

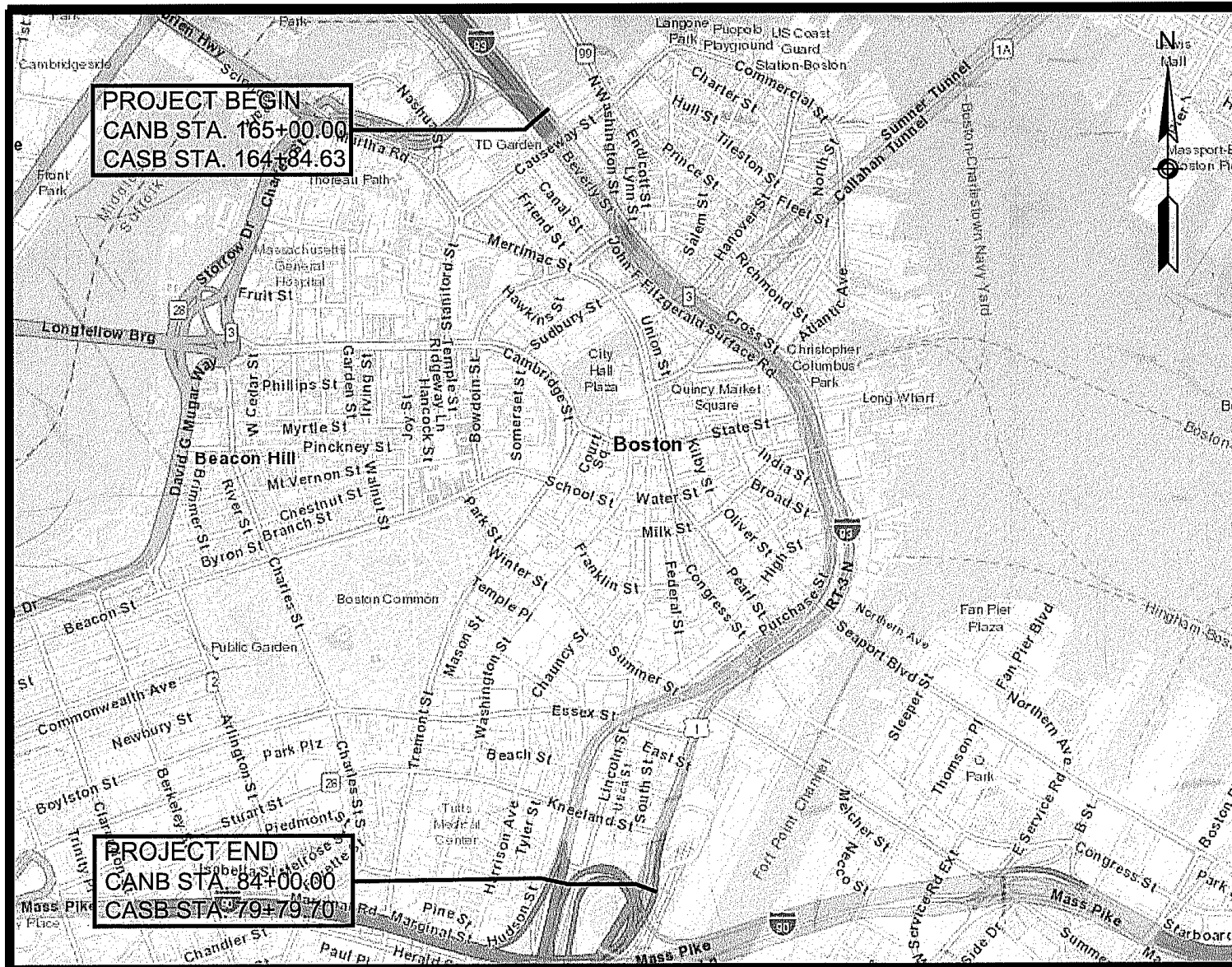


**MassDOT Highway Construction Contract: 110219
CA/T Lighting (I-93) Lighting Rehabilitation
(CRC 17D & 17F)**

Joint Board Meeting

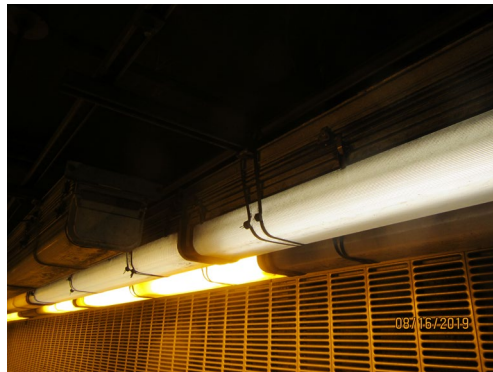
June 22, 2020

Project Locus



Purpose and Need

- Replacement of existing lighting system on the mainline and short portions of the ramps with new LED fixtures and hardware
- Currently approx. 2,600 lights (of ~6,100) reported in 2019 in the I-93 Tunnel with some level of defects (all stable though - managed through increased inspections and on-going maintenance)
- Proposed lighting system will contain less than half the amount of lights currently present (6,100 +/- vs 2,300 +/-)
- Will result in savings of inspection, maintenance and energy costs with lights in a good state of repair and less quantity to manage (up to \$3.5M/year savings)
- Estimated 10-15 year return on investment with a 20 year LED design life



Typ. Existing Fixture



Typ. Proposed Fixture

Construction Scope

- In-tunnel work will be completed concurrently in the NB and SB Barrels between 10 PM and 4 AM.
- Work is allowed on only one side of the barrel at a time utilizing single or double lane closures.
- Work will be completed by 4 AM with tunnels being restored to full capacity by 5 AM.
- Construction Duration is estimated to be appx. 2 years.



Example of Main Line



Example of SB Entrance Portal

Construction Procurement

- Project was advertised on November 23, 2019
- Engineers Estimate was \$26,228,155.58
- Bid Opening was on April 28, 2020
- Four (4) Bids were received:

Dagle Electrical Construction Corporation	\$32,242,368.50
Mass. Electric Construction Co.	\$33,573,573.33
J F White Contracting Co.	\$35,888,984.20
Fischbach & Moore Electric Group LLC	\$37,610,252.25
- The difference between the low bid and the Engineer's Estimate may be due to sole source of light fixtures. Sole source fixtures are desired for system wide uniformity.

Overall Project Budget

Line Item	Budget
Bid Amount	\$32,242,368.50
Contingencies (10%)	\$3,224,236.85
5% Construction Engineering	\$1,612,118.43
Traffic Police	1,280,000.00
Total	\$38,358,723.78

Project funded 25% with MHS & Toll Funds and 75% from CARM

Request of the MassDOT Board

Staff request that the MassDOT Board authorize the Secretary of the Massachusetts Department of Transportation, or her designee, to award and execute MassDOT Construction Contract 110219: CA/T (I-93) Lighting Rehabilitation with Dagle Electrical Construction Corp. for an amount not to exceed \$32,242,368.50.