

Toll Brothers

AMERICA'S LUXURY HOME BUILDER®

CLUBHOUSE & AMENITY

MAIN STREET

EAGLEVIEW DRIVE

TEEBOX

FAIRWAY

SAGAMORE SPRING GOLF CLUB

STABLEFORD COURT

FAIRWAY LANE

QUIGLEY CIRCLE

FAIRWAY

VARDON CIRCLE

FAIRWAY LANE

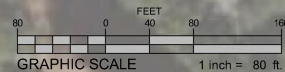
GREEN

TYPICAL DWELLING UNIT

FAIRWAY

- TYPICAL YARD SETBACK
- 25-FT WETLAND BUFFER
- 50-FT WETLAND BUFFER
- 100-FT WETLAND BUFFER

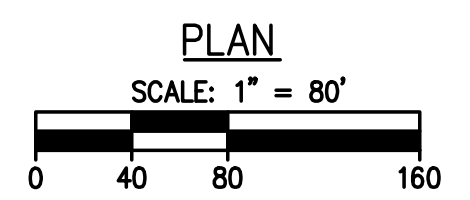
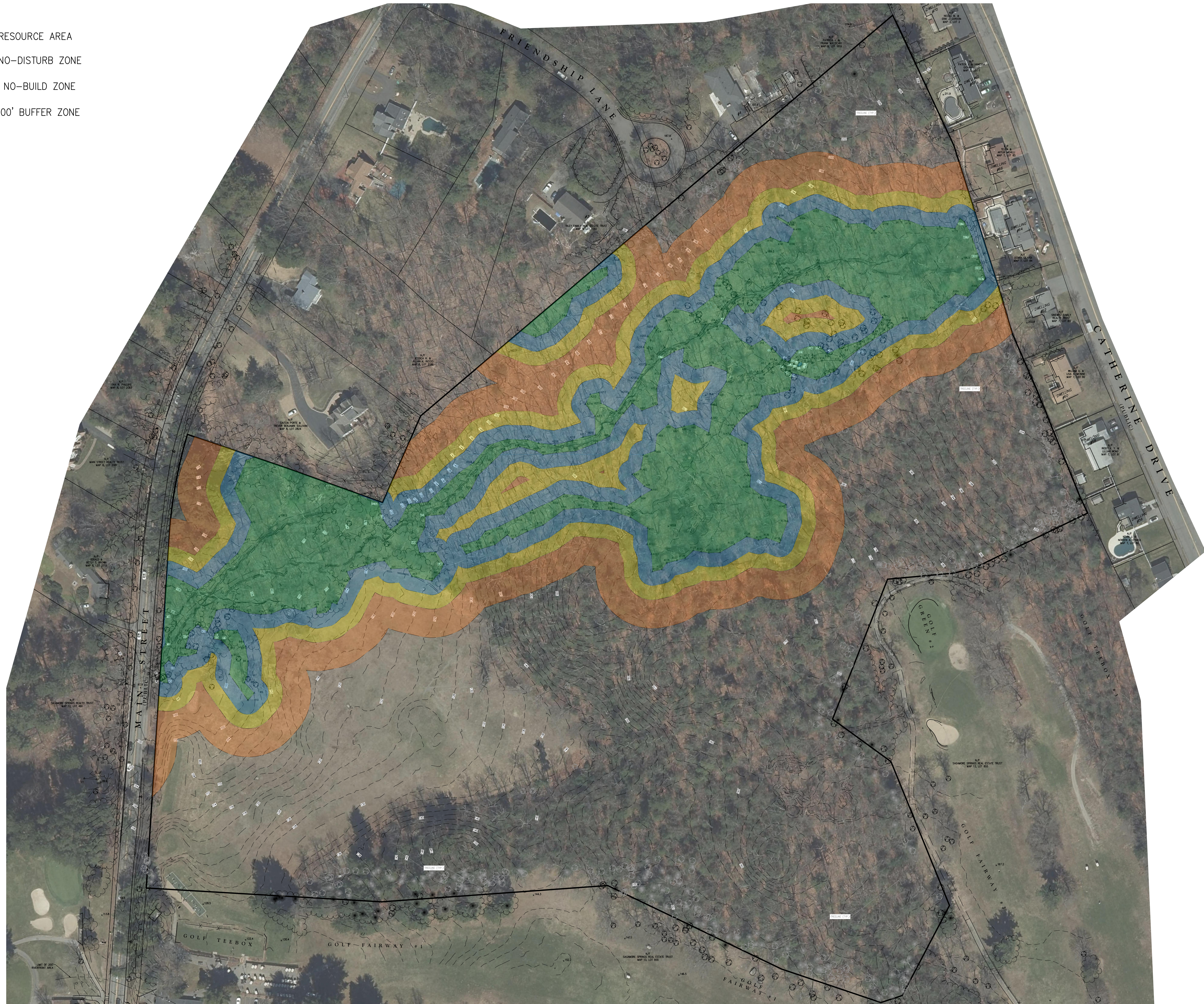
CATHERINE DRIVE



10/16/2023 11:57 AM C:\Users\jplanning\Documents\Projects\2023\23-118\SAGAMORE\23-118_SAGAMORE_SPH\23-118_SAGAMORE_SPH.dwg

LEGEND:

- WETLAND RESOURCE AREA
- 0' – 25' NO-DISTURB ZONE
- 25' – 50' NO-BUILD ZONE
- LIMIT OF 100' BUFFER ZONE



SURVEY BY: ESE
 DRAFTED BY: DP
 CHECKED BY: SPC
 APPROVED BY: SPC
 SCALE: AS NOTED
 DATE: JANUARY 16, 2024

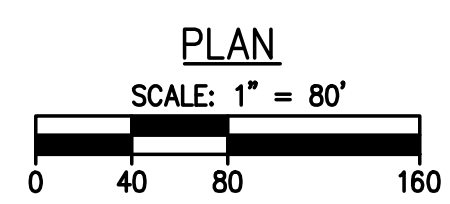
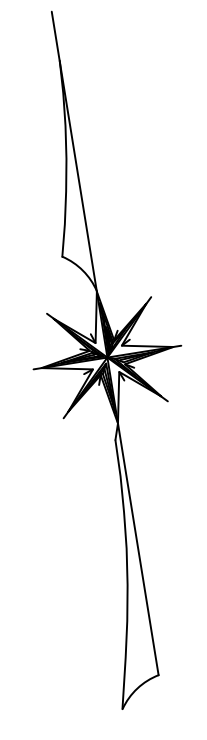
REVISIONS	
NO.	DESCRIPTION

EXISTING CONDITIONS WETLAND SKETCH
 LOCATED AT
1301 MAIN STREET
LYNNFIELD, MASSACHUSETTS
 (PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
 PREPARED FOR:
TOLL BROS., INC.

SK-1
 DRAWING NO.
1 OF 1

LEGEND:

- WETLAND RESOURCE AREA
- EXISTING WOODED AREA
- PROPOSED WETLAND REPLICATION AREA
- PROPOSED PAVED AREA
- PROPOSED BUILDING
- PROPOSED BIORETENTION AREA
- PROPOSED MEADOW PLANTING



The Morin-Cameron GROUP, INC.
 CIVIL ENGINEERS / ENVIRONMENTAL CONSULTANTS
 LAND SURVEYORS / LAND USE PLANNERS
 66 ELM STREET, DANVERS, MASSACHUSETTS 01923
 P: 978-777-8586, F: 978-777-8586

SURVEY BY: ESE
 DRAFTED BY: DJP
 CHECKED BY: SPC
 APPROVED BY: SPC
 SCALE: AS NOTED
 DATE: JANUARY 16, 2024

NO.	REVISIONS	DATE

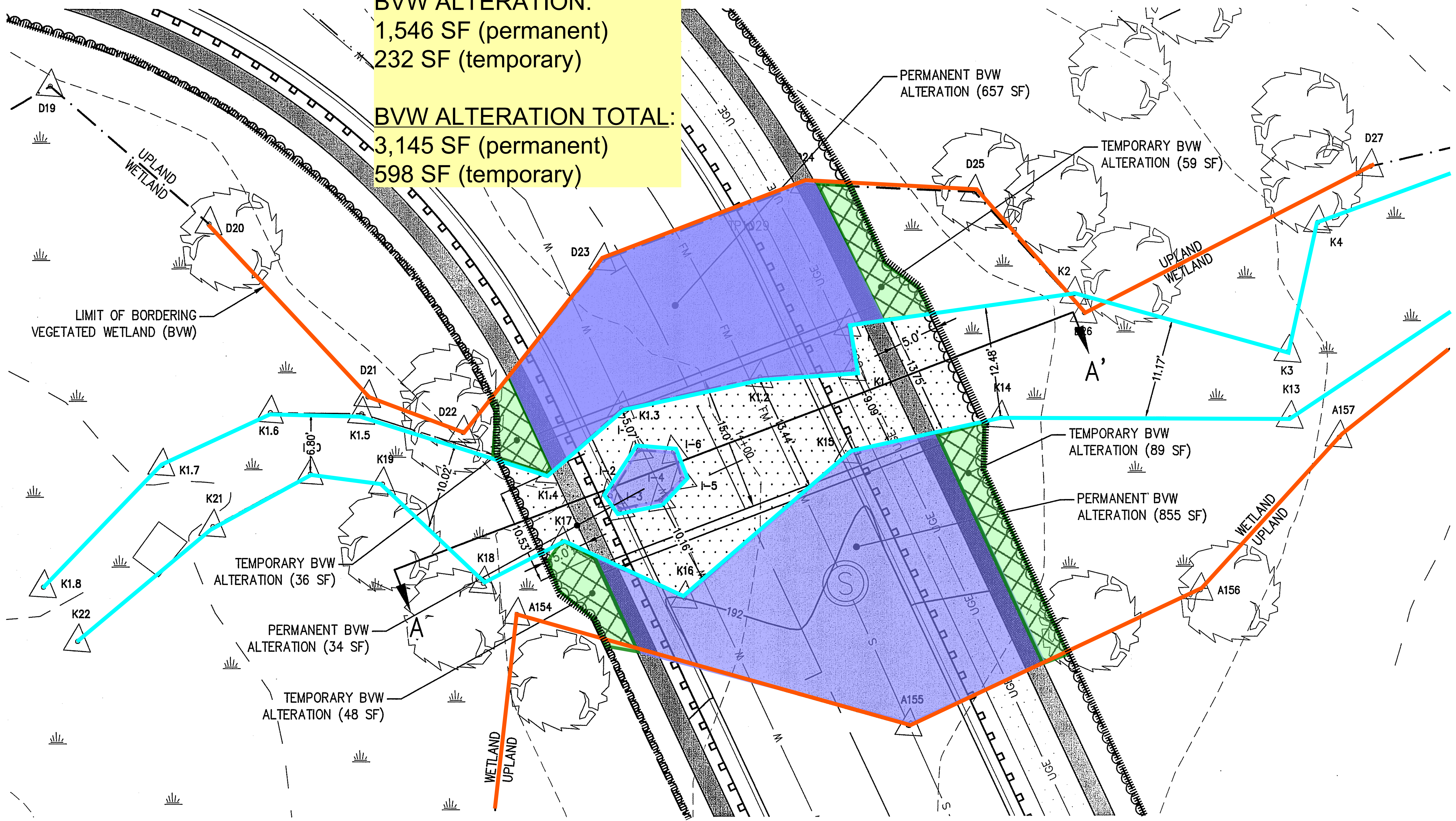
GROUNDCOVER SKETCH
 LOCATED AT
1301 MAIN STREET
LYNNFIELD, MASSACHUSETTS
 (PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
 PREPARED FOR:
TOLL BROS., INC.

SK-4

DRAWING NO.
1 OF 1

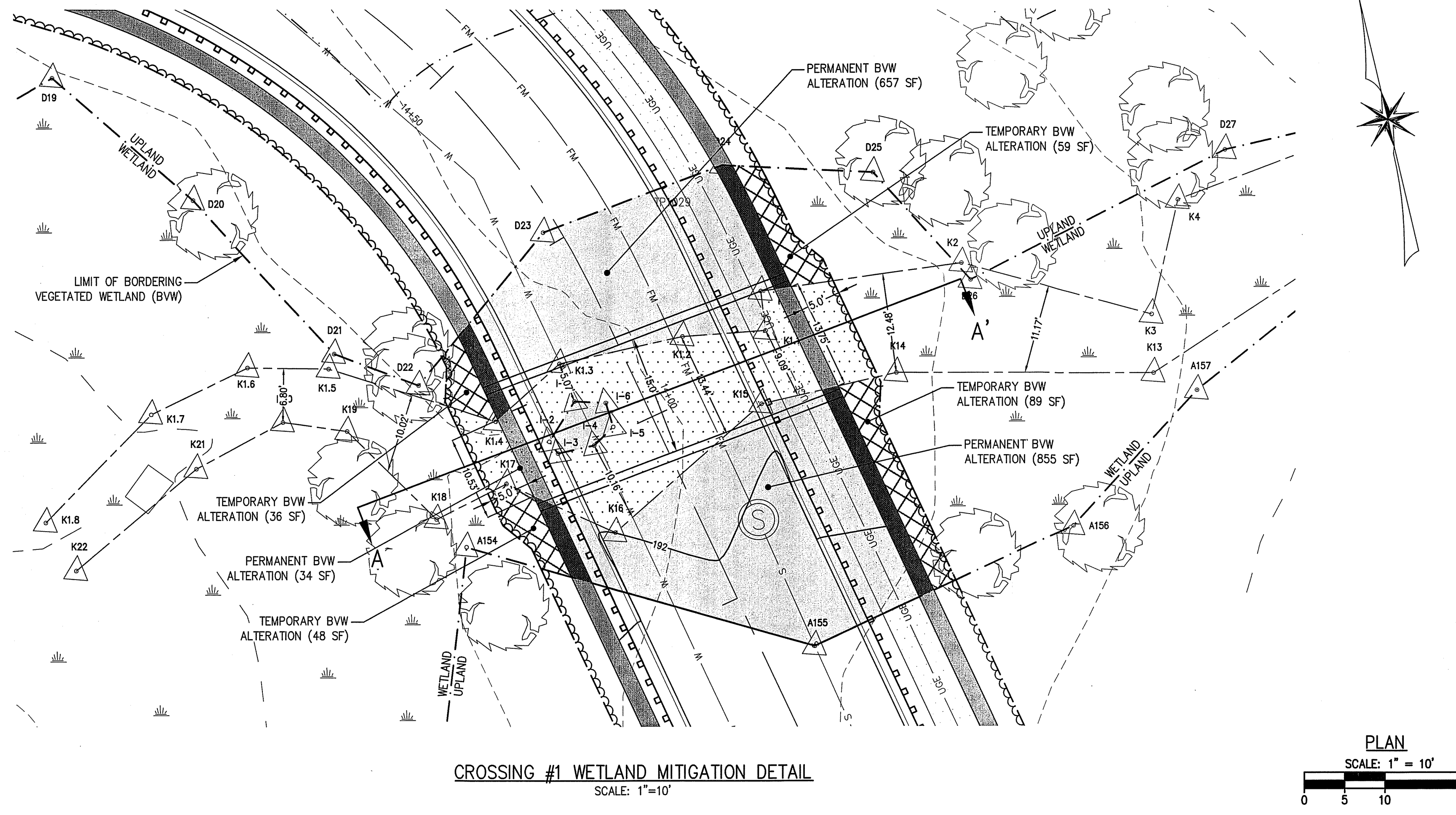
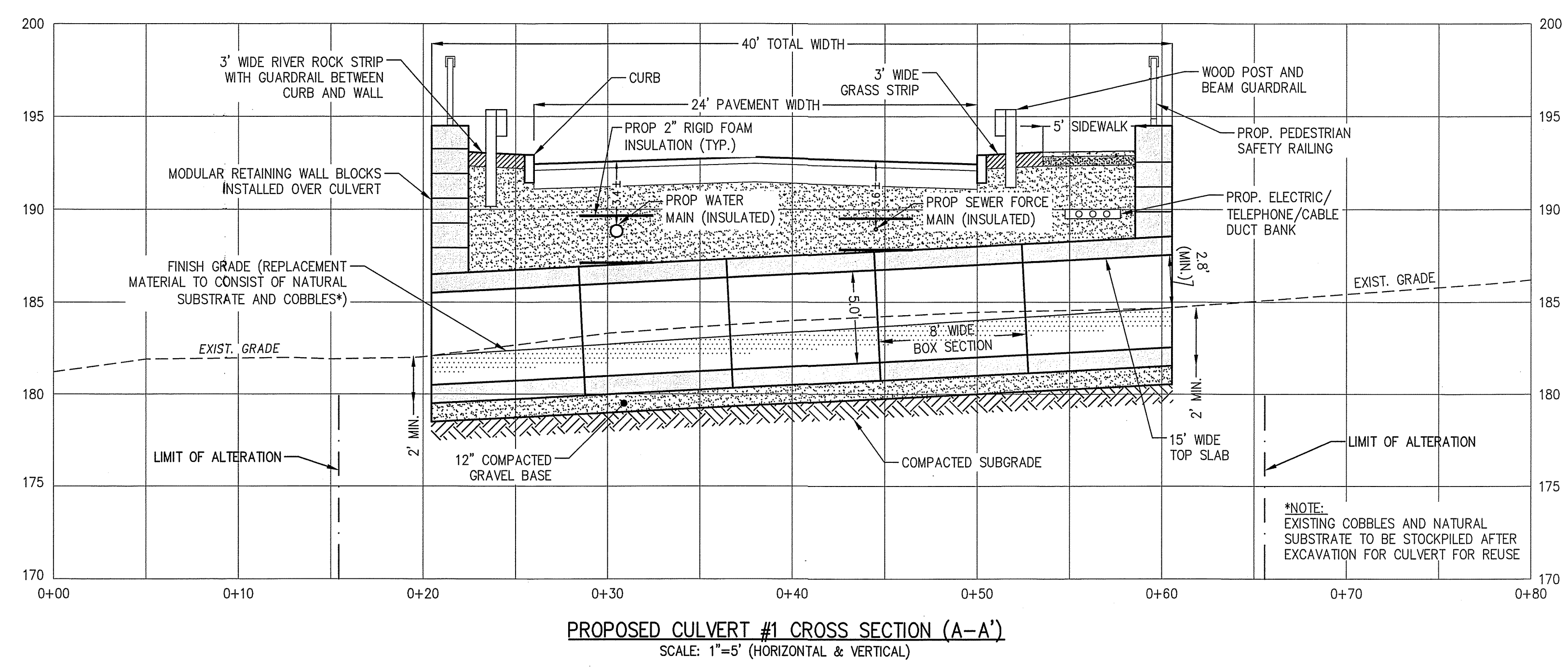
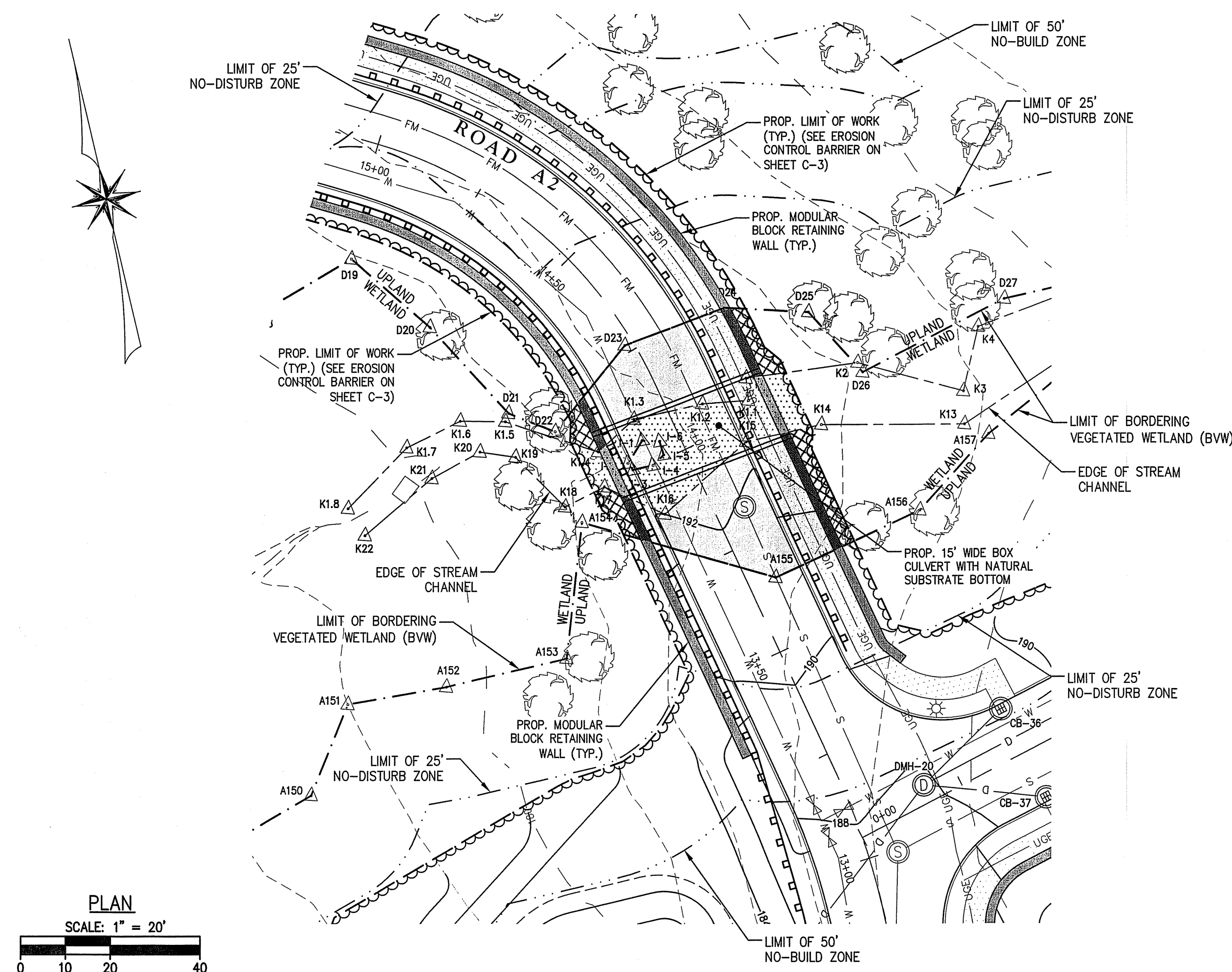
BVW ALTERATION:
 1,546 SF (permanent)
 232 SF (temporary)

BVW ALTERATION TOTAL:
 3,145 SF (permanent)
 598 SF (temporary)



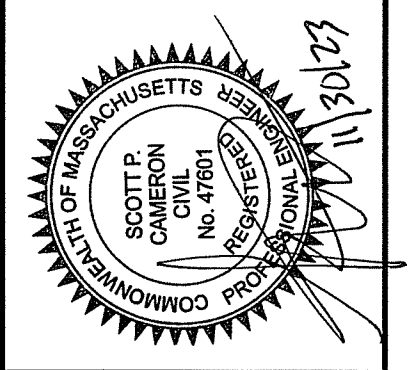
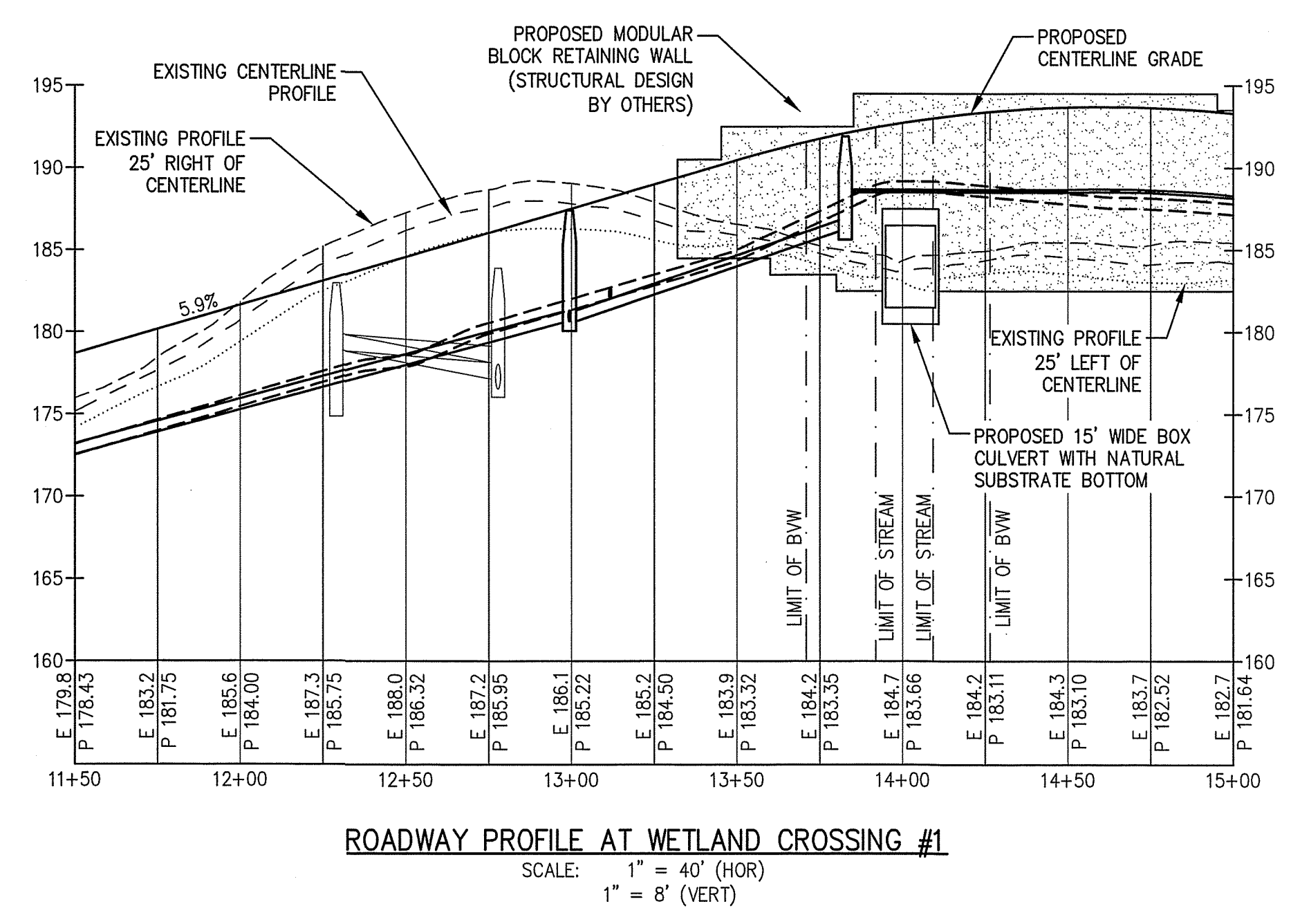
CROSSING #1 WETLAND MITIGATION DETAIL
 SCALE: 1"=10'





CULVERT OPENNESS RATIO
 $OPENNESS RATIO = \frac{CROSS-SECTIONAL AREA}{CULVERT LENGTH}$
 CULVERT WIDTH = 15 FEET
 MIN. VERTICAL CLEARANCE = 2.2 FEET
 CROSS SECTIONAL AREA = 15' X 2.8' = 42 SQ FEET
 OPENNESS RATIO = 42 / 40 = 1.05
 (MINIMUM REQUIRED = 0.82)

BANKFULL WIDTH CALCULATION
 EXISTING AVERAGE BANKFULL WIDTH:
 $(6.80' + 10.02' + 10.53' + 5.07' + 10.16' + 13.44' + 9.09' + 13.75' + 12.48' + 11.17') / 10 = 10.25'$
 $10.25' \times 1.2 = 12.30'$
 $15' > 12.30'$ (OK)



SURVEY BY: ESE
 DRAFTED BY: DJP
 CHECKED BY: SPC
 APPROVED BY: SPC
 SCALE: AS NOTED
 DATE: NOVEMBER 30, 2023

NO.	DESCRIPTION	DATE

SITE DEVELOPMENT PLANS FOR THE REGENCY AT LYNNFIELD SENIOR HOUSING DEVELOPMENT
 LOCATED AT
1301 MAIN STREET
LYNNFIELD, MASSACHUSETTS
 (PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
 PREPARED FOR:
TOLL BROS., INC.

WETLAND CROSSING PLAN I
 DRAWING NO. **W-1**



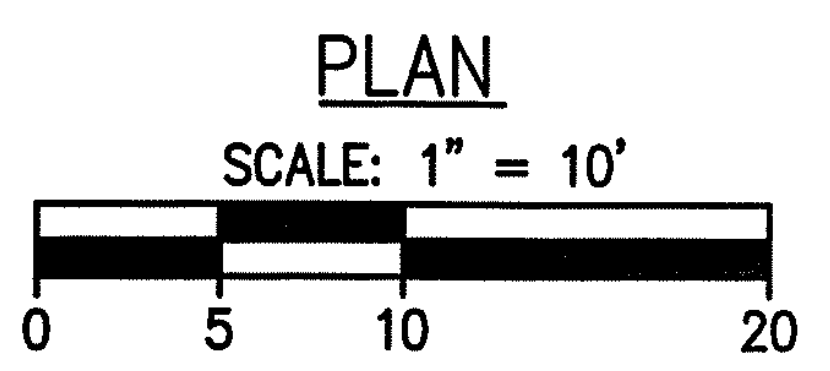
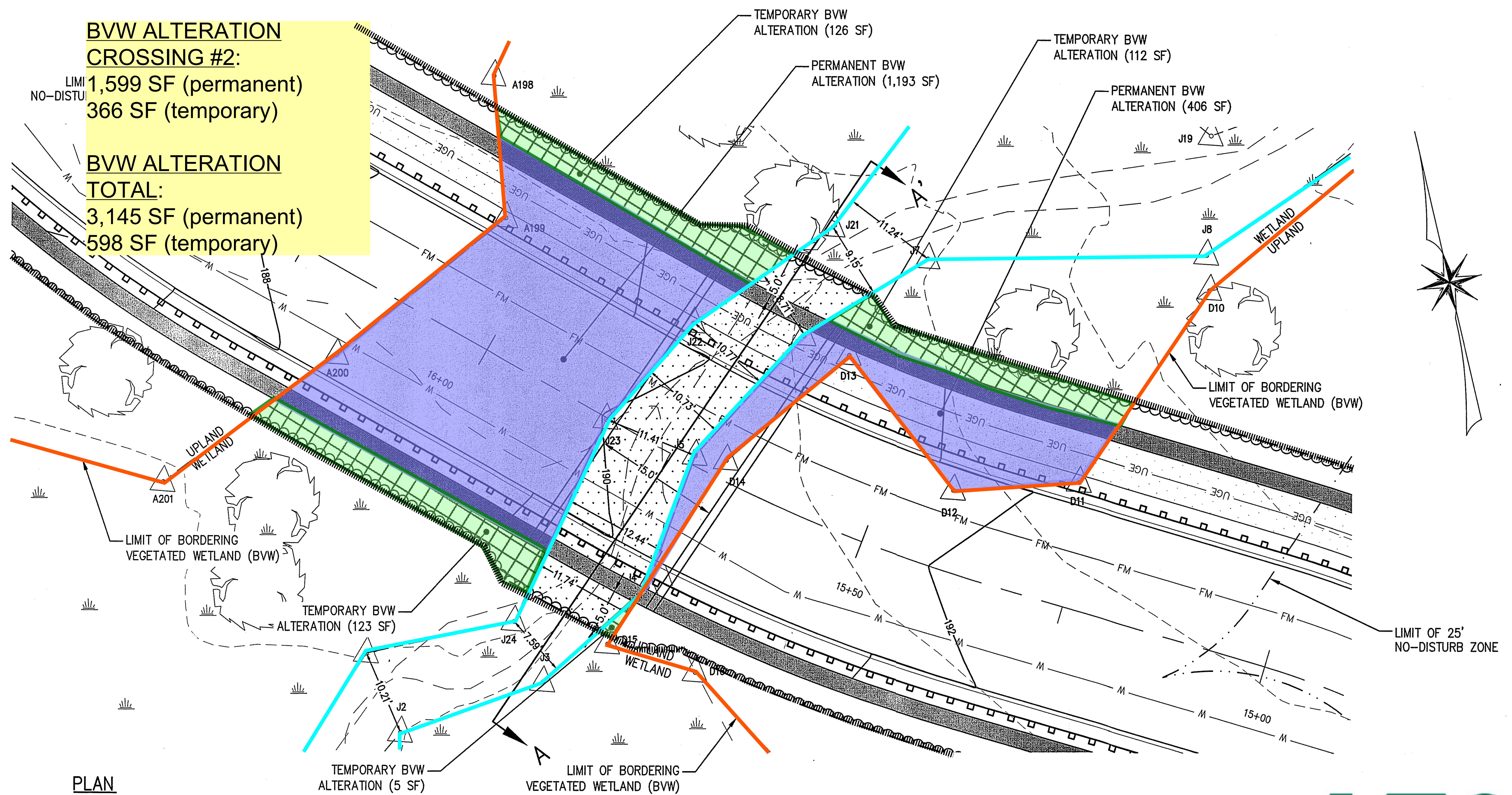
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**BVW ALTERATION
CROSSING #2:**

LIMIT OF NO-DISTURBANCE
1,599 SF (permanent)
366 SF (temporary)

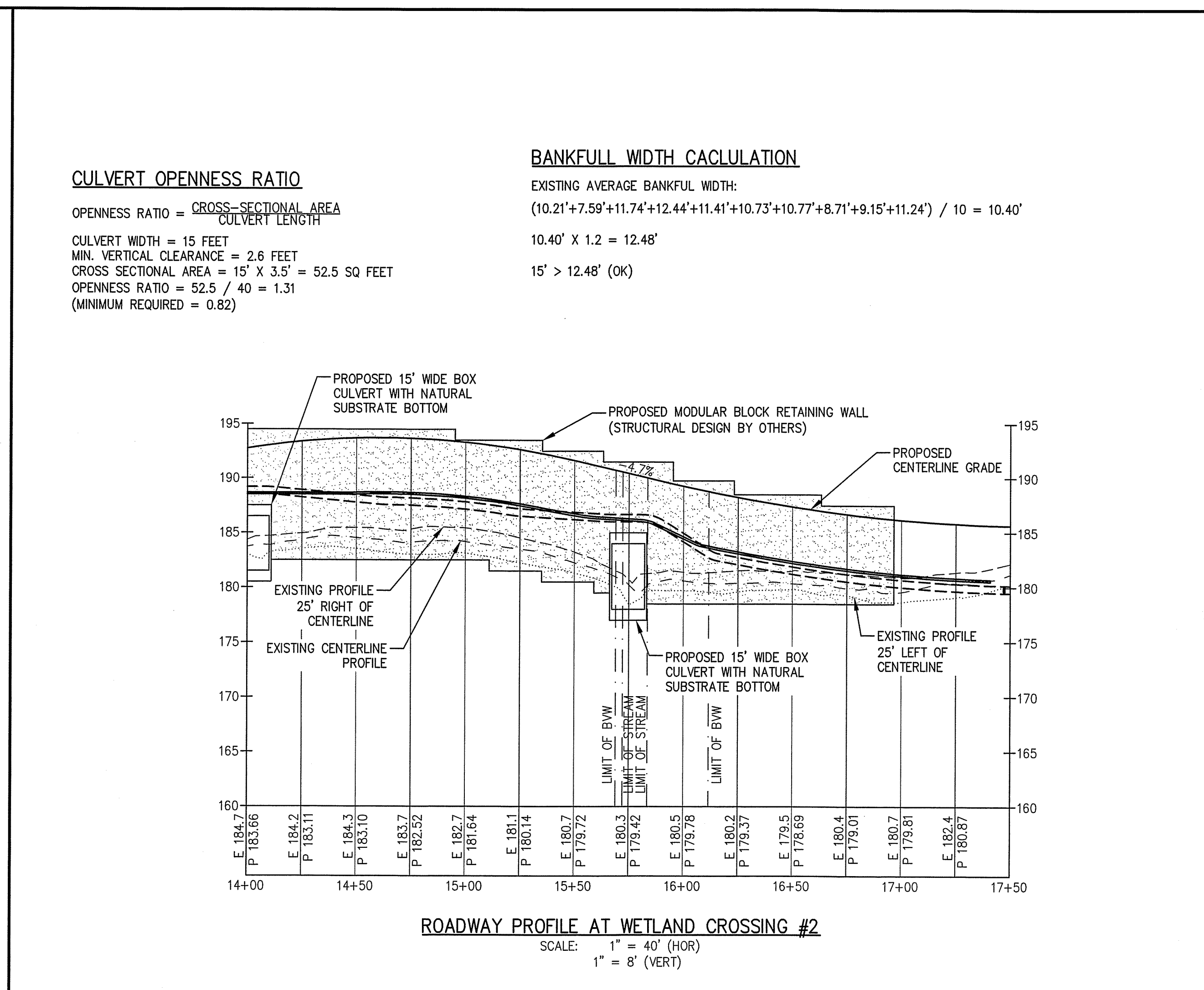
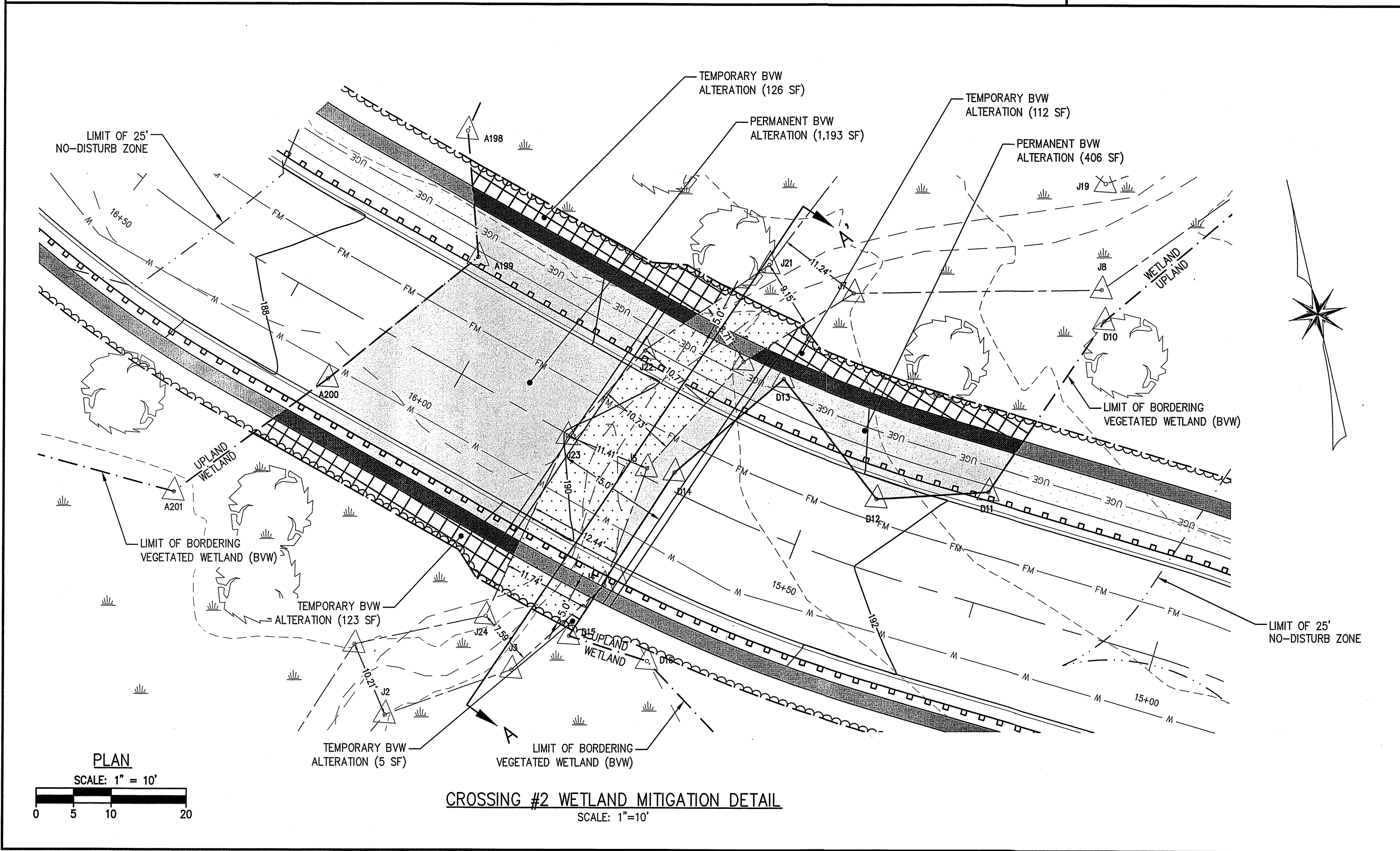
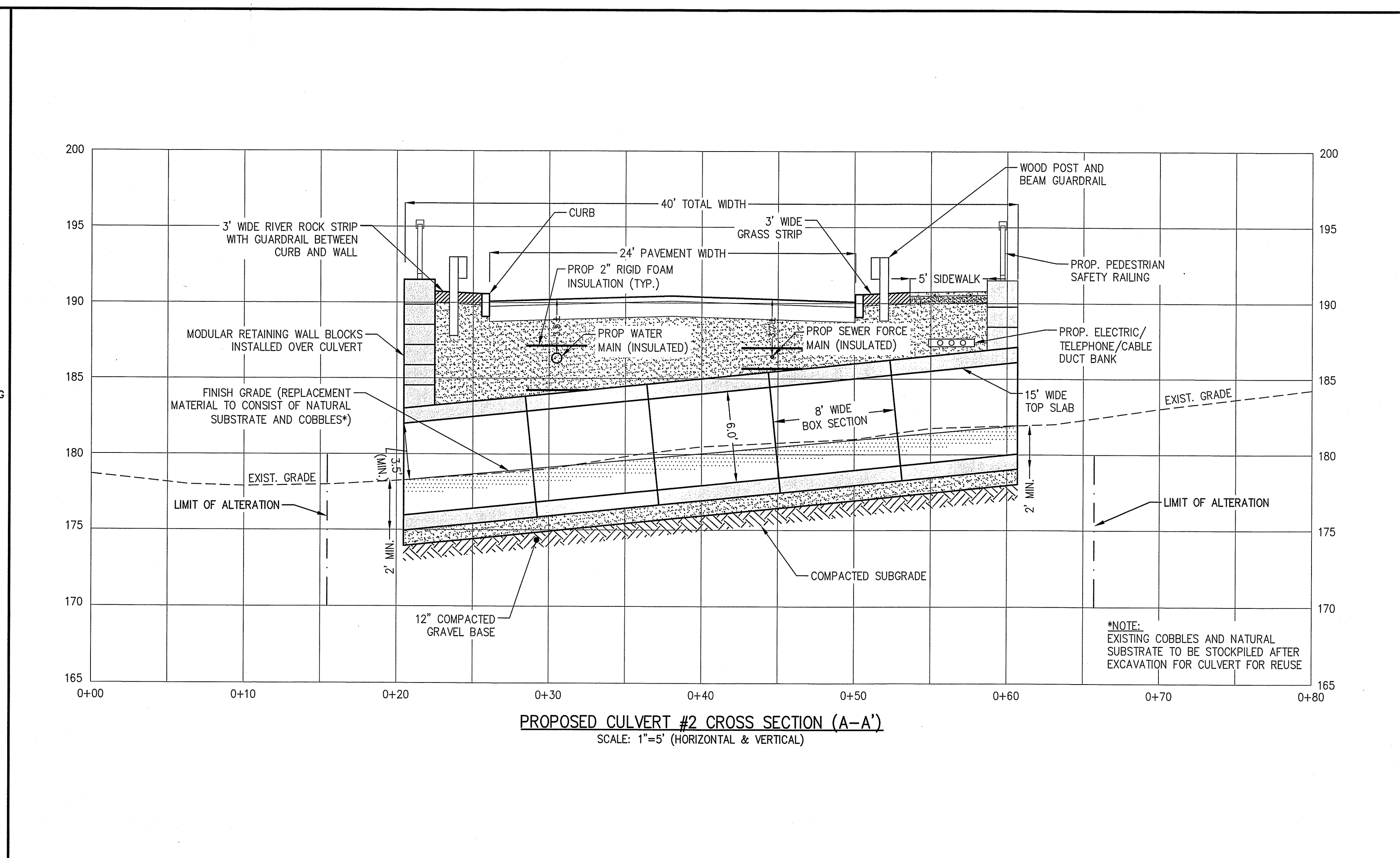
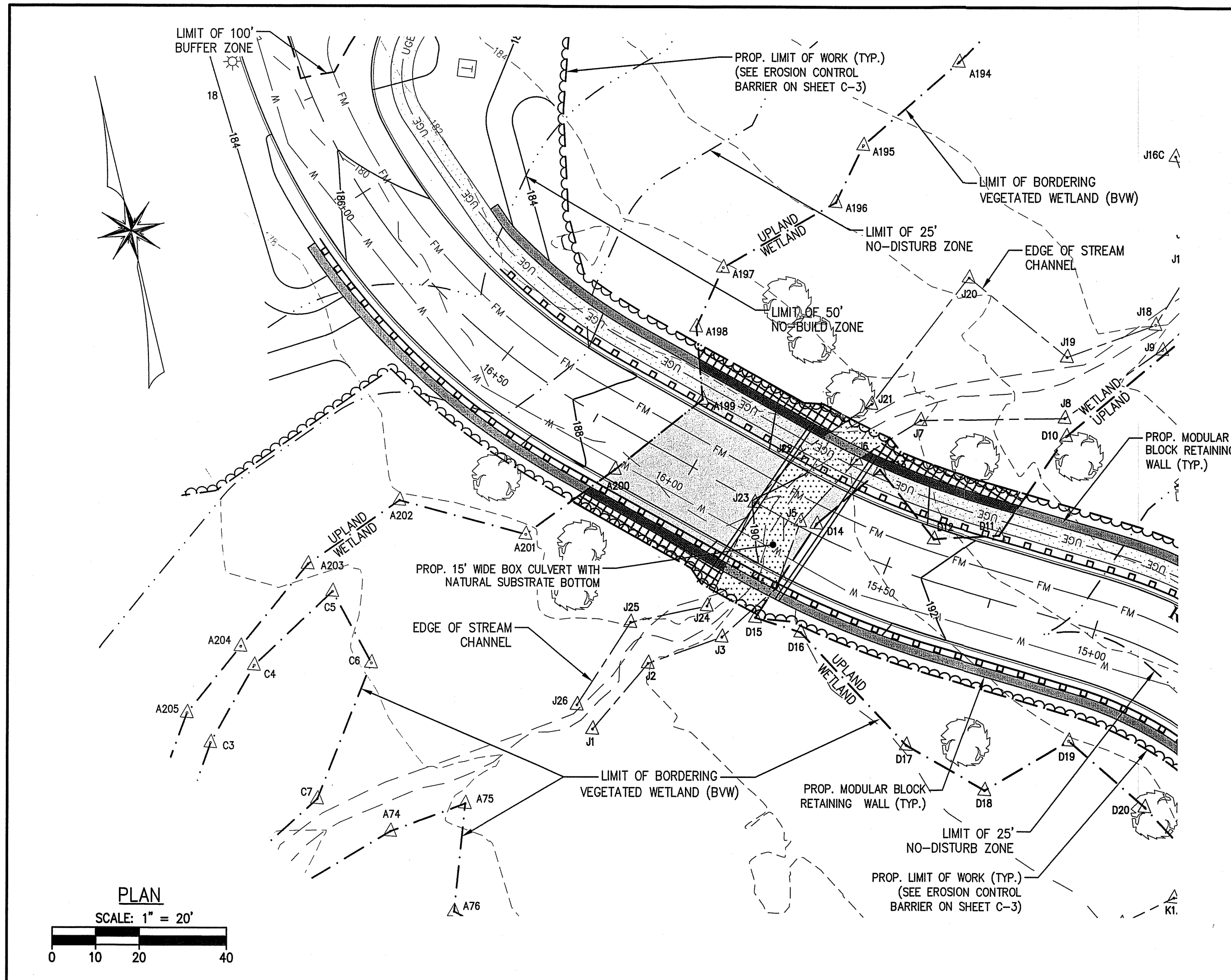
**BVW ALTERATION
TOTAL:**

3,145 SF (permanent)
598 SF (temporary)



CROSSING #2 WETLAND MITIGATION DETAIL
SCALE: 1"=10'





CULVERT OPENNESS RATIO
 $OPENNESS RATIO = \frac{CROSS-SECTIONAL AREA}{CULVERT LENGTH}$
 CULVERT WIDTH = 15 FEET
 MIN. VERTICAL CLEARANCE = 2.6 FEET
 CROSS SECTIONAL AREA = 15' X 3.5' = 52.5 SQ FEET
 $OPENNESS RATIO = 52.5 / 40 = 1.31$
 (MINIMUM REQUIRED = 0.82)

BANKFULL WIDTH CALCULATION
 EXISTING AVERAGE BANKFULL WIDTH:
 $(10.21' + 7.59' + 11.74' + 12.44' + 11.41' + 10.73' + 10.77' + 8.71' + 9.15' + 11.24') / 10 = 10.40'$
 $10.40' \times 1.2 = 12.48'$
 $15' > 12.48'$ (OK)

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 P. 978-777-6586, W. WWW.MORIN-CAMERON.COM

REGISTRATION NO. 11301
 COMMONWEALTH OF MASSACHUSETTS
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING

SURVEY BY: ESE
 DRAFTED BY: DJP
 CHECKED BY: SPC
 APPROVED BY: SPC
 SCALE: AS NOTED
 DATE: NOVEMBER 30, 2023

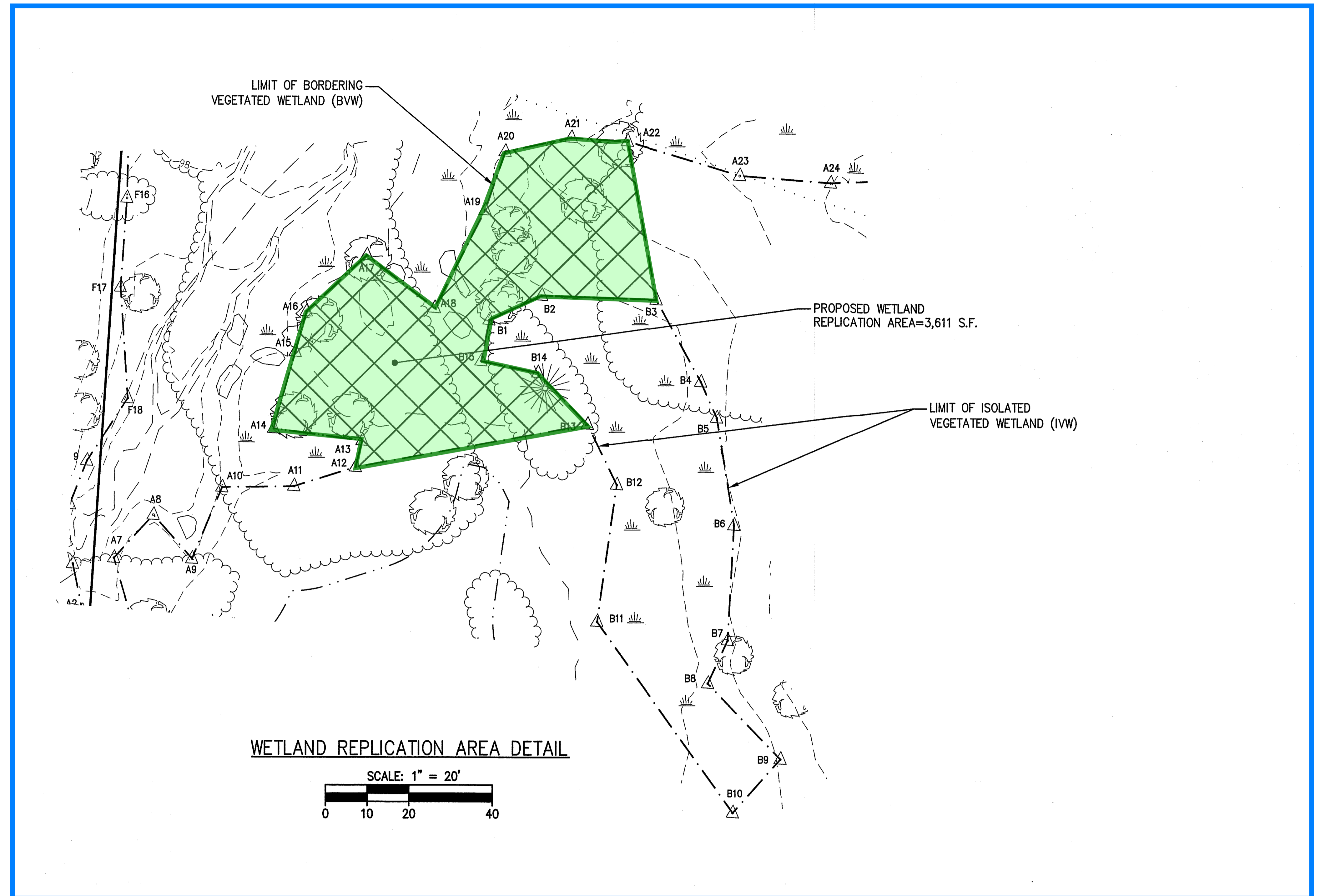
NO.	REVISIONS	DESCRIPTION	DATE

WETLAND CROSSING PLAN II
 DRAWING NO. **W-2**

SITE DEVELOPMENT PLANS FOR THE REGENCY AT LYNNFIELD SENIOR HOUSING DEVELOPMENT
 LOCATED AT
1301 MAIN STREET
 LYNNFIELD, MASSACHUSETTS
 (PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
 PREPARED FOR:
TOLL BROS., INC.

PROJ. #4171





WETLAND REPLICATION PLANT LIST				
COMMON NAME	GENUS/SPECIES	SIZE	PLANTING SPECIFICATIONS	NO.
TREES				
RED MAPLE	<i>Acer rubrum</i>	4-6' MIN.	SINGLES, 10-25 FEET O.C.	8
SHRUBS				
HIGHBUSH BLUEBERRY	<i>Vaccinium corymbosum</i>	2-3' MIN.	IN CLUSTERS OF 2-3, SPACED 4-7 FEET O.C.	12
NORTHERN ARROWWOOD	<i>Viburnum denatum</i>	2-3' MIN.	IN CLUSTERS OF 2-3, SPACED 4-7 FEET O.C.	12
WINTERBERRY	<i>Ilex verticillata</i>	2-3' MIN.	IN CLUSTERS OF 2-3, SPACED 4-7 FEET O.C.	*12
SPICEBUSH	<i>Lindera benzoin</i>	2-3' MIN.	IN CLUSTERS OF 2-3, SPACED 4-7 FEET O.C.	12
			TOTAL SHRUBS AND TREES	56
SHRUBS				
SENSITIVE FERN	<i>Onoclea senibillis</i>	1 gal. pot	RANDOMLY SPACED THROUGHOUT	30

*(6 MALE & 6 FEMALE WINTERBERRY)

PROPOSED ALTERATION CALCULATION

BORDERING VEGETATED WETLAND ALTERATION AREA = 3,145 S.F.

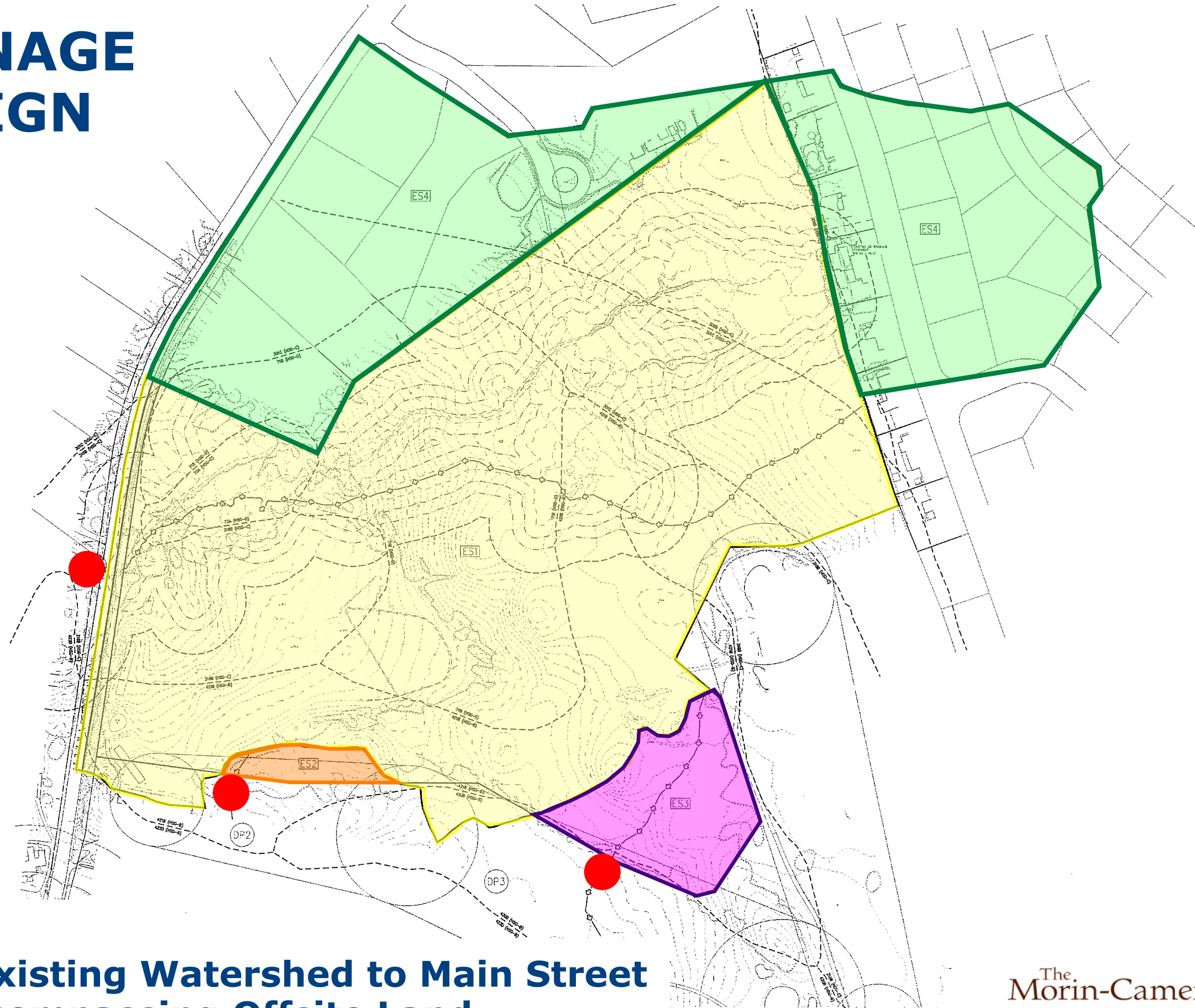
TOTAL REPLICATION = 3,611 S.F.

RATIO = 3,611 S.F. / 3,145 S.F. = 1:15



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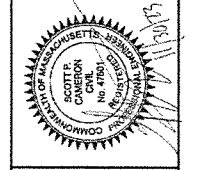
DRAINAGE DESIGN



**Evaluated Existing Watershed to Main Street
Encompassing Offsite Land**

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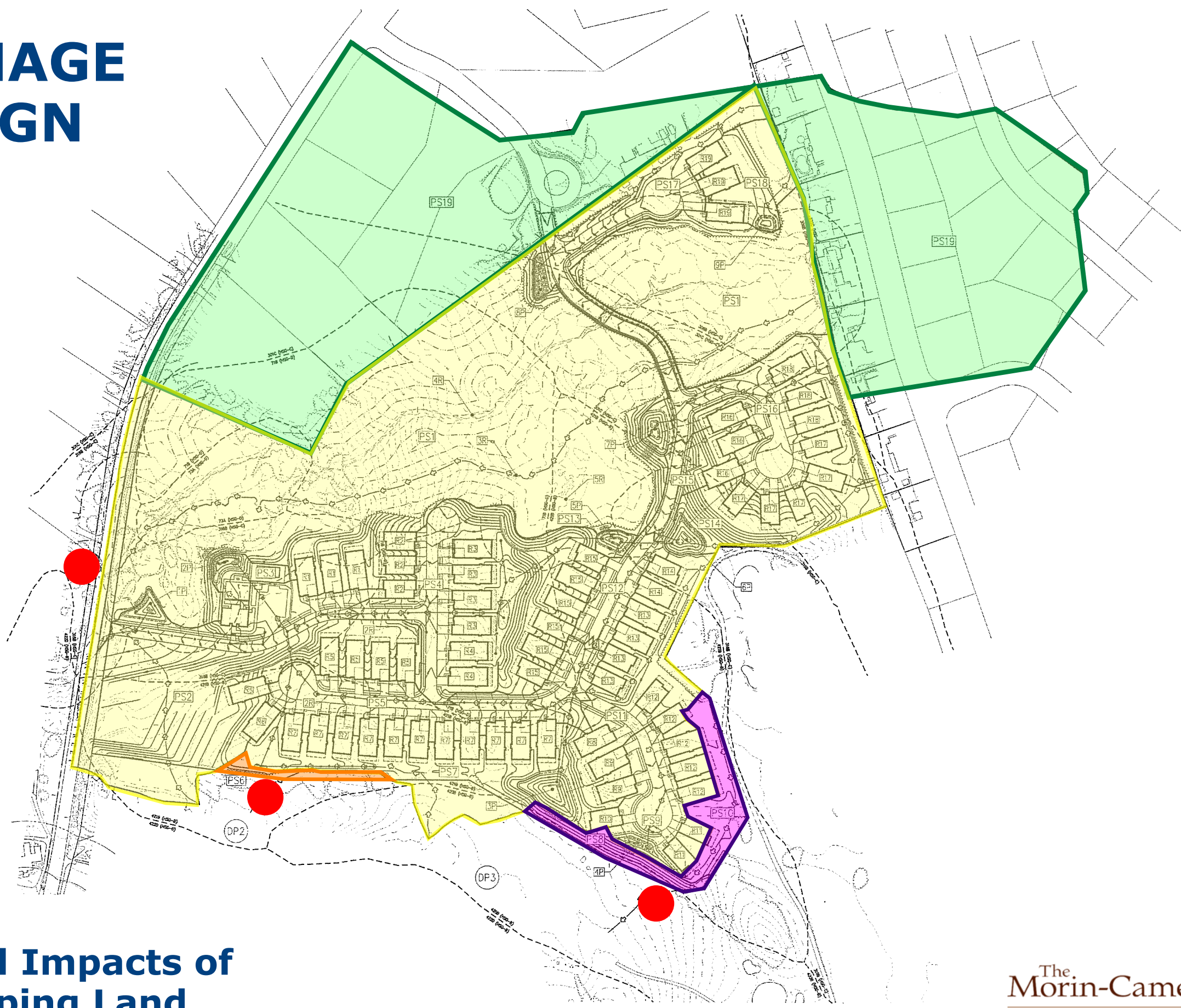
SURVEY BY: ESE
DRAFTED BY: DFP
CHECKED BY: SPC
APPROVED BY: SPC
SCALE: AS NOTED
DATE: NOVEMBER 30, 2023

REVISIONS	
NO.	DESCRIPTION

EXISTING CONDITIONS WATERSHED FIGURE
LOCATED AT
1301 MAIN STREET
LYNNFIELD, MASSACHUSETTS
(PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
PREPARED FOR:
TOLL BROS., INC.

EXISTING
CONDITIONS
WATERSHEDS
FIGURE 7

DRAINAGE DESIGN



Evaluated Impacts of Developing Land

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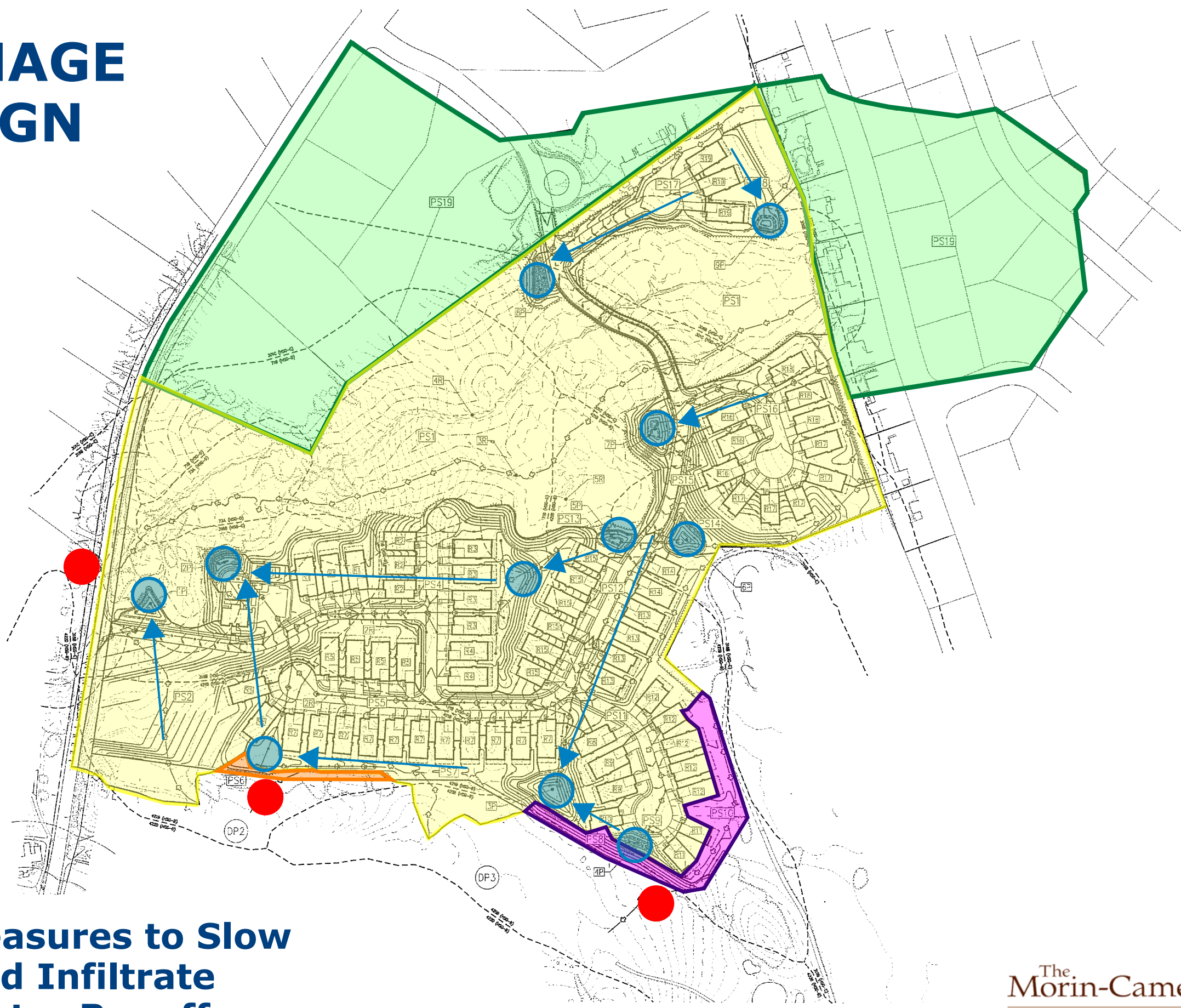
SURVEY BY: FSF
DRAFTED BY: DJF
CHECKED BY: SPC
APPROVED BY: SPC
SCALE: AS NOTED
DATE: NOVEMBER 30, 2023

NO.	REVISIONS	DESCRIPTION	DATE

PROPOSED CONDITIONS WATERSHED FIGURE
LOCATED AT
1301 MAIN STREET
LYNNFIELD, MASSACHUSETTS
(PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
PREPARED FOR
TOLL BROS., INC.

PROPOSED
CONDITIONS
WATERSHEDS
FIGURE 8

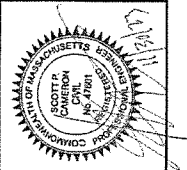
DRAINAGE DESIGN



Designed Measures to Slow Down and Infiltrate Stormwater Runoff

The
Morin-Cameron
GROUP, INC.

The
Morin-Cameron
GROUP, INC.
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LAND SURVEYORS | LAND USE PLANNERS
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SURVEY BY: FSF
DRAFTED BY: DJF
CHECKED BY: SPC
APPROVED BY: SPC
SCALE: AS NOTED
DATE: NOVEMBER 30, 2023

NO.	REVISIONS	DESCRIPTION	DATE

PROPOSED CONDITIONS WATERSHED FIGURE
LOCATED AT
1301 MAIN STREET
LYNNFIELD, MASSACHUSETTS
(PORTION OF ASSESSOR'S MAP 13, PARCEL 1000)
PREPARED FOR
TOLL BROS., INC.

PROPOSED
CONDITIONS
WATERSHEDS
FIGURE 8