IN THE TOWN OF
BOURNE
BARNSTABLE COUNTY

FEDERAL AID PROJECT NO.

25% SUBMITTAL

LENGTH OF PROJECT = 2,894.39 FEET = 0.548 MILES


DESIGN DESIGNATION (BOURNE RAIL TRAIL - PHASE 1)
DESIGN SPEED
18-20 MPH

SCALE: 1" = 2000'

PROJECT BEGIN
STA 11+30.00
N 2729117.0402
E 897856.5800

PROJECT END
STA 38+96.02
N 2731796.8706
E 898215.3038

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The document contains a page with various symbols and abbreviations, likely related to construction or surveying work. The symbols are divided into two sections: General Symbols and Pavement Markings Symbols. Each symbol is accompanied by a description and context.

The General Symbols section includes symbols for various objects such as telephone poles, guardrails, water mains, and vegetation.

The Pavement Markings Symbols section lists symbols for different types of pavement markings and their descriptions, including lane markers, curbs, and drainage elements.

The abbreviations and symbols are used to represent specific objects or conditions in a concise manner, often used in construction plans or reports.

The General Notes section provides instructions and guidelines for the application of the symbols, emphasizing the importance of accuracy and safety in their use.
TYPICAL SHARED USE PATH SECTION

NOTES:
STA 31+55± TO STA 34+50±
STA 27+73± TO STA 30+73± (RAILROAD BASELINE)

*0.5% TOLERANCE FOR CONSTRUCTION

PAVEMENT NOTES:
PROPOSED FULL DEPTH PAVEMENT - SHARED USE PATH (SUP)
SURFACE:
1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) OVER
INTERMEDIATE:
2.5" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0) OVER
SUBBASE:
6" GRAVEL BORROW, TYPE B
PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP
SURFACE:
4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3\(\frac{1}{4}\)", 610 OVER
SUBBASE:
8" GRAVEL BORROW, TYPE B
PROPOSED MICROMILLING & OVERLAY
SURFACE:
1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) OVER
MILLING:
1.5" PAVEMENT MICROMILLING

GENERAL NOTES:
1. ALL SUPERPAVE HOT MIX ASPHALT SHALL BE PRODUCED WITH A WARM MIX ASPHALT TECHNOLOGY.

TYPICAL SHARED USE PATH SECTION WITH SWALE

NOTES:
STA 35+21± TO STA 38+94±
STA 23+47± TO STA 26+70± (RAILROAD BASELINE)

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LIMIT OF WORK
STA 11+30.00
N 2729117.0402
E 897856.5800

END SWALE
STA 12+50

MONUMENT NECK ROAD

FUTURE WORK (BO)
REM EXIST PVM'T & PROP LOAM & SEED (TYP)
REM EXIST WALK & BERM
PROP GUY
OHW
PROP CEM CONC WCR

REM GARDEN BEDS
REM 8' CHAIN LINK FENCE (TYP)
REM CLEARING & GRUBBING (TYP)
REM TEMP CONST EASEMENT
REM PERM EASEMENT
PROP MICROMILL & OVERLAY
PROP CEM CONC WCR

HIGHWAY GUARD DETAILS
TRAFFIC SIGNAL CONDUIT
WATER SUPPLY ALTERATIONS
DRAINAGE DETAILS

SEE BELOW

FOR PROFILE: SEE SHEET NO. 09

CONTINUED
CONTINUED ON SHEET NO. 07

FOR PROFILE: SEE SHEET NO. 09

HIGHWAY GUARD DETAILS
TRAFFIC SIGNAL CONDUIT
WATER SUPPLY ALTERATIONS
DRAINAGE DETAILS

SEE BELOW

FOR PROFILE: SEE SHEET NO. 09

CONTINUED
CONTINUED ON SHEET NO. 07

FOR PROFILE: SEE SHEET NO. 09
CONSTRUCTION NOTES
1. All pavement markings shall be reflectorized thermoplastic on roadways. All pavement markings on rail trail shall be paint.
2. Where existing pavement markings are different than proposed shown, remove by an approved method.
3. Retain all existing signs unless otherwise noted.
CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC ON ROADWAYS. ALL PAVEMENT MARKINGS ON RAIL TRAIL SHALL BE PAINT.

2. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.

3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
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</table>

**Note:** High intensity reflective sheathing shall be used for all signs. See 2009 Manual on Uniform Traffic Control Devices for Streets and Highways, for vertical & lateral clearances.

**TRAFFIC SIGN SUMMARY**

2. Work hours shall be 7 AM to 3 PM unless otherwise approved by MassDOT and the Town. No work impacting the travel way will be allowed during peak traffic periods (Monday thru Friday, 7AM-9AM and 4PM-6PM).

3. No work shall occur within the public way on state recognized holidays unless otherwise approved by the engineer.

4. All temporary pedestrian pathways shall comply fully with all requirements of the MUTCD and all applicable Massachusetts Architectural Access Board (MAAB) and Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements and public right-of-way accessibility guidelines (PRWAG).

5. All drums outside tapers shall be set at 3’ on center max. unless otherwise noted or adjusted by the engineer.

6. All drums shall be approximately placed and moved as necessary to maintain safe and reasonable traffic flow. Work may require additional drums, drums and other traffic control devices to be placed, moved, and temporarily relocated during construction operations to prevent obstructions to traffic or pedestrians. All traffic through the work area, both during and after working hours, to maintain safe and reasonable access.

7. The first 10 drums on tapers shall be reflectORIZED drums with sequential flashing warning lights and shall be operating, at a minimum, between drums and on drums when deployed.

8. ReflectORIZED cones shall be a minimum of 36 inches in height.

9. Cones may be used in lieu of drums outside taper of area.

10. The contractor shall notify each abutter at least 24 hours in advance of the start of any work that will require the temporary closing or restriction of access.

11. For drop-offs of 2’ or less within the clear zone, condition may be mitigated with W8-9 (Low Shoulder) sign or height from the roadway surface to the bottom of the sign.

12. The contractor shall notify each abutter at least 24 hours in advance of the start of any work that will require the temporary closing or restriction of access.

13. The contractor shall stage work such that a drop-off of no more than 3” at the end of each work day exists within the clear zone at any time and ensure drop-off is mitigated without barrier per note 12.

14. Construction clear zone shall be in accordance with MassDOT Boston traffic guidelines as follows: 4’ if posted speed is less than 35 MPH.

15. 10’ minimum lane width shall be maintained unless otherwise noted.

16. Temporary traffic control devices and signs shall be covered or removed during non-working hours when not in use.

17. Signs installed on portable stands require 12 inches minimum mounting height from the roadway surface to the bottom of the sign.

18. Signs installed on portable stands placed among channelization devices require a 36-inch minimum mounting height from the roadway surface to the bottom of the sign.

19. Signs mounted on posts require a minimum 36-inch mounting height from the roadway or sidewalk surface to the bottom of the sign.

20. All signs shall be installed on their own NCHRP 350 and/or Mass Crash Tested Sign Supports and installed in accordance with the MUTCD.

21. W20-7 signs shall be installed in advance of 100 feet of areas where utility castings have been raised in advance of paving operations or as requested by the engineer.

22. W9-15 signs shall be installed in advance of 100 feet of pavement milling areas or as requested by the engineer.

23. Contractor shall secure work areas by appropriate means to prevent unauthorized access at all times.

24. There is no designated bicycle lane on the roadway within the project limits. Bicycles are expected to share the road with general vehicular traffic.

25. MA-20-7s signs shall be replaced by W0-7 signs when flaggers are used in lieu of police officer details.

**GENERAL NOTES**

**LEGEND**

- **FLAGGER**
- **POLICE OFFICER**
- **REFLECTORIZED DRUM**
- **REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS (SEE NOTE 7)**
- **TEMPORARY CONSTRUCTION SIGN**
- **TRAFFIC CONES**
- **TYPE II BARRIERS**
- **W21-7 SIGNS**
- **TRANSITION/BUFFER AREAS**
- **UTION/BUFFER AREAS**
- **W21-7 SIGNS**
- **CONSTRUCTION FENCE**
- **Π**

**GENERAL NOTES**

1. Advance sign spacing:

   - All roadways: 100 feet
   - All roadways: 50 feet
   - All roadways: 100 feet

2. All signs shown graphically for information only. Sign vendor shall fabricate all signs in accordance with the applicable standards.
TEMORARY TRAFFIC CONTROL PLANS

TYPICAL DETAILS

NOTES:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 16.
3. REFER TO GENERAL NOTE 24 ON SHEET 16.

SCALE: NTS

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - NEAR SIDE

OFF ROADWAY WORK - RIGHT

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC
PLACE TUBE ALONG CONTOURS AND PERPENDICULAR TO FLOW.
ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.
PLACE STAKES AS NEEDED TO SECURE TUBES IN PLACE.

COMPOST FILTER TUBE
9 INCH MAY BE USED FOR FLATTER SURFACES WITH LOW FLOW

HMA BERM TYPE A-MODIFIED AT PAVEMENT OVERLAY

SECTION - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION TRUNK

SCALE: N.T.S.

SECTION - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION ROOT ZONE

SCALE: N.T.S.

SPLITTER ISLAND

SCALE: N.T.S.

CONSTRUCTION DETAILS
1" Ø GALVANIZED ANCHORSTAPLE SET 1'-6" (MIN.) SET INTO CONCRETE
3" (MAX.) EXPOSED

CONCRETE DEADMAN

CONCRETE BASE

TERMINAL HINGE POST

TERMINAL POST

LOCK POST

CROSSBAR

TERMINAL POST

LOCK POST

DIAGONAL BRACE

REFLECTIVE BAND

LOCK POST

LOCK POST

BEYOND

8'-0"

16'-0"

WATER AWAY FROM TRACK

GRADE MATERIAL AND BASE PER PLAN

NOTE:
1. PAVEMENT MARKINGS AS PER MANUAL ON UNIFORM
PAVEMENT CONTROL, SIGN, AND MARKED.
2. PAVEMENT MARKINGS SHALL BE REFLECTIVE PAINT.

SCALE: N.T.S.

RAIL TRAIL PAVEMENT MARKINGS

PIPE GATE AND POST DETAILS

SCALE: 1" = 1'-0"