

MassDOT Highway Construction Contract: 123965

Rehabilitation of Central Street MassDOT Board of Directors

November 15, 2023



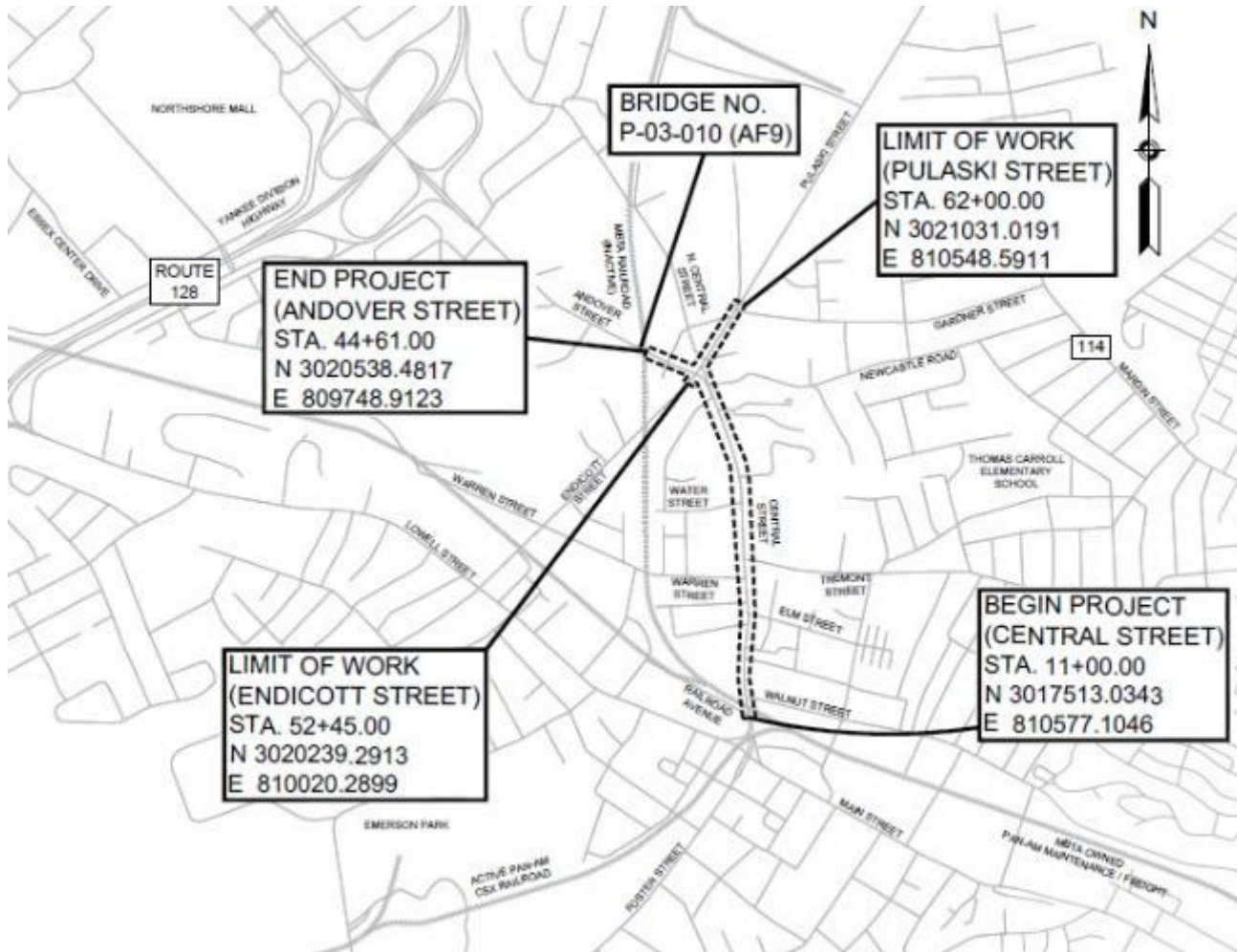
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Project Location

Central Street in Peabody

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Project Limits

- Central Street corridor from Railroad Avenue to terminus at the MBTA Railroad (Inactive) on Andover Street.

Roadways Affected

- Central Street
- Endicott Street
- Pulaski Street

Total Project Length

- 0.637 Miles (Central Street & Andover Street)
- 0.188 Miles (Endicott Street & Pulaski Street)

Construction will take approximately four years from NTP.

Overview

Scope of Services/Purpose & Need

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Scope of Services

- Full depth reconstruction throughout the corridor to improve the condition and safety of the roadway.
- Traffic signals will be updated or replaced as required to meet current standards.
- Rectangular rapid flashing beacons will be installed to improve crossings with ADA compliant sidewalks and pedestrian curb ramps. Curb extensions will be included to shorten crossing distance and safety.
- Dedicated bicycle accommodations in both directions to comply with MassDOT complete street policies.
- Utility work to replace/upgrade drainage system. Watermain replaced with municipal non-part. funds.

Purpose and Need

- General pavement has degradation and deterioration with utility trenches, potholes, and crack sealing. Pavement overlays have reduced curb reveal. Full depth reconstruction will improve the condition and safety of the roadway.
- Intersections within HSIP Crash cluster, outdated traffic signal equipment and pedestrian signal equipment.
- Sidewalk conditions are fair to poor and lack ADA compliant curb ramps and crossings.
- Inadequate bicycle facilities pose safety concerns.

Procurement and Budget

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- Project Advertised September 2, 2023
- Engineer's Estimate was \$17,329,005.00
- Bid Opening was October 17, 2023
- Five (5) Bids were received:

MDR Construction Co. Inc.	\$18,716,724.16
J Tropeano Inc.	\$19,176,281.05
Albanese D & S, Inc.	\$19,483,818.42
MacKay Const Services Inc.	\$21,251,297.30
Newport Construction Corp.	\$21,261,384.35

Line Item	Budget
Bid Amount	\$18,716,724.16
Contingencies (10%)	\$1,871,672.42
5% Construction Engineering	\$935,836.21
Traffic Police	\$606,500.00
Trainees	\$4,000.00
Utilities	\$2,214,240.48
Total	\$24,348,973.27

- \$20,018,603.27 cost for this construction contract is funded with combination of Federal and State funds.
- Programmed in the 2023 STIP
- \$4,330,370 Funded by the City of Peabody (Non-Participating)

Request of the MassDOT Board

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- Staff request that the MassDOT Board of Directors authorize the Secretary of the Massachusetts Department of Transportation, or their designee, to award and execute MassDOT Construction Contract 123965 – Rehabilitation of Central Street with MDR Construction Co. Inc. in the amount of \$18,716,724.16.

Thank You



Appendix

Purpose and Need (cont'd)

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Traffic and Safety Concerns

- Wide travel lanes that promote higher prevailing speeds
- 28,000 Vehicles Per Day (2,000 in AM / PM Peak periods)
- Outdated signal equipment
- Pavement markings are non –standard / faded



Purpose and Need (cont'd)

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Poor Pavement Condition

- General pavement degradation and deterioration
- Utility trenches, potholes, crack sealing
- Evidence of pavement overlays (lack of curb reveal in certain areas)



Purpose and Need (cont'd)

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Substandard Pedestrian Accommodations

- Bicycle facilities not provided
- Fair to poor sidewalk condition
- Lack of ADA compliant pedestrian curb ramps and crossings
- Outdated pedestrian equipment



Purpose and Need (cont'd)

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Intersection Crash Rate

- 201 crashes during the 5-year study
- Many of the crashes occurred due to the segment characteristics and not due to a single intersection
- Types of crashes
 - Rear-end
 - Angle crashes

Crash Rates 2013-2017	
Intersection	
Pulaski Street at Gardner Street	0.91
Central Street at Andover Street*	0.90
Central Street at Wilson Terrace	0.82
Central Street at Water Street*	0.43
Central Street at Tremont Street*	0.60
Central Street at Warren Street*	0.34
Central Street at Elm Street	0.22
Central Street at Walnut Street & Railroad Ave *	0.77
Segment	
North of Walnut Street to South of Wilson Terrace	7.55

**HSIP crash cluster*

Bold = Above State/District 4 Average Rate

Construction Scope

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Proposed Improvements

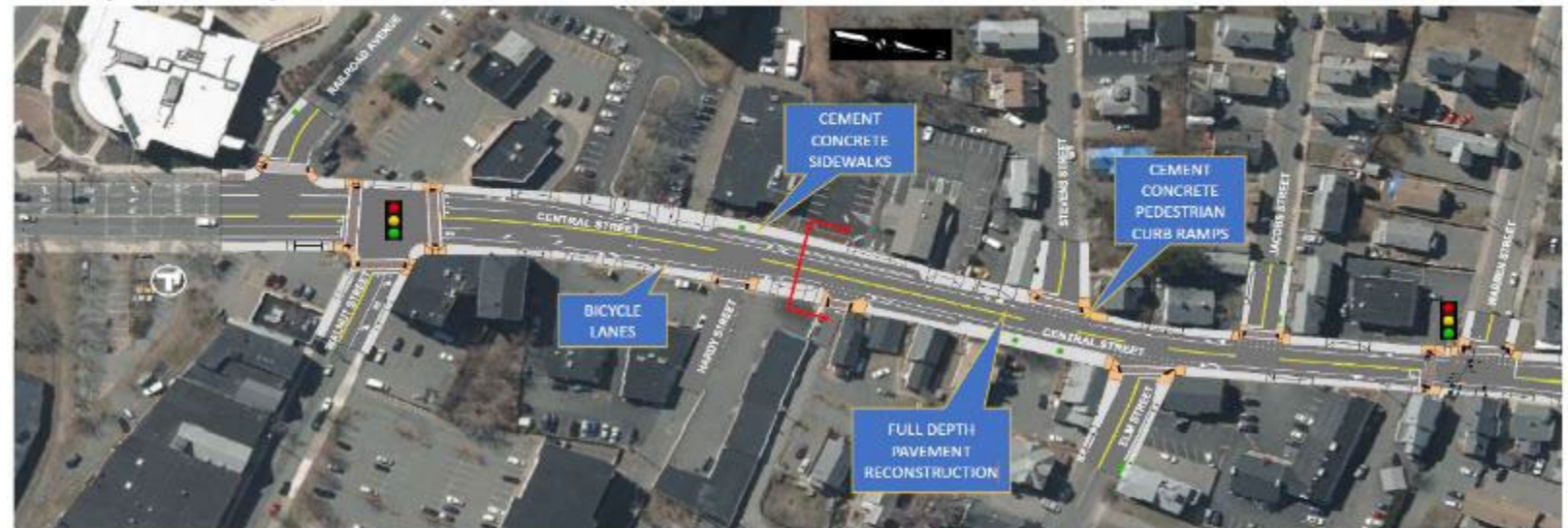
- Operation Improvements / Traffic Signal Upgrades
- Enhance Pedestrian Crossings / ADA Compliance with more visible crossings
 - Rectangular Rapid Flashing Beacons (RRFB's)
 - Compliant Walk Intervals at Signalized Crossings
- Pavement Reconstruction
- Provide Dedicated Bicycle Accommodations
- New Cement Concrete Sidewalks and Pedestrian Curb Ramps
 - Reconstruct sidewalks and pedestrian curb ramps / ADA Compliance and Safety
 - Curb Extensions at Crosswalks
- Replacement of Existing 100+ Year Old Drainage System
- Water Main Replacement (Non-Participating)

Construction Scope (Cont'd)

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Proposed Improvements Walnut Street to Warren Street

- Full depth pavement reconstruction
- 10-ft sidewalks in each direction
- 7-ft parking lane on the west side
- 5-ft bike lanes in each direction
- 11-ft travel lanes in each direction
- New ADA compliant concrete pedestrian curb ramps



Construction Scope (Cont'd)

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Proposed Improvements Warren St to Senior Center

- Tremont Street and Central Street
 - New coordinated intersection
 - New left turn lane
- Peabody Housing Authority
 - Bus stop with shelter
- Rapid Flashing Beacons for crosswalk crossing



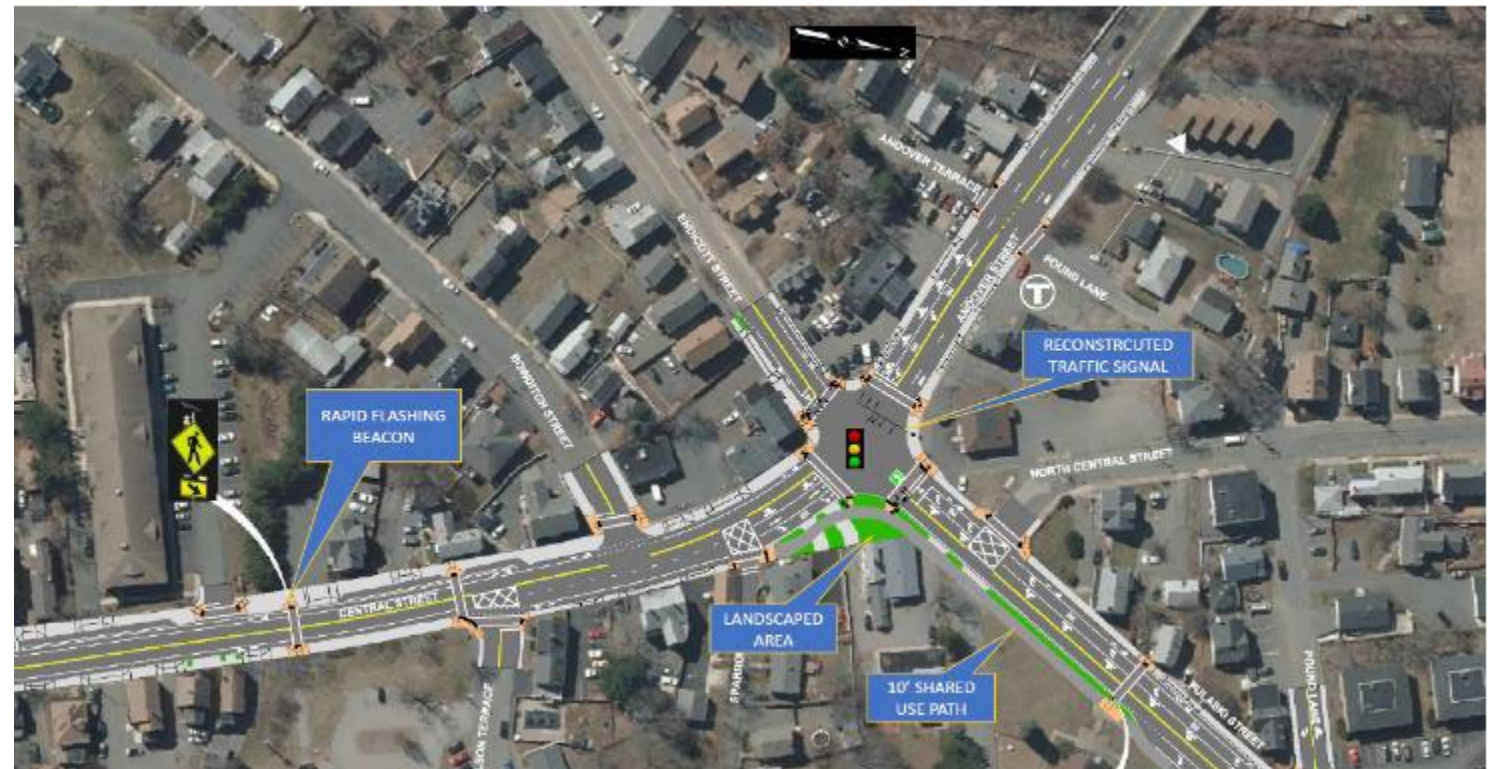
Construction Scope (Cont'd)

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Proposed Improvements

Senior Center to Wilson Square

- Rapid Flashing Beacons for crosswalk crossing
- No Blocking Intersection Markings
- Landscaping on Central Street and Pulaski Street
- 10-ft Shared Use Path on Pulaski Street
- Reconstructed Traffic Signal at Pulaski Street/Central Street/Endicott Street

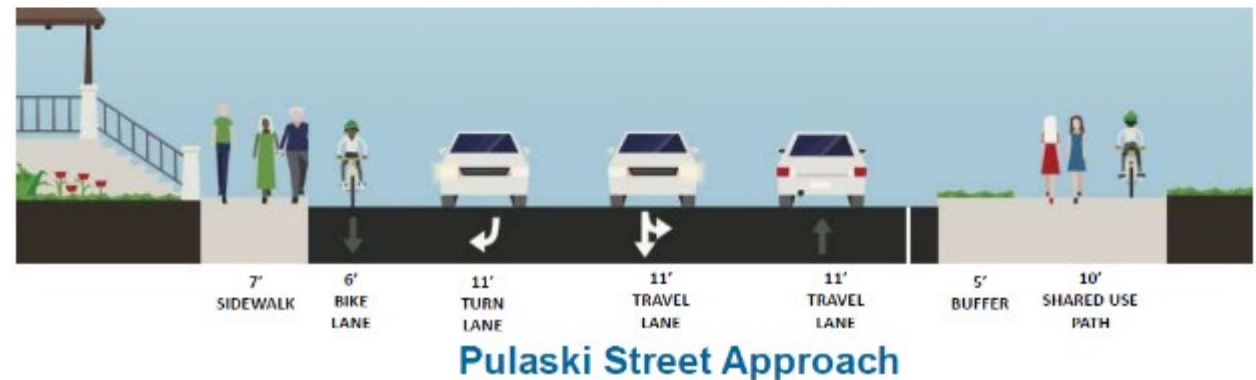
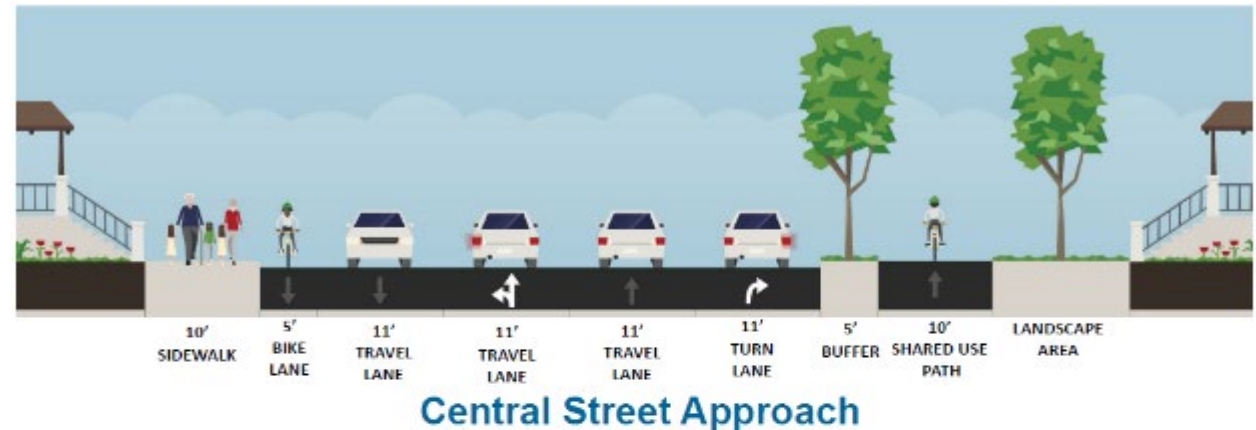


Construction Scope (Cont'd)

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Proposed Improvements Wilson Square

- Central Street Approach
 - 11-ft left and right turning lanes
 - 11-ft through lane
 - 10-ft Shared Use Path between a 5-ft buffer and landscape area
- Pulaski Street Approach
 - Shared Left Turn lane and Through Lane for Central Street
 - Right turn Lane for Andover Street
 - 10-ft shared Use Path with 5-ft buffer



Construction Scope (cont'd)

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Traffic Impacts

- Pavement Reconstruction Full depth reconstruction in most areas
- Temporary shifting of traffic using signage and police details
- Short-Term Temporary Road Closures may be anticipated
- Temporary Pedestrian detours will ensure accessible routes throughout the duration of construction

