

LONGMEADOW ROAD EXTENSION

LONGMEADOW ROAD AND LANG ROAD AT US ROUTE 1 PORTSMOUTH, NEW HAMPSHIRE

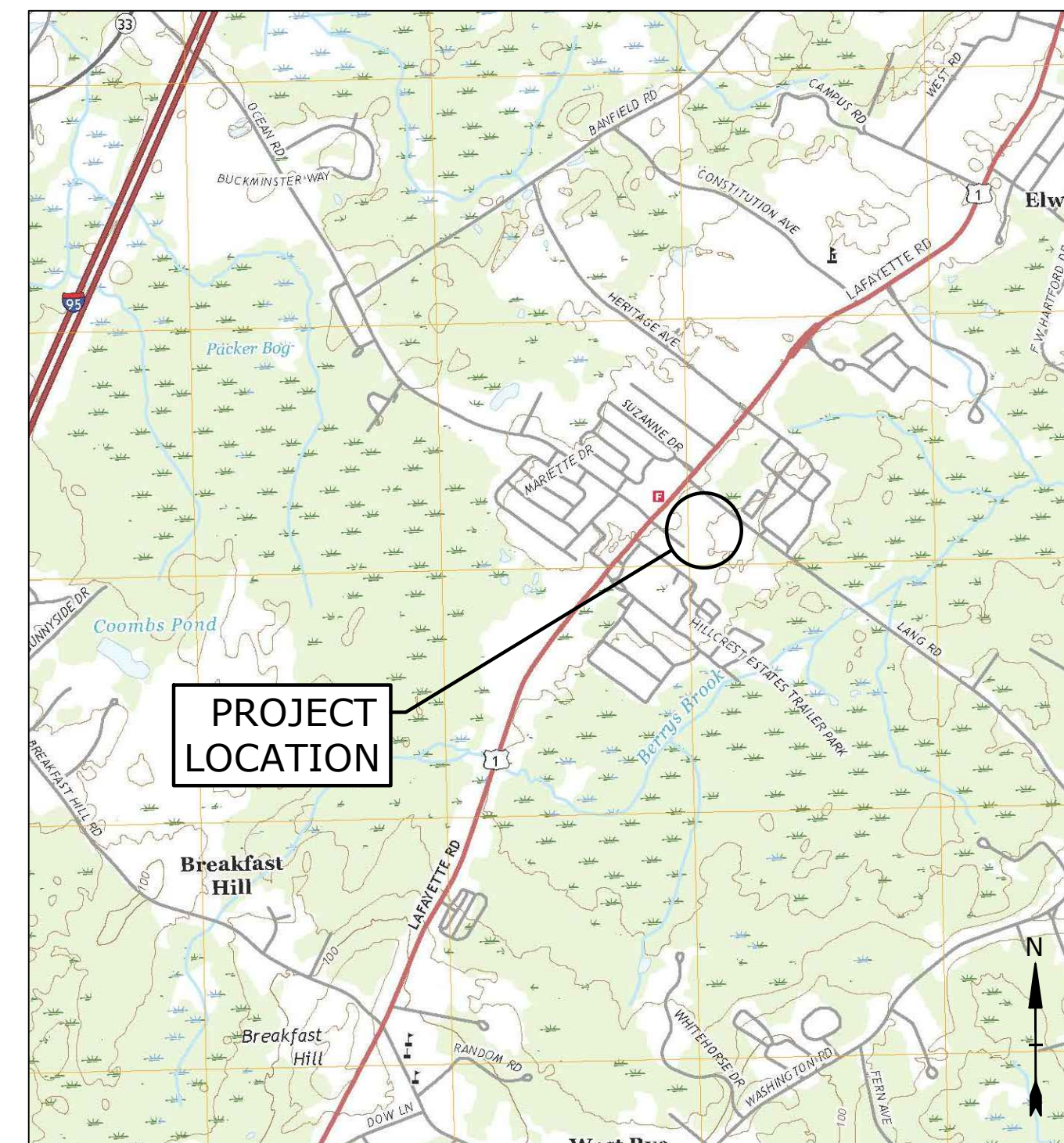
PROJECT NO: P-0714-005

PORTSMOUTH #42350, X-A004(818)

JANUARY 11, 2019

LAST REVISED: OCTOBER 21, 2021

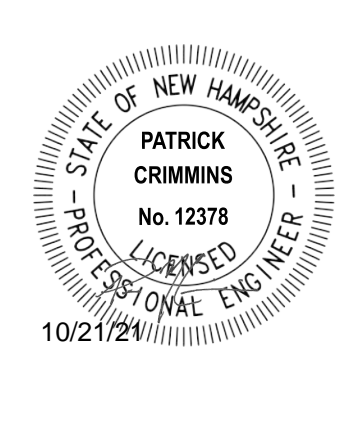
LIST OF DRAWINGS		
SHEET NO	SHEET TITLE	LAST REVISED
K	COVER SHEET	10/21/2021
1 OF 3	SUBDIVISION PLAN	2/11/2021
2 OF 3	SUBDIVISION PLAN	2/11/2021
3 OF 3	SUBDIVISION PLAN	2/11/2021
C-100	GENERAL NOTES, LEGEND & ABBREVIATIONS	10/21/2021
C-101	EXISTING CONDITIONS PLAN	1/29/2021
C-102	DEMOLITION PLAN	1/29/2021
C-103	OVERALL ROADWAY PLAN	10/04/2021
J	C-103.1 PROPOSED ROADWAY PLAN	10/04/2021
K	C-104 GRADING, DRAINAGE, & EROSION CONTROL PLAN	10/21/2021
C-105	UTILITIES PLAN	7/21/2021
C-106	LONGMEADOW ROAD PLAN & PROFILE	10/04/2021
J	C-107 LANG ROAD EXTENSION PLAN & PROFILE	10/04/2021
C-108	LANG ROAD EXTENSION PLAN & PROFILE	10/04/2021
C-109	LANG ROAD PLAN & PROFILE	1/29/2021
C-110	LANG ROAD SIGHT DISTANCE PLAN & PROFILE	1/29/2021
J	C-201 SIGN LOCATION PLAN	10/04/2021
C-501	EROSION CONTROL NOTES & DETAILS SHEET	4/21/2021
J	C-502 DETAILS SHEET	10/04/2021
C-503	DETAILS SHEET	10/04/2021
C-504	DETAILS SHEET	10/04/2021
K	C-505 DETAILS SHEET	10/21/2021
C-506	DETAILS SHEET	10/21/2021
C-507	DETAILS SHEET	8/11/2021
1	STATE OF NH - ROUTE MARKER POST ASSEMBLY DETAIL (2 GROUP)	8/11/2021
1	STATE OF NH - ROUTE MARKER POST ASSEMBLY DETAIL (3 GROUP)	8/11/2021



LOCATION MAP
SCALE: 1" = 2,000'

PREPARED BY:

Tighe & Bond
Engineers | Environmental Specialists
177 Corporate Drive
Portsmouth, NH 03801
(603) 433-8818



APPLICANT:

City Of Portsmouth
1 Junkins Ave,
Portsmouth, NH 03801

SURVEYOR:

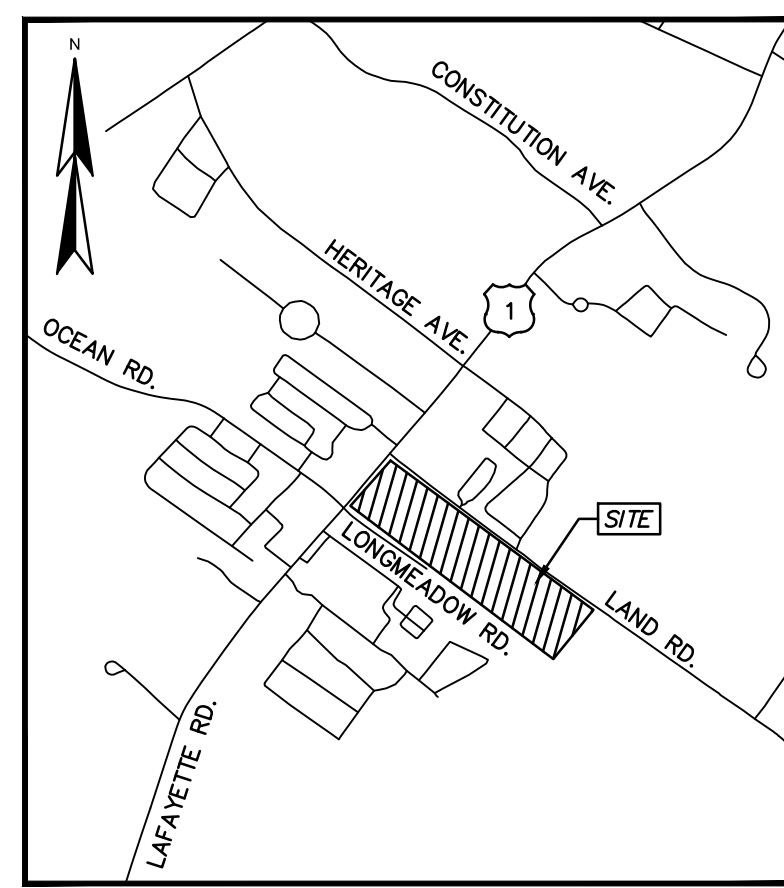
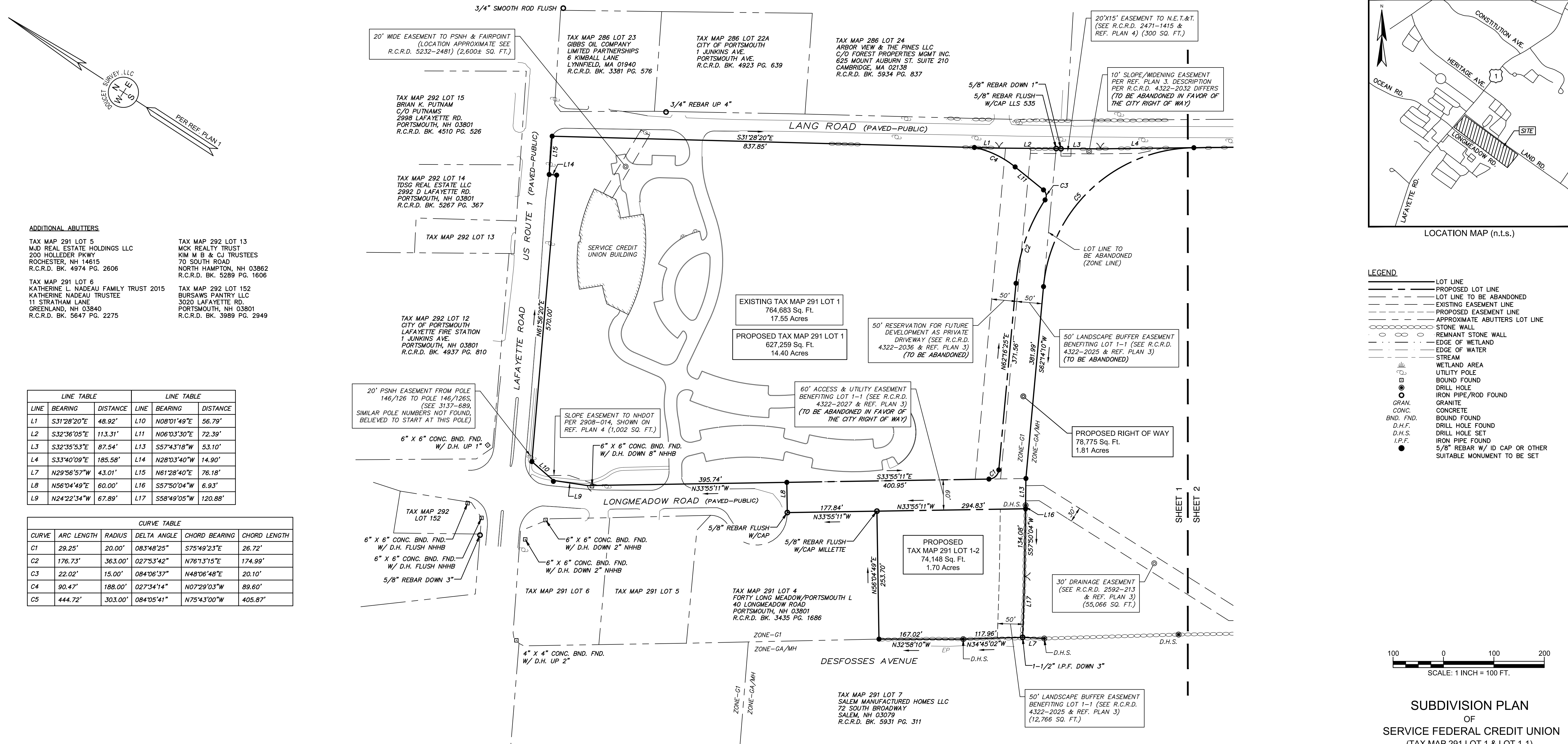
Doucet Survey, Inc.
102 Kent Place
Newmarket, NH 03857

OWNER:

Service Credit Union
3003 Lafayette Road,
Portsmouth, NH 03801

**FINAL DESIGN PLANS - ADDENDUM 2
COMPLETE SET 26 SHEETS**

Last Save Date: October 5, 2021 8:45 AM BY: MAHANSEN
Plot Date: Thursday, October 21, 2021 Plotted By: Neil A. Hansen
File Location: J:\P\0714-City of Portsmouth\005 - Lang Longmeadow Road Extension\Drawings - Figures\AutoCAD\Xref\0714-005-CS-RDWY.dwg Layout: Tab: Cover Sheet



LEGEND

- LOT LINE
- - - PROPOSED LOT LINE
- - - LOT LINE TO BE ABANDONED
- - - EXISTING EASEMENT LINE
- - - PROPOSED EASEMENT LINE
- - - APPROXIMATE ABUTTERS LOT LINE
- STONE WALL
- REMNANT STONE WALL
- EDGE OF WETLAND
- EDGE OF WATER
- STREAM
- WETLAND AREA
- UTILITY POLE
- BOUND FOUND
- DRILL HOLE
- IRON PIPE/ROD FOUND
- GRANITE
- CONCRETE
- BOUND FOUND
- DRILL HOLE FOUND
- DRILL HOLE SET
- IRON PIPE FOUND
- 5/8" REBAR W/ ID CAP OR OTHER SUITABLE MONUMENT TO BE SET

ADDITIONAL ABUTTERS

TAX MAP 291 LOT 5
MJD REAL ESTATE HOLDINGS LLC
200 HOLLEDER PKWY
ROCHESTER, NH 14615
R.C.R.D. BK. 4974 PG. 2606

TAX MAP 291 LOT 6
KATHERINE L. NADEAU FAMILY TRUST 1515
KATHERINE NADEAU TRUSTEE
11 STRATHAM LANE
GREENLAND, NH 03840
R.C.R.D. BK. 5647 PG. 2275

TAX MAP 292 LOT 13
MCK REALTY TRUST
KIM M B & CJ TRUSTEES
70 SOUTH ROAD
NORTH HAMPTON, NH 03862
R.C.R.D. BK. 5289 PG. 1606

TAX MAP 292 LOT 14
TDSG REAL ESTATE LLC
2992 D LAFAYETTE RD.
PORTSMOUTH, NH 03801
R.C.R.D. BK. 5267 PG. 367

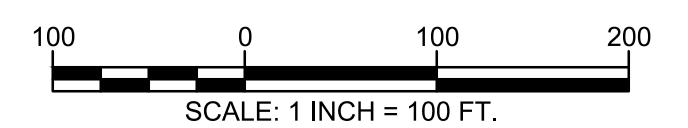
TAX MAP 292 LOT 15
BRIAN K. PUTNAM
C/O PUTNAMS
2998 LAFAYETTE RD.
PORTSMOUTH, NH 03801
R.C.R.D. BK. 4510 PG. 526

TAX MAP 292 LOT 12
CITY OF PORTSMOUTH
LAFAYETTE FIRE STATION
1 JUNKINS AVE.
PORTSMOUTH, NH 03801
R.C.R.D. BK. 4937 PG. 810

TAX MAP 292 LOT 13
BURSAWS PANTRY LLC
3020 LAFAYETTE RD.
PORTSMOUTH, NH 03801
R.C.R.D. BK. 3989 PG. 2949

LINE TABLE		LINE TABLE			
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S31°28'20"E	48.92'	L10	N08°01'49"E	56.79'
L2	S32°36'05"E	113.31'	L11	N06°03'30"E	72.39'
L3	S32°35'53"E	87.54'	L13	S57°43'18"W	53.10'
L4	S33°40'09"E	185.58'	L14	N28°03'40"W	14.90'
L7	N29°56'57"W	43.01'	L15	N61°28'40"E	76.18'
L8	N56°04'49"E	60.00'	L16	S57°50'04"W	6.93'
L9	N24°22'34"W	67.89'	L17	S58°49'05"W	120.88'

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	29.25'	20.00'	083°48'25"	S75°49'23"E	26.72'
C2	176.73'	363.00'	027°53'42"	N76°13'15"E	174.99'
C3	22.02'	15.00'	084°06'37"	N48°06'48"E	20.10'
C4	90.47'	188.00'	027°34'14"	N07°29'03"W	89.60'
C5	444.72'	303.00'	084°05'41"	N75°43'00"W	405.87'



SUBDIVISION PLAN
OF
SERVICE FEDERAL CREDIT UNION
(TAX MAP 291 LOT 1 & LOT 1-1)
FOR THE
CITY OF PORTSMOUTH
LAFAYETTE ROAD (US ROUTE 1),
LONGMEADOW ROAD & LANG ROAD
PORTSMOUTH, NEW HAMPSHIRE

NOTES:

- REFERENCE: TAX MAP 291, LOT 1 & LOT 1-1 LAFAYETTE ROAD PORTSMOUTH, NH
- TOTAL PARCEL AREA PRIOR TO SUBDIVISION: TAX MAP 291 LOT 1 = 764,798 SQ. FT. OR 17.56 AC. TAX MAP 291 LOT 1-1 = 1,179,324 SQ. FT. OR 27.07 AC.
- PROPOSED PARCEL AREAS: TAX MAP 291 LOT 1 = 626,374 SQ. FT. OR 14.40 AC. TAX MAP 291 LOT 1-1 = 1,163,825 SQ. FT. OR 26.72 AC. TAX MAP 291 LOT 1-2 = 74,148 SQ. FT. OR 1.70 AC. RIGHT OF WAY = 78,775 SQ. FT. OR 1.81 AC.
- OWNER OF RECORD: SERVICE CREDIT UNION 3003 LAFAYETTE ROAD PORTSMOUTH, NH 03801 R.C.R.D. BK. 4932 PG. 2469 (LOT 1) R.C.R.D. BK. 5258 PG. 349 (LOT 1) R.C.R.D. BK. 5423 PG. 1976 (LOT 1-1)
- FIELD SURVEY PERFORMED BY S.N.F. & L.P.S. DURING JUNE & JULY 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
- MANMADE AND NATURAL JURISDICTIONAL BOUNDARIES WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTISTS NUMBER 090, IN NOVEMBER 2015 ACCORDING TO THE STANDARD OF THE US ARMY CORPS OF ENGINEERS - WETLAND DELINEATION MANUAL, TECHNICAL REPORT T-87-1, JANUARY 1987; THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL; NORTH-CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012; NH RSA 482-A; THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES-WETLANDS BUREAU - CHAPTER ENV-WT 100-900; AND ARTICLE 10, SECTION 10.1010 OF THE PORTSMOUTH ZONING ORDINANCE. PREDOMINANT HYDRIC SOILS WERE IDENTIFIED UTILIZING THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 3, APRIL 2004 AND THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, 2010. THE INDICATOR STATUS OF HYDROPHYTIC VEGETATION WAS DETERMINED ACCORDING TO THE U.S. ARMY CORPS OF ENGINEERS - NORTH-CENTRAL AND NORTHEAST 2014 REGIONAL WETLAND PLANT LIST. COPIES OF SITE PLANS DEPICTING THE WETLAND DELINEATION WHICH HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED, SIGNED AND DATED.

- HORIZONTAL DATUM BASED ON PLAN REFERENCE 1.
- VERTICAL DATUM IS BASED ON NGVD 29 (SURVEY DISK "GPS ROBE, 379-0870").
- FLOOD HAZARD ZONE: "X" & "A", PER FIRM MAP 33015C0270E, DATED 5/17/05.
- THE INTENT OF THIS PLAN IS TO CREATE A NEW RIGHT OF WAY TO CONNECT U.S. ROUTE 1 TO LANG ROAD BY CONNECTING THROUGH LONGMEADOW ROAD.
- DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF THE ROAD(S) AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE ROCKINGHAM REGISTRY OF DEEDS.
- FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, LLC).
- ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
- BUILDING LOCATION, PARKING LOT AND SIDEWALKS ON SERVICE CREDIT UNION SITE ARE BASED ON DATA PROVIDED BY TIGHE & BOND. THE LOCATIONS THEREOF WERE NOT FIELD VERIFIED BY DOUCET SURVEY UNLESS FALLING WITHIN THE SPECIFIED TOPOGRAPHIC SURVEY LIMITS.
- RIGHTS MAY EXIST FOR CONSTRUCTION OF A DAM PER NHDES ORDER "DAM #119.06" DATED FEBRUARY 15, 1977. R.C.R.D. BOOK 2307, PAGE 1852.

REFERENCE PLANS:

- "TOPOGRAPHIC PLAN FOR SERVICE CREDIT UNION OF 2995 LAFAYETTE ROAD/US ROUTE 1, PORTSMOUTH, NEW HAMPSHIRE" DATED JANUARY 8, 2010 BY DOUCET SURVEY, INC.
- "LOT LINE RELOCATION PLAN FOR RALPH'S TRUCK SALES, INC., ET AL" DATED AUGUST 26, 1999 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-27623.
- "EASEMENT PLAN FOR RALPH'S TRUCK SALES, INC., SIEGEL LIMITED PARTNERSHIP, OCEAN CASTLE LIMITED PARTNERSHIP, AND LANG + LONG MEADOW DEVELOPMENT LLC, LANG ROAD AND LONG MEADOW ROAD, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH" DATED AUGUST 26, 2003 AND REVISED THROUGH 7/08/04 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-31845.
- "PLAN OF PORTSMOUTH FG-F-001(5) - P-3844" DATED 4-13-84. R.C.R.D. PLAN D-17184. TAKINGS ALONG THE SUBJECT PREMISES ARE PER R.C.R.D. BK. 2592 PG. 213 & BK. 2908 PG. 014.
- "SUBDIVISION PLAN FOR RALPH'S TRUCK SALES, INC. 2995 LAFAYETTE ROAD, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH" DATED JANUARY 14, 1987 WITH A REVISION OF 4/7/97 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN D-25369.
- "SUBDIVISION OF LAND PORTSMOUTH, NH FOR LONGMEADOW, INC." DATED DECEMBER 1976 BY JOHN W. DURGIN. R.C.R.D. PLAN D-7743.
- "BOUNDARY PLAN FOR THE CITY OF PORTSMOUTH OF TAX MAP 291 LOT 1 & LOT 1-1 LAFAYETTE ROAD (US ROUTE 1), LONGMEADOW ROAD & LANG ROAD PORTSMOUTH, NEW HAMPSHIRE" DATED SEPTEMBER 6, 2018 BY DOUCET SURVEY, INC.

STATE OF NEW HAMPSHIRE
JOHN F. KAISER
REGISTERED SURVEYOR

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

John Kaiser L.L.S. #937
DATE

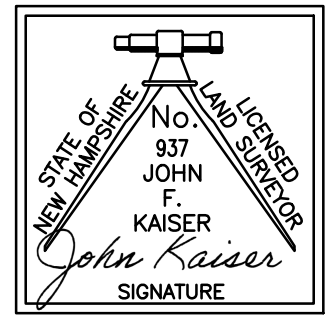
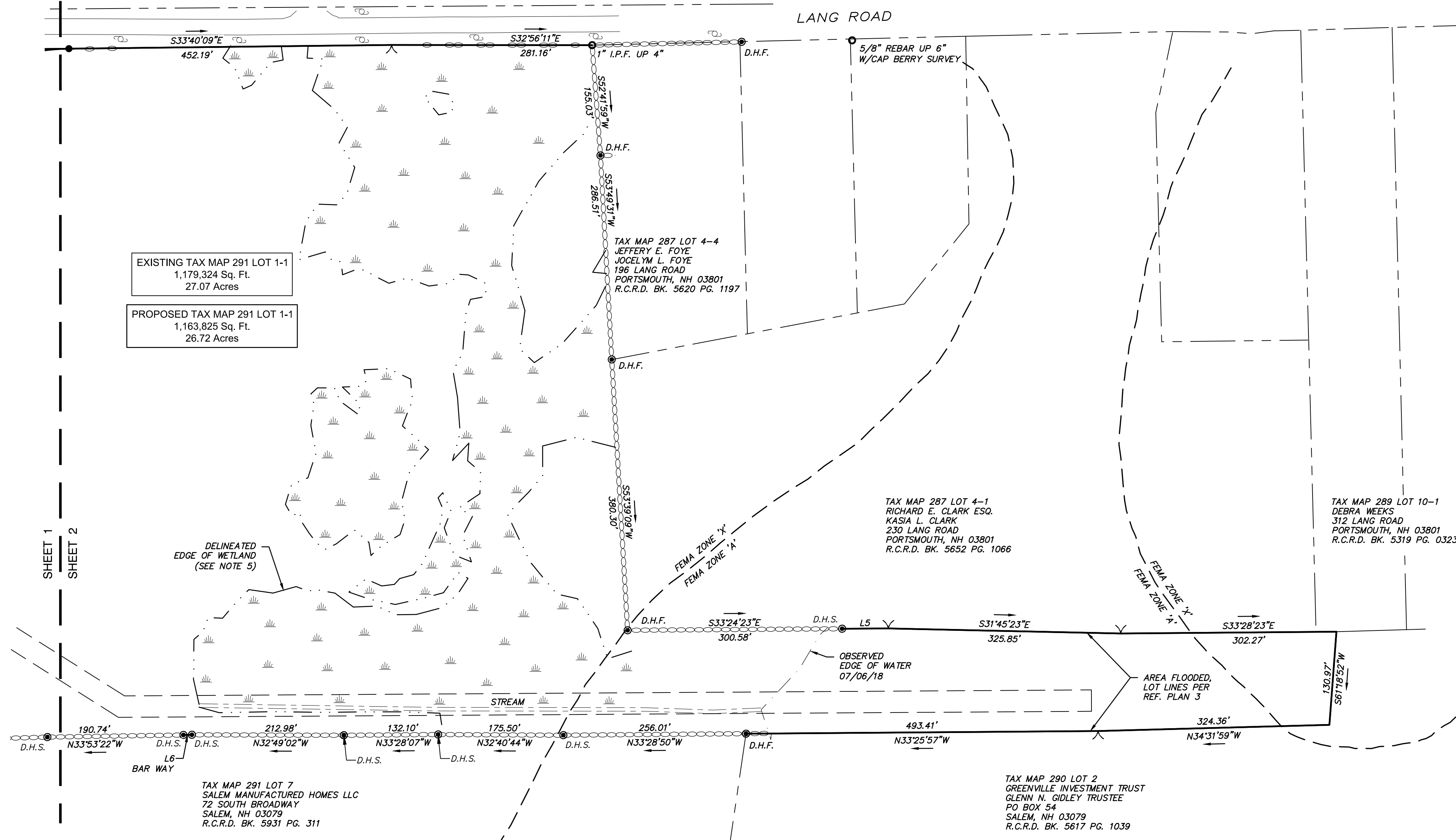
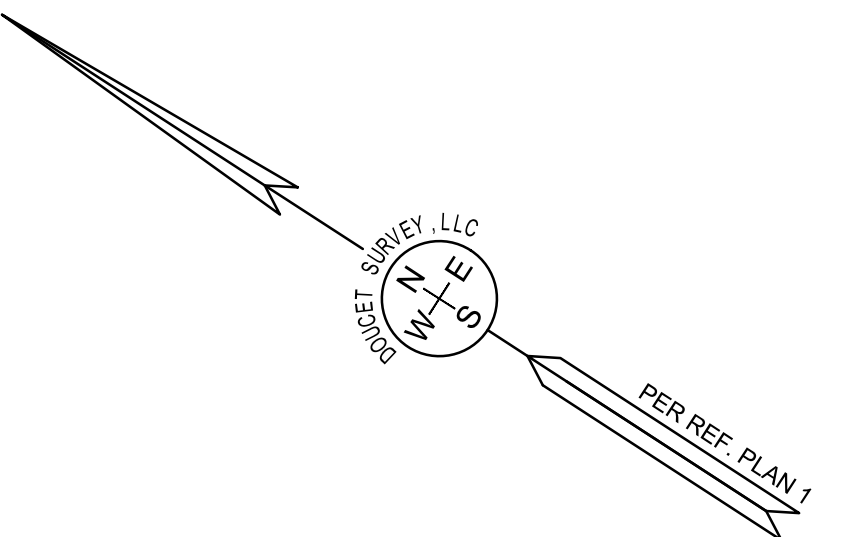
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

NO.	DATE	DESCRIPTION	BY
3	02/11/21	ISSUE MYLAR	M.T.L.
2	11/04/20	ADD ADDITIONAL EASEMENTS	M.T.L.
1	03/15/19	ADD PROPOSED DRAINAGE EASEMENT B	M.T.L.

DRAWN BY:	M.T.L.	DATE:	JANUARY 10, 2019
CHECKED BY:	J.F.K.	DRAWING NO.:	5539B
JOB NO.:	5539	SHEET	1 OF 3

DOUCET SURVEY
Serving Your Professional Surveying & Mapping Needs
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2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-0060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

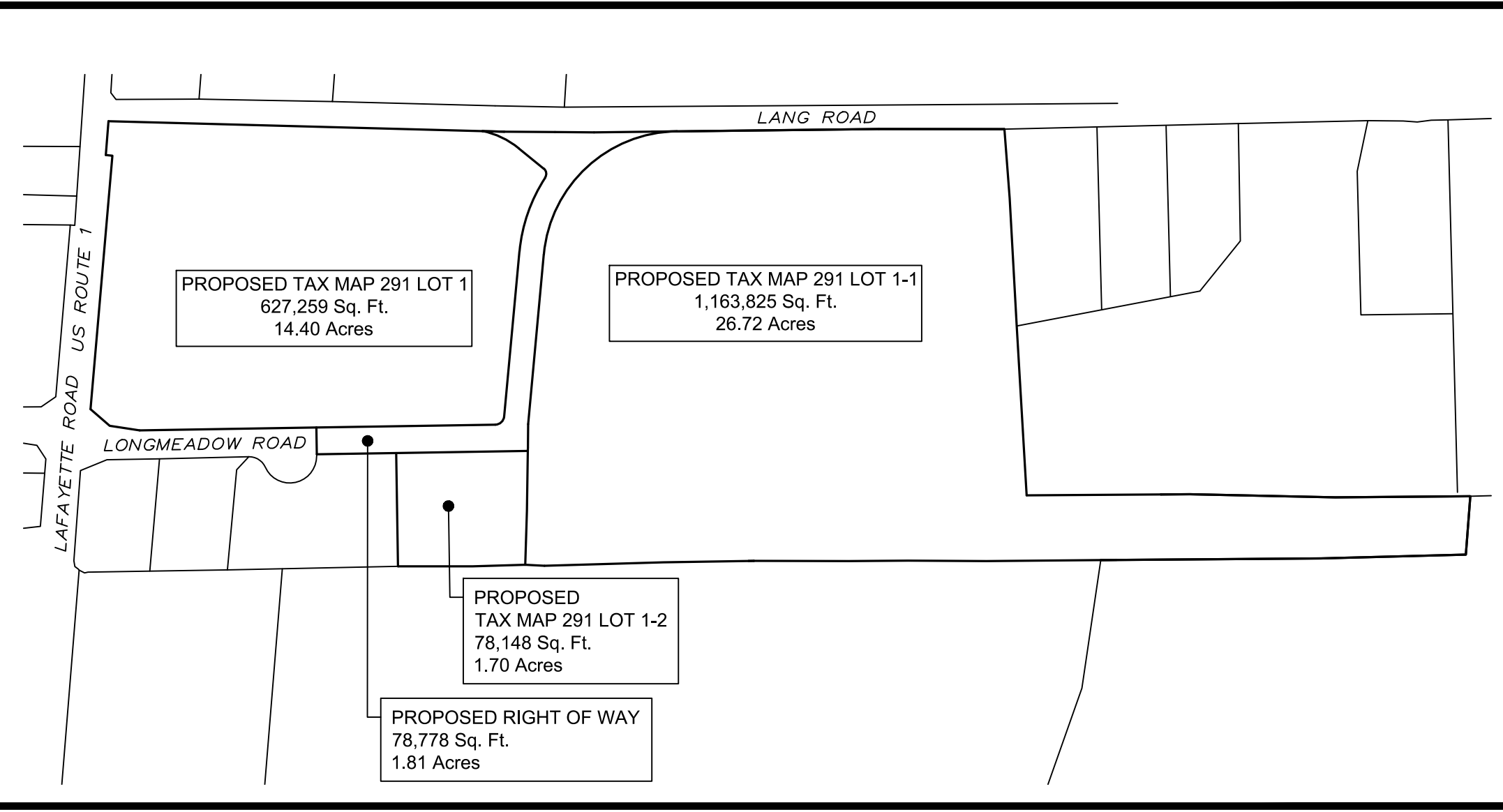
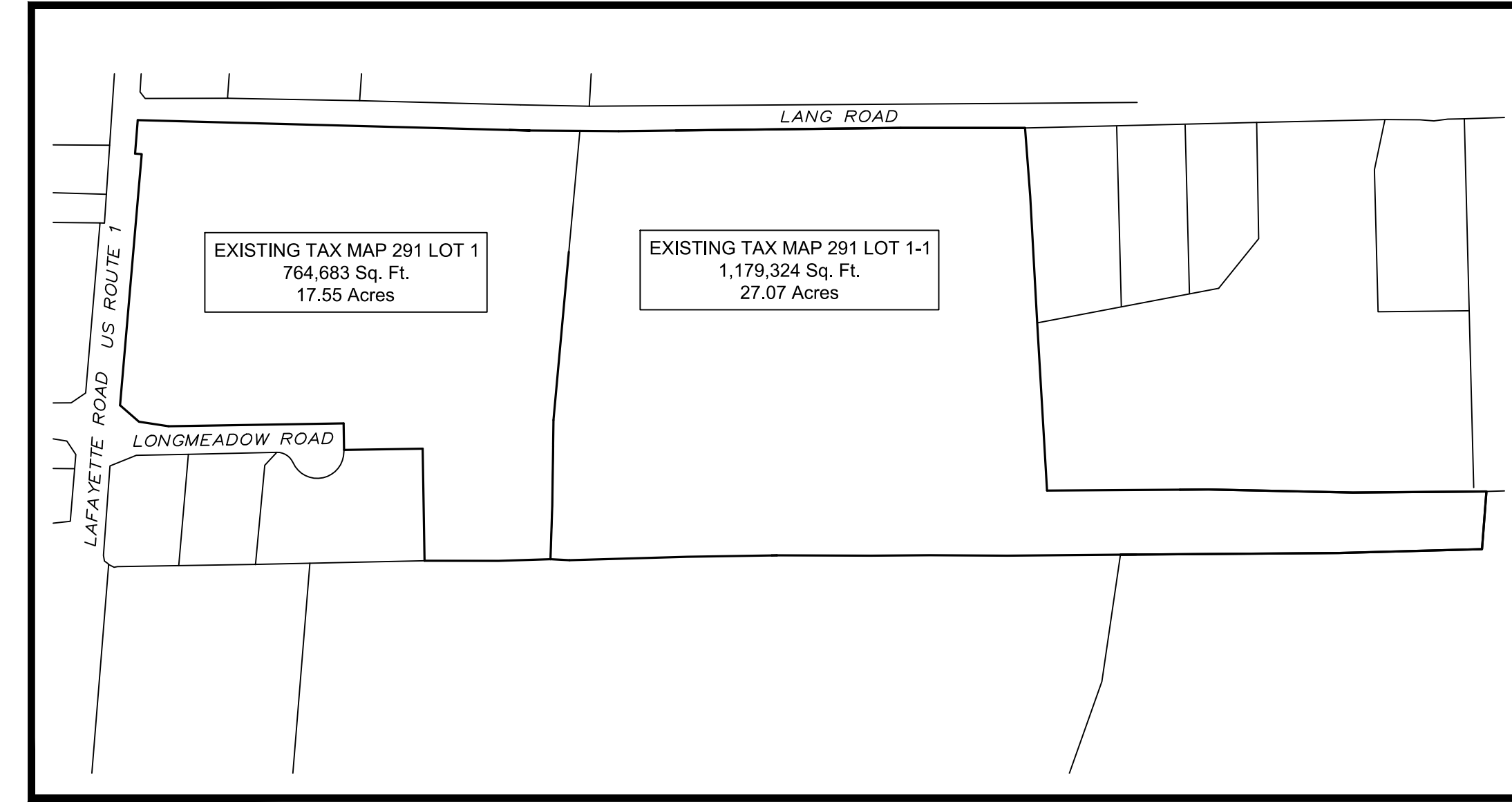
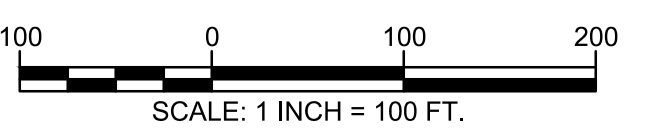
LINE TABLE		
LINE	BEARING	DISTANCE
L5	S33°24'23"E	64.81'
L6	N34°14'26"W	11.86'



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

John Kaiser L.L.S. #937
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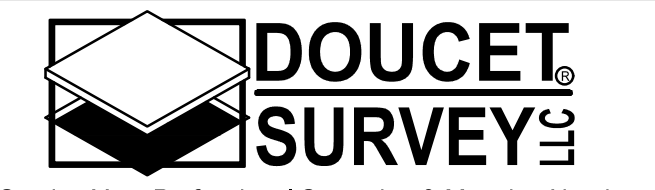


KEY PLAN
SCALE: 1" = 300'

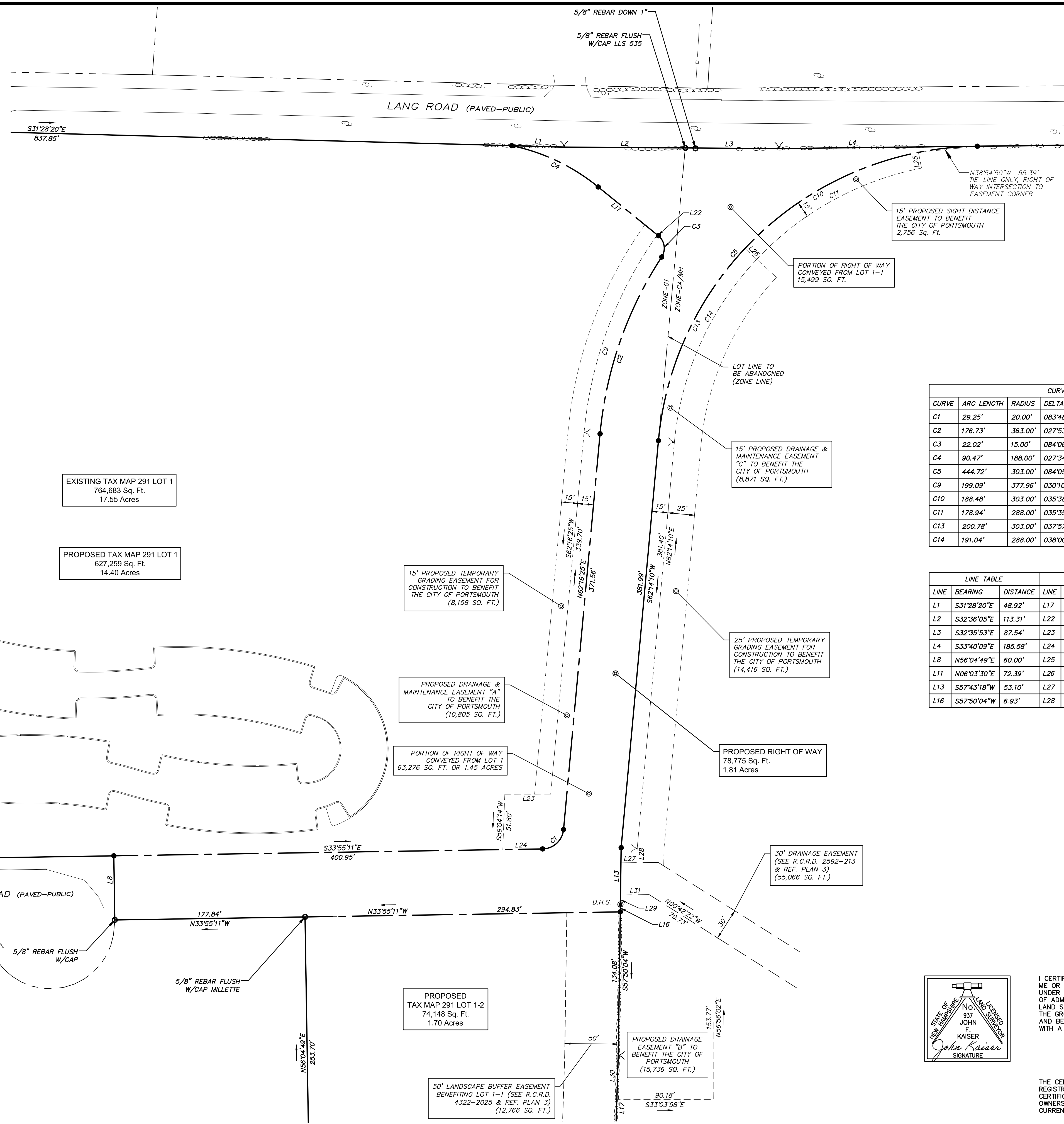
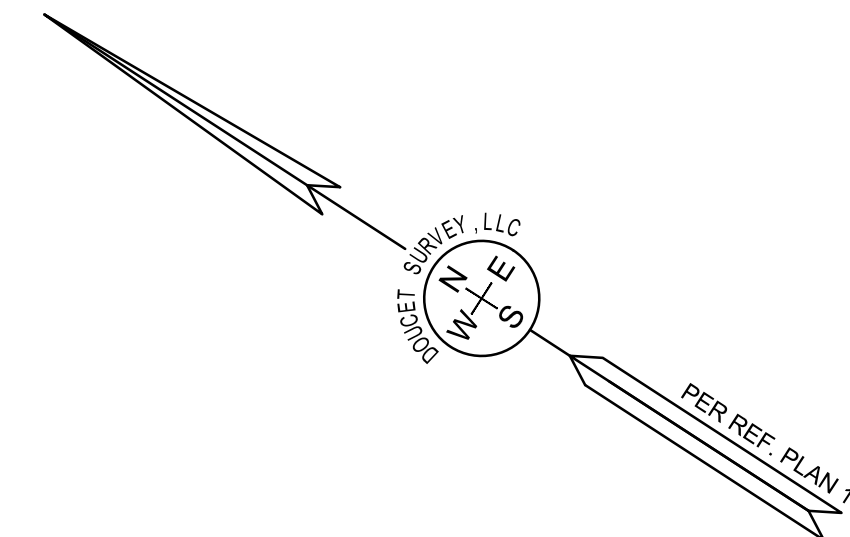
SUBDIVISION PLAN
OF
SERVICE FEDERAL CREDIT UNION
(TAX MAP 291 LOT 1 & LOT 1-1)
FOR THE
CITY OF PORTSMOUTH
LAFAYETTE ROAD (US ROUTE 1),
LONGMEADOW ROAD & LANG ROAD
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
3	02/11/21	ISSUE MYLAR	M.T.L.
2	11/04/20	ADD ADDITIONAL EASEMENTS	M.T.L.
1	03/15/19	ADD PROPOSED DRAINAGE EASEMENT B	M.T.L.

DRAWN BY:	M.T.L.	DATE:	JANUARY 10, 2019
CHECKED BY:	J.F.K.	DRAWING NO.:	5539B
JOB NO.:	5539	SHEET	2 OF 3



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2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
<http://www.doucetsurvey.com>



EXISTING TAX MAP 291 LOT 1
764,683 Sq. Ft.
17.55 Acres

PROPOSED TAX MAP 291 LOT 1
627,259 Sq. Ft.
14.40 Acres

15' PROPOSED TEMPORARY GRADING EASEMENT FOR CONSTRUCTION TO BENEFIT THE CITY OF PORTSMOUTH (8,158 SQ. FT.)

PROPOSED DRAINAGE & MAINTENANCE EASEMENT "A" TO BENEFIT THE CITY OF PORTSMOUTH (10,805 SQ. FT.)

PORTION OF RIGHT OF WAY CONVEYED FROM LOT 1 63,276 SQ. FT. OR 1.45 ACRES

15' PROPOSED DRAINAGE & MAINTENANCE EASEMENT "C" TO BENEFIT THE CITY OF PORTSMOUTH (8,871 SQ. FT.)

25' PROPOSED TEMPORARY GRADING EASEMENT FOR CONSTRUCTION TO BENEFIT THE CITY OF PORTSMOUTH (14,416 SQ. FT.)

PROPOSED RIGHT OF WAY 78,775 SQ. FT. 1.81 ACRES

30' DRAINAGE EASEMENT (SEE R.C.R.D. 2592-213 & REF. PLAN 3) (55,066 SQ. FT.)

PROPOSED TAX MAP 291 LOT 1-2
74,148 Sq. Ft.
1.70 Acres

PROPOSED DRAINAGE EASEMENT "B" TO BENEFIT THE CITY OF PORTSMOUTH (15,736 SQ. FT.)

50' LANDSCAPE BUFFER EASEMENT BENEFITING LOT 1-1 (SEE R.C.R.D. 4322-2025 & REF. PLAN 3) (12,766 SQ. FT.)

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	29.25'	20.00'	083°48'25"	S75°49'23"E	26.72'
C2	176.73'	363.00'	027°53'42"	N76°13'15"E	174.99'
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C5	444.72'	303.00'	084°05'41"	N75°43'00"W	405.87'
C9	199.09'	377.96'	030°10'48"	S77°21'43"W	196.79'
C10	188.48'	303.00'	035°38'23"	N61°58'42"W	185.45'
C11	178.94'	288.00'	035°35'54"	S61°57'28"E	176.07'
C13	200.78'	303.00'	037°57'56"	S81°13'08"W	197.12'
C14	191.04'	288.00'	038°00'25"	S81°14'22"W	187.56'

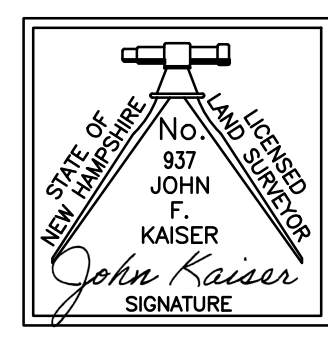
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L2	S32°36'05"E	113.31'	L22	N06°03'30"E	1.25'
L3	S32°35'53"E	87.54'	L23	N33°07'59"W	42.91'
L4	S33°40'09"E	185.58'	L24	S33°55'11"E	37.20'
L8	N56°04'49"E	60.00'	L25	S45°50'29"W	15.00'
L11	N06°03'30"E	72.39'	L26	N09°24'20"E	15.00'
L13	S57°43'18"W	53.10'	L27	S33°50'11"E	15.01'
L16	S57°50'04"W	6.93'	L28	N57°43'18"E	13.28'



SUBDIVISION PLAN
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(TAX MAP 291 LOT 1 & LOT 1-1)
FOR THE
CITY OF PORTSMOUTH
LAFAYETTE ROAD (US ROUTE 1),
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2	11/04/20	ADD ADDITIONAL EASEMENTS	M.T.L.
1	03/15/19	ADD PROPOSED DRAINAGE EASEMENT B	M.T.L.

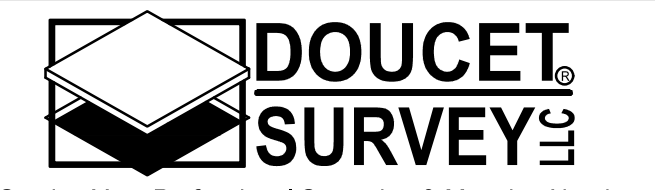
DRAWN BY:	M.T.L.	DATE:	JANUARY 10, 2019
CHECKED BY:	J.F.K.	DRAWING NO.:	5539B
JOB NO.:	5539	SHEET	3 OF 3



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

John Kaiser L.L.S. #937
DATE

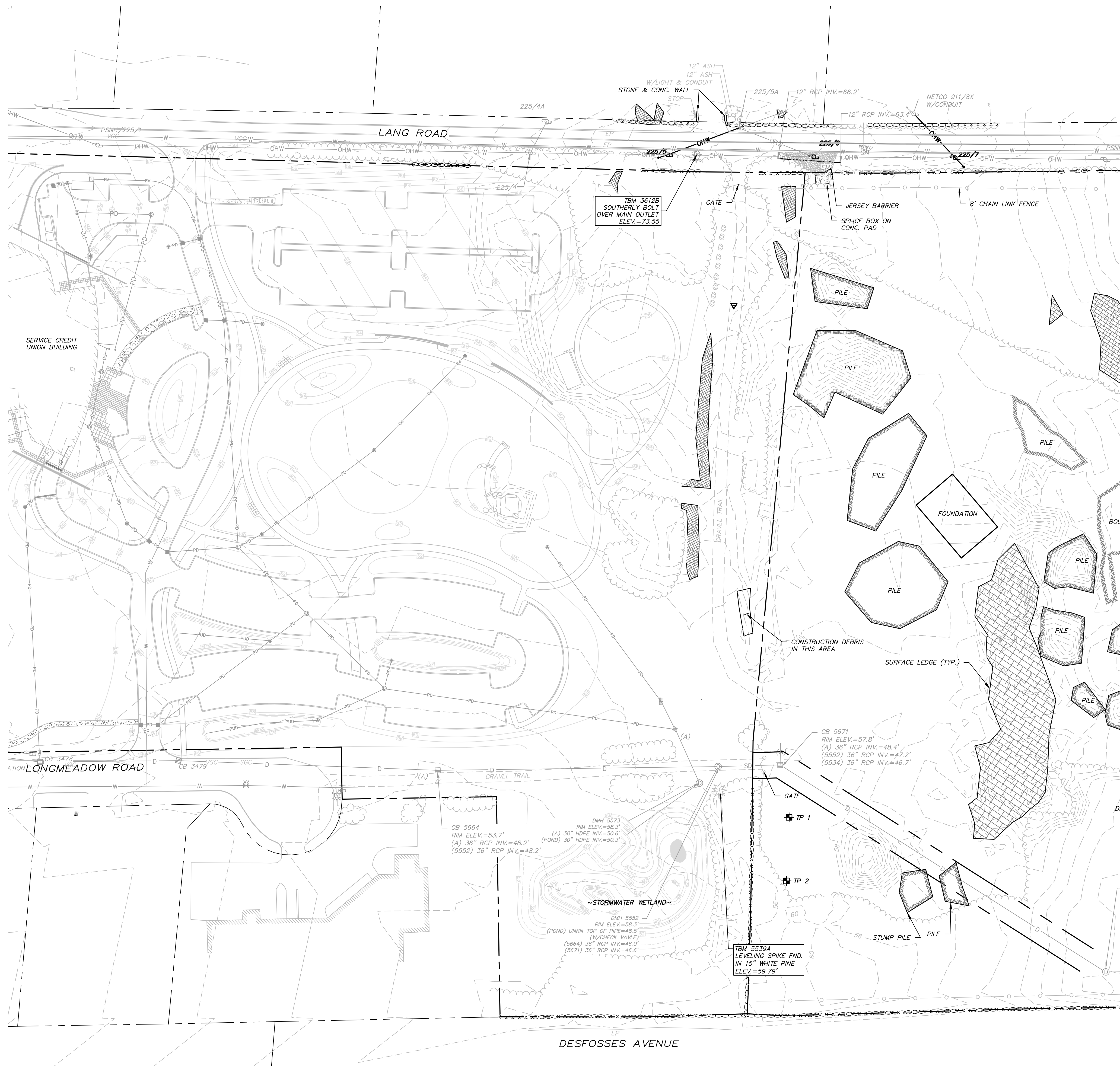
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.



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<http://www.doucetsurvey.com>

LEGEND

---	LOT LINE
- - -	APPROXIMATE ABUTTERS LOT LINE
○ ○ ○ ○ ○	STONE WALL
○ ○ ○ ○ ○	REMNANT STONE WALL
○ ○ ○ ○ ○	CHAIN LINK FENCE
○ ○ ○ ○ ○	OVERHEAD WIRE
○ ○ ○ ○ ○	SD DRAIN LINE
○ ○ ○ ○ ○	MAJOR CONTOUR LINE
○ ○ ○ ○ ○	MINOR CONTOUR LINE
○ ○ ○ ○ ○	TREE LINE
○ ○ ○ ○ ○	EDGE OF WETLAND
○ ○ ○ ○ ○	STREAM
▒	CONCRETE
▒	CRUSHED STONE
○	UTILITY POLE
○	UTILITY POLE & GUY WIRE
○	SIGN
○	POST
○	FIRE HYDRANT
○	WATER GATE VALVE
○	CATCH BASIN
○	DRAIN MANHOLE
○	FLARED END SECTION
○	WETLAND AREA
○	CONIFEROUS TREE
○	DECIDUOUS TREE
○	LEDGE OUTCROP
○	CONC.
○	EP
○	EDGE OF PAVEMENT



NOTES:

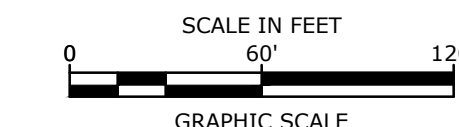
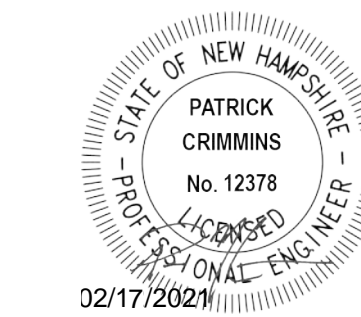
1. REFERENCE: PROPOSED LONGMEADOW ROAD EXTENSION
2. FIELD SURVEY PERFORMED BY DOUCET SURVEY DURING DECEMBER 2015 USING A TRIMBLE 5603 TOTAL STATION AND A TRIMBLE R8 SURVEY GRADE GPS UNIT WITH A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL AND DURING JUNE & JULY 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITIONAL SURVEY PERFORMED ON SEPT. 14, 2020.
3. HORIZONTAL DATUM BASED ON PLAN REFERENCE 1.
4. VERTICAL DATUM IS BASED ON NGVD 29 (SURVEY DISK "GPS ROBE, 379-0870").
5. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 2' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY, INC. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
6. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING: THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
7. ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

TEST PIT LOGS:

- TEST PIT #1**
EXISTING SURFACE ELEVATION: 57.40
SHWT: 51.40'
BEDROCK: N/A
BOTTOM OF TEST PIT: 47.40'
- TEST PIT #2**
EXISTING SURFACE ELEVATION: 56.40'
SHWT: 51.23'
BEDROCK: N/A
BOTTOM OF TEST PIT: 48.74'

REFERENCE PLANS:

1. "TOPOGRAPHIC PLAN FOR SERVICE CREDIT UNION OF 2995 LAYAFAYETTE ROAD/US ROUTE 1, PORTSMOUTH, NEW HAMPSHIRE" DATED JANUARY 8, 2010 BY DOUCET SURVEY, INC.
2. "LOT LINE RELOCATION PLAN FOR RALPH'S TRUCK SALES, INC., ET AL" DATED AUGUST 26, 1999 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-27623.



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised Aot Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	Aot Submission

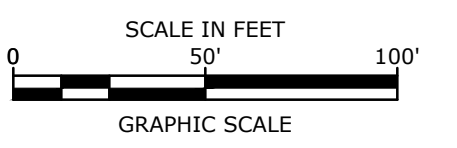
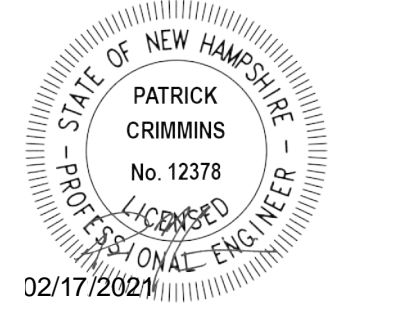
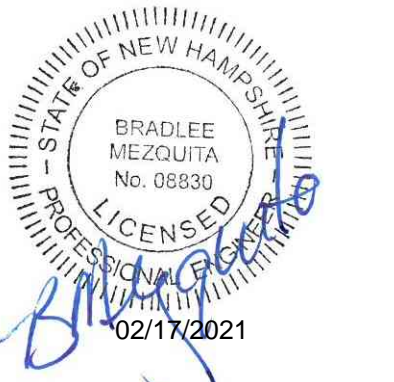
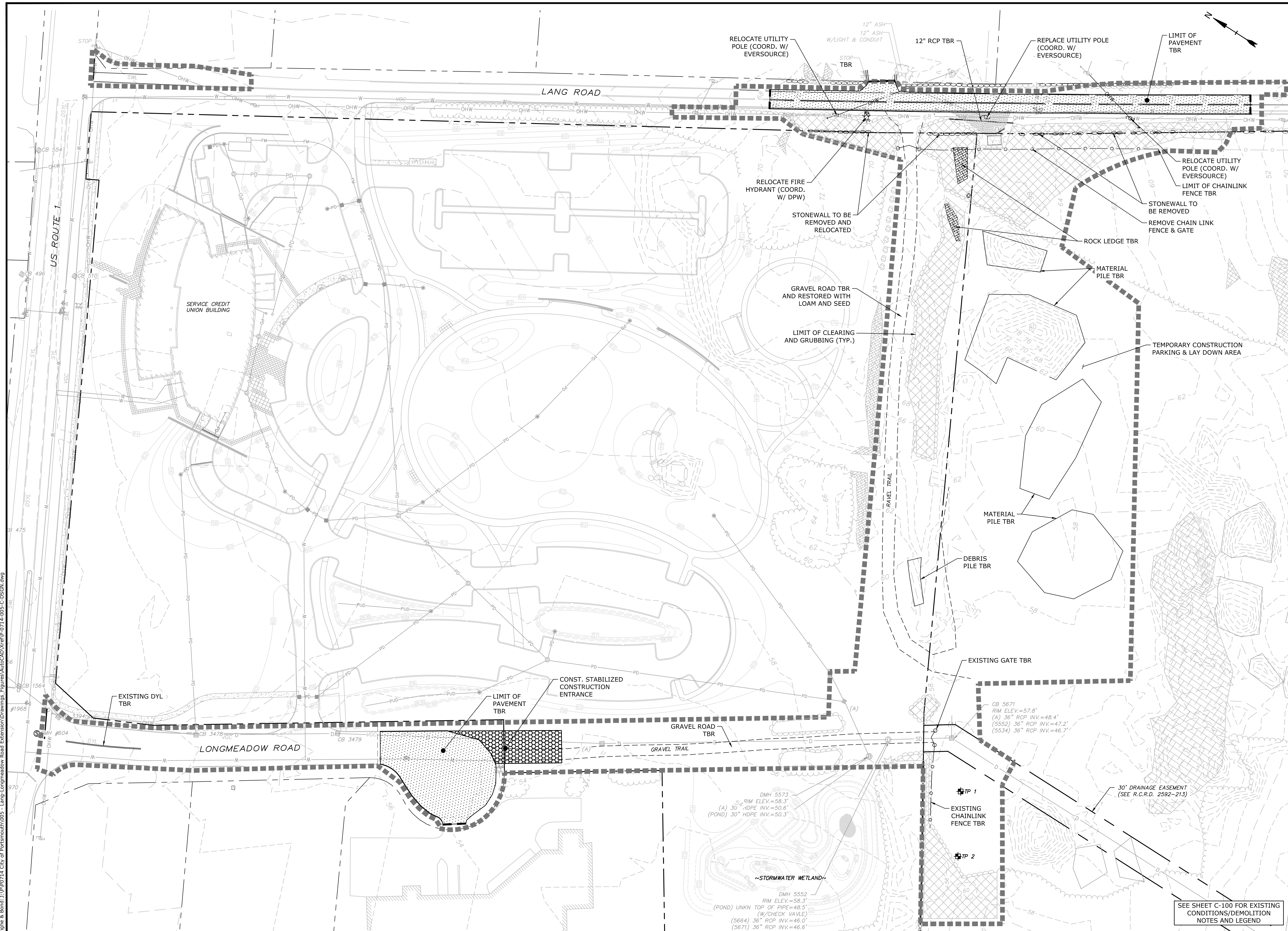
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DATE:	October 21, 2019
FILE:	P-0714-005-V-SURV.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

EXISTING CONDITIONS PLAN

SCALE: AS SHOWN

C-101

10/21/2019 1:27:29 PM C:\Users\blm\OneDrive\Documents\Projects\0714-005-V-SURV.dwg UNDEF MME 0-01 PLOTTER: Watermark, January 21, 2021 - 10:50am
 Tighe & Bond: J:\0714-005-V-SURV.dwg - lang-longmeadow road extension\drawings_figures\autocad\ref\p-0714-005-V-SURV.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

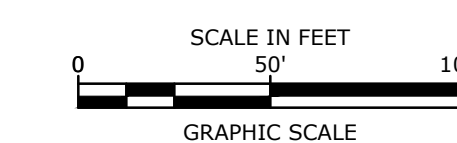
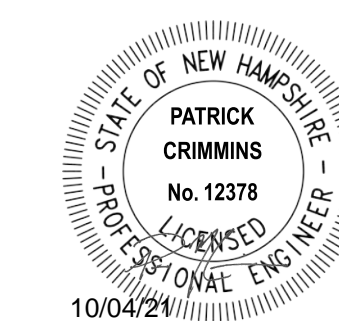
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DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

DEMOLITION PLAN

SCALE: AS SHOWN

C-102

Last Saved: 1/22/2021, 9:42am By: Ckrzouk
 Plotted On: Jan 27, 2021, 9:42am By: Ckrzouk
 Tighe & Bond: 211 Pop 24 City of Portsmouth 005 - Lang - Longmeadow Road Extension Drawings - Figures AutoCAD User: P-0714-005-C-DSGN.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

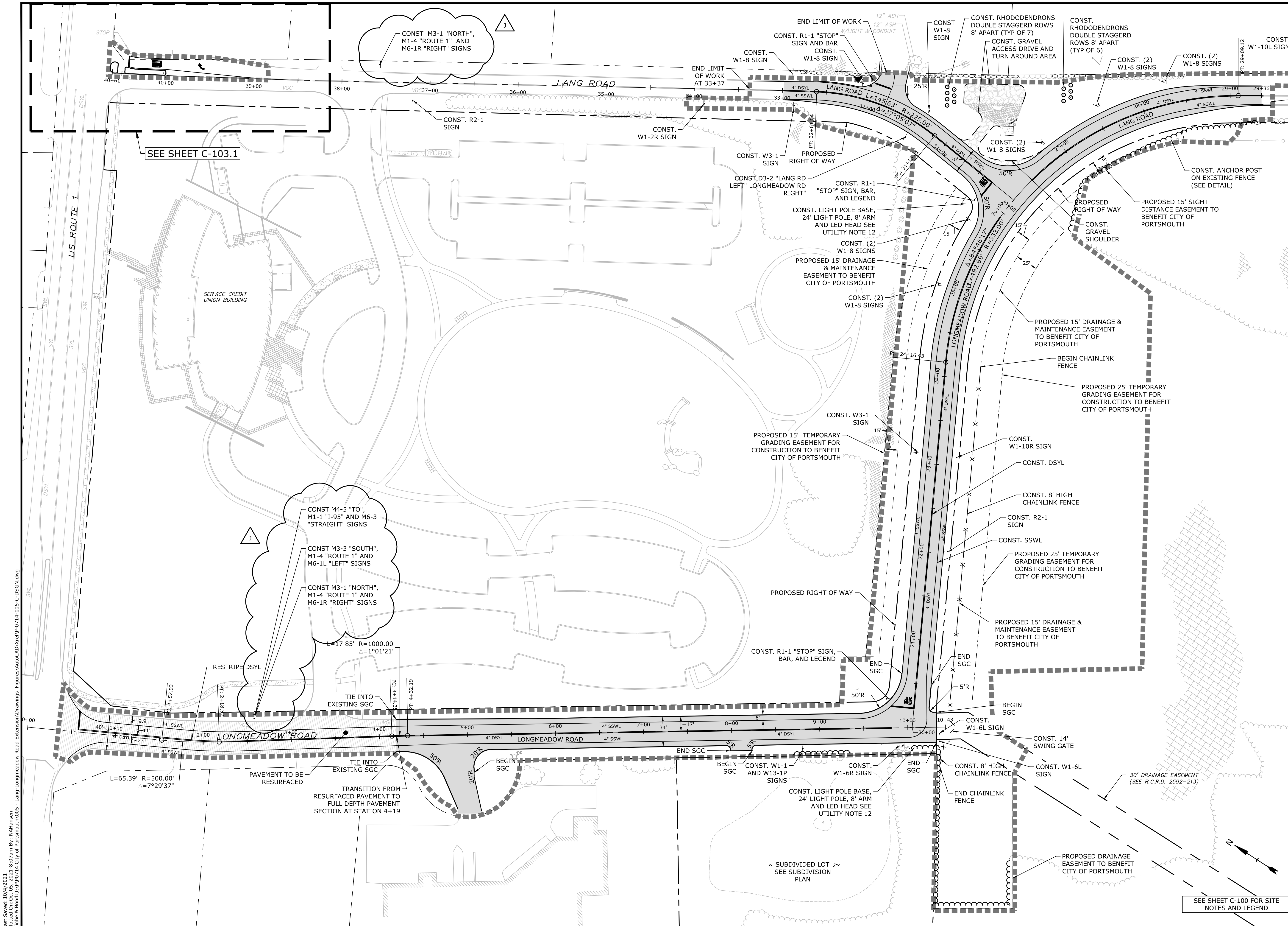
MARK	DATE	DESCRIPTION
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
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CHECKED:	PMC
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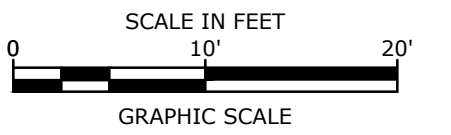
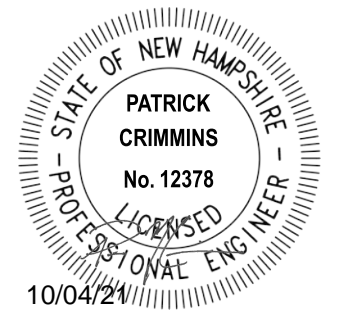
OVERALL ROADWAY PLAN

SCALE: AS SHOWN

C-103



Last Saved: 10/4/2021 8:07am By: Wahanien
 Plotted On: Oct 05, 2021 8:07am By: Wahanien
 Tighe & Bond 210 Pop 24 City of Portsmouth 005 - Lang-Longmeadow Road Extension Drawings - Figures/AutoCAD/VerifP-0714-005-C-DSGN.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

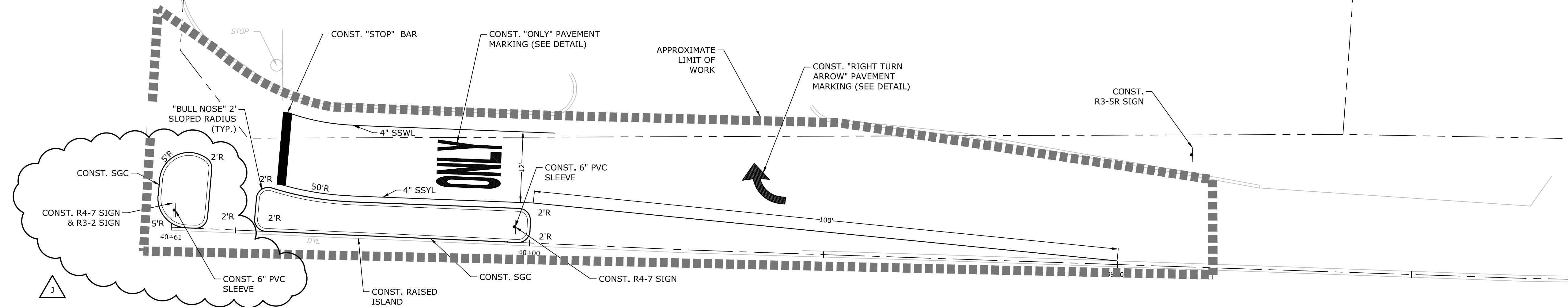
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

PROPOSED ROADWAY PLAN

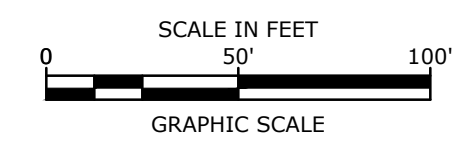
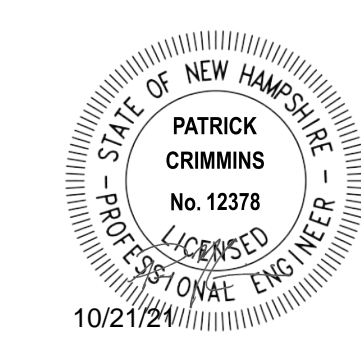
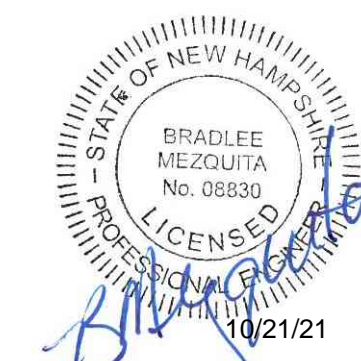
SCALE: AS SHOWN

C-103.1



SEE SHEET C-100 FOR SITE NOTES AND LEGEND

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 Plotted On: OCT 05, 2021, 8:06am By: Wahanien
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Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

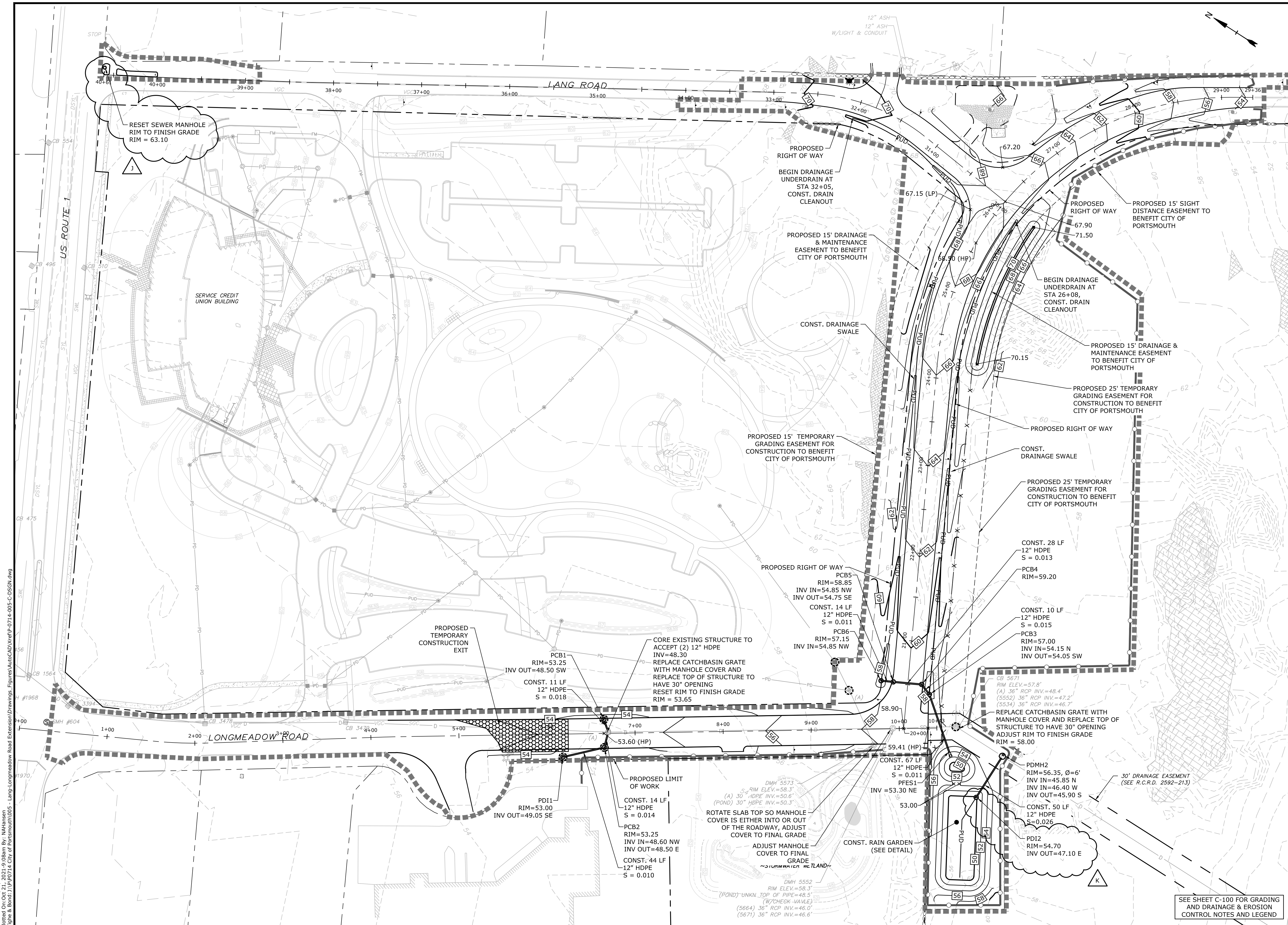
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I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	Aot RfM
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised Aot Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
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APPROVED:	BLM

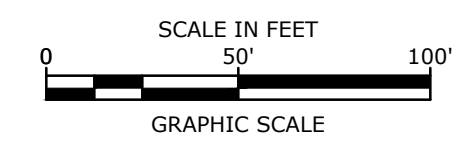
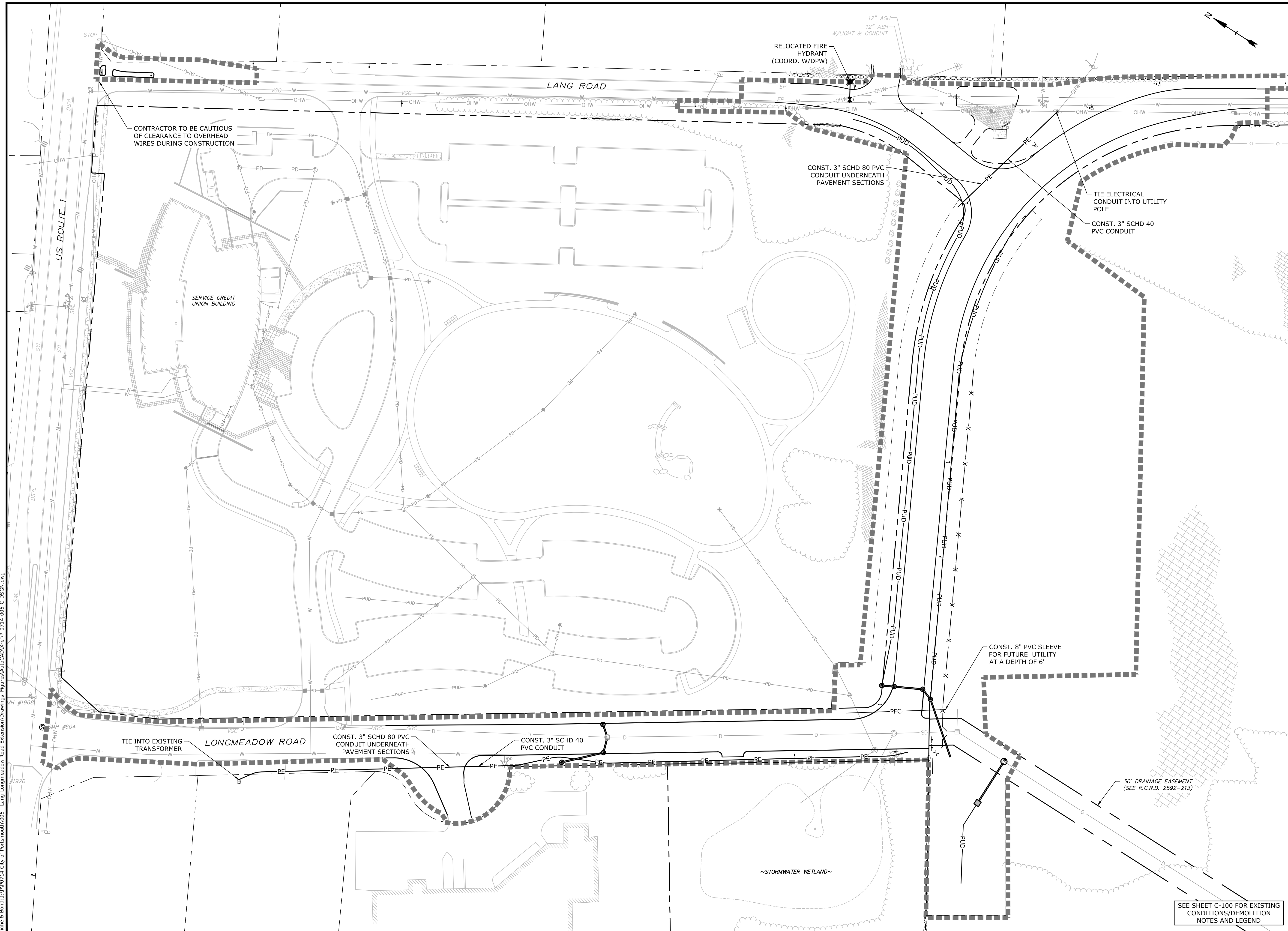
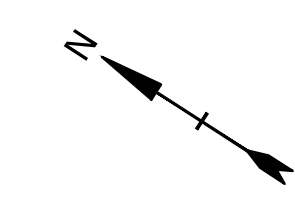
GRADING, DRAINAGE, & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-104



Last Saved: 10/20/2021 9:08am By: W Hansen
 Plotted On: Oct 21, 2021 10:00am
 Tighe & Bond 210 Pop 24 City of Portsmouth 005 - Langmeadow Road Extension Drawings - Figures Autocad/ViewP-0714-005-C-DSGN.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

I	7/21/2021	NHDOT Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

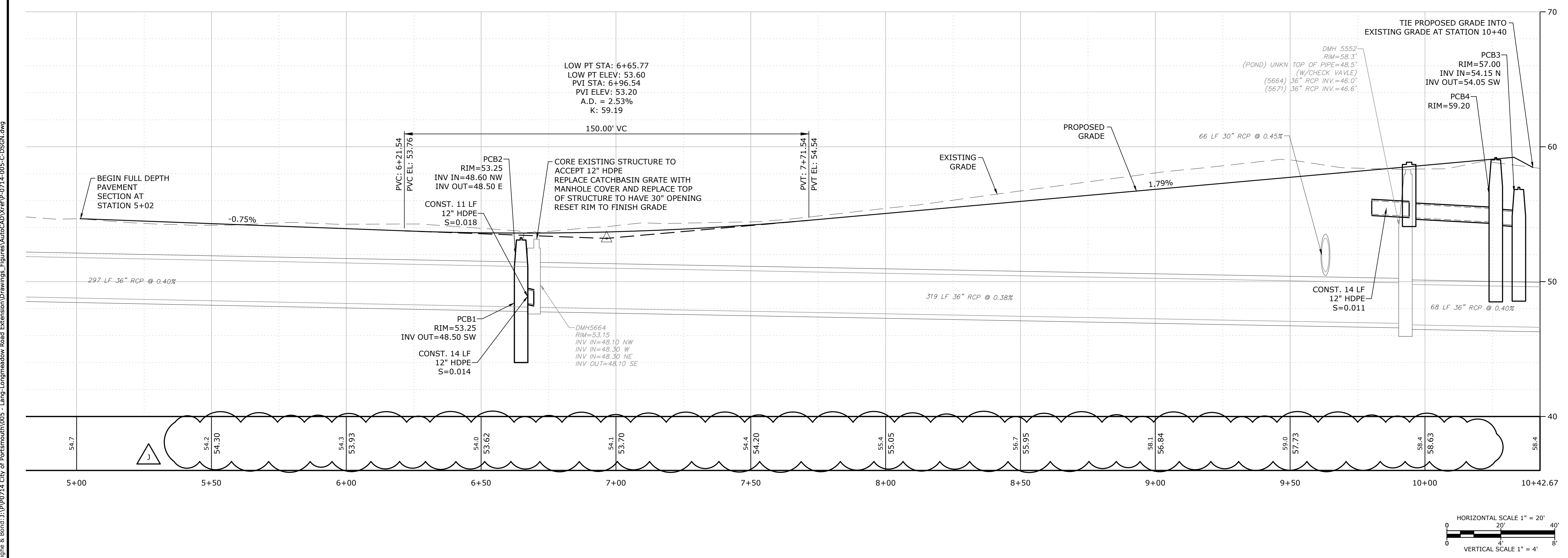
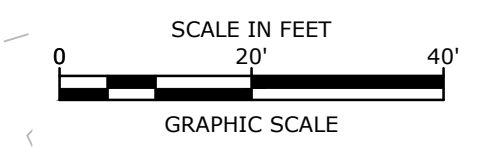
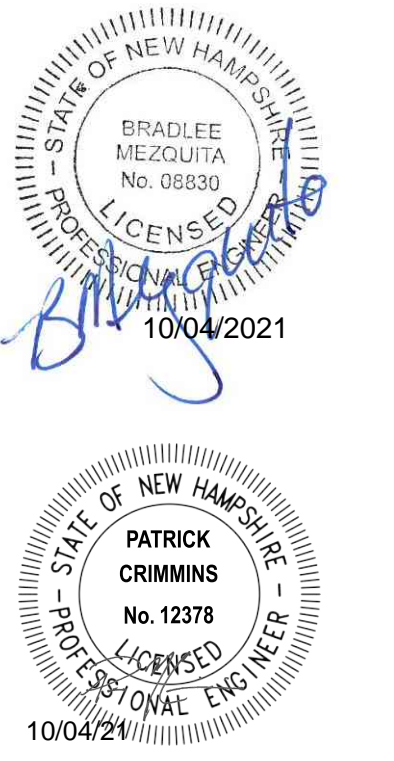
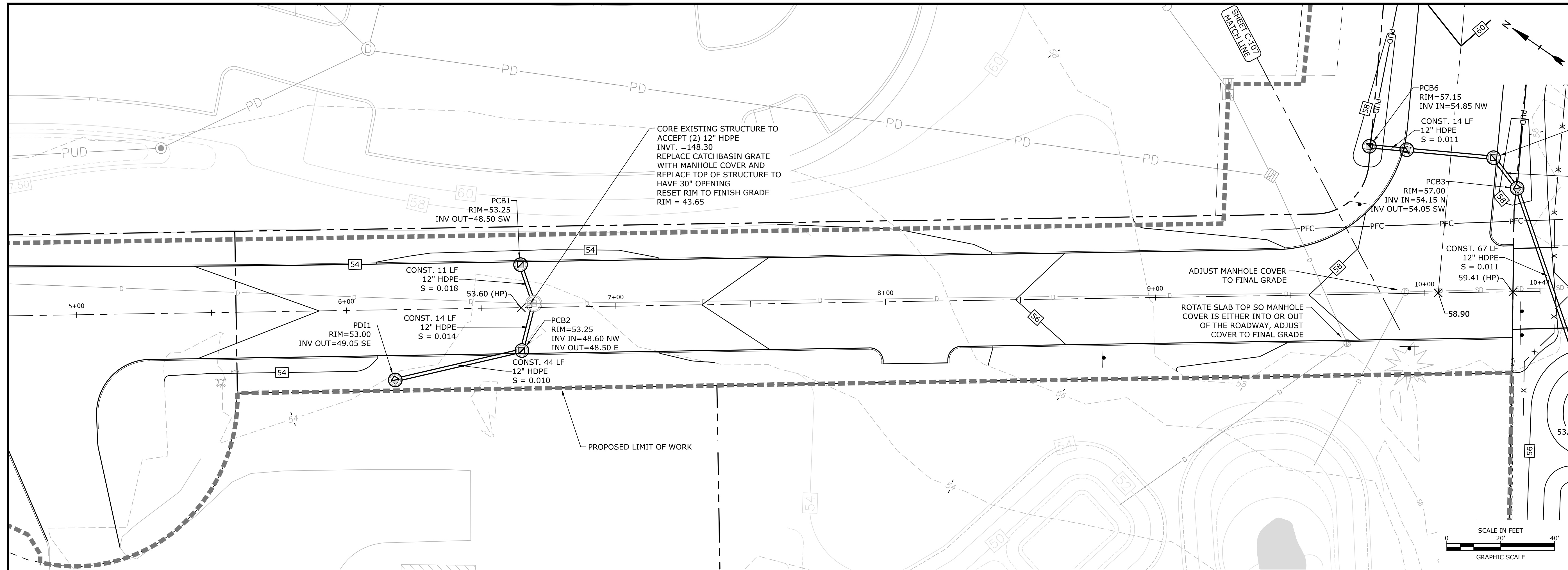
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PROJECT NO: P-0714-005		
DATE: October 21, 2019		
FILE: P-0714-005-C-DSGN.dwg		
DRAWN BY: NAH/CLK		PMC
CHECKED: PMC		BLM
APPROVED: BLM		

UTILITIES PLAN

SCALE: AS SHOWN

C-105

Last Saved: 7/22/2021 10:57am By: MAHansen
 Plotted On: 10/21/2019 10:57am By: MAHansen
 File & Name: P:\P\24 City of Portsmouth\005 - Lang - Longmeadow Road Extension Drawings - Figures\AutoCAD\DrawP-0714-005-C-DSGN.dwg



Longmeadow Road Extension

City of Portsmouth

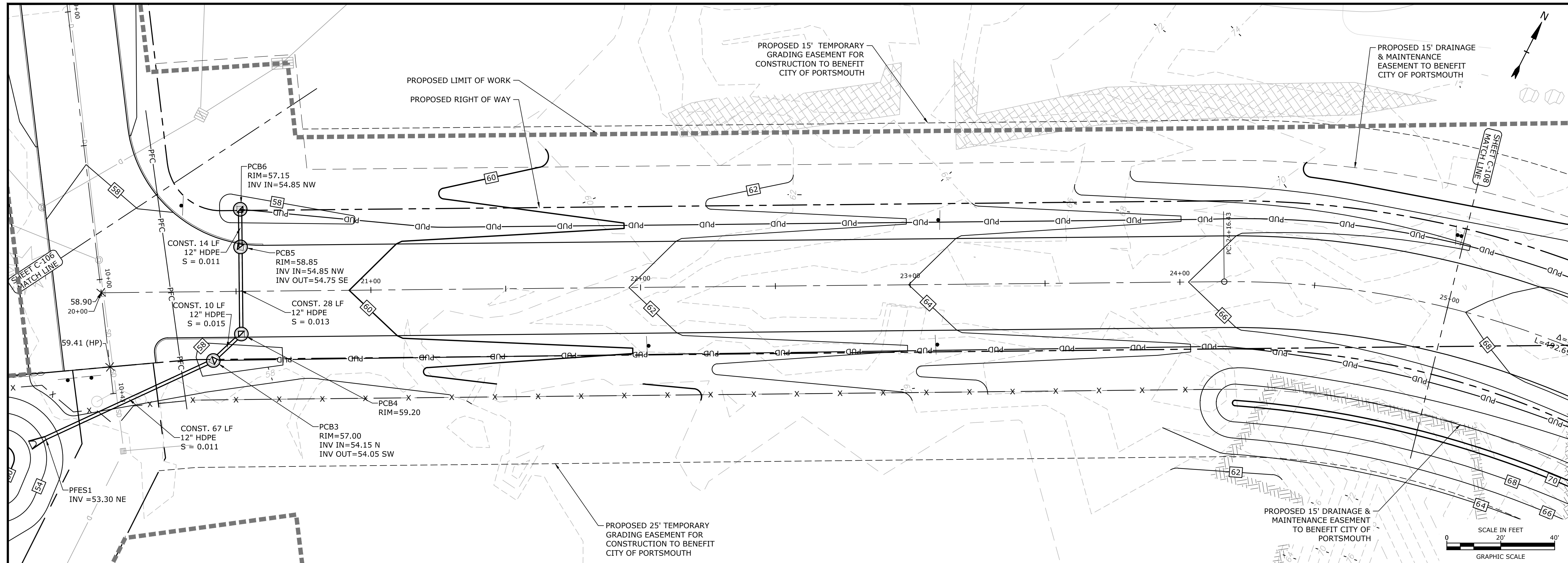
Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CJK
CHECKED:	PMC
APPROVED:	BLM
LONGMEADOW ROAD PLAN & PROFILE	
SCALE:	AS SHOWN
C-106	

Last Saved: 10/29/2021 10:22:26am By: Mahanien
 Plotted On: Oct 05, 2021 10:22:26am
 Figure & Sheet Path: P:\Projects\005 - Lang - Longmeadow Road Extension\Drawings - Figures\AutoCAD\Drawings\0714-005-C-DSGN.dwg



STATE OF NEW HAMPSHIRE
BRADLEE MEZQUITA
No. 08830
LICENSED PROFESSIONAL ENGINEER
10/04/2021

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED PROFESSIONAL ENGINEER
10/04/2021

Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

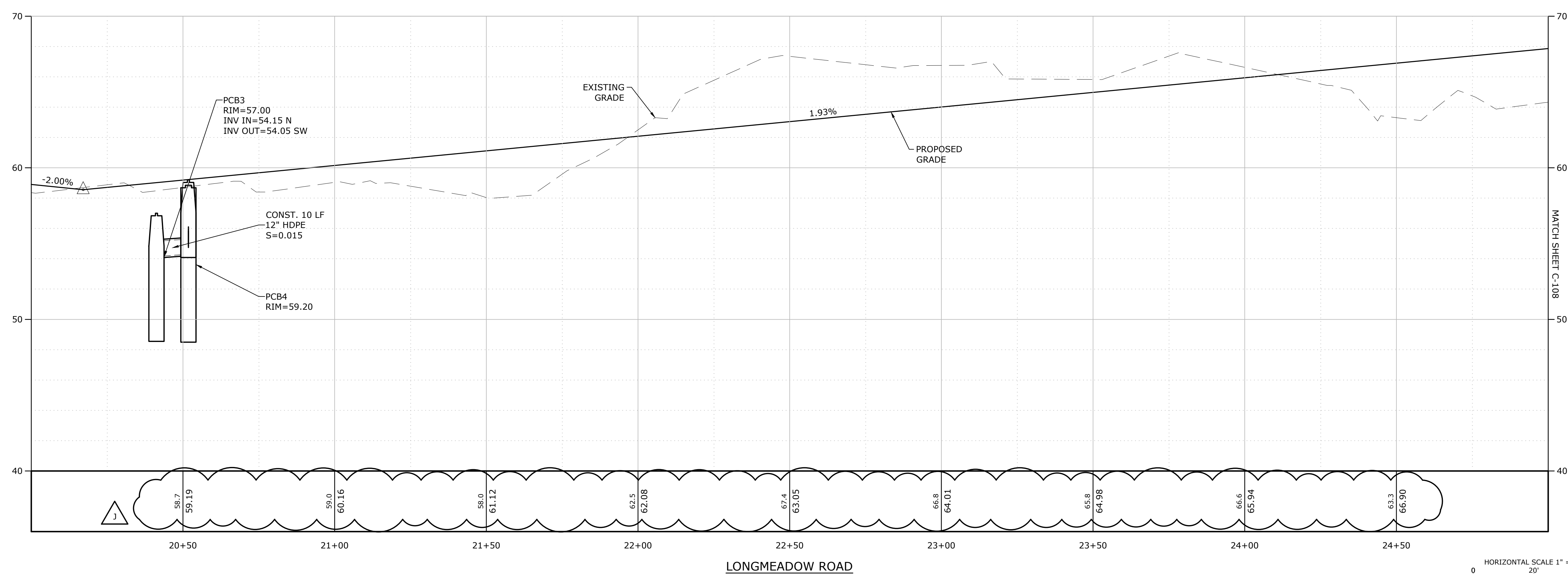
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I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CIK
CHECKED:	PMC
APPROVED:	BLM

**LANG ROAD EXTENSION
PLAN & PROFILE**

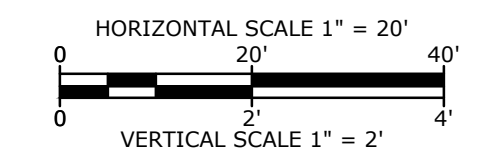
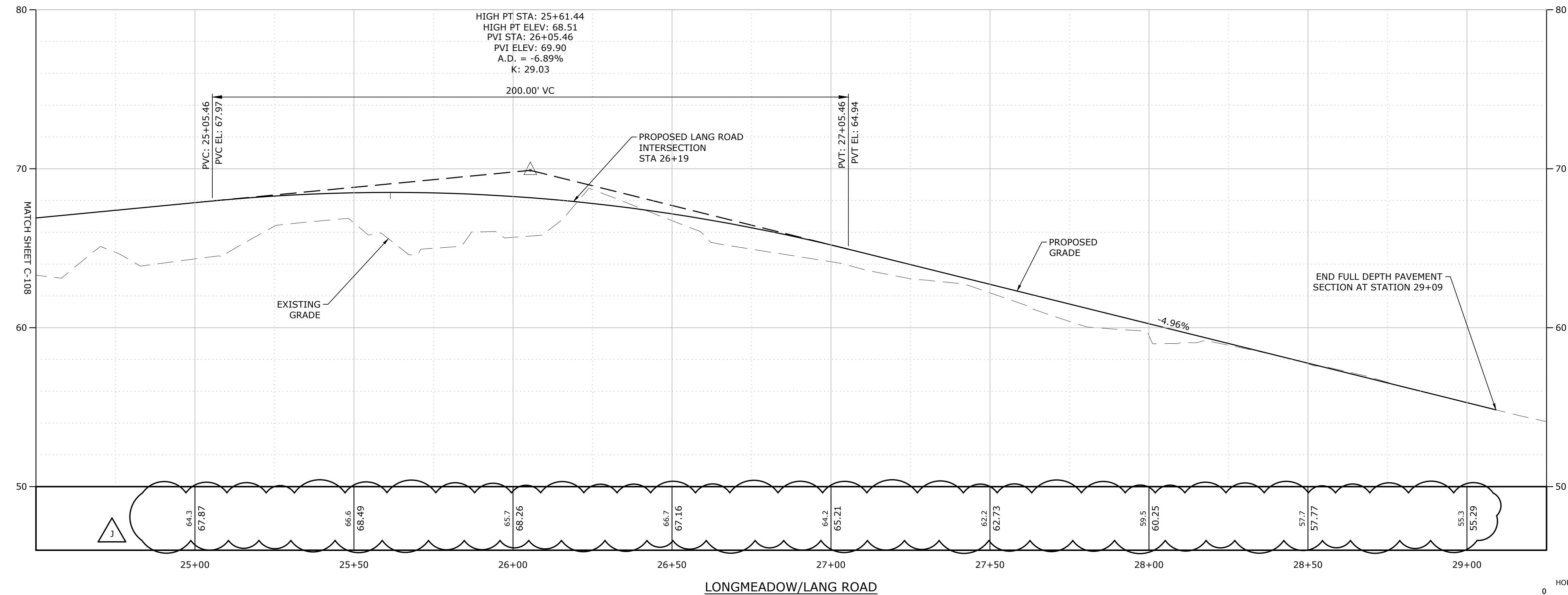
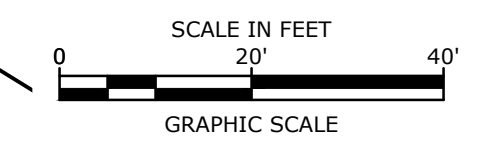
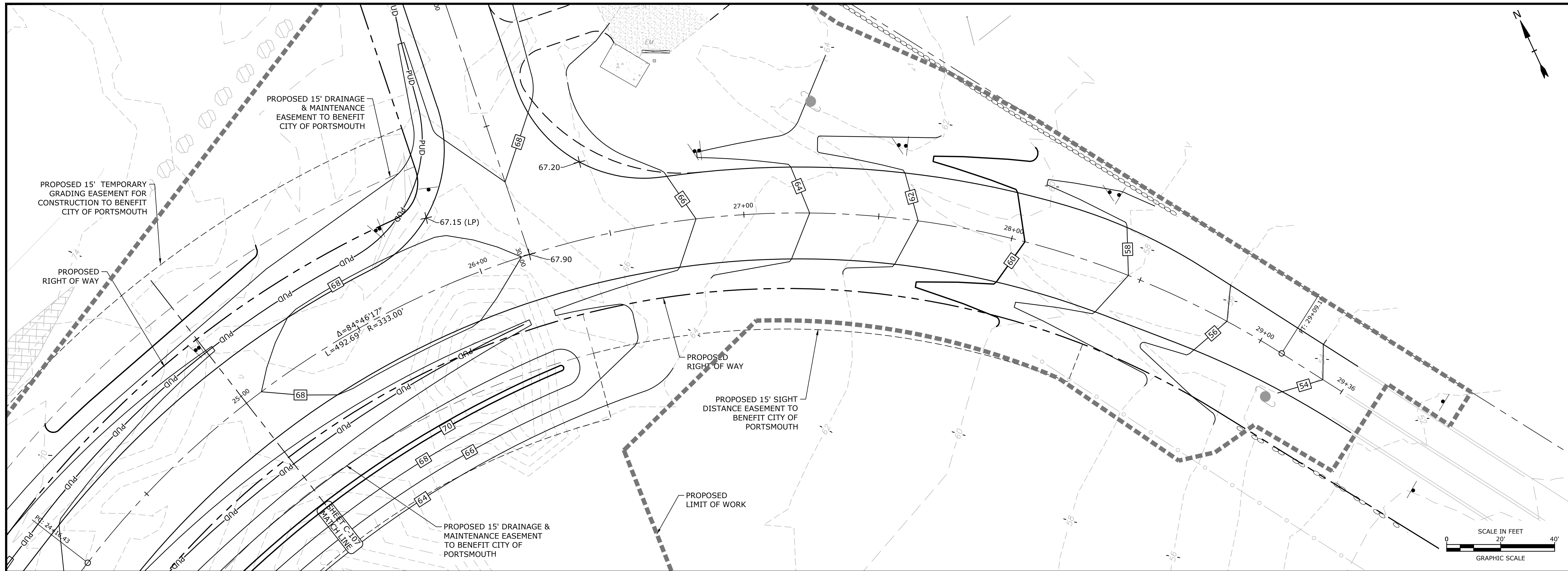
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C-107



HORIZONTAL SCALE 1" = 20'
VERTICAL SCALE 1" = 4'

Last Saved: 10/29/2021 12:22:29pm By: W.Hansen
 Plotted On: Oct 05, 2021 12:22:29pm
 Figure & Sheet: P-0714-005-C-DSGN.dwg
 Figure: Lang-Longmeadow-Road-Extension/Drawings-Figures/AutoCAD/View/P-0714-005-C-DSGN.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO: P-0714-005

DATE: October 21, 2019

FILE: P-0714-005-C-DSGN.dwg

DRAWN BY: NAH/CIK

CHECKED: PMC

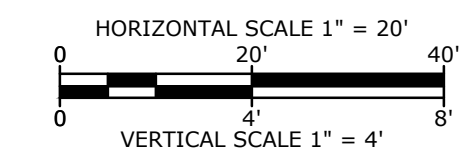
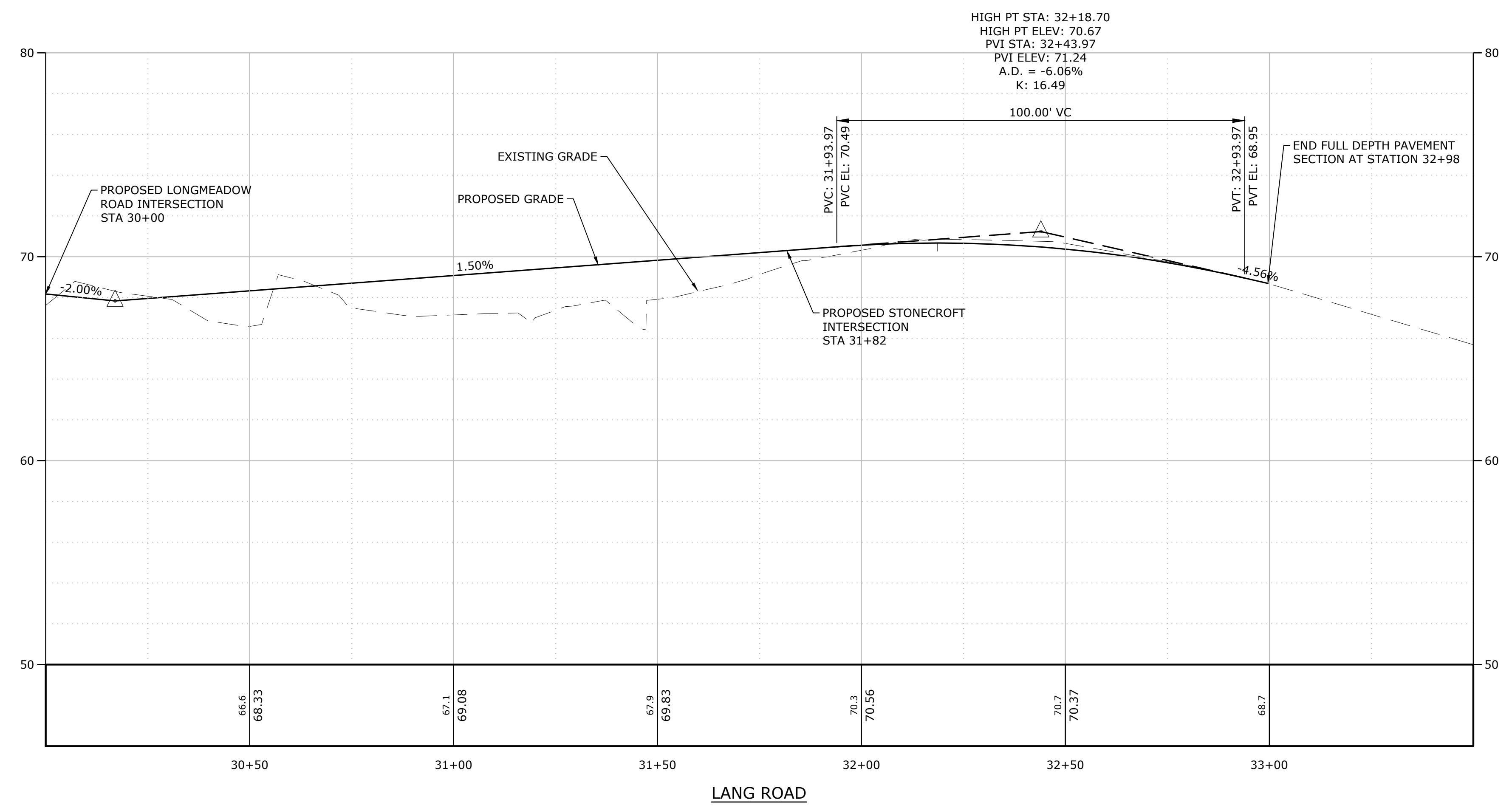
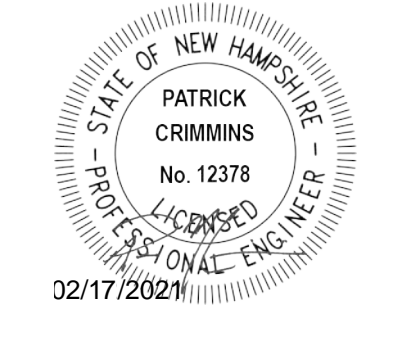
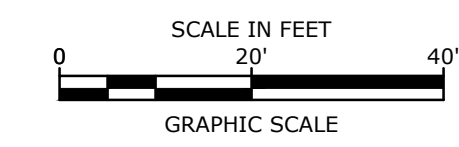
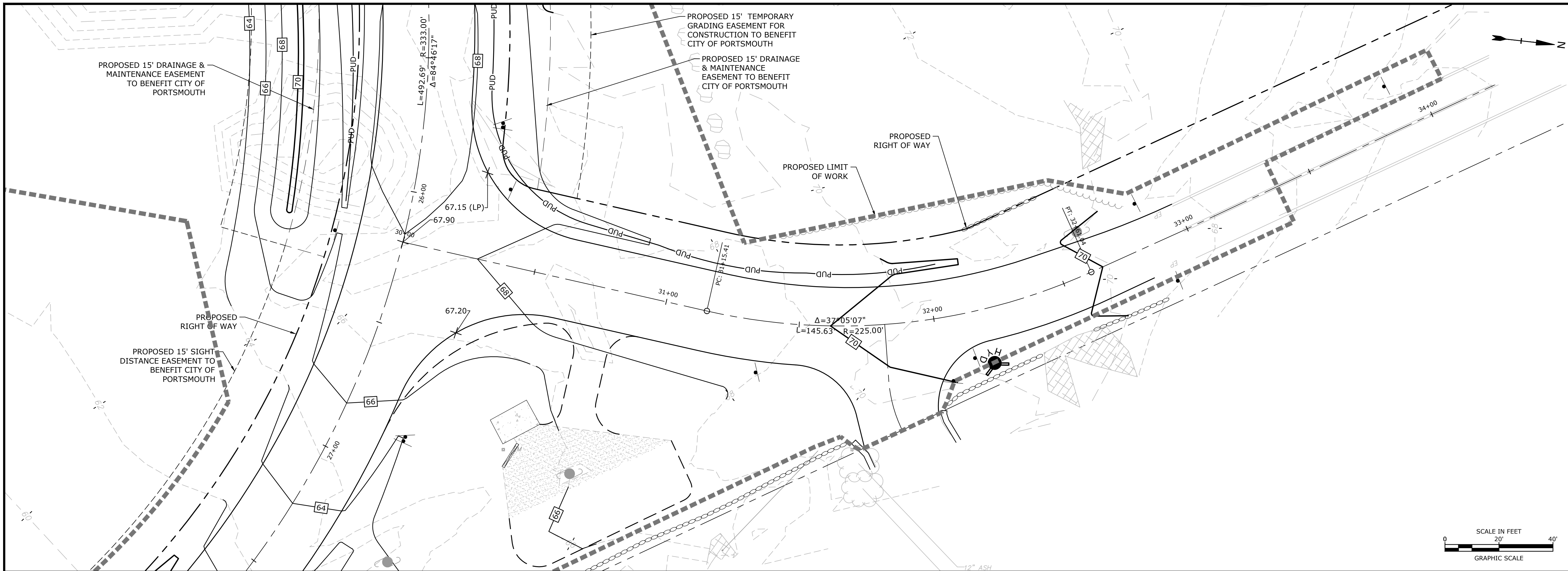
APPROVED: BLM

LANG ROAD EXTENSION
PLAN & PROFILE

SCALE: AS SHOWN

C-108

Last Saved: 10/5/2021 8:33am By: WAhansen
 Plotted On: Oct 05, 2021 10:21am By: WAhansen
 Figure & Content: P-0714-005 - Lang - Longmeadow Road Extension Drawings - Figures/AutoCAD/Drawings/P-0714-005-C-DSGN.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

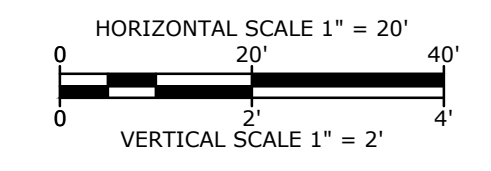
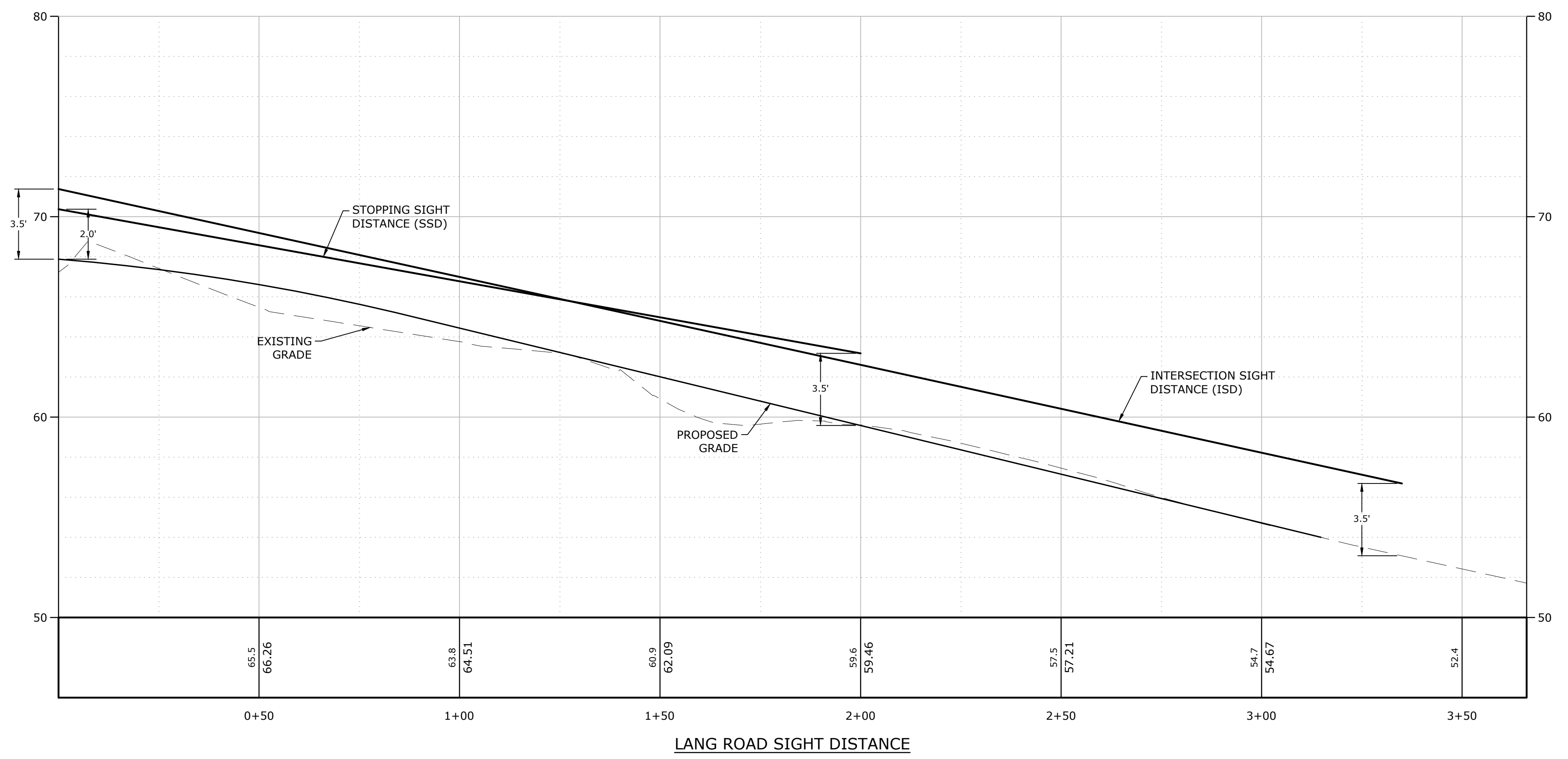
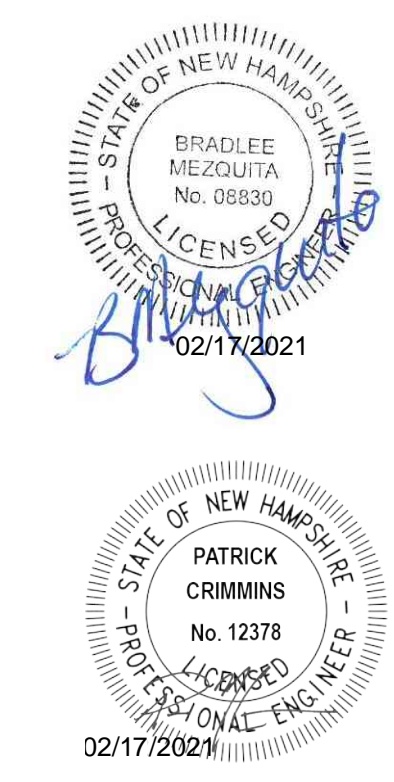
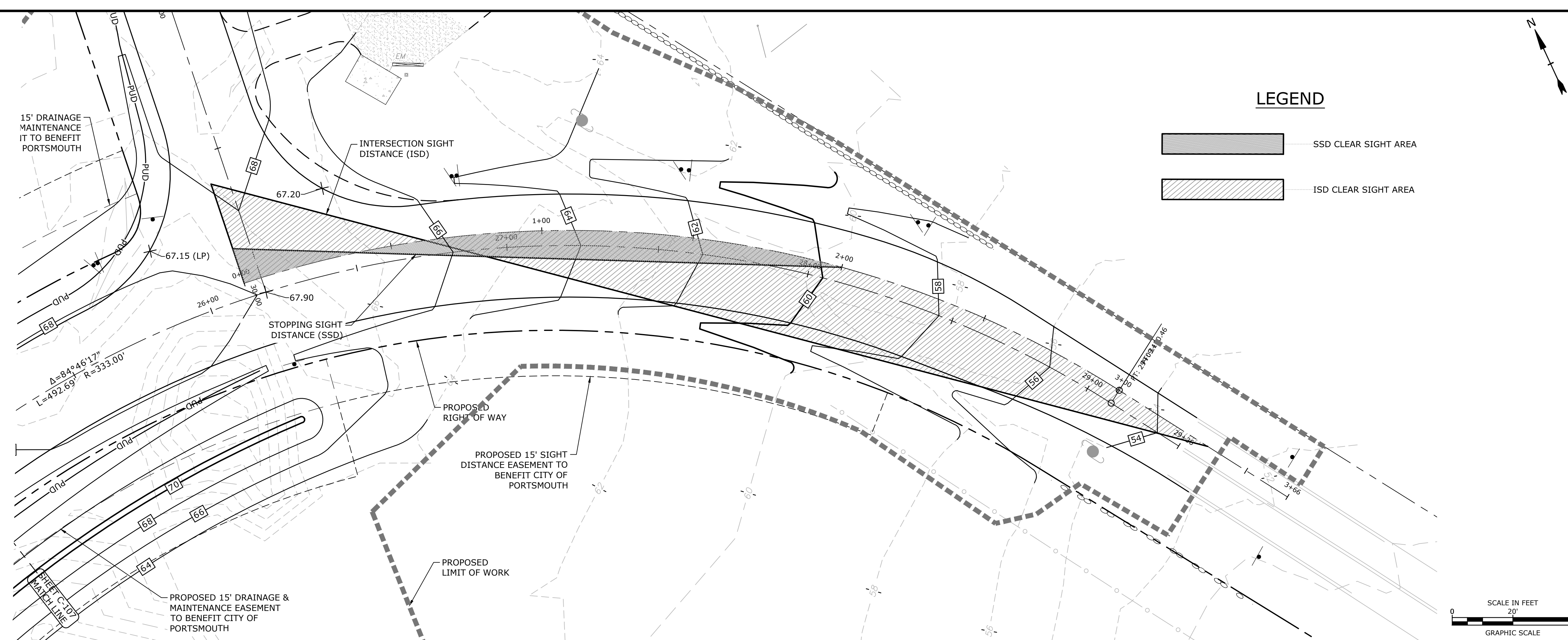
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DATE:	October 21, 2019
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CHECKED:	PMC
APPROVED:	BLM

LANG ROAD PLAN & PROFILE

SCALE: AS SHOWN

C-109

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Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

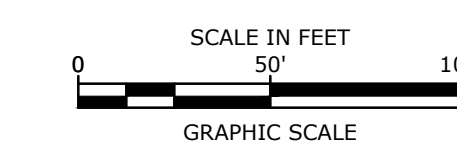
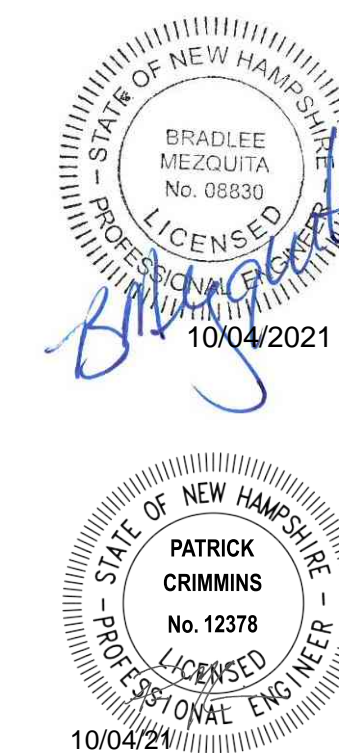
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DATE: October 21, 2019
FILE: P-0714-005-C-DSGN.dwg
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CHECKED: PMC
APPROVED: BLM

LANG ROAD SIGHT DISTANCE PLAN & PROFILE

SCALE: AS SHOWN

C-110

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Longmeadow Road Extension

City of Portsmouth

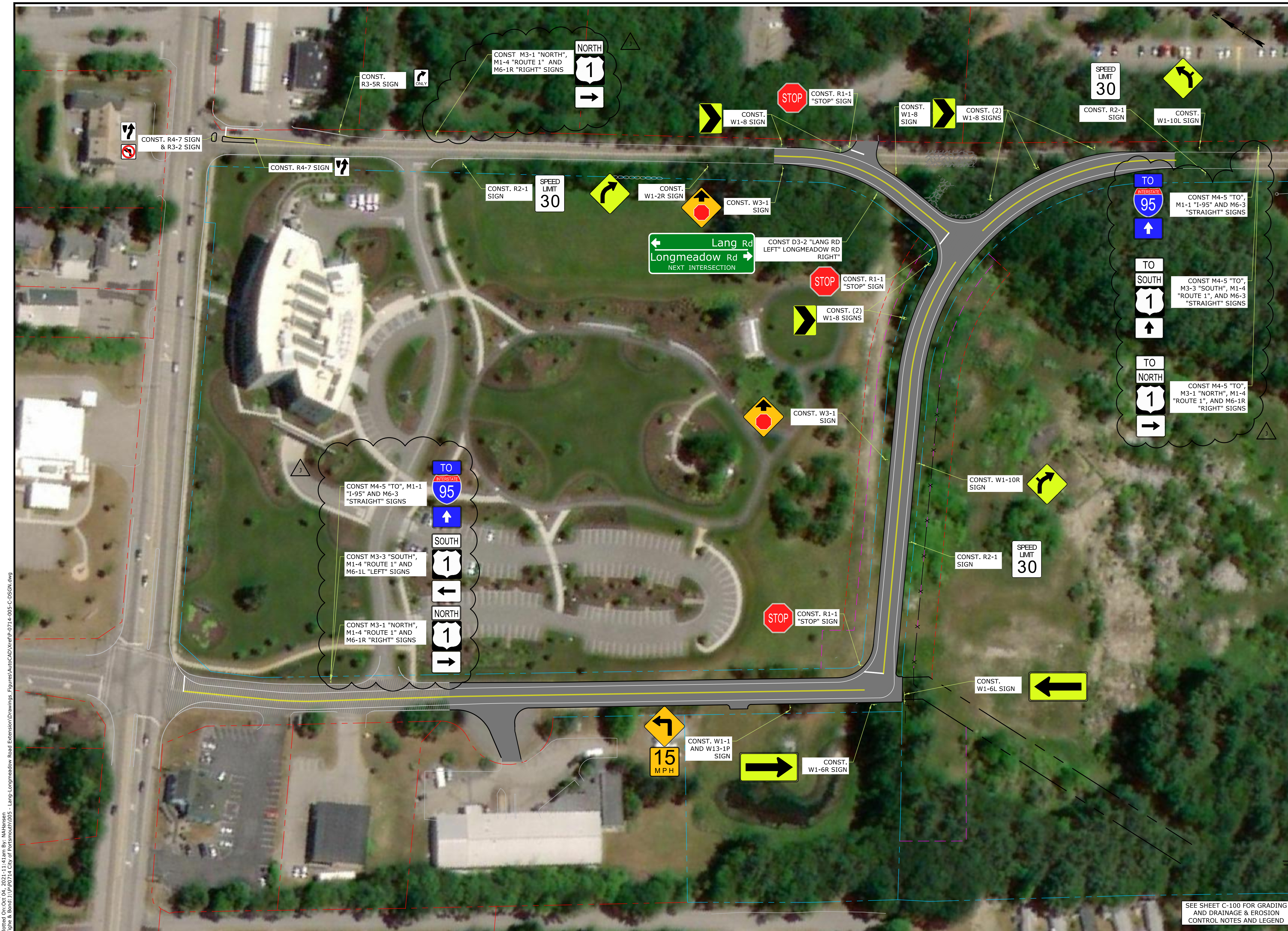
Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
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APPROVED:	BLM

SIGN LOCATION PLAN
SCALE: AS SHOWN
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SEE SHEET C-100 FOR GRADING AND DRAINAGE & EROSION CONTROL NOTES AND LEGEND

GENERAL PROJECT INFORMATION

PROJECT OWNER: CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
PROJECT NAME: LONGMEADOW ROAD EXTENSION
PROJECT ADDRESS: LONGMEADOW ROAD
PORTSMOUTH, NH 03801
PROJECT LATITUDE: 43°-01'-27.5"N
PROJECT LONGITUDE: 70°-47'-24.9"W

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CLEARING AND GRUBBING OF FOREST, REGRADING OF LAND, AND CONSTRUCTION OF A ROAD CONNECTING LONGMEADOW ROAD TO LANG ROAD. THE WORK IS ANTICIPATED TO START IN SPRING 2021, AND BE COMPLETED BY FALL 2021.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 4.73 ACRES.

SOIL CHARACTERISTICS

BASED ON THE USCS SITE SPECIFIC SOIL SURVEY CONDUCTED BY MERIDIAN LAND SERVICES, INC., ON AUGUST 26, 2010 THE SOILS ON SITE CONSIST OF WELL DRAINED SOILS WITH HYDROLOGIC SOIL GROUP RATINGS OF B.

NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA OVERLAND FLOW TO AN UNNAMED WETLAND AND ULTIMATELY FLOWS TO BERRY'S BROOK.

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:

- CUT AND CLEAR TREES.
- CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
 - NEW CONSTRUCTION
 - CONTROL OF DUST
 - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
- ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPS PRIOR TO DIRECTING RUNOFF TO THEM.
- CLEAR AND DISPOSE OF DEBRIS.
- CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
- GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
- SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
- FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

SPECIAL CONSTRUCTION NOTES:

- THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.
- THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

EROSION CONTROL NOTES:

- ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
- IN ADDITION TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALES, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
- SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
- ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
- INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
- CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

STABILIZATION:

- AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.;
 - IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.
- WINTER STABILIZATION PRACTICES:
 - ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
 - ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE TO THE DESIGN FLOW CONDITIONS;
 - AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;
- STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
 - TEMPORARY SEEDING;
 - MULCHING.
- ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET

OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

6. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

DUST CONTROL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
3. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJUTING AREAS.

STOCKPILES:

1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

OFF SITE VEHICLE TRACKING:

1. THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION:

1. TEMPORARY GRASS COVER:
 - A. SEEDBED PREPARATION:
 - a. APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE;
 - B. SEEDING:
 - a. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
 - b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED;
 - c. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDING, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING;
 - C. MAINTENANCE:
 - a. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
2. VEGETATIVE PRACTICE:
 - A. FOR PERMANENT MEASURES AND PLANTINGS:
 - a. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5;
 - b. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER;
 - c. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH;
 - d. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH;
 - e. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
 - f. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED;
 - g. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
 - h. A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

SEED MIX	APPLICATION RATE
CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
RED TOP	2 LBS/ACRE
3. DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
 - A. FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

CONCRETE WASHOUT AREA:

1. THE FOLLOWING ARE THE ONLY NON-TEMPORARY DISCHARGES ALLOWED. ALL OTHER NON-TEMPORARY DISCHARGES ARE PROHIBITED ON SITE:
 - A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
 - B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
 - C. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
 - D. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES:

1. FIRE-FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHING;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
9. UNCONTAMINATED GROUND WATER OR SPRING WATER;
10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
11. UNCONTAMINATED EXCAVATION DEWATERING;
12. LANDSCAPE IRRIGATION.

WASTE DISPOSAL:

1. WASTE MATERIAL:
 - A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
 - B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
 - C. ALL SITE PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
2. HAZARDOUS WASTE:
 - A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
 - B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
3. SANITARY WASTE:
 - A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION:

1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
 - A. GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
 - a. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;
 - b. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE;
 - c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;
 - d. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
 - e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
 - f. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
 - B. HAZARDOUS PRODUCTS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
 - a. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
 - b. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
 - c. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
 - C. PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
 - a. PETROLEUM PRODUCTS:
 - ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
 - PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 - b. FERTILIZERS:
 - FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
 - ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
 - STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
 - c. PAINTS:
 - ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
 - EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
 - EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
 - D. SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
 - a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;
 - b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;
 - c. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
 - d. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
 - e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
 - f. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
 - E. VEHICLE FUELING AND MAINTENANCE PRACTICE:
 - a. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICEL FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
 - b. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
 - c. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
 - d. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
 - e. CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
 - f. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE ENGINEER. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.

THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:

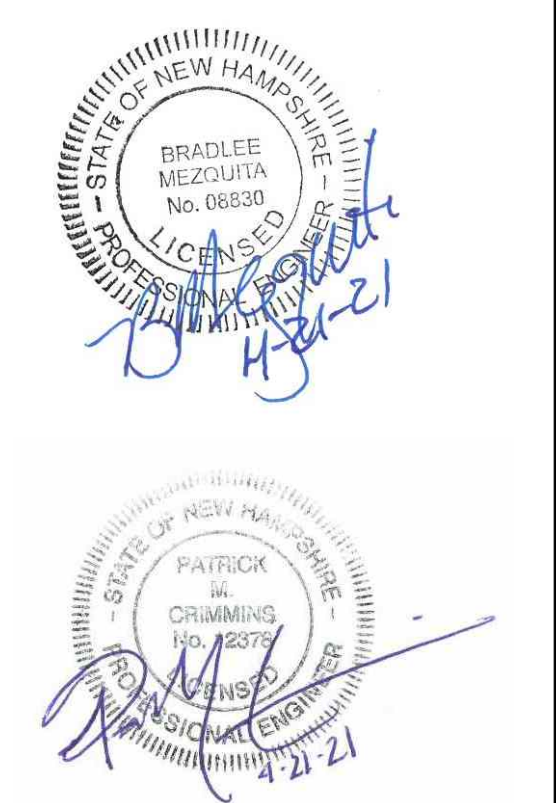
1. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
2. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
3. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
4. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

HTTPS://WWW.DES.NH.GOV/ORGANIZATION/COMMISSIONER/PPP/FACTSHEETS/DWGB/DOCUMENTS/DWGB-22-6.PDF

BLASTING NOTES:

1. CONTRACTOR SHALL CONTACT THE NHDES PRIOR TO COMMENCING ANY BLASTING ACTIVITIES
2. FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT SHALL SUBMIT:
 - A. A BLASTING PLAN THAT IDENTIFIES:
 - a. WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
 - b. THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND

- c. SITE-SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.
3. IF MORE THAN 5000 CUBIC YARDS OF BLAST ROCK WILL BE GENERATED AND THERE ARE ONE OR MORE PUBLIC DRINKING WATER WELLS WITHIN 2000 FEET OF THE BLASTING ACTIVITIES, A PLAN TO MONITOR GROUNDWATER TO DETECT ANY CONTAMINATION IN SUFFICIENT TIME TO PROTECT THE WATER SUPPLY WELLS SHALL BE PROVIDED TO THE NHDES. THE GROUNDWATER MONITORING PLAN SHALL INCLUDE:
 - A. MONITORING FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA:
 - a. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY THE NHDES.
 - B. THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:
 - a. LOADING PRACTICES - THE FOLLOWING BASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
 - i. DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS;
 - ii. EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL;
 - iii. SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL;
 - iv. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BASTHOLE OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED;
 - v. LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT;
 - vi. EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
 - b. EXPLOSIVE SELECTION - THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
 - i. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION;
 - ii. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER
 - c. PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
 - d. MUCK PILES MANAGEMENT - MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
 - i. REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE;
 - ii. MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
 - C. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT DURING BLASTING OPERATIONS. THE MEASURES TO PREVENT SUCH RELEASES SHALL BE DETAILED IN THE GROUNDWATER MONITORING REPORT AND COMPLY WITH THE MEASURES AND BEST MANAGEMENT PRACTICES LISTED ON THIS SHEET.



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350
X-A004(818)

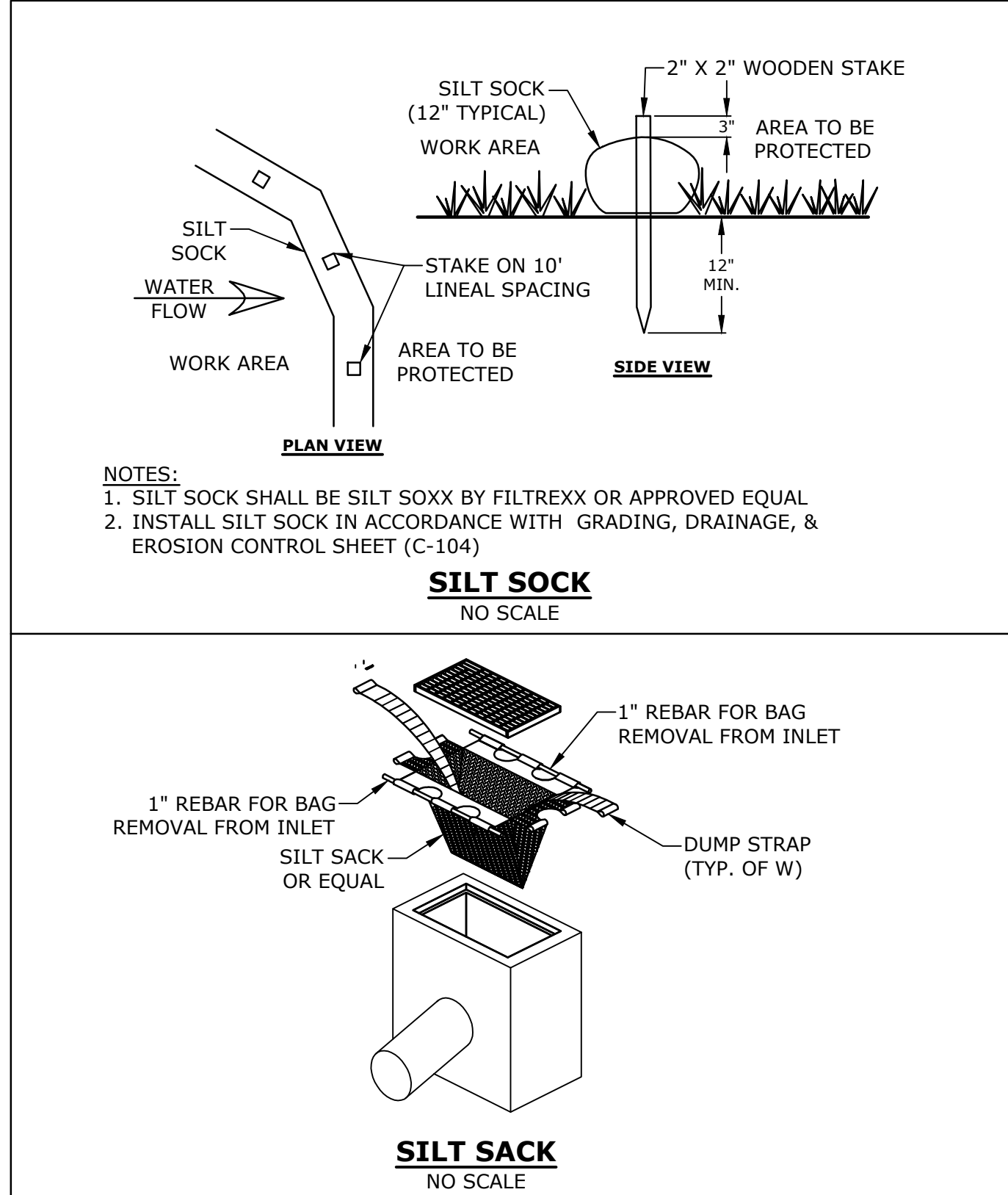
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G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DTLS.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

EROSION CONTROL NOTES & DETAILS SHEET

SCALE: AS SHOWN

C-501



Last Saved: 9/20/2021, 9:49am By: Ckrzcnk
Printed On: 09/21/2021, 9:51am By: Ckrzcnk
File: P-0714-005-C-DTLS.dwg
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Project: Portsmouth #42350



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350 X-A004(818)

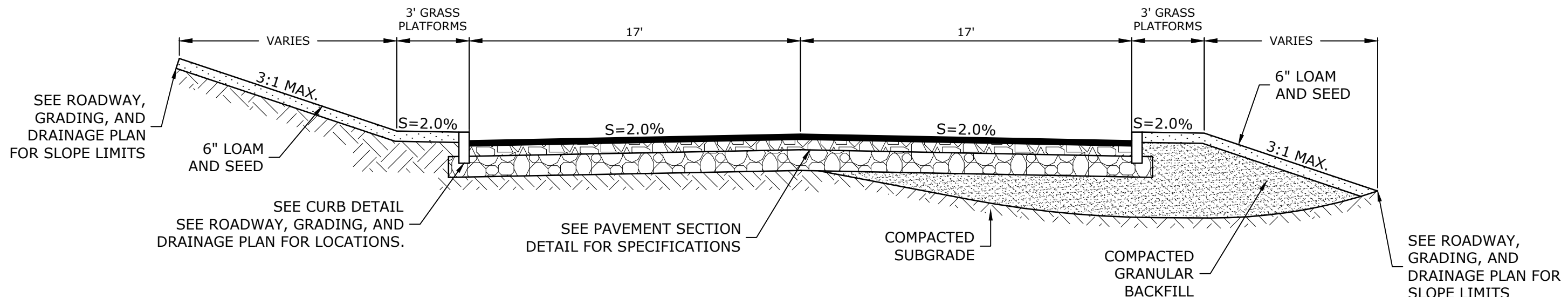
MARK	DATE	DESCRIPTION
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
F	1/29/2021	Final Design Submission
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
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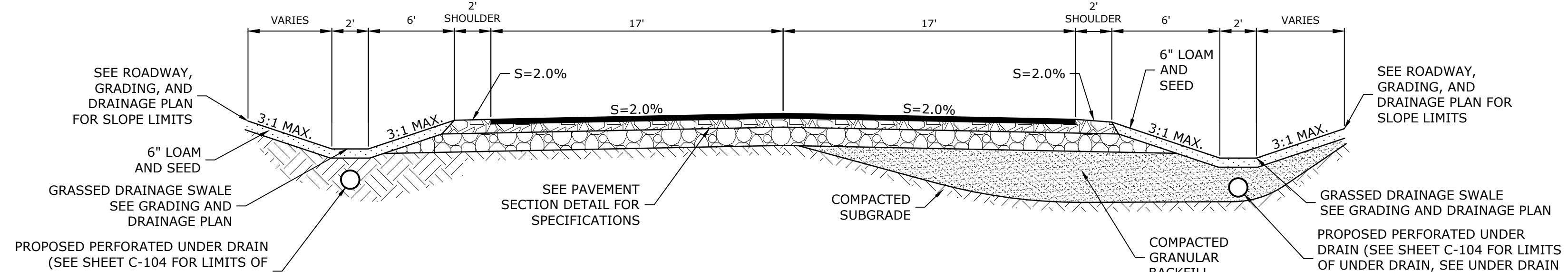
DETAILS SHEET

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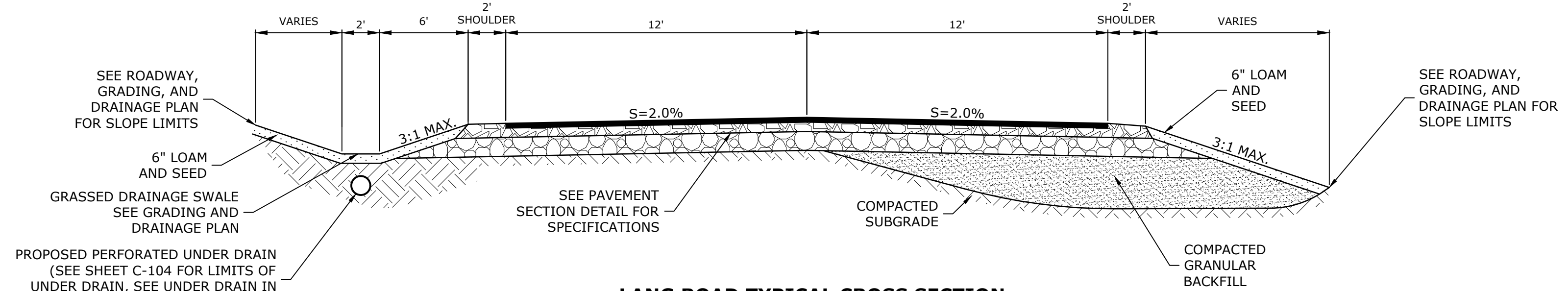
C-502



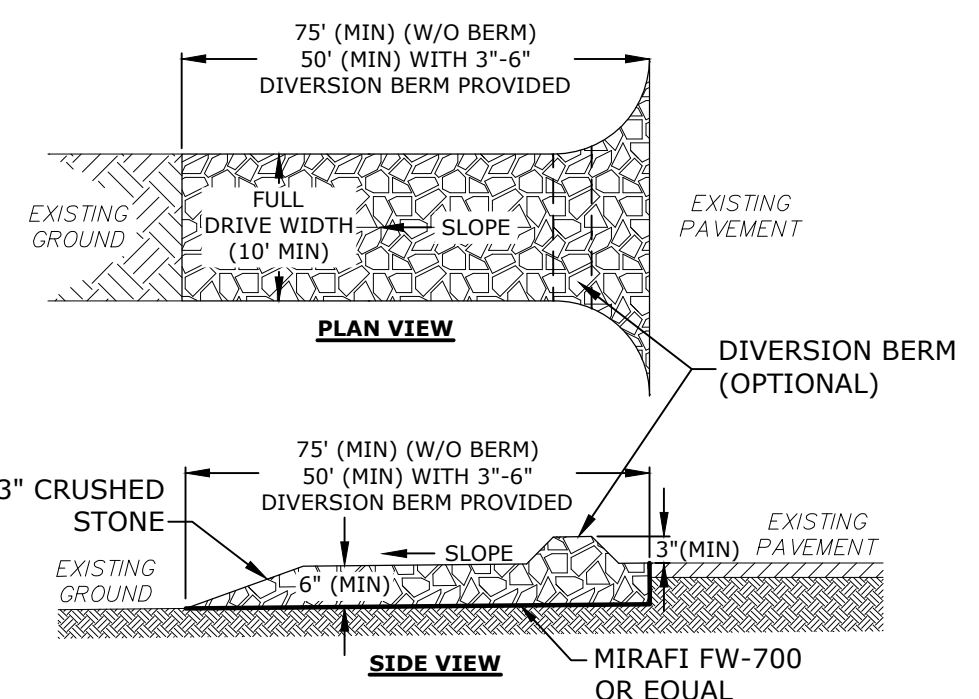
**LONGMEADOW ROAD TYPICAL CROSS SECTION
STA 5+00 TO STA 10+33**
NO SCALE



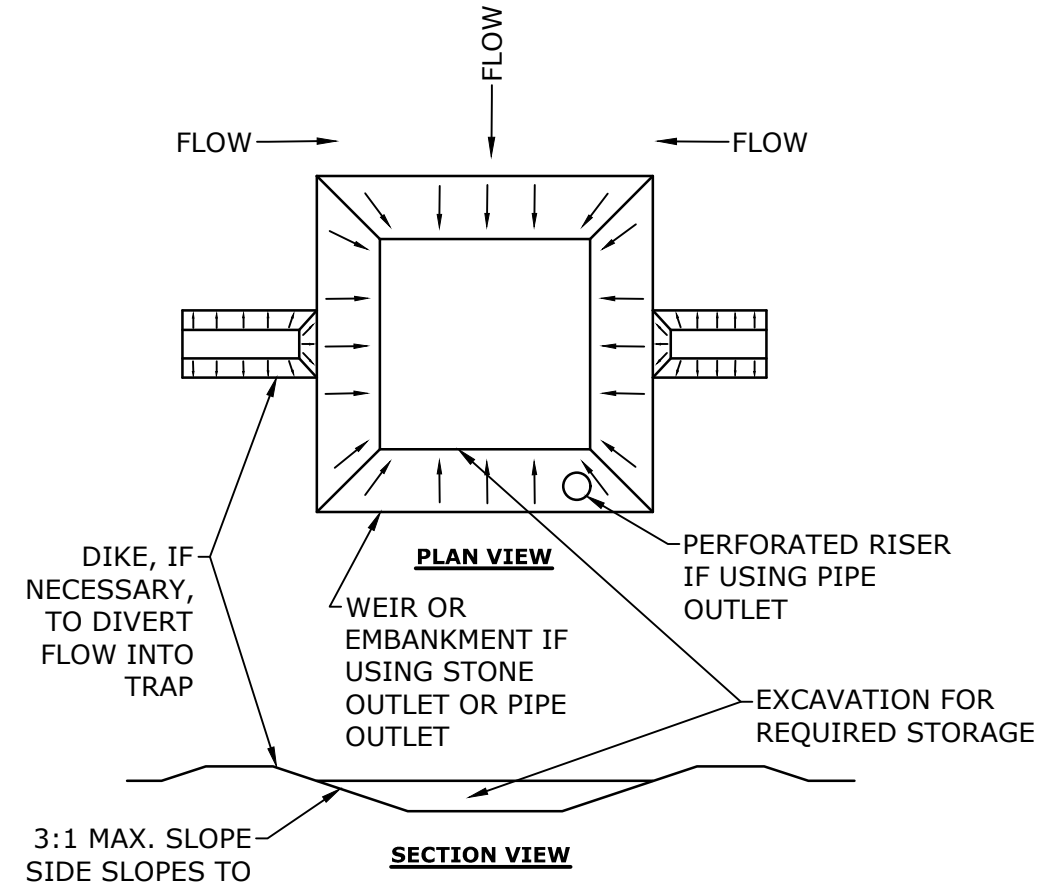
**LONGMEADOW AND LANG ROAD TYPICAL CROSS SECTION
STA 20+00 TO STA 29+25**
NO SCALE



**LANG ROAD TYPICAL CROSS SECTION
STA 30+00 TO STA 32+50**
NO SCALE

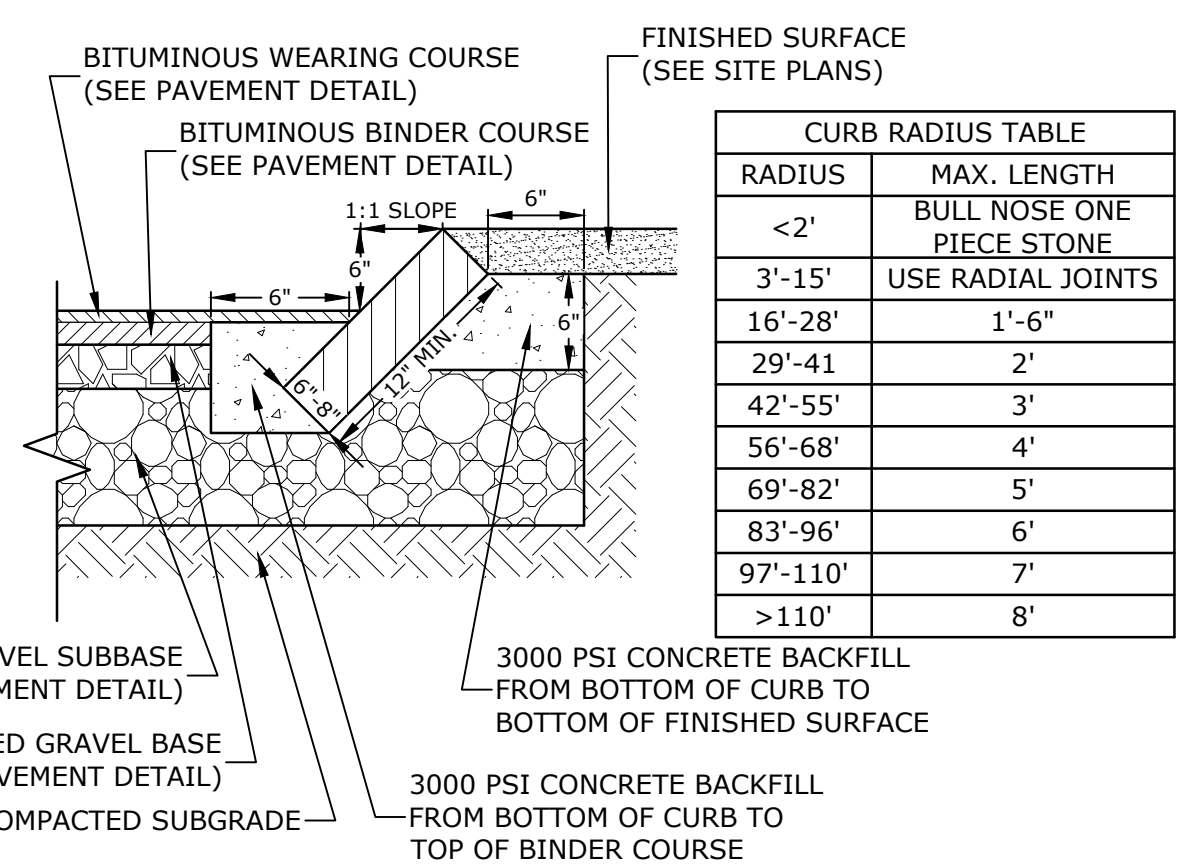


STABILIZED CONSTRUCTION EXIT
NO SCALE

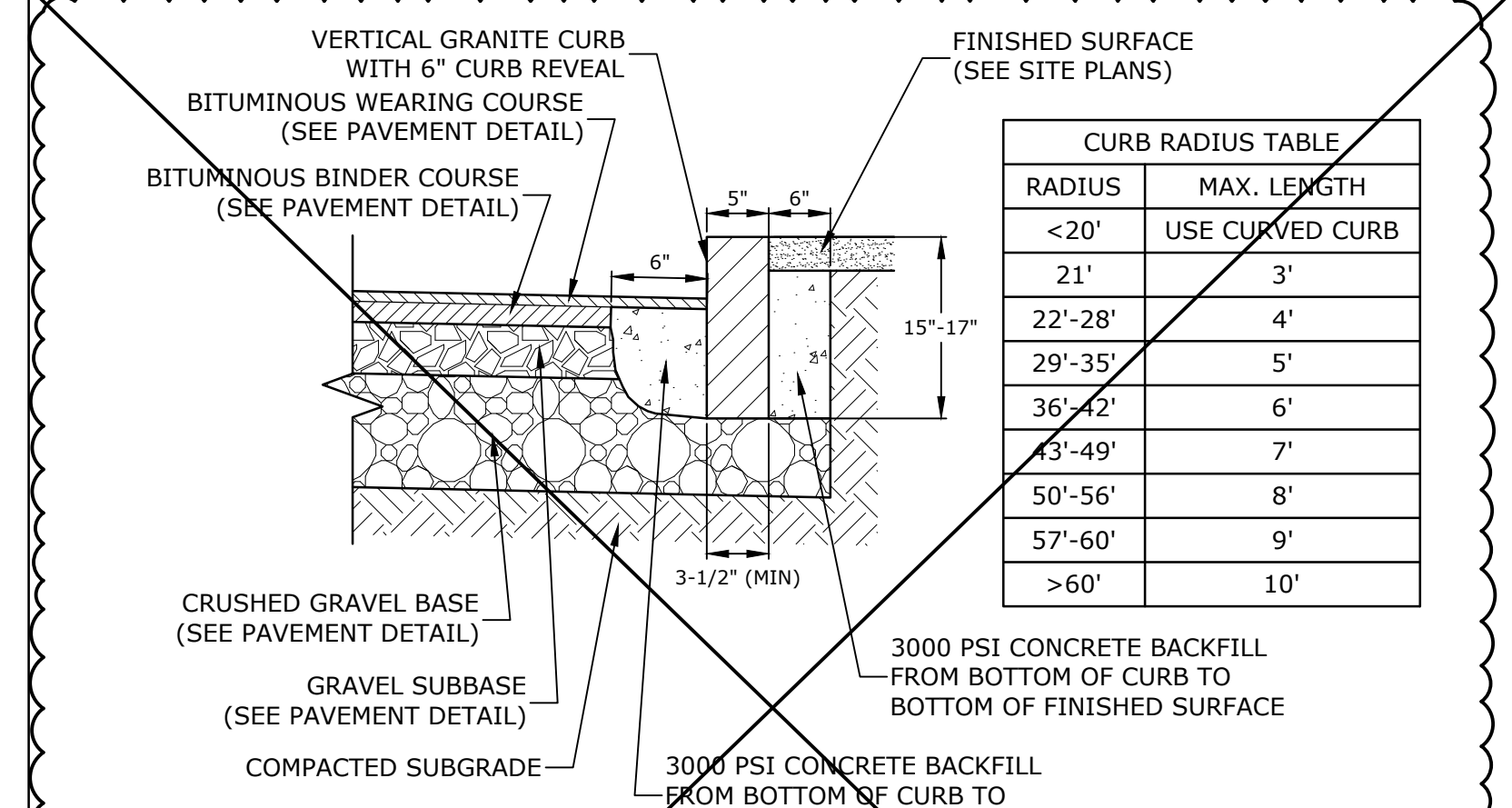


SEDIMENT TRAP
NO SCALE

- NOTES:**
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE.
 2. THE MAXIMUM CONTRIBUTING AREA TO A SINGLE TRAP SHALL BE LESS THAN 5 ACRES.
 3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
 4. TRAP OUTLET SHALL BE MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP.
 5. TRAP SHALL DISCHARGE TO A STABILIZED AREA.
 6. TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
 7. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
 8. SEDIMENT TRAPS MUST BE USED AS NEEDED TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.

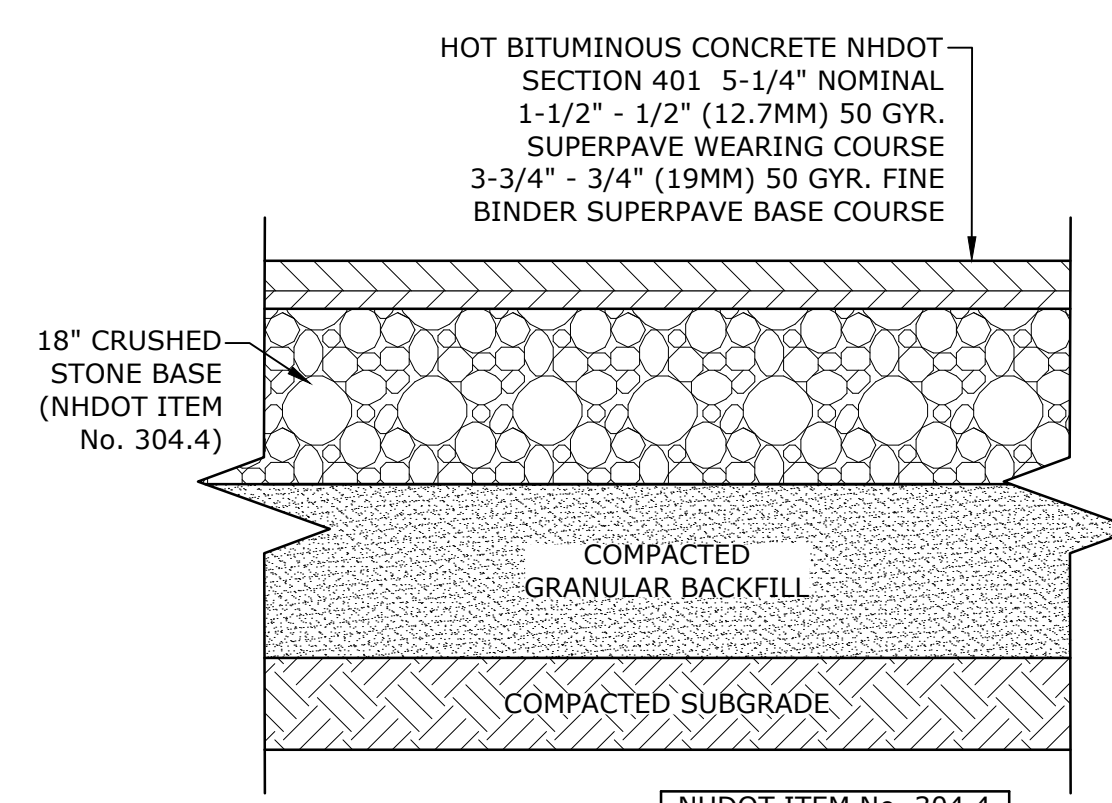


SLOPED GRANITE CURB
NO SCALE



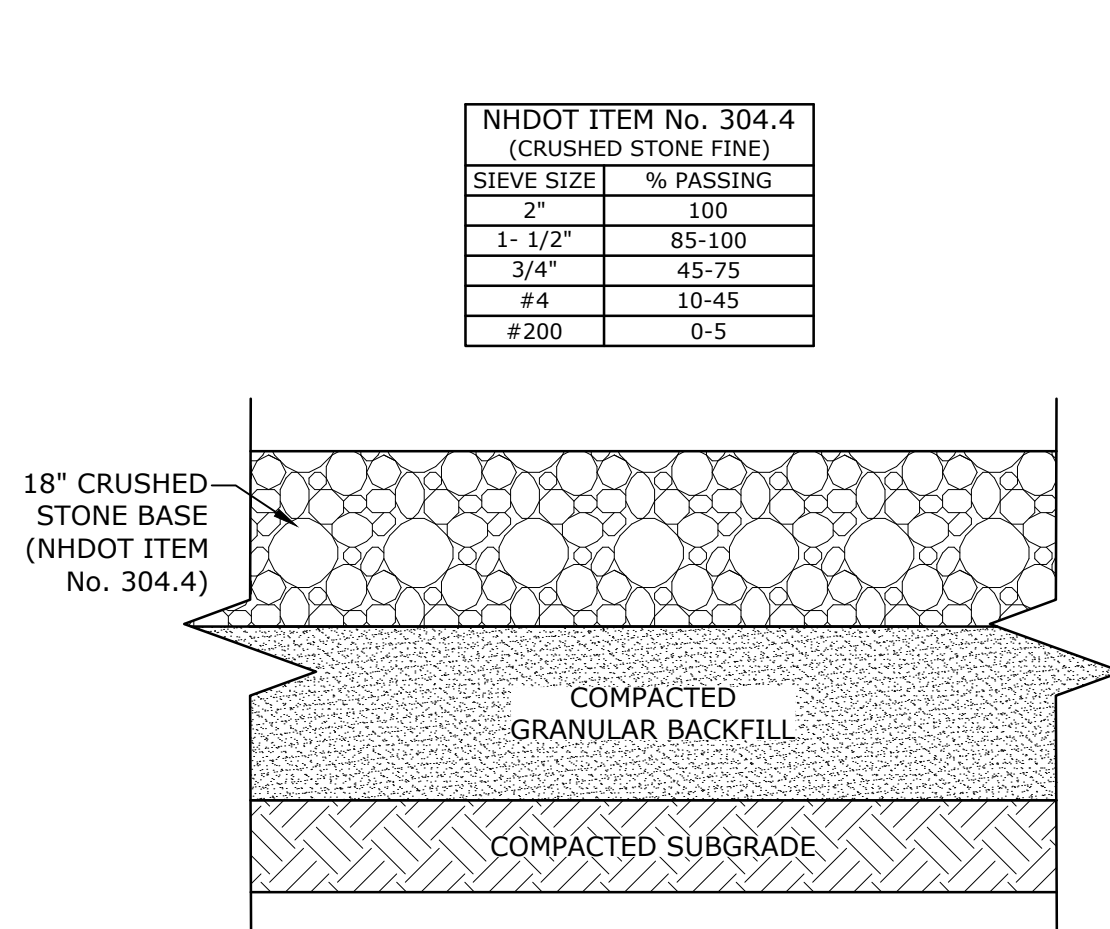
VERTICAL GRANITE CURB
NO SCALE

- NOTES:**
1. SEE SITE PLAN(S) FOR LIMITS OF SLOPED GRANITE CURB (SGC).
 2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
 3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
 4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
 5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
 6. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.



PAVEMENT SECTION
NO SCALE

- NOTES:**
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 2. SEE THE TYPICAL CROSS SECTION DETAILS AND PROFILES FOR PAVEMENT SLOPE AND CROSS-SLOPE.
 3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.



GRAVEL SECTION
NO SCALE

- NOTES:**
1. SEE SITE PLAN FOR GRAVEL WIDTH AND LOCATION.
 2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.

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Printed On: OCT 04, 2021, 11:26am
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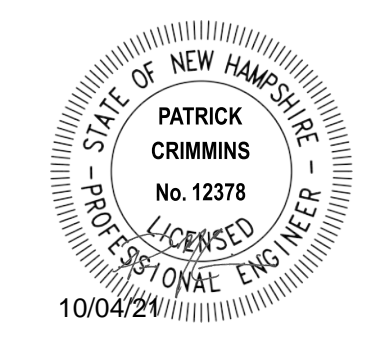
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ITEM #	INDENT #	SIGN SIZE		TEXT	TEXT DIMENSIONS			SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.)		POSTS PER SIGN				REMARKS
		WIDTH (inch)	HEIGHT (inch)		LETTER HEIGHT (inch)	NOM AREA	TOTAL AREA					BREAKAWAY	STEEL 9-BEAM	4" OD ALUMINUM	U-CHANNEL GALV			
		UC	LC													CAPS		
615.0301	M6-3	24	24								2	4	8					WHITE ON BLUE
615.0301	M4-5	21	15	TO							2	2.2	4.4					WHITE ON BLUE
615.0601	M1-1	24	24								2	4	8					WHITE ON RED AND BLUE, 2 POSTS WITH 3 WIDE CONFIGURATION
615.0601	M6-1R	21	15								3	2.2	6.6					BLACK ON WHITE
615.0301	M1-4	24	24					24		12D	5	4	20		2/1			BLACK ON WHITE, 2 POSTS WITH 3 WIDE CONFIGURATION 1 POST WITH SINGLE CONFIGURATION
615.0601	M3-1	24	12	NORTH			7C/6C				3	2	6					BLACK ON WHITE
615.0601	M6-1L	21	15								1	2.2	2.2					BLACK ON WHITE
615.0601	M3-3	24	12	SOUTH			7C/6C				2	2	4					BLACK ON WHITE
615.0601	M6-3	21	15								1	2.2	2.2					BLACK ON WHITE
615.0601	M4-5	24	12	TO			7C/6C				2	2	4					BLACK ON WHITE
615.0301	W1-1	36	36								1	9	9		1			BLACK ON YELLOW, MOUNT ABOVE W13-1P
615.0601	W13-1P	18	18								1	2.25	2.25					BLACK ON YELLOW, MOUNT BELOW W1-1
615.0301	W1-6R	24	48								1	8	8		1			BLACK ON FLUORESCENT YELLOW
615.0301	W1-6L	24	48								1	8	8		1			BLACK ON FLUORESCENT YELLOW
615.0301	R1-1	36	36				12D				3	9	27		1			WHITE ON RED
615.0301	R3-2	24	24								1	4	4					RED AND BLACK ON WHITE, MOUNT BELOW R4-7

ITEM #	INDENT #	SIGN SIZE		TEXT	TEXT DIMENSIONS			SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.)		POSTS PER SIGN				REMARKS
		WIDTH (inch)	HEIGHT (inch)		LETTER HEIGHT (inch)	NOM AREA	TOTAL AREA					BREAKAWAY	STEEL 9-BEAM	4" OD ALUMINUM	U-CHANNEL GALV			
		UC	LC													CAPS		
615.0301	W1-10R	36	36								1	9	9					BLACK ON FLUORESCENT YELLOW
615.0301	W1-10L	36	36								1	9	9					BLACK ON FLUORESCENT YELLOW
615.0301	W1-2R	36	36								1	9	9					BLACK ON FLUORESCENT YELLOW
615.0301	R3-5R	30	36								1	7.50	7.50					BLACK ON WHITE
615.0301	R4-7	24	30								2	5	10					BLACK ON WHITE, MOUNT ABOVE R3-2
615.0301	R2-1	24	30								3	5	15					BLACK ON WHITE
615.0301	W2-1	30	30								2	6.25	12.50					BLACK AND RED ON YELLOW
615.0301	W1-8	18	24								12	3	36					BLACK ON FLUORESCENT YELLOW
615.0201	D3-2	96	48		6D	6D					1	32	32	X	2P			WHITE ON GREEN, PLANK

- GENERAL NOTES**
- REFER TO THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION PUBLISHED BY THE NHDOT.
 - NOTE NEW REFLECTIVITY REQUIREMENTS IN THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 718 PUBLISHED BY THE NHDOT.
 - REFER TO THE 2010 STANDARD PLANS FOR ROAD CONSTRUCTION AS PUBLISHED BY THE NHDOT FOR EXACT DETAILS OF PERMANENT SIGNING STANDARDS AND NHDOT SPECIFIC SIGNS.
 - REFER TO THE LATEST EDITION OF THE STANDARD HIGHWAY SIGNS MANUAL AS PUBLISHED BY THE USDOT-FHWA FOR EXACT DETAILS OF BORDERS, ETC.
 - THE ALUMINUM OR U-CHANNEL POST SHALL BE FLUSH WITH THE TOP OF THE SIGN ON ALL SINGLE POST ASSEMBLIES.
 - REFER TO 'ROUTE MARKER POST ASSEMBLY DETAIL' LOCATED IN THE PROPOSAL FOR SIDE BY SIDE ROUTE MARKER SIGN INSTALLATIONS.
 - DIGITALLY PRINTED SIGNS SHALL NOT BE PERMITTED.

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DESIGN			
SIGN TEXT LAYOUT			
EXCEL FILE NAME	STATE PROJECT NO.	FEDERAL PROJECT NO.	SHEET NO.
TOTAL SHEETS			



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

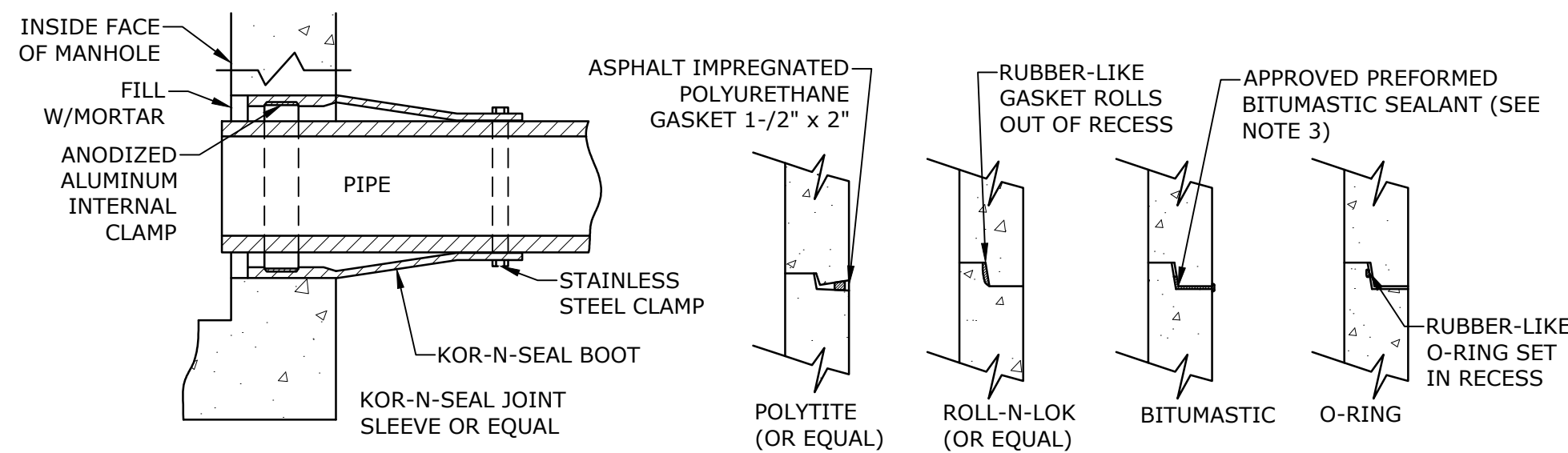
Portsmouth #42350
X-A004(818)

MARK	DATE	DESCRIPTION
J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
H	7/14/2021	NHDOT Comments
G	4/21/2021	AoT RFMI
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DETAILS SHEET

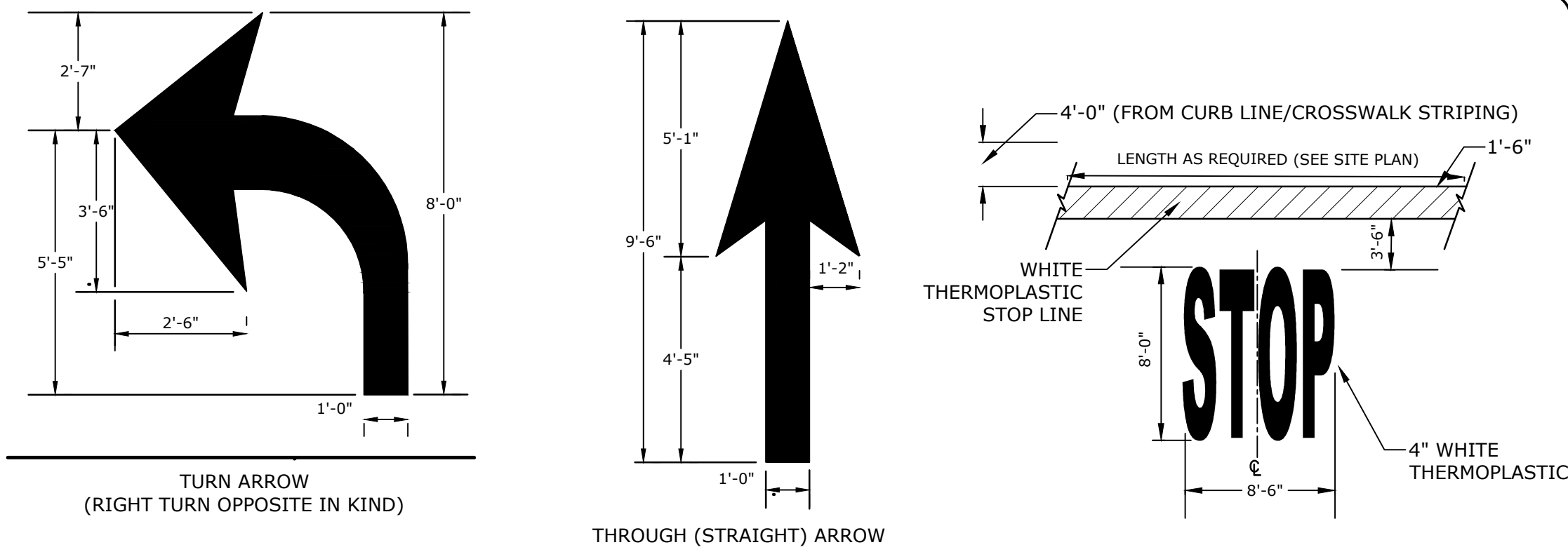
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C-503



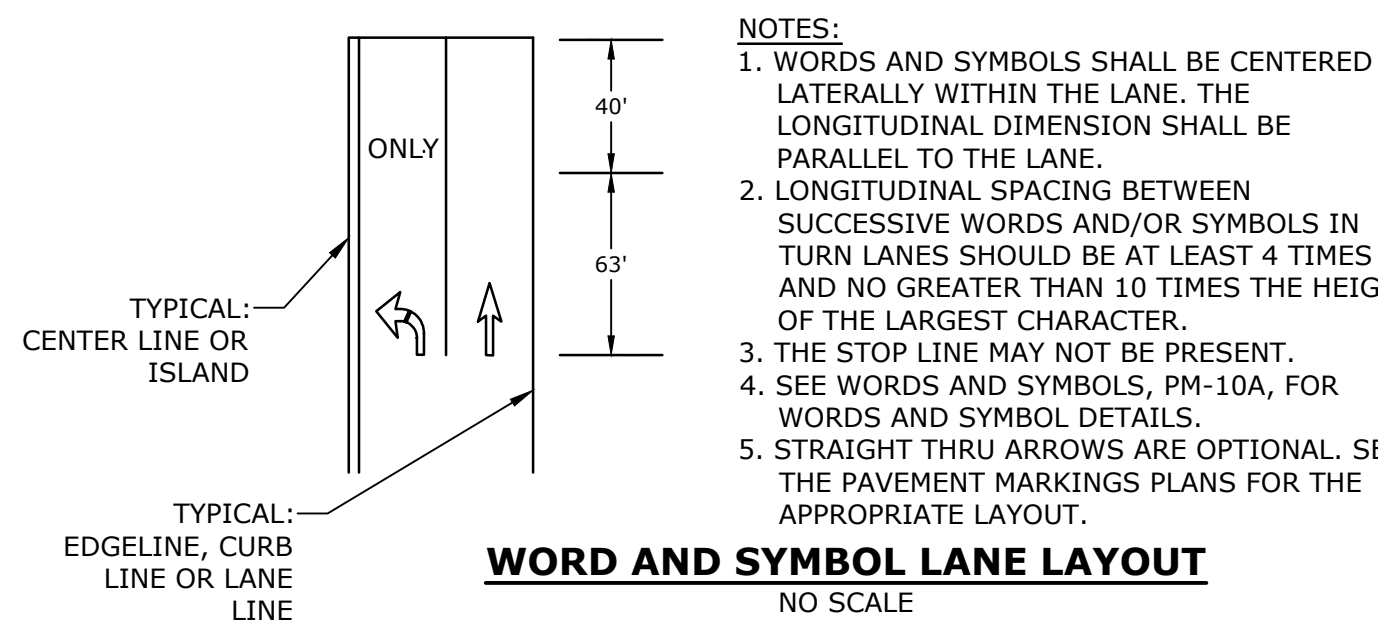
- PIPE TO MANHOLE JOINTS**
- HORIZONTAL JOINTS**
- NOTES:**
- HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
 - PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
 - FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 - ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

MANHOLE JOINTS
NO SCALE



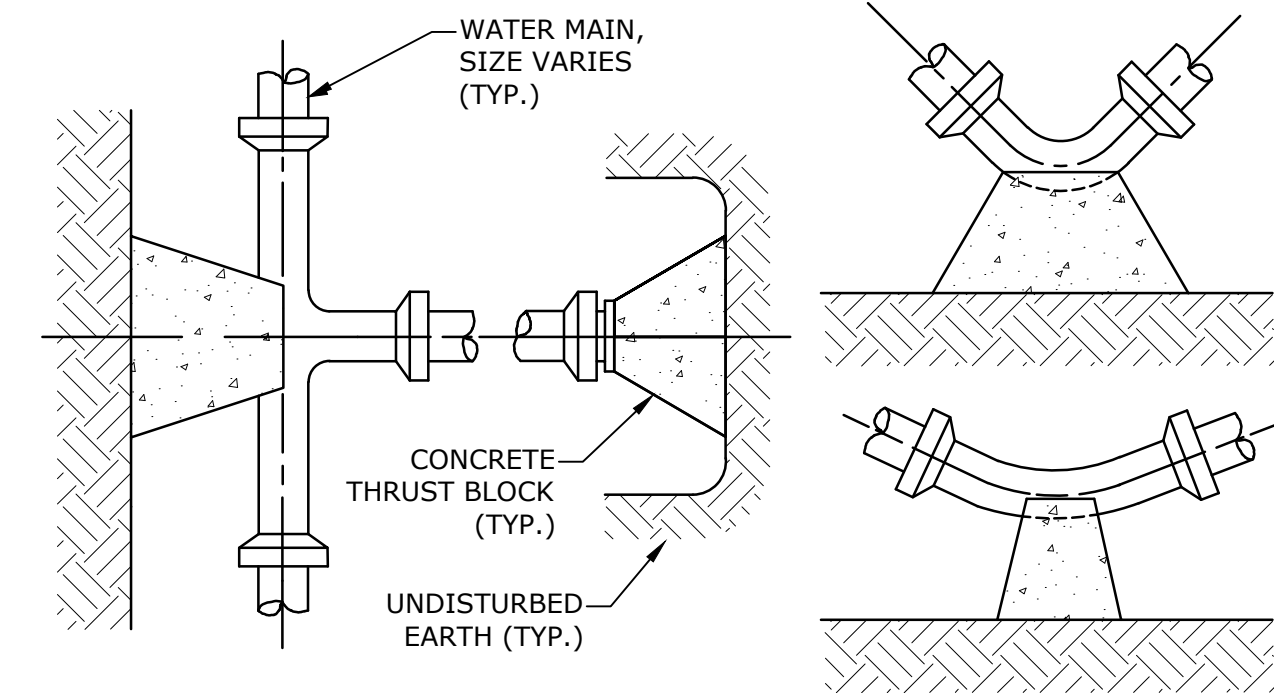
- PAVEMENT MARKING NOTES:**
- PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
 - ALL WORDS AND SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE LATEST VERSION OF THE MUTCD.
 - MULTI-WORD MESSAGES SHALL READ "UP"; THAT IS, THE FIRST WORD SHALL BE NEAREST THE APPROACHING DRIVER.
 - THE WORD "ONLY" SHALL NOT BE USED WITH THROUGH OR COMBINATION ARROWS, AND SHALL NOT BE USED ADJACENT TO A BROKEN LANE LINE. A WORD/SYMBOL SHALL PRECEED THE WORD "ONLY".
 - COMBINATION ARROWS MAY BE COMPRISED OF 2 SINGLE ARROWS (e.g. TURN AND THROUGH ARROWS). HOWEVER, THE SHAFTS OF THE ARROWS SHALL COINCIDE AS SHOWN.
 - PERFORMED WORDS AND SYMBOLS SHALL BE PRE-CUT BY THE MANUFACTURER.
 - WRONG-WAY ARROWS SHALL NOT BE SUBSTITUTED FOR THROUGH ARROWS.
 - ALL STOP BARS, WORDS, SYMBOLS AND ARROW SHALL BE THERMOPLASTIC.

PAVEMENT MARKINGS
NO SCALE



WORD AND SYMBOL LANE LAYOUT
NO SCALE

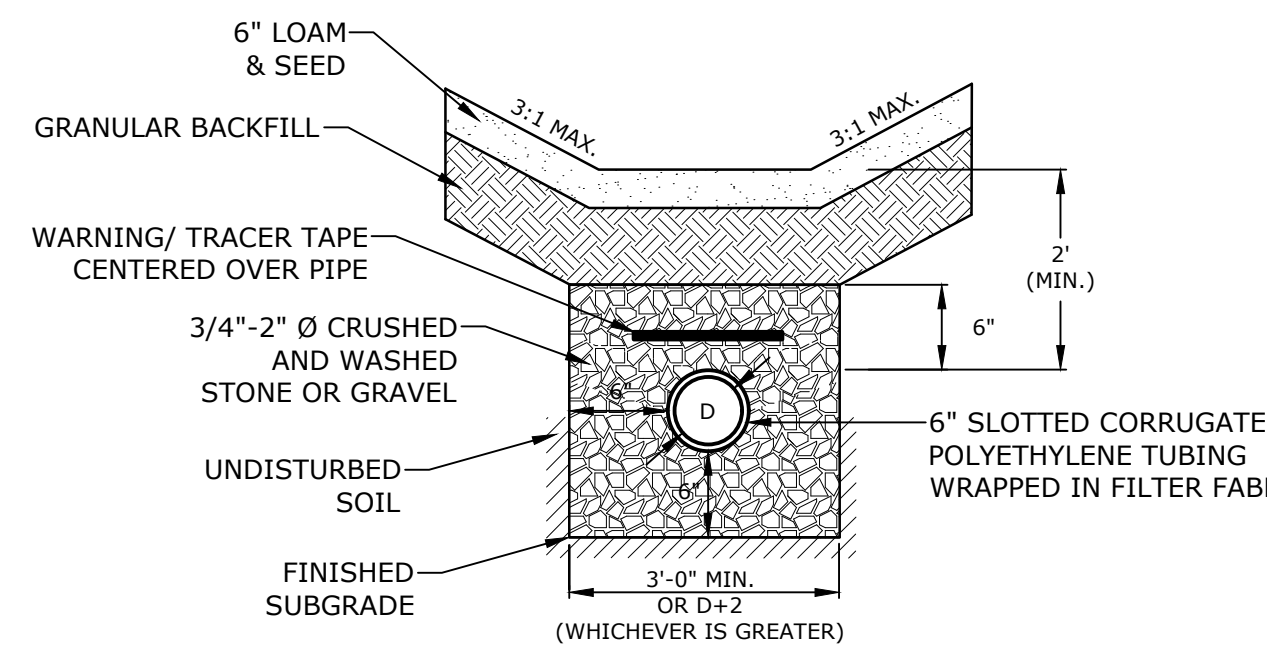
- NOTES:**
- WORDS AND SYMBOLS SHALL BE CENTERED LATERALLY WITHIN THE LANE. THE LONGITUDINAL DIMENSION SHALL BE PARALLEL TO THE LANE.
 - LONGITUDINAL SPACING BETWEEN SUCCESSIVE WORDS AND/OR SYMBOLS IN TURN LANES SHOULD BE AT LEAST 4 TIMES AND NO GREATER THAN 10 TIMES THE HEIGHT OF THE LARGEST CHARACTER.
 - THE STOP LINE MAY NOT BE PRESENT.
 - SEE WORDS AND SYMBOLS, PM-10A, FOR WORDS AND SYMBOL DETAILS.
 - STRAIGHT THRU ARROWS ARE OPTIONAL. SEE THE PAVEMENT MARKINGS PLANS FOR THE APPROPRIATE LAYOUT.



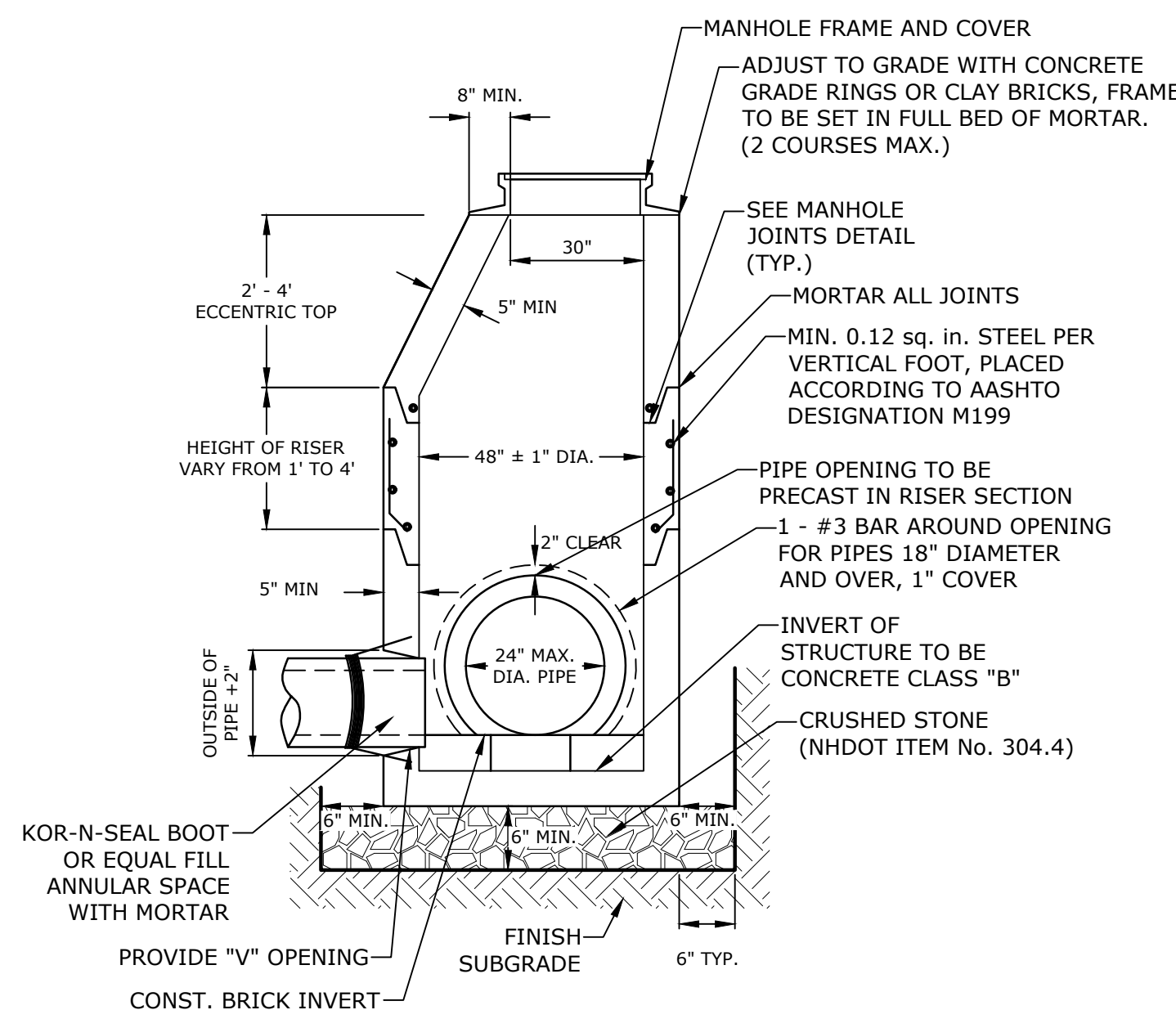
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	4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24
B 180°	0.65	1.55	2.78	8.38	12.00
C 45°	0.48	1.19	2.12	6.02	9.32
D 22-1/2°	0.25	0.60	1.06	3.08	4.74
E 11-1/4°	0.13	0.30	0.54	1.54	2.38

- NOTES:**
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
 - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
 - PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
 - WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
 - INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.

THRUST BLOCKING DETAIL
NO SCALE



UNDERDRAIN TRENCH IN SWALE
NO SCALE

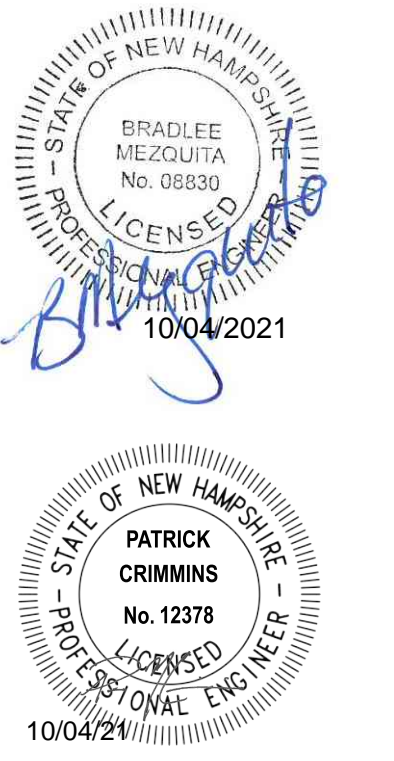


- NOTES:**
- ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 - THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 - THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
 - CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS)
 - THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 - PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 - OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 - PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 - ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.
 - MANHOLE FRAME AND COVER SHALL BE 32" HINGED ERGO XL BY EJ CO. PER CITY OF PORTSMOUTH STANDARD

DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4"	5"	6"
5"	6"	8"
6"	7"	8"
8"	9"	10"

4' DIAMETER DRAIN MANHOLE
NO SCALE

Last Saved: 10/9/2021, 11:25am By: M.Helmert
 Printed On: OCT 09, 2021, 11:25am
 Tighe & Bond 211 York St Portsmouth NH 03801
 Figures Autocad/Revit P-0714-005-C-DTLS.dwg



Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350 X-A004(818)

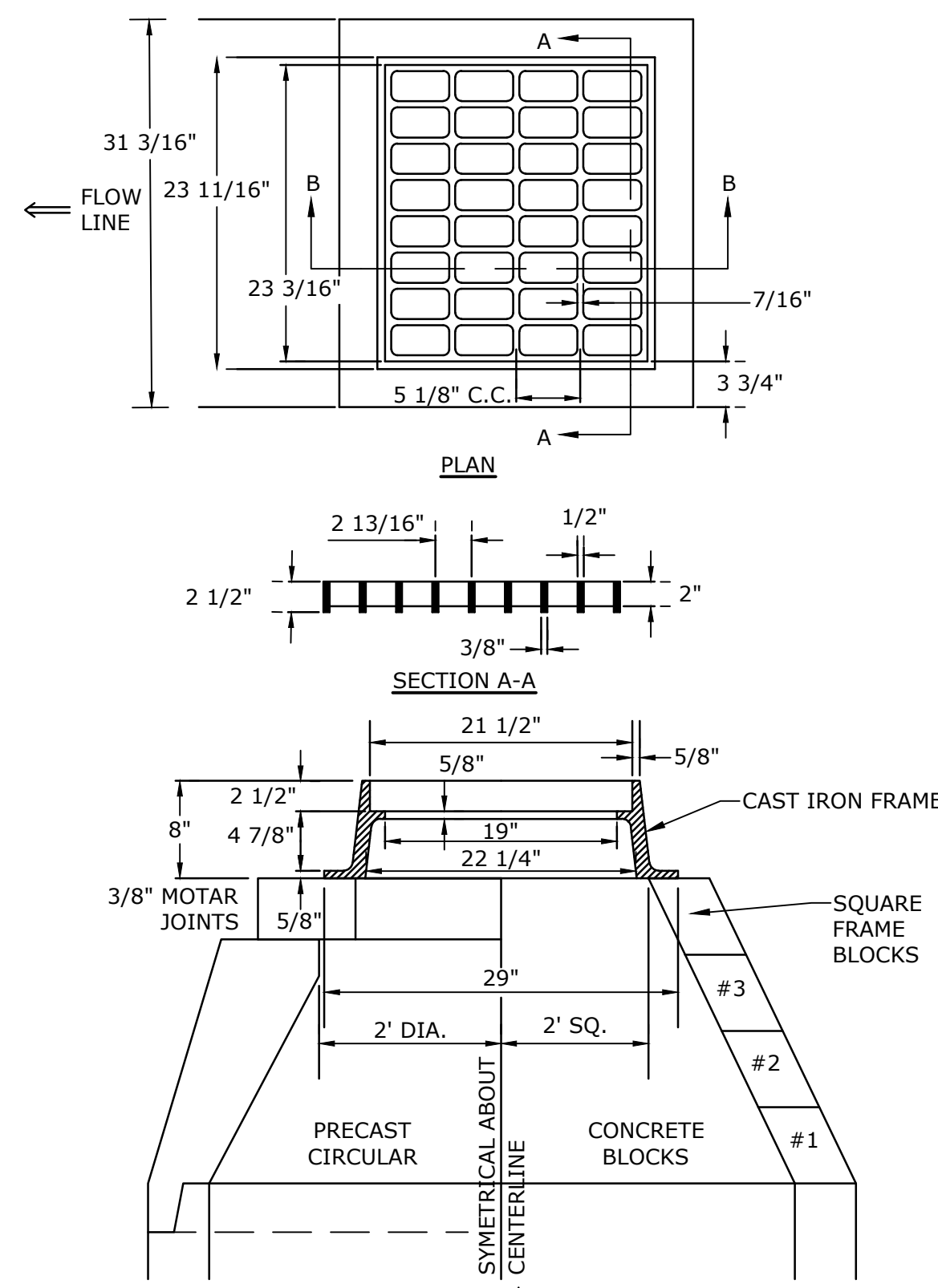
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J	10/4/2021	Add. 1 - Traffic Comments
I	8/11/2021	Bureau of Traffic Comments
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CHECKED:	PMC
APPROVED:	BLM

DETAILS SHEET

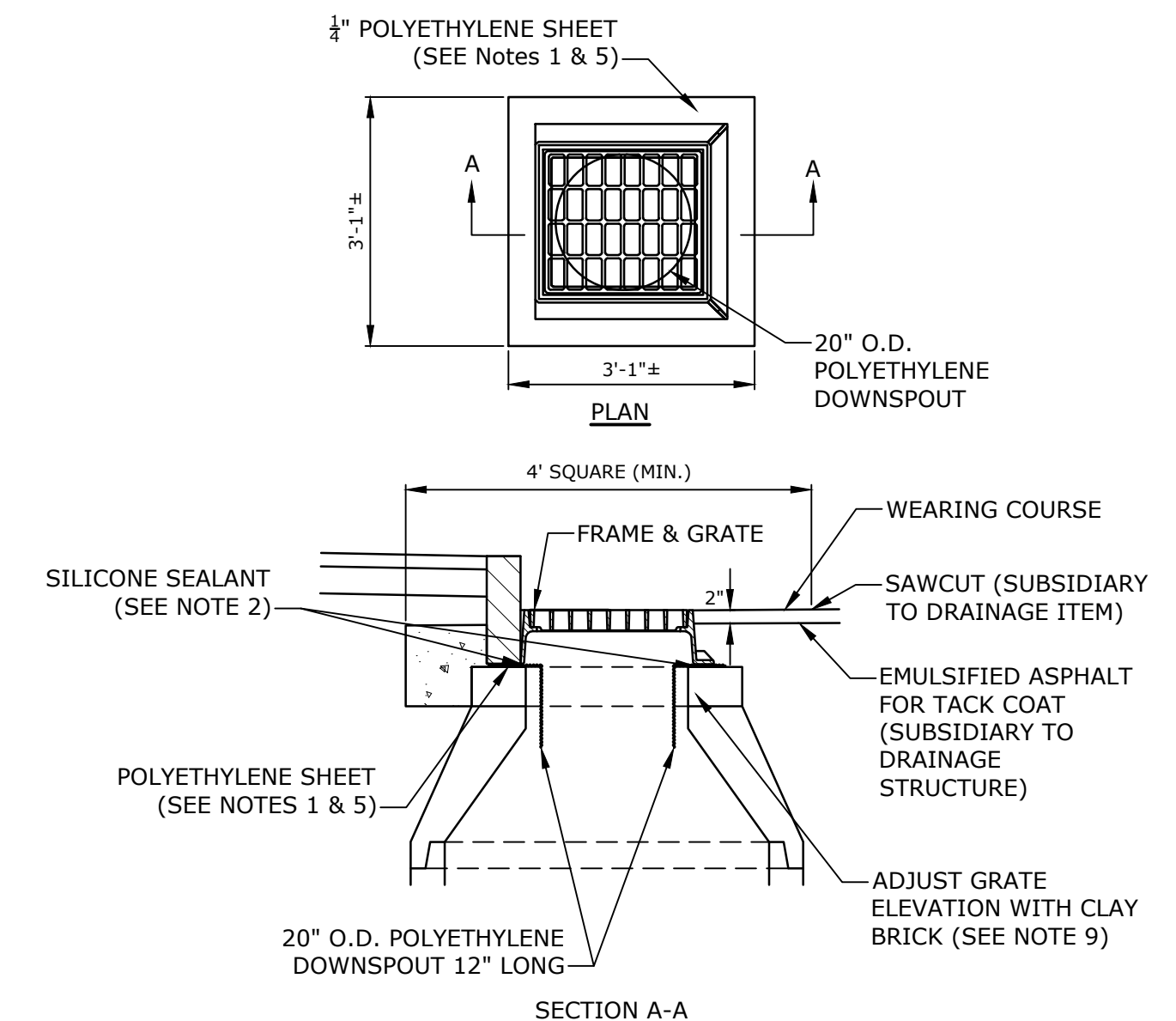
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C-504



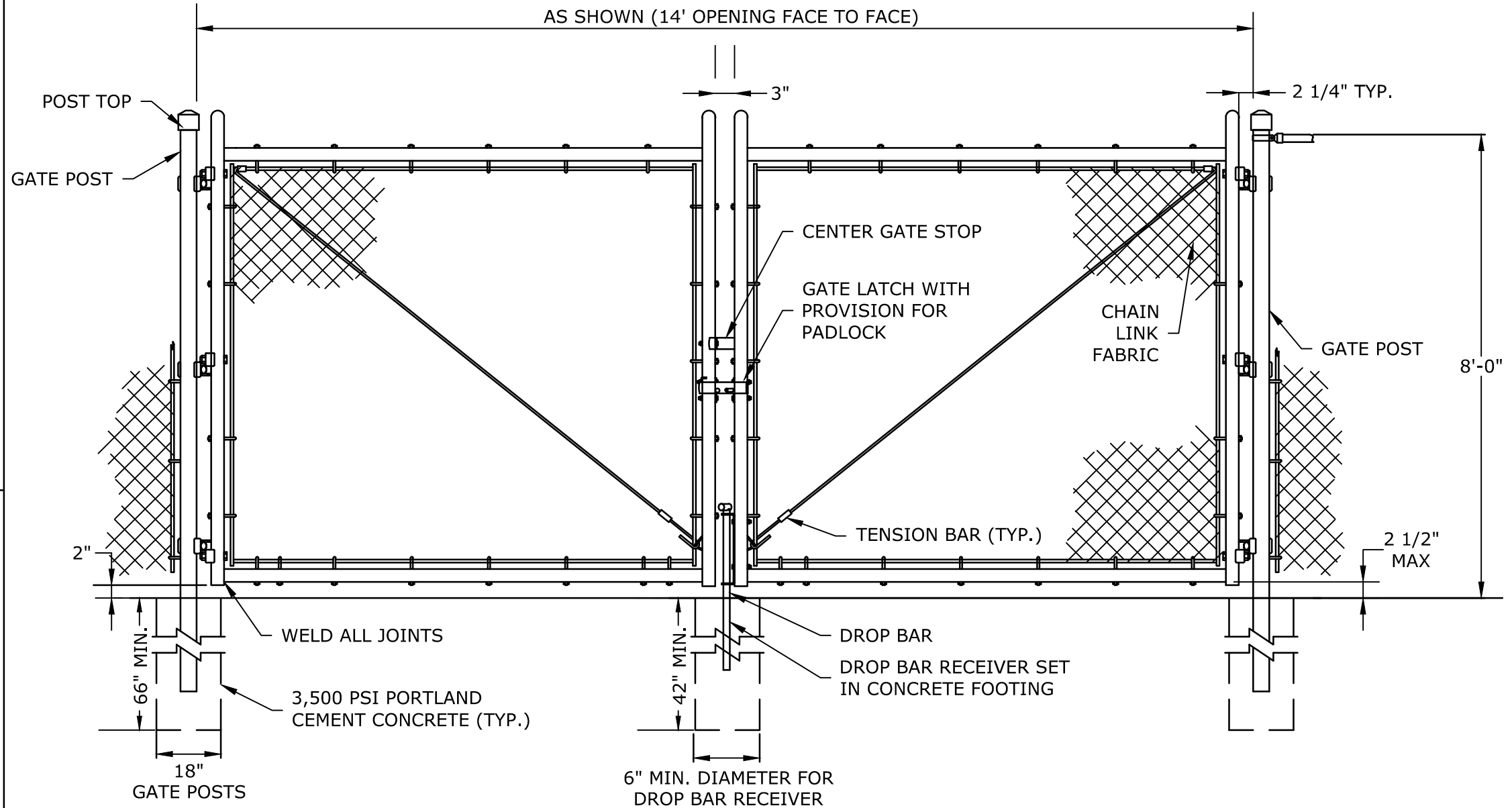
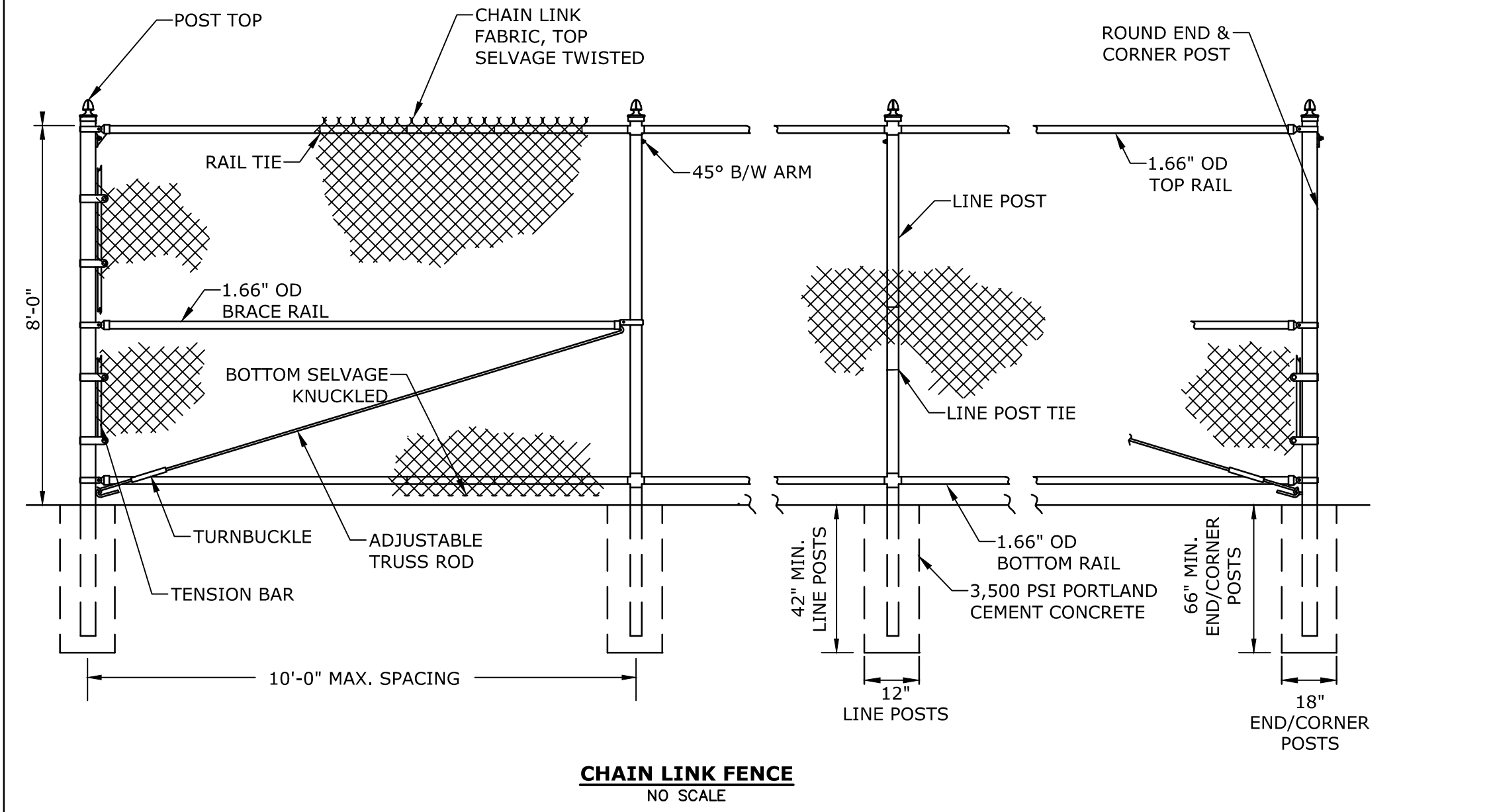
NOTES:
 1. GRATE TO BE CAST IRON (NHDOT TYPE B)
 2. FRAME AND GRATE TO BE MANUFACTURED IN THE USA

CATCH BASIN FRAME & GRATE
 NO SCALE



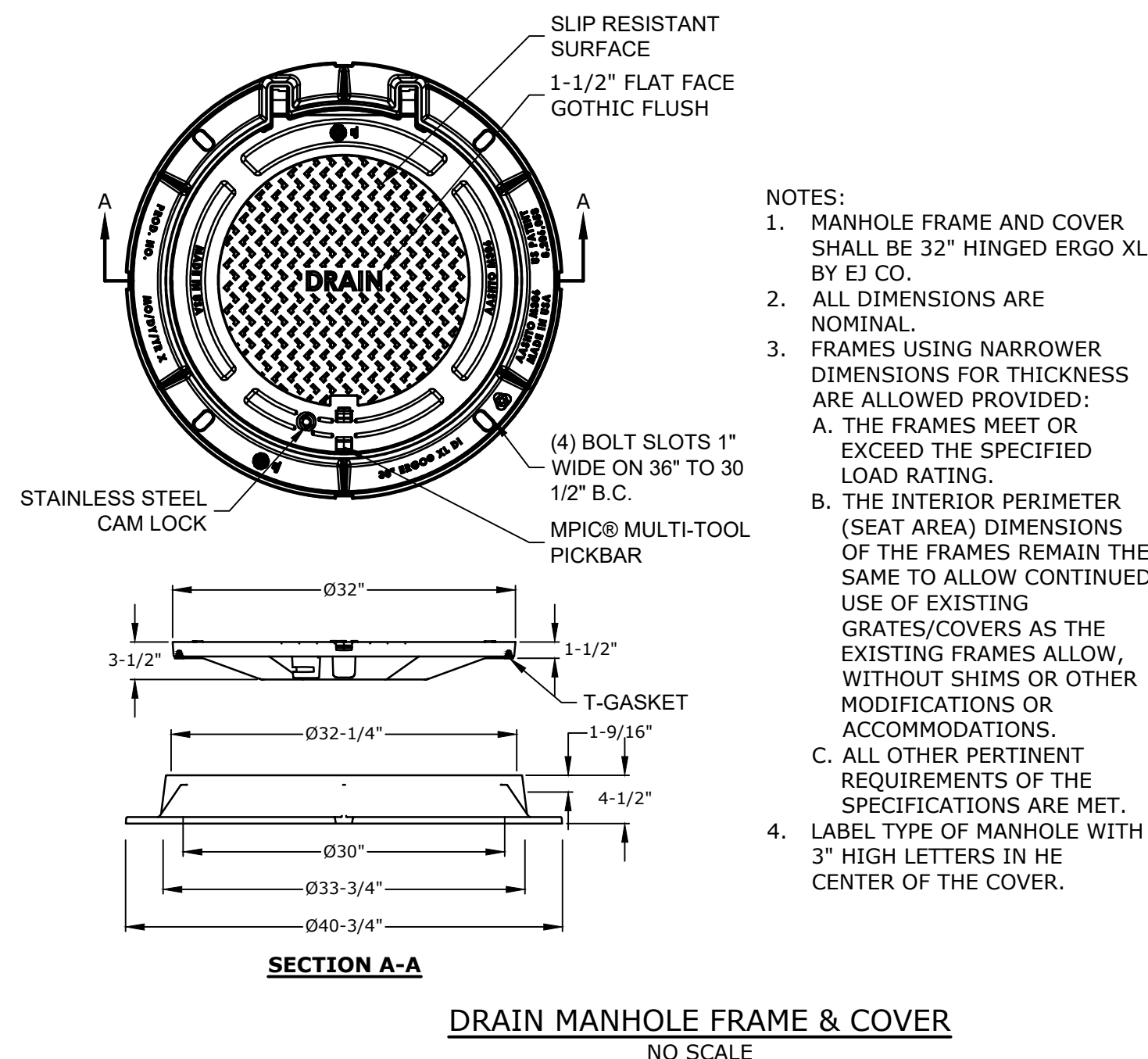
NOTES:
 1. POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
 2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
 3. PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF THE GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
 4. USE ON DRAINAGE STRUCTURES 4" MIN. DIAMETER ONLY.
 5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).
 6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
 7. PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
 8. SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS", FOR ADDITIONAL INFORMATION.
 9. FITTING FRAME TO GRADE MAY BE DONE WITH CLAY BRICKS (1 COURSE MIN., 12" MAX BELOW LINER).

POLYETHYLENE LINER
 NO SCALE

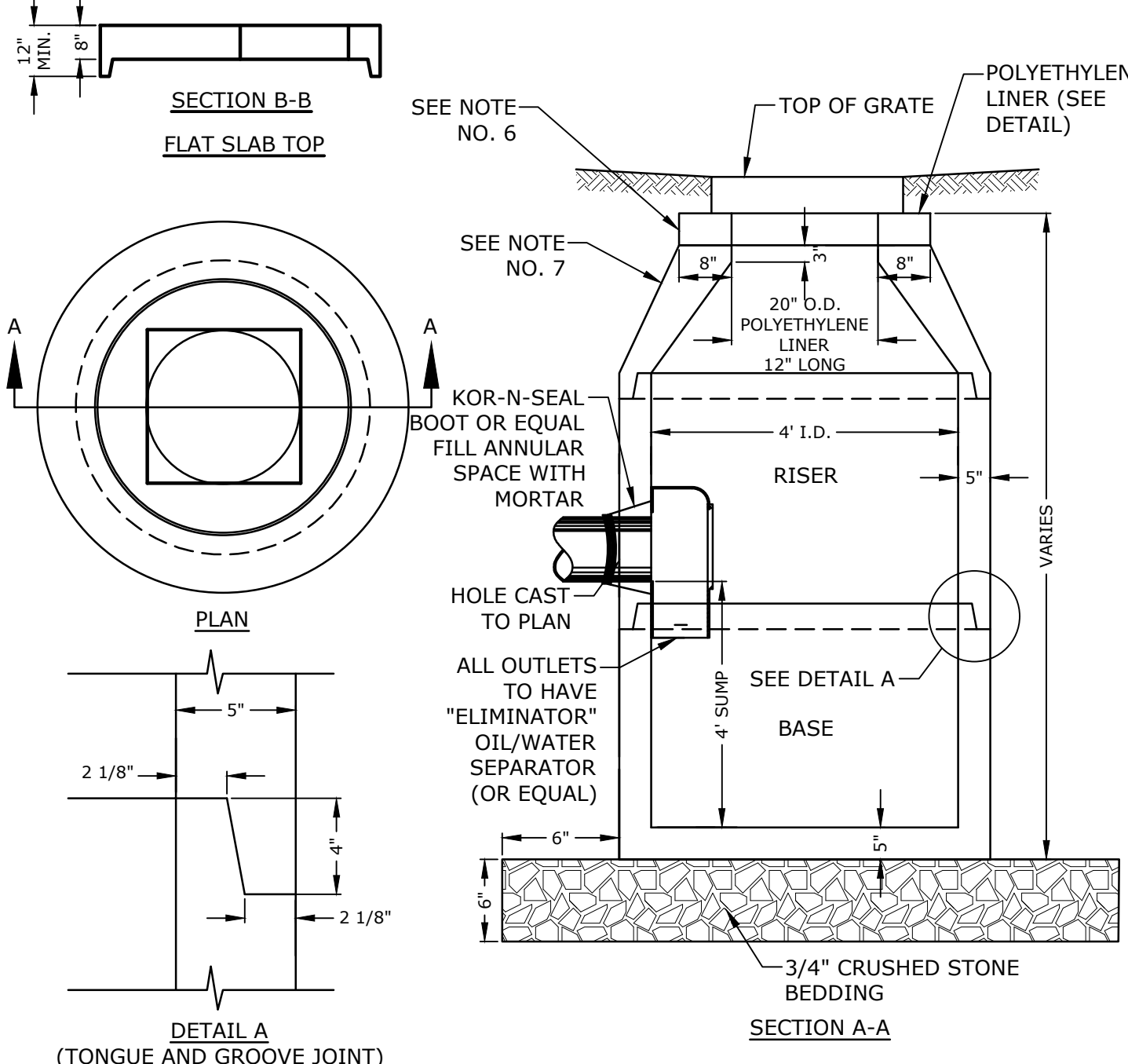


NOTES:
 1. ALL FENCING COMPONENTS SHALL BE BLACK VINYL COATED.
 2. CHAIN LINK FABRIC SHALL BE MADE OF 9 GAUGE STEEL WIRE, 1" MESH SIZE, AND HOT DIPPED GALVANIZED PRIOR TO WEAVING. ONE EDGE OF THE FABRIC SHALL BE FINISHED WITH A SELVAGE TWIST AND THE OTHER WITH A SELVAGE KNUCKLE.
 3. ALL POSTS SHALL BE PLUMB IN ALL DIRECTIONS.
 4. LINE & TERMINAL POSTS, BRACE TUBES, TOP RAILS, BOTTOM RAILS, & GATE POSTS SHALL ALL BE SCHEDULE 40 PIPE. REFERENCED DIAMETER IS NOMINAL.
 5. GATE FRAME SHALL BE WELDED, USE OF CORNER FITTINGS WILL NOT BE PERMITTED.
 6. FOOTING DIMENSIONS ARE PROTOTYPICAL AND NEED TO BE CONFIRMED BY MANUFACTURER FOR CURRENT SITE CONDITIONS.

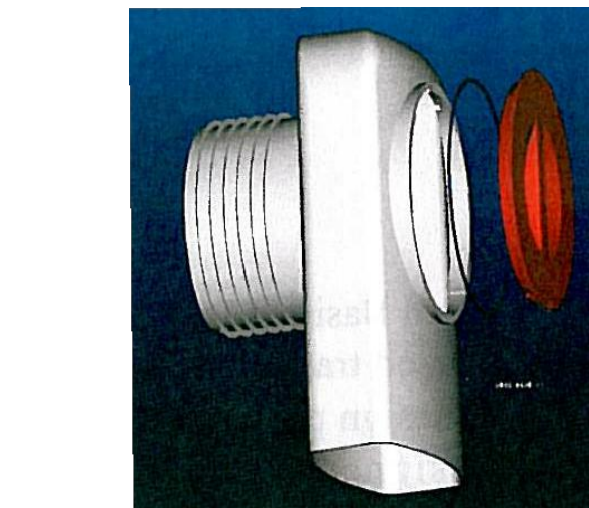
DOUBLE SWING GATE
 NO SCALE



NOTES:
 1. MANHOLE FRAME AND COVER SHALL BE 32" HINGED ERGO XL BY EJ CO.
 2. ALL DIMENSIONS ARE NOMINAL.
 3. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
 A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
 B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
 C. ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
 4. LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN THE CENTER OF THE COVER.

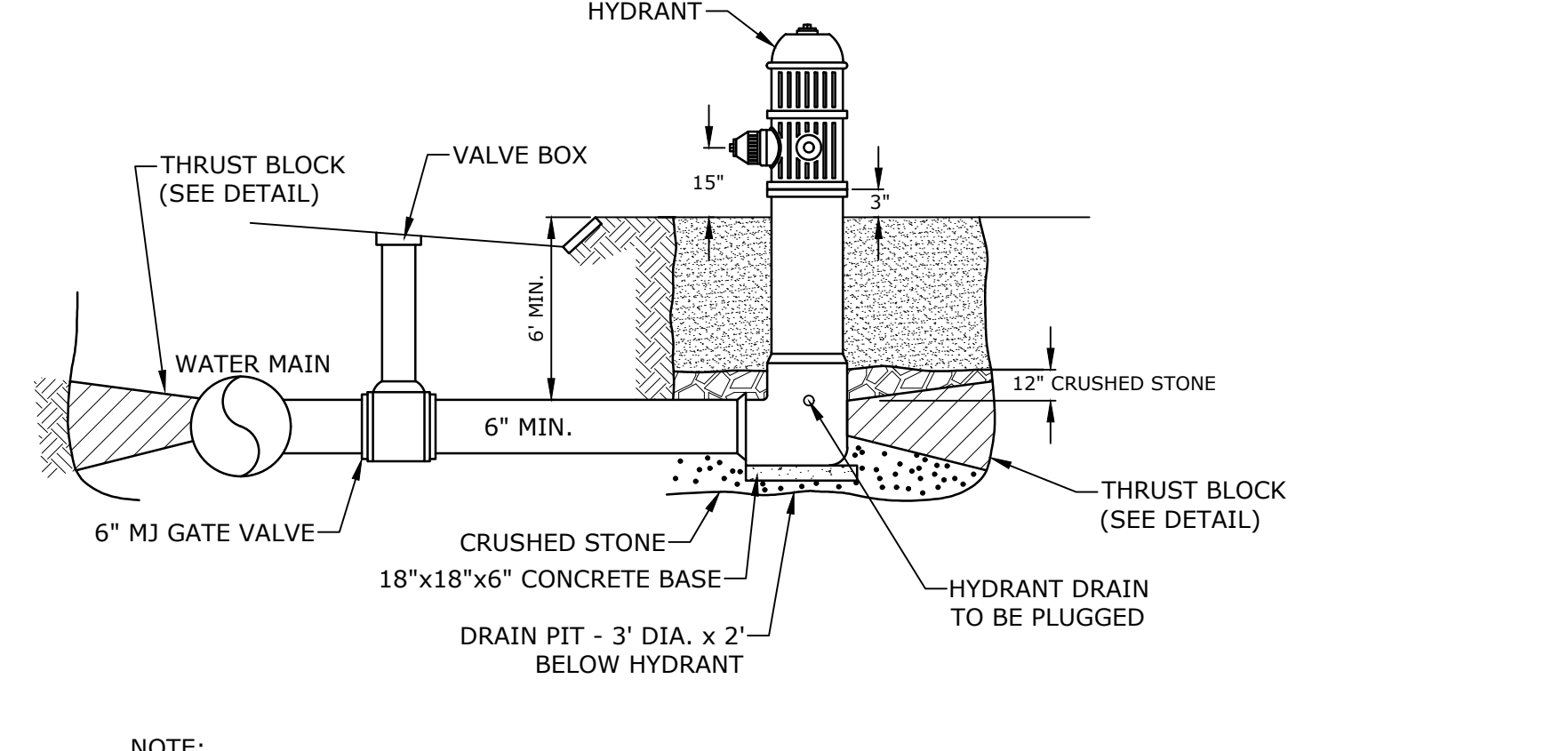


NOTES:
 1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI).
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 5. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 6. FITTING FRAME TO GRADE MAY BE DONE WITH CLAY BRICKS (1 COURSE MIN., 12" BELOW LINER MAX.).
 7. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 8. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 9. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 10. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 11. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 12. "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.

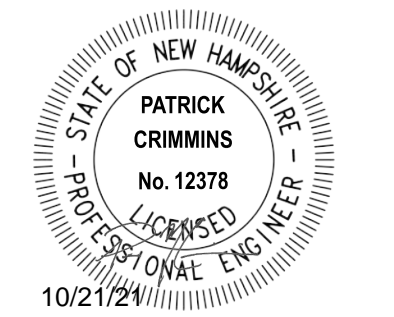
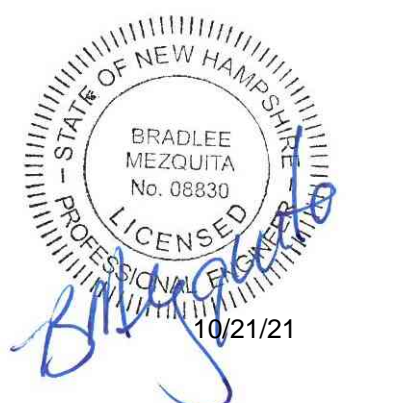


NOTES:
 1. ALL CATCH BASIN OUTLETS TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (OR EQUAL)
 2. INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
 3. 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP

"ELIMINATOR" OIL & FLOATING DEBRIS TRAP
 NO SCALE



NOTE:
 1. HYDRANT SHALL BE KENNEDY MODEL K-81 PER CITY OF PORTSMOUTH STANDARDS.
 2. INSTALLATION AND OPERATION SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT AND FIRE DEPARTMENT.



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City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350 X-A004(818)

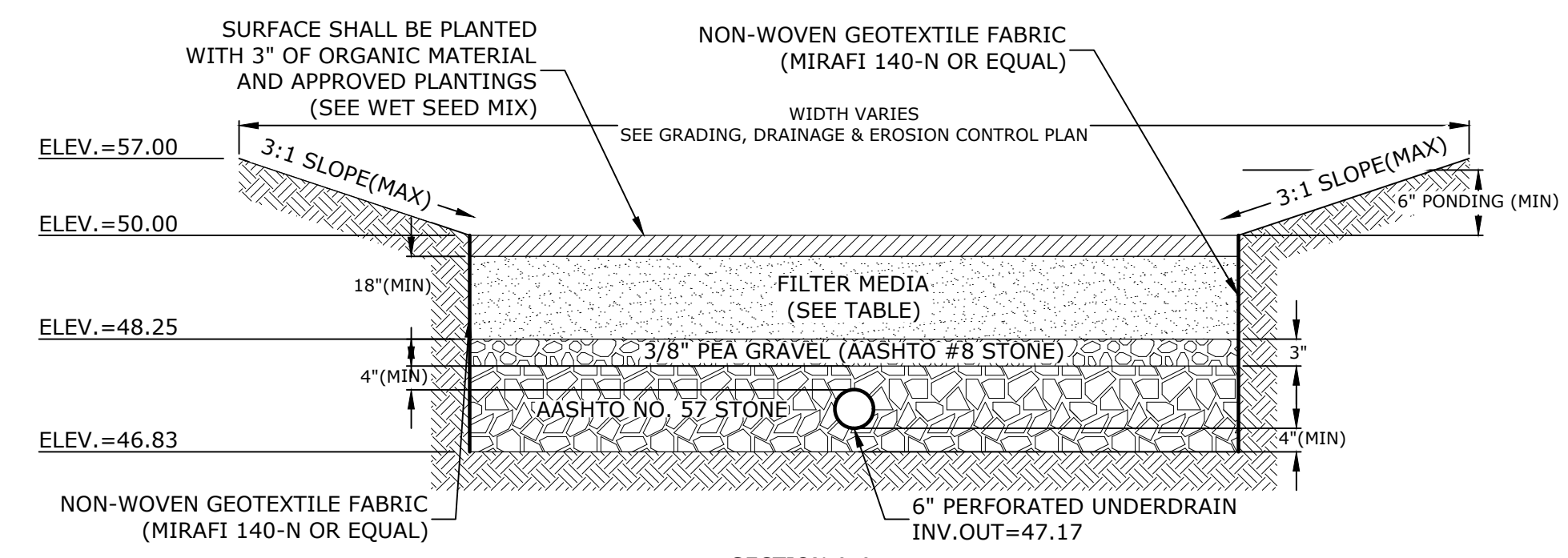
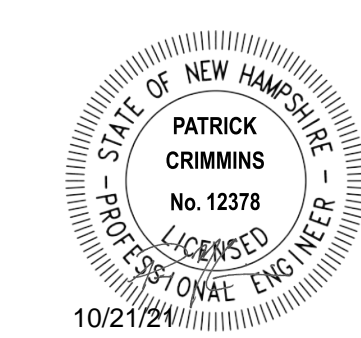
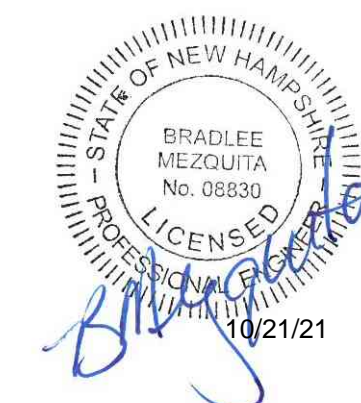
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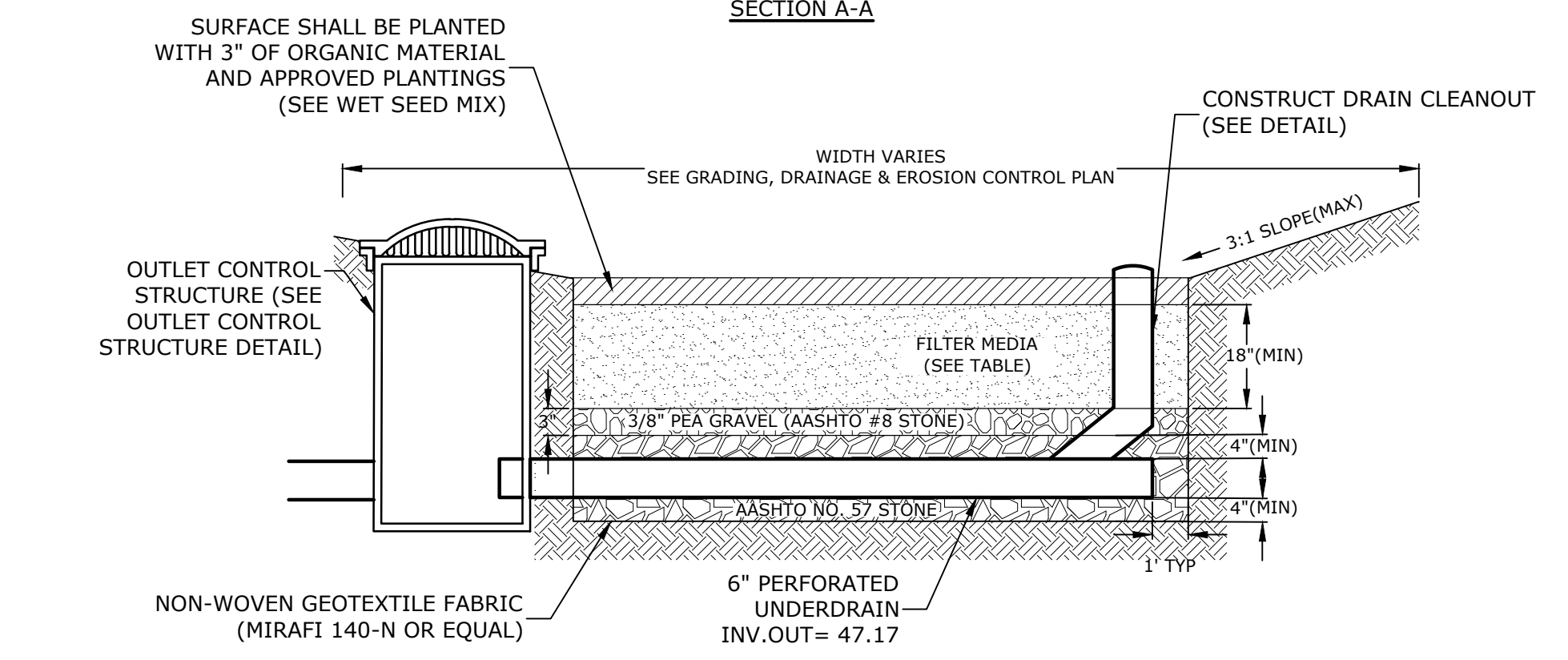
DETAILS SHEET

SCALE: AS SHOWN

C-505



SECTION A-A



SECTION B-B

FILTER MEDIA COMPOSITION:

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL SIEVE NO.	PERCENT PASSING
ASTM C-33 CONCRETE SAND	50-55	200	15-25
LOAMY SAND TOPSOIL	20-30	200	5 MAX
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX

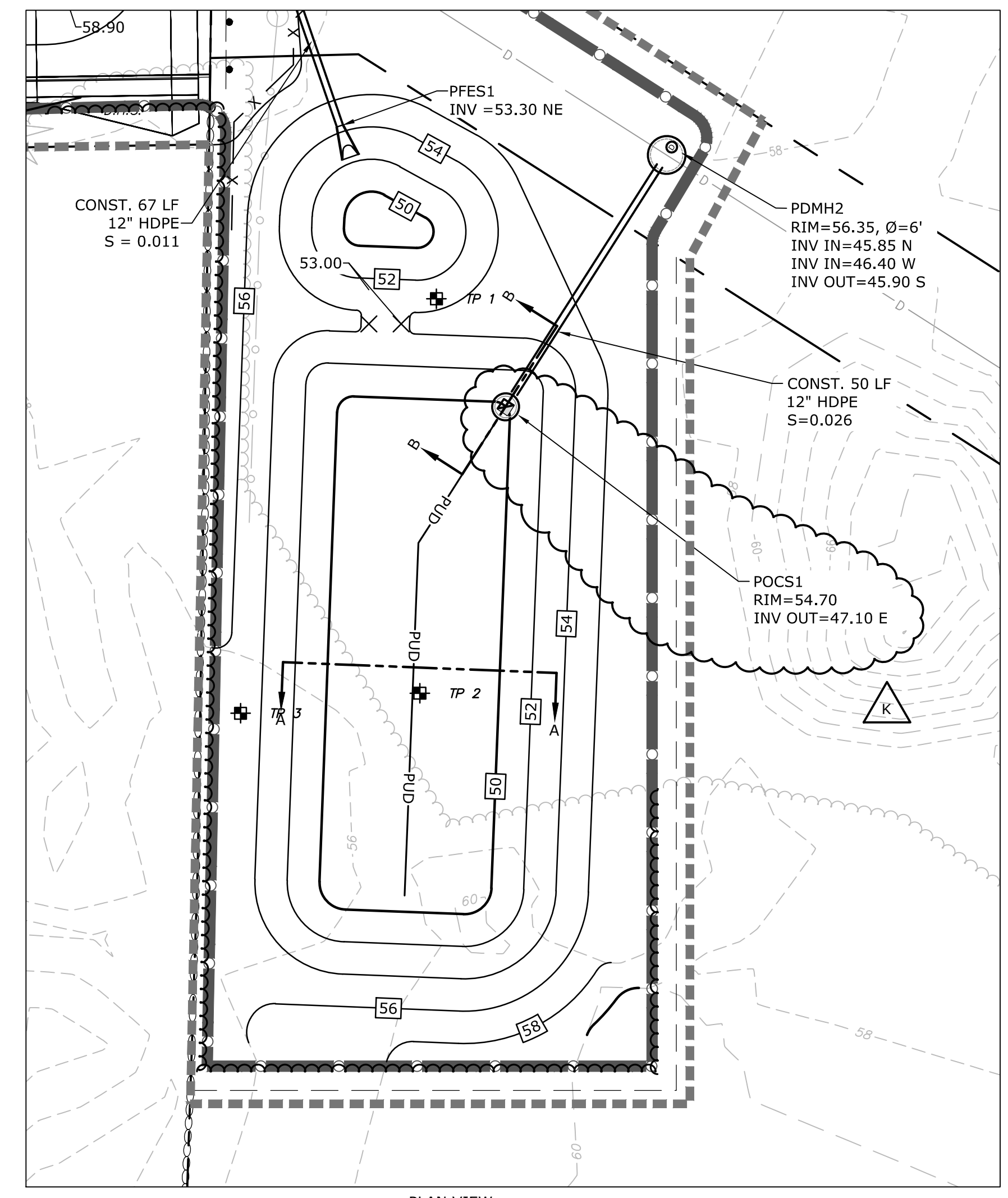
- NOTES:**
- RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
 - THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	5-30
#100	0-10

AASHTO #8 STONE (#8 to 3/8")		AASHTO #57 STONE (#4 to 1")	
SIEVE SIZE	% PASSING	SIEVE SIZE	% PASSING
1/2"	100	1-1/2"	100
3/8"	85-100	1"	95-100
#4	10-30	1/2"	25-60
#8	0-10	#4	0-10
#16	0-5	#8	0-5

- WET SEED MIX**
- 50% NEW ENGLAND WETLAND PLANTS- NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS & MOIST SITES
 - 50% NEW ENGLAND WETLAND PLANTS- NEW ENGLAND CONSERVATION WILDLIFE MIX

RAIN GARDEN DETAIL
NO SCALE



PLAN VIEW
SCALE: 1" = 20'

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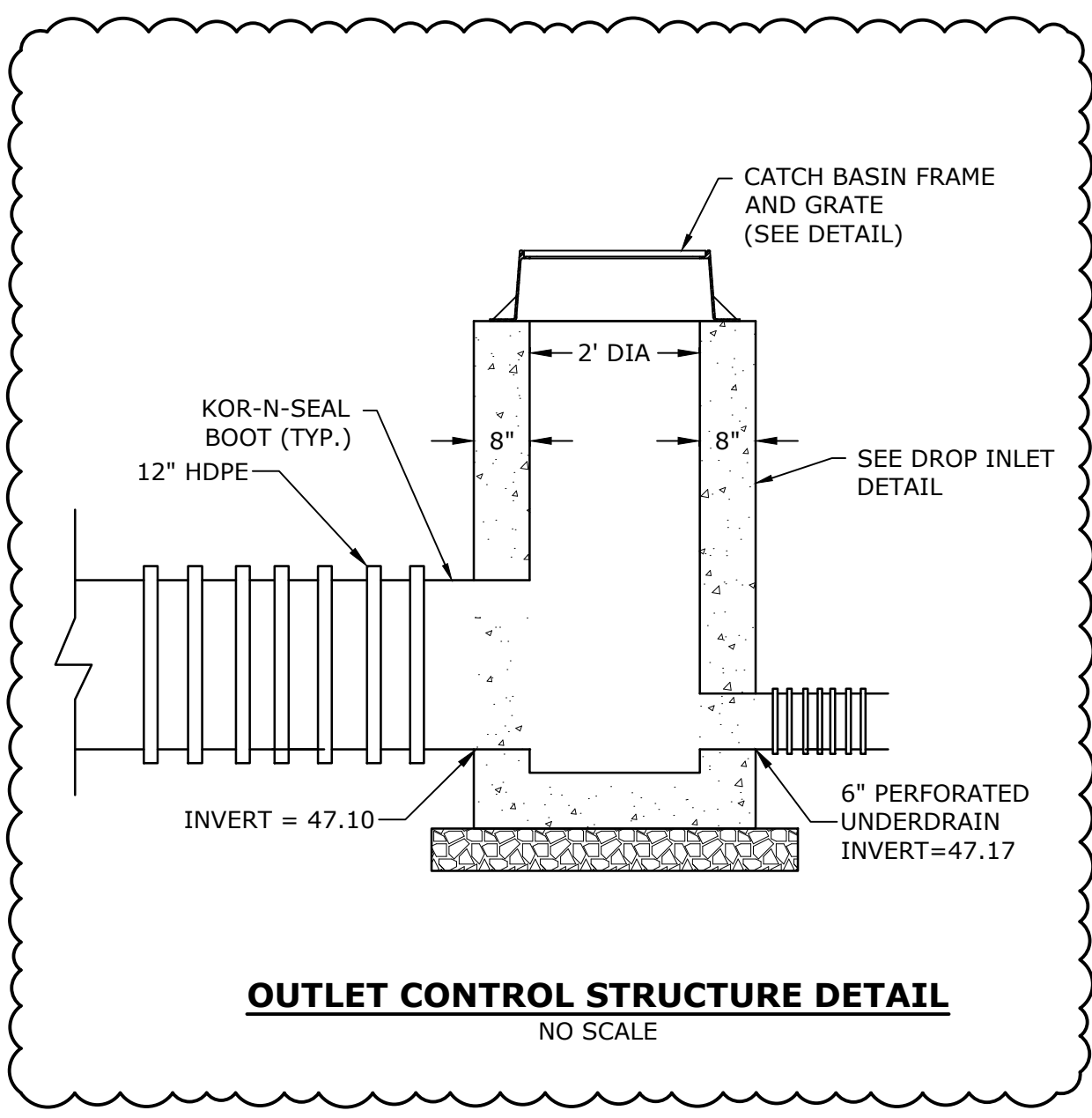
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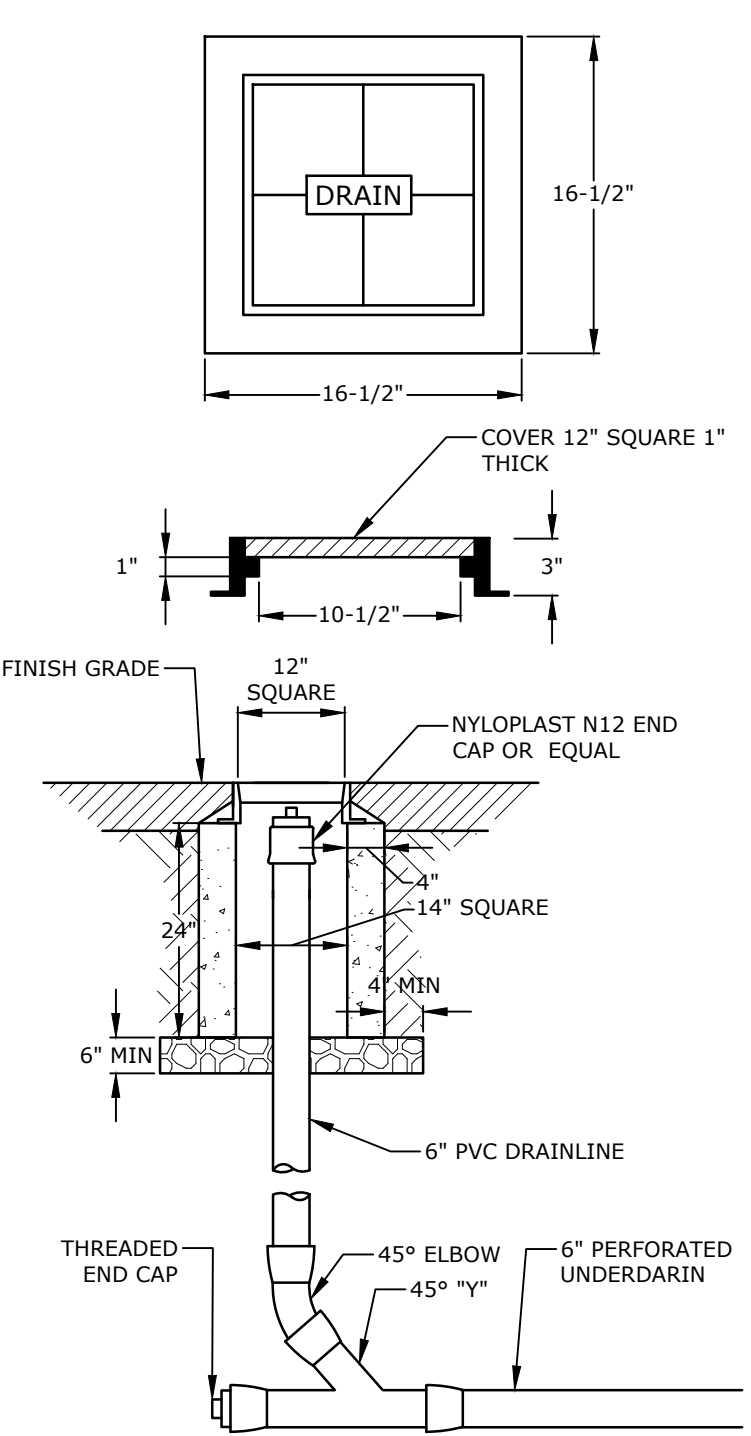
DETAILS SHEET

SCALE: AS SHOWN

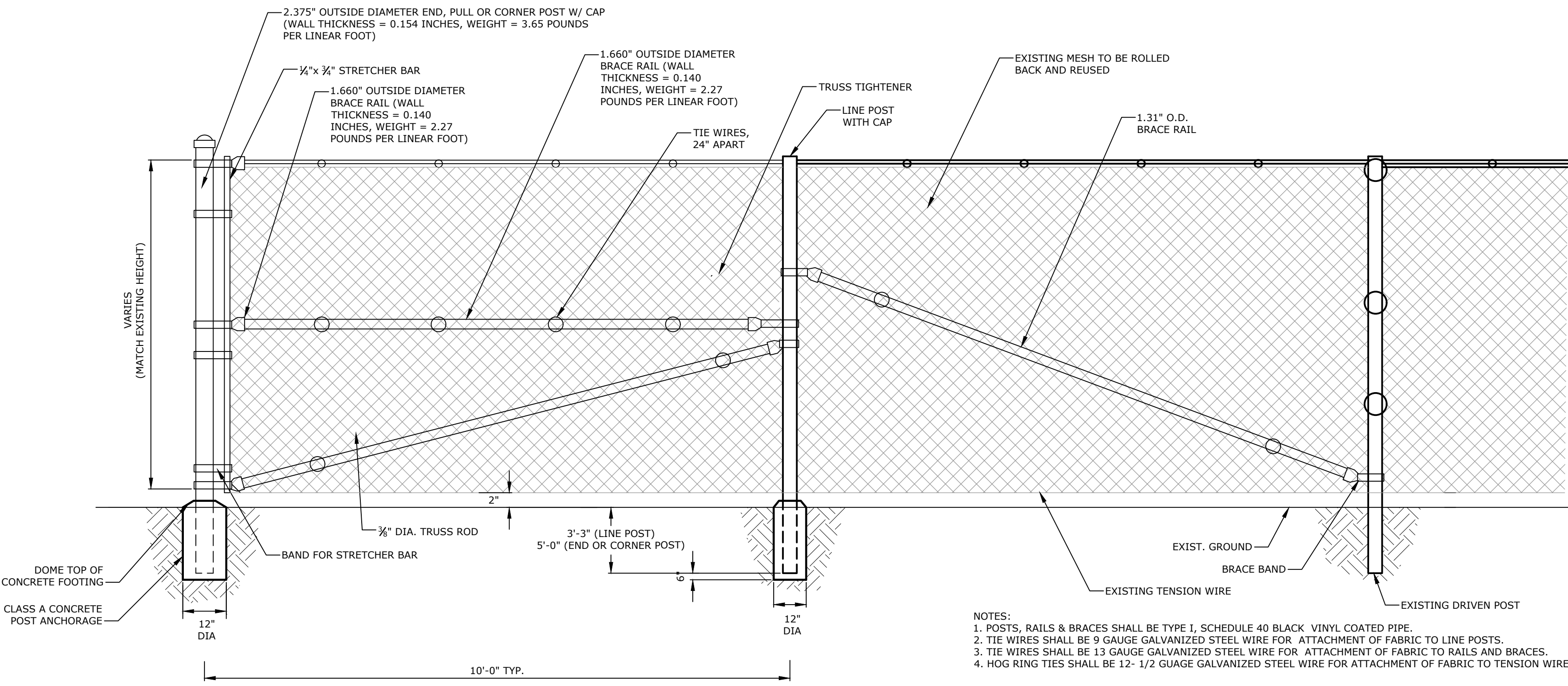
C-506



OUTLET CONTROL STRUCTURE DETAIL
NO SCALE



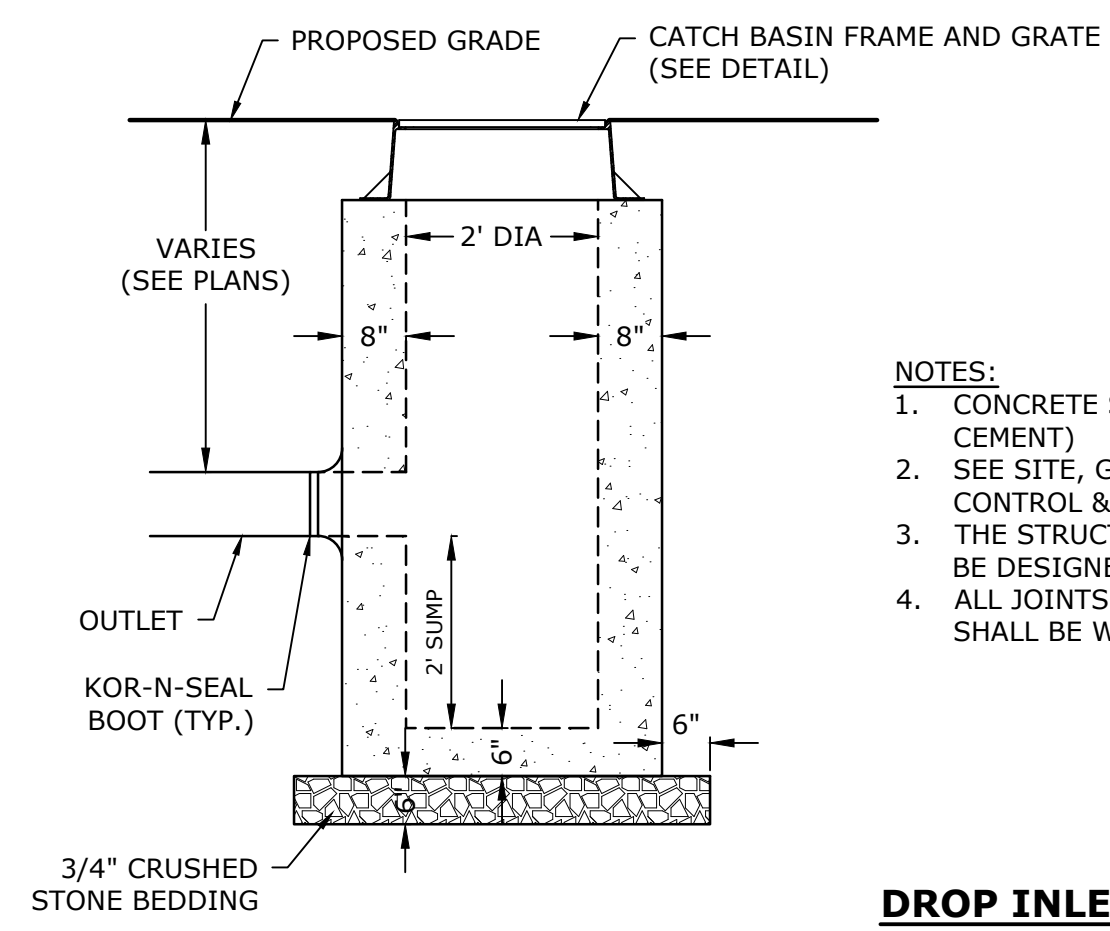
DRAIN CLEAN-OUT
NO SCALE



CHAIN LINK FENCE ANCHOR POST
NO SCALE

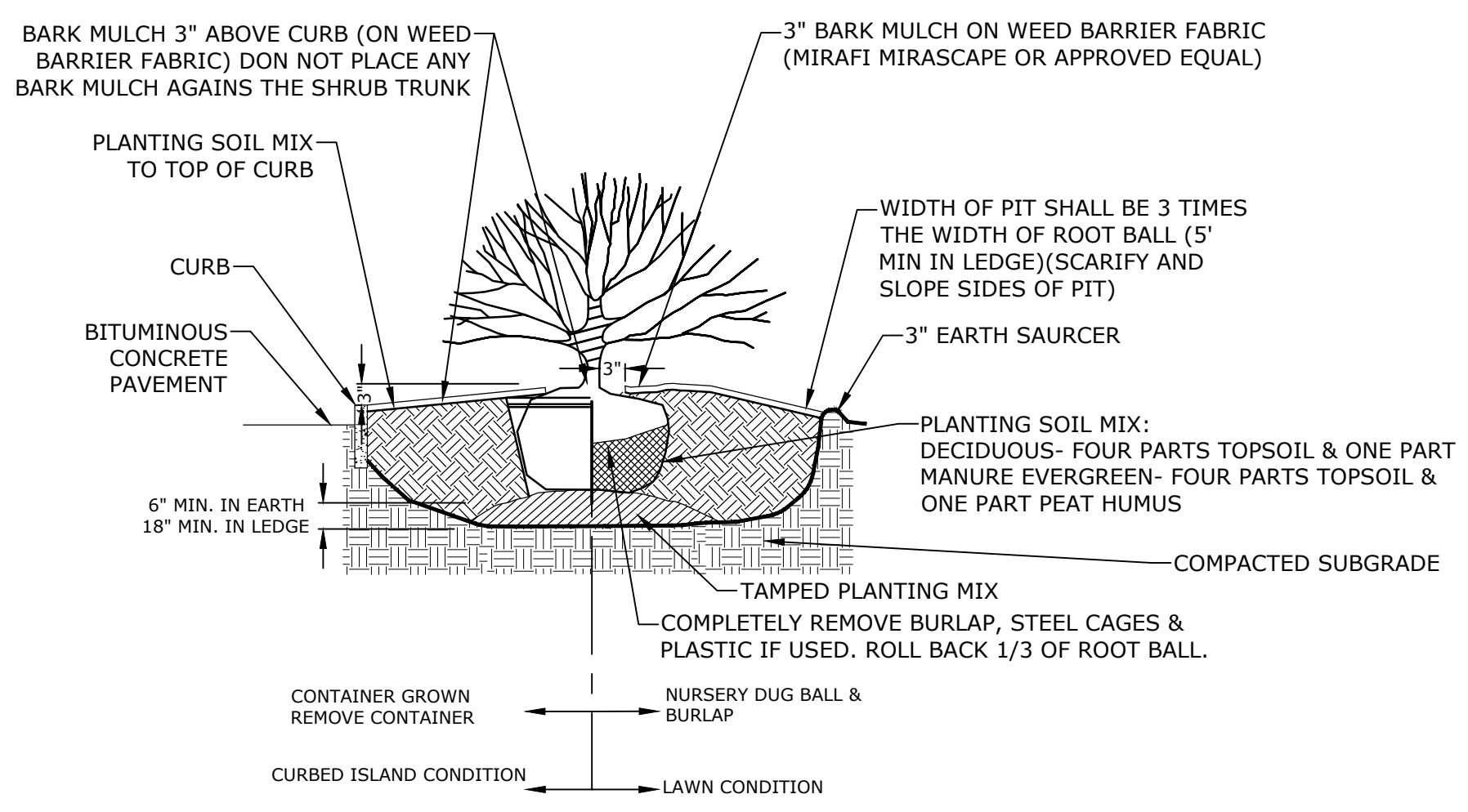
- NOTES:**
- POSTS, RAILS & BRACES SHALL BE TYPE I, SCHEDULE 40 BLACK VINYL COATED PIPE.
 - TIE WIRES SHALL BE 9 GAUGE GALVANIZED STEEL WIRE FOR ATTACHMENT OF FABRIC TO LINE POSTS.
 - TIE WIRES SHALL BE 13 GAUGE GALVANIZED STEEL WIRE FOR ATTACHMENT OF FABRIC TO RAILS AND BRACES.
 - HOG RING TIES SHALL BE 12- 1/2 GAUGE GALVANIZED STEEL WIRE FOR ATTACHMENT OF FABRIC TO TENSION WIRE.

Last Saved: 10/20/2021 10:27:00 AM By: W. Hansen
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 Tighe & Bond 211 York St Portsmouth NH 03801
 Figures AutocAD/VeriP-0714-005-C-DTLS.dwg



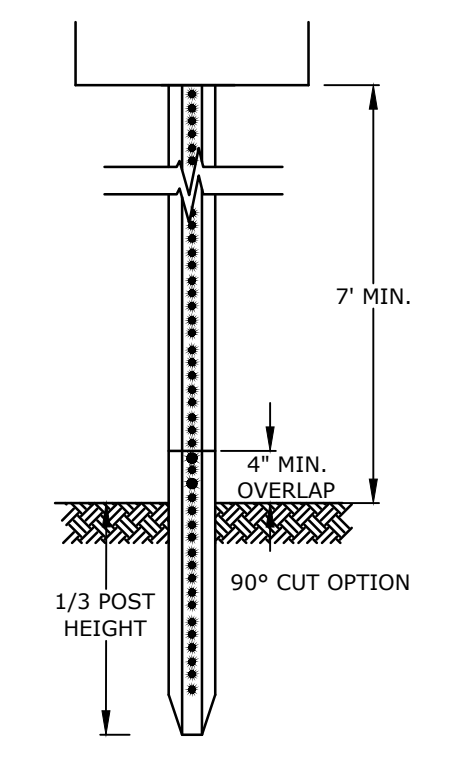
- NOTES:**
1. CONCRETE SHALL BE 4,000 PSI (TYPE II CEMENT)
 2. SEE SITE, GRADING, DRAINAGE, EROSION CONTROL & UTILITIES PLAN FOR LOCATIONS. THE STRUCTURES, FRAMES AND GRATES SHALL BE DESIGNED FOR H2O LOADING.
 3. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

DROP INLET
NO SCALE



- NOTES:**
1. PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED, OR WITHIN 2\"/>

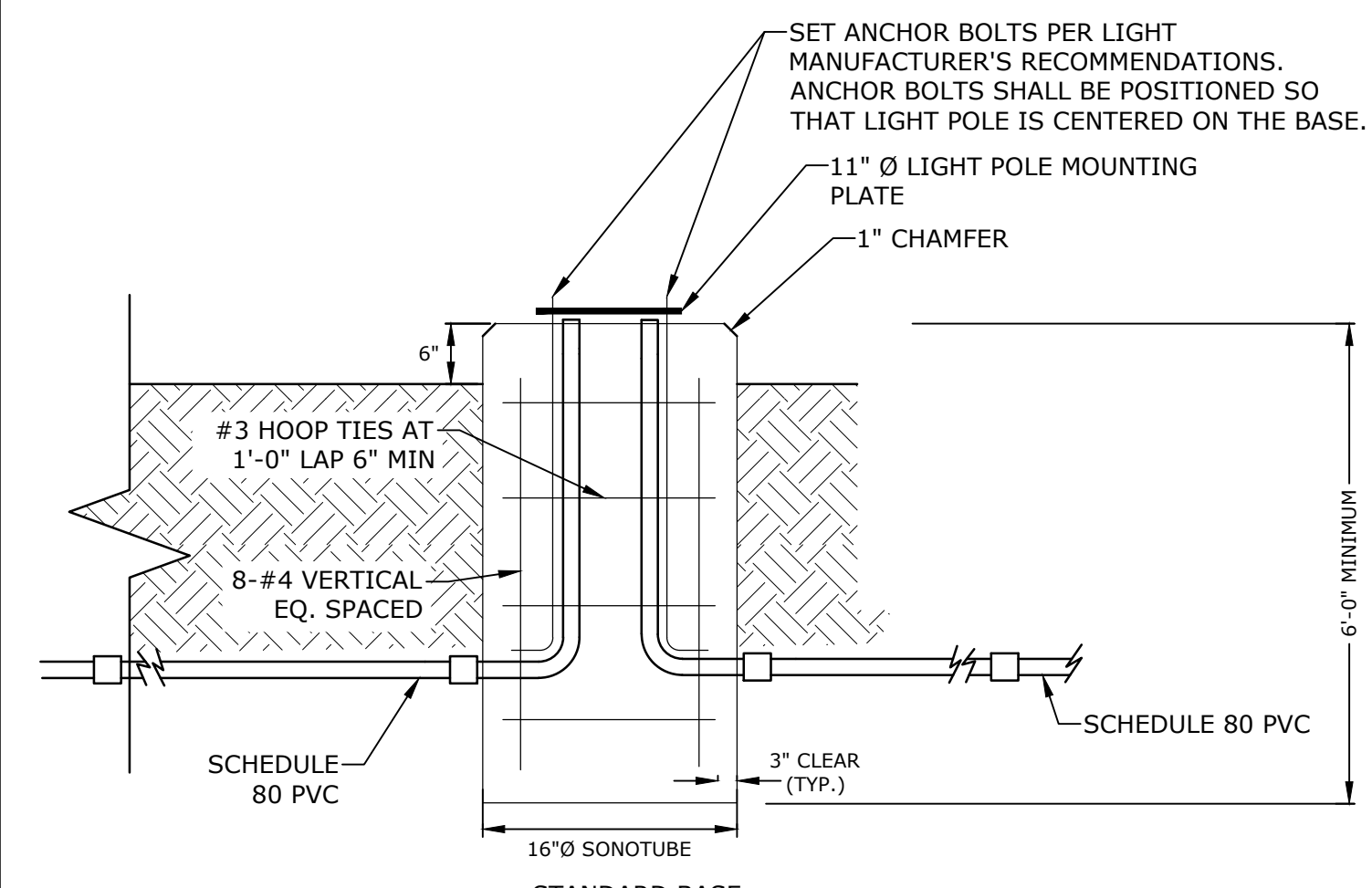
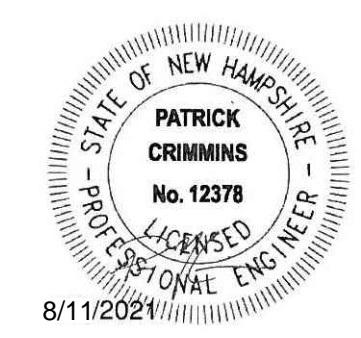
SHRUB PLANTING
NO SCALE



* IN LEDGE DRILL & GROUT TO A MIN OF 2'
SIGN POST TO COMPLY WITH ALL ASPECTS OF NHDOT SECTION 615.

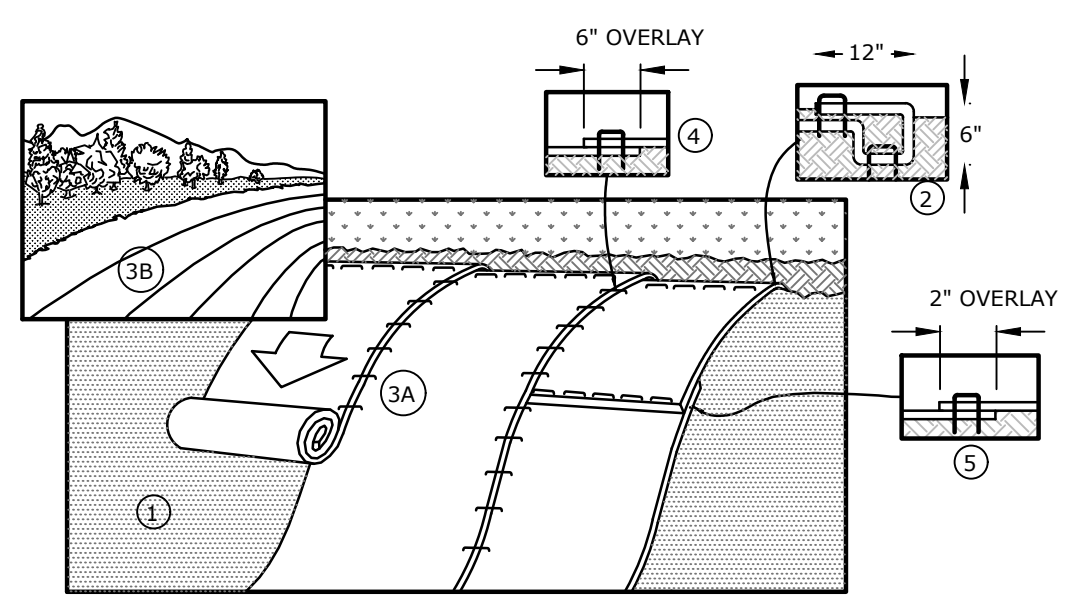
LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8\"/>

- NOTES:**
1. STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS. OR GREATER PER LINEAR YARD.
 2. AFTER FABRICATION, ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A 123.
 3. ALL SIGN POSTS SHALL HAVE "BREAKAWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS-1985." THE "BREAKAWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS.
 4. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 5. ALL SIGNS TO BE CONSTRUCTED PER THE LATEST EDITION OF THE FHWA STANDARD HIGHWAY SIGNS MANUAL AND INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 6. MEET REQUIREMENTS OF SECTION 615 SIGNS OF NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION, AS AMENDED.



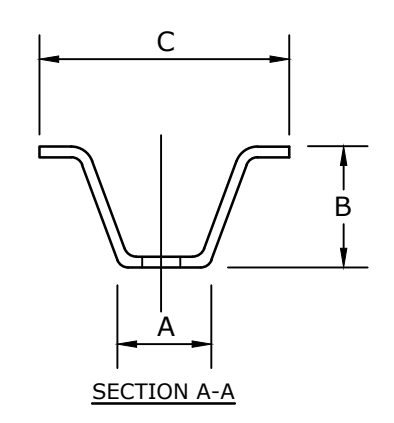
- NOTES:**
1. REFER TO ELECTRICAL PLANS FOR WIRING DETAILS.
 2. CONCRETE: 4000 PSI, CLASS A, PRE-CAST CONCRETE
 3. REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
 4. CONTRACTOR SHALL VERIFY BOLT TEMPLATE AND ANCHOR BOLT SIZE WITH POLE MANUFACTURER PRIOR TO CONSTRUCTION.
 5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL, TO INCLUDE PERFORMANCE SPECIFICATIONS, CALCULATIONS AND NH LICENSED STRUCTURAL ENGINEER'S STAMP FOR LIGHT POLE FOUNDATION.

STANDARD BASE
NO SCALE



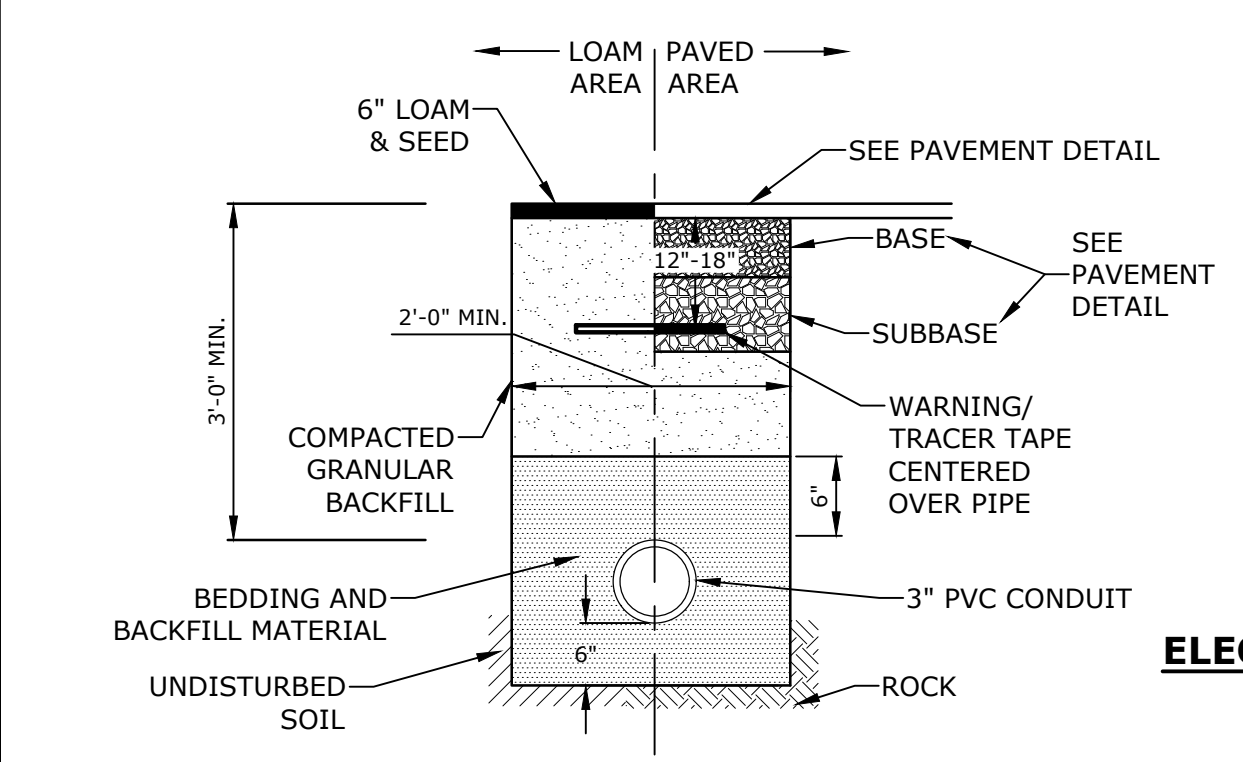
- NOTES:**
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED. BEGIN AT THE TOP OF THE SLOPE, 36\"/>

STABILIZATION BLANKET
NO SCALE



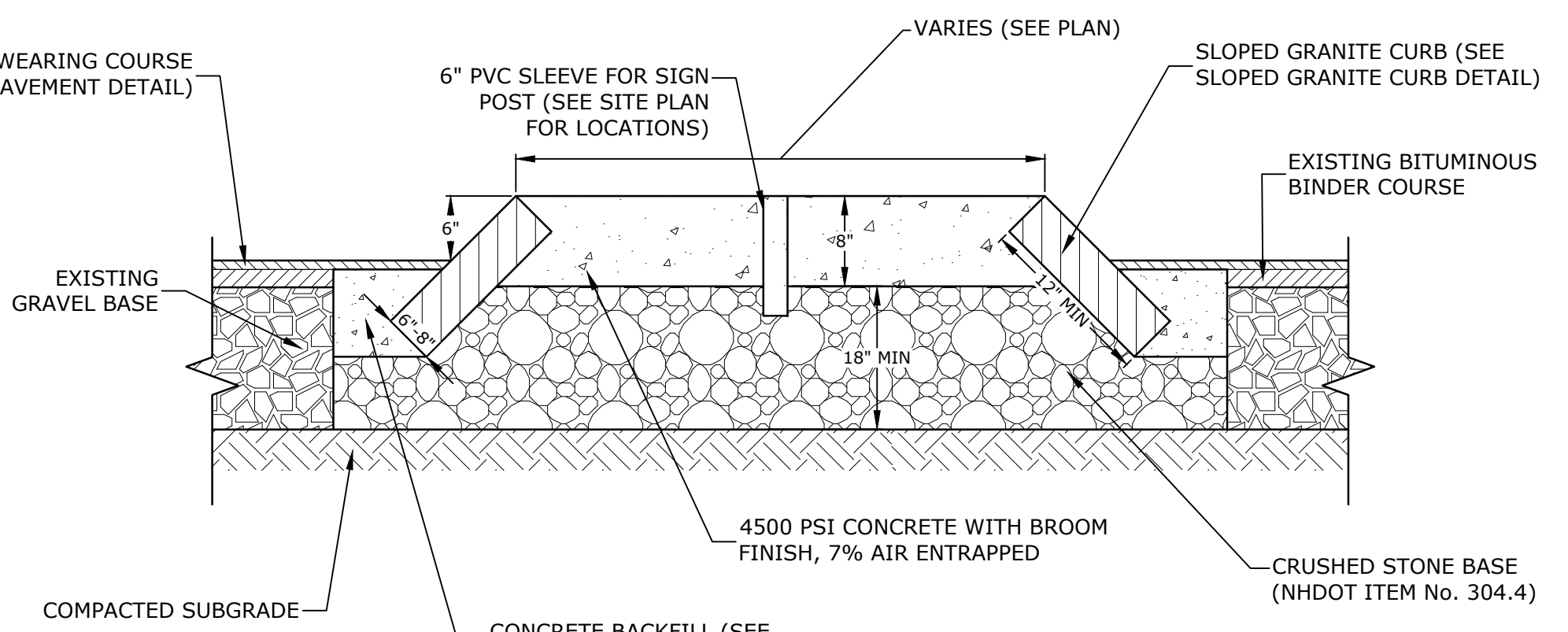
WT.	A	B	C
3 LBS	1 1/2\"/>		
4 LBS	1 3/4\"/>		

SIGN POST
NO SCALE



- NOTES:**
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6\"/>

ELECTRICAL CONDUIT TRENCH
NO SCALE



CURBED ISLAND DETAIL
NO SCALE

Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350 X-A004(818)

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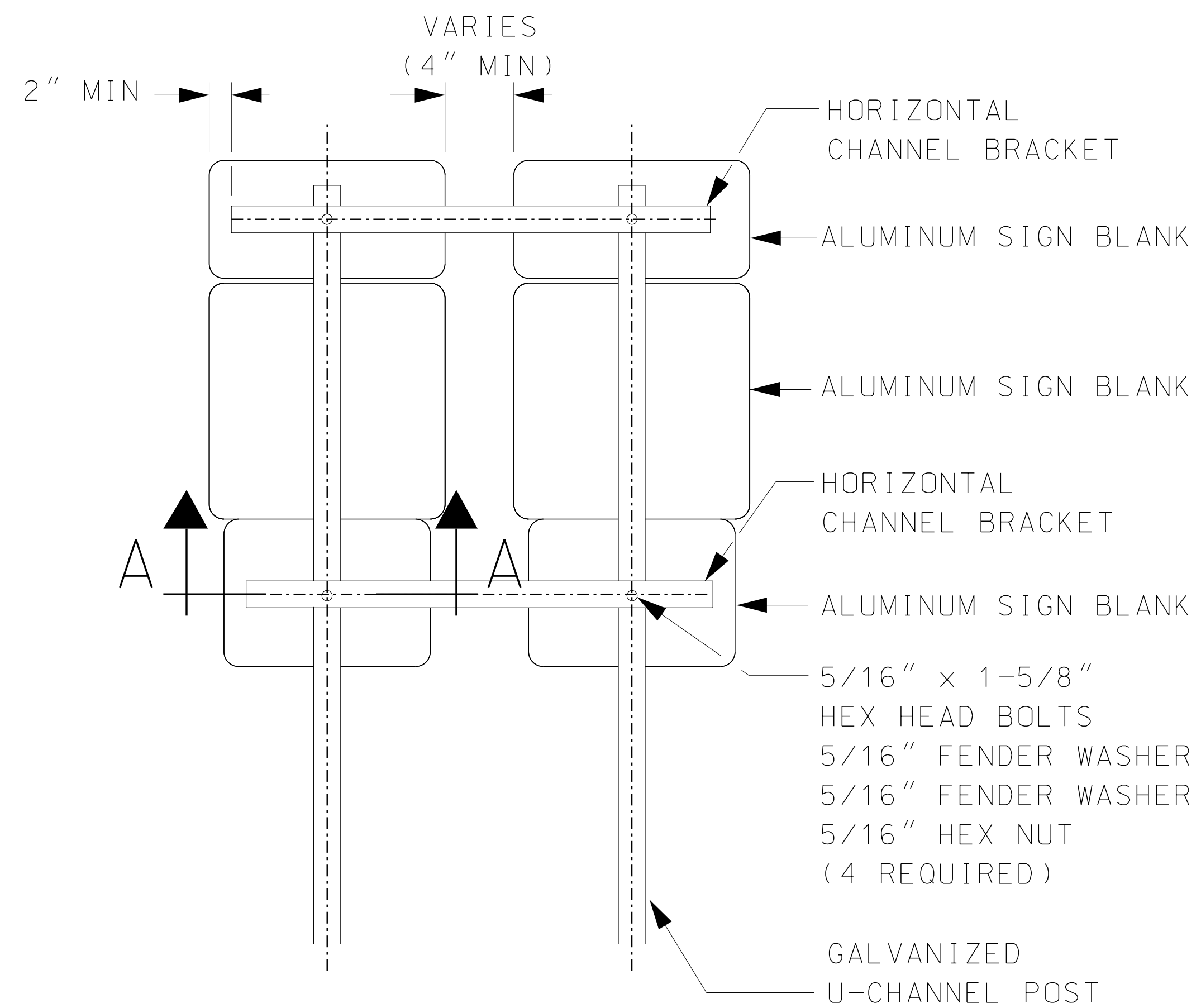
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DETAILS SHEET

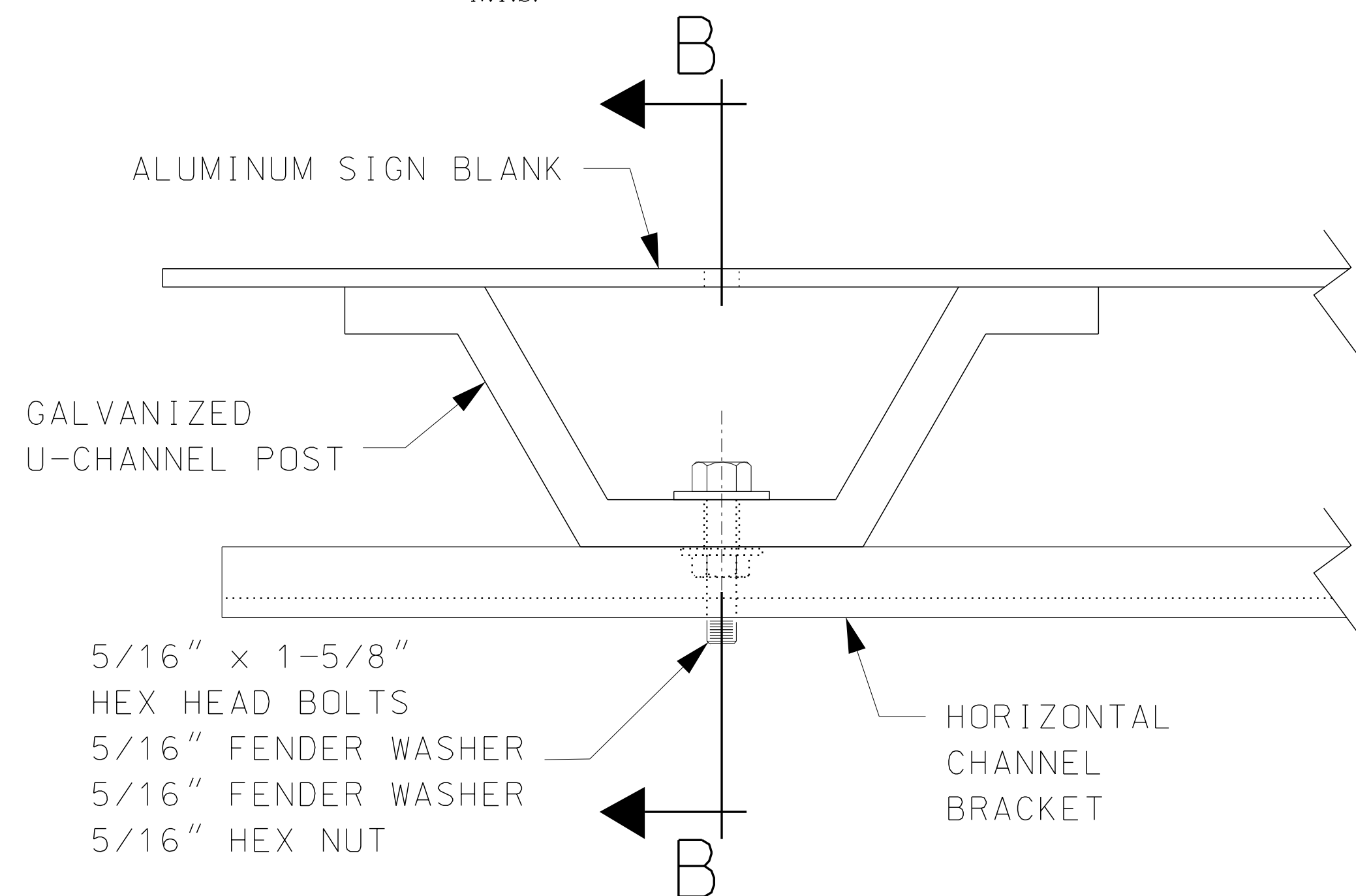
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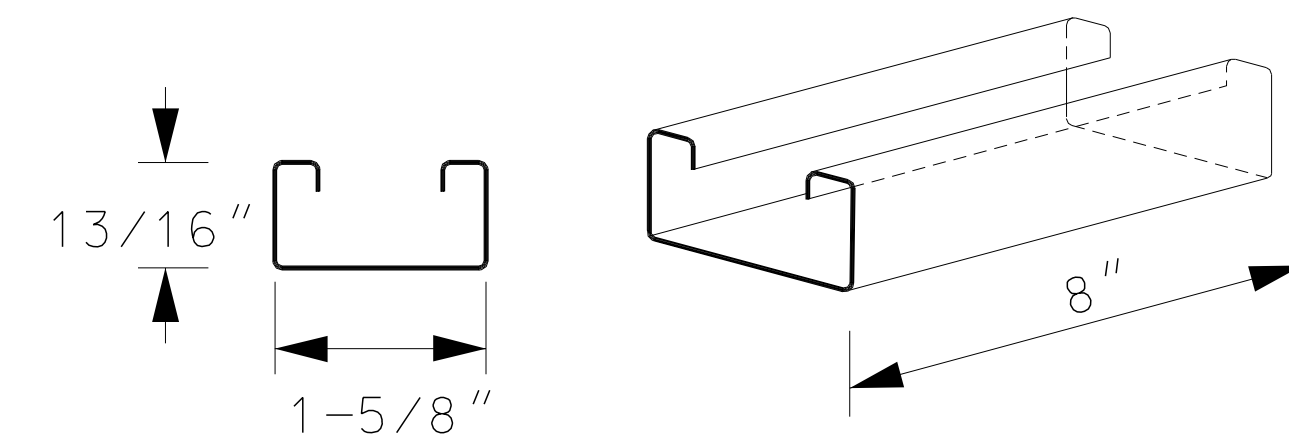
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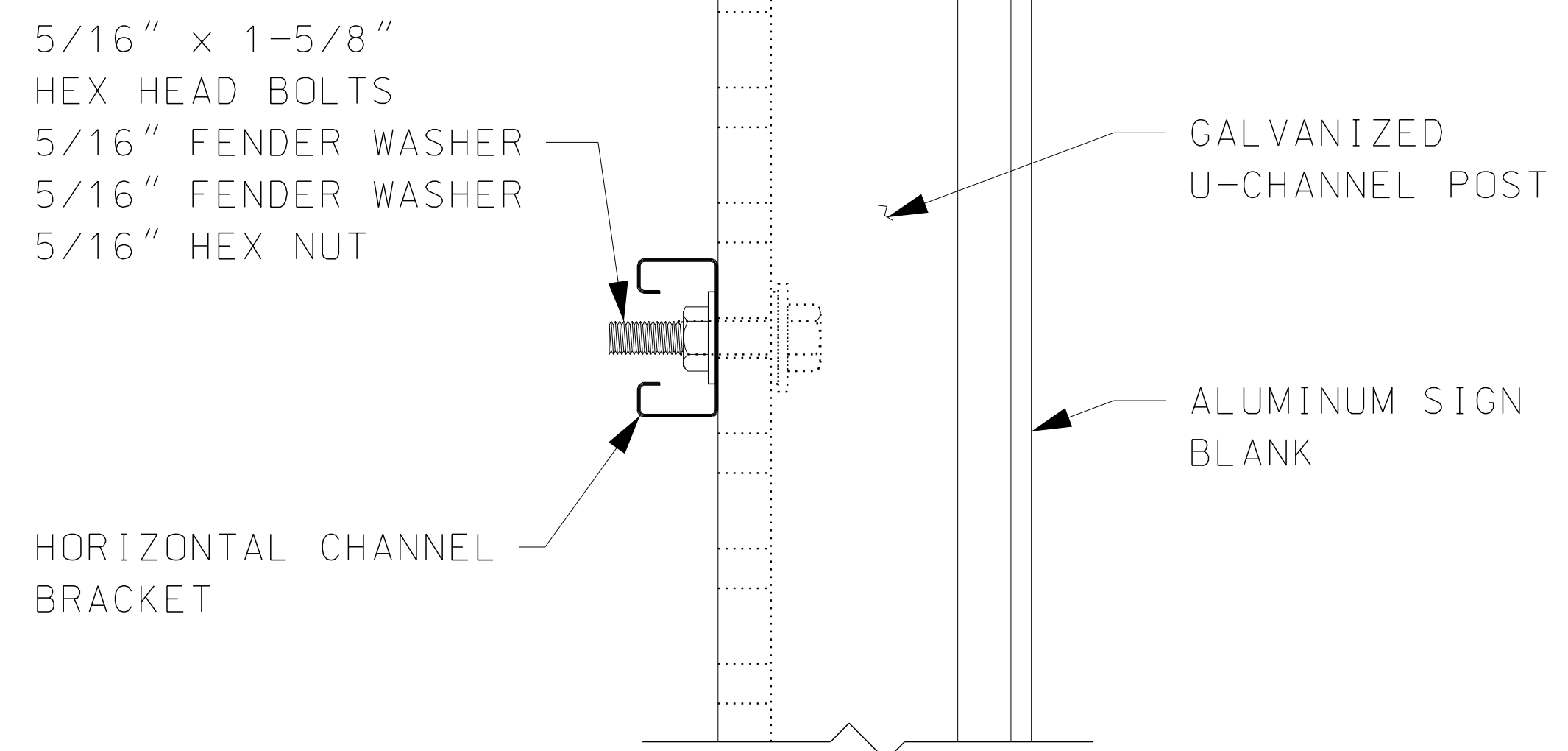
REAR VIEW
N.T.S.



SECTION A-A
N.T.S.



CHANNEL BRACKET 14 GAUGE
N.T.S.



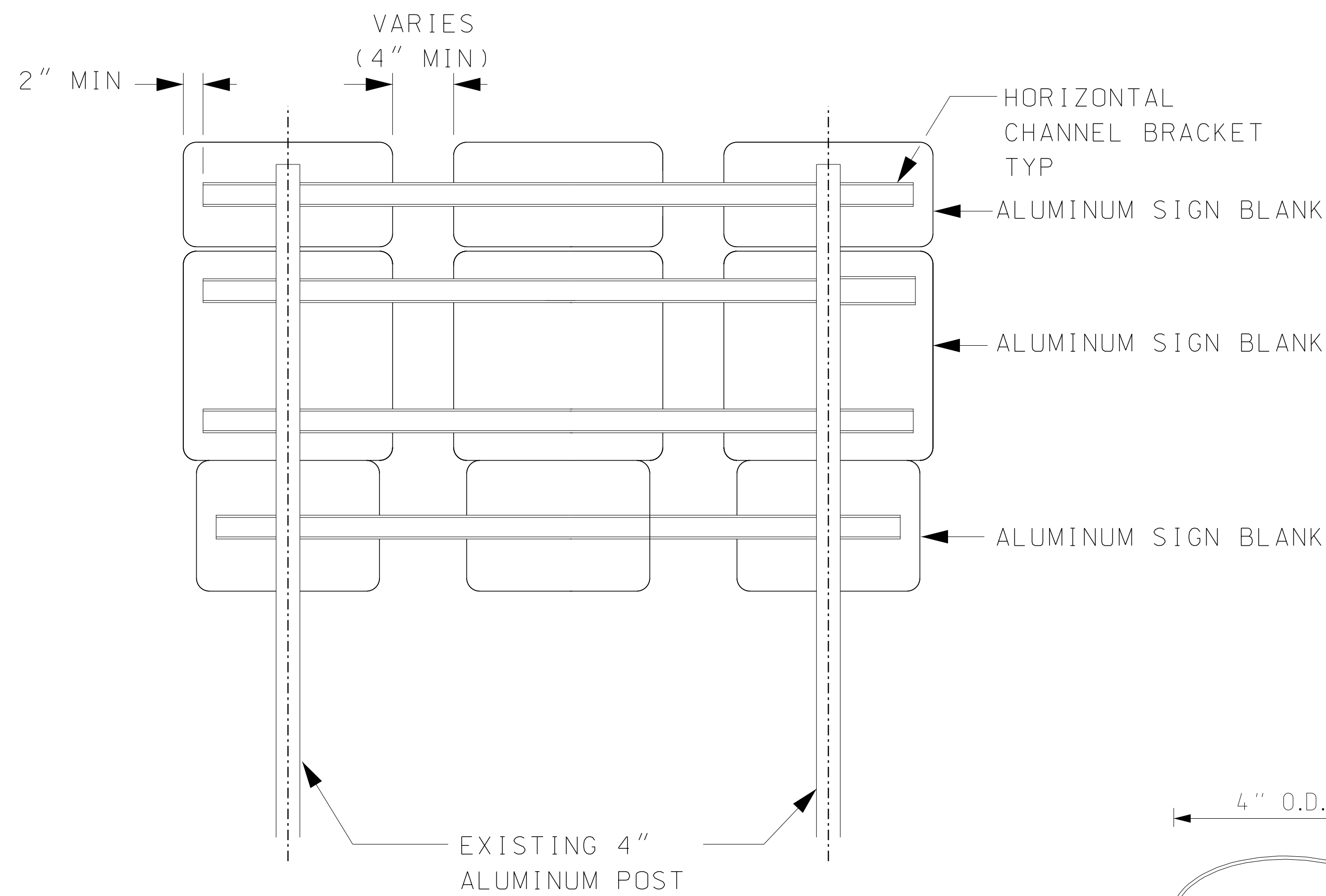
SECTION B-B
N.T.S.

GENERAL NOTES

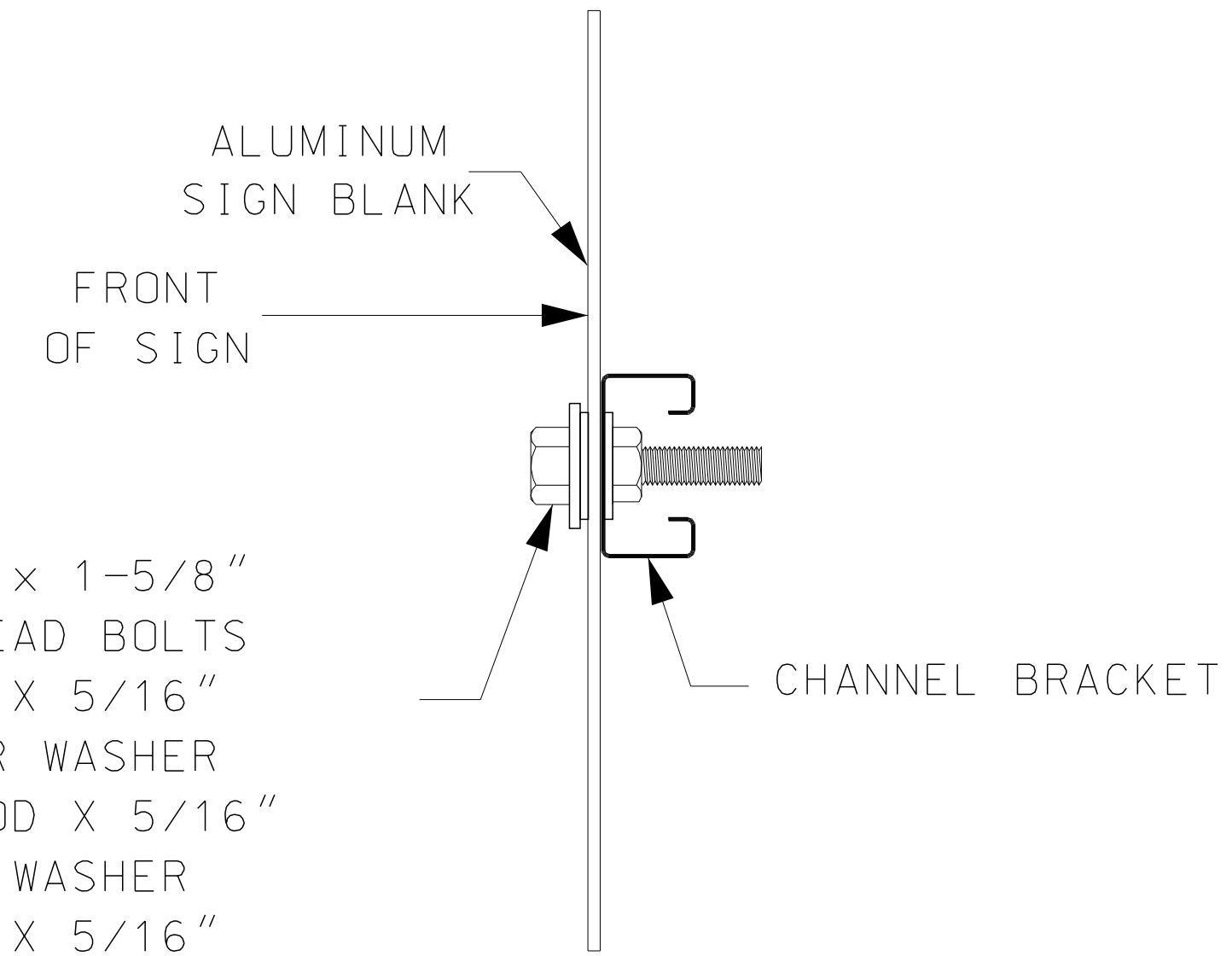
1. CHANNEL BRACKET MATERIALS, HARDWARE AND LABOR FOR THE INSTALLATION AS SHOWN SHALL BE SUBSIDIARY TO ITEM 615.0301.
2. ALL BOLTS, WASHERS, AND NUTS ARE TO BE STAINLESS STEEL. FENDER WASHERS SHALL BE A MINIMUM OF 1-INCH OUTSIDE DIAMETER.
3. FOR ADDITIONAL SIGN INSTALLATION DETAILS SEE NHDOT STANDARD PLANS FOR ROAD CONSTRUCTION AND THE LATEST EDITION OF NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION		BUREAU OF TRAFFIC		
<i>ROUTE MARKER POST ASSEMBLY DETAIL</i>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	SHEET TOTAL
----	----	----	1	1

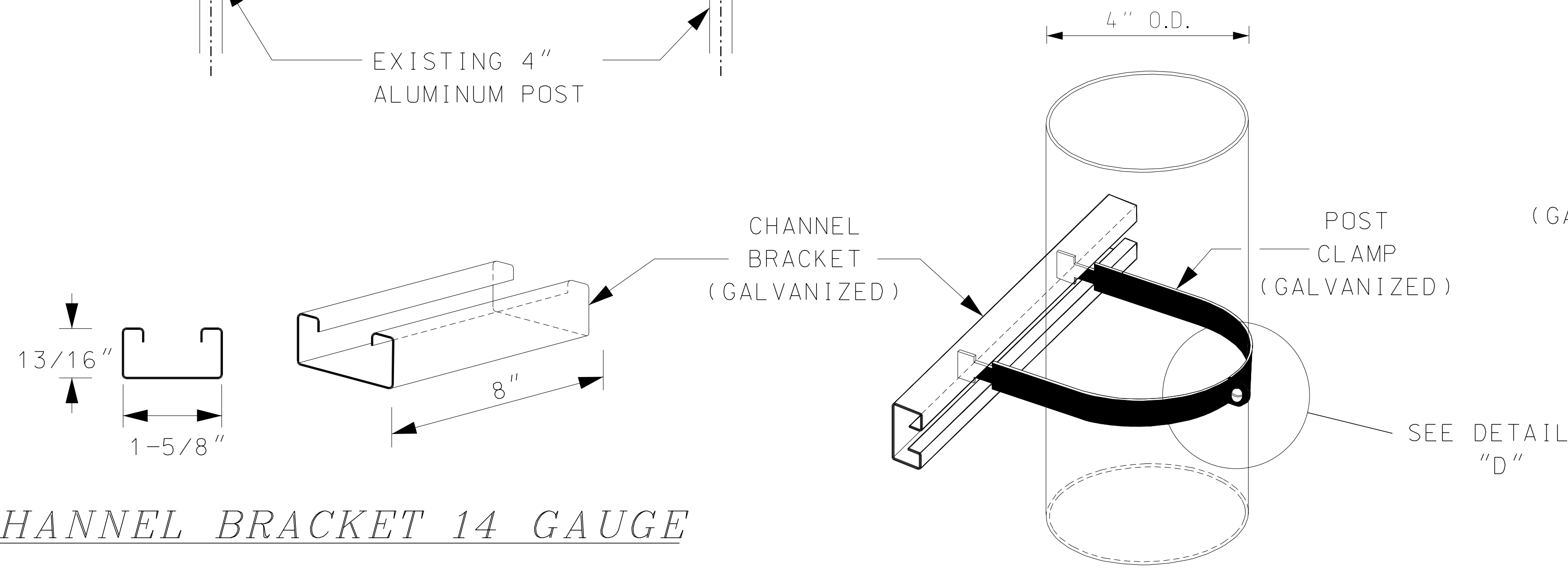
10-14-2020



- 5/16" x 1-5/8" HEX HEAD BOLTS
- 1" OD X 5/16" FENDER WASHER
- 3/4" OD X 5/16" NYLON WASHER
- 1" OD X 5/16" FENDER WASHER
- 5/16" HEX NUT

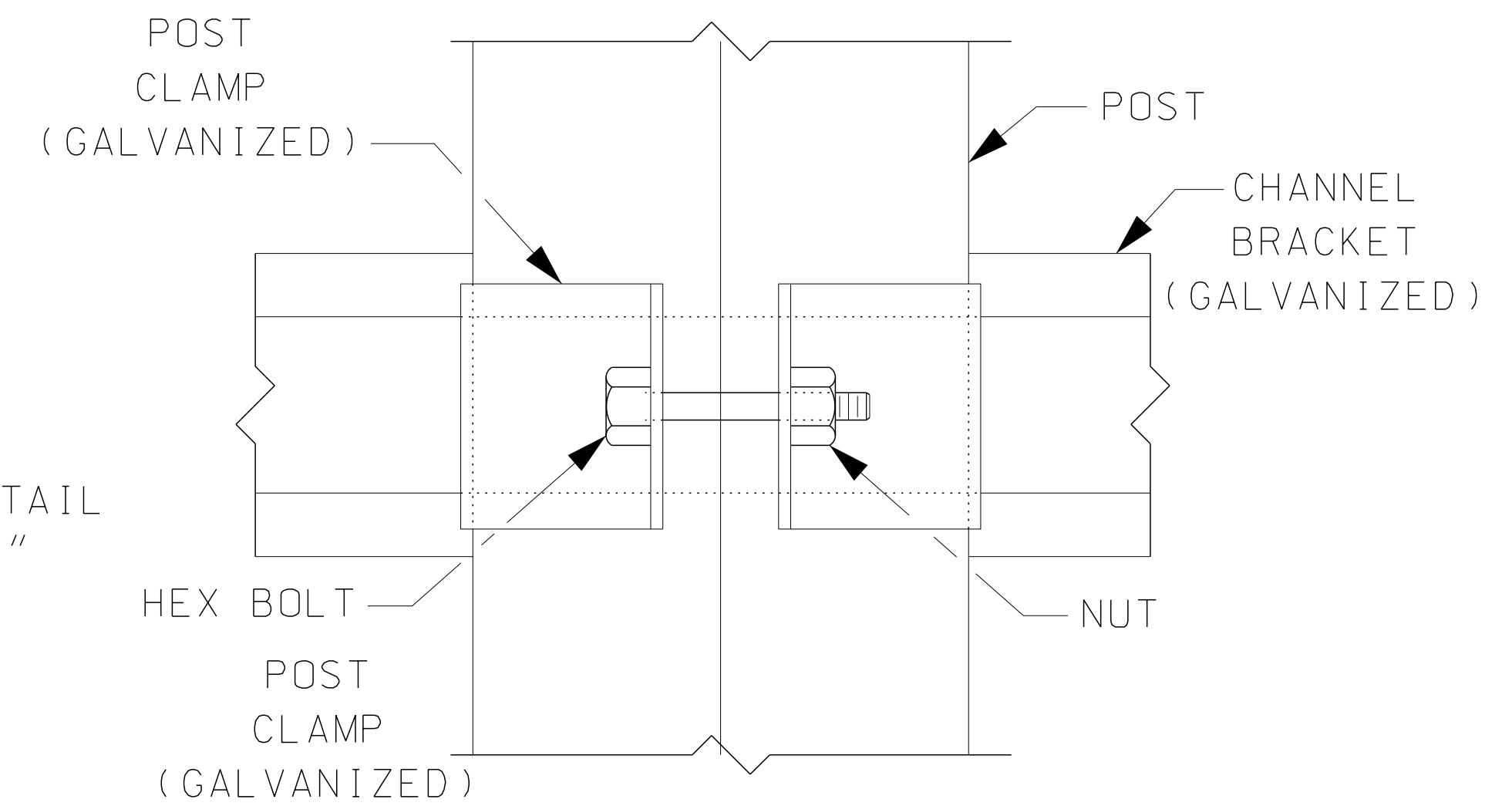


SIGN BLANK ATTACHMENT DETAIL



CHANNEL BRACKET 14 GAUGE

POST CLAMP 4" DIA. 11 GAUGE



DETAIL "D"

GENERAL NOTES

1. CHANNEL BRACKET MATERIALS, HARDWARE AND LABOR FOR THE INSTALLATION AS SHOWN SHALL BE SUBSIDIARY TO ITEM 615.0301.
2. ALL BOLTS, WASHERS, AND NUTS ARE TO BE STAINLESS STEEL. FENDER WASHERS SHALL BE A MINIMUM OF 1-INCH OUTSIDE DIAMETER.
3. FOR ADDITIONAL SIGN INSTALLATION DETAILS SEE NHDOT STANDARD PLANS FOR ROAD CONSTRUCTION AND THE LATEST EDITION OF NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION		BUREAU OF TRAFFIC		
ROUTE MARKER POST ASSEMBLY DETAIL				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	SHEET TOTAL
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10-14-2020