes             | NA  | Road Closure - Detour         | 3                           | 0                             | 6                                  | 1                               | 9/3/2020                       | 12:30PM                        | N/A                 | N/A            | 10  | N/A                               | 10                            | N/A                   | 0                               | N/A                     | 25                                   | 5                                 | N/A                       |
| 270.0         | Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street   | 1                      | 812.0   | 542.0       | No              | NA  | Two-way Lane Shift            | 67                          | 9                             | 66                                 | 5                               | 9/3/2020                       | 12:45PM                        | 8/10/2021-8/12/2021 | T58            | 305                                       | 386                               | 270                           | 361                   | 35                              | 51                      | 265                                  | 20                                | 26                        |
| 280.0         | Private Property                   | Mount Auburn Street to Charles River   | 0.5                    | 140.0   | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 415.0         | Charles River                      | Private Property to Private Property   | 0.5                    | 207.5   | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 2175.0        | Private Property                   | Charles River to Soldiers Field Road   | 0.5                    | 1087.5  | 0.0         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 800.0         | Soldiers Field Road                | Private Property to Gated Entrance to Harvard Athletics Path/Parking Lot                           | 3                      | 2400.0  | 0.0         | No              | NA  | Two-Way Alternating Traffic   | 0                           | 0                             | 0                                  | 0                               | 9/3/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T65            | 0   | 1113                              | 0                             | 1095                  | 0                               | 25                      | 0                                    | 0                                 | 2                         |
| 1900.0        | Harvard Athletics Path/Parking Lot | Soldiers Field Road to Western Ave   | 0.5                    | 1050.0  | 100.0       | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A            | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 300.0         | Western Ave/Spurr Street           | Harvard Athletics Path/Parking Lot to North Harvard Street   | 2                      | 1107.0  | 507.0       | No              | NA  | Two-Way Alternating Traffic   | 33                          | 3                             | 3                                  | 2                               | 9/2/2020                       | 1:45PM                         | 8/10/2021-8/12/2021 | T64            | 145                                       | 746                               | 130                           | 693                   | 10                              | 92                      | 10                                   | 10                                | 25                        |
| 300.0         | North Harvard Street               | Spurr Street to Franklin Street  | 2                      | 1692.0  | 1092.0      | No              | NA  | Two-Way Alternating Traffic   | 113                         | 7                             | 12                                 | 10                              | 9/2/2020                       | 2:30PM                         | 8/10/2021-8/12/2021 | T61            | 480                                       | 613                               | 450                           | 545                   | 30                              | 116                     | 50                                   | 40                                | 47                        |
| 1500.0        | Franklin Street                    | North Harvard Street to Bradbury Street  | 1                      | 6972.0  | 5472.0      | No              | NA  | Two-way Lane Shift            | 29                          | 1                             | 11                                 | 4                               | 9/2/2020                       | 12:30PM                        | 8/10/2021-8/12/2021 | T48            | 120                                       | 105                               | 115                           | 105                   | 5                               | 6                       | 45                                   | 15                                | 25                        |
| 440.0         | Bradbury Street                    | Franklin Street to Mansfield Street  | 1                      | 1185.0  | 745.0       | No              | NA  | Two-Way Alternating Traffic   | 7                           | 0                             | 3                                  | 0                               | 9/2/2020                       | 9:45AM                         | 8/10/2021-8/12/2021 | T50            | 30  | 29                                | 30                            | 27                    | 0                               | 3                       | 10                                   | 0                                 | 5                         |
| 820.0         | Mansfield Street                   | Bradbury Street to Lincoln Street  | 1                      | 2322.0  | 1502.0      | No              | NA  | Two-Way Alternating Traffic   | 8                           | 0                             | 3                                  | 0                               | 9/2/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T49            | 30  | 31                                | 30                            | 29                    | 0                               | 3                       | 10                                   | 0                                 | 3                         |
| 500.0         | Lincoln Street                     | Mansfield Street to Brighton Station   | 3                      | 1500.0  | 0.0         | Yes             | NA  | Road Closure - Detour         | 74                          | 1                             | 2                                  | 0                               | 9/2/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T47            | 300                                       | 366                               | 295                           | 348                   | 5                               | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 28820.00 |
| Total Impact Length (feet) | 73984.00 |
| Score                      | 2.57     |

Date: 9/28/2021

Candidate Route: Brighton B-25A

| Length (feet) | Street Name                        | Segment Limits   | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|------------------------------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 285.0         | Broadway                           | Kendall Blue Garage to Ames Street   | 22                            | 2               | 1                       | 140                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 570   | Full      | Yes                         | 10  | Principal Arterial-Other       | Cambridge            |       |
| 600.0         | Ames Street                        | Broadway to Main Street  | 30                            | 2               | 2                       | 160                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 900   | Full      | Yes                         | 22  | Major Collector                | Cambridge            |       |
| 1270.0        | Ames Street                        | Main Street to Memorial Drive  | 26                            | 2               | 1                       | 70                                | 720                               | 720  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 0   | Full      | Yes                         | 74  | Major Collector                | Cambridge            |       |
| 125.0         | Memorial Drive                     | Ames Street to Memorial Drive EB   | 22                            | 1               | 2                       | 80                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 0   | Principal Arterial-Other       | DCR                  |       |
| 1700.0        | Memorial Drive                     | Memorial Drive EB to Mass Ave Intersection   | 14                            | 2               | 1                       | 130                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 34  | Principal Arterial-Other       | DCR                  |       |
| 2100.0        | Memorial Drive                     | Mass Ave Intersection to Memorial Drive (undivided)  | 14                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 32  | Principal Arterial-Other       | DCR                  |       |
| 2065.0        | Memorial Drive                     | Memorial Drive (undivided) to Vassar Street  | 40                            | 4               | 3                       | 140                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 16  | Principal Arterial-Other       | DCR                  |       |
| 880.0         | Memorial Drive                     | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                        | 22                            | 1               | 1                       | 65                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Principal Arterial-Other       | DCR                  |       |
| 465.0         | Memorial Drive                     | Memorial Drive BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | 15                            | 1               | 1                       | 50                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 10  | Principal Arterial-Other       | DCR                  |       |
| 3100.0        | Memorial Drive                     | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/River Street                                  | 40                            | 4               | 4                       | 210                               | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Partial   | Yes                         | 10  | Principal Arterial-Other       | DCR                  |       |
| 6000.0        | Memorial Drive                     | River/Cambridge Street to Ash Street   | 40                            | 4               | 8                       | 430                               | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Partial   | Yes                         | 64  | Principal Arterial-Other       | DCR                  |       |
| 530.0         | Ash Street                         | Memorial Drive to Mount Auburn Street  | 14                            | 1               | 1                       | 50                                | 380                               | 380  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | yes                         | 10  | Local                          | Cambridge            |       |
| 270.0         | Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street   | 40                            | 2               | 1                       | 80                                | 220                               | 220  | No                         | No                | 0                                 | None                | No   | 0   | Full      | yes                         | 22  | Principal Arterial-Other       | Cambridge            |       |
| 280.0         | Private Property                   | Mount Auburn Street to Charles River   | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 415.0         | Charles River                      | Private Property to Private Property   | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 2175.0        | Private Property                   | Charles River to Soldiers Field Road   | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 800.0         | Soldiers Field Road                | Private Property to Gated Entrance to Harvard Athletics Path/Parking Lot                           | 30                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Principal Arterial-Other       | Boston               |       |
| 1900.0        | Harvard Athletics Path/Parking Lot | Soldiers Field Road to Western Ave   | Private                       | N/A             | 1                       | 100                               | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | Full      | Yes                         | 0   | None                           | Private              |       |
| 300.0         | Western Ave/Spurr Street           | Harvard Athletics Path/Parking Lot to North Harvard Street   | 26                            | 1               | 1                       | 45                                | 220                               | 220  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 0   | Full      | Yes                         | 22  | Minor Arterial                 | Boston               |       |
| 300.0         | North Harvard Street               | Spurr Street to Franklin Street  | 35                            | 2               | 1                       | 40                                | 220                               | 220  | Yes                        | No                | 0                                 | Sharrow             | Yes  | 600   | Full      | Yes                         | 12  | Minor Arterial                 | Boston               |       |
| 1500.0        | Franklin Street                    | North Harvard Street to Bradbury Street  | 60                            | 2               | 8                       | 230                               | 1060                              | 1060                                       | No                         | No                | 0                                 | Sharrow             | Yes  | 3100  | Full      | Yes                         | 22  | Local                          | Boston               |       |
| 440.0         | Bradbury Street                    | Franklin Street to Mansfield Street  | 26                            | 2               | 1                       | 25                                | 360                               | 360  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Local                          | Boston               |       |
| 820.0         | Mansfield Street                   | Bradbury Street to Lincoln Street  | 28                            | 2               | 3                       | 90                                | 700                               | 700  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Local                          | Boston               |       |
| 500.0         | Lincoln Street                     | Mansfield Street to Brighton Station   | 24                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Local                          | Boston               |       |

Calculated in Spreadsheet

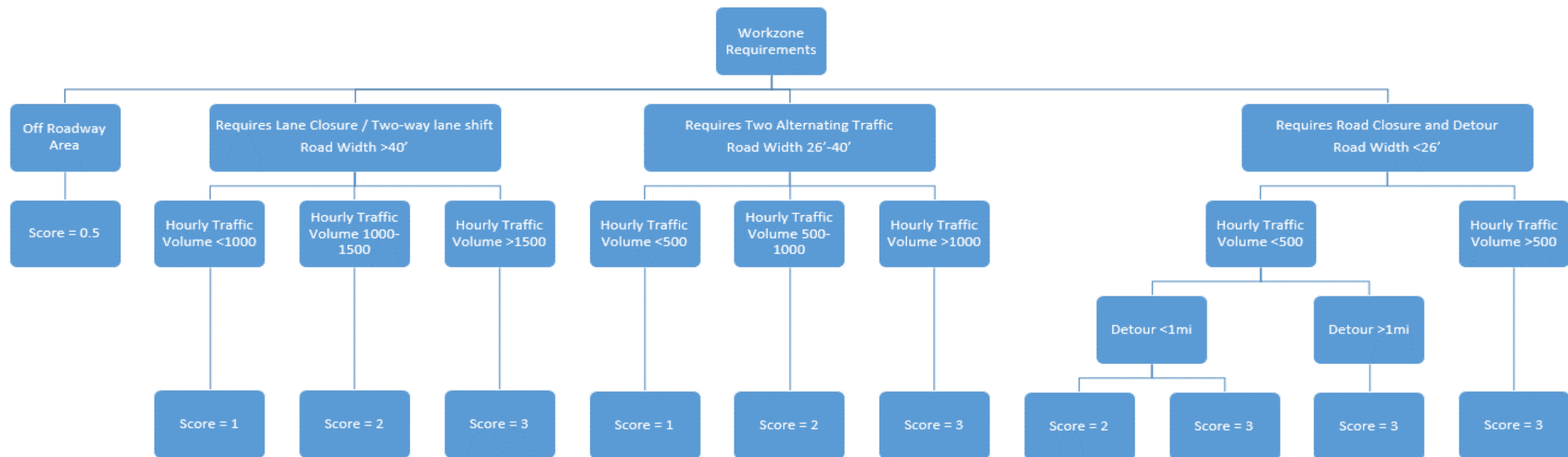


| Roadway                            |  | Intersection Name            | Intersection Width (feet) |
|------------------------------------|--|------------------------------|---------------------------|
| Broadway                           | Kendall Blue Garage to Ames Street   | Ames Street                  | 140                       |
| Ames Street                        | Broadway to Main Street  | Amherst Place                | 35                        |
|                                    |  | Main Street                  | 125                       |
|                                    | Main Street to Memorial Drive  | Amherst Street               | 70                        |
| Memorial Drive                     | Ames Street to Memorial Drive EB   | Memorial Drive WB            | 55                        |
|                                    |  | Memorial Drive EB            | 25                        |
|                                    | Memorial Drive EB to Mass Ave Intersection   | Mass Ave                     | 130                       |
|                                    | Mass Ave Intersection to Memorial Drive (undivided)  | None                         |                           |
|                                    | Memorial Drive (undivided) to Vassar Street  | Audrey Street                | 50                        |
|                                    |  | Amesbury Street              | 40                        |
|                                    |  | Vassar Street                | 50                        |
|                                    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | BU Bridge                    | 65                        |
|                                    | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary                  | 50                        |
|                                    | Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge/River Street                                     | Parking Lot                  | 40                        |
|                                    |  | Magazine Street              | 40                        |
|                                    |  | Pleasant Street Extension    | 30                        |
|                                    |  | Cambridge Street             | 100                       |
|                                    | River/Cambridge Street to Ash Street   | Western Ave                  | 120                       |
|                                    |  | Hingham Street               | 30                        |
|                                    |  | Akron Street                 | 25                        |
|                                    |  | Flagg Street                 | 35                        |
|                                    |  | Dewolf Street                | 45                        |
|                                    |  | Plympton Street              | 30                        |
|                                    |  | JFK Street                   | 105                       |
|                                    |  | Ash Street                   | 40                        |
| Ash Street                         | Memorial Drive to Mount Auburn Street  | Mount Auburn Street          | 50                        |
| Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street   | Hawthorn                     | 80                        |
| Private Property                   | Mount Auburn Street to Charles River   |                              |                           |
| Charles River                      | Private Property to Private Property   |                              |                           |
| Private Property                   | Charles River to Soldiers Field Road   |                              |                           |
| Soldiers Field Road                | Private Property to Harvard Athletics Path/Parking Lot   |                              |                           |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to Western Ave/Spurr Street  | Western Ave                  | 100                       |
| Western Ave/Spurr Street           | Harvard Athletics Path/Parking Lot to North Harvard Street   | North Harvard Street         | 45                        |
| North Harvard Street               | Western Ave/Spurr Street to Franklin Street  | Franklin Street              | 40                        |
| Franklin Street                    | North Harvard Street to Bradbury Street  | Weitz Street                 | 35                        |
|                                    |  | Raymond Street               | 30                        |
|                                    |  | Myrick Street                | 40                        |
|                                    |  | Brentwood Street             | 30                        |
|                                    |  | Fern Street                  | 20                        |
|                                    |  | Holton Street                | 20                        |
|                                    |  | Easton Street                | 30                        |
|                                    |  | Aldie Street/Bradbury Street | 25                        |
| Bradbury Street                    | Franklin Street to Mansfield Street  | Mansfield Street             | 25                        |
| Mansfield Street                   | Bradbury Street to Lincoln Street  | Coolidge Street              | 30                        |
|                                    |  | Alcott Street                | 25                        |
|                                    |  | Lincoln Street               | 35                        |
| Lincoln Street                     | Mansfield Street to Brighton Station   |                              |                           |
|                                    |  |                              |                           |

|  | Intersection Name                           | Number of crossings | location of crossing along road | Crossing Width (feet) |
|--|---|---------------------|---------------------------------|-----------------------|
| Kendall Blue Garage to Ames Street   | Ames Street                                 | 1                   | West                            | 10                    |
|  |   |                     |                                 |                       |
| Broadway to Main Street  | Ames Street at Broadway                     | 1                   | South                           | 12                    |
|  | Ames Street at Main Street                  | 1                   | North                           | 10                    |
|  |   |                     |                                 |                       |
| Main Street to Memorial Drive  | Ames Street at Main Street                  | 1                   | South                           | 10                    |
|  | Ames Street (mid-block)                     | 1                   | North                           | 10                    |
|  | Ames Street (mid-block)                     | 1                   | South                           | 24                    |
|  | Ames @ Amherst                              | 1                   | North                           | 10                    |
|  | Ames @ Amherst                              | 1                   | South                           | 12                    |
|  | Memorial Drive                              | 1                   | North                           | 8                     |
|  |   |                     |                                 |                       |
| Ames Street to Memorial Drive EB   |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Memorial Drive EB to Massachusetts Avenue  | Mem Drive (mid-block)                       | 1                   | N/A                             | 12                    |
|  | Mem Drive (mid-block)                       | 1                   | N/A                             | 12                    |
|  | Mass Ave                                    | 1                   | East                            | 10                    |
|  |   |                     |                                 |                       |
| Massachusetts Avenue to Memorial Drive (undivided)   | Mass Ave                                    | 1                   | West                            | 10                    |
|  | Mem Drive (mid-block)                       | 1                   | N/A                             | 10                    |
|  | Mem Drive (mid-block)                       | 1                   | N/A                             | 12                    |
|  |   |                     |                                 |                       |
| Memorial Drive (undivided) to Vassar Street  | Amesbury Street                             | 1                   | East                            | 8                     |
|  | Amesbury Street                             | 1                   | West                            | 8                     |
|  |   |                     |                                 |                       |
| Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | Memorial Drive EB Entrance Ramp @ BU Bridge | 1                   | East                            | 12                    |
|  |   |                     |                                 |                       |
| Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary                                 | 1                   | South                           | 10                    |
|  |   |                     |                                 |                       |
| Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge/River Street                                     | Cambridge Street                            | 1                   | South                           | 10                    |
|  |   |                     |                                 |                       |
| River/Cambridge Street to Ash Street   | Cambridge Street                            | 1                   | North                           | 10                    |
|  | Western Ave                                 | 1                   | North                           | 10                    |
|  | Dewolfe Street                              | 1                   | East                            | 10                    |
|  | Dewolfe Street                              | 1                   | West                            | 10                    |
|  | North Harvard Street                        | 1                   | East                            | 12                    |
|  | North Harvard Street                        | 1                   | West                            | 12                    |
|  |   |                     |                                 |                       |
| Memorial Drive to Mount Auburn Street  | Memorial Drive                              | 1                   | North                           | 10                    |
|  |   |                     |                                 |                       |
| Ash Street to Private Property @ Hawthorn Street   | Hawthorn                                    | 1                   | East                            | 10                    |
|  |   |                     | South                           | 12                    |
|  |   |                     |                                 |                       |
| Mount Auburn Street to Charles River   |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Private Property to Private Property   |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Charles River to Soldiers Field Road   |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Private Property to Harvard Athletics Path/Parking Lot   |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Soldiers Field Road to Western Ave/Spurr Street  |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Harvard Athletics Path/Parking Lot to North Harvard Street   | Western Ave                                 | 1                   | North                           | 10                    |
|  | North Harvard Street                        | 1                   | West                            | 12                    |
|  |   |                     |                                 |                       |
| Western Ave/Spurr Street to Franklin Street  | Franklin Street                             | 1                   | North                           | 12                    |
|  |   |                     |                                 |                       |
| North Harvard Street to Bradbury Street  | Franklin Street                             | 1                   | West                            | 12                    |
|  | Brentwood Street                            | 1                   | North                           | 10                    |
|  |   |                     |                                 |                       |
| Franklin Street to Mansfield Street  |   |                     |                                 |                       |
|  |   |                     |                                 |                       |
| Bradbury Street to Lincoln Street  | Lincoln Street                              | 1                   | North                           | 12                    |
|  |   |                     |                                 |                       |
| Mansfield Street to Brighton Station   |   |                     |                                 |                       |
|  |   |                     |                                 |                       |

| Roadway                            | Roadway Segment  | treatment              | location along road | length of facility | Width (feet) of facility |
|------------------------------------|--|------------------------|---------------------|--------------------|--------------------------|
| Broadway                           | Kendall Blue Garage to Ames Street   | Bicycle Lane           | North               | 285                | 5                        |
|                                    |  | Bicycle Lane           | South               | 285                | 5                        |
| Ames Street                        | Broadway to Main Street  | Bicycle Lane (2 Lanes) | West                | 450                | 5                        |
|                                    |  | Sharrow                | East                | 450                | 5                        |
|                                    | Main Street to Memorial Drive  | None                   |                     |                    | 0                        |
| Memorial Drive                     | Ames Street to Memorial Drive EB   | None                   |                     |                    | 0                        |
|                                    | Memorial Drive EB to Massachusetts Avenue  | None                   |                     |                    | 0                        |
|                                    | Massachusetts Avenue to Memorial Drive (undivided)   | None                   |                     |                    | 0                        |
|                                    | Memorial Drive (undivided) to Vassar Street  | None                   |                     |                    | 0                        |
|                                    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | None                   |                     |                    | 0                        |
|                                    | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | None                   |                     |                    | 0                        |
|                                    | Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge/River Street                                     | None                   |                     |                    | 0                        |
|                                    | River/Cambridge Street to Ash Street   |                        |                     |                    |                          |
| Ash Street                         | Memorial Drive to Mount Auburn Street  |                        |                     |                    |                          |
| Mount Auburn Street                | Ash Street to Private Property @ Hawthorn Street   |                        |                     |                    |                          |
| Private Property                   | Mount Auburn Street to Charles River   |                        |                     |                    |                          |
| Charles River                      | Private Property to Private Property   |                        |                     |                    |                          |
| Private Property                   | Charles River to Soldiers Field Road   |                        |                     |                    |                          |
| Soldiers Field Road                | Private Property to Harvard Athletics Path/Parking Lot   |                        |                     |                    |                          |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to Western Ave/Spurr Street  |                        |                     |                    |                          |
| Western Ave/Spurr Street           | Harvard Athletics Path/Parking Lot to North Harvard Street   | Bike Lane              | South               | 0                  | 5                        |
| North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street  | Bike Lane              | East                | 300                | 5                        |
|                                    |  | Bike Lane              | West                | 300                | 5                        |
| Franklin Street                    | North Harvard Street to Bradbury Street  | Sharrow                | East                | 1550               | 5                        |
|                                    |  | Sharrow                | West                | 1550               | 5                        |
| Bradbury Street                    | Franklin Street to Mansfield Street  | None                   |                     |                    |                          |
| Mansfield Street                   | Bradbury Street to Lincoln Street  | None                   |                     |                    |                          |
| Lincoln Street                     | Mansfield Street to Brighton Station   | None                   |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021

Candidate Route: Brighton B-31

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name       | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates            | ATR Location    | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|-------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|----------------------|-----------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 285.0         | Broadway          | Kendall Blue Garage to Ames Street  | 3                      | 1575  | 720         | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021- 8/12/2021 | T1              | 410                                       | 336                               | 365                           | 309                   | 50                              | 59                      | 105                                  | 55                                | 134                       |
| 600.0         | Ames Street       | Broadway to Main Street   | 1                      | 2082  | 1482        | No              | NA  | Two-Way Alternating Traffic   | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021- 8/12/2021 | T7              | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 1270.0        | Ames Street       | Main Street to Memorial Drive   | 1                      | 2854  | 1584        | No              | NA  | Two-Way Alternating Traffic   | 58                          | 6                             | 49                                 | 7                               | 7/22/2020                      | 12:30PM                        | 8/10/2021- 8/12/2021 | T31             | 255                                       | 318                               | 230                           | 294                   | 25                              | 28                      | 195                                  | 30                                | 52                        |
| 125.0         | Memorial Drive    | Ames Street to Memorial Drive EB  | 3                      | 455   | 80          | Yes             | NA  | Road Closure - Detour         | 10                          | 0                             | 7                                  | 4                               | 9/4/2020                       | 1:00PM                         | 8/10/2021- 8/12/2021 | T31             | 40  | 318                               | 40                            | 294                   | 0                               | 28                      | 30                                   | 15                                | 52                        |
| 1700.0        | Memorial Drive EB | Memorial Drive EB to Mass Ave Intersection  | 3                      | 5264  | 164         | Yes             | NA  | Road Closure - Detour         | 197                         | 1                             | 36                                 | 23                              | 9/4/2020                       | 1:15PM                         | 8/10/2021- 8/12/2021 | T34 EB- T36+T35 | 790                                       | 668                               | 790                           | 665                   | 5                               | 9                       | 145                                  | 90                                | 11                        |
| 2100.0        | Memorial Drive EB | Mass Ave Intersection to Memorial Drive (undivided)   | 3                      | 6332  | 32          | Yes             | NA  | Road Closure - Detour         | 57                          | 0                             | 26                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021- 8/12/2021 | T36             | 230                                       | 1062                              | 230                           | 1054                  | 0                               | 15                      | 105                                  | 70                                | 3                         |
| 2065.0        | Memorial Drive    | Memorial Drive (undivided) to Vassar Street   | 3                      | 6351  | 156         | No              | NA  | Two-way Lane Shift            | 198                         | 2                             | 21                                 | 10                              | 9/4/2020                       | 10:15AM                        | 8/10/2021- 8/12/2021 | T34             | 1704                                      | 1733                              | 790                           | 1724                  | 10                              | 13                      | 85                                   | 40                                | 2                         |
| 880.0         | Memorial Drive    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                           | 3                      | 2717  | 77          | Yes             | NA  | Road Closure - Detour         | 243                         | 1                             | 27                                 | 17                              | 9/4/2020                       | 10:00AM                        | 8/10/2021- 8/12/2021 | T34             | 1704                                      | 1733                              | 970                           | 1724                  | 5                               | 13                      | 110                                  | 70                                | 2                         |
| 465.0         | Memorial Drive    | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | 3                      | 1455  | 60          | Yes             | NA  | Road Closure - Detour         | 143                         | 3                             | 27                                 | 17                              | 9/4/2020                       | 1:45PM                         | 8/10/2021- 8/12/2021 | T62             | 585                                       | 1236                              | 570                           | 1218                  | 10                              | 36                      | 110                                  | 70                                | 67                        |
| 3100.0        | Memorial Drive    | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/ River Street                                    | 3                      | 9520  | 220         | No              | NA  | Two-way Lane Shift            | 198                         | 2                             | 21                                 | 10                              | 9/4/2020                       | 10:15AM                        | 8/10/2021- 8/12/2021 | T44             | 800                                       | 1833                              | 790                           | 1827                  | 10                              | 30                      | 85                                   | 40                                | 5                         |
| 850.0         | Cambridge Street  | Memorial Drive to Private Property  | 3                      | 3109  | 559         | No              | NA  | Two-Way Alternating Traffic   | 419                         | 31                            | 10                                 | 4                               | 9/2/2020                       | 10:30AM                        | 8/30/2021-9/1/2021   | T66-A           | 1800                                      | 1519                              | 1675                          | 1464                  | 125                             | 55                      | 40                                   | 15                                | 10                        |
| 1275.0        | Private Property  | Cambridge Street to Cambridge Street  | 0.5                    | 637.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                  | N/A             | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1435.0        | Cambridge Street  | Private Property to Lincoln Street  | 3                      | 6901  | 2596        | No              | NA  | Two-Way Alternating Traffic   | 68                          | 4                             | 1                                  | 2                               | 9/2/2020                       | 9:15AM                         | 8/10/2021- 8/12/2021 | T46             | 290                                       | 2327                              | 270                           | 2200                  | 15                              | 168                     | 5                                    | 10                                | 16                        |
| 1350.0        | Lincoln Street    | Cambridge Street to Brighton Station  | 1                      | 2282  | 932         | No              | NA  | Two-Way Alternating Traffic   | 77                          | 7                             | 3                                  | 0                               | 9/2/2020                       | 9:00AM                         | 8/10/2021- 8/12/2021 | T47             | 335                                       | 366                               | 310                           | 348                   | 30                              | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 17500.00 |
| Total Impact Length (feet) | 51534.50 |
| Score                      | 2.94     |

Date: 9/28/2021

Candidate Route: Brighton B-31

| Length (feet) | Street Name       | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction     | Notes           |
|---------------|-------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|--------------------------|-----------------|
| 285.0         | Broadway          | Kendall Blue Garage to Ames Street  | 22                            | 2               | 1                       | 140                               | 0                                 | 0  | Yes                        | No                | No                                | 0                   | Bike Lane                                  | yes   | 570       | Full                        | Yes   | 10                             | Principal Arterial-Other | Cambridge       |
| 600.0         | Ames Street       | Broadway to Main Street   | 30                            | 2               | 2                       | 160                               | 200                               | 200  | Yes                        | No                | No                                | 0                   | Bike Lane                                  | Yes   | 900       | Full                        | Yes   | 22                             | Major Collector          | Cambridge       |
| 1270.0        | Ames Street       | Main Street to Memorial Drive   | 26                            | 2               | 1                       | 70                                | 720                               | 720  | Yes                        | No                | No                                | 0                   | Bike Lane                                  | Yes   | 0         | Full                        | Yes   | 74                             | Major Collector          | Cambridge       |
| 125.0         | Memorial Drive    | Ames Street to Memorial Drive EB  | 22                            | 1               | 2                       | 80                                | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Full                        | Yes   | 0                              | Principal Arterial-Other | DCR             |
| 1700.0        | Memorial Drive EB | Memorial Drive EB to Mass Ave Intersection  | 14                            | 2               | 1                       | 130                               | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Partial                     | Yes   | 34                             | Principal Arterial-Other | DCR             |
| 2100.0        | Memorial Drive EB | Mass Ave Intersection to Memorial Drive (undivided)   | 14                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Partial                     | Yes   | 32                             | Principal Arterial-Other | DCR             |
| 2065.0        | Memorial Drive    | Memorial Drive (undivided) to Vassar Street   | 40                            | 4               | 3                       | 140                               | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Partial                     | Yes   | 16                             | Principal Arterial-Other | DCR             |
| 880.0         | Memorial Drive    | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                           | 22                            | 1               | 1                       | 65                                | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Full                        | Yes   | 12                             | Principal Arterial-Other | DCR             |
| 465.0         | Memorial Drive    | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive Exit Ramp to Reid Rotary | 15                            | 1               | 1                       | 50                                | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Partial                     | Yes   | 10                             | Principal Arterial-Other | DCR             |
| 3100.0        | Memorial Drive    | Memorial Drive Exit Ramp to Reid Rotary to Cambridge/ River Street                                    | 40                            | 4               | 4                       | 210                               | 0                                 | 0  | No                         | No                | Yes                               | 0                   | None                                       | No  | 0         | Full                        | Yes   | 10                             | Principal Arterial-Other | DCR             |
| 850.0         | Cambridge Street  | Memorial Drive to Private Property  | 34                            | 3               | 1                       | 180                               | 0                                 | 0  | No                         | No                | Yes                               | 0                   | Bike Lane                                  | Yes   | 345       | Full                        | Yes   | 34                             | Principal Arterial-Other | Boston          |
| 1275.0        | Private Property  | Cambridge Street to Cambridge Street  | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | N/A                               | 0                   | Private                                    | No  | 0         | N/A                         | No  | 0                              | None                     | MassDOT/Private |
| 1435.0        | Cambridge Street  | Private Property to Lincoln Street  | 34                            | 2               | 3                       | 250                               | 0                                 | 0  | No                         | No                | Yes                               | 0                   | Bike Lane                                  | Yes   | 2310      | Full                        | Yes   | 36                             | Principal Arterial-Other | Boston          |
| 1350.0        | Lincoln Street    | Cambridge Street to Brighton Station  | 26                            | 2               | 3                       | 110                               | 400                               | 400  | No                         | No                | No                                | 0                   | None                                       | No  | 0         | Full                        | Yes   | 22                             | Major Collector          | Boston          |

Calculated in Spreadsheet

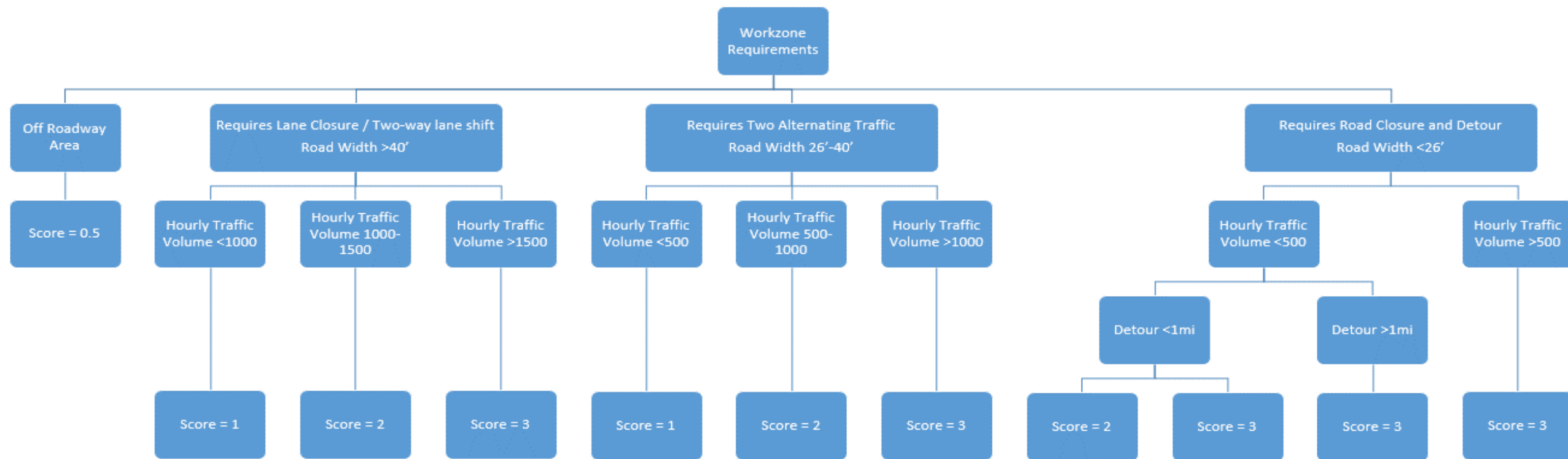
| Roadway          |  | Intersection Name         | Intersection Width (feet) |
|------------------|--|---------------------------|---------------------------|
| Broadway         | Kendall Blue Garage to Ames Street   | Ames Street               | 140                       |
| Ames Street      | Broadway to Main Street  | Amherst Place             | 35                        |
|                  |  | Main Street               | 125                       |
|                  | Main Street to Memorial Drive  | Amherst Street            | 70                        |
| Memorial Drive   | Ames Street to Memorial Drive EB   | Memorial Drive WB         | 55                        |
|                  |  | Memorial Drive EB         | 25                        |
|                  | Memorial Drive EB to Mass Ave Intersection   | Mass Ave                  | 130                       |
|                  | Mass Ave Intersection to Memorial Drive (undivided)  | None                      |                           |
|                  | Memorial Drive (undivided) to Vassar Street  | Audrey Street             | 50                        |
|                  |  | Amesbury Street           | 40                        |
|                  |  | Vassar Street             | 50                        |
|                  | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | BU Bridge                 | 65                        |
|                  | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary               | 50                        |
|                  | Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge Street   | Parking Lot               | 40                        |
|                  |  | Magazine Street           | 40                        |
|                  |  | Pleasant Street Extension | 30                        |
|                  |  | Cambridge Street          | 100                       |
| Cambridge Street | Memorial Drive to Private Property   | Soldiers Field Road       | 180                       |
| Private Property | Cambridge Street to Cambridge Street   | None                      | 0                         |
| Cambridge Street | Private Property to Lincoln Street   | Windom Street             | 55                        |
|                  |  | N Harvard Street          | 95                        |
|                  |  | Lincoln Street            | 100                       |
| Lincoln Street   | Cambridge Street to Brighton Station   | Empire Street             | 30                        |
|                  |  | Royal Street              | 40                        |
|                  |  | Mansfield Street          | 40                        |

| Roadway          | Roadway Segment  | treatment              | location along road | length of facility | Width (feet) of facility |
|------------------|--|------------------------|---------------------|--------------------|--------------------------|
| Broadway         | Kendall Blue Garage to Ames Street   | Bicycle Lane           | North               | 285                | 5                        |
|                  |  | Bicycle Lane           | South               | 285                | 5                        |
| Ames Street      | Broadway to Main Street  | Bicycle Lane (2 Lanes) | West                | 450                | 5                        |
|                  |  | Sharrow                | East                | 450                | 5                        |
|                  | Main Street to Memorial Drive  | None                   |                     |                    | 0                        |
| Memorial Drive   | Ames Street to Memorial Drive EB   | None                   |                     |                    | 0                        |
|                  | Memorial Drive EB to Massachusetts Avenue  | None                   |                     |                    |                          |
|                  | Massachusetts Avenue to Memorial Drive (undivided)   | None                   |                     |                    | 0                        |
|                  | Memorial Drive (undivided) to Vassar Street  | None                   |                     |                    | 0                        |
|                  | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | None                   |                     |                    | 0                        |
|                  | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | None                   |                     |                    | 0                        |
|                  | Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge Street   | None                   |                     |                    | 0                        |
| Cambridge Street | Memorial Drive to Private Property   | Bicycle Lane           | South               | 345                | 5                        |
| Private Property | Cambridge Street from Cambridge Street   | None                   |                     |                    | 0                        |
| Cambridge Street | Private Property to Lincoln Street   | Bicycle Lane           | North               | 875                | 5                        |
|                  |  | Bicycle Lane           | South               | 1435               | 5                        |
| Lincoln Street   | Cambridge Street to Brighton Station   | None                   |                     |                    | 0                        |
|                  |  |                        |                     |                    |                          |
|                  |  |                        |                     |                    |                          |
|                  |  |                        |                     |                    |                          |



| Roadway          |  | Intersection Name  | Number of crossings | location of crossing along road | Crossing Width (feet) |
|------------------|--|--|---------------------|---------------------------------|-----------------------|
| Broadway         | Kendall Blue Garage to Ames Street   | Ames Street  | 1                   | West                            | 10                    |
| Ames Street      | Broadway to Main Street  | Ames Street at Broadway                                      | 1                   | South                           | 12                    |
|                  |  | Ames Street at Main Street                                   | 1                   | North                           | 10                    |
|                  | Main Street to Memorial Drive  | Ames Street at Main Street                                   | 1                   | South                           | 10                    |
|                  |  | Ames Street (mid-block)                                      | 1                   | North                           | 10                    |
|                  |  | Ames Street (mid-block)                                      | 1                   | South                           | 24                    |
|                  |  | Ames @ Amherst   | 1                   | North                           | 10                    |
|                  |  | Ames @ Amherst   | 1                   | South                           | 12                    |
|                  |  | Memorial Drive   | 1                   | North                           | 8                     |
| Memorial Drive   | Ames Street to Memorial Drive EB   |  |                     |                                 |                       |
|                  | Memorial Drive EB to Massachusetts Avenue  | Mem Drive (mid-block)  | 1                   | N/A                             | 12                    |
|                  |  | Mem Drive (mid-block)  | 1                   | N/A                             | 12                    |
|                  |  | Mass Ave   | 1                   | East                            | 10                    |
|                  | Massachusetts Avenue to Memorial Drive (undivided)   | Mass Ave   | 1                   | West                            | 10                    |
|                  |  | Mem Drive (mid-block)  | 1                   | N/A                             | 10                    |
|                  |  | Mem Drive (mid-block)  | 1                   | N/A                             | 12                    |
|                  | Memorial Drive (undivided) to Vassar Street  | Amesbury Street  | 1                   | East                            | 8                     |
|                  |  | Amesbury Street  | 1                   | West                            | 8                     |
|                  | Vassar Street to Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary                              | Memorial Drive EB Entrance Ramp @ BU Bridge                  | 1                   | East                            | 12                    |
|                  | Memorial Drive EB BU Bridge Entrance Ramp from Reid Rotary to Memorial Drive EB Exit Ramp to Reid Rotary | Reid Rotary  | 1                   | South                           | 10                    |
|                  | Memorial Drive EB Exit Ramp to Reid Rotary to Cambridge Street   | Cambridge Street   | 1                   | South                           | 10                    |
| Cambridge Street | Memorial Drive to Private Property   | Memorial Drive   | 1                   | West                            | 10                    |
|                  |  | Cambridge Street @ Southbound On-Ramp to Soldiers Field Road | 1                   | West                            | 12                    |
|                  |  | Cambridge Street On-Ramp from I-90                           | 1                   | West                            | 12                    |
| Private Property | Cambridge Street to Cambridge Street   | None   |                     |                                 |                       |
| Cambridge Street | Private Property to Lincoln Street   | Windom Street  | 1                   | West                            | 12                    |
|                  |  | North Harvard Street   | 1                   | West                            | 12                    |
|                  |  | Lincoln Street   | 1                   | East                            | 12                    |
| Lincoln Street   | Cambridge Street to Brighton Station   | Lincoln Street @ Cambridge Street                            | 1                   | North                           | 10                    |
|                  |  | Mansfield Street   | 1                   | East                            | 12                    |

# Segment Score Logic - Workzone Setup



## **Brighton Study Area West**

Date: 9/28/2021  
Candidate Route: Brighton B-24

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name                        | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|------------------------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 3875.0        | Broadway                           | Kendall Blue Garage to Prospect Street                      | 2                      | 3850  | 13650       | No              | NA  | Two-Way Alternating Traffic   | 73                          | 7                             | 24                                 | 8                               | 8/25/2020                      | 9:30AM                         | 8/10/2021-8/12/2021 | T25          | 320                                       | 818                               | 290                           | 775                   | 30                              | 42                      | 95                                   | 30                                | 59                        |
| 1625.0        | Prospect Street                    | Broadway to Western Ave @ Mass Ave                          | 2                      | 1675  | 970         | No              | NA  | Two-Way Alternating Traffic   | 230                         | 13                            | 43                                 | 16                              | 9/3/2020                       | 2:00PM                         | 8/10/21-8/12/21     | T26          | 970                                       | 955                               | 920                           | 913                   | 50                              | 56                      | 170                                  | 65                                | 41                        |
| 340.0         | Western Avenue                     | Mass Ave/ Prospect Street to Green Street/Western Ave       | 3                      | 1457  | 437         | Yes             | NA  | Road Closure - Detour         | 134                         | 31                            | 72                                 | 8                               | 9/3/2020                       | 9:00AM                         | 8/10/2021-8/12/2021 | T27          | 660                                       | 940                               | 535                           | 882                   | 125                             | 80                      | 290                                  | 30                                | 46                        |
| 2850.0        | Green Street                       | Western Ave to Putnam Avenue                                | 3                      | 13286   | 4736        | Yes             | NA  | Road Closure - Detour         | 8                           | 3                             | 7                                  | 1                               | 9/3/2020                       | 9:30AM                         | 8/10/2021-8/12/2021 | T28          | 45  | 79                                | 30                            | 79                    | 10                              | 6                       | 30                                   | 5                                 | 6                         |
| 365.0         | Putnam Avenue                      | Green Street to Mt Auburn Street                            | 3                      | 1552  | 457         | Yes             | NA  | Road Closure - Detour         | 44                          | 3                             | 25                                 | 7                               | 9/3/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T55          | 190                                       | 379                               | 175                           | 369                   | 10                              | 24                      | 100                                  | 30                                | 60                        |
| 3950.0        | Mt Auburn Street                   | Putnam Avenue to Private Property @ Hawthorn Street         | 1                      | 12628   | 8678        | No              | NA  | Two-Way Alternating Traffic   | 67                          | 9                             | 66                                 | 5                               | 9/3/2020                       | 12:45PM                        | 8/12/2021           | T56          | 305                                       | 443                               | 270                           | 408                   | 35                              | 54                      | 265                                  | 20                                | 63                        |
| 280.0         | Private Property (DCR)             | Mt Auburn Street to Charles River                           | 0.5                    | 140   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 415.0         | Charles River                      | Private Property (DCR) to Private Property (DCR)            | 0.5                    | 207.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 2175.0        | Private Property (DCR)             | Charles River to Soldiers Field Road                        | 0.5                    | 1087.5  | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 800.0         | Soldiers Field Road                | Private Property DCR to Harvard Athletics Path/ Parking Lot | 3                      | 2400  | 0           | No              | NA  | Two-Way Alternating Traffic   | 441                         | 2                             | 0                                  | 6                               | 9/2/2020                       | 1:15PM                         | 8/10/2021-8/12/2021 | T65          | 1770                                      | 1113                              | 1765                          | 1095                  | 10                              | 25                      | 0                                    | 25                                | 2                         |
| 1475.0        | Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street                 | 0.5                    | 737.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1500.0        | North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street       | 2                      | 6813  | 3813        | No              | NA  | Two-Way Alternating Traffic   | 140                         | 14                            | 23                                 | 7                               | 9/2/2020                       | 2:45PM                         | 8/10/2021-8/12/2021 | T61          | 615                                       | 613                               | 560                           | 545                   | 55                              | 116                     | 90                                   | 30                                | 47                        |
| 2100.0        | Franklin Street                    | North Harvard Street to Lincoln Street                      | 3                      | 11820   | 5520        | Yes             | NA  | Road Closure - Detour         | 29                          | 1                             | 11                                 | 4                               | 9/2/2020                       | 12:30PM                        | 8/10/2021-8/12/2021 | T48          | 120                                       | 105                               | 115                           | 105                   | 5                               | 6                       | 45                                   | 15                                | 25                        |
| 260.0         | Lincoln Street                     | Franklin Street to Brighton Station                         | 3                      | 792   | 12          | Yes             | NA  | Road Closure - Detour         | 74                          | 1                             | 2                                  | 0                               | 9/2/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T47          | 300                                       | 366                               | 295                           | 348                   | 5                               | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 22010.00 |
| Total Impact Length (feet) | 58445.50 |
| Score                      | 2.66     |

Date: 9/28/2021  
Candidate Route: Brighton B-24

| Length (feet) | Street Name                        | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|------------------------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 3875.0        | Broadway                           | Kendall Blue Garage to Prospect Street                      | 32                            | 2               | 16                      | 1030                              | 2340                              | 2340                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 7750  | Full      | Yes                         | 190   | Urban Principal Arterial       | Cambridge            |       |
| 1625.0        | Prospect Street                    | Broadway to Western Ave @ Mass Ave                          | 32                            | 2               | 4                       | 260                               | 320                               | 320  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 70  | Urban Principal Arterial       | Cambridge            |       |
| 340.0         | Western Avenue                     | Mass Ave/ Prospect Street to Green Street/Western Ave       | 20                            | 1               | 1                       | 135                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 280   | Full      | Yes                         | 22  | Urban Principal Arterial       | Cambridge            |       |
| 2850.0        | Green Street                       | Western Ave to Putnam Avenue                                | 20                            | 1               | 5                       | 274                               | 2200                              | 2200                                       | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 62  | Local                          | Cambridge            |       |
| 365.0         | Putnam Avenue                      | Green Street to Mt Auburn Street                            | 24                            | 2               | 1                       | 75                                | 180                               | 180  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 22  | Urban Minor Arterial           | Cambridge            |       |
| 3950.0        | Mt Auburn Street                   | Putnam Avenue to Private Property @ Hawthorn Street         | 26                            | 2               | 18                      | 890                               | 2600                              | 2600                                       | Yes                        | Yes               | 0                                 | Bike Lane           | Partial                                    | 2400  | Full      | Yes                         | 188   | Urban Principal Arterial       | Cambridge            |       |
| 280.0         | Private Property (DCR)             | Mt Auburn Street to Charles River                           | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 415.0         | Charles River                      | Private Property (DCR) to Private Property (DCR)            | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 2175.0        | Private Property (DCR)             | Charles River to Soldiers Field Road                        | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 800.0         | Soldiers Field Road                | Private Property DCR to Harvard Athletics Path/ Parking Lot | 30                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Urban Principal Arterial       | Boston               |       |
| 1475.0        | Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street                 | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 0   | None                           | Boston               |       |
| 1500.0        | North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street       | 30                            | 2               | 5                       | 365                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 3000  | Full      | Yes                         | 48  | Urban Minor Arterial           | Boston               |       |
| 2100.0        | Franklin Street                    | North Harvard Street to Lincoln Street                      | 22                            | 2               | 10                      | 290                               | 500                               | 500  | No                         | No                | 0                                 | Sharrow             | Yes  | 4200  | Full      | Yes                         | 30  | Local                          | Boston               |       |
| 260.0         | Lincoln Street                     | Franklin Street to Brighton Station                         | 24                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Local                          | Boston               |       |

Calculated in Spreadsheet

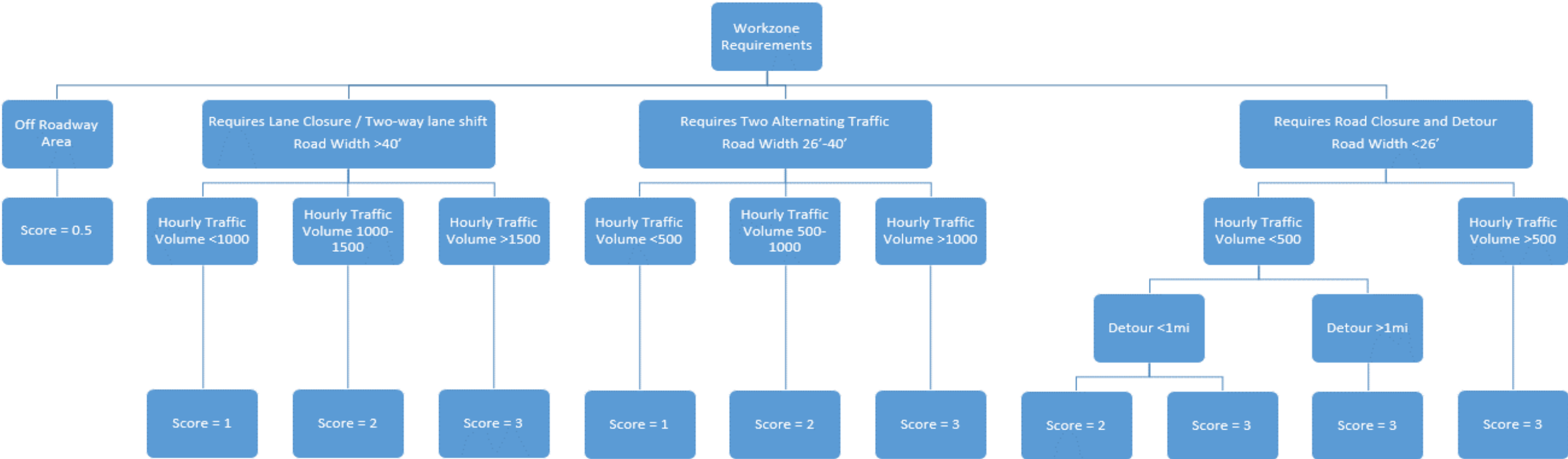
| Roadway                            |   | Intersection Name                        | Intersection Width (feet) |
|------------------------------------|---|--|---------------------------|
| Broadway                           | Kendall Blue Garage to Prospect Street                                | Galileo Gallilei Way                     | 185                       |
|                                    |   | Hampshire Street                         | 120                       |
|                                    |   | Portland Street                          | 80                        |
|                                    |   | Davis Street                             | 25                        |
|                                    |   | Moore Street                             | 30                        |
|                                    |   | Market Street                            | 35                        |
|                                    |   | Clark Street                             | 30                        |
|                                    |   | Dickinson Street                         | 20                        |
|                                    |   | Windsor Street                           | 90                        |
|                                    |   | Boardman Street                          | 35                        |
|                                    |   | Columbia Street                          | 80                        |
|                                    |   | Elm Street                               | 80                        |
|                                    |   | Norfolk Street                           | 70                        |
|                                    |   | Tremont Street                           | 30                        |
|                                    |   | Scouting Way                             | 20                        |
|                                    |   | Prospect Street                          | 100                       |
| Prospect Street                    | Broadway to Western Avenue @ Massachusetts Avenue                     | Harvard Street                           | 75                        |
|                                    |   | St Paul Street                           | 25                        |
|                                    |   | Bishop Allen Drive                       | 35                        |
|                                    |   | Mass Ave                                 | 125                       |
| Western Avenue                     | Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | Green Street                             | 135                       |
| Green Street                       | Western Avenue to Putnam Avenue                                       | Pleasant Street                          | 60                        |
|                                    |   | Sellers Street                           | 24                        |
|                                    |   | Hancock Street                           | 60                        |
|                                    |   | Bay Street                               | 60                        |
|                                    |   | Putnam Ave                               | 70                        |
| Putnam Avenue                      | Green Street to Mt Auburn Street                                      | Mt Auburn Street                         | 75                        |
| Mt Auburn Street                   | Putnam Ave to Private Property @ Hawthorn Street                      | Banks Street                             | 35                        |
|                                    |   | Athens Street                            | 35                        |
|                                    |   | Dewolfe Street                           | 55                        |
|                                    |   | Plympton Street                          | 55                        |
|                                    |   | Holyoke Place                            | 15                        |
|                                    |   | Holyoke Street                           | 55                        |
|                                    |   | Dunster Street                           | 80                        |
|                                    |   | JFK Street                               | 85                        |
|                                    |   | Brattle Street                           | 95                        |
|                                    |   | Bennett Alley                            | 40                        |
|                                    |   | University Road                          | 75                        |
|                                    |   | Story Street                             | 50                        |
|                                    |   | Revere Street                            | 20                        |
|                                    |   | Hillard Street                           | 25                        |
|                                    |   | Gerry Street                             | 35                        |
|                                    |   | Brewer Street                            | 20                        |
|                                    |   | Ash Street                               | 35                        |
|                                    |   | Memorial Drive                           | 80                        |
| Private Property (DCR)             | Mt Auburn Street to Charles River                                     |  |                           |
| Charles River                      | Private Property (DCR) to Private Property (DCR)                      |  |                           |
| Private Property (DCR)             | Charles River to Soldiers Field Road                                  |  |                           |
| Soldiers Field Road                | Private Property (DCR) to Harvard Athletics Path/Parking Lot          |  |                           |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street                           |  |                           |
| North Harvard Street               | Harvard Athletics Path to Franklin Street                             | Intersection at 175 North Harvard Street | 100                       |
|                                    |   | Western Ave                              | 130                       |
|                                    |   | Bertram Street                           | 25                        |
|                                    |   | Spurr Street                             | 30                        |
|                                    |   | Kingsley Street                          | 80                        |
| Franklin Street                    | North Harvard Street to Lincoln Street                                | Weitz Street                             | 35                        |
|                                    |   | Raymond Street                           | 30                        |
|                                    |   | Myrick Street                            | 40                        |
|                                    |   | Brentwood Street                         | 30                        |
|                                    |   | Fern Street                              | 20                        |
|                                    |   | Holton Street                            | 20                        |
|                                    |   | Easton Street                            | 30                        |
|                                    |   | Aldie Street/Bradburry Street            | 25                        |
|                                    |   | Alcot/Adamson Street                     | 30                        |
|                                    |   | Lincoln Street                           | 30                        |
| Lincoln Street                     | Franklin Street to Brighton Station                                   |  |                           |

| Roadway                            | Segment   | Intersection Name                 | Number of crossings | location of crossing along road | Crossing Width (feet) |
|------------------------------------|---|-----------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                           | Kendall Blue Garage to Prospect Street                                | Galileo Galilei Way               | 1                   | east                            | 12                    |
|                                    |   | Galileo Galilei Way               | 1                   | west                            | 16                    |
|                                    |   | Hampshire Street                  | 1                   | east                            | 10                    |
|                                    |   | Hampshire Street                  | 1                   | west                            | 10                    |
|                                    |   | Portland Street                   | 1                   | east                            | 10                    |
|                                    |   | Portland Street                   | 1                   | west                            | 10                    |
|                                    |   | Market Street                     | 1                   | east                            | 12                    |
|                                    |   | Clark Street                      | 1                   | west                            | 10                    |
|                                    |   | Windsor Street                    | 1                   | east                            | 10                    |
|                                    |   | Windsor Street                    | 1                   | west                            | 10                    |
|                                    |   | Columbia Street                   | 1                   | east                            | 10                    |
|                                    |   | Columbia Street                   | 1                   | west                            | 10                    |
|                                    |   | Elm Street                        | 1                   | West                            | 10                    |
|                                    |   | Norfolk Street                    | 1                   | east                            | 10                    |
|                                    |   | Norfolk Street                    | 1                   | west                            | 10                    |
|                                    |   | Tremont Street                    | 1                   | east                            | 10                    |
|                                    |   | Prospect Street                   | 1                   | east                            | 10                    |
| Prospect Street                    | 1   | south                             | 10                  |                                 |                       |
| Prospect Street                    | Broadway to Western Avenue @ Massachusetts Avenue                     | Harvard Street                    | 1                   | north                           | 8                     |
|                                    |   | Harvard Street                    | 1                   | south                           | 8                     |
|                                    |   | Prospect Street (mid-block)       | 1                   | n/a                             | 12                    |
|                                    |   | Bishop Allen Drive                | 1                   | north                           | 10                    |
|                                    |   | Bishop Allen Drive                | 1                   | south                           | 10                    |
|                                    |   | Mass Ave                          | 1                   | north                           | 10                    |
|                                    |   | Mass Ave                          | 1                   | west                            | 12                    |
| Western Avenue                     | Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | Green Street                      | 1                   | east                            | 10                    |
|                                    |   | Green Street                      | 1                   | north                           | 12                    |
| Green Street                       | Western Ave to Putnam Avenue  | Pleasant Street                   | 1                   | south                           | 8                     |
|                                    |   | Pleasant Street                   | 1                   | north                           | 10                    |
|                                    |   | Hancock Street                    | 1                   | south                           | 8                     |
|                                    |   | Hancock Street                    | 1                   | north                           | 10                    |
|                                    |   | Bay Street                        | 1                   | south                           | 10                    |
|                                    |   | Putnam Ave                        | 1                   | east                            | 8                     |
|                                    |   | Putnam Ave                        | 1                   | north                           | 8                     |
| Putnam Avenue                      | Green Street to Mt Auburn Street                                      | Mt Auburn Street                  | 1                   | south                           | 10                    |
|                                    |   | Mt Auburn Street                  | 1                   | west                            | 12                    |
| Mt Auburn Street                   | Putnam Avenue to Private Property @ Hawthorn Street                   | Mt Auburn Street (mid-block)      | 1                   | n/a                             | 10                    |
|                                    |   | Dewolfe Street                    | 1                   | west                            | 10                    |
|                                    |   | Plympton Street                   | 1                   | east                            | 10                    |
|                                    |   | Plympton Street                   | 1                   | west                            | 10                    |
|                                    |   | Mt Auburn Street (mid-block)      | 1                   | n/a                             | 10                    |
|                                    |   | Holyoke Street                    | 1                   | east                            | 10                    |
|                                    |   | Holyoke Street                    | 1                   | west                            | 10                    |
|                                    |   | Dunster Street                    | 1                   | east                            | 8                     |
|                                    |   | Dunster Street                    | 1                   | west                            | 10                    |
|                                    |   | JFK Street                        | 1                   | east                            | 12                    |
|                                    |   | JFK Street                        | 1                   | west                            | 10                    |
|                                    |   | Brattle Street                    | 1                   | east                            | 22                    |
|                                    |   | Brattle Street                    | 1                   | west                            | 12                    |
|                                    |   | University Road                   | 1                   | east                            | 12                    |
| Brewer Street                      | 1   | east                              | 12                  |                                 |                       |
| Memorial Drive                     | 1   | east                              | 10                  |                                 |                       |
| Memorial Drive                     | 1   | south                             | 10                  |                                 |                       |
| Private Property (DCR)             | Mt Auburn Street to Charles River                                     |                                   |                     |                                 |                       |
| Charles River                      | Private Property (DCR) to Private Property (DCR)                      |                                   |                     |                                 |                       |
| Private Property (DCR)             | Charles River to Soldiers Field Road                                  |                                   |                     |                                 |                       |
| Soldiers Field Road                | Private Property (DCR) to Harvard Athletics Path/Parking Lot          |                                   |                     |                                 |                       |
| Harvard Athletics Path/Parking Lot | Soldiers Field Road to North Harvard Street                           |                                   |                     |                                 |                       |
| North Harvard Street               | Harvard Athletics Path/Parking Lot to Franklin Street                 | Harvard Parking Lots Intersection | 1                   | north                           | 16                    |
|                                    |   | Western Ave                       | 1                   | north                           | 10                    |
|                                    |   | Western Ave                       | 1                   | south                           | 10                    |
|                                    |   | Franklin Street                   | 1                   | north                           | 12                    |
| Franklin Street                    | North Harvard Street to Lincoln Street                                | Brentwood Street                  | 1                   | north                           | 10                    |
|                                    |   | Adamson/Alcott Street             | 1                   | south                           | 10                    |
|                                    |   | Lincoln Street                    | 1                   | south                           | 10                    |
| Lincoln Street                     | Franklin Street to Brighton Station                                   | Franklin Street                   | 1                   | east                            | 12                    |

| Roadway Segment   | treatment | location along road | length of facility | Width (feet) of facility |
|---|-----------|---------------------|--------------------|--------------------------|
| Kendall Blue Garage to Prospect Street                                | Bike Lane | North               | 3875               | 5                        |
|   | Bike Lane | South               | 3875               | 5                        |
| Broadway to Western Avenue @ Massachusetts Avenue                     | None      |                     |                    |                          |
| Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | Bike Lane | North               | 280                | 5                        |
| Western Avenue to Putnam Avenue                                       | None      |                     |                    |                          |
| Green Street to Mt Auburn Street                                      | None      |                     |                    |                          |
| Putnam Avenue to Private Property @ Hawthorn Street                   | Bike Lane | South               | 2400               | 5                        |
| Mt Auburn Street to Charles River                                     | None      |                     |                    |                          |
| (DCR) Private Property to (DCR) Private Property                      | None      |                     |                    |                          |
| Charles River to Soldiers Field Road                                  | None      |                     |                    |                          |
| Private Property (DCR) to Harvard Athletics Path/Parking Lot          | None      |                     |                    |                          |
| Soldiers Field Road to North Harvard Street                           | None      |                     |                    |                          |
| Harvard Athletics Path/Parking Lot to Franklin Street                 | Bike Lane | East                | 1500               | 5                        |
|   | Bike Lane | West                | 1500               | 5                        |
| North Harvard Street to Lincoln Street                                | Sharrow   | East                | 2100               | 5                        |
|   | Sharrow   | West                | 2100               | 5                        |
| Franklin Street to Brighton Station                                   |           |                     |                    |                          |



# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Brighton B-24A

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name                | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|----------------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 3875.0        | Broadway                   | Kendall Blue Garage to Prospect Street                                | 2                      | 3850  | 13650       | No              | NA  | Two-Way Alternating Traffic   | 105                         | 15                            | 24                                 | 16                              | 8/25/2020                      | 10:00AM                        | 8/10/2021-8/12/2021 | T25          | 480                                       | 818                               | 420                           | 775                   | 60                              | 42                      | 95                                   | 65                                | 59                        |
| 1625.0        | Prospect Street            | Broadway to Western Avenue @ Massachusetts Avenue                     | 2                      | 1675  | 970         | No              | NA  | Two-Way Alternating Traffic   | 230                         | 13                            | 43                                 | 16                              | 9/3/2020                       | 2:00PM                         | 8/10/21-8/12/21     | T26          | 970                                       | 955                               | 920                           | 913                   | 50                              | 56                      | 170                                  | 65                                | 41                        |
| 340.0         | Western Avenue             | Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | 3                      | 1457  | 437         | Yes             | NA  | Road Closure - Detour         | 134                         | 31                            | 72                                 | 8                               | 9/3/2020                       | 9:00AM                         | 8/10/2021-8/12/2021 | T27          | 660                                       | 940                               | 535                           | 882                   | 125                             | 80                      | 290                                  | 30                                | 46                        |
| 2850.0        | Green Street               | Western Avenue to Putnam Avenue                                       | 3                      | 13286   | 4736        | Yes             | NA  | Road Closure - Detour         | 8                           | 3                             | 7                                  | 1                               | 9/3/2020                       | 9:30AM                         | 8/10/2021-8/12/2021 | T28          | 45  | 79                                | 30                            | 79                    | 10                              | 6                       | 30                                   | 5                                 | 6                         |
| 365.0         | Putnam Avenue              | Green Street to Mt Auburn Street                                      | 3                      | 1552  | 457         | Yes             | NA  | Road Closure - Detour         | 44                          | 3                             | 25                                 | 7                               | 9/3/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T55          | 190                                       | 379                               | 175                           | 369                   | 10                              | 24                      | 100                                  | 30                                | 60                        |
| 3950.0        | Mt Auburn Street           | Putnam Avenue to Private Property @ Hawthorn Street                   | 1                      | 12628   | 8678        | No              | NA  | Two-Way Alternating Traffic   | 67                          | 9                             | 66                                 | 5                               | 9/3/2020                       | 12:45PM                        | 8/10/2021-8/12/2021 | T56          | 305                                       | 443                               | 270                           | 408                   | 35                              | 54                      | 265                                  | 20                                | 63                        |
| 280.0         | Private Property (DCR)     | Mt Auburn Street to Charles River                                     | 0.5                    | 140   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 415.0         | Charles River              | Private Property (DCR) to Private Property (DCR)                      | 0.5                    | 207.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 2175.0        | Private Property (DCR)     | Charles River to Soldiers Field Road                                  | 0.5                    | 1087.5  | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1150.0        | Soldiers Field Road        | Private Property (DCR) to Private Property                            | 3                      | 3450  | 0           | No              | NA  | Two-Way Alternating Traffic   | 441                         | 2                             | 0                                  | 6                               | 9/3/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T65          | 1770                                      | 1113                              | 1765                          | 1095                  | 10                              | 25                      | 0                                    | 25                                | 2                         |
| 1200.0        | Private Property           | Soldiers Field Road to Western Ave                                    | 0.5                    | 600   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                 | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 710.0         | Western Ave & Spurr Street | Private Property to North Harvard Street                              | 2                      | 2927  | 1507        | No              | NA  | Two-Way Alternating Traffic   | 0                           | 0                             | 0                                  | 0                               | 9/3/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T64          | 0   | 746                               | 0                             | 693                   | 0                               | 92                      | 0                                    | 0                                 | 25                        |
| 300.0         | North Harvard Street       | Spurr Street to Franklin Street                                       | 2                      | 1692  | 1092        | No              | NA  | Two-Way Alternating Traffic   | 177                         | 15                            | 13                                 | 0                               | 9/2/2020                       | 2:00PM                         | 8/10/2021-8/12/2021 | T61          | 770                                       | 613                               | 710                           | 545                   | 60                              | 116                     | 50                                   | 0                                 | 47                        |
| 2100.0        | Franklin Street            | North Harvard Street to Lincoln Street                                | 3                      | 11832   | 5532        | Yes             | NA  | Road Closure - Detour         | 29                          | 1                             | 11                                 | 4                               | 9/2/2020                       | 12:30PM                        | 8/10/2021-8/12/2021 | T48          | 120                                       | 105                               | 115                           | 105                   | 5                               | 6                       | 45                                   | 15                                | 25                        |
| 250.0         | Lincoln Street             | Franklin Street to Brighton Station                                   | 3                      | 760   | 10          | Yes             | NA  | Road Closure - Detour         | 74                          | 1                             | 2                                  | 0                               | 9/2/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T47          | 300                                       | 366                               | 295                           | 348                   | 5                               | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 21585.00 |
| Total Impact Length (feet) | 57144.00 |
| Score                      | 2.65     |

Date: 9/28/2021

Candidate Route: Brighton B-24A

| Length (feet) | Street Name                | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|----------------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 3875.0        | Broadway                   | Kendall Blue Garage to Prospect Street                                | 32                            | 2               | 16                      | 1030                              | 2340                              | 2340                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 7750  | Full      | Yes                         | 190   | Principal Arterial- Other      | Cambridge            |       |
| 1625.0        | Prospect Street            | Broadway to Western Avenue @ Massachusetts Avenue                     | 32                            | 2               | 4                       | 260                               | 320                               | 320  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 70  | Principal Arterial- Other      | Cambridge            |       |
| 340.0         | Western Avenue             | Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | 20                            | 1               | 1                       | 135                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 280   | Full      | Yes                         | 22  | Principal Arterial- Other      | Cambridge            |       |
| 2850.0        | Green Street               | Western Avenue to Putnam Avenue                                       | 20                            | 1               | 5                       | 274                               | 2200                              | 2200                                       | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 62  | Local                          | Cambridge            |       |
| 365.0         | Putnam Avenue              | Green Street to Mt Auburn Street                                      | 24                            | 2               | 1                       | 75                                | 180                               | 180  | No                         | No                | 0                                 | None                | NO   | 0   | Full      | Yes                         | 22  | Minor Arterial                 | Cambridge            |       |
| 3950.0        | Mt Auburn Street           | Putnam Avenue to Private Property @ Hawthorn Street                   | 30                            | 2               | 18                      | 890                               | 2600                              | 2600                                       | Yes                        | Yes               | 0                                 | Bike Lane           | Partial                                    | 2400  | Full      | Yes                         | 188   | Principal Arterial- Other      | Cambridge            |       |
| 280.0         | Private Property (DCR)     | Mt Auburn Street to Charles River                                     | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 415.0         | Charles River              | Private Property (DCR) to Private Property (DCR)                      | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 2175.0        | Private Property (DCR)     | Charles River to Soldiers Field Road                                  | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | DCR                  |       |
| 1150.0        | Soldiers Field Road        | Private Property (DCR) to Private Property                            | 30                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Principal Arterial- Other      | Boston               |       |
| 1200.0        | Private Property           | Soldiers Field Road to Western Ave                                    | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | No        | No                          | 0   | None                           | Boston               |       |
| 710.0         | Western Ave & Spurr Street | Private Property to North Harvard Street                              | 30                            | 2               | 3                       | 165                               | 660                               | 660  | No                         | Yes               | 0                                 | None                | No   | 0   | Yes       | No                          | 22  | Minor Arterial                 | Boston               |       |
| 300.0         | North Harvard Street       | Spurr Street to Franklin Street                                       | 32                            | 2               | 1                       | 40                                | 220                               | 220  | No                         | No                | 0                                 | Sharrow             | Yes  | 600   | Yes       | Yes                         | 12  | Minor Arterial                 | Boston               |       |
| 2100.0        | Franklin Street            | North Harvard Street to Lincoln Street                                | 22                            | 2               | 10                      | 290                               | 500                               | 500  | No                         | No                | 0                                 | Sharrow             | Yes  | 4200  | Full      | Yes                         | 42  | Local                          | Boston               |       |
| 250.0         | Lincoln Street             | Franklin Street to Brighton Station                                   | 24                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 10  | Local                          | Boston               |       |

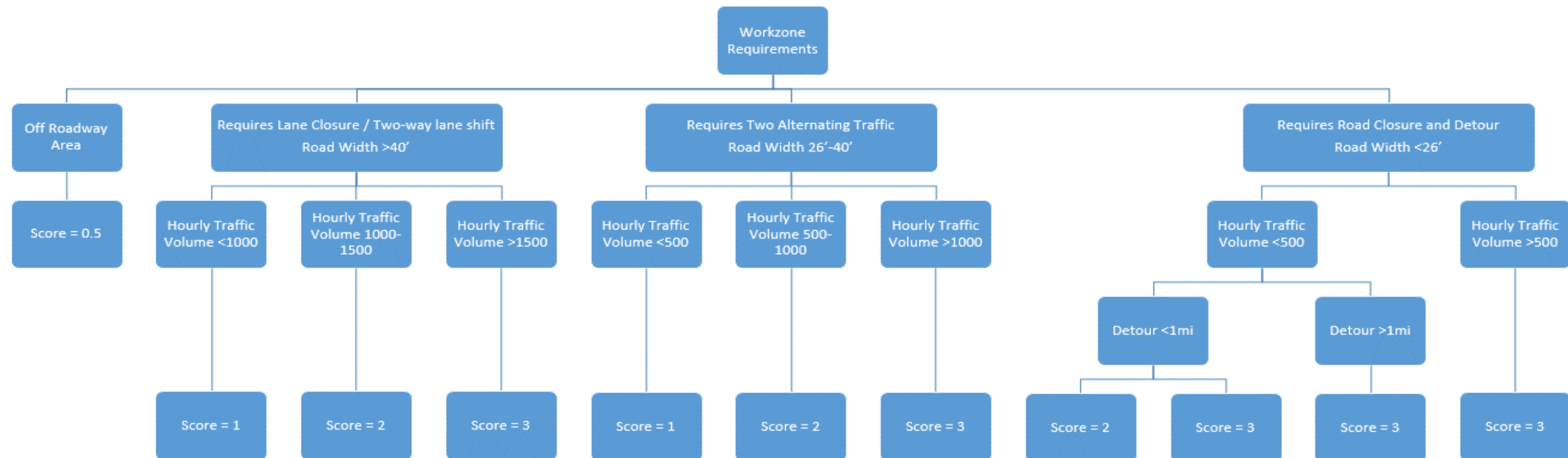
Calculated in Spreadsheet

| Roadway                  |   | Intersection Name             | Intersection Width (feet) |
|--------------------------|---|-------------------------------|---------------------------|
| Broadway                 | Kendall Blue Garage to Prospect Street                                | Galileo Galilei Way           | 185                       |
|                          |   | Hampshire Street              | 120                       |
|                          |   | Portland Street               | 80                        |
|                          |   | Davis Street                  | 25                        |
|                          |   | Moore Street                  | 30                        |
|                          |   | Market Street                 | 35                        |
|                          |   | Clark Street                  | 30                        |
|                          |   | Dickinson Street              | 20                        |
|                          |   | Windsor Street                | 90                        |
|                          |   | Boardman Street               | 35                        |
|                          |   | Columbia Street               | 80                        |
|                          |   | Elm Street                    | 80                        |
|                          |   | Norfolk Street                | 70                        |
|                          |   | Tremont Street                | 30                        |
|                          |   | Scouting Way                  | 20                        |
| Prospect Street          | Prospect Street   | 100                           |                           |
| Prospect Street          | Broadway to Western Avenue @ Massachusetts Avenue                     | Harvard Street                | 75                        |
|                          |   | St Paul Street                | 25                        |
|                          |   | Bishop Allen Drive            | 35                        |
|                          |   | Mass Ave                      | 125                       |
| Western Avenue           | Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | Green Street                  | 135                       |
|                          |   |                               |                           |
| Green Street             | Western Avenue to Putnam Avenue                                       | Pleasant Street               | 60                        |
|                          |   | Sellers Street                | 24                        |
|                          |   | Hancock Street                | 60                        |
|                          |   | Bay Street                    | 60                        |
|                          |   | Putnam Ave                    | 70                        |
| Putnam Avenue            | Western Avenue to Mt Auburn Street                                    | Mt Auburn Street              | 75                        |
| Mt Auburn Street         | Putnam Ave to Private Property @ Hawthorn Street                      | Banks Street                  | 35                        |
|                          |   | Athens Street                 | 35                        |
|                          |   | Dewolfe Street                | 55                        |
|                          |   | Plympton Street               | 55                        |
|                          |   | Holyoke Place                 | 15                        |
|                          |   | Holyoke Street                | 55                        |
|                          |   | Dunster Street                | 80                        |
|                          |   | JFK Street                    | 85                        |
|                          |   | Brattle Street                | 95                        |
|                          |   | Bennett Alley                 | 40                        |
|                          |   | University Road               | 75                        |
|                          |   | Story Street                  | 50                        |
|                          |   | Revere Street                 | 20                        |
|                          |   | Hillard Street                | 25                        |
|                          |   | Gerry Street                  | 35                        |
| Brewer Street            | 20  |                               |                           |
| Ash Street               | 35  |                               |                           |
| Memorial Drive           | 80  |                               |                           |
| Private Property (DCR)   | Mt Auburn Street to Charles River                                     |                               |                           |
| Charles River            | Private Property (DCR) to Private Property (DCR)                      |                               |                           |
| Private Property (DCR)   | Charles River to Soldiers Field Road                                  |                               |                           |
| Soldiers Field Road      | Private Property (DCR) to Private Property                            |                               |                           |
| Private Property         | Soldiers Field Road to Western Ave/Spurr Street                       |                               |                           |
| Western Ave/Spurr Street | Private Property to North Harvard Street                              | Riverdale Street              | 20                        |
|                          |   | Western Ave/Spurr Street      | 100                       |
|                          |   | North Harvard Street          | 45                        |
| North Harvard Street     | Western Ave/Spurr Street to Franklin Street                           | Franklin Street               | 40                        |
| Franklin Street          | North Harvard Street to Lincoln Street                                | Weitz Street                  | 35                        |
|                          |   | Raymond Street                | 30                        |
|                          |   | Myrick Street                 | 40                        |
|                          |   | Brentwood Street              | 30                        |
|                          |   | Fern Street                   | 20                        |
|                          |   | Holton Street                 | 20                        |
|                          |   | Easton Street                 | 30                        |
|                          |   | Aldie Street/Bradburry Street | 25                        |
|                          |   | Alcot/Adamson Street          | 30                        |
|                          |   | Lincoln Street                | 30                        |
| Lincoln Street           | Franklin Street to Brighton Station                                   |                               |                           |

| Roadway                   | Segment   | Intersection Name            | Number of crossings | location of crossing along road | Crossing Width (feet) |
|---------------------------|---|------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                  | Kendall Blue Garage to Prospect Street                                | Galileo Galilei Way          | 1                   | east                            | 12                    |
|                           |   | Galileo Galilei Way          | 1                   | west                            | 16                    |
|                           |   | Hampshire Street             | 1                   | east                            | 10                    |
|                           |   | Hampshire Street             | 1                   | west                            | 10                    |
|                           |   | Portland Street              | 1                   | east                            | 10                    |
|                           |   | Portland Street              | 1                   | west                            | 10                    |
|                           |   | Market Street                | 1                   | east                            | 12                    |
|                           |   | Clark Street                 | 1                   | west                            | 10                    |
|                           |   | Windsor Street               | 1                   | east                            | 10                    |
|                           |   | Windsor Street               | 1                   | west                            | 10                    |
|                           |   | Columbia Street              | 1                   | east                            | 10                    |
|                           |   | Columbia Street              | 1                   | west                            | 10                    |
|                           |   | Elm Street                   | 1                   | West                            | 10                    |
|                           |   | Norfolk Street               | 1                   | east                            | 10                    |
|                           |   | Norfolk Street               | 1                   | west                            | 10                    |
|                           |   | Tremont Street               | 1                   | east                            | 10                    |
|                           |   | Prospect Street              | 1                   | east                            | 10                    |
| Prospect Street           | 1   | south                        | 10                  |                                 |                       |
| Prospect Street           | Broadway to Western Avenue @ Massachusetts Avenue                     | Harvard Street               | 1                   | north                           | 8                     |
|                           |   | Harvard Street               | 1                   | south                           | 8                     |
|                           |   | Prospect Street (mid-block)  | 1                   | n/a                             | 12                    |
|                           |   | Bishop Allen Drive           | 1                   | north                           | 10                    |
|                           |   | Bishop Allen Drive           | 1                   | south                           | 10                    |
|                           |   | Mass Ave                     | 1                   | north                           | 10                    |
|                           |   | Mass Ave                     | 1                   | west                            | 12                    |
| Western Avenue            | Massachusetts Avenue/Prospect Street to Green Street @ Western Avenue | Green Street                 | 1                   | east                            | 10                    |
|                           |   | Green Street                 | 1                   | north                           | 12                    |
| Green Street              | Western Avenue to Putnam Avenue                                       | Pleasant Street              | 1                   | south                           | 8                     |
|                           |   | Pleasant Street              | 1                   | north                           | 10                    |
|                           |   | Hancock Street               | 1                   | south                           | 8                     |
|                           |   | Hancock Street               | 1                   | north                           | 10                    |
|                           |   | Bay Street                   | 1                   | south                           | 10                    |
|                           |   | Putnam Ave                   | 1                   | east                            | 8                     |
|                           |   | Putnam Ave                   | 1                   | north                           | 8                     |
| Putnam Avenue             | Green Street to Mt Auburn Street                                      | Mt Auburn Street             | 1                   | south                           | 10                    |
|                           |   | Mt Auburn Street             | 1                   | west                            | 12                    |
| Mt Auburn Street          | Putnam Avenue to Private Property @ Hawthorn Street                   | Mt Auburn Street (mid-block) | 1                   | n/a                             | 10                    |
|                           |   | Dewolfe Street               | 1                   | west                            | 10                    |
|                           |   | Plympton Street              | 1                   | east                            | 10                    |
|                           |   | Plympton Street              | 1                   | west                            | 10                    |
|                           |   | Mt Auburn Street (mid-block) | 1                   | n/a                             | 10                    |
|                           |   | Holyoke Street               | 1                   | east                            | 10                    |
|                           |   | Holyoke Street               | 1                   | west                            | 10                    |
|                           |   | Dunster Street               | 1                   | east                            | 8                     |
|                           |   | Dunster Street               | 1                   | west                            | 10                    |
|                           |   | JFK Street                   | 1                   | east                            | 12                    |
|                           |   | JFK Street                   | 1                   | west                            | 10                    |
|                           |   | Brattle Street               | 1                   | east                            | 22                    |
|                           |   | Brattle Street               | 1                   | west                            | 12                    |
|                           |   | University Road              | 1                   | east                            | 12                    |
| Brewer Street             | 1   | east                         | 12                  |                                 |                       |
| Memorial Drive            | 1   | east                         | 10                  |                                 |                       |
| Memorial Drive            | 1   | south                        | 10                  |                                 |                       |
| Private Property (DCR)    | Mt Auburn Street to Charles River                                     |                              |                     |                                 |                       |
| Charles River             | Private Property (DCR) to Private Property (DCR)                      |                              |                     |                                 |                       |
| Private Property (DCR)    | Charles River to Soldiers Field Road                                  |                              |                     |                                 |                       |
| Soldiers Field Road       | Private Property (DCR) to Private Property                            |                              |                     |                                 |                       |
| Private Property          | Soldiers Field Road to Western Ave/Spurr Street                       |                              |                     |                                 |                       |
| Western Ave/ Spurr Street | Private Property to North Harvard Street                              | Riverdale Street             | 1                   | east                            | 10                    |
|                           |   | North Harvard Street         | 1                   | west                            | 12                    |
| North Harvard Street      | Western Ave/Spurr Street to Franklin Street                           | Franklin Street              | 1                   | north                           | 12                    |
| Franklin Street           | North Harvard Street to Lincoln Street                                | Franklin Street              | 1                   | west                            | 12                    |
|                           |   | Brentwood Street             | 1                   | north                           | 10                    |
|                           |   | Adamson/Alcott Street        | 1                   | south                           | 10                    |
|                           |   | Lincoln Street               | 1                   | north                           | 10                    |
| Lincoln Street            | Franklin Street to Brighton Station                                   | Franklin Street              | 1                   | east                            | 10                    |

| Roadway                  | Roadway Segment  | treatment | location along road | length of facility | Width (feet) of facility |
|--------------------------|--|-----------|---------------------|--------------------|--------------------------|
| Broadway                 | Kendall Blue Garage to Prospect Street                                   | Bike Lane | North               | 3875               | 5                        |
|                          |  | Bike Lane | South               | 3875               | 5                        |
| Prospect Street          | Broadway to Western Avenue @<br>Massachusetts Avenue                     | None      |                     |                    |                          |
| Western Avenue           | Massachusetts Avenue/Prospect Street to<br>Green Street @ Western Avenue | Bike Lane | North               | 280                | 5                        |
| Green Street             | Western Avenue to Putnam Avenue  | None      |                     |                    |                          |
| Putnam Avenue            | Green Street to Mt Auburn Street   | None      |                     |                    |                          |
| Mt Auburn Street         | Putnam Avenue to Private Property @ Hawthorn Street                      | Bike Lane | South               | 2400               | 5                        |
| Private Property (DCR)   | Mt Auburn Street to Charles River  | None      |                     |                    |                          |
| Charles River            | Private Property (DCR) to Private Property (DCR)                         | None      |                     |                    |                          |
| Private Property (DCR)   | Charles River to Soldiers Field Road                                     | None      |                     |                    |                          |
| Soldiers Field Road      | Private Property (DCR) to Private Property                               | None      |                     |                    |                          |
| Private Property         | Soldiers Field Road to Western Ave/Spurr Street                          | None      |                     |                    |                          |
| Western Ave/Spurr Street | Private Property to North Harvard Street                                 | None      |                     |                    |                          |
| North Harvard Street     | Western Ave/Spurr Street to Franklin Street                              | Sharrow   | East                | 300                | 5                        |
|                          |  | Sharrow   | West                | 300                | 5                        |
| Franklin Street          | North Harvard Street to Lincoln Street                                   | Sharrow   | East                | 2100               | 5                        |
|                          |  | Sharrow   | West                | 2100               | 5                        |
| Lincoln Street           | Franklin Street to Brighton Station                                      |           |                     |                    |                          |
|                          |  |           |                     |                    |                          |
|                          |  |           |                     |                    |                          |
|                          |  |           |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Brighton B-29F

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name         | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|---------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 340.0         | Broadway            | Kendall Blue Garage to Galileo Galilei Way                                      | 1                      | 1204  | 864         | No              | NA  | Two-Way Alternating Traffic   | 104                         | 17                            | 41                                 | 30                              | 8/25/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T1           | 485                                       | 336                               | 415                           | 309                   | 70                              | 59                      | 165                                  | 120                               | 134                       |
| 850.0         | Galileo Galilei Way | Broadway to Vassar Street @ Main Street   | 1                      | 2700  | 1850        | No              | NA  | Two-Way Alternating Traffic   | 64                          | 14                            | 24                                 | 15                              | 9/4/2020                       | 12:45PM                        | 8/10/2021-8/12/2021 | T29          | 310                                       | 152                               | 255                           | 279                   | 55                              | 23                      | 95                                   | 60                                | 47                        |
| 5500.0        | Vassar Street       | Main Street @ Galileo Galilei Way/Main Street thru Mass Ave to Private Property | 3                      | 34895   | 18395       | Yes             | NA  | Road Closure - Detour         | 83                          | 20                            | 23                                 | 11                              | 7/22/2020                      | 12:45PM                        | 8/10/2021-8/12/2021 | T32+T33      | 410                                       | 480                               | 330                           | 425                   | 80                              | 99                      | 90                                   | 45                                | 100                       |
| 350.0         | Private Property    | Vassar Street to Waverly Street   | 0.5                    | 175   | 0           | No              | NA  | Private                       | 0                           | 0                             | 0                                  | 0                               | 9/4/2020                       | 12:00PM                        | N/A                 | N/A          | 0   | 0                                 | 0                             | 0                     | 0                               | 0                       | 0                                    | 0                                 | 0                         |
| 650.0         | Waverly Street      | Private Property to Brookline Street  | 1                      | 1858  | 1208        | No              | NA  | Two-Way Alternating Traffic   | 89                          | 1                             | 9                                  | 3                               | 5/25/2021                      | 11:45AM                        | 8/10/2021-8/12/2021 | T39          | 360                                       | 326                               | 355                           | 315                   | 5                               | 11                      | 35                                   | 10                                | 32                        |
| 1100.0        | Brookline Street    | Waverly Street to Memorial Drive  | 1                      | 1278  | 178         | No              | NA  | Two-Way Alternating Traffic   | 178                         | 5                             | 23                                 | 12                              | 5/25/2021                      | 12:00PM                        | 8/10/2021-8/12/2021 | T41          | 730                                       | 463                               | 710                           | 451                   | 20                              | 23                      | 90                                   | 50                                | 44                        |
| 300.0         | Memorial Drive      | Brookline Street to Magazine Street   | 3                      | 940   | 40          | Yes             | NA  | Road Closure - Detour         | 399                         | 0                             | 19                                 | 10                              | 5/25/2021                      | 12:30PM                        | 8/10/2021-8/12/2021 | T42          | 1595                                      | 400                               | 1595                          | 398                   | 0                               | 5                       | 75                                   | 40                                | 2                         |
| 1100.0        | Memorial Drive      | Magazine Street to Pleasant Street  | 3                      | 3360  | 60          | No              | NA  | Two-way Lane Shift            | 296                         | 4                             | 17                                 | 27                              | 9/4/2020                       | 2:00PM                         | 8/10/2021-8/12/2021 | T44          | 1200                                      | 1833                              | 1185                          | 1827                  | 15                              | 30                      | 70                                   | 110                               | 5                         |
| 1050.0        | Memorial Drive      | Pleasant Street to River Street   | 3                      | 3260  | 110         | No              | NA  | Two-way Lane Shift            | 382                         | 4                             | 15                                 | 24                              | 9/3/2020                       | 2:30PM                         | 8/10/2021-8/12/2021 | T44          | 1545                                      | 1833                              | 1530                          | 1827                  | 15                              | 30                      | 60                                   | 95                                | 5                         |
| 900.0         | River Street Bridge | Memorial Drive to Cambridge Street  | 3                      | 3953  | 1253        | No              | NA  | Two-Way Alternating Traffic   | 0                           | 0                             | 0                                  | 0                               | 9/2/2020                       | 11:00AM                        | 8/10/2021-8/12/2021 | T45          | 0   | 1337                              | 0                             | 1273                  | 0                               | 64                      | 0                                    | 0                                 | 6                         |
| 1525.0        | Private Property    | Cambridge Street @ I-90 Ramps to Cambridge Street @ Windom Street               | 0.5                    | 922.5   | 160         | No              | NA  | Private                       | 224                         | 18                            | 2                                  | 0                               | 9/2/2020                       | 11:30AM                        | 8/30/21-9/1/21      | T66-A        | 970                                       | 1874                              | 895                           | 1865                  | 70                              | 65                      | 10                                   | 0                                 | 10                        |
| 1000.0        | Cambridge Street    | Windom Street to North Harvard Street   | 3                      | 5165  | 2165        | No              | NA  | Two-Way Alternating Traffic   | 284                         | 21                            | 2                                  | 1                               | 9/2/2020                       | 11:45AM                        | 8/30/21-9/1/21      | T66-A        | 1220                                      | 1874                              | 1135                          | 1865                  | 85                              | 65                      | 10                                   | 5                                 | 10                        |
| 1435.0        | Cambridge Street    | North Harvard Street to Lincoln Street  | 3                      | 5541  | 1236        | No              | NA  | Two-Way Alternating Traffic   | 299                         | 22                            | 6                                  | 2                               | 9/2/2020                       | 10:45AM                        | 8/10/2021-8/12/2021 | T46          | 1285                                      | 2327                              | 1195                          | 2200                  | 90                              | 168                     | 25                                   | 10                                | 16                        |
| 1350.0        | Lincoln Street      | Cambridge Street to Brighton Station  | 1                      | 2282  | 932         | No              | NA  | Two-Way Alternating Traffic   | 77                          | 7                             | 3                                  | 0                               | 9/2/2020                       | 9:00AM                         | 8/10/2021-8/12/2021 | T47          | 335                                       | 366                               | 310                           | 348                   | 30                              | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 17450.00 |
| Total Impact Length (feet) | 67533.50 |
| Score                      | 3.87     |



Date: 9/28/2021

Candidate Route: Brighton B-29F

| Length (feet) | Street Name         | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|---------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 340.0         | Broadway            | Kendall Blue Garage to Galileo Galilei Way                                      | 36                            | 2               | 1                       | 160                               | 0                                 | 0  | Yes                        | no                | 0                                 | Bike Lane           | Yes  | 680   | Full      | Yes                         | 24  | Principal Arterial - Other     | Cambridge            |       |
| 850.0         | Galileo Galilei Way | Broadway to Vassar Street @ Main Street   | 26                            | 1               | 2                       | 130                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 1700  | Full      | Yes                         | 20  | Major Collector                | Cambridge            |       |
| 5500.0        | Vassar Street       | Main Street @ Galileo Galilei Way/Main Street thru Mass Ave to Private Property | 22                            | 2               | 3                       | 160                               | 3560                              | 3560                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 11000   | Full      | Yes                         | 115   | Minor Arterial                 | Cambridge            |       |
| 350.0         | Private Property    | Vassar Street to Waverly Street   | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private/MassDOT      |       |
| 650.0         | Waverly Street      | Private Property to Brookline Street  | 30                            | 2               | 2                       | 175                               | 0                                 | 0  | No                         | No                | 0                                 | Bike Lane           | Yes  | 1015  | Full      | Yes                         | 18  | Minor Arterial                 | Cambridge            |       |
| 1100.0        | Brookline Street    | Waverly Street to Memorial Drive  | 30                            | 2               | 1                       | 35                                | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 125   | Full      | Yes                         | 18  | Principal Arterial - Other     | DCR/Cambridge        |       |
| 300.0         | Memorial Drive      | Brookline Street to Magazine Street   | 22                            | 2               | 1                       | 40                                | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Principal Arterial - Other     | DCR                  |       |
| 1100.0        | Memorial Drive      | Magazine Street to Pleasant Street  | 40                            | 4               | 1                       | 40                                | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 20  | Principal Arterial-Other       | DCR                  |       |
| 1050.0        | Memorial Drive      | Pleasant Street to River Street   | 40                            | 4               | 1                       | 100                               | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | No                          | 10  | Principal Arterial-Other       | DCR                  |       |
| 900.0         | River Street Bridge | Memorial Drive to Cambridge Street  | 35                            | 3               | 1                       | 175                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | None                | No   | 1050  | Full      | Yes                         | 28  | Principal Arterial-Other       | DCR                  |       |
| 1525.0        | Private Property    | Cambridge Street @ I-90 Ramps to Cambridge Street @ Windom Street               | PRIVATE                       | N/A             | 2                       | 160                               | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | Yes  | 0   | N/A       | No                          | 0   | None                           | MassDOT              |       |
| 1000.0        | Cambridge Street    | Windom Street to North Harvard Street   | 35                            | 2               | 3                       | 155                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 2000  | Full      | Yes                         | 10  | Principal Arterial-Other       | Boston               |       |
| 1435.0        | Cambridge Street    | North Harvard Street to Lincoln Street  | 34                            | 2               | 1                       | 100                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 1100  | Full      | Yes                         | 36  | Principal Arterial-Other       | Boston               |       |
| 1350.0        | Lincoln Street      | Cambridge Street to Brighton Station  | 26                            | 2               | 3                       | 110                               | 400                               | 400  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 22  | Major Collector                | Boston               |       |

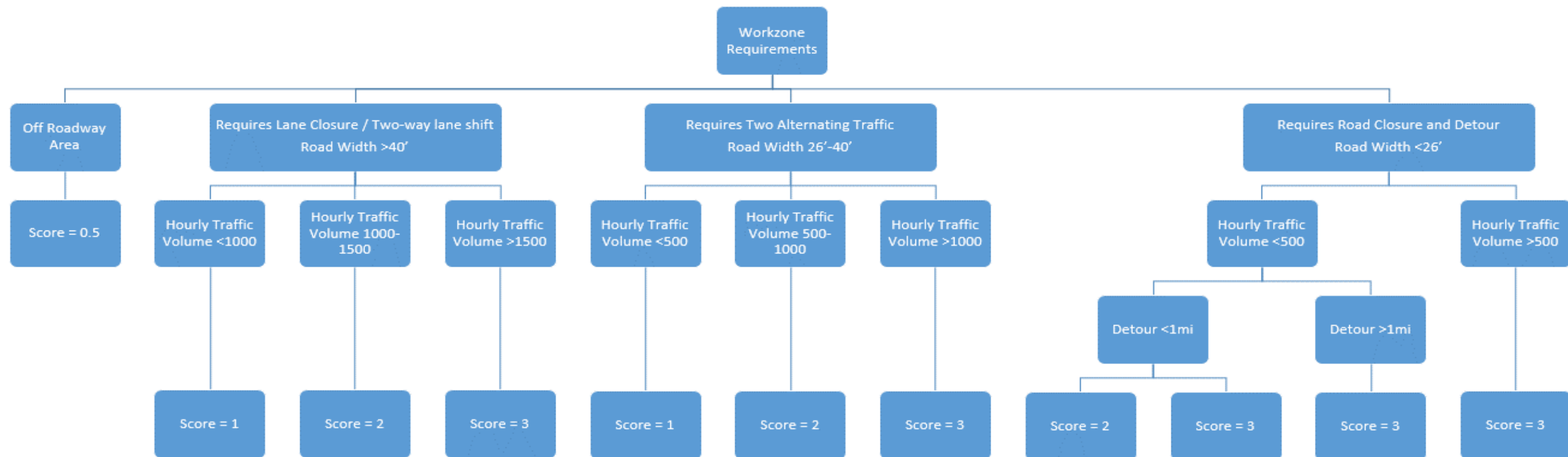
Calculated in Spreadsheet

| Roadway             | Segments  | Intersection Name                   | Intersection Width (feet) |
|---------------------|---|-------------------------------------|---------------------------|
| Broadway            | Kendall Blue Garage to Galileo Galilei Way                                      | Galileo Galilei Way                 | 160                       |
| Galileo Galilei Way | Broadway to Vassar Street @ Main Street   | Ames Place                          | 40                        |
|                     |   | Main Street                         | 90                        |
| Vassar Street       | Main Street @ Galileo Galilei Way/Main Street thru Mass Ave to Private Property | Massachusetts Avenue                | 100                       |
|                     |   | Amherst Alley                       | 20                        |
|                     |   | Audrey Street                       | 40                        |
| Private Property    | Vassar Street to Waverly Street   |                                     |                           |
| Waverly Street      | Private Property to Brookline Street  | Sidney Street                       | 60                        |
|                     |   | Brookline Street                    | 115                       |
| Brookline Street    | Waverly Street to Memorial Drive  | Reid Rotary                         | 35                        |
| Memorial Drive      | Brookline to Magazine   | Magazine Street                     | 40                        |
|                     | Magazine to Pleasant  | Pleasant Street Extension           | 40                        |
|                     | Pleasant Street to River Street   | River Street                        | 100                       |
| River Street Bridge | Memorial Drive to Cambridge Street  | Soldiers Field Road - Frontage Road | 175                       |
| (I-90 Ramps)        | Cambridge Street @ I-90 Ramps to Cambridge Street @ Windom Street               | I-90 Ramps                          | 75                        |
|                     |   | Windom Street                       | 85                        |
| Cambridge Street    | Windom to North Harvard   | Seattle Street                      | 30                        |
|                     |   | Sorrento Street                     | 30                        |
|                     |   | N Harvard Street                    | 95                        |
| Cambridge Street    | North Harvard to Lincoln Street   | Lincoln Street                      | 100                       |
| Lincoln Street      | Cambridge Street to Brighton Station  | Empire Street                       | 30                        |
|                     |   | Royal Street                        | 40                        |
|                     |   | Mansfield Street                    | 40                        |

| Roadway             | Segments  | Intersection Name                     | Number of crossings | location of crossing along road | Crossing Width (feet) |
|---------------------|---|---------------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway            | Kendall Blue Garage to Galileo Galilei Way                                      | Galileo Galilei Way @ Broadway        | 1                   | East                            | 10                    |
|                     |   | Galileo Galilei Way @ Broadway        | 1                   | South                           | 14                    |
| Galileo Galilei Way | Broadway to Vassar @ Main Street  | Main Street                           | 1                   | North                           | 10                    |
|                     |   | Main Street                           | 1                   | South                           | 10                    |
| Vassar Street       | Main Street @ Galileo Galilei Way/Main Street thru Mass Ave to Private Property | Vassar Street (mid-block)             | 1                   | N/A                             | 10                    |
|                     |   | Vassar Street (mid-block)             | 1                   | N/A                             | 10                    |
|                     |   | Vassar Street @ Massachusetts Avenue  | 1                   | East                            | 10                    |
|                     |   | Vassar Street @ Massachusetts Avenue  | 1                   | West                            | 10                    |
|                     |   | Vassar Street (mid-block)             | 1                   | N/A                             | 18                    |
|                     |   | Vassar Street (mid-block)             | 1                   | N/A                             | 15                    |
|                     |   | Vassar Street (mid-block)             | 1                   | N/A                             | 12                    |
|                     |   | Ameherst Alley                        | 1                   | West                            | 12                    |
|                     |   | Audrey Street                         | 1                   | East                            | 10                    |
|                     |   | Amesbury Street                       | 1                   | West                            | 8                     |
| Private Property    | Vassar Street to Waverly Street   |                                       |                     |                                 |                       |
| Waverly Street      | Private Property to Brookline Street  | Waverly Street @ Sidney Street        | 1                   | East                            | 10                    |
| Brookline Street    | Waverly to Memorial Drive   | Brookline Street                      | 1                   | East                            | 10                    |
|                     |   | Brookline Street (Rotary)             | 1                   | West                            | 8                     |
| Memorial Drive      | Brookline to Magazine   | None                                  |                     |                                 |                       |
|                     |   |                                       |                     |                                 |                       |
|                     | Magazine to Pleasant  | Memorial Drive @ Pleasant Street Ext. | 1                   | South                           | 10                    |
|                     |   | Memorial Drive @ Pleasant Street Ext. | 1                   | North                           | 10                    |
|                     | Pleasant Street to River Street   | River Street@Memorial Drive           | 1                   | South                           | 10                    |
| River Street Bridge | Memorial Drive to Cambridge Street  | River Street@ Memorial Drive          | 1                   | West                            | 10                    |
|                     |   | River Street@Cambridge Street         | 1                   | East                            | 8                     |
|                     |   | River Street @ Cambridge Street       | 1                   | West                            | 10                    |
| (I-90 Ramps)        | Cambridge Street @ I-90 Ramps to Cambridge Street @ Windom Street               | None                                  |                     |                                 |                       |
| Cambridge Street    | Windom to North Harvard   | Cambridge Street @ Windom Street      | 1                   | West                            | 10                    |
| Cambridge Street    | North Harvard to Lincoln Street   | Cambridge Street @ N Harvard Street   | 1                   | West                            | 12                    |
|                     |   | Cambridge Street @ Lincoln Street     | 1                   | East                            | 12                    |
|                     |   | Cambridge Street @ Lincoln Street     | 1                   | North                           | 12                    |
| Lincoln Street      | Cambridge Street to Brighton Station  | Lincoln Street @ Cambridge Street     | 1                   | North                           | 10                    |
|                     |   | Lincoln Street @ Mansfield Street     | 1                   | East                            | 12                    |

| Roadway             | Roadway Segment   | Treatment                  | Location along road | Length of facility | Width (feet) of facility |
|---------------------|---|----------------------------|---------------------|--------------------|--------------------------|
| Broadway            | Kendall Blue Garage to Galileo Galilei Way                                      | Bicycle Lane               | North               | 340                | 5                        |
|                     |   | Bicycle Lane               | South               | 340                | 5                        |
| Galileo Galilei Way | Broadway to Vassar Street @ Main Street   | Bicycle Lane               | West                | 850                | 5                        |
|                     |   | Bicycle Lane               | East                | 850                | 5                        |
| Vassar Street       | Main Street @ Galileo Galilei Way/Main Street thru Mass Ave to Private Property | Bicycle Lane/Cycle Track   | North               | 5500               | 5                        |
|                     |   | Bicycle Lane/Cycle Track   | South               | 5500               | 5                        |
| Private Property    | Vassar Street to Waverly Street   | None                       |                     |                    |                          |
| Waverly Street      | Private Property to Brookline Street  | None                       | South               | 580                | 5                        |
|                     |   | None                       | North               | 435                | 5                        |
| Brookline Street    | Waverly Street to Memorial Drive  | None                       | West                | 125                | 5                        |
|                     |   | None                       | East                | 0                  | 0                        |
| Memorial Drive      | Brookline Street to Magazine street   | None                       | West                | 0                  | 0                        |
|                     |   | None                       | East                | 0                  | 0                        |
|                     | Magazine Street to Pleasant   | None                       | West                | 0                  | 0                        |
|                     |   | None                       | East                | 0                  | 0                        |
|                     | Pleasant Street to River Street   | None                       | West                | 0                  | 0                        |
|                     |   | None                       | East                | 0                  | 0                        |
| River Street Bridge | Memorial Drive to Cambridge Street  | Multi-Use Path/Cycle Track | North               | 525                | 5                        |
|                     |   | Bike Lane/Multi-use path   | South               | 525                | 5                        |
| (I-90 Ramps)        | Cambridge Street @ I-90 Ramps to Cambridge Street @ Windom Street               | None                       |                     |                    |                          |
| Cambridge Street    | Windom Street North Harvard Street  | Bicycle Lane               | West                | 1000               | 5                        |
|                     |   | Bicycle Lane               | East                | 1000               | 5                        |
|                     | North Harvard Street to Lincoln Street  | Bicycle Lane               | West                | 550                | 5                        |
|                     |   | Bicycle Lane               | East                | 550                | 5                        |
| Lincoln Street      | Cambridge Street to Brighton Station  | None                       |                     |                    |                          |
|                     |   |                            |                     |                    |                          |
|                     |   |                            |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Brighton B-30

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name            | Segment Limits   | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|------------------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 3875.0        | Broadway               | Kendall Blue Garage to Prospect Street                     | 2                      | 3850  | 13650       | No              | NA  | Two-Way Alternating Traffic   | 73                          | 7                             | 24                                 | 8                               | 8/25/2020                      | 9:30AM                         | 8/10/2021-8/12/2021 | T25          | 320                                       | 818                               | 290                           | 775                   | 30                              | 42                      | 95                                   | 30                                | 59                        |
| 1625.0        | Prospect Street        | Broadway to Western Avenue @ Massachusetts Avenue          | 2                      | 1675  | 970         | No              | NA  | Two-Way Alternating Traffic   | 230                         | 13                            | 43                                 | 16                              | 9/3/2020                       | 2:00PM                         | 8/10/21-8/12/21     | T26          | 970                                       | 955                               | 920                           | 913                   | 50                              | 56                      | 170                                  | 65                                | 41                        |
| 340.0         | Western Avenue         | Massachusetts Avenue @ Prospect Street to Green Street     | 3                      | 1457  | 437         | Yes             | NA  | Road Closure - Detour         | 134                         | 31                            | 72                                 | 8                               | 9/3/2020                       | 9:00AM                         | 8/10/2021-8/12/2021 | T27          | 660                                       | 940                               | 535                           | 882                   | 125                             | 80                      | 290                                  | 30                                | 46                        |
| 2850.0        | Green Street           | Western Avenue to Putnam Avenue                            | 3                      | 13286   | 4736        | Yes             | NA  | Road Closure - Detour         | 8                           | 3                             | 7                                  | 1                               | 9/3/2020                       | 9:30AM                         | 8/10/2021-8/12/2021 | T28          | 45  | 79                                | 30                            | 79                    | 10                              | 6                       | 30                                   | 5                                 | 6                         |
| 365.0         | Putnam Avenue          | Green Street to Mt Auburn Street                           | 3                      | 1552  | 457         | Yes             | NA  | Road Closure - Detour         | 44                          | 3                             | 25                                 | 7                               | 9/3/2020                       | 10:00AM                        | 8/10/2021-8/12/2021 | T55          | 190                                       | 379                               | 175                           | 369                   | 10                              | 24                      | 100                                  | 30                                | 60                        |
| 2130.0        | Mt Auburn Street       | Putnam Avenue to John F. Kennedy Street                    | 3                      | 11095   | 4705        | Yes             | NA  | Road Closure - Detour         | 59                          | 4                             | 31                                 | 8                               | 9/3/2020                       | 10:30AM                        | 8/10/2021-8/12/2021 | T56          | 250                                       | 443                               | 235                           | 408                   | 15                              | 54                      | 125                                  | 30                                | 63                        |
| 1275.0        | John F. Kennedy Street | Mt Auburn Street to N Harvard Street @ Memorial Drive      | 2                      | 5838  | 3288        | No              | NA  | Two-Way Alternating Traffic   | 88                          | 6                             | 35                                 | 4                               | 9/3/2020                       | 11:15AM                        | 8/10/2021-8/12/2021 | T57          | 375                                       | 924                               | 350                           | 873                   | 25                              | 72                      | 140                                  | 15                                | 76                        |
| 3700.0        | N Harvard Street       | John F. Kennedy Street @ Memorial Drive to Franklin Street | 2                      | 16384   | 8984        | No              | NA  | Two-way Lane Shift            | 83                          | 16                            | 13                                 | 4                               | 9/2/2020                       | 12:45PM                        | 8/10/2021-8/12/2021 | T52          | 395                                       | 1024                              | 330                           | 963                   | 65                              | 74                      | 50                                   | 15                                | 73                        |
| 2100.0        | Franklin Street        | North Harvard Street to Lincoln Street                     | 3                      | 11820   | 5520        | Yes             | NA  | Road Closure - Detour         | 29                          | 1                             | 11                                 | 4                               | 9/2/2020                       | 12:30PM                        | 8/10/2021-8/12/2021 | T48          | 120                                       | 105                               | 115                           | 105                   | 5                               | 6                       | 45                                   | 15                                | 25                        |
| 260.0         | Lincoln Street         | Franklin Street to Brighton Station                        | 3                      | 792   | 12          | Yes             | NA  | Road Closure - Detour         | 74                          | 1                             | 2                                  | 0                               | 9/2/2020                       | 12:00PM                        | 8/10/2021-8/12/2021 | T47          | 300                                       | 366                               | 295                           | 348                   | 5                               | 26                      | 10                                   | 0                                 | 6                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 18520.00 |
| Total Impact Length (feet) | 67749.00 |
| Score                      | 3.66     |

Date: 9/28/2021

Candidate Route: Brighton B-30

| Length (feet) | Street Name            | Segment Limits   | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|------------------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 3875.0        | Broadway               | Kendall Blue Garage to Prospect Street                     | 32                            | 2               | 16                      | 1030                              | 2340                              | 2340                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 7750  | Full      | Yes                         | 190   | Principal Arterial - Other     | Cambridge            |       |
| 1625.0        | Prospect Street        | Broadway to Western Avenue @ Massachusetts Avenue          | 32                            | 2               | 4                       | 260                               | 320                               | 320  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 70  | Principal Arterial - Other     | Cambridge            |       |
| 340.0         | Western Avenue         | Massachusetts Avenue @ Prospect Street to Green Street     | 20                            | 1               | 1                       | 135                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 280   | Full      | Yes                         | 22  | Principal Arterial - Other     | Cambridge            |       |
| 2850.0        | Green Street           | Western Avenue to Putnam Avenue                            | 20                            | 1               | 5                       | 274                               | 2200                              | 2200                                       | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 62  | Local                          | Cambridge            |       |
| 365.0         | Putnam Avenue          | Green Street to Mt Auburn Street                           | 24                            | 2               | 8                       | 75                                | 180                               | 180  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 22  | Minor Arterial                 | Cambridge            |       |
| 2130.0        | Mt Auburn Street       | Putnam Avenue to John F. Kennedy Street                    | 24                            | 2               | 8                       | 415                               | 1020                              | 1020                                       | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 2130  | Full      | Yes                         | 120   | Principal Arterial - Other     | Cambridge            |       |
| 1275.0        | John F. Kennedy Street | Mt Auburn Street to N Harvard Street @ Memorial Drive      | 36                            | 2               | 4                       | 235                               | 480                               | 480  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 2015  | Full      | Yes                         | 78  | Principal Arterial - Other     | Cambridge/DCR        |       |
| 3700.0        | N Harvard Street       | John F. Kennedy Street @ Memorial Drive to Franklin Street | 40                            | 2               | 7                       | 570                               | 460                               | 460  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 7400  | Full      | Yes                         | 94  | Minor Arterial                 | MassDOT/DCR/Boston   |       |
| 2100.0        | Franklin Street        | North Harvard Street to Lincoln Street                     | 22                            | 2               | 10                      | 290                               | 500                               | 500  | No                         | No                | 0                                 | Sharrow             | Yes  | 4200  | Full      | Yes                         | 30  | Local                          | Boston               |       |
| 260.0         | Lincoln Street         | Franklin Street to Brighton Station                        | 24                            | 2               | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 12  | Major Collector                | Boston               |       |

Calculated in Spreadsheet

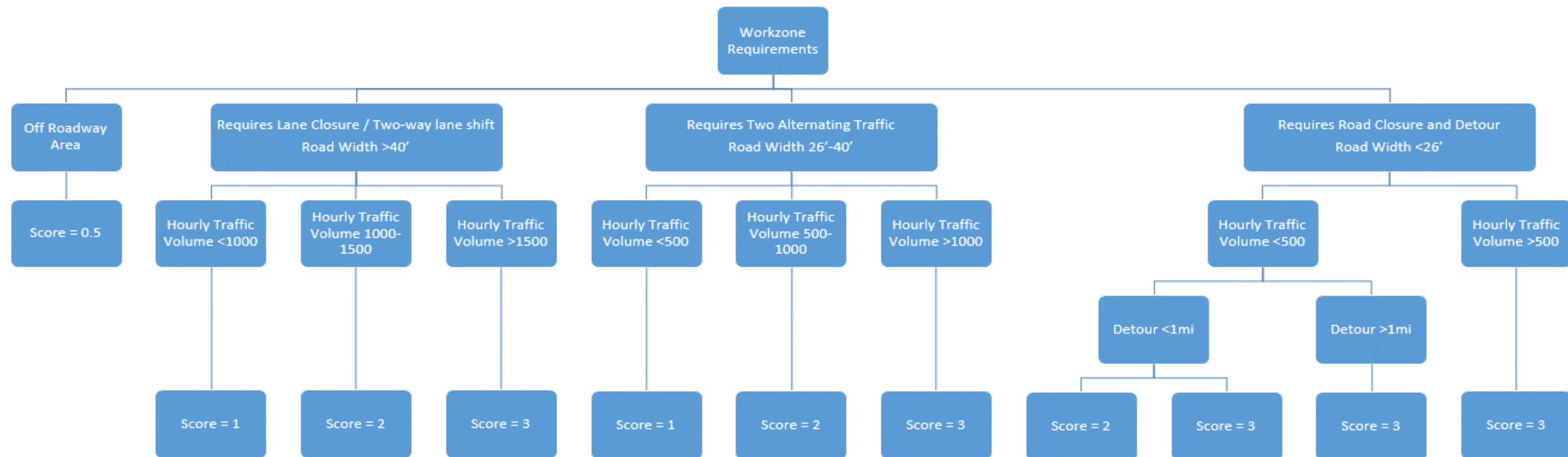
| Roadway                |  | Intersection Name    | Intersection Width (feet) |
|------------------------|--|----------------------|---------------------------|
| Broadway               | Kendall Blue Garage to Prospect Street                     | Galileo Galilei Way  | 185                       |
|                        |  | Hampshire Street     | 120                       |
|                        |  | Portland Street      | 80                        |
|                        |  | Davis Street         | 25                        |
|                        |  | Moore Street         | 30                        |
|                        |  | Market Street        | 35                        |
|                        |  | Clark Street         | 30                        |
|                        |  | Dickinson Street     | 20                        |
|                        |  | Windsor Street       | 90                        |
|                        |  | Boardman Street      | 35                        |
|                        |  | Columbia Street      | 80                        |
|                        |  | Elm Street           | 80                        |
|                        |  | Norfolk Street       | 70                        |
|                        |  | Tremont Street       | 30                        |
|                        |  | Scouting Way         | 20                        |
| Prospect Street        | 100  |                      |                           |
| Prospect Street        | Broadway to Western Avenue @ Massachusetts Avenue          | Harvard Street       | 75                        |
|                        |  | St Paul Street       | 25                        |
|                        |  | Bishop Allen Drive   | 35                        |
|                        |  | Mass Ave             | 125                       |
| Western Avenue         | Massachusetts Avenue @ Prospect Street to Green Street     | Green Street         | 135                       |
| Green Street           | Western Avenue to Putnam Avenue                            | Pleasant Street      | 60                        |
|                        |  | Sellers Street       | 24                        |
|                        |  | Hancock Street       | 60                        |
|                        |  | Bay Street           | 60                        |
|                        |  | Putnam Ave           | 70                        |
| Putnam Avenue          | Green Street to Mt Auburn St                               | Mt Auburn Street     | 75                        |
| Mt Auburn Street       | Putnam Avenue to John F. Kennedy Street                    | Banks Street         | 35                        |
|                        |  | Athens Street        | 35                        |
|                        |  | Dewolfe Street       | 55                        |
|                        |  | Plympton Street      | 55                        |
|                        |  | Holyoke Place        | 15                        |
|                        |  | Holyoke Street       | 55                        |
|                        |  | Dunster Street       | 80                        |
|                        |  | JFK Street           | 85                        |
| John F. Kennedy Street | Mt Auburn Street to N Harvard Street @ Memorial Drive      | Winthrop St          | 50                        |
|                        |  | South St             | 25                        |
|                        |  | Eliot St             | 50                        |
|                        |  | Mem Drive            | 110                       |
| N Harvard Street       | John F. Kennedy Street @ Memorial Drive to Franklin Street | Soldiers Field Road  | 205                       |
|                        |  | Harvard Way          | 25                        |
|                        |  | Gordon Rd            | 30                        |
|                        |  | Western Ave          | 140                       |
|                        |  | Bertram St           | 40                        |
|                        |  | Spurr St             | 40                        |
|                        |  | Franklin St          | 90                        |
| Franklin Street        | N Harvard Street to Lincoln Street                         | Weltz Street         | 35                        |
|                        |  | Raymond Street       | 30                        |
|                        |  | Myrick Street        | 40                        |
|                        |  | Brentwood Street     | 30                        |
|                        |  | Fern Street          | 20                        |
|                        |  | Holton Street        | 20                        |
|                        |  | Easton Street        | 30                        |
|                        |  | Aldie Street         | 25                        |
|                        |  | Alcot/Adamson Street | 30                        |
|                        |  | Lincoln Street       | 30                        |
| Lincoln Street         | Franklin Street to Brighton Station                        |                      |                           |



| Roadway                |  | Intersection Name            | Number of crossings | location of crossing along road | Crossing Width (feet) |
|------------------------|--|------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway               | Kendall Blue Garage to Prospect Street                     | Galileo Galilei Way          | 1                   | East                            | 12                    |
|                        |  | Galileo Galilei Way          | 1                   | West                            | 16                    |
|                        |  | Hampshire Street             | 1                   | East                            | 10                    |
|                        |  | Hampshire Street             | 1                   | West                            | 10                    |
|                        |  | Portland Street              | 1                   | East                            | 10                    |
|                        |  | Portland Street              | 1                   | West                            | 10                    |
|                        |  | Market Street                | 1                   | East                            | 12                    |
|                        |  | Clark Street                 | 1                   | West                            | 10                    |
|                        |  | Windsor Street               | 1                   | East                            | 10                    |
|                        |  | Windsor Street               | 1                   | West                            | 10                    |
|                        |  | Columbia Street              | 1                   | East                            | 10                    |
|                        |  | Columbia Street              | 1                   | West                            | 10                    |
|                        |  | Elm Street                   | 1                   | West                            | 10                    |
|                        |  | Norfolk Street               | 1                   | East                            | 10                    |
|                        |  | Norfolk Street               | 1                   | West                            | 10                    |
|                        |  | Tremont Street               | 1                   | East                            | 10                    |
|                        |  | Prospect Street              | 1                   | East                            | 10                    |
|                        |  | Prospect Street              | 1                   | South                           | 10                    |
| Prospect Street        | Broadway to Western Avenue @ Massachusetts Avenue          | Harvard Street               | 1                   | North                           | 8                     |
|                        |  | Harvard Street               | 1                   | South                           | 8                     |
|                        |  | Prospect Street (mid-block)  | 1                   | N/A                             | 12                    |
|                        |  | Bishop Allen Drive           | 1                   | North                           | 10                    |
|                        |  | Bishop Allen Drive           | 1                   | South                           | 10                    |
|                        |  | Mass Ave                     | 1                   | North                           | 10                    |
|                        |  | Mass Ave                     | 1                   | West                            | 12                    |
| Western Avenue         | Massachusetts Avenue @ Prospect Street to Green Street     | Green Street                 | 1                   | East                            | 10                    |
|                        |  | Green Street                 | 1                   | North                           | 12                    |
| Green Street           | Western Avenue to Putnam Avenue                            | Pleasant Street              | 1                   | South                           | 8                     |
|                        |  | Pleasant Street              | 1                   | North                           | 10                    |
|                        |  | Hancock Street               | 1                   | South                           | 8                     |
|                        |  | Hancock Street               | 1                   | North                           | 10                    |
|                        |  | Bay Street                   | 1                   | South                           | 10                    |
|                        |  | Putnam Ave                   | 1                   | East                            | 8                     |
|                        |  | Putnam Ave                   | 1                   | North                           | 8                     |
| Putnam Avenue          | Green Street to Mt Auburn Street                           | Mt Auburn Street             | 1                   | South                           | 10                    |
|                        |  | Mt Auburn Street             | 1                   | West                            | 12                    |
| Mt Auburn Street       | Putnam Avenue to John F. Kennedy Street                    | Putnam Ave                   | 1                   | West                            | 10                    |
|                        |  | Banks Street                 | 1                   | West                            | 10                    |
|                        |  | Dewolfe Street               | 1                   | East                            | 10                    |
|                        |  | Dewolfe Street               | 1                   | West                            | 10                    |
|                        |  | Plympton Street              | 1                   | East                            | 10                    |
|                        |  | Plympton Street              | 1                   | West                            | 10                    |
|                        |  | Holyoke Plaza                | 1                   | East                            | 10                    |
|                        |  | Holyoke Street               | 1                   | East                            | 10                    |
|                        |  | Holyoke Street               | 1                   | West                            | 10                    |
|                        |  | Dunster Street               | 1                   | East                            | 8                     |
|                        |  | Dunster Street               | 1                   | West                            | 10                    |
| John F. Kennedy Street | 1  | East                         | 12                  |                                 |                       |
| John F. Kennedy Street | Mt Auburn Street to N Harvard Street @ Memorial Drive      | Mount Auburn Street          | 1                   | South                           | 10                    |
|                        |  | Winthrop Street              | 1                   | North                           | 10                    |
|                        |  | Winthrop Street              | 1                   | South                           | 10                    |
|                        |  | Eliot Street                 | 1                   | North                           | 12                    |
|                        |  | Eliot Street                 | 1                   | South                           | 12                    |
|                        |  | Mem Drive                    | 1                   | North                           | 12                    |
| Mem Drive              | 1  | South                        | 12                  |                                 |                       |
| N Harvard Street       | John F. Kennedy Street @ Memorial Drive to Franklin Street | Soldiers Field Road          | 1                   | North                           | 12                    |
|                        |  | Soldiers Field Road          | 1                   | South                           | 12                    |
|                        |  | N Harvard Street (mid-block) | 1                   | N/A                             | 10                    |
|                        |  | N Harvard Street (mid-block) | 1                   | N/A                             | 16                    |
|                        |  | Western Ave                  | 1                   | North                           | 10                    |
|                        |  | Western Ave                  | 1                   | South                           | 10                    |
|                        |  | Franklin Street              | 1                   | North                           | 12                    |
|                        |  | Franklin Street              | 1                   | West                            | 12                    |
| Franklin Street        | N Harvard Street to Lincoln Street                         | Brentwood Street             | 1                   | North                           | 10                    |
|                        |  | Adamson Street               | 1                   | South                           | 10                    |
|                        |  | Lincoln Street               | 1                   | South                           | 10                    |
| Lincoln Street         | Franklin Street to Brighton Station                        | Franklin Street              | 1                   | East                            | 12                    |

| Roadway                | Roadway Segment  | treatment | location along road | length of facility | Width (feet) of facility |
|------------------------|--|-----------|---------------------|--------------------|--------------------------|
| Broadway               | Kendall Blue Garage to Prospect Street                     | Bike Lane | North               | 3875               | 5                        |
|                        |  | Bike Lane | South               | 3875               | 5                        |
| Prospect Street        | Broadway to Western Avenue @ Massachusetts Avenue          | None      |                     |                    |                          |
| Western Avenue         | Massachusetts Avenue @ Prospect Street to Green Street     | Bike Lane | North               | 280                | 5                        |
| Green Street           | Western Avenue to Putnam Avenue                            | None      |                     |                    |                          |
| Putnam Avenue          | Green Street to Mt Auburn Street                           | None      |                     |                    |                          |
| Mt Auburn Street       | Putnam Avenue to John F. Kennedy Street                    | Bike Lane | South               | 2130               | 5                        |
| John F. Kennedy Street | Mt Auburn Street to N Harvard Street @ Memorial Drive      | Bike Lane | East                | 1275               | 5                        |
|                        |  | Bike Lane | West                | 740                | 5                        |
| N Harvard Street       | John F. Kennedy Street @ Memorial Drive to Franklin Street | Bike Lane | East                | 3700               | 5                        |
|                        |  | Bike Lane | West                | 3700               | 5                        |
| Franklin Street        | N Harvard Street to Lincoln Street                         | Sharrow   | East                | 2100               | 5                        |
|                        |  | Sharrow   | West                | 2100               | 5                        |
| Lincoln Street         | Franklin Street to Brighton Station                        | None      |                     |                    |                          |
|                        |  |           |                     |                    |                          |
|                        |  |           |                     |                    |                          |

# Segment Score Logic - Workzone Setup



## **Kendall Study Area**

Date: 9/28/2021  
Candidate Route: Kendall K-5A

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name                     | Segment Limits   | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates             | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|---------------------------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 1055.0        | Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | 3                      | 4389  | 1224        | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 275.0         | Volpe Center Property (private) | Broadway to 3rd Street                                 | 0.5                    | 137.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                   | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 720.0         | 3rd Street                      | Volpe Center Property (private) to Linskey Way         | 2                      | 3625  | 2185        | No              | NA  | Two-Way Alternating Traffic   | 59                          | 14                            | 43                                 | 3                               | 7/22/2020                      | 9:15AM                         | 8/10/2021 - 8/12/2021 | T3           | 290                                       | 695                               | 235                           | 649                   | 55                              | 112                     | 170                                  | 10                                | 49                        |
| 775.0         | Linskey Way                     | 3rd Street to Second Street                            | 1                      | 2567  | 1792        | No              | NA  | Two-Way Alternating Traffic   | 1                           | 1                             | 10                                 | 11                              | 7/17/2020                      | 10:45AM                        | 8/10/2021 - 8/12/2021 | T4           | 10  | 124                               | 5                             | 113                   | 5                               | 13                      | 40                                   | 45                                | 11                        |
| 310.0         | Second Street                   | Linskey Way to Kendall Station                         | 1                      | 395   | 85          | No              | NA  | Two-Way Alternating Traffic   | 13                          | 2                             | 13                                 | 2                               | 7/22/2020                      | 11:00AM                        | 8/10/2021 - 8/12/2021 | T6           | 60  | 120                               | 50                            | 109                   | 10                              | 17                      | 50                                   | 10                                | 13                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 3135.00  |
| Total Impact Length (feet) | 11113.50 |
| Score                      | 3.54     |

Date: 9/28/2021  
Candidate Route: Kendall K-5A

| Length (feet) | Street Name                     | Segment Limits   | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|---------------------------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 1055.0        | Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | 20                            | 1               | 1                       | 135                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 1055  | Full      | Yes                         | 34  | Principal Arterial - Other     | Cambridge            |       |
| 275.0         | Volpe Center Property (private) | Broadway to 3rd Street                                 | Private                       | N/A             | 1                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 720.0         | 3rd Street                      | Volpe Center Property (private) to Linskey Way         | 30                            | 2               | 3                       | 205                               | 160                               | 160  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1550  | Full      | Yes                         | 110   | Minor Arterial                 | Cambridge            |       |
| 775.0         | Linskey Way                     | 3rd Street to Second Street                            | 28                            | 1               | 2                       | 120                               | 40                                | 40   | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 1560  | Full      | Yes                         | 32  | Local                          | Cambridge            |       |
| 310.0         | Second Street                   | Linskey Way to Kendall Station                         | 32                            | 2               | 1                       | 65                                | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 20  | Local                          | Cambridge            |       |

Calculated in Spreadsheet

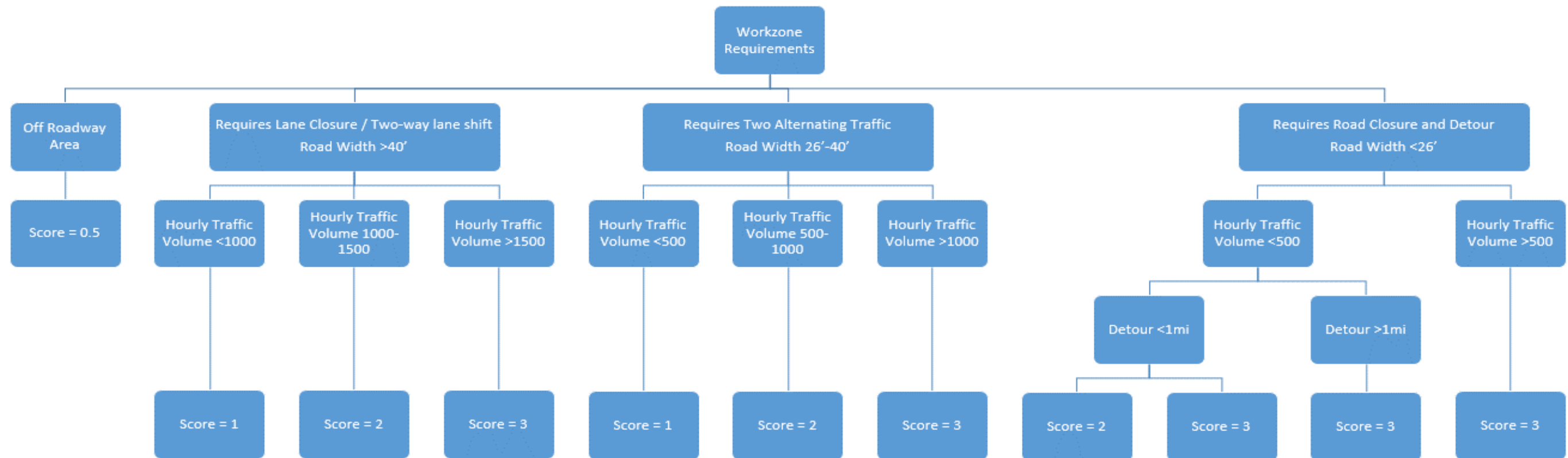
| Roadway                         | Segments   | Intersection Name   | Intersection Width (feet) |
|---------------------------------|--|---------------------|---------------------------|
| Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | Ames Street         | 135                       |
| Volpe Center Property (private) | Broadway to 3rd Street                                 | none                | 0                         |
| 3rd Street                      | Volpe Center Property (private) to Linskey Way         | Kendall @ Potter    | 80                        |
|                                 |  | Athenaeum Street    | 35                        |
|                                 |  | Linskey Way         | 90                        |
| Linskey Way                     | 3rd Street to Second Street                            | East Kendall Street | 45                        |
|                                 |  | Second Street       | 75                        |
| Second Street                   | Linskey Way to Kendall Station                         | Athenaeum Street    | 65                        |
|                                 |  |                     |                           |
|                                 |  |                     |                           |

| Roadway                         | Segments   | Intersection Name                | Number of crossings | Location of crossing along road | Crossing Width (feet) |
|---------------------------------|--|----------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | Ames Street                      | 1                   | West                            | 8                     |
|                                 |  | Ames Street                      | 1                   | East                            | 8                     |
|                                 |  | N/A                              | 1                   | (mid-block)                     | 12                    |
|                                 |  | Broadway sidewalk                | 1                   | parallel                        | 6                     |
| Volpe Center Property (private) | Broadway to 3rd Street                                 | N/A                              |                     |                                 | 0                     |
| 3rd Street                      | Volpe Center Property (private) to Linskey Way         | Broad Canal Way to Potter Street | Sidewalk            | West                            | 80                    |
|                                 |  | Kendall Street @ Potter Street   | 1                   | North                           | 10                    |
|                                 |  | Athenaeum Street                 | 1                   | South                           | 10                    |
|                                 |  | Linskey Way                      | 1                   | South                           | 10                    |
| Linskey Way                     | 3rd Street to Second Street                            | 3rd Street                       | 1                   | East                            | 12                    |
|                                 |  | East Kendall Street              | 1                   | East                            | 10                    |
|                                 |  | Second Street                    | 1                   | West                            | 10                    |
| Second Street                   | Linskey Way to Kendall Station                         | Linskey Way                      | 1                   | South                           | 10                    |
|                                 |  | Athenaeum Street                 | 1                   | North                           | 10                    |
|                                 |  |                                  |                     |                                 |                       |
|                                 |  |                                  |                     |                                 |                       |



| Roadway                         | Roadway Segment  | Treatment     | Location along road | Length of facility | Width (feet) of facility |
|---------------------------------|--|---------------|---------------------|--------------------|--------------------------|
| Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | Bicycle Lane  | North               | 1055               | 5                        |
| Volpe Center Property (private) | Broadway to 3rd Street                                 | private - N/A |                     | 0                  | 0                        |
| 3rd Street                      | Volpe Center Property (private) to Linskey Way         | Bicycle Lane  | West                | 800                | 5                        |
|                                 |  | Bicycle Lane  | East                | 750                | 5                        |
| Linskey Way                     | 3rd Street to Second Street                            | Bicycle Lane  | North               | 780                | 5                        |
|                                 |  | Bicycle Lane  | South               | 780                | 5                        |
| Second Street                   | Linskey Way to Kendall Station                         | None          |                     |                    |                          |
|                                 |  |               |                     |                    |                          |
|                                 |  |               |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021

Candidate Route: Kendall K-6A

| Length (feet) | Street Name                     | Segment Limits   | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates             | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|---------------------------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 1055.0        | Broadway                        | Kendall Blue Garage to Volpe Center Property (private) @ Ames Street | 3                      | 4389  | 1224        | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 275.0         | Volpe Center Property (private) | Ames Street to 3rd Street  | 0.5                    | 137.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                   | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 920.0         | 3rd Street                      | Volpe Center Property (private) to Binney Street                     | 2                      | 4172  | 2332        | No              | NA  | Two-Way Alternating Traffic   | 59                          | 14                            | 43                                 | 3                               | 7/22/2020                      | 9:15AM                         | 8/10/2021 - 8/12/2021 | T3           | 290                                       | 695                               | 235                           | 649                   | 55                              | 112                     | 170                                  | 10                                | 49                        |
| 800.0         | Binney Street                   | 3rd Street to Second Street  | 1                      | 3159  | 2359        | No              | NA  | Two-way Lane Shift            | 68                          | 22                            | 17                                 | 8                               | 7/22/2020                      | 10:45AM                        | 8/10/2021 - 8/12/2021 | T5           | 360                                       | 516                               | 270                           | 442                   | 90                              | 121                     | 70                                   | 30                                | 7                         |
| 575.0         | Second Street                   | Binney Street to Kendall Station                                     | 1                      | 963   | 388         | No              | NA  | Two-Way Alternating Traffic   | 13                          | 2                             | 13                                 | 2                               | 7/22/2020                      | 11:00AM                        | 8/10/2021 - 8/12/2021 | T6           | 60  | 120                               | 50                            | 109                   | 10                              | 17                      | 50                                   | 10                                | 13                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 3625.00  |
| Total Impact Length (feet) | 12820.50 |
| Score                      | 3.54     |

Date: 9/28/2021

Candidate Route: Kendall K-6A

| Length (feet) | Street Name                     | Segment Limits   | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|---------------------------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 1055.0        | Broadway                        | Kendall Blue Garage to Volpe Center Property (private) @ Ames Street | 20                            | 1               | 1                       | 135                               | 0                                 | 0  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 1055  | Full      | Yes                         | 34  | Principal Arterial - Other     | Cambridge            |       |
| 275.0         | Volpe Center Property (private) | Ames Street to 3rd Street  | Private                       | N/A             | 1                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 920.0         | 3rd Street                      | Volpe Center Property (private) to Binney Street                     | 30                            | 2               | 4                       | 330                               | 160                               | 160  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1550  | Full      | Yes                         | 132   | Minor Arterial                 | Cambridge            |       |
| 800.0         | Binney Street                   | 3rd Street to Second Street  | 45                            | 3               | 1                       | 95                                | 320                               | 320  | Yes                        | No                | 0                                 | Sharrow             | Yes  | 1600  | Full      | Yes                         | 24  | Minor Arterial                 | Cambridge            |       |
| 575.0         | Second Street                   | Binney Street to Kendall Station                                     | 30                            | 2               | 2                       | 160                               | 100                               | 100  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 28  | Local                          | Cambridge            |       |

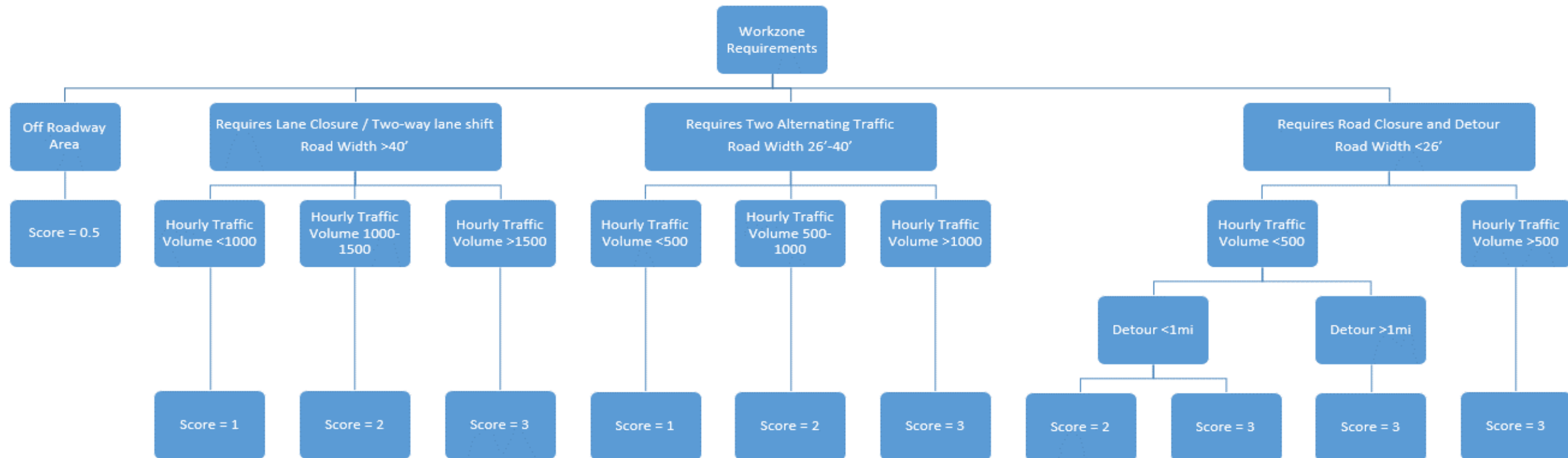
Calculated in Spreadsheet

| Roadway                         | Segments   | Intersection Name | Intersection Width (feet) |
|---------------------------------|--|-------------------|---------------------------|
| Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | Ames Street       | 135                       |
| Volpe Center Property (private) | Broadway to 3rd Street                                 | None              | 0                         |
| 3rd Street                      | Volpe Center Property (private) to Binney Street       | Kendall @ Potter  | 80                        |
|                                 |  | Athenaeum Street  | 35                        |
|                                 |  | Linskey Way       | 90                        |
|                                 |  | Binney Street     | 125                       |
| Binney Street                   | 3rd Street to Second Street                            | Second Street     | 95                        |
| Second Street                   | Binney Street to Kendall Station                       | Linskey Way       | 100                       |
|                                 |  | Athenaeum Street  | 60                        |
|                                 |  |                   |                           |
|                                 |  |                   |                           |

| Roadway                         | Segments   | Intersection Name                | Number of crossings | Location of crossing along road | Crossing Width (feet) |
|---------------------------------|--|----------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | Ames Street                      | 1                   | West                            | 8                     |
|                                 |  | Ames Street                      | 1                   | East                            | 8                     |
|                                 |  | N/A                              | 1                   | (mid-block)                     | 12                    |
|                                 |  | Broadway sidewalk                | 1                   | parallel                        | 6                     |
| Volpe Center Property (private) | Broadway to 3rd Street                                 | N/A                              | 0                   |                                 | 0                     |
| 3rd Street                      | Volpe Center Property (private) to Binney Street       | Broad Canal Way to Potter Street | Sidewalk            | West                            | 80                    |
|                                 |  | Kendall Street @ Potter Street   | 1                   | North                           | 10                    |
|                                 |  | Athenaeum Street                 | 1                   | South                           | 10                    |
|                                 |  | Linskey Way                      | 1                   | South                           | 10                    |
|                                 |  | Linskey Way                      | 1                   | North                           | 12                    |
|                                 |  | Binney Street                    | 1                   | South                           | 10                    |
| Binney Street                   | 3rd Street to Second Street                            | 3rd Street                       | 1                   | East                            | 12                    |
|                                 |  | Second Street                    | 1                   | West                            | 12                    |
| Second Street                   | Binney Street to Kendall Station                       | Linksey Way                      | 1                   | North                           | 10                    |
|                                 |  | Linskey Way                      | 1                   | South                           | 10                    |
|                                 |  | Athenaeum Street                 | 1                   | North                           | 8                     |

| Roadway                         | Roadway Segment  | Treatment                 | Location along road | Length of facility | Width (feet) of facility |
|---------------------------------|--|---------------------------|---------------------|--------------------|--------------------------|
| Broadway                        | Kendall Blue Garage to Volpe Center Property (private) | Bicycle Lane              | North               | 1055               | 5                        |
| Volpe Center Property (private) | Broadway to 3rd Street                                 | private - N/A             |                     | 0                  | 0                        |
| 3rd Street                      | Volpe Center Property (private) to Binney Street       | Bicycle Lane              | West                | 800                | 5                        |
|                                 |  | Bicycle Lane              | East                | 750                | 5                        |
| Binney Street                   | 3rd Street to Second Street                            | Bicycle Lane              | North               | 800                | 5                        |
|                                 |  | Sharrow into Bicycle Lane | South               | 800                | 5                        |
| Second Street                   | Binney Street to Kendall Station                       | None                      |                     |                    |                          |
|                                 |  |                           |                     |                    |                          |
|                                 |  |                           |                     |                    |                          |

# Segment Score Logic - Workzone Setup





Date: 9/28/2021  
Candidate Route: Kendall K-10

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name      | Segment Limits                    | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates             | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|------------------|-----------------------------------|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 300.0         | Broadway         | Kendal Blue Garage to Ames Street | 3                      | 918   | 18          | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 150.0         | Broadway         | Ames Street to Private Property   | 1                      | 303   | 153         | No              | NA  | Two-Way Alternating Traffic   | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 900.0         | Private Property | Broadway to 5th Street            | 0.5                    | 450   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                   | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 450.0         | Potter Street    | 5th Street to 3rd Street          | 3                      | 1878  | 528         | No              | NA  | Two-Way Alternating Traffic   | 8                           | 8                             | 3                                  | 1                               | 7/22/2020                      | 9:45AM                         | 8/10/2021 - 8/12/2021 | N/A          | 65  | N/A                               | 30                            | N/A                   | 30                              | N/A                     | 10                                   | 5                                 | N/A                       |
| 525.0         | 3rd Street       | Potter Street to Linskey Way      | 2                      | 3252  | 2202        | No              | NA  | Two-Way Alternating Traffic   | 59                          | 14                            | 43                                 | 3                               | 7/22/2020                      | 9:15AM                         | 8/10/2021 - 8/12/2021 | T3           | 290                                       | 695                               | 235                           | 649                   | 55                              | 112                     | 170                                  | 10                                | 49                        |
| 775.0         | Linskey Way      | 3rd Street to Second Street       | 1                      | 2567  | 1792        | No              | NA  | Two-Way Alternating Traffic   | 1                           | 1                             | 10                                 | 11                              | 7/17/2020                      | 10:45AM                        | 8/10/2021 - 8/12/2021 | T4           | 10  | 124                               | 5                             | 113                   | 5                               | 13                      | 40                                   | 45                                | 11                        |
| 310.0         | Second Street    | Linskey Way to Kendall Station    | 1                      | 395   | 85          | No              | NA  | Two-Way Alternating Traffic   | 13                          | 2                             | 13                                 | 2                               | 7/22/2020                      | 11:00AM                        | 8/10/2021 - 8/12/2021 | T6           | 60  | 120                               | 50                            | 109                   | 10                              | 17                      | 50                                   | 10                                | 13                        |

Calculated in Spreadsheet

| Score Summary              |         |
|----------------------------|---------|
| Total Length (feet)        | 3410.00 |
| Total Impact Length (feet) | 9763.00 |
| Score                      | 2.86    |

Date: 9/28/2021  
Candidate Route: Kendall K-10

| Length (feet) | Street Name      | Segment Limits                    | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|------------------|-----------------------------------|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 300.0         | Broadway         | Kendal Blue Garage to Ames Street | 20                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 10  | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 150.0         | Broadway         | Ames Street to Private Property   | 28                            | 2               | 1                       | 135                               | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 10  | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 900.0         | Private Property | Broadway to 5th Street            | PRIVATE                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 450.0         | Potter Street    | 5th Street to 3rd Street          | 34                            | 2               | 2                       | 110                               | 200                               | 200  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 18  | Local                          | Cambridge            |       |
| 525.0         | 3rd Street       | Potter Street to Linskey Way      | 30                            | 2               | 3                       | 200                               | 460                               | 460  | No                         | No                | 0                                 | Bike Lane           | Yes  | 1050  | Full      | Yes                         | 32  | Local                          | Cambridge            |       |
| 775.0         | Linskey Way      | 3rd Street to Second Street       | 28                            | 1               | 2                       | 120                               | 40                                | 40   | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 1560  | Full      | Yes                         | 32  | Local                          | Cambridge            |       |
| 310.0         | Second Street    | Linskey Way to Kendall Station    | 32                            | 2               | 1                       | 65                                | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 20  | Local                          | Cambridge            |       |

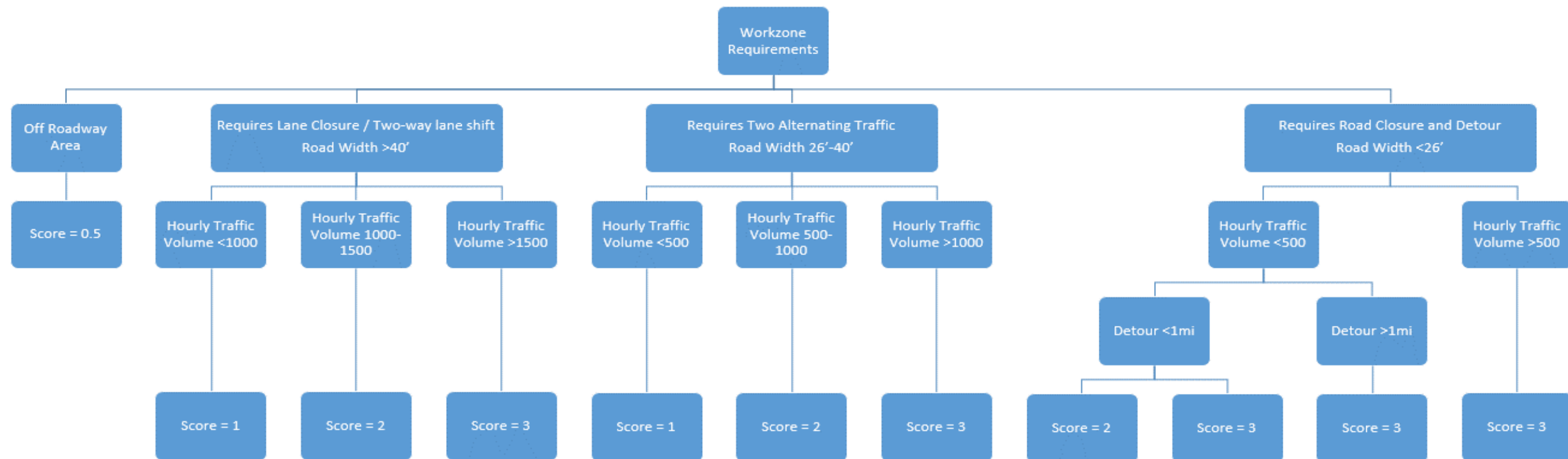
Calculated in Spreadsheet

| Roadway          | Segments                           | Intersection Name   | Intersection Width (feet) |
|------------------|------------------------------------|---------------------|---------------------------|
| Broadway         | Kendall Blue Garage to Ames Street |                     |                           |
| Broadway         | Ames Street to Private Property    | Ames Street         | 135                       |
| Private Property | Broadway to 5th Street             |                     |                           |
| Potter Street    | Private Property to 3rd Street     | 5th Street          | 40                        |
|                  |                                    | 3rd Street          | 70                        |
| 3rd Street       | Potter Street to Linskey Way       | Kendall Street      | 60                        |
|                  |                                    | Athenaeum Street    | 50                        |
|                  |                                    | Linskey Way         | 90                        |
| Linskey Way      | 3rd Street to Second Street        | East Kendall Street | 45                        |
|                  |                                    | Second Street       | 75                        |
| Second Street    | Linskey Way to Kendall Station     | Athenaeum Street    | 65                        |
|                  |                                    |                     |                           |
|                  |                                    |                     |                           |

| Roadway          | Roadway Segment                    | Treatment    | Location along road | Length of facility | Width (feet) of facility |
|------------------|------------------------------------|--------------|---------------------|--------------------|--------------------------|
| Broadway         | Kendall Blue Garage to Ames Street | Bicycle Lane | North               | 10                 | 5                        |
|                  |                                    |              |                     |                    |                          |
| Broadway         | Ames Street to Private Property    | Bicycle Lane | North               | 10                 | 5                        |
|                  |                                    |              |                     |                    |                          |
| Private Property | Broadway to 5th Street             | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
| Potter Street    | Private Property to 3rd Street     | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
| 3rd Street       | Potter Street to Linskey Way       | Bicycle Lane | East                | 525                | 5                        |
|                  |                                    | Bicycle Lane | West                | 525                | 5                        |
|                  |                                    |              |                     |                    |                          |
| Linskey Way      | 3rd Street to Second Street        | Bicycle Lane | North               | 780                | 5                        |
|                  |                                    | Bicycle Lane | South               | 780                | 5                        |
|                  |                                    |              |                     |                    |                          |
| Second Street    | Linskey Way to Kendall Station     | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
|                  |                                    |              |                     |                    |                          |
|                  |                                    |              |                     |                    |                          |

| Roadway          | Segments                           | Intersection Name   | Number of crossings | Location of crossing along road | Crossing Width (feet) |
|------------------|------------------------------------|---------------------|---------------------|---------------------------------|-----------------------|
| Broadway         | Kendall Blue Garage to Ames Street | Ames Street         | 1                   | West                            | 8                     |
| Broadway         | Ames Street to Private Property    | Ames Street         | 1                   | East                            | 8                     |
| Private Property | Broadway to 5th Street             | Parking Lot         | 1                   | West                            | 0                     |
|                  |                                    | Parking Lot         | 1                   | East                            | 0                     |
| Potter Street    | Private Property to 3rd Street     | 5th Street          | 1                   | West                            | 8                     |
|                  |                                    | 3rd Street          | 1                   | West                            | 10                    |
| 3rd Street       | Potter Street to Linskey Way       | Kendall Street      | 1                   | North                           | 10                    |
|                  |                                    | Athenaeum Street    | 1                   | South                           | 10                    |
|                  |                                    | Linskey             | 1                   | South                           | 12                    |
| Linskey Way      | 3rd Street to Second Street        | 3rd Street          | 1                   | East                            | 12                    |
|                  |                                    | East Kendall Street | 1                   | East                            | 10                    |
|                  |                                    | Second Street       | 1                   | West                            | 10                    |
| Second Street    | Linskey Way to Kendall Station     | Linskey Street      | 1                   | South                           | 10                    |
|                  |                                    | Athenaeum Street    | 1                   | North                           | 10                    |
|                  |                                    |                     |                     |                                 |                       |
|                  |                                    |                     |                     |                                 |                       |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Kendall K-11

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name            | Segment Limits                     | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates             | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|------------------------|------------------------------------|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 300.0         | Broadway               | Kendall Blue Garage to Ames Street | 3                      | 918   | 18          | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 150.0         | Broadway               | Ames Street to Private Property    | 1                      | 303   | 153         | No              | NA  | Two-Way Alternating Traffic   | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 900.0         | Volpe Center (Private) | Broadway to 5th Street             | 0.5                    | 450   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                   | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 350.0         | 5th Street             | Potter Street to Munroe Street     | 3                      | 1098  | 48          | No              | NA  | Two-Way Alternating Traffic   | 4                           | 2                             | 2                                  | 0                               | 7/22/2020                      | 10:00AM                        | N/A                   | N/A          | 25  | N/A                               | 15                            | N/A                   | 10                              | N/A                     | 10                                   | 0                                 | N/A                       |
| 560.0         | Munro Street           | 5th Street to Linskey Way          | 3                      | 2508  | 828         | No              | NA  | Two-Way Alternating Traffic   | 3                           | 6                             | 3                                  | 0                               | 7/22/2020                      | 10:15AM                        | N/A                   | N/A          | 35  | N/A                               | 10                            | N/A                   | 25                              | N/A                     | 10                                   | 0                                 | N/A                       |
| 840.0         | Linskey Way            | 3rd Street to Second Street        | 1                      | 2732  | 1892        | No              | NA  | Two-Way Alternating Traffic   | 1                           | 1                             | 10                                 | 11                              | 7/17/2020                      | 10:45AM                        | 8/10/2021 - 8/12/2021 | T4           | 10  | 124                               | 5                             | 113                   | 5                               | 13                      | 40                                   | 45                                | 11                        |
| 310.0         | Second Street          | Linskey Way to Kendall Station     | 1                      | 395   | 85          | No              | NA  | Two-Way Alternating Traffic   | 13                          | 2                             | 13                                 | 2                               | 7/22/2020                      | 11:00AM                        | 8/10/2021 - 8/12/2021 | T6           | 60  | 120                               | 50                            | 109                   | 10                              | 17                      | 50                                   | 10                                | 13                        |

Calculated in Spreadsheet

| Score Summary              |         |
|----------------------------|---------|
| Total Length (feet)        | 3410.00 |
| Total Impact Length (feet) | 8404.00 |
| Score                      | 2.46    |

Date: 9/28/2021

Candidate Route: Kendall K-11

| Length (feet) | Street Name            | Segment Limits                     | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|------------------------|------------------------------------|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 300.0         | Broadway               | Kendall Blue Garage to Ames Street | 20                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 10  | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 150.0         | Broadway               | Ames Street to Private Property    | 28                            | 2               | 1                       | 135                               | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 10  | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 900.0         | Volpe Center (Private) | Broadway to 5th Street             | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 350.0         | 5th Street             | Potter Street to Munroe Street     | 36                            | 2               | 1                       | 40                                | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Partial   | No                          | 8   | Local                          | Cambridge            |       |
| 560.0         | Munro Street           | 5th Street to Linskey Way          | 26                            | 2               | 1                       | 100                               | 360                               | 360  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 840.0         | Linskey Way            | 3rd Street to Second Street        | 28                            | 1               | 2                       | 90                                | 60                                | 60   | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 1650  | Full      | Yes                         | 32  | Local                          | Cambridge            |       |
| 310.0         | Second Street          | Linskey Way to Kendall Station     | 32                            | 2               | 1                       | 65                                | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 20  | Local                          | Cambridge            |       |

Calculated in Spreadsheet

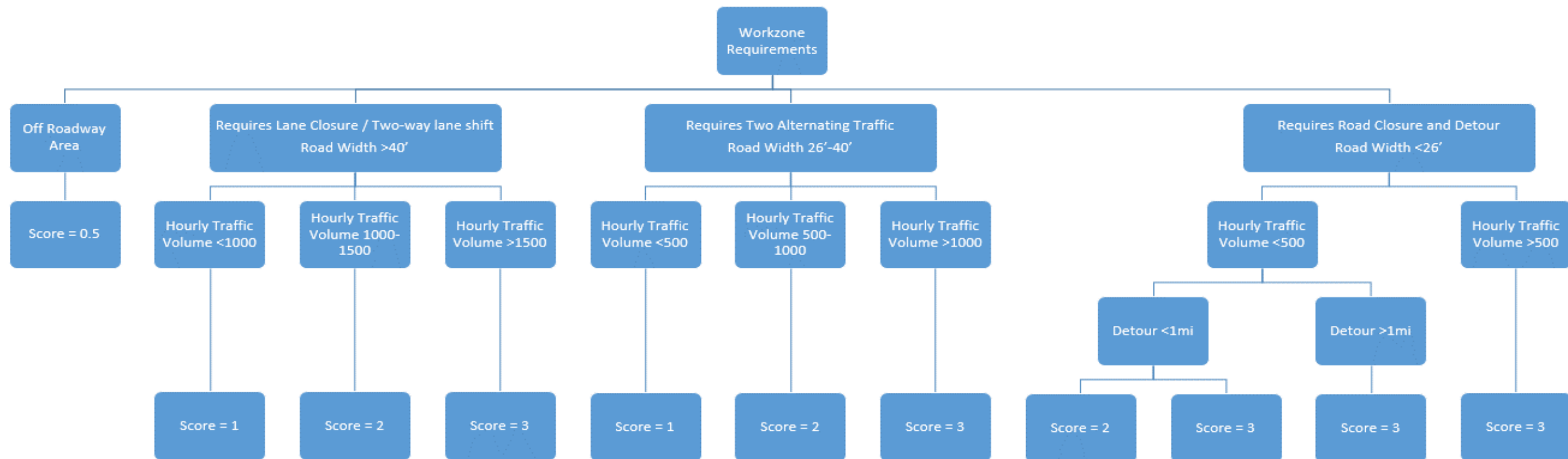


| Roadway          | Segments                           | Intersection Name   | Intersection Width (feet) |
|------------------|------------------------------------|---------------------|---------------------------|
| Broadway         | Kendall Blue Garage to Ames Street |                     |                           |
| Broadway         | Ames Street to Private Property    | Ames Street         | 135                       |
| Private Property | Broadway to 5th Street             |                     |                           |
| 5th Street       | Private Property to Munroe Street  | Potter Street       | 40                        |
| Munroe Street    | 5th Street to 3rd Street           | 3rd Street          | 100                       |
| Linskey Way      | 5th Street to Second Street        | East Kendall Street | 30                        |
|                  |                                    | Second Street       | 60                        |
| Second Street    | Linskey Way to Kendall Station     | Athenaeum Street    | 65                        |
|                  |                                    |                     |                           |
|                  |                                    |                     |                           |

| Roadway          | Roadway Segment                    | Treatment    | Location along road | Length of facility | Width (feet) of facility |
|------------------|------------------------------------|--------------|---------------------|--------------------|--------------------------|
| Broadway         | Kendall Blue Garage to Ames Street | Bicycle Lane | North               | 10                 | 5                        |
|                  |                                    |              |                     |                    |                          |
| Broadway         | Ames Street to Private Property    | Bicycle Lane | North               | 10                 | 5                        |
|                  |                                    |              |                     |                    |                          |
| Private Property | Broadway to 5th Street             | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
| 5th Street       | Private Property to Munroe Street  | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
| Munroe Street    | 5th Street to Linskey Street       | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
| Linskey Way      | 3rd Street to Second Street        | Bicycle Lane | North               | 825                | 5                        |
|                  |                                    | Bicycle Lane | South               | 825                | 5                        |
|                  |                                    |              |                     |                    |                          |
| Second Street    | Linskey Way to Kendall Station     | None         | N/A                 |                    |                          |
|                  |                                    |              |                     |                    |                          |
|                  |                                    |              |                     |                    |                          |
|                  |                                    |              |                     |                    |                          |

| Roadway          | Segments                           | Intersection Name   | Number of crossings | Location of crossing along road | Crossing Width (feet) |
|------------------|------------------------------------|---------------------|---------------------|---------------------------------|-----------------------|
| Broadway         | Kendall Blue Garage to Ames Street | Ames Street         | 1                   | West                            | 8                     |
| Broadway         | Ames Street to Private Property    | Ames Street         | 1                   | East                            | 8                     |
| Private Property | Broadway to 5th Street             | Parking Lot         | 1                   | West                            | 0                     |
|                  |                                    | Parking Lot         | 1                   | East                            | 0                     |
| 5th Street       | Private Property to Munroe Street  | Potter Street       | 1                   | West                            | 8                     |
| Munroe Street    | 5th Street to 3rd Street           | 3rd Street          | 1                   | West                            | 8                     |
| Linskey Way      | 3rd Street to Second Street        | 3rd Street          | 1                   | East                            | 12                    |
|                  |                                    | East Kendall Street | 1                   | East                            | 10                    |
|                  |                                    | Second Street       | 1                   | West                            | 10                    |
| Second Street    | Linskey Way to Kendall Station     | Linskey Street      | 1                   | South                           | 10                    |
|                  |                                    | Athenaeum Street    | 1                   | North                           | 10                    |
|                  |                                    |                     |                     |                                 |                       |
|                  |                                    |                     |                     |                                 |                       |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Kendall K-12

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name                     | Segment Limits                    | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates             | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|---------------------------------|-----------------------------------|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 300.0         | Broadway                        | Kendal Blue Garage to Ames Street | 3                      | 918   | 18          | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 150.0         | Broadway                        | Ames Street to Private Property   | 1                      | 303   | 153         | No              | NA  | Two-Way Alternating Traffic   | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021 - 8/12/2021 | T2           | 410                                       | 396                               | 365                           | 368                   | 50                              | 34                      | 105                                  | 55                                | 32                        |
| 900.0         | Volpe Center (Private Property) | Broadway to 5th Street            | 0.5                    | 450   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A                   | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 350.0         | 5th Street                      | Potter Street to Munroe Street    | 3                      | 1098  | 48          | No              | NA  | Two-Way Alternating Traffic   | 4                           | 2                             | 2                                  | 0                               | 7/22/2020                      | 10:00AM                        | N/A                   | N/A          | 25  | N/A                               | 15                            | N/A                   | 10                              | N/A                     | 10                                   | 0                                 | N/A                       |
| 560.0         | Munroe Street                   | 5th Street to 3rd Street          | 3                      | 2508  | 828         | No              | NA  | Two-Way Alternating Traffic   | 3                           | 6                             | 3                                  | 0                               | 7/22/2020                      | 10:15AM                        | N/A                   | N/A          | 35  | N/A                               | 10                            | N/A                   | 25                              | N/A                     | 10                                   | 0                                 | N/A                       |
| 335.0         | 3rd Street                      | Linksey Way to Binney Street      | 1                      | 1145  | 810         | No              | NA  | Two-way Lane Shift            | 59                          | 14                            | 43                                 | 3                               | 7/22/2020                      | 9:15AM                         | 8/10/2021 - 8/12/2021 | T3           | 290                                       | 695                               | 235                           | 649                   | 55                              | 112                     | 170                                  | 10                                | 49                        |
| 800.0         | Binney Street                   | 3rd Street to Second Street       | 1                      | 3159  | 2359        | No              | NA  | Two-way Lane Shift            | 93                          | 22                            | 17                                 | 8                               | 7/22/2020                      | 10:45AM                        | 8/10/2021 - 8/12/2021 | T5           | 460                                       | 516                               | 370                           | 442                   | 90                              | 121                     | 70                                   | 30                                | 7                         |
| 575.0         | Second Street                   | Binney Street to Kendall Station  | 1                      | 963   | 388         | No              | NA  | Two-Way Alternating Traffic   | 13                          | 2                             | 13                                 | 2                               | 7/22/2020                      | 11:00AM                        | 8/10/2021 - 8/12/2021 | T6           | 60  | 120                               | 50                            | 109                   | 10                              | 17                      | 50                                   | 10                                | 13                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 3970.00  |
| Total Impact Length (feet) | 10544.00 |
| Score                      | 2.66     |

Date: 9/28/2021

Candidate Route: Kendall K-12

| Length (feet) | Street Name                     | Segment Limits                    | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|---------------------------------|-----------------------------------|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 300.0         | Broadway                        | Kendal Blue Garage to Ames Street | 20                            | 1               | 0                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 10  | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 150.0         | Broadway                        | Ames Street to Private Property   | 28                            | 2               | 1                       | 135                               | 0                                 | 0  | No                         | Yes               | 0                                 | Bike Lane           | Yes  | 10  | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 900.0         | Volpe Center (Private Property) | Broadway to 5th Street            | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 350.0         | 5th Street                      | Potter Street to Munroe Street    | 36                            | 2               | 1                       | 40                                | 0                                 | 0  | No                         | No                | 0                                 | None                | No   | 0   | Partial   | No                          | 8   | Local                          | Cambridge            |       |
| 560.0         | Munroe Street                   | 5th Street to 3rd Street          | 26                            | 2               | 1                       | 100                               | 360                               | 360  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 8   | Local                          | Cambridge            |       |
| 335.0         | 3rd Street                      | Linksey Way to Binney Street      | 42                            | 3               | 1                       | 120                               | 0                                 | 0  | No                         | No                | 0                                 | Yes                 | Yes  | 670   | Full      | Yes                         | 20  | Local                          | Cambridge            |       |
| 800.0         | Binney Street                   | 3rd Street to Second Street       | 46                            | 3               | 1                       | 95                                | 320                               | 320  | Yes                        | No                | 0                                 | Yes                 | Yes  | 1600  | Full      | Yes                         | 24  | Local                          | Cambridge            |       |
| 575.0         | Second Street                   | Binney Street to Kendall Station  | 32                            | 2               | 2                       | 160                               | 100                               | 100  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 28  | Local                          | Cambridge            |       |

Calculated in Spreadsheet

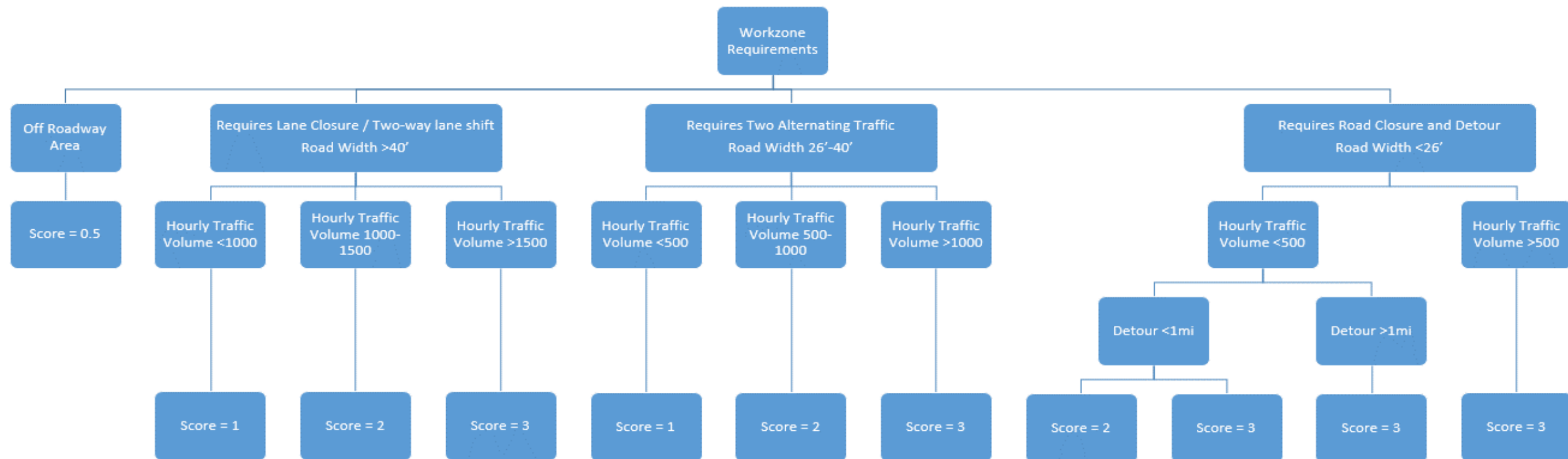
| Roadway          | Segments                           | Intersection Name | Intersection Width (feet) |
|------------------|------------------------------------|-------------------|---------------------------|
| Broadway         | Kendall Blue Garage to Ames Street |                   |                           |
| Broadway         | Ames Street to Private Property    | Ames Street       | 135                       |
| Private Property | Broadway to 5th Street             |                   |                           |
| 5th Street       | Private Property to Munroe Street  | Potter Street     | 40                        |
| Munroe Street    | 5th Street to 3rd Street           | 3rd Street        | 100                       |
| 3rd Street       | Linskey Way to Binney Street       | Binney Street     | 120                       |
| Binney Street    | 3rd Street to Second Street        | Second Street     | 95                        |
| Second Street    | Binney Street to Kendall Station   | Linskey Way       | 80                        |
|                  |                                    | Athenaeum Street  | 80                        |
|                  |                                    |                   |                           |
|                  |                                    |                   |                           |

| Roadway          | Roadway Segment                    | Treatment            | Location along road | Length of facility | Width (feet) of facility |
|------------------|------------------------------------|----------------------|---------------------|--------------------|--------------------------|
| Broadway         | Kendall Blue Garage to Ames Street | Bicycle Lane         | North               | 10                 | 5                        |
| Broadway         | Ames Street to Private Property    | Bicycle Lane         | North               | 10                 | 5                        |
| Private Property | Broadway to 5th Street             | None                 | N/A                 |                    |                          |
| 5th Street       | Private Property to Munroe Street  | None                 | N/A                 |                    |                          |
| Munroe Street    | 5th Street to Linskey Street       | None                 | N/A                 |                    |                          |
| 3rd Street       | Munroe Street to Binney Street     | Bicycle Lane         | East                | 335                | 5                        |
|                  |                                    | Bicycle Lane         | West                | 335                | 5                        |
| Binney Street    | 3rd Street to Second Street        | Bicycle Lane         | North               | 800                | 5                        |
|                  |                                    | Bicycle Lane/Sharrow | South               | 800                | 5                        |
| Second Street    | Binney Street to Kendall Station   | None                 | N/A                 |                    |                          |
|                  |                                    |                      |                     |                    |                          |
|                  |                                    |                      |                     |                    |                          |
|                  |                                    |                      |                     |                    |                          |



| Roadway          | Segments                           | Intersection Name | Number of crossings | Location of crossing along road | Crossing Width (feet) |
|------------------|------------------------------------|-------------------|---------------------|---------------------------------|-----------------------|
| Broadway         | Kendall Blue Garage to Ames Street | Ames Street       | 1                   | West                            | 8                     |
| Broadway         | Ames Street to Private Property    | Ames Street       | 1                   | East                            | 8                     |
| Private Property | Broadway to 5th Street             | Parking Lot       | 1                   | West                            | 0                     |
|                  |                                    | Parking Lot       | 1                   | East                            | 0                     |
| 5th Street       | Private Property to Munroe Street  | Potter Street     | 1                   | West                            | 8                     |
| Munroe Street    | 5th Street to 3rd Street           | 3rd Street        | 1                   | West                            | 8                     |
| 3rd Street       | Munroe Street to Binney Street     | 3rd Street        | 1                   | North                           | 10                    |
|                  |                                    | Binney Street     | 1                   | South                           | 10                    |
| Binney Street    | 3rd Street to Second Street        | 3rd Street        | 1                   | East                            | 12                    |
|                  |                                    | Second Street     | 1                   | West                            | 12                    |
| Second Street    | Binney Street to Kendall Station   | Linskey Way       | 1                   | North                           | 10                    |
|                  |                                    | Linskey Way       | 1                   | South                           | 10                    |
|                  |                                    | Athenaeum Street  | 1                   | North                           | 8                     |
|                  |                                    |                   |                     |                                 |                       |
|                  |                                    |                   |                     |                                 |                       |

# Segment Score Logic - Workzone Setup



## **Putnam Study Area**

Date: 9/28/2021

Candidate Route: Putnam P-11

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name          | Segment Limits                                  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|----------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 370.0         | Broadway             | Kendal Blue Garage to Ames Street               | 3                      | 2390  | 1280        | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T1           | 410                                       | 336                               | 365                           | 309                   | 50                              | 59                      | 105                                  | 55                                | 134                       |
| 650.0         | Ames Street          | Broadway to Main Street                         | 1                      | 2580  | 1930        | No              | NA  | Two-way Lane Shift            | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T7           | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 635.0         | Main Street          | Ames Street to Vassar Street                    | 3                      | 3877  | 1972        | Yes             | NA  | Road Closure - Detour         | 127                         | 9                             | 60                                 | 11                              | 7/22/2020                      | 12:30PM                        | 8/10/2021-8/12/2021 | T30          | 545                                       | 342                               | 510                           | 324                   | 35                              | 44                      | 240                                  | 45                                | 61                        |
| 1750.0        | Vassar Street        | Main Street to Massachusetts Avenue             | 3                      | 10239   | 4989        | Yes             | NA  | Road Closure - Detour         | 83                          | 20                            | 23                                 | 11                              | 7/22/2020                      | 12:45PM                        | 8/10/2021-8/12/2021 | T32          | 410                                       | 480                               | 330                           | 386                   | 80                              | 99                      | 90                                   | 45                                | 100                       |
| 1275.0        | Massachusetts Avenue | Vassar Street to Memorial Drive                 | 3                      | 10084   | 6259        | No              | NA  | Two-Way Alternating Traffic   | 31                          | 19                            | 212                                | 26                              | 7/17/2020                      | 1:15PM                         | N/A                 | T67          | 200                                       | 1198                              | 125                           | 916                   | 75                              | 123                     | 850                                  | 105                               | 287                       |
| 200.0         | Memorial Drive       | Massachusetts Avenue to Memorial Drive Off-Ramp | 3                      | 610   | 10          | Yes             | NA  | Road Closure - Detour         | 60                          | 1                             | 34                                 | 27                              | 7/22/2020                      | 2:15PM                         | 8/10/2021-8/12/2021 | T37          | 245                                       | 140                               | 240                           | 131                   | 5                               | 18                      | 135                                  | 110                               | 2                         |
| 200.0         | Memorial Drive       | Massachusetts Ave to Memorial Drive On-Ramp     | 3                      | 610   | 10          | Yes             | NA  | Road Closure - Detour         | 60                          | 1                             | 34                                 | 27                              | 7/22/2020                      | 2:15PM                         | 8/10/2021-8/12/2021 | T38          | 245                                       | 136                               | 240                           | 135                   | 5                               | 4                       | 135                                  | 110                               | 1                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 5080.00  |
| Total Impact Length (feet) | 30390.00 |
| Score                      | 5.98     |

Date: 9/28/2021

Candidate Route: Putnam P-11

| Length (feet) | Street Name          | Segment Limits                                  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|----------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 370.0         | Broadway             | Kendal Blue Garage to Ames Street               | 24                            | 1               | 1                       | 130                               | 200                               | 200  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 740   | Full      | Yes                         | 10  | Principal Arterial - Other     | Cambridge            |       |
| 650.0         | Ames Street          | Broadway to Main Street                         | 48                            | 2               | 1                       | 130                               | 240                               | 240  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1300  | Full      | Yes                         | 20  | Major Collector                | Cambridge            |       |
| 635.0         | Main Street          | Ames Street to Vassar Street                    | 24                            | 1               | 1                       | 160                               | 260                               | 260  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 1270  | Full      | Yes                         | 22  | Principal Arterial - Other     | Cambridge            |       |
| 1750.0        | Vassar Street        | Main Street to Massachusetts Avenue             | 24                            | 2               | 1                       | 125                               | 660                               | 660  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 3500  | Full      | Yes                         | 44  | Minor Arterial                 | Cambridge            |       |
| 1275.0        | Massachusetts Avenue | Vassar Street to Memorial Drive                 | 38                            | 2               | 1                       | 175                               | 1720                              | 1720                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 2550  | Full      | Yes                         | 94  | Principal Arterial - Other     | Cambridge            |       |
| 200.0         | Memorial Drive       | Massachusetts Avenue to Memorial Drive Off-Ramp | 18                            | 1               | 1                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | One-Side  | Yes                         | 10  | Principal Arterial - Other     | DCR                  |       |
| 200.0         | Memorial Drive       | Massachusetts Ave to Memorial Drive On-Ramp     | 18                            | 1               | 1                       | 0                                 | 0                                 | 0  | No                         | Yes               | 0                                 | None                | No   | 0   | One-Side  | Yes                         | 10  | Principal Arterial - Other     | DCR                  |       |

Calculated in Spreadsheet

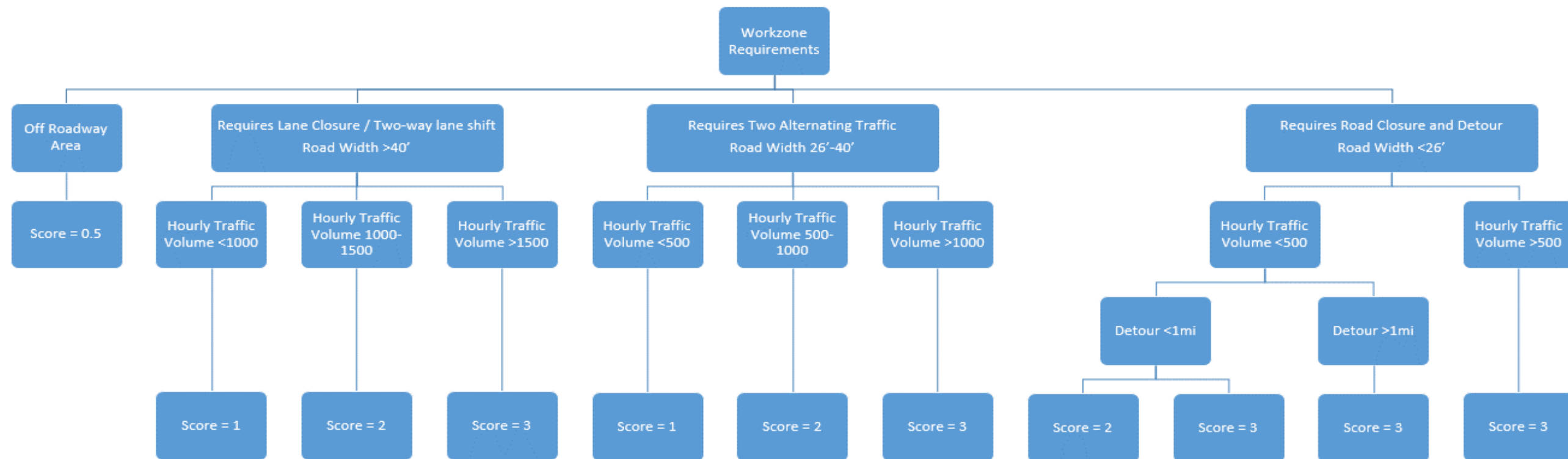
| Roadway              |  | Intersection Name    | Intersection Width (feet) |
|----------------------|--|----------------------|---------------------------|
| Broadway             | Kendal Blue Garage to Ames Street                    | Ames Street          | 130                       |
|                      |  |                      |                           |
| Ames Street          | Broadway to Main Street                              | Main Street          | 130                       |
|                      |  |                      |                           |
| Main Street          | Ames Street to Vassar Street                         | Vassar Street        | 160                       |
|                      |  |                      |                           |
| Vassar Street        | Main Street to Massachusetts Avenue                  | Massachusetts Avenue | 125                       |
|                      |  |                      |                           |
| Massachusetts Avenue | Vassar Street to Memorial Drive                      | Amherst Street       | 100                       |
|                      |  | Memorial Drive       | 75                        |
|                      |  |                      |                           |
| Memorial Drive       | Massachusetts Avenue and Memorial Drive Intersection |                      |                           |
|                      |  |                      |                           |

| Roadway              |  | Intersection Name         | Number of crossings | location of crossing along road | Crossing Width (feet) |
|----------------------|--|---------------------------|---------------------|---------------------------------|-----------------------|
| Broadway             | Kendal Blue Garage to Ames Street                    | Ames Street               | 1                   | West                            | 10                    |
|                      |  |                           |                     |                                 |                       |
| Ames Street          | Broadway to Main Street                              | Broadway                  | 1                   | South                           | 10                    |
|                      |  | Main Street               | 1                   | North                           | 10                    |
|                      |  |                           |                     |                                 |                       |
| Main Street          | Ames Street to Vassar Street                         | Ames Street               | 1                   | West                            | 12                    |
|                      |  | Galileo Galilei           | 1                   | East                            | 10                    |
|                      |  |                           |                     |                                 |                       |
| Vassar Street        | Main Street to Massachusetts Avenue                  | Main Street               | 1                   | North                           | 10                    |
|                      |  | Vassar Street (mid-block) | 1                   | N/A                             | 12                    |
|                      |  | Vassar Street (mid-block) | 1                   | N/A                             | 12                    |
|                      |  | Massachusetts Avenue      | 1                   | North                           | 10                    |
|                      |  |                           |                     |                                 |                       |
| Massachusetts Avenue | Vassar Street to Memorial Drive                      | Vassar Street             | 1                   | South                           | 14                    |
|                      |  | Mass Ave (mid-block)      | 1                   | N/A                             | 50                    |
|                      |  | Amherst Street            | 1                   | North                           | 10                    |
|                      |  | Amherst Street            | 1                   | South                           | 10                    |
|                      |  | Memorial Drive            | 1                   | North                           | 10                    |
|                      |  |                           |                     |                                 |                       |
| Memorial Drive       | Massachusetts Avenue and Memorial Drive Intersection | Massachusetts Avenue      | 1                   | West                            | 10                    |
|                      |  |                           | 1                   | East                            | 10                    |

| Roadway              | Roadway Segment                                   | treatment | location along road | length of facility | Width (feet) of facility |
|----------------------|---|-----------|---------------------|--------------------|--------------------------|
| Broadway             | Kendal Blue Garage to Ames Street                 | Bike Lane | North               | 370                | 5                        |
|                      |   |           | South               | 370                | 5                        |
| Ames Street          | Broadway to Main Street                           | Bike Lane | West                | 650                | 5                        |
|                      |   |           | East                | 650                | 5                        |
| Main Street          | Ames Street to Vassar Street                      | Bike Lane | North               | 635                | 5                        |
|                      |   |           | South               | 635                | 5                        |
| Vassar Street        | Main Street to Massachusetts Avenue               | Bike Lane | North               | 1750               | 5                        |
|                      |   |           | South               | 1750               | 5                        |
| Massachusetts Avenue | Vassar Street to Memorial Drive                   | Bike Lane | West                | 1275               | 5                        |
|                      |   |           | East                | 1275               | 5                        |
| Memorial Drive       | Massachusetts Ave and Memorial Drive Intersection | None      |                     |                    |                          |



# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Putnam P-12

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name    | Segment Limits                         | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|----------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 370.0         | Broadway       | Kendall Blue Garage to Ames Street     | 3                      | 2390  | 1280        | Yes             | NA  | Road Closure - Detour         | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T1           | 410                                       | 336                               | 365                           | 309                   | 50                              | 59                      | 105                                  | 55                                | 134                       |
| 650.0         | Ames Street    | Broadway to Main Street                | 1                      | 2580  | 1930        | No              | NA  | Two-way Lane Shift            | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T7           | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 635.0         | Main Street    | Ames Street to Vassar Street           | 3                      | 3877  | 1972        | Yes             | NA  | Road Closure - Detour         | 127                         | 9                             | 60                                 | 11                              | 7/22/2020                      | 12:30PM                        | 8/10/2021-8/12/2021 | T30          | 545                                       | 342                               | 510                           | 324                   | 35                              | 44                      | 240                                  | 45                                | 61                        |
| 1720.0        | Vassar Street  | Main Street to Massachusetts Avenue    | 3                      | 9567  | 4407        | Yes             | NA  | Road Closure - Detour         | 68                          | 4                             | 7                                  | 3                               | 7/22/2020                      | 1:30PM                         | 8/10/2021-8/12/2021 | T32          | 290                                       | 480                               | 270                           | 386                   | 15                              | 99                      | 30                                   | 10                                | 125                       |
| 4180.0        | Vassar Street  | Massachusetts Avenue to Memorial Drive | 3                      | 26513   | 13973       | Yes             | NA  | Road Closure - Detour         | 68                          | 4                             | 7                                  | 3                               | 7/22/2020                      | 1:30PM                         | 8/10/2021-8/12/2021 | T33          | 290                                       | 453                               | 270                           | 425                   | 15                              | 39                      | 30                                   | 10                                | 57                        |
| 400.0         | Memorial Drive | Vassar Street to Memorial Drive West   | 3                      | 1200  | 0           | No              | NA  | Two-way Lane Shift            | 336                         | 1                             | 20                                 | 11                              | 7/22/2020                      | 1:45PM                         | 8/10/2021-8/12/2021 | T34          | 1704                                      | 1733                              | 1345                          | 1724                  | 5                               | 13                      | 80                                   | 45                                | 2                         |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 7955.00  |
| Total Impact Length (feet) | 46127.00 |
| Score                      | 5.80     |

Date: 9/28/2021

Candidate Route: Putnam P-12

| Length (feet) | Street Name    | Segment Limits                         | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|----------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 370.0         | Broadway       | Kendall Blue Garage to Ames Street     | 24                            | 1               | 1                       | 130                               | 200                               | 200  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 740   | Full      | Yes                         | 10  | Principal Arterial - Other     | Cambridge            |       |
| 650.0         | Ames Street    | Broadway to Main Street                | 48                            | 2               | 1                       | 130                               | 240                               | 240  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1300  | Full      | Yes                         | 20  | Major Collector                | Cambridge            |       |
| 635.0         | Main Street    | Ames Street to Vassar Street           | 24                            | 1               | 1                       | 160                               | 260                               | 260  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 1270  | Full      | Yes                         | 22  | Principal Arterial - Other     | Cambridge            |       |
| 1720.0        | Vassar Street  | Main Street to Massachusetts Avenue    | 24                            | 1               | 1                       | 125                               | 400                               | 400  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 3440  | Full      | Yes                         | 42  | Major Collector                | Cambridge            |       |
| 4180.0        | Vassar Street  | Massachusetts Avenue to Memorial Drive | 24                            | 1               | 4                       | 165                               | 2680                              | 2680                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 8360  | Full      | Yes                         | 88  | Major Collector                | Cambridge            |       |
| 400.0         | Memorial Drive | Vassar Street to Memorial Drive West   | 40                            | 1               | 0                       | 0                                 | 0                                 | 0  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 0   | Principal Arterial - Other     | DCR                  |       |

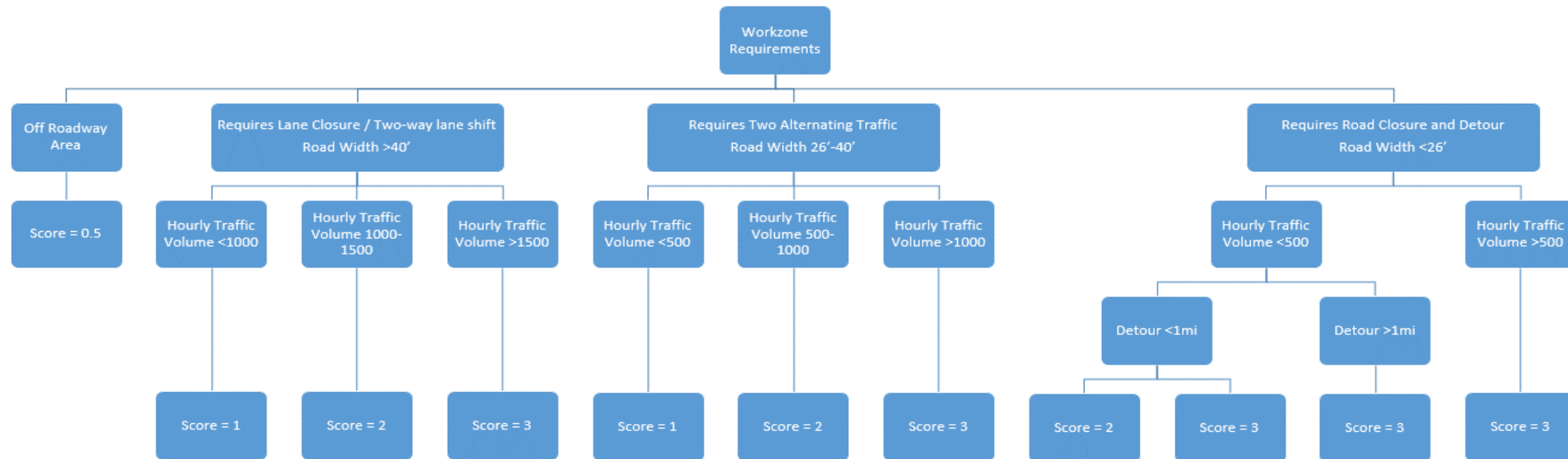
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| Roadway        |   | Intersection Name    | Intersection Width (feet) |
|----------------|---|----------------------|---------------------------|
| Broadway       | Kendall Blue Garage to Ames Street            | Ames Street          | 130                       |
|                |   |                      |                           |
| Ames Street    | Broadway to Main Street                       | Main Street          | 130                       |
|                |   |                      |                           |
| Main Street    | Ames Street to Vassar Street                  | Vassar Street        | 160                       |
|                |   |                      |                           |
| Vassar Street  | Main Street to Memorial Drive                 | Massachusetts Avenue | 125                       |
|                |   |                      |                           |
| Vassar Street  | Main Street to Memorial Drive                 | Amherst Alley        | 25                        |
|                |   | Audrey Street        | 40                        |
|                |   | Amesbury Street      | 30                        |
|                |   | Memorial Drive       | 70                        |
|                |   |                      |                           |
| Memorial Drive | Vassar Street and Memorial Drive Intersection |                      |                           |

| Roadway        |   | Intersection Name         | Number of crossings | location of crossing along road | Crossing Width (feet) |
|----------------|---|---------------------------|---------------------|---------------------------------|-----------------------|
| Broadway       | Kendal Blue Garage to Ames Street             | Ames Street               | 1                   | West                            | 10                    |
| Ames Street    | Broadway to Main Street                       | Broadway                  | 1                   | South                           | 10                    |
|                |   | Main Street               | 1                   | North                           | 10                    |
| Main Street    | Ames Street to Vassar Street                  | Ames Street               | 1                   | West                            | 12                    |
|                |   | Galileo Galilei           | 1                   | East                            | 10                    |
| Vassar Street  | Main Street to Memorial Drive                 | Main Street               | 1                   | South                           | 10                    |
|                |   | Vassar Street (mid-block) | 1                   | N/A                             | 10                    |
|                |   | Vassar Street (mid-block) | 1                   | N/A                             | 12                    |
|                |   | Massachusetts Avenue      | 1                   | East                            | 10                    |
| Vassar Street  | Main Street to Memorial Drive                 | Massachusetts Avenue      | 1                   | West                            | 12                    |
|                |   | Vassar Street (mid-block) | 1                   | N/A                             | 18                    |
|                |   | Vassar Street (mid-block) | 1                   | N/A                             | 16                    |
|                |   | Vassar Street (mid-block) | 1                   | N/A                             | 12                    |
|                |   | Amherst Alley             | 1                   | East                            | 12                    |
|                |   | Audrey Street             | 1                   | West                            | 10                    |
|                |   | Memorial Drive            | 1                   | North                           | 8                     |
| Memorial Drive | Vassar Street and Memorial Drive Intersection | None                      |                     |                                 |                       |

| Roadway        | Roadway Segment                               | treatment | location along road | length of facility | Width (feet) of facility |
|----------------|---|-----------|---------------------|--------------------|--------------------------|
| Broadway       | Kendal Blue Garage to Ames Street             | Bike Lane | North               | 370                | 5                        |
|                |   |           | South               | 370                | 5                        |
| Ames Street    | Broadway to Main Street                       | Bike Lane | West                | 650                | 5                        |
|                |   |           | East                | 650                | 5                        |
| Main Street    | Ames Street to Vassar Street                  | Bike Lane | North               | 635                | 5                        |
|                |   |           | South               | 635                | 5                        |
| Vassar Street  | Main Street to Memorial Drive                 | Bike Lane | West                | 1720               | 5                        |
|                |   |           | East                | 1720               | 5                        |
| Vassar Street  | Main Street to Memorial Drive                 | Bike Lane | West                | 4180               | 5                        |
|                |   |           | East                | 4180               | 5                        |
| Memorial Drive | Vassar Street and Memorial Drive Intersection | None      |                     |                    |                          |
|                |   |           |                     |                    |                          |
|                |   |           |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
 Candidate Route: Putnam P-13

NSTAR Electric Company d/b/a Eversource Energy  
 Greater Cambridge Energy Project

| Length (feet) | Street Name    | Segment Limits                     | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates           | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|----------------|------------------------------------|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 370.0         | Broadway       | Kendall Blue Garage to Ames Street | 3                      | 2390  | 1280        | Yes             | NA  | Road Closure - Detour         | 192                         | 2                             | 14                                 | 1                               | 7/22/2020                      | 2:45PM                         | 8/10/2021-8/12/2021 | T1           | 775                                       | 336                               | 770                           | 309                   | 10                              | 59                      | 55                                   | 5                                 | 134                       |
| 650.0         | Ames Street    | Broadway to Main Street            | 1                      | 1765  | 1115        | No              | NA  | Two-Way Alternating Traffic   | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T7           | 230                                       | 297                               | 210                           | 249                   | 15                              | 52                      | 255                                  | 20                                | 73                        |
| 1240.0        | Ames Street    | Main Street to Memorial Drive      | 1                      | 3874  | 2634        | No              | NA  | Two-Way Alternating Traffic   | 53                          | 4                             | 64                                 | 5                               | 7/22/2020                      | 12:00PM                        | 8/10/2021-8/12/2021 | T31          | 230                                       | 318                               | 210                           | 294                   | 15                              | 28                      | 255                                  | 20                                | 52                        |
| 400.0         | Memorial Drive | Ames Street to Memorial Drive West | 2                      | 1180  | 380         | No              | NA  | Two-Way Alternating Traffic   | 91                          | 12                            | 26                                 | 14                              | 7/22/2020                      | 9:00AM                         | 8/10/2021-8/12/2021 | T34-T38+T37  | 410                                       | 985                               | 365                           | 977                   | 50                              | 20                      | 105                                  | 55                                | 2                         |

Calculated in Spreadsheet

| Score Summary              |         |
|----------------------------|---------|
| Total Length (feet)        | 2660.00 |
| Total Impact Length (feet) | 9209.00 |
| Score                      | 3.46    |



Date: 9/28/2021  
 Candidate Route: Putnam P-13

| Length (feet) | Street Name    | Segment Limits                     | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|----------------|------------------------------------|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 370.0         | Broadway       | Kendall Blue Garage to Ames Street | 24                            | 1               | 1                       | 130                               | 200                               | 200  | Yes                        | Yes               | 0                                 | Bike Lane           | Yes  | 740   | Full      | Yes                         | 10  | Principal Arterial - Other     | Cambridge            |       |
| 650.0         | Ames Street    | Broadway to Main Street            | 34                            | 2               | 1                       | 125                               | 160                               | 160  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 650   | Full      | Yes                         | 20  | Major Collector                | Cambridge            |       |
| 1240.0        | Ames Street    | Main Street to Memorial Drive      | 34                            | 2               | 1                       | 40                                | 640                               | 640  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1240  | Full      | Yes                         | 74  | Major Collector                | Cambridge            |       |
| 400.0         | Memorial Drive | Ames Street to Memorial Drive West | 28                            | 2               | 1                       | 50                                | 160                               | 160  | Yes                        | Yes               | 0                                 | None                | No   | 0   | One-Sided | Yes                         | 10  | Principal Arterial - Other     | DCR                  |       |

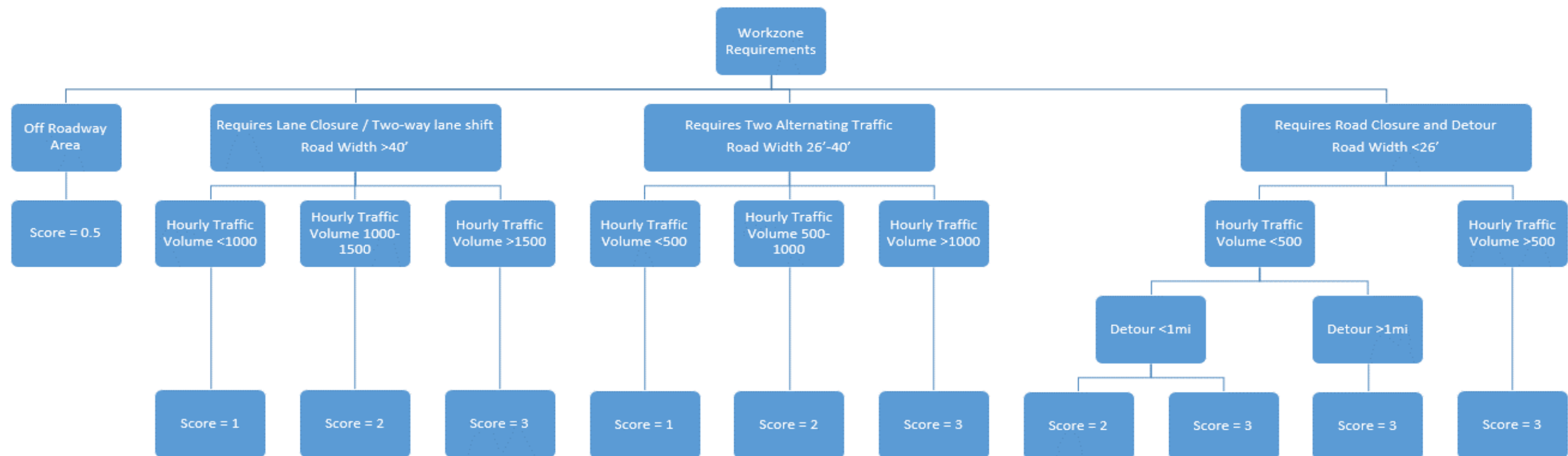
Calculated in Spreadsheet

| Roadway        |   | Intersection Name | Intersection Width (feet) |
|----------------|---|-------------------|---------------------------|
| Broadway       | Kendall Blue Garage to Ames Street          | Ames Street       | 130                       |
|                |   |                   |                           |
| Ames Street    | Broadway to Main Street                     | Main Street       | 125                       |
|                |   |                   |                           |
| Ames Street    | Main Street to Memorial Drive               | Amherst Street    | 40                        |
|                |   |                   |                           |
| Memorial Drive | Ames Street and Memorial Drive Intersection | Memorial Drive    | 50                        |
|                |   |                   |                           |
|                |   |                   |                           |
|                |   |                   |                           |

| Roadway        |   | Intersection Name       | Number of crossings | location of crossing along road | Crossing Width (feet) |
|----------------|---|-------------------------|---------------------|---------------------------------|-----------------------|
| Broadway       | Kendall Blue Garage to Ames Street          | Ames Street             | 1                   | West                            | 10                    |
| Ames Street    | Broadway to Memorial Drive                  | Broadway                | 1                   | South                           | 10                    |
|                |   | Main Street             | 1                   | North                           | 10                    |
| Ames Street    | Broadway to Memorial Drive                  | Main Street             | 1                   | South                           | 12                    |
|                |   | Ames Street (mid-block) | 1                   | N/A                             | 10                    |
|                |   | Ames Street (mid-block) | 1                   | N/A                             | 22                    |
|                |   | Amherst Street          | 1                   | North                           | 10                    |
|                |   | Amherst Street          | 1                   | South                           | 12                    |
|                |   | Memorial Drive          | 1                   | North                           | 8                     |
| Memorial Drive | Ames Street and Memorial Drive Intersection | Ames Street             | 1                   | West                            | 10                    |
|                |   | Ames Street             | 1                   | East                            | 10                    |
|                |   |                         |                     |                                 |                       |
|                |   |                         |                     |                                 |                       |

| Roadway        | Roadway Segment                             | treatment            | location along road | length of facility | Width (feet) of facility |
|----------------|---|----------------------|---------------------|--------------------|--------------------------|
| Broadway       | Kendall Blue Garage to Ames Street          | Bike Lane            | North               | 370                | 5                        |
|                |   | Bike Lane            | South               | 370                | 5                        |
| Ames Street    | Broadway to Main Street                     | Bike Lanes (2 lanes) | East                | 650                | 10                       |
| Ames Street    | Main Street to Memorial Drive               | Bike Lanes (2 lanes) | East                | 1240               | 10                       |
| Memorial Drive | Ames Street and Memorial Drive Intersection | None                 |                     |                    |                          |
|                |   |                      |                     |                    |                          |

# Segment Score Logic - Workzone Setup



## **Sommerville Study Area**

Date: 9/28/2021

Candidate Route: Somerville S-1A

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name                                      | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates       | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|--|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 900.0         | Broadway   | Kendall Blue Garage to Hampshire Street                   | 2                      | 4290  | 2490        | No              | NA  | Two-Way Alternating Traffic   | 104                         | 17                            | 41                                 | 30                              | 8/25/2020                      | 9:00AM                         | 8/10/21-8/12/21 | T1           | 485                                       | 642                               | 415                           | 575                   | 70                              | 76                      | 165                                  | 120                               | 148                       |
| 2200.0        | Hampshire Street                                 | Broadway to Columbia Street                               | 2                      | 14994   | 10594       | No              | NA  | Two-Way Alternating Traffic   | 59                          | 4                             | 12                                 | 30                              | 8/25/2020                      | 11:30AM                        | 8/10/21-8/12/21 | T9           | 250                                       | 534                               | 235                           | 360                   | 15                              | 33                      | 50                                   | 120                               | 200                       |
| 1250.0        | Columbia Street                                  | Hampshire Street to Cambridge Street                      | 1                      | 3637  | 2387        | No              | NA  | Two-Way Alternating Traffic   | 75                          | 0                             | 7                                  | 10                              | 8/25/2020                      | 3:15PM                         | 8/10/21-8/12/21 | T11          | 300                                       | 475                               | 300                           | 465                   | 0                               | 20                      | 30                                   | 40                                | 64                        |
| 1040.0        | Columbia Street                                  | Cambridge Street to Windsor Place                         | 1                      | 3905  | 2865        | No              | NA  | Two-Way Alternating Traffic   | 6                           | 0                             | 2                                  | 0                               | 8/25/2020                      | 3:00PM                         | 8/10/21-8/12/21 | T22          | 25  | 66                                | 25                            | 59                    | 0                               | 7                       | 10                                   | 0                                 | 7                         |
| 300.0         | Royal Hospitality Services Parking Lot (Private) | Windsor Place to Private Property/Rail Road               | 0.5                    | 150   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 900.0         | Private Property/Rail Road                       | Royal Hospitality Services Parking Lot to Prospect Street | 0.5                    | 450   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 310.0         | Prospect Street                                  | Private Property/Rail Road to Somerville Station          | 2                      | 910   | 290         | No              | NA  | Two-Way Alternating Traffic   | 82                          | 8                             | 10                                 | 5                               | 8/26/2020                      | 12:00PM                        | 8/10/21-8/12/21 | T16          | 360                                       | 735                               | 330                           | 707                   | 30                              | 42                      | 40                                   | 20                                | 29                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 6900.00  |
| Total Impact Length (feet) | 28336.00 |
| Score                      | 4.11     |

Date: 9/28/2021

Candidate Route: Somerville S-1A

| Length (feet) | Street Name                                      | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|--|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 900.0         | Broadway   | Kendall Blue Garage to Hampshire Street                   | 36                            | 3               | 2                       | 240                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1800  | Full      | Yes                         | 50  | Principal Arterial - Other     | Cambridge            |       |
| 2200.0        | Hampshire Street                                 | Broadway to Columbia Street                               | 40                            | 3               | 8                       | 410                               | 2860                              | 2860                                       | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 4400  | Full      | Yes                         | 64  | Principal Arterial - Other     | Cambridge            |       |
| 1250.0        | Columbia Street                                  | Hampshire Street to Cambridge Street                      | 30                            | 2               | 5                       | 215                               | 1060                              | 1060                                       | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 52  | Minor Arterial                 | Cambridge            |       |
| 1040.0        | Columbia Street                                  | Cambridge Street to Windsor Place                         | 26                            | 2               | 3                       | 55                                | 1400                              | 1400                                       | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 10  | Local                          | Somerville           |       |
| 300.0         | Royal Hospitality Services Parking Lot (Private) | Windsor Place to Private Property/Rail Road               | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 900.0         | Private Property/Rail Road                       | Royal Hospitality Services Parking Lot to Prospect Street | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 310.0         | Prospect Street                                  | Private Property/Rail Road to Somerville Station          | 36                            | 2               | 0                       | 0                                 | 0                                 | 0  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 290   | Full      | No                          | 0   | Principal Arterial - Other     | Somerville           |       |

Calculated in Spreadsheet

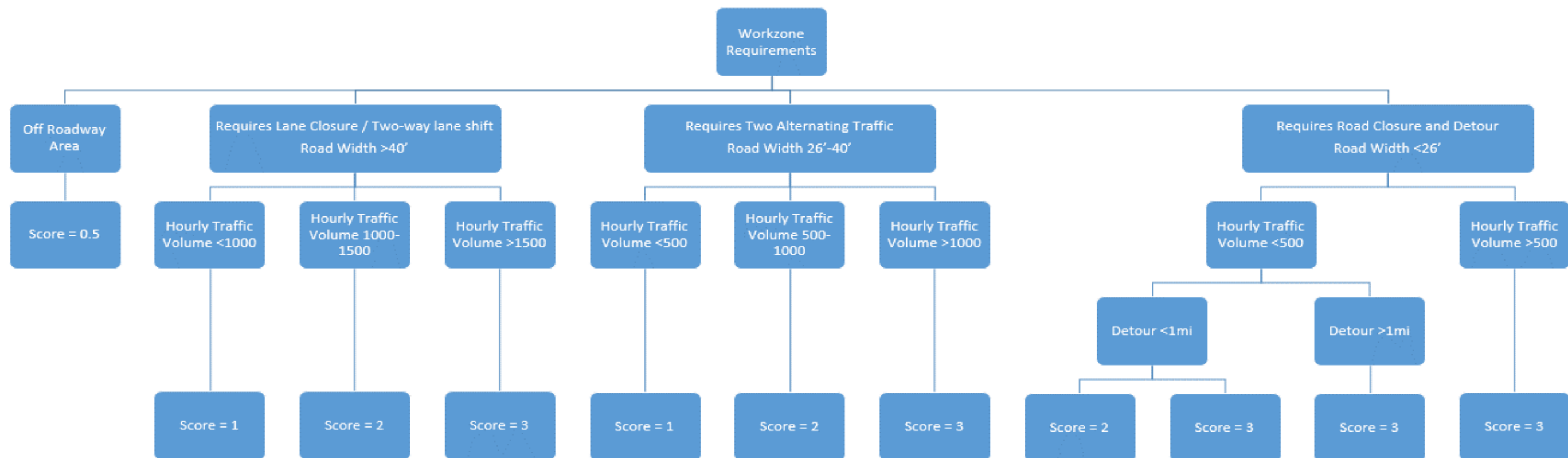


| Roadway                                | Segment   | Intersection Name                         | Intersection Width (feet) |
|--|---|---|---------------------------|
| Broadway                               | Kendall Blue Garage to Hampshire Street                   | Galileo Galilei Way                       | 120                       |
|  |   | Hampshire Street                          | 120                       |
| Hampshire Street                       | Broadway to Columbia Street                               | Portland Street/ Cardinal Medeiros Avenue | 110                       |
|  |   | Webster Avenue                            | 90                        |
|  |   | Clark Street                              | 25                        |
|  |   | Bristol Street                            | 25                        |
|  |   | Portsmouth Street                         | 35                        |
|  |   | Windsor Street                            | 80                        |
|  |   | Union Street                              | 20                        |
|  |   | Columbia Street                           | 25                        |
| Columbia Street                        | Hampshire Street to Cambridge Street                      | Lincoln Street                            | 30                        |
|  |   | Wellington Lane                           | 25                        |
|  |   | Harrington Terrace                        | 25                        |
|  |   | Cambridge Street                          | 95                        |
|  | Webster Avenue  | 40  |                           |
|  | Cambridge Street to Windsor Place                         | Colon Court                               | 20                        |
|  |   | Beach Street                              | 15                        |
| Windsor Place                          |   | 20  |                           |
| Royal Hospitality Services Parking Lot | Windsor Place to Private Property/Rail Road               |   |                           |
| Private Property/Rail Road             | Royal Hospitality Services Parking Lot to Prospect Street |   |                           |
| Prospect Street                        | Private Property/Rail Road to Somerville Station          |   |                           |
|  |   |   |                           |
|  |   |   |                           |

| Roadway                                | Segment   | Intersection Name                         | Number of crossings | location of crossing along road | Crossing Width (feet) |
|--|---|---|---------------------|---------------------------------|-----------------------|
| Broadway                               | Kendall Blue Garage to Hampshire Street                   | Broadway (mid-block)                      | 1                   | N/A                             | 8                     |
|  |   | Galileo Galilei Way                       | 1                   | East                            | 16                    |
|  |   | Galileo Galilei Way                       | 1                   | West                            | 16                    |
|  |   | Hampshire Street                          | 1                   | East                            | 10                    |
| Hampshire Street                       | Broadway to Columbia Street                               | Broadway                                  | 1                   | North                           | 10                    |
|  |   | Portland Street/ Cardinal Medeiros Avenue | 1                   | South                           | 8                     |
|  |   | Portland Street/ Cardinal Medeiros Avenue | 1                   | North                           | 12                    |
|  |   | Bristol Street                            | 1                   | South                           | 8                     |
|  |   | Windsor Street                            | 1                   | East                            | 10                    |
|  |   | Windsor Street                            | 1                   | West                            | 8                     |
|  |   | Columbia Street                           | 1                   | East                            | 8                     |
| Columbia Street                        | Hampshire Street to Cambridge Street                      | Hampshire Street                          | 1                   | North                           | 12                    |
|  |   | Lincoln Street                            | 1                   | South                           | 10                    |
|  |   | Lincoln Street                            | 1                   | North                           | 10                    |
|  |   | Cambridge Street                          | 1                   | South                           | 10                    |
|  |   | Cambridge Street                          | 1                   | North                           | 10                    |
|  | Cambridge Street to Windsor Place                         | Columbia Street (mid-block)               | 1                   | N/A                             | 10                    |
| Royal Hospitality Services Parking Lot | Windsor Place to Private Property/Rail Road               | None                                      |                     |                                 |                       |
| Private Property/Rail Road             | Royal Hospitality Services Parking Lot to Prospect Street | None                                      |                     |                                 |                       |
| Prospect Street                        | Private Property/Rail Road to Somerville Station          | None                                      |                     |                                 |                       |

| Roadway                                | Roadway Segment   | treatment         | location along road | length of facility | Width (feet) of facility |
|--|---|-------------------|---------------------|--------------------|--------------------------|
| Broadway                               | Kendall Blue Garage to Hampshire Street                   | Bike Lane/Sharrow | North               | 900                | 5                        |
|  |   |                   | South               | 900                | 5                        |
| Hampshire Street                       | Broadway to Columbia Street                               | Bike Lane         | North               | 2200               | 5                        |
|  |   |                   | South               | 2200               | 5                        |
| Columbia Street                        | Hampshire Street to Cambridge Street                      | None              |                     |                    |                          |
|  | Cambridge Street to Windsor Place                         | None              |                     |                    |                          |
| Royal Hospitality Services Parking Lot | Windsor Place to Private Property/Rail Road               | None              |                     |                    |                          |
| Private Property/Rail Road             | Royal Hospitality Services Parking Lot to Prospect Street | None              |                     |                    |                          |
| Prospect Street                        | Private Property/Rail Road to Somerville Station          | Bike Lane         | West                | 145                | 5                        |
|  |   |                   | Sharrow             | East               | 145                      |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Somerville-11C

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name                       | Segment Limits                                 | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates       | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|-----------------------------------|--|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 410.0         | Broadway                          | Kendall Blue Garage to Grand Junction Railroad | 1                      | 1811  | 1401        | No              | NA  | Two-way Lane Shift            | 104                         | 17                            | 41                                 | 30                              | 8/25/2020                      | 9:00AM                         | 8/10/21-8/12/21 | T1           | 485                                       | 642                               | 415                           | 575                   | 70                              | 76                      | 165                                  | 120                               | 148                       |
| 750.0         | Grand Junction Railroad (MassDOT) | Broadway to Binney Street                      | 0.5                    | 455   | 80          | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1925.0        | Grand Junction Railroad (MassDOT) | Binney Street to Cambridge Street              | 0.5                    | 1037.5  | 75          | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 680.0         | Grand Junction Railroad (MassDOT) | Cambridge Street to Medford Street/Gore Street | 0.5                    | 450   | 110         | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 730.0         | Grand Junction Railroad (MassDOT) | Medford Street to MBTA ROW/Private Property    | 0.5                    | 419   | 54          | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 485.0         | Grand Junction Railroad (MassDOT) | MBTA ROW/Private Property to Linwood Street    | 0.5                    | 242.5   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 1600.0        | Linwood Street                    | Grand Junction Railroad to Washington Street   | 1                      | 2628  | 1028        | No              | NA  | Two-way Lane Shift            | 17                          | 7                             | 1                                  | 0                               | 8/26/2020                      | 9:00AM                         | 8/10/21-8/12/21 | T19          | 95  | 115                               | 70                            | 108                   | 30                              | 10                      | 5                                    | 0                                 | 1                         |
| 1185.0        | Washington Street                 | Linwood Street to Prospect Street              | 3                      | 6570  | 3015        | No              | NA  | Two-Way Alternating Traffic   | 52                          | 2                             | 10                                 | 5                               | 8/26/2020                      | 10:00AM                        | 8/10/21-8/12/21 | T17          | 215                                       | 1311                              | 210                           | 1271                  | 10                              | 102                     | 40                                   | 20                                | 52                        |
| 600.0         | Prospect Street                   | Washington Street to Somerville Station        | 2                      | 2640  | 1440        | No              | NA  | Two-Way Alternating Traffic   | 82                          | 8                             | 10                                 | 5                               | 8/26/2020                      | 12:00PM                        | 8/10/21-8/12/21 | T16          | 360                                       | 735                               | 330                           | 707                   | 30                              | 42                      | 40                                   | 20                                | 29                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 8365.00  |
| Total Impact Length (feet) | 16253.00 |
| Score                      | 1.94     |

Date: 9/28/2021

Candidate Route: Somerville-11C

| Length (feet) | Street Name                       | Segment Limits                                 | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|-----------------------------------|--|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 410.0         | Broadway                          | Kendall Blue Garage to Grand Junction Railroad | 63                            | 2               | 1                       | 120                               | 180                               | 180  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 800   | Full      | Yes                         | 121   | Principal Arterial - Other     | Cambridge            |       |
| 750.0         | Grand Junction Railroad (MassDOT) | Broadway to Binney Street                      | Private                       | N/A             | 1                       | 60                                | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 20  | None                           | MassDOT/CSX          |       |
| 1925.0        | Grand Junction Railroad (MassDOT) | Binney Street to Cambridge Street              | Private                       | N/A             | 1                       | 55                                | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 20  | None                           | MassDOT/CSX          |       |
| 680.0         | Grand Junction Railroad (MassDOT) | Cambridge Street to Medford Street/Gore Street | Private                       | N/A             | 1                       | 90                                | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 20  | None                           | MassDOT/CSX          |       |
| 730.0         | Grand Junction Railroad (MassDOT) | Medford Street to MBTA ROW/Private Property    | Private                       | N/A             | 1                       | 40                                | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 14  | None                           | MassDOT/CSX          |       |
| 485.0         | Grand Junction Railroad (MassDOT) | MBTA ROW/Private Property to Linwood Street    | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | N/A               | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | MBTA/Private         |       |
| 1600.0        | Linwood Street                    | Grand Junction Railroad to Washington Street   | 40                            | 2               | 3                       | 210                               | 400                               | 400  | No                         | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 18  | Local                          | Somerville           |       |
| 1185.0        | Washington Street                 | Linwood Street to Prospect Street              | 28                            | 2               | 8                       | 235                               | 460                               | 460  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 1800  | Full      | Yes                         | 60  | Principal Arterial - Other     | Somerville           |       |
| 600.0         | Prospect Street                   | Washington Street to Somerville Station        | 34                            | 2               | 4                       | 210                               | 0                                 | 0  | Yes                        | No                | 0                                 | Bike Lane/Sharrows  | Yes  | 1200  | Full      | Yes                         | 30  | Principal Arterial - Other     | Somerville           |       |

Calculated in Spreadsheet

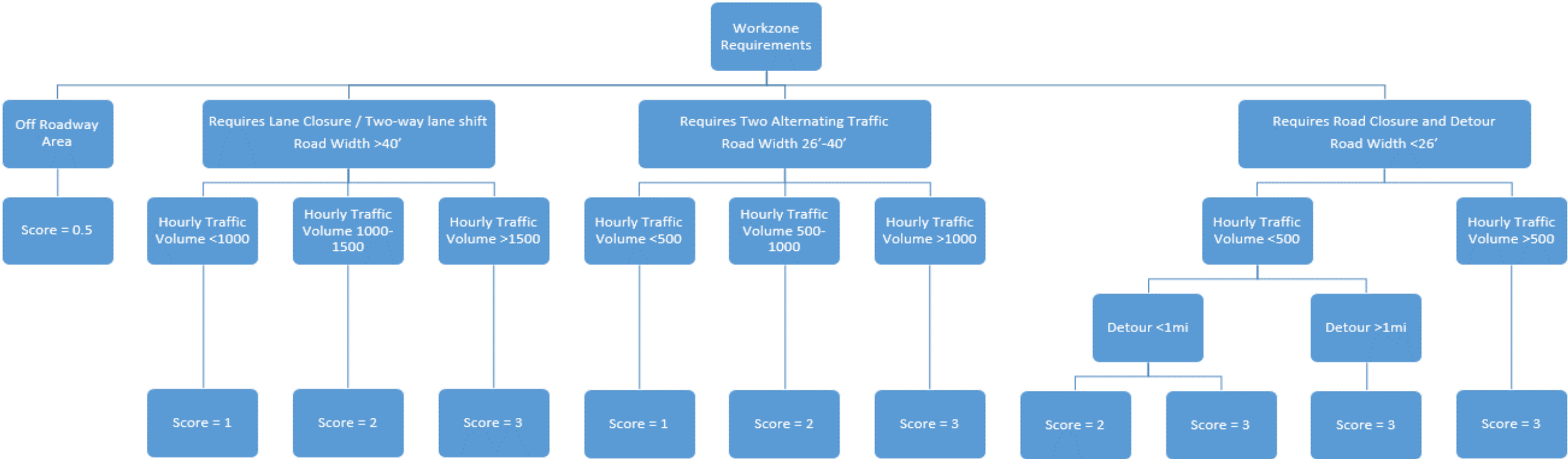
| Roadway                 | Segments                                       | Intersection Name              | Intersection Width (feet) |
|-------------------------|--|--------------------------------|---------------------------|
| Broadway                | Kendall Blue Garage to Grand Junction Railroad | Galileo Galilei Way            | 120                       |
| Grand Junction Railroad | Broadway to Binney Street                      | Binney Street                  | 60                        |
|                         | Binney Street to Cambridge Street              | Cambridge Street               | 55                        |
|                         | Cambridge Street to Medford Street/Gore Street | Medford Street                 | 90                        |
|                         | Medford Street to Linwood Street               | Linwood Street                 | 40                        |
| Linwood Street          | Grand Junction Railroad to Washington Street   | Poplar Street                  | 120                       |
|                         |  | McGrath Highway                | 50                        |
|                         |  | Washington Street              | 40                        |
| Washington Street       | Linwood Street to Prospect Street              | McGrath Highway                | 30                        |
|                         |  | Boston Street                  | 25                        |
|                         |  | Mansfield Street               | 30                        |
|                         |  | Rossmore Street                | 45                        |
|                         |  | Merriam Street                 | 40                        |
|                         |  | Washington Terrace             | 30                        |
|                         |  | Columbus Avenue                | 30                        |
|                         |  | washington Street              | 35                        |
| Prospect Street         | Washington Street to Somerville Station        | Somerville Avenue/Union Square | 120                       |
|                         |  | Newton Street                  | 40                        |
|                         |  | Bennett Court                  | 20                        |
|                         |  | Somerville Station             | 30                        |

| Roadway                 | Segments                                       | Intersection Name             | Number of crossings | Location of crossing along road | Crossing Width (feet) |
|-------------------------|--|-------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                | Kendall Blue Garage to Grand Junction Railroad | Broadway (mid-block)          | 1                   | N/A                             | 45                    |
|                         |  | Galileo Galilei Way           | 1                   | North                           | 20                    |
|                         |  | Galileo Galilei Way           | 1                   | South                           | 10                    |
| Grand Junction Railroad | Broadway to Linwood Street                     | Cambridge Street              | 1                   | South                           | 12                    |
|                         |  | Cambridge Street              | 1                   | North                           | 14                    |
|                         |  | Medford Street/Gore Street    | 1                   | South                           | 20                    |
|                         |  | Medford Street/Gore Street    | 1                   | North                           | 8                     |
|                         |  | Linwood Street                | 1                   | South                           | 6                     |
| Linwood Street          | Grand Junction Railroad to Washington Street   | Poplar Street                 | 1                   | South                           | 8                     |
|                         |  | Washington Street             | 1                   | South                           | 10                    |
| Washington Street       | Linwood Street to Prospect Street              | McGrath Highway               | 1                   | West                            | 10                    |
|                         |  | Rossmore Street               | 1                   | East                            | 10                    |
|                         |  | Washington Street (mid-block) | 1                   | N/A                             | 40                    |
| Prospect Street         | Washington Street to Somerville Station        | Union Square                  | 1                   | South                           | 10                    |
|                         |  | Union Square                  | 1                   | North                           | 10                    |
|                         |  | Somerville Station            | 1                   | N/A                             | 10                    |



| Roadway                 | Roadway Segment                                | Treatment    | Location along road | Length of facility | Width (feet) of facility |
|-------------------------|--|--------------|---------------------|--------------------|--------------------------|
| Broadway                | Kendall Blue Garage to Grand Junction Railroad | Bicycle Lane | North               | 400                | 5                        |
|                         |  | Bicycle Lane | South               | 400                | 5                        |
| Grand Junction Railroad | Broadway to Binney Street                      | None         |                     |                    |                          |
|                         | Binney Street to Cambridge Street              | None         |                     |                    |                          |
|                         | Cambridge Street to Medford Street/Gore Street | None         |                     |                    |                          |
|                         | Medford Street/Gore Street to Linwood Street   | None         |                     |                    |                          |
| Linwood Street          | Grand Junction Railroad to Washington Street   | None         |                     |                    |                          |
| Washington Street       | Linwood Street to Prospect Street              | Bicycle Lane | West                | 900                | 5                        |
|                         |  | Bicycle Lane | East                | 900                | 5                        |
| Prospect Street         | Washington Street to Somerville Station        | Bicycle Lane | West                | 600                | 5                        |
|                         |  | Sharrow      | East                | 600                | 5                        |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021

Candidate Route: Somerville-12

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name                                      | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates        | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|--|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|------------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 1170.0        | Broadway   | Kendall Blue Garage to Cardinal Medeiros Avenue                   | 2                      | 5524  | 3184        | No              | NA  | Two-Way Alternating Traffic   | 104                         | 17                            | 41                                 | 30                              | 8/25/2020                      | 9:00AM                         | 8/10/21- 8/12/21 | T1           | 485                                       | 642                               | 415                           | 575                   | 70                              | 76                      | 165                                  | 120                               | 148                       |
| 2575.0        | Cardinal Medeiros Avenue                         | Broadway to Cambridge Street                                      | 3                      | 10226   | 2501        | Yes             | NA  | Road Closure - Detour         | 92                          | 4                             | 9                                  | 5                               | 8/25/2020                      | 1:15PM                         | 8/10/21- 8/12/21 | T10          | 385                                       | 517                               | 370                           | 509                   | 15                              | 29                      | 35                                   | 20                                | 46                        |
| 90.0          | Cambridge Street                                 | Cardinal Medeiros Avenue to Warren Street                         | 2                      | 380   | 200         | No              | NA  | Two-Way Alternating Traffic   | 241                         | 16                            | 41                                 | 14                              | 8/25/2020                      | 1:30PM                         | 8/10/21- 8/12/21 | T24          | 1030                                      | 899                               | 965                           | 888                   | 65                              | 67                      | 165                                  | 55                                | 73                        |
| 700.0         | Warren Street                                    | Cambridge Street to Medford Street/Gore Street                    | 3                      | 3336  | 1236        | Yes             | NA  | Road Closure - Detour         | 84                          | 4                             | 9                                  | 9                               | 8/25/2020                      | 2:00PM                         | 8/10/21- 8/12/21 | T23          | 350                                       | 462                               | 335                           | 456                   | 15                              | 20                      | 35                                   | 35                                | 13                        |
| 340.0         | Medford Street/Gore Street                       | Warren Street to South Street                                     | 2                      | 780   | 100         | No              | NA  | Two-Way Alternating Traffic   | 168                         | 5                             | 9                                  | 9                               | 8/25/2020                      | 2:15PM                         | 8/10/21- 8/12/21 | T59          | 690                                       | 674                               | 670                           | 665                   | 20                              | 27                      | 35                                   | 35                                | 53                        |
| 1415.0        | South Street                                     | Medford Street/ Gore Street to J&A Auto Parts Junkyard            | 3                      | 5406  | 1161        | Yes             | NA  | Road Closure - Detour         | 67                          | 1                             | 3                                  | 1                               | 8/25/2020                      | 2:30PM                         | 8/10/21- 8/12/21 | T21          | 270                                       | 222                               | 270                           | 213                   | 5                               | 12                      | 10                                   | 5                                 | 6                         |
| 320.0         | J&A Auto Parts Junkyard (Private)                | South Street to Columbia Street                                   | 0.5                    | 160   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A              | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 270.0         | Columbia Street                                  | J&A Auto Parts Junkyard to Royal Hospitality Services Parking Lot | 1                      | 595   | 325         | No              | NA  | Two-Way Alternating Traffic   | 6                           | 0                             | 2                                  | 0                               | 8/25/2020                      | 3:00PM                         | 8/10/21- 8/12/21 | T22          | 25  | 66                                | 25                            | 59                    | 0                               | 7                       | 10                                   | 0                                 | 7                         |
| 300.0         | Royal Hospitality Services Parking Lot (Private) | Columbia Street to Private Property/Rail Road                     | 0.5                    | 150   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A              | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 900.0         | Private Property/Rail Road                       | Royal Hospitality Services Parking Lot to Prospect Street         | 0.5                    | 450   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A              | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 310.0         | Prospect Street                                  | Private Property/Rail Road to Somerville Station                  | 2                      | 910   | 290         | No              | NA  | Two-Way Alternating Traffic   | 82                          | 8                             | 10                                 | 5                               | 8/26/2020                      | 12:00PM                        | 8/10/21- 8/12/21 | T16          | 360                                       | 735                               | 330                           | 707                   | 30                              | 42                      | 40                                   | 20                                | 29                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 8390.00  |
| Total Impact Length (feet) | 27917.00 |
| Score                      | 3.33     |

Date: 9/28/2021

Candidate Route: Somerville-12

| Length (feet) | Street Name                                      | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|--|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 1170.0        | Broadway   | Kendall Blue Garage to Cardinal Medeiros Avenue                   | 36                            | 2               | 3                       | 370                               | 200                               | 200  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 2340  | Full      | Yes                         | 74  | Principal Arterial - Other     | Cambridge            |       |
| 2575.0        | Cardinal Medeiros Avenue                         | Broadway to Cambridge Street                                      | 24                            | 2               | 14                      | 495                               | 960                               | 960  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 86  | Minor Arterial                 | Cambridge            |       |
| 90.0          | Cambridge Street                                 | Cardinal Medeiros Avenue to Warren Street                         | 36                            | 2               | 1                       | 20                                | 0                                 | 0  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 180   | Full      | No                          | 0   | Minor Arterial                 | Cambridge            |       |
| 700.0         | Warren Street                                    | Cambridge Street to Medford Street/Gore Street                    | 20                            | 1               | 4                       | 100                               | 560                               | 560  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | Yes                         | 16  | Minor Arterial                 | Cambridge            |       |
| 340.0         | Medford Street/Gore Street                       | Warren Street to South Street                                     | 34                            | 2               | 1                       | 80                                | 0                                 | 0  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 20  | Minor Arterial                 | Somerville           |       |
| 1415.0        | South Street                                     | Medford Street/ Gore Street to J&A Auto Parts Junkyard            | 18                            | 2               | 7                       | 185                               | 480                               | 480  | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 16  | Local                          | Somerville           |       |
| 320.0         | J&A Auto Parts Junkyard (Private)                | South Street to Columbia Street                                   | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 270.0         | Columbia Street                                  | J&A Auto Parts Junkyard to Royal Hospitality Services Parking Lot | 26                            | 2               | 2                       | 45                                | 140                               | 140  | No                         | Yes               | 0                                 | None                | No   | 0   | Full      | No                          | 0   | Local                          | Somerville           |       |
| 300.0         | Royal Hospitality Services Parking Lot (Private) | Columbia Street to Private Property/Rail Road                     | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 900.0         | Private Property/Rail Road                       | Royal Hospitality Services Parking Lot to Prospect Street         | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 310.0         | Prospect Street                                  | Private Property/Rail Road to Somerville Station                  | 36                            | 2               | 0                       | 0                                 | 0                                 | 0  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 290   | Full      | No                          | 0   | Principal Arterial - Other     | Somerville           |       |

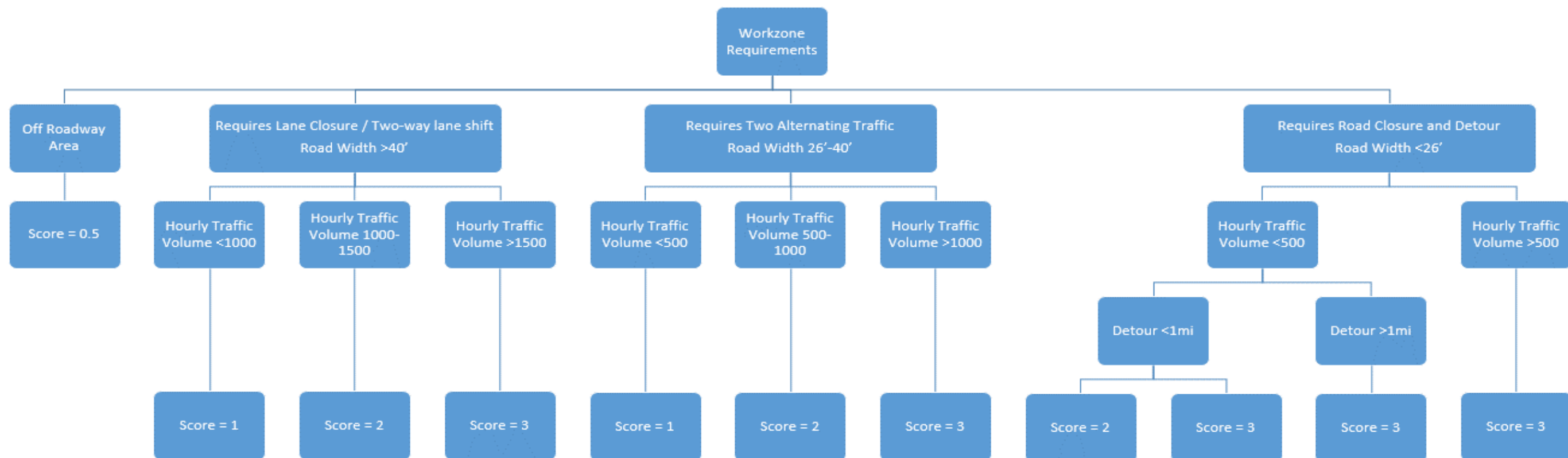
Calculated in Spreadsheet

| Roadway                                | Segments  | Intersection Name                     | Intersection Width (feet)              |
|--|---|---------------------------------------|--|
| Broadway                               | Kendall Blue Garage To Cardinal Medeiros Ave                      | Galileo Galilei Way                   | 160                                    |
|  |   | Hampshire Street                      | 120                                    |
|  |   | Cardinal Medeiros Ave/Portland Street | 90                                     |
| Cardinal Medeiros Avenue               | Broadway to Cambridge Street                                      | Hampshire Street                      | 95                                     |
|  |   | Lilac Court                           | 15                                     |
|  |   | Binney Street/Bristol Street          | 30                                     |
|  |   | Berkshire Place                       | 20                                     |
|  |   | Plymouth Street                       | 25                                     |
|  |   | Vandine Street                        | 25                                     |
|  |   | York Place                            | 25                                     |
|  |   | Cornelius Way                         | 25                                     |
|  |   | Hardwick Street                       | 25                                     |
|  |   | Michael Way                           | 30                                     |
|  |   | Marney Street                         | 25                                     |
|  |   | Wellington Harrington Mem Way         | 35                                     |
|  |   | Marcella Street                       | 20                                     |
|  |   | Cambridge Street                      | 100                                    |
|  |   | Cambridge Street                      | Cardinal Medeiros Ave to Warren Street |
| Warren Street                          | Cambridge Street to Medford Street/ Gore Street                   | Macarelli Way                         | 25                                     |
|  |   | Jefferson Street                      | 25                                     |
|  |   | Porter Street                         | 20                                     |
|  |   | Medford Street                        | 30                                     |
| Medford Street/ Gore Street            | Warren Street to South Street                                     | South Street                          | 80                                     |
| South Street                           | Medford Street/ Gore Street to J&A Auto Parts Junkyard            | Bedford Street                        | 20                                     |
|  |   | Horace Street                         | 20                                     |
|  |   | Harding Street                        | 25                                     |
|  |   | Hunting Street                        | 20                                     |
|  |   | Earle Street                          | 30                                     |
|  |   | Willow Street                         | 20                                     |
|  |   | Windsor Street                        | 50                                     |
| J&A Auto Parts Junkyard                | South Street to Columbia Street                                   |                                       |  |
| Columbia Street                        | J&A Auto Parts Junkyard to Royal Hospitality Services Parking Lot | Beach Avenue                          | 20                                     |
|  |   | Windsor Place                         | 25                                     |
| Royal Hospitality Services Parking Lot | Columbia Street to Private Property/Rail Road                     |                                       |  |
| Private Property/ Rail Road            | Royal Hospitality Services Parking Lot to Prospect Street         |                                       |  |
| Prospect Street                        | Private Property/Rail Road to Somerville Station                  |                                       |  |

| Roadway                                | Segments  | Intersection Name          | Number of crossings | location of crossing along road | Crossing Width (feet) |
|--|---|----------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                               | Kendall Blue Garage to Cardinal Medeiros Ave                      | Broadway (mid-block)       | 1                   | n/a                             | 10                    |
|  |   | Galileo Galilei Way        | 1                   | East                            | 16                    |
|  |   | Galileo Galilei Way        | 1                   | West                            | 10                    |
|  |   | Hampshire Street           | 1                   | East                            | 10                    |
|  |   | Hampshire Street           | 1                   | West                            | 10                    |
|  |   | Cardinal Medeiros Ave      | 1                   | East                            | 10                    |
|  |   | Cardinal Medeiros Ave      | 1                   | North                           | 8                     |
|  |   |                            |                     |                                 |                       |
| Cardinal Medeiros Ave                  | Broadway to Cambridge Street                                      | Hampshire Street           | 1                   | South                           | 12                    |
|  |   | Hampshire Street           | 1                   | North                           | 12                    |
|  |   | Binney Street              | 1                   | South                           | 12                    |
|  |   | Cornelius Way              | 1                   | North                           | 10                    |
|  |   | Michael Way                | 1                   | South                           | 10                    |
|  |   | Marney Street              | 1                   | North                           | 10                    |
|  |   | Marcella Street            | 1                   | North                           | 10                    |
|  |   | Cambridge Street           | 1                   | South                           | 10                    |
|  |   |                            |                     |                                 |                       |
| Cambridge Street                       | Cardinal Medeiros Ave to Warren Street                            | None                       |                     |                                 |                       |
|  |   |                            |                     |                                 |                       |
| Warren Street                          | Cambridge Street to Medford Street/Gore Street                    | Cambridge Street           | 1                   | North                           | 8                     |
|  |   | Medford Street             | 1                   | South                           | 8                     |
|  |   |                            |                     |                                 |                       |
| Medford Street/Gore Street             | Warren Street to South Street                                     | Medford Street (mid-block) | 1                   | N/A                             | 10                    |
|  |   | South Street               | 1                   | West                            | 10                    |
|  |   |                            |                     |                                 |                       |
| South Street                           | Medford Street/Gore Street to J&A Auto Parts Junkyard             | Hunting Street             | 1                   | N/A                             | 8                     |
|  |   | Windsor Street             | 1                   | South                           | 8                     |
|  |   |                            |                     |                                 |                       |
| J&A Auto Parts Junkyard                | South Street to Columbia Street                                   | None                       |                     |                                 |                       |
|  |   |                            |                     |                                 |                       |
| Columbia Street                        | J&A Auto Parts Junkyard to Royal Hospitality Services Parking Lot | None                       |                     |                                 |                       |
|  |   |                            |                     |                                 |                       |
| Royal Hospitality Services Parking Lot | Columbia Street to Private Property/Rail Road                     | None                       |                     |                                 |                       |
|  |   |                            |                     |                                 |                       |
| Private Property/Rail Road             | Royal Hospitality Services Parking Lot to Prospect Street         | None                       |                     |                                 |                       |
|  |   |                            |                     |                                 |                       |
| Prospect Street                        | Private Property/Rail Road to Somerville Station                  | None                       |                     |                                 |                       |
|  |   |                            |                     |                                 |                       |

| Roadway                                | Roadway Segment   | treatment | location along road | length of facility | Width (feet) of facility |
|--|---|-----------|---------------------|--------------------|--------------------------|
| Broadway                               | Kendall Blue Garage to Cardinal Medeiros Ave                      | Bike Lane | North               | 1170               | 5                        |
|  |   | Bike Lane | South               | 1170               | 5                        |
| Cardinal Medeiros Ave                  | Broadway to Cambridge Street                                      | None      |                     |                    |                          |
| Cambridge Street                       | Cardinal Medeiros Ave to Warren Street                            | Bike Lane | North               | 90                 | 5                        |
|  |   | Bike Lane | South               | 90                 | 5                        |
| Warren Street                          | Cambridge Street to Medford Street/Gore Street                    | None      |                     |                    |                          |
| Medford Street/Gore Street             | Warren Street to South Street                                     | None      |                     |                    |                          |
| South Street                           | Medford Street/Gore Street to J&A Auto Parts Junkyard             | None      |                     |                    |                          |
| J&A Auto Parts Junkyard                | South Street to Columbia Street                                   |           |                     |                    |                          |
| Columbia Street                        | J&A Auto Parts Junkyard to Royal Hospitality Services Parking Lot | None      |                     |                    |                          |
| Royal Hospitality Services Parking Lot | Columbia Street to Private Property/Rail Road                     |           |                     |                    |                          |
| Private Property/Rail Road             | Royal Hospitality Services Parking Lot to Prospect Street         |           |                     |                    |                          |
| Prospect Street                        | Private Property/ Rail Road to Somerville Station                 | Bike Lane | West                | 145                | 5                        |
|  |   | Sharrow   | East                | 145                | 5                        |
|  |   |           |                     |                    |                          |
|  |   |           |                     |                    |                          |

# Segment Score Logic - Workzone Setup





Date: 9/28/2021  
Candidate Route: Somerville-13

NSTAR Electric Company d/b/a Eversource  
Greater Cambridge Energy Project

| Length (feet) | Street Name        | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates       | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|--------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 4485.0        | Broadway           | Kendall Blue Garage to Inman Street                         | 2                      | 26559   | 17589       | No              | NA  | Two-Way Alternating Traffic   | 73                          | 7                             | 24                                 | 8                               | 8/25/2020                      | 9:30AM                         | 8/10/21-8/12/21 | T25          | 320                                       | 818                               | 290                           | 775                   | 30                              | 42                      | 95                                   | 30                                | 59                        |
| 1560.0        | Inman Street       | Broadway to Springfield Street @ Hampshire/Cambridge Street | 1                      | 7793  | 6233        | No              | NA  | Two-Way Alternating Traffic   | 21                          | 0                             | 7                                  | 2                               | 8/25/2020                      | 10:30AM                        | 8/10/21-8/12/21 | T12          | 85  | 121                               | 85                            | 119                   | 0                               | 7                       | 30                                   | 10                                | 19                        |
| 1100.0        | Springfield Street | Inman Street to Newton Street @ Concord Avenue              | 1                      | 5478  | 4378        | No              | NA  | Two-Way Alternating Traffic   | 18                          | 1                             | 19                                 | 3                               | 8/26/2020                      | 11:45AM                        | 8/10/21-8/12/21 | T13          | 75  | 201                               | 70                            | 193                   | 5                               | 8                       | 75                                   | 10                                | 19                        |
| 1260.0        | Newton Street      | Springfield Street @ Concord Avenue to Somerville Station   | 3                      | 5666  | 1886        | Yes             | NA  | Road Closure - Detour         | 22                          | 1                             | 13                                 | 2                               | 8/26/2020                      | 11:00AM                        | 8/10/21-8/12/21 | T14          | 90  | 160                               | 90                            | 151                   | 5                               | 9                       | 50                                   | 10                                | 14                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 8405.00  |
| Total Impact Length (feet) | 45496.00 |
| Score                      | 5.41     |

Date: 9/28/2021

Candidate Route: Somerville-13

| Length (feet) | Street Name        | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | School Bus Routes (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|--------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|----------------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 4485.0        | Broadway           | Kendall Blue Garage to Inman Street                         | 28                            | 2               | 17                      | 859                               | 4260                              | 4260                                       | Yes                        | No                         | 0                                 | Bike Lane           | Yes  | 8000  | Full      | Yes                         | 210   | Principal Arterial - Other     | Cambridge            |       |
| 1560.0        | Inman Street       | Broadway to Springfield Street @ Hampshire/Cambridge Street | 26                            | 1               | 4                       | 345                               | 2260                              | 2260                                       | Yes                        | No                         | 0                                 | Sharrow             | Yes  | 1350  | Full      | Yes                         | 18  | Minor Arterial                 | Cambridge            |       |
| 1100.0        | Springfield Street | Inman Street to Newton Street @ Concord Avenue              | 26                            | 2               | 3                       | 160                               | 2100                              | 2100                                       | Yes                        | No                         | 0                                 | None                | No   | 0   | Full      | Yes                         | 18  | Major Collector                | Cambridge            |       |
| 1260.0        | Newton Street      | Springfield Street @ Concord Avenue to Somerville Station   | 16                            | 1               | 3                       | 168                               | 780                               | 780  | Yes                        | No                         | 0                                 | Bike Lane /Sharrow  | Yes  | 110   | Full      | Yes                         | 48  | Major Collector                | Somerville           |       |

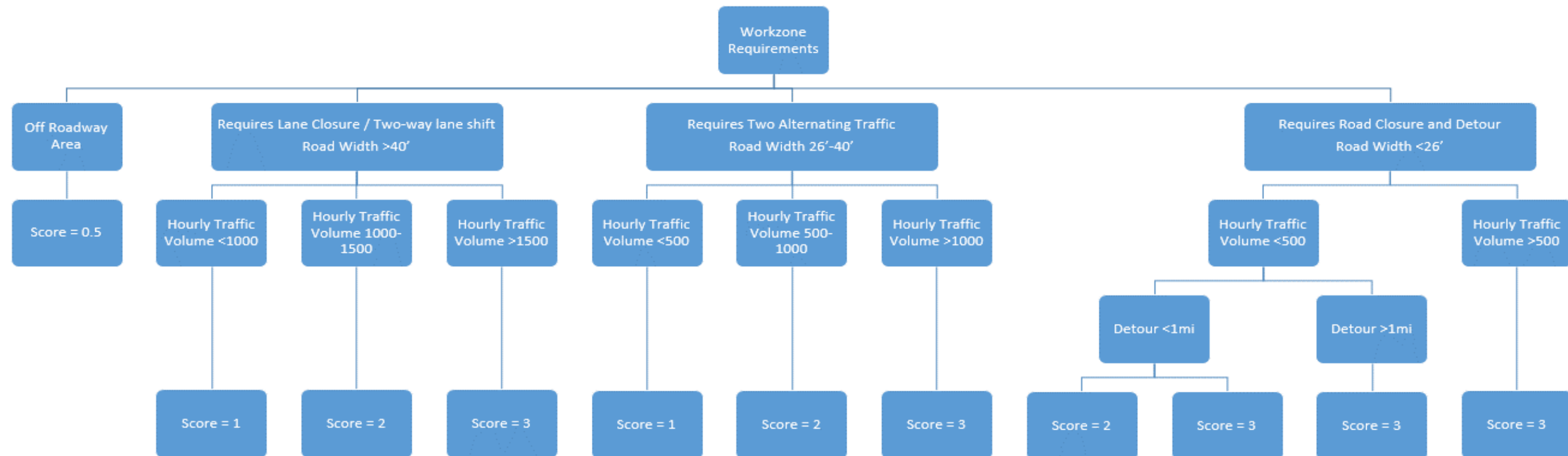
Calculated in Spreadsheet

| Roadway            | Segments   | Intersection Name   | Intersection Width (feet) |
|--------------------|--|---------------------|---------------------------|
| Broadway           | Kendall Blue Garage to Inman Street                          | Galileo Galilei Way | 185                       |
|                    |  | Hampshire Street    | 125                       |
|                    |  | Portland Street     | 80                        |
|                    |  | Moore Street        | 20                        |
|                    |  | Market Street       | 30                        |
|                    |  | Clark Street        | 20                        |
|                    |  | Dickinson Street    | 16                        |
|                    |  | Windsor Street      | 34                        |
|                    |  | Boardman Street     | 34                        |
|                    |  | Columbia Street     | 22                        |
|                    |  | Elm Street          | 26                        |
|                    |  | Norfolk Street      | 26                        |
|                    |  | Tremont Street      | 26                        |
|                    |  | Scouting Way        | 20                        |
|                    |  | Prospect Street     | 95                        |
|                    |  | Amory Street        | 30                        |
| Inman Street       | 70   |                     |                           |
| Inman Street       | Broadway to Springfield Street                               | Cambridge Street    | 50                        |
|                    |  | Farrell Way         | 10                        |
|                    |  | St Mary Road        | 20                        |
|                    |  | Hampshire Street    | 265                       |
| Springfield Street | Inman Street to Newton Street @<br>Concord Avenue            | Houghton Street     | 26                        |
|                    |  | Dickinson Street    | 28                        |
|                    |  | Concord Avenue      | 106                       |
| Newton Street      | Springfield Street @ Concord Avenue<br>to Somerville Station | Joseph Street       | 30                        |
|                    |  | Clark Street        | 26                        |
|                    |  | Webster Ave         | 112                       |

| Roadway            | Segments  | Intersection Name         | Number of crossings | location of crossing along road | Crossing Width (feet) |
|--------------------|---|---------------------------|---------------------|---------------------------------|-----------------------|
| Broadway           | Kendall Blue Garage to Inman Street                       | Broadway (mid-block)      | 1                   | N/A                             | 8                     |
|                    |   | Galileo Galilei Way       | 1                   | East                            | 16                    |
|                    |   | Galileo Galilei Way       | 1                   | West                            | 16                    |
|                    |   | Hampshire Street          | 1                   | East                            | 10                    |
|                    |   | Hampshire Street          | 1                   | West                            | 10                    |
|                    |   | Portland Street           | 1                   | East                            | 10                    |
|                    |   | Portland Street           | 1                   | West                            | 10                    |
|                    |   | Market Street             | 1                   | East                            | 10                    |
|                    |   | Clark Street              | 1                   | West                            | 10                    |
|                    |   | Windsor Street            | 1                   | East                            | 10                    |
|                    |   | Windsor Street            | 1                   | West                            | 10                    |
|                    |   | Columbia Street           | 1                   | East                            | 10                    |
|                    |   | Columbia Street           | 1                   | West                            | 10                    |
|                    |   | Elm Street                | 1                   | West                            | 10                    |
|                    |   | Norfolk Street            | 1                   | East                            | 10                    |
|                    |   | Norfolk Street            | 1                   | West                            | 10                    |
|                    |   | Tremont Street            | 1                   | East                            | 10                    |
|                    |   | Prospect Street           | 1                   | East                            | 10                    |
|                    |   | Prospect Street           | 1                   | West                            | 10                    |
|                    |   | Inman Street              | 1                   | East                            | 10                    |
| Inman Street       | Broadway to Springfield Street                            | Broadway                  | 1                   | North                           | 10                    |
|                    |   | Hampshire Street          | 1                   | South                           | 8                     |
| Springfield Street | Inman Street to Newton Street @ Concord Avenue            | Cambridge Street          | 1                   | North                           | 10                    |
|                    |   | Newton Street             | 1                   | South                           | 8                     |
| Newton Street      | Springfield Street @ Concord Avenue to Somerville Station | Springfield Street        | 1                   | East                            | 10                    |
|                    |   | Newton Street (mid-block) | 1                   | N/A                             | 8                     |
|                    |   | Joseph Street             | 1                   | East                            | 10                    |
|                    |   | Webster Avenue            | 1                   | South                           | 10                    |
|                    |   | Webster Avenue            | 1                   | North                           | 10                    |

| Roadway            | Roadway Segment  | treatment | location along road | length of facility | Width (feet) of facility |
|--------------------|--|-----------|---------------------|--------------------|--------------------------|
| Broadway           | Broadway to Inman Street                                     | Bike Lane | North               | 4000               | 5                        |
|                    |  | Bike Lane | South               | 4000               | 5                        |
| Inman Street       | Broadway to Springfield Street                               | Sharrow   | N/A                 | 1350               | 10                       |
| Springfield Street | Inman Street to Newton Street @<br>Concord Avenue            | None      |                     |                    |                          |
| Newton Street      | Springfield Street @ Concord Avenue<br>to Somerville Station | Bike Lane | North               | 55                 | 5                        |
|                    |  | Sharrow   | South               | 55                 | 10                       |
|                    |  |           |                     |                    |                          |
|                    |  |           |                     |                    |                          |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Somerville-13A

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name                | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-Impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates       | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|----------------------------|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 4485.0        | Broadway                   | Kendall Blue Garage to Inman Street                         | 2                      | 26559   | 17589       | No              | NA  | Two-Way Alternating Traffic   | 73                          | 7                             | 24                                 | 8                               | 8/25/2020                      | 9:30AM                         | 8/10/21-8/12/21 | T25          | 320                                       | 818                               | 290                           | 775                   | 30                              | 42                      | 95                                   | 30                                | 59                        |
| 1560.0        | Inman Street               | Broadway to Springfield Street @ Hampshire/Cambridge Street | 1                      | 7793  | 6233        | No              | NA  | Two-Way Alternating Traffic   | 21                          | 0                             | 7                                  | 2                               | 8/25/2020                      | 10:30AM                        | 8/10/21-8/12/21 | T12          | 85  | 121                               | 85                            | 119                   | 0                               | 7                       | 30                                   | 10                                | 19                        |
| 1100.0        | Springfield Street         | Inman Street to Newton Street @ Concord Avenue              | 1                      | 5478  | 4378        | No              | NA  | Two-Way Alternating Traffic   | 18                          | 1                             | 19                                 | 3                               | 8/26/2020                      | 11:45AM                        | 8/10/21-8/12/21 | T13          | 75  | 201                               | 70                            | 193                   | 5                               | 8                       | 75                                   | 10                                | 19                        |
| 1725.0        | Newton Street              | Springfield Street @ Concord Avenue to Prospect Street      | 3                      | 8427  | 3252        | Yes             | NA  | Road Closure - Detour         | 22                          | 1                             | 13                                 | 2                               | 8/26/2020                      | 11:00AM                        | 8/10/21-8/12/21 | T14          | 90  | 160                               | 90                            | 151                   | 5                               | 9                       | 50                                   | 10                                | 14                        |
| 250.0         | Prospect Street            | Newton Street to Somerville Avenue                          | 2                      | 1130  | 630         | No              | NA  | Two-Way Alternating Traffic   | 82                          | 8                             | 10                                 | 5                               | 8/26/2020                      | 12:00PM                        | 8/10/21-8/12/21 | T16          | 360                                       | 735                               | 330                           | 707                   | 30                              | 42                      | 40                                   | 20                                | 29                        |
| 185.0         | Somerville Avenue          | Prospect Street to Construction Lot (Private)               | 1                      | 567   | 382         | No              | NA  | Two-way Lane Shift            | 164                         | 20                            | 16                                 | 7                               | 8/26/2020                      | 10:30AM                        | 8/10/21-8/12/21 | T60          | 735                                       | 202                               | 655                           | 192                   | 80                              | 28                      | 65                                   | 30                                | 9                         |
| 420.0         | Construction Lot (Private) | Somerville Avenue to Prospect Street                        | 0.5                    | 210   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 310.0         | Prospect Street            | Construction Lot (Private) to Somerville Station            | 2                      | 910   | 290         | No              | NA  | Two-Way Alternating Traffic   | 0                           | 0                             | 0                                  | 0                               | 8/26/2020                      | 12:00PM                        | 8/10/21-8/12/21 | T16          | 0   | 735                               | 0                             | 707                   | 0                               | 42                      | 0                                    | 0                                 | 29                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 10035.00 |
| Total Impact Length (feet) | 51074.00 |
| Score                      | 5.09     |

Date: 9/28/2021

Candidate Route: Somerville-13A

| Length (feet) | Street Name                | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | School Bus Routes (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane                 | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|----------------------------|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|----------------------------|-----------------------------------|-------------------------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 4485.0        | Broadway                   | Kendall Blue Garage to Inman Street                         | 28                            | 2               | 17                      | 859                               | 4260                              | 4260                                       | Yes                        | No                         | 0                                 | Bike Lane                           | Yes  | 8000  | Full      | Yes                         | 210   | Principal Arterial - Other     | Cambridge            |       |
| 1560.0        | Inman Street               | Broadway to Springfield Street @ Hampshire/Cambridge Street | 26                            | 1               | 4                       | 345                               | 2260                              | 2260                                       | Yes                        | No                         | 0                                 | Sharrow                             | Yes  | 1350  | Full      | Yes                         | 18  | Minor Arterial                 | Cambridge            |       |
| 1100.0        | Springfield Street         | Inman Street to Newton Street @ Concord Avenue              | 26                            | 2               | 3                       | 160                               | 2100                              | 2100                                       | Yes                        | No                         | 0                                 | None                                | No   | 0   | Full      | Yes                         | 18  | Major Collector                | Cambridge            |       |
| 1725.0        | Newton Street              | Springfield Street @ Concord Avenue to Prospect Street      | 16                            | 1               | 6                       | 264                               | 1020                              | 1020                                       | Yes                        | No                         | 0                                 | Sharrows/<br>Separated<br>Bike Lane | Yes  | 900   | One side  | Yes                         | 48  | Major Collector                | Somerville           |       |
| 250.0         | Prospect Street            | Newton Street to Somerville Avenue                          | 38                            | 2               | 1                       | 120                               | 0                                 | 0  | Yes                        | No                         | 0                                 | Sharrows/<br>Bike Lane              | Yes  | 500   | Full      | Yes                         | 10  | Principal Arterial - Other     | Somerville           |       |
| 185.0         | Somerville Avenue          | Prospect Street to Construction Lot (Private)               | 50                            | 2               | 0                       | 0                                 | 0                                 | 0  | Yes                        | No                         | 3                                 | Bike Lane                           | Yes  | 370   | Full      | Yes                         | 12  | Principal Arterial- Other      | Somerville           |       |
| 420.0         | Construction Lot (Private) | Somerville Avenue to Prospect Street                        | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                         | 0                                 | N/A                                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 310.0         | Prospect Street            | Construction Lot (Private) to Somerville Station            | 34                            | 2               | 0                       | 0                                 | 0                                 | 0  | Yes                        | No                         | 0                                 | Sharrow/<br>Bike Lane               | Yes  | 290   | Full      | Yes                         | 0   | Principal Arterial - Other     | Somerville           |       |

Calculated in Spreadsheet

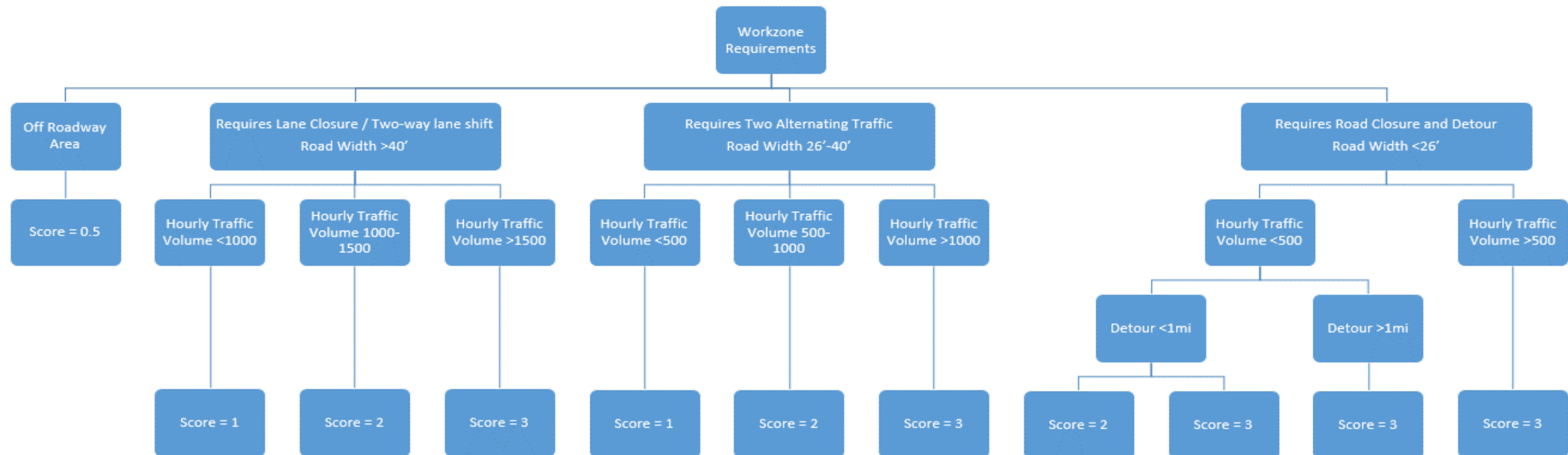


| Roadway            | Segments  | Intersection Name              | Intersection Width (feet) |
|--------------------|---|--------------------------------|---------------------------|
| Broadway           | Kendall Blue Garage to Inman Street             | Galileo Galilei Way            | 185                       |
|                    |   | Hampshire Street               | 125                       |
|                    |   | Portland Street                | 80                        |
|                    |   | Moore Street                   | 20                        |
|                    |   | Market Street                  | 30                        |
|                    |   | Clark Street                   | 20                        |
|                    |   | Dickinson Street               | 16                        |
|                    |   | Windsor Street                 | 34                        |
|                    |   | Boardman Street                | 34                        |
|                    |   | Columbia Street                | 22                        |
|                    |   | Elm Street                     | 26                        |
|                    |   | Norfolk Street                 | 26                        |
|                    |   | Tremont Street                 | 26                        |
|                    |   | Scouting Way                   | 20                        |
|                    |   | Prospect Street                | 95                        |
| Inman Street       | Broadway to Springfield Street @ Concord Avenue | Amory Street                   | 30                        |
|                    |   | Inman Street                   | 70                        |
|                    |   | Cambridge Street               | 50                        |
|                    |   | Farrell Way                    | 10                        |
|                    |   | St Mary Road                   | 20                        |
| Springfield Street | Inman Street to Newton Street @ Concord Avenue  | Hampshire Street               | 265                       |
|                    |   | Houghton Street                | 26                        |
|                    |   | Dickinson Street               | 28                        |
|                    |   | Concord Avenue                 | 106                       |
| Newton Street      | Springfield Street to Prospect Street           | Joseph Street                  | 30                        |
|                    |   | Clark Street                   | 26                        |
|                    |   | Webster Ave                    | 112                       |
|                    |   | Emerson Street                 | 24                        |
|                    |   | Everett Street                 | 30                        |
|                    |   | Prospect Street                | 42                        |
| Prospect Street    | Newton Street to Somerville Avenue              | Union Square/Somerville Avenue | 120                       |
| Somerville Avenue  | Prospect Street to Construction Lot             |                                |                           |
| Construction Lot   | Somerville Avenue to Prospect Street            |                                |                           |
| Prospect Street    | Construction Lot to Somerville Station          |                                |                           |

| Roadway            | Segments   | Intersection Name              | Number of crossings | location of crossing along road | Crossing Width (feet) |
|--------------------|--|--------------------------------|---------------------|---------------------------------|-----------------------|
| Broadway           | Kendall Blue Garage to Inman Street                    | Broadway (mid-block)           | 1                   | N/A                             | 8                     |
|                    |  | Galileo Galilei Way            | 1                   | East                            | 16                    |
|                    |  | Galileo Galilei Way            | 1                   | West                            | 16                    |
|                    |  | Hampshire Street               | 1                   | East                            | 10                    |
|                    |  | Hampshire Street               | 1                   | West                            | 10                    |
|                    |  | Portland Street                | 1                   | East                            | 10                    |
|                    |  | Portland Street                | 1                   | West                            | 10                    |
|                    |  | Market Street                  | 1                   | East                            | 10                    |
|                    |  | Clark Street                   | 1                   | West                            | 10                    |
|                    |  | Windsor Street                 | 1                   | East                            | 10                    |
|                    |  | Windsor Street                 | 1                   | West                            | 10                    |
|                    |  | Columbia Street                | 1                   | East                            | 10                    |
|                    |  | Columbia Street                | 1                   | West                            | 10                    |
|                    |  | Elm Street                     | 1                   | West                            | 10                    |
|                    |  | Norfolk Street                 | 1                   | East                            | 10                    |
|                    |  | Norfolk Street                 | 1                   | West                            | 10                    |
|                    |  | Tremont Street                 | 1                   | East                            | 10                    |
|                    |  | Prospect Street                | 1                   | East                            | 10                    |
|                    |  | Prospect Street                | 1                   | West                            | 10                    |
|                    |  | Inman Street                   | 1                   | East                            | 10                    |
|                    |  |                                |                     |                                 |                       |
| Inman Street       | Broadway to Springfield Street                         | Broadway                       | 1                   | North                           | 10                    |
|                    |  | Hampshire Street               | 1                   | South                           | 8                     |
|                    |  |                                |                     |                                 |                       |
| Springfield Street | Inman Street to Newton Street @ Concord Avenue         | Cambridge Street               | 1                   | North                           | 10                    |
|                    |  | Newton Street                  | 1                   | South                           | 8                     |
|                    |  |                                |                     |                                 |                       |
| Newton Street      | Springfield Street @ Concord Avenue to Prospect Street | Springfield Street             | 1                   | East                            | 10                    |
|                    |  | Newton Street (mid-block)      | 1                   | N/A                             | 8                     |
|                    |  | Joseph Street                  | 1                   | East                            | 10                    |
|                    |  | Webster Avenue                 | 1                   | South                           | 10                    |
|                    |  | Webster Avenue                 | 1                   | North                           | 10                    |
|                    |  |                                |                     |                                 |                       |
| Prospect Street    | Newton Street to Somerville Avenue                     | Union Square/Somerville Avenue | 1                   | South                           | 10                    |
|                    |  |                                |                     |                                 |                       |
| Somerville Avenue  | Prospect Street to Construction Lot                    | Prospect Street                | 1                   | East                            | 12                    |
|                    |  |                                |                     |                                 |                       |
| Construction Lot   | Somerville Avenue to Prospect Street                   | None                           |                     |                                 |                       |
|                    |  |                                |                     |                                 |                       |
| Prospect Street    | Construction Lot to Somerville Station                 | None                           |                     |                                 |                       |

| Roadway            | Roadway Segment  | treatment         | location along road | length of facility | Width (feet) of facility |
|--------------------|--|-------------------|---------------------|--------------------|--------------------------|
| Broadway           | Broadway to Inman Street                               | Bike Lane         | North               | 4000               | 5                        |
|                    |  | Bike Lane         | South               | 4000               | 5                        |
| Inman Street       | Broadway to Springfield Street                         | Sharrow           | N/A                 | 1350               | 10                       |
| Springfield Street | Inman Street to Newton Street @ Concord Aveue          | None              |                     |                    |                          |
| Newton Street      | Springfield Street @ Concord Avenue to Prospect Street | Bike Lane/Sharrow | North               | 450                | 5                        |
|                    |  | Sharrow           | South               | 450                | 10                       |
| Prospect Street    | Netwon Street to Somerville Avenue                     | Bike Lane         | East                | 250                | 11                       |
|                    |  | Sharrow           | West                | 250                | 5                        |
| Somerville Avenue  | Prospect Street to Construction Lot                    | Bike Lane         | North               | 185                | 5                        |
|                    |  | Bike Lane         | South               | 185                | 5                        |
| Construction Lot   | Somerville Avenue to Prosepect Street                  | None              |                     |                    |                          |
| Prospect Street    | Construction Lot to Somerville Station                 | Bike Lane         | East                | 145                | 5                        |
|                    |  | Sharrow           | West                | 145                | 11                       |

# Segment Score Logic - Workzone Setup



Date: 9/28/2021  
Candidate Route: Somerville-14

NSTAR Electric Company d/b/a Eversource Energy  
Greater Cambridge Energy Project

| Length (feet) | Street Name                                      | Segment Limits  | Work Zone Impact Score | Impact Length (Work Zone Impact Score * Length) + Sub-impacts | Sub-impacts | Requires Detour | Detour Likely Resulting in > than 1 mile of Additional Travel | Anticipated Type of Work zone | 15 Minute Midday Car Volume | 15 Minute Midday Truck Volume | 15 Minute Midday Pedestrian Volume | 15 Minute Midday Bicycle Volume | Date of 15 Minute Midday Count | Time of 15 Minute Midday Count | ATR Dates       | ATR Location | Approximate Hourly Total Vehicular Volume | ATR Hourly Total Vehicular Volume | Approximate Hourly Car Volume | ATR Hourly Car Volume | Approximate Hourly Truck Volume | ATR Hourly Truck Volume | Approximate Hourly Pedestrian Volume | Approximate Hourly Bicycle Volume | ATR Hourly Bicycle Volume |
|---------------|--|---|------------------------|---|-------------|-----------------|---|-------------------------------|-----------------------------|-------------------------------|------------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------|--------------|---|-----------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------|--------------------------------------|-----------------------------------|---------------------------|
| 2800.0        | Broadway   | Kendall Blue Garage to Columbia Street                                    | 2                      | 17045   | 11445       | No              | NA  | Two-Way Alternating Traffic   | 73                          | 7                             | 24                                 | 8                               | 8/25/2020                      | 9:30AM                         | 8/10/21-8/12/21 | T1           | 320                                       | 642                               | 290                           | 575                   | 30                              | 76                      | 95                                   | 30                                | 148                       |
| 2075.0        | Columbia Street                                  | Broadway to Cambridge Street  | 1                      | 5833  | 3758        | No              | NA  | Two-Way Alternating Traffic   | 75                          | 0                             | 7                                  | 10                              | 8/25/2020                      | 12:00PM                        | 8/10/21-8/12/21 | T11          | 300                                       | 475                               | 300                           | 465                   | 0                               | 20                      | 30                                   | 40                                | 64                        |
| 1040.0        | Columbia Street                                  | Cambridge Street to Royal Hospitality Services Parking Lot/ Windsor Place | 1                      | 3905  | 2865        | No              | NA  | Two-Way Alternating Traffic   | 6                           | 0                             | 2                                  | 0                               | 8/25/2020                      | 3:00PM                         | 8/10/21-8/12/21 | T22          | 25  | 66                                | 25                            | 59                    | 0                               | 7                       | 10                                   | 0                                 | 7                         |
| 300.0         | Royal Hospitality Services Parking Lot (Private) | Windsor Place to Private Property/Rail Road                               | 0.5                    | 150   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 900.0         | Private Property/ Rail Road                      | Royal Hospitality Services Parking Lot to Prospect Street                 | 0.5                    | 450   | 0           | No              | NA  | Private                       | -                           | -                             | -                                  | -                               | N/A                            | N/A                            | N/A             | N/A          | -   | -                                 | -                             | -                     | -                               | -                       | -                                    | -                                 | -                         |
| 310.0         | Prospect Street                                  | Private Property/Rail Road to Somerville Station                          | 2                      | 910   | 290         | No              | NA  | Two-Way Alternating Traffic   | 82                          | 8                             | 10                                 | 5                               | 8/26/2020                      | 12:00PM                        | 8/10/21-8/12/21 | T16          | 360                                       | 735                               | 330                           | 707                   | 30                              | 42                      | 40                                   | 20                                | 29                        |

Calculated in Spreadsheet

| Score Summary              |          |
|----------------------------|----------|
| Total Length (feet)        | 7425.00  |
| Total Impact Length (feet) | 28293.00 |
| Score                      | 3.81     |

Date: 9/28/2021

Candidate Route: Somerville-14

| Length (feet) | Street Name                                      | Segment Limits  | Approximate Road Width (feet) | Number of Lanes | Number of Intersections | Total Length Intersections (feet) | Total Length of On-street Parking | Total Length of Impacted On-Street Parking | Public Bus Routes (yes/no) | One-way? (yes/no) | Approximate Shoulder Width (feet) | Marked as Bike Lane | Potential Bicycle Impacts (yes/no/partial) | Approximate Bicycle Facility Impact Length (feet) | Sidewalks | Pedestrian Impacts (yes/no) | Approximate Pedestrian Impact Length (feet) | MassDOT Roadway Classification | Roadway Jurisdiction | Notes |
|---------------|--|---|-------------------------------|-----------------|-------------------------|-----------------------------------|-----------------------------------|--|----------------------------|-------------------|-----------------------------------|---------------------|--|---|-----------|-----------------------------|---|--------------------------------|----------------------|-------|
| 2800.0        | Broadway   | Kendall Blue Garage to Columbia Street                                    | 36                            | 2               | 10                      | 315                               | 2700                              | 2700                                       | Yes                        | No                | 0                                 | Bike Lane/Sharrows  | Yes  | 5600  | Full      | Yes                         | 130   | Principal Arterial - Other     | Cambridge            |       |
| 2075.0        | Columbia Street                                  | Broadway to Cambridge Street  | 30                            | 2               | 7                       | 350                               | 1660                              | 1660                                       | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 88  | Minor Arterial                 | Cambridge            |       |
| 1040.0        | Columbia Street                                  | Cambridge Street to Royal Hospitality Services Parking Lot/ Windsor Place | 26                            | 2               | 3                       | 55                                | 1400                              | 1400                                       | Yes                        | No                | 0                                 | None                | No   | 0   | Full      | Yes                         | 10  | Local                          | Somerville           |       |
| 300.0         | Royal Hospitality Services Parking Lot (Private) | Windsor Place to Private Property/Rail Road                               | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 900.0         | Private Property/ Rail Road                      | Royal Hospitality Services Parking Lot to Prospect Street                 | Private                       | N/A             | 0                       | 0                                 | 0                                 | 0  | No                         | No                | 0                                 | N/A                 | No   | 0   | N/A       | No                          | 0   | None                           | Private              |       |
| 310.0         | Prospect Street                                  | Private Property/Rail Road to Somerville Station                          | 36                            | 2               | 0                       | 0                                 | 0                                 | 0  | Yes                        | No                | 0                                 | Bike Lane           | Yes  | 290   | Full      | No                          | 0   | Principal Arterial - Other     | Somerville           |       |

Calculated in Spreadsheet

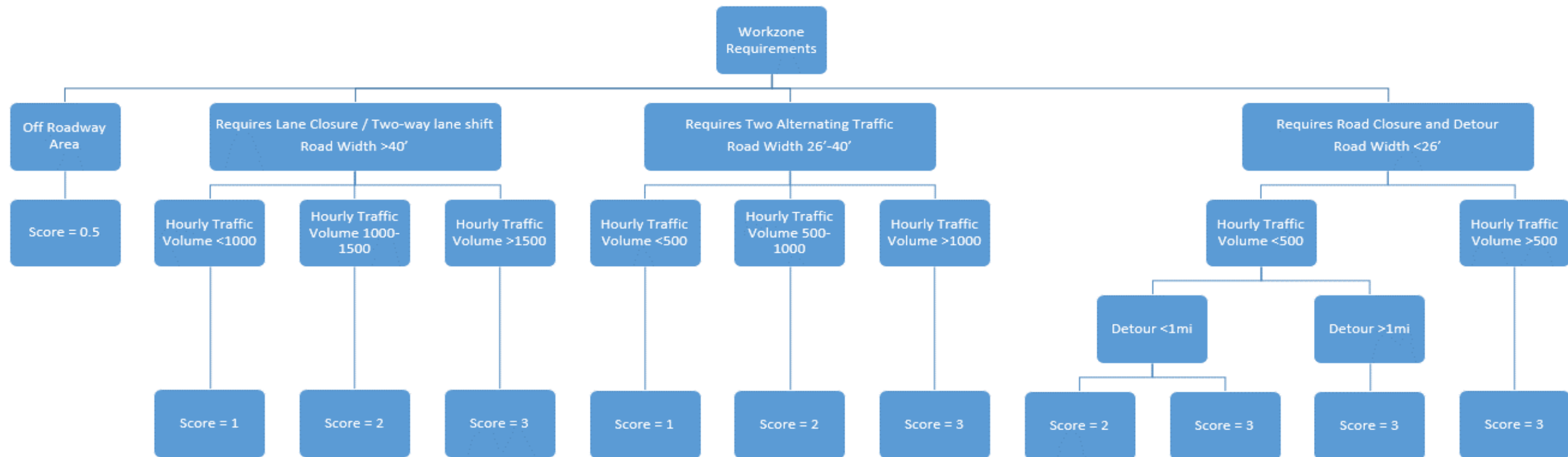
| Roadway                                | Segment  | Intersection Name   | Intersection Width (feet)    |
|--|--|---------------------|------------------------------|
| Broadway                               | Kendall Blue Garage to Columbia Street                                     | Galileo Galilei Way | 120                          |
|  |  | Hampshire Street    | 120                          |
|  |  | Portland Street     | 75                           |
|  |  | Moore Street        | 20                           |
|  |  | Market Street       | 30                           |
|  |  | Clark Street        | 20                           |
|  |  | Dickinson Street    | 15                           |
|  |  | Windsor Street      | 85                           |
|  |  | Boardman Street     | 35                           |
|  |  | Columbia Street     | 90                           |
|  |  | Columbia Street     | Broadway to Cambridge Street |
| Hampshire Street                       | 75   |                     |                              |
| Lincoln Street                         | 30   |                     |                              |
| Wellington Lane                        | 25   |                     |                              |
| Harrington Terrace                     | 25   |                     |                              |
| Cambridge Street                       | 95   |                     |                              |
| Webster Avenue                         | 40   |                     |                              |
|  |  |                     |                              |
| Royal Hospitality Services Parking Lot | Cambridge Street to Royal Hospitaality Services Parking Lot/ Windsor Place | Colon Court         | 20                           |
|  |  | Beach Street        | 15                           |
|  |  | Windsor Place       | 20                           |
|  |  |                     |                              |
| Royal Hospitality Services Parking Lot | Windsor Place to Private Property/Rail Road                                |                     |                              |
|  |  |                     |                              |
| Private Property/ Rail Road            | Royal Hospitality Services Parking Lot to Prospect Street                  |                     |                              |
|  |  |                     |                              |
| Prospect Street                        | Private Property/ Rail Road to Somerville Station                          |                     |                              |
|  |  |                     |                              |
|  |  |                     |                              |

| Roadway                                | Segment   | Intersection Name           | Number of crossings | location of crossing along road | Crossing Width (feet) |
|--|---|-----------------------------|---------------------|---------------------------------|-----------------------|
| Broadway                               | Kendall Blue Garage to Columbia Street                                    | Broadway (mid-block)        | 1                   | N/A                             | 8                     |
|  |   | Galileo Galilei Way         | 1                   | East                            | 16                    |
|  |   | Galileo Galilei Way         | 1                   | West                            | 16                    |
|  |   | Hampshire Street            | 1                   | East                            | 10                    |
|  |   | Hampshire Street            | 1                   | West                            | 10                    |
|  |   | Portland Street             | 1                   | East                            | 10                    |
|  |   | Portland Street             | 1                   | West                            | 10                    |
|  |   | Market Street               | 1                   | East                            | 10                    |
|  |   | Clark Street                | 1                   | West                            | 10                    |
|  |   | Windsor Street              | 1                   | East                            | 10                    |
|  |   | Windsor Street              | 1                   | West                            | 10                    |
|  |   | Columbia Street             | 1                   | East                            | 10                    |
| Columbia Street                        | Broadway to Cambridge Street  | Columbia Street             | 1                   | North                           | 8                     |
|  |   | Market Street               | 1                   | South                           | 8                     |
|  |   | Market Street               | 1                   | North                           | 8                     |
|  |   | Hampshire Street            | 1                   | South                           | 12                    |
|  |   | Hampshire Street            | 1                   | North                           | 12                    |
|  |   | Lincoln Street              | 1                   | South                           | 10                    |
|  |   | Lincoln Street              | 1                   | North                           | 10                    |
|  |   | Cambridge Street            | 1                   | South                           | 10                    |
|  |   | Cambridge Street            | 1                   | North                           | 10                    |
|  | Cambridge Street to Royal Hospitality Services Parking Lot/ Windsor Place | Columbia Street (mid-block) | 1                   | N/A                             | 10                    |
| Royal Hospitality Services Parking Lot | Windsor Place to Private Property/Rail Road                               | None                        |                     |                                 |                       |
| Private Property/ Rail Road            | Royal Hospitality Services Parking Lot to Prospect Street                 | None                        |                     |                                 |                       |
| Prospect Street                        | Private Property/ Rail Road to Somerville Station                         | None                        |                     |                                 |                       |
|  |   |                             |                     |                                 |                       |
|  |   |                             |                     |                                 |                       |



| Roadway                                | Roadway Segment  | treatment            | location along road | length of facility | Width (feet) of facility |
|--|--|----------------------|---------------------|--------------------|--------------------------|
| Broadway                               | Kendall Blue Garage to Columbia Street                     | Bike Lane/Sharrow    | North               | 2800               | 5                        |
|  |  |                      | South               | 2800               | 5                        |
| Columbia Street                        | Broadway to Cambridge Street                               | None                 |                     |                    |                          |
|  | Cambridge Street to Royal Hospitality Services Parking Lot | None                 |                     |                    |                          |
| Royal Hospitality Services Parking Lot | Columbia Street to Private Property/Rail Road              | None                 |                     |                    |                          |
| Private Property/Rail Road             | Royal Hospitality Services Parking Lot to Prospect Street  | None                 |                     |                    |                          |
| Prospect Street                        | Private Property/ Rail Road to Somerville Station          | Bike Lane<br>Sharrow | West                | 145                | 5                        |
|  |  |                      | East                | 145                | 5                        |
|  |  |                      |                     |                    |                          |

# Segment Score Logic - Workzone Setup



**Appendix 4-4**

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Utility Density Route Scoring Criterion Data

## Brighton Study Area East

**BRIGHTON STUDY AREA**

| Candidate Route | Existing Utility Density (Raw Data)   |                              |                                    | Ratio Scores (unweighted)*    |                              |                                    | Combined Utility Density Score** | Ranking for this Criterion |
|-----------------|---------------------------------------|------------------------------|------------------------------------|-------------------------------|------------------------------|------------------------------------|----------------------------------|----------------------------|
|                 | Average Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources | Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources |                                  |                            |
| B2A EAST        | 1                                     | 395                          | 94                                 | 0.50                          | 0.50                         | 0.54                               | 1.53                             | 1                          |
| B25 EAST        | 2                                     | 794                          | 169                                | 1.00                          | 1.00                         | 0.97                               | 2.97                             | 4                          |
| B25A EAST       | 2                                     | 752                          | 165                                | 1.00                          | 0.95                         | 0.94                               | 2.89                             | 3                          |
| B31 EAST        | 1                                     | 613                          | 175                                | 0.50                          | 0.77                         | 1.00                               | 2.27                             | 2                          |

**NOTES:**

\* The "Unweighted Ratio Scores" were generated following the same ratio scoring methodology applied to the master scoring matrix for other scoring criteria.

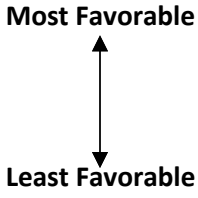
\*\* The "Combined Utility Density Score" is a summation of the combined "Ratio Scores (Unweighted)" generated for each of the three "Existing Utility Density (raw data)" categories.

**NOTES:**

- (1) The roadway widths (edge of pavement) are approximate and were determined using a combination of CADD and GIS data sources. Note that widths were not determined for off-road route segments unless otherwise noted.
- (2) "Estimated Maximum Useable Corridor Width" refers to the maximum available underground space that is potentially available to install the transmission line, measured horizontally between existing utilities in 100-foot long stations/increments along each Candidate Route, as determined by Project Engineers.
- (3) **BOLD** total numbers are used in "Raw Data Summary & Ratio Scores" worksheet as raw number inputs (Average Useable Corridor Rating, Sum of Utility Crossings and Sum of Heat Generating Sources).
- (4) "Utility Crossings" refers to utilities (including heat generating sources) that are intersected by each Candidate Route, generally perpendicular regardless of type, size or depth.
- (5) "Heat Generating Sources" refers to existing electric transmission, distribution and steam lines intersected by each Candidate Route, regardless of size or depth.

(6) The "Average Useable Corridor Width Rating" represents the average overall underground space that is potentially available to install the transmission line (exclusive of intersections where a width could not reasonably be determined given the convergence of utilities from several different directions), based on ratings between 1 and 5, with 1 being the most favorable and 5 being the least favorable.

| Estimated Maximum Useable Corridor Width (ft) | Rating |
|---|--------|
| > 15  | 1      |
| 15 - 10                                       | 2      |
| 9 - 6   | 3      |
| 5 - 4   | 4      |
| ≤ 3   | 5      |



**Study Area: BRIGHTON**

**Candidate Route: B2A EAST**

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment   | Approximate Width<br>of Route Segment<br>(ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road or ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|---|--|---|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |   |  |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street  | 27   | N/A   | N/A                               | 11   | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street  | 27   | 12  | 2                                 | 6  | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street  | 31   | 15  | 2                                 | 2  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 4+00                     | Lincoln Street  | 33   | 15  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 5+00                     | Lincoln Street  | 29   | 8   | 3                                 | 6  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Lincoln Street  | 35   | 15  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                     | Lincoln Street  | 36   | 15  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                     | Lincoln Street  | 36   | 15  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                     | Lincoln Street  | 35   | 15  | 2                                 | 6  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                    | Lincoln Street  | 39   | 0   | 5                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                   | Lincoln Street  | 54   | 0   | 5                                 | 4  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                   | Lincoln Street  | 52   | 36  | 1                                 | 7  | 0  | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 12+25                   | Lincoln Street  | 52   | 17  | 1                                 | 2  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+25 to 13+00                   | Allston Multimodal Site /<br>Lincoln Street Connector | 45   | 17  | 1                                 | 9  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00                   | Allston Multimodal Site /<br>Lincoln Street Connector | 60   | 17  | 1                                 | 5  | 0  | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00                   | Allston Multimodal Site /<br>Lincoln Street Connector | 78   | 17  | 1                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00                   | Allston Multimodal Site /<br>Lincoln Street Connector | 78   | 17  | 1                                 | 1  | 0  | 1                 | 0          |

|                            |                |  |    |     |     |   |   |   |   |
|----------------------------|----------------|--|----|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 16+00 to 17+00 | Allston Multimodal Site / Lincoln Street Connector | 73 | 0   | 5   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00 | Allston Multimodal Site / Lincoln Street Connector | 65 | N/A | N/A | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 25+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | Allston Multimodal Site / Lincoln Street Connector | 63 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 33+00 | Allston Multimodal Site / Lincoln Street Connector | 56 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 33+00 to 34+00 | Allston Multimodal Site / Lincoln Street Connector | 33 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 34+00 to 35+00 | Allston Multimodal Site / Lincoln Street Connector | 45 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 35+00 to 36+00 | Allston Multimodal Site / Lincoln Street Connector | 45 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 36+00 to 37+00 | Allston Multimodal Site / Lincoln Street Connector | 45 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 37+00 to 38+00 | Allston Multimodal Site / Lincoln Street Connector | 45 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 38+00 to 39+00 | Allston Multimodal Site                            | 45 | N/A | N/A | 1 | 0 | 0 | 0 |



|                            |                |                         |     |     |     |   |   |   |   |
|----------------------------|----------------|-------------------------|-----|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 39+00 to 40+00 | Allston Multimodal Site | 45  | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 40+00 to 41+00 | Allston Multimodal Site | 45  | N/A | N/A | 3 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 41+00 to 41+64 | Allston Multimodal Site | HDD | N/A | N/A | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 41+64 to 42+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 42+00 to 43+00 | Charles River           | HDD | N/A | N/A | c | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 43+00 to 44+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 44+00 to 45+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 45+00 to 46+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 46+00 to 47+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 47+00 to 48+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 48+00 to 49+00 | Charles River           | HDD | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 49+00 to 50+00 | Magazine Beach          | 45  | N/A | N/A | 6 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 50+00 to 51+00 | Magazine Beach          | 45  | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 51+00 to 52+00 | Magazine Beach          | 45  | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 52+00 to 53+00 | Magazine Beach          | 45  | N/A | N/A | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 53+00 to 54+00 | Magazine Beach          | 45  | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 54+00 to 55+00 | Magazine Beach          | 45  | N/A | N/A | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 55+00 to 56+00 | Magazine Beach          | 45  | 70  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 56+00 to 56+62 | Magazine Beach          | 45  | 23  | 1   | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 56+62 to 57+00 | Memorial Drive          | 25  | 23  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 57+00 to 58+00 | Memorial Drive          | 25  | 23  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 58+00 to 59+00 | Memorial Drive          | 25  | 28  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 59+00 to 60+00 | Memorial Drive          | 25  | 22  | 1   | 2 | 0 | 0 | 0 |

|                            |                |                |    |     |     |   |   |   |   |
|----------------------------|----------------|----------------|----|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 60+00 to 61+00 | Memorial Drive | 52 | 48  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 61+00 to 62+00 | Memorial Drive | 48 | 0   | 5   | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 62+00 to 63+00 | Memorial Drive | 40 | 45  | 1   | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 63+00 to 64+00 | Memorial Drive | 22 | 40  | 1   | 4 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 64+00 to 65+00 | Memorial Drive | 20 | 60  | 1   | 7 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 65+00 to 66+00 | Memorial Drive | 22 | N/A | N/A | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 66+00 to 67+00 | Memorial Drive | 96 | N/A | N/A | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 67+00 to 68+00 | Memorial Drive | 96 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 68+00 to 69+00 | Memorial Drive | 78 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 69+00 to 70+00 | Memorial Drive | 50 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 70+00 to 71+00 | Memorial Drive | 40 | N/A | N/A | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 71+00 to 72+00 | Memorial Drive | 40 | N/A | N/A | 4 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 72+00 to 73+00 | Memorial Drive | 40 | N/A | N/A | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 73+00 to 74+00 | Memorial Drive | 40 | 25  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 74+00 to 75+00 | Memorial Drive | 40 | 25  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 75+00 to 76+00 | Memorial Drive | 40 | 25  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 76+00 to 77+00 | Memorial Drive | 40 | 25  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 77+00 to 78+00 | Memorial Drive | 40 | 25  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 78+00 to 79+00 | Memorial Drive | 40 | 25  | 1   | 4 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 79+00 to 80+00 | Memorial Drive | 40 | 25  | 1   | 6 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 80+00 to 81+00 | Memorial Drive | 40 | 25  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 81+00 to 82+00 | Memorial Drive | 40 | 20  | 1   | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 82+00 to 83+00 | Memorial Drive | 40 | 17  | 1   | 0 | 0 | 0 | 0 |

|                            |                  |                |    |    |   |   |   |   |   |
|----------------------------|------------------|----------------|----|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 83+00 to 84+00   | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 84+00 to 85+00   | Memorial Drive | 40 | 30 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 85+00 to 86+00   | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 86+00 to 87+00   | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 87+00 to 88+00   | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 88+00 to 89+00   | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 89+00 to 90+00   | Memorial Drive | 40 | 30 | 1 | 6 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 90+00 to 91+00   | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 91+00 to 92+00   | Memorial Drive | 42 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 92+00 to 93+00   | Memorial Drive | 49 | 30 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 93+00 to 94+00   | Memorial Drive | 28 | 30 | 1 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 94+00 to 95+00   | Memorial Drive | 24 | 24 | 1 | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 95+00 to 96+00   | Memorial Drive | 24 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 96+00 to 97+00   | Memorial Drive | 24 | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 97+00 to 98+00   | Memorial Drive | 24 | 24 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 98+00 to 99+00   | Memorial Drive | 24 | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 99+00 to 100+00  | Memorial Drive | 30 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 100+00 to 101+00 | Memorial Drive | 37 | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 101+00 to 102+00 | Memorial Drive | 37 | 36 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 102+00 to 103+00 | Memorial Drive | 24 | 36 | 1 | 2 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 103+00 to 104+00 | Memorial Drive | 24 | 12 | 2 | 9 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 104+00 to 105+00 | Memorial Drive | 24 | 12 | 2 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 105+00 to 106+00 | Memorial Drive | 24 | 12 | 2 | 1 | 0 | 0 | 0 |

|                            |                  |                |              |    |   |   |   |   |   |
|----------------------------|------------------|----------------|--------------|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 106+00 to 107+00 | Memorial Drive | 24           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 107+00 to 108+00 | Memorial Drive | 24           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 108+00 to 109+00 | Memorial Drive | 27           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 109+00 to 110+00 | Memorial Drive | 41           | 24 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Memorial Drive | 32           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Memorial Drive | 19           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Memorial Drive | 19           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Memorial Drive | 19           | 24 | 1 | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Memorial Drive | Not Provided | 24 | 1 | 6 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Memorial Drive | 19           | 22 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Memorial Drive | 19           | 17 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Memorial Drive | 19           | 17 | 1 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Memorial Drive | 30           | 17 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Memorial Drive | 40           | 17 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Memorial Drive | 35           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Memorial Drive | 34           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 122+00 to 123+00 | Memorial Drive | 32           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Memorial Drive | 29           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Memorial Drive | 26           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 126+00 | Memorial Drive | 25           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Memorial Drive | 25           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Memorial Drive | 31           | 24 | 1 | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+00 to 129+00 | Memorial Drive | 31           | 24 | 1 | 3 | 0 | 0 | 0 |

|  |                  |                |              |     |     |    |   |   |   |
|--|------------------|----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg                                     | 129+00 to 130+00 | Memorial Drive | 38           | 36  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                                     | 130+00 to 130+92 | Memorial Drive | 28           | 36  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                                     | 130+92 to 131+00 | Ames Street    | Not Provided | 24  | 1   | 0  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 131+00 to 132+00 | Ames Street    | Not Provided | 50  | 1   | 1  | 0 | 1 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 132+00 to 133+00 | Ames Street    | 40           | 29  | 1   | 5  | 0 | 3 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 133+00 to 134+00 | Ames Street    | 40           | 29  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 134+00 to 135+00 | Ames Street    | 32           | 26  | 1   | 11 | 0 | 4 | 2 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 135+00 to 136+00 | Ames Street    | 36           | 29  | 1   | 16 | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 136+00 to 137+00 | Ames Street    | 40           | 24  | 1   | 7  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 137+00 to 138+00 | Ames Street    | 40           | 34  | 1   | 2  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 138+00 to 139+00 | Ames Street    | 35           | 31  | 1   | 13 | 0 | 1 | 6 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 139+00 to 140+00 | Ames Street    | 33           | 6   | 3   | 5  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 140+00 to 141+00 | Ames Street    | 35           | 6   | 3   | 14 | 0 | 2 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 141+00 to 142+00 | Ames Street    | 40           | 9   | 3   | 8  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 142+00 to 143+00 | Ames Street    | 40           | 9   | 3   | 13 | 0 | 5 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                            | 143+00 to 144+00 | Ames Street    | 40           | 3   | 5   | 2  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg<br>14313.00-EXIST.dwg      | 144+00 to 145+00 | Ames Street    | Not Provided | 11  | 2   | 20 | 0 | 1 | 0 |
| 14313.00-EXIST.dwg   | 145+00 to 146+00 | Ames Street    | 72           | 11  | 2   | 9  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg   | 146+00 to 147+00 | Ames Street    | 61           | 8   | 3   | 5  | 0 | 2 | 0 |
| 14313.00-EXIST.dwg   | 147+00 to 148+00 | Ames Street    | 50           | 9   | 3   | 2  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg   | 148+00 to 149+00 | Ames Street    | 53           | 7   | 3   | 4  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg   | 149+00 to 150+00 | Ames Street    | 67           | N/A | N/A | 3  | 0 | 2 | 0 |
| 16865-EC-BROADWAY (Draft 2019-08-28).dwg<br>14313.00-EXIST.dwg | 150+00 to 150+46 | Ames Street    | N/A          | N/A | N/A | 11 | 0 | 0 | 0 |
| 16865-EC-BROADWAY (Draft 2019-08-28).dwg<br>14313.00-EXIST.dwg | 150+46 to 151+00 | Broadway       | N/A          | 12  | 2   | 3  | 0 | 1 | 0 |

|   |                  |          |    |                |                              |                          |                          |           |           |
|---|------------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|-----------|
| 16865-EC-BROADWAY<br>(Draft 2019-08-28).dwg<br>14313.00-EXIST.dwg | 151+00 to 152+00 | Broadway | 70 | 12             | 2                            | 1                        | 0                        | 0         | 0         |
| 16865-EC-BROADWAY<br>(Draft 2019-08-28).dwg<br>14313.00-EXIST.dwg | 152+00 to 153+00 | Broadway | 70 | 20             | 1                            | 1                        | 0                        | 0         | 0         |
| 16865-EC-BROADWAY<br>(Draft 2019-08-28).dwg<br>14313.00-EXIST.dwg | 153+00 to 153+80 | Broadway | 70 | N/A            | N/A                          | 6                        | 0                        | 1         | 0         |
|   |                  |          |    | <b>TOTALS:</b> | <b>1</b>                     | <b>395</b>               | <b>0</b>                 | <b>83</b> | <b>11</b> |
|   |                  |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |           |

Study Area: BRIGHTON

Candidate Route: B25 EAST

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment    | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road or ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|------------------|---|---|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |                  |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street   | 27  | N/A   | N/A                               | 11   | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street   | 27  | 12  | 2                                 | 6  | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street   | 31  | 15  | 2                                 | 2  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 4+00                     | Lincoln Street   | 33  | 15  | 2                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 4+34                     | Lincoln Street   |   | N/A   | N/A                               | 3  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+34 to 5+00                     | Mansfield Street | 26  | N/A   | N/A                               | 9  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Mansfield Street | 26  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                     | Mansfield Street | 26  | 6   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                     | Mansfield Street | 26  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                     | Mansfield Street | 26  | 6   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                    | Mansfield Street | 26  | 7   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                   | Mansfield Street | 26  | 8   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                   | Mansfield Street | 26  | 5   | 4                                 | 7  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 12+31                   | Mansfield Street | 26  | N/A   | N/A                               | 2  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+31 to 13+00                   | Bradbury Street  | 26  | 12  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00                   | Bradbury Street  | 26  | 12  | 2                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00                   | Bradbury Street  | 26  | 7   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00                   | Bradbury Street  | 26  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 16+00 to 16+41                   | Bradbury Street  | 26  | 6   | 3                                 | 13   | 0  | 5                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 16+41 to 17+00                   | Franklin Street  | 28  | 0   | 5                                 | 11   | 0  | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00                   | Franklin Street  | 28  | 0   | 5                                 | 4  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00                   | Franklin Street  | 28  | 0   | 5                                 | 6  | 0  | 1                 | 0          |

|                            |                |                   |              |     |     |    |   |   |   |
|----------------------------|----------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Franklin Street   | 28           | 0   | 5   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Franklin Street   | 26           | 6   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Franklin Street   | 28           | 5   | 4   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Franklin Street   | 28           | 4   | 4   | 8  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Franklin Street   | 22           | 2   | 5   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 25+00 | Franklin Street   | 22           | 4   | 4   | 8  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | Franklin Street   | 22           | 4   | 4   | 5  | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00 | Franklin Street   | 22           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00 | Franklin Street   | 22           | 2   | 5   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00 | Franklin Street   | 22           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00 | Franklin Street   | 22           | 5   | 4   | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00 | Franklin Street   | 22           | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | Franklin Street   | 22           | N/A | N/A | 8  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 32+06 | Franklin Street   | Not Provided | 0   | 5   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+06 to 33+00 | N. Harvard Street | 44           | 0   | 5   | 15 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 33+00 to 34+00 | N. Harvard Street | 44           | 0   | 5   | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 34+00 to 35+00 | N. Harvard Street | 44           | 0   | 5   | 15 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 35+00 to 36+00 | N. Harvard Street | 44           | 8   | 3   | 5  | 0 | 4 | 0 |



|                            |                |                    |              |     |     |    |   |   |   |
|----------------------------|----------------|--------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 36+00 to 37+00 | N. Harvard Street  | Not Provided | 5   | 4   | 15 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 37+00 to 38+00 | N. Harvard Street  | 40           | 4   | 4   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 38+00 to 39+00 | N. Harvard Street  | 40           | 10  | 2   | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 39+00 to 40+00 | N. Harvard Street  | 40           | 7   | 3   | 4  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 40+00 to 41+00 | N. Harvard Street  | 40           | 8   | 3   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 41+00 to 42+00 | N. Harvard Street  | 40           | 5   | 4   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 42+00 to 43+00 | N. Harvard Street  | 40           | 7   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 43+00 to 44+00 | N. Harvard Street  | 40           | 6   | 3   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 44+00 to 45+00 | N. Harvard Street  | 40           | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 45+00 to 46+00 | N. Harvard Street  | 40           | 7   | 3   | 8  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 46+00 to 46+69 | N. Harvard Street  | 40           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 46+69 to 47+00 | Harvard University | 40           | N/A | N/A | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 47+00 to 48+00 | Harvard University | 45           | 40  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 48+00 to 49+00 | Harvard University | 45           | 50  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 49+00 to 50+00 | Harvard University | 45           | 50  | 1   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 50+00 to 51+00 | Harvard University | 45           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 51+00 to 52+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 52+00 to 53+00 | Harvard University | 45           | 50  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 53+00 to 54+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 54+00 to 55+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 55+00 to 56+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 56+00 to 57+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 57+00 to 58+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 58+00 to 59+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 59+00 to 60+00 | Harvard University | 45           | 12  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 60+00 to 60+81 | Harvard University | 45           | 12  | 2   | 1  | 0 | 0 | 0 |

|                             |                  |                     |              |     |     |   |   |   |   |
|-----------------------------|------------------|---------------------|--------------|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg  | 60+81 to 61+00   | Soldiers Field Road | 78           | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 61+00 to 62+00   | Soldiers Field Road | 78           | 12  | 2   | 4 | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 62+00 to 63+00   | Soldiers Field Road | 78           | 33  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 63+00 to 64+00   | Soldiers Field Road | 78           | 33  | 1   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 64+00 to 65+00   | Soldiers Field Road | 78           | 33  | 1   | 5 | 0 | 1 | 0 |
| 14897.00_SV_UT_20200515.dwg | 65+00 to 66+00   | Soldiers Field Road | 78           | 33  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 66+00 to 67+00   | Soldiers Field Road | 78           | 33  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 67+00 to 68+00   | Soldiers Field Road | 78           | 33  | 1   | 5 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 68+00 to 69+00   | Soldiers Field Road | 78           | 33  | 1   | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 69+00 to 69+20   | Soldiers Field Road | 78           | 33  | 1   | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 69+20 to 70+00   | Herter Park         | 45           | N/A | N/A | 2 | 0 | 1 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 70+00 to 71+00   | Herter Park         | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 71+00 to 72+00   | Herter Park         | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 72+00 to 73+00   | Herter Park         | 45           | N/A | N/A | 2 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 73+00 to 74+00   | Herter Park         | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 74+00 to 75+00   | Herter Park         | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 75+00 to 76+00   | Herter Park         | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 76+00 to 77+00   | Herter Park         | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 77+00 to 78+00   | Herter Park         | 45           | N/A | N/A | 3 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 78+00 to 79+00   | Herter Park         | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 79+00 to 80+00   | Herter Park         | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 80+00 to 81+00   | Eliot Bridge        | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 81+00 to 82+00   | Herter Park         | 45           | N/A | N/A | 2 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 82+00 to 83+00   | Herter Park         | 45           | N/A | N/A | 3 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 83+00 to 84+00   | Herter Park         | 45           | N/A | N/A | 3 | 0 | 0 | 0 |
|                             | 84+00 to 85+00   | Herter Park         | 45           | N/A | N/A |   |   |   |   |
|                             | 85+00 to 86+00   | Herter Park         | 45           | N/A | N/A |   |   |   |   |
|                             | 86+00 to 87+00   | Herter Park         | 45           | N/A | N/A |   |   |   |   |
|                             | 87+00 to 88+00   | Herter Park         | 45           | N/A | N/A |   |   |   |   |
|                             | 88+00 to 89+00   | Herter Park         | 45           | N/A | N/A |   |   |   |   |
|                             | 89+00 to 90+00   | Herter Park         | 45           | N/A | N/A |   |   |   |   |
|                             | 90+00 to 91+00   | Charles River       | HDD          | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 91+00 to 92+00   | Charles River       | HDD          | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 92+00 to 93+00   | Charles River       | HDD          | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 93+00 to 93+80   | Charles River       | HDD          | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 93+80 to 94+00   | Riverbend Park      | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 94+00 to 95+00   | Riverbend Park      | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 95+00 to 96+00   | Riverbend Park      | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 96+00 to 97+00   | Riverbend Park      | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 97+00 to 98+00   | Riverbend Park      | 45           | N/A | N/A | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 98+00 to 99+00   | Riverbend Park      | 45           | N/A | N/A | 6 | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 99+00 to 100+00  | Mt. Auburn Street   | 41           | 11  | 2   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 100+00 to 101+00 | Mt. Auburn Street   | 42           | 20  | 1   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 101+00 to 101+13 | Mt. Auburn Street   | Not Provided | N/A | N/A | 2 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 101+13 to 102+00 | Ash Street          | 20           | N/A | N/A | 9 | 0 | 3 | 0 |
| 14897.00_SV_UT_20200515.dwg |                  |                     |              |     |     |   |   |   |   |
| 20200902 S-1390-07_SUM.dwg  | 102+00 to 103+00 | Ash Street          | 20           | 6   | 3   | 0 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 103+00 to 104+00 | Ash Street          | 20           | 6   | 3   | 0 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 104+00 to 105+00 | Ash Street          | 20           | 6   | 3   | 2 | 0 | 0 | 0 |

|                            |                  |                |    |    |   |   |   |   |   |
|----------------------------|------------------|----------------|----|----|---|---|---|---|---|
| 20200902 S-1390-07_SUM.dwg | 105+00 to 106+00 | Ash Street     | 20 | 10 | 2 | 3 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 106+00 to 107+00 | Memorial Drive | 45 | 40 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 107+00 to 108+00 | Memorial Drive | 40 | 40 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 108+00 to 109+00 | Memorial Drive | 40 | 40 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 109+00 to 110+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Memorial Drive | 40 | 40 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Memorial Drive | 40 | 40 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |

|                            |                  |                |    |     |     |    |   |   |   |
|----------------------------|------------------|----------------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Memorial Drive | 40 | 40  | 1   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Memorial Drive | 40 | 40  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Memorial Drive | 40 | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Memorial Drive | 40 | N/A | N/A | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 122+00 to 123+00 | Memorial Drive | 40 | N/A | N/A | 12 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Memorial Drive | 40 | 28  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Memorial Drive | 40 | 28  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 126+00 | Memorial Drive | 40 | 28  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Memorial Drive | 40 | 28  | 1   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Memorial Drive | 40 | 28  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+00 to 129+00 | Memorial Drive | 40 | 28  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 129+00 to 130+00 | Memorial Drive | 40 | 28  | 1   | 1  | 0 | 1 | 0 |

|                            |                  |                |    |    |   |   |   |   |   |
|----------------------------|------------------|----------------|----|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 130+00 to 131+00 | Memorial Drive | 40 | 28 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 131+00 to 132+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 132+00 to 133+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 133+00 to 134+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 134+00 to 135+00 | Memorial Drive | 40 | 40 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 135+00 to 136+00 | Memorial Drive | 40 | 40 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 136+00 to 137+00 | Memorial Drive | 40 | 37 | 1 | 8 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 137+00 to 138+00 | Memorial Drive | 40 | 35 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 138+00 to 139+00 | Memorial Drive | 40 | 33 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 139+00 to 140+00 | Memorial Drive | 40 | 30 | 1 | 0 | 0 | 0 | 0 |

|                            |                  |                |    |     |     |    |   |   |   |
|----------------------------|------------------|----------------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 140+00 to 141+00 | Memorial Drive | 40 | 30  | 1   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 141+00 to 142+00 | Memorial Drive | 40 | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 142+00 to 143+00 | Memorial Drive | 40 | 32  | 1   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 143+00 to 144+00 | Memorial Drive | 40 | 32  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 144+00 to 145+00 | Memorial Drive | 40 | 32  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 145+00 to 146+00 | Memorial Drive | 40 | 29  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 146+00 to 147+00 | Memorial Drive | 40 | 22  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 147+00 to 148+00 | Memorial Drive | 40 | 20  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 148+00 to 149+00 | Memorial Drive | 40 | 24  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 149+00 to 150+00 | Memorial Drive | 40 | 27  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 150+00 to 151+00 | Memorial Drive | 40 | 27  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 151+00 to 152+00 | Memorial Drive | 40 | 24  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 152+00 to 153+00 | Memorial Drive | 40 | 24  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 153+00 to 154+00 | Memorial Drive | 40 | 24  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 154+00 to 155+00 | Memorial Drive | 42 | 15  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 155+00 to 156+00 | Memorial Drive |    | N/A | N/A | 14 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 156+00 to 157+00 | Memorial Drive | 42 | 28  | 1   | 1  | 0 | 0 | 0 |

|                            |                  |                |              |     |     |    |   |   |   |
|----------------------------|------------------|----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 157+00 to 158+00 | Memorial Drive | 41           | 25  | 1   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 158+00 to 159+00 | Memorial Drive | 41           | 32  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 159+00 to 160+00 | Memorial Drive | 41           | 32  | 1   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 160+00 to 161+00 | Memorial Drive | 41           | 32  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 161+00 to 162+00 | Memorial Drive | 41           | 0   | 5   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 162+00 to 163+00 | Memorial Drive | 41           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 163+00 to 164+00 | Memorial Drive | 42           | 40  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 164+00 to 165+00 | Memorial Drive | 42           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 165+00 to 166+00 | Memorial Drive | Not Provided | N/A | N/A | 12 | 0 | 4 | 0 |
| 20200902 S-1390-07_SUM.dwg | 166+00 to 167+00 | Memorial Drive | 40           | 28  | 1   | 4  | 0 | 1 | 0 |
| 20200902 S-1390-07_SUM.dwg | 167+00 to 168+00 | Memorial Drive | 40           | 28  | 1   | 2  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 168+00 to 169+00 | Memorial Drive | 40           | 28  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 169+00 to 170+00 | Memorial Drive | 40           | 35  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 170+00 to 171+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 171+00 to 172+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 172+00 to 173+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 173+00 to 174+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 174+00 to 175+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 175+00 to 176+00 | Memorial Drive | 40           | 40  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 176+00 to 177+00 | Memorial Drive | 40           | 33  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 177+00 to 178+00 | Memorial Drive | 40           | 33  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 178+00 to 179+00 | Memorial Drive | 40           | 27  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 179+00 to 180+00 | Memorial Drive | 40           | 27  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 180+00 to 181+00 | Memorial Drive | 40           | 27  | 1   | 1  | 0 | 0 | 0 |

|                            |                  |                |              |     |     |   |   |   |   |
|----------------------------|------------------|----------------|--------------|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 181+00 to 182+00 | Memorial Drive | 40           | 27  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 182+00 to 183+00 | Memorial Drive | 40           | 23  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 183+00 to 184+00 | Memorial Drive | 40           | 23  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 184+00 to 185+00 | Memorial Drive | 40           | 23  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 185+00 to 186+00 | Memorial Drive | 40           | 35  | 1   | 9 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 186+00 to 187+00 | Memorial Drive | 40           | 35  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 187+00 to 188+00 | Memorial Drive | 40           | 35  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 188+00 to 189+00 | Memorial Drive | 57           | 40  | 1   | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 189+00 to 190+00 | Memorial Drive | 85           | 40  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 190+00 to 191+00 | Memorial Drive | 108          | 60  | 1   | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 191+00 to 192+00 | Memorial Drive | 25           | 28  | 1   | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 192+00 to 193+00 | Memorial Drive | 25           | 28  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 193+00 to 194+00 | Memorial Drive | 25           | 28  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 194+00 to 195+00 | Memorial Drive | 25           | 22  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 195+00 to 196+00 | Memorial Drive | 25           | 48  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 196+00 to 197+00 | Memorial Drive | 52           | 0   | 5   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 197+00 to 198+00 | Memorial Drive | 48           | 45  | 1   | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 198+00 to 199+00 | Memorial Drive | 40           | 40  | 1   | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 199+00 to 200+00 | Memorial Drive | Not Provided | 60  | 1   | 4 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 200+00 to 201+00 | Memorial Drive | 20           | N/A | N/A | 9 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 201+00 to 202+00 | Memorial Drive | 22           | N/A | N/A | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 202+00 to 203+00 | Memorial Drive | 96           | N/A | N/A | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 203+00 to 204+00 | Memorial Drive | 96           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 204+00 to 205+00 | Memorial Drive | 78           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 205+00 to 206+00 | Memorial Drive | 50           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 206+00 to 207+00 | Memorial Drive | 40           | N/A | N/A | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 207+00 to 208+00 | Memorial Drive | 40           | N/A | N/A | 5 | 0 | 1 | 0 |



|                            |                  |                |    |    |   |   |   |   |   |
|----------------------------|------------------|----------------|----|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 208+00 to 209+00 | Memorial Drive | 40 | 25 | 1 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 209+00 to 210+00 | Memorial Drive | 40 | 25 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 210+00 to 211+00 | Memorial Drive | 40 | 25 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 211+00 to 212+00 | Memorial Drive | 40 | 25 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 212+00 to 213+00 | Memorial Drive | 40 | 25 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 213+00 to 214+00 | Memorial Drive | 40 | 25 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 214+00 to 215+00 | Memorial Drive | 40 | 25 | 1 | 4 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 215+00 to 216+00 | Memorial Drive | 40 | 25 | 1 | 6 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 216+00 to 217+00 | Memorial Drive | 40 | 20 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 217+00 to 218+00 | Memorial Drive | 40 | 17 | 1 | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 218+00 to 219+00 | Memorial Drive | 40 | 30 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 219+00 to 220+00 | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 220+00 to 221+00 | Memorial Drive | 40 | 30 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 221+00 to 222+00 | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 222+00 to 223+00 | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 223+00 to 224+00 | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |

|                            |                  |                |    |    |   |   |   |   |   |
|----------------------------|------------------|----------------|----|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 224+00 to 225+00 | Memorial Drive | 40 | 30 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 225+00 to 226+00 | Memorial Drive | 40 | 30 | 1 | 6 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 226+00 to 227+00 | Memorial Drive | 40 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 227+00 to 228+00 | Memorial Drive | 42 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 228+00 to 229+00 | Memorial Drive | 49 | 30 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 229+00 to 230+00 | Memorial Drive | 28 | 24 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 230+00 to 231+00 | Memorial Drive | 24 | 24 | 1 | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 231+00 to 232+00 | Memorial Drive | 24 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 232+00 to 233+00 | Memorial Drive | 24 | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 233+00 to 234+00 | Memorial Drive | 24 | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 234+00 to 235+00 | Memorial Drive | 24 | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 235+00 to 236+00 | Memorial Drive | 30 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 236+00 to 237+00 | Memorial Drive | 37 | 36 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 237+00 to 238+00 | Memorial Drive | 37 | 36 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 238+00 to 239+00 | Memorial Drive | 24 | 12 | 2 | 3 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 239+00 to 240+00 | Memorial Drive | 24 | 12 | 2 | 8 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 240+00 to 241+00 | Memorial Drive | 24 | 12 | 2 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 241+00 to 242+00 | Memorial Drive | 24 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 242+00 to 243+00 | Memorial Drive | 24 | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 243+00 to 244+00 | Memorial Drive | 24 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 244+00 to 245+00 | Memorial Drive | 27 | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 245+00 to 246+00 | Memorial Drive | 41 | 24 | 1 | 3 | 0 | 0 | 0 |

|                            |                  |                |              |    |   |   |   |   |   |
|----------------------------|------------------|----------------|--------------|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 246+00 to 247+00 | Memorial Drive | 32           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 247+00 to 248+00 | Memorial Drive | 19           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 248+00 to 249+00 | Memorial Drive | 19           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 249+00 to 250+00 | Memorial Drive | 19           | 24 | 1 | 3 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 250+00 to 251+00 | Memorial Drive | Not Provided | 22 | 1 | 6 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 251+00 to 252+00 | Memorial Drive | 19           | 17 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 252+00 to 253+00 | Memorial Drive | 19           | 17 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 253+00 to 254+00 | Memorial Drive | 19           | 17 | 1 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 254+00 to 255+00 | Memorial Drive | 30           | 17 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 255+00 to 256+00 | Memorial Drive | 40           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 256+00 to 257+00 | Memorial Drive | 35           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 257+00 to 258+00 | Memorial Drive | 34           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 258+00 to 259+00 | Memorial Drive | 32           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 259+00 to 260+00 | Memorial Drive | 29           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 260+00 to 261+00 | Memorial Drive | 26           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 261+00 to 262+00 | Memorial Drive | 25           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 262+00 to 263+00 | Memorial Drive | 25           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 263+00 to 264+00 | Memorial Drive | 31           | 24 | 1 | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 264+00 to 265+00 | Memorial Drive | 31           | 36 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 265+00 to 266+00 | Memorial Drive | 38           | 36 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 266+00 to 266+91 | Memorial Drive | 28           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 266+91 to 267+00 | Ames Street    | Not Provided | 50 | 1 | 0 | 0 | 0 | 0 |

|   |                  |             |              |     |     |    |   |   |   |
|---|------------------|-------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg  | 267+00 to 268+00 | Ames Street | Not Provided | 29  | 1   | 1  | 0 | 1 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 268+00 to 269+00 | Ames Street | 40           | 29  | 1   | 5  | 0 | 3 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 269+00 to 270+00 | Ames Street | 40           | 26  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 270+00 to 271+00 | Ames Street | 32           | 29  | 1   | 16 | 0 | 4 | 2 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 271+00 to 272+00 | Ames Street | 36           | 24  | 1   | 11 | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 272+00 to 273+00 | Ames Street | 40           | 34  | 1   | 8  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 273+00 to 274+00 | Ames Street | 40           | 31  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 274+00 to 275+00 | Ames Street | 35           | 6   | 3   | 13 | 0 | 1 | 6 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 275+00 to 276+00 | Ames Street | 33           | 6   | 3   | 5  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 276+00 to 277+00 | Ames Street | 35           | 9   | 3   | 14 | 0 | 2 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 277+00 to 278+00 | Ames Street | 40           | 9   | 3   | 8  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 278+00 to 279+00 | Ames Street | 40           | 3   | 5   | 13 | 0 | 5 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 279+00 to 280+00 | Ames Street | 40           | 11  | 2   | 2  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 280+00 to 281+00 | Ames Street | Not Provided | 11  | 2   | 20 | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 281+00 to 282+00 | Ames Street | 72           | 8   | 3   | 9  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 282+00 to 283+00 | Ames Street | 61           | 9   | 3   | 5  | 0 | 2 | 0 |
| 14313.00-EXIST.dwg  | 283+00 to 284+00 | Ames Street | 50           | 7   | 3   | 2  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 284+00 to 285+00 | Ames Street | 53           | N/A | N/A | 4  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 285+00 to 286+00 | Ames Street | 67           | N/A | N/A | 3  | 0 | 2 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>14313.00-EXIST.dwg | 286+00 to 286+45 | Ames Street | Not Provided | 12  | 2   | 11 | 0 | 0 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>14313.00-EXIST.dwg | 286+45 to 287+00 | Broadway    | Not Provided | 12  | 2   | 3  | 0 | 1 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>14313.00-EXIST.dwg | 287+00 to 288+00 | Broadway    | 70           | 20  | 1   | 1  | 0 | 0 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>14313.00-EXIST.dwg | 288+00 to 289+00 | Broadway    | 70           | N/A | N/A | 1  | 0 | 0 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>14313.00-EXIST.dwg | 289+00 to 289+78 | Broadway    | 70           | N/A | N/A | 6  | 0 | 1 | 0 |

|  |  |  |  |                |                              |                          |                          |            |           |
|--|--|--|--|----------------|------------------------------|--------------------------|--------------------------|------------|-----------|
|  |  |  |  | <b>TOTALS:</b> | <b>2</b>                     | <b>794</b>               | <b>0</b>                 | <b>158</b> | <b>11</b> |
|  |  |  |  |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |           |

Study Area: BRIGHTON

Candidate Route: B25A EAST

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment    | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|------------------|---|---|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |                  |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street   | 27  | N/A   | N/A                               | 11   | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street   | 27  | 12  | 2                                 | 6  | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street   | 31  | 15  | 2                                 | 2  |  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 4+00                     | Lincoln Street   | 33  | 15  | 2                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 4+34                     | Lincoln Street   | Not Provided  | N/A   | N/A                               | 3  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+34 to 5+00                     | Mansfield Street | 26  | N/A   | N/A                               | 9  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Mansfield Street | 26  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                     | Mansfield Street | 26  | 6   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                     | Mansfield Street | 26  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                     | Mansfield Street | 26  | 6   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                    | Mansfield Street | 26  | 7   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                   | Mansfield Street | 26  | 8   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                   | Mansfield Street | 26  | 5   | 4                                 | 7  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 12+31                   | Mansfield Street | 26  | 12  | 2                                 | 2  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+31 to 13+00                   | Bradbury Street  | 26  | 12  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00                   | Bradbury Street  | 26  | 12  | 2                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00                   | Bradbury Street  | 26  | 7   | 3                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00                   | Bradbury Street  | 26  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 16+00 to 16+41                   | Bradbury Street  | 26  | 6   | 3                                 | 13   | 0  | 5                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 16+41 to 17+00                   | Franklin Street  | 28  | 0   | 5                                 | 11   | 0  | 3                 | 0          |

|                            |                |                    |              |     |     |    |   |   |   |
|----------------------------|----------------|--------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00 | Franklin Street    | 28           | 0   | 5   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00 | Franklin Street    | 28           | 0   | 5   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Franklin Street    | 28           | 0   | 5   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Franklin Street    | 26           | 6   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Franklin Street    | 28           | 5   | 4   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Franklin Street    | 28           | 4   | 4   | 8  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Franklin Street    | 22           | 2   | 5   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 25+00 | Franklin Street    | 22           | 4   | 4   | 8  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | Franklin Street    | 22           | 4   | 4   | 5  | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00 | Franklin Street    | 22           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00 | Franklin Street    | 22           | 2   | 5   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00 | Franklin Street    | 22           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00 | Franklin Street    | 22           | 5   | 4   | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00 | Franklin Street    | 22           | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | Franklin Street    | 22           | N/A | N/A | 8  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 32+06 | Franklin Street    | Not Provided | 0   | 5   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+06 to 33+00 | N. Harvard Street  | 44           | 0   | 5   | 15 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 33+00 to 34+00 | N. Harvard Street  | 44           | 0   | 5   | 5  | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 34+00 to 34+16 | N. Harvard Street  | Not Provided | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 34+16 to 35+00 | Spurr Street       | 25           | 3   | 5   | 17 | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 35+00 to 36+00 | Spurr Street       | 30           | N/A | N/A | 5  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 36+00 to 37+00 | Spurr Street       | Not Provided | N/A | N/A | 8  | 0 | 5 | 0 |
| 20200911 S-1390-07_SUM.dwg | 37+00 to 37+49 | Spurr Street       | Not Provided | N/A | N/A | 5  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 37+49 to 38+00 | Harvard University | 30           | N/A | N/A | 0  | 0 | 0 | 0 |

|                             |                |                     |    |     |     |   |   |   |   |
|-----------------------------|----------------|---------------------|----|-----|-----|---|---|---|---|
| 20201002 S-1390-08_SUM.dwg  | 38+00 to 39+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 39+00 to 40+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 40+00 to 41+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 41+00 to 42+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 42+00 to 43+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 43+00 to 44+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 44+00 to 45+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 45+00 to 46+00 | Harvard University  | 30 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 46+00 to 47+00 | Harvard University  | 30 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 47+00 to 48+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 48+00 to 49+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 49+00 to 50+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 50+00 to 51+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 51+00 to 52+00 | Harvard University  | 30 | N/A | N/A | 1 | 0 | 1 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 52+00 to 53+00 | Harvard University  | 30 | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 53+00 to 54+00 | Harvard University  | 30 | 12  | 2   | 1 | 0 | 1 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 54+00 to 55+00 | Harvard University  | 30 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 55+00 to 56+00 | Harvard University  | 30 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 56+00 to 57+00 | Soldiers Field Road | 78 | 12  | 2   | 5 | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 57+00 to 58+00 | Soldiers Field Road | 78 | 0   | 5   | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 58+00 to 59+00 | Soldiers Field Road | 78 | 0   | 5   | 2 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 59+00 to 60+00 | Soldiers Field Road | 78 | 33  | 1   | 1 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 60+00 to 61+00 | Soldiers Field Road | 78 | 33  | 1   | 6 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 61+00 to 62+00 | Soldiers Field Road | 78 | 33  | 1   | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 62+00 to 63+00 | Soldiers Field Road | 78 | 33  | 1   | 5 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 63+00 to 64+00 | Soldiers Field Road | 78 | 33  | 1   | 2 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 64+00 to 64+43 | Soldiers Field Road | 78 | 33  | 1   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 64+43 to 65+00 | Herter Park         | 45 | 33  | 1   | 2 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 65+00 to 66+00 | Herter Park         | 45 | 33  | 1   | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 66+00 to 67+00 | Herter Park         | 45 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 67+00 to 68+00 | Herter Park         | 45 | N/A | N/A | 2 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 68+00 to 69+00 | Herter Park         | 45 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 69+00 to 70+00 | Herter Park         | 45 | N/A | N/A | 0 | 0 | 0 | 0 |



|                             |                  |                   |              |     |     |   |   |   |   |
|-----------------------------|------------------|-------------------|--------------|-----|-----|---|---|---|---|
| 20201002 S-1390-08_SUM      | 70+00 to 71+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 71+00 to 72+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 72+00 to 73+00   | Herter Park       | 45           | N/A | N/A | 4 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 73+00 to 74+00   | Herter Park       | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 74+00 to 75+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 75+00 to 76+00   | Eliot Bridge      | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 76+00 to 77+00   | Herter Park       | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 77+00 to 78+00   | Herter Park       | 45           | N/A | N/A | 3 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 78+00 to 79+00   | Herter Park       | 45           | N/A | N/A | 3 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 79+00 to 80+00   | Herter Park       | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 80+00 to 81+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 81+00 to 82+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 82+00 to 83+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 83+00 to 84+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 84+00 to 85+00   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 85+00 to 85+27   | Herter Park       | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 85+27 to 86+00   | Charles River     | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 86+00 to 87+00   | Charles River     | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 87+00 to 88+00   | Charles River     | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
|                             | 88+00 to 89+00   | Charles River     | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 89+00 to 90+00   | Riverbend Park    | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 90+00 to 91+00   | Riverbend Park    | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM      | 91+00 to 92+00   | Riverbend Park    | 45           | N/A | N/A | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 92+00 to 93+00   | Riverbend Park    | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 93+00 to 94+00   | Riverbend Park    | 45           | N/A | N/A | 4 | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 94+00 to 94+27   | Riverbend Park    | 45           | N/A | N/A | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 94+27 to 95+00   | Mt. Auburn Street | Not Provided | 0   | 5   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 95+00 to 96+00   | Mt. Auburn Street | 41           | 11  | 2   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 96+00 to 96+40   | Mt. Auburn Street | 42           | 20  | 1   | 3 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 96+40 to 97+00   | Ash Street        | 20           | 0   | 5   | 9 | 0 | 3 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 97+00 to 98+00   | Ash Street        | 20           | 0   | 5   | 0 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 98+00 to 99+00   | Ash Street        | 20           | 6   | 3   | 0 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 99+00 to 100+00  | Ash Street        | 20           | 6   | 3   | 2 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg  | 100+00 to 101+00 | Ash Street        | 20           | 6   | 3   | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 101+00 to 101+27 | Ash Street        | Not Provided | 10  | 2   | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 101+27 to 102+00 | Memorial Drive    | 45           | 40  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 102+00 to 103+00 | Memorial Drive    | 40           | 40  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 103+00 to 104+00 | Memorial Drive    | 40           | 40  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 104+00 to 105+00 | Memorial Drive    | 40           | 40  | 1   | 1 | 0 | 0 | 0 |

|                            |                  |                |              |     |     |    |   |   |   |
|----------------------------|------------------|----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 105+00 to 106+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 106+00 to 107+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 107+00 to 108+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 108+00 to 109+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 109+00 to 110+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Memorial Drive | 40           | 40  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Memorial Drive | 40           | 40  | 1   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Memorial Drive | 40           | 40  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Memorial Drive | 40           | N/A | N/A | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Memorial Drive | Not Provided | N/A | N/A | 19 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Memorial Drive | 40           | 28  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Memorial Drive | 40           | 28  | 1   | 4  | 0 | 1 | 0 |

|                            |                  |                |    |    |   |   |   |   |   |
|----------------------------|------------------|----------------|----|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Memorial Drive | 40 | 28 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Memorial Drive | 40 | 28 | 1 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 122+00 to 123+00 | Memorial Drive | 40 | 28 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Memorial Drive | 40 | 28 | 1 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Memorial Drive | 40 | 28 | 1 | 1 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 126+00 | Memorial Drive | 40 | 28 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+00 to 129+00 | Memorial Drive | 40 | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 129+00 to 130+00 | Memorial Drive | 40 | 40 | 1 | 3 | 0 | 0 | 0 |

|                            |                  |                |              |     |     |    |   |   |   |
|----------------------------|------------------|----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 130+00 to 131+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 131+00 to 132+00 | Memorial Drive | 40           | 37  | 1   | 7  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 132+00 to 133+00 | Memorial Drive | 40           | 35  | 1   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 133+00 to 134+00 | Memorial Drive | 40           | 33  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 134+00 to 135+00 | Memorial Drive | 40           | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 135+00 to 136+00 | Memorial Drive | 40           | 30  | 1   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 136+00 to 137+00 | Memorial Drive | 40           | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 137+00 to 138+00 | Memorial Drive | 40           | 32  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 138+00 to 139+00 | Memorial Drive | 40           | 32  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 139+00 to 140+00 | Memorial Drive | 40           | 32  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 140+00 to 141+00 | Memorial Drive | 40           | 29  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 141+00 to 142+00 | Memorial Drive | 40           | 22  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 142+00 to 143+00 | Memorial Drive | 40           | 20  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 143+00 to 144+00 | Memorial Drive | 40           | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 144+00 to 145+00 | Memorial Drive | 40           | 27  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 145+00 to 146+00 | Memorial Drive | 40           | 27  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 146+00 to 147+00 | Memorial Drive | 40           | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 147+00 to 148+00 | Memorial Drive | 40           | 24  | 1   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 148+00 to 149+00 | Memorial Drive | 40           | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 149+00 to 150+00 | Memorial Drive | 41           | 15  | 2   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 150+00 to 151+00 | Memorial Drive | Not Provided | N/A | N/A | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 151+00 to 152+00 | Memorial Drive | 43           | 28  | 1   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 152+00 to 153+00 | Memorial Drive | 41           | 25  | 1   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 153+00 to 154+00 | Memorial Drive | 41           | 32  | 1   | 0  | 0 | 0 | 0 |

|                            |                  |                |              |     |     |    |   |   |   |
|----------------------------|------------------|----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 154+00 to 155+00 | Memorial Drive | 41           | 32  | 1   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 155+00 to 156+00 | Memorial Drive | 41           | 32  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 156+00 to 157+00 | Memorial Drive | 41           | 0   | 5   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 157+00 to 158+00 | Memorial Drive | 41           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 158+00 to 159+00 | Memorial Drive | 41           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 159+00 to 160+00 | Memorial Drive | 42           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 160+00 to 161+00 | Memorial Drive | Not Provided | N/A | N/A | 11 | 0 | 6 | 0 |
| 20200902 S-1390-07_SUM.dwg | 161+00 to 162+00 | Memorial Drive | 42           | 28  | 1   | 5  | 0 | 1 | 0 |
| 20200902 S-1390-07_SUM.dwg | 162+00 to 163+00 | Memorial Drive | 40           | 28  | 1   | 3  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 163+00 to 164+00 | Memorial Drive | 40           | 28  | 1   | 2  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 164+00 to 165+00 | Memorial Drive | 40           | 35  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 165+00 to 166+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 166+00 to 167+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 167+00 to 168+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 168+00 to 169+00 | Memorial Drive | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg | 169+00 to 170+00 | Memorial Drive | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 170+00 to 171+00 | Memorial Drive | 40           | 40  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 171+00 to 172+00 | Memorial Drive | 40           | 33  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 172+00 to 173+00 | Memorial Drive | 40           | 33  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 173+00 to 174+00 | Memorial Drive | 40           | 27  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 174+00 to 175+00 | Memorial Drive | 40           | 27  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 175+00 to 176+00 | Memorial Drive | 40           | 27  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 176+00 to 177+00 | Memorial Drive | 40           | 27  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 177+00 to 178+00 | Memorial Drive | 40           | 23  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 178+00 to 179+00 | Memorial Drive | 40           | 23  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 179+00 to 180+00 | Memorial Drive | 40           | 23  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 180+00 to 181+00 | Memorial Drive | 40           | 35  | 1   | 9  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 181+00 to 182+00 | Memorial Drive | 40           | 35  | 1   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 182+00 to 183+00 | Memorial Drive | 40           | 35  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 183+00 to 184+00 | Memorial Drive | 50           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 184+00 to 185+00 | Memorial Drive | 77           | 40  | 1   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 185+00 to 186+00 | Memorial Drive | 107          | 60  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 186+00 to 187+00 | Memorial Drive | 65           | 28  | 1   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 187+00 to 188+00 | Memorial Drive | 25           | 28  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 188+00 to 189+00 | Memorial Drive | 25           | 28  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 189+00 to 190+00 | Memorial Drive | 25           | 22  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 190+00 to 191+00 | Memorial Drive | 25           | 48  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 191+00 to 192+00 | Memorial Drive | 50           | 0   | 5   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 192+00 to 193+00 | Memorial Drive | 48           | 45  | 1   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 193+00 to 194+00 | Memorial Drive | 40           | 40  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 194+00 to 195+00 | Memorial Drive | 20           | 60  | 1   | 5  | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 195+00 to 196+00 | Memorial Drive | 20           | N/A | N/A | 9  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 196+00 to 197+00 | Memorial Drive | 22           | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 197+00 to 198+00 | Memorial Drive | 30           | N/A | N/A | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 198+00 to 199+00 | Memorial Drive | 80           | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 199+00 to 200+00 | Memorial Drive | 82           | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 200+00 to 201+00 | Memorial Drive | 57           | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 201+00 to 202+00 | Memorial Drive | 42           | N/A | N/A | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 202+00 to 203+00 | Memorial Drive | 40           | N/A | N/A | 4  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 203+00 to 204+00 | Memorial Drive | Not Provided | 25  | 1   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 204+00 to 205+00 | Memorial Drive | 40           | 25  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 205+00 to 206+00 | Memorial Drive | 40           | 25  | 1   | 0  | 0 | 0 | 0 |

|                            |                  |                |              |    |   |    |   |   |   |
|----------------------------|------------------|----------------|--------------|----|---|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 206+00 to 207+00 | Memorial Drive | 40           | 25 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 207+00 to 208+00 | Memorial Drive | 40           | 25 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 208+00 to 209+00 | Memorial Drive | 40           | 25 | 1 | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 209+00 to 210+00 | Memorial Drive | 40           | 25 | 1 | 2  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 210+00 to 211+00 | Memorial Drive | 40           | 25 | 1 | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 211+00 to 212+00 | Memorial Drive | 40           | 20 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 212+00 to 213+00 | Memorial Drive | 40           | 17 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 213+00 to 214+00 | Memorial Drive | 40           | 30 | 1 | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 214+00 to 215+00 | Memorial Drive | 40           | 30 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 215+00 to 216+00 | Memorial Drive | 40           | 30 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 216+00 to 217+00 | Memorial Drive | 40           | 30 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 217+00 to 218+00 | Memorial Drive | 40           | 30 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 218+00 to 219+00 | Memorial Drive | 40           | 30 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 219+00 to 220+00 | Memorial Drive | 40           | 30 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 220+00 to 221+00 | Memorial Drive | 40           | 30 | 1 | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 221+00 to 222+00 | Memorial Drive | 40           | 30 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 222+00 to 223+00 | Memorial Drive | 41           | 30 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 223+00 to 224+00 | Memorial Drive | 49           | 30 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 224+00 to 225+00 | Memorial Drive | 42           | 24 | 1 | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 225+00 to 226+00 | Memorial Drive | 24           | 24 | 1 | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 226+00 to 227+00 | Memorial Drive | 24           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 227+00 to 228+00 | Memorial Drive | 24           | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 228+00 to 229+00 | Memorial Drive | 24           | 24 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 229+00 to 230+00 | Memorial Drive | 24           | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 230+00 to 231+00 | Memorial Drive | 28           | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 231+00 to 232+00 | Memorial Drive | 37           | 36 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 232+00 to 233+00 | Memorial Drive | 37           | 36 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 233+00 to 234+00 | Memorial Drive | 27           | 12 | 2 | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 234+00 to 235+00 | Memorial Drive | 24           | 12 | 2 | 10 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 235+00 to 236+00 | Memorial Drive | 24           | 12 | 2 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 236+00 to 237+00 | Memorial Drive | 24           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 237+00 to 238+00 | Memorial Drive | 24           | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 238+00 to 239+00 | Memorial Drive | 24           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 239+00 to 240+00 | Memorial Drive | 26           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 240+00 to 241+00 | Memorial Drive | 36           | 24 | 1 | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 241+00 to 242+00 | Memorial Drive | 36           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 242+00 to 243+00 | Memorial Drive | 19           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 243+00 to 244+00 | Memorial Drive | 19           | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 244+00 to 245+00 | Memorial Drive | 19           | 24 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 245+00 to 246+00 | Memorial Drive | Not Provided | 22 | 1 | 4  | 0 | 3 | 0 |

|                                     |                  |                |    |    |   |    |   |   |   |
|-------------------------------------|------------------|----------------|----|----|---|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg          | 246+00 to 247+00 | Memorial Drive | 21 | 17 | 1 | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 247+00 to 248+00 | Memorial Drive | 19 | 17 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 248+00 to 249+00 | Memorial Drive | 19 | 17 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 249+00 to 250+00 | Memorial Drive | 26 | 17 | 1 | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 250+00 to 251+00 | Memorial Drive | 43 | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 251+00 to 252+00 | Memorial Drive | 35 | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 252+00 to 253+00 | Memorial Drive | 34 | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 253+00 to 254+00 | Memorial Drive | 33 | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 254+00 to 255+00 | Memorial Drive | 30 | 24 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 255+00 to 256+00 | Memorial Drive | 26 | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 256+00 to 257+00 | Memorial Drive | 25 | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 257+00 to 258+00 | Memorial Drive | 25 | 24 | 1 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 258+00 to 259+00 | Memorial Drive | 30 | 24 | 1 | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 259+00 to 260+00 | Memorial Drive | 30 | 36 | 1 | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 260+00 to 261+00 | Memorial Drive | 39 | 36 | 1 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 261+00 to 262+00 | Memorial Drive | 28 | 24 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 262+00 to 262+17 | Memorial Drive | 25 | 50 | 1 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg          | 262+17 to 263+00 | Ames Street    | 40 | 29 | 1 | 1  | 0 | 1 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 263+00 to 264+00 | Ames Street    | 40 | 29 | 1 | 5  | 0 | 3 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 264+00 to 265+00 | Ames Street    | 40 | 26 | 1 | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 265+00 to 266+00 | Ames Street    | 35 | 29 | 1 | 7  | 0 | 2 | 2 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 266+00 to 267+00 | Ames Street    | 35 | 24 | 1 | 14 | 0 | 1 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 267+00 to 268+00 | Ames Street    | 40 | 34 | 1 | 4  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 268+00 to 269+00 | Ames Street    | 40 | 31 | 1 | 6  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 269+00 to 270+00 | Ames Street    | 37 | 6  | 3 | 9  | 0 | 1 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 270+00 to 271+00 | Ames Street    | 34 | 6  | 3 | 9  | 0 | 0 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 271+00 to 272+00 | Ames Street    | 34 | 9  | 3 | 12 | 0 | 2 | 3 |

|  |                  |             |              |                |                              |                          |                          |            |           |
|--|------------------|-------------|--------------|----------------|------------------------------|--------------------------|--------------------------|------------|-----------|
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 272+00 to 273+00 | Ames Street | 40           | 9              | 3                            | 5                        | 0                        | 0          | 0         |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 273+00 to 274+00 | Ames Street | 40           | 3              | 5                            | 17                       | 0                        | 5          | 0         |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 274+00 to 275+00 | Ames Street | 40           | 11             | 2                            | 2                        | 0                        | 0          | 0         |
| 16865-EC-AMES (Draft 2019-8-16).dwg<br>14313.00-EXIST.dwg          | 275+00 to 276+00 | Ames Street | 40           | 11             | 2                            | 19                       | 0                        | 1          | 0         |
| 14313.00-EXIST.dwg   | 276+00 to 277+00 | Ames Street | Not Provided | 8              | 3                            | 4                        | 0                        | 2          | 0         |
| 14313.00-EXIST.dwg   | 277+00 to 278+00 | Ames Street | 67           | 9              | 3                            | 5                        | 0                        | 2          | 0         |
| 14313.00-EXIST.dwg   | 278+00 to 279+00 | Ames Street | 52           | 7              | 3                            | 4                        | 0                        | 1          | 0         |
| 14313.00-EXIST.dwg   | 279+00 to 280+00 | Ames Street | 51           | N/A            | N/A                          | 2                        | 0                        | 1          | 0         |
| 14313.00-EXIST.dwg   | 280+00 to 281+00 | Ames Street | 61           | N/A            | N/A                          | 2                        | 0                        | 0          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 281+00 to 281+71 | Ames Street | Not Provided | 12             | 2                            | 10                       | 0                        | 2          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 281+71 to 282+00 | Broadway    | Not Provided | 12             | 2                            | 2                        | 0                        | 0          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 282+00 to 283+00 | Broadway    | 70           | 20             | 1                            | 1                        | 0                        | 1          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 283+00 to 284+00 | Broadway    | 70           | N/A            | N/A                          | 2                        | 0                        | 0          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 284+00 to 285+05 | Broadway    | 70           | N/A            | N/A                          | 6                        | 0                        | 1          | 0         |
|  |                  |             |              | <b>TOTALS:</b> | <b>2</b>                     | <b>752</b>               | <b>0</b>                 | <b>154</b> | <b>11</b> |
|  |                  |             |              |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |           |



**Study Area: BRIGHTON**

**Candidate Route: B31 EAST**

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment  | Approximate Width<br>of Route Segment<br>(ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|----------------|--|---|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |                |  |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street | 27   | N/A   | N/A                               | 11   | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street | 27   | 12  | 2                                 | 6  | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street | 31   | 15  | 2                                 | 2  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 4+00                     | Lincoln Street | 33   | 15  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 5+00                     | Lincoln Street | 29   | 8   | 3                                 | 6  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Lincoln Street | 35   | 15  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                     | Lincoln Street | 36   | 15  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                     | Lincoln Street | 36   | 15  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                     | Lincoln Street | 35   | 15  | 2                                 | 6  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                    | Lincoln Street | 39   | 0   | 5                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                   | Lincoln Street | 54   | 0   | 5                                 | 4  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                   | Lincoln Street | 81   | 36  | 1                                 | 7  | 0  | 4                 | 0          |

|                            |                |                                 |     |    |   |    |   |    |   |
|----------------------------|----------------|---------------------------------|-----|----|---|----|---|----|---|
| 20200724 S-1390-07_SUM.dwg | 12+00 to 13+00 | Cambridge Street                | 81  | 17 | 1 | 20 | 0 | 15 | 0 |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00 | Cambridge Street                | 81  | 17 | 1 | 8  | 0 | 4  | 0 |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00 | Cambridge Street                | 81  | 17 | 1 | 3  | 0 | 0  | 0 |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00 | Cambridge Street                | 84  | 17 | 1 | 5  | 0 | 2  | 0 |
| 20200724 S-1390-07_SUM.dwg | 16+00 to 17+00 | Cambridge Street                | 84  | 20 | 1 | 12 | 0 | 6  | 0 |
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00 | Cambridge Street                | 84  | 20 | 1 | 3  | 0 | 2  | 0 |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00 | Cambridge Street                | 88  | 20 | 1 | 1  | 0 | 0  | 0 |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Cambridge Street                | 94  | 20 | 1 | 1  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Cambridge Street                | 102 | 20 | 1 | 2  | 0 | 0  | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Cambridge Street                | 100 | 20 | 1 | 2  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Cambridge Street                | 94  | 20 | 1 | 7  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Cambridge Street                | 88  | 20 | 1 | 3  | 0 | 0  | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 25+00 | Cambridge Street                | 84  | 20 | 1 | 6  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | Allston Multimodal Project Site | 80  | 20 | 1 | 5  | 0 | 2  | 0 |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00 | Allston Multimodal Project Site | 72  | 20 | 1 | 11 | 0 | 4  | 0 |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00 | Allston Multimodal Project Site | 66  | 20 | 1 | 2  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00 | Allston Multimodal Project Site | 66  | 20 | 1 | 3  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00 | Allston Multimodal Project Site | 74  | 20 | 1 | 3  | 0 | 1  | 0 |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00 | Allston Multimodal Project Site | 74  | 20 | 1 | 5  | 0 | 2  | 0 |

|                            |                |                                 |              |     |     |    |   |   |   |
|----------------------------|----------------|---------------------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | Allston Multimodal Project Site | 66           | 20  | 1   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 33+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 33+00 to 34+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 9  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 34+00 to 35+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 35+00 to 36+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 36+00 to 37+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 37+00 to 38+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 38+00 to 39+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 39+00 to 40+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 40+00 to 41+00 | Allston Multimodal Project Site | 52           | 20  | 1   | 5  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 41+00 to 42+00 | Cambridge Street                | 56           | 20  | 1   | 7  | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 42+00 to 43+00 | Cambridge Street                | Not Provided | N/A | N/A | 19 | 0 | 8 | 0 |
| 20200724 S-1390-07_SUM.dwg | 43+00 to 44+00 | Cambridge Street                | Not Provided | N/A | N/A | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 44+00 to 45+00 | River Street Bridge             | 38           | 18  | 1   | 8  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 45+00 to 46+00 | River Street Bridge             | 39           | 18  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 46+00 to 47+00 | River Street Bridge             | 39           | 18  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 47+00 to 48+00 | River Street Bridge             | 40           | 10  | 2   | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 48+00 to 48+15 | River Street Bridge             | Not Provided | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 48+15 to 49+00 | Memorial Drive                  | 43           | 28  | 1   | 8  | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 49+00 to 50+00 | Memorial Drive                  | 40           | 28  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 50+00 to 51+00 | Memorial Drive                  | 40           | 28  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 51+00 to 52+00 | Memorial Drive                  | 40           | 35  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 52+00 to 53+00 | Memorial Drive                  | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 53+00 to 54+00 | Memorial Drive                  | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 54+00 to 55+00 | Memorial Drive                  | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 55+00 to 56+00 | Memorial Drive                  | 40           | 40  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 56+00 to 57+00 | Memorial Drive                  | 40           | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 57+00 to 58+00 | Memorial Drive                  | 40           | 40  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 58+00 to 59+00 | Memorial Drive                  | 40           | 33  | 1   | 2  | 0 | 1 | 0 |

|                            |                |                |              |     |     |   |   |   |   |
|----------------------------|----------------|----------------|--------------|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 59+00 to 60+00 | Memorial Drive | 40           | 33  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 60+00 to 61+00 | Memorial Drive | 40           | 27  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 61+00 to 62+00 | Memorial Drive | 40           | 27  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 62+00 to 63+00 | Memorial Drive | 40           | 27  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 63+00 to 64+00 | Memorial Drive | 40           | 27  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 64+00 to 65+00 | Memorial Drive | 40           | 23  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 65+00 to 66+00 | Memorial Drive | 40           | 23  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 66+00 to 67+00 | Memorial Drive | 40           | 23  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 67+00 to 68+00 | Memorial Drive | 40           | 35  | 1   | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 68+00 to 69+00 | Memorial Drive | 40           | 35  | 1   | 5 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 69+00 to 70+00 | Memorial Drive | 40           | 35  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 70+00 to 71+00 | Memorial Drive | 44           | 40  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 71+00 to 72+00 | Memorial Drive | 68           | 40  | 1   | 4 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 72+00 to 73+00 | Memorial Drive | 100          | 60  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 73+00 to 74+00 | Memorial Drive | 55           | 28  | 1   | 6 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 74+00 to 75+00 | Memorial Drive | 25           | 28  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 75+00 to 76+00 | Memorial Drive | 25           | 28  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 76+00 to 77+00 | Memorial Drive | 25           | 22  | 1   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 77+00 to 78+00 | Memorial Drive | 25           | 48  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 78+00 to 79+00 | Memorial Drive | 50           | 0   | 5   | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 79+00 to 80+00 | Memorial Drive | 48           | 45  | 1   | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 80+00 to 81+00 | Memorial Drive | 40           | 40  | 1   | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 81+00 to 82+00 | Memorial Drive | 25           | 60  | 1   | 6 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 82+00 to 83+00 | Memorial Drive | Not Provided | N/A | N/A | 8 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 83+00 to 84+00 | Memorial Drive | 22           | N/A | N/A | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 84+00 to 85+00 | Memorial Drive | 22           | N/A | N/A | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 85+00 to 86+00 | Memorial Drive | 80           | N/A | N/A | 1 | 0 | 0 | 0 |

|                            |                  |                |    |     |     |    |   |   |   |
|----------------------------|------------------|----------------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 86+00 to 87+00   | Memorial Drive | 88 | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 87+00 to 88+00   | Memorial Drive | 62 | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 88+00 to 89+00   | Memorial Drive | 44 | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 89+00 to 90+00   | Memorial Drive | 40 | N/A | N/A | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 90+00 to 91+00   | Memorial Drive | 40 | 25  | 1   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 91+00 to 92+00   | Memorial Drive | 40 | 25  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 92+00 to 93+00   | Memorial Drive | 40 | 25  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 93+00 to 94+00   | Memorial Drive | 40 | 25  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 94+00 to 95+00   | Memorial Drive | 40 | 25  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 95+00 to 96+00   | Memorial Drive | 40 | 25  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 96+00 to 97+00   | Memorial Drive | 40 | 25  | 1   | 4  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 97+00 to 98+00   | Memorial Drive | 40 | 25  | 1   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 98+00 to 99+00   | Memorial Drive | 40 | 20  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 99+00 to 100+00  | Memorial Drive | 40 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 100+00 to 101+00 | Memorial Drive | 40 | 30  | 1   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 101+00 to 102+00 | Memorial Drive | 40 | 30  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 102+00 to 103+00 | Memorial Drive | 40 | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 103+00 to 104+00 | Memorial Drive | 40 | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 104+00 to 105+00 | Memorial Drive | 40 | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 105+00 to 106+00 | Memorial Drive | 40 | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 106+00 to 107+00 | Memorial Drive | 40 | 30  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 107+00 to 108+00 | Memorial Drive | 40 | 30  | 1   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 108+00 to 109+00 | Memorial Drive | 40 | 30  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 109+00 to 110+00 | Memorial Drive | 40 | 30  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Memorial Drive | 48 | 30  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Memorial Drive | 44 | 24  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Memorial Drive | 24 | 24  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Memorial Drive | 24 | 24  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Memorial Drive | 24 | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Memorial Drive | 24 | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Memorial Drive | 24 | 24  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Memorial Drive | 24 | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Memorial Drive | 34 | 36  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Memorial Drive | 37 | 36  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Memorial Drive | 29 | 12  | 2   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Memorial Drive | 25 | 12  | 2   | 10 | 0 | 3 | 0 |

|                            |                  |                |              |    |   |   |   |   |   |
|----------------------------|------------------|----------------|--------------|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 122+00 to 123+00 | Memorial Drive | 25           | 12 | 2 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Memorial Drive | 24           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Memorial Drive | 24           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 126+00 | Memorial Drive | 24           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Memorial Drive | 25           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Memorial Drive | 34           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+00 to 129+00 | Memorial Drive | 48           | 24 | 1 | 3 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 129+00 to 130+00 | Memorial Drive | 19           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 130+00 to 131+00 | Memorial Drive | 19           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 131+00 to 132+00 | Memorial Drive | 19           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 132+00 to 133+00 | Memorial Drive | Not Provided | 22 | 1 | 4 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 133+00 to 134+00 | Memorial Drive | Not Provided | 17 | 1 | 6 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 134+00 to 135+00 | Memorial Drive | 19           | 17 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 135+00 to 136+00 | Memorial Drive | 19           | 17 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 136+00 to 137+00 | Memorial Drive | 19           | 17 | 1 | 6 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 137+00 to 138+00 | Memorial Drive | 46           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 138+00 to 139+00 | Memorial Drive | 36           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 139+00 to 140+00 | Memorial Drive | 34           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 140+00 to 141+00 | Memorial Drive | 34           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 141+00 to 142+00 | Memorial Drive | 30           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 142+00 to 143+00 | Memorial Drive | 27           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 143+00 to 144+00 | Memorial Drive | 25           | 24 | 1 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 144+00 to 145+00 | Memorial Drive | 25           | 24 | 1 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 145+00 to 146+00 | Memorial Drive | 28           | 24 | 1 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 146+00 to 147+00 | Memorial Drive | 28           | 36 | 1 | 2 | 0 | 1 | 0 |

|   |                  |                |              |     |     |    |   |   |   |
|---|------------------|----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg  | 147+00 to 148+00 | Memorial Drive | 40           | 36  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 148+00 to 149+00 | Memorial Drive | 33           | 24  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 149+00 to 149+42 | Memorial Drive | 25           | 50  | 1   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 149+42 to 150+00 | Ames Street    | 40           | 50  | 1   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 150+00 to 151+00 | Ames Street    | 40           | 29  | 1   | 5  | 0 | 3 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 151+00 to 152+00 | Ames Street    | 40           | 26  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 152+00 to 153+00 | Ames Street    | 39           | 29  | 1   | 3  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 153+00 to 154+00 | Ames Street    | 35           | 24  | 1   | 19 | 0 | 5 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 154+00 to 155+00 | Ames Street    | 40           | 34  | 1   | 6  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 155+00 to 156+00 | Ames Street    | 40           | 31  | 1   | 6  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 156+00 to 157+00 | Ames Street    | 38           | 6   | 3   | 7  | 0 | 0 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 157+00 to 158+00 | Ames Street    | 34           | 6   | 3   | 10 | 0 | 1 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 158+00 to 159+00 | Ames Street    | 34           | 9   | 3   | 12 | 0 | 1 | 3 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 159+00 to 160+00 | Ames Street    | 39           | 9   | 3   | 6  | 0 | 1 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 160+00 to 161+00 | Ames Street    | 40           | 3   | 5   | 14 | 0 | 5 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                               | 161+00 to 162+00 | Ames Street    | 40           | 11  | 2   | 6  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg<br>14313.00-EXIST.dwg         | 162+00 to 163+00 | Ames Street    | 40           | 11  | 2   | 15 | 0 | 1 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg<br>14313.00-EXIST.dwg         | 163+00 to 164+00 | Ames Street    | Not Provided | 8   | 3   | 14 | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 164+00 to 165+00 | Ames Street    | 70           | 9   | 3   | 6  | 0 | 3 | 0 |
| 14313.00-EXIST.dwg  | 165+00 to 166+00 | Ames Street    | 54           | 7   | 3   | 5  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 166+00 to 167+00 | Ames Street    | 50           | N/A | N/A | 1  | 0 | 0 | 0 |
| 14313.00-EXIST.dwg  | 167+00 to 168+00 | Ames Street    | 60           | N/A | N/A | 3  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg  | 168+00 to 169+96 | Ames Street    | Not Provided | 12  | 2   | 15 | 0 | 3 | 0 |
| 14313.00-EXIST.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 168+96 to 169+00 | Broadway       | Not Provided | 12  | 2   | 0  | 0 | 0 | 0 |
| 14313.00-EXIST.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 169+00 to 170+00 | Broadway       | 70           | 20  | 1   | 3  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 170+00 to 171+00 | Broadway       | 70           | 8   | 3   | 1  | 0 | 0 | 0 |

|   |                  |          |    |                |                              |                          |                          |            |          |
|---|------------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|------------|----------|
| 14313.00-EXIST.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 171+00 to 172+00 | Broadway | 70 | 8              | 3                            | 2                        | 0                        | 0          | 0        |
| 14313.00-EXIST.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 172+00 to 172+30 | Broadway | 70 | N/A            | N/A                          | 5                        | 0                        | 1          | 0        |
|   |                  |          |    | <b>TOTALS:</b> | <b>1</b>                     | <b>613</b>               | <b>0</b>                 | <b>166</b> | <b>9</b> |
|   |                  |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |          |



## **Brighton Study Area West**

**BRIGHTON STUDY AREA**

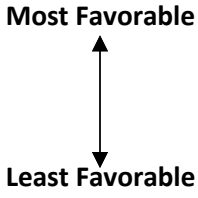
| Candidate Route | Existing Utility Density (Raw Data)   |                              |                                    | Ratio Scores (unweighted)*    |                              |                                    | Combined Utility Density Score** | Ranking for this Criterion |
|-----------------|---------------------------------------|------------------------------|------------------------------------|-------------------------------|------------------------------|------------------------------------|----------------------------------|----------------------------|
|                 | Average Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources | Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources |                                  |                            |
| B24 WEST        | 3                                     | 1042                         | 198                                | 0.75                          | 1.00                         | 0.93                               | 2.68                             | 2                          |
| B24A WEST       | 4                                     | 1026                         | 201                                | 1.00                          | 0.98                         | 0.94                               | 2.93                             | 3                          |
| B29F WEST       | 2                                     | 825                          | 213                                | 0.50                          | 0.79                         | 1.00                               | 2.29                             | 1                          |
| B30 WEST        | 4                                     | 1004                         | 206                                | 1.00                          | 0.96                         | 0.97                               | 2.93                             | 4                          |

**NOTES:**

- (1) The roadway widths (edge of pavement) are approximate and were determined using a combination of CADD and GIS data sources. Note that widths were not determined for off-road route segments unless otherwise noted.
- (2) "Estimated Maximum Useable Corridor Width" refers to the maximum available underground space that is potentially available to install the transmission line, measured horizontally between existing utilities in 100-foot long stations/increments along each Candidate Route, as determined by Project Engineers.
- (3) **BOLD** total numbers are used in "Raw Data Summary & Ratio Scores" worksheet as raw number inputs (Average Useable Corridor Rating, Sum of Utility Crossings and Sum of Heat Generating Sources).
- (4) "Utility Crossings" refers to utilities (including heat generating sources) that are intersected by each Candidate Route, generally perpendicular regardless of type, size or depth.
- (5) "Heat Generating Sources" refers to existing electric transmission, distribution and steam lines intersected by each Candidate Route, regardless of size or depth.

(6) The "Average Useable Corridor Width Rating" represents the average overall underground space that is potentially available to install the transmission line (exclusive of intersections where a width could not reasonably be determined given the convergence of utilities from several different directions), based on ratings between 1 and 5, with 1 being the most favorable and 5 being the least favorable.

| Estimated Maximum Useable Corridor Width (ft) | Rating |
|---|--------|
| > 15  | 1      |
| 15 - 10                                       | 2      |
| 9 - 6   | 3      |
| 5 - 4   | 4      |
| ≤ 3   | 5      |



**Study Area: BRIGHTON**

**Candidate Route: B24 WEST**

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment   | Approximate<br>Width of Route<br>Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility<br>Crossings by Road<br>or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|-----------------|--|---|-----------------------------------|---|--|-------------------|------------|
|                            |                                  |                 |  |   |                                   |   | Transmission<br>Line   | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street  | 27   | 6   | 3                                 | 7   | 0  | 5                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street  | 25   | 4   | 4                                 | 1   | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street  | 25   | 9   | 3                                 | 8   | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 3+29                     | Lincoln Street  | Not Provided   | NA  | N/A                               | 11  | 0  | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+29 to 4+00                     | Franklin Street | 28   | 0   | 5                                 | 18  | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 5+00                     | Franklin Street | 28   | 0   | 5                                 | 0   | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Franklin Street | 28   | 0   | 5                                 | 3   | 0  | 2                 | 0          |

|                            |                |                 |    |   |   |    |   |   |   |
|----------------------------|----------------|-----------------|----|---|---|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00   | Franklin Street | 28 | 0 | 5 | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00   | Franklin Street | 28 | 0 | 5 | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00   | Franklin Street | 28 | 0 | 5 | 8  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00  | Franklin Street | 28 | 0 | 5 | 13 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00 | Franklin Street | 28 | 0 | 5 | 8  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00 | Franklin Street | 28 | 0 | 5 | 2  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 13+00 | Franklin Street | 25 | 0 | 5 | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00 | Franklin Street | 29 | 0 | 5 | 4  | 0 | 0 | 0 |

|                            |                |                   |              |    |     |    |   |   |   |
|----------------------------|----------------|-------------------|--------------|----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00 | Franklin Street   | 30           | 6  | 3   | 7  | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00 | Franklin Street   | 25           | 5  | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 16+00 to 17+00 | Franklin Street   | 22           | 4  | 4   | 3  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00 | Franklin Street   | 22           | 2  | 5   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00 | Franklin Street   | 22           | 4  | 4   | 5  | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Franklin Street   | 22           | 4  | 4   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Franklin Street   | 22           | 0  | 5   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Franklin Street   | 22           | 2  | 5   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Franklin Street   | 22           | 0  | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Franklin Street   | 22           | 5  | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 24+67 | Franklin Street   | Not Provided | NA | N/A | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+67 to 25+00 | N. Harvard Street | Not Provided | NA | N/A | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | N. Harvard Street | 44           | 0  | 5   | 11 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00 | N. Harvard Street | 44           | 0  | 5   | 16 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00 | N. Harvard Street | 44           | 0  | 5   | 9  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00 | N. Harvard Street | 44           | NA | N/A | 14 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00 | N. Harvard Street | 45           | 8  | 3   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00 | N. Harvard Street | 40           | 5  | 4   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | N. Harvard Street | 40           | 4  | 4   | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 33+00 | N. Harvard Street | 40           | 10 | 2   | 1  | 0 | 0 | 0 |

|                             |                |                     |    |     |     |   |   |   |   |
|-----------------------------|----------------|---------------------|----|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg  | 33+00 to 34+00 | N. Harvard Street   | 40 | 7   | 3   | 9 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 34+00 to 35+00 | N. Harvard Street   | 40 | 8   | 3   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 35+00 to 36+00 | N. Harvard Street   | 40 | 5   | 4   | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 36+00 to 37+00 | N. Harvard Street   | 40 | 7   | 3   | 6 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 37+00 to 38+00 | N. Harvard Street   | 40 | 6   | 3   | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 38+00 to 39+00 | N. Harvard Street   | 40 | 5   | 4   | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 39+00 to 39+31 | N. Harvard Street   | 40 | 5   | 4   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 39+31 to 40+00 | Harvard University  | 45 | NA  | N/A | 5 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 40+00 to 41+00 | Harvard University  | 45 | 50  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 41+00 to 42+00 | Harvard University  | 45 | 50  | 1   | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 42+00 to 43+00 | Harvard University  | 45 | 40  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 43+00 to 44+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 44+00 to 45+00 | Harvard University  | 45 | 50  | 1   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 45+00 to 46+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 46+00 to 47+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 47+00 to 48+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 48+00 to 49+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 49+00 to 50+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 50+00 to 51+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 51+00 to 52+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 52+00 to 53+00 | Harvard University  | 45 | 12  | 2   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 53+00 to 53+42 | Harvard University  | 45 | N/A | N/A | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 53+42 to 54+00 | Soldiers Field Road | 78 | 30  | 1   | 3 | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 54+00 to 55+00 | Soldiers Field Road | 78 | 33  | 1   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 55+00 to 56+00 | Soldiers Field Road | 78 | 33  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 56+00 to 57+00 | Soldiers Field Road | 78 | 33  | 1   | 2 | 0 | 1 | 0 |
| 14897.00_SV_UT_20200515.dwg | 57+00 to 58+00 | Soldiers Field Road | 78 | 33  | 1   | 5 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 58+00 to 59+00 | Soldiers Field Road | 78 | 33  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 59+00 to 60+00 | Soldiers Field Road | 78 | 33  | 1   | 5 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 60+00 to 61+00 | Soldiers Field Road | 78 | 33  | 1   | 2 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 61+00 to 61+81 | Soldiers Field Road | 78 | 33  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 61+81 to 62+00 | Herter Park         | 45 | NA  | N/A | 1 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 62+00 to 63+00 | Herter Park         | 45 | NA  | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 63+00 to 64+00 | Herter Park         | 45 | NA  | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 64+00 to 65+00 | Herter Park         | 45 | NA  | N/A | 2 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 65+00 to 66+00 | Herter Park         | 45 | NA  | N/A | 2 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 66+00 to 67+00 | Herter Park         | 45 | NA  | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 67+00 to 68+00 | Herter Park         | 45 | NA  | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 68+00 to 69+00 | Herter Park         | 45 | NA  | N/A | 0 | 0 | 0 | 0 |

|                             |                  |                   |              |     |     |    |   |   |   |
|-----------------------------|------------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20201002 S-1390-08_SUM.dwg  | 69+00 to 70+00   | Herter Park       | 45           | NA  | N/A | 2  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 70+00 to 71+00   | Herter Park       | 45           | NA  | N/A | 3  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 71+00 to 72+00   | Herter Park       | 45           | NA  | N/A | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 72+00 to 73+00   | Eliot Bridge      | 45           | NA  | N/A | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 73+00 to 74+00   | Eliot Bridge      | 45           | NA  | N/A | 2  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 74+00 to 75+00   | Herter Park       | 45           | NA  | N/A | 2  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 75+00 to 76+00   | Herter Park       | 45           | NA  | N/A | 3  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 76+00 to 77+00   | Herter Park       | 45           | NA  | N/A | 2  | 0 | 0 | 0 |
| No Data Available           | 77+00 to 78+00   | Herter Park       | 45           | NA  | N/A |    |   |   |   |
| No Data Available           | 78+00 to 79+00   | Herter Park       | 45           | NA  | N/A |    |   |   |   |
| No Data Available           | 79+00 to 80+00   | Herter Park       | 45           | NA  | N/A |    |   |   |   |
| No Data Available           | 80+00 to 81+00   | Herter Park       | 45           | NA  | N/A |    |   |   |   |
| No Data Available           | 81+00 to 82+00   | Herter Park       | 45           | NA  | N/A |    |   |   |   |
| No Data Available           | 82+00 to 82+61   | Herter Park       | 45           | NA  | N/A |    |   |   |   |
| No Data Available           | 82+61 to 83+00   | Charles River     | HDD          | NA  | N/A | 0  | 0 | 0 | 0 |
| No Data Available           | 83+00 to 84+00   | Charles River     | HDD          | NA  | N/A | 0  | 0 | 0 | 0 |
| No Data Available           | 84+00 to 85+00   | Charles River     | HDD          | NA  | N/A | 0  | 0 | 0 | 0 |
| No Data Available           | 85+00 to 86+00   | Charles River     | HDD          | NA  | N/A | 0  | 0 | 0 | 0 |
| No Data Available           | 86+00 to 86+34   | Charles River     | HDD          | NA  | N/A | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 86+34 to 87+00   | Riverbend Park    | 45           | NA  | N/A | 1  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 87+00 to 88+00   | Riverbend Park    | 45           | NA  | N/A | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 88+00 to 89+00   | Riverbend Park    | 45           | NA  | N/A | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 89+00 to 90+00   | Riverbend Park    | 45           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 90+00 to 91+00   | Riverbend Park    | 45           | 11  | 2   | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 91+00 to 91+59   | Riverbend Park    | 45           | 20  | 1   | 5  | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 91+59 to 92+00   | Mt. Auburn Street | Not Provided | N/A | N/A | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 92+00 to 93+00   | Mt. Auburn Street | 41           | 11  | 2   | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 93+00 to 94+00   | Mt. Auburn Street | 42           | 20  | 1   | 5  | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 94+00 to 95+00   | Mt. Auburn Street | 43           | 20  | 1   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 95+00 to 96+00   | Mt. Auburn Street | 43           | 15  | 2   | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT_20200515.dwg | 96+00 to 97+00   | Mt. Auburn Street | 43           | 9   | 3   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 97+00 to 98+00   | Mt. Auburn Street | 44           | 9   | 3   | 7  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 98+00 to 99+00   | Mt. Auburn Street | 44           | 6   | 3   | 5  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 99+00 to 100+00  | Mt. Auburn Street | 44           | 4   | 4   | 5  | 0 | 1 | 0 |
| 14897.00_SV_UT_20200515.dwg | 100+00 to 101+00 | Mt. Auburn Street | 44           | 5   | 4   | 5  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 101+00 to 102+00 | Mt. Auburn Street | 42           | 6   | 3   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 102+00 to 103+00 | Mt. Auburn Street | 44           | 6   | 3   | 5  | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 103+00 to 104+00 | Mt. Auburn Street | 44           | 9   | 3   | 2  | 0 | 2 | 0 |
| 14897.00_SV_UT_20200515.dwg | 104+00 to 105+00 | Mt. Auburn Street | 43           | 7   | 3   | 12 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg | 105+00 to 106+00 | Mt. Auburn Street | 38           | 0   | 5   | 15 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 106+00 to 107+00 | Mt. Auburn Street | 24           | 0   | 5   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 107+00 to 108+00 | Mt. Auburn Street | 28           | 6   | 3   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 108+00 to 109+00 | Mt. Auburn Street | 28           | 5   | 4   | 8  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg  | 109+00 to 110+00 | Mt. Auburn Street | 28           | N/A | N/A | 24 | 0 | 6 | 0 |



|                            |                  |                   |              |     |     |    |   |   |   |
|----------------------------|------------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Mt. Auburn Street | 28           | 3   | 5   | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Mt. Auburn Street | 28           | 0   | 5   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Mt. Auburn Street | 30           | 3   | 5   | 23 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Mt. Auburn Street | 33           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Mt. Auburn Street | 35           | 0   | 5   | 19 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Mt. Auburn Street | 35           | 0   | 5   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Mt. Auburn Street | 35           | 12  | 2   | 12 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Mt. Auburn Street | 33           | 10  | 2   | 11 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Mt. Auburn Street | 33           | 0   | 5   | 12 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Mt. Auburn Street | 33           | 4   | 4   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Mt. Auburn Street | 33           | 0   | 5   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Mt. Auburn Street | 33           | N/A | N/A | 30 | 0 | 8 | 0 |
| 20200724 S-1390-07_SUM.dwg | 122+00 to 123+00 | Mt. Auburn Street | 33           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Mt. Auburn Street | 33           | 5   | 4   | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Mt. Auburn Street | 33           | 0   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 126+00 | Mt. Auburn Street | 33           | 4   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Mt. Auburn Street | 31           | 4   | 4   | 11 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Mt. Auburn Street | 33           | 4   | 4   | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+00 to 129+00 | Mt. Auburn Street | 33           | 3   | 5   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 129+00 to 130+00 | Mt. Auburn Street | 33           | 3   | 5   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 130+00 to 130+10 | Mt. Auburn Street | Not Provided | N/A | N/A | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 130+10 to 131+00 | Putnam Avenue     | 27           | 9   | 3   | 20 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 131+00 to 132+00 | Putnam Avenue     | 27           | 9   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 132+00 to 133+00 | Putnam Avenue     | 27           | 9   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 133+00 to 134+00 | Green Street      | 26           | N/A | N/A | 13 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 134+00 to 135+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 135+00 to 136+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 136+00 to 137+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 137+00 to 138+00 | Green Street      | 26           | 5   | 4   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 138+00 to 139+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 139+00 to 140+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 140+00 to 141+00 | Green Street      | 26           | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 141+00 to 142+00 | Green Street      | 27           | N/A | N/A | 9  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 142+00 to 143+00 | Green Street      | 27           | 4   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 143+00 to 144+00 | Green Street      | 27           | 6   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 144+00 to 145+00 | Green Street      | 27           | 6   | 3   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 145+00 to 146+00 | Green Street      | 27           | 5   | 4   | 14 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 146+00 to 147+00 | Green Street      | 27           | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 147+00 to 148+00 | Green Street      | 26           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 148+00 to 149+00 | Green Street      | 26           | 5   | 4   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 149+00 to 150+00 | Green Street      | 27           | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 150+00 to 151+00 | Green Street      | 27           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 151+00 to 152+00 | Green Street      | 26           | 0   | 5   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 152+00 to 153+00 | Green Street      | 27           | 5   | 4   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 153+00 to 154+00 | Green Street      | 27           | 5   | 4   | 0  | 0 | 0 | 0 |

|  |                  |                          |              |     |     |    |   |   |   |
|--|------------------|--------------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg                       | 154+00 to 155+00 | Green Street             | 27           | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 155+00 to 156+00 | Green Street             | 27           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 156+00 to 157+00 | Green Street             | 25           | 5   | 4   | 22 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 157+00 to 158+00 | Green Street             | 27           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 158+00 to 159+00 | Green Street             | 23           | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 159+00 to 160+00 | Green Street             | 23           | 5   | 4   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 160+00 to 160+23 | Green Street             | Not Provided | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 160+23 to 161+00 | River Street/Western Ave | 23           | 0   | 5   | 4  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 161+00 to 162+00 | River Street/Western Ave | 21           | 14  | 2   | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 162+00 to 163+00 | River Street/Western Ave | 24           | 17  | 1   | 16 | 0 | 8 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 163+00 to 163+35 | River Street/Western Ave | Not Provided | N/A | N/A | 9  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 163+35 to 164+00 | Prospect Street          | Not Provided | N/A | N/A | 14 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 164+00 to 165+00 | Prospect Street          | 30           | N/A | N/A | 4  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 165+00 to 166+00 | Prospect Street          | 30           | 8   | 3   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 166+00 to 167+00 | Prospect Street          | 31           | 12  | 2   | 13 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 167+00 to 168+00 | Prospect Street          | 34           | N/A | N/A | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 168+00 to 169+00 | Prospect Street          | 34           | 9   | 3   | 6  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 169+00 to 170+00 | Prospect Street          | 34           | 8   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 170+00 to 171+00 | Prospect Street          | 33           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 171+00 to 172+00 | Prospect Street          | 34           | 8   | 3   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 172+00 to 173+00 | Prospect Street          | 34           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 173+00 to 174+00 | Prospect Street          | 34           | 8   | 3   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 174+00 to 175+00 | Prospect Street          | 34           | 8   | 3   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 175+00 to 176+00 | Prospect Street          | 34           | N/A | N/A | 10 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 176+00 to 177+00 | Prospect Street          | 34           | 8   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 177+00 to 178+00 | Prospect Street          | 34           | 7   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 178+00 to 179+00 | Prospect Street          | 34           | 13  | 2   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 179+00 to 179+23 | Prospect Street          | Not Provided | 10  | 2   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 179+23 to 180+00 | Broadway                 | 43           | N/A | N/A | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 180+00 to 181+00 | Broadway                 | 43           | 8   | 3   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 181+00 to 182+00 | Broadway                 | 43           | 8   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 182+00 to 183+00 | Broadway                 | 40           | 8   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 183+00 to 184+00 | Broadway                 | 43           | 8   | 3   | 1  | 0 | 0 | 0 |

|  |                  |          |    |     |     |    |   |   |   |
|--|------------------|----------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 184+00 to 185+00 | Broadway | 43 | 7   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 185+00 to 186+00 | Broadway | 43 | N/A | N/A | 10 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 186+00 to 187+00 | Broadway | 43 | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 187+00 to 188+00 | Broadway | 36 | 5   | 4   | 10 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 188+00 to 189+00 | Broadway | 43 | 4   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 189+00 to 190+00 | Broadway | 43 | 4   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 190+00 to 191+00 | Broadway | 41 | 5   | 4   | 24 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 191+00 to 192+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 192+00 to 193+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 193+00 to 194+00 | Broadway | 44 | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 194+00 to 195+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 195+00 to 196+00 | Broadway | 44 | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 196+00 to 197+00 | Broadway | 44 | 5   | 4   | 10 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 197+00 to 198+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 198+00 to 199+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 199+00 to 200+00 | Broadway | 39 | 5   | 4   | 10 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 200+00 to 201+00 | Broadway | 44 | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 201+00 to 202+00 | Broadway | 44 | 5   | 4   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 202+00 to 203+00 | Broadway | 44 | 5   | 4   | 6  | 0 | 1 | 0 |

|   |                  |          |              |                |                              |                          |                          |            |          |
|---|------------------|----------|--------------|----------------|------------------------------|--------------------------|--------------------------|------------|----------|
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 203+00 to 204+00 | Broadway | 44           | 5              | 4                            | 9                        | 0                        | 1          | 0        |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 204+00 to 205+00 | Broadway | 44           | 5              | 4                            | 14                       | 0                        | 1          | 0        |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 205+00 to 206+00 | Broadway | 44           | 6              | 3                            | 5                        | 0                        | 0          | 0        |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 206+00 to 207+00 | Broadway | 44           | N/A            | N/A                          | 23                       | 0                        | 3          | 0        |
| 15868-2018-9-6.dwg  | 207+00 to 208+00 | Broadway | 44           | 15             | 2                            | 4                        | 0                        | 4          | 0        |
| 15868-2018-9-6.dwg  | 208+00 to 209+00 | Broadway | 45           | 25             | 1                            | 0                        | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg  | 209+00 to 210+00 | Broadway | Not Provided | 22             | 1                            | 2                        | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg  | 210+00 to 211+00 | Broadway | 60           | 30             | 1                            | 2                        | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg  | 211+00 to 212+00 | Broadway | 60           | N/A            | N/A                          | 9                        | 0                        | 1          | 0        |
| 15868-2018-9-6.dwg  | 212+00 to 213+00 | Broadway | 60           | N/A            | N/A                          | 6                        | 0                        | 1          | 0        |
| 15868-2018-9-6.dwg  | 213+00 to 214+00 | Broadway | 60           | N/A            | N/A                          | 9                        | 0                        | 1          | 1        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 214+00 to 215+00 | Broadway | Not Provided | N/A            | N/A                          | 10                       | 0                        | 2          | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 215+00 to 216+00 | Broadway | 70           | N/A            | N/A                          | 9                        | 0                        | 1          | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 216+00 to 217+00 | Broadway | 70           | 14             | 2                            | 2                        | 0                        | 0          | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 217+00 to 218+00 | Broadway | 70           | 14             | 2                            | 2                        | 0                        | 0          | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 218+00 to 218+35 | Broadway | 70           | N/A            | N/A                          | 5                        | 0                        | 1          | 0        |
|   |                  |          |              | <b>TOTALS:</b> | <b>3</b>                     | <b>1042</b>              | <b>0</b>                 | <b>197</b> | <b>1</b> |
|   |                  |          |              |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |          |

**Study Area: BRIGHTON**

**Candidate Route: B24A WEST**

| CADD Data Set Reference    | Station (centerline of route) | Route Segment   | Approximate Width of Route Segment (ft) <sup>(1)</sup> | Estimated Maximum Useable Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup> (1 to 5) | # of Utility Crossings by Road or ROW Segment <sup>(4)</sup> | # Heat Generating Sources Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|-------------------------------|-----------------|--|---|--------------------------------|--|---|-------------------|------------|
|                            |                               |                 |  |   |                                |  | Transmission Line   | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                  | Lincoln Street  | 27   | 6   | 3                              | 7  | 0   | 5                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                  | Lincoln Street  | 25   | 4   | 4                              | 1  | 0   | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                  | Lincoln Street  | 25   | 9   | 3                              | 8  | 0   | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 3+29                  | Lincoln Street  | Not Provided   | N/A   | N/A                            | 11   | 0   | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+29 to 4+00                  | Franklin Street | 28   | 0   | 5                              | 18   | 0   | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 5+00                  | Franklin Street | 28   | 0   | 5                              | 0  | 0   | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                  | Franklin Street | 28   | 0   | 5                              | 3  | 0   | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                  | Franklin Street | 28   | 0   | 5                              | 7  | 0   | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                  | Franklin Street | 28   | 0   | 5                              | 4  | 0   | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                  | Franklin Street | 28   | 0   | 5                              | 8  | 0   | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                 | Franklin Street | 28   | 0   | 5                              | 13   | 0   | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                | Franklin Street | 28   | 0   | 5                              | 8  | 0   | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                | Franklin Street | 28   | 0   | 5                              | 2  | 0   | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 13+00                | Franklin Street | 25   | 0   | 5                              | 5  | 0   | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00                | Franklin Street | 29   | 0   | 5                              | 4  | 0   | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00                | Franklin Street | 30   | 6   | 3                              | 7  | 0   | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00                | Franklin Street | 25   | 5   | 4                              | 1  | 0   | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 16+00 to 17+00                | Franklin Street | 22   | 4   | 4                              | 3  | 0   | 2                 | 0          |

|                            |                |   |              |     |     |    |   |   |   |
|----------------------------|----------------|---|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00 | Franklin Street                           | 22           | 2   | 5   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00 | Franklin Street                           | 22           | 4   | 4   | 5  | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Franklin Street                           | 22           | 4   | 4   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Franklin Street                           | 22           | 0   | 5   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Franklin Street                           | 22           | 2   | 5   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Franklin Street                           | 22           | 0   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Franklin Street                           | 22           | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 24+67 | Franklin Street                           | Not Provided | N/A | N/A | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+67 to 25+00 | N. Harvard Street                         | Not Provided | N/A | N/A | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | N. Harvard Street                         | 44           | 0   | 5   | 11 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 26+00 to 26+78 | N. Harvard Street                         | Not Provided | 0   | 5   | 8  | 0 | 3 | 0 |
| 20200911 S-1390-07_SUM.dwg | 26+78 to 27+00 | Spurr Street                              | Not Provided | N/A | N/A | 7  | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 27+00 to 28+00 | Spurr Street                              | 25           | 3   | 5   | 9  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 28+00 to 29+00 | Spurr Street                              | 30           | N/A | N/A | 5  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 29+00 to 30+00 | Spurr Street                              | Not Provided | N/A | N/A | 5  | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 30+00 to 31+00 | Western Avenue                            | Not Provided | N/A | N/A | 7  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 31+00 to 32+00 | Western Avenue                            | 50           | 11  | 2   | 2  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 32+00 to 33+00 | Western Avenue                            | 45           | 8   | 3   | 3  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 33+00 to 34+00 | Western Avenue                            | 44           | 14  | 2   | 9  | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 34+00 to 34+07 | Western Avenue                            | Not Provided | N/A | N/A | 1  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 34+07 to 35+00 | WBZ Studio Segment to Soldiers Field Road | 30           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 35+00 to 36+00 | WBZ Studio Segment to Soldiers Field Road | 30           | 0   | 5   | 0  | 0 | 0 | 0 |

|   |                |   |    |    |   |   |   |   |   |
|---|----------------|---|----|----|---|---|---|---|---|
| 20201002 S-1390-08_SUM.dwg                                | 36+00 to 37+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg                                | 37+00 to 38+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg                                | 38+00 to 39+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg                                | 39+00 to 40+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg                                | 40+00 to 41+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg                                | 41+00 to 42+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg                                | 42+00 to 43+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 2 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg                                | 43+00 to 44+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg                                | 44+00 to 45+00 | WBZ Studio Segment to Soldiers Field Road | 30 | 0  | 5 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg                                | 45+00 to 45+65 | WBZ Studio Segment to Soldiers Field Road | 30 | 15 | 2 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg                                | 45+65 to 46+00 | Soldiers Field Road                       | 78 | 33 | 1 | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg<br>20200911 S-1390-07_SUM.dwg | 46+00 to 47+00 | Soldiers Field Road                       | 78 | 33 | 1 | 1 | 0 | 1 | 0 |
| 14897.00_SV_UT_20200515.dwg<br>20200911 S-1390-07_SUM.dwg | 47+00 to 48+00 | Soldiers Field Road                       | 78 | 33 | 1 | 6 | 0 | 3 | 0 |
| 14897.00_SV_UT_20200515.dwg<br>20200911 S-1390-07_SUM.dwg | 48+00 to 49+00 | Soldiers Field Road                       | 78 | 33 | 1 | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg<br>20200911 S-1390-07_SUM.dwg | 49+00 to 50+00 | Soldiers Field Road                       | 78 | 33 | 1 | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_20200515.dwg<br>20200911 S-1390-07_SUM.dwg | 50+00 to 51+00 | Soldiers Field Road                       | 78 | 33 | 1 | 0 | 0 | 0 | 0 |

|   |                |                     |    |    |     |   |   |   |   |
|---|----------------|---------------------|----|----|-----|---|---|---|---|
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 51+00 to 52+00 | Soldiers Field Road | 78 | 33 | 1   | 2 | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 52+00 to 53+00 | Soldiers Field Road | 78 | 33 | 1   | 1 | 0 | 1 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 53+00 to 54+00 | Soldiers Field Road | 78 | 33 | 1   | 5 | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 54+00 to 55+00 | Soldiers Field Road | 78 | 33 | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 55+00 to 56+00 | Soldiers Field Road | 78 | 33 | 1   | 7 | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 56+00 to 57+00 | Soldiers Field Road | 78 | 33 | 1   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 57+00 to 57+37 | Soldiers Field Road | 78 | NA | N/A | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 57+37 to 58+00 | Herter Park         | 45 | NA | N/A | 2 | 0 | 1 | 0 |
| 20200911 S-1390-<br>07_SUM.dwg                                    | 58+00 to 59+00 | Herter Park         | 45 | NA | N/A | 0 | 0 | 0 | 0 |
| 20200911 S-1390-<br>07_SUM.dwg                                    | 59+00 to 60+00 | Herter Park         | 45 | NA | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-<br>08_SUM.dwg                                    | 60+00 to 61+00 | Herter Park         | 45 | NA | N/A | 2 | 0 | 0 | 0 |
| 20201002 S-1390-<br>08_SUM.dwg                                    | 61+00 to 62+00 | Herter Park         | 45 | NA | N/A | 1 | 0 | 0 | 0 |
| 20201002 S-1390-<br>08_SUM.dwg                                    | 62+00 to 63+00 | Herter Park         | 45 | NA | N/A | 0 | 0 | 0 | 0 |
| 20201002 S-1390-<br>08_SUM.dwg                                    | 63+00 to 64+00 | Herter Park         | 45 | NA | N/A | 0 | 0 | 0 | 0 |



|   |                |                |     |    |     |     |     |     |     |
|---|----------------|----------------|-----|----|-----|-----|-----|-----|-----|
| 20201002 S-1390-08_SUM.dwg                                | 64+00 to 65+00 | Herter Park    | 45  | NA | N/A | 0   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 65+00 to 66+00 | Herter Park    | 45  | NA | N/A | 4   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 66+00 to 67+00 | Herter Park    | 45  | NA | N/A | 1   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 67+00 to 68+00 | Herter Park    | 45  | NA | N/A | 0   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 68+00 to 69+00 | Eliot Bridge   | 45  | NA | N/A | 1   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 69+00 to 70+00 | Herter Park    | 45  | NA | N/A | 2   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 70+00 to 71+00 | Herter Park    | 45  | NA | N/A | 2   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 71+00 to 72+00 | Herter Park    | 45  | NA | N/A | 3   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 72+00 to 73+00 | Herter Park    | 45  | NA | N/A | 1   | 0   | 0   | 0   |
| No data available   | 73+00 to 74+00 | Herter Park    | 45  | NA | N/A | N/A | N/A | N/A | N/A |
| No data available   | 74+00 to 75+00 | Herter Park    | 45  | NA | N/A | N/A | N/A | N/A | N/A |
| No data available   | 75+00 to 76+00 | Herter Park    | 45  | NA | N/A | N/A | N/A | N/A | N/A |
| No data available   | 76+00 to 77+00 | Herter Park    | 45  | NA | N/A | N/A | N/A | N/A | N/A |
| No data available   | 77+00 to 78+00 | Herter Park    | 45  | NA | N/A | N/A | N/A | N/A | N/A |
| No data available   | 78+00 to 79+00 | Charles River  | HDD | NA | N/A | 0   | 0   | 0   | 0   |
| No data available   | 79+00 to 80+00 | Charles River  | HDD | NA | N/A | 0   | 0   | 0   | 0   |
| No data available   | 80+00 to 81+00 | Charles River  | HDD | NA | N/A | 0   | 0   | 0   | 0   |
| No data available   | 81+00 to 81+90 | Charles River  | HDD | NA | N/A | 0   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 81+90 to 82+00 | Riverbend Park | 45  | NA | N/A | 0   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 82+00 to 83+00 | Riverbend Park | 45  | NA | N/A | 1   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 83+00 to 84+00 | Riverbend Park | 45  | NA | N/A | 0   | 0   | 0   | 0   |
| 20201002 S-1390-08_SUM.dwg                                | 84+00 to 85+00 | Riverbend Park | 45  | NA | N/A | 0   | 0   | 0   | 0   |
| 20200911 S-1390-07_SUM.dwg                                | 85+00 to 86+00 | Riverbend Park | 45  | 0  | 5   | 1   | 0   | 0   | 0   |
| 14897.00_SV_UT_20200515.dwg<br>20200911 S-1390-07_SUM.dwg | 86+00 to 87+00 | Riverbend Park | 45  | 11 | 2   | 5   | 0   | 2   | 0   |
| 14897.00_SV_UT_20200515.dwg                               | 87+00 to 87+15 | Riverbend Park | 45  | 20 | 1   | 0   | 0   | 0   | 0   |

|   |                  |                   |              |     |     |    |   |   |   |
|---|------------------|-------------------|--------------|-----|-----|----|---|---|---|
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 87+15 to 88+00   | Mt. Auburn Street | Not Provided | N/A | N/A | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 88+00 to 89+00   | Mt. Auburn Street | 41           | 11  | 2   | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 89+00 to 90+00   | Mt. Auburn Street | 43           | 20  | 1   | 8  | 0 | 2 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 90+00 to 91+00   | Mt. Auburn Street | 43           | 20  | 1   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 91+00 to 92+00   | Mt. Auburn Street | 43           | 15  | 2   | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 92+00 to 93+00   | Mt. Auburn Street | 44           | 9   | 3   | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 93+00 to 94+00   | Mt. Auburn Street | 44           | 9   | 3   | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 94+00 to 95+00   | Mt. Auburn Street | 44           | 6   | 3   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 95+00 to 96+00   | Mt. Auburn Street | 44           | 4   | 4   | 7  | 0 | 1 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 96+00 to 97+00   | Mt. Auburn Street | 44           | 5   | 4   | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 97+00 to 98+00   | Mt. Auburn Street | 44           | 6   | 3   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 98+00 to 99+00   | Mt. Auburn Street | 44           | 6   | 3   | 7  | 0 | 2 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg                                   | 99+00 to 100+00  | Mt. Auburn Street | 44           | 9   | 3   | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 100+00 to 101+00 | Mt. Auburn Street | 44           | 7   | 3   | 23 | 0 | 4 | 0 |
| 14897.00_SV_UT_2020<br>0515.dwg<br>20200911 S-1390-<br>07_SUM.dwg | 101+00 to 102+00 | Mt. Auburn Street | 28           | 0   | 5   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-<br>07_SUM.dwg                                    | 102+00 to 103+00 | Mt. Auburn Street | 24           | 0   | 5   | 10 | 0 | 2 | 0 |
| 20200724 S-1390-<br>07_SUM.dwg                                    | 103+00 to 104+00 | Mt. Auburn Street | 33           | 6   | 3   | 7  | 0 | 3 | 0 |
| 20200724 S-1390-<br>07_SUM.dwg                                    | 104+00 to 105+00 | Mt. Auburn Street | 27           | 5   | 4   | 12 | 0 | 4 | 0 |
| 20200724 S-1390-<br>07_SUM.dwg                                    | 105+00 to 106+00 | Mt. Auburn Street | 29           | N/A | N/A | 20 | 0 | 4 | 0 |

|                            |                  |                   |    |     |     |    |   |   |   |
|----------------------------|------------------|-------------------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 106+00 to 107+00 | Mt. Auburn Street | 28 | 3   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 107+00 to 108+00 | Mt. Auburn Street | 28 | 0   | 5   | 18 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 108+00 to 109+00 | Mt. Auburn Street | 32 | 3   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 109+00 to 110+00 | Mt. Auburn Street | 35 | 5   | 4   | 11 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Mt. Auburn Street | 35 | 0   | 5   | 9  | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Mt. Auburn Street | 35 | 0   | 5   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Mt. Auburn Street | 34 | 12  | 2   | 20 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Mt. Auburn Street | 33 | 10  | 2   | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Mt. Auburn Street | 33 | N/A | N/A | 18 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Mt. Auburn Street | 33 | 4   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Mt. Auburn Street | 33 | 0   | 5   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Mt. Auburn Street | 33 | N/A | N/A | 26 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Mt. Auburn Street | 33 | 5   | 4   | 3  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Mt. Auburn Street | 33 | 5   | 4   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Mt. Auburn Street | 33 | 0   | 5   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Mt. Auburn Street | 30 | 4   | 4   | 6  | 0 | 0 | 0 |

|                            |                  |                   |              |     |     |    |   |   |   |
|----------------------------|------------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 122+00 to 123+00 | Mt. Auburn Street | 33           | 4   | 4   | 11 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Mt. Auburn Street | 33           | 4   | 4   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Mt. Auburn Street | 33           | 3   | 5   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 125+66 | Mt. Auburn Street | 33           | 3   | 5   | 8  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+66 to 126+00 | Putnam Avenue     | Not Provided | N/A | N/A | 18 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Putnam Avenue     | 27           | 9   | 3   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Putnam Avenue     | 27           | 9   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+00 to 128+58 | Putnam Avenue     | 27           | 9   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 128+58 to 129+00 | Green Street      | 27           | 9   | 3   | 13 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 129+00 to 130+00 | Green Street      | 26           | 7   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 130+00 to 131+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 131+00 to 132+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 132+00 to 133+00 | Green Street      | 27           | 5   | 4   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 133+00 to 134+00 | Green Street      | 27           | 7   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 134+00 to 135+00 | Green Street      | 26           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 135+00 to 136+00 | Green Street      | 26           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 136+00 to 137+00 | Green Street      | 26           | N/A | N/A | 10 | 0 | 0 | 0 |

|                            |                  |                             |              |     |     |    |   |   |   |
|----------------------------|------------------|-----------------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 137+00 to 138+00 | Green Street                | 27           | 4   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 138+00 to 139+00 | Green Street                | 27           | 6   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 139+00 to 140+00 | Green Street                | 27           | 6   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 140+00 to 141+00 | Green Street                | 27           | 5   | 4   | 10 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 141+00 to 142+00 | Green Street                | 27           | 5   | 4   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 142+00 to 143+00 | Green Street                | 26           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 143+00 to 144+00 | Green Street                | 26           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 144+00 to 145+00 | Green Street                | 26           | 5   | 4   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 145+00 to 146+00 | Green Street                | 26           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 146+00 to 147+00 | Green Street                | 26           | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 147+00 to 148+00 | Green Street                | 26           | 5   | 4   | 8  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 148+00 to 149+00 | Green Street                | 27           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 149+00 to 150+00 | Green Street                | 27           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 150+00 to 151+00 | Green Street                | 27           | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 151+00 to 152+00 | Green Street                | 27           | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 152+00 to 153+00 | Green Street                | 28           | N/A | N/A | 19 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 153+00 to 154+00 | Green Street                | 22           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 154+00 to 155+00 | Green Street                | 23           | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 155+00 to 155+79 | Green Street                | 26           | 5   | 4   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 155+79 to 156+00 | Western Avenue/River Street | Not Provided | N/A | N/A | 4  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 156+00 to 157+00 | Western Avenue/River Street | 23           | 14  | 2   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 157+00 to 158+00 | Western Avenue/River Street | 23           | 17  | 11  | 11 | 0 | 7 | 0 |

|  |                  |                             |              |     |     |    |   |   |   |
|--|------------------|-----------------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg                       | 158+00 to 158+90 | Western Avenue/River Street | Not Provided | N/A | N/A | 23 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 158+90 to 159+00 | Prospect Street             | Not Provided | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 159+00 to 160+00 | Prospect Street             | 30           | 8   | 3   | 24 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 160+00 to 161+00 | Prospect Street             | 30           | 12  | 2   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 161+00 to 162+00 | Prospect Street             | 30           | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 162+00 to 163+00 | Prospect Street             | Not Provided | 9   | 3   | 19 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 163+00 to 164+00 | Prospect Street             | 34           | 8   | 3   | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 164+00 to 165+00 | Prospect Street             | 34           | 8   | 3   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 165+00 to 166+00 | Prospect Street             | 33           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 166+00 to 167+00 | Prospect Street             | 33           | 8   | 3   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 167+00 to 168+00 | Prospect Street             | 34           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 168+00 to 169+00 | Prospect Street             | 34           | 8   | 3   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 169+00 to 170+00 | Prospect Street             | 34           | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 170+00 to 171+00 | Prospect Street             | 34           | 8   | 3   | 14 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 171+00 to 172+00 | Prospect Street             | 34           | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 172+00 to 173+00 | Prospect Street             | 33           | 13  | 2   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 173+00 to 174+00 | Prospect Street             | 34           | 10  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 174+00 to 174+78 | Prospect Street             | 33           | 8   | 3   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 174+78 to 175+00 | Broadway                    | Not Provided | 8   | 3   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 175+00 to 176+00 | Broadway                    | 43           | 8   | 3   | 3  | 0 | 1 | 0 |

|  |                  |          |    |     |     |    |   |   |   |
|--|------------------|----------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 176+00 to 177+00 | Broadway | 43 | 8   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 177+00 to 178+00 | Broadway | 43 | 8   | 3   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 178+00 to 179+00 | Broadway | 40 | 7   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 179+00 to 180+00 | Broadway | 43 | N/A | N/A | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 180+00 to 181+00 | Broadway | 43 | 5   | 4   | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 181+00 to 182+00 | Broadway | 43 | 5   | 4   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 182+00 to 183+00 | Broadway | 36 | 4   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 183+00 to 184+00 | Broadway | 36 | 4   | 4   | 10 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 184+00 to 185+00 | Broadway | 43 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 185+00 to 186+00 | Broadway | 43 | 5   | 4   | 17 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 186+00 to 187+00 | Broadway | 44 | 5   | 4   | 7  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 187+00 to 188+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 188+00 to 189+00 | Broadway | 44 | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 189+00 to 190+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |

|  |                  |          |              |     |     |    |   |   |   |
|--|------------------|----------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 190+00 to 191+00 | Broadway | 44           | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 191+00 to 192+00 | Broadway | 44           | 5   | 4   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 192+00 to 193+00 | Broadway | 44           | 5   | 4   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 193+00 to 194+00 | Broadway | 44           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 194+00 to 195+00 | Broadway | 43           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 195+00 to 196+00 | Broadway | 40           | 5   | 4   | 11 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 196+00 to 197+00 | Broadway | 44           | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 197+00 to 198+00 | Broadway | 44           | 5   | 4   | 8  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 198+00 to 199+00 | Broadway | 44           | 5   | 4   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 199+00 to 200+00 | Broadway | 44           | 6   | 3   | 8  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 200+00 to 201+00 | Broadway | 44           | N/A | N/A | 14 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 201+00 to 202+00 | Broadway | 44           | 15  | 2   | 9  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg                               | 202+00 to 203+00 | Broadway | 44           | 25  | 1   | 20 | 0 | 5 | 0 |
| 15868-2018-9-6.dwg                               | 203+00 to 204+00 | Broadway | 44           | 22  | 1   | 1  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg                               | 204+00 to 205+00 | Broadway | Not Provided | 30  | 1   | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg                               | 205+00 to 206+00 | Broadway | Not Provided | N/A | N/A | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg                               | 206+00 to 207+00 | Broadway | 60           | N/A | N/A | 5  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg                               | 207+00 to 208+00 | Broadway | 60           | N/A | N/A | 10 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200724 S-1390-07_SUM.dwg | 208+00 to 209+00 | Broadway | 60           | N/A | N/A | 3  | 0 | 0 | 0 |



|   |                  |          |              |                |                              |                          |                          |            |          |
|---|------------------|----------|--------------|----------------|------------------------------|--------------------------|--------------------------|------------|----------|
| 15868-2018-9-6.dwg<br>20200724 S-1390-<br>07_SUM.dwg                      | 209+00 to 210+00 | Broadway | Not Provided | N/A            | N/A                          | 9                        | 0                        | 3          | 1        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-<br>17.dwg | 210+00 to 211+00 | Broadway | Not Provided | 14             | 2                            | 17                       | 0                        | 1          | 0        |
| 17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-<br>17.dwg                       | 211+00 to 212+00 | Broadway | 70           | 14             | 2                            | 1                        | 0                        | 0          | 0        |
| 17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-<br>17.dwg                       | 212+00 to 213+00 | Broadway | 70           | N/A            | N/A                          | 3                        | 0                        | 0          | 0        |
| 17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-<br>17.dwg                       | 213+00 to 213+91 | Broadway | 70           | N/A            | N/A                          | 5                        | 0                        | 1          | 0        |
|   |                  |          |              | <b>TOTALS:</b> | <b>4</b>                     | <b>1026</b>              | <b>0</b>                 | <b>200</b> | <b>1</b> |
|   |                  |          |              |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |          |

Study Area: BRIGHTON

Candidate Route: B29F WEST

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment   | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|---|---|---|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |   |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street  | 27  | N/A   | N/A                               | 11   | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street  | 27  | 12  | 2                                 | 6  | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street  | 31  | 15  | 2                                 | 2  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 4+00                     | Lincoln Street  | 33  | 15  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 5+00                     | Lincoln Street  | 29  | 8   | 3                                 | 6  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Lincoln Street  | 35  | 15  | 2                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                     | Lincoln Street  | 36  | 15  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                     | Lincoln Street  | 36  | 15  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                     | Lincoln Street  | 35  | 15  | 2                                 | 6  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                    | Lincoln Street  | 39  | 0   | 5                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                   | Lincoln Street  | 54  | 0   | 5                                 | 4  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                   | Lincoln Street  | 52  | 36  | 1                                 | 7  | 0  | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 13+00                   | Cambridge Street  | 81  | 17  | 1                                 | 20   | 0  | 15                | 0          |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00                   | Cambridge Street  | 81  | 17  | 1                                 | 8  | 0  | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00                   | Cambridge Street  | 81  | 17  | 1                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00                   | Cambridge Street  | 84  | 17  | 1                                 | 5  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 16+00 to 17+00                   | Cambridge Street  | 84  | 20  | 1                                 | 12   | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00                   | Cambridge Street  | 84  | 20  | 1                                 | 3  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00                   | Cambridge Street  | 88  | 20  | 1                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00                   | Cambridge Street  | 94  | 20  | 1                                 | 1  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00                   | Cambridge Street  | 102   | 20  | 1                                 | 2  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00                   | Cambridge Street  | 100   | 20  | 1                                 | 2  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00                   | Cambridge Street  | 94  | 20  | 1                                 | 7  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00                   | Cambridge Street  | 88  | 20  | 1                                 | 3  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 25+00                   | Cambridge Street  | 84  | 20  | 1                                 | 6  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00                   | Cambridge Street  | 80  | 20  | 1                                 | 5  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00                   | Cambridge Street  | 72  | 20  | 1                                 | 11   | 0  | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00                   | Cambridge Street  | 66  | 20  | 1                                 | 2  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00                   | Future Cambridge<br>Street/Allston Multimodal<br>Project Site | 66  | 20  | 1                                 | 3  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00                   | Future Cambridge<br>Street/Allston Multimodal<br>Project Site | 74  | 20  | 1                                 | 3  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00                   | Future Cambridge<br>Street/Allston Multimodal<br>Project Site | 74  | 20  | 1                                 | 5  | 0  | 2                 | 0          |

|                            |                |   |    |     |     |    |   |   |   |
|----------------------------|----------------|---|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | Future Cambridge Street/Allston Multimodal Project Site | 66 | 20  | 1   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 33+00 | Future Cambridge Street/Allston Multimodal Project Site | 52 | 20  | 1   | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 33+00 to 34+00 | Future Cambridge Street/Allston Multimodal Project Site | 52 | 20  | 1   | 9  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 34+00 to 35+00 | Future Cambridge Street/Allston Multimodal Project Site | 52 | 20  | 1   | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 35+00 to 36+00 | Future Cambridge Street/Allston Multimodal Project Site | 52 | 20  | 1   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 36+00 to 37+00 | Future Cambridge Street/Allston Multimodal Project Site | 52 | 20  | 1   | 2  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 37+00 to 38+00 | Future Cambridge Street/Allston Multimodal Project Site | 52 | 20  | 1   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 38+00 to 39+00 | Cambridge Street  | 52 | 20  | 1   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 39+00 to 40+00 | Cambridge Street  | 52 | 20  | 1   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 40+00 to 41+00 | Cambridge Street  | 52 | 20  | 1   | 5  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 41+00 to 42+00 | Cambridge Street  | 56 | 20  | 1   | 7  | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 42+00 to 43+00 | Cambridge Street  |    | N/A | N/A | 19 | 0 | 8 | 0 |
| 20200724 S-1390-07_SUM.dwg | 43+00 to 44+00 | Cambridge Street  |    | N/A | N/A | 11 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg | 44+00 to 45+00 | River Street Bridge                                     | 38 | 18  | 1   | 8  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 45+00 to 46+00 | River Street Bridge                                     | 39 | 18  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 46+00 to 47+00 | River Street Bridge                                     | 39 | 18  | 1   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 47+00 to 48+00 | River Street Bridge                                     | 40 | 10  | 2   | 5  | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 48+00 to 48+15 | River Street Bridge                                     |    | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 48+15 to 49+00 | Memorial Drive  | 43 | 28  | 1   | 8  | 0 | 4 | 0 |
| 20200911 S-1390-07_SUM.dwg | 49+00 to 50+00 | Memorial Drive  | 40 | 28  | 1   | 3  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 50+00 to 51+00 | Memorial Drive  | 40 | 28  | 1   | 2  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 51+00 to 52+00 | Memorial Drive  | 40 | 35  | 1   | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 52+00 to 53+00 | Memorial Drive  | 40 | 40  | 1   | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 53+00 to 54+00 | Memorial Drive  | 40 | 40  | 1   | 0  | 0 | 0 | 0 |

|   |                |                |     |    |   |   |   |   |   |
|---|----------------|----------------|-----|----|---|---|---|---|---|
| 20200911 S-1390-07_SUM.dwg  | 54+00 to 55+00 | Memorial Drive | 40  | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 55+00 to 56+00 | Memorial Drive | 40  | 40 | 1 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 56+00 to 57+00 | Memorial Drive | 40  | 40 | 1 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 57+00 to 58+00 | Memorial Drive | 40  | 40 | 1 | 2 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 58+00 to 59+00 | Memorial Drive | 40  | 33 | 1 | 2 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 59+00 to 60+00 | Memorial Drive | 40  | 33 | 1 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 60+00 to 61+00 | Memorial Drive | 40  | 27 | 1 | 2 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 61+00 to 62+00 | Memorial Drive | 40  | 27 | 1 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 62+00 to 63+00 | Memorial Drive | 40  | 27 | 1 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 63+00 to 64+00 | Memorial Drive | 40  | 27 | 1 | 0 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 64+00 to 65+00 | Memorial Drive | 40  | 23 | 1 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 65+00 to 66+00 | Memorial Drive | 40  | 23 | 1 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 66+00 to 67+00 | Memorial Drive | 40  | 23 | 1 | 2 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 67+00 to 68+00 | Memorial Drive | 40  | 35 | 1 | 4 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 68+00 to 69+00 | Memorial Drive | 40  | 35 | 1 | 5 | 0 | 3 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 69+00 to 70+00 | Memorial Drive | 40  | 35 | 1 | 1 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg  | 70+00 to 71+00 | Memorial Drive | 44  | 40 | 1 | 0 | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 71+00 to 72+00 | Memorial Drive | 42  | 18 | 1 | 4 | 0 | 1 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 72+00 to 73+00 | Memorial Drive | 108 | 18 | 1 | 1 | 0 | 1 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 73+00 to 74+00 | Memorial Drive | 60  | 18 | 1 | 9 | 0 | 5 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 74+00 to 75+00 | Memorial Drive | 24  | 18 | 1 | 0 | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 75+00 to 76+00 | Memorial Drive | 24  | 18 | 1 | 1 | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 76+00 to 77+00 | Memorial Drive | 24  | 10 | 2 | 0 | 0 | 0 | 0 |

|   |                |                                     |    |     |     |    |   |   |   |
|---|----------------|-------------------------------------|----|-----|-----|----|---|---|---|
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 77+00 to 78+00 | Memorial Drive                      | 24 | 12  | 2   | 4  | 0 | 4 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 78+00 to 78+64 | Memorial Drive                      | 50 | N/A | N/A | 3  | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 78+64 to 79+00 | Brookline Street (BU Bridge Rotary) | 76 | 30  | 1   | 1  | 0 | 1 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 79+00 to 80+00 | Brookline Street (BU Bridge Rotary) | 76 | 30  | 1   | 4  | 0 | 2 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 80+00 to 81+00 | Brookline Street (BU Bridge Rotary) | 76 | 25  | 1   | 1  | 0 | 1 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 81+00 to 81+50 | Brookline Street (BU Bridge Rotary) | 76 | N/A | N/A | 4  | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 81+50 to 82+00 | Waverly Street                      | 42 | N/A | N/A | 13 | 0 | 4 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 82+00 to 83+00 | Waverly Street                      | 40 | 14  | 2   | 9  | 0 | 3 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 83+00 to 84+00 | Waverly Street                      | 40 | 20  | 1   | 1  | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 84+00 to 85+00 | Waverly Street                      | 40 | 11  | 2   | 9  | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 85+00 to 86+00 | Waverly Street                      | 40 | N/A | N/A | 2  | 0 | 1 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 86+00 to 87+00 | Waverly Street                      | 36 | 19  | 1   | 6  | 0 | 0 | 0 |
| S-1390-09_SUM_Waverly, Henry, Albany, Sidney Street Cambridge QLB | 87+00 to 88+00 | Waverly Street                      | 30 | 6   | 3   | 6  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg  | 88+00 to 89+00 | 640 Memorial Drive parking lot      | 30 | 0   | 5   | 1  | 0 | 0 | 0 |

|                            |                  |  |    |     |     |    |   |   |   |
|----------------------------|------------------|--|----|-----|-----|----|---|---|---|
| 20201002 S-1390-08_SUM.dwg | 89+00 to 89+46   | 640 Memorial Drive parking lot                                     | 30 | N/A | N/A | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 89+46 to 90+00   | Grand Junction RR Crossing (including MBTA parcel and parking lot) | 30 | 6   | 3   | 1  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 90+00 to 91+00   | Grand Junction RR Crossing (including MBTA parcel and parking lot) | 30 | 19  | 3   | 0  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 91+00 to 91+60   | Grand Junction RR Crossing (including MBTA parcel and parking lot) | 30 | 19  | 3   | 1  | 0 | 1 | 0 |
| 20201002 S-1390-08_SUM.dwg | 91+60 to 92+00   | Vassar Street  | 46 | N/A | N/A | 10 | 0 | 1 | 0 |
| 20201002 S-1390-08_SUM.dwg | 92+00 to 93+00   | Vassar Street  | 46 | 5   | N/A | 4  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 93+00 to 94+00   | Vassar Street  | 46 | 5   | N/A | 4  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 94+00 to 95+00   | Vassar Street  | 46 | 5   | N/A | 2  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 95+00 to 96+00   | Vassar Street  | 46 | 8   | N/A | 5  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 96+00 to 97+00   | Vassar Street  | 46 | 2   | 5   | 4  | 0 | 0 | 0 |
| 20201002 S-1390-08_SUM.dwg | 97+00 to 98+00   | Vassar Street  | 46 | 5   | 4   | 8  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 98+00 to 99+00   | Vassar Street  | 46 | 3   | 5   | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 99+00 to 100+00  | Vassar Street  | 41 | 1   | 5   | 15 | 0 | 3 | 0 |
| 20200911 S-1390-07_SUM.dwg | 100+00 to 101+00 | Vassar Street  | 43 | 3   | 5   | 9  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 101+00 to 102+00 | Vassar Street  | 46 | 2   | 5   | 6  | 0 | 0 | 0 |

|                            |                  |               |    |    |   |    |   |   |   |
|----------------------------|------------------|---------------|----|----|---|----|---|---|---|
| 20200911 S-1390-07_SUM.dwg | 102+00 to 103+00 | Vassar Street | 50 | 3  | 5 | 8  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 103+00 to 104+00 | Vassar Street | 52 | 4  | 4 | 11 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 104+00 to 105+00 | Vassar Street | 52 | 10 | 2 | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 105+00 to 106+00 | Vassar Street | 52 | 7  | 3 | 4  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 106+00 to 107+00 | Vassar Street | 52 | 7  | 3 | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 107+00 to 108+00 | Vassar Street | 52 | 6  | 3 | 13 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 108+00 to 109+00 | Vassar Street | 52 | 5  | 4 | 3  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 109+00 to 110+00 | Vassar Street | 52 | 5  | 4 | 2  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 110+00 to 111+00 | Vassar Street | 52 | 5  | 4 | 11 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 111+00 to 112+00 | Vassar Street | 52 | 6  | 3 | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 112+00 to 113+00 | Vassar Street | 52 | 6  | 3 | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 113+00 to 114+00 | Vassar Street | 52 | 7  | 3 | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 114+00 to 115+00 | Vassar Street | 52 | 2  | 5 | 2  | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 115+00 to 116+00 | Vassar Street | 52 | 3  | 5 | 1  | 0 | 0 | 0 |

|                            |                  |               |    |     |     |    |   |   |   |
|----------------------------|------------------|---------------|----|-----|-----|----|---|---|---|
| 20200911 S-1390-07_SUM.dwg | 116+00 to 117+00 | Vassar Street | 52 | 5   | 4   | 11 | 0 | 4 | 0 |
| 20200911 S-1390-07_SUM.dwg | 117+00 to 118+00 | Vassar Street | 46 | 4   | 4   | 15 | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 118+00 to 119+00 | Vassar Street | 40 | 4   | 4   | 2  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 119+00 to 120+00 | Vassar Street | 40 | 3   | 5   | 3  | 0 | 3 | 0 |
| 20200911 S-1390-07_SUM.dwg | 120+00 to 121+00 | Vassar Street | 40 | 3   | 5   | 12 | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 121+00 to 122+00 | Vassar Street | 40 | 3   | 5   | 1  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 122+00 to 123+00 | Vassar Street | 40 | 3   | 5   | 6  | 0 | 3 | 0 |
| 20200911 S-1390-07_SUM.dwg | 123+00 to 124+00 | Vassar Street | 36 | 6   | 3   | 5  | 0 | 2 | 0 |
| 20200911 S-1390-07_SUM.dwg | 124+00 to 125+00 | Vassar Street | 44 | 6   | 3   | 11 | 0 | 1 | 0 |
| 20200911 S-1390-07_SUM.dwg | 125+00 to 126+00 | Vassar Street | 52 | 4   | 4   | 4  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 126+00 to 127+00 | Vassar Street | 50 | 6   | 3   | 0  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 127+00 to 128+00 | Vassar Street | 46 | N/A | N/A | 5  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 128+00 to 129+00 | Vassar Street | 44 | 10  | 2   | 0  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 129+00 to 130+00 | Vassar Street | 43 | 10  | 2   | 4  | 0 | 0 | 0 |
| 20200911 S-1390-07_SUM.dwg | 130+00 to 131+00 | Vassar Street |    | 10  | 2   | 19 | 0 | 5 | 0 |
| 20200911 S-1390-07_SUM.dwg | 131+00 to 132+00 | Vassar Street | 44 | 10  | 2   | 16 | 0 | 1 | 0 |



|                    |                  |               |    |     |     |    |   |   |   |
|--------------------|------------------|---------------|----|-----|-----|----|---|---|---|
| 15868-2018-9-6.dwg | 132+00 to 133+00 | Vassar Street | 42 | 5   | 4   | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg | 133+00 to 134+00 | Vassar Street | 42 | 9   | 3   | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg | 134+00 to 135+00 | Vassar Street | 46 | 6   | 3   | 16 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg | 135+00 to 136+00 | Vassar Street | 52 | 7   | 3   | 9  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg | 136+00 to 137+00 | Vassar Street | 52 | 6   | 3   | 13 | 0 | 3 | 0 |
| 15868-2018-9-6.dwg | 137+00 to 138+00 | Vassar Street | 52 | 7   | 3   | 16 | 0 | 1 | 5 |
| 15868-2018-9-6.dwg | 138+00 to 139+00 | Vassar Street | 52 | 6   | 3   | 14 | 0 | 2 | 2 |
| 15868-2018-9-6.dwg | 139+00 to 140+00 | Vassar Street | 52 | 7   | 3   | 11 | 0 | 2 | 0 |
| 15868-2018-9-6.dwg | 140+00 to 141+00 | Vassar Street | 52 | 8   | 3   | 10 | 0 | 0 | 4 |
| 15868-2018-9-6.dwg | 141+00 to 142+00 | Vassar Street | 52 | 8   | 3   | 16 | 0 | 1 | 4 |
| 15868-2018-9-6.dwg | 142+00 to 143+00 | Vassar Street | 52 | 7   | 3   | 6  | 0 | 0 | 2 |
| 15868-2018-9-6.dwg | 143+00 to 144+00 | Vassar Street | 50 | N/A | N/A | 9  | 0 | 0 | 5 |
| 15868-2018-9-6.dwg | 144+00 to 145+00 | Vassar Street | 44 | N/A | N/A | 7  | 0 | 0 | 1 |
| 15868-2018-9-6.dwg | 145+00 to 146+00 | Vassar Street | 44 | N/A | N/A | 11 | 0 | 0 | 2 |
| 15868-2018-9-6.dwg | 146+00 to 147+00 | Vassar Street |    | N/A | N/A | 18 | 0 | 1 | 0 |

|   |                  |             |    |                |                              |                          |                          |            |           |
|---|------------------|-------------|----|----------------|------------------------------|--------------------------|--------------------------|------------|-----------|
| 15868-2018-9-6.dwg  | 147+00 to 148+00 | Galileo Way |    | 35             | 1                            | 6                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 148+00 to 149+00 | Galileo Way | 68 | 12             | 2                            | 2                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 149+00 to 150+00 | Galileo Way | 62 | 11             | 2                            | 2                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 150+00 to 151+00 | Galileo Way | 66 | 8              | 3                            | 4                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 151+00 to 152+00 | Galileo Way | 68 | 5              | 4                            | 1                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 152+00 to 153+00 | Galileo Way | 68 | 15             | 2                            | 1                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 153+00 to 154+00 | Galileo Way | 68 | 15             | 2                            | 1                        | 0                        | 0          | 0         |
| 15868-2018-9-6.dwg  | 154+00 to 154+77 | Galileo Way |    | 15             | 2                            | 8                        | 0                        | 1          | 0         |
| 15868-2018-9-6.dwg  | 154+77 to 155+00 | Broadway    |    | N/A            | N/A                          | 1                        | 0                        | 0          | 0         |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 155+00 to 156+00 | Broadway    | 70 | 7              | 3                            | 8                        | 0                        | 1          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 156+00 to 157+00 | Broadway    | 70 | 14             | 2                            | 2                        | 0                        | 0          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 157+00 to 158+00 | Broadway    | 70 | 14             | 2                            | 2                        | 0                        | 0          | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 158+00 to 158+44 | Broadway    | 70 | N/A            | N/A                          | 5                        | 0                        | 1          | 0         |
|   |                  |             |    | <b>TOTALS:</b> | <b>2</b>                     | <b>825</b>               | <b>0</b>                 | <b>188</b> | <b>25</b> |
|   |                  |             |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |           |

**Study Area: BRIGHTON**

**Candidate Route: B30 WEST**

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment   | Approximate<br>Width of Route<br>Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|-----------------|--|---|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |                 |  |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200724 S-1390-07_SUM.dwg | 0+00 to 1+00                     | Lincoln Street  | 27   | 6   | 3                                 | 7  | 0  | 5                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 1+00 to 2+00                     | Lincoln Street  | 25   | 4   | 4                                 | 1  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 2+00 to 3+00                     | Lincoln Street  | 25   | 9   | 3                                 | 8  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+00 to 3+29                     | Lincoln Street  | Not Provided   | N/A   | N/A                               | 11   | 0  | 4                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 3+29 to 4+00                     | Franklin Street | 28   | 0   | 5                                 | 18   | 0  | 10                | 0          |
| 20200724 S-1390-07_SUM.dwg | 4+00 to 5+00                     | Franklin Street | 28   | 0   | 5                                 | 0  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 5+00 to 6+00                     | Franklin Street | 28   | 0   | 5                                 | 3  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 6+00 to 7+00                     | Franklin Street | 28   | 0   | 5                                 | 7  | 0  | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 7+00 to 8+00                     | Franklin Street | 28   | 0   | 5                                 | 4  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 8+00 to 9+00                     | Franklin Street | 28   | 0   | 5                                 | 8  | 0  | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 9+00 to 10+00                    | Franklin Street | 28   | 0   | 5                                 | 13   | 0  | 3                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 10+00 to 11+00                   | Franklin Street | 28   | 0   | 5                                 | 8  | 0  | 1                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 11+00 to 12+00                   | Franklin Street | 28   | 0   | 5                                 | 2  | 0  | 2                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 12+00 to 13+00                   | Franklin Street | 25   | 0   | 5                                 | 5  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 13+00 to 14+00                   | Franklin Street | 29   | 0   | 5                                 | 4  | 0  | 0                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 14+00 to 15+00                   | Franklin Street | 30   | 6   | 3                                 | 7  | 0  | 6                 | 0          |
| 20200724 S-1390-07_SUM.dwg | 15+00 to 16+00                   | Franklin Street | 25   | 5   | 4                                 | 1  | 0  | 0                 | 0          |

|                            |                |                   |              |     |     |    |   |   |   |
|----------------------------|----------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 16+00 to 17+00 | Franklin Street   | 22           | 4   | 4   | 3  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 17+00 to 18+00 | Franklin Street   | 22           | 2   | 5   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 18+00 to 19+00 | Franklin Street   | 22           | 4   | 4   | 5  | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 19+00 to 20+00 | Franklin Street   | 22           | 4   | 4   | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 20+00 to 21+00 | Franklin Street   | 22           | 0   | 5   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 21+00 to 22+00 | Franklin Street   | 22           | 2   | 5   | 6  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 22+00 to 23+00 | Franklin Street   | 22           | 0   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 23+00 to 24+00 | Franklin Street   | 22           | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+00 to 24+67 | Franklin Street   | Not Provided | N/A | N/A | 7  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 24+67 to 25+00 | N. Harvard Street | Not Provided | N/A | N/A | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 25+00 to 26+00 | N. Harvard Street | 44           | 0   | 5   | 11 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 26+00 to 27+00 | N. Harvard Street | 44           | 0   | 5   | 16 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 27+00 to 28+00 | N. Harvard Street | 44           | 0   | 5   | 9  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 28+00 to 29+00 | N. Harvard Street | Not Provided | N/A | N/A | 14 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg | 29+00 to 30+00 | N. Harvard Street | Not Provided | 8   | 3   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 30+00 to 31+00 | N. Harvard Street | 40           | 5   | 4   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 31+00 to 32+00 | N. Harvard Street | 40           | 4   | 4   | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 32+00 to 33+00 | N. Harvard Street | 40           | 10  | 2   | 1  | 0 | 0 | 0 |

|                            |                |                   |    |    |   |   |   |   |   |
|----------------------------|----------------|-------------------|----|----|---|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 33+00 to 34+00 | N. Harvard Street | 40 | 7  | 3 | 9 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 34+00 to 35+00 | N. Harvard Street | 40 | 8  | 3 | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 35+00 to 36+00 | N. Harvard Street | 40 | 5  | 4 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 36+00 to 37+00 | N. Harvard Street | 40 | 7  | 3 | 6 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 37+00 to 38+00 | N. Harvard Street | 40 | 6  | 3 | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 38+00 to 39+00 | N. Harvard Street | 40 | 5  | 4 | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 39+00 to 40+00 | N. Harvard Street | 40 | 7  | 3 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 40+00 to 41+00 | N. Harvard Street | 40 | 7  | 3 | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 41+00 to 42+00 | N. Harvard Street | 40 | 5  | 4 | 1 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 42+00 to 43+00 | N. Harvard Street | 40 | 0  | 5 | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 43+00 to 44+00 | N. Harvard Street | 40 | 5  | 4 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 44+00 to 45+00 | N. Harvard Street | 40 | 5  | 4 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 45+00 to 46+00 | N. Harvard Street | 40 | 4  | 4 | 5 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 46+00 to 47+00 | N. Harvard Street | 40 | 7  | 3 | 2 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 47+00 to 48+00 | N. Harvard Street | 40 | 6  | 3 | 5 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 48+00 to 49+00 | N. Harvard Street | 40 | 15 | 2 | 2 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 49+00 to 50+00 | N. Harvard Street | 40 | 15 | 2 | 5 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 50+00 to 51+00 | N. Harvard Street | 40 | 6  | 3 | 3 | 0 | 0 | 0 |

|  |                |                   |              |     |     |    |   |   |   |
|--|----------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg   | 51+00 to 52+00 | N. Harvard Street | 40           | 6   | 3   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 52+00 to 53+00 | N. Harvard Street | 40           | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 53+00 to 54+00 | N. Harvard Street | Not Provided | N/A | N/A | 14 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 54+00 to 55+00 | N. Harvard Street | Not Provided | N/A | N/A | 6  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 55+00 to 56+00 | Anderson Bridge   | 41           | N/A | N/A | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 56+00 to 57+00 | Anderson Bridge   | 41           | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 57+00 to 58+00 | Anderson Bridge   | 41           | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 58+00 to 59+00 | Anderson Bridge   | 41           | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 59+00 to 60+00 | Anderson Bridge   | 42           | N/A | N/A | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 60+00 to 60+44 | Anderson Bridge   | 42           | N/A | N/A | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>JFK-PROSPECT-(SUBMIT-04-24-2020).dwg | 60+44 to 61+00 | JFK Street        | 42           | N/A | N/A | 6  | 0 | 4 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 61+00 to 62+00 | JFK Street        | 41           | 10  | 2   | 0  | 0 | 0 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 62+00 to 63+00 | JFK Street        | 41           | 4   | 4   | 2  | 0 | 2 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 63+00 to 64+00 | JFK Street        | 41           | 11  | 2   | 4  | 0 | 1 | 1 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 64+00 to 65+00 | JFK Street        | 41           | 11  | 2   | 4  | 0 | 1 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 65+00 to 66+00 | JFK Street        | 41           | 12  | 2   | 3  | 0 | 1 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 66+00 to 67+00 | JFK Street        | 41           | 12  | 2   | 0  | 0 | 0 |   |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 67+00 to 68+00 | JFK Street        | 39           | 0   | 5   | 7  | 0 | 3 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 68+00 to 69+00 | JFK Street        | 42           | 6   | 3   | 4  | 0 | 1 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 69+00 to 70+00 | JFK Street        | 42           | 6   | 3   | 2  | 0 | 1 | 0 |
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 70+00 to 71+00 | JFK Street        | 38           | 5   | 4   | 5  | 0 | 1 | 0 |

|  |                |                   |              |     |     |    |   |   |   |
|--|----------------|-------------------|--------------|-----|-----|----|---|---|---|
| JFK-PROSPECT-(SUBMIT-04-24-2020).dwg                               | 71+00 to 72+00 | JFK Street        | 40           | 5   | 4   | 2  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>JFK-PROSPECT-(SUBMIT-04-24-2020).dwg | 72+00 to 72+29 | JFK Street        | Not Provided | N/A | N/A | 7  | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 72+29 to 73+00 | Mt. Auburn Street | Not Provided | N/A | N/A | 24 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 73+00 to 74+00 | Mt. Auburn Street | 28           | 3   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 74+00 to 75+00 | Mt. Auburn Street | 31           | 0   | 5   | 18 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 75+00 to 76+00 | Mt. Auburn Street | 35           | 3   | 5   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 76+00 to 77+00 | Mt. Auburn Street | 35           | 5   | 4   | 5  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 77+00 to 78+00 | Mt. Auburn Street | 35           | 0   | 5   | 14 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 78+00 to 79+00 | Mt. Auburn Street | 35           | 0   | 5   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 79+00 to 80+00 | Mt. Auburn Street | 34           | 12  | 2   | 20 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 80+00 to 81+00 | Mt. Auburn Street | 33           | 10  | 2   | 7  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 81+00 to 82+00 | Mt. Auburn Street | 33           | 0   | 5   | 14 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 82+00 to 83+00 | Mt. Auburn Street | 33           | 4   | 4   | 5  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 83+00 to 84+00 | Mt. Auburn Street | 33           | 0   | 5   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg   | 84+00 to 85+00 | Mt. Auburn Street | 33           | 0   | 5   | 26 | 0 | 6 | 0 |

|                            |                |                   |              |     |     |    |   |   |   |
|----------------------------|----------------|-------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 85+00 to 86+00 | Mt. Auburn Street | 33           | 5   | 4   | 3  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 86+00 to 87+00 | Mt. Auburn Street | 33           | 5   | 4   | 4  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 87+00 to 88+00 | Mt. Auburn Street | 33           | 0   | 5   | 6  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 88+00 to 89+00 | Mt. Auburn Street | 31           | 4   | 4   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 89+00 to 90+00 | Mt. Auburn Street | 31           | 4   | 4   | 11 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 90+00 to 91+00 | Mt. Auburn Street | 33           | 4   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 91+00 to 92+00 | Mt. Auburn Street | 33           | 3   | 5   | 6  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 92+00 to 92+78 | Mt. Auburn Street | 33           | 3   | 5   | 8  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 92+78 to 93+00 | Putnam Avenue     | Not Provided | N/A | N/A | 17 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 93+00 to 94+00 | Putnam Avenue     | 27           | 9   | 3   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 94+00 to 95+00 | Putnam Avenue     | 27           | 9   | 3   | 3  | 0 | 0 | 0 |



|                            |                  |               |              |     |     |   |   |   |   |
|----------------------------|------------------|---------------|--------------|-----|-----|---|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 95+00 to 95+70   | Putnam Avenue | 27           | 9   | 3   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 95+70 to 96+00   | Green Street  | Not Provided | N/A | N/A | 8 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 96+00 to 97+00   | Green Street  | 26           | 7   | 3   | 4 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 97+00 to 98+00   | Green Street  | 26           | 7   | 3   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 98+00 to 99+00   | Green Street  | 26           | 7   | 3   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 99+00 to 100+00  | Green Street  | 27           | 5   | 4   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 100+00 to 101+00 | Green Street  | 27           | 7   | 3   | 4 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 101+00 to 102+00 | Green Street  | 26           | 7   | 3   | 0 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 102+00 to 103+00 | Green Street  | 26           | 5   | 4   | 0 | 0 | 0 | 0 |

|                            |                  |              |    |     |     |    |   |   |   |
|----------------------------|------------------|--------------|----|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 103+00 to 104+00 | Green Street | 27 | N/A | N/A | 8  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 104+00 to 105+00 | Green Street | 27 | 4   | 4   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 105+00 to 106+00 | Green Street | 27 | 6   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 106+00 to 107+00 | Green Street | 26 | 6   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 107+00 to 108+00 | Green Street | 27 | 5   | 4   | 10 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 108+00 to 109+00 | Green Street | 27 | 5   | 4   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 109+00 to 110+00 | Green Street | 26 | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 110+00 to 111+00 | Green Street | 26 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 111+00 to 112+00 | Green Street | 26 | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 112+00 to 113+00 | Green Street | 26 | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 113+00 to 114+00 | Green Street | 26 | 0   | 5   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 114+00 to 115+00 | Green Street | 26 | 5   | 4   | 7  | 0 | 0 | 0 |

|                            |                  |                          |              |     |     |    |   |   |   |
|----------------------------|------------------|--------------------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg | 115+00 to 116+00 | Green Street             | 27           | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 116+00 to 117+00 | Green Street             | 27           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 117+00 to 118+00 | Green Street             | 27           | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 118+00 to 119+00 | Green Street             | 27           | 5   | 4   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 119+00 to 120+00 | Green Street             | 25           | N/A | N/A | 19 | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 120+00 to 121+00 | Green Street             | 24           | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 121+00 to 122+00 | Green Street             | 23           | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 122+00 to 122+91 | Green Street             | 24           | 5   | 4   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg | 122+91 to 123+00 | Western Ave/River Street | Not Provided | N/A | N/A | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg | 123+00 to 124+00 | Western Ave/River Street | 23           | 14  | 2   | 4  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg | 124+00 to 125+00 | Western Ave/River Street | 22           | 17  | 1   | 8  | 0 | 5 | 0 |
| 20200724 S-1390-07_SUM.dwg | 125+00 to 126+00 | Western Ave/River Street | Not Provided | N/A | N/A | 24 | 0 | 6 | 0 |
| 20200724 S-1390-07_SUM.dwg | 126+00 to 127+00 | Prospect Street          | Not Provided | N/A | N/A | 15 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg | 127+00 to 128+00 | Prospect Street          | 30           | 8   | 3   | 4  | 0 | 1 | 0 |

|  |                  |                 |              |     |     |    |   |   |   |
|--|------------------|-----------------|--------------|-----|-----|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg                       | 128+00 to 129+00 | Prospect Street | 30           | 12  | 2   | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 129+00 to 130+00 | Prospect Street | Not Provided | N/A | N/A | 19 | 0 | 4 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 130+00 to 131+00 | Prospect Street | 34           | 9   | 3   | 5  | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 131+00 to 132+00 | Prospect Street | 34           | 8   | 3   | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 132+00 to 133+00 | Prospect Street | 34           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 133+00 to 134+00 | Prospect Street | 34           | 8   | 3   | 9  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 134+00 to 135+00 | Prospect Street | 34           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 135+00 to 136+00 | Prospect Street | 34           | 8   | 3   | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 136+00 to 137+00 | Prospect Street | 34           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 137+00 to 138+00 | Prospect Street | 34           | N/A | N/A | 14 | 0 | 3 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 138+00 to 139+00 | Prospect Street | 34           | 8   | 3   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 139+00 to 140+00 | Prospect Street | 33           | 7   | 3   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 140+00 to 141+00 | Prospect Street | 34           | 13  | 2   | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg                       | 141+00 to 141+90 | Prospect Street | 34           | 10  | 2   | 10 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 141+90 to 142+00 | Broadway        | Not Provided | N/A | N/A | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 142+00 to 143+00 | Broadway        | 43           | 8   | 3   | 3  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 143+00 to 144+00 | Broadway        | 43           | 8   | 3   | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 144+00 to 145+00 | Broadway        | 43           | 8   | 3   | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 145+00 to 146+00 | Broadway        | 40           | 8   | 3   | 3  | 0 | 0 | 0 |

|  |                  |          |    |   |   |    |   |   |   |
|--|------------------|----------|----|---|---|----|---|---|---|
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 146+00 to 147+00 | Broadway | 43 | 7 | 3 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 147+00 to 148+00 | Broadway | 43 | 7 | 3 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 148+00 to 149+00 | Broadway | 43 | 5 | 4 | 10 | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 149+00 to 150+00 | Broadway | 43 | 5 | 4 | 1  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 150+00 to 151+00 | Broadway | 38 | 4 | 4 | 10 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 151+00 to 152+00 | Broadway | 43 | 4 | 4 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 152+00 to 153+00 | Broadway | 43 | 5 | 4 | 3  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 153+00 to 154+00 | Broadway | 41 | 5 | 4 | 14 | 0 | 2 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 154+00 to 155+00 | Broadway | 44 | 5 | 4 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 155+00 to 156+00 | Broadway | 44 | 5 | 4 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 156+00 to 157+00 | Broadway | 44 | 5 | 4 | 4  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 157+00 to 158+00 | Broadway | 44 | 5 | 4 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 158+00 to 159+00 | Broadway | 44 | 5 | 4 | 2  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 159+00 to 160+00 | Broadway | 44 | 5 | 4 | 8  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 160+00 to 161+00 | Broadway | 44 | 5 | 4 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 161+00 to 162+00 | Broadway | 43 | 5 | 4 | 0  | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 162+00 to 163+00 | Broadway | 40 | 5 | 4 | 11 | 0 | 0 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 163+00 to 164+00 | Broadway | 44 | 5 | 4 | 1  | 0 | 1 | 0 |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 164+00 to 165+00 | Broadway | 43 | 5 | 4 | 7  | 0 | 1 | 0 |

|   |                  |          |              |                |                              |                          |                          |            |          |
|---|------------------|----------|--------------|----------------|------------------------------|--------------------------|--------------------------|------------|----------|
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 165+00 to 166+00 | Broadway | 44           | 5              | 4                            | 4                        | 0                        | 1          | 0        |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 166+00 to 167+00 | Broadway | 44           | 5              | 4                            | 9                        | 0                        | 0          | 0        |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 167+00 to 168+00 | Broadway | 44           | 6              | 3                            | 13                       | 0                        | 1          | 0        |
| 20200724 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg                  | 168+00 to 169+00 | Broadway | 44           | N/A            | N/A                          | 8                        | 0                        | 1          | 0        |
| 15868-2018-9-6.dwg  | 169+00 to 170+00 | Broadway | 44           | 15             | 2                            | 22                       | 0                        | 5          | 0        |
| 15868-2018-9-6.dwg  | 170+00 to 171+00 | Broadway | 44           | 25             | 1                            | 1                        | 0                        | 1          | 0        |
| 15868-2018-9-6.dwg  | 171+00 to 172+00 | Broadway | 46           | 22             | 1                            | 1                        | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg  | 172+00 to 173+00 | Broadway | Not Provided | 30             | 1                            | 2                        | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg  | 173+00 to 174+00 | Broadway | 60           | 3              | 5                            | 4                        | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg  | 174+00 to 175+00 | Broadway | 60           | N/A            | N/A                          | 9                        | 0                        | 1          | 0        |
| 15868-2018-9-6.dwg  | 175+00 to 176+00 | Broadway | 60           | N/A            | N/A                          | 4                        | 0                        | 1          | 0        |
| 15868-2018-9-6.dwg<br>20200724 S-1390-07_SUM.dwg                  | 176+00 to 177+00 | Broadway | 60           | N/A            | N/A                          | 10                       | 0                        | 3          | 1        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 177+00 to 178+00 | Broadway | Not Provided | N/A            | N/A                          | 16                       | 0                        | 0          | 0        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 178+00 to 179+00 | Broadway | 70           | 14             | 2                            | 2                        | 0                        | 1          | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 179+00 to 180+00 | Broadway | 70           | 14             | 2                            | 3                        | 0                        | 0          | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 180+00 to 181+03 | Broadway | 70           | N/A            | N/A                          | 5                        | 0                        | 1          | 0        |
|   |                  |          |              | <b>TOTALS:</b> | <b>4</b>                     | <b>1004</b>              | <b>0</b>                 | <b>204</b> | <b>2</b> |
|   |                  |          |              |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |            |          |

## **Kendall Study Area**

**KENDALL STUDY AREA**

| Candidate Route | Existing Utility Density (Raw Data)   |                              |                                    | Ratio Scores (unweighted)*    |                              |                                    | Combined Utility Density Score** | Ranking for this Criterion |
|-----------------|---------------------------------------|------------------------------|------------------------------------|-------------------------------|------------------------------|------------------------------------|----------------------------------|----------------------------|
|                 | Average Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources | Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources |                                  |                            |
| K10             | 3                                     | 148                          | 35                                 | 1.00                          | 0.77                         | 0.73                               | 2.50                             | 2                          |
| K11             | 3                                     | 141                          | 36                                 | 1.00                          | 0.74                         | 0.75                               | 2.49                             | 1                          |
| K12             | 3                                     | 179                          | 44                                 | 1.00                          | 0.94                         | 0.92                               | 2.85                             | 4                          |
| K5A             | 3                                     | 148                          | 40                                 | 1.00                          | 0.77                         | 0.83                               | 2.61                             | 3                          |
| K6A             | 3                                     | 191                          | 48                                 | 1.00                          | 1.00                         | 1.00                               | 3.00                             | 5                          |

**NOTES:**

\* The "Unweighted Ratio Scores" were generated following the same ratio scoring methodology applied to the master scoring matrix for other scoring criteria.

\*\* The "Combined Utility Density Score" is a summation of the combined "Ratio Scores (Unweighted)" generated for each of the three "Existing Utility Density (raw data)" categories.

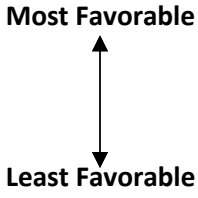


**NOTES:**

- (1) The roadway widths (edge of pavement) are approximate and were determined using a combination of CADD and GIS data sources. Note that widths were not determined for off-road route segments unless otherwise noted.
- (2) "Estimated Maximum Useable Corridor Width" refers to the maximum available underground space that is potentially available to install the transmission line, measured horizontally between existing utilities in 100-foot long stations/increments along each Candidate Route, as determined by Project Engineers.
- (3) **BOLD** total numbers are used in "Raw Data Summary & Ratio Scores" worksheet as raw number inputs (Average Useable Corridor Rating, Sum of Utility Crossings and Sum of Heat Generating Sources).
- (4) "Utility Crossings" refers to utilities (including heat generating sources) that are intersected by each Candidate Route, generally perpendicular regardless of type, size or depth.
- (5) "Heat Generating Sources" refers to existing electric transmission, distribution and steam lines intersected by each Candidate Route, regardless of size or depth.

(6) The "Average Useable Corridor Width Rating" represents the average overall underground space that is potentially available to install the transmission line (exclusive of intersections where a width could not reasonably be determined given the convergence of utilities from several different directions), based on ratings between 1 and 5, with 1 being the most favorable and 5 being the least favorable.

| Estimated Maximum Useable Corridor Width (ft) | Rating |
|---|--------|
| > 15  | 1      |
| 15 - 10                                       | 2      |
| 9 - 6   | 3      |
| 5 - 4   | 4      |
| ≤ 3   | 5      |



Study Area: KENDALL

Candidate Route: K10

| CADD Data Set Reference   | Station<br>(centerline of<br>route) | Route Segment  | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width<br>(ft) <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|-------------------------------------|--|---|---|-----------------------------------|--|--|-------------------|------------|
|   |                                     |  |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 15868-2018-9-6.dwg  | 0+00 to 0+42                        | Athenaeum Street<br>(from substation<br>gate to center of<br>intersection) | 25  | 20  | 1                                 | 8  | 0  | 5                 | 0          |
| 15868-2018-9-6.dwg  | 0+42 to 1+00                        | 2nd Street   | 33  | 12  | 2                                 | 6  | 0  | 3                 | 0          |
| 15868-2018-9-6.dwg  | 1+00 to 2+00                        | 2nd Street   | 33  | 8   | 3                                 | 1  | 0  | 0                 | 1          |
| 15868-2018-9-6.dwg  | 2+00 to 2+87                        | 2nd Street   | 33  | 5   | 4                                 | 10   | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 2+87 to 3+00                        | Linskey Way  | 30  | N/A   | N/A                               | 3  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 3+00 to 4+00                        | Linskey Way  | 29  | 10  | 2                                 | 6  | 0  | 5                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 4+00 to 5+00                        | Linskey Way  | 30  | 7   | 3                                 | 2  | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 5+00 to 6+00                        | Linskey Way  | 30  | 8   | 3                                 | 0  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 6+00 to 7+00                        | Linskey Way  | 30  | 11  | 2                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 7+00 to 8+00                        | Linskey Way  | 29  | 8   | 3                                 | 0  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 8+00 to 9+00                        | Linskey Way  | 29  | 5   | 4                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 9+00 to 10+00                       | Linskey Way  | 29  | 5   | 4                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 10+00 to 10+37                      | Linskey Way  | 29  | N/A   | N/A                               | 8  | 0  | 2                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 10+37 to 11+00                      | 3rd Street   | 35  | 10  | 2                                 | 5  | 0  | 2                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 11+00 to 12+00                      | 3rd Street   | 39  | 7   | 3                                 | 4  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 12+00 to 13+00                      | 3rd Street   | 39  | 5   | 4                                 | 4  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 13+00 to 14+00                      | 3rd Street   | 37  | 3   | 5                                 | 5  | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 14+00 to 15+00                      | 3rd Street   | 37  | 9   | 3                                 | 6  | 0  | 0                 | 1          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 15+00 to 15+29                      | 3rd Street   | 40  | N/A   | N/A                               | 5  | 0  | 0                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 15+29 to 16+00                      | Potter Street  | 34  | N/A   | N/A                               | 8  | 0  | 2                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 16+00 to 17+00                      | Potter Street  | 34  | 3   | 5                                 | 7  | 0  | 0                 | 0          |

|   |                |               |    |     |                |                              |                          |                          |           |          |
|---|----------------|---------------|----|-----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 20200529_S-1390-07_SUM.dwg              | 17+00 to 18+00 | Potter Street | 35 | 14  | 2              | 1                            | 0                        | 0                        | 0         |          |
| 20200529_S-1390-07_SUM.dwg              | 18+00 to 19+00 | Potter Street | 36 | 14  | 2              | 2                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 19+00 to 20+00 | Potter Street | 36 | 9   | 3              | 6                            | 0                        | 1                        | 0         |          |
|   | 20+00 to 21+00 | Potter Street | 36 | 8   | 3              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 21+00 to 22+00 | Potter Street | 36 | 8   | 3              | 7                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 22+00 to 23+00 | Potter Street | 36 | 6   | 3              | 4                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 23+00 to 24+00 | Potter Street | 36 | 15  | 2              | 2                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 24+00 to 25+00 | Volpe Center  | 30 | 30  | 1              | 4                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 25+00 to 26+00 | Volpe Center  | 30 | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 26+00 to 27+00 | Volpe Center  | 30 | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 27+00 to 28+00 | Volpe Center  | 30 | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 28+00 to 28+89 | Volpe Center  | 30 | N/A | N/A            | 11                           | 0                        | 4                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 28+89 to 29+00 | Broadway      | 61 | N/A | N/A            | 0                            | 0                        | 0                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 29+00 to 30+00 | Broadway      | 61 | 15  | 2              | 10                           | 0                        | 3                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 30+00 to 31+00 | Broadway      | 61 | 15  | 2              | 1                            | 0                        | 1                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 31+00 to 32+00 | Broadway      | 61 | 15  | 2              | 2                            | 0                        | 0                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 32+00 to 33+04 | Broadway      | 61 | N/A | N/A            | 7                            | 0                        | 2                        | 0         |          |
|   |                |               |    |     | <b>TOTALS:</b> | <b>3</b>                     | <b>148</b>               | <b>0</b>                 | <b>33</b> | <b>2</b> |
|   |                |               |    |     |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

Study Area: KENDALL

Candidate Route: K11

| CADD Data Set Reference   | Station<br>(centerline of<br>route) | Route Segment  | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width<br>(ft) <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|-------------------------------------|--|---|---|-----------------------------------|--|--|-------------------|------------|
|   |                                     |  |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 15868-2018-9-6.dwg  | 0+00 to 0+42                        | Athenaeum Street<br>(from substation<br>gate to center of<br>intersection) | 25  | 20  | 1                                 | 8  | 0  | 5                 | 0          |
| 15868-2018-9-6.dwg  | 0+42 to 1+00                        | 2nd Street   | 33  | 12  | 2                                 | 6  | 0  | 3                 | 0          |
| 15868-2018-9-6.dwg  | 1+00 to 2+00                        | 2nd Street   | 33  | 8   | 3                                 | 1  | 0  | 0                 | 1          |
| 15868-2018-9-6.dwg  | 2+00 to 2+87                        | 2nd Street   | 33  | 5   | 4                                 | 10   | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 2+87 to 3+00                        | Linskey Way  | 30  | N/A   | N/A                               | 3  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 3+00 to 4+00                        | Linskey Way  | 29  | 10  | 2                                 | 6  | 0  | 5                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 4+00 to 5+00                        | Linskey Way  | 30  | 7   | 3                                 | 2  | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 5+00 to 6+00                        | Linskey Way  | 30  | 8   | 3                                 | 0  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 6+00 to 7+00                        | Linskey Way  | 30  | 11  | 2                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 7+00 to 8+00                        | Linskey Way  | 29  | 8   | 3                                 | 0  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 8+00 to 9+00                        | Linskey Way  | 29  | 5   | 4                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 9+00 to 10+00                       | Linskey Way  | 29  | 5   | 4                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 10+00 to 10+37                      | Linskey Way  | 29  | N/A   | N/A                               | 8  | 0  | 2                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 10+37 to 11+00                      | Munroe Street  | 27  | N/A   | N/A                               | 8  | 0  | 1                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 11+00 to 12+00                      | Munroe Street  | 26  | 10  | 2                                 | 3  | 0  | 0                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 12+00 to 13+00                      | Munroe Street  | 26  | 10  | 2                                 | 4  | 0  | 0                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 13+00 to 14+00                      | Munroe Street  | 26  | 6   | 3                                 | 4  | 0  | 2                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 14+00 to 15+00                      | Munroe Street  | 26  | 4   | 4                                 | 6  | 0  | 2                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 15+00 to 15+40                      | Munroe Street  | 27  | N/A   | N/A                               | 4  | 0  | 1                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 15+40 to 16+00                      | 5th Street   | 38  | 10  | 2                                 | 5  | 0  | 0                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 16+00 to 17+00                      | 5th Street   | 38  | 9   | 3                                 | 0  | 0  | 0                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 17+00 to 18+00                      | 5th Street   | 38  | 8   | 3                                 | 3  | 0  | 0                 | 0          |
| 20201002_S-1390-08_SUM.dwg  | 18+00 to 18+77                      | 5th Street   | 38  | 8   | 3                                 | 9  | 0  | 2                 | 0          |
| 20201002_S-1390-08_SUM.dwg  | 18+77 to 19+00                      | Potter Street  | 36  | 8   | 3                                 | 1  | 0  | 0                 | 0          |
| 20201002_S-1390-08_SUM.dwg  | 19+00 to 20+00                      | Potter Street  | 36  | 9   | 3                                 | 3  | 0  | 0                 | 0          |
| 20201002_S-1390-08_SUM.dwg  | 20+00 to 21+00                      | Potter Street  | 36  | 9   | 3                                 | 4  | 0  | 0                 | 0          |
| 20201002_S-1390-08_SUM.dwg  | 21+00 to 22+00                      | Potter Street  | 36  | 8   | 3                                 | 3  | 0  | 0                 | 0          |

|   |                |               |    |     |                |                              |                          |                          |           |          |
|---|----------------|---------------|----|-----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 20201002_S-1390-08_SUM.dwg              | 22+00 to 23+00 | Potter Street | 36 | 8   | 3              | 2                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 23+00 to 23+35 | Potter Street | 36 | 6   | 3              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 23+35 to 24+00 | Volpe Center  | 30 | 15  | 2              | 4                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 24+00 to 25+00 | Volpe Center  | 30 | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 25+00 to 26+00 | Volpe Center  | 30 | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 26+00 to 27+00 | Volpe Center  | 30 | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 27+00 to 28+00 | Volpe Center  | 30 | 30  | 1              | 6                            | 0                        | 2                        | 0         |          |
| 20201002_S-1390-08_SUM.dwg              | 28+00 to 28+24 | Volpe Center  | 30 | N/A | N/A            | 5                            | 0                        | 2                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 28+24 to 29+00 | Broadway      | 61 | N/A | N/A            | 7                            | 0                        | 3                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 29+00 to 30+00 | Broadway      | 61 | 15  | 2              | 3                            | 0                        | 1                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 30+00 to 31+00 | Broadway      | 61 | 15  | 2              | 1                            | 0                        | 0                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 31+00 to 32+00 | Broadway      | 61 | 15  | 2              | 2                            | 0                        | 0                        | 0         |          |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg | 32+00 to 32+39 | Broadway      | 61 | N/A | N/A            | 7                            | 0                        | 2                        | 0         |          |
|   |                |               |    |     | <b>TOTALS:</b> | <b>3</b>                     | <b>141</b>               | <b>0</b>                 | <b>35</b> | <b>1</b> |
|   |                |               |    |     |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

**Study Area: KENDALL**

**Candidate Route: K12**

| CADD Data Set Reference   | Station<br>(centerline of route) | Route Segment  | Approximate Width of Route Segment (ft) <sup>(1)</sup> | Estimated Maximum Useable Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings by Road or ROW Segment <sup>(4)</sup> | # Heat Generating Sources Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|----------------------------------|--|--|---|-----------------------------------|--|---|-------------------|------------|
|   |                                  |  |  |   |                                   |  | Transmission Line   | Distribution Line | Steam Line |
| 15868-2018-9-6.dwg  | 0+00 to 0+42                     | Athenaeum Street<br>(from substation gate to center of intersection) | 25   | 20  | 1                                 | 8  | 0   | 5                 | 0          |
| 15868-2018-9-6.dwg  | 0+42 to 1+00                     | 2nd Street   | 33   | 12  | 2                                 | 6  | 0   | 3                 | 0          |
| 15868-2018-9-6.dwg  | 1+00 to 2+00                     | 2nd Street   | 33   | 8   | 3                                 | 1  | 0   | 0                 | 1          |
| 15868-2018-9-6.dwg  | 2+00 to 3+00                     | 2nd Street   | 33   | 5   | 4                                 | 11   | 0   | 1                 | 0          |
| 15868-2018-9-6.dwg  | 3+00 to 4+00                     | 2nd Street   | 31   | 9   | 3                                 | 7  | 0   | 3                 | 0          |
| 15868-2018-9-6.dwg  | 4+00 to 5+00                     | 2nd Street   | 32   | 6   | 3                                 | 7  | 0   | 1                 | 0          |
| 15868-2018-9-6.dwg  | 5+00 to 5+17                     | 2nd Street   | 32   | N/A   | N/A                               | 4  | 0   | 1                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 5+17 to 6+00                     | Binney Street  | 63   | 14  | 2                                 | 8  | 0   | 4                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 6+00 to 7+00                     | Binney Street  | 74   | 15  | 2                                 | 2  | 0   | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 7+00 to 8+00                     | Binney Street  | 71   | 13  | 2                                 | 3  | 0   | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 8+00 to 9+00                     | Binney Street  | 67   | 12  | 2                                 | 0  | 0   | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 9+00 to 10+00                    | Binney Street  | 67   | 8   | 3                                 | 4  | 0   | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 10+00 to 11+00                   | Binney Street  | 67   | 13  | 2                                 | 3  | 0   | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 11+00 to 12+00                   | Binney Street  | 66   | 11  | 2                                 | 6  | 0   | 2                 | 0          |
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg                                  | 12+00 to 12+13                   | Binney Street  | 67   | N/A   | N/A                               | 4  | 0   | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg | 12+13 to 13+00                   | 3rd Street   | 43   | 7   | 3                                 | 5  | 0   | 3                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg | 13+00 to 14+00                   | 3rd Street   | 43   | 6   | 3                                 | 2  | 0   | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg | 14+00 to 14+49                   | 3rd Street   | 43   | 6   | 3                                 | 4  | 0   | 1                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 14+49 to 15+00                   | Munroe Street  | 26   | N/A   | N/A                               | 8  | 0   | 1                 | 0          |
| 20200529_S-1390-07_SUM.dwg  | 15+00 to 16+00                   | Munroe Street  | 26   | 7   | 3                                 | 3  | 0   | 0                 | 0          |

|  |                |               |    |     |     |   |   |   |   |
|--|----------------|---------------|----|-----|-----|---|---|---|---|
| 20200529_S-1390-07_SUM.dwg               | 16+00 to 17+00 | Munroe Street | 26 | 3   | 5   | 4 | 0 | 0 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 17+00 to 18+00 | Munroe Street | 26 | 5   | 4   | 4 | 0 | 2 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 18+00 to 19+00 | Munroe Street | 26 | 4   | 4   | 6 | 0 | 2 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 19+00 to 19+51 | Munroe Street | 26 | 4   | 4   | 4 | 0 | 1 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 19+51 to 20+00 | 5th Street    | 38 | 9   | 3   | 5 | 0 | 0 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 20+00 to 21+00 | 5th Street    | 38 | 9   | 3   | 0 | 0 | 0 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 21+00 to 22+00 | 5th Street    | 38 | 9   | 3   | 3 | 0 | 0 | 0 |
| 20200529_S-1390-07_SUM.dwg               | 22+00 to 22+88 | 5th Street    | 38 | 8   | 3   | 9 | 0 | 2 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 22+88 to 23+00 | Potter Street | 36 | 8   | 3   | 1 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 23+00 to 24+00 | Potter Street | 36 | 9   | 3   | 3 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 24+00 to 25+00 | Potter Street | 36 | 8   | 3   | 4 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 25+00 to 26+00 | Potter Street | 36 | 8   | 3   | 3 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 26+00 to 27+00 | Potter Street | 36 | 6   | 3   | 2 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 27+00 to 27+47 | Potter Street | 36 | 15  | 2   | 0 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 27+47 to 28+00 | Volpe Center  | 30 | 15  | 2   | 4 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 28+00 to 29+00 | Volpe Center  | 30 | 30  | 1   | 0 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 29+00 to 30+00 | Volpe Center  | 30 | 30  | 1   | 0 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 30+00 to 31+00 | Volpe Center  | 30 | 30  | 1   | 0 | 0 | 0 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 31+00 to 32+00 | Volpe Center  | 30 | 30  | 1   | 3 | 0 | 2 | 0 |
| 20201002_S-1390-08_SUM.dwg               | 32+00 to 32+35 | Volpe Center  | 30 | N/A | N/A | 8 | 0 | 2 | 0 |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg | 32+35 to 33+00 | Broadway      | 61 | N/A | N/A | 6 | 0 | 3 | 0 |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg | 33+00 to 34+00 | Broadway      | 61 | 15  | 2   | 4 | 0 | 1 | 0 |

|   |                |          |    |                |                              |                          |                          |           |          |
|---|----------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 17156_BROADWAY_EC_SU<br>BMIT_2020_01_17.dwg | 34+00 to 35+00 | Broadway | 61 | 15             | 2                            | 1                        | 0                        | 0         | 0        |
| 17156_BROADWAY_EC_SU<br>BMIT_2020_01_17.dwg | 35+00 to 36+00 | Broadway | 61 | 15             | 2                            | 2                        | 0                        | 0         | 0        |
| 17156_BROADWAY_EC_SU<br>BMIT_2020_01_17.dwg | 36+00 to 36+50 | Broadway | 61 | N/A            | N/A                          | 7                        | 0                        | 2         | 0        |
|   |                |          |    | <b>TOTALS:</b> | <b>3</b>                     | <b>179</b>               | <b>0</b>                 | <b>43</b> | <b>1</b> |
|   |                |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |



Study Area: KENDALL

Candidate Route: K5A

| CADD Data Set Reference   | Station<br>(centerline of route) | Route Segment  | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width (ft) <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|----------------------------------|--|---|--|-----------------------------------|--|--|-------------------|------------|
|   |                                  |  |   |  |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 15868-2018-9-6.dwg  | 0+00 to 0+42                     | Athenaeum Street<br>(from substation<br>gate to center of<br>intersection) | 25  | 20   | 1                                 | 11   | 0  | 5                 | 0          |
| 15868-2018-9-6.dwg  | 0+42 to 1+00                     | 2nd Street   | 33  | 12   | 2                                 | 6  | 0  | 3                 | 0          |
| 15868-2018-9-6.dwg  | 1+00 to 2+00                     | 2nd Street   | 33  | 8  | 3                                 | 1  | 0  | 0                 | 1          |
| 15868-2018-9-6.dwg  | 2+00 to 2+87                     | 2nd Street   | 33  | 5  | 4                                 | 13   | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 2+87 to 3+00                     | Linskey Way  | 30  | N/A  | N/A                               | 3  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 3+00 to 4+00                     | Linskey Way  | 29  | 10   | 2                                 | 6  | 0  | 5                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 4+00 to 5+00                     | Linskey Way  | 30  | 7  | 3                                 | 2  | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 5+00 to 6+00                     | Linskey Way  | 30  | 8  | 3                                 | 0  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 6+00 to 7+00                     | Linskey Way  | 30  | 11   | 2                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 7+00 to 8+00                     | Linskey Way  | 29  | 8  | 3                                 | 0  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 8+00 to 9+00                     | Linskey Way  | 29  | 5  | 4                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 9+00 to 10+00                    | Linskey Way  | 29  | 5  | 4                                 | 1  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 10+00 to 10+37                   | Linskey Way  | 29  | N/A  | N/A                               | 8  | 0  | 2                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 10+37 to 11+00                   | 3rd Street   | 35  | 10   | 2                                 | 5  | 0  | 2                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 11+00 to 12+00                   | 3rd Street   | 39  | 7  | 3                                 | 4  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 12+00 to 13+00                   | 3rd Street   | 39  | 5  | 4                                 | 4  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 13+00 to 14+00                   | 3rd Street   | 37  | 3  | 5                                 | 5  | 0  | 1                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 14+00 to 15+00                   | 3rd Street   | 37  | 9  | 3                                 | 5  | 0  | 0                 | 0          |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-<br>BROADWAY(SUBMITTED-04-14-2020).dwg | 15+00 to 15+36                   | 3rd Street   | 37  | 8  | 3                                 | 8  | 0  | 0                 | 0          |
| 20201002 S-1390-08_SUM.dwg  | 15+36 to 16+00                   | Volpe Center   | N/A   | 8  | 3                                 | 7  | 0  | 2                 | 0          |
| 20201002 S-1390-08_SUM.dwg  | 16+00 to 17+00                   | Volpe Center   | N/A   | N/A  | N/A                               | 2  | 0  | 0                 | 0          |
| 20201002 S-1390-08_SUM.dwg  | 17+00 to 18+00                   | Volpe Center   | N/A   | 30   | 1                                 | 1  | 0  | 0                 | 0          |

|  |                |                                   |     |                |                              |                          |                          |           |          |
|--|----------------|-----------------------------------|-----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 20201002 S-1390-08_SUM.dwg   | 18+00 to 19+00 | Volpe Center                      | N/A | 30             | 1                            | 0                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 19+00 to 20+00 | Volpe Center                      | N/A | 30             | 1                            | 0                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 20+00 to 20+28 | Volpe Center                      | N/A | N/A            | N/A                          | 5                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 20+28 to 21+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 1                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 21+00 to 22+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 0                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 22+00 to 23+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 5                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 23+00 to 24+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 3                        | 0                        | 1         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 24+00 to 25+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 2                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 25+00 to 26+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 0                        | 0                        | 0         | 0        |
| 20201002 S-1390-08_SUM.dwg   | 26+00 to 27+00 | Volpe Center<br>Broadway Sidewalk | N/A | 0              | 5                            | 3                        | 0                        | 0         | 0        |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg<br>g<br>20201002 S-1390-08_SUM.dwg | 27+00 to 27+62 | Volpe Center<br>Broadway Sidewalk | N/A | N/A            | N/A                          | 3                        | 0                        | 3         | 0        |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg<br>g<br>20201002 S-1390-08_SUM.dwg | 27+62 to 28+00 | Broadway                          | N/A | 12             | 2                            | 8                        | 0                        | 2         | 0        |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg<br>g<br>20201002 S-1390-08_SUM.dwg | 28+00 to 29+00 | Broadway                          | N/A | 15             | 2                            | 5                        | 0                        | 4         | 0        |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg<br>g<br>20201002 S-1390-08_SUM.dwg | 29+00 to 30+00 | Broadway                          | N/A | 15             | 2                            | 6                        | 0                        | 1         | 0        |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg<br>g<br>20201002 S-1390-08_SUM.dwg | 30+00 to 31+00 | Broadway                          | N/A | 15             | 2                            | 7                        | 0                        | 3         | 0        |
| 17156_BROADWAY_EC_SUBMIT_2020_01_17.dwg<br>g<br>20201002 S-1390-08_SUM.dwg | 31+00 to 31+30 | Broadway                          | N/A | N/A            | N/A                          | 6                        | 0                        | 3         | 0        |
|  |                |                                   |     | <b>TOTALS:</b> | <b>3</b>                     | <b>148</b>               | <b>0</b>                 | <b>39</b> | <b>1</b> |
|  |                |                                   |     |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

**Study Area: KENDALL**

**Candidate Route: K6A**

| CADD Data Set Reference                  | Station<br>(centerline of route) | Route Segment   | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|--|----------------------------------|---|---|---|-----------------------------------|--|--|-------------------|------------|
|  |                                  |   |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 15868-2018-9-6.dwg                       | 0+00 to 0+42                     | Athenaeum Street<br>(from substation gate to center of<br>intersection) | 25  | 20  | 1                                 | 11   | 0  | 5                 | 0          |
| 15868-2018-9-6.dwg                       | 0+42 to 1+00                     | 2nd Street  | 33  | 12  | 2                                 | 6  | 0  | 3                 | 0          |
| 15868-2018-9-6.dwg                       | 1+00 to 2+00                     | 2nd Street  | 33  | 8   | 3                                 | 1  | 0  | 0                 | 1          |
| 15868-2018-9-6.dwg                       | 2+00 to 3+00                     | 2nd Street  | 33  | 5   | 4                                 | 14   | 0  | 1                 | 0          |
| 15868-2018-9-6.dwg                       | 3+00 to 4+00                     | 2nd Street  | 31  | 9   | 3                                 | 7  | 0  | 3                 | 0          |
| 15868-2018-9-6.dwg                       | 4+00 to 5+00                     | 2nd Street  | 32  | 6   | 3                                 | 7  | 0  | 1                 | 0          |
| 15868-2018-9-6.dwg                       | 5+00 to 5+17                     | 2nd Street  | 32  | N/A   | N/A                               | 4  | 0  | 1                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 5+17 to 6+00                     | Binney Street   | 63  | 14  | 2                                 | 8  | 0  | 4                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 6+00 to 7+00                     | Binney Street   | 74  | 15  | 2                                 | 2  | 0  | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 7+00 to 8+00                     | Binney Street   | 71  | 13  | 2                                 | 3  | 0  | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 8+00 to 9+00                     | Binney Street   | 67  | 12  | 2                                 | 0  | 0  | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 9+00 to 10+00                    | Binney Street   | 67  | 8   | 3                                 | 4  | 0  | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 10+00 to 11+00                   | Binney Street   | 67  | 13  | 2                                 | 3  | 0  | 0                 | 0          |
| 17156-BINNEY-EC-SUMIT-<br>2020-01-10.dwg | 11+00 to 12+00                   | Binney Street   | 66  | 11  | 2                                 | 6  | 0  | 2                 | 0          |

|   |                |               |    |     |     |    |   |   |   |
|---|----------------|---------------|----|-----|-----|----|---|---|---|
| 17156-BINNEY-EC-SUMIT-2020-01-10.dwg  | 12+00 to 12+13 | Binney Street | 67 | N/A | N/A | 4  | 0 | 1 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 12+13 to 13+00 | 3rd Street    | 43 | 7   | 3   | 5  | 0 | 3 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 13+00 to 14+00 | 3rd Street    | 43 | 6   | 3   | 2  | 0 | 0 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 14+00 to 15+00 | 3rd Street    | 37 | N/A | N/A | 10 | 0 | 4 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 15+00 to 16+00 | 3rd Street    | 47 | 7   | 3   | 3  | 0 | 0 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 16+00 to 17+00 | 3rd Street    | 41 | 5   | 4   | 5  | 0 | 0 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 17+00 to 18+00 | 3rd Street    | 36 | 3   | 5   | 5  | 0 | 1 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 18+00 to 19+00 | 3rd Street    | 37 | 9   | 3   | 5  | 0 | 0 | 1 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 19+00 to 19+44 | 3rd Street    | 40 | 10  | 2   | 12 | 0 | 0 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg<br>20201002 S-1390-08 SUM.dwg | 19+44 to 20+00 | Volpe Center  | 30 | 8   | 3   | 7  | 0 | 0 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 20+00 to 21+00 | Volpe Center  | 30 | N/A | N/A | 1  | 0 | 0 | 0 |
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg                               | 21+00 to 22+00 | Volpe Center  | 30 | 30  | 1   | 2  | 0 | 0 | 0 |

|   |                |                                |     |     |                |                              |                          |                          |           |          |
|---|----------------|--------------------------------|-----|-----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| THIRD-LINSKEY-MAIN-HAYWARD-AMHERST-BROADWAY(SUBMITTED-04-14-2020).dwg | 22+00 to 23+00 | Volpe Center                   | 30  | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 23+00 to 24+00 | Volpe Center                   | 30  | 30  | 1              | 0                            | 0                        | 0                        | 0         |          |
|   | 24+00 to 24+39 | Volpe Center                   | 30  | N/A | N/A            | 5                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 24+39 to 25+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 1                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 25+00 to 26+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 0                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 26+00 to 27+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 5                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 27+00 to 28+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 2                            | 0                        | 1                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 28+00 to 29+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 2                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 29+00 to 30+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 1                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 30+00 to 31+00 | Volpe Center Broadway Sidewalk | N/A | 0   | 5              | 3                            | 0                        | 0                        | 0         |          |
| 20201002 S-1390-08_SUM.dwg  | 31+00 to 31+73 | Volpe Center Broadway Sidewalk | N/A | N/A | N/A            | 3                            | 0                        | 3                        | 0         |          |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg                              | 31+73 to 32+00 | Broadway                       | N/A | 12  | 2              | 8                            | 0                        | 2                        | 0         |          |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg                              | 32+00 to 33+00 | Broadway                       | N/A | 15  | 1              | 5                            | 0                        | 4                        | 0         |          |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg                              | 33+00 to 34+00 | Broadway                       | N/A | 15  | 1              | 6                            | 0                        | 1                        | 0         |          |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg                              | 34+00 to 35+00 | Broadway                       | N/A | 15  | 1              | 7                            | 0                        | 3                        | 0         |          |
| 17156_BROADWAY_EC_SU BMIT_2020_01_17.dwg                              | 35+00 to 35+41 | Broadway                       | N/A | N/A | N/A            | 6                            | 0                        | 3                        | 0         |          |
|   |                |                                |     |     | <b>TOTALS:</b> | <b>3</b>                     | <b>191</b>               | <b>0</b>                 | <b>46</b> | <b>2</b> |
|   |                |                                |     |     |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

## **Putnam Study Area**

**PUTNAM STUDY AREA**

| Candidate Route | Existing Utility Density (Raw Data)   |                              |                                    | Ratio Scores (unweighted)*    |                              |                                    | Combined Utility Density Score** | Ranking for this Criterion |
|-----------------|---------------------------------------|------------------------------|------------------------------------|-------------------------------|------------------------------|------------------------------------|----------------------------------|----------------------------|
|                 | Average Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources | Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources |                                  |                            |
| P11             | 2                                     | 309                          | 65                                 | 0.67                          | 0.64                         | 0.73                               | 2.04                             | 2                          |
| P12             | 3                                     | 480                          | 89                                 | 1.00                          | 1.00                         | 1.00                               | 3.00                             | 3                          |
| P13             | 2                                     | 163                          | 36                                 | 0.67                          | 0.34                         | 0.40                               | 1.41                             | 1                          |

**NOTES:**

\* The "Unweighted Ratio Scores" were generated following the same ratio scoring methodology applied to the master scoring matrix for other scoring criteria.

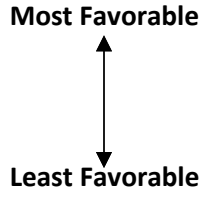
\*\* The "Combined Utility Density" score is a summation of the combined Unweighted Ratio Scores generated for each of the three "Existing Utility Density (raw data)" categories.

**NOTES:**

- (1) The roadway widths (edge of pavement) are approximate and were determined using a combination of CADD and GIS data sources. Note that widths were not determined for off-road route segments unless otherwise noted.
- (2) "Estimated Maximum Useable Corridor Width" refers to the maximum available underground space that is potentially available to install the transmission line, measured horizontally between existing utilities in 100-foot long stations/increments along each Candidate Route, as determined by Project Engineers.
- (3) **BOLD** total numbers are used in "Raw Data Summary & Ratio Scores" worksheet as raw number inputs (Average Useable Corridor Rating, Sum of Utility Crossings and Sum of Heat Generating Sources).
- (4) "Utility Crossings" refers to utilities (including heat generating sources) that are intersected by each Candidate Route, generally perpendicular regardless of type, size or depth.
- (5) "Heat Generating Sources" refers to existing electric transmission, distribution and steam lines intersected by each Candidate Route, regardless of size or depth.

(6) The "Average Useable Corridor Width Rating" represents the average overall underground space that is potentially available to install the transmission line (exclusive of intersections where a width could not reasonably be determined given the convergence of utilities from several different directions), based on ratings between 1 and 5, with 1 being the most favorable and 5 being the least favorable.

| Estimated Maximum Useable Corridor Width (ft) | Rating |
|---|--------|
| > 15  | 1      |
| 15 - 10                                       | 2      |
| 9 - 6   | 3      |
| 5 - 4   | 4      |
| ≤ 3   | 5      |





**Study Area: PUTNAM**

**Candidate Route: P11**

| CADD Data Set Reference    | Station<br>(centerline of route) | Route Segment        | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated Maximum<br>Useable Corridor<br>Width (ft) <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road or ROW Segment <sup>(5)</sup> |                   |            |
|----------------------------|----------------------------------|----------------------|---|--|-----------------------------------|--|--|-------------------|------------|
|                            |                                  |                      |   |  |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 20200619_S-1390-07_SUM.dwg | 0+00 to 1+00                     | Memorial Drive West  | 19  | 22   | 1                                 | 0  | 0  | 0                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 1+00 to 2+00                     | Memorial Drive West  | 19  | 22   | 1                                 | 3  | 0  | 2                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 0+00 to 1+00                     | Memorial Drive East  | 20  | 14   | 2                                 | 7  | 0  | 2                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 1+00 to 2+00                     | Memorial Drive East  | 20  | 20   | 1                                 | 0  | 0  | 0                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 0+00 to 1+00                     | Massachusetts Avenue | 61  | 12   | 2                                 | 5  | 0  | 0                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 1+00 to 2+00                     | Massachusetts Avenue | 61  | 20   | 1                                 | 4  | 0  | 1                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 2+00 to 3+00                     | Massachusetts Avenue | 58  | 20   | 1                                 | 6  | 0  | 0                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 3+00 to 4+00                     | Massachusetts Avenue | 57  | 18   | 1                                 | 4  | 0  | 1                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 4+00 to 5+00                     | Massachusetts Avenue | 61  | 20   | 1                                 | 3  | 0  | 2                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 5+00 to 6+00                     | Massachusetts Avenue | 60  | 17   | 1                                 | 7  | 0  | 0                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 6+00 to 7+00                     | Massachusetts Avenue | 55  | 16   | 1                                 | 10   | 0  | 2                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 7+00 to 8+00                     | Massachusetts Avenue | 61  | 16   | 1                                 | 7  | 0  | 1                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 8+00 to 9+00                     | Massachusetts Avenue | 61  | 11   | 2                                 | 6  | 0  | 2                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 9+00 to 10+00                    | Massachusetts Avenue | 61  | 16   | 1                                 | 10   | 0  | 0                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 10+00 to 11+00                   | Massachusetts Avenue | 62  | 18   | 1                                 | 4  | 0  | 1                 | 0          |
| 20200619_S-1390-07_SUM.dwg | 11+00 to 11+94                   | Massachusetts Avenue | 56  | 14   | 2                                 | 17   | 0  | 2                 | 0          |
| 15868-2018-9-6.dwg         | 11+94 to 12+00                   | Vassar Street        | 43  | N/A  | N/A                               | 1  | 0  | 0                 | 0          |
| 15868-2018-9-6.dwg         | 12+00 to 13+00                   | Vassar Street        | 43  | 10   | 2                                 | 15   | 0  | 1                 | 0          |
| 15868-2018-9-6.dwg         | 13+00 to 14+00                   | Vassar Street        | 42  | 10   | 2                                 | 4  | 0  | 0                 | 0          |
| 15868-2018-9-6.dwg         | 14+00 to 15+00                   | Vassar Street        | 42  | 10   | 2                                 | 3  | 0  | 0                 | 0          |
| 15868-2018-9-6.dwg         | 15+00 to 16+00                   | Vassar Street        | 33  | 10   | 2                                 | 11   | 0  | 1                 | 2          |
| 15868-2018-9-6.dwg         | 16+00 to 17+00                   | Vassar Street        | 31  | 5  | 4                                 | 5  | 0  | 0                 | 0          |
| 15868-2018-9-6.dwg         | 17+00 to 18+00                   | Vassar Street        | 30  | 9  | 3                                 | 11   | 0  | 1                 | 0          |
| 15868-2018-9-6.dwg         | 18+00 to 19+00                   | Vassar Street        | 29  | 6  | 3                                 | 12   | 0  | 3                 | 3          |
| 15868-2018-9-6.dwg         | 19+00 to 20+00                   | Vassar Street        | 26  | 7  | 3                                 | 14   | 0  | 2                 | 2          |

|  |                |               |     |     |     |    |   |   |   |
|--|----------------|---------------|-----|-----|-----|----|---|---|---|
| 15868-2018-9-6.dwg   | 20+00 to 21+00 | Vassar Street | 29  | 6   | 3   | 9  | 0 | 2 | 0 |
| 15868-2018-9-6.dwg   | 21+00 to 22+00 | Vassar Street | 29  | 7   | 3   | 9  | 0 | 0 | 3 |
| 15868-2018-9-6.dwg   | 22+00 to 23+00 | Vassar Street | 30  | 6   | 3   | 11 | 0 | 1 | 1 |
| 15868-2018-9-6.dwg   | 23+00 to 24+00 | Vassar Street | 23  | 7   | 3   | 3  | 0 | 0 | 1 |
| 15868-2018-9-6.dwg   | 24+00 to 25+00 | Vassar Street | 25  | 8   | 3   | 7  | 0 | 0 | 2 |
| 15868-2018-9-6.dwg   | 25+00 to 26+00 | Vassar Street | 42  | 8   | 3   | 7  | 0 | 0 | 1 |
| 15868-2018-9-6.dwg   | 26+00 to 27+00 | Vassar Street | 44  | 7   | 3   | 10 | 0 | 0 | 1 |
| 15868-2018-9-6.dwg   | 27+00 to 28+00 | Vassar Street | 51  | N/A | N/A | 13 | 0 | 1 |   |
| 15868-2018-9-6.dwg   | 28+00 to 28+34 | Vassar Street | 76  | N/A | N/A | 5  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 28+34 to 29+00 | Main Street   | 49  | 25  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 29+00 to 30+00 | Main Street   | 56  | 25  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 30+00 to 31+00 | Main Street   | 58  | 25  | 1   | 0  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 31+00 to 32+00 | Main Street   | 58  | 25  | 1   | 0  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 32+00 to 33+00 | Main Street   | 58  | 25  | 1   | 12 | 0 | 2 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg                                | 33+00 to 33+14 | Main Street   | 59  | N/A | N/A | 0  | 0 | 0 | 0 |
| 14313.00-EXIST.dwg   | 33+14 to 34+00 | Ames Street   | 70  | N/A | N/A | 10 | 0 | 2 | 0 |
| 14313.00-EXIST.dwg   | 34+00 to 35+00 | Ames Street   | 68  | 12  | 2   | 6  | 0 | 3 | 0 |
| 14313.00-EXIST.dwg   | 35+00 to 36+00 | Ames Street   | 51  | 12  | 2   | 4  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg   | 36+00 to 37+00 | Ames Street   | 50  | 20  | 1   | 2  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg   | 37+00 to 38+00 | Ames Street   | 66  | 12  | 2   | 2  | 0 | 0 | 0 |
| 14313.00-EXIST.dwg   | 38+00 to 38+76 | Ames Street   | N/A | 12  | 2   | 10 | 0 | 2 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 38+76 to 39+00 | Broadway      | N/A | N/A | N/A | 2  | 0 | 0 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 39+00 to 40+00 | Broadway      | 70  | 9   | 3   | 1  | 0 | 1 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 40+00 to 41+00 | Broadway      | 70  | 4   | 4   | 2  | 0 | 2 | 0 |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 41+00 to 42+00 | Broadway      | 70  | 7   | 3   | 9  | 0 | 3 | 0 |

|  |                |          |    |                |                              |                          |                          |           |           |
|--|----------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|-----------|
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 42+00 to 42+10 | Broadway | 70 | N/A            | N/A                          | 4                        | 0                        | 4         | 0         |
|  |                |          |    | <b>TOTALS:</b> | <b>2</b>                     | <b>309</b>               | <b>0</b>                 | <b>49</b> | <b>16</b> |
|  |                |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |           |

Study Area: PUTNAM

Candidate Route: P12

| CADD Data Set Reference | Station (centerline of route) | Route Segment       | Approximate Width of Route Segment (ft) <sup>(1)</sup> | Estimated Maximum Useable Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup> (1 to 5) | # of Utility Crossings by Road or ROW Segment <sup>(4)</sup> | # Heat Generating Sources Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|-------------------------|-------------------------------|---------------------|--|---|--------------------------------|--|---|-------------------|------------|
|                         |                               |                     |  |   |                                |  | Transmission Line   | Distribution Line | Steam Line |
|                         | 0+00 to 1+00                  | Memorial Drive West | 40   | 34  | 1                              | 3  | 0   | 1                 | 0          |
|                         | 1+00 to 2+00                  | Memorial Drive West | 41   | 32  | 1                              | 7  | 0   | 0                 | 0          |
|                         | 0+00 to 1+00                  | Memorial Drive East | 40   | 32  | 1                              | 1  | 0   | 0                 | 0          |
|                         | 1+00 to 2+00                  | Memorial Drive East | 40   | 33  | 1                              | 0  | 0   | 0                 | 0          |
|                         | 0+00 to 1+00                  | Vassar Street       | 44   | 10  | 2                              | 5  | 0   | 2                 | 0          |
|                         | 1+00 to 2+00                  | Vassar Street       | 41   | 13  | 2                              | 2  | 0   | 0                 | 0          |
|                         | 2+00 to 3+00                  | Vassar Street       | 41   | 9   | 3                              | 9  | 0   | 2                 | 0          |
|                         | 3+00 to 4+00                  | Vassar Street       | 45   | 5   | 4                              | 3  | 0   | 1                 | 0          |
|                         | 4+00 to 5+00                  | Vassar Street       | 45   | 7   | 3                              | 7  | 0   | 0                 | 0          |
|                         | 5+00 to 6+00                  | Vassar Street       | 45   | 6   | 3                              | 0  | 0   | 0                 | 0          |
|                         | 6+00 to 7+00                  | Vassar Street       | 45   | 7   | 3                              | 3  | 0   | 0                 | 0          |
|                         | 7+00 to 8+00                  | Vassar Street       | 45   | 7   | 3                              | 4  | 0   | 0                 | 0          |
|                         | 8+00 to 9+00                  | Vassar Street       | 46   | 6   | 3                              | 8  | 0   | 1                 | 0          |
|                         | 9+00 to 10+00                 | Vassar Street       | 46   | 11  | 2                              | 0  | 0   | 0                 | 0          |
|                         | 10+00 to 11+00                | Vassar Street       | 44   | 4   | 4                              | 16   | 0   | 1                 | 0          |
|                         | 11+00 to 12+00                | Vassar Street       | 34   | 2   | 5                              | 9  | 0   | 1                 | 0          |
|                         | 12+00 to 13+00                | Vassar Street       | 36   | 3   | 5                              | 8  | 0   | 0                 | 0          |
|                         | 13+00 to 14+00                | Vassar Street       | 32   | 1   | 5                              | 8  | 0   | 0                 | 0          |
|                         | 14+00 to 15+00                | Vassar Street       | 27   | 3   | 5                              | 10   | 0   | 0                 | 0          |
|                         | 15+00 to 16+00                | Vassar Street       | 29   | 2   | 5                              | 3  | 0   | 1                 | 0          |
|                         | 16+00 to 17+00                | Vassar Street       | 29   | 3   | 5                              | 5  | 0   | 0                 | 0          |
|                         | 17+00 to 18+00                | Vassar Street       | 29   | 4   | 4                              | 1  | 0   | 0                 | 0          |
|                         | 18+00 to 19+00                | Vassar Street       | 30   | 10  | 2                              | 8  | 0   | 0                 | 0          |
|                         | 19+00 to 20+00                | Vassar Street       | 29   | 7   | 3                              | 8  | 0   | 0                 | 0          |
|                         | 20+00 to 21+00                | Vassar Street       | 29   | 7   | 3                              | 1  | 0   | 0                 | 0          |
|                         | 21+00 to 22+00                | Vassar Street       | 29   | 6   | 3                              | 8  | 0   | 1                 | 0          |
|                         | 22+00 to 23+00                | Vassar Street       | 27   | 5   | 4                              | 1  | 0   | 0                 | 0          |
|                         | 23+00 to 24+00                | Vassar Street       | 29   | 5   | 4                              | 3  | 0   | 0                 | 0          |
|                         | 24+00 to 25+00                | Vassar Street       | 30   | 5   | 4                              | 0  | 0   | 0                 | 0          |
|                         | 25+00 to 26+00                | Vassar Street       | 29   | 6   | 3                              | 3  | 0   | 1                 | 0          |
|                         | 26+00 to 27+00                | Vassar Street       | 29   | 6   | 3                              | 2  | 0   | 1                 | 0          |
|                         | 27+00 to 28+00                | Vassar Street       | 30   | 7   | 3                              | 2  | 0   | 1                 | 0          |
|                         | 28+00 to 29+00                | Vassar Street       | 29   | 2   | 5                              | 22   | 0   | 3                 | 0          |
|                         | 29+00 to 30+00                | Vassar Street       | 29   | 3   | 5                              | 12   | 0   | 4                 | 0          |
|                         | 30+00 to 31+00                | Vassar Street       | 29   | 5   | 4                              | 3  | 0   | 3                 | 0          |
|                         | 31+00 to 32+00                | Vassar Street       | 29   | 4   | 4                              | 10   | 0   | 1                 | 0          |
|                         | 32+00 to 33+00                | Vassar Street       | 30   | 4   | 4                              | 6  | 0   | 1                 | 0          |
|                         | 33+00 to 34+00                | Vassar Street       | 29   | 3   | 5                              | 6  | 0   | 4                 | 0          |

|                                     |                |               |     |     |     |    |   |   |   |
|-------------------------------------|----------------|---------------|-----|-----|-----|----|---|---|---|
|                                     | 34+00 to 35+00 | Vassar Street | 28  | 3   | 5   | 5  | 0 | 1 | 0 |
|                                     | 35+00 to 36+00 | Vassar Street | 29  | 3   | 5   | 14 | 0 | 3 | 0 |
|                                     | 36+00 to 37+00 | Vassar Street | 32  | 3   | 5   | 9  | 0 | 0 | 0 |
|                                     | 37+00 to 38+00 | Vassar Street | 32  | 6   | 3   | 1  | 0 | 0 | 0 |
|                                     | 38+00 to 39+00 | Vassar Street | 34  | 6   | 3   | 1  | 0 | 0 | 0 |
|                                     | 39+00 to 40+00 | Vassar Street | 38  | 4   | 4   | 4  | 0 | 0 | 0 |
|                                     | 40+00 to 41+00 | Vassar Street | 43  | 6   | 3   | 5  | 0 | 0 | 0 |
|                                     | 41+00 to 42+00 | Vassar Street | 43  | N/A | N/A | 17 | 0 | 4 | 0 |
|                                     | 42+00 to 43+00 | Vassar Street | 43  | 10  | 2   | 17 | 0 | 1 | 0 |
|                                     | 43+00 to 44+00 | Vassar Street | 42  | 10  | 2   | 4  | 0 | 0 | 0 |
|                                     | 44+00 to 45+00 | Vassar Street | 42  | 10  | 2   | 3  | 0 | 0 | 0 |
|                                     | 45+00 to 46+00 | Vassar Street | 34  | 10  | 2   | 10 | 0 | 0 | 2 |
|                                     | 46+00 to 47+00 | Vassar Street | 32  | 5   | 4   | 6  | 0 | 1 | 0 |
|                                     | 47+00 to 48+00 | Vassar Street | 30  | 9   | 3   | 11 | 0 | 1 | 0 |
|                                     | 48+00 to 49+00 | Vassar Street | 29  | 6   | 3   | 11 | 0 | 3 | 3 |
|                                     | 49+00 to 50+00 | Vassar Street | 26  | 7   | 3   | 14 | 0 | 2 | 2 |
|                                     | 50+00 to 51+00 | Vassar Street | 29  | 6   | 3   | 9  | 0 | 2 | 0 |
|                                     | 51+00 to 52+00 | Vassar Street | 29  | 7   | 3   | 9  | 0 |   | 3 |
|                                     | 52+00 to 53+00 | Vassar Street | 30  | 6   | 3   | 11 | 0 | 1 | 1 |
|                                     | 53+00 to 54+00 | Vassar Street | 23  | 7   | 3   | 3  | 0 | 0 | 1 |
|                                     | 54+00 to 55+00 | Vassar Street | 25  | 8   | 3   | 9  | 0 | 0 | 4 |
|                                     | 55+00 to 56+00 | Vassar Street | 42  | 8   | 3   | 7  | 0 | 0 | 1 |
|                                     | 56+00 to 57+00 | Vassar Street | 44  | 7   | 3   | 9  | 0 | 0 | 1 |
|                                     | 57+00 to 58+00 | Vassar Street | 50  | N/A | N/A | 11 | 0 | 1 | 0 |
|                                     | 58+00 to 58+36 | Vassar Street | 75  | N/A | N/A | 7  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 58+36 to 59+00 | Main Street   | 49  | 25  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 59+00 to 60+00 | Main Street   | 56  | 25  | 1   | 1  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 60+00 to 61+00 | Main Street   | 58  | 25  | 1   | 0  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 61+00 to 62+00 | Main Street   | 58  | 25  | 1   | 0  | 0 | 0 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 62+00 to 63+00 | Main Street   | 58  | 25  | 1   | 12 | 0 | 2 | 0 |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 63+00 to 63+16 | Main Street   | 59  | N/A | N/A | 0  | 0 | 0 | 0 |
| 14313.00-EXIST.dwg                  | 63+16 to 64+00 | Ames Street   | 70  | N/A | N/A | 10 | 0 | 2 | 0 |
| 14313.00-EXIST.dwg                  | 64+00 to 65+00 | Ames Street   | 69  | 12  | 2   | 6  | 0 | 3 | 0 |
| 14313.00-EXIST.dwg                  | 65+00 to 66+00 | Ames Street   | 51  | 12  | 2   | 4  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg                  | 66+00 to 67+00 | Ames Street   | 50  | 20  | 1   | 2  | 0 | 1 | 0 |
| 14313.00-EXIST.dwg                  | 67+00 to 68+00 | Ames Street   | 66  | 12  |     | 2  | 0 | 0 | 0 |
| 14313.00-EXIST.dwg                  | 68+00 to 68+77 | Ames Street   | N/A | 12  |     | 10 | 0 | 2 | 0 |

|  |                |          |     |                |                              |                          |                          |           |           |
|--|----------------|----------|-----|----------------|------------------------------|--------------------------|--------------------------|-----------|-----------|
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 68+77 to 69+00 | Broadway | N/A | N/A            | N/A                          | 2                        | 0                        | 0         | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 69+00 to 70+00 | Broadway | 70  | 9              | 3                            | 1                        | 0                        | 1         | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 70+00 to 71+00 | Broadway | 70  | 4              | 4                            | 2                        | 0                        | 2         | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 71+00 to 72+00 | Broadway | 70  | 7              | 3                            | 9                        | 0                        | 3         | 0         |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 72+00 to 72+11 | Broadway | 70  | N/A            | N/A                          | 4                        | 0                        | 4         | 0         |
|  |                |          |     | <b>TOTALS:</b> | <b>3</b>                     | <b>480</b>               | <b>0</b>                 | <b>71</b> | <b>18</b> |
|  |                |          |     |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |           |

**Study Area: PUTNAM**

**Candidate Route: P13**

| CADD Data Set Reference             | Station (centerline of route) | Route Segment       | Approximate Width of Route Segment (ft) <sup>(1)</sup> | Estimated Maximum Useable Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup> (1 to 5) | # of Utility Crossings by Road or ROW Segment <sup>(4)</sup> | # Heat Generating Sources Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|-------------------------------------|-------------------------------|---------------------|--|---|--------------------------------|--|---|-------------------|------------|
|                                     |                               |                     |  |   |                                |  | Transmission Line   | Distribution Line | Steam Line |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 0+00 to 1+00                  | Memorial Drive West | 31   | 29  | 1                              | 4  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 1+00 to 2+00                  | Memorial Drive West | 31   | 26  | 1                              | 4  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 0+00 to 1+00                  | Memorial Drive East | 30   | 29  | 1                              | 3  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 1+00 to 2+00                  | Memorial Drive East | 30   | 24  | 1                              | 0  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 0+00 to 1+00                  | Ames Street         | 41   | 34  | 1                              | 2  | 0   | 1                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 1+00 to 2+00                  | Ames Street         | 40   | 31  | 1                              | 4  | 0   |                   | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 2+00 to 3+00                  | Ames Street         | 34   | 6   | 3                              | 12   | 0   | 3                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 3+00 to 4+00                  | Ames Street         | 37   | 6   | 3                              | 8  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 4+00 to 5+00                  | Ames Street         | 40   | 9   | 3                              | 6  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 5+00 to 6+00                  | Ames Street         | 40   | 9   | 3                              | 1  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 6+00 to 7+00                  | Ames Street         | 35   | 3   | 5                              | 14   | 0   | 1                 | 6          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 7+00 to 8+00                  | Ames Street         | 33   | 11  | 2                              | 9  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 8+00 to 9+00                  | Ames Street         | 37   | 11  | 2                              | 13   | 0   | 2                 | 3          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 9+00 to 10+00                 | Ames Street         | 40   | 8   | 3                              | 10   | 0   | 1                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 10+00 to 11+00                | Ames Street         | 40   | 9   | 3                              | 12   | 0   | 4                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 11+00 to 12+00                | Ames Street         | 40   | 7   | 3                              | 4  | 0   | 0                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 12+00 to 13+00                | Ames Street         | 50   | N/A   | N/A                            | 21   | 0   | 2                 | 0          |
| 16865-EC-AMES (Draft 2019-8-16).dwg | 13+00 to 14+00                | Ames Street         | 72   | N/A   | N/A                            | 6  | 0   | 0                 | 0          |
| 14313.00-EXIST.dwg                  | 14+00 to 15+00                | Ames Street         | 61   | 12  | 2                              | 0  | 0   | 0                 | 0          |
| 14313.00-EXIST.dwg                  | 15+00 to 16+00                | Ames Street         | 50   | 12  | 2                              | 0  | 0   | 0                 | 0          |

|  |                |             |    |                |                              |                          |                          |           |          |
|--|----------------|-------------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 14313.00-EXIST.dwg   | 16+00 to 17+00 | Ames Street | 50 | 20             | 1                            | 0                        | 0                        | 0         | 0        |
| 14313.00-EXIST.dwg   | 17+00 to 18+00 | Ames Street | 66 | 12             | 2                            | 7                        | 0                        | 2         | 0        |
| 14313.00-EXIST.dwg   | 18+00 to 18+35 | Ames Street |    | N/A            | N/A                          | 5                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 18+35 to 19+00 | Broadway    |    | 9              | 3                            | 4                        | 0                        | 2         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 19+00 to 20+00 | Broadway    | 70 | 4              | 4                            | 1                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 20+00 to 21+00 | Broadway    | 70 | 7              | 3                            | 7                        | 0                        | 4         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17a.dwg<br>14313.00-EXIST.dwg | 21+00 to 21+68 | Broadway    | 70 | N/A            | N/A                          | 6                        | 0                        | 4         | 0        |
|  |                |             |    | <b>TOTALS:</b> | <b>2</b>                     | <b>163</b>               | <b>0</b>                 | <b>27</b> | <b>9</b> |
|  |                |             |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |



## **Sommerville Study Area**

**SOMERVILLE STUDY AREA**

| Candidate Route | Existing Utility Density (Raw Data)   |                              |                                    | Ratio Scores (unweighted)*    |                              |                                    | Combined Utility Density Score** | Ranking for this Criterion |
|-----------------|---------------------------------------|------------------------------|------------------------------------|-------------------------------|------------------------------|------------------------------------|----------------------------------|----------------------------|
|                 | Average Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources | Useable Corridor Width Rating | Total # of Utility Crossings | Total # of Heat Generating Sources |                                  |                            |
| S1A             | 2                                     | 212                          | 31                                 | 0.50                          | 0.46                         | 0.43                               | 1.39                             | 1                          |
| S11C            | 2                                     | 313                          | 62                                 | 0.50                          | 0.68                         | 0.86                               | 2.04                             | 3                          |
| S12             | 4                                     | 410                          | 51                                 | 1.00                          | 0.89                         | 0.71                               | 2.60                             | 5                          |
| S13             | 3                                     | 395                          | 49                                 | 0.75                          | 0.86                         | 0.68                               | 2.29                             | 4                          |
| S13A            | 3                                     | 461                          | 72                                 | 0.75                          | 1.00                         | 1.00                               | 2.75                             | 6                          |
| S14             | 3                                     | 273                          | 36                                 | 0.75                          | 0.59                         | 0.50                               | 1.84                             | 2                          |

**NOTES:**

\* The "Unweighted Ratio Scores" were generated following the same ratio scoring methodology applied to the master scoring matrix for other scoring criteria.

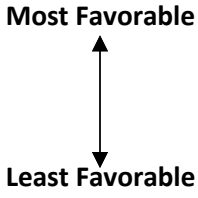
\*\* The "Combined Utility Density Score" is a summation of the combined "Ratio Scores (Unweighted)" generated for each of the three "Existing Utility Density (raw data)" categories.

**NOTES:**

- (1) The roadway widths (edge of pavement) are approximate and were determined using a combination of CADD and GIS data sources. Note that widths were not determined for off-road route segments unless otherwise noted.
- (2) "Estimated Maximum Useable Corridor Width" refers to the maximum available underground space that is potentially available to install the transmission line, measured horizontally between existing utilities in 100-foot long stations/increments along each Candidate Route, as determined by Project Engineers.
- (3) **BOLD** total numbers are used in "Raw Data Summary & Ratio Scores" worksheet as raw number inputs (Average Useable Corridor Rating, Sum of Utility Crossings and Sum of Heat Generating Sources).
- (4) "Utility Crossings" refers to utilities (including heat generating sources) that are intersected by each Candidate Route, generally perpendicular regardless of type, size or depth.
- (5) "Heat Generating Sources" refers to existing electric transmission, distribution and steam lines intersected by each Candidate Route, regardless of size or depth.

(6) The "Average Useable Corridor Width Rating" represents the average overall underground space that is potentially available to install the transmission line (exclusive of intersections where a width could not reasonably be determined given the convergence of utilities from several different directions), based on ratings between 1 and 5, with 1 being the most favorable and 5 being the least favorable.

| Estimated Maximum Useable Corridor Width (ft) | Rating |
|---|--------|
| > 15  | 1      |
| 15 - 10                                       | 2      |
| 9 - 6   | 3      |
| 5 - 4   | 4      |
| ≤ 3   | 5      |



**Study Area: SOMERVILLE**

**Candidate Route: S1A**

| CADD Data Set Reference                                       | Station<br>(centerline of route) | Route Segment  | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|----------------------------------|--|---|---|-----------------------------------|--|--|-------------------|------------|
|   |                                  |  |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 0+00 to 1+00                     | Prospect Street  | 35  | 7   | 3                                 | 5  | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 1+00 to 1+68                     | Prospect Street  | 35  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 1+68 to 2+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through US2 Development | 30  | N/A   | 0                                 | 7  | 0  | 1                 | 0          |
|   | 2+00 to 3+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through US2 Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 3+00 to 4+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through US2 Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 4+00 to 5+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through US2 Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 5+00 to 6+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through US2 Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |

|  |                |  |     |     |     |     |     |     |     |
|--|----------------|--|-----|-----|-----|-----|-----|-----|-----|
|  | 6+00 to 7+00   | Off-road Segment North of MBTA Railroad Tracks Through US2 Development                             | 30  | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 7+00 to 8+00   | Off-road Segment North of MBTA Railroad Tracks Through US2 Development                             | 30  | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 8+00 to 9+00   | Off-road Segment North of MBTA Railroad Tracks Through US2 Development                             | 30  | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 9+00 to 9+43   | Off-road Segment North of MBTA Railroad Tracks Through US2 Development                             | 30  | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 9+43 to 10+00  | Trenchless Crossing of MBTA Commuter Rail  | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 10+00 to 10+80 | Trenchless Crossing of MBTA Commuter Rail  | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 10+80 to 11+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30  | 80  | 1   | 0   | 0   | 0   | 0   |
|  | 11+00 to 12+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30  | 80  | 1   | 0   | 0   | 0   | 0   |
|  | 12+00 to 13+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30  | 80  | 1   | 0   | 0   | 0   | 0   |

|  |                |  |    |     |     |    |   |   |   |
|--|----------------|--|----|-----|-----|----|---|---|---|
| 14897.00_SV_UT.dwg                       | 13+00 to 13+43 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30 | 80  | 1   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 13+43 to 14+00 | Off-road Segment Across Parking Lot @ #516 Columbia Street   | 30 | 15  | 2   | 4  | 0 | 2 | 0 |
| 14897.00_SV_UT.dwg                       | 14+00 to 14+73 | Off-road Segment Across Parking Lot @ #516 Columbia Street   | 30 | N/A | N/A | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 14+73 to 15+00 | Columbia Street  | 27 | 20  | 1   | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 15+00 to 16+00 | Columbia Street  | 27 | 6   | 3   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 16+00 to 17+00 | Columbia Street  | 27 | 8   | 3   | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 17+00 to 18+00 | Columbia Street  | 27 | 5   | 4   | 3  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                       | 18+00 to 19+00 | Columbia Street  | 27 | 5   | 4   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 19+00 to 20+00 | Columbia Street  | 28 | 4   | 4   | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 20+00 to 21+00 | Columbia Street  | 28 | 17  | 1   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 21+00 to 22+00 | Columbia Street  | 29 | 17  | 1   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 22+00 to 23+00 | Columbia Street  | 29 | 17  | 1   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg<br>15868-2018-9-6.dwg | 23+00 to 24+00 | Columbia Street  | 38 | 17  | 1   | 9  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg<br>15868-2018-9-6.dwg | 24+00 to 25+00 | Columbia Street  | 38 | N/A | N/A | 17 | 0 | 4 | 0 |
| 14897.00_SV_UT.dwg                       | 25+00 to 26+00 | Columbia Street  | 30 | 7   | 3   | 7  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                       | 26+00 to 27+00 | Columbia Street  | 30 | 7   | 3   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 27+00 to 28+00 | Columbia Street  | 30 | 7   | 3   | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 28+00 to 29+00 | Columbia Street  | 28 | 7   | 3   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                       | 29+00 to 30+00 | Columbia Street  | 30 | 6   | 3   | 0  | 0 | 0 | 0 |

|  |                |                  |    |     |     |    |   |   |   |
|--|----------------|------------------|----|-----|-----|----|---|---|---|
| 14897.00_SV_UT.dwg                               | 30+00 to 31+00 | Columbia Street  | 30 | 6   | 3   | 5  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 31+00 to 32+00 | Columbia Street  | 30 | 7   | 3   | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 32+00 to 33+00 | Columbia Street  | 30 | 24  | 1   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 33+00 to 34+00 | Columbia Street  | 29 | 14  | 2   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 34+00 to 35+00 | Columbia Street  | 29 | 14  | 2   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 35+00 to 36+00 | Columbia Street  | 29 | 14  | 2   | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 36+00 to 36+86 | Columbia Street  | 29 | 9   | 3   | 6  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 36+86 to 37+00 | Hampshire Street | 45 | 10  | 2   | 4  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 37+00 to 38+00 | Hampshire Street | 45 | 9   | 3   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 38+00 to 39+00 | Hampshire Street | 45 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 39+00 to 40+00 | Hampshire Street | 45 | 10  | 2   | 7  | 0 | 1 | 0 |
| 14892_2016-2-2.dwg                               | 40+00 to 41+00 | Hampshire Street | 45 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 41+00 to 42+00 | Hampshire Street | 44 | 8   | 3   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 42+00 to 43+00 | Hampshire Street | 44 | N/A | N/A | 11 | 0 | 1 | 0 |
| 14892_2016-2-2.dwg                               | 43+00 to 44+00 | Hampshire Street | 44 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 44+00 to 45+00 | Hampshire Street | 44 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 45+00 to 46+00 | Hampshire Street | 44 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 46+00 to 47+00 | Hampshire Street | 44 | 10  | 2   | 10 | 0 | 1 | 0 |
| 14892_2016-2-2.dwg                               | 47+00 to 48+00 | Hampshire Street | 44 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 48+00 to 49+00 | Hampshire Street | 45 | 10  | 2   | 6  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg                               | 49+00 to 50+00 | Hampshire Street | 45 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg<br>20200902 S-1390-07_SUM.dwg | 50+00 to 51+00 | Hampshire Street | 44 | 10  | 2   | 1  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg<br>20200902 S-1390-07_SUM.dwg | 51+00 to 52+00 | Hampshire Street | 44 | 10  | 2   | 5  | 0 | 0 | 0 |
| 14892_2016-2-2.dwg<br>20200902 S-1390-07_SUM.dwg | 52+00 to 53+00 | Hampshire Street | 44 | 10  | 2   | 3  | 0 | 1 | 0 |

|  |                |                  |    |                |                              |                          |                          |           |          |
|--|----------------|------------------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 53+00 to 54+00 | Hampshire Street | 44 | 13             | 2                            | 5                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 54+00 to 55+00 | Hampshire Street | 44 | N/A            | N/A                          | 23                       | 0                        | 4         | 0        |
| 15868-2018-9-6.dwg                               | 55+00 to 56+00 | Hampshire Street | 44 | 10             | 2                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg                               | 56+00 to 57+00 | Hampshire Street | 44 | 27             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg                               | 57+00 to 58+00 | Hampshire Street | 45 | 21             | 1                            | 1                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg                               | 58+00 to 58+60 | Hampshire Street | 45 | 26             | 1                            | 3                        | 0                        | 2         | 0        |
| 15868-2018-9-6.dwg                               | 58+60 to 59+00 | Broadway         | 60 | 32             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg                               | 59+00 to 60+00 | Broadway         | 60 | 32             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg                               | 60+00 to 61+00 | Broadway         | 60 | 32             | 1                            | 5                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 61+00 to 62+00 | Broadway         | 60 | 5              | 4                            | 2                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 62+00 to 63+00 | Broadway         | 63 | 5              | 4                            | 7                        | 0                        | 1         | 1        |
| 15868-2018-9-6.dwg                               | 63+00 to 64+00 | Broadway         | 70 | 7              | 3                            | 8                        | 0                        | 2         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 64+00 to 65+00 | Broadway         | 70 | 18             | 1                            | 7                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 65+00 to 66+00 | Broadway         | 70 | 22             | 1                            | 2                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 66+00 to 67+00 | Broadway         | 70 | 22             | 1                            | 2                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 67+00 to 67+33 | Broadway         | 70 | N/A            | N/A                          | 5                        | 0                        | 1         | 0        |
|  |                |                  |    | <b>TOTALS:</b> | <b>2</b>                     | <b>212</b>               | <b>0</b>                 | <b>30</b> | <b>1</b> |
|  |                |                  |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |



**Study Area: SOMERVILLE**

**Candidate Route: S11C**

| CADD Data Set Reference   | Station<br>(centerline of route) | Route Segment     | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width (ft) <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|----------------------------------|-------------------|---|--|-----------------------------------|--|--|-------------------|------------|
|   |                                  |                   |   |  |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg         | 0+00 to 1+00                     | Prospect Street   | 35  | 7  | 3                                 | 5  | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg         | 1+00 to 2+00                     | Prospect Street   | 35  | 7  | 3                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg         | 2+00 to 3+00                     | Prospect Street   | 36  | 7  | 3                                 | 1  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg         | 3+00 to 4+00                     | Prospect Street   | 39  | 3  | 5                                 | 3  | 0  | 2                 | 0          |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg<br>20200717 S-1390-07_SUM.dwg | 4+00 to 5+00                     | Prospect Street   | 45  | N/A (intersection)   | N/A (intersection)                | 28   | 0  | 5                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 5+00 to 6+00                     | Prospect Street   | 51  | 6  | 3                                 | 6  | 0  | 2                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 6+00 to 6+22                     | Prospect Street   | 55  | 6  | 3                                 | 1  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 6+22 to 7+00                     | Washington Street | 50  | 14   | 2                                 | 2  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 7+00 to 8+00                     | Washington Street | 50  | 13   | 2                                 | 2  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 8+00 to 9+00                     | Washington Street | 50  | 13   | 2                                 | 5  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 9+00 to 10+00                    | Washington Street | 48  | 7  | 3                                 | 0  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 10+00 to 11+00                   | Washington Street | 47  | 7  | 3                                 | 9  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 11+00 to 12+00                   | Washington Street | 45  | 10   | 2                                 | 3  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 12+00 to 13+00                   | Washington Street | 47  | 12   | 2                                 | 5  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 13+00 to 14+00                   | Washington Street | 50  | 12   | 2                                 | 7  | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 14+00 to 15+00                   | Washington Street | 32  | 14   | 2                                 | 12   | 0  | 0                 | 0          |
| 20200717 S-1390-07_SUM.dwg  | 15+00 to 16+00                   | Washington Street | 27  | 0  | 5                                 | 6  | 0  | 1                 | 0          |

|   |                |   |                           |     |     |    |   |   |   |
|---|----------------|---|---------------------------|-----|-----|----|---|---|---|
| 20200717 S-1390-07_SUM.dwg<br>15868-Somerville-2020-05-27.dwg | 16+00 to 17+00 | Washington Street   | N/A                       | 40  | 1   | 14 | 0 | 2 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-Somerville-2020-05-27.dwg | 17+00 to 18+00 | McGrath Highway Underpass to Washington Street  | N/A                       | N/A | N/A | 15 | 0 | 4 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 18+00 to 18+05 | McGrath Highway Underpass to Washington Street  | N/A                       | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 18+05 to 19+00 | Washington Street   | N/A                       | N/A | N/A | 4  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 19+00 to 19+21 | Washington Street   | N/A                       | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 19+21 to 20+00 | Off-road Segment across Parking Lot @ #160 Washington Street between Washington Street and Linwood Street | 30                        | 7   | 3   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 20+00 to 20+40 | Off-road Segment across Parking Lot @ #160 Washington Street between Washington Street and Linwood Street | 30                        | 7   | 3   | 3  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 20+40 to 21+00 | Linwood Street  | 34                        | 6   | 3   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 21+00 to 22+00 | Linwood Street  | 40                        | 6   | 3   | 6  | 0 | 3 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 22+00 to 23+00 | Linwood Street  | 40                        | 6   | 3   | 5  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 23+00 to 24+00 | Linwood Street  | 40                        | 6   | 3   | 2  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 24+00 to 25+00 | Linwood Street  | 40                        | 6   | 3   | 9  | 0 | 3 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 25+00 to 26+00 | Linwood Street  | 40                        | 6   | 3   | 4  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 26+00 to 27+00 | Linwood Street  | 40                        | 6   | 3   | 8  | 0 | 2 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 27+00 to 28+00 | Linwood Street  | 40                        | 6   | 3   | 1  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 28+00 to 29+00 | Linwood Street  | 40                        | 6   | 3   | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 29+00 to 30+00 | Linwood Street  | 43                        | 6   | 3   | 14 | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 30+00 to 31+00 | Linwood Street  | 40                        | 6   | 3   | 6  | 0 | 4 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 31+00 to 32+00 | Linwood Street  | 40                        | 6   | 3   | 4  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 32+00 to 33+00 | Linwood Street  | 40                        | 7   | 3   | 3  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 33+00 to 33+76 | Linwood Street  | 40                        | 7   | 3   | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 33+76 to 34+00 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail  | N/A (trenchless crossing) | 5   | 4   | 4  | 0 | 0 | 0 |
|   | 34+00 to 35+00 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail  | N/A (trenchless crossing) | 100 | 1   | 1  | 0 | 0 | 0 |
|   | 35+00 to 36+00 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail  | N/A (trenchless crossing) | N/A | N/A | 2  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                                    | 36+00 to 37+00 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail  | N/A (trenchless crossing) | N/A | N/A | 8  | 0 | 2 | 0 |

|   |                |   |                           |     |     |    |   |   |   |
|---|----------------|---|---------------------------|-----|-----|----|---|---|---|
|   | 37+00 to 38+00 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail                | N/A (trenchless crossing) | N/A | N/A | 4  | 0 | 1 | 0 |
|   | 38+00 to 39+00 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail                | N/A (trenchless crossing) | 80  | 1   | 1  | 0 | 1 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 39+00 to 39+08 | Trenchless Crossing Beneath McGrath Highway and MBTA Commuter Rail                | N/A (trenchless crossing) | N/A | N/A | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 39+08 to 40+00 | Grand Junction Railroad (left side)   | 54                        | 15  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 40+00 to 41+00 | Grand Junction Railroad (left side)   | 50                        | 15  | 2   | 1  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 41+00 to 42+00 | Grand Junction Railroad (left side)   | 50                        | 15  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 42+00 to 43+00 | Grand Junction Railroad (left side)   | 49                        | 15  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 43+00 to 44+00 | Grand Junction Railroad (left side)   | 44                        | 15  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 44+00 to 45+00 | Grand Junction Railroad (left side)   | 43                        | 15  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 45+00 to 46+00 | Grand Junction Railroad/Proposed Cambridge Grand Junction Multi-use Path Corridor | N/A                       | N/A | N/A | 12 | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 46+00 to 47+00 | Grand Junction Railroad/Proposed Cambridge Grand Junction Multi-use Path Corridor | 10                        | N/A | N/A | 2  | 0 | 1 | 0 |
| 15868-Somerville-2020-05-27.dwg<br>20200902 S-1390-07_SUM.dwg | 47+00 to 48+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor                         | 10                        | 10  | 2   | 0  | 0 | 0 | 0 |
| 15868-Somerville-2020-05-27.dwg<br>20200902 S-1390-07_SUM.dwg | 48+00 to 49+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor                         | 10                        | 10  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 49+00 to 50+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor                         | 10                        | 10  | 2   | 0  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 50+00 to 51+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor                         | 10                        | N/A | N/A | 2  | 0 | 0 | 0 |
| 20200902 S-1390-07_SUM.dwg                                    | 51+00 to 52+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor                         | N/A                       | N/A | N/A | 15 | 0 | 3 | 0 |
| 15868-Somerville-2020-05-27.dwg<br>20200902 S-1390-07_SUM.dwg | 52+00 to 53+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor                         | 14                        | 14  | 2   | 0  | 0 | 0 | 0 |

|  |                |   |    |     |     |    |   |   |   |
|--|----------------|---|----|-----|-----|----|---|---|---|
| 15868-2018-9-6.dwg                               | 53+00 to 54+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 14 | 14  | 2   | 0  | 0 | 0 | 0 |
|  | 54+00 to 55+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 14 | 14  | 2   | 0  | 0 | 0 | 0 |
|  | 55+00 to 56+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 14 | 14  | 2   | 0  | 0 | 0 | 0 |
|  | 56+00 to 57+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 14 | 14  | 2   | 0  | 0 | 0 | 0 |
|  | 57+00 to 58+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 16 | 17  | 1   | 0  | 0 | 0 | 0 |
|  | 58+00 to 59+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 16 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 59+00 to 60+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 16 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 60+00 to 61+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 16 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 61+00 to 62+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 16 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 62+00 to 63+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 17 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 63+00 to 64+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 18 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 64+00 to 65+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 18 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 65+00 to 66+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 18 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 66+00 to 67+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 18 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 67+00 to 68+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 17 | 17  | 1   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 68+00 to 69+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 17 | 17  | 1   | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 69+00 to 70+00 | Proposed Cambridge Grand Junction Multi-use Path Corridor | 17 | N/A | N/A | 10 | 0 | 4 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 70+00 to 71+00 | Grand Junction Railroad (right side)                      | 15 | N/A | N/A | 7  | 0 | 2 | 0 |

|  |                |   |    |                |                              |                          |                          |           |          |
|--|----------------|---|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 71+00 to 72+00 | Grand Junction Railroad<br>(right side) | 15 | 18             | 1                            | 0                        | 0                        | 0         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 72+00 to 73+00 | Grand Junction Railroad<br>(right side) | 16 | 18             | 1                            | 1                        | 0                        | 0         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 73+00 to 74+00 | Grand Junction Railroad<br>(right side) | 16 | 16             | 1                            | 1                        | 0                        | 0         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 74+00 to 75+00 | Grand Junction Railroad<br>(right side) | 16 | 14             | 2                            | 1                        | 0                        | 0         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 75+00 to 76+00 | Grand Junction Railroad<br>(right side) | 16 | 14             | 2                            | 1                        | 0                        | 0         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 76+00 to 77+00 | Grand Junction Railroad<br>(right side) | 16 | N/A            | N/A                          | 0                        | 0                        | 0         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 77+00 to 78+00 | Grand Junction Railroad<br>(right side) | 16 | N/A            | N/A                          | 14                       | 0                        | 6         | 3        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 78+00 to 78+03 | Grand Junction Railroad<br>(right side) | 16 | N/A            | N/A                          | 2                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg                               | 78+03 to 79+00 | Broadway                                | 66 | N/A            | N/A                          | 12                       | 0                        | 2         | 1        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 79+00 to 80+00 | Broadway                                | 70 | 16             | 1                            | 7                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 80+00 to 81+00 | Broadway                                | 70 | 14             | 2                            | 1                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 81+00 to 82+00 | Broadway                                | 70 | 14             | 2                            | 3                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg      | 82+00 to 82+53 | Broadway                                | 76 | N/A            | N/A                          | 5                        | 0                        | 1         | 0        |
|  |                |   |    | <b>TOTALS:</b> | <b>2</b>                     | <b>313</b>               | <b>0</b>                 | <b>58</b> | <b>4</b> |
|  |                |   |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

**Study Area: SOMERVILLE**

**Candidate Route: S12**

| CADD Data Set Reference                                       | Station<br>(centerline of route) | Route Segment  | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|----------------------------------|--|---|---|-----------------------------------|--|--|-------------------|------------|
|   |                                  |  |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 0+00 to 1+00                     | Prospect Street  | 35  | 7   | 3                                 | 5  | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 1+00 to 1+68                     | Prospect Street  | 35  | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 1+68 to 2+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | 7  | 0  | 1                 | 0          |
|   | 2+00 to 3+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 3+00 to 4+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 4+00 to 5+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 5+00 to 6+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 6+00 to 7+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 7+00 to 8+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 8+00 to 9+00                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 9+00 to 9+43                     | Off-road Segment North of MBTA<br>Railroad Tracks Through Union Station<br>Development | 30  | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 9+43 to 10+00                    | HDD Crossing of MBTA Commuter Rail   | N/A (trenchless crossing)                                 | N/A (trenchless crossing)                                     | N/A (trenchless crossing)         | N/A  | N/A  | N/A               | N/A        |
|   | 10+00 to 10+80                   | HDD Crossing of MBTA Commuter Rail   | N/A (trenchless crossing)                                 | N/A (trenchless crossing)                                     | N/A (trenchless crossing)         | N/A  | N/A  | N/A               | N/A        |

|                    |                |   |    |     |     |   |   |   |   |
|--------------------|----------------|---|----|-----|-----|---|---|---|---|
|                    | 10+80 to 11+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing  | 30 | 80  | 1   | 0 | 0 | 0 | 0 |
|                    | 11+00 to 12+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing  | 30 | 80  | 1   | 0 | 0 | 0 | 0 |
|                    | 12+00 to 13+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing  | 30 | 80  | 1   | 0 | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 13+00 to 13+43 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing  | 30 | 80  | 1   | 3 | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 13+43 to 14+00 | Off-road Segment Across Parking Lot @ #516 Columbia Street  | 30 | 15  | 2   | 4 | 0 | 2 | 0 |
| 14897.00_SV_UT.dwg | 14+00 to 14+73 | Off-road Segment Across Parking Lot @ #516 Columbia Street  | 30 | N/A | N/A | 2 | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 14+73 to 15+00 | Columbia Street   | 27 | 20  | 1   | 1 | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 15+00 to 15+93 | Columbia Street   | 27 | 6   | 3   | 0 | 0 | 0 | 0 |
|                    | 15+93 to 16+00 | Boynton Yards Redevelopment Site: Off-Road Segment at End of South Street Between Windsor Street & Columbia Street (used auto lot/scrap metal yard adjacent to southern edge of Taza Chocolate) | 30 | N/A | N/A | 2 | 0 | 0 | 0 |
|                    | 16+00 to 17+00 | Boynton Yards Redevelopment Site: Off-Road Segment at End of South Street Between Windsor Street & Columbia Street (used auto lot/scrap metal yard adjacent to southern edge of Taza Chocolate) | 30 | 30  | 1   | 1 | 0 | 0 | 0 |
|                    | 17+00 to 18+00 | Boynton Yards Redevelopment Site: Off-Road Segment at End of South Street Between Windsor Street & Columbia Street (used auto lot/scrap metal yard adjacent to southern edge of Taza Chocolate) | 30 | 30  | 1   | 0 | 0 | 1 | 0 |

|                    |                |   |    |     |     |   |   |   |   |
|--------------------|----------------|---|----|-----|-----|---|---|---|---|
|                    | 18+00 to 19+00 | Boynton Yards Redevelopment Site: Off-Road Segment at End of South Street Between Windsor Street & Columbia Street (used auto lot/scrap metal yard adjacent to southern edge of Taza Chocolate) | 30 | N/A | N/A | 1 | 1 | 0 | 0 |
|                    | 19+00 to 19+14 | Boynton Yards Redevelopment Site: Off-Road Segment at End of South Street Between Windsor Street & Columbia Street (used auto lot/scrap metal yard adjacent to southern edge of Taza Chocolate) | 30 | 16  | 1   | 0 | 0 | 0 | 0 |
|                    | 19+14 to 20+00 | South Street  | 36 | 5   | 4   | 8 | 2 | 0 | 0 |
|                    | 20+00 to 21+00 | South Street  | 34 | 6   | 3   | 4 | 2 | 0 | 0 |
|                    | 21+00 to 22+00 | South Street  | 34 | 8   | 3   | 6 | 0 | 0 | 0 |
|                    | 22+00 to 23+00 | South Street  | 35 | 5   | 4   | 1 | 1 | 0 | 0 |
|                    | 23+00 to 24+00 | South Street  | 36 | 5   | 4   | 6 | 1 | 0 | 0 |
| 14897.00_SV_UT.dwg | 24+00 to 25+00 | South Street  | 40 | 0   | 5   | 4 | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 25+00 to 26+00 | South Street  | 32 | 0   | 5   | 4 | 0 | 3 | 0 |
| 14897.00_SV_UT.dwg | 26+00 to 27+00 | South Street  | 25 | 5   | 4   | 3 | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 27+00 to 28+00 | South Street  | 20 | N/A | N/A | 2 | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 28+00 to 29+00 | South Street  | 20 | 4   | 4   | 2 | 0 | 0 | 0 |



|   |                |                          |    |     |     |    |   |   |   |
|---|----------------|--------------------------|----|-----|-----|----|---|---|---|
| 14897.00_SV_UT.dwg  | 29+00 to 30+00 | South Street             | 20 | 2   | 5   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg  | 30+00 to 31+00 | South Street             | 20 | 3   | 5   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg<br>15868-Somerville-2020-05-27.dwg         | 31+00 to 32+00 | South Street             | 20 | 3   | 5   | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg<br>15868-Somerville-2020-05-27.dwg         | 32+00 to 33+00 | South Street             | 21 | 5   | 4   | 12 | 0 | 0 | 0 |
| 15868-Somerville-2020-05-27.dwg                               | 33+00 to 34+00 | Medford Street           | 35 | 5   | 4   | 2  | 0 | 0 | 0 |
| 15868-Somerville-2020-05-27.dwg                               | 34+00 to 34+51 | Medford Street           | 35 | N/A | N/A | 2  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 34+51 to 35+00 | Warren Street            | 21 | N/A | N/A | 5  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 35+00 to 36+00 | Warren Street            | 27 | 7   | 3   | 1  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 36+00 to 37+00 | Warren Street            | 27 | 4   | 4   | 4  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 37+00 to 38+00 | Warren Street            | 26 | 3   | 5   | 0  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 38+00 to 39+00 | Warren Street            | 26 | 4   | 4   | 5  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 39+00 to 40+00 | Warren Street            | 26 | 4   | 4   | 4  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>16865-EC-CARDINAL (Draft 2019-8-16).dwg | 40+00 to 41+00 | Warren Street            | 23 | 0   | 5   | 10 | 0 | 2 | 0 |
| 15868-2018-9-6.dwg<br>16865-EC-CARDINAL (Draft 2019-8-16).dwg | 41+00 to 41+49 | Cambridge Street         | 38 | 4   | 4   | 5  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>16865-EC-CARDINAL (Draft 2019-8-16).dwg | 41+49 to 42+00 | Cardinal Medeiros Avenue | 33 | 3   | 5   | 11 | 0 | 3 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 42+00 to 43+00 | Cardinal Medeiros Avenue | 33 | 7   | 3   | 4  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 43+00 to 44+00 | Cardinal Medeiros Avenue | 33 | 7   | 3   | 0  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 44+00 to 45+00 | Cardinal Medeiros Avenue | 31 | 7   | 3   | 2  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 45+00 to 46+00 | Cardinal Medeiros Avenue | 33 | 7   | 3   | 9  | 0 | 0 | 0 |

|   |                |                          |    |    |   |    |   |   |   |
|---|----------------|--------------------------|----|----|---|----|---|---|---|
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg   | 46+00 to 47+00 | Cardinal Medeiros Avenue | 33 | 4  | 4 | 3  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg   | 47+00 to 48+00 | Cardinal Medeiros Avenue | 33 | 6  | 3 | 2  | 0 | 0 | 0 |
| 16865-EC-CARDINAL (Draft 2019-8-16).dwg   | 48+00 to 49+00 | Cardinal Medeiros Avenue | 32 | 6  | 3 | 8  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>16865-EC-CARDINAL (Draft 2019-8-16).dwg                       | 49+00 to 50+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg<br>16865-EC-CARDINAL (Draft 2019-8-16).dwg | 50+00 to 51+00 | Cardinal Medeiros Avenue | 31 | 0  | 5 | 14 | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 51+00 to 52+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 13 | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 52+00 to 53+00 | Cardinal Medeiros Avenue | 31 | 0  | 5 | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 53+00 to 54+00 | Cardinal Medeiros Avenue | 30 | 0  | 5 | 14 | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 54+00 to 55+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 11 | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 55+00 to 56+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 2  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 56+00 to 57+00 | Cardinal Medeiros Avenue | 31 | 0  | 5 | 14 | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 57+00 to 58+00 | Cardinal Medeiros Avenue | 30 | 0  | 5 | 15 | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 58+00 to 59+00 | Cardinal Medeiros Avenue | 30 | 7  | 3 | 29 | 0 | 7 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 59+00 to 60+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 15 | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 60+00 to 61+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 9  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 61+00 to 62+00 | Cardinal Medeiros Avenue | 33 | 0  | 5 | 6  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 62+00 to 63+00 | Cardinal Medeiros Avenue | 34 | 0  | 5 | 3  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 63+00 to 64+00 | Cardinal Medeiros Avenue | 34 | 0  | 5 | 9  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 64+00 to 65+00 | Cardinal Medeiros Avenue | 34 | 0  | 5 | 20 | 0 | 3 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 65+00 to 66+00 | Portland Street          | 34 | 3  | 5 | 5  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 66+00 to 66+58 | Portland Street          | 34 | 4  | 4 | 11 | 0 | 2 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 66+58 to 67+00 | Broadway                 | 46 | 15 | 2 | 12 | 0 | 2 | 0 |
| 15868-2018-9-6.dwg  | 67+00 to 68+00 | Broadway                 | 44 | 15 | 2 | 6  | 0 | 4 | 0 |

|   |                |          |    |                |                              |                          |                          |           |          |
|---|----------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 15868-2018-9-6.dwg  | 68+00 to 69+00 | Broadway | 46 | 25             | 1                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 69+00 to 70+00 | Broadway | 60 | 22             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 70+00 to 71+00 | Broadway | 60 | 30             | 1                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 71+00 to 72+00 | Broadway | 60 |                |                              | 5                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg  | 72+00 to 73+00 | Broadway | 60 | N/A            | N/A                          | 2                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 73+00 to 74+00 | Broadway | 63 | N/A            | N/A                          | 7                        | 0                        | 1         | 1        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 74+00 to 75+00 | Broadway | 70 | N/A            | N/A                          | 9                        | 0                        | 2         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 75+00 to 76+00 | Broadway | 70 | N/A            | N/A                          | 7                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 76+00 to 77+00 | Broadway | 70 | 14             | 2                            | 2                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 77+00 to 78+00 | Broadway | 70 | 14             | 2                            | 2                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 78+00 to 78+32 | Broadway | 70 | N/A            | N/A                          | 5                        | 0                        | 1         | 0        |
|   |                |          |    | <b>TOTALS:</b> | <b>4</b>                     | <b>410</b>               | <b>7</b>                 | <b>43</b> | <b>1</b> |
|   |                |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

**Study Area: SOMERVILLE**

**Candidate Route: S13**

| CADD Data Set Reference | Station<br>(centerline of route) | Route Segment                     | Approximate Width of<br>Route Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|-------------------------|----------------------------------|-----------------------------------|---|---|-----------------------------------|--|--|-------------------|------------|
|                         |                                  |                                   |   |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 14897.00_SV_UT.dwg      | 0+00 to 1+00                     | Newton Street                     | 17  | N/A   | N/A                               | 12   | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg      | 1+00 to 2+00                     | Newton Street                     | 35  | N/A   | N/A                               | 6  | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg      | 2+00 to 3+00                     | Newton Street                     | 36  | 8   | 3                                 | 3  | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg      | 3+00 to 4+00                     | Newton Street                     | 30  | 5   | 4                                 | 4  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 4+00 to 5+00                     | Newton Street                     | 28  | 5   | 4                                 | 2  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 5+00 to 6+00                     | Newton Street                     | 28  | 5   | 4                                 | 8  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 6+00 to 7+00                     | Newton Street                     | 28  | 5   | 4                                 | 2  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 7+00 to 7+84                     | Newton Street                     | 37  | 19  | 1                                 | 6  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 7+84 to 8+00                     | Concord Avenue (to Newton Street) | 37  | 19  | 1                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 8+00 to 9+00                     | Concord Avenue (to Newton Street) | 34  | 19  | 1                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 9+00 to 10+00                    | Concord Avenue (to Newton Street) | 33  | 19  | 1                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 10+00 to 11+00                   | Concord Avenue (to Newton Street) | 32  | 19  | 1                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 11+00 to 12+00                   | Concord Avenue (to Newton Street) | 34  | 22  | 1                                 | 1  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 12+00 to 13+00                   | Springfield Street                | 31  | 9   | 3                                 | 4  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 13+00 to 14+00                   | Springfield Street                | 27  | 10  | 2                                 | 3  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg      | 14+00 to 15+00                   | Springfield Street                | 27  | 10  | 2                                 | 2  | 0  | 0                 | 0          |

|                    |                |  |    |     |     |    |   |   |   |
|--------------------|----------------|--|----|-----|-----|----|---|---|---|
| 14897.00_SV_UT.dwg | 15+00 to 16+00 | Springfield Street                         | 27 | 10  | 2   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 16+00 to 17+00 | Springfield Street                         | 27 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 17+00 to 18+00 | Springfield Street                         | 27 | 12  | 2   | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 18+00 to 19+00 | Springfield Street                         | 27 | 14  | 2   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 19+00 to 20+00 | Springfield Street                         | 27 | 9   | 3   | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 20+00 to 21+00 | Springfield Street                         | 27 | 4   | 4   | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 21+00 to 22+00 | Springfield Street                         | 27 | 3   | 5   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 22+00 to 22+90 | Springfield Street                         | 26 | 7   | 3   | 15 | 0 | 2 | 0 |
| 14897.00_SV_UT.dwg | 22+90 to 23+00 | Hampshire Street/Cambridge Street Crossing | 25 | N/A | N/A | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 23+00 to 23+68 | Hampshire Street/Cambridge Street Crossing | 24 | 15  | 2   | 14 | 0 | 3 | 0 |
| 14897.00_SV_UT.dwg | 23+68 to 24+00 | Inman Street                               | 31 | N/A | N/A | 8  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 24+00 to 25+00 | Inman Street                               | 27 | N/A | N/A | 3  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 25+00 to 26+00 | Inman Street                               | 26 | 5   | 4   | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 26+00 to 27+00 | Inman Street                               | 26 | 5   | 4   | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 27+00 to 28+00 | Inman Street                               | 26 | 5   | 4   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 28+00 to 29+00 | Inman Street                               | 26 | 5   | 4   | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 29+00 to 30+00 | Inman Street                               | 26 | 5   | 4   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 30+00 to 31+00 | Inman Street                               | 26 | 5   | 4   | 5  | 0 | 0 | 0 |

|  |                |              |    |   |   |    |   |   |   |
|--|----------------|--------------|----|---|---|----|---|---|---|
| 14897.00_SV_UT.dwg                               | 31+00 to 32+00 | Inman Street | 26 | 5 | 4 | 2  | 0 | 2 | 0 |
| 14897.00_SV_UT.dwg                               | 32+00 to 33+00 | Inman Street | 26 | 5 | 4 | 6  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 33+00 to 34+00 | Inman Street | 26 | 5 | 4 | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 34+00 to 35+00 | Inman Street | 25 | 5 | 4 | 4  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 35+00 to 36+00 | Inman Street | 25 | 5 | 4 | 4  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 36+00 to 37+00 | Inman Street | 25 | 5 | 4 | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg<br>20200717 S-1390-07_SUM.dwg | 37+00 to 37+68 | Inman Street | 26 | 5 | 4 | 15 | 0 | 4 | 0 |
| 14897.00_SV_UT.dwg<br>20200717 S-1390-07_SUM.dwg | 37+68 to 38+00 | Broadway     | 42 | 4 | 4 | 7  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 38+00 to 39+00 | Broadway     | 42 | 4 | 4 | 2  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 39+00 to 40+00 | Broadway     | 42 | 4 | 4 | 3  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 40+00 to 41+00 | Broadway     | 42 | 4 | 4 | 8  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 41+00 to 42+00 | Broadway     | 42 | 5 | 4 | 3  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 42+00 to 43+00 | Broadway     | 42 | 5 | 4 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 43+00 to 44+00 | Broadway     | 42 | 7 | 3 | 13 | 0 | 4 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 44+00 to 45+00 | Broadway     | 42 | 8 | 3 | 4  | 0 | 0 | 0 |

|  |                |          |    |   |   |    |   |   |   |
|--|----------------|----------|----|---|---|----|---|---|---|
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 45+00 to 46+00 | Broadway | 42 | 8 | 3 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 46+00 to 47+00 | Broadway | 41 | 8 | 3 | 3  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 47+00 to 48+00 | Broadway | 41 | 8 | 3 | 0  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 48+00 to 49+00 | Broadway | 43 | 7 | 3 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 49+00 to 50+00 | Broadway | 43 | 5 | 4 | 11 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 50+00 to 51+00 | Broadway | 43 | 5 | 4 | 3  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 51+00 to 52+00 | Broadway | 38 | 5 | 4 | 3  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 52+00 to 53+00 | Broadway | 41 | 4 | 4 | 10 | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 53+00 to 54+00 | Broadway | 43 | 4 | 4 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 54+00 to 55+00 | Broadway | 41 | 5 | 4 | 15 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 55+00 to 56+00 | Broadway | 43 | 5 | 4 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 56+00 to 57+00 | Broadway | 44 | 5 | 4 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 57+00 to 58+00 | Broadway | 44 | 5 | 4 | 7  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 58+00 to 59+00 | Broadway | 44 | 5 | 4 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 59+00 to 60+00 | Broadway | 44 | 5 | 4 | 3  | 0 | 0 | 0 |

|  |                |          |    |                    |                    |    |   |   |   |
|--|----------------|----------|----|--------------------|--------------------|----|---|---|---|
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 60+00 to 61+00 | Broadway | 44 | 5                  | 4                  | 14 | 0 | 2 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 61+00 to 62+00 | Broadway | 44 | 5                  | 4                  | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 62+00 to 63+00 | Broadway | 44 | 5                  | 4                  | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 63+00 to 64+00 | Broadway | 42 | 5                  | 4                  | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 64+00 to 65+00 | Broadway | 42 | 5                  | 4                  | 9  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 65+00 to 66+00 | Broadway | 44 | 5                  | 4                  | 3  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 66+00 to 67+00 | Broadway | 42 | 5                  | 4                  | 7  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 67+00 to 68+00 | Broadway | 44 | 5                  | 4                  | 9  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 68+00 to 69+00 | Broadway | 44 | 5                  | 4                  | 4  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 69+00 to 70+00 | Broadway | 44 | 6                  | 3                  | 7  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 70+00 to 71+00 | Broadway | 44 | N/A (intersection) | N/A (intersection) | 22 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg                                   | 71+00 to 72+00 | Broadway | 44 | 15                 | 2                  | 14 | 0 | 6 | 0 |
| 15868-2018-9-6.dwg                                   | 72+00 to 73+00 | Broadway | 45 | 25                 | 1                  | 0  | 0 | 0 | 0 |



|   |                |          |    |                |                              |                          |                          |           |          |
|---|----------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 15868-2018-9-6.dwg  | 73+00 to 74+00 | Broadway | 49 | 22             | 1                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 74+00 to 75+00 | Broadway | 60 | 30             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 75+00 to 76+00 | Broadway | 60 | N/A            | N/A                          | 3                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg  | 76+00 to 77+00 | Broadway | 60 | N/A            | N/A                          | 3                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>20200717 S-1390-<br>07_SUM.dwg  | 77+00 to 78+00 | Broadway | 60 | N/A            | N/A                          | 3                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-17.dwg<br>20200717 S-1390-<br>07_SUM.dwg | 78+00 to 79+00 | Broadway | 66 | N/A            | N/A                          | 13                       | 0                        | 2         | 0        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-17.dwg                                   | 79+00 to 80+00 | Broadway | 70 | N/A            | N/A                          | 6                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-17.dwg   | 80+00 to 81+00 | Broadway | 70 | 14             | 2                            | 1                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-17.dwg   | 81+00 to 82+00 | Broadway | 70 | 14             | 2                            | 3                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-<br>SUBMIT.dwg-2020-01-17.dwg   | 82+00 to 82+65 | Broadway | 72 | N/A            | N/A                          | 7                        | 0                        | 2         |          |
|   |                |          |    | <b>TOTALS:</b> | <b>3</b>                     | <b>395</b>               | <b>0</b>                 | <b>49</b> | <b>0</b> |
|   |                |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

**Study Area: SOMERVILLE**

**Candidate Route: S13A**

| CADD Data Set Reference  | Station<br>(centerline of route) | Route Segment  | Approximate<br>Width of Route<br>Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility<br>Crossings by Road<br>or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|--|----------------------------------|--|--|---|-----------------------------------|---|--|-------------------|------------|
|  |                                  |  |  |   |                                   |   | Transmission Line  | Distribution Line | Steam Line |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft<br>2019-9-23).dwg | 0+00 to 1+00                     | Prospect Street  | 35   | 7   | 3                                 | 5   | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft<br>2019-9-23).dwg | 1+00 to 1+68                     | Prospect Street  | 35   | 7   | 3                                 | 0   | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg   | 1+68 to 2+00                     | Off-road Segment through<br>US2 Development<br>(following Milk Place/Milk<br>Alley & Bennett Court)              | 30   | N/A   | N/A                               | 7   | 0  | 1                 | 0          |
|  | 2+00 to 3+00                     | Off-road Segment through<br>Union Station<br>Development (following<br>Milk Place/Milk Alley &<br>Bennett Court) | 30   | N/A   | N/A                               | N/A   | N/A  | N/A               | N/A        |
|  | 3+00 to 4+00                     | Off-road Segment through<br>Union Station<br>Development (following<br>Milk Place/Milk Alley &<br>Bennett Court) | 30   | N/A   | N/A                               | N/A   | N/A  | N/A               | N/A        |

|   |                |  |    |                    |                    |     |     |     |     |
|---|----------------|--|----|--------------------|--------------------|-----|-----|-----|-----|
|   | 4+00 to 5+00   | Off-road Segment through Union Station Development (following Milk Place/Milk Alley & Bennett Court) | 30 | N/A                | N/A                | N/A | N/A | N/A | N/A |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg                               | 5+00 to 6+00   | Off-road Segment through Union Station Development (following Milk Place/Milk Alley & Bennett Court) | 30 | N/A                | N/A                | 5   | 0   | 2   | 0   |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg                               | 6+00 to 6+06   | Off-road Segment through Union Station Development (following Milk Place/Milk Alley & Bennett Court) | 30 | 10                 | 2                  | 1   | 0   | 0   | 0   |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg                               | 6+06 to 7+00   | Somerville Avenue  | 53 | N/A                | N/A                | 1   | 0   | 1   | 0   |
| 20200717 S-1390-07_SUM.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 7+00 to 7+88   | Somerville Avenue  | 54 | 0                  | 5                  | 12  | 0   | 6   | 0   |
| 20200717 S-1390-07_SUM.dwg<br>16865-EC-PROSPECT (Draft 2019-9-23).dwg | 7+88 to 8+00   | Prospect Street  | 39 | 7                  | 3                  | 6   | 0   | 0   | 0   |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg                               | 8+00 to 8+93   | Prospect Street  | 39 | 7                  | 3                  | 11  | 0   | 6   | 0   |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg                               | 8+93 to 9+00   | Newton Street  | 61 | N/A (intersection) | N/A (intersection) | 1   | 0   | 0   | 0   |
| 16865-EC-PROSPECT (Draft 2019-9-23).dwg<br>14897.00_SV_UT.dwg         | 9+00 to 10+00  | Newton Street  | 40 | N/A                | N/A                | 15  | 0   | 3   | 0   |
| 14897.00_SV_UT.dwg  | 10+00 to 11+00 | Newton Street  | 21 | N/A                | N/A                | 4   | 0   | 1   | 0   |
| 14897.00_SV_UT.dwg  | 11+00 to 12+00 | Newton Street  | 20 | 11                 | 2                  | 0   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg  | 12+00 to 13+00 | Newton Street  | 18 | 6                  | 3                  | 0   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg  | 13+00 to 14+00 | Newton Street  | 16 | 6                  | 3                  | 0   | 0   | 0   | 0   |

|                    |                |                                      |    |                    |                    |    |   |   |   |
|--------------------|----------------|--------------------------------------|----|--------------------|--------------------|----|---|---|---|
| 14897.00_SV_UT.dwg | 14+00 to 15+00 | Newton Street                        | 33 | N/A (intersection) | N/A (intersection) | 12 | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 15+00 to 16+00 | Newton Street                        | 37 | N/A                | N/A                | 5  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 16+00 to 17+00 | Newton Street                        | 31 | N/A                | N/A                | 2  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 17+00 to 18+00 | Newton Street                        | 28 | 8                  | 3                  | 3  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 18+00 to 19+00 | Newton Street                        | 28 | 5                  | 4                  | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 19+00 to 20+00 | Newton Street                        | 28 | 5                  | 4                  | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 20+00 to 21+00 | Newton Street                        | 36 | 5                  | 4                  | 8  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 21+00 to 21+32 | Newton Street                        | 36 | 5                  | 4                  | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 21+32 to 22+00 | Concord Avenue (to<br>Newton Street) | 38 | 19                 | 1                  | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 22+00 to 23+00 | Concord Avenue (to<br>Newton Street) | 33 | 19                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 23+00 to 24+00 | Concord Avenue (to<br>Newton Street) | 33 | 19                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 24+00 to 25+00 | Concord Avenue (to<br>Newton Street) | 33 | 19                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 25+00 to 25+49 | Concord Avenue (to<br>Newton Street) | 45 | 19                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 25+49 to 26+00 | Springfield Street                   | 32 | 22                 | 1                  | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 26+00 to 27+00 | Springfield Street                   | 27 | 9                  | 3                  | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 27+00 to 28+00 | Springfield Street                   | 27 | 10                 | 2                  | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 28+00 to 29+00 | Springfield Street                   | 27 | 10                 | 2                  | 2  | 0 | 0 | 0 |

|                    |                |   |    |     |     |    |   |   |   |
|--------------------|----------------|---|----|-----|-----|----|---|---|---|
| 14897.00_SV_UT.dwg | 29+00 to 30+00 | Springfield Street                          | 27 | 10  | 2   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 30+00 to 31+00 | Springfield Street                          | 27 | 10  | 2   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 31+00 to 32+00 | Springfield Street                          | 27 | 12  | 2   | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 32+00 to 33+00 | Springfield Street                          | 27 | 14  | 2   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 33+00 to 34+00 | Springfield Street                          | 27 | 9   | 3   | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 34+00 to 35+00 | Springfield Street                          | 27 | 4   | 4   | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 35+00 to 36+00 | Springfield Street                          | 27 | 3   | 5   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 36+00 to 36+78 | Hampshire Street/Cambridge Street Crossings | 24 | 7   | 3   | 25 | 0 | 5 | 0 |
| 14897.00_SV_UT.dwg | 36+78 to 37+00 | Hampshire Street/Cambridge Street Crossings | 24 | N/A | N/A | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 37+00 to 37+16 | Hampshire Street/Cambridge Street Crossings | 24 | 15  | 2   | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 37+16 to 38+00 | Inman Street                                | 28 | N/A | N/A | 12 | 0 | 2 | 0 |
| 14897.00_SV_UT.dwg | 38+00 to 39+00 | Inman Street                                | 26 | 5   | 4   | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg | 39+00 to 40+00 | Inman Street                                | 26 | 5   | 4   | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg | 40+00 to 41+00 | Inman Street                                | 26 | 5   | 4   | 1  | 0 | 1 | 0 |

|  |                |              |    |   |   |    |   |   |   |
|--|----------------|--------------|----|---|---|----|---|---|---|
| 14897.00_SV_UT.dwg                               | 41+00 to 42+00 | Inman Street | 26 | 5 | 4 | 4  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 42+00 to 43+00 | Inman Street | 26 | 5 | 4 | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 43+00 to 44+00 | Inman Street | 26 | 5 | 4 | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 44+00 to 45+00 | Inman Street | 26 | 5 | 4 | 7  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 45+00 to 46+00 | Inman Street | 26 | 5 | 4 | 9  | 0 | 2 | 0 |
| 14897.00_SV_UT.dwg                               | 46+00 to 47+00 | Inman Street | 26 | 5 | 4 | 1  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 47+00 to 48+00 | Inman Street | 26 | 5 | 4 | 1  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg                               | 48+00 to 49+00 | Inman Street | 26 | 5 | 4 | 7  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg                               | 49+00 to 50+00 | Inman Street | 26 | 5 | 4 | 4  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg<br>20200717 S-1390-07_SUM.dwg | 50+00 to 51+00 | Inman Street | 26 | 5 | 4 | 5  | 0 | 3 | 0 |
| 14897.00_SV_UT.dwg<br>20200717 S-1390-07_SUM.dwg | 51+00 to 51+15 | Inman Street | 26 | 5 | 4 | 12 | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 51+15 to 52+00 | Broadway     | 42 | 4 | 4 | 6  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 52+00 to 53+00 | Broadway     | 42 | 4 | 4 | 3  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 53+00 to 54+00 | Broadway     | 42 | 4 | 4 | 4  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 54+00 to 55+00 | Broadway     | 42 | 4 | 4 | 5  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 55+00 to 56+00 | Broadway     | 42 | 5 | 4 | 3  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 56+00 to 57+00 | Broadway     | 42 | 5 | 4 | 10 | 0 | 3 | 0 |

|  |                |          |    |   |   |    |   |   |   |
|--|----------------|----------|----|---|---|----|---|---|---|
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 57+00 to 58+00 | Broadway | 42 | 7 | 3 | 6  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 58+00 to 59+00 | Broadway | 42 | 8 | 3 | 4  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 59+00 to 60+00 | Broadway | 42 | 8 | 3 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 60+00 to 61+00 | Broadway | 40 | 8 | 3 | 4  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 61+00 to 62+00 | Broadway | 43 | 8 | 3 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 62+00 to 63+00 | Broadway | 43 | 7 | 3 | 0  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 63+00 to 64+00 | Broadway | 43 | 5 | 4 | 12 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 64+00 to 65+00 | Broadway | 41 | 5 | 4 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 65+00 to 66+00 | Broadway | 41 | 5 | 4 | 11 | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 66+00 to 67+00 | Broadway | 41 | 4 | 4 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 67+00 to 68+00 | Broadway | 43 | 4 | 4 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 68+00 to 69+00 | Broadway | 43 | 5 | 4 | 21 | 0 | 2 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 69+00 to 70+00 | Broadway | 43 | 5 | 4 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 70+00 to 71+00 | Broadway | 43 | 5 | 4 | 0  | 0 | 0 | 0 |

|  |                |          |    |   |   |    |   |   |   |
|--|----------------|----------|----|---|---|----|---|---|---|
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 71+00 to 72+00 | Broadway | 43 | 5 | 4 | 7  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 72+00 to 73+00 | Broadway | 44 | 5 | 4 | 1  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 73+00 to 74+00 | Broadway | 44 | 5 | 4 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 74+00 to 75+00 | Broadway | 44 | 5 | 4 | 13 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 75+00 to 76+00 | Broadway | 44 | 5 | 4 | 0  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 76+00 to 77+00 | Broadway | 43 | 5 | 4 | 0  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 77+00 to 78+00 | Broadway | 41 | 5 | 4 | 9  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 78+00 to 79+00 | Broadway | 44 | 5 | 4 | 0  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 79+00 to 80+00 | Broadway | 42 | 5 | 4 | 7  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 80+00 to 81+00 | Broadway | 44 | 5 | 4 | 4  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 81+00 to 82+00 | Broadway | 44 | 5 | 4 | 8  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 82+00 to 83+00 | Broadway | 44 | 5 | 4 | 14 | 0 | 1 | 0 |
| 15868-2018-9-6.dwg<br>20200717 S-1390-07_SUM.dwg | 83+00 to 84+00 | Broadway | 44 | 6 | 3 | 2  | 0 | 0 | 0 |
| 15868-2018-9-6.dwg                               | 84+00 to 85+00 | Broadway | 44 |   |   | 25 | 0 | 5 | 0 |



|   |                |          |    |                |                              |                          |                          |           |          |
|---|----------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 15868-2018-9-6.dwg  | 85+00 to 86+00 | Broadway | 45 | 15             | 2                            | 3                        | 0                        | 3         | 0        |
| 15868-2018-9-6.dwg  | 86+00 to 87+00 | Broadway | 45 | 25             | 1                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 87+00 to 88+00 | Broadway | 57 | 22             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 88+00 to 89+00 | Broadway | 60 | 30             | 1                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 89+00 to 90+00 | Broadway | 60 | N/A            | N/A                          | 4                        | 0                        | 1         | 0        |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg  | 90+00 to 91+00 | Broadway | 60 | N/A            | N/A                          | 1                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 91+00 to 92+00 | Broadway | 63 | N/A            | N/A                          | 10                       | 0                        | 1         | 1        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg<br>15868-2018-9-6.dwg                               | 92+00 to 93+00 | Broadway | 70 | N/A            | N/A                          | 8                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 93+00 to 94+00 | Broadway | 70 | N/A            | N/A                          | 4                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 94+00 to 95+00 | Broadway | 70 | 14             | 2                            | 4                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 95+00 to 96+00 | Broadway | 70 | 14             | 2                            | 5                        | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg   | 96+00 to 96+13 | Broadway | 71 | N/A            | N/A                          | 1                        | 0                        | 0         | 0        |
|   |                |          |    | <b>TOTALS:</b> | <b>3</b>                     | <b>461</b>               | <b>0</b>                 | <b>71</b> | <b>1</b> |
|   |                |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

**Study Area: SOMERVILLE**

**Candidate Route: S14**

| CADD Data Set Reference   | Station<br>(centerline of route) | Route Segment   | Approximate<br>Width of Route<br>Segment (ft) <sup>(1)</sup> | Estimated<br>Maximum Useable<br>Corridor Width <sup>(2)</sup> | Rating <sup>(6)</sup><br>(1 to 5) | # of Utility Crossings<br>by Road or ROW<br>Segment <sup>(4)</sup> | # Heat Generating Sources<br>Crossed by Road of ROW Segment <sup>(5)</sup> |                   |            |
|---|----------------------------------|---|--|---|-----------------------------------|--|--|-------------------|------------|
|   |                                  |   |  |   |                                   |  | Transmission Line  | Distribution Line | Steam Line |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-<br>9-23).dwg | 0+00 to 1+00                     | Prospect Street   | 35   | 7   | 3                                 | 5  | 0  | 1                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-<br>9-23).dwg | 1+00 to 1+68                     | Prospect Street   | 35   | 7   | 3                                 | 0  | 0  | 0                 | 0          |
| 14897.00_SV_UT.dwg<br>16865-EC-PROSPECT (Draft 2019-<br>9-23).dwg | 1+68 to 2+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through US2 Development              | 30   | N/A   | N/A                               | 7  | 0  | 1                 | 0          |
|   | 2+00 to 3+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through Union Station<br>Development | 30   | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 3+00 to 4+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through Union Station<br>Development | 30   | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 4+00 to 5+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through Union Station<br>Development | 30   | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 5+00 to 6+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through Union Station<br>Development | 30   | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |
|   | 6+00 to 7+00                     | Off-road Segment North of<br>MBTA Railroad Tracks<br>Through Union Station<br>Development | 30   | N/A   | N/A                               | N/A  | N/A  | N/A               | N/A        |

|                    |                |  |                           |                           |                           |     |     |     |     |
|--------------------|----------------|--|---------------------------|---------------------------|---------------------------|-----|-----|-----|-----|
|                    | 7+00 to 8+00   | Off-road Segment North of MBTA Railroad Tracks Through Union Station Development                   | 30                        | N/A                       | N/A                       | N/A | N/A | N/A | N/A |
|                    | 8+00 to 9+00   | Off-road Segment North of MBTA Railroad Tracks Through Union Station Development                   | 30                        | N/A                       | N/A                       | N/A | N/A | N/A | N/A |
|                    | 9+00 to 9+43   | Off-road Segment North of MBTA Railroad Tracks Through Union Station Development                   | 30                        | N/A                       | N/A                       | N/A | N/A | N/A | N/A |
|                    | 9+43 to 10+00  | Trenchless Crossing of MBTA Commuter Rail  | N/A (trenchless crossing) | N/A (trenchless crossing) | N/A (trenchless crossing) | N/A | N/A | N/A | N/A |
|                    | 10+00 to 10+80 | Trenchless Crossing of MBTA Commuter Rail  | N/A (trenchless crossing) | N/A (trenchless crossing) | N/A (trenchless crossing) | N/A | N/A | N/A | N/A |
|                    | 10+80 to 11+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30                        | 80                        | 1                         | 0   | 0   | 0   | 0   |
|                    | 11+00 to 12+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30                        | 80                        | 1                         | 0   | 0   | 0   | 0   |
|                    | 12+00 to 13+00 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30                        | 80                        | 1                         | 0   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg | 13+00 to 13+43 | Off-road Segment Across Parking Lot @ #56 Webster Avenue up to MBTA Commuter Rail for HDD Crossing | 30                        | 80                        | 1                         | 3   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg | 13+43 to 14+00 | Off-road Segment Across Parking Lot @ #516 Columbia Street   | 30                        | 15                        | 2                         | 4   | 0   | 2   | 0   |
| 14897.00_SV_UT.dwg | 14+00 to 14+73 | Off-road Segment Across Parking Lot @ #516 Columbia Street   | 30                        | N/A                       | N/A                       | 2   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg | 14+73 to 15+00 | Columbia Street  | 27                        | 20                        | 1                         | 1   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg | 15+00 to 16+00 | Columbia Street  | 27                        | 6                         | 3                         | 0   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg | 16+00 to 17+00 | Columbia Street  | 27                        | 8                         | 3                         | 6   | 0   | 0   | 0   |
| 14897.00_SV_UT.dwg | 17+00 to 18+00 | Columbia Street  | 27                        | 5                         | 4                         | 3   | 0   | 1   | 0   |

|                            |                |                 |    |                    |                    |    |   |   |   |
|----------------------------|----------------|-----------------|----|--------------------|--------------------|----|---|---|---|
| 14897.00_SV_UT.dwg         | 18+00 to 19+00 | Columbia Street | 27 | 5                  | 4                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 19+00 to 20+00 | Columbia Street | 28 | 4                  | 4                  | 2  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 20+00 to 21+00 | Columbia Street | 28 | 17                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 21+00 to 22+00 | Columbia Street | 29 | 17                 | 1                  | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 22+00 to 23+00 | Columbia Street | 29 | 17                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 23+00 to 24+00 | Columbia Street | 38 | 17                 | 1                  | 9  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 24+00 to 25+00 | Columbia Street | 38 | N/A (intersection) | N/A (intersection) | 17 | 0 | 4 | 0 |
| 14897.00_SV_UT.dwg         | 25+00 to 26+00 | Columbia Street | 30 | 7                  | 3                  | 7  | 0 | 1 | 0 |
| 14897.00_SV_UT.dwg         | 26+00 to 27+00 | Columbia Street | 30 | 7                  | 3                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 27+00 to 28+00 | Columbia Street | 30 | 7                  | 3                  | 6  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 28+00 to 29+00 | Columbia Street | 28 | 7                  | 3                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 29+00 to 30+00 | Columbia Street | 30 | 6                  | 3                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 30+00 to 31+00 | Columbia Street | 30 | 6                  | 3                  | 5  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 31+00 to 32+00 | Columbia Street | 30 | 7                  | 3                  | 4  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 32+00 to 33+00 | Columbia Street | 30 | 24                 | 1                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 33-00 to 34+00 | Columbia Street | 29 | 14                 | 2                  | 3  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 34+00 to 35+00 | Columbia Street | 29 | 14                 | 2                  | 0  | 0 | 0 | 0 |
| 14897.00_SV_UT.dwg         | 35+00 to 36+00 | Columbia Street | 29 | 14                 | 2                  | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg | 36+00 to 37+00 | Columbia Street | 29 | 9                  | 3                  | 9  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg | 37+00 to 38+00 | Columbia Street | 29 | 5                  | 4                  | 3  | 0 | 1 | 0 |

|  |                |                 |    |     |     |    |   |   |   |
|--|----------------|-----------------|----|-----|-----|----|---|---|---|
| 20200717 S-1390-07_SUM.dwg                       | 38+00 to 39+00 | Columbia Street | 31 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 39+00 to 40+00 | Columbia Street | 31 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 40+00 to 41+00 | Columbia Street | 29 | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 41+00 to 42+00 | Columbia Street | 28 | 5   | 4   | 8  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg                       | 42+00 to 43+00 | Columbia Street | 29 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 43+00 to 44+00 | Columbia Street | 29 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 44+00 to 44+96 | Columbia Street | 29 | 5   | 4   | 21 | 0 | 2 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 44+96 to 45+00 | Broadway        | 39 | N/A | N/A | 3  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 45+00 to 46+00 | Broadway        | 44 | 5   | 4   | 9  | 0 | 2 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 46+00 to 47+00 | Broadway        | 44 | 5   | 4   | 1  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 47+00 to 48+00 | Broadway        | 44 | 5   | 4   | 7  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 48+00 to 49+00 | Broadway        | 44 | 5   | 4   | 0  | 0 | 0 | 0 |

|  |                |          |    |     |     |    |   |   |   |
|--|----------------|----------|----|-----|-----|----|---|---|---|
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 49+00 to 50+00 | Broadway | 44 | 5   | 4   | 2  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 50+00 to 51+00 | Broadway | 44 | 5   | 4   | 9  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 51+00 to 52+00 | Broadway | 44 | 5   | 4   | 4  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 52+00 to 53+00 | Broadway | 44 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 53+00 to 54+00 | Broadway | 41 | 5   | 4   | 0  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 54+00 to 55+00 | Broadway | 42 | 5   | 4   | 9  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 55+00 to 56+00 | Broadway | 44 | 5   | 4   | 1  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 56+00 to 57+00 | Broadway | 42 | 5   | 4   | 8  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 57+00 to 58+00 | Broadway | 44 | 5   | 4   | 4  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 58+00 to 59+00 | Broadway | 44 | 5   | 4   | 7  | 0 | 0 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 59+00 to 60+00 | Broadway | 44 | 6   | 3   | 9  | 0 | 1 | 0 |
| 20200717 S-1390-07_SUM.dwg<br>15868-2018-9-6.dwg | 60+00 to 61+00 | Broadway | 44 | N/A | N/A | 6  | 0 | 1 | 0 |
| 15868-2018-9-6.dwg                               | 61+00 to 62+00 | Broadway | 44 | 15  | 2   | 24 | 0 | 5 | 0 |
| 15868-2018-9-6.dwg                               | 62+00 to 63+00 | Broadway | 45 | 25  | 1   | 1  | 0 | 1 | 0 |

|   |                |          |    |                |                              |                          |                          |           |          |
|---|----------------|----------|----|----------------|------------------------------|--------------------------|--------------------------|-----------|----------|
| 15868-2018-9-6.dwg  | 63+00 to 64+00 | Broadway | 55 | 22             | 1                            | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 64+00 to 65+00 | Broadway | 61 | 30             | 1                            | 0                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg  | 65+00 to 66+00 | Broadway | 60 | N/A            | N/A                          | 2                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg  | 66+00 to 67+00 | Broadway | 60 | N/A            | N/A                          | 4                        | 0                        | 1         | 0        |
| 15868-2018-9-6.dwg<br>20200702 S-1390-07_SUM.dwg                  | 67+00 to 68+00 | Broadway | 60 | N/A            | N/A                          | 1                        | 0                        | 0         | 0        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 68+00 to 69+00 | Broadway | 66 | N/A            | N/A                          | 10                       | 0                        | 3         | 1        |
| 15868-2018-9-6.dwg<br>17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg | 69+00 to 70+00 | Broadway | 70 | N/A            | N/A                          | 11                       | 0                        | 1         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 70+00 to 71+00 | Broadway | 70 | 14             | 2                            | 1                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 71+00 to 72+00 | Broadway | 70 | 14             | 2                            | 3                        | 0                        | 0         | 0        |
| 17156-BROADWAY-EC-SUBMIT.dwg-2020-01-17.dwg                       | 72+00 to 72+87 | Broadway | 76 | N/A            | N/A                          | 5                        | 0                        | 1         | 0        |
|   |                |          |    | <b>TOTALS:</b> | <b>3</b>                     | <b>273</b>               | <b>0</b>                 | <b>35</b> | <b>1</b> |
|   |                |          |    |                | <b>Average<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> | <b>Sum<sup>(3)</sup></b> |           |          |

## Appendix 4-5

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Raw Scoring Data



**Greater Cambridge Energy Program  
Brighton West Candidate Routes Raw Scoring Data**

|  | <b>Criteria</b>                                 | <b>Candidate Route B-24<br/>WEST</b> | <b>Candidate Route B-24A<br/>WEST</b> | <b>Candidate Route B-29F<br/>WEST</b> | <b>Candidate Route B-30<br/>WEST</b> |
|--|---|--------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|
| <b>Human Environment Criteria</b>              | Residential Land Uses                           | 1873                                 | 1877                                  | 403                                   | 2079                                 |
|  | Commercial and Industrial Land Uses             | 504                                  | 507                                   | 76                                    | 389                                  |
|  | Sensitive Receptors                             | 21                                   | 21                                    | 5                                     | 21                                   |
|  | Historic & Archaeological Resources             | 92                                   | 91                                    | 10                                    | 93                                   |
|  | Transportation Impacts                          | 2.66                                 | 2.65                                  | 3.87                                  | 3.66                                 |
| <b>Natural Environment Criteria</b>            | Wetland Resource Area and Buffer Zone Crossings | 887                                  | 887                                   | 1581                                  | 449                                  |
|  | Potential to Encounter Subsurface Contamination | 15                                   | 14                                    | 24                                    | 15                                   |
|  | Article 97 Lands (linear feet)                  | 2395                                 | 2395                                  | 0                                     | 0                                    |
|  | Public Shade Trees                              | 694                                  | 723                                   | 455                                   | 580                                  |
| <b>Constructability and Technical Criteria</b> | Utility Density                                 | 2.68                                 | 2.93                                  | 2.29                                  | 2.93                                 |
|  | Complex Crossings                               | 4                                    | 4                                     | 3                                     | 3                                    |

**Greater Cambridge Energy Program  
Brighton East Candidate Routes Raw Scoring Data**

|  | <b>Criteria</b>                                 | <b>Candidate Route B-2A<br/>EAST</b> | <b>Candidate Route B-25 EAST</b> | <b>Candidate Route B-25A<br/>EAST</b> | <b>Candidate Route B-31<br/>EAST</b> |
|--|---|--------------------------------------|----------------------------------|---------------------------------------|--------------------------------------|
| <b>Human Environment Criteria</b>              | Residential Land Uses                           | 323                                  | 1495                             | 1495                                  | 700                                  |
|  | Commercial and Industrial Land Uses             | 42                                   | 78                               | 78                                    | 63                                   |
|  | Sensitive Receptors                             | 4                                    | 10                               | 10                                    | 6                                    |
|  | Historic & Archaeological Resources             | 20                                   | 62                               | 60                                    | 25                                   |
|  | Transportation Impacts                          | 2.26                                 | 2.65                             | 2.57                                  | 2.94                                 |
| <b>Natural Environment Criteria</b>            | Wetland Resource Area and Buffer Zone Crossings | 8299                                 | 12551                            | 12551                                 | 8526                                 |
|  | Potential to Encounter Subsurface Contamination | 11                                   | 16                               | 14                                    | 14                                   |
|  | Article 97 Lands                                | 885                                  | 2395                             | 2395                                  | 0                                    |
|  | Public Shade Trees                              | 524                                  | 973                              | 956                                   | 606                                  |
| <b>Constructability and Technical Criteria</b> | Utility Density                                 | 1.53                                 | 2.97                             | 2.89                                  | 2.27                                 |
|  | Complex Crossings                               | 4                                    | 4                                | 4                                     | 4                                    |

**Greater Cambridge Energy Program  
Somerville Candidate Routes Raw Scoring Data**

|   | <b>Criteria</b>                                  | <b>Candidate Route S-1A</b> | <b>Candidate Route S-11C</b> | <b>Candidate Route S-12</b> | <b>Candidate Route S-13</b> | <b>Candidate Route S-13A</b> | <b>Candidate Route S-14</b> |
|---|--|-----------------------------|------------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|
| <b>Potential Human Environment Criteria</b>   | Residential Land Uses                            | 560                         | 370                          | 335                         | 908                         | 911                          | 718                         |
|   | Commercial and Industrial Land Uses              | 135                         | 124                          | 131                         | 131                         | 134                          | 155                         |
|   | Sensitive Receptors                              | 3                           | 3                            | 5                           | 7                           | 7                            | 5                           |
|   | Historic & Archaeological Resources              | 4                           | 16                           | 6                           | 13                          | 20                           | 3                           |
|   | Transportation Impacts                           | 4.11                        | 1.94                         | 3.33                        | 5.41                        | 5.09                         | 3.81                        |
| <b>Potential Natural Environment Criteria</b> | Wetland Resource Areas, Buffer Zones & Tidelands | 0                           | 0                            | 0                           | 0                           | 0                            | 0                           |
|   | Potential to Encounter Subsurface Contamination  | 31                          | 36                           | 36                          | 19                          | 26                           | 32                          |
|   | Article 97 Lands                                 | 0                           | 0                            | 0                           | 0                           | 0                            | 0                           |
|   | Public Shade Trees                               | 173                         | 84                           | 226                         | 264                         | 270                          | 213                         |
| <b>Potential Constructability Criteria</b>    | Existing Utility Density                         | 1.39                        | 2.04                         | 2.6                         | 2.29                        | 2.75                         | 1.84                        |
|   | Complex Crossings                                | 2                           | 4                            | 2                           | 1                           | 1                            | 2                           |

**Greater Cambridge Energy Program  
Putnam Candidate Routes Raw Scoring Data**

|   | <b>Criteria</b>                                  | <b>Candidate Route P-11</b> | <b>Candidate Route P-12</b> | <b>Candidate Route P-13</b> |
|---|--|-----------------------------|-----------------------------|-----------------------------|
| <b>Potential Human Environment Criteria</b>   | Residential Land Uses                            | 297                         | 304                         | 298                         |
|   | Commercial and Industrial Land Uses              | 26                          | 42                          | 21                          |
|   | Sensitive Receptors                              | 2                           | 2                           | 2                           |
|   | Historic & Archaeological Resources              | 8                           | 4                           | 4                           |
|   | Transportation Impacts                           | 5.98                        | 5.80                        | 3.46                        |
| <b>Potential Natural Environment Criteria</b> | Wetland Resource Areas, Buffer Zones & Tidelands | 489                         | 553                         | 474                         |
|   | Potential to Encounter Subsurface Contamination  | 9                           | 16                          | 4                           |
|   | Article 97 Lands                                 | 0                           | 0                           | 0                           |
|   | Public Shade Trees                               | 248                         | 303                         | 115                         |
| <b>Potential Constructability Criteria</b>    | Existing Utility Density                         | 2.04                        | 3.00                        | 1.41                        |
|   | Complex Crossings                                | 1                           | 1                           | 1                           |

**Greater Cambridge Energy Program  
Kendall Candidate Routes Raw Scoring Data**

|   | <b>Criteria</b>                                  | <b>Candidate Route K-5A</b> | <b>Candidate Route K-6A</b> | <b>Candidate Route K-10</b> | <b>Candidate Route K-11</b> | <b>Candidate Route K-12</b> |
|---|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Potential Human Environment Criteria</b>   | Residential Land Uses                            | 1008                        | 1106                        | 1008                        | 695                         | 793                         |
|   | Commercial and Industrial Land Uses              | 122                         | 139                         | 81                          | 73                          | 90                          |
|   | Sensitive Receptors                              | 4                           | 5                           | 4                           | 4                           | 5                           |
|   | Historic & Archaeological Resources              | 6                           | 9                           | 7                           | 8                           | 10                          |
|   | Transportation Impacts                           | 3.54                        | 3.54                        | 2.86                        | 2.46                        | 2.66                        |
| <b>Potential Natural Environment Criteria</b> | Wetland Resource Areas, Buffer Zones & Tidelands | 10                          | 10                          | 10                          | 10                          | 10                          |
|   | Potential to Encounter Subsurface Contamination  | 18                          | 21                          | 17                          | 18                          | 21                          |
|   | Article 97 Lands                                 | 0                           | 0                           | 0                           | 0                           | 0                           |
|   | Public Shade Trees                               | 136                         | 150                         | 107                         | 104                         | 138                         |
| <b>Potential Constructability Criteria</b>    | Existing Utility Density                         | 2.61                        | 3.00                        | 2.50                        | 2.49                        | 2.85                        |
|   | Complex Crossings                                | 0                           | 0                           | 0                           | 0                           | 0                           |

## Appendix 5-1

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### Photographic Log

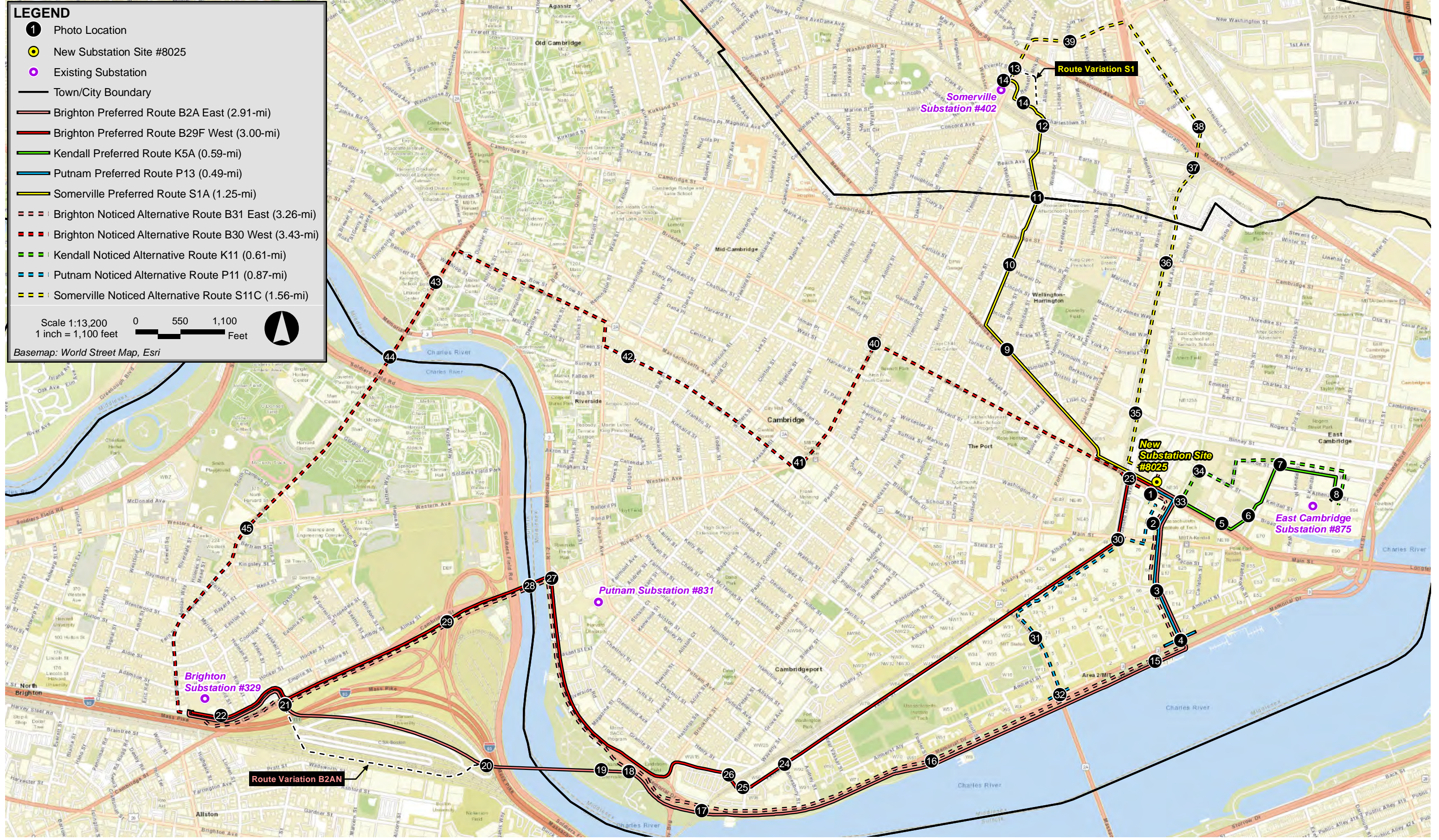
**LEGEND**

- ① Photo Location
- New Substation Site #8025
- Existing Substation
- Town/City Boundary
- Brighton Preferred Route B2A East (2.91-mi)
- Brighton Preferred Route B29F West (3.00-mi)
- Kendall Preferred Route K5A (0.59-mi)
- Putnam Preferred Route P13 (0.49-mi)
- Somerville Preferred Route S1A (1.25-mi)
- - - Brighton Noticed Alternative Route B31 East (3.26-mi)
- - - Brighton Noticed Alternative Route B30 West (3.43-mi)
- - - Kendall Noticed Alternative Route K11 (0.61-mi)
- - - Putnam Noticed Alternative Route P11 (0.87-mi)
- - - Somerville Noticed Alternative Route S11C (1.56-mi)

Scale 1:13,200  
1 inch = 1,100 feet

0 550 1,100 Feet

Basemap: World Street Map, Esri



Greater Cambridge Energy Program



Figure 1  
Photo Key



**Photo 1:** View facing northwest facing the proposed substation at the Blue Garage. This portion is common to all routes.



**Photo 2:** View facing south along Ames Street. This portion is common to routes P13, P11, B2A East, and B31 East.





**Photo 3:** View facing south towards Memorial Drive along Ames Street. This portion is common to routes P13, B2A East, and B31 East.



**Photo 4:** View facing south from Ames Street at Memorial Drive, where P13 will tie into the existing line. This portion is common to routes P13, B2A East, and B31 East.



**Photo 5:** View of the sidewalk along Broadway facing west near the corner/intersection with Third Street.



**Photo 6:** View of the Volpe Property/sidewalk along the west side of Third Street, facing north.



**Photo 7:** View of Linskey Way facing east. This portion is common to both K5A and K11.



**Photo 8:** View of Second Street heading into the Eversource Substation, facing south. This portion is common to both K5A and K11.



**Photo 9:** View facing north along Hampshire Street.



**Photo 10:** View of Columbia Street facing north from Hampshire Street.



**Photo 11:** View of Columbia Street facing north, south of Windsor Place.



**Photo 12:** View of parking lot area where the route will cross the commuter rail line to the north.



**Photo 13:** View of the D2 parcel facing east from Prospect Street.



**Photo 14:** View facing south along Prospect Street looking into the Prospect Street Substation.



**Photo 15:** View of Memorial Drive facing west near the Walker Memorial. This portion is common to both B2A East and B31 East.



**Photo 16:** View of Memorial Drive near Fowler Street facing west. This portion is common to both B2A East and B31 East.



**Photo 17:** View along Memorial Drive where the Grand Junction Railroad goes beneath the roadway. This portion is common to both B2A East and B31 East.



**Photo 18:** View of Magazine Beach and Memorial Drive, facing east, showing the proposed transition area to an HDD pit.





**Photo 19:** View of Magazine Beach and the proposed HDD path towards the Charles River.



**Photo 20:** View of multimodal area from I-90 ramp facing west.



**Photo 21:** View from elevated I-90 facing north toward Lincoln Street.



**Photo 22:** View facing west along Lincoln Street. This portion is common to B2A East, B31 East, and B29F West.



**Photo 23:** View facing west from the Blue Garage parking garage.



**Photo 24:** View facing south along Vassar Street.



**Photo 25:** View of the proposed starting point of the Grand Junction Railroad crossing facing west.



**Photo 26:** View facing west from the Grand Junction Railroad along Waverly Street.



**Photo 27:** View facing north along Memorial Drive at the River Street Bridge intersection.



**Photo 28:** View facing northeast along the River Street bridge.



**Photo 29:** View facing east along Cambridge Street near the I-90 ramps. This area is common to B29F West and B31 East.



**Photo 30:** View facing south along Vassar Street. This portion is common to P11 and B29F West.



**Photo 31:** View facing south along Massachusetts Avenue near MIT Building 7.



**Photo 32:** View facing north from Memorial Drive showing the tie in location for Route P11.



**Photo 33:** View facing north from Broadway along the MIT Volpe Property.



**Photo 34:** View facing west of Potter Street.





**Photo 35:** View facing north along the Grand Junction Railroad from Binney Street.



**Photo 36:** View facing north along a parallel access road behind the shopping center.



**Photo 37:** View facing north along the Grand Junction Railroad at its intersection with the commuter rail line and McGrath Highway.



**Photo 38:** View of Linwood Street facing northwest.



**Photo 39:** View of Washington Street facing east.



**Photo 40:** View of Prospect Street facing north.



**Photo 41:** View of River Street facing north into Central Square.



**Photo 42:** View facing west along Green Street.



**Photo 43:** View facing north along John F. Kennedy Street in Harvard Square.



**Photo 44:** View facing north into Harvard Square from the middle of Anderson Bridge.



**Photo 45:** View of North Harvard Street from its intersection with Western Avenue, facing north.