



Commerce Road Improvements and Culvert Replacement Project

Neighborhood Meeting
Harborview Conference Room
Barnstable County Complex
August 6, 2024

**Town of Barnstable
Department of Public Works**



Meeting Agenda

- Project History
- Review Project Scope
- Review Project Next Steps
- Project Feedback / Questions
- Individual discussions on project impacts



Photograph #3 – View of the existing culvert to the east of Commerce Road.



Photograph #4 – View of the existing culvert to the west of Commerce Road.



Project History

- Significant coastal storm events in 2017/2018 led to flooding of Commerce Road and the adjacent residential neighborhoods.
- During the storm events, Commerce Road was not passable due to storm surge overtopping the roadway at the culvert located between #312 and #383 Commerce Road, limiting access for emergency personnel.
- Town retained Woods Hole Group to evaluate in 2017
 - **Commerce Road Culvert**
 - Other potential solutions evaluated



2019 Culvert Analysis



Figure 23: 100-Year storm flooding extent for the alternative, and existing culverts

Question:

- Could widening the culvert under Commerce Road alleviate flooding on the western portion of Commerce Road.

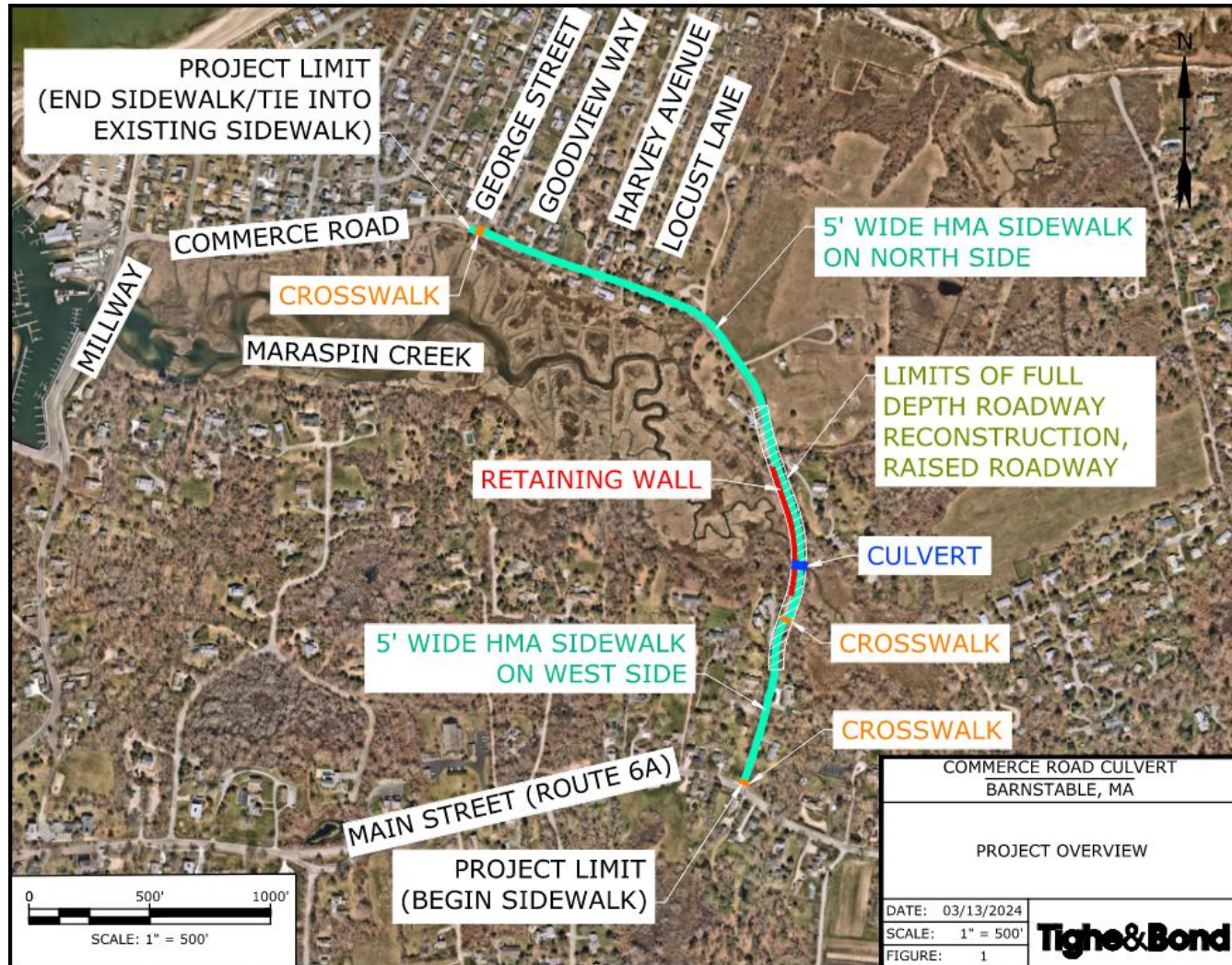
Answer:

- No...
- But it could be feasible to raise the road to improve emergency access



Project Scope

- Raise Commerce Road in location of culvert to above flood elevation for current and future storm events
 - Raise ± 7 feet
- Replace culvert
 - 8' wide x 8' high box culvert proposed
- Install new sidewalk from George Street to Route 6A
- Potentially partner with Barnstable Water to replace water mains



Project Status

Work Completed to date:

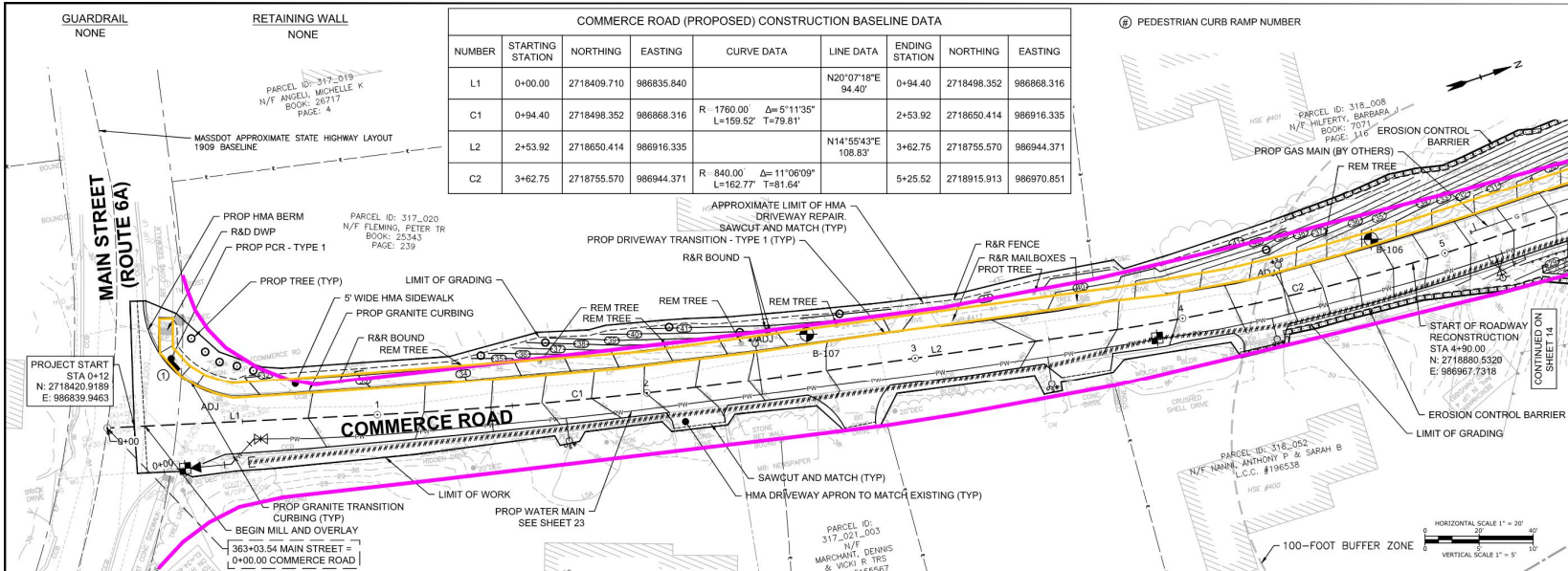
- Retained Tighe & Bond to design and permit the project
- Completed Hydrologic and Hydraulic Assessment
- Completed Geotechnical Investigation and Analysis
- Completed 75% Design Drawings
- Completed 75% Right of Way Drawings
 - Identification of private property impacts and easements required
 - 21 properties identified
 - Some are critical to achieve project objectives; some may be able to be designed around
 - Types of private property impacts:
 - Permanent (Sidewalks, stabilized slopes, utilities, etc.)
 - Temporary (Grading, tree removals, etc)



COMMERCE ROAD (PROPOSED) CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	2718409.710	986835.840		N20°07'18"E 94.40'	0+94.40	2718498.352	986868.316
C1	0+94.40	2718498.352	986868.316	R = 1760.00' Δ = 5°11'35" L = 159.52' T = 79.81'		2+53.92	2718650.414	986916.335
L2	2+53.92	2718650.414	986916.335		N14°55'43"E 108.83'	3+62.75	2718755.570	986944.371
C2	3+62.75	2718755.570	986944.371	R = 840.00' Δ = 11°06'09" L = 162.77' T = 81.64'		5+25.52	2718915.913	986970.851

Ⓢ PEDESTRIAN CURB RAMP NUMBER



NOTE: MEAN LOW WATER (MLW) IS -5.39'

REVISED 75% DRAWINGS

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Commerce Road Improvements & Culvert Replacement

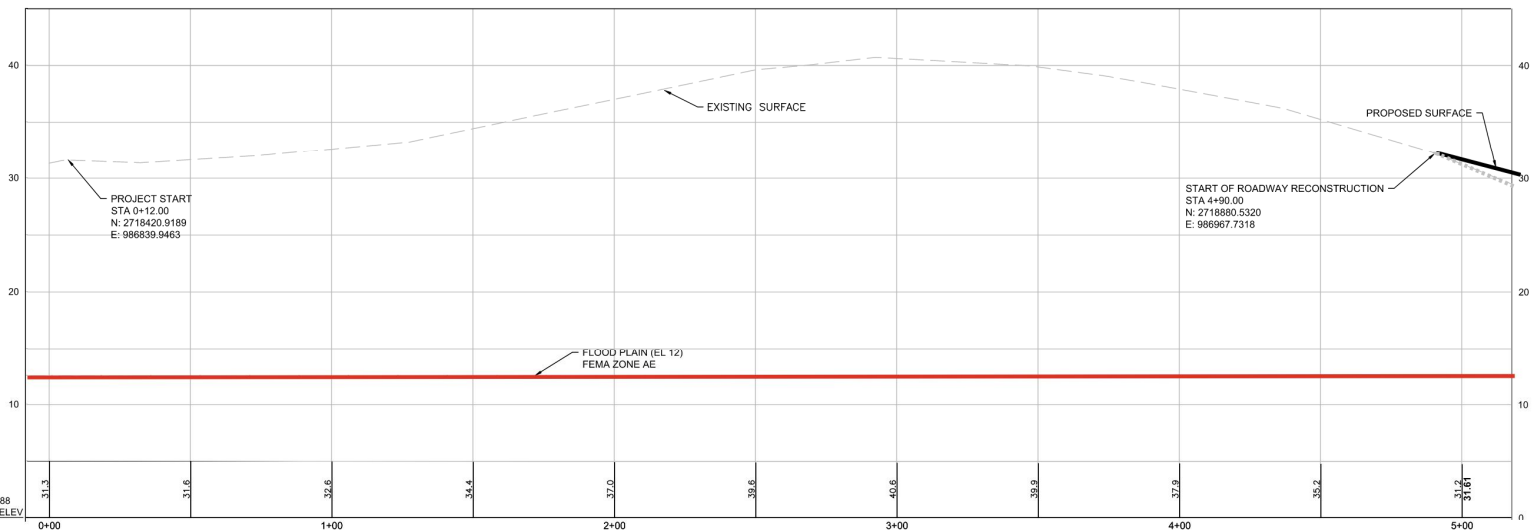
Town of Barnstable

Barnstable, Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:	80633-007	
DATE:	JANUARY 2024	
FILE:	8-0633-007 CONSTRUCTION PLANS.dwg	
DRAWN BY:	MHB	
DESIGNED/CHECKED BY:	EAC	
APPROVED BY:	DLM	

CONSTRUCTION PLANS & PROFILES
(SHEET 1 OF 10)

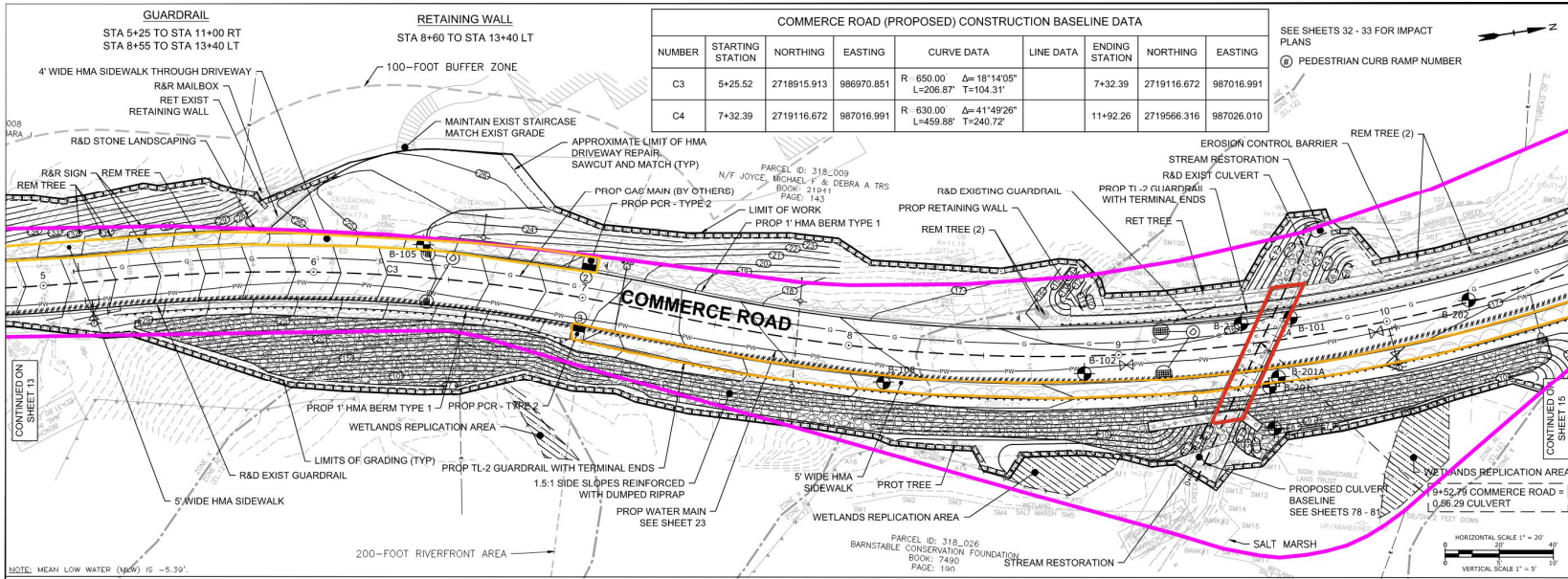
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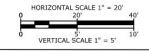
NAVD 88
BASE ELEV
0+00

COMMERCE ROAD (PROPOSED) CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C3	5+25.52	2718915.913	986970.851	R= 650.00' Δ= 18°14'05" L= 206.87' T= 104.31'		7+32.39	2719116.672	987016.991
C4	7+32.39	2719116.672	987016.991	R= 630.00' Δ= 41°49'26" L= 459.88' T= 240.72'		11+92.26	2719566.316	987026.010

SEE SHEETS 32 - 33 FOR IMPACT PLANS
 (P) PEDESTRIAN CURB RAMP NUMBER



NOTE: MEAN LOW WATER (MLW) IS -5.39'



REVISED 75% DRAWINGS

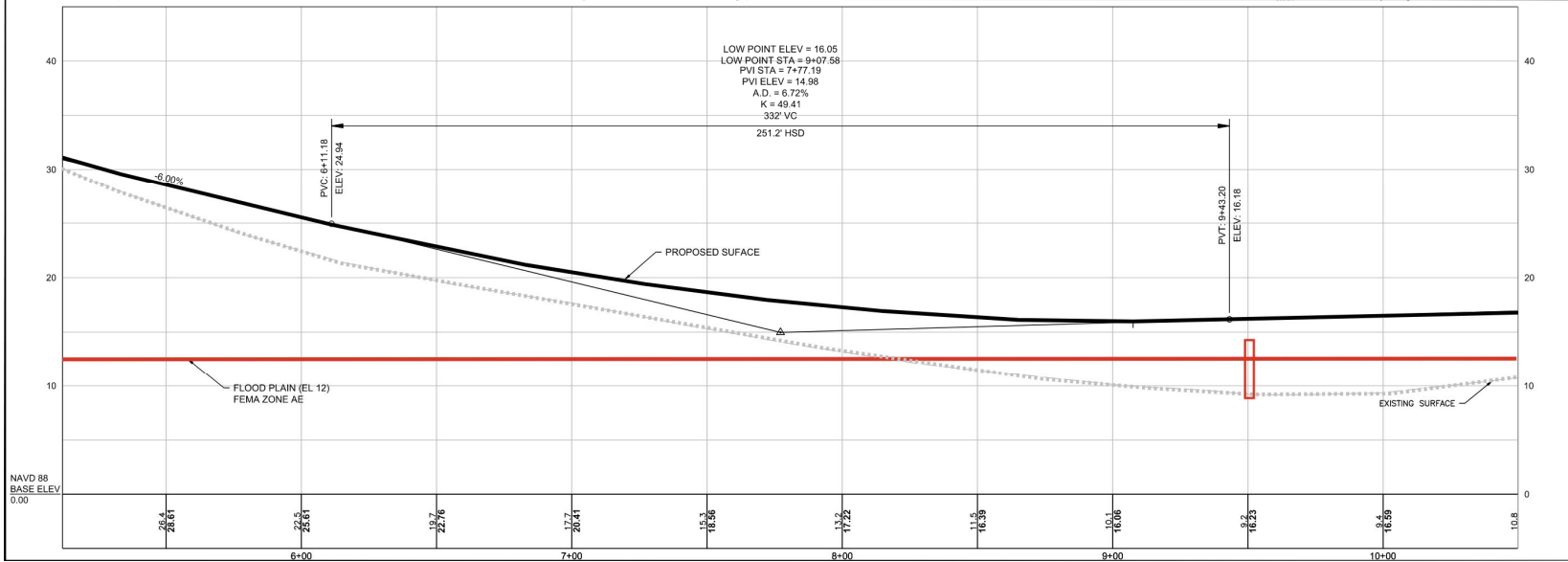
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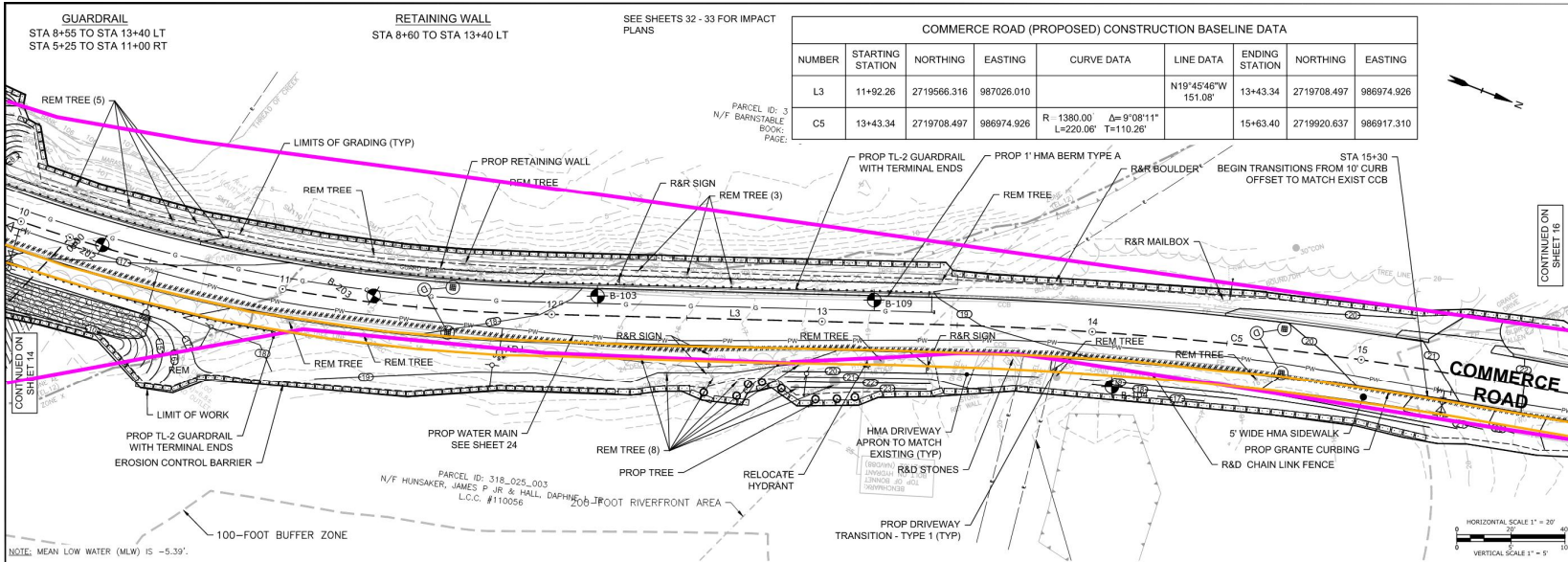
Barnstable, Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:	8063-007	
DATE:	JANUARY 2024	
FILE:	8-063-007 CONSTRUCTION PLANS.dwg	
DRAWN BY:	MHB	
DESIGNED/CHECKED BY:	ESD	
APPROVED BY:	DLM	
CONSTRUCTION PLANS & PROFILES (SHEET 2 OF 10)		
SCALE:	AS SHOWN	

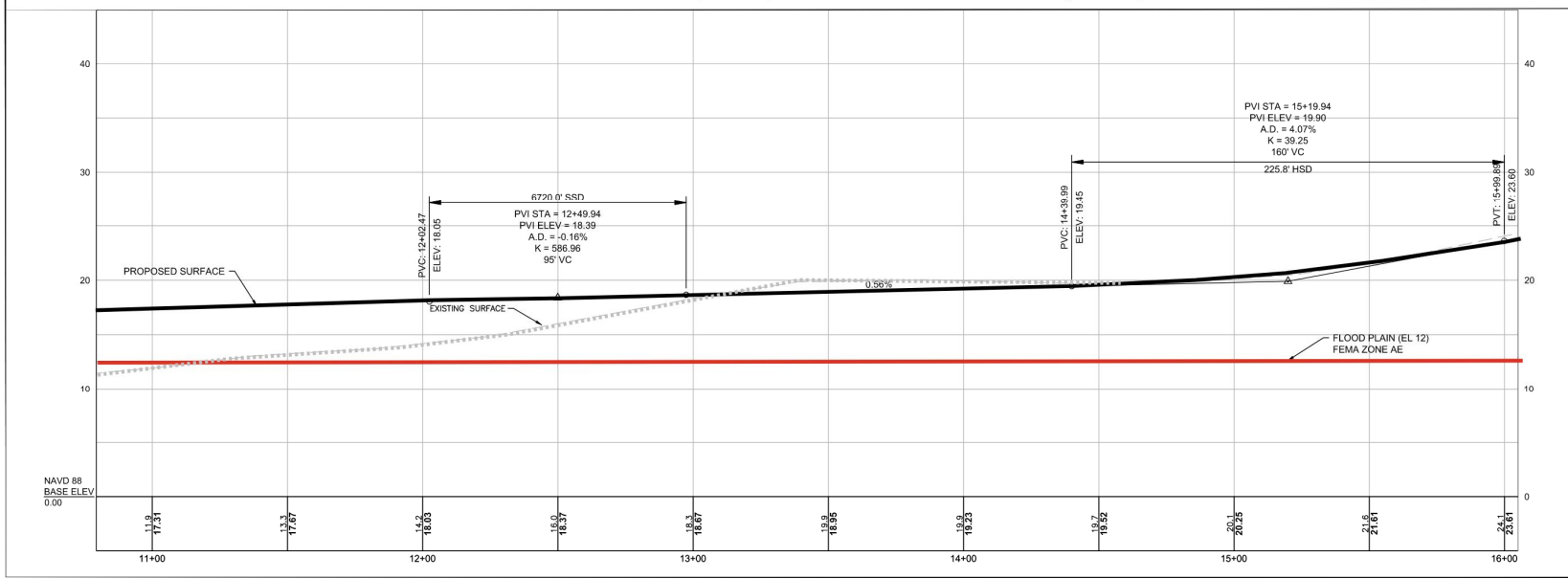


NAVD 88
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CONTINUED ON SHEET 16



REVISED 75% DRAWINGS

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Commerce Road Improvements & Culvert Replacement

Town of Barnstable

Barnstable, Massachusetts

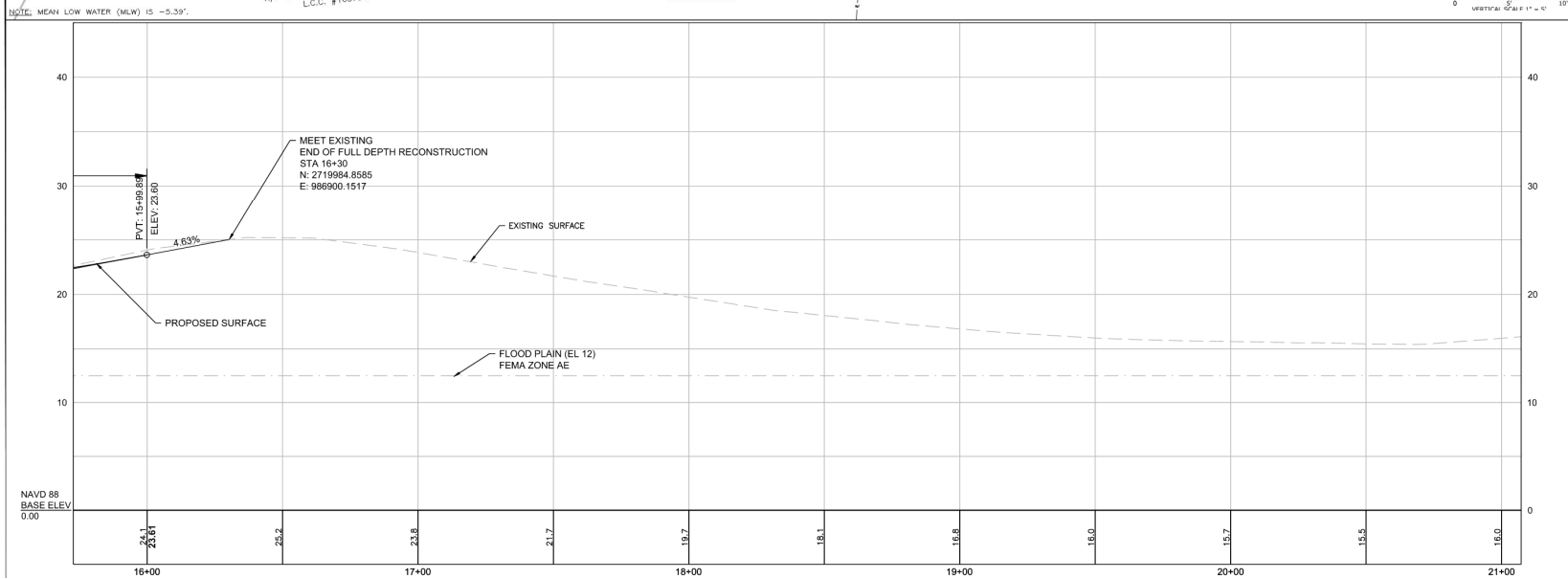
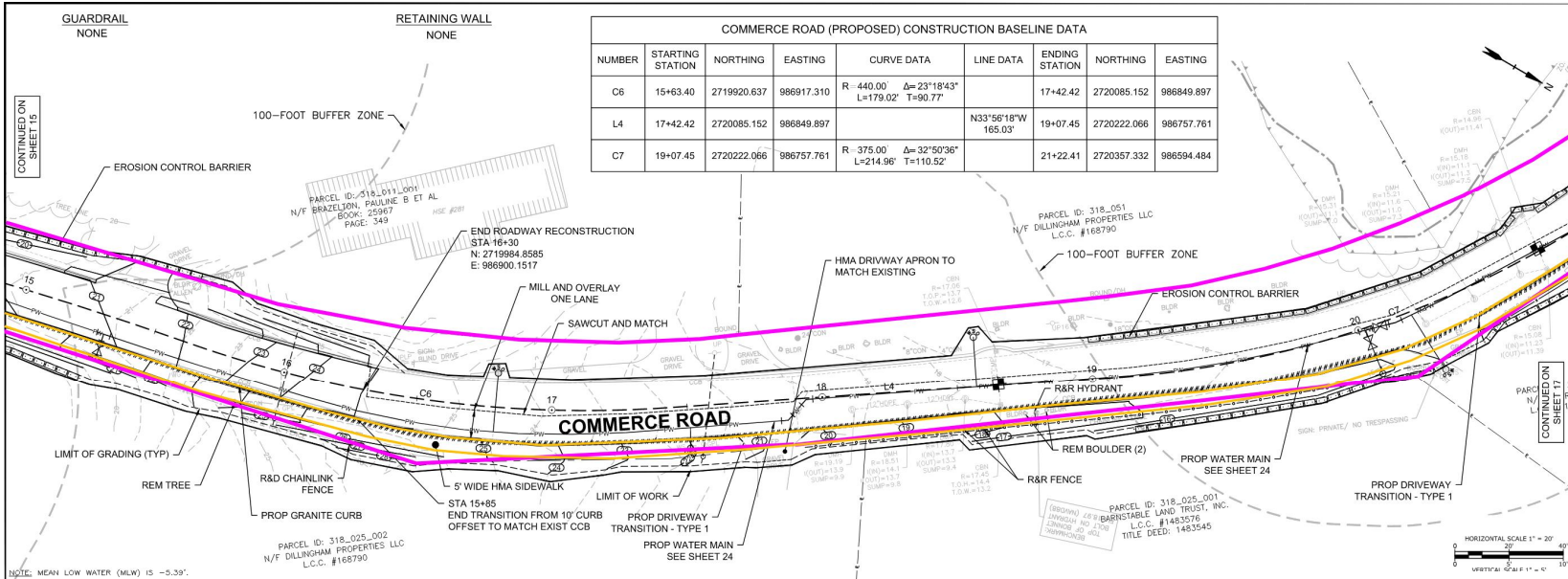
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APPROVED BY:	DLM	

CONSTRUCTION PLANS & PROFILES (SHEET 3 OF 10)

SCALE: AS SHOWN



COMMERCE ROAD (PROPOSED) CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C6	15+63.40	2719920.637	986917.310	R = 440.00 Δ = 23°18'43" L = 179.02 T = 90.77		17+42.42	2720085.152	986849.897
L4	17+42.42	2720085.152	986849.897		N33°56'18"W 165.03'	19+07.45	2720222.066	986757.761
C7	19+07.45	2720222.066	986757.761	R = 375.00 Δ = 32°50'36" L = 214.96 T = 110.52		21+22.41	2720357.332	986594.484



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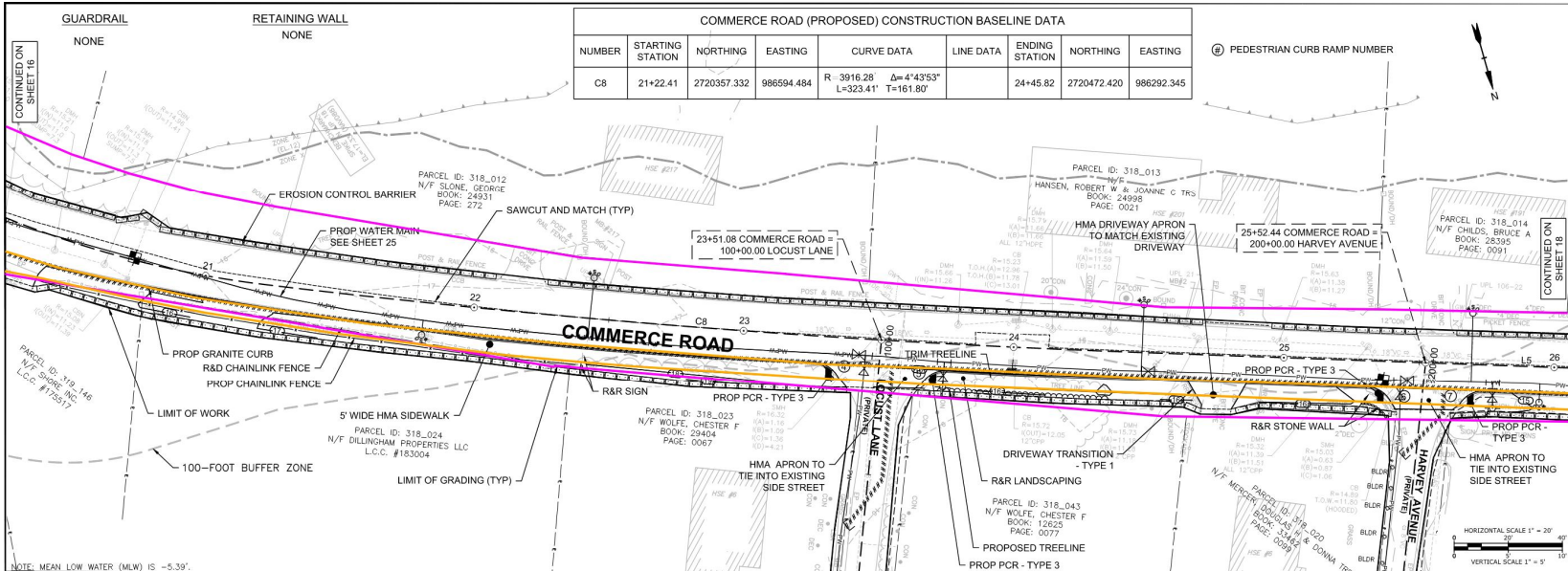
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DATE:	JANUARY 2024	
FILE:	8-9833-207 CONSTRUCTION PLANS.dwg	
DRAWN BY:	HMB	
DESIGNED/CHECKED BY:	DW	
APPROVED BY:	DW	

CONSTRUCTION PLANS & PROFILES
(SHEET 4 OF 10)

SCALE: AS SHOWN



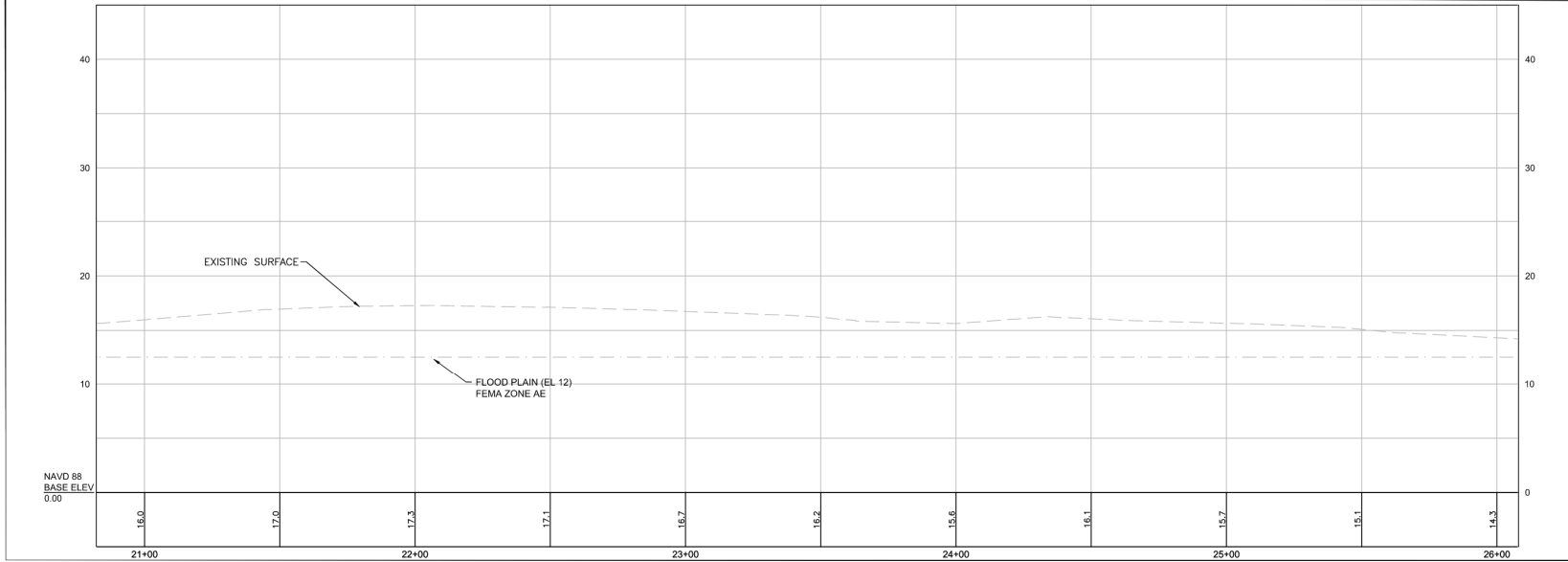
COMMERCE ROAD (PROPOSED) CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C8	21+22.41	2720357.332	986594.484	R=3916.28' Δ=4°43'53" L=323.41' T=161.80'		24+45.82	2720472.420	986292.345



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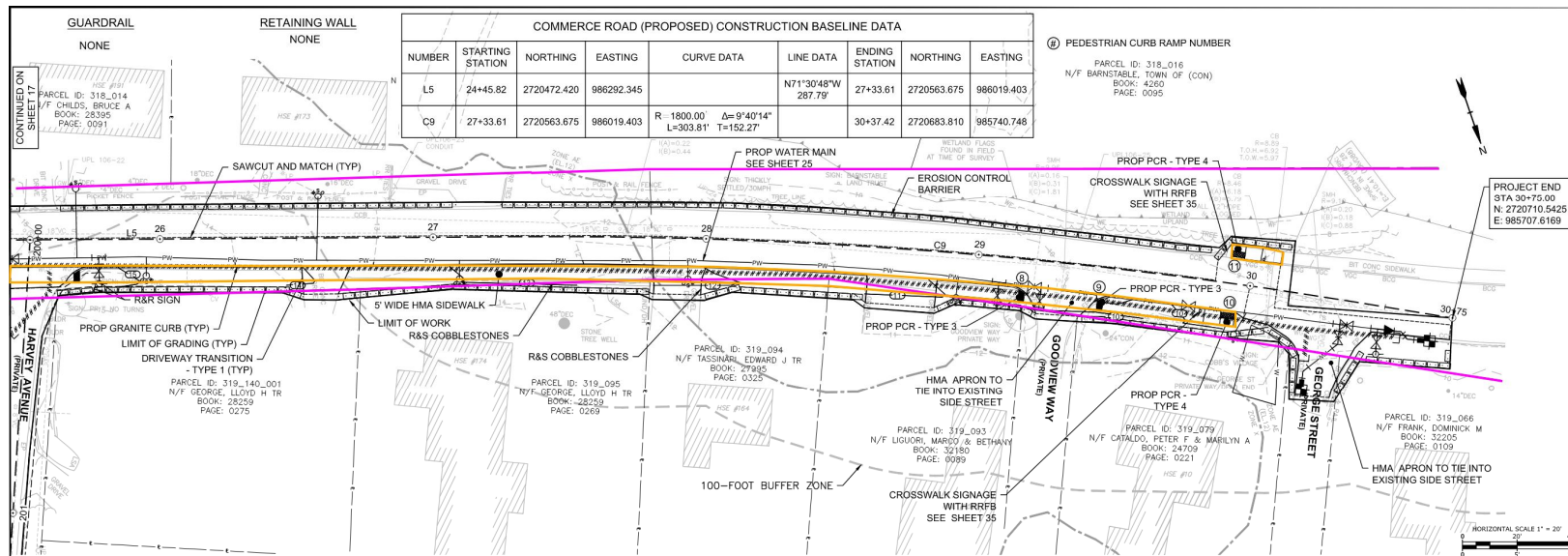
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CONSTRUCTION PLANS & PROFILES (SHEET 5 OF 10)

SCALE: AS SHOWN





**REVISED 75%
DRAWINGS**

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**Commerce
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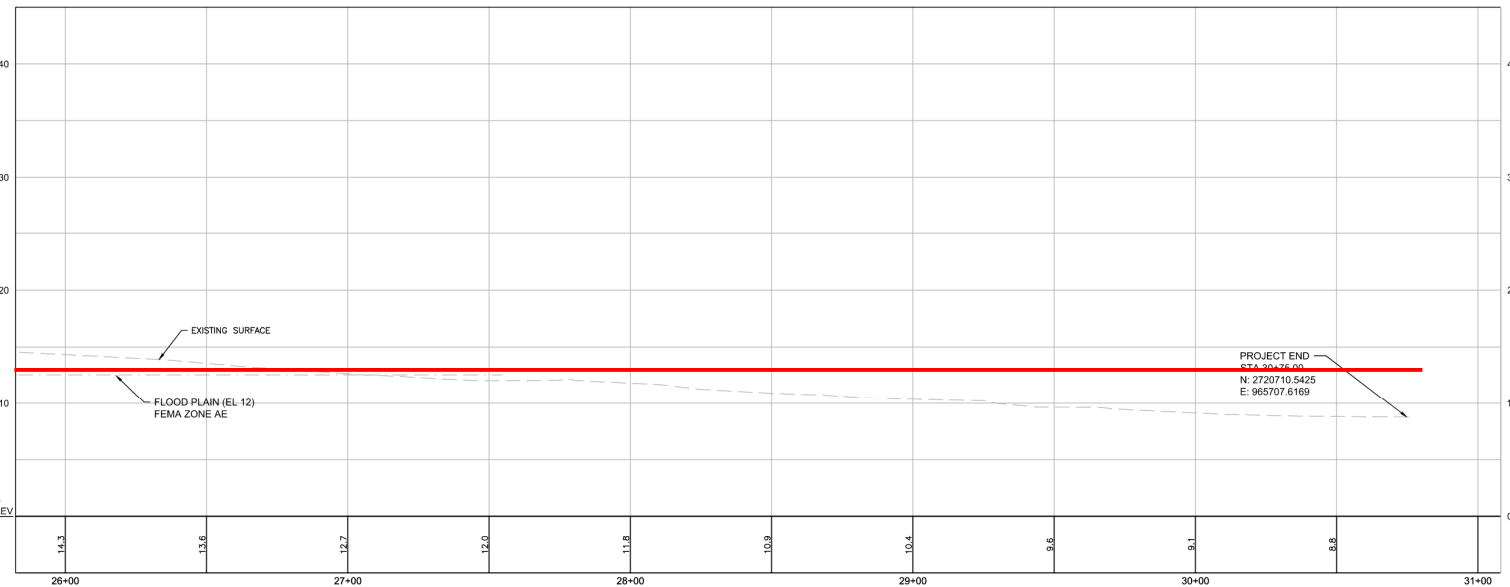
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APPROVED BY:	DLM	

**CONSTRUCTION PLANS &
PROFILES
(SHEET 6 OF 10)**

SCALE: AS SHOWN



Next Steps

- Public outreach
- Securing necessary easements
- Permitting (Rigorous permitting path, 12-18 months)
- Seek construction funding (grant applications, etc)
- Construction



Project Contacts

- Project Contact
Griffin Beaudoin, P.E. at Griffin.Beaudoin@town.barnstable.ma.us
Town Engineer, Barnstable Department of Public Works
- Receiving public comment
Email: Kelly Collopy at Kelly.Collopy@town.barnstable.ma.us
Communications Manager, Barnstable Department of Public Works
- Review project materials and presentation on **Barnstable Water Resources** website:
<https://barnstablewaterresources.com/>





Questions?