



Cape Cod Bridges Program

Bourne, Massachusetts

Appendix 4.10
Abbreviated Notice of Resource Area Delineation

SUBMITTED TO:
Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Massachusetts Environmental Policy Act (MEPA) Office
100 Cambridge Street, Suite 900
Boston, MA 02114

PROPONENT:
The Massachusetts Department of Transportation
Highway Division
10 Park Plaza
Boston, MA 02116

Submitted August 2025

massDOT
Massachusetts Department of Transportation

Abbreviated Notice of Resource Area Delineation (ANRAD)
Revised Narrative & Plans

MassDOT
Cape Cod Bridges Program

Project No. 608020
DEP File No. SE7-2181

Bourne, Massachusetts

April 2022

Prepared For:
Massachusetts Department of Transportation
10 Park Plaza
Boston, Massachusetts 02116

Prepared By:
HNTB Corporation
31 St. James Avenue, Suite 300
Boston, Massachusetts 02116

TABLE OF CONTENTS

Revised ANRAD Narrative
1.0 Introduction ……...……1
2.0 Project Description……..……...……1
2.1 Site Description.....1
3.0 Methods.....1
3.1 Wetland Delineation Methods.....1
3.2 Waterbody Identification Methods.....2
4.0 Summary of Background Data...……..…….…….....2
4.1 NRCS Soils.....2
4.2 MassDEP Mapped Wetlands.....4
4.3 USGS Mapped Waterbodies.....5
4.4 FEMA Floodplain.....5
5.0 Jurisdiction Resources Identified in the Project Area..…….....5
5.1 Jurisdictional Wetlands.....5
5.2 Jurisdictional Waterbodies.....8
5.3 Inland and Coastal Resource Boundaries to be Determined by Elevation.....9
5.4 Buffer Zone.....9
5.5 Riverfront Area.....9
5.6 Additional Resources.....9
6.0 Non-Jurisdictional Resources Identified in the Project Area...…….....….....9
7.0 Summary.....16
7.1 Summary of Jurisdictional Delineated Resources.....16
7.2 Conclusion.....16

1. INTRODUCTION

The Massachusetts Department of Transportation (MassDOT) is initiating the Cape Cod Bridges Program which will develop transportation alternatives in Bourne and Sandwich, Massachusetts in the area of the Cape Cod Canal. These alternatives will include highway, interchange, and non-highway improvements, as well as options and design elements that improve access and safety for all modes. Additionally, this project will consider alternatives for the Bourne and Sagamore Bridges, which are under the US Army Corp of Engineers stewardship and jurisdiction.

The Sagamore and Bourne Bridges serve as the only vehicular access points to the 15 towns of Cape Cod from mainland Massachusetts. The bridges were simultaneously built between 1933 and 1935 which puts them at 86 years old (as of 2021). The two functionally obsolete bridges have required increased maintenance activities by the U.S. Army Corps of Engineers. This required maintenance has and will continue to necessitate lane closures and resulting delays with increasing frequency over the coming years. This will have impacts on emergency access and safety, community connectivity, and may impact the economic activity of the Cape Cod communities.

In support of the project, HNTB Corporation performed a field delineation of the wetlands and waterbodies of the five project areas that comprise the project and have been identified by MassDOT. The purpose of the investigation was to determine the presence and extent of wetlands and waterbodies within the study area that meet the criteria for state regulation under the Massachusetts Wetlands Protection Act (310 CMR 10.00).

MassDOT is submitting this Abbreviated Notice of Resource Area Delineation (ANRAD) for the confirmation of delineated wetland resource area boundaries discussed in this application. This ANRAD application is only specific to the wetlands and waterbodies identified within the project limits in the town of Bourne. A separate ANRAD application may be filed for the wetlands and waterbodies within the town of Sandwich as design advances and project limits are better defined.

2. PROJECT DESCRIPTION

2.1 Site Description

The Cape Cod Bridges Program is located along the Cape Cod Canal and is located within the Cape Cod Watershed (Hydrologic Unit Numbers 01090002). There are five project areas (four project areas are located in Bourne) that comprise the project. Project Areas 1, 3, and 4 are completely located in Bourne. Project Area 2 is located in both Bourne and Sandwich. Project Area 5 is completely located in Sandwich. See Appendix A, Figure 1 for project area locations.

3. METHODS

3.1 Wetland Delineation Methods

Wetlands were delineated in accordance with the *U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* (1987 edition) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0* (USACE, 2012), referenced in this report as the *USACE Manual* and *Regional Supplement*. Per the *USACE Manual*, the project areas were evaluated using the Routine Level 2 approach that included conducting a review of existing data followed by an on-site inspection and field determination.

Wetland scientists performed systematic field surveys within the study area (Appendix A, Figure 1) between June 12, 2020 and September 18, 2020. An additional field day was conducted on February 10, 2021. The wetland delineation was executed with an inspection of the project areas to identify topographic, drainage, soil characteristics and vegetation that would indicate potential wetland and/or waterbody features. Sampling locations were then identified within potential wetland areas and investigated using the Routine On-Site Determination Method provided in the *Regional Supplement*. At each sampling location, Wetland Determination Forms were completed to evaluate and document vegetation, soils, hydrology, and general site characteristics for both upland and wetland data points and are provided in Appendix C and Appendix E.

Boundaries of all resource areas within the project areas that exhibited the three criteria (hydrophytic vegetation, hydric soils, and hydrology) that define a wetland feature were demarcated with pink or orange flagging. Only wetlands located within the project limits were delineated.

3.2 Waterbody Identification Methods

Prior to field surveys, USGS topographic quadrangle maps were reviewed to identify waterbodies and topography conducive to hydrologic flow near the site. A field survey, conducted concurrently with the wetland delineation effort, was performed to identify streams that meet the definition of a stream per the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.04). According to the regulations, a stream is defined as a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows within, into or out of an Area Subject to Protection under M.G.L. c. 131, § 40. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream except for that portion upgradient of all bogs, swamps, wet meadows, and marshes.

All water bodies were demarcated with wetland flagging, photographs were collected, and feature characteristics were recorded on a Waters of the U.S. Data Sheet. Completed forms are provided in Appendix D and Appendix F.

4. SUMMARY OF BACKGROUND DATA

4.1 NRCS Soils

The project areas (located in Bourne) pass through a total of 34 soil mapping units (USDA NRCS 2013). Table 1 shows the soil mapping units occurring within the project areas. Of the 34 soil units, five soil units

are hydric soils, which can be indicative of the presence of wetland communities. Locations of the soil types in the project areas are depicted in Appendix A, Figure 2.

Table 1. Soil Mapping Units Occurring in the Cape Cod Bridges Program Area

Soil Series Mapping Unit	Soil Series	Hydric
Area 1		
BbD	Barnstable sandy loam, 15 to 25 percent slopes, very stony	No
BaB	Barnstable sandy loam, 3 to 8 percent slopes	No
BbD	Barnstable sandy loam, 3 to 8 percent slopes, very stony	No
BaC	Barnstable sandy loam, 8 to 15 percent slopes	No
BbC	Barnstable sandy loam, 8 to 15 percent slopes, very stony	No
CdC	Carver coarse sand, 8 to 15 percent slopes	No
CcB	Carver loamy coarse sand, 3 to 8 percent slopes	No
EaA	Eastchop loamy fine sand, 0 to 3 percent slopes	No
EaB	Eastchop loamy fine sand, 3 to 8 percent slopes	No
EaC	Eastchop loamy fine sand, 8 to 15 percent slopes	No
Ft	Freetown coarse sand, 0 to 3 percent slopes, sanded surface	Yes
MeB	Merrimac fine sandy loam, 3 to 8 percent slopes	No
PmD	Plymouth loamy coarse sand, 15 to 35 percent slopes	No
PmC	Plymouth loamy coarse sand, 8 to 15 percent slopes	No
Ud	Udipsamments, smoothed	No
W	Water	Yes
Ws	Water, saline	Yes
Area 2		
BeC	Barnstable-Plymouth-Nantucket complex, rolling, very bouldery	No
BcC	Barnstable-Plymouth complex, rolling	No
BdC	Barnstable-Plymouth complex, rolling, bouldery	No
BmA	Berryland mucky loamy coarse sand, 0 to 2 percent	Yes
CcB	Carver loamy coarse sand, 3 to 8 percent slopes	No
DeA	Deerfield loamy fine sand, 0 to 3 percent slopes	No
Dm	Dumps, landfill	No
EaA	Eastchop loamy fine sand, 0 to 3 percent slopes	No
EaB	Eastchop loamy fine sand, 3 to 8 percent slopes	No
EaC	Eastchop loamy fine sand, 8 to 15 percent slopes	No
Fm	Freetown and Swansea mucks, coastal lowland, 0 to 1 percent slopes	Yes
Ft	Freetown coarse sand, 0 to 3 percent slopes, sanded surface	Yes
NaB	Nantucket sandy loam, 3 to 8 percent slopes	No
NaC	Nantucket sandy loam, 8 to 15 percent slopes	No
Pg	Pits, sand and gravel	No
PxD	Plymouth-Barnstable complex, hilly, extremely bouldery	No
PvD	Plymouth-Barnstable complex, hilly, very bouldery	No
PvC	Plymouth-Barnstable complex, rolling, very bouldery	No
PyD	Plymouth-Barnstable-Nantucket complex, hilly, very bouldery	No

Soil Series Mapping Unit	Soil Series	Hydric
PmA	Plymouth loamy coarse sand, 0 to 3 percent slopes	No
PmB	Plymouth loamy coarse sand, 3 to 8 percent slopes	No
PmC	Plymouth loamy coarse sand, 8 to 15 percent slopes	No
PmD	Plymouth loamy coarse sand, 15 to 35 percent slopes	No
Ud	Udipsamments, smoothed	No
Ur	Urban land	No
Ws	Water, saline	Yes
Area 3		
AmA	Amostown sandy loam, 0 to 5 percent slopes	No
BaB	Barnstable sandy loam, 3 to 8 percent slopes, very stony	No
CdD	Carver coarse sand, 15 to 35 percent slopes	No
CdC	Carver coarse sand, 8 to 15 percent slopes	No
CcB	Carver loamy coarse sand, 3 to 8 percent slopes	No
Fs	Freetown and Swansea mucks, coastal lowland, 0 to 1 percent slopes	Yes
HkC	Hinckley loamy sand, 8 to 15 percent slopes	No
MeA	Merrimac fine sandy loam, 0 to 3 percent slopes	No
Pg	Pits, sand and gravel	No
PxD	Plymouth-Barnstable complex, hilly, extremely bouldery	No
Ud	Udipsamments, smoothed	No
Ur	Urban land	No
W	Water	Yes
Ws	Water, saline	Yes
Area 4		
BbB	Barnstable sandy loam, 3 to 8 percent slopes, very stony	No
BmA	Berryland mucky loamy coarse sand, 0 to 2 percent slopes	Yes
CcA	Carver loamy coarse sand, 0 to 3 percent slopes	No
DeA	Deerfield loamy fine sand, 0 to 3 percent slopes	No
Fs	Freetown and Swansea mucks, coastal lowland, 0 to 1 percent slopes	Yes
Pg	Pits, sand, and gravel	No
PxD	Plymouth-Barnestable complex, hilly, extremely bouldery	No
PmD	Plymouth loamy coarse sand, 15 to 35 percent slopes	No
PmB	Plymouth loamy coarse sand, 3 to 8 percent slopes	No
PmC	Plymouth loamy coarse sand, 8 to 15 percent slopes	No
Ud	Udipsamments, smoothed	No
Ur	Urban land	No

4.2 MASSDEP Mapped Wetlands

According to Massachusetts Department of Environmental Protection Wetlands data (MassDEP 2018), there are predominately freshwater emergent, forest/scrub shrub wetlands within the project area. Locations of the MassDEP mapped wetlands in and proximate to the project extent are depicted in Appendix A, Figure 3.

4.3 USGS Mapped Waterbodies

Based on USGS topographic quadrangle maps (7.5-minute Topographic Quadrangle Maps for Pocassett and Sagamore, Massachusetts), there are no streams that intersect the project areas. USGS mapped waterbodies are identified in the National Hydrography Dataset (NHD), which is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system, developed at 1:24,000 scale. However, the Cape Cod Canal is located in the project area.

4.4 FEMA Floodplain

The FEMA 100-year floodplain (Zone AE with a base flood elevation of 48 feet) and floodway associated with the Cape Cod Canal intersects the project area (Appendix A, Figure 4).

5. JURISDICTIONAL RESOURCES IDENTIFIED IN THE PROJECT AREA

5.1 Jurisdictional Wetlands

Fifteen wetland complexes were delineated which meet the definition of a wetland and are, also, jurisdictional under the Massachusetts Wetlands Protection Act, pending agency review and approval. Table 2 provides descriptions of the fifteen wetlands and the reason for their jurisdiction. Wetland types were classified based on the predominant classification within the likely impact area of the proposed project, as defined by *Classification of Wetlands and Deepwater Habitats* (Cowardin, et al. 1979) (Appendix C). The predominant wetland types delineated were palustrine forested (PFO), palustrine emergent (PEM) wetlands, and palustrine unconsolidated bottom (PUB)/palustrine rock bottom (PRB).

Table 2. Jurisdictional Delineated Bordering Vegetated Wetlands in the Cape Cod Bridges Program Areas (Bourne only).

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction[3]	Reason for Jurisdiction	Wetland Description
HNTB-1-C	HNTB-1-C-1 to HNTB-1-C-52	PUB/PEM	Yes -BVW	This feature is a large closed basin, which serves as a ponding area for runoff from Route 3. This area confines standing water of ¼ acre and has an average depth of at least 6 inches.	Large open water and emergent wetland located in Route 3 highway median. Vegetation includes red maple, sweet pepperbush, southern arrowwood (*Viburnum dentatum*), grey birch (*Betula populifolia*), Canada mayflower (*Maianthemum canadense*), and skunk cabbage (*Symplocarpus foetidus*) .
HNTB-1-E	HNTB-1-E-1 to HNTB-1-E-16	PEM	Yes-ILSF	This feature is a depression wetland which serves as a ponding area for runoff from Route 3A. This area confines standing water of ¼ acre and has an average depth of at least 6 inches.	Depressional wetland (0.3 acres) along the side of state highway 3A. Vegetation in wetland includes southern arrowwood, sweet pepperbush, short-toothed mountain mint (*Pycnanthemum muticum*), Japanese siltgrass (*Microstegium vimineum*), and common ragweed (*Ambrosia artemisiifolia).*
HNTB-1-J	HNTB-1-J-1 to HNTB-1-J-21	PEM	Yes - BVW	This feature is a large closed basin, which serves as a ponding area for runoff from Route 3. The delineated portion of this feature is approximately 60,000 sf and there was approximately 3 inches of standing water at the time of the delineation.	Large emergent wetland dominated by common reed.
HNTB-3-A	HNTB-3-A-1 to HNTB-3-A-15	PUB	Yes-LUW, Bank	This feature meets the definition of a pond per 310 CMR 10.04.	Open water wetland with areas of emergent vegetation also known as Bourne Pond. Dominant vegetation includes red maple, common reed, and cat brier (*Smilax glauca*).
HNTB-3-C	HNTB-3-C-1 to HNTB-3-C-16	PUB	Yes-BVW, LUW, Bank	This feature meets the definition of a pond per 310 CMR 10.04. BVW is also bordering along the bank of the pond and will be considered jurisdictional under MA WPA.	Large, ponded wetland, named Nightingale Pond. Dominant vegetation on edge of pond includes black gum, sweet pepperbush, and highbush blueberry.
HNTB-3-E	HNTB-3-E-1 to HNTB-3-E-19	PFO	Yes - ILSF	Small isolated wetland, that is approximately 12,000 sf and had no standing water at the time of the delineation. Upon field review with Bourne Conservation Agent, over a foot of standing water was present. Therefore, this area will confine standing water of ¼ acre and has an average depth of at least 6 inches.	Depressional sparsely vegetated forested wetland dominated by alder buckthorn, red maple, and sensitive fern.
HNTB-3-G	HNTB-3-G-1 to HNTB-3-G-54	PFO/PEM	Yes - BVW	Depressional isolated wetland, that is approximately 48,492 sf. This area confines standing water of ¼ acre and has an average depth of at least 6 inches.	Forested and emergent wetland dominated by swamp azalea, wool grass, common reed, and red maple.

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction[3]	Reason for Jurisdiction	Wetland Description
HNTB-3-H HNTB-3-I HNTB-3-Q	HNTB-3-H-1 to HNTB-3-H-61 HNTB-3-I-1 to HNTB3-I-29 HNTB-3-Q-1 to HNTB-3-Q-13	PFO/PEM	Yes – ILSF	Depressional isolated wetland supported hydrologically by roadway runoff, that is approximately 66,076 sf. This area is anticipated to confine standing water of ¼ acre and has an average depth of at least 6 inches.	Large depressional wetland supported hydrologically by roadway runoff. Dominant vegetation includes arrowwood, red maple, grey birch, steeplebush (*Spiraea tomentosa*), and small cranberry (*Vaccinium oxycoccos*).
HNTB-4-A	HNTB-4-A-1 to HNTB-4-A-21	PFO	Yes-BVW	BVW bordering an ephemeral stream. Only flags HNTB-4-A-9 through HNTB-4-A-14 would be considered jurisdictional as BVW.	BVW wetland (0.2 acre), which is hydrologically supported via roadside drainage and has an ephemeral channel running through it. Dominant vegetation includes paper birch (*Betula alleghaniensis*), American linden (*Tilia americana*), and St. John's wort (*Hypericum mutilum*).
HNTB-4-B	HNTB-4-B-1 to HNTB-4-B-29	PEM	Yes-ILSF	Depressional isolated wetland hydrologically supported by parking lot drainage, that is approximately 38,910 sf. This area confines standing water of ¼ acre and has an average depth of at least 6 inches.	Emergent wetland (0.9 acre) dominated by broadleaf cattail, royal fern (*Osmunda regalis*), and highbush blueberry (*Vaccinium corymbosum*).
HNTB-4-C	HNTB-4-C-1 to HNTB-4-C-10	PFO	Yes-BVW	BVW bordering a stream within the wetland boundary.	Forested wetland (0.5 acre) dominated by red maple, alder buckthorn, and poison ivy.
HNTB-4-D	HNTB-4-D-1 to HNTB-4-D-24	PFO	Yes - BVW	Large depressional wetland that extends beyond the project boundary. Surface water was observed beyond the project area. This wetland borders on a stream within the boundary of the wetland.	Forested wetland dominated by American linden and red maple. Wetland extends beyond the project area boundary.
HNTB-4-N	HNTB-4-N-1 to HNTB-4-N-37	PEM	Yes - BVW	Large depressional wetland that extends beyond the project area. This wetland borders on a stream within the boundary of the wetland.	Large emergent wetland dominated by common jewelweed, sweet pepperbush, and red maple.
HNTB-4-O	HNTB-4-O-1 to HNTB-4-O-19	PFO	Yes-ILSF	Small isolated, depressional wetland that is approximately 3,500 sf and had no standing water at the time of the delineation. At a second site visit with the Bourne Conservation Agent, there was over 2 ft of surface water present. Therefore, this wetland meets the definition of ILSF per the Massachusetts Wetlands Protection Act.	Forested wetland dominated by black gum, red maple, sweet pepperbush and arrowwood. Hydrologically connected to HNTB-4-P via groundwater

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction[3]	Reason for Jurisdiction	Wetland Description
HNTB-4-P	HNTB-4-P-1 to HNTB-4-P-18	PFO	Yes - ILSF	Small isolated, depressional wetland that is approximately 5,500 sf and had no standing water at the time of the delineation. At a second site visit with the Bourne Conservation Agent, there was over 2 ft of surface water present. Therefore, this wetland meets the definition of ILSF per the Massachusetts Wetlands Protection Act.	Forested wetland dominated by black gum, red maple, sweet pepperbush and arrowwood. Hydrologically connected to HNTB-4-O via groundwater.

[1] The naming convention for the wetland flags is as follows: "CO. Name – Study Area # - Wetland ID – Flag #"
[2] Cowardian et al. (1979) classifications: PFO = palustrine forest, PEM =palustrine emergent, PSS = palustrine scrub-shrub
[3] BVW = Bordering Vegetative Wetland, LUW = Land Under Water, ILSF = Isolated Land Subject to Flooding

5.2 Jurisdictional Waterbodies

Two channelized features were identified as jurisdictional under the MA WPA and are depicted in Appendix B. Of the two channelized features, only the Cape Cod Canal met the criteria for a tidal canal per Section 404 of the Clean Water Act. Ephemeral streams are regulated by Massachusetts Wetlands Protection Act based on the definition of a stream, which means "a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows within, into or out of an Area Subject to Protection under M.G.L. c. 131, § 40. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream except for that portion upgradient of all bogs, swamps, wet meadows and marshes." Table 3 includes a description of the channelized features identified during field investigations and their jurisdiction under the Massachusetts Wetlands Protection Act. Field datasheets are included in Appendix D.

Table 3. Jurisdictional Delineated Waterbodies in the Cape Cod Canal Bridges Program Areas (Bourne only)

Waterbody Name	Wetland Flags Numbers[1]	Channel Hydrologic Classification	USGS Mapped	State Jurisdiction	Reason for Jurisdiction	Description
Cape Cod Canal	N/A[2]	Tidal Canal	Yes	Yes – Land under Ocean, Coastal Bank, Land Subject to Coastal Storm Flowage	This is a human-made canal, that connects the Atlantic Ocean between Cape Cod Bay and Buzzards Bay	Man-made canal, which is subject to the ebb and flow of tides. The canal is approximately 725 ft wide and approximately 30 feet deep.
HNTB-4-G	HNTB-4-G-1 to HNTB-4-G-9	Ephemeral	No	Yes - Bank	This is an ephemeral stream which enters into HNTB-4-N. The stream becomes jurisdictional where is enters the wetland.	Ephemeral stream, which abuts and continues into HNTB-4-N. The channel is 1 foot in width, is comprised predominately of gravel, silts, and sands.

[1] The naming convention for the wetland flags is as follows: "CO. Name – Study Area # - Wetland ID – Flag #"
[2] The boundary of the Cape Cod Canal will be established by topographic survey based on the high tide line and the 100-yr base flood elevation.

5.3 Inland and Coastal Resource Boundaries to be Determined by Elevation

The boundaries of Bordering Land Subject to Flooding and Land Subject to Coastal Storm Flowage will be determined based on the elevation of the 100 Year Floodplain and the survey data collected of the project areas. Boundaries for Coastal Bank and Land Under the Ocean will also be established by survey data collected for existing conditions in project areas.

5.4 Buffer Zones

Buffer zones were delineated on project plans (Appendix B) using computer-aided drafting software to establish a 100-foot offset from the resource area (i.e., either the Bank or Bordering Vegetated Wetland, where present).

5.5 Riverfront Area

There is no Riverfront Area identified in the project area. The Cape Cod Canal is a human-made canal and does not have a Riverfront Area per 310 CMR 10.58(1)(g).

5.6 Additional Resources

There is one additional wetland that was not delineated due to private property access. This wetland appears to be an agricultural cranberry bog and was not in use during the time of the field investigation. This wetland is identified on Sheet 18 and 19 of Appendix B.

A supplemental vernal pool report has been provided to the Bourne Conservation Commission. The locations of the potential vernal pools discussed in the Vernal Pool Report have been incorporated into the plan set in Appendix B. There were two locations not delineated in the wetland delineation report, that were determined to be certifiable vernal pools. Those have been identified as Isolated Land Subject to Flooding in the plan set.

6. NON-JURISDICTIONAL RESOURCES IDENTIFIED IN THE PROJECT AREA

In addition to the seventeen jurisdictional resources, there were also twenty-five non-jurisdictional wetlands and sixteen non-jurisdictional ephemeral streams identified the wetland field investigations. The rationale for the non-jurisdictional determinations are provided in Table 4 and Table 5.

Table 4. Non-Jurisdictional Delineated Isolated Wetlands in the Cape Cod Bridges Program Areas (Bourne only)

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction	Reason for Non-Jurisdiction	Wetland Description
HNTB-1-A	HNTB-1-A-1 to HNTB-1-A-22	PRB/PEM	No	Retention pond constructed after November 18, 1996. Per 310 CMR 10.02(c), stormwater systems designed, constructed, installed on or after November 18, 1996 are non-jurisdictional.	Retention Pond located in Route 3 median. The retention pond is attached to a wetland swale. The swale and retention pond are separated by a check dam. Vegetation in the wetland includes broadleaf cattail (*Typha latifolia*), American white waterlily (*Nyphaea odorata*), curly dock (*Rumex crispus*), and red oak (*Quercus alba*).
HNTB-1-B	HNTB-1-B-1 to HNTB-1-B-15	PFO	No	Small isolated wetland, that is approximately 450 sf and no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Depressional wetland located in median of Route 3. Vegetation in wetland includes red maple (*Acer rubrum*), sweet pepperbush (*Clethra alnifolia*), lurid sedge (*Carex lurida*), and common rush (*Juncus effusus*).
HNTB-1-F	HNTB-1-F-1 to HNTB-1-F-9	PRB	No	Retention pond constructed after November 18, 1996. Per 310 CMR 10.02(c), stormwater systems designed, constructed, installed on or after November 18, 1996 are non-jurisdictional.	Retention pond lacking wetland vegetation.
HNTB-1-G	HNTB-1-G-1 to HNTB-1-G-19	PEM	No	Small isolated wetland, that is approximately 12,000 sf and had no standing water at the time of the delineation. Lack of sufficient inundation verified by aerial photos. This wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Retention pond dominated by broadleaf cattail, common rush, purple loosestrife (*Lythrum salicaria*), common threesquare (*Schoenoplectus pungens*), and foxtail sedge (*Carex alopecoidea*).
HNTB-1-H	HNTB-1-H-1 to HNTB-1-H-24	PEM	No	Small isolated wetland, that is approximately 9,500 sf and had no standing water at the time of the delineation. Lack of sufficient inundation verified by aerial photos. This wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Retention pond dominated by common rush, purple loosestrife, common threesquare, wool grass (*Scirpus cyperinus*), deertongue (*Dichanthelium clandestinum*), and foxtail sedge.
HNTB-1-I	HNTB-1-I-1 to HNTB-1-I-10	PEM	No	Small isolated wetland, that is approximately 4,568 sf and no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Retention pond dominated by common three square, purple loosestrife, wool grass, sweetgale (*Myrica gale*) and rice cutgrass (*Leersia oryzoides*).
HNTB-I-L	HNTB-1-L-1 to HNTB-1-L-17	PEM/PRB	No	Retention pond constructed after November 18, 1996. Per 310 CMR 10.02(c), stormwater systems designed, constructed, installed on or after November 18, 1996 are non-jurisdictional.	Retention pond dominated by broadleaf cattail, common reed, and common three square.

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction	Reason for Non-Jurisdiction	Wetland Description
HNTB-1-S	HNTB-1-S-1 to HNTB-1-S-19	PEM/ PRB	No	Retention pond constructed after November 18, 1996. Per 310 CMR 10.02(c), stormwater systems designed, constructed, installed on or after November 18, 1996 are non-jurisdictional.	Retention pond dominated by broadleaf cattail, swamp loosestrife, and grass-leaved goldenrod (*Euthamia graminfolia*).
HNTB-1-T	HNTB-1-T-1 to HNTB-1-T-23	PEM/ PRB	No	Small isolated wetland, that is approximately 8,500 sf and 1 inch of standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Retention pond dominated by broadleaf cattail and Pennsylvania smartweed (*Persicaria pensylvanica*).
HNTB-2-V	HNTB-1-V-1 to HNTB-1-V-9	PEM	No	Small isolated wetland, that is approximately 2,252 sf which is hydrologically sourced by roadside drainage.	Isolated roadside drainage wetland dominated by River cane (*Arundinaria gigantea*) and Groundsel tree (*Baccharis halimifolia*).
HNTB-3-B	HNTB-3-B-1 to HNTB-3-B-6	PEM	No	Small isolated wetland, that is approximately 350 sf and 1 inch of standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Isolated roadside drainage wetland dominated by deertongue and red maple.
HNTB-3-F	HNTB-3-F-1 to HNTB-3-F-28	PEM	No	Small isolated wetland, that is approximately 9,500 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Depressional emergent wetland dominated by swamp loosestrife (*Decodon verticillatus*), royal fern (*Osmunda regalis*), and swamp azalea (*Rhododendron viscosum).*
HNTB-3-L	HNTB-3-L-1 to HNTB-3-L-8	PFO	No	Small isolated, depressional wetland that is approximately 800 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Depressional wetland dominated by alder buckthorn, red maple, and spinulose wood fern (*Dryopteris carthusiana*).
HNTB-3-N	HNTB-3-N-1 to HNTB-3-N-19	PEM	No	Small isolated, depressional wetland that is approximately 3,500 sf and had 1 inch of standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Emergent wetland dominated by broadleaf cattail, three-way sedge, and swamp rose mallow (*Hibiscus moscheutos*).

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction	Reason for Non-Jurisdiction	Wetland Description
HNTB-3-O	HNTB-3-O-1 to HNTB-3-O-11	PEM	No	Small isolated, depressional wetland that is approximately 2,000 sf and had 12 inches of standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Emergent wetland dominated by broadleaf cattail, three-way sedge, and green ash (*Fraxinus pennslyvanica*).
HNTB-3-P	HNTB-3-P-1 to HNTB-3-P-6	PEM	No	Small isolated, depressional wetland that is approximately 160 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Small wetland associated with parking lot drainage. Dominant vegetation includes Pennsylvania smartweed, boneset (*Eupatorium perfoliatum*), and common groundsel (*Senecio vulgaris*).
HNTB-4-F	HNTB-4-F-1 to HNTB-4-F-11	PFO	No	Small isolated, depressional wetland that is approximately 1,800 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Forested wetland dominated by American linden, red maple, and jewelweed.
HNTB-4-L	HNTB-4-L-1 to HNTB-4-L-25	PUB	No	This feature does not meet the definition of a pond per 310 CMR 10.04 as it is a man-made pond with an impervious bottom.	Man-made ponded with impervious bottom wetland dominated by broadleaf cattail.
HNTB-4-Q	HNTB-4-Q-1 to HNTB-4-Q-6	PFO	No	Small isolated, depressional wetland that is approximately 150 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Small railroad drainage swale dominated by sweet pepperbush, red maple, and Indian cucumber (*Medeola virginiana*).
HNTB-4-R	HNTB-4-R-1 to HNTB-4-R-25	PFO	No	Small isolated, depressional wetland that is approximately 2,973 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Toe of slope wetland hydrologically supported by roadside runoff. Dominant vegetation includes red maple, arrowwood, and American elm (*Ulmus americana*).
HNTB-4-S	HNTB-4-S-1 to HNTB-4-S-17	PFO	No	Small isolated, depressional wetland that is approximately 830 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Forested wetland dominated by red maple, American pennywort (*Hydrocotyle americana*), and alder buckthorn (*Frangula alnus*).

Wetland ID	Wetland Flag Numbers[1]	Type[2]	State Jurisdiction	Reason for Non-Jurisdiction	Wetland Description
HNTB-4-U	HNTB-4-U-1 to HNTB-4-U-14	PFO	No	Small isolated, depressional wetland that is approximately 2,200 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Sparsely vegetated forested wetland dominated by red maple, highbush blueberry, and buttonbush (*Cephalanthus occidentalis*).
HNTB-4-W	HNTB-4-W-1 to HNTB-4-W-12	PEM	No	Small isolated, depressional wetland that is approximately 911 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Emergent wetland dominated by leatherleaf (*Chamaedaphne calyculata*), rattlesnake manna grass (*Glyceria canadensis*), and alder buckthorn.
HNTB-4-Y	HNTB-4-Y-1 to HNTB-4-Y-37	PEM	No	Small isolated, depressional wetland that is approximately 2,703 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Emergent wetland within median of Route 28. Dominant vegetation includes purple loosestrife, common winterberry (*Ilex verticillata*), and jewelweed.
HNTB-4-Z	HNTB-4-Z-1 to HNTB-4-Z-16	PEM	No	Small isolated, depressional wetland that is approximately 4,669 sf and had no standing water at the time of the delineation. Therefore, this wetland does not meet the definition of BVW or ILSF per the Massachusetts Wetlands Protection Act.	Emergent wetland dominated by three-way sedge (*Dulichium arundinaceum*), leather leaf, and red maple.

1. The naming convention for the wetland flags is as follows: "CO. Name – Study Area # - Wetland ID – Flag #"
2. Historic Aerial photographs (April 2001, April 2005, and Spring 2019) were reviewed to confirm extent of flooding less than ¼ acre.
3. MassGIS 2019 USGS Color Ortho Imagery: https://www.mass.gov/info-details/massgis-data-2019-aerial-imagery
4. MassGIS 2005 Color Ortho Imagery: https://www.mass.gov/info-details/massgis-data-2005-aerial-imagery
5. MassGIS 2001 Color Ortho Imagery: https://www.mass.gov/info-details/massgis-data-2001-2003-aerial-imagery

Table 5. Non-Jurisdictional Delineated Waterways in the Cape Cod Bridges Program Areas (Bourne only)

Waterway Name	Wetland Flags Numbers[1]	Channel Hydrologic Classification	USGS Mapped	State Jurisdiction	Reason for Non-Jurisdiction	Description
HNTB-1-D	HNTB-1-D -1 to HNTB-1-D-17	Ephemeral	No	No	This is an ephemeral stream which enters into HNTB-1-C. The defined bank dissipates where it contacts the flag of HNTB-1-C.	Ephemeral stream which results from the drainage of upland areas and enters into HNTB-1-C. The channel is approximately 3 feet in width and is comprised predominately of silts, cobbles gravel, and sands. No flow was present during the field investigation.

Waterway Name	Wetland Flags Numbers[1]	Channel Hydrologic Classification	USGS Mapped	State Jurisdiction	Reason for Non-Jurisdiction	Description
HNTB-2-G	HNTB-2-G-1 to HNTB-2-G-46	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which drains upland areas. This channel is approximately 5 feet in width and is comprised predominately of silts. There was no water in the channel during the field investigation.
HNTB-2-W	HNTB-1-W-1 to HNTB-1-W-6	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which drains upland areas. This channel is approximately 2 feet in width and is comprised predominately of sands and muck. There was no water in the channel during the field investigation.
HNTB-3-D	HNTB-3-D-1 to HNTB-3-D-4	Ephemeral	No	No	This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which is a small riprap drainage channel that drains the CVS parking lot. The channel is approximately 5 feet in width. No flow was observed during the field investigation.
HNTB-3-J	HNTB-3-J-1 to HNTB-3-J-11	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which results from the drainage of upland areas. The channel is approximately 10 feet in width, is comprised predominately of silts and sands. No flow was observed during the field investigation.
HNTB-3-K	HNTB-3-K-1 to HNTB-3-K-12	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which results from a 12-inch outfall drain pipe that picks up drainage from catch basins in Route 6. The channel is approximately 10 feet in width and is comprised predominately of riprap. No flow was observed during the field investigation.
HNTB-3-M	HNTB-3-M-1 to HNTB-3-M-17	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which results from the drainage of upland areas. The channel is approximately 25 feet in width, is comprised predominately of gravel, silts, cobbles, and sand. No flow was observed during the field investigation.
HNTB-4-E	HNTB-4-E-1 to HNTB-4-E-13	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which flows into the Cape Cod Canal. The width of the stream is approximately 2-3 feet and no water present as the time of the field investigation. The channel is comprised of sands and gravel.

Waterway Name	Wetland Flags Numbers[1]	Channel Hydrologic Classification	USGS Mapped	State Jurisdiction	Reason for Non-Jurisdiction	Description
HNTB-4-H	HNTB-4-H-1 to HNTB-4-H-11	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which receives runoff from the roadway. During the field investigation, there was no water present in the 8-foot-wide channel. The channel bed is comprised of silts, sands, and concrete.
HNTB-4-I	HNTB-4-I-1 to HNTB-4-I-10	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	During the field investigation, there was no water present in the 4-foot-wide channel. The channel was comprised of sand and concrete.
HNTB-4-J	HNTB-4-J-1 to HNTB-4-J-21	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	The channel is about 3-feet-wide and had no water present during the field investigation. The channel is comprised of silts, sands, and concrete.
HNTB-4-K	HNTB-4-K-1 to HNTB-4-K-11	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which receives runoff from the roadway. The channel is about 3-feet-wide and had no water present during the field investigation. The channel is comprised of silts.
HNTB-4-M	HNTB-4-M-1 to HNTB-4-M-8	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which receives runoff from the roadway. The width of the stream is approximately 4 feet wide and there was no water present during the field investigation. The channel is comprised of concrete.
HNTB-4-T	HNTB-4-T-1 to HNTB-4-T-21	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which receives runoff from Route 28. During the field investigation, there was no water present in the 1-5-foot wide channel. The channel was comprised of silts, sands, and gravel.
HNTB-4-V	HNTB-4-V-1 to HNTB-4-V-4	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which receives runoff from Route 28. The width of the stream is approximately 8 feet wide and no water was present during the field investigation. The channel is comprised of riprap.

Waterway Name	Wetland Flags Numbers[1]	Channel Hydrologic Classification	USGS Mapped	State Jurisdiction	Reason for Non-Jurisdiction	Description
HNTB-4-X	HNTB-4-X-1 to HNTB-4-X-20	Ephemeral	No	No	This does not meet the definition of a jurisdictional stream under 310 CMR 10.04. This ephemeral channel is upgradient of jurisdictional resources.	Ephemeral stream, which receives runoff from Route 28. The stream had a channel of 1-5 feet wide and had no water present during the field investigation. The channel was comprised of cobbles, sands, gravel, and silts.

1. The naming convention for the wetland flags is as follows: "CO. Name – Study Area # - Wetland ID – Flag #"

7. SUMMARY

7.1 Summary of Jurisdictional Delineated Resources

Field investigations identified and delineated fifteen jurisdictional wetland complexes and two jurisdictional waterbodies within the project area. These wetlands and waterbodies have varying jurisdiction as Bordering Vegetated Wetlands, Isolated Land Subject to Flooding, Bank, and Land Under Water under the Massachusetts Wetlands Protection Act. Table 6. (below) provides a breakdown of the length of jurisdictional resources identified in the project area.

Table 6. Summary of the Jurisdictional Resource Length

Resource Type (Jurisdictional)	Delineated Length (LF)
Bordering Vegetated Wetlands	4,809
Isolated Land Subject to Flooding	5,055
Bank	3,162
Total Length of Resources Delineated	13,026

7.2 Conclusion

MassDOT requests that the Bourne Conservation Commission confirm the boundaries of the jurisdictional resource areas identified on the plans in Appendix B and confirm that the mapped areas listed in Tables 4 and 5 are not subject to jurisdiction under the WPA. This request is intended to support future filings with the Bourne Conservation Commission and other applicable regulatory resource agencies during project design.

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLAN OF

BOURNE

CAPE COD BRIDGES PROGRAM

IN THE TOWN OF

BOURNE

BARNSTABLE COUNTY

WPA ANRAD SUBMISSION

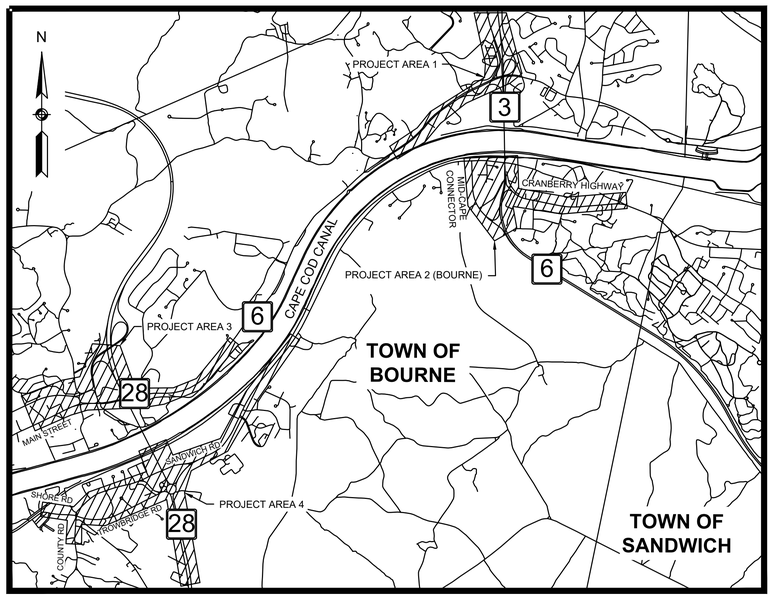
BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	1	50
	PROJECT FILE NO.	608020	

TITLE SHEET & INDEX

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND & ABBREVIATIONS
3	GENERAL NOTES & SHEET INDEX
4 - 50	EXISTING WETLAND PLANS



0 2500 5000 7500 10000

SCALE: 1" = 2500'

DATE	DESCRIPTION	REV #

HNTB

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

MassDOT Massachusetts Department of Transportation Highway Division

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

APPROVED

HIGHWAY ADMINISTRATOR DATE

608020_EV1(TITLE SHEET & INDEX).DWG Plotted on 11-Apr-2022 2:00 PM

GENERAL SYMBOLS

EXISTING	DESCRIPTION
	BUSH
BM #	BENCHMARK
	BOUND (CONC, STONE, LAND COURT, ETC.)
C	CABLE MANHOLE
CB	CATCH BASIN - SQUARE
CB	CATCH BASIN - D-FRAME
CB	CATCH BASIN - ROUND
DSK	DISK (CA/T, USC&GS, LAND COURT, ETC.)
DH	DRILL HOLE
D	DRAIN MANHOLE
EHH	ELECTRIC HANDHOLE
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
EPLP	ESCUTCHEON PIN IN LEAD PLUG
FB	FLASHING BEACON
FES	FLARED END SECTION
FP	FLAG POLE
GF	GAS FILL
GG	GAS GATE
GM	GAS METER
GP	GAS PUMP
G	GAS MANHOLE
GPL	GUY POLE
	HANDICAP SYMBOL
	GUY WIRE ANCHOR
HTP	HIGH TENSION POWER POLE
	FIRE HYDRANT
IP	IRON PIPE
ICV	IRRIGATION CONTROL VALVE
	LIGHT POLE
	LIGHT POLE DOUBLE LIGHT
MAG	MAG NAIL
MB	MAIL BOX
MHB	MASSACHUSETTS HIGHWAY BOUND
MW	MONITORING WELL
OIL	OIL FILL
OM	OTHER MANHOLE
PB	PULL BOX
PED	PEDESTRIAN SIGNAL
	PHOTO CONTROL - H & V
	PHOTO CONTROL - V ONLY
PK	PK NAIL
PM	PARKING METER
POST	CIRCULAR POST
POST	SQUARE POST
RB	REBAR/IRON PIN
RRS	RAILROAD SPIKE
RRSG	RAILROAD SIGNAL
RRSW	RAILROAD SWITCH
SN	STAKE AND NAIL
SP	STAND PIPE
S	SEWER MANHOLE
ST	STEAM MANHOLE
	STUMP
TB	TOWN LINE BOUND (CORNER)
T	TELEPHONE MANHOLE
TPIT#	TEST PIT
TCB	TRAFFIC SIGNAL CONTROL CABINET
TPL	TROLLEY POLE
TFMR	TRASNFORMER
	TRAVERSE POINT
	TREE - DECIDUOUS
	TREE - CONIFEROUS
11.29	TOP OF RAIL ELEVATION
TS	TRAFFIC SIGNAL
TS	TRAFFIC SIGNAL MAST ARM/SPAN WIRE POLE
	SIGN
	SGN - DOUBLE POST

UFB#	UTILITY POLE W/ FIRE PULL BOX
ULT#	UTILITY POLE W/ LIGHT
UPDL#	UTILITY POLE W/ DOUBLE LIGHT
UPL#	UTILITY POLE
VP	VENT PIPE
W	WATER MANHOLE
WG	WATER GATE
WM	WATER METER
WSO	WATER SHUTOFF
WELL	WELL (POTABLE)
WF#	WETLAND FLAG
X-CUT	X-CUT
V	VALVE / UNKNOWN GATE (FROM AERIAL MAPPING)
RD	ROOF DRAIN
FA	FIRE ALARM BOX
	SWAMP / MARSH
	OVERHEAD CABLE/WIRE
	CURBING
100 99	CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99	CONTOURS (PHOTOGRAMMETRIC DATA)
	UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
	UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
	UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
	UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
	UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
	UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
	BALANCED STONE WALL
	GUARD RAIL - STEEL POSTS
	GUARD RAIL - WOOD POSTS
	GUARD RAIL - DOUBLE FACE - STEEL POSTS
	GUARD RAIL - DOUBLE FACE - WOOD POSTS
x	CHAIN LINK OR METAL FENCE
	WOOD FENCE
	HAY BALES / SILT FENCE
	TREE LINE
	BANK OF RIVER OR STREAM
	BORDER OF WETLAND
	100 FT BUFFER ZONE
	200 FT RIVERFRONT AREA
	STATE HIGHWAY LAYOUT
	TOWN OR CITY LAYOUT
	COUNTY LAYOUT
	RAILROAD SIDELINE
	TOWN OR CITY BOUNDARY LINE
℄	PROPERTY LINE OR APPROXIMATE PROPERTY LINE
	EASEMENT

PAVEMENT MARKINGS SYMBOLS

EXISTING	DESCRIPTION
	PAVEMENT ARROW - WHITE
ONLY	LEGEND "ONLY" - WHITE
	12" STOP LINE
	CROSSWALK
	6" SOLID WHITE LINE
	6" SOLID YELLOW LINE
	6" BROKEN WHITE LINE (10' MARK, 30' SKIP)
	6" BROKEN YELLOW LINE (10' MARK, 30' SKIP)
	6" DOTTED WHITE LINE (3' MARK, 9' SKIP)
	6" DOTTED YELLOW LINE (3' MARK, 9' SKIP)
	6" DOTTED WHITE LINE EXTENSION (2' MARK, 8' SKIP)
	6" DOTTED YELLOW LINE EXTENSION (2' MARK, 8' SKIP)
	6" DOUBLE WHITE LINE
	6" DOUBLE YELLOW LINE

ABBREVIATIONS

GENERAL

AUX	AUXILARY
BD	BOUND
BIT	BITUMINOUS
℄	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BR	BRIDGE
BRK	BRCK
BS	BARE STEEL
BWL	BROKEN WHITE LINE
BYL	BROKEN YELLOW LINE
CAB	CABINET
CB	CATCHBASIN
CC	CEMENT CONCRETE
CCB	CAPE COD BERM
CEN	CENTER
CI	CURB INLET
CIP	CAST IRON PIPE
℄	CENTERLINE
CIRC.	CIRCULAR
CLF	CHAIN LINK FENCE
CMH	CABLE MANHOLE
CMP	CORRUGATED METAL PIPE
CNO	COULD NOT OPEN
CO	COUNTY
CO BD	COUNTY BOUND
CON	CONIFEROUS
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
CS	COATED STEEL
CULV	CULVERT
CW	CROSSWALK
DBWL	DOUBLE WHITE LINE
DBYL	DOUBLE YELLOW LINE
DEC	DECIDUOUS
DH	DRILL HOLE
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
DSK	DISK
DWL	DOTTED WHITE LINE
DYL	DOTTED YELLOW LINE
EB	EASTBOUND
EL	ELEVATION
EMH	ELECTRIC MANHOLE
EPLP	ESCUTCHEON PIN IN LEAD PLUG
ETW	EDGE OF TRAVELED WAY
EX	EXISTING
EW	EDGE OF WATER
FF	FINISH FLOOR
FL	FLOWLINE
FLDSTN	FIELDSTONE
FP	FIRE PROTECTION
GAR	GARAGE
GD	GROUND
GIP	GALVANIZED IRON PIPE
GMH	GAS MANHOLE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
GRL	GUARDRAIL
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HEADWALL
HYD	HYDRANT
INV	INVERT
IP	IRON PIPE
JB	JERSEY BARRIER
L	LENGTH OF CURVE
LB	LEACHING BASIN
LC	LAND COURT
LCB	LAND COURT BOUND
LCD	LAND COURT DISK
LO	LAYOUT
LP	LIGHT POLE
LPD	LIGHT POLE DOUBLE LIGHT
LDA	LANDSCAPED AREA
MAG	MAG NAIL
MEAS	MEASURED DISTANCE
MED	MEDIAN
MF	METAL FENCE
MH	MANHOLE
MP	MILE POST
MTL	METAL
N/F	NOW OR FORMERLY
NB	NORTHBOUND
NOPV	NO OTHER PIPES VISIBLE
NPV	NO PIPES VISIBLE
OH	OVERHAND
OHW	OVERHEAD WIRE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PED	PEDESTRIAN
PI	POINT OF INTERSECTION
PK	PK NAIL
℄	PROPERTY LINE
PP	PRICK PUNCH
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
PWW	PAVED WATERWAY
PZ	PIEZOMETER
R	RADIUS OF CURVATURE
RB	REBAR
(R)	RECORD
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
ROW	RIGHT OF WAY
RR	RAILROAD
RRS	RAILROAD SPIKE
S BD	SOUTHBOUND
SB	STONE BOUND
SCC	SLOPED CONCRETE CURB
SD	SUBDRAIN
SGE	SLOPED GRANITE EDGING
SHLD	SHOULDER
SHLO	STATE HIGHWAY LAYOUT
SK	SKEW
SL	STOP LINE
SMH	SEWER MANHOLE
SPK	SPIKE
STA	STATION
STN	STONE
SWL	SOLID YELLOW LINE
T	TANGENT DISTANCE
TEMP	TEMPORARY
TMH	TELEPHONE MANHOLE
TOP	TOP OF PIPE
TSC	TRAFFIC SIGNAL COUNT
TYP	TYPICAL
UTO	UNABLE TO OBSERVE
VAR	VARIABLE
VCP	VITRIFIED CLAY PIPE
VGC	VERTICAL GRANITE CURB
VLT	VAULT
VP	VENT PIPE
WB	WESTBOUND
WCR	WHEELCHAIR RAMP
W.E.	WATER ELEVATION

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	2	50
	PROJECT FILE NO. 608020		

LEGEND & ABBREVIATIONS

608020_EV1(TITLE SHEET & INDEX).DWG Plotted on 11-Apr-2022 2:00 PM

608020_EV1(TITLE SHEET & INDEX).DWG Plotted on 11-Apr-2022 2:00 PM

GENERAL NOTES:

1. THE EXISTING CONDITIONS SHOWN WITHIN THIS PLAN SET ARE THE RESULT OF FIELD SURVEY PREPARED BY "WSP" DATED MARCH 16, 2021.
2. HORIZONTAL DATUM IS NAD83 (2011), EPOCH 2010.00 MASSACHUSETTS STATE PLANE, MAINLAND ZONE, US FOOT (MA83F).
3. LOCATION OF ALL EXISTING UTILITIES AND SUBSURFACE STRUCTURES ARE FROM SURVEY AND RECORDS OF THE TOWN OF BOURNE OR PRIVATE UTILITY COMPANIES AND ARE CONSIDERED APPROXIMATE BOTH AS TO SIZE AND LOCATION.
4. WETLAND DELINEATIONS WERE PERFORMED IN ACCORDANCE WITH USACE 1987 MANUAL AND REGIONAL SUPPLEMENT DURING 2020 AND LOCATED VIA FIELD SURVEY PERFORMED BY WSP.
5. THE NAMING CONVENTION FOR THE WETLAND FLAGS IS AS FOLLOWS: "COMPANY NAME - STUDY AREA # - WETLAND ID - FLAG #".

SHEET INDEX

SHEET NO.	WETLAND ID	WETLAND FLAG NUMBERS
4	NON-DELINEATED VERNAL POOL	-
5	HNTB-1-S	HNTB-1-S-1 TO HNTB-1-S-19
6	HNTB-1-F	HNTB-1-F-1 TO HNTB-1-F-20
7	HNTB-1-F; HNTB-1-L	HNTB-1-F-5 TO HNTB-1-F-15; HNTB-1-L-1 TO HNTB-1-L-17
8	HNTB-1-G; HNTB-1-H	HNTB-1-G-1 TO HNTB-1-G-7; HNTB-1-G-16 TO HNTB-1-G-19; HNTB-1-H-1 TO HNTB-1-H-2; HNTB-1-H-9 TO HNTB-1-H-11
9	HNTB-1-G; HNTB-1-H; HNTB-1-I	HNTB-1-G-1 TO HNTB-1-G-19; HNTB-1-H-1 TO HNTB-1-H-11; HNTB-1-I-1 TO HNTB-1-I-10
10	HNTB-1-A	HNTB-1-A-1 TO HNTB-1-A-19
11	HNTB-1-B; HNTB-1-C; HNTB-1-T	HNTB-1-B-1 TO HNTB-1-B-15; HNTB-1-C-1 TO HNTB-1-C-7; HNTB-1-C-42 TO HNTB-1-C-48; HNTB-1-T-1 TO HNTB-1-T-23
12	HNTB-1-J	HNTB-1-J-1 TO HNTB-1-J-21
13	HNTB-1-C; HNTB-1-D; HNTB-1-J	HNTB-1-C-7 TO HNTB-1-C-41; HNTB-1-D-1 TO HNTB-1-D-17; HNTB-1-J-4 TO HNTB-1-J-14
14	HNTB-1-E	HNTB-1-E-1 TO HNTB-1-E-17
15	HNTB-2-G	HNTB-2-G-13 TO HNTB-2-G-33
16	HNTB-2-G	HNTB-2-G-1 TO HNTB-2-G-14; HNTB-2-G-34 TO HNTB-2-G-46
17	HNTB-2-G, HNTB-2-V, HNTB-2-W	HNTB-2-G-1 TO HNTB-2-G-2; HNTB-2-G-45 TO HNTB-2-G-46; HNTB-2-V-8 TO HNTB-2-V-11; HNTB-2-W-1 TO HNTB-2-W-6
18	HNTB-2-V	HNTB-2-V-1 TO HNTB-2-V-7
19	NON-DELINEATED WETLAND	-
20	NON-DELINEATED WETLAND	-
21	HNTB-3-A	HNTB-3-A-1 TO HNTB-3-A-14
22	HNTB-3-B	HNTB-3-B-1 TO HNTB-3-B-6
23	HNTB-3-G	HNTB-3-G-27 TO HNTB-3-G-42
24	HNTB-3-G; HNTB-3-N	HNTB-3-G-14 TO HNTB-3-G-26; HNTB-3-N-1 TO HNTB-3-N-11; HNTB-3-N-14 TO HNTB-3-N-20
25	HNTB-3-O	HNTB-3-O-1 TO HNTB-3-O-11
26	HNTB-3-J; HNTB-3-M	HNTB-3-J-1 TO HNTB-3-J-11; HNTB-3-M-1 TO HNTB-3-M-17
27	HNTB-3-L	HNTB-3-L-1 TO HNTB-3-L-8
28	HNTB-3-K	HNTB-3-K-1 TO HNTB-3-K-12
29	HNTB-3-D; HNTB-3-G; HNTB-3-I; HNTB-3-N; HNTB-3-Q	HNTB-3-D-1 TO HNTB-3-D-4; HNTB-3-G-1 TO HNTB-3-G-20; HNTB-3-G-31 TO HNTB-3-G-54; HNTB-3-I-7 TO HNTB-3-I-23; HNTB-3-N-1 TO HNTB-3-N-20; HNTB-3-Q-1 TO HNTB-3-Q-14
30	HNTB-3-D; HNTB-3-E; HNTB-3-H; HNTB-3-I	HNTB-3-D-1 TO HNTB-3-D-4; HNTB-3-E-1 TO HNTB-3-E-32; HNTB-3-H-17 TO HNTB-3-H-44; HNTB-3-I-1 TO HNTB-3-I-9; HNTB-3-I-20 TO HNTB-3-I-30
31	HNTB-3-H	HNTB-3-H-1 TO HNTB-3-H-61
32	HNTB-3-F	HNTB-3-F-1 TO HNTB-3-F-28
33	HNTB-3-I; HNTB-3-P; HNTB-3-Q	HNTB-3-I-12 TO HNTB-3-I-22; HNTB-3-P-1 TO HNTB-3-P-6; HNTB-3-Q-1 TO HNTB-3-Q-5; HNTB-3-Q-9 TO HNTB-3-Q-14
34	HNTB-3-C	HNTB-3-C-1 TO HNTB-3-C-16
35	HNTB-4-C	HNTB-4-C-1 TO HNTB-4-C-10
36	HNTB-4-D	HNTB-4-D-1 TO HNTB-4-D-24
37	HNTB-4-B	HNTB-4-B-12 TO HNTB-4-B-16
38	HNTB-4-B	HNTB-4-B-1 TO HNTB-4-B-29
39	HNTB-4-A	HNTB-4-A-1 TO HNTB-4-A-21
40	HNTB-4-F	HNTB-4-F-1 TO HNTB-4-F-11
41	HNTB-4-E	HNTB-4-E-1 TO HNTB-4-E-13
42	HNTB-4-O; HNTB-4-P; HNTB-4-Q	HNTB-4-O-1 TO HNTB-4-O-19; HNTB-4-P-1 TO HNTB-4-P-18; HNTB-4-Q-1 TO HNTB-4-Q-6
43	HNTB-4-G; HNTB-4-N	HNTB-4-G-1 TO HNTB-4-G-9; HNTB-4-N-1 TO HNTB-4-N-37
44	HNTB-4-I; HNTB-4-J	HNTB-4-I-1 TO HNTB-4-10; HNTB-4-J-1 TO HNTB-4-J-21
45	HNTB-4-L	HNTB-4-L-1 TO HNTB-4-L-25
46	HNTB-4-K; HNTB-4-H; HNTB-4-M	HNTB-4-K-1 TO HNTB-4-K-11; HNTB-4-H-1 TO HNTB-4-H-11; HNTB-4-M-1 TO HNTB-4-8
47	HNTB-4-R; HNTB-4-S	HNTB-4-R-1 TO HNTB-4-R-25; HNTB-4-S-1 TO HNTB-4-S-17
48	HNTB-4-T; HNTB-4-U; HNTB-4-V; HNTB-4-Y	HNTB-4-T-1 TO HNTB-4-T-21; HNTB-4-U-8 TO HNTB-4-U-12; HNTB-4-V-1 TO HNTB-4-V-4; HNTB-4-Y-1 TO HNTB-4-Y-37
49	HNTB-4-U; HNTB-4-V; HNTB-4-W; HNTB-4-X	HNTB-4-U-1 TO HNTB-4-U-14; HNTB-4-V-1 TO HNTB-4-V-4; HNTB-4-W-6 TO HNTB-4-W-12; HNTB-4-X-1 TO HNTB-4-X-3
50	HNTB-4-W; HNTB-4-X; HNTB-4-Z	HNTB-4-W-1 TO HNTB-4-W-12; HNTB-4-X-1 TO HNTB-4-X-20; HNTB-4-Z-1 TO HNTB-4-Z-16

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	4	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:17 PM

N

NAD 83

POTENTIAL VERNAL POOL - 09MA

ISOLATED LAND SUBJECT TO FLOODING

MAP 11 PARCEL 004
845 SCENIC HIGHWAY
N/F
SHERRY M FLYNN
BK 13467 PG 269

PLAN BK 179 PG 123

APPROX. PROPERTY LINE

APPROX. PROPERTY

SCENIC (ROUTE 6) HIGHWAY
(ST.HWY LO 3180)

LOCATION LINE OF 1936 ST.HWY. LO. 3180

MAIN BL OF 1936 ST.HWY. LO. 3180

N57°43'50"E (1936)=N57°05'00"E (NAD 83)
N57°05'00"E
309.58'

+90.44 PT

N: 2744186.111'
E: 912085.159'
EL: 28.808'
DSK DOT2435

INV 12" RCP
EL=4.55'

BOURNDALE LODGE BRICK SIGN

BARLOW'S CLAM SHACK

REST AREA

BIT PARKING

GRAV PARKING

NO OVERNIGHT CAMPING

DIVIDED HIGHWAY STAY RIGHT

SIDE ROAD (LEFT)

STOP

SIGNAL AHEAD

HANDICAPPED PARKING

PICNIC TABLE

BENCH

TRASH CAN

GUARDRAIL

UNDERGROUND TELEPHONE CABLE MARKER

6'x6' LOOP DETECTOR (TYP.)

USE CROSSWALK

REST AREA FINE

CB RIM= 31.52 DEPTH=25.42 TOW=28.42 NPV

CB RIM= 24.78 DEPTH=21.08 INV.1=21.28

DMH RIM= 25.04 INV.1=21.44 INV.2=21.34

CB RIM= 27.46 DEPTH=24.06 INV.1=24.66 INV.2=24.06

DMH RIM= 32.31 INV.1=27.01 INV.2=27.61

CB RIM= 32.67 DEPTH=27.41 INV.1=27.47 INV.2=27.57

CB RIM= 27.72 DEPTH=21.92 INV.1=22.02 INV.2=22.02

DMH RIM= 27.61 INV.1=23.21 INV.2=24.41

CB RIM= 28.33 DEPTH=23.23 INV.1=24.03

CB RIM= 23.94 CNO

SMH (TANK) RIM= 27.76 CNO

SMH (TANK) RIM= 27.87 CNO

35'x10'x4' INFILT.BASIN (APPROX)

36'x10'x4' INFILT.BASIN (APPROX)

1'x1' SQUARE

2" PL GAS

4" PL GAS

6" PVC

10" DI WATER

12" CMP

12" RCP

12"CMP

12-4" TELE

2" GAS

4" TELE

CATV OHW

OHW

BIT WALK

VGC

SWL

SBE

DBYL

BWL

SGE

CONC

SYL

GRASS

GRAVEL

BRICK

WOODED

BIT. 40.3

GRASS / DIRT

GRAV PARKING

BIT PARKING

CONC. LANDING

STAIRS

SIGN

DSK CC-104

ULT#35/88

ULT#35/89

ULT#35/90

ULT#23/3

UPL#23/4 W/EL.BOX

UPL NO#

214

215

216

217

218

219

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	5	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:17 PM

N

NAD 83

PARCEL 13
NIC HIGHWAY
N/F
E ANDERSON
369 PG 51
261 PG 40

MAP 11 PARCEL 14
889 SCENIC HIGHWAY
N/F
BRYAN M LEARY
BK 24570 PG 299
PLAN BK 261 PG 40

MAP 11 PARCEL 15
891 SCENIC HIGHWAY
N/F
DAVID J BOYD
BK 16001 PG 126
PLAN BK 261 PG 40

MAP 11 PARCEL 16
HERRING RUN CONDOMINIUM
N/F
HERRING RUN REALTY TRUST
MASTER DEED
BK 4966 PG 164
PLAN BK 413 PG 11

APPROX. PROPERTY LINE

LOCATION LINE OF 2004 ST.HWY. ALT. NO. 7696 (SECT. 1)

HARRING POND ROAD
BOURNEDALE
TO REVERSE DIRECTION

SCENIC (ROUTE 6) HIGHWAY
(ST.HWY LO 3180 – ST.HWY ALT. 7696)

N56°22'00"E
762.57'

(REC) +42.08
(MEAS) +45.86
(REC 41.01')

AUX. BL "A" OF 2004 ST.HWY. ALT. NO. 7696

+33.27

+50.22 PC

Δ=4°16'58"
R=3001.97'
L=224.39'
T=112.25'

SYL +74.62 PCC

BEGINNING OF 2004 ST.HWY. ALT. NO. 7696 (SECT. 2)

N: 2744691.546
E: 913546.215'
EL= 68.986'
REB W PM

NON-JURSIDICTIONAL WETLAND

W.E.= 27.6

WF#HNTB 1-S-1
WF#HNTB 1-S-2
WF#HNTB 1-S-3
WF#HNTB 1-S-4
WF#HNTB 1-S-5
WF#HNTB 1-S-6
WF#HNTB 1-S-7
WF#HNTB 1-S-8
WF#HNTB 1-S-9
WF#HNTB 1-S-10
WF#HNTB 1-S-11
WF#HNTB 1-S-12
WF#HNTB 1-S-13
WF#HNTB 1-S-14
WF#HNTB 1-S-15
WF#HNTB 1-S-16
WF#HNTB 1-S-17
WF#HNTB 1-S-18
WF#HNTB 1-S-19

MAP 16 PARCEL 13
368 SCENIC HIGHWAY
N/F
UNITED STATES OF AMERICA
BK 453 PG 287
COLONIAL GAS COMPANY
BK 3600 PG 157
PLAN BK 474 PGS 1-25

APPROXIMATE EASEMENT LINE - DRAINAGE LO. 7696

GAS - FOOD
PARK AND RIDE
VISITOR INFO
KEEP LEFT

LO 7696

LINE OF 1936
HWY. LO. 3180

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	6	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

SCENIC (ROUTE 6) HIGHWAY

(ST.HWY LO 3180 – ST.HWY ALT. 7696)

RAMP

NON-JURSIDICTIONAL WETLAND

LOCATION LINE OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "A" OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "B" OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "C" OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "S" OF 2004 ST.HWY. ALT. NO. 7696

N64°40'17"E 786.70'

N41°09'51"E 230.09'

Δ=48°17'13" R=328.08' L=276.50' T=147.06'

STA. 995+17.93 (ENGLISH)
STA. 303+33.126 (METRIC)(2004)

+44.81 PC

+14.72 PT

+35.45

WF#HNTB 1-F-1 through WF#HNTB 1-F-20

CONTINUED ON SHEET 7

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:22 PM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	7	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

CONTINUED ON SHEET 6

CONTINUED ON SHEET 8

N

NAD 83

LOCATION LINE OF 2004 ST.HWY. ALT. NO. 7696 (SECT. 1)

2004 ST.HWY. ALT. NO. 7696

STA. 666+50.11 (ENGLISH)
STA. 203+14.995 (METRIC)

T=46.89'
L=90.97'
R=131.23'
Δ=39°19'20" 666

SCENIC (ROUTE 6) HIGHWAY
(ST.HWY LO 3180 – ST.HWY ALT. 7696)

Δ=16°18'34"
R=1762.24'
L=501.63'
T=252.52'

90+97.39 2004 AUXILARY BASELINE A – LO 7696
243+08.21 2004 AUXILARY BASELINE G – LO 7696

91+19.74 2004 AUXILARY BASELIN
46+27.60 2004 AUXILARY BASELIN

BRIDGE # B-17-027

BRIDGE # B-17-027

MATTHEW P. CUCINO MEMORIAL BRIDGES

DELINEATOR MARKER

UNDERDECK LIGHTING CABLE

TO 3 NORTH BOSTON NECK ROAD

NEXT LEFT BEACH SCUSSET

ROUTE 3 (SOUTH) PILGRAM HWY.
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 7696)

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 7696)

AUX. BL "G" OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "H" OF 2004 ST.HWY. ALT. NO. 7696

+54.57 PC

+72.47 PC

NON-JURISDICTIONAL WETLAND

NON-JURISDICTIONAL WETLAND

WF#HNTB 1-L-1
WF#HNTB 1-L-2
WF#HNTB 1-L-3
WF#HNTB 1-L-4
WF#HNTB 1-L-5
WF#HNTB 1-L-6
WF#HNTB 1-L-7
WF#HNTB 1-L-8
WF#HNTB 1-L-9
WF#HNTB 1-L-10
WF#HNTB 1-L-11
WF#HNTB 1-L-12
WF#HNTB 1-L-13
WF#HNTB 1-L-14
WF#HNTB 1-L-15
WF#HNTB 1-L-16
WF#HNTB 1-L-17

WF#HNTB 1-F-5
WF#HNTB 1-F-6
WF#HNTB 1-F-7
WF#HNTB 1-F-8
WF#HNTB 1-F-9
WF#HNTB 1-F-10
WF#HNTB 1-F-11
WF#HNTB 1-F-12
WF#HNTB 1-F-13
WF#HNTB 1-F-14
WF#HNTB 1-F-15

9800
N: 2747023.988'
E: 916863.215'
EL: 55.063'
MMAG SPK

282
N: 2746889.179'
E: 916827.266'
EL: 85.401'
MREB

283
N: 2746895.619'
E: 916571.684'
EL: 88.849'
MREB

315
N: 2746875.655'
E: 916667.804'
EL: 85.870'
SPK ADJ. TRIG. ELEV

N: 2746967.241'
E: 916635.651'
EL: 89.0675'
MRG

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:18 PM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	8	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

CONTINUED ON SHEET 9

CONTINUED ON SHEET 7

ROUTE 3 (SOUTH) PILGR
(PUBLIC – ST.HWY LO. NOS. 3063, 3C

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 7696)

NAD 83

SYL AUX. BL "C" OF 2004 ST.HWY. ALT. NO. 76

AUX. BL "H" OF 2004 ST.HWY. ALT. NO. 7696

STA. 3278+78.87 (ENGLISH)
STA. 999+37.680 (METRIC)(2004)

STA. 3291+00.71 (ENGLISH)
STA. 1003+06.096 (REC)(METRIC)(2004)
STA. 1003+10.098 (MEAS)(METRIC)

91+19.74 2004 AUXILARY BASELINE A – LO 7696 =
46+27.60 2004 AUXILARY BASELINE H – LO 7696

BRIDGE # B-17-027

MEETINGHOUSE LANE
(ST.HWY LO 3180 – ST.HWY ALT. 7696)

STA. 334+61.87 (ENGLISH)
STA. 101+99.199 (METRIC)(2004)

STA. 9+91.12 (ENGLISH)
STA. 3+00.812(REC)(METRIC)(2004)
STA. 3+02.094(MEAS)(METRIC)

NON-JURISDICTIONAL WETLAND

NON-JURISDICTIONAL WETLAND

WF#HNTB 1-G-1
WF#HNTB 1-G-2
WF#HNTB 1-G-3
WF#HNTB 1-G-4
WF#HNTB 1-G-5
WF#HNTB 1-G-6
WF#HNTB 1-G-7
WF#HNTB 1-G-16
WF#HNTB 1-G-17
WF#HNTB 1-G-18
WF#HNTB 1-G-19
WF#HNTB 1-H-1
WF#HNTB 1-H-2
WF#HNTB 1-H-9
WF#HNTB 1-H-10
WF#HNTB 1-H-11

STATE ROAD
(ST.HWY LO. 4401 – ST.HWY ALT. 7696)

AUX. BL "P" OF 2004 ST.HWY. ALT. NO. 7696

LOCATION LINE OF ST.HWY. LO. 4401

Δ=82°41'27"
R=1312.37'
L=189.40'
T=115.48'

Δ=23°36'09"
R=170.05'
L=48.99'
T=24.91'

Δ=76°45'50"
R=360.39'
L=482.52'
T=285.85'

+85.65
+29.96 PC
+32.89
+58.15
+05.57.46'
+04.77
+17.20 PCC

N: 2747394.574'
E: 917397.679'
EL: 77.053'
MREB

259
N: 2747421.160'
E: 917568.998'
EL: 86.832'
MREB XCUT

16
N: 2747214.882'
E: 917321.522'
EL: 70.788'
MAG

BENCHMARK: TBM-1B
X-CUT, HYDRANT, BOMO
EL=80.25'

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:18 PM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	9	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:18 PM

NAD 83

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST,HWY LO. NOS. 3063, 3084, 7696)

ROUTE 3 (SOUTH) PILGRAM HWY.
(PUBLIC – ST,HWY LO. NOS. 3063, 3084, 4401, 7696)

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST,HWY LO. NOS. 3063, 3084, 4401, 7696)

AUX. BL "H" OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "G" OF 2004 ST.HWY. ALT. NO. 7696

AUX. BL "J" OF 2004 ST.HWY. ALT. NO. 7696

STA. 3278+28.82 (ENGLISH)
999+37.680 (METRIC)(2004)

Δ=14°30'26"
R=590.55'
L=149.53'
T=75.17'

Δ=19°29'20"
R=295.28'
L=100.44'
T=50.71'

Δ=1
R=1837.27'
L=563.02'
T=283.74'

Δ=5°08'56"
R=1313.36'
L=1183.09'
T=591.94'

Δ=75°55'01"
R=460.45'
L=609.09'
T=140.77'

T=816.16'
L=1388.16'
R=460.45'
Δ=159°03'59"

+68.82 PC
+85.65
+28.40 PCC
+28.83 PCC

NON-JURISDICTIONAL WETLAND

WF#HNTB 1-I-1
WF#HNTB 1-I-2
WF#HNTB 1-I-3
WF#HNTB 1-I-4
WF#HNTB 1-I-5
WF#HNTB 1-I-6
WF#HNTB 1-I-7
WF#HNTB 1-I-8
WF#HNTB 1-I-9
WF#HNTB 1-I-10

WF#HNTB 1-G-1
WF#HNTB 1-G-2
WF#HNTB 1-G-3
WF#HNTB 1-G-4
WF#HNTB 1-G-5
WF#HNTB 1-G-6
WF#HNTB 1-G-7
WF#HNTB 1-G-8
WF#HNTB 1-G-9
WF#HNTB 1-G-10
WF#HNTB 1-G-11
WF#HNTB 1-G-12
WF#HNTB 1-G-13
WF#HNTB 1-G-14
WF#HNTB 1-G-15
WF#HNTB 1-G-16
WF#HNTB 1-G-17
WF#HNTB 1-G-18
WF#HNTB 1-G-19

WF#HNTB 1-H-1
WF#HNTB 1-H-2
WF#HNTB 1-H-3
WF#HNTB 1-H-4
WF#HNTB 1-H-5
WF#HNTB 1-H-6
WF#HNTB 1-H-7
WF#HNTB 1-H-8
WF#HNTB 1-H-9
WF#HNTB 1-H-10
WF#HNTB 1-H-11

314
N: 2747394.574'
E: 917397.679'
EL: 77.053'
MREB

317
N: 2747758.108'
E: 917174.869'
EL: 84.567'

INV 24" RCP EL=57.29'
INV 24" RCP EL=56.04'
INV 18" RCP EL=76.54'
INV 8" PVC EL=76.99'

PROHIBITED NO WALKING BIKE, AND HORSE

CONTINUED ON SHEET 8
CONTINUED ON SHEET 10

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	10	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:19 PM

CHURCH LANE
(PUBLIC – TOWN LO. 4401 SECT. 1)

ROUTE 3 (SOUTH) PILGRAM HWY.
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 4401, 7696)

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 4401, 7696)

NAD 83

NON-JURISDICTIONAL WETLAND

WF#HNTB 1-A-1
WF#HNTB 1-A-2
WF#HNTB 1-A-3
WF#HNTB 1-A-4
WF#HNTB 1-A-5
WF#HNTB 1-A-6
WF#HNTB 1-A-7
WF#HNTB 1-A-8
WF#HNTB 1-A-9
WF#HNTB 1-A-10
WF#HNTB 1-A-11
WF#HNTB 1-A-12
WF#HNTB 1-A-13
WF#HNTB 1-A-14
WF#HNTB 1-A-15
WF#HNTB 1-A-16
WF#HNTB 1-A-17
WF#HNTB 1-A-18
WF#HNTB 1-A-19
WF#HNTB 1-I-4
WF#HNTB 1-I-5
WF#HNTB 1-I-6
WF#HNTB 1-I-7

CONTINUED ON SHEET 9
CONTINUED ON SHEET 11

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	11	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:21 PM

NAD 83

N

LOCATION LINE OF 1956 TOWN LO. 4401

1956 (SECT. 1)

WF#HNTB 1-T-1 through 1-T-23

WF#HNTB 1-J-4, 1-J-5

NON-JURISDICTIONAL WETLAND

T=104.00'
L=207.97'
R=4826.86'
Δ=2°28'07"

AUX. BL "E" OF 2004 ST.HWY. ALT. NO. 7696

+86.05 PC

121.38'
S15°55'58"E

+6.00

+96.28 PC

Δ=8°47'16"
R=4803.90'
L=736.80'
T=369.12'

+02.22

ROUTE
(PUBLIC –

ROUTE 3 (SOUTH) PILGRAM HWY.
(PUBLIC – ST,HWY LO. NOS. 3063, 3084, 4401, 7696)

AUX. BL "G" OF 2004 ST.HWY. ALT. NO. 7696

N19°44'44"W
564.43'

WF#HNTB 1-C-42 through 1-C-47

100 FT BVW BUFFER

BORDERING VEGETATED WETLAND

WF#HNTB 1-A-1, 1-A-2

WF#HNTB 1-B-1 through 1-B-15

NON-JURISDICTIONAL WETLAND

WF#HNTB 1-C-1 through 1-C-7

AUX. BL "H" OF 2004 ST.HWY. ALT. NO. 7696

+09.88

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST,HWY LO. NOS. 3063, 3084, 4401, 7696)

CONTINUED ON SHEET 10

CONTINUED ON SHEET 13

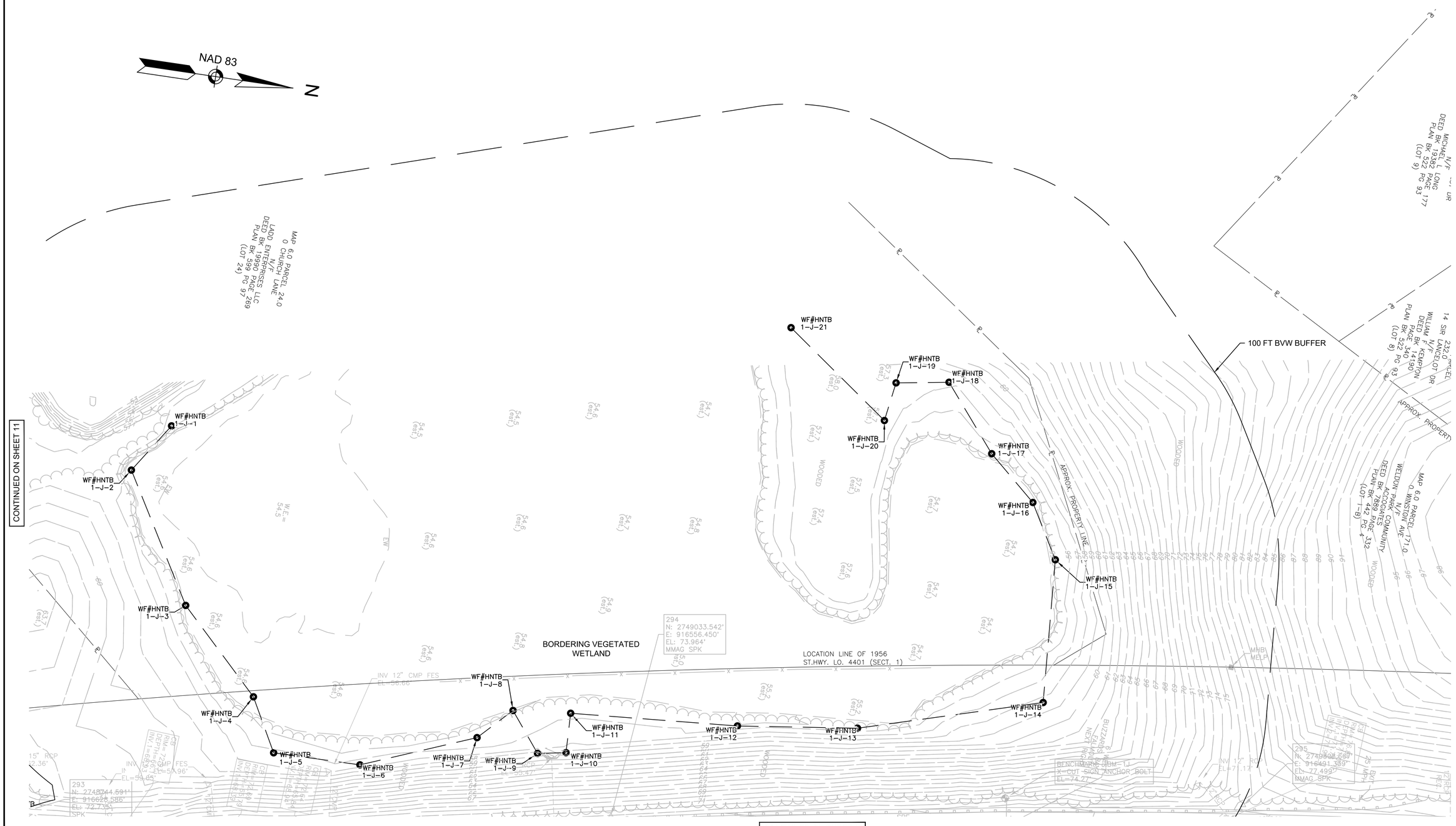
CONTINUED ON SHEET 14

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	12	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:19 PM



CONTINUED ON SHEET 12

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	13	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

NAD 83

N

BORDERING VEGETATED WETLAND

LOCATION LINE OF 1956 ST.HWY. LO. 4401 (SECT. 1)

294
N: 2749033.542'
E: 916556.450'
EL: 73.964'
MMAG SPK

295
N: 2749008.569'
E: 916491.389'
EL: 77.499'
MMAG SPK

BENCHMARK: BM# 1J
X-CUT SIGN ANCHOR BOLT
EL= 74.27'

319
N: 2749206.933'
E: 916558.545'
EL: 74.316'
SPK ADJ_TRIG_ELEV

320
N: 2749048.998'
E: 916596.756'
EL: 72.369'
SPK ADJ_TRIG_ELEV

ROUTE 3 (SOUTH) PILGRAM HWY.

(PUBLIC – ST,HWY LO. NOS. 3063, 3084, 4401, 7696)

AUX. BL "G" OF 2004 ST.HWY. ALT. NO. 7696

Δ=8°47'16"
R=4803.90'
L=736.80'
T=369.12'

100 FT BVW BUFFER

NON-JURISDICTIONAL EPHEMERAL STREAM

STA. 265+33.28 (ENGLISH)
STA. 80+87.298 (METRIC)(2004)

STA. 50+86.04 (1956)

+72.08

WF#HNTB 1-J-4
WF#HNTB 1-J-5
WF#HNTB 1-J-6
WF#HNTB 1-J-7
WF#HNTB 1-J-8
WF#HNTB 1-J-9
WF#HNTB 1-J-10
WF#HNTB 1-J-11
WF#HNTB 1-J-12
WF#HNTB 1-J-13
WF#HNTB 1-J-14

WF#HNTB 1-C-1
WF#HNTB 1-C-2
WF#HNTB 1-C-3
WF#HNTB 1-C-4
WF#HNTB 1-C-5
WF#HNTB 1-C-6
WF#HNTB 1-C-7
WF#HNTB 1-C-8
WF#HNTB 1-C-9
WF#HNTB 1-C-10
WF#HNTB 1-C-11
WF#HNTB 1-C-12
WF#HNTB 1-C-13
WF#HNTB 1-C-14
WF#HNTB 1-C-15
WF#HNTB 1-C-16
WF#HNTB 1-C-17
WF#HNTB 1-C-18
WF#HNTB 1-C-19
WF#HNTB 1-C-20
WF#HNTB 1-C-21
WF#HNTB 1-C-22
WF#HNTB 1-C-23
WF#HNTB 1-C-24
WF#HNTB 1-C-25
WF#HNTB 1-C-26
WF#HNTB 1-C-27
WF#HNTB 1-C-28
WF#HNTB 1-C-29
WF#HNTB 1-C-30
WF#HNTB 1-C-31
WF#HNTB 1-C-32
WF#HNTB 1-C-33
WF#HNTB 1-C-34
WF#HNTB 1-C-35
WF#HNTB 1-C-36
WF#HNTB 1-C-37
WF#HNTB 1-C-38
WF#HNTB 1-C-39
WF#HNTB 1-C-40
WF#HNTB 1-C-41

WF#HNTB 1-D-1
WF#HNTB 1-D-2
WF#HNTB 1-D-3
WF#HNTB 1-D-4
WF#HNTB 1-D-5
WF#HNTB 1-D-6
WF#HNTB 1-D-7
WF#HNTB 1-D-8
WF#HNTB 1-D-9
WF#HNTB 1-D-10
WF#HNTB 1-D-11
WF#HNTB 1-D-12
WF#HNTB 1-D-13
WF#HNTB 1-D-14
WF#HNTB 1-D-15
WF#HNTB 1-D-16
WF#HNTB 1-D-17

INV 12" CMP FES EL=56.66
INV 12" CMP FES EL=59.81
INV 12" RCP EL=57.45
INV 36" RCP EL=54.57'
INV 18" RCP EL=55.04'
INV 12" RCP EL=67.17
INV 24" RCP EL=68.85'
INV 12" RCP EL=67.58'
INV 24" RCP EL=68.85'
INV 24" RCP EL=68.85'
INV 12" RCP EL=67.58'
INV 24" RCP EL=68.85'
INV 24" RCP EL=68.85'
INV 24" RCP EL=68.85

CONTINUED ON SHEET 13

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	14	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:24 PM

NAD 83

N

ROUTE 3 (NORTH) PILGRAM HWY.
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 4401, 7696)

ROUTE 3 (NORTH) PILGRAM HW
(PUBLIC – ST.HWY LO. NOS. 3063, 3084, 4401, 769

STATE ROAD
(ST.HWY LO. 4401)

FLEETWOOD DRIVE
(PUBLIC – LC PLAN 40623 A – VARIABLE WIDTH)

OCE
(PUBLIC – PLA

AUX. BL "H" OF 2004 ST.HWY. ALT. NO. 7696

100 FT BVW BUFFER

MAIN BL OF 1934 ST.HWY. NO. 3138

LOCATION LINE OF 1934 ST.HWY. LO. 3138

LOCATION LINE OF 1956 ST.HWY. LO. 4401 (SECT. 2)

BEGIN ST.HWY. LO. 4401 (SECT. 2)

S00°13'55"E (1934) =S01°03'58"E (NAD 83)

865.73' S1°03'58"E

N6°14'42"W 1217.60'

STA. 699+55.26 (ENGLISH) 21+96.67 (METRIC) (2004)

STA. 30+77.69 (1956)

ISOLATED LAND SUBJECT TO FLOODING

POTENTIAL VERNAL POOL - 05DN

APPROX. PROPERTY LINE

APPROX. LAYOUT LINE

NO ACCESS

WF#HNTB 1-C-10
WF#HNTB 1-C-11
WF#HNTB 1-C-12
WF#HNTB 1-C-18
WF#HNTB 1-E-1
WF#HNTB 1-E-2
WF#HNTB 1-E-3
WF#HNTB 1-E-4
WF#HNTB 1-E-5
WF#HNTB 1-E-6
WF#HNTB 1-E-7
WF#HNTB 1-E-8
WF#HNTB 1-E-9
WF#HNTB 1-E-10
WF#HNTB 1-E-11
WF#HNTB 1-E-12
WF#HNTB 1-E-13
WF#HNTB 1-E-14
WF#HNTB 1-E-15
WF#HNTB 1-E-16
WF#HNTB 1-E-17

BENCHMARK: R 43 NOS DISK RECESSED IN WC EL=58.67

MAP 6.0 PARCEL 35.0 FIELDWOOD DRIVE MARGARET K TONELLO LC CERT. 122889 LC PLAN 40628A (LOT 42) ETALS

MAP 6.0 PARCEL 102.0 ROUTE 3A OCEAN PINES LLC TR DEED BK 2332 PAGE 186 PLAN BK 439 PG 35 (PARCEL E)

253 N: 2749473.394' E: 916888.590' EL: 96.302' MMAG SPK

253 N: 2749 E: 9169 EL: 63.22 MMAG

298 N: 2749483.292' E: 917085.803' EL: 70.420' MMAG DOT2460

CB RIM=62.08 DEPTH=5.78 INV.1=59.68 INV.2=59.48

CB RIM=58.36 DEPTH=5.36 INV=56.36

INV 18" RCP EL=55.04'

INV 12" RCP EL=62.58'

INV 18" RCP EL=62.74'

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	15	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:32 PM

MID-CAPE CONNECTOR
(1963 ST.HWY LAYOUT – 5018)

NAD 83

MAP 17 PARCEL 3
0 ROUTE 6
N/F
COMMONWEALTH OF MASSACHUSETTS
BK N/A PG N/A

MAP 17.0 PARCEL 3
0 ROUTE 6
N/F
COMMONWEALTH OF MASSACHUSETTS
UNITED STATES OF AMERICA
LEASE
BK: 1035 PG 89
PLAN: BK 213 PG 59
(PARCEL "C")

CONTINUED ON SHEET 16

LOCATION LINE OF 1963 ST.HWY. ALT. 5018

AUX. BASELINE "B" OF 1963 ST.HWY. ALT. 5018

MAIN BASELINE OF 1963 ST.HWY. ALT. 5018

NON-JURISDICTIONAL EPHEMERAL STREAM

17+20 1963 – MAIN BASELINE – ST.HWY. 5018 =
10+42.00 1963 – AUX. BASELINE B – ST.HWY. ALT. 5018

NO ACCESS

WF#HNTB 2-G-13
WF#HNTB 2-G-14
WF#HNTB 2-G-15
WF#HNTB 2-G-16
WF#HNTB 2-G-17
WF#HNTB 2-G-18
WF#HNTB 2-G-19
WF#HNTB 2-G-21
WF#HNTB 2-G-22
WF#HNTB 2-G-23
WF#HNTB 2-G-24
WF#HNTB 2-G-25
WF#HNTB 2-G-26
WF#HNTB 2-G-27
WF#HNTB 2-G-28
WF#HNTB 2-G-29
WF#HNTB 2-G-30
WF#HNTB 2-G-31
WF#HNTB 2-G-32
WF#HNTB 2-G-33

Δ=52°10'55"
R=1419.91'
L=1293.18'
T=695.33'

N: 2742388.138'
E: 916385.941'
EL: 106.06'
MMAG

N: 2742648.948'
E: 916134.439'
EL: 101.206'
MREB

MHB SBND EPLP

WOODED

CONC WATERWAY

GAS LINE MARKER

TRAFFIC SIGNAL CONDUIT REC.

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	16	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

NAD 83

N

JARVIS ROAD

(ROAD TO 0715 AIR FORCE BASE - NO LAYOUT)

MID-CAPE CONNECTOR

(1963 ST.HWY. LO. - 5018)

WF#HNTB 2-G-1
WF#HNTB 2-G-2
WF#HNTB 2-G-3
WF#HNTB 2-G-4
WF#HNTB 2-G-5
WF#HNTB 2-G-6
WF#HNTB 2-G-7
WF#HNTB 2-G-8
WF#HNTB 2-G-9
WF#HNTB 2-G-10
WF#HNTB 2-G-11
WF#HNTB 2-G-12
WF#HNTB 2-G-13
WF#HNTB 2-G-14
WF#HNTB 2-G-34
WF#HNTB 2-G-35
WF#HNTB 2-G-36
WF#HNTB 2-G-37
WF#HNTB 2-G-38
WF#HNTB 2-G-39
WF#HNTB 2-G-40
WF#HNTB 2-G-41
WF#HNTB 2-G-42
WF#HNTB 2-G-43
WF#HNTB 2-G-44
WF#HNTB 2-G-45
WF#HNTB 2-G-46

NON-JURISDICTIONAL EPHEMERAL STREAM

MAP 11.0 PARCEL 183
21 JILLIAN DRIVE
N/F
ROBERT S. SHAW
CERT. 192510
LC PLAN 42239-B
(LOT 12)

MAP 11.0 PARCEL 185
22 JILLIAN DRIVE
N/F
SCOTT J. BOUSQUET
CERT. 181075
LC PLAN 42239-B
(LOT 14)

MAP 11.0 PARCEL 184
23 JILLIAN DRIVE
N/F
BRIAN D. CANNON
CERT. 201090
LC PLAN 42239-B
(LOT 13)

MAP 11.0 PARCEL 136.04
0 JILLIAN DRIVE
N/F
CANAL VIEW ESTATES, LLC
CERT. 210107
LC PLAN 42239-B
(LOT 25)

APPROX. PROPERTY LINE

APPROX. EASEMENT LINE

40' COLONIAL GAS CO. EASEMENT PLAN BK 435 PG 82

20' ELECTRIC EASEMENT LAN BK 454 PG 4

LOCATION LINE OF 1.25% ST.HWY. AL. 5018

403
N: 2742973.234'
E: 915932.454'
EL: 90.983'
MMAG_SPK

402
N: 2743116.089'
E: 915977.536'
EL: 91.970'
MMAG_SPK

103
N: 2742910.347'
E: 916030.884'
EL: 89.445'
MREB

405
N: 2743200.427'
E: 915911.476'
EL: 91.522'
MMAG_SPK

CONTINUED ON SHEET 15

CONTINUED ON SHEET 17

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:33 PM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	17	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:34 PM

NAD 83

N

MID-CAPE CONNECTOR
(1963 ST.HWY. LO. - 5018)

WF#HNTB 2-G-45
WF#HNTB 2-G-46
WF#HNTB 2-G-2
WF#HNTB 2-G-1
NON-JURISDICTIONAL EPHEMERAL STREAM

WF#HNTB 2-W-1
WF#HNTB 2-W-2
WF#HNTB 2-W-6
WF#HNTB 2-W-3
WF#HNTB 2-W-5
WF#HNTB 2-W-4
NON-JURISDICTIONAL EPHEMERAL STREAM

WF#HNTB 2-V-9
WF#HNTB 2-V-8
WF#HNTB 2-V-10
WF#HNTB 2-V-11
NON-JURISDICTIONAL WETLAND

BENCHMARK: TBM-2H
X-CUT IN BOLT OF TRAFFIC LIGHT BASE
EL=72.00

405
N: 2743200.427'
E: 915911.476'
EL: 91.522'
MMAG SPK

406
N: 2743402.273'
E: 915878.423'
EL: 60.530'
MMAG SPK

407
N: 2743478.889'
E: 915941.922'
EL: 60.693'
MMAG SPK

104
N: 2743245.357'
E: 915977.674'
EL: 72.761'
MMAG SPK

105
N: 2743536.958'
E: 915982.135'
EL: 57.250'
MMAG

N3708'44"W 0.64'

APPROX. PROPERTY LINE

MAP 11.0 PARCEL 138.03
O JILLIAN DRIVE
N/F
CANAL VIEW ESTATES, LLC
CERT. 167197
LC PLAN 42239-B
(LOT 24)

MAP 11.0 PARCEL 179
5 TRAYCIE LANE
N/F
CANAL VIEW ESTATES, LLC
CERT. 167197
LC PLAN 42239-B
(LOT 8)

MAP 11.0 PARCEL 178
3 TRAYCIE LANE
N/F
RICHARD J. SHEVORY
CERT. 170789
LC PLAN 42239-B
(LOT 7)

PARCEL 16
DWICH ROAD
N/F
R. MURPHY
18 PG 7
42336
42239-A

MAP 11.4 PARCEL 121
O MID CAPE CONNECTOR
N/F
ROBERT J. MACORATTI
BK 17191 PG 263
PLAN BK 577 PG 86
(LOT 2B)

MAP 11.4 PARCEL 35.01
26 ELEANOR AVE
N/F
NANCY GALLO
BK 8504 PG 206
PLAN BK 454 PG 67

+46.02
+66.6' PC
+89.11
+01.27
+50.00
+97.16
958.38'
S2°21'05"E

APPROX. EASEMENT LINE
20' ELECTRIC EASEMENT
PLAN BK 454 PG 4
APPROX. PROPERTY LINE

ACCESS FOR ALLOWED LO. 8228
NO ACCESS
NO U TURN
DIVIDED HIGHWAY
FACTORY OUTLET PRIVATE WAY
DOUBLE LANE THRU AND RIGHT TURN ONLY

WOODED
GRASS
BIT PARKING
RET WALL
GAS LINE MARKER
CATV REC.
TRAIN VAULT

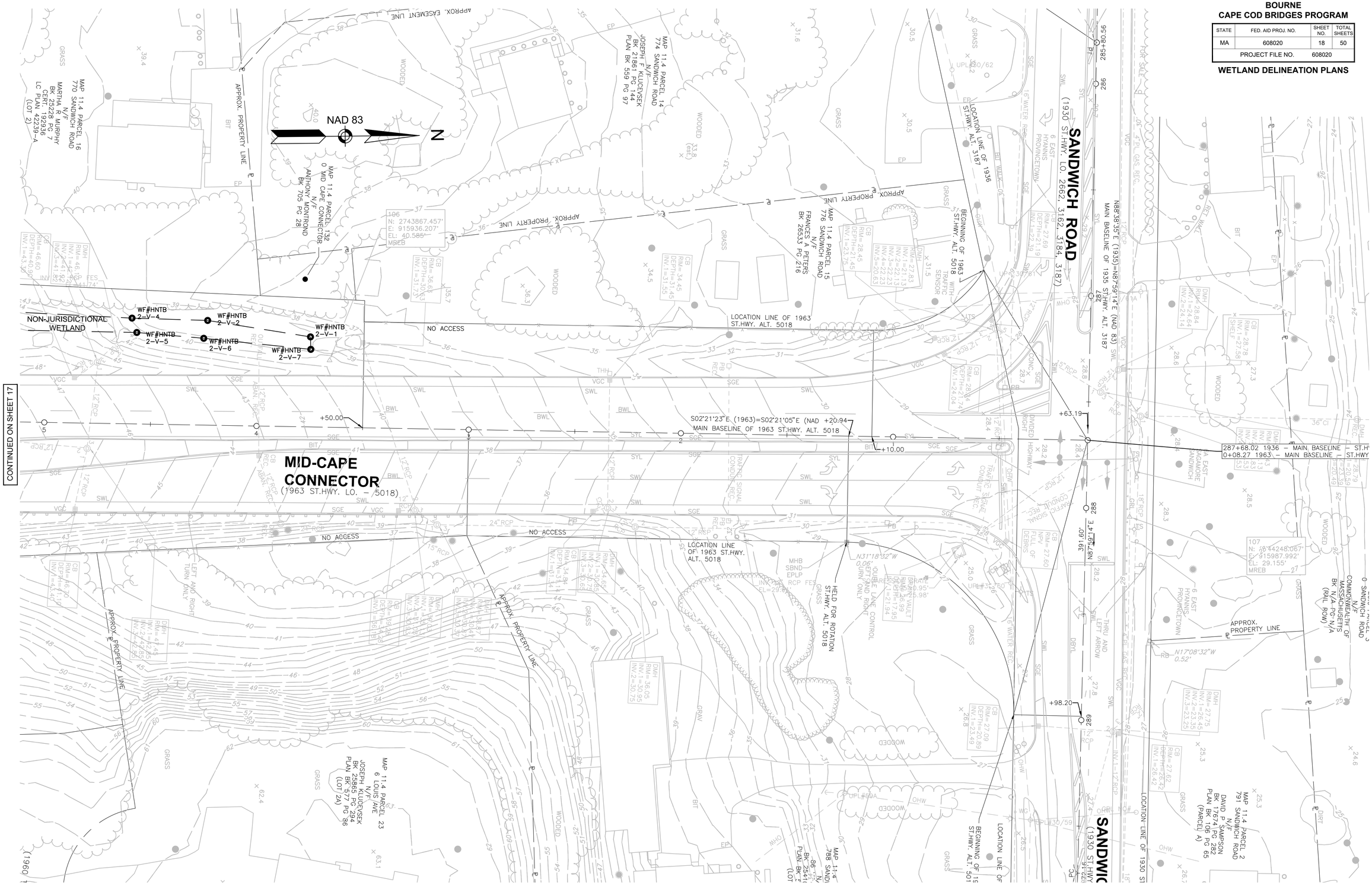
CONTINUED ON SHEET 16
CONTINUED ON SHEET 18

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	18	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:41 PM



BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	19	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:35 PM

N

NAD 83

APPROX. PROPERTY LINE

SEE NOTE 1

MAP 12.3 PARCEL 120
1008 SANDWICH ROAD
N/F
MARY M TASSINARI
BK 24715 PG 165
PLAN BK 114 PG 67

MAP 12.3 PARCEL 116
191 CRANBERRY HIGHWAY
N/F
ROBERT E SMITH
BK 16009 PG 323
PLAN BK 128 PG 45
(LOT 4)

WETLAND

167
N: 2742690.436'
E: 920285.298'
EL: 44.137'
MREB WITH CAP

408
N: 2742699.021'
E: 920420.588'
EL: 41.291'
MMAG SPUR TRIG_EL

168
N: 2742726.456'
E: 920719.113'
EL: 37.919'
MMAG

1,370.65'(REC)

N85°17'42"E
1152.29'

1,198.33'(REC)

148 149 150 151 152 153

BROKEN BIT (WATERWAY)

VANE ENDS MERGE RIGHT

SANDW

CRA

(1

CONTINUED ON SHEET 20

NOTES:
1. NOT DELINEATED BY WETLAND SCIENTIST DUE TO PRIVATE PROPERTY ACCESS

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	20	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:36 PM

CONTINUED ON SHEET 19

N

NAD 83

SANDWICH (ROUTE 6A) ROAD
(1930 ST.HWY. LO. 2662)

CRANBERRY HIGHWAY
(1934 ST.HWY. LO. – 3103)

REGENCY DRIVE
(1969 TOWN LAYOUT – PLAN BK 229 PLAN 85)
(PUBLIC – 50' WIDE)

WAYNE ROAD
(1930 LAYOUT – PLAN BK 483 PG 73)
(PUBLIC – 40' WIDE)

MAP 12.3 PARCEL 97
1021 SANDWICH ROAD
N/F
JOSEFA BUSSI
BK 2546 PG 167
PLAN BK 100 PG 95
(PARCEL III)

MAP 12.3 PARCEL 99
1023 SANDWICH ROAD
N/F
JOSEFA BUSSI
BK 2546 PG 167
PLAN BK 100 PG 95
(PARCEL I)

MAP 12.3 PARCEL 100
1025 SANDWICH ROAD
N/F
JOHN W. GAY
BK 27775 PG 103
PLAN BK 218 PG 65
(LOTS A)

MAP 12.3 PARCEL 101
1025 SANDWICH ROAD
N/F
JOHN W GAY
BK 27775 PG 103
PLAN BK 218 PG 65
(LOT B)

MAP 12.3 PARCEL 102
38 REGENCY DRIVE
N/F
NORTHBORO REALTY HOLDINGS LLC
BK 16274 PG 320
PLAN BK 229 PG 85
(LOT 19)

MAP 12.3 PARCEL 121
1028 SANDWICH ROAD
N/F
JOHN C FINE
BK 4417 PG 48
PLAN BK 114 PG 67

MAP 12.3 PARCEL 122
1030 SANDWICH ROAD
N/F
STERLING KINGS INC
BK 24749 PG 264
PLAN BK 538 PG 91

MAP 18.1 PARCEL 28
226 CRANBERRY HIGHWAY
N/F
VIRGINIA J BRIGGS
BK 3090 PG 162

MAP 12.4
1031 SANDWICH ROAD
N/F
RONALD J
BK 26972 PG
PLAN BK 229
(LOT 1)

129
N: 2742883.204'
E: 920921.030'
EL: 31.852'
MMAG

168
N: 2742726.456'
E: 920719.113'
EL: 37.919'
MMAG

130
N: 2742745.624'
E: 921142.867'
EL: 33.421'
MMAG

340 341 342 343 344 345 +72.99 PC +34.54 PT +07.05 PT +91.61 +93.18 PC +45.84 153 +01.13 154 155 156 157 158

Δ=15°19'10" R=1000.08' L=267.40' T=134.30'

S72°43'35" 138.45'

Δ=7°41'00" R=999.70' L=133.96' T=67.13'

L=192.55'(REC)

Δ=27°02'20" R=124.72' L=588.82' T=300.00'

409.43'(REC)

L=495.07'(REC)

SEE NOTE 1

NOTES:
1. NOT DELINEATED BY WETLAND SCIENTIST DUE TO PRIVATE PROPERTY ACCESS

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	21	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:50 PM

MAIN (F.K.A. BUZZARDS BAY ROAD) STREET
(1962 ST. HWY. DISCONT. 5216 – TOWN WAY)

BASELINE OF 1934 ST.HWY. ALT. 3139

LOCATION LINE OF 1962 ST.HWY. DISCONT. 5216 – TOWN WAY

100 FT BANK BUFFER

N63°47'00"E 926.17'

+44.09 60 +72.09 61 62 63 64 65

NAD 83

ANTHONY M. CUBELLIS
BK/PG 7338/36
PB/PL 472/41
(LOT 94A)
245 MAIN STREET
MAP 20.3 PARCEL 094.00

EMILIO J. CUBELLIS
TRUSTEE OF MEZZA LUNA II
REALTY TRUST
BK/PG 24359/331
PB/PL 431/12
253 MAIN STREET
MAP 20.3 PARCEL 091.00

EMILIO J. CUBELLIS
TRUSTEE OF MEZZA LUNA II
REALTY TRUST
BK/PG 24359/331
6558/004 (DEED)
249 MAIN STREET
MAP 20.3 PARCEL 093.00

AALIYAH, LLC
BK/PG 23878/93
PB/PL 7/125
(LOTS 632–634)
261 MAIN STREET
MAP 20.3 PARCEL 089.00

BOURNE LANDING, LLC
BK/PG 21693/346
PB/PL 50/37
(PORTION OF PARCEL 64)
248 MAIN STREET
MAP 20.3 PARCEL 111.00

COMMERCIAL
ERTIES, LLC
G 19492/153
PL 14/101
MAIN STREET
PARCEL 110.00

LEO'S BREAKFAST & LUNCH

MEZZA LUNA ITALIAN FAMILY RESTAURANT

OLD PAYPHONE POST

CITGO

BOURNE POND

POND

WF#HNTB 3-A-1
WF#HNTB 3-A-2
WF#HNTB 3-A-3
WF#HNTB 3-A-4
WF#HNTB 3-A-5
WF#HNTB 3-A-6
WF#HNTB 3-A-7
WF#HNTB 3-A-9
WF#HNTB 3-A-10
WF#HNTB 3-A-11
WF#HNTB 3-A-12
WF#HNTB 3-A-13
WF#HNTB 3-A-14

WETLAND FLAG HNTB-3-A-8 NOT FOUND
WETLAND FLAG HNTB-3-A-15 NOT FOUND

498
N: 2735133.582'
E: 901109.800'
EL: 12.288'
MMAG SPK

363
N: 2735194.144'
E: 901156.681'
EL: 12.697'
MDHL

9523
N: 2735269.382'
E: 901322.745'
EL: 13.013'
MMAG SPK

APPROXIMATE EASEMENT "Y-2" PLAN BK 472 PG 41
APPROXIMATE EASEMENT "X" PLAN BK 472 PG 41
APPROXIMATE EASEMENT "Z" PLAN BK 472 PG 41
APPROXIMATE 12' ROW PLAN BK 348 PG 26
APPROXIMATE 20' ROW PLAN BK 348 PG 26
APPROX. EASEMENT LINE
APPROX. PROPERTY LINE
SPERANZA LN

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	22	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:51 PM

N

NAD 83

SANDRA E. WASHINGTON
BK/PG 25240/150
PB/PL 208/143
(LOT 75)
7 KEENAN ROAD
MAP 20.3 PARCEL 147.00

KIMBERLY DUFROMONT
BK/PG 23987/262
PB/PL 208/143
(LOT 76)
9 KEENAN ROAD
MAP 20.3
PARCEL 148.00

GARY H. DEVILLEZ AND
ETHEL E. DEVILLEZ
BK/PG 4567/165
PB/PL 208/143
(LOT 77)
11 KEENAN ROAD
MAP 20.3 PARCEL 149.00

PAUL L. SMITH
BK/PG 13235/258
PB/PL 208/143
(LOT 78)
15 KEENAN ROAD
MAP 20.3 PARCEL 150.00

KEENAN ROAD
TOWN LAYOUT – PLAN BK 208 PG 143)
(PUBLIC – 40' WIDE)

APPROX. TOWN LAYOUT LINE

APPROX. PROPERTY LINE

448
N: 2735922.499'
E: 900869.569'
EL: 42.019'
MMAG

446
N: 2736118.035'
E: 901108.797'
EL: 40.275'
MMAG SPK

447
N: 2736986.413'
E: 901050.490'
EL: 44.014'
MMAG SPK

APPROX. ROW LINE

APPROXIMATE 40' ROW
PLAN BK 144, PG. 29

LOCATION LINE OF 1949 ST.HWY. LO. 3628

NO ACCESS

BUZZARDS BAY (ROUTE 6 & 28) BYPASS
(1949 ST.HWY. LO. 3628)

MAIN BASELINE OF 1949 ST.HWY. LO. 3628

+25.25
PC

4=30°11'28"
R=2000.00'
L=1053.87'
T=539.47'

WF#HNTB 3-B-1
WF#HNTB 3-B-2
WF#HNTB 3-B-3
WF#HNTB 3-B-4
WF#HNTB 3-B-5
WF#HNTB 3-B-6

NON-JURISDICTIONAL WETLAND

355
N: 2735828.973'
E: 900863.327'
EL: 42.323'
MREB CAP

MARIA CUBELLIS
BK/PG 24859/78
PB/PL 541/41
(LOT 4)
8 SPERANZA LANE
MAP 20.3 PARCEL 160.00

SHELLENE S. ELMORE AND
MELISSA ELMORE
BK/PG 18652/56
PB/PL 7/125
(LOTS 510, 51
522 & 523)
19 WAGNER WAY
MAP 20.3 PARCEL 072.02

MARITIME HOLDINGS, LLC
BK/PG 25333/336
PB/PL 634/35
(PARCEL 72:01)
20 WAGNER WAY
MAP 20.3 PARCEL 072.01

WAGNER (F.K.A. HIGHLAND AVENUE) WAY
(1919 LAYOUT – PLAN BK 7 PG 125)
(PRIVATE – 40' WIDE)

APPROX. LAYOUT LINE

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	23	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

CONTINUED ON SHEET 29

CONTINUED ON SHEET 24

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:51 PM

N

NAD 83

MAIN 62 BASELINE OF 1949 ST.HWY. LO. 3628

77+60.96 1933 ST.HWY.LO. 3071 MAIN BASELINE =
62+98.74 1949 ST.HWY.LO. 3628 MAIN BASELINE

N26°33'30"E
456.54'

75+29.43 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE =
75+29.43 1933 ST.HWY.LO. 3071 MAIN BASELINE

MAIN BASELINE OF 1933 ST.HWY. LO. 3071
N27°24'15"E (1933)=N26°33'30"E (NAD 83)

74+28.04 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE =
0+00.00 2020 - OLD BRIDGE ROAD BASELINE - ST.HWY. ALT. 8699

76 MAIN BASELINE OF 1934 ST.HWY. ALT. 3105

N88°55'00"E
697.62'

SCENIC (ROUTE 6) HIGHWAY
(1934 ST.HWY. ALT. 3105)

BENCHMARK BM D44 1978
NGS DISK
EL=15.54'

9704
N: 2735849.260'
E: 902592.136'
EL: 14.584'
MMAG SPK

368
N: 2735744.664'
E: 902428.393'
EL: 17.099'
MDHL

369
N: 2735728.773'
E: 902627.716'
EL: 14.715'
MMAG

100 FT BVW BUFFER

BORDERING VEGETATED WETLAND

WF#HNTB 3-G-42
WF#HNTB 3-G-40
3-G-39
WF#HNTB 3-G-38
WF#HNTB 3-G-37
WF#HNTB 3-G-36
WF#HNTB 3-G-35
WF#HNTB 3-G-34
WF#HNTB 3-G-33
WF#HNTB 3-G-32
WF#HNTB 3-G-31
WF#HNTB 3-G-30
WF#HNTB 3-G-29
WF#HNTB 3-G-28
WF#HNTB 3-G-27

80+90.66

PUBLIC UTILITY EASEMENT 2020 ST. HWY. ALT. 8699

APPROX. EASEMENT LINE

SEWER EASEMENT 30' WIDE PB/PL 465/91

EXISTING EASEMENT LINE

LOCATION LINE OF 1933 ST.HWY. LO. 3071

OCEAN STATE JOB LOT

CUSTOMER PARKING

NON-TANGENT

NO ACCESS

END OF 1949 HWY.ST. LO. 3628

BEGINNING OF 2020 ST.HWY. ALT. 8699 (SECT. 1)

LOCATION LINE OF 1934 ST.HWY. ALT. 3105

BEGINNING OF 2020 TOWN ALT. 8699

LOCATION LINE OF 1962 ST.HWY. CONT. 5216-TOWN WAY

POINT OF ROTATION 3141-3139-3105

NON-TANGENT END OF 2020 TOWN ALT. 8699

OLD BRIDGE ROAD BASELINE 2020 ST.HWY. ALT. 8699

+29.43 PI
+50.04
+65.95
+67.36
+03.86
+57.06
+48.23
+43.39
+73.14
+63.66
+59.43
+99.42
+95.11 PI
+13.19
+20.70
+58.89

N69°50'30"E
333.27'

PUBLIC UTILITY EASEMENT 2020 ST. HWY. ALT. 8699

EXISTING EASEMENT LINE

APPROX. PROPERTY LINE

BENNY P. CHU TRUSTEE OF CHINA BAY TRUST
BK/PG 22425/1
PB/PL 157/143
300 MAIN STREET
MAP 20.3 PARCEL 133.00

EXISTING 25' R.O.W. BK/PG 6387/175 PB/BL 157/143

15'WIDE TOWN SEWER EASEMENT CENTERED ON SEWER LINE LOCATION (APPROX. LOCATION)
BK/PG 6991/100
SEE NOTE #8 ON SHEET 1 OF 94 OF THIS SURVEY

ANGELO J. DIMODICA AND ANTONIETTE B. DIMODICA
BK/PG 23841/112
BK/PG 6387/175
PB/PL 157/143
(LOT D)
310 MAIN STREET
MAP 20.3 PARCEL 134.00

BEGINNING OF 2020 ST.HWY. ALT. 8699 (SECT. 1)
PUBLIC UTILITY EASEMENT 2020 ST. HWY. ALT. 8699
EXISTING EASEMENT LINE

NO LEFT TURN
NO ACCESS
ACCESS
ONE WAY DO NOT ENTER
RIGHT TURN ONLY
ENTRANCE
EXIT
NO PARKING ANY TIME

BOSTON FALMOUTH NEXT LEFT
BOURNE BRIDGE LIQUORS
EAST HYANNIS PROVINCETOWN

BENNY P. CHU

EASTWIND SEAFOODS RESTAURANT

MASS MARITIME ACADEMY

WELCOME TO BUZZARDS BAY

EAST 6 SOUTH 28

TOURIST

BIT PARKING

MR. FENCE

RET.WALL

WOODED

GRASS

BRUSH

TELE. REC. ABAN.

SEWER VAULT GRINDER PUMP

CB RIM=16.28 DEPTH=13.48 NPV DEBRIS

DMH RIM=16.83 INV.1=13.33 INV.2=12.73 INV.3=12.63

DMH RIM=17.04 INV.1=12.84 INV.2=12.54 INV.3=12.54 INV.4=12.34

CB RIM=14.93 DEPTH=7.73 INV.1=10.43 NOPV

DMH RIM=14.26 INV.1=9.85 INV.2=9.76 INV.3=9.66 INV.4=8.16 INV.5=7.06

CB RIM=14.17 DEPTH=10.87 INV.1=10.97

CB RIM=14.44 DEPTH=12.04 INV.1=12.34

CB RIM=16.48 DEPTH=10.38 NPV, DRYWELL

CB RIM=16.93 DEPTH=13.78 INV.1=13.93 INV.2=13.83

CB RIM=16.83 DEPTH=13.83 INV.1=14.13 INV.2=13.83

SMH RIM=17.60 TOP.1=14.50 DEBRIS=14.40

SMH RIM=21.64 INV.1=9.84 INV.2=9.64 INV.3=9.54

SMH RIM=18.58 INV.1=12.45 INV.2=8.55 INV.3=8.55

DMH RIM=17.86 CND BROKEN RIM

CB RIM=16.83 DEPTH=13.83 INV.1=14.13 INV.2=13.83

CB RIM=16.93 DEPTH=13.78 INV.1=13.93 INV.2=13.83

CB RIM=16.48 DEPTH=10.38 NPV, DRYWELL

CB RIM=14.44 DEPTH=12.04 INV.1=12.34

CB RIM=14.17 DEPTH=10.87 INV.1=10.97

CB RIM=14.93 DEPTH=7.73 INV.1=10.43 NOPV

DMH RIM=14.26 INV.1=9.85 INV.2=9.76 INV.3=9.66 INV.4=8.16 INV.5=7.06

SMH RIM=17.60 TOP.1=14.50 DEBRIS=14.40

SMH RIM=21.64 INV.1=9.84 INV.2=9.64 INV.3=9.54

SMH RIM=18.58 INV.1=12.45 INV.2=8.55 INV.3=8.55

DMH RIM=17.86 CND BROKEN RIM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	24	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

CONTINUED ON SHEET 29

CONTINUED ON SHEET 23

CONTINUED ON SHEET 25

N

NAD 83

WF#HNTB 3-G-13 (est.)

WF#HNTB 3-G-14

WF#HNTB 3-G-15

WF#HNTB 3-G-16

WF#HNTB 3-G-17

WF#HNTB 3-G-18

WF#HNTB 3-G-19

WF#HNTB 3-G-20

WF#HNTB 3-G-21

WF#HNTB 3-G-22

WF#HNTB 3-G-23

WF#HNTB 3-G-24

WF#HNTB 3-G-25

WF#HNTB 3-G-26

WF#HNTB 3-N-1

WF#HNTB 3-N-2

WF#HNTB 3-N-3

WF#HNTB 3-N-4

WF#HNTB 3-N-5

WF#HNTB 3-N-6

WF#HNTB 3-N-7

WF#HNTB 3-N-8

WF#HNTB 3-N-9

WF#HNTB 3-N-10

WF#HNTB 3-N-11

WF#HNTB 3-N-14

WF#HNTB 3-N-15

WF#HNTB 3-N-16

WF#HNTB 3-N-17

WF#HNTB 3-N-18

WF#HNTB 3-N-19

WF#HNTB 3-N-20

BEGINNING OF 2020 ST.HWY. ALT. 8699 (SECT. 3)

BEGINNING OF 2020 ST.HWY. ALT. 8699 (SECT. 2)

END OF 2020 ST.HWY. ALT. 8699 (SECT. 1)

END OF 1980 ST.HWY. ALT. 6434

+78.55

+87.00

+90.66 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE = 0+00.00 1980 ST.HWY. LO. 6312 AUXILARY BASELINE CC

81+37.22 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE = 8+36.26 1980 ST.HWY.ALT. 6434 AUXILARY BASELINE A

MAIN BASELINE OF 1934 ST.HWY. ALT. 3105

LOCATION LINE OF 1980 ST.HWY. LO. 6312 (SECT.1)

LOCATION LINE OF 1934 ST.HWY. ALT. 3105

LOCATION LINE OF 2020 ST.HWY. ALT. 8699

AUX. BASELINE "A" 1980 ST.HWY. ALT. 6434

BASELINE "CC" 1980 ST.HWY. LO. 6312 AUX. (NAD 83) = N 879°13'54" W 1980.19'

N 19°13'54" W 1980.19'

N 19°13'54" W 1973.47'

N 19°13'54" W 1973.47'

N 19°13'54" W 1973.47

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	25	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:52 PM

N

NAD 83

CHRISCO REALTY OF BOURNE, LLC
BK/PG 19787/136
PB/PL 238/5
(LOTS D, E & F)
343 SCENIC HIGHWAY
MAP 20.4 PARCEL 002.00

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPARTMENT OF TRANSPORTATION PARCEL 6-WS-1 1980 ST.HWY. ALT. 6434

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPARTMENT OF TRANSPORTATION PARCEL E-2 1979 ST.HWY. ALT. 6399

BRIDGE APPROACH (1933 ST.HWY. LO. 3071)

MEMORIAL (ROUTE 28) (1980 ST.HWY. ALT. 6707)

SCENIC (ROUTE 6) HIGHWAY (1934 ST.HWY. ALT. 3105)

MAINT. BASELINE OF 1933 ST.HWY. LO. 3071

LOCATION LINE OF 1933 ST.HWY. LO. 3071

LOCATION LINE OF 1934 ST.HWY. ALT. 3105

APPROX. EASEMENT LINE

APPROX. PROPERTY LINE

EXISTING EASEMENT LINE

15'WIDE TOWN SEWER EASEMENT CENTERED ON SEWER LINE LOCATION (APPROX. LOCATION) BK/PG 6991/100 SEE NOTE #8 ON SHEET 1 OF 94 OF THIS SURVEY

NON-JURISDICTIONAL WETLAND

WF#HNTB 3-0-1
WF#HNTB 3-0-2
WF#HNTB 3-0-3
WF#HNTB 3-0-4
WF#HNTB 3-0-5
WF#HNTB 3-0-6
WF#HNTB 3-0-7
WF#HNTB 3-0-8
WF#HNTB 3-0-9
WF#HNTB 3-0-10
WF#HNTB 3-0-11

90+65.72 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE = 235+20.21 1980 ST.HWY.LO. 6312 MAIN BASELINE

90+54.52 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE = 94+49.34 1933 ST.HWY.LO. 3071 MAIN BASELINE

233+97.73 1980 ST.HWY.LO. 6312 MAIN BASELINE = 95+74.95 1933 ST.HWY.LO. 3071 MAIN BASELINE

COMCAST FIBER OPTIC CABLES CROSSING LICENSE CONTRACT NO. DACW33-3-19-008 (APPROX. LOCATION)

N26°45'57"W (1980)=N26°43'56"W (NAD 83) 1980 ST.HWY. LO 6312 MAIN BASELINE OF 1980 ST.HWY. LO. 6312

MAINT. BASELINE OF 1933 ST.HWY. LO. 3064 S25°53'30"E (1933) S26°43'55"E (NAD 83)

CONTINUED ON SHEET 24

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	26	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:52 PM

N

NAD 83

WF#HNTB 3-M-12
WF#HNTB 3-M-13
WF#HNTB 3-M-11
WF#HNTB 3-M-14
WF#HNTB 3-M-15
WF#HNTB 3-M-10
WF#HNTB 3-M-17
WF#HNTB 3-M-1
WF#HNTB 3-M-9
WF#HNTB 3-M-16
WF#HNTB 3-M-2
WF#HNTB 3-M-8
WF#HNTB 3-M-3
WF#HNTB 3-M-7
WF#HNTB 3-M-6
WF#HNTB 3-M-4
WF#HNTB 3-M-5

NON-JURISDICTIONAL EPHEMERAL STREAM

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
BK/PG 7162/123
PB/PL 471/66
(LOT 1)
0 SCENIC HIGHWAY
MAP 20.0 PARCEL 053.00

SEMAAN HAJNASR
BK/PG 26960/183
(PARCEL II)
PB/PL 206/131
421 SCENIC HIGHWAY
MAP 20.0 PARCEL 027.00

STEPHAN P. CELATA
BK/PG 27622/74
PB/PL 448/73
(LOT 1)
1 BRIDGEWAY CIRCLE
437 SCENIC HIGHWAY
MAP 20.0 PARCEL 043.00

STEPHAN P. CELATA
BK/PG 27622/74
PB/PL 448/73
(LOT 2)
2 BRIDGEWAY CIRCLE
431 SCENIC HIGHWAY
MAP 20.0 PARCEL 044.00

BRIDGEWAY CIRCLE
(1987 PAPER STREET - PLAN BK 448 PG 73)
(PRIVATE - 40' WIDE)

APPROX. LAYOUT LINE
APPROX. PROPERTY LINE
APPROX. EASEMENT LINE

9526
N: 2736321.571'
E: 905822.684'
EL: 48.166'
MMAG SPK

455
N: 2736313.435'
E: 906048.166'
EL: 56.186'
MREB CAP

454
N: 2736141.333'
E: 905776.476'
EL: 56.912'
MREB CAP

457
N: 2736279.740'
E: 906138.460'
EL: 60.438'
MREB CAP

9525
N: 2736187.154'
E: 905925.807'
EL: 56.141'
MMAG SPK

BENCHMARK: TBM-3N
XCUT IN HYD BOLT
OVER MAIN OUTLET
EL=56.68'

CBND DISK
CC-174 ACOE

SCENIC (ROUTE 6) HIGHWAY
(1936 ST.HWY. ALT. 3180)

MAIN BASELINE OF 1936 ST.HWY. ALT. 3180

LOCATION LINE OF 1936 ST.HWY. ALT. 3180

WF#HNTB 3-J-7
WF#HNTB 3-J-6
WF#HNTB 3-J-8
WF#HNTB 3-J-5
WF#HNTB 3-J-9
WF#HNTB 3-J-4
WF#HNTB 3-J-10
WF#HNTB 3-J-3
WF#HNTB 3-J-11
WF#HNTB 3-J-1
WF#HNTB 3-J-2

NON-JURISDICTIONAL EPHEMERAL STREAM

UNITED STATES OF AMERICA
(BK/PG 453/287
PB/PL 474/1-25
0 SCENIC HIGHWAY
MAP 16.0 PARCEL 013.00

UNDERGROUND CABLE MARKER POST

Δ=53°59'50"
R=1962.73'
L=1849.73'
T=1000.00'

+85.00
+59.99

109 110 111 112 113 114

WOODED
GRASS
BRUSH
BIT
GPL
OHW
SWL
BWL
DBYL
CCB
12" RCP
12" DI WATER REC.
INV 12" RCP EL=46.35'
INV 12" RCP EL=47.91'
INV 12" RCP EL=49.78'
CB RIM=54.80 DEPTH=50.70 INV.1=50.70
CB RIM=56.79 DEPTH=52.79 INV.1=52.79 INV.2=52.79
CB RIM=56.61 DEPTH=53.51 INV.1=53.21 INV.2=53.21
CB RIM=55.45 DEPTH=53.65 NPL FULL OF DEBRIS
CB RIM=54.84 DEPTH=49.84 INV.1=50.64 INV.2=50.64
MHB SBND EPLP
UPL#35/36
UPL#37
SPEED LIMIT 50

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	27	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:53 PM

WF#HNTB 3-L-5
WF#HNTB 3-L-6
WF#HNTB 3-L-3
WF#HNTB 3-L-7
WF#HNTB 3-L-2
WF#HNTB 3-L-8
WF#HNTB 3-L-1
NON-JURISDICTIONAL WETLAND
NAD 83
N

TOWN OF BOURNE
(TAX COLLECTOR)
BK/PG 10471/347
FINAL JUDGEMENT TAX L
CASE
PB/PL 206/131
103/57, 425/59
0 SCENIC HIGHWAY
MAP 20.0 PARCEL 033

474
N: 2736895.235'
E: 906735.789'
EL: 94.168'
MMAG SPK

475
N: 2736978.812'
E: 906810.360'
EL: 104.746'
MMAG SPK

476
N: 2737131.732'
E: 906913.380'
EL: 106.379'
MMAG SPK

477
N: 2737265.934'
E: 906972.966'
EL: 92.130'
MMAG SPK

478
N: 2737375.967'
E: 907071.381'
EL: 97.400'
MMAG SPK

LOCATION LINE OF 2013 ST.HWY. ALT. 8062
LOCATION LINE OF 1936 ST.HWY. ALT. 3180
EXISTING EASEMENT LINE

SCENIC (ROUTE 6) HIGHWAY
(1936 ST.HWY. ALT. 3180)

MAIN BASELINE OF 1936 ST.HWY. ALT.
+95.87 PT
+75.00

CB RIM=92.04 DEPTH=87.14 INV.1=87.14
CB RIM=86.17 DEPTH=82.07 INV.1=82.07
CB RIM=93.73 DEPTH=89.93 INV.1=89.43
CB RIM=91.87 DEPTH=89.47 INV.1=89.37 INDEV.
DMH RIM=92.15 INV.1=89.55 INV.2=87.85 INV.3=89.35 INV.4=89.65
INV. 12" RCP E=87.21
CBND DISK
CBND EPLP
UTILITY POLE #35/43
UTILITY POLE #35/44
UTILITY POLE #35/42
UNDERGROUND CABLE MARKER POST
460
N: 2737077.381'
E: 906998.872'
EL: 94.012'
MMAG
9706
N: 2737097.008'
MHB
SBND CV
N: 2736746.221'

UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 474/1-25
0 SCENIC HIGHWAY
MAP 16.0 PARCEL 013.00

CAMPGROUND RESTROOMS
GRASS
WOODED
12"DI WATER REC.
12" RCP
12" CI
SWL
BWL
DBYL
CCB
OHW
EP
BIT

CONTINUED ON SHEET 28

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	28	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:57 PM

CONTINUED ON SHEET 27

N
NAD 83

N79
N: 2737508.611'
E: 907137.674'
EL: 97.843'
MMAG SPK

N: 2737729.795'
E: 907255.693'
EL: 115.223'
MMAG SPK

LOCATION LINE 2013 ST.HWY. ALT. 8062

BENCHMARK: TBM-30
RR SPIKE IN UTILITY POLE
EL=89.85

LOCATION LINE OF 1936 ST.HWY. ALT. 3180

SCENIC (ROUTE 6) HIGHWAY
(1936 ST.HWY. ALT. 3180)

MAIN BASELINE OF 1936 ST.HWY. ALT. 3180

N36°34'59"E
1820.99'

129 130 131 132 133 134

+30.00 +10.00 +15.00 +20.00

12" DI WATER REC.

12" RCP 12" CMP 15" CMP 18" RCP

CB
RIM=83.25
DEPTH=78.15
INV.1=78.15

CB
RIM=83.10
DEPTH=77.69
INV.1=77.99
INV.2=77.89

CB
RIM=83.51
DEPTH=79.51
INV.1=79.14

CB
RIM=83.39
DEPTH=78.09
INV.1=79.19

CB
RIM=85.03
DEPTH=80.53
INV.1=80.53

CB
RIM=84.96
DEPTH=78.46
INV.1=78.86
INV.2=78.76

CB
RIM=82.48
INV.1=78.08
INV.2=77.88

DMH
RIM=83.65
INV.1=77.35
INV.2=77.25
INV.3=77.35
INV.4=77.65

DMH
RIM=80.14
INV.1=80.42
INV.2=80.22
INV.3=80.32
INV.4=80.62

DMH
RIM=37.74
INV.1=33.24
INV.2=32.34

DMH
RIM=37.86
INV.1=31.76
INV.2=31.56
INV.3=31.16

451
N: 2737349.357'
E: 907194.856'
EL: 86.164'
MMAG

497
N: 2737481.331'
E: 907304.814'
EL: 84.195'
MMAG SPK

462
N: 2737676.184'
E: 907362.513'
EL: 83.471'
MMAG

496
N: 2737303.215'
E: 907407.478'

9524
N: 2737666.920'
E: 907681.866'
EL: 36.844'
MMAG

UNDERGROUND TELEPHONE MARKER POST

OUTFALL NOT FOUND LIKELY CONNECTS TO DMH IN CAMPGROUND

UNDERGROUND CABLE MARKER POST

UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 474/1-25
0 SCENIC HIGHWAY
MAP 16.0 PARCEL 013.00

NON-JURISDICTIONAL EPHEMERAL STREAM

WF#HNTB 3-K-1
WF#HNTB 3-K-2
WF#HNTB 3-K-3
WF#HNTB 3-K-4
WF#HNTB 3-K-5
WF#HNTB 3-K-6
WF#HNTB 3-K-7
WF#HNTB 3-K-8
WF#HNTB 3-K-9
WF#HNTB 3-K-10
WF#HNTB 3-K-11
WF#HNTB 3-K-12

WOODED

BWL SWL CCB DBYL GRL EP BIT OHW CBND EPLP

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	29	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

CONTINUED ON SHEET 23

NAD 83

N

BORDERING VEGETATED WETLAND

2+38.41 1980 ST.HWY. LO. 6312 AUXILARY BASELINE CC =
0+00.00 1980 ST.HWY. LO. 6312 AUXILARY BASELINE D

0.66 1934 ST.HWY. LO. 3141-3139-3105 MAIN BASELINE =
.00 1980 ST.HWY. LO. 6312 AUXILARY BASELINE CC

AUX. BASELINE "CC" 1980 ST.HWY. LO. 6312 N19°13'42"W (1980)= N19°13'50"W (NAD 83)

N19°13'50"W

+78.55

BEGINNING OF 1980 ST.HWY. ALT. 2020 (SECT. 3)

LOCATION LINE OF 1980 ST.HWY. LO. 6312 (SECT.1)

AUX. BASELINE "D" 1980 ST.HWY. LO. 6312

END OF 1980 ST.HWY. ALT. 2020 (SECT. 3)

+70.29

+00.65 PC

Δ=57°56'56"
R=15.00'
L=15.17'

+25.78

+80.00

+88.44

NON-JURISDICTIONAL WETLAND

100 FT BVW BUFFER

ISOLATED LAND SUBJECT TO FLOODING

APPROX. EASEMENT LINE

ELECTRIC EASEMENT 30' WIDE PB/PL 461/72

NO ACCESS

APPROX. ACCESS

ROUTE 6 & 28) APPROACH

+11.45

+82.56

APPROX. EASEMENT LINE

LOCATION LINE OF 1980 ST.HWY. LO. 6312

NO ACCESS

NON-JURISDICTIONAL EPHEMERAL STREAM

APPROX. PROPERTY LINE

3.0 FT S89°22'N

MAIN BASELINE OF 1933 ST.HWY. LO. 3071

82+20.37 1933 ST.HWY.LO. 3071 MAIN BASELINE =
8+48.48 1980 ST.HWY.LO. 6312 AUXILARY BASELINE A-1

+12.21 PC

+13.203ASELINE "A" OF 1980 ST.HWY. LO. 6312 N9°27'40"W (1980)= N9°27'48"W (NAD 83)

+83.11

N9°27'48" 516.51'

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPARTMENT OF TRANSPORTATION BK/PG 30574/1 1980 ST.HWY. LO. 6312 PARCEL NO. 6-13-UR-1

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPARTMENT OF TRANSPORTATION BK/PG 30574/1 1980 ST.HWY. LO. 6312 PARCEL NO. 6-13-UR-2

PROPERTY LINE

9532
N: 2736351.875'
E: 902615.751'
EL: 19.399'
MMAG

9536
N: 2736262.940'
E: 902747.125'
EL: 14.386'
MMAG DOT2462

9535
N: 2736141.942'
E: 903026.752'
EL: 23.510'
MMAG

9536
N: 2736351.875'
E: 902615.751'
EL: 19.399'
MMAG

CONTINUED ON SHEET 24

CONTINUED ON SHEET 30

CONTINUED ON SHEET 33

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:59 PM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	30	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:54 PM

NAD 83

ISOLATED LAND SUBJECT TO FLOODING

NON-JURISDICTIONAL EPHEMERAL STREAM

LOCATION LINE OF 1980 ST.HWY. LO. 6312

AUX. BASELINE "A" OF 1980 ST.HWY. LO. 6312

N9°27'46"W 516.51'

4=27°06'01" R=800.00' L=378.39' T=192.80'

+83.11 +21.64 +42.12 +64.99 PC

WF#HNTB 3-D-1 WF#HNTB 3-D-2 WF#HNTB 3-D-3 WF#HNTB 3-D-4

WF#HNTB 3-E-1 WF#HNTB 3-E-2 WF#HNTB 3-E-3 WF#HNTB 3-E-4 WF#HNTB 3-E-5 WF#HNTB 3-E-6 WF#HNTB 3-E-7 WF#HNTB 3-E-8 WF#HNTB 3-E-9 WF#HNTB 3-E-10 WF#HNTB 3-E-11 WF#HNTB 3-E-12 WF#HNTB 3-E-13 WF#HNTB 3-E-14 WF#HNTB 3-E-15 WF#HNTB 3-E-16 WF#HNTB 3-E-17 WF#HNTB 3-E-18 WF#HNTB 3-E-19 WF#HNTB 3-E-20 WF#HNTB 3-E-21 WF#HNTB 3-E-22 WF#HNTB 3-E-23 WF#HNTB 3-E-24 WF#HNTB 3-E-25 WF#HNTB 3-E-26 WF#HNTB 3-E-27 WF#HNTB 3-E-28 WF#HNTB 3-E-29 WF#HNTB 3-E-30 WF#HNTB 3-E-31 WF#HNTB 3-E-32

WF#HNTB 3-I-1 WF#HNTB 3-I-2 WF#HNTB 3-I-3 WF#HNTB 3-I-4 WF#HNTB 3-I-5 WF#HNTB 3-I-6 WF#HNTB 3-I-7 WF#HNTB 3-I-8 WF#HNTB 3-I-9 WF#HNTB 3-I-10 WF#HNTB 3-I-11 WF#HNTB 3-I-12 WF#HNTB 3-I-13 WF#HNTB 3-I-14 WF#HNTB 3-I-15 WF#HNTB 3-I-16 WF#HNTB 3-I-17 WF#HNTB 3-I-18 WF#HNTB 3-I-19 WF#HNTB 3-I-20 WF#HNTB 3-I-21 WF#HNTB 3-I-22 WF#HNTB 3-I-23 WF#HNTB 3-I-24 WF#HNTB 3-I-25 WF#HNTB 3-I-26 WF#HNTB 3-I-27 WF#HNTB 3-I-28 WF#HNTB 3-I-29

WF#HNTB 3-H-1 WF#HNTB 3-H-2 WF#HNTB 3-H-3 WF#HNTB 3-H-4 WF#HNTB 3-H-5 WF#HNTB 3-H-6 WF#HNTB 3-H-7 WF#HNTB 3-H-8 WF#HNTB 3-H-9 WF#HNTB 3-H-10 WF#HNTB 3-H-11 WF#HNTB 3-H-12 WF#HNTB 3-H-13 WF#HNTB 3-H-14 WF#HNTB 3-H-15 WF#HNTB 3-H-16 WF#HNTB 3-H-17 WF#HNTB 3-H-18 WF#HNTB 3-H-19 WF#HNTB 3-H-20 WF#HNTB 3-H-21 WF#HNTB 3-H-22 WF#HNTB 3-H-23 WF#HNTB 3-H-24 WF#HNTB 3-H-25 WF#HNTB 3-H-26 WF#HNTB 3-H-27 WF#HNTB 3-H-28 WF#HNTB 3-H-29 WF#HNTB 3-H-30 WF#HNTB 3-H-31 WF#HNTB 3-H-32 WF#HNTB 3-H-33 WF#HNTB 3-H-34 WF#HNTB 3-H-35 WF#HNTB 3-H-36 WF#HNTB 3-H-37 WF#HNTB 3-H-38 WF#HNTB 3-H-39 WF#HNTB 3-H-40 WF#HNTB 3-H-41 WF#HNTB 3-H-42 WF#HNTB 3-H-43 WF#HNTB 3-H-44

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPARTMENT OF TRANSPORTATION BK/PG 30871 1980 ST.HWY. LO. 6312 PARCEL NO. 6-15-UR-1

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPARTMENT OF TRANSPORTATION BK/PG 30871 1980 ST.HWY. LO. 6312 PARCEL NO. 6-15-UR-2

THOMAS AND MARY SANDERS REALTY TRUST OF GEARAC R. TRUSTEES' BK/PG 32578/61 PB/PL 317/64 (LOTS 1 & 4) 6 FINCH LANE LO PARCEL 07-4.00

CONTINUED ON SHEET 29

CONTINUED ON SHEET 32

CONTINUED ON SHEET 31

CONTINUED ON SHEET 32

CONTINUED ON SHEET 30

BOURNE
CAPE COD CANAL AREA IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	31	50
	PROJECT FILE NO.	608020	

CAPE COD BRIDGES PROGRAM

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:54 PM

AUX. BASELINE "A" OF 1980 ST.HWY. LO. 6312

+64.99 PC

NAD 83

N

WF#HNTB 3-H-1 through WF#HNTB 3-H-61

WF#HNTB 3-I-30

WF#HNTB 3-I-24

9574 N: 2736890.168' E: 902771.991' EL: 5.864' MSTN

9573 N: 2736776.321' E: 902784.261' MSTN

9572 N: 2736805.165' E: 902848.004' 5.997'

9571 N: 2736878.233' E: 902884.600' EL: 5.583' MMAG SPK

9570 N: 2736889.734' E: 902968.323' EL: 5.435' MMAG SPK

9569 N: 2736955.924' E: 903014.502' EL: 5.040' MMAG SPK

9568 N: 2737079.174' E: 902939.415' EL: 8.121' MMAG SPK

9567 N: 2737140.974' E: 902943.195' EL: 30.978' MMAG SPK

346 N: 2736823.419' E: 902776.483' EL: 23.391' MREB CAP

393 N: 2737275.921' E: 902930.279' EL: 40.058' MREB CAP

ISOLATED LAND SUBJECT TO FLOODING

NO ACCESS

APPROX. PROPERTY LINE

LOCATION LINE OF 1990 ST.HWY. LO. 6312

WETLAND

WOODED

GRASS

BRUSH

8" SUBDRAIN REC.

8" CPP SUBDRAIN

EVACUATION ROUTE

12" RCP

15" RCP

GRL

SYL

SWL

SGE

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	32	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

Plotted on 11-Apr-2022 2:55 PM

608020_EV2 (BOURNE PLANS).DWG

N

NAD 83

FINCH LANE
(1994 TOWN LAYOUT - PLAN BK 517 PG 64)
(PRIVATE - VARIABLE WIDTH)

APPROX. TOWN LAYOUT LINE

WF#HNTB 3-F-1
WF#HNTB 3-F-2
WF#HNTB 3-F-3
WF#HNTB 3-F-4
WF#HNTB 3-F-5
WF#HNTB 3-F-6
WF#HNTB 3-F-7
WF#HNTB 3-F-8
WF#HNTB 3-F-9
WF#HNTB 3-F-10
WF#HNTB 3-F-11
WF#HNTB 3-F-12
WF#HNTB 3-F-13
WF#HNTB 3-F-14
WF#HNTB 3-F-15
WF#HNTB 3-F-16
WF#HNTB 3-F-17
WF#HNTB 3-F-18
WF#HNTB 3-F-19
WF#HNTB 3-F-20
WF#HNTB 3-F-21
WF#HNTB 3-F-22
WF#HNTB 3-F-23
WF#HNTB 3-F-24
WF#HNTB 3-F-25
WF#HNTB 3-F-26
WF#HNTB 3-F-27
WF#HNTB 3-F-28

POTENTIAL VERNAL POOL - 11MA

NON-JURISDICTIONAL WETLAND

THE FOXBURNE GROUP II
BK/PG 25197/240
PBP PLAN 320/48
26 HEAD OF THE BAY ROAD
MAP 20.0 PARCEL 010.01

17+70.39 1980 ST.HWY.LO. 6312 AUXILARY BASELINE A-1 =
17+43.35 1980 ST.HWY. LO. 6312 AUXILARY BASELINE A-2
COMMON LINE OF 1980 ST.HWY. LO. 6312

9528
N: 2736991.943'
E: 902601.810'
EL: 27.631'
MMAG SPK

9528
N: 2737121.695'
E: 902727.187'
EL: 38.389'
MREB CAP

345
N: 2737242.121'
E: 902727.187'
EL: 38.389'
MREB CAP

346
N: 2736823.819'
E: 902786.483'
EL: 23.99'
MREB CAP

BENCHMARK: TBM-3C
TOP SIGN POST BOLT
EL=32.64'

18 Δ=13°42'18" R=920.00' L=220.06' T=110.56'
19 AUX. BASELINE "A" OF 1980 ST.HWY. LO. 6312 +63.44 PT
20
21
17 +43.39 PT
16
15 Δ=27°06'01" R=800.00' L=378.39' T=192.80'
AUX. BASELINE "A" OF 1980 ST.HWY. LO. 6312

N72°21'48"W 27.00'

OM1-1 EVACUATION ROUTE

WEST 25 SOUTH 28

BMS™ 34 THRU ACROSS COURT, X = BOXWOOD 23 FEET, X = COMMUNITY BLDG

THIS IS A PET FREE SMOKE FREE PROPERTY

NO TURNS

CONTINUED ON SHEET 30

CONTINUED ON SHEET 31

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	33	50
PROJECT FILE NO.		608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:55 PM

CONTINUED ON SHEET 29

CONTINUED ON SHEET 30

NAD 83

ISOLATED LAND SUBJECT TO FLOODING

NON-JURISDICTIONAL WETLAND

BOURNE BRIDGE APPROACH
(1933 ST.HWY. LO. 3071)

LOCATION LINE OF 1933 ST.HWY. LO. 3071

MAIN BASELINE OF 1933 ST.HWY. LO. 3071

LOCATION LINE OF 1980 ST.HWY.LO. 6312 (SECT.1)

BEGINNING OF 1980 ST.HWY. ALT. 6312 (SECT. 1)

AUX. BASELINE "D" 1980 ST.HWY. LO. 6312

85+14.06 1933 ST.HWY.LO. 3071 MAIN BASELINE
4+23.53 1980 ST.HWY. LO. 6312 AUXILIARY BASELINE "D"

COM. ELECTRIC CO. EASEMENT
30' WIDE – CL POLES
PLAN BK 389 PG 3

(ROW – PLAN BK 389 PG 3)
(PRIVATE – 30' WIDE)

APPROX. PROPERTY LINE

APPROX. EASEMENT LINE

APPROX. LO. LINE

NO ACCESS

LOCATION OF ST.HWY. LO. NO ACCESS

COMMONWEALTH OF MASSACHUSETTS ACTING THROUGH ITS DEPT OF TRANSPORTATION
1990 ST.HWY 3071 BK/PG 3071/312
PARCEL NO. 6-1-UR-2

BRIDGE LLC
K/PG 27502/328
FB/PL 389/3
PARCEL BRIDGE
3 BOURNE BRIDGE APPROACH
AP 20.1 PARCEL 071.00

BRIDGE LLC
BK/PG 27502/328
FB/PL 389/3
(PARCEL BRIDGE)
1 BOURNE BRIDGE APPROACH
MAP 20.3 PARCEL 063.00

ROBERT T. TUBBS AND JUDITH A. TUBBS
BK/PG 23325/78
PB/PL 234/24
(LOT 1)
4 BOURNE BRIDGE APPROACH
MAP 20.3 PARCEL 066.00

ROBERT T. TUBBS AND JUDITH A. TUBBS
BK/PG 23325/348
PB/PL 256/75
(LOT A)
7 BOURNE BRIDGE APPROACH
MAP 20.3 PARCEL 065.00

CHARLES D. HENRY
BK/PG 20230/276
11 BOURNE BRIDGE APPROACH
MAP 20.4 PARCEL 001.00

9578
N: 2736372.272'
E: 902998.387'
EL: 21.039'
MMAG

9534
N: 2736392.872'
E: 903091.284'
EL: 22.011'
MMAG

9535
131.942'
026.452'
423.080'
MMAG

SIGN PEDESTAL (NO SIGN)

SIGN POST ONLY (NO SIGN)

SANDY'S SEAFOOD

GAS MARKER POST

BIT PARKING

RET.WALL

SHRUB

WOODED

GRASS

RIP RAP

CONC

BIT

GAS REC.

CATV REC.

TELE. REC.

WG

OHW

VGC

CCB

CLF

SMH RIM=19.96 INV.1=17.46 (ALL 4"PVC)

SMH RIM=21.84 INV.1=18.84 INV.2=18.84

SMH RIM=22.63 INV.1=19.63 INV.2=19.63

SMH RIM=21.21 INV.1=18.21

SMH RIM=21.52 INV.1=19.52 DEPTH=10.92

SMH RIM=21.43 INV.1=18.23 (BOTTOM OF PIPE) DEPTH=10.93

SMH RIM=21.11 INV.1=19.01

SMH RIM=22.71 ONLY ON TOP PARKED

SMH RIM=22.82 INV.1=19.82 DEPTH=15.62

SMH RIM=22.81 INV.1=19.71 DEPTH=13.1

SMH RIM=23.80 INV.1=20.48 DEPTH=16.50

SMH RIM=22.04 INV.1=20.41 DEPTH=10.21

SMH RIM=25.57 INV.1=22.27 TOP=25.57 DEBRIS=21.97

SMH RIM=25.55 INV.1=21.90 DEBRIS=21.35

SMH RIM=25.45 INV.1=19.65 DEPTH=12.85

SMH RIM=26.17 INV.1=20.52 DEBRIS=22.22

SMH RIM=26.14 INV.1=22.19 DEBRIS=22.64

SMH RIM=26.14 CAPPED CND

CB RIM=26.42 DEPTH=13.73 INV.1=25.03 (CNV.)GGED OB INV.2=25.03 (PLUGGED)

CB RIM=18.88 DEPTH=14.88 INV.1=15.88

CB RIM=18.85 DEPTH=13.85 INV.1=14.75

CB RIM=19.24 INV.1=18.24 INOP 2 INV.2=16.24 CONC CHAMBER

CB RIM=20.10 DEPTH=16.60 INV.1=16.50

DMH RIM=20.64 INV.1=15.94 INV.2=15.94 (INV.OUT HIGHER) DOUBLE CHECKED

CB RIM=23.55 INOP

CB RIM=23.35 TOP GRATE

CB RIM=23.11 INOP

CB RIM=23.11 TOP GRATE

CB RIM=22.63 CMB PARKED ON TOP

CB RIM=22.85 DEPTH=13.85 INV.1=14.75

CB RIM=22.63 DEPTH=13.63 INV.1=14.75

CB RIM=22.63 DEPTH=13.63 INV.1=14.75

CB RIM=22.63 DEPTH=13.63

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	34	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 2:56 PM

N

NAD 83

NIGHTINGALE POND

TOWN OF BOURNE
CONSERVATION COMMISSION
BK/PG 8713/321
PB/PL 493/76
(LOT 16)
0 DESERET DRIVE
MAP 20.0 PARCEL 054.00

LOCATION LINE OF 1980 ST.HWY. LO. 6312

NO ACCESS

APPROX. PROPERTY LINE

POND

WF#HNTB 3-C-16
WF#HNTB 3-C-15
WF#HNTB 3-C-14
WF#HNTB 3-C-13
WF#HNTB 3-C-12
WF#HNTB 3-C-11
WF#HNTB 3-C-10
WF#HNTB 3-C-9
WF#HNTB 3-C-8
WF#HNTB 3-C-7
WF#HNTB 3-C-6
WF#HNTB 3-C-5
WF#HNTB 3-C-4
WF#HNTB 3-C-3
WF#HNTB 3-C-2
WF#HNTB 3-C-1

100 FT BVW BUFFER

APPROX. EASEMENT LINE

GAS TRANSMISSION EASEMENT
1980 ST.HWY. LO. 6312

ALGONQUIN GAS
TRANSMISSION EASEMENT
PLAN BK 107 PG 111-F2

9566
N: 2736732.456'
E: 903630.084'
EL: 25.530'
MMAG SPK

9530
N: 2736523.171'
E: 903738.979'
EL: 15.239'
MMAG SPK

499
N: 2736818.338'
E: 903573.450'
EL: 23.92'
MREB CAP

BLUE STAR (ROUTE 28) MEMORIAL HWY
(1985 ST.HWY. ALT. 6707)

BLUE STAR (ROUTE 28) MEMORIAL HWY
(1985 ST.HWY. ALT. 6707)

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	35	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:14 PM

N

NAD 83

APPROX. RR LOCATION LINE

WF#HNTB 4-C-1
WF#HNTB 4-C-2
WF#HNTB 4-C-3
WF#HNTB 4-C-4
WF#HNTB 4-C-5
WF#HNTB 4-C-6
WF#HNTB 4-C-7
WF#HNTB 4-C-8
WF#HNTB 4-C-9
WF#HNTB 4-C-10
WF#HNTB 4-CW

BORDERING VEGETATED WETLAND

POTENTIAL VERNAL POOL - 04MA

100 FT BVW BUFFER

APPROX. PROPERTY LINE

9585
N: 2731966.303'
E: 901003.443'
EL: 16.289'
MMAG SPK

9592
N: 2731961.715'
E: 901076.626'
EL: 17.531'
MMAG SPK

9591
N: 2731931.899'
E: 901222.561'
EL: 18.368'
MMAG SPK

CHRISTOPHER S. AND HEATHER A. SMITH
BK/PG 28404/138
PB/PL 633/13
(LOT 3)
40 SHORE ROAD
MAP 24.3 PARCEL 008.00

CHRISTOPHER S. AND HEATHER A. SMITH
BK/PG 28404/138
PB/PL 633/13
(LOT 2)
26 SHORE ROAD
MAP 24.3 PARCEL 095.00

PAUL AND BETTY ROSE
BK/PG 25103/325
PB/PL 633/13
(LOT 1)
24 SHORE ROAD
MAP 24.3 PARCEL 096.00

DEBORAH A TSITSOS
BK/PG 22247/13
PB/PL 633/13
(MBLU 24.3-10)
22 SHORE ROAD
MAP 24.3 PARCEL 010.00

9709
N: 2731896.551'
E: 901454.782'
EL: 15.944'
MMAG

CB
RIM=15.59
DEPTH=11.99
TOW=12.99
NPV

CB
RIM=15.89
DEPTH=9.09
INV.1=12.29
INV.2=12.29
INV.3=12.19

INV 12" RCP
EL=11.84'

JOHN J. MIGLIACCIO
BK/PG 14232/345
PB/PL 25/1
33 SHORE ROAD
MAP 24.3 PARCEL 040.00

CINDI BASSFORD
BK/PG 26645/122
PB/PL 269/95
25 SHORE ROAD
MAP 24.3 PARCEL 092.00

HELD FOR ROTATION

CBDH

LOCATION LINE 1956 CO. LO.

SHORE (A.K.A. MONUMENT NECK) ROAD
(1956 COUNTY LAYOUT)
(PUBLIC – VARIABLE WIDTH)

SAGUARO LANE
(1956 COUNTY LAYOUT – PLAN BK 510 PG 78)
(PUBLIC – 40' WIDE)

APPROX. TWN. LO. LINE

W1-8D SHARP TURN
W1-2 LEFT TURN SPEED LIMIT 25
W3-1 STOP SIGN AHEAD
W2-1 SLOW DANGEROUS INTERSECTION

242.21'
N77°43'49"W

+19.81 PI
+19.18 PI

STONE WALL
BROKEN STONE WALL
OAKLAND GROVE CEMETERY
WOODED
GRASS
BIT
GRAV
CONC
BRICK
WOOD FENCE
DEBRIS
WETLAND
GRASS

4"PL GAS REC.
0.5"PL GAS REC.
1"CI WATER REC.
8"PVC WATER REC.
1"CS WATER REC.
12" RCP
T PL UG REC.
OHW—CATV REC.
OHW—ELEC. REC.
UPL#34/8S
UPL#34/6
UPL#34/9
ULT#34E
EP
SWL
DBYL
WG REC.
GG REC.
VGC
OHW
GRL

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	36	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

Plotted on 11-Apr-2022 3:14 PM

608020_EV2 (BOURNE PLANS).DWG

NAD 83

N

WF#HNTB 4-D-1
WF#HNTB 4-D-2
WF#HNTB 4-D-3
WF#HNTB 4-D-4
WF#HNTB 4-D-5
WF#HNTB 4-D-6
WF#HNTB 4-D-7
WF#HNTB 4-D-8
WF#HNTB 4-D-9
WF#HNTB 4-D-10
WF#HNTB 4-D-11
WF#HNTB 4-D-12
WF#HNTB 4-D-13
WF#HNTB 4-D-14
WF#HNTB 4-D-15
WF#HNTB 4-D-16
WF#HNTB 4-D-17
WF#HNTB 4-D-18
WF#HNTB 4-D-19
WF#HNTB 4-D-20
WF#HNTB 4-D-21
WF#HNTB 4-D-22
WF#HNTB 4-D-23
WF#HNTB 4-D-24

9582
N: 2731191.481'
E: 901934.584'
EL: 11.569'
MMAG SPK

INV 15" RCP
EL=6.64'

BORDERING VEGETATED WETLAND

100 FT BVW BUFFER

APPROX. PROPERTY LINE

LOCATION LINE 1916 CO. LO.

COUNTY ROAD
(1916 COUNTY LAYOUT)
(PUBLIC – VARIABLE WIDTH)

COUNTY ROAD
(1916 COUNTY LAYOUT)
(PUBLIC – VARIABLE WIDTH)

COUNTY ROAD
(1930 COUNTY LAYOUT PLAN BK. 42 PG. 13)
(PUBLIC – 40' WIDE)

END OF 1930 CO. LO. PLAN BK. 42 PG 13

9711
N: 2731203.360'
E: 902115.673'
EL: 16.646'
MREB CAP

9710
N: 2731498.908'
E: 902106.163'
EL: 26.542'
MREB CAP

ANDREW M. KEESE
BK/PG 10522/206
32 COUNTY ROAD
MAP 24.3
PARCEL 047.00

FAITH BELL JACKSON
BK/PG 15396/196
PB/PL 137/41
16 COUNTY ROAD
MAP 24.3 PARCEL 045.00

FREDERICKA BLACKWELL COBEY
0 COUNTY ROAD
MAP 24.3 PARCEL 044.00

ARTHUR H. BARTON
BK/PG 2976/75
PB/PL 329/16
(LOT B)
21-23 COUNTY ROAD
MAP 24.3 PARCEL 082.00

ROBERT L. JARV
BK/PG 4000/1
PB/PL 329/1
(LOT A)
27 COUNTY RO.
MAP 24.3 PARCEL

MICHAEL A. KOLESHIS
BK/PG 24584/26
19 COUNTY ROAD
MAP 24.3
PARCEL 071.00

9 COUNTY ROAD REAL ESTATE LLC
BK/PG 27917/211
9 COUNTY ROAD
MAP 24.3 PARCEL 054.00

BOURNE BRIDGE DENTAL

OLD BOURNE CEMETERY

CONTINUED ON SHEET 37

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	37	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:14 PM

NAD 83

APPROX. PROPERTY LINE

BEGINNING OF TWN. LO. 1980

+25.32

+00.32

+79.88

+74.97

BEGINNING OF CO. LO. 1956

LOCATION LINE 1956 CO. LO.

MAIN BASELINE OF 1956 CO.LO.

(REC.=25.00')

LOCATION LINE OF (PLAN BK. 345 PG. 45) 1980 TWN. LO.

FREDERICKA BLACKWELL COBEY BK/PG 41707/244 2 COUNTY ROAD MAP 24.3 PARCEL 043.00

35+28.29 1937 – MAIN BASELINE – CO.LO. PLAN BK. 56 PGS 53–55–57 = 93+97.19 (REC.=+96.78) 1932 – MAIN BASELINE – ST.HWY. LO. 2916

SANDWICH ROAD
(1930 ST.HWY. LO. 2662)

93+74.37

LOCATION LINE OF 1930 ST.HWY. LO. 2662

BEGINNING OF 1930 ST.HWY. LO. 2662

BEGINNING OF PLAN BK. 10 PL. 39 1922 CO. LO.

LOCATION LINE OF 1922 CO. LO.

LOCATION LINE 1932 CO. LO. 2916

(REC.=116.59')

END OF 1937 CO. LO. NON TANGENT

BEGINNING OF 1930 ST.HWY. LO. 2662

N45°24'46"E 428.31'

93+00

+95.59

+48.07

+64.39

+62.61

+64.50 PT

(REC.=43.61')

+14.00

T=201.48'
L=400.99'
R=8598.02'
Δ=1°35'55"

N74°11'35"W 163.79'

END OF 1980 TWN. LO.

LOCATION LINE OF 1930 CO. LO.

APPROX. PROPERTY LINE

TOWN OF BOURNE BK/PG 696/331 PB/PG 83/1 72 1 COUNTY ROAD MAP 24.3 PARCEL 051.00

9 COUNTY ROAD REAL ESTATE LLC BK/PG 27917/211 9 COUNTY ROAD MAP 24.3 PARCEL 054.00

ENT REAL ESTATE LLC BK/PG 20642/217 1 COUNTY ROAD MAP 24.3 PARCEL 052.00

ONE TROWBRIDGE ROAD LLC BK/PG 27198/168 9 SANDWICH ROAD MAP 24.3 PARCEL 016.00

ONE TROWBRIDGE RD LLC BK/PG 31203/325 PB/PL 214/147 (PARCELS A & B) 1 TROWBRIDGE ROAD MAP 24.3 PARCEL 022.00

TOWN OF BOURNE BK/PG 21455/336 PB/PL 389/10 (LOT 1) 0 SANDWICH ROAD MAP 24.3 PARCEL 017.01

BENCHMARK: TBM–4I
XCUT IN HYD BOLT
OVER MAIN OUTLET
EL=27.27'

9708
N: 2731825.843'
E: 902196.290'
EL: 29.606'
MDSK DOT2438

9748
N: 2731775.715'
E: 902348.289'
EL: 30.257'
MMAG

9747
N: 2732090.458'
E: 902257.035'
EL: 25.183'
MMAG

POTENTIAL VERNAL POOL - 03MA

ISOLATED LAND SUBJECT TO FLOODING

WF#HNTB 4–B–12
WF#HNTB 4–B–13
WF#HNTB 4–B–14
WF#HNTB 4–B–15
WF#HNTB 4–B–16
WF#HNTB 4–B–17

CONTINUED ON SHEET 36

CONTINUED ON SHEET 38

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	38	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:15 PM

SANDWICH ROAD
(1930 ST.HWY. LO. 2662)

LOCATION LINE OF 1930 ST.HWY. LO. 2662

MAIN BASELINE OF 1930 ST.HWY. LO. 2662

N45°24'46"E 428.31'

N46°03'20"E (1930)=N45°24'46"E (NAD 83)

N49°42'23"E 196.80'

96 97 98 99 100

+31.01

+02.68 PI

+31.55

+99.48 PC

KEENE STREET
(PUBLIC)
(PUMP BK. 393 PG. 84)
(WIDE)

NAD 83

N

APPROX. PROPERTY LINE

CONTINUED ON SHEET 37

POTENTIAL VERNAL POOL - 03MA

ISOLATED LAND SUBJECT TO FLOODING

WF#HNTB 4-B-1
WF#HNTB 4-B-2
WF#HNTB 4-B-3
WF#HNTB 4-B-4
WF#HNTB 4-B-5
WF#HNTB 4-B-6
WF#HNTB 4-B-7
WF#HNTB 4-B-8
WF#HNTB 4-B-9
WF#HNTB 4-B-10
WF#HNTB 4-B-11
WF#HNTB 4-B-12
WF#HNTB 4-B-13
WF#HNTB 4-B-14
WF#HNTB 4-B-15
WF#HNTB 4-B-16
WF#HNTB 4-B-17
WF#HNTB 4-B-17A
WF#HNTB 4-B-18
WF#HNTB 4-B-19
WF#HNTB 4-B-20
WF#HNTB 4-B-21
WF#HNTB 4-B-22
WF#HNTB 4-B-23
WF#HNTB 4-B-24
WF#HNTB 4-B-25
WF#HNTB 4-B-26
WF#HNTB 4-B-27
WF#HNTB 4-B-28
WF#HNTB 4-B-29

9583
N: 2731893.895'
E: 902515.898'
EL: 19.709'
MMAG SPK

9749
N: 2732345.785'
E: 902512.247'
EL: 27.084'
MMAG

TOWN OF BOURNE
BK/PG 2145/336
PB/PL 389/10
(LOT 1)
0 SANDWICH ROAD
MAP 24.3 PARCEL 027.01

JAMES R. BEAL JR. AND NANCY B. BEAL
BK/PG 27480/136
27 SANDWICH ROAD
MAP 24.3 PARCEL 018.00

BOURNE SOCIETY FOR HISTORIC PRESERVATION, INC.
BK/PG 4296/39
PB/PL 389/10
(LOT 2)
22 SANDWICH ROAD
MAP 24.3 PARCEL 027.00

TOWN OF BOURNE
SCHOOL DEPT.
BK/PG 1354/106
36 SANDWICH ROAD
MAP 24.3 PARCEL 029.00

TOWN OF BOURNE
(COADY SCHOOL)
PB/PL 645/1
(LOT 1)
46 SANDWICH ROAD
MAP 24.3

ONE TROWBRIDGE RD., LLC
BK/PG 21203/325
PB/PL 214/47
PARCELS A & B1
0 TROWBRIDGE ROAD
MAP 24.3
PARCEL 022.00

TOWN OF BOURNE
BK/PG 2145/336
PB/PL 389/10
(LOT 1)
0 SANDWICH ROAD
MAP 24.3 PARCEL 027.01

BOURNE HEALTH CENTER

BRIGGS-MCDERMOTT HOUSE

TELEPHONE MARKER POST

STONE BOLLARD

WOOD FENCE

STONE WALL

RET.WALL

SCHOOL CROSSING

TRAFFIC SIGNAL AHEAD

DO NOT ENTER

ONE WAY

NO PARKING ANY TIME

ALONZO BOOTH HOUSE 1888

FORGE

SBDH

WOODED

GRASS

BRICK

BIT

CONC

GRAV

SMH RIM=18.80 INV.1=14.30 LIQUID=8.50

SMH RIM=18.76 INV.1=14.58 INV.2=14.58

CB RIM=17.17 INV.1=14.53

CB RIM=17.16 INV.1=14.46

CB RIM=17.66 DEPTH=2.66 INV.1=14.46

CB RIM=17.12 DEPTH=2.62 INV.1=14.50

CB RIM=17.12 DEPTH=2.62 INV.1=14.50

CB RIM=18.39 DEPTH=2.39 INV.1=15.99

CB RIM=18.37 DEPTH=2.37 INV.1=15.99

CB RIM=18.37 DEPTH=2.37 INV.1=15.99

CB RIM=18.31 DEPTH=2.31 INV.1=15.99

CB RIM=23.51 DEPTH=18.31 INV.1=5.20

SMH RIM=31.73 INV.1=28.43 DEPTH=20.53

SMH RIM=28.10 INV.1=24.30 INV. DRY

INV 15" RCP EL=14.05

INV 12" RCP EL=14.25

INV 12" RCP EL=14.25

INV 12" RCP EL=14.25

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	39	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:15 PM

N

NAD 83

TOWN OF BOURNE
BK/PG 2145/336
BK/PG 265/578
PB/PL 645/28
(LOT 2 & PARCEL A)
81 & 85 COTUIT ROAD
MAP 24.3 PARCEL 097.00

℄ APPROX. PROPERTY LINE ℄

APPROX. TWN. LO. LINE

COTUIT ROAD
(1916 TOWN LAYOUT)
(PUBLIC – VARIABLE WIDTH)

APPROX. TWN. LO. LINE

100 FT BVW BUFFER

TOWN OF BOURNE
(BOARD OF SELECTMEN)
BK/PG 835/457
PB/PL 108/51
(LOT B)
70 TROWBRIDGE ROAD
MAP 24.0 PARCEL 031.00

TOWN OF BOURNE
(BOARD OF SELECTMEN)
BK/PG 835/457
PB/PL 108/51
(LOT B)
70 TROWBRIDGE ROAD
MAP 24.0 PARCEL 031.00

WF#HNTB 4-A-U
WF#HNTB 4-A-12
WF#HNTB 4-A-13
WF#HNTB 4-A-11
WF#HNTB 4-A-14
WF#HNTB 4-A-W
WF#HNTB 4-A-10
WF#HNTB 4-A-15
WF#HNTB 4-A-16
WF#HNTB 4-A-9
WF#HNTB 4-A-17
WF#HNTB 4-A-8
WF#HNTB 4-A-7
WF#HNTB 4-A-18
WF#HNTB 4-A-19
WF#HNTB 4-A-6
WF#HNTB 4-A-5
WF#HNTB 4-A-4
WF#HNTB 4-A-20
WF#HNTB 4-A-3
WF#HNTB 4-A-2
WF#HNTB 4-A-21
WF#HNTB 4-A-1

BORDERING VEGETATED WETLAND

NON-JURISDICTIONAL EPHEMERAL STREAM

END OF 1937 CO. LO.

BEGIN OF 1937 CO. LO.

LOCATION LINE 1937 CO. LO.

TROWBRIDGE ROAD
(1937 COUNTY LAYOUT PLAN BK. 56 PGS 53-55-57)
(PUBLIC – VARIABLE WIDTH)

MAIN BASELINE OF 1937 CO. LO.
PLAN BK. 56 PGS 53-55-57

TROWBRIDGE ROA
(1937 COUNTY LAYOUT PLAN BK. 56 PG
(PUBLIC – VARIABLE WIDTH

MAIN BASELINE OF 1937 CO. LO.
PLAN BK. 56 PGS 53-55-57

9584
N: 2731897.678'
E: 903614.226'
EL: 62.543'
MMAG SPK

9735
N: 2731808.779'
E: 903397.987'
EL: 58.376'
SPK

9734
N: 2731700.898'
E: 903221.493'
EL: 53.997'
MMAG

9733
N: 2731811.943'
E: 903515.864'
EL: 61.250'
MMAG

CB
RIM=57.42
DEPTH=54.72
INV.1=55.72

INV 12" CMP
EL=54.72'

INV 24" RCP
EL=58.77'

CB
RIM=57.68
DEPTH=52.38
INV.1=54.68

DMH
RIM=58.19
INV.1=54.39
INV.2=54.29
2 CHAMBERS:
TOW.1=54.39
DEPTH.1=54.29
TOW.2=54.19

DMH
RIM=62.01

TOWN OF BOURNE
(BOARD OF SELECTMEN)
BK/PG 835/457
PB/PL 108/51
(LOTS A, C, E &-I)
70 TROWBRIDGE ROAD
MAP 24.0 PARCEL 031.00

BUSSES & AUTHORIZED VEHICLES ONLY
SCHOOL BUSSES ONLY
BUS PARKING
ONE WAY
ONE WAY RIGHT TURN ONLY
BOURNE HIGH SCHOOL
NO PARKING FIRE LANE
NO PARKING ANY TIME
S1-1 SCHOOL CROSSING
SCHOOL CROSSING NO PARKING ANY TIME
HANDICAPPED PARKING
DO NOT ENTER
NO PARKING
CROSSWALK
GRANITE PLAQUE
COTUIT RD
PROPERTY LINE
BASEBALL FIELD
GRASS
WOODED
24" OAK
28 OAK
16" OAK
12" CPP
6" WATER REC.
8" WATER REC.
GAT. REC.
E. WATER REC.
RET.WALL
CLF
CCB
SWL
DBYL
VGC
OHW
EHH
BIT
CONC
EMH
UPL#47
UPL#4E
UPL#168/8
+22.33
+61.24
+29.63
PC
25
24
22
21
20
19

CONTINUED ON SHEET 41

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	40	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:24 PM

N

NAD 83

APROX. PROPERTY LINE

A. HIDENFELTER
G 20064/22
/PL 82/81
LOT 28)
SLOW STREET
PARCEL 045.00

LINE

JULIE ANN MUNSON
BK/PG 13297/24
PB/PL 82/81
(LOT 32)
6 WINSLOW STREET
MAP 24.2 PARCEL 044.00

NE

WOOD FENCE

ANDREW J. CORMIER
BK/PG 16681/218
PB/PL 82/81
(LOT C)
4 WINSLOW STREET
AP 24.2 PARCEL 043.00

APPROX. PROPERTY LINE

APPROX. DRAINAGE EASEMENT TRUNKLINE PLAN T 8542 0001 1985

APPROX. EASEMENT LINE

DMH
RIM= 20.07
INV.1=16.57
INV.2=16.27

DMH
RIM= 24.60
INV.1=19.00
INV.2=17.30
INV.3=17.20

DMH
RIM= 24.09
INV.1=18.19
INV.2=19.09
INV.3=17.59

W2-1
INTERSECTION

CBND
DISK
CC360

MHB
CBND
CTR BK

SMH
RIM=24.30
CNO
BURRIED
3'DOWN

WF#HNTB 4-F-1
WF#HNTB 4-F-2
WF#HNTB 4-F-3
WF#HNTB 4-F-4
WF#HNTB 4-F-5
WF#HNTB 4-F-6
WF#HNTB 4-F-7
WF#HNTB 4-F-8
WF#HNTB 4-F-9
WF#HNTB 4-F-10
WF#HNTB 4-F-11

NON-JURISDICTIONAL WETLAND

9796
N: 2733551.866'
E: 904848.496'
EL: 17.764'
SPK

COLONIAL GAS COMPANY
(d.b.a.) NATIONAL GRID
NATURAL GAS PIPELINE EASEMENT
CONTRACT NO. DACW33-2-20-003
(AREA D)

UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 474/1-25
231 SANDWICH ROAD
MAP 16.0 PARCEL 014.00

9772
N: 2733247.279'
E: 904818.862'
EL: 25.816'
MMAG SPK

(REC.=176.45')

TELEPHONE MARKER POST

MHB
CBND
CTR BK

TELEPHONE MARKER POST

TELEPHONE MARKER POST

MHB
CBND EPLP

CB
RIM= 24.40
DEPTH=19.00
INV.1=19.90

CB
RIM= 25.28
DEPTH=21.38
INV.1=21.78

CB
RIM= 25.39
DEPTH=18.89
INV.1=21.29

CB
RIM= 25.76
DEPTH=19.96
INV.1=21.76

DMH
RIM=25.40
INV.1=21.40
INV.2=19.90
INV.3=21.40
INV.4=19.50

DMH
RIM= 25.96
INV.1=21.86
INV.2=20.56
INV.3=21.86
INV.4=20.46

CB
RIM= 25.88
DEPTH=20.48
INV.1=22.08

CBND DISK

BEGINNING OF 1933 ST.HWY. LO. 3064 (SECT. 2)

122+67.81 (REC.=+67.89) 1933 – MAIN BASELINE – ST.HWY LO. 3064 =
126+56.40 (REC.=+55.42) 1930 – MAIN BASELINE – ST.HWY. LO. 2662

LOCATION LINE OF 1930 ST.HWY. LO. 2662

MAIN BASELINE OF 1930 ST.HWY. LO. 2662

+42.15
+31.96 PI
+21.30
+37.76
+74.49 PI
+97.98

N68°08'06"E
442.53'

123
124
125
126
127
128

BOURNE (ROUTE 28)
(1933 ST.HWY. LO. 3064)

MAIN BASELINE OF 1933 ST.HWY. LO. 3064

BOURNE (ROUTE 28) BRIDGE
(1933 ST.HWY. LO. 3064)

VERIZON NEW ENGLAND, INC.
CONDUITS & FIBER OPTIC CABLES
CROSSING EASEMENT
CONTRACT NO. DACW33-2-08-066

CB-SCUPPER
RIM=104.87
VERT.PIPE

CB-SCUPPER
RIM=104.93
VERT.PIPE

CB-SCUPPER
RIM=103.05
VERT.PIPE

CB-SCUPPER
RIM=102.78
VERT.PIPE

CB-SCUPPER
RIM= 98.45
VERT.PIPE

CB-SCUPPER
RIM= 98.50
VERT.PIPE

CB-SCUPPER
RIM= 96.04
VERT.PIPE

CB-SCUPPER
RIM= 96.06
VERT.PIPE

CB-SCUPPER
RIM= 92.72
VERT.PIPE

CB-SCUPPER
RIM= 92.93
VERT.PIPE

CB-SCUPPER
RIM= 91.83
VERT.PIPE

INV 12" CPP
EL=14.63'

INV 12" CPP
EL=14.86'

GATE POST

CONC. WALL

BRIDGE SUPPORT

ELECTRIC MARKER POST

SPEED LIMIT 10

UPL#55/P2

UPL#551/P1

UPL# 40/29

UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 474/1-25
231 SANDWICH ROAD
MAP 16.0 PARCEL 014.00

9773
N: 2733450.428'
E: 905206.081'
EL: 25.522'
MMAG

BOURNE RECREATION AREA

BRIDGE ABUTMENT

BRIDGE ABUTMENT

TELE. PL FLEX PIPE REC.

6" TELE. REC.

6" PL GAS REC.

12" CS HP GAS REC.

4" CS GAS REC.

8" PL GAS REC.

12" RCP

15" RCP

24" RCP

WOODED

GRASS

GRAVEL

CONTINUED ON SHEET 43

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	41	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:16 PM

CONTINUED ON SHEET 40

CONTINUED ON SHEET 42

NAD 83

N

APPROX. EASEMENT LINE

APPROX. PROPERTY LINE

APPROX. EASEMENT

NON-JURISDICTIONAL EPHEMERAL CHANNEL

WF#HNTB 4-F-1

WF#HNTB 4-F-11

WF#HNTB 4-E-1

WF#HNTB 4-E-2

WF#HNTB 4-E-3

WF#HNTB 4-E-4

WF#HNTB 4-E-5

WF#HNTB 4-E-6

WF#HNTB 4-E-7

WF#HNTB 4-E-8

WF#HNTB 4-E-9

WF#HNTB 4-E-10

WF#HNTB 4-E-11

WF#HNTB 4-E-12

WF#HNTB 4-E-13

APPROX. DRAINAGE EASEMENT TRUNKLINE PLAN T 8542 0001 1985

UNITED STATES OF AMERICA BK/PG 453/287 PB/PL 474/1-25 231 SANDWICH ROAD MAP 16.0 PARCEL 014.00

UNITED STATES OF AMERICA BK/PG 453/292 PB/PL 474/1-25 231 SANDWICH ROAD MAP 16.0 PARCEL 014.00

COLONIAL GAS COMPANY (d/b/a NATIONAL GRID) GAS PIPELINE EASEMENT CONTRACT NO. DACW33-2-220-003 (AREA D)

COLONIAL GAS COMPANY (d/b/a NATIONAL GRID) GAS PIPELINE EASEMENT CONTRACT NO. DACW33-2-220-003 (AREA B - UNDERSIDE OF BRIDGE)

VERIZON NEW ENGLAND, INC. CONDUITS & FIBER OPTIC CABLES CROSSING EASEMENT CONTRACT NO. DACW33-2-08-066

BENCHMARK: BOX CUT IN CONC. POST EL=16.33'

MAIN BASELINE OF 1933 ST.HWY. LO. 3064

S25°53'10"E (1933)= S26°43'55"E (NAD 83)

BOURNE (ROUTE 28) BRIDGE
(1933 ST.HWY. LO. 3064)

IRNE (ROUTE 28) BRIDGE
(1933 ST.HWY. LO. 3064)

9776
N: 2733741.217'
E: 905057.551'
EL: 16.390'
MMAG

9777
N: 2734130.237'
E: 904857.843'
EL: 11.068'
MMAG

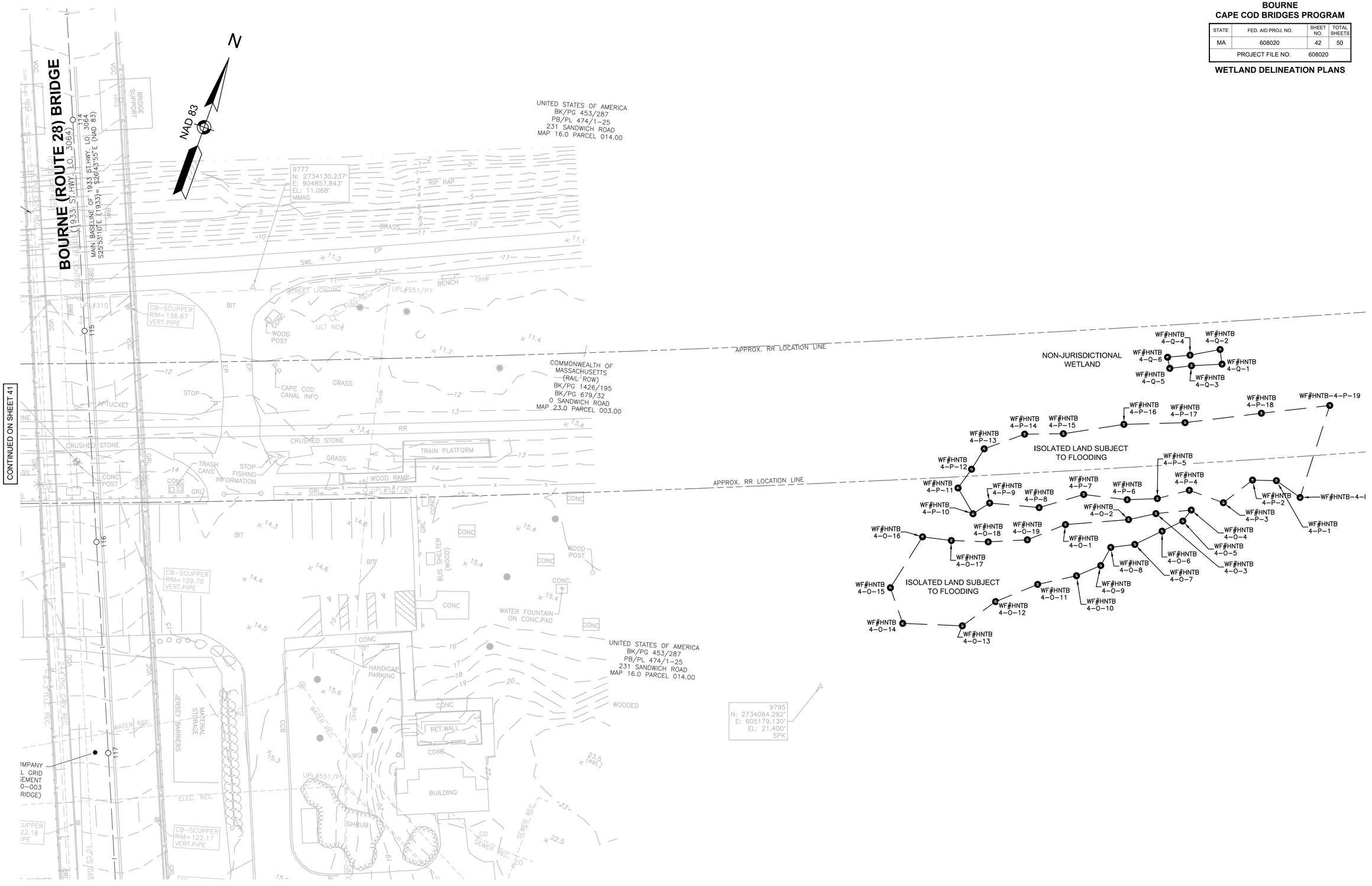
BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	42	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:16 PM

CONTINUED ON SHEET 41



BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	43	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:17 PM

N

NAD 83

100 FT BVW BUFFER

BORDERING VEGETATED WETLAND

NON-JURISDICTIONAL EPHEMERAL STREAM

WF#HNTB 4-N-1
WF#HNTB 4-N-2
WF#HNTB 4-N-3
WF#HNTB 4-N-4
WF#HNTB 4-N-5
WF#HNTB 4-N-6
WF#HNTB 4-N-7
WF#HNTB 4-N-8
WF#HNTB 4-N-9
WF#HNTB 4-N-10
WF#HNTB 4-N-11
WF#HNTB 4-N-12
WF#HNTB 4-N-13
WF#HNTB 4-N-14
WF#HNTB 4-N-15
WF#HNTB 4-N-16
WF#HNTB 4-N-17
WF#HNTB 4-N-18
WF#HNTB 4-N-19
WF#HNTB 4-N-20
WF#HNTB 4-N-21
WF#HNTB 4-N-22
WF#HNTB 4-N-23
WF#HNTB 4-N-24
WF#HNTB 4-N-25
WF#HNTB 4-N-26
WF#HNTB 4-G-1
WF#HNTB 4-G-2
WF#HNTB 4-G-3
WF#HNTB 4-G-4
WF#HNTB 4-G-5
WF#HNTB 4-G-6
WF#HNTB 4-G-7
WF#HNTB 4-G-8
WF#HNTB 4-G-9
WF#HNTB 4-N-27
WF#HNTB 4-N-28
WF#HNTB 4-N-29
WF#HNTB 4-N-30
WF#HNTB 4-N-31
WF#HNTB 4-N-32
WF#HNTB 4-N-33
WF#HNTB 4-N-34
WF#HNTB 4-N-35
WF#HNTB 4-N-36
WF#HNTB 4-N-37

UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 424/1-25
231 SANDWICH ROAD
MAP 16.0 PARCEL 014.00

AMERICA
/87
-25
ROAD
014.00

9774
N: 2733568.888'
E: 905498.757'
EL: 28.613'
MREB CAP

9794
N: 2733620.710'
E: 905661.283'
EL: 28.969'
SPK

9775
N: 2733637.892'
E: 905790.935'
EL: 29.959'
MREB CAP

JOHN AND KAT
BK/PG
PB/PL
(PA
181 SAN
MAP 24.0

CONTINUED ON SHEET 40

SANDWICH ROAD
(1930 ST.HWY. LO. 2662)

129 N66°11'46"E 240.11'

MAIN BASELINE OF 1930 ST.HWY. LO. 2662

130 +14.60 PC

131 Δ=18°59'10" R=999.95' L=331.35' T=167.21'

132 +80.35

133 +45.95 PT

134 N85°10'56"E 138.63'

LOCATION LINE OF 1930 ST.HWY. LO. 2662

SANDWICH ROAD
(1930 ST.HWY. LO. 2662)

APPROX. PROPERTY LINE

BENCHMARK: TBM-4M
XCUT IN HYD BOLT
OVER MAIN OUTLET
EL=30.88'

INV 12" RCP
EL=21.72'

INV 18" RCP
EL=22.56'

DMH
RIM=29.44
INV.1=23.34
INV.2=24.34
INV.3=23.14

CB
RIM=27.04
DEPTH=22.24
INV.1=23.24

CB
RIM=27.57
DEPTH=24.57
INV.1=23.17
INV.2=23.07

CB
RIM=28.39
DEPTH=24.09
INV.1=24.99

CB
RIM=28.68
DEPTH=24.28
INV.1=25.48

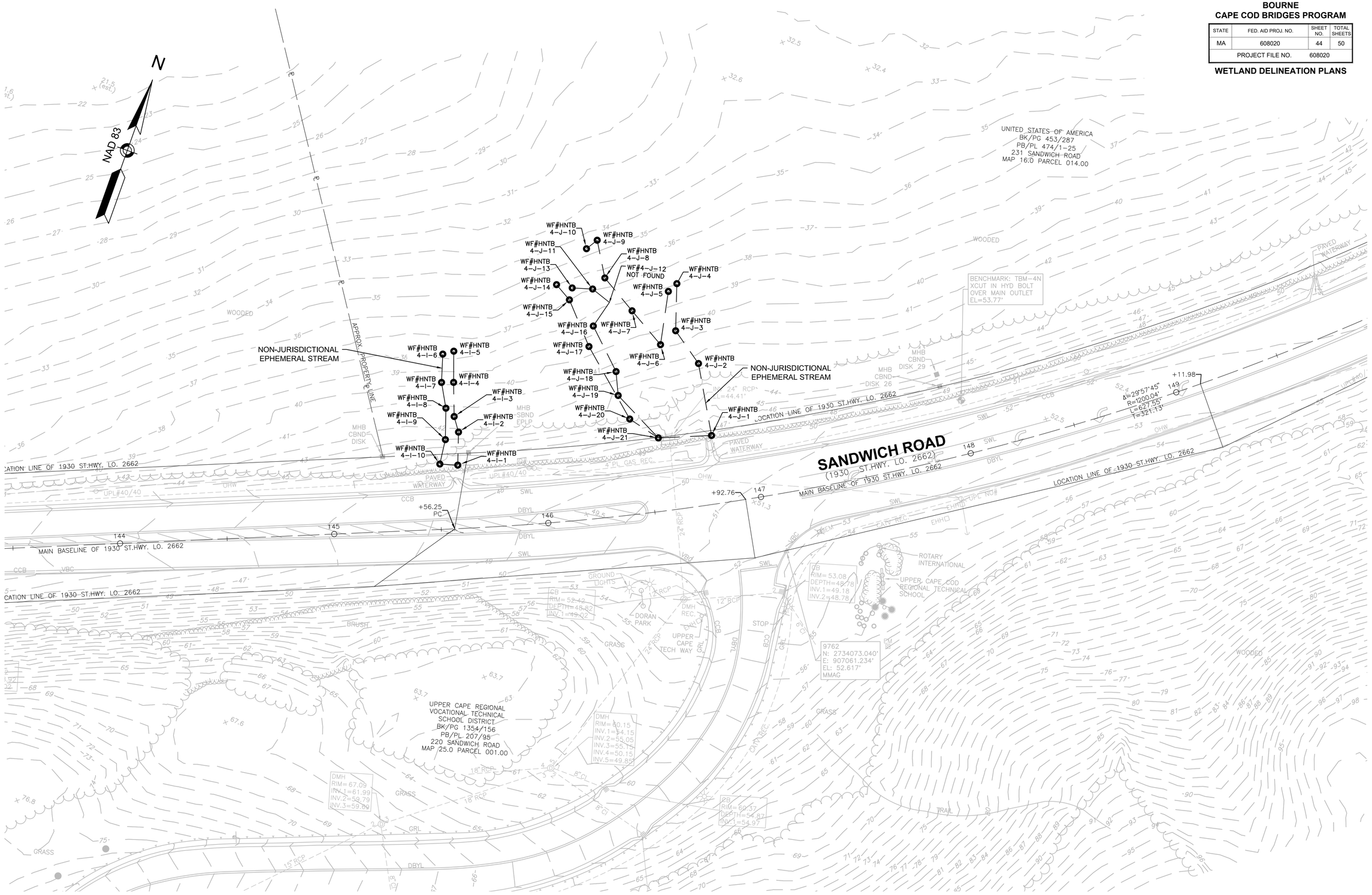
WOODED
GRASS
GRAV
BOLLARD (TYP.)
CBND CTR BK
CBND DISK ACOE
OHW
CCB
GPL
SWL
DBYL
UPL#40/30
UPL#40/31
UPL#40/32
UPL#40/33
SPEED LIMIT 30
W3-1 STOP SIGN AHEAD
POST
MHR

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	44	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:17 PM



BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	45	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:18 PM

NAD 83 N

UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 474/1-25
231 SANDWICH ROAD
MAP 16.0 PARCEL 014.00

LOCATION LINE OF 1930 ST.HWY. LO. 2662

MAIN BASELINE OF 1930 ST.HWY. LO. 2662

158 159 160 161 162 163 164

N25°12'01"E 851.91'

N25°11'18"E 65.42'

+04.41

163+76.68 BACK 1930 – MAIN BASELINE – ST.HWY. LO. 2662 =
163+75.88 AHEAD 1935 – MAIN BASELINE – ST.HWY. ALT. 3162

BEGINNING OF 1935 ST.HWY. ALT. 3162

NON-JURISDICTIONAL WETLAND

WF#HNTB 4-L-1
WF#HNTB 4-L-5
WF#HNTB 4-L-9
WF#HNTB 4-L-11
WF#HNTB 4-L-13
WF#HNTB 4-L-14
WF#HNTB 4-L-15
WF#HNTB 4-L-16
WF#HNTB 4-L-17
WF#HNTB 4-L-18
WF#HNTB 4-L-19
WF#HNTB 4-L-21
WF#HNTB 4-L-23
WF#HNTB 4-L-24
WF#HNTB 4-L-25

APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-1
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-2
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-3
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-4
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-6
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-7
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-8
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-10
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-12
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-20
APPROX.LOCATION 2'OFF WATER EDGE WF#HNTB-4-L-22

BENCHMARK: TBM-4O
XCUT IN HYD BOLT
OVER MAIN OUTLET
EL=44.27'

9765
N: 2735204.933'
E: 907826.458'
EL: 42.640'
MREB CAP

CB RIM=40.63 DEPTH=34.73 INV.1=37.03 INV.2=35.43 INV.3=35.33
CB RIM=40.82 DEPTH=37.32 INV.1=37.52
CB RIM=40.93 DEPTH=34.93 INV.1=38.73 INV.2=35.83
CB RIM=41.00 DEPTH=37.10 INV.1=37.20
CB RIM=41.05 DEPTH=38.45 INV.1=37.65
CB RIM=51.05 DEPTH=47.05 INV.1=47.65 INV.2=47.45 INV.3=47.15
DMH RIM=44.35 SNO RUSTED SHUT

MERVYN V. AND ANNDREA P. JACKSON
L.C.C. NO. 36397-H
(LOT 20)
CERT. NO. 115515
DOC. NO. 468723-1
2 WEATHERDECK DRIVE
MAP 21.0 PARCEL 023.00

230 SANDWICH ROAD REALTY TRUST
L.C.C. NO. 36397-D-1
(LOT 8A)
L.C.C. NO. 36397-G-1
(LOT 11A)
CERT. NO. C18
DOC. NO. 191729-1
0 SANDWICH ROAD
MAP 21.0 PARCEL 012.00

APPROX. PROPERTY LINE
APPROX. TWN. LO. LINE

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	46	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:18 PM

N
NAD 83
UTIL MON
VAULT
OHW
UPL MON#
INV 30" RCP EL=3.19'
INV 30" RCP EL=8.42'
INV 30" RCP EL=11.87'
INV 30" RCP EL=12.14'
INV 30" RCP EL=13.14'
INV 15" RCP EL=12.10'
INV 15" RCP EL=14.17'
INV 12" RCP EL=13.92'
UNITED STATES OF AMERICA
BK/PG 453/287
PB/PL 474/1-25
231 SANDWICH ROAD
MAP 16.0 PARCEL 014.00
WF#HNTB 4-M-4
WF#HNTB 4-M-5
WF#HNTB 4-M-3
WF#HNTB 4-M-6
WF#HNTB 4-M-2
WF#HNTB 4-M-7
WF#HNTB 4-M-1
WF#HNTB 4-M-8
NON-JURISDICTIONAL EPHEMERAL STREAM
9797
N: 2737717.101'
E: 909374.745'
EL: 21.818'
SPK
APPROX. RR LOCATION LINE
RR
WOODED
BRUSH
COMMONWEALTH OF MASSACHUSETTS
(RAIL ROW)
BK/PG 1426/195
BK/PG 679/32
0 SANDWICH ROAD
MAP 23.0 PARCEL 003.00
AMERICA
287
-25
ROAD
014.00
WF#HNTB 4-H-6
WF#HNTB 4-H-5
NON-JURISDICTIONAL EPHEMERAL STREAM
WF#HNTB 4-H-7
WF#HNTB 4-H-4
WF#HNTB 4-H-8
WF#HNTB 4-H-3
WF#HNTB 4-H-9
WF#HNTB 4-H-10
WF#HNTB 4-H-2
WF#HNTB 4-H-11
WF#HNTB 4-H-1
9770
N: 2737537.320'
E: 909389.592'
EL: 22.195'
MMAG WSP-3
CB
RIM=24.36'
DEPTH=20.46
INV.1=20.46'
BENCHMARK: TBM-4Q
XCUT IN HYD BOLT
OVER MAIN OUTLET
EL=22.74'
CBND
EPLP
BROKEN
PLEASE DO NOT LITTER
CRL
BIT
SWL
BYL
CCB
VGC
GRL
CATV REC.
15" RCP
REFLECTOR
188
189
190
191
192
193
+34.56
PC
+77.17
WF#HNTB 4-K-2
WF#HNTB 4-K-1
WF#HNTB 4-K-3
WF#HNTB 4-K-4
WF#HNTB 4-K-5
WF#HNTB 4-K-11
WF#HNTB 4-K-6
WF#HNTB 4-K-10
WF#HNTB 4-K-9
WF#HNTB 4-K-8
WF#HNTB 4-K-7
PAVED WATERWAY
CBND DISK
ADOPT A HIGHWAY NEXT 2 MILES
(1897 CO. LO. AS SHOWN ON ST.HWY. ALT. 3162)
APPROX. LOCATION LINE 1897 CO. LO.
SANDWICH ROAD
(1935 ST.HWY. ALT. 3162)
MAIN BASELINE OF 1935 ST.HWY. ALT. 3162
LOCATION LINE OF 1935 ST.HWY. ALT. 3162
CATV HH
12" RCP
PICNIC AREA
NEXT RIGHT
SEASONAL
GRASS
NON-JURISDICTIONAL EPHEMERAL STREAM

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	47	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:18 PM

NAD 83

N

BENCHMARK: TBM-4H
BOX CUT IN CORNER
OF CONC. PAD
EL=99.25'

LOCATION LINE OF 1940 ST.HWY. ALT. 3367

LOCATION LINE OF 1940 ST.HWY

LINE OF NO TRANSIT
(UNDER LAYOUT NO. 5261)

LINE OF NO TRANSIT
(UNDER LAYOUT NO. 5261)

APPROX. PROPERTY LINE

APPROX. EASEMENT LINE

APPROX. 40' WIDE ROW RESERVED BY BK 1852 PG 179 BK 282 PG 22 BY HABITELL PLAN BK 282 PG 22

APPROX. EASEMENT LINE

9730
N: 2729821.090'
E: 905977.814'
EL: 86.404'
MSTN: DOT2440

GENERAL MACARTHUR (ROUTE 28) BOULEVARD

(1935 ST.HWY. LO. 3152 – 1940 ST.HWY ALT. 3367
1962 ST.HWY ALT. 5261)

164 +35.05 163 162 MAIN BASELINE OF 1935 ST.HWY. LO. 3152 161 160 159 MAIN BASELINE OF 1935 ST.HWY. LO. 3152 158

T=800.00'
L=1592.15'
R=6565.47'
Δ=13°53'40"

LOCATION LINE OF 1935 ST.HWY. LO. 3152

9785
N: 2729513.980'
E: 906180.626'
EL: 89.033'
MREB CAP

LOCATION LINE OF 1935 ST.HWY. LO. 3152

9786
N: 2729856.618'
E: 906131.905'
EL: 77.491'
MREB CAP

NON-JURISDICTIONAL WETLAND

NON-JURISDICTIONAL WETLAND

WF#HNTB 4-R-1
WF#HNTB 4-R-2
WF#HNTB 4-R-3
WF#HNTB 4-R-4
WF#HNTB 4-R-5
WF#HNTB 4-R-6
WF#HNTB 4-R-7
WF#HNTB 4-R-8
WF#HNTB 4-R-9
WF#HNTB 4-R-10
WF#HNTB 4-R-11
WF#HNTB 4-R-12
WF#HNTB 4-R-13
WF#HNTB 4-R-14
WF#HNTB 4-R-15
WF#HNTB 4-R-16
WF#HNTB 4-R-17
WF#HNTB 4-R-18
WF#HNTB 4-R-19
WF#HNTB 4-R-20
WF#HNTB 4-R-21
WF#HNTB 4-R-22
WF#HNTB 4-R-23
WF#HNTB 4-R-24
WF#HNTB 4-R-25

WF#HNTB 4-S-1
WF#HNTB 4-S-2
WF#HNTB 4-S-3
WF#HNTB 4-S-4
WF#HNTB 4-S-5
WF#HNTB 4-S-6
WF#HNTB 4-S-7
WF#HNTB 4-S-8
WF#HNTB 4-S-9
WF#HNTB 4-S-10
WF#HNTB 4-S-11
WF#HNTB 4-S-12
WF#HNTB 4-S-13
WF#HNTB 4-S-14
WF#HNTB 4-S-15
WF#HNTB 4-S-16
WF#HNTB 4-S-17

CONTINUED ON SHEET 47

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	48	50
	PROJECT FILE NO. 608020		

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:19 PM

NAD 83

N

SEE "CONTINUATION A"

LOCATION LINE OF 1940 ST.HWY. ALT. 3367

LOCATION LINE OF 1935 ST.HWY. LO. 3152

LINE OF NO TRANSIT (UNDER LAYOUT NO. 5261)

GENERAL MACARTHUR (ROUTE 28) BOULEVARD

(1935 ST.HWY. LO. 3152 – 1940 ST.HWY ALT. 3367
1962 ST.HWY ALT. 5261)

MAIN BASELINE OF 1935 ST.HWY. LO. 3152

+58.96

+38.98 PC

NON-JURISDICTIONAL WETLAND

WF#HNTB 4-Y-1 … WF#HNTB 4-Y-36

WF#HNTB 4-T-1 … WF#HNTB 4-T-21

WF#HNTB 4-U-8 … WF#HNTB 4-U-12

WF#HNTB 4-V-1 … WF#HNTB 4-V-4

NON-JURISDICTIONAL EPHEMERAL CHANNEL

CONTINUATION A

ISOLATED LAND SUBJECT TO FLOODING

POTENTIAL VERNAL POOL - 07MA

KEVIN J. HOUGH TR
BK 15516, PG 233
REC'D 5/5/96
120 MACARTHUR BLVD
MAP 27.0 PARCEL 077.00

CONTINUED ON SHEET 47

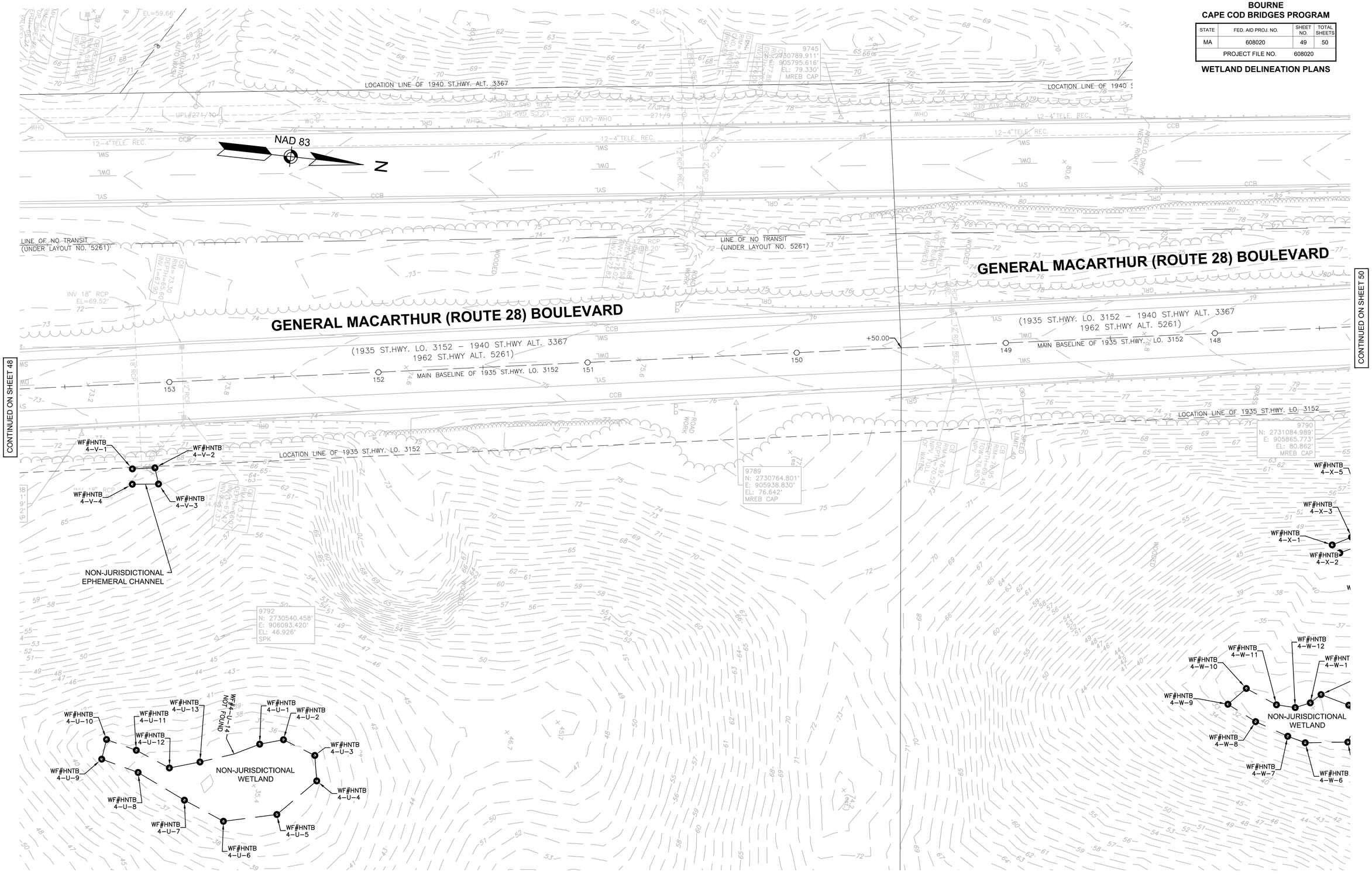
CONTINUED ON SHEET 49

BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	49	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:26 PM



BOURNE
CAPE COD BRIDGES PROGRAM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	608020	50	50
	PROJECT FILE NO.	608020	

WETLAND DELINEATION PLANS

CONTINUED ON SHEET 49

608020_EV2 (BOURNE PLANS).DWG Plotted on 11-Apr-2022 3:20 PM

RTHUR (ROUTE 28) BOULEVARD

GENERAL MACARTHUR (ROUTE 28) BOULEVARD

(1935 ST.HWY. LO. 3152 – 1940 ST.HWY ALT. 3367
1962 ST.HWY ALT. 5261)

3152 – 1940 ST.HWY ALT. 3367
ST.HWY ALT. 5261)

1935 ST.HWY. LO. 3152

MAIN BASELINE OF 1935 ST.HWY. LO. 3152

LINE OF NO TRANSIT
(UNDER LAYOUT NO. 5261)

LOCATION LINE OF 1935 ST.HWY. LO. 3152

LOCATION LINE OF 1962 ST.HWY. ALT. 5261

NAD 83

N

9790
N: 2731084.989'
E: 905865.773'
EL: 80.862'
MREB CAP

9791
N: 2731191.405'
E: 905936.194'
EL: 72.045'
MREB CAP

9588
N: 2731435.188'
E: 905822.152'
EL: 96.544'
MMAG SPK

9793
N: 2731234.632'
E: 905974.358'
EL: 68.210'
SPK

9589
N: 2731528.506'
E: 905990.200'
EL: 76.685'
MMAG SPK

WF#HNTB 4–X–1
WF#HNTB 4–X–2
WF#HNTB 4–X–3
WF#HNTB 4–X–4
WF#HNTB 4–X–5
WF#HNTB 4–X–7
WF#HNTB 4–X–8
WF#HNTB 4–X–9
WF#HNTB 4–X–10
WF#HNTB 4–X–11
WF#HNTB 4–X–12
WF#HNTB 4–X–13
WF#HNTB 4–X–14
WF#HNTB 4–X–15
WF#HNTB 4–X–16
WF#HNTB 4–X–17
WF#HNTB 4–X–18
WF#HNTB 4–X–19
WF#HNTB 4–X–20

NON-JURISDICTIONAL EPHEMERAL STREAM

NON-JURISDICTIONAL WETLAND

WF#HNTB 4–W–1
WF#HNTB 4–W–2
WF#HNTB 4–W–3
WF#HNTB 4–W–4
WF#HNTB 4–W–5
WF#HNTB 4–W–6
WF#HNTB 4–W–7
WF#HNTB 4–W–8
WF#HNTB 4–W–9
WF#HNTB 4–W–10
WF#HNTB 4–W–11
WF#HNTB 4–W–12

POTENTIAL VERNAL POOL - 05MA

WF#HNTB 4–Z–1
WF#HNTB 4–Z–2
WF#HNTB 4–Z–3
WF#HNTB 4–Z–4
WF#HNTB 4–Z–5
WF#HNTB 4–Z–6
WF#HNTB 4–Z–7
WF#HNTB 4–Z–8
WF#HNTB 4–Z–9
WF#HNTB 4–Z–10
WF#HNTB 4–Z–11
WF#HNTB 4–Z–12
WF#HNTB 4–Z–13
WF#HNTB 4–Z–14
WF#HNTB 4–Z–15
WF#HNTB 4–Z–16

NON-JURISDICTIONAL WETLAND

APPROX. PROPERTY LINE

ACCESS
(UNDER LAYOUT NO. 8385)

NO ACCESS
(UNDER LAYOUT NO. 5261)

LOCATION LINE OF 1962 ST.HWY. ALT. 5261
NO ACCESS (UNDER LAYOUT NO. 5261)

CBDH

MHB
SBND

PL NOT

+50.00

+59.99

2195.45'
S12°52'05"E

144

145

146

147

148

CBND
CTR BM
BROKEN

INV=74.95'

INV=74.98'

INV=74.98'

INV=74.98