



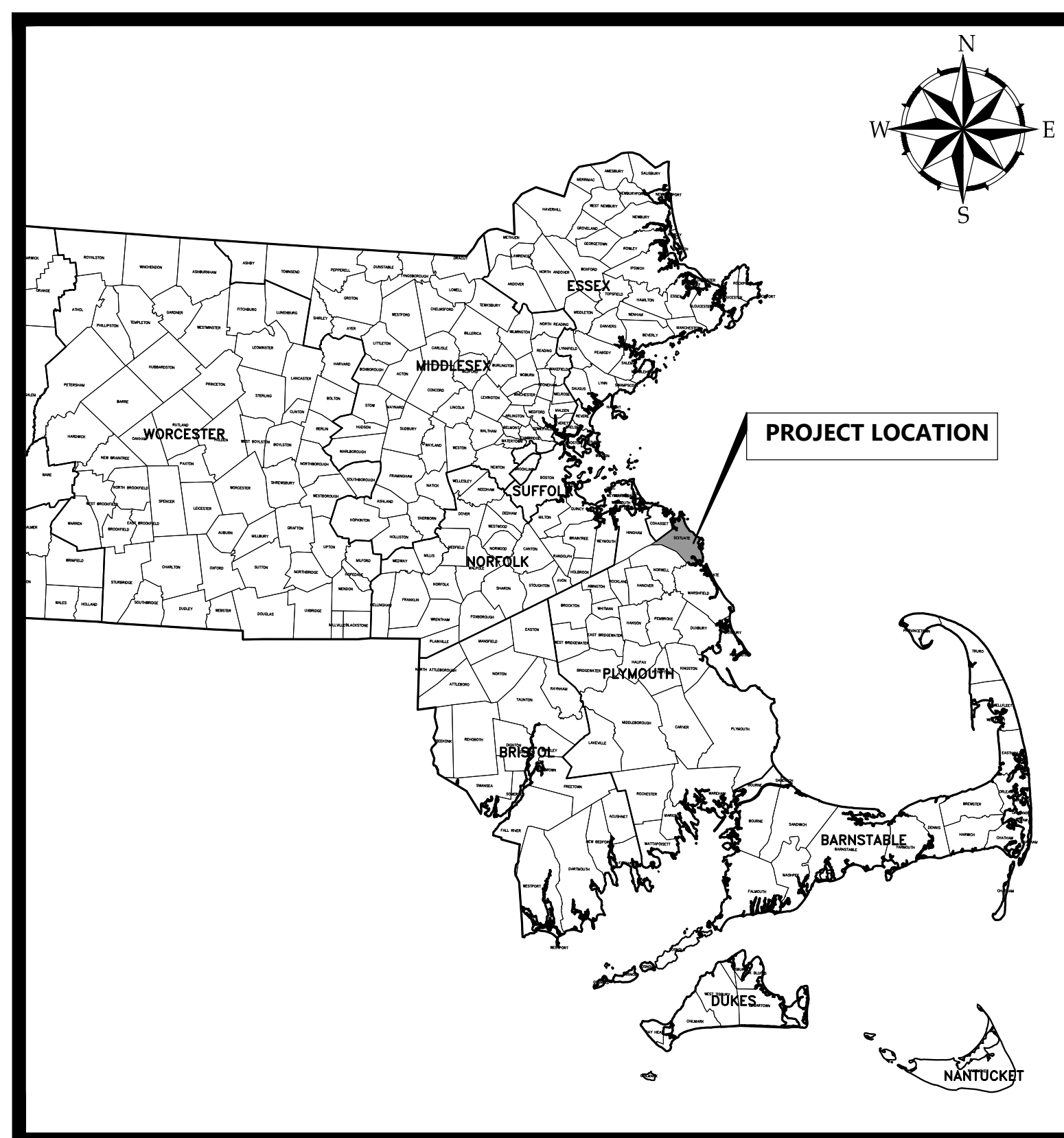
THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

# TOWN OF SCITUATE, MASSACHUSETTS

## 453 CHIEF JUSTICE CUSHING HIGHWAY

### STEARNS MEADOW DRINKING WATER TREATMENT PLANT

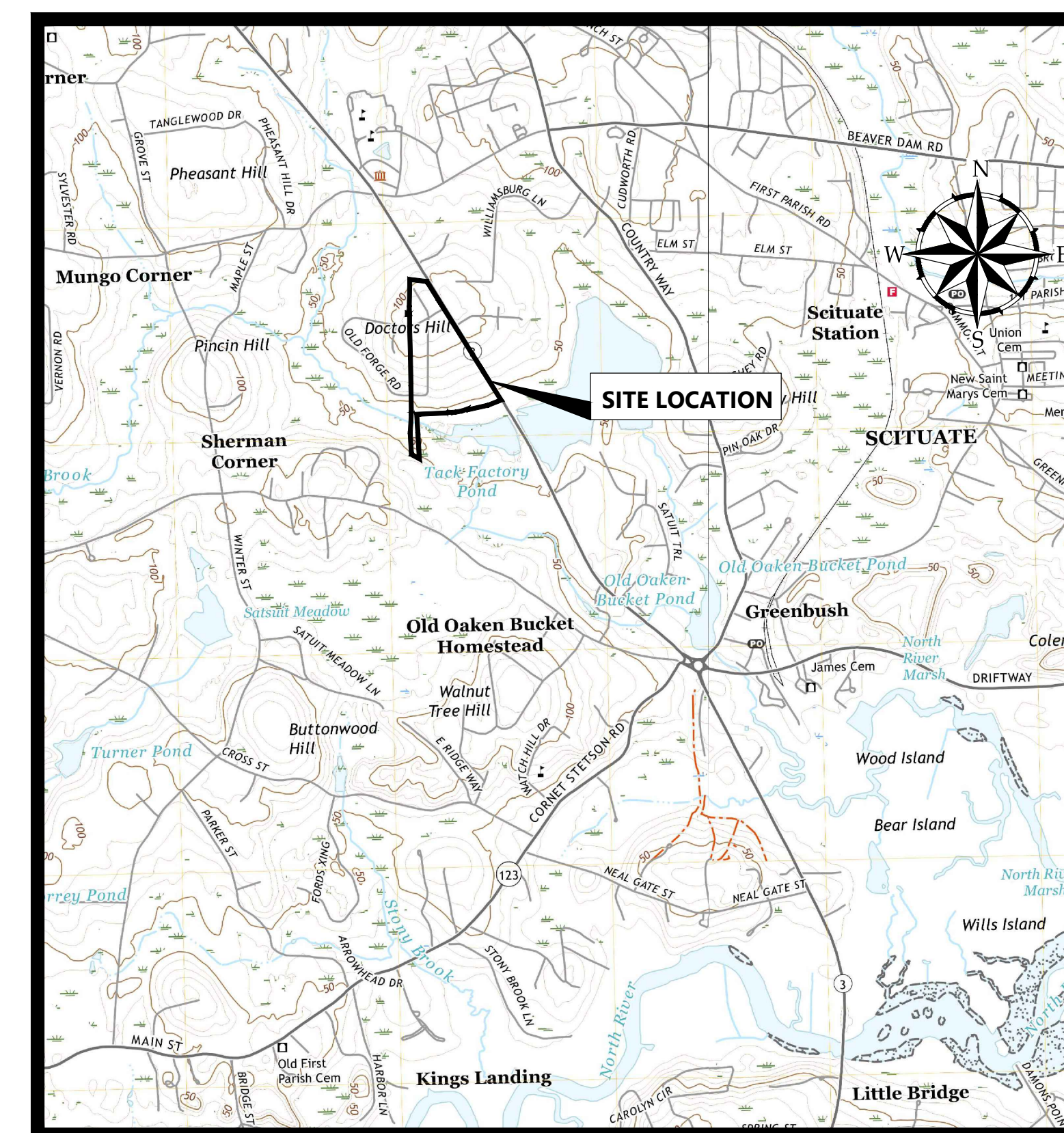
**SITE PLAN APPROVAL**  
**REVISION 1 - OCTOBER 6, 2023**



**PROJECT LOCATION MAP**

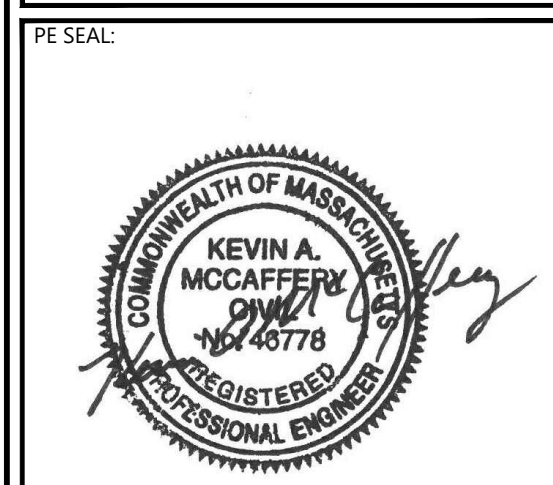
SHEET INDEX	
Sheet Title	Sheet Description
G-000	COVER SHEET
G-001	GENERAL NOTES, ABBREVIATIONS & LEGENDS
G-002	KEY PLAN
C-201	EROSION & SEDIMENT CONTROL PLAN
C-202	EROSION & SEDIMENT CONTROL PLAN
C-203	EROSION & SEDIMENT CONTROL PLAN
C-300	OVERALL SITE LAYOUT PLAN
C-301	SITE LAYOUT PLAN
C-302	SITE LAYOUT PLAN
C-400	OVERALL GRADING & DRAINAGE PLAN
C-401	GRADING & DRAINAGE PLAN
C-402	GRADING & DRAINAGE PLAN
C-403	GRADING & DRAINAGE PLAN
C-500	OVERALL UTILITIES PLAN
C-501	UTILITIES PLAN
C-502	UTILITIES PLAN
C-900	CIVIL DETAILS 1
C-901	CIVIL DETAILS 2
C-902	CIVIL DETAILS 3
C-903	CIVIL DETAILS 4
C-904	CIVIL DETAILS 5

SUPPLEMENTAL PLANS	
SHEET TITLE	SHEET DESCRIPTION
	EXISTING CONDITIONS PLAN BY FELDMAN LAND SURVEYORS
	APPROVAL NOT REQUIRED PLAN BY FELDMAN LAND SURVEYORS
EL-2-101	ELECTRICAL LIGHTING PLAN
L-101	LANDSCAPE PLANTING PLAN
L-901	PLANTING DETAILS
V-101	VEHICLE TURNING PLAN (WB-50)
V-102	VEHICLE TURNING PLAN (FIRE TRUCK)



**SITE LOCATION MAP**

SOURCE: USGS TOPO QUADRANGLE  
SCALE: 1" = 2000'



**SITE PLAN APPROVAL**

CLIENT INFO:  
**TOWN OF SCITUATE, MASSACHUSETTS**  
**453 CHIEF JUSTICE CUSHING HIGHWAY**  
**STEARNS MEADOW DRINKING WATER TREATMENT PLANT**

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK/KM  
FILENAME: 023368102-G-000.dwg

DRAWING TITLE:  
**COVER SHEET**

DRAWING NO:  
**G-000**

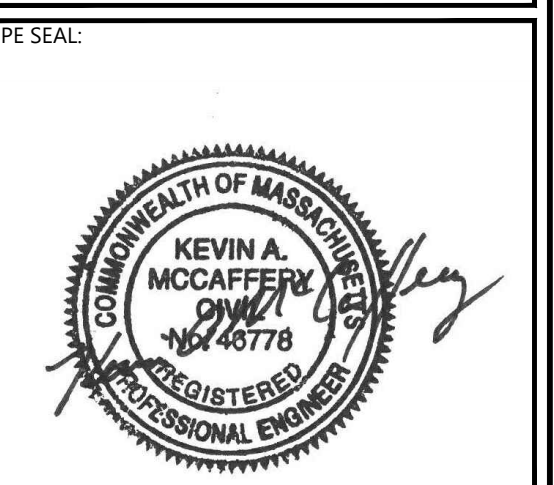
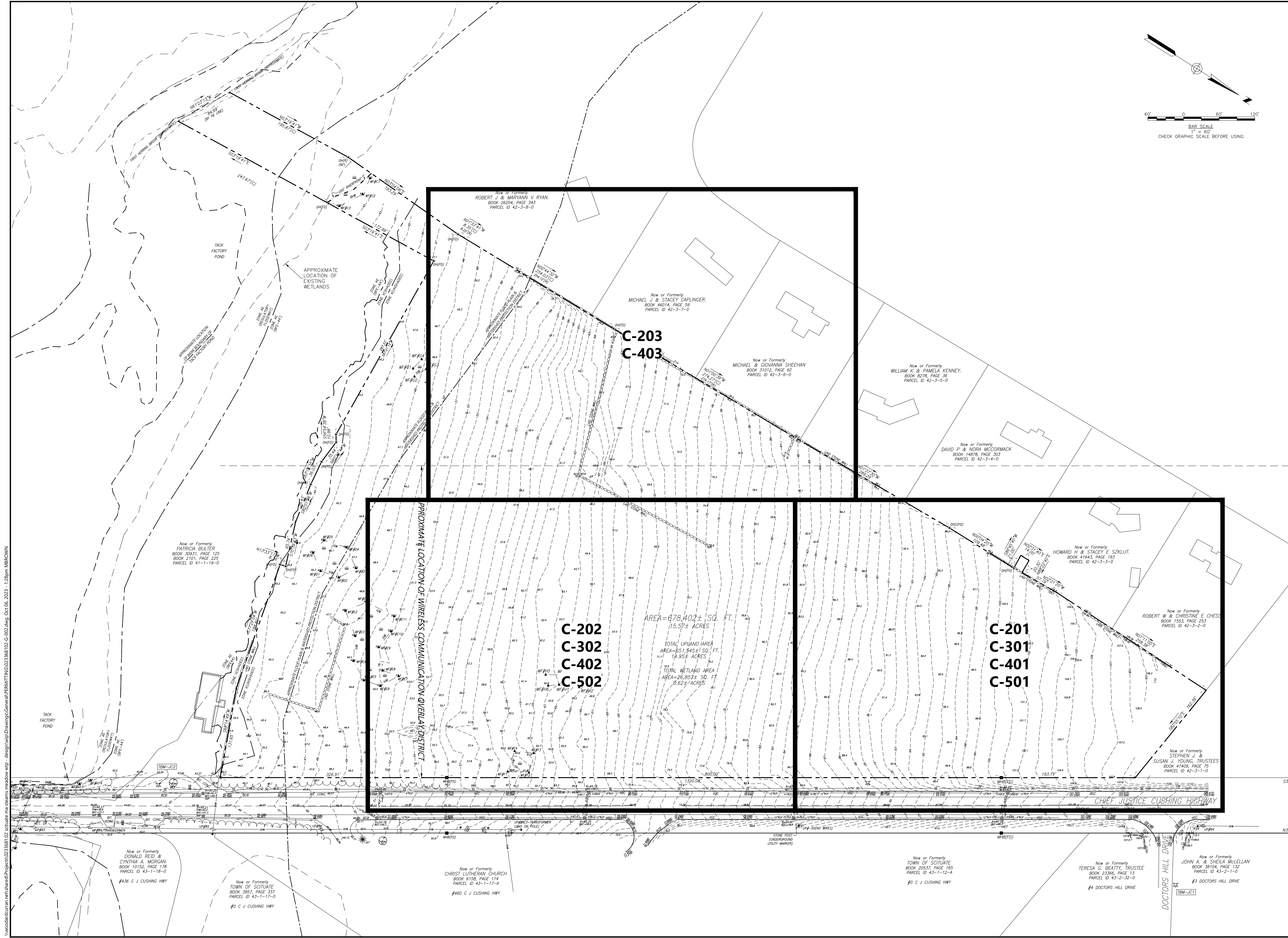
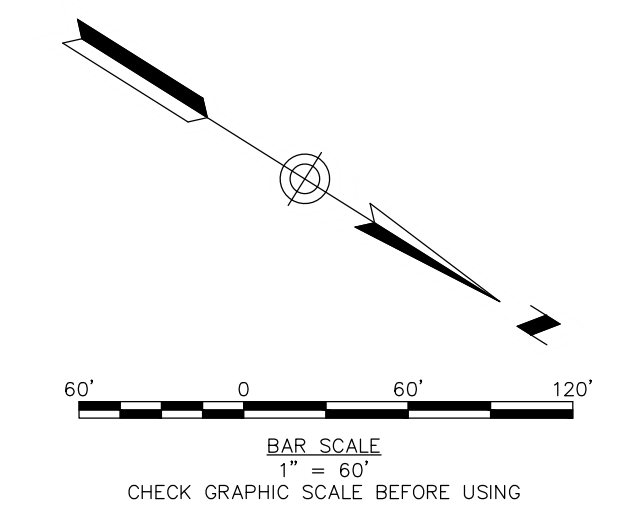








THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION

JOB NO: 023368102  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK/KM  
FILENAME: 023368102-G-002.dwg

DRAWING TITLE:  
**KEY PLAN**  
  
DRAWING NO:  
**G-002**

WoodardCurran.net\shared\Projects\023368102\Scituate\ma\stearns\_meadow\wtp - design\wtp\Drawings\General\PERMITTING\023368102-G-002.dwg, C:\06\_2023\_1:28pm MBR000

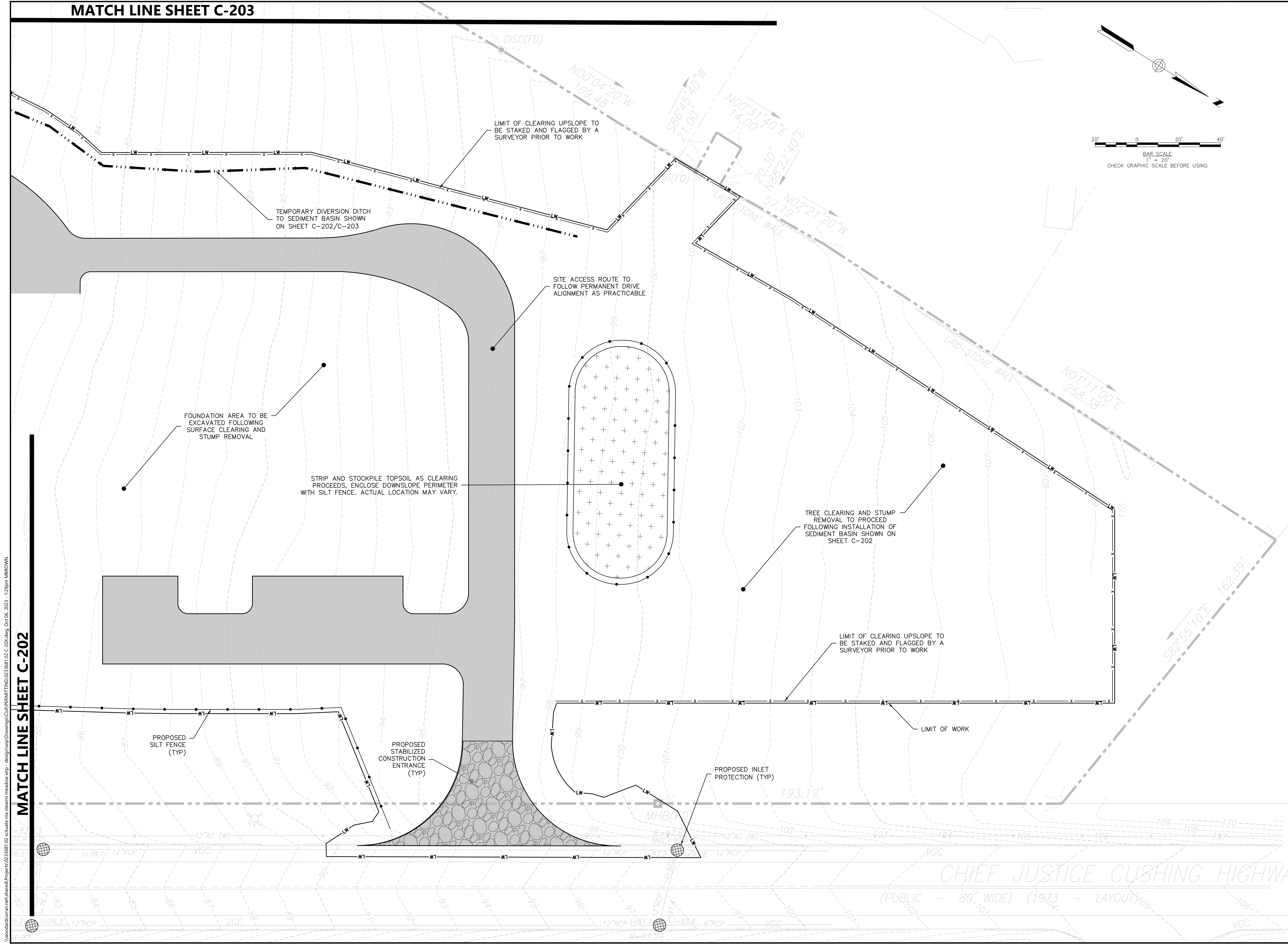
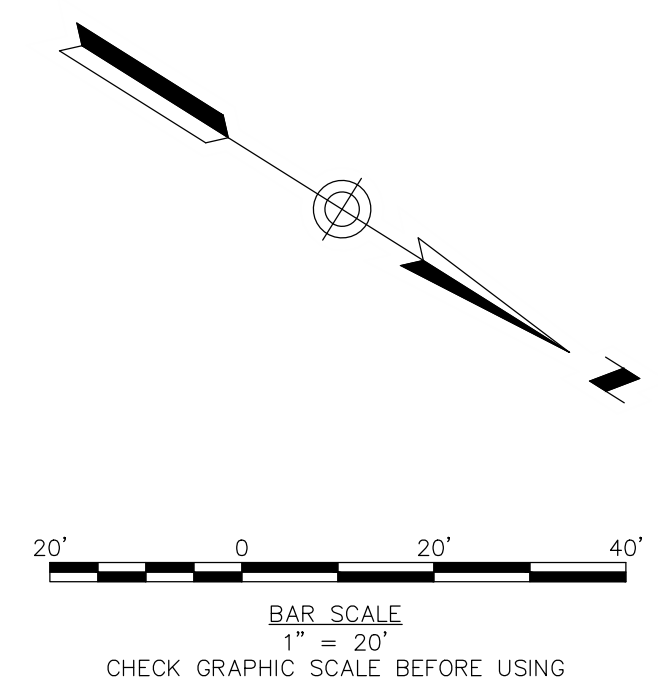


**MATCH LINE SHEET C-203**



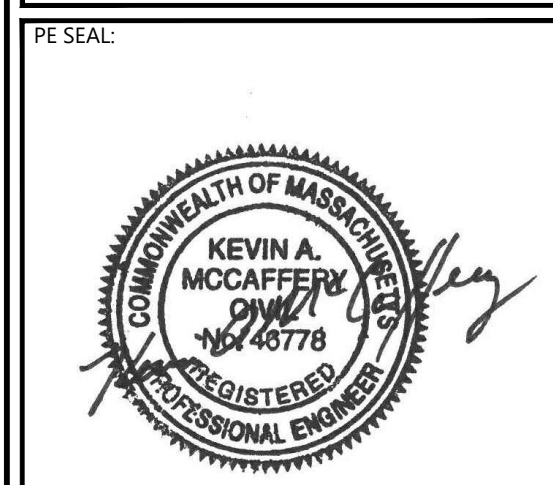
**Woodard & Curran**  
 250 Royall Street Suite 200E  
 Canton, Massachusetts 02021  
 800.446.5518 | www.woodardcurran.com

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



**MATCH LINE SHEET C-202**

WoodardCurran.net\shared\Projects\0233681.02\_Scituata\_meadow\_vpp - design\wpDrawings\Civil\PERMITTING\0233681.02\_C-20X.dwg, Oct 06, 2023 - 1:29pm MBROWN



**ISSUE FOR PERMIT**

CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY  
  
 STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
 DATE: AUGUST 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JC  
 DRAWN BY: MB  
 CHECKED BY: SK/KM  
 FILENAME: 0233681.02\_C-20X.dwg

DRAWING TITLE:  
**EROSION & SEDIMENT CONTROL PLAN**

DRAWING NO:  
**C-201**



**MATCH LINE SHEET C-203**



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

**MATCH LINE SHEET C-201**



**ISSUE FOR PERMIT**

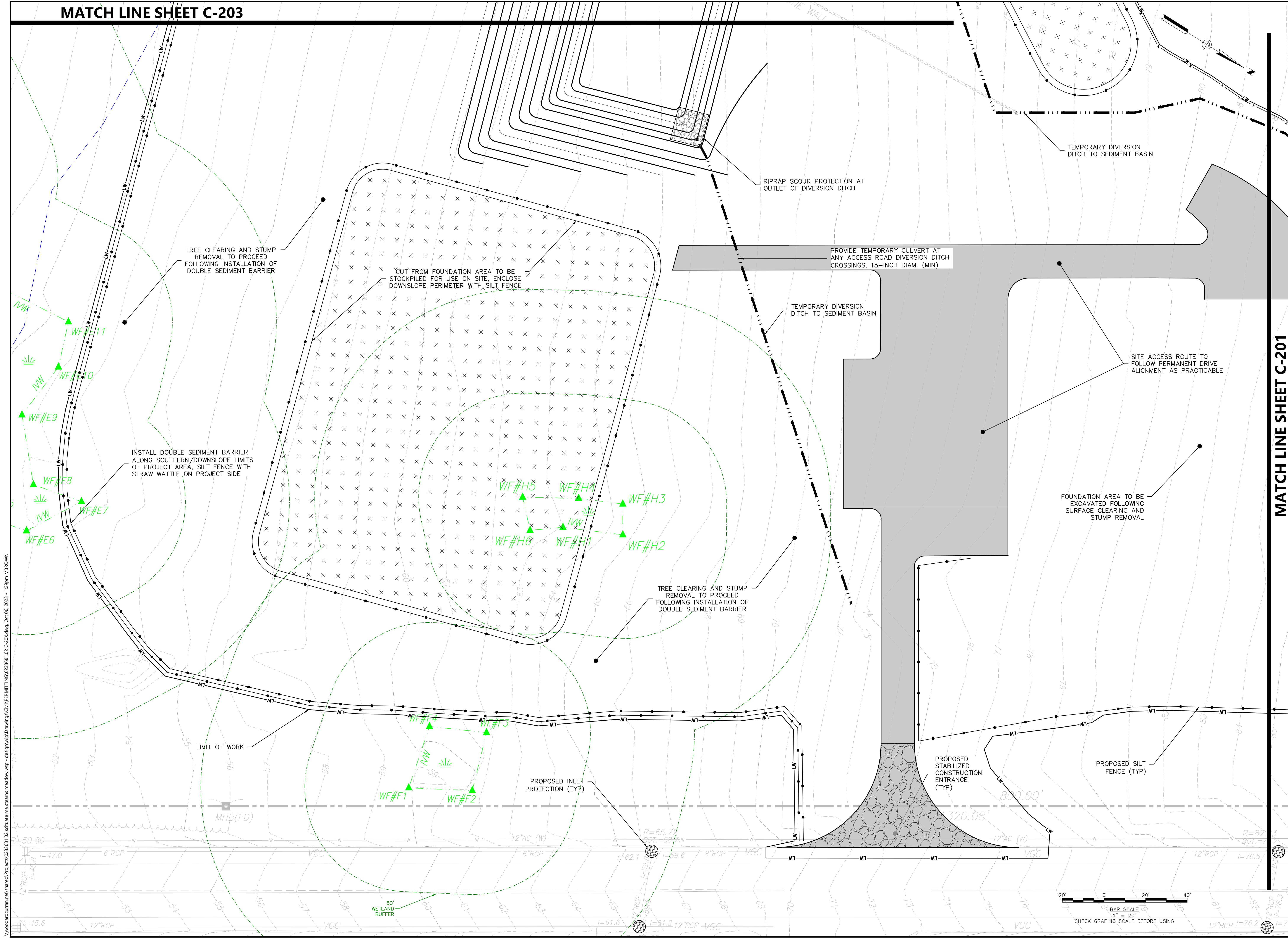
CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY  
  
 STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
 DATE: AUGUST 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JC  
 DRAWN BY: MB  
 CHECKED BY: SK/KM  
 FILENAME: 0233681.02 C-20X.dwg

**EROSION & SEDIMENT CONTROL PLAN**

DRAWING NO: **C-202**



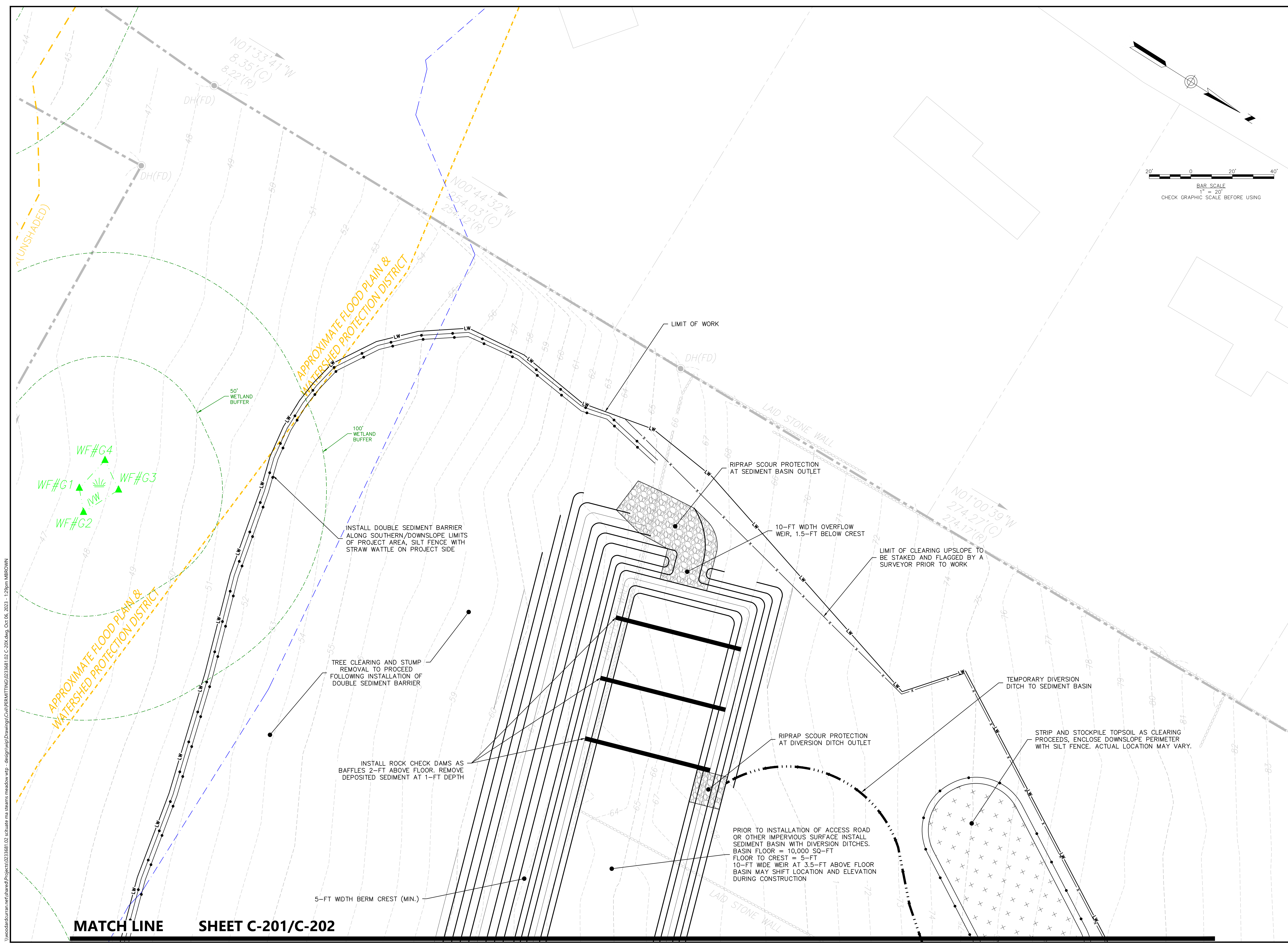
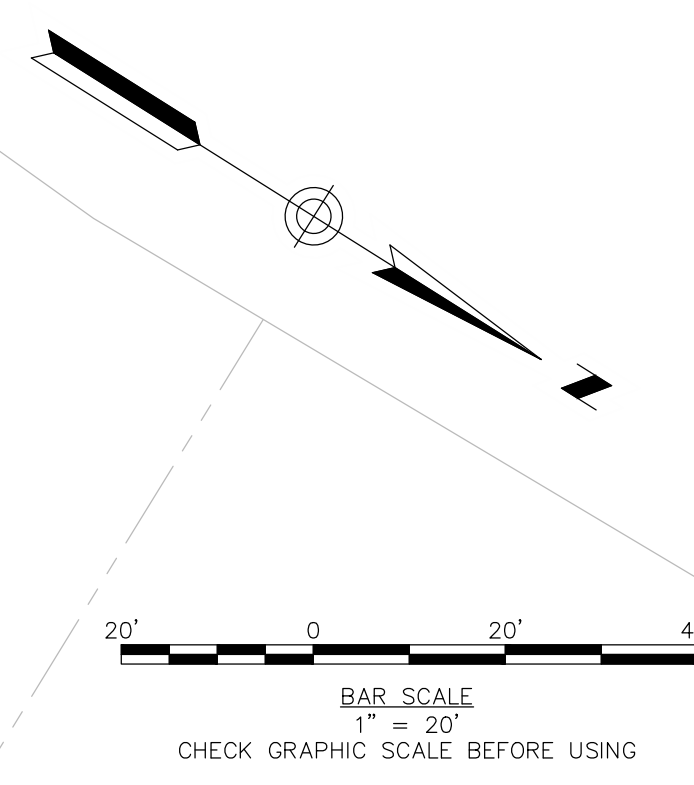
WoodardCurran\shared\Projects\0233681.02\scituate\ma\stearns\_meadow\wtp - design\wp\Drawings\Civil\PERMITTING\0233681.02\_C-20X.dwg, Oct 06, 2023 - 1:29pm MBRODWN



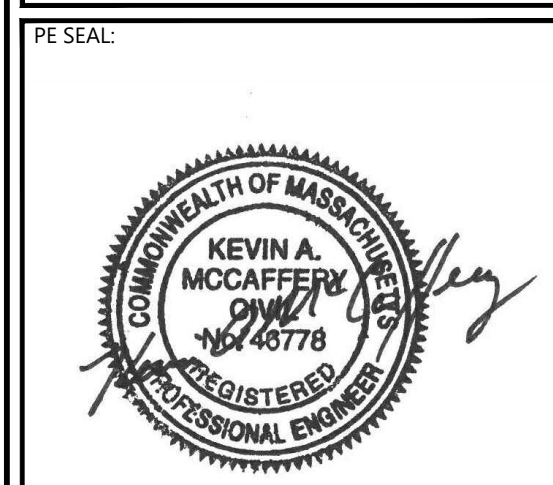


**Woodard & Curran**  
250 Royall Street Suite 200E  
Canton, Massachusetts 02021  
800.446.5518 | www.woodardcurran.com

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



WoodardCurran.net\shared\Projects\0233681.02\scituate ma stearns meadow vrp - design\wp\Drawings\Civil\PERMITTING\0233681.02 C-20X.dwg, Oct 06, 2023 - 1:29pm MBROWN



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK/KM  
FILENAME: 0233681.02 C-20X.dwg

**EROSION & SEDIMENT CONTROL PLAN**

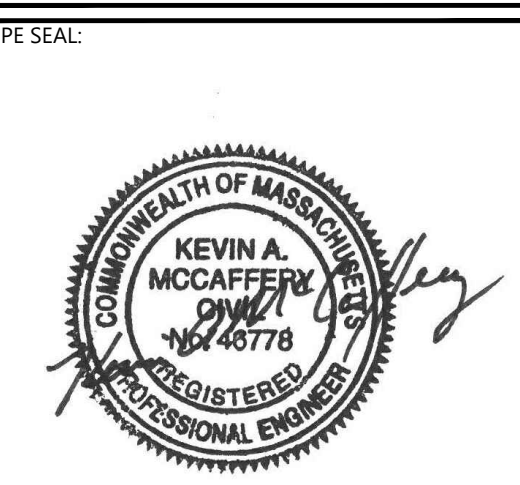
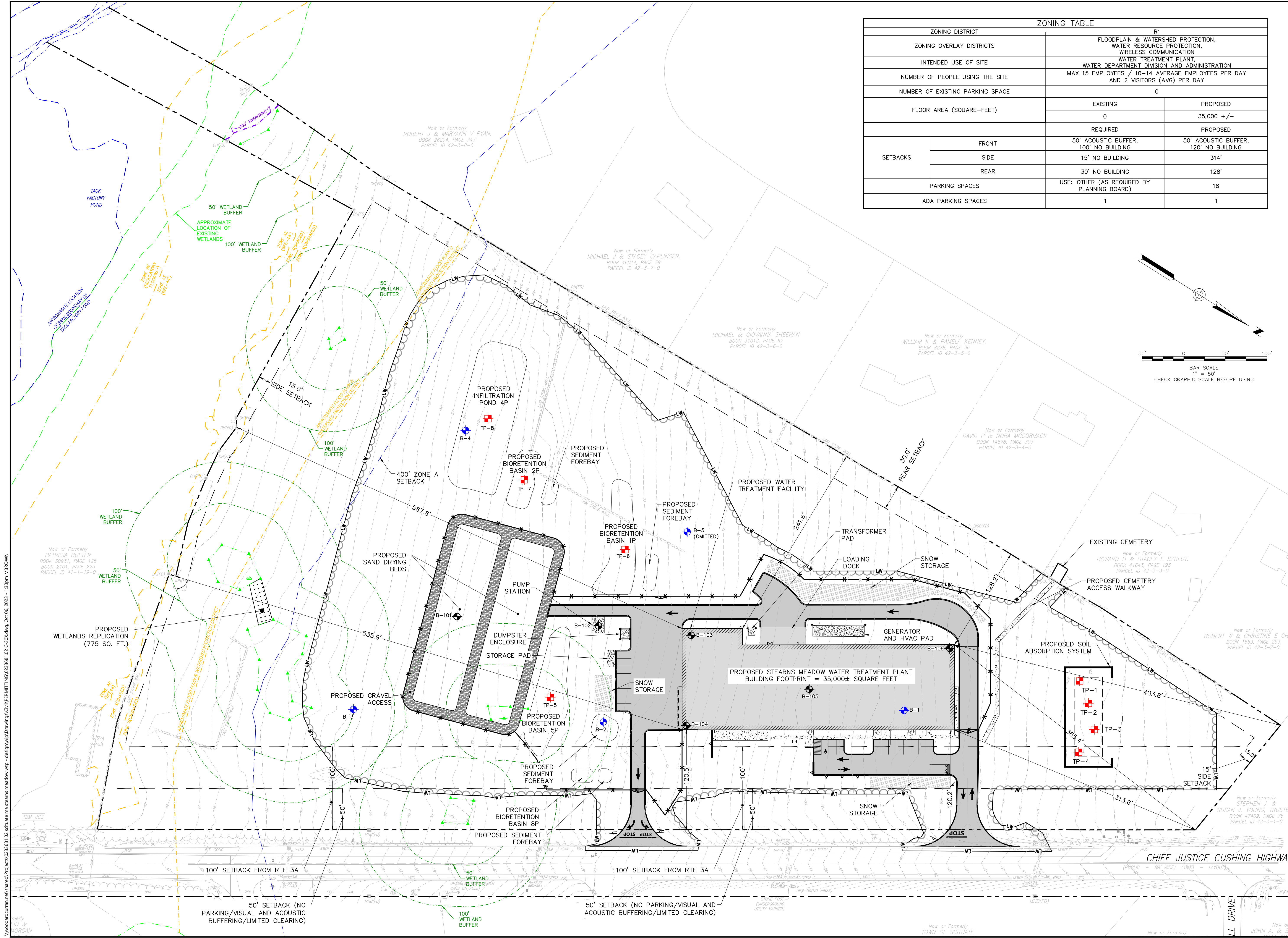
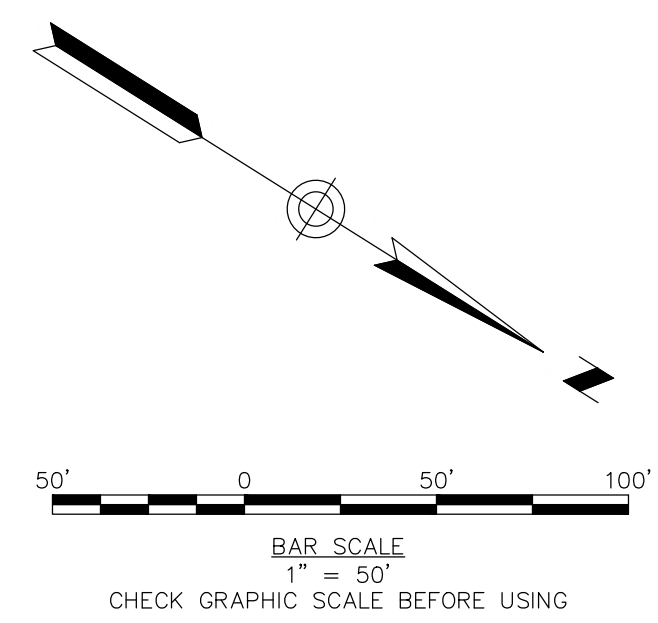
DRAWING NO:  
**C-203**

**MATCH LINE SHEET C-201/C-202**



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

ZONING TABLE			
ZONING DISTRICT	R1		
ZONING OVERLAY DISTRICTS	FLOODPLAIN & WATERSHED PROTECTION, WATER RESOURCE PROTECTION, WIRELESS COMMUNICATION		
INTENDED USE OF SITE	WATER TREATMENT PLANT, WATER DEPARTMENT DIVISION AND ADMINISTRATION		
NUMBER OF PEOPLE USING THE SITE	MAX 15 EMPLOYEES / 10-14 AVERAGE EMPLOYEES PER DAY AND 2 VISITORS (AVG) PER DAY		
NUMBER OF EXISTING PARKING SPACE	0		
FLOOR AREA (SQARE-FEET)	EXISTING	PROPOSED	
	0	35,000 +/-	
SETBACKS	REQUIRED	PROPOSED	
	FRONT	50' ACOUSTIC BUFFER, 100' NO BUILDING	50' ACOUSTIC BUFFER, 120' NO BUILDING
	SIDE	15' NO BUILDING	314'
	REAR	30' NO BUILDING	128'
PARKING SPACES	USE: OTHER (AS REQUIRED BY PLANNING BOARD)	18	
ADA PARKING SPACES	1	1	



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK  
FILENAME: 0233681.02 C-30X.dwg  
DRAWING TITLE:

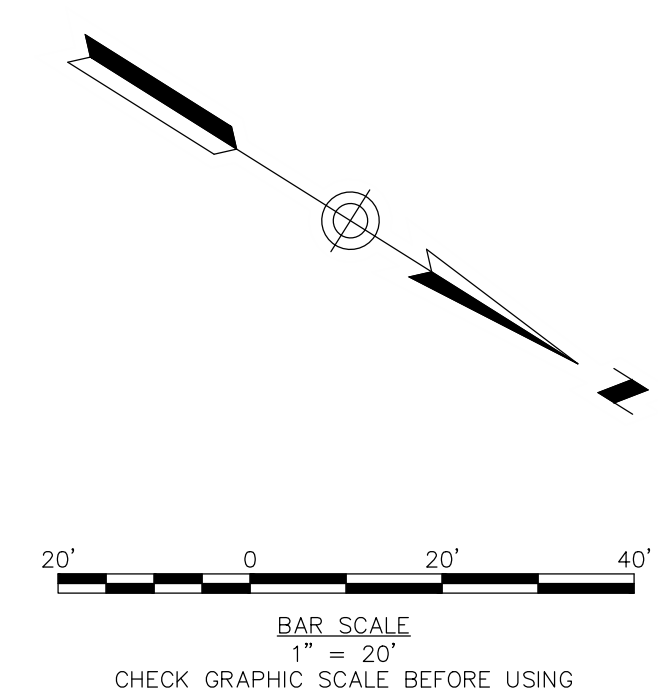
**OVERALL SITE LAYOUT PLAN**

DRAWING NO:  
**C-300**

WoodardCurran\shared\Projects\0233681.02 - Scituate meadows meadow vrp - design\wp\Drawings\Civil\PERMITTING\0233681.02 C-30X.dwg Oct 06, 2023 - 1:38pm MBRODWIN

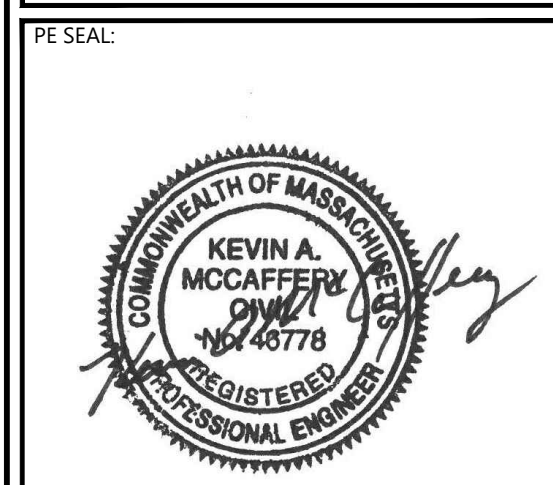


THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



Now or Formerly  
 HOWARD H & STACEY E SZKLUT.  
 BOOK 41643, PAGE 193  
 PARCEL ID 42-3-3-0

Now or Formerly  
 ROBERT W & CHRISTINE E  
 BOOK 1553, PAGE 253  
 PARCEL ID 42-3-2-0



**ISSUE FOR PERMIT**

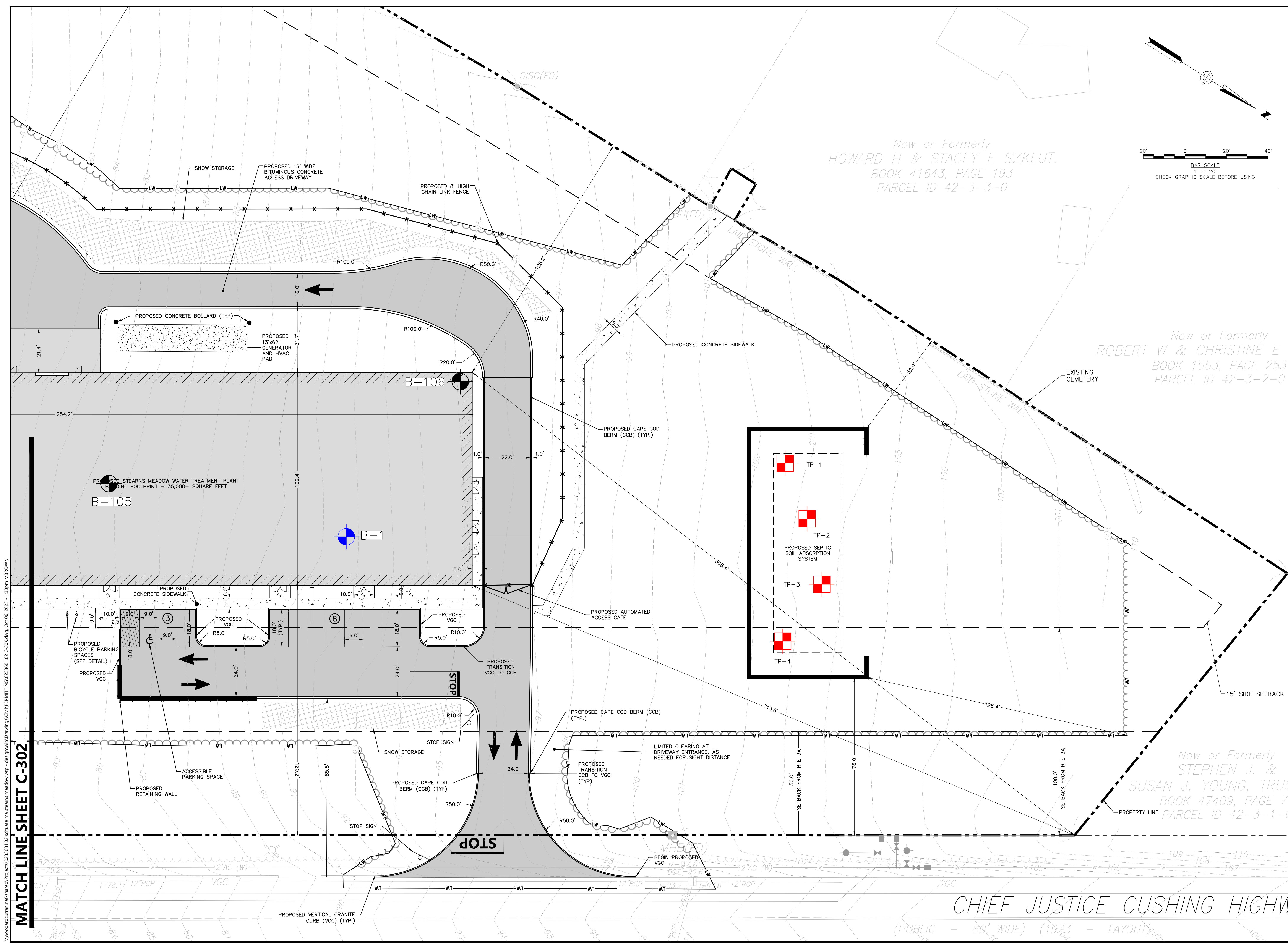
CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY  
  
 STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
 DATE: AUGUST 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JC  
 DRAWN BY: MB  
 CHECKED BY: SK  
 FILENAME: 0233681.02 C-30X.dwg

**SITE LAYOUT PLAN**

DRAWING NO:  
**C-301**

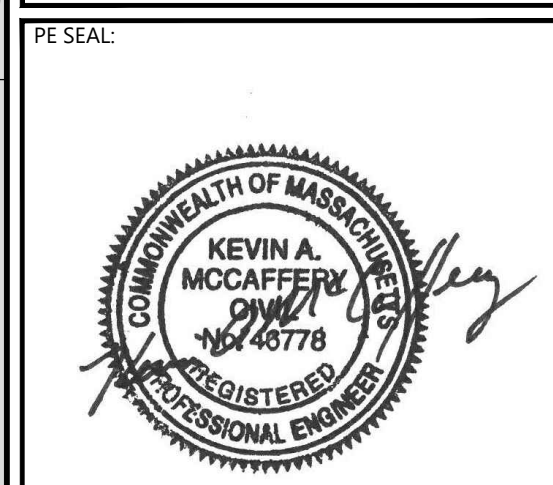
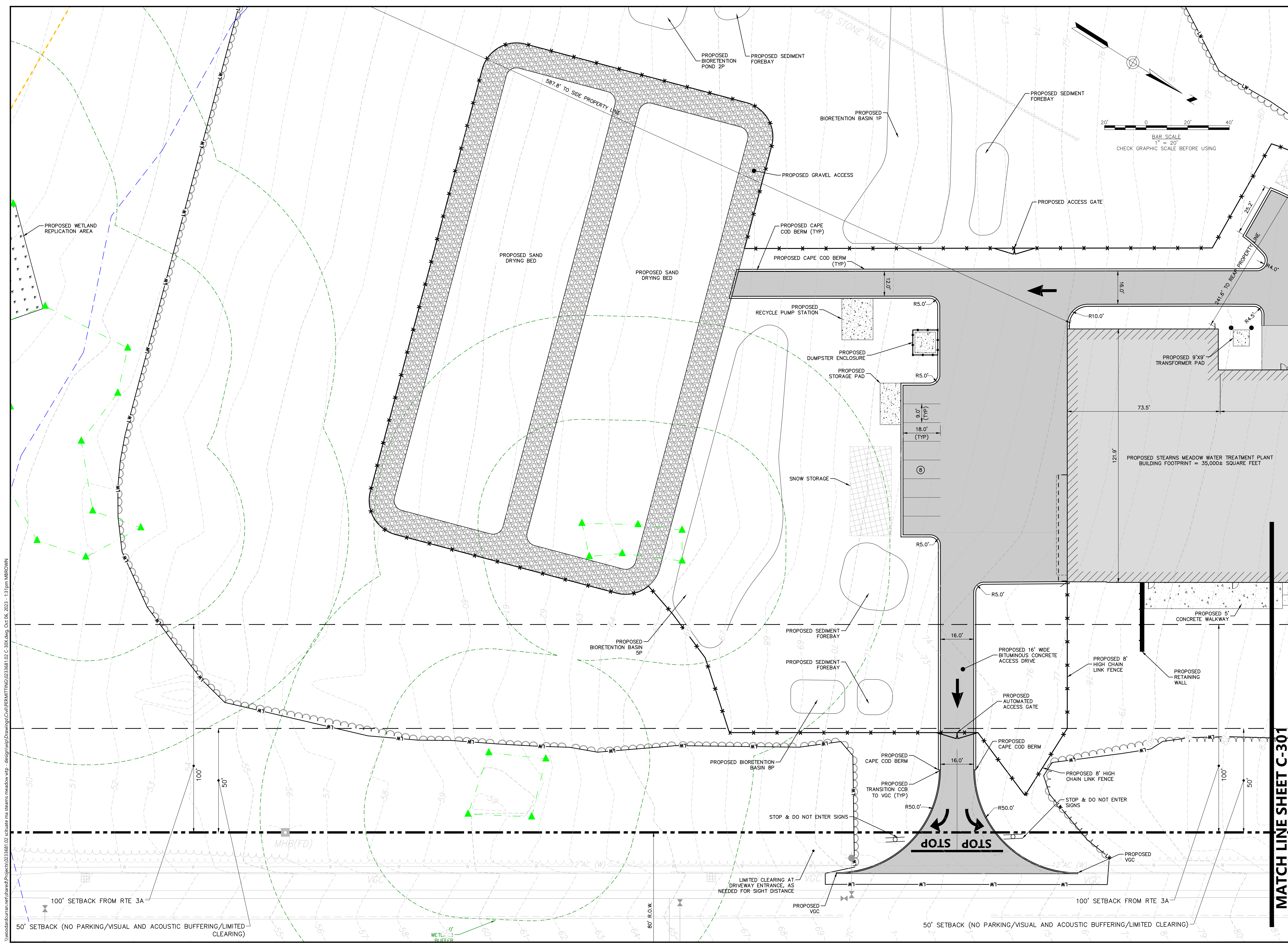
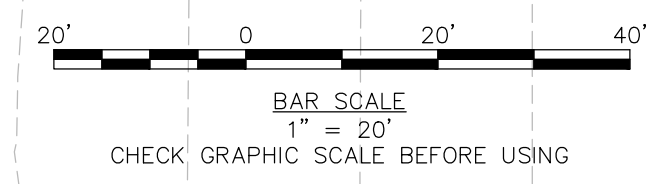


MATCH LINE SHEET C-302

CHIEF JUSTICE CUSHING HIGHWAY  
 (PUBLIC - 80' WIDE) (1933 - LAYOUT)



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



**ISSUE FOR PERMIT**

CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY  
  
 STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
 DATE: AUGUST 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JC  
 DRAWN BY: MB  
 CHECKED BY: SK  
 FILENAME: 0233681.02 C-30X.dwg

DRAWING TITLE:  
**SITE LAYOUT PLAN**

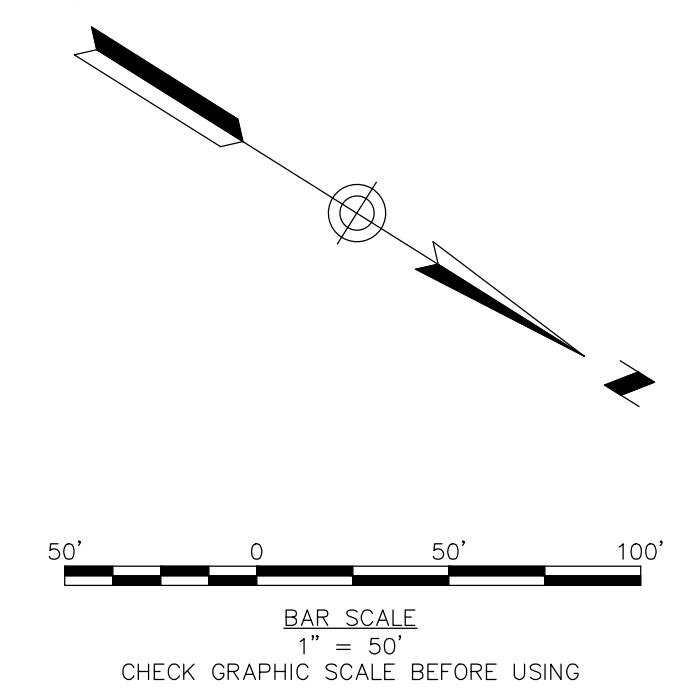
DRAWING NO:  
**C-302**

WoodardCurran\shared\Projects\0233681.02\_Scitate\_meadow\wtp -design\wpDrawings\Civil\PERMITTING\0233681.02\_C-30X.dwg, Oct 06, 2023 - 1:13pm MBROWN

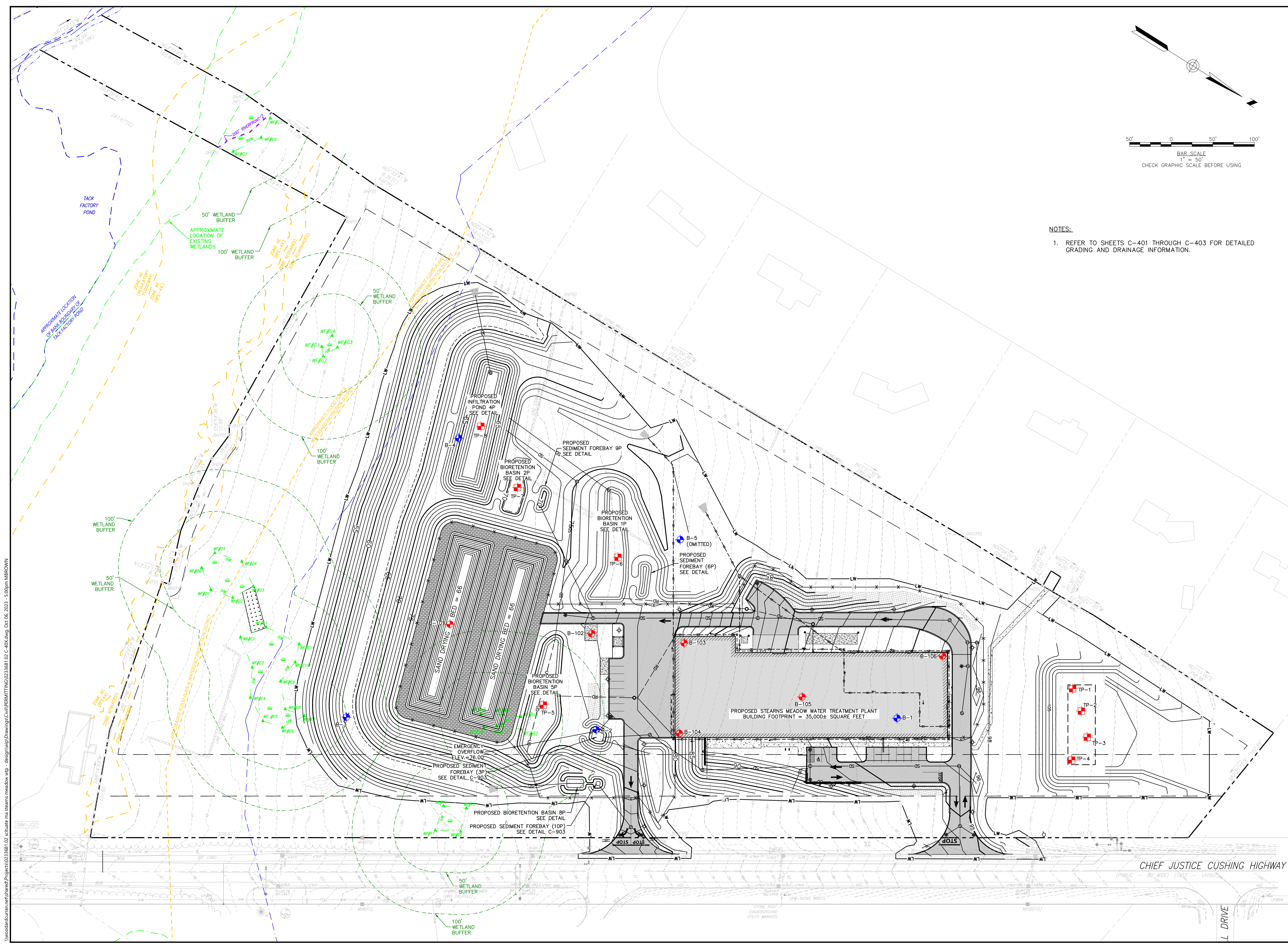
**MATCH LINE SHEET C-301**



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



**NOTES:**  
1. REFER TO SHEETS C-401 THROUGH C-403 FOR DETAILED GRADING AND DRAINAGE INFORMATION.



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK  
FILENAME: 0233681.02 C-40X.dwg

DRAWING TITLE:

**OVERALL GRADING & DRAINAGE PLAN**

DRAWING NO:  
**C-400**

WoodardCurran.net\share\Projects\0233681.02 Scituate ma stearns meadow vtp - design\wp\Drawings\Civil\PERMITTING\Civil\0233681.02 C-40X.dwg Oct 06, 2023 - 5:03pm MBRGWN



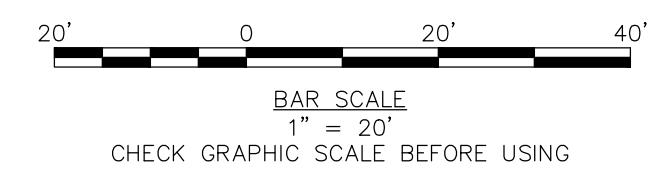
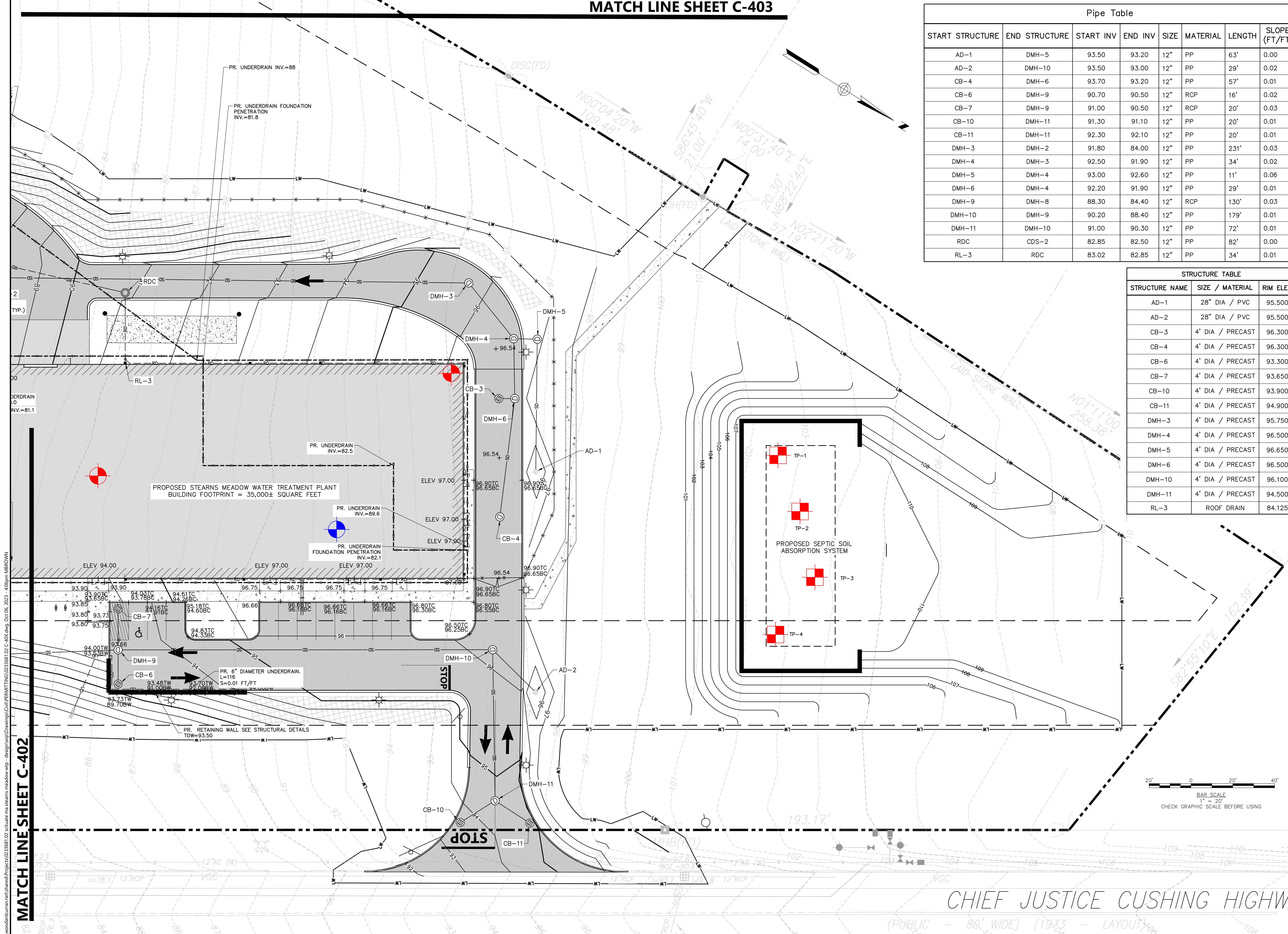
MATCH LINE SHEET C-403

Pipe Table							
START STRUCTURE	END STRUCTURE	START INV	END INV	SIZE	MATERIAL	LENGTH	SLOPE (FT/FT)
AD-1	DMH-5	93.50	93.20	12"	PP	63'	0.00
AD-2	DMH-10	93.50	93.00	12"	PP	29'	0.02
CB-4	DMH-6	93.70	93.20	12"	PP	57'	0.01
CB-6	DMH-9	90.70	90.50	12"	RCP	16'	0.02
CB-7	DMH-9	91.00	90.50	12"	RCP	20'	0.03
CB-10	DMH-11	91.30	91.10	12"	PP	20'	0.01
CB-11	DMH-11	92.30	92.10	12"	PP	20'	0.01
DMH-3	DMH-2	91.80	84.00	12"	PP	231'	0.03
DMH-4	DMH-3	92.50	91.90	12"	PP	34'	0.02
DMH-5	DMH-4	93.00	92.60	12"	PP	11'	0.06
DMH-6	DMH-4	92.20	91.90	12"	PP	29'	0.01
DMH-9	DMH-8	88.30	84.40	12"	RCP	130'	0.03
DMH-10	DMH-9	90.20	88.40	12"	PP	179'	0.01
DMH-11	DMH-10	91.00	90.30	12"	PP	72'	0.01
RDC	CDS-2	82.85	82.50	12"	PP	82'	0.00
RL-3	RDC	83.02	82.85	12"	PP	34'	0.01

STRUCTURE TABLE		
STRUCTURE NAME	SIZE / MATERIAL	RIM ELEV
AD-1	28" DIA / PVC	95.500
AD-2	28" DIA / PVC	95.500
CB-3	4' DIA / PRECAST	96.300
CB-4	4' DIA / PRECAST	96.300
CB-6	4' DIA / PRECAST	93.300
CB-7	4' DIA / PRECAST	93.650
CB-10	4' DIA / PRECAST	93.900
CB-11	4' DIA / PRECAST	94.900
DMH-3	4' DIA / PRECAST	95.750
DMH-4	4' DIA / PRECAST	96.500
DMH-5	4' DIA / PRECAST	96.650
DMH-6	4' DIA / PRECAST	96.500
DMH-10	4' DIA / PRECAST	96.100
DMH-11	4' DIA / PRECAST	94.500
RL-3	ROOF DRAIN	84.125



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



CHIEF JUSTICE CUSHING HIGHWAY  
(PUBLIC - 80' WIDE) (1933 - LAYOUT)

MATCH LINE SHEET C-402

ISSUE FOR PERMIT

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK/KM  
FILENAME: 0233681.02 C-40X.dwg

GRADING & DRAINAGE PLAN

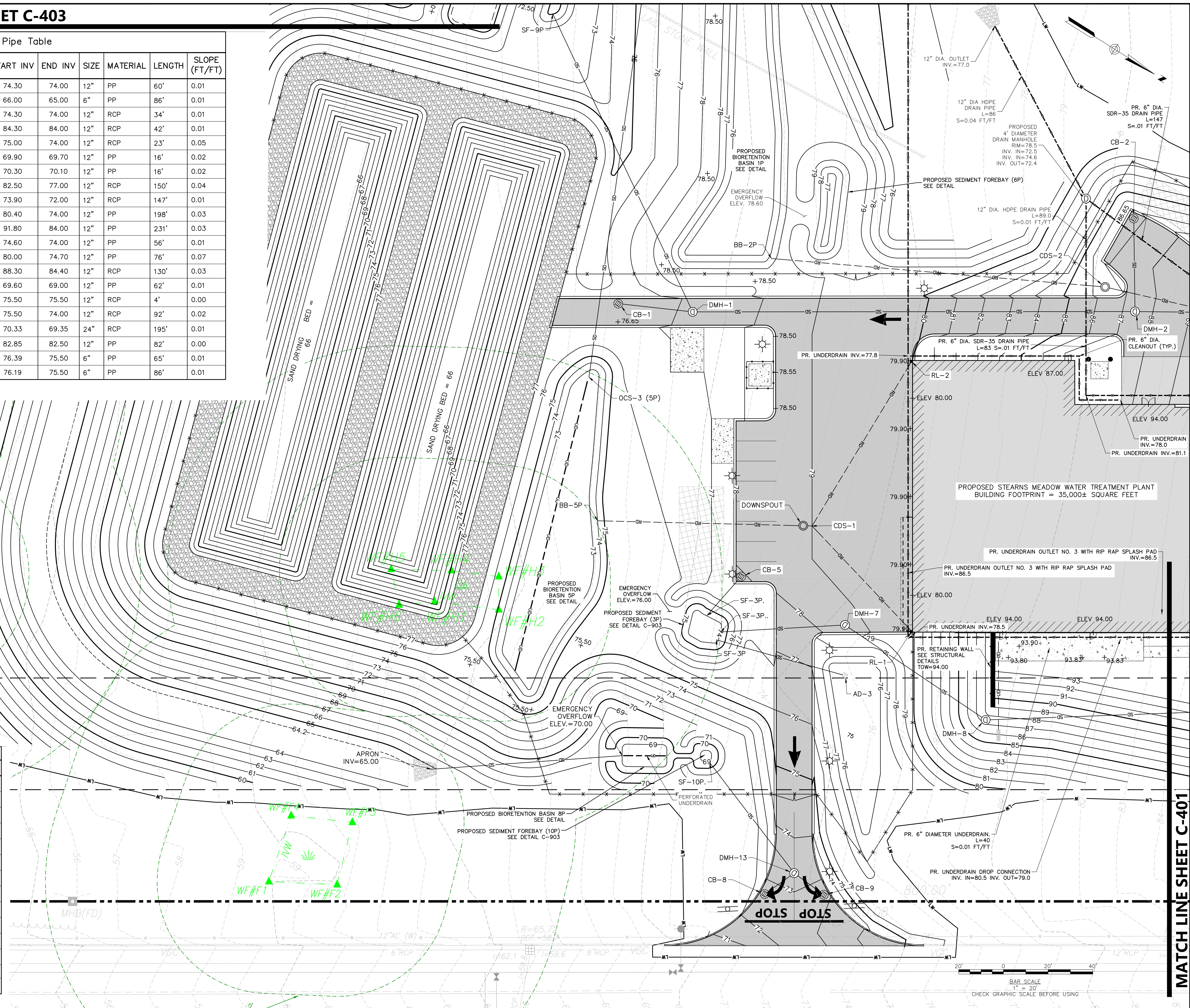
DRAWING NO:  
**C-401**



**MATCH LINE SHEET C-403**

Pipe Table							
START STRUCTURE	END STRUCTURE	START INV	END INV	SIZE	MATERIAL	LENGTH	SLOPE (FT/FT)
AD-3	SF-3P	74.30	74.00	12"	PP	60'	0.01
BIO-10P	APRON	66.00	65.00	6"	PP	86'	0.01
CB-1	DMH-1	74.30	74.00	12"	RCP	34'	0.01
CB-2	DMH-2	84.30	84.00	12"	RCP	42'	0.01
CB-5	SF-3P.	75.00	74.00	12"	RCP	23'	0.05
CB-8	DMH-13	69.90	69.70	12"	PP	16'	0.02
CB-9	DMH-13	70.30	70.10	12"	PP	16'	0.02
CDS-2	BB-2P	82.50	77.00	12"	RCP	150'	0.04
DMH-1	SF-9P	73.90	72.00	12"	RCP	147'	0.01
DMH-2	DMH-1	80.40	74.00	12"	PP	198'	0.03
DMH-3	DMH-2	91.80	84.00	12"	PP	231'	0.03
DMH-7	SF-3P..	74.60	74.00	12"	PP	56'	0.01
DMH-8	DMH-7	80.00	74.70	12"	PP	76'	0.07
DMH-9	DMH-8	88.30	84.40	12"	RCP	130'	0.03
DMH-13	SF-10P.	69.60	69.00	12"	PP	62'	0.01
DOWNSPOUT	CDS-1	75.50	75.50	12"	RCP	4'	0.00
DOWNSPOUT	BB-5P	75.50	74.00	12"	RCP	92'	0.02
OCS-3 (5P)	DMH-12	70.33	69.35	24"	RCP	195'	0.01
RDC	CDS-2	82.85	82.50	12"	PP	82'	0.00
RL-1	CDS-1	76.39	75.50	6"	PP	65'	0.01
RL-2	CDS-1	76.19	75.50	6"	PP	86'	0.01

STRUCTURE TABLE		
STRUCTURE NAME	SIZE / MATERIAL	RIM ELEV
AD-3	28" DIA / PVC	76.000
CB-1	4' DIA / PRECAST	76.500
CB-2	4' DIA / PRECAST	86.900
CB-5	4' DIA / PRECAST	77.900
CB-8	4' DIA / PRECAST	72.713
CB-9	4' DIA / PRECAST	72.914
CDS-2	4' DIA / PRECAST	86.500
DMH-1	4' DIA / PRECAST	77.214
DMH-2	4' DIA / PRECAST	87.413
DMH-7	4' DIA / PRECAST	78.614
DMH-8	4' DIA / PRECAST	87.346
DMH-13	4' DIA / PRECAST	73.350
DOWNSPOUT	DOWN SPOUT	78.710
OCS-3 (5P)	48"X48"	73.440



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

**ISSUE FOR PERMIT**

CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY  
  
 STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO:	0233681.02
DATE:	AUGUST 2023
SCALE:	AS SHOWN
DESIGNED BY:	JC
DRAWN BY:	MB
CHECKED BY:	SK/KM
FILENAME:	0233681.02 C-40X.dwg
DRAWING TITLE:	

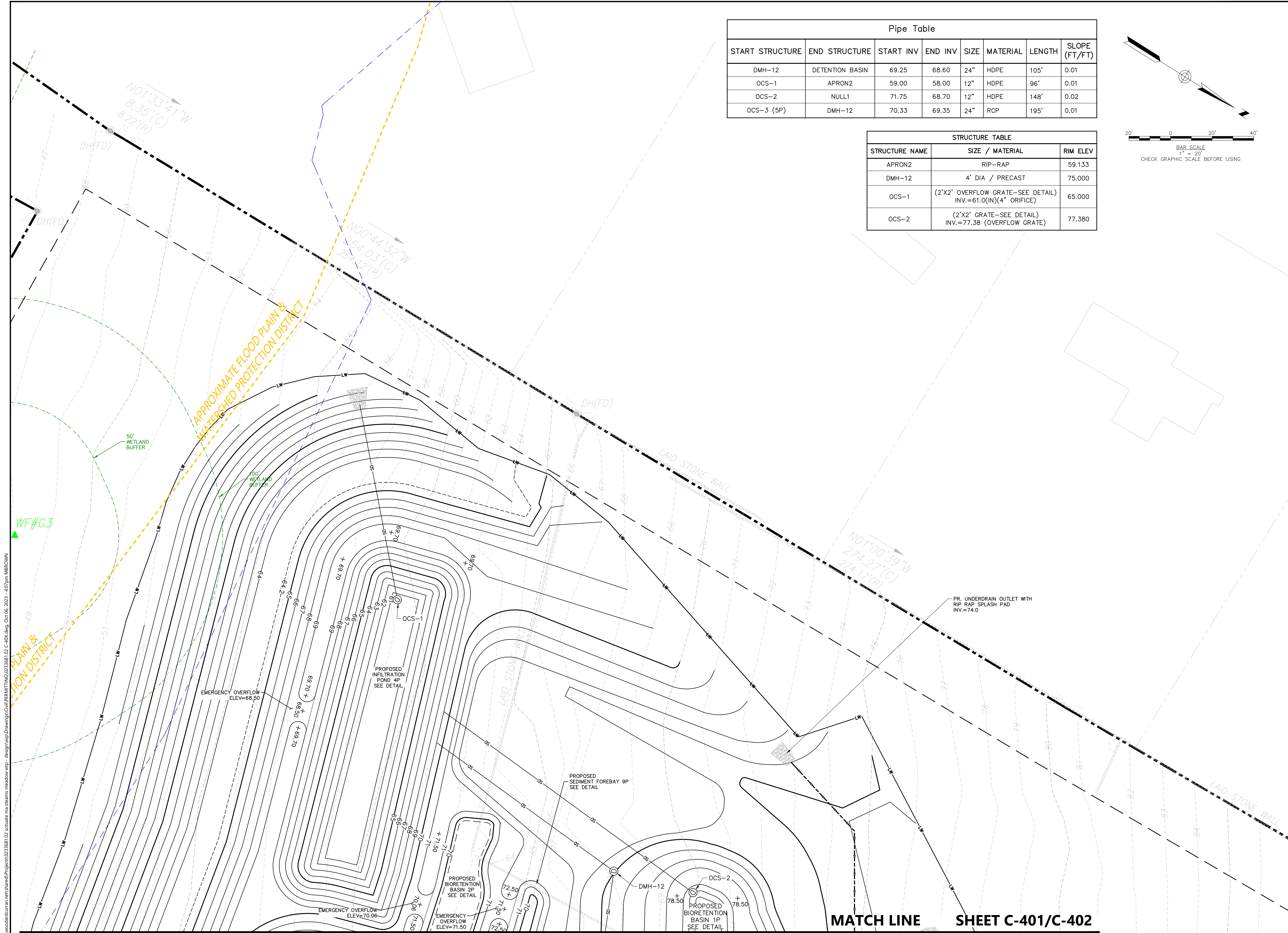
GRADING & DRAINAGE PLAN

DRAWING NO. **C-402**

MATCH LINE SHEET C-401

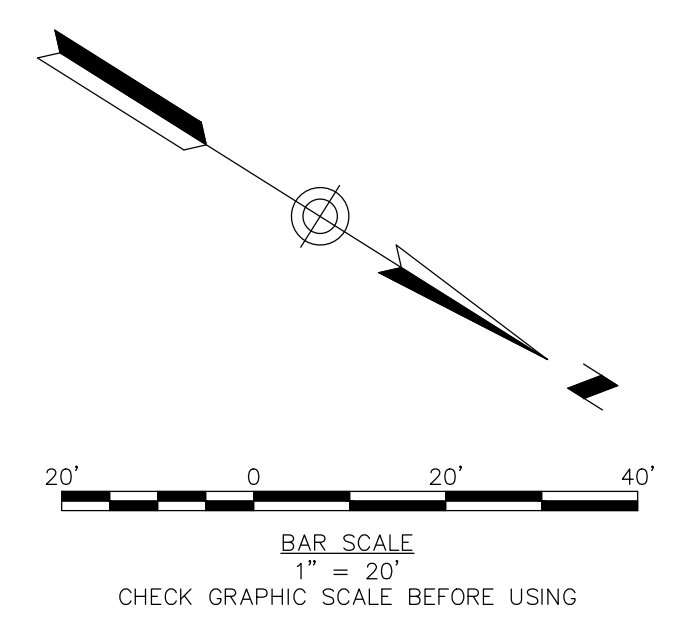
WoodardCurran.net\shared\Projects\0233681.02 Scituate ma stearns meadow vtp - design\wp\Drawings\Civil\PERMITTING\0233681.02 C-40X.dwg Oct 06, 2023 - 4:05pm MBROWN





Pipe Table							
START STRUCTURE	END STRUCTURE	START INV	END INV	SIZE	MATERIAL	LENGTH	SLOPE (FT/FT)
DMH-12	DETENTION BASIN	69.25	68.60	24"	HDPE	105'	0.01
OCS-1	APRON2	59.00	58.00	12"	HDPE	96'	0.01
OCS-2	NULL1	71.75	68.70	12"	HDPE	148'	0.02
OCS-3 (5P)	DMH-12	70.33	69.35	24"	RCP	195'	0.01

STRUCTURE TABLE		
STRUCTURE NAME	SIZE / MATERIAL	RIM ELEV
APRON2	RIP-RAP	59.133
DMH-12	4' DIA / PRECAST	75.000
OCS-1	(2'X2' OVERFLOW GRATE-SEE DETAIL) INV.=61.0(IN)(4" ORIFICE)	65.000
OCS-2	(2'X2' GRATE-SEE DETAIL) INV.=77.38 (OVERFLOW GRATE)	77.380



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

**ISSUE FOR PERMIT**

CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY  
  
 STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
 DATE: AUGUST 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JC  
 DRAWN BY: MB  
 CHECKED BY: SK/KM  
 FILENAME: 0233681.02 C-40X.dwg

DRAWING TITLE:

**GRADING & DRAINAGE PLAN**

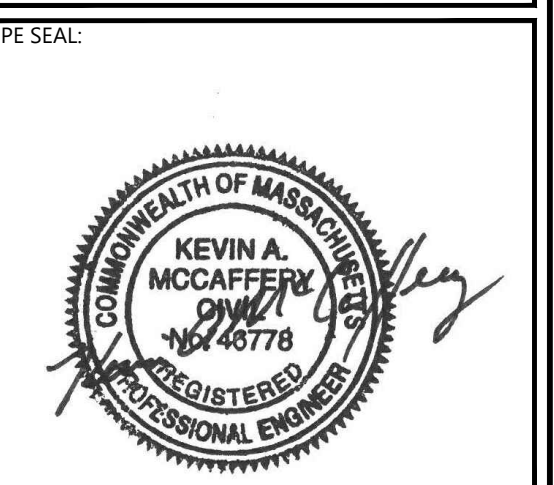
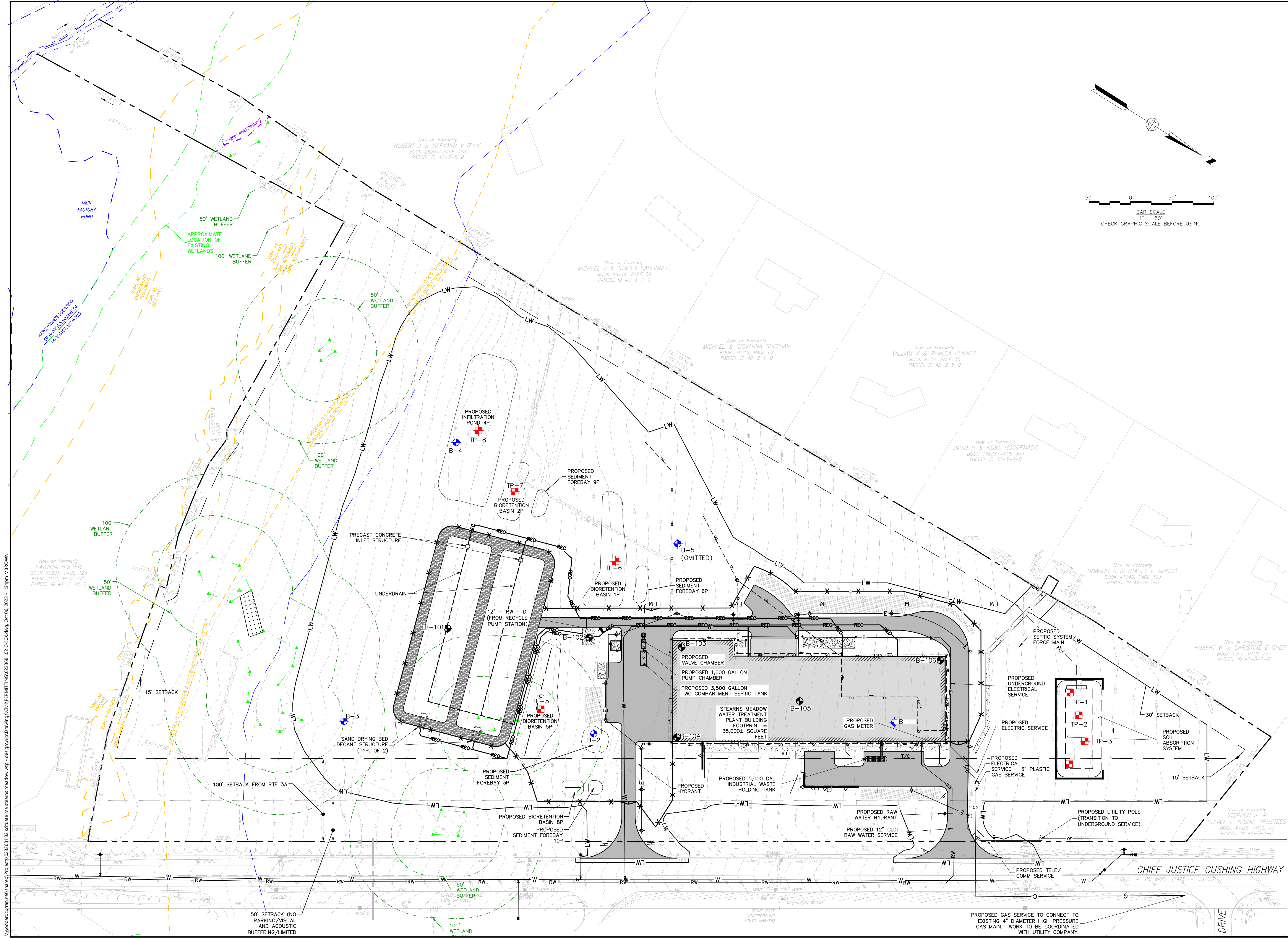
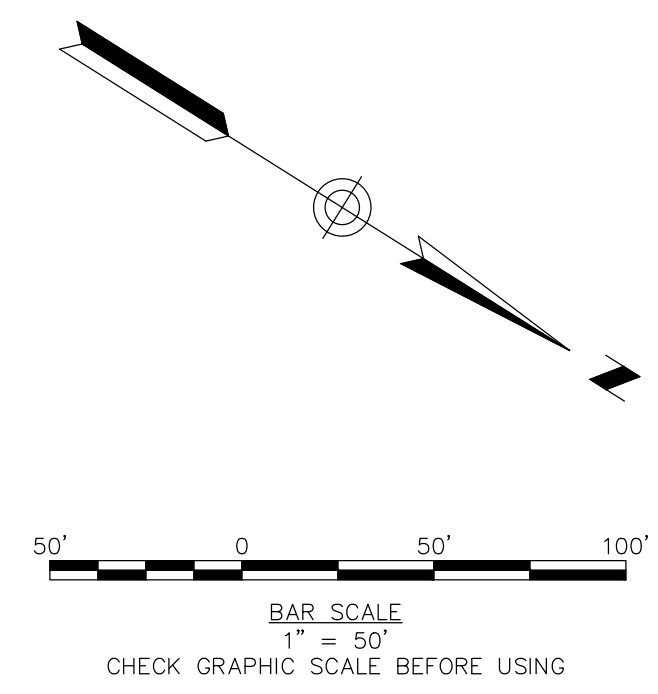
DRAWING NO: **C-403**

**MATCH LINE SHEET C-401/C-402**

WoodardCurran\shared\Projects\0233681.02 Scituate ma stearns meadow vtp - design\wp\Drawings\Civil\PERMITTING\0233681.02 C-40X.dwg, Oct 06, 2023 - 4:07pm MBROWN



THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



**ISSUE FOR PERMIT**

CLIENT INFO:  
 TOWN OF SCITUATE,  
 MASSACHUSETTS  
 453 CHIEF JUSTICE  
 CUSHING HIGHWAY

STEARNS MEADOW  
 DRINKING WATER  
 TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
 DATE: AUGUST 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JC  
 DRAWN BY: MB  
 CHECKED BY: SK  
 FILENAME: 0233681.02 C-50X.dwg

DRAWING TITLE:  
**OVERALL UTILITIES PLAN**

DRAWING NO:  
**C-500**

WoodardCurran.net\shahid\Projects\0233681.02 Scituate ma stearns meadow vtp - design\wp\Drawings\Civil\Permit\TITING\0233681.02 C-50X.dwg, Oct 06, 2023, 1:34pm MBROWN

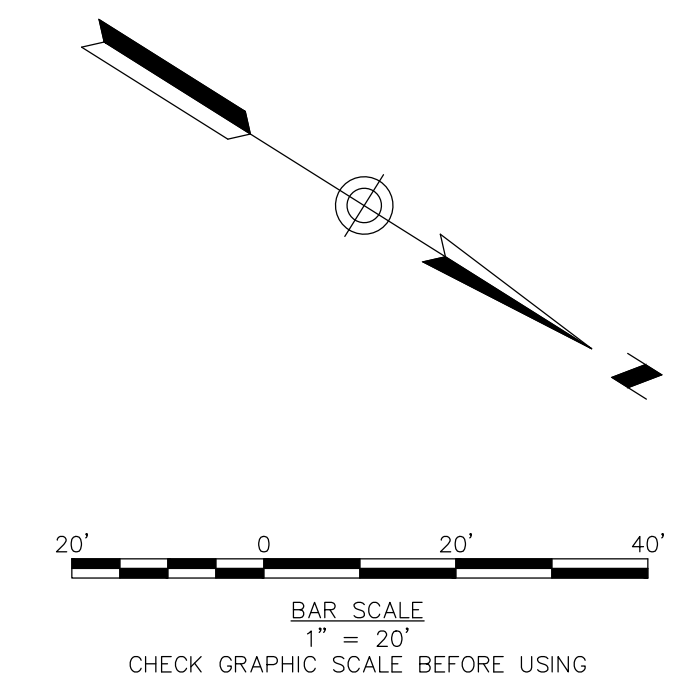




**Woodard & Curran**

250 Royall Street Suite 200E  
Canton, Massachusetts 02021  
800.446.5518 | www.woodardcurran.com

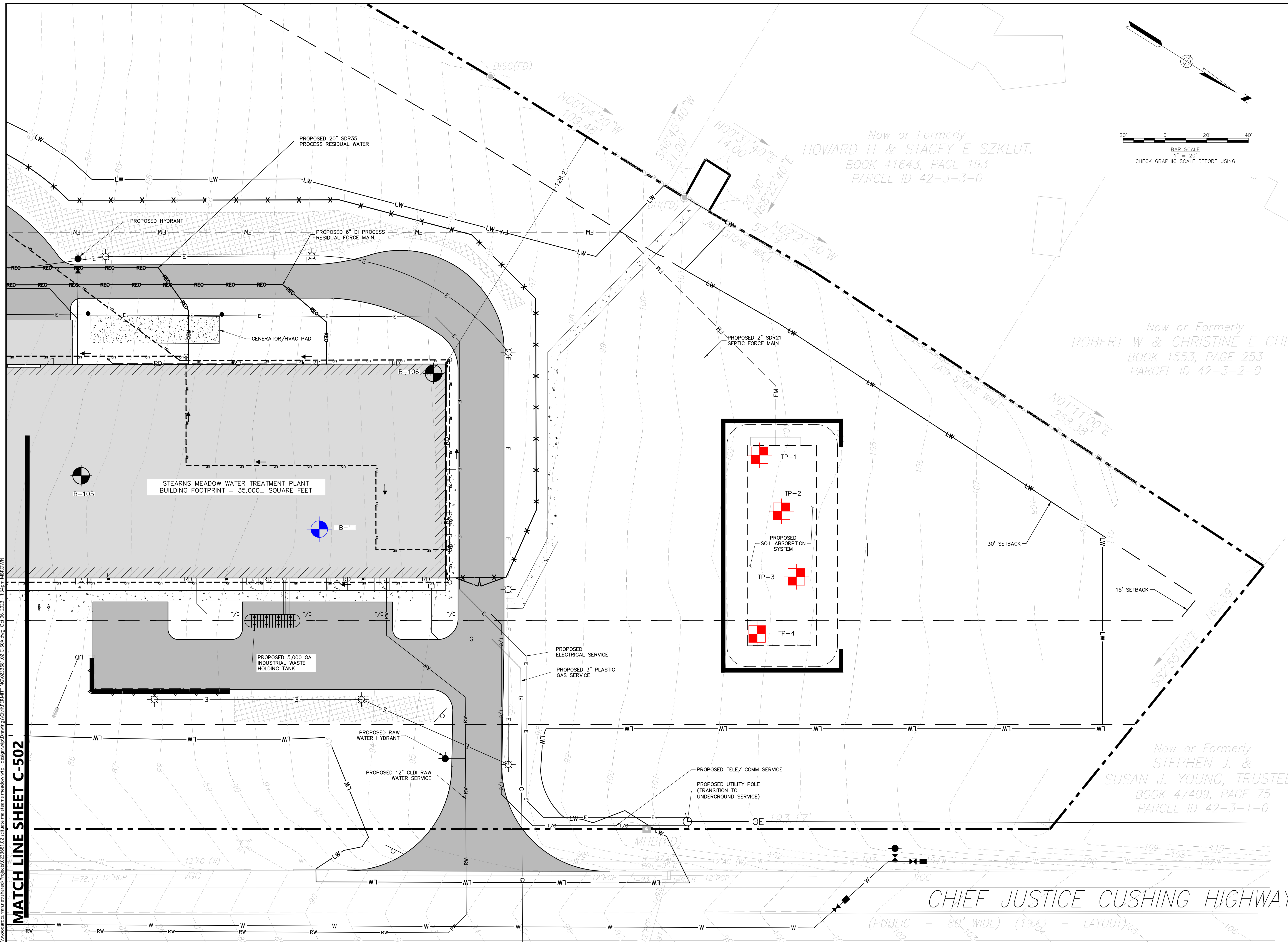
THIS DOCUMENT IS THE PROPERTY OF  
WOODARD & CURRAN AND ITS CLIENT.  
REPRODUCTION OR MODIFICATION WITHOUT  
WRITTEN PERMISSION IS PROHIBITED.



Now or Formerly  
**HOWARD H & STACEY E SZKLUT.**  
BOOK 41643, PAGE 193  
PARCEL ID 42-3-3-0

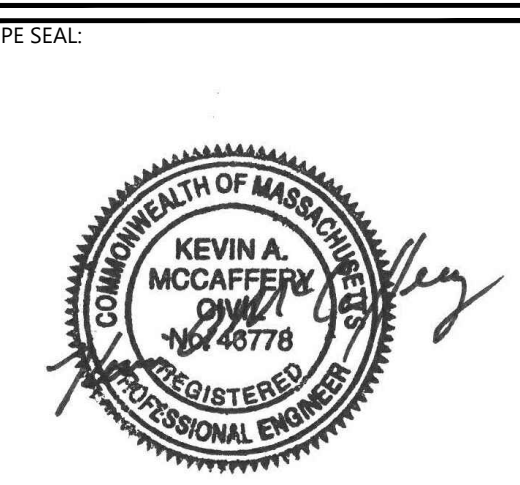
Now or Formerly  
**ROBERT W & CHRISTINE E CHE**  
BOOK 1553, PAGE 253  
PARCEL ID 42-3-2-0

Now or Formerly  
**STEPHEN J. &  
SUSAN J. YOUNG, TRUSTEES**  
BOOK 47409, PAGE 75  
PARCEL ID 42-3-1-0



**MATCH LINE SHEET C-502**

WoodardCurran.net\shared\Projects\0233681.02-scituate-ma-stearns-meadow-wtp -design\wp\Drawings\Civil\Permit\TITING\0233681.02-C-50X.dwg, Oct 06, 2023 - 1:34pm MBROWN



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

DRAWING TITLE:

**UTILITIES PLAN**

DRAWING NO:  
**C-501**

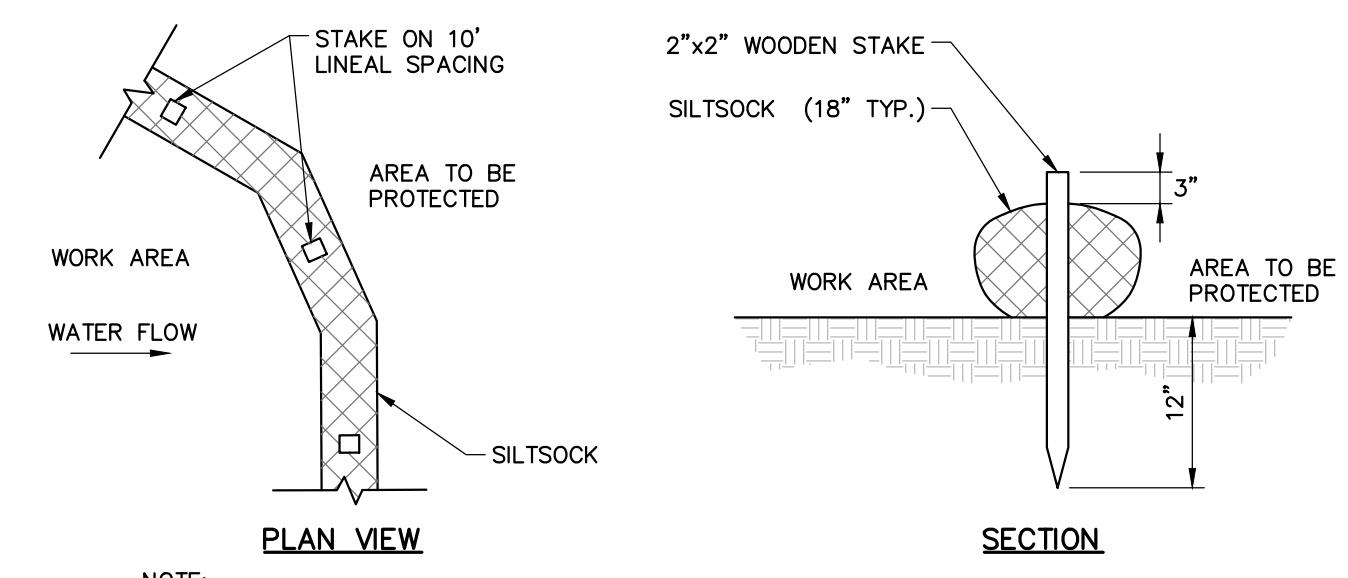






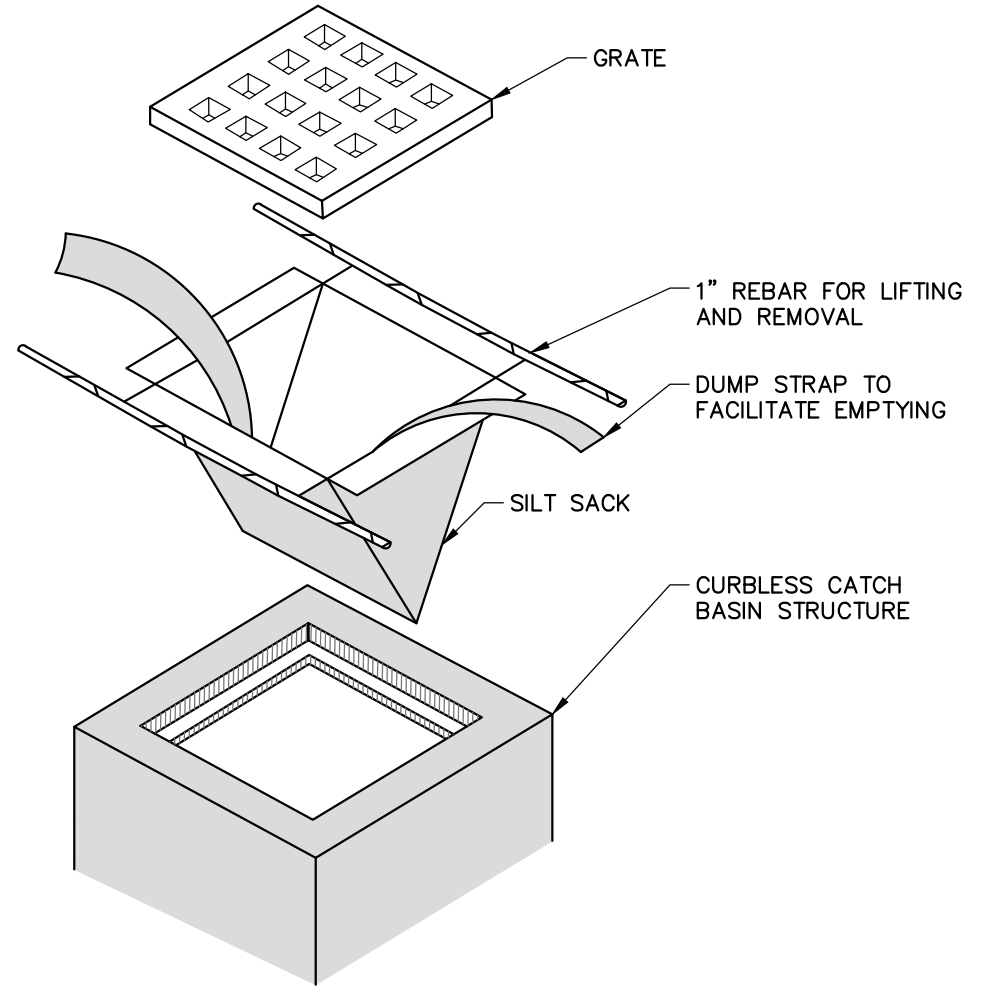


THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



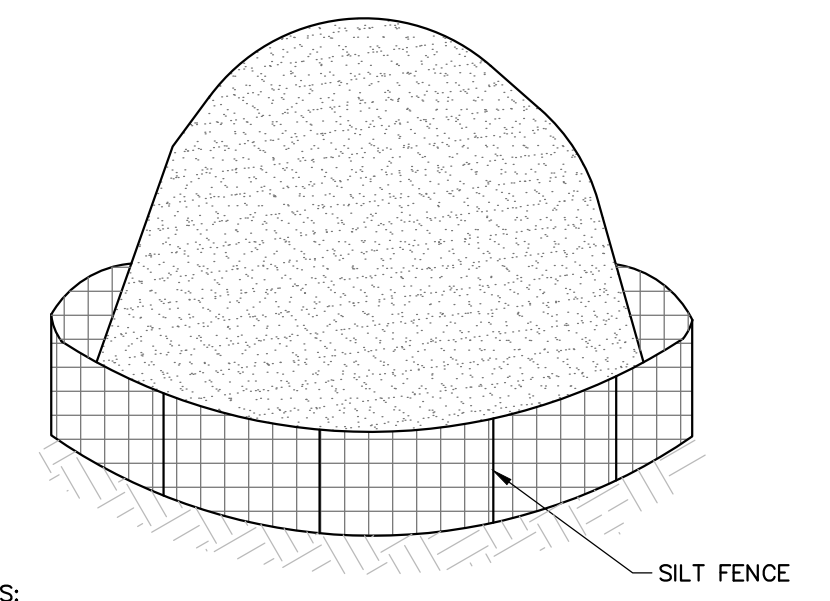
NOTE:  
1. WHEN STAKING IS NOT POSSIBLE, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.

**SEDIMENT BARRIER – SILT SOCK**  
NOT TO SCALE



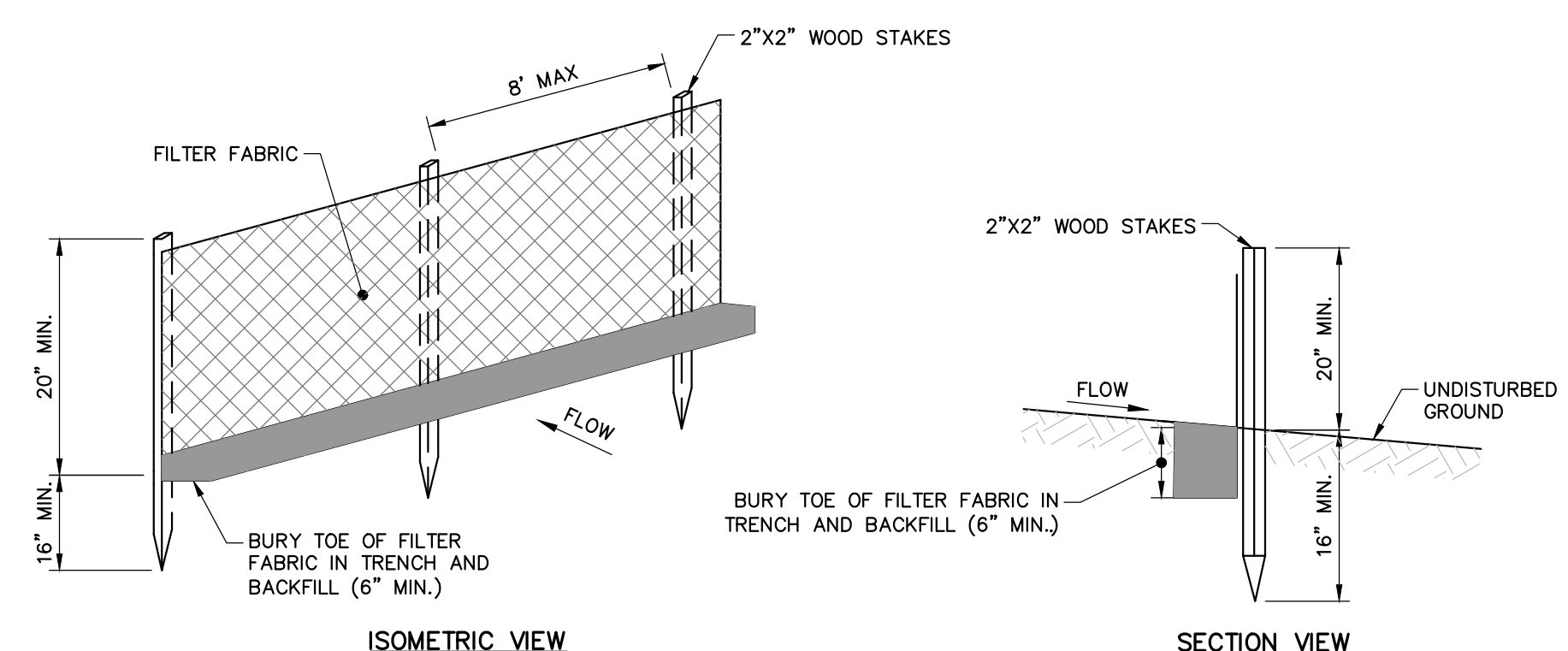
NOTES:  
1. INSTALL SILTSACK PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.  
2. EMPTY OR REMOVE SEDIMENT FROM SILTSACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE. CLEAN, RINSE, AND REPLACE AS NEEDED.  
3. SILT SACKS TO BE INSTALLED WHEN THE POTENTIAL FOR SEDIMENT TO ENTER EXISTING & PROPOSED BASINS EXISTS.

**SILTSACK – CURBLESS INLET**  
NOT TO SCALE



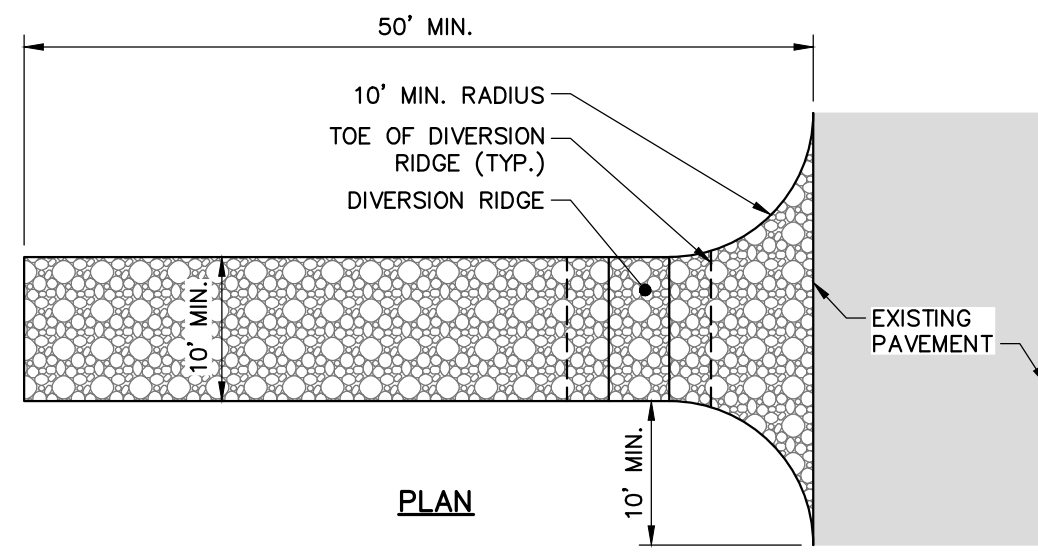
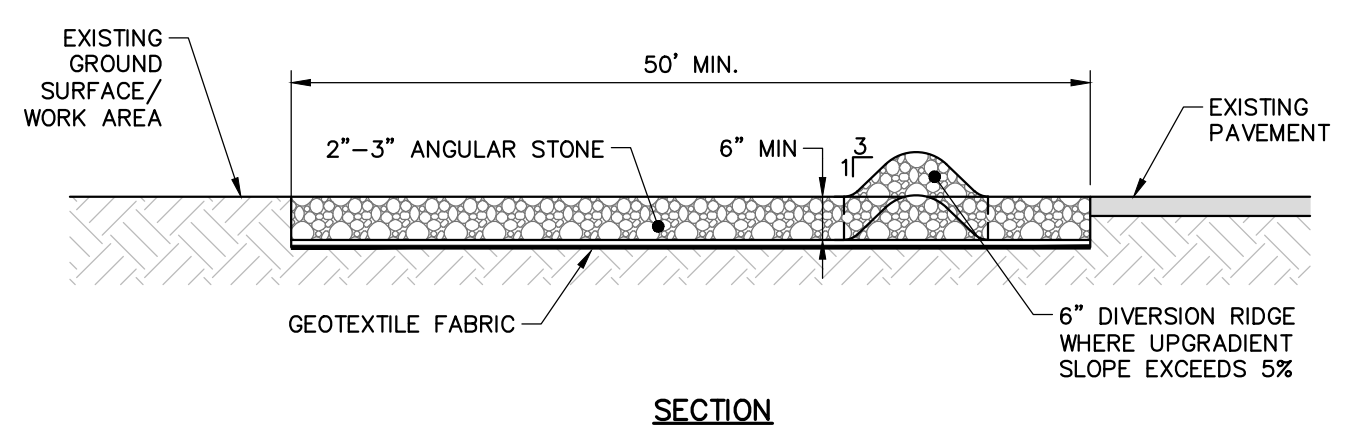
NOTES:  
1. STOCKPILES SHALL BE SURROUNDED BY SILT FENCE.  
2. STOCKPILES SHALL HAVE A MAXIMUM 2:1 (H:V) SIDE SLOPE.  
3. REPAIR OR REPLACE DAMAGED SILT FENCE DUE TO CONSTRUCTION ACTIVITIES OR STOCKPILE MITIGATION.  
4. STOCKPILE SHALL BE LOCATED IN AREAS AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.

**TEMPORARY SOIL STOCKPILE**  
NOT TO SCALE



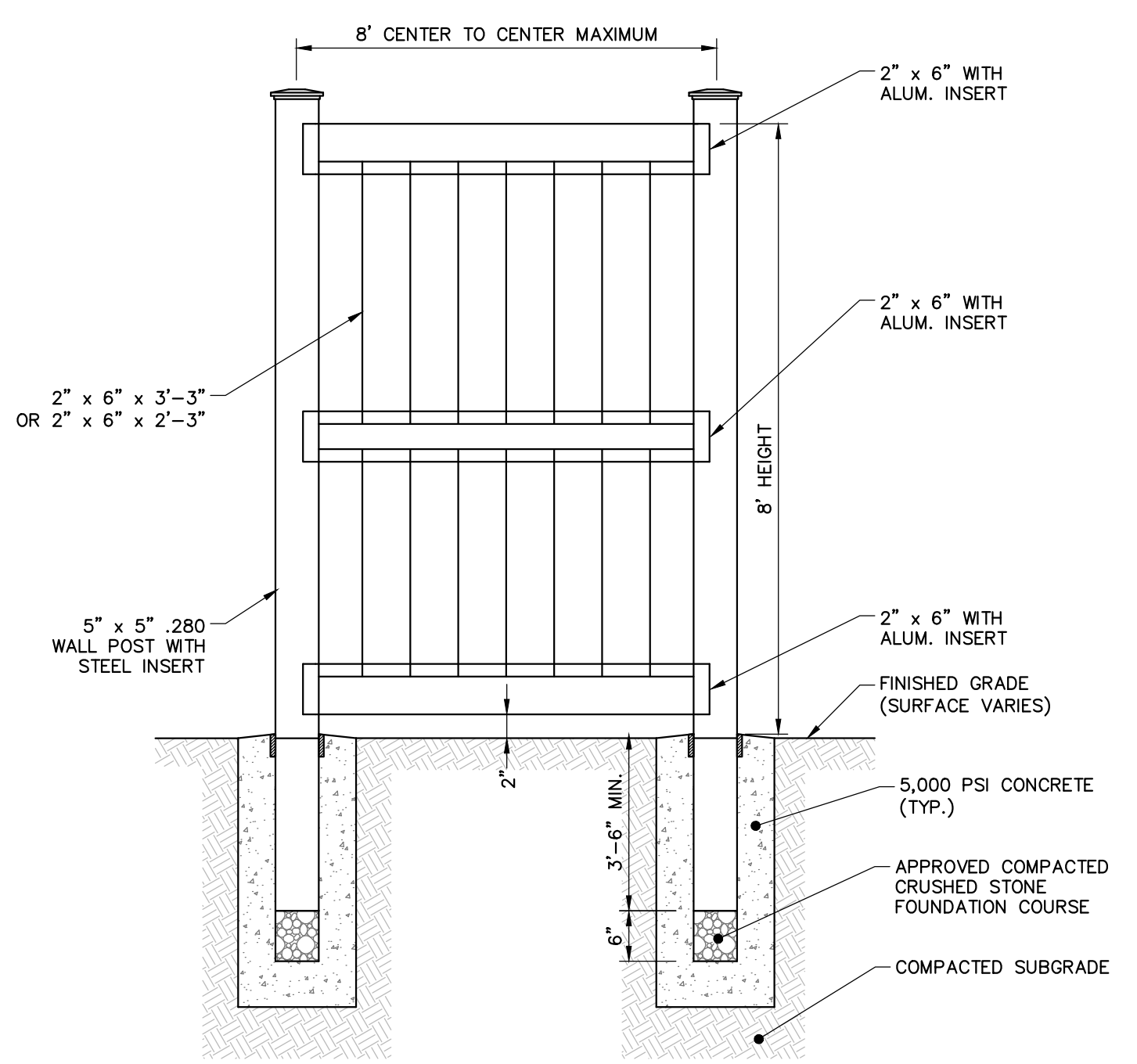
NOTES:  
1. INSTALL FABRIC ON UPHILL SIDE OF WOOD STAKES.  
2. SPACING BETWEEN WOOD STAKES PER MANUFACTURER'S RECOMMENDATION.  
3. SILT FENCE WILL NOT BE USED IN DRAINAGE WAYS.  
4. MAINTENANCE: INSPECT FOR TEARS IN THE FABRIC OR DAMAGE TO SUPPORTS. REPAIR AS NECESSARY. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF SIX-INCHES OR MORE.  
5. REMOVAL: WHEN UPSLOPE AREAS ARE STABILIZED, THE STRUCTURE AND ANY ACCUMULATED SEDIMENT WILL BE REMOVED.

**SEDIMENT BARRIER – SILT FENCE**  
NOT TO SCALE



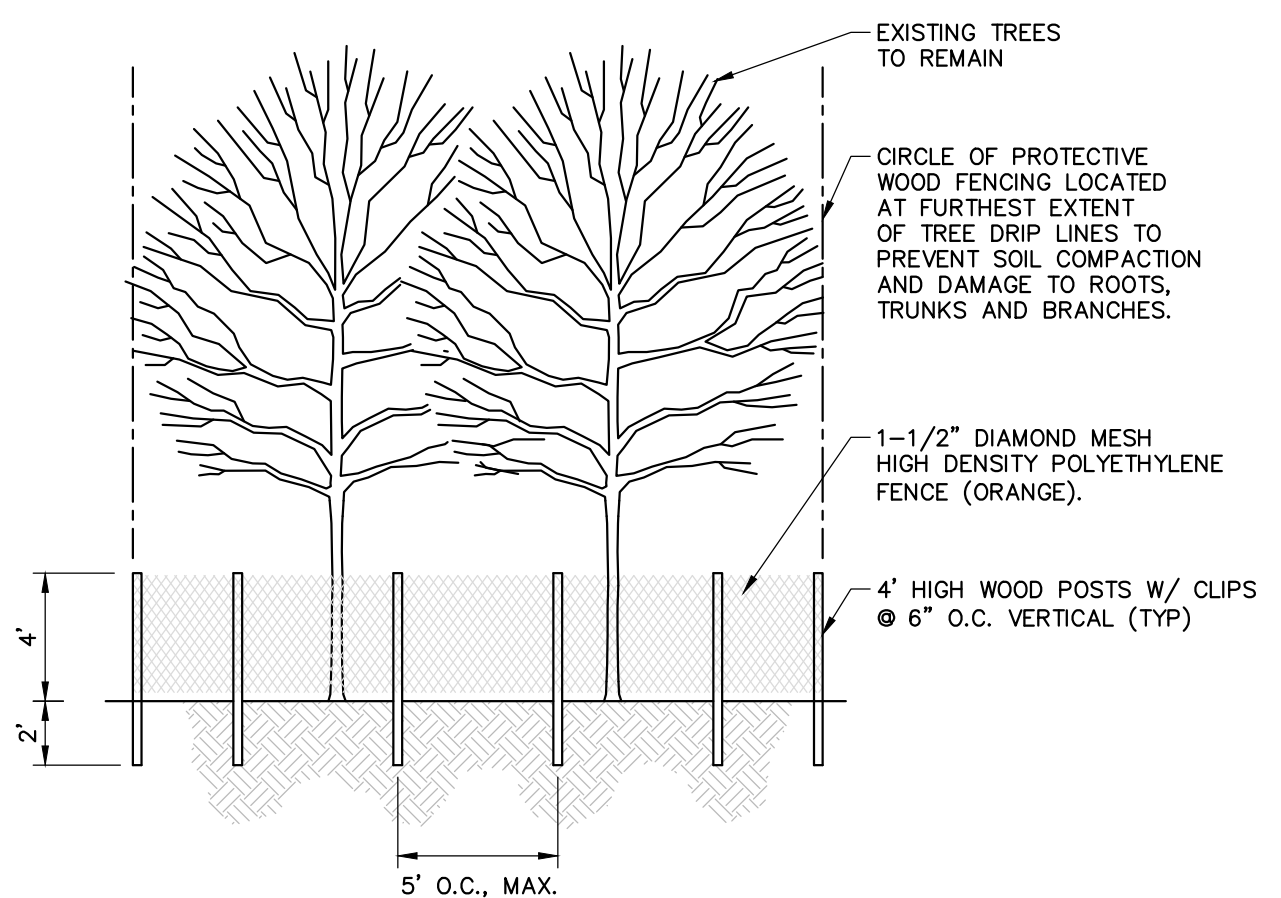
NOTES:  
1. GRADE TOWARDS SEDIMENT BARRIER WHEN NECESSARY TO MANAGE FLOW.  
2. INCREASE MINIMUM LENGTH TO 100' WHERE TRACKED SEDIMENTS CONTAIN LESS THAN 80% SAND OR AS NECESSARY FOR HEAVY CONSTRUCTION.

**STABILIZED CONSTRUCTION ENTRANCE/EXIT**  
NOT TO SCALE



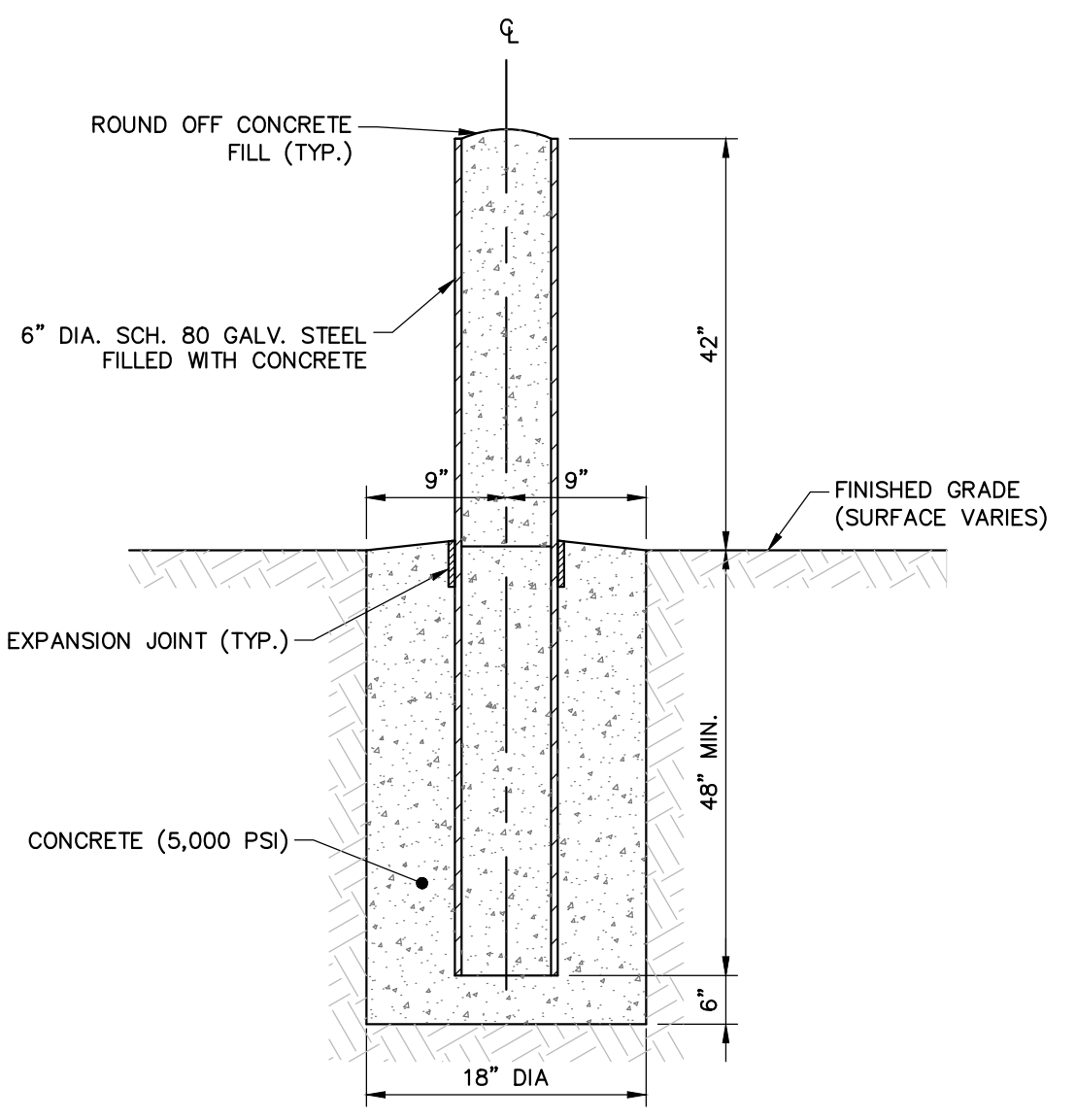
NOTE:  
1. FENCE TO BE PLACED AROUND DUMPSTER PAD TO PROVIDE ADEQUATE SCREENING OF TRASH CONTAINERS. SEE PLANS FOR LOCATION.

**PVC PRIVACY FENCE FOR DUMPSTER ENCLOSURE**  
NOT TO SCALE



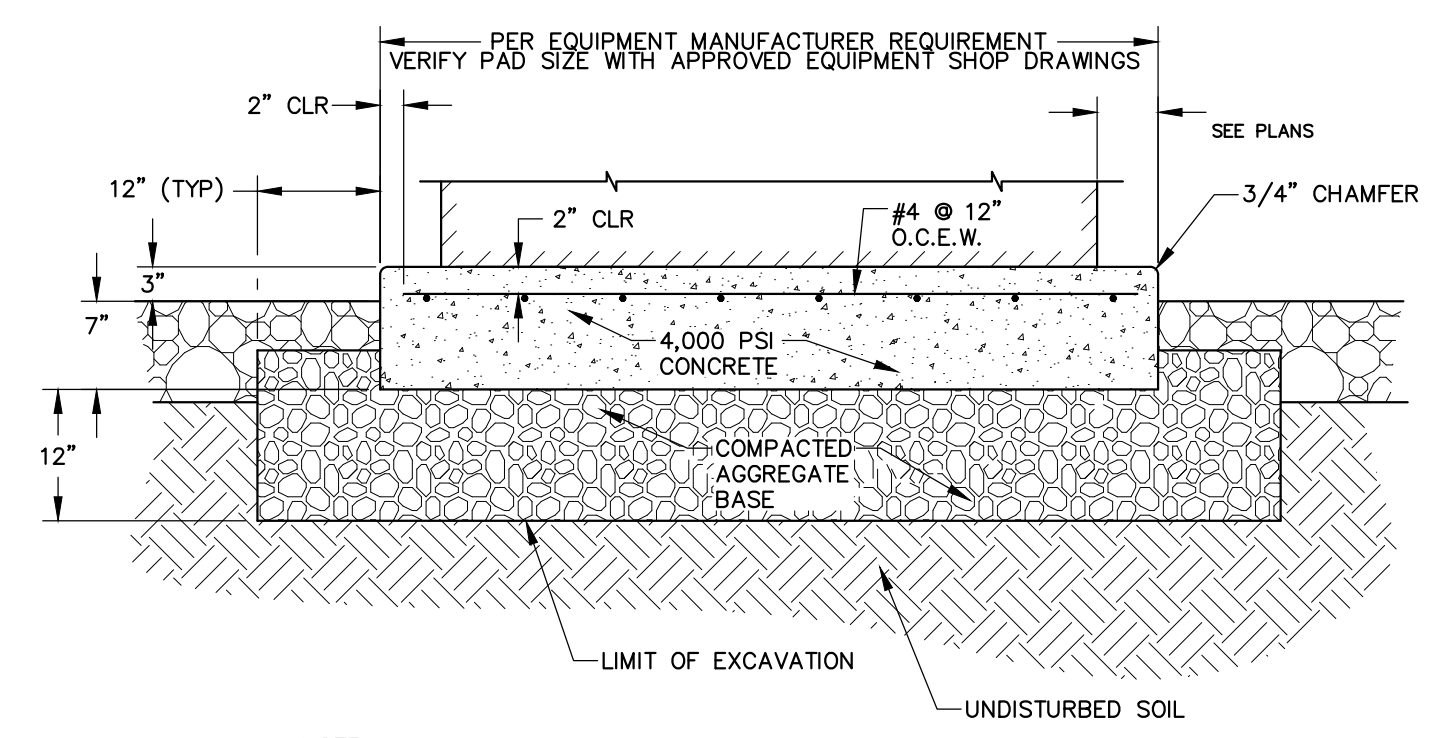
NOTES:  
1. LOCATE FENCING AS SHOWN ON PLANS.  
2. NO MATERIAL OR EQUIPMENT SHALL BE STORED OR STOCKPILED WITHIN THE AREA SURROUNDED BY TREE PROTECTION FENCING.  
3. FENCE MUST REMAIN AND BE MAINTAINED THROUGHOUT ENTIRE BUILDING PHASES DURING WHICH CONSTRUCTION MAY AFFECT TREES.

**TREE PROTECTION**  
NOT TO SCALE



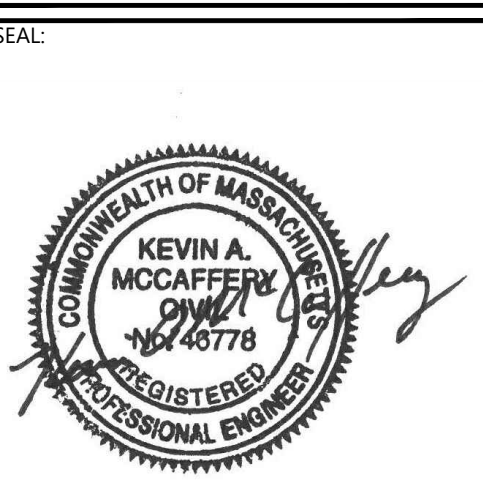
NOTE:  
1. ALL BOLLARDS SHALL BE PAINTED. COLOR SELECTED BY OWNER.

**6" DIA. BOLLARD**  
NOT TO SCALE



NOTE:  
1. PAD REQUIREMENTS TO BE COORDINATED WITH UTILITY OWNER AND OR EQUIPMENT MANUFACTURER.

**UTILITY PAD DETAIL**  
NOT TO SCALE



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK  
FILENAME: 0233681.02 C-90X.dwg  
  
DRAWING TITLE:  
**CIVIL DETAILS 1**  
  
DRAWING NO:  
**C-900**

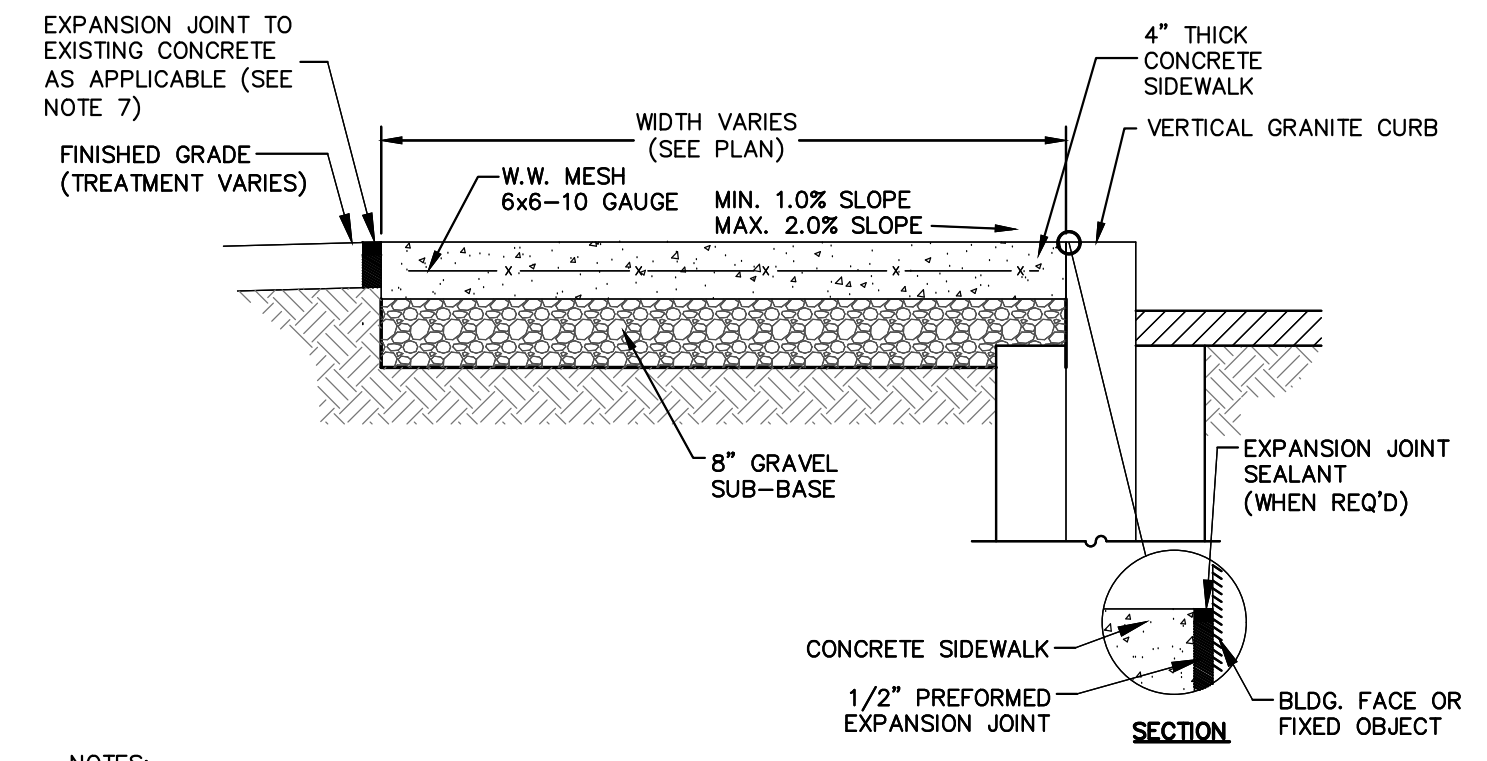
WoodardCurran.net\shared\Projects\0233681.02 Scituate ma Stearns Meadow vtp - design\wp\Drawings\Civil\PERMITTING\0233681.02 C-90X.dwg Oct 06, 2023 - 1:35pm MBROWN





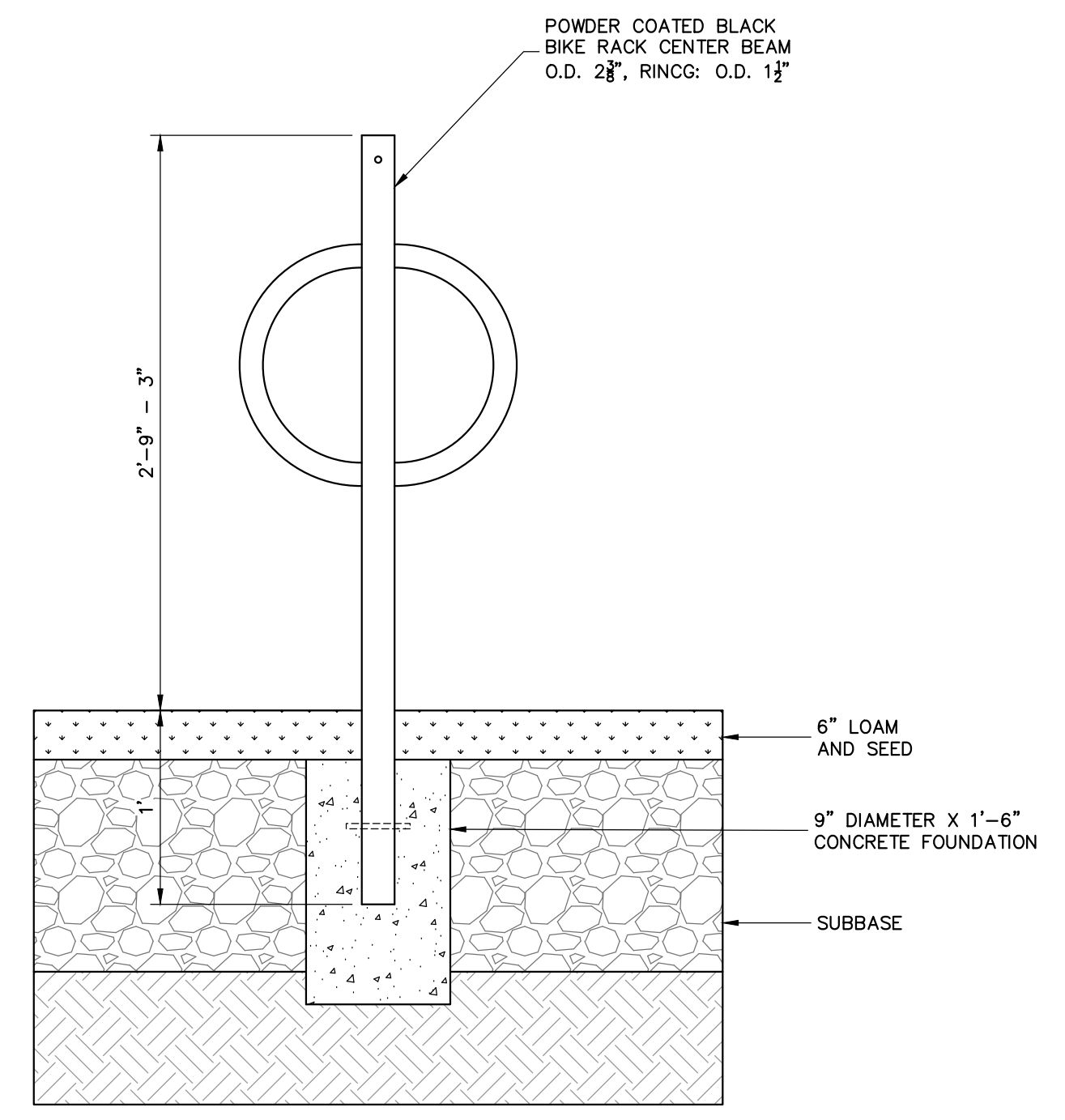
250 Royall Street Suite 200E  
Canton, Massachusetts 02021  
800.446.5518 | www.woodardcurran.com

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



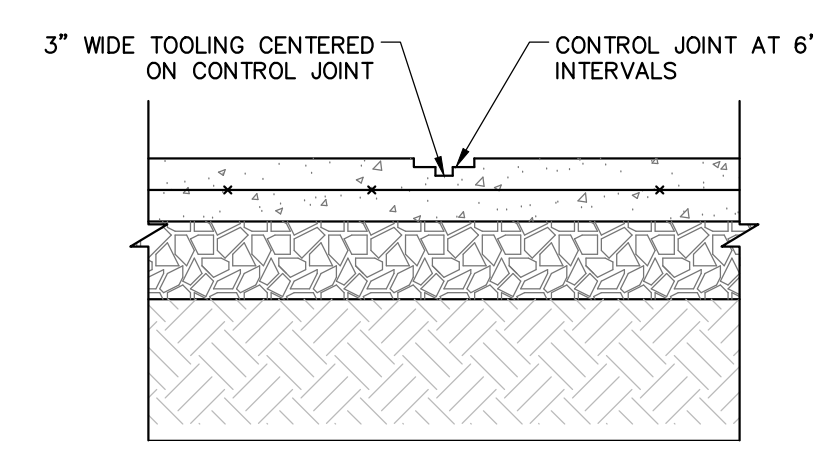
- NOTES:**
1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-MOLDED JOINT FILLER.
  2. PROVIDE CONTROL JOINTS AT 6' O.C.
  3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
  4. CEMENT CONCRETE SHALL BE 4000 PSI-TYPE II.
  5. EXISTING GRAVEL SUB-BASE TO REMAIN IN AREAS WHERE NO TRENCHING IS PROPOSED.
  6. SEE ROADWAY/SIDEWALK RECONSTRUCTION DETAIL FOR GRAVEL APPLICATION IN AREAS OF PROPOSED TRENCHING.
  7. EXPANSION JOINT NOT REQUIRED WHERE SIDEWALK ABUTS NON-PAVED AREAS (SEE PLANS FOR LOCATIONS).

**TYPICAL CEMENT CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE

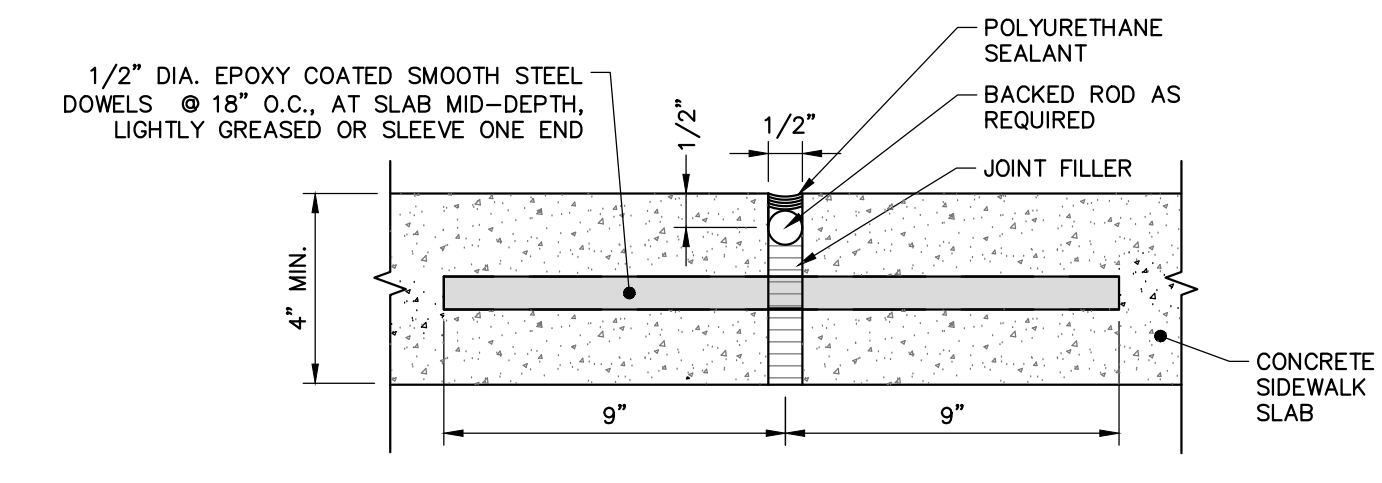


- NOTES:**
1. TWO (2) BICYCLE PARKING SPACE ARE BEING PROVIDED PER THE TOWN OF SCITUATE REGULATIONS. SEE PLANS FOR BICYCLE PARKING SPACES.

**BICYCLE PARKING SPACES**  
NOT TO SCALE

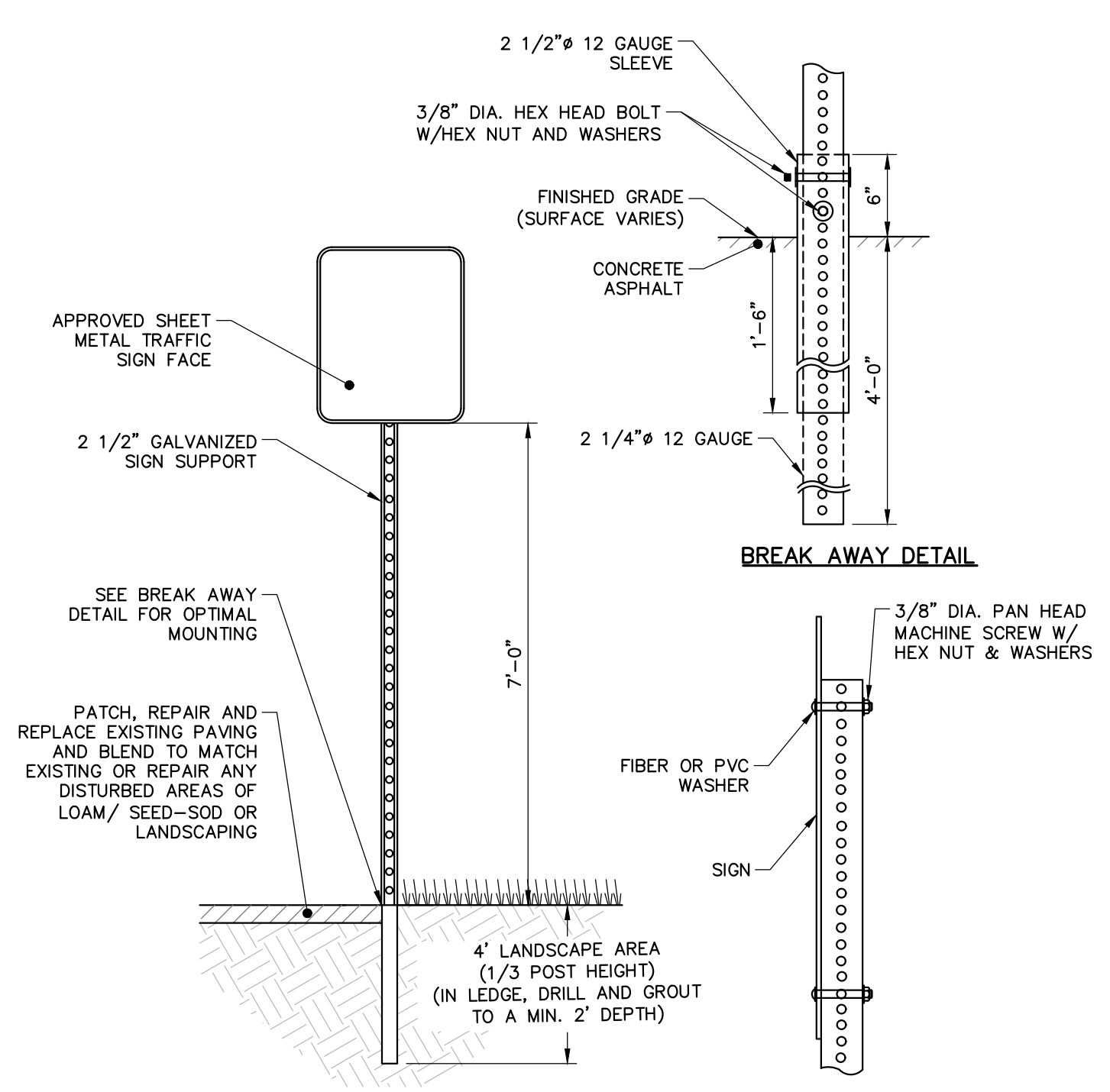


**SIDEWALK CONTROL JOINT**  
NOT TO SCALE



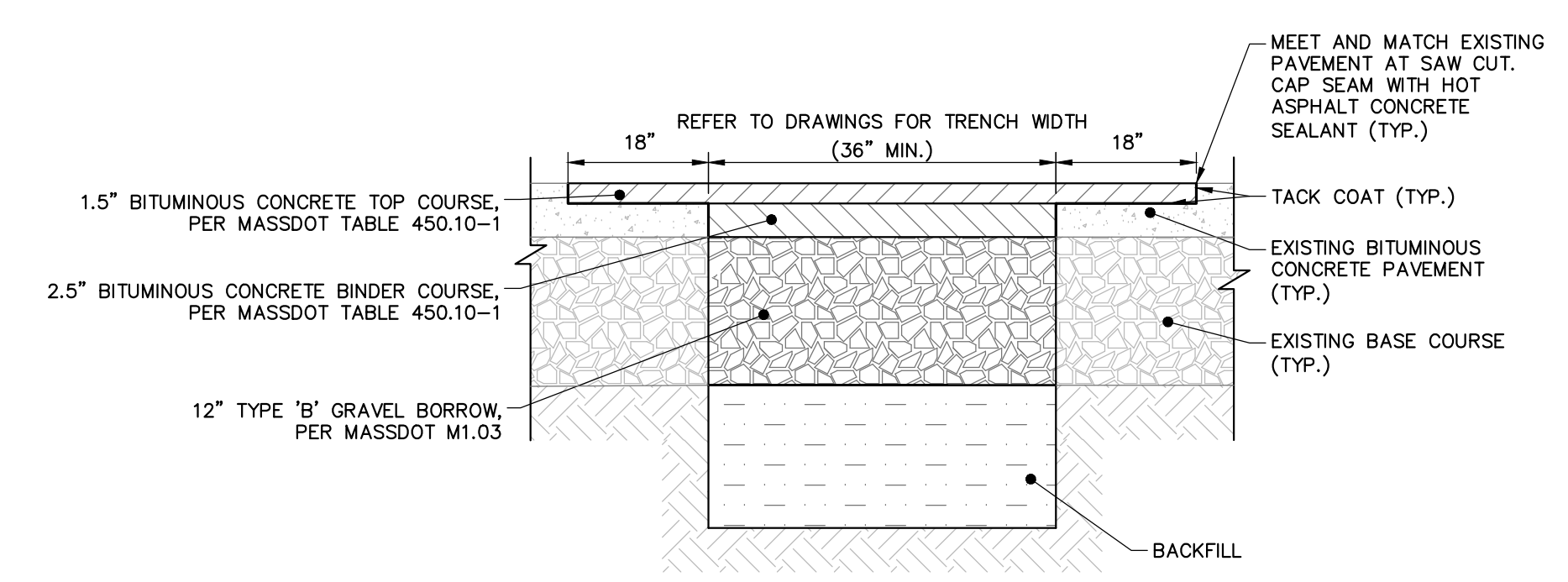
- NOTES:**
1. EXPANSION JOINTS SHALL BE 30' O.C.
  2. DISCONTINUE REINFORCING AT EACH SIDE OF JOINT.
  3. DOWELS SHALL BE CUT STRAIGHT AND DEBURRED.

**CONCRETE SIDEWALK EXPANSION JOINT**  
NOT TO SCALE

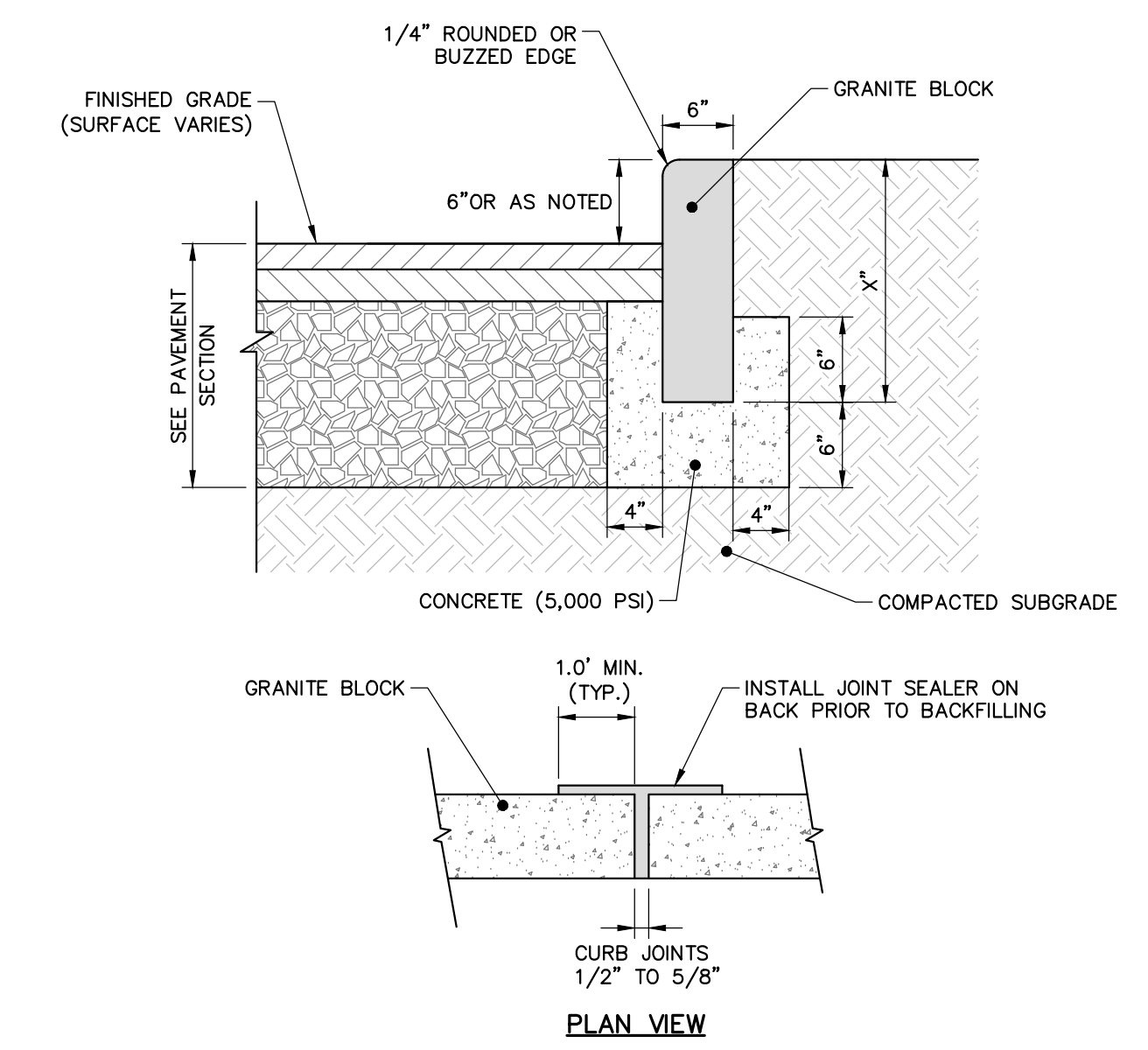


- NOTES:**
1. ALL HARDWARE SHALL BE STAINLESS STEEL.
  2. FOR USE WITH MUTCD "STOP" AND "DO NOT ENTER" SIGNS.

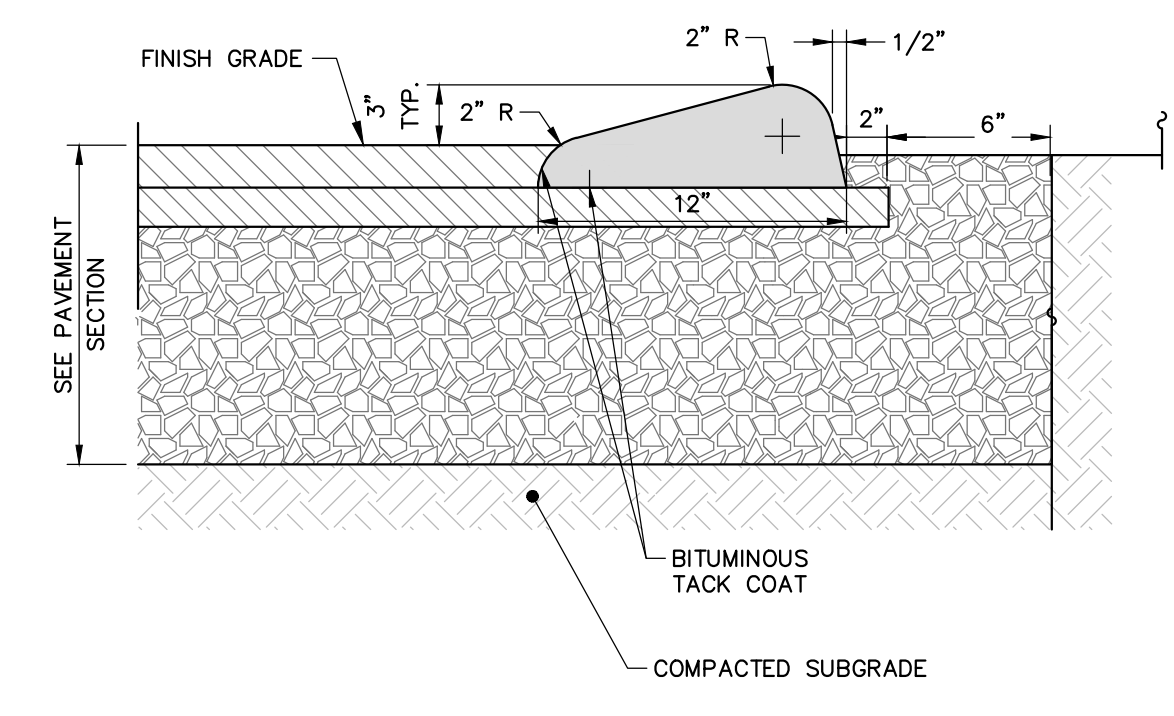
**TRAFFIC SIGN POST**  
NOT TO SCALE



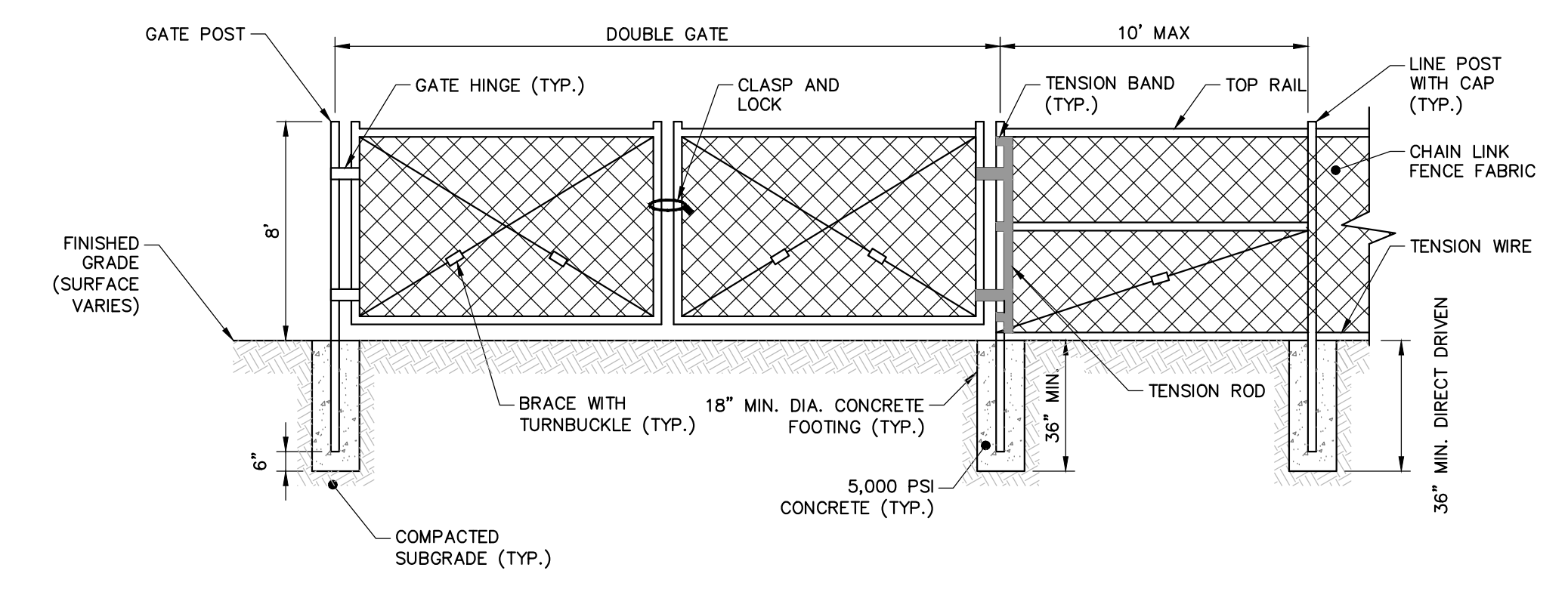
**PERMANENT TRENCH REPAIR FOR PUBLIC ROADS**  
NOT TO SCALE



**VERTICAL GRANITE CURB**  
NOT TO SCALE

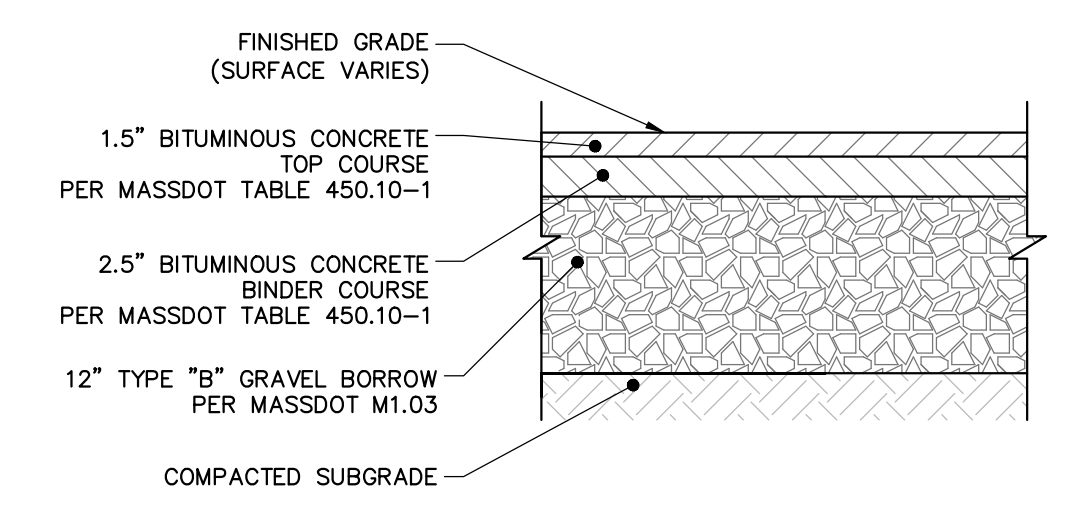


**BITUMINOUS CAPE COD BERM**  
NOT TO SCALE

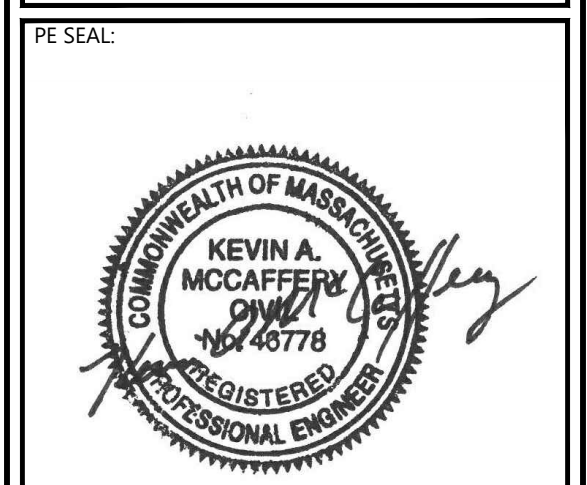


- NOTES:**
1. ALL FENCING AND HARDWARE TO BE LIST MATERIAL.
  2. INSTALL ALL FENCING AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

**CHAIN LINK FENCE AND GATE**  
NOT TO SCALE



**BITUMINOUS CONCRETE PAVEMENT SECTION**  
NOT TO SCALE



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY  
  
STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK  
FILENAME: 0233681.02 C-90X.dwg

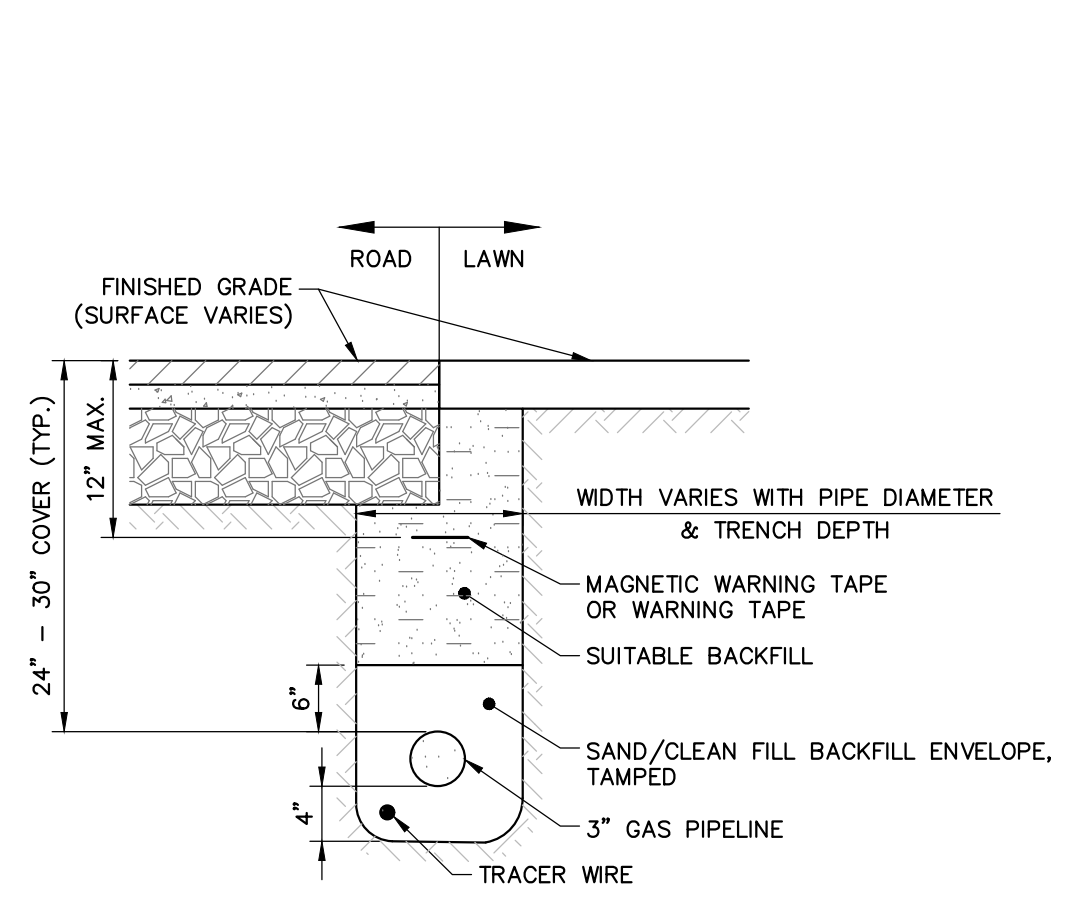
**CIVIL DETAILS 2**

**C-901**

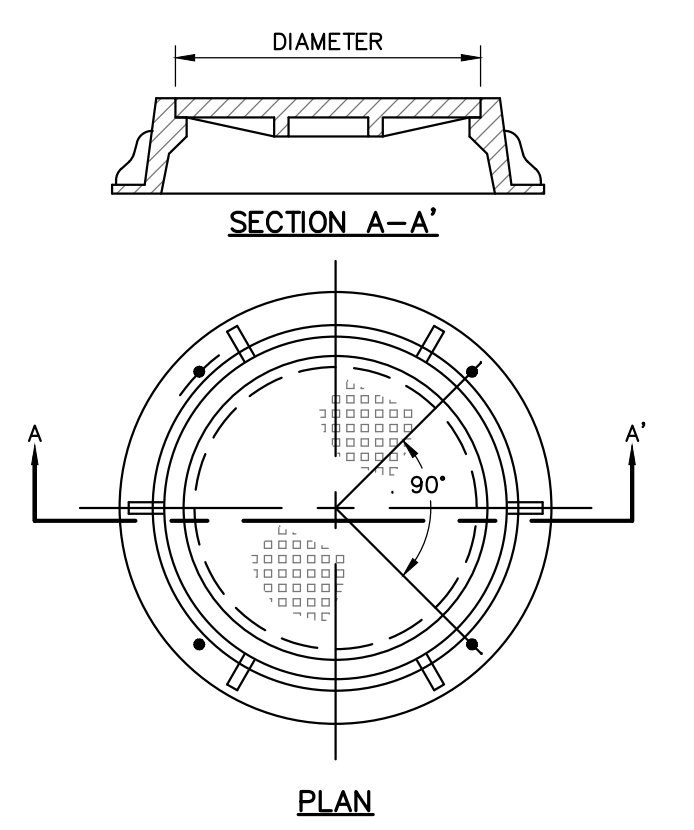
WoodardCurran.net\shane\Projects\0233681.02\_scutuate\_ma\_stearns\_meadow\wp -design\wp\Drawings\Civil\Permit\0233681.02\_C-90X.dwg Oct 06, 2023 - 1:35pm MBROWN



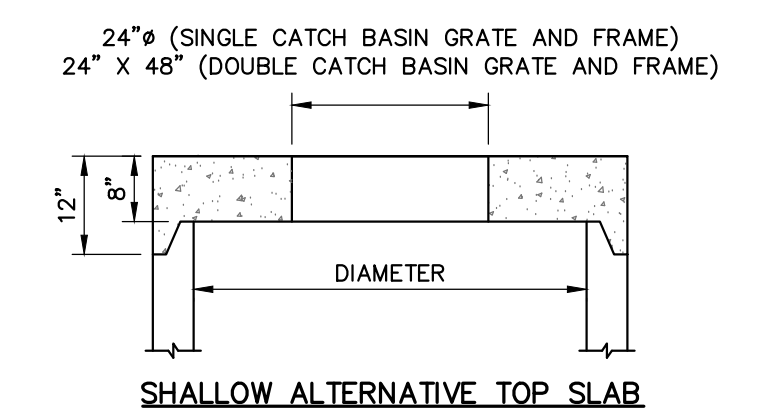
THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



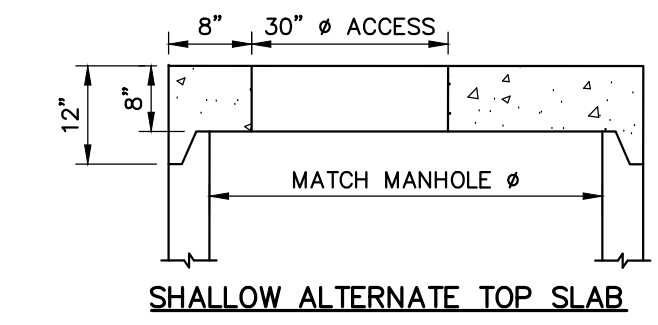
**GAS PIPE TRENCH**  
NOT TO SCALE



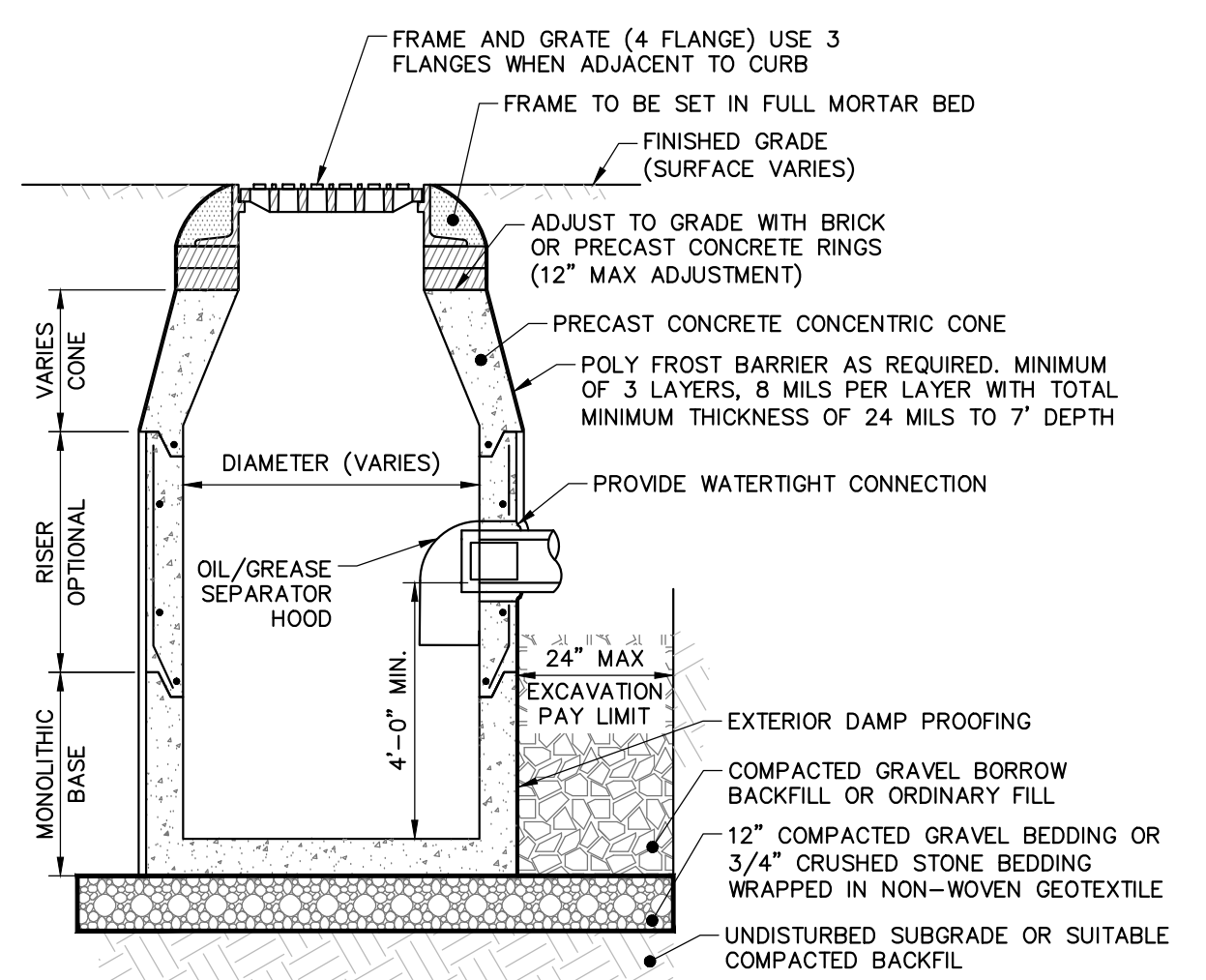
**MANHOLE FRAME AND COVER**  
NOT TO SCALE



**SHALLOW ALTERNATIVE TOP SLAB**



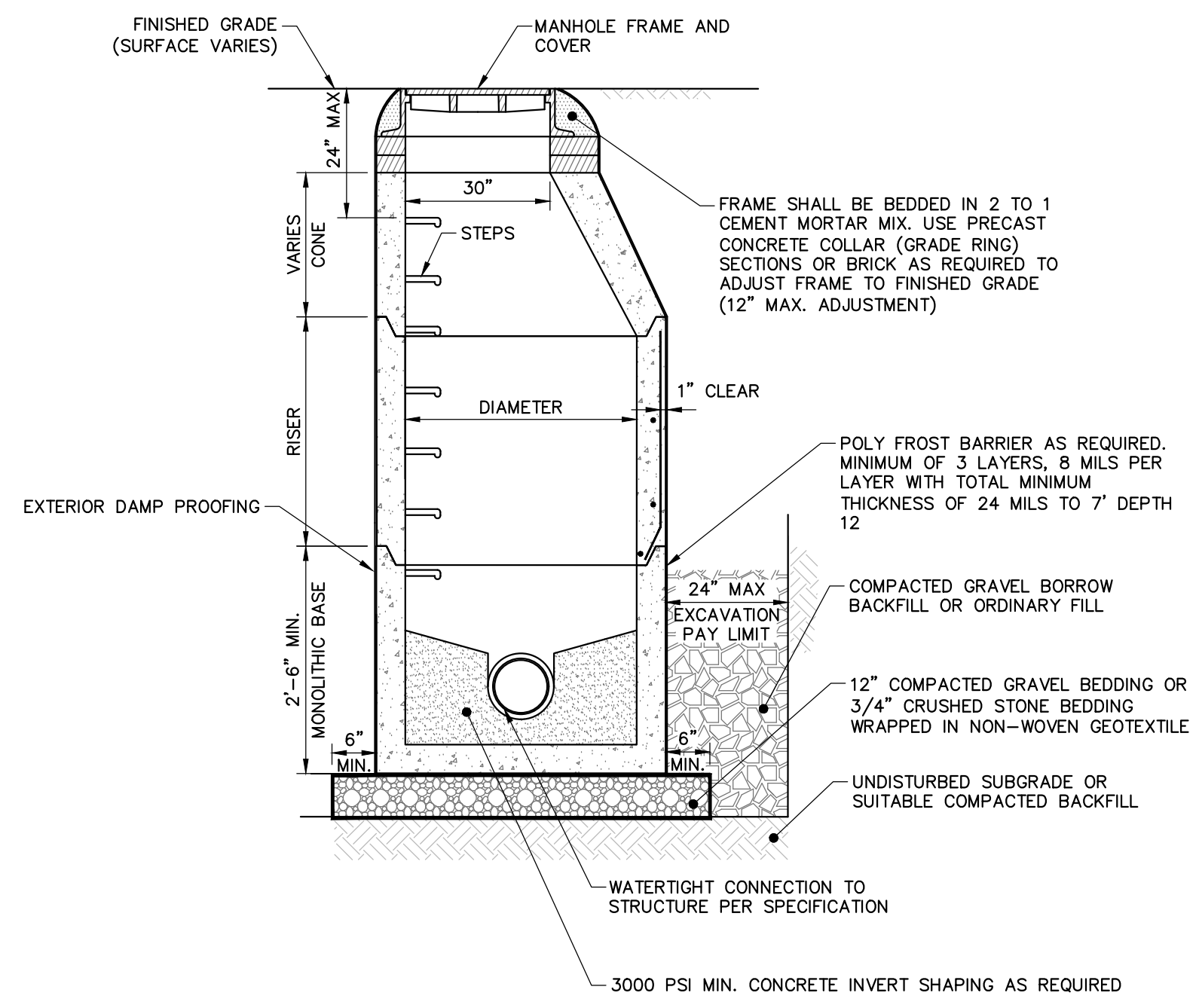
**SHALLOW ALTERNATE TOP SLAB**



**NOTES:**

1. PRECAST CONCRETE STRUCTURES AND CASTINGS SHALL BE SUITABLE FOR HS-20 LOADINGS.
2. PRECAST CONCRETE STRUCTURES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
3. ALTERNATE TOP SLAB MAY BE USED AS DICTATED BY DESIGN AND/OR FIELD CONDITIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
5. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE INSTALLED ON A MINIMUM 5'-0" DIAMETER TOP SLAB.
6. PROVIDE MINIMUM 24" DIAMETER OPENING.
7. PROVIDE ANTI-FLOATION SLAB EXTENSION AS REQUIRED TO SATISFY ANTI-FLOATION REQUIREMENTS.

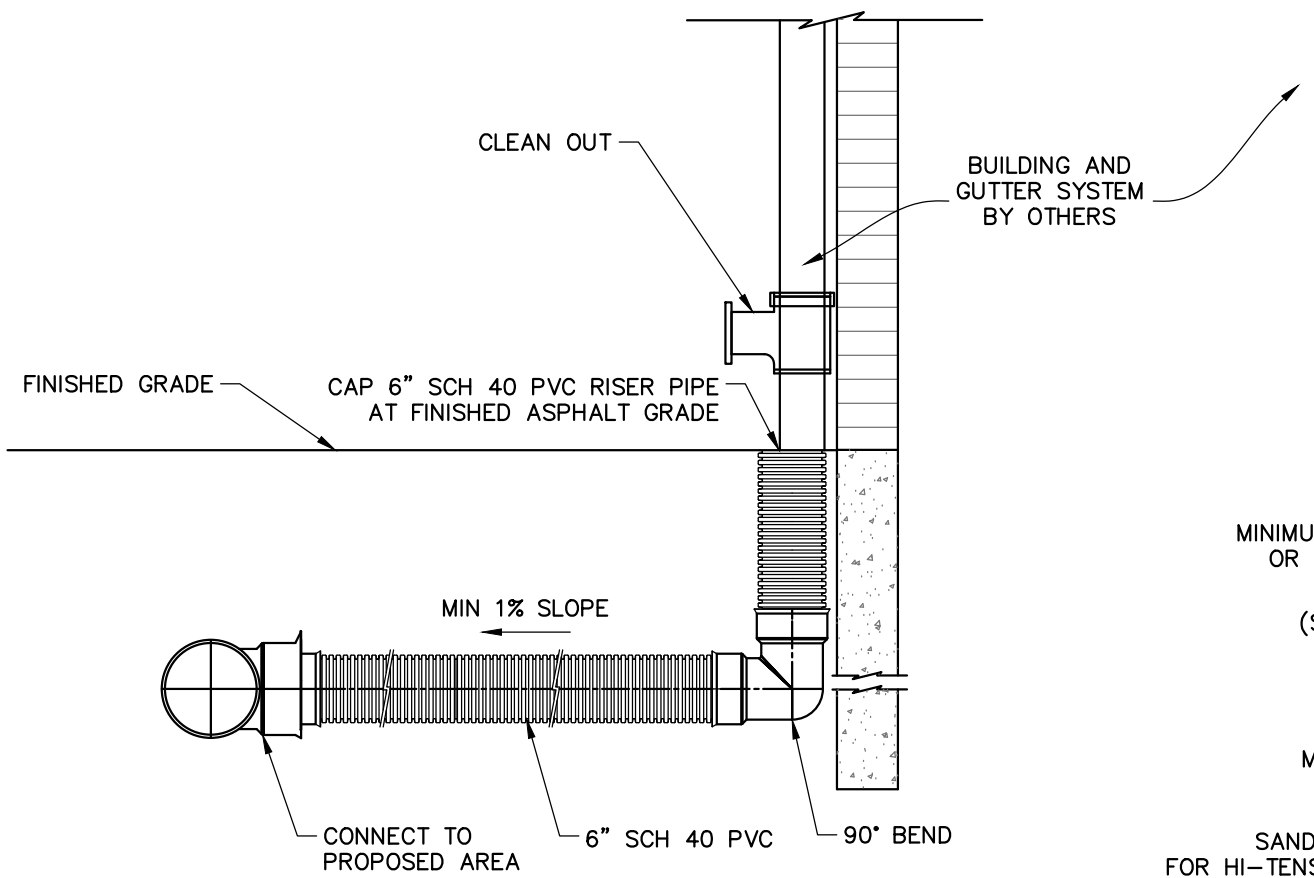
**PRECAST CONCRETE CATCH BASIN**  
NOT TO SCALE



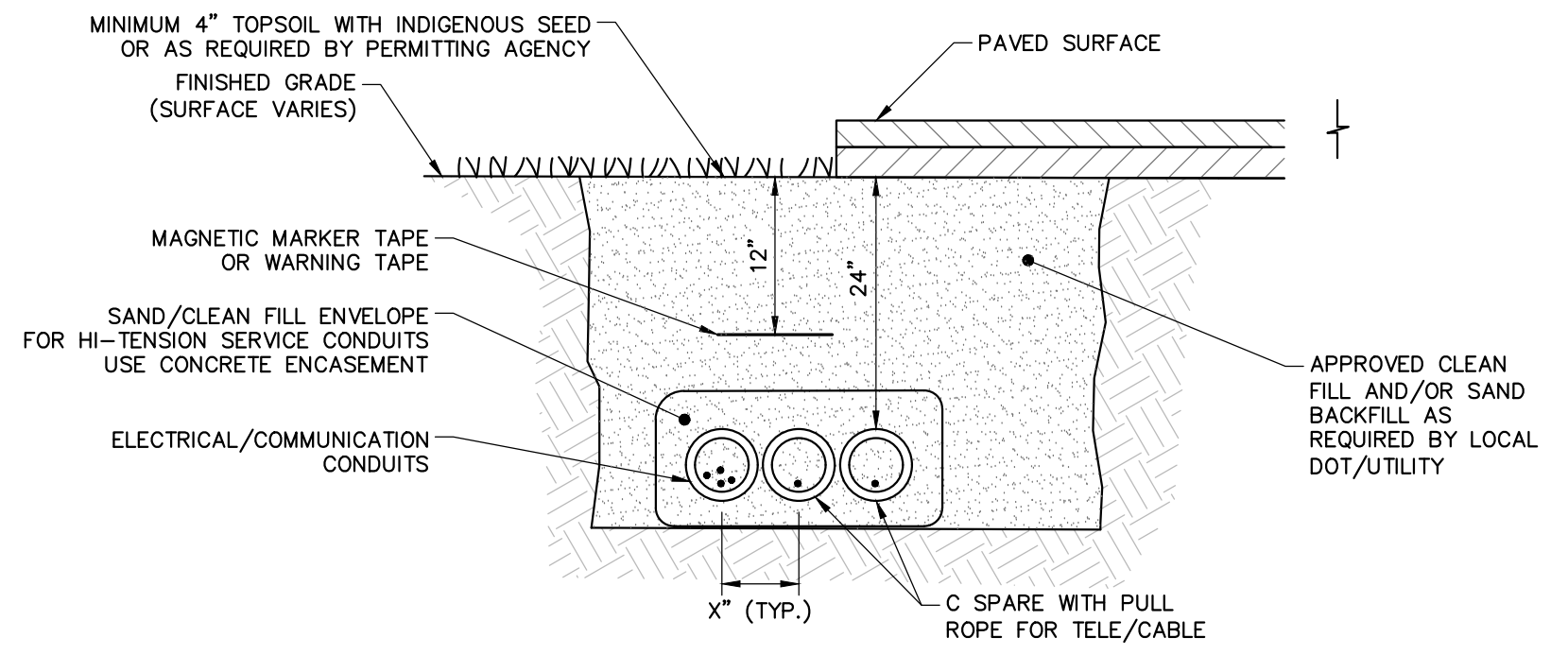
**NOTES:**

1. PRECAST CONCRETE STRUCTURES AND CASTINGS SHALL BE SUITABLE FOR HS-20 LOADINGS.
2. PRECAST CONCRETE STRUCTURES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
3. ALTERNATE TOP SLAB MAY BE USED AS DICTATED BY DESIGN AND/OR FIELD CONDITIONS.
4. MANHOLE FRAME AND GRATE(S) SHALL MEET MUNICIPAL AND STATE SPECIFICATIONS WHEN APPLICABLE.
5. REFER TO PROJECT SPECIFICATIONS FOR MORE DRAINAGE MANHOLE INFORMATION.
6. JOINT SEALANT BETWEEN SECTIONS SHALL BE BUTYL RUBBER.
7. PROVIDE ANTI-FLOATION SLAB EXTENSION AS REQUIRED TO SATISFY ANTI-FLOATION REQUIREMENTS.

**PRECAST CONCRETE DRAINAGE MANHOLE**  
NOT TO SCALE



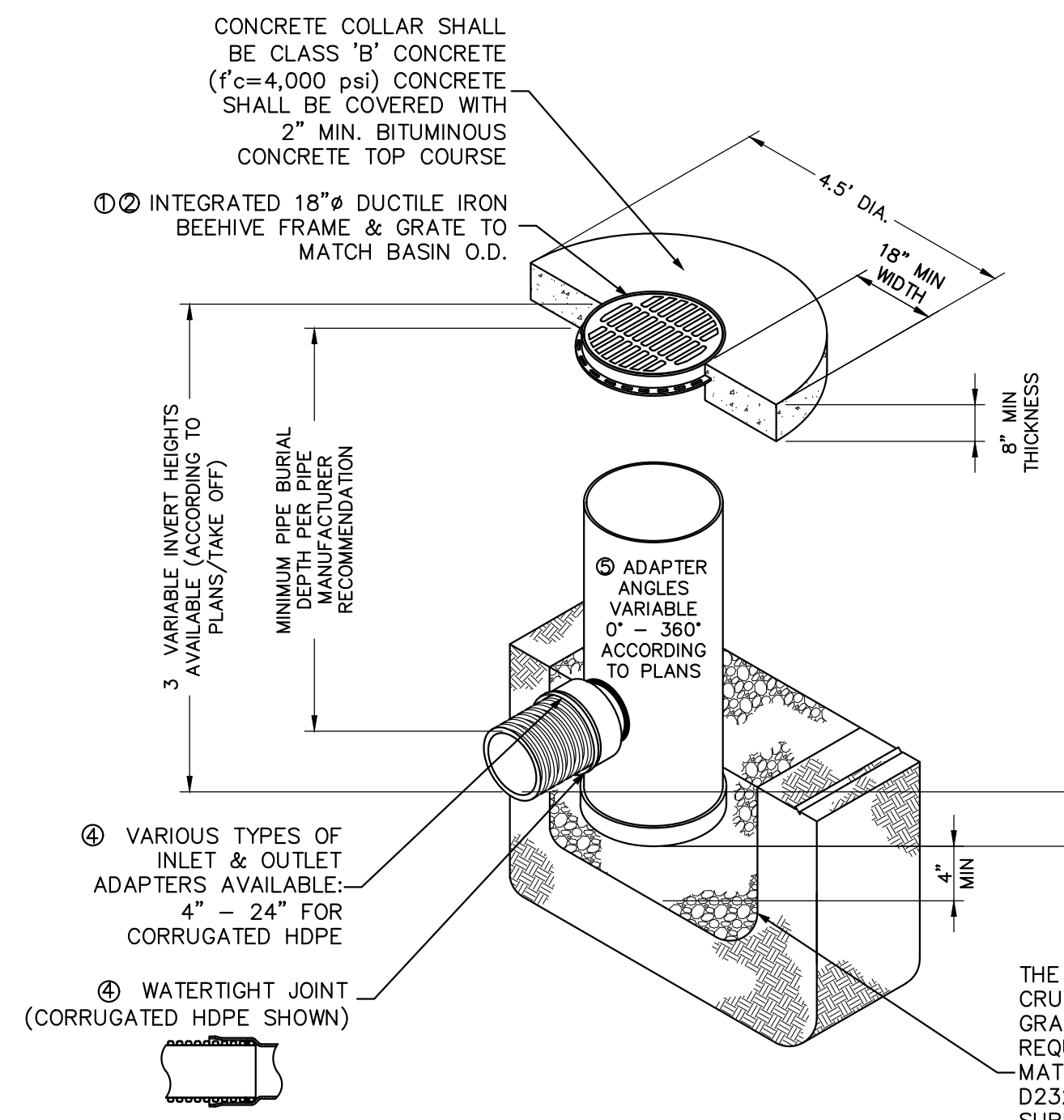
**ROOF DRAIN LEADER CONNECTION**  
NOT TO SCALE



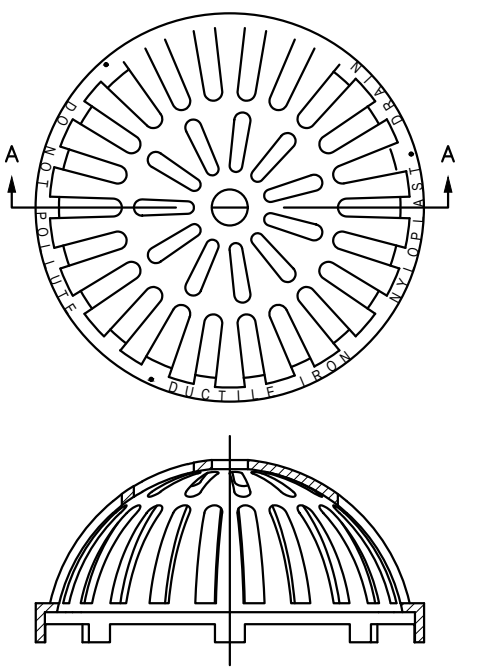
**UNDERDRAIN**  
NOT TO SCALE

- NOTES:**
1. MAINTAIN 18" CLEAR BETWEEN ELECTRICAL/COMMUNICATION CONDUITS AND GAS PIPING.
  2. EXCAVATE, REMOVE ROCK, BACKFILL, SEED AND RESTORE GRASS OR PAVEMENT TO ORIGINAL CONDITIONS.

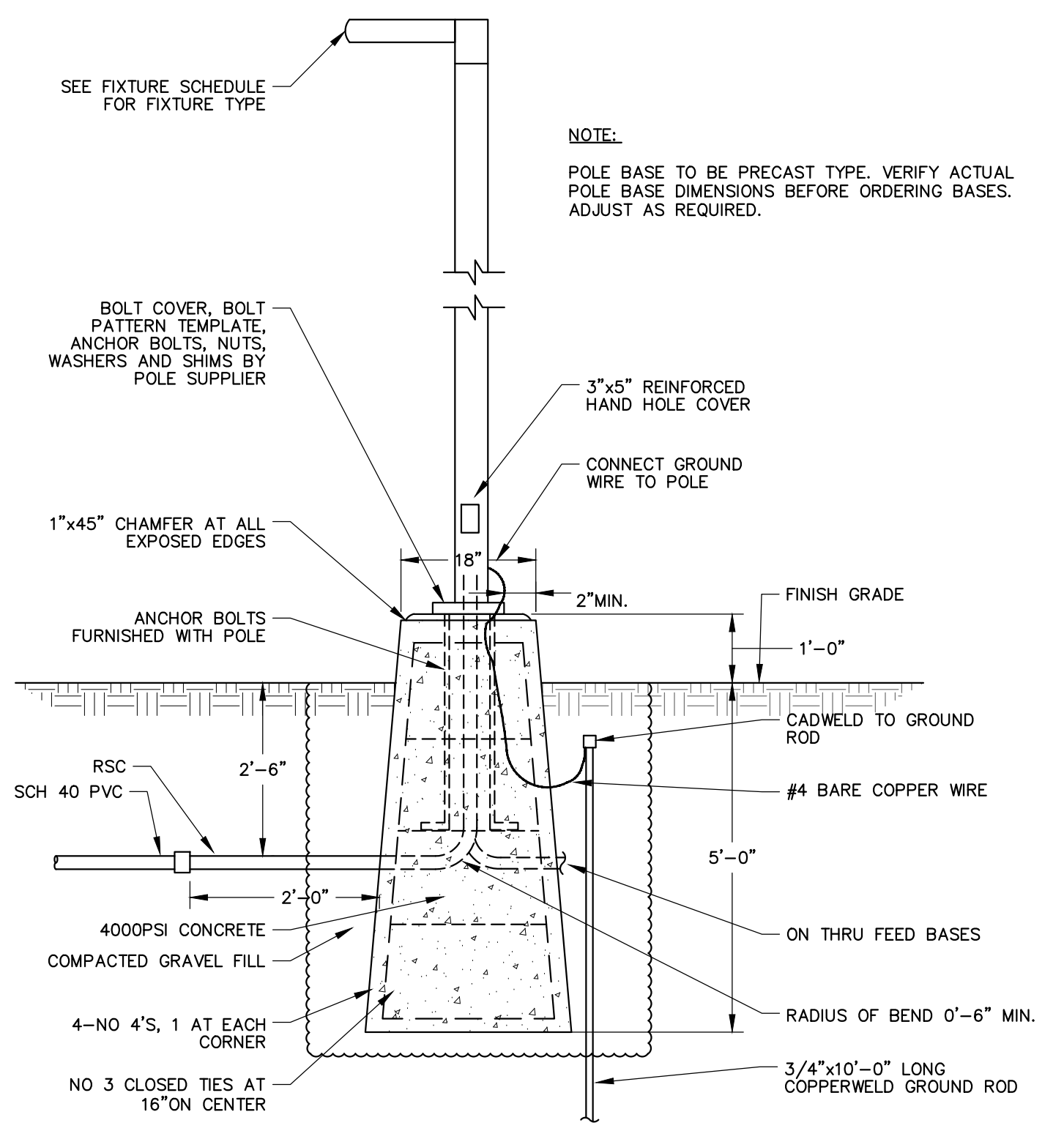
**ELECTRIC AND COMMUNICATIONS TRENCH**  
NOT TO SCALE



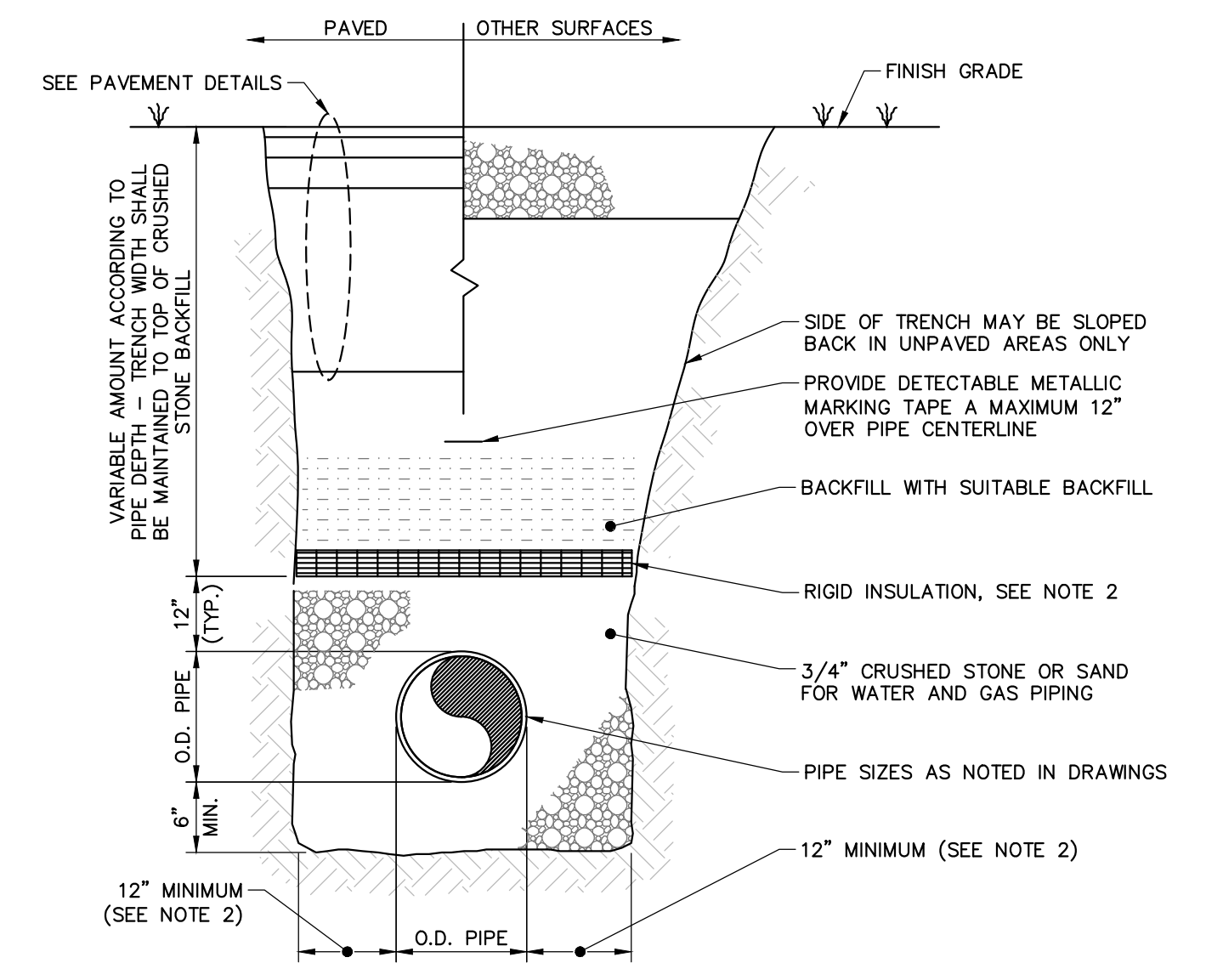
**NYLOPLAST AREA DRAIN**  
NOT TO SCALE



**BEEHIVE GRATE**  
NOT TO SCALE



**LIGHT POLE BASE**  
NOT TO SCALE



**SINGLE PIPE TRENCH**  
NOT TO SCALE

**NOTES:**

1. MAINTAIN UNIFORM TRENCH WIDTH TO 6" OVER PIPE.
2. PROVIDE RIGID INSULATION, 2" THICKNESS, FOR ALL PIPING WITH LESS THAN 5'-0" OF COVER TO TOP OF PIPE (WATER). EXTEND INSULATION 18" OUT FROM EDGE OF PIPE. WHERE INSULATION IS REQUIRED, TRENCH WIDTH MUST EXTEND 18" MIN. FROM OUTSIDE EDGE OF PIPE.
3. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE O.S.H.A. SAFETY REGULATIONS. ALL SUCH TRENCH PROTECTION TO BE RESPONSIBILITY OF CONTRACTOR.

PE SEAL:



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY

STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK  
FILENAME: 0233681.02 C-90X.dwg

**CIVIL DETAILS 3**

DRAWING NO:  
**C-902**

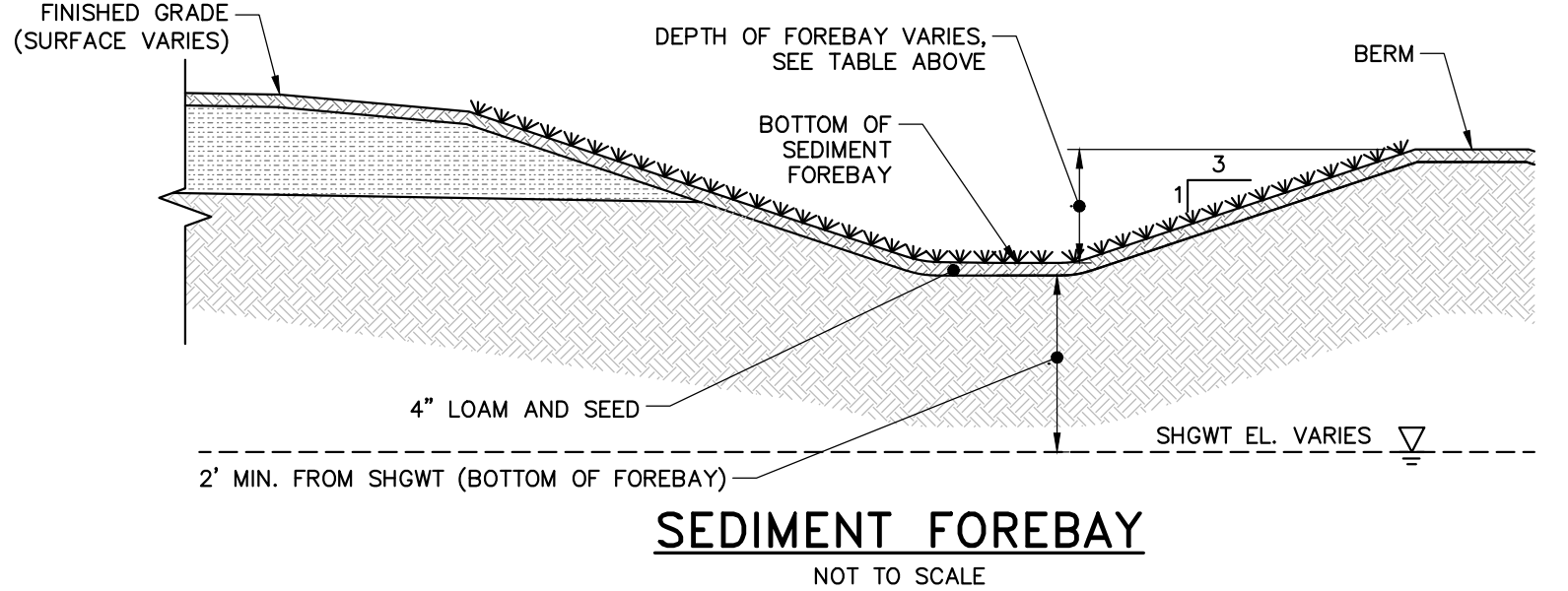
WoodardCurran.net\shane\Projects\0233681.02\scituate\meadow\wtrp - design\wp\Drawings\Civil\Permit\TNG\0233681.02 C-90X.dwg, Oct 06, 2023, 1:35pm MBROWN





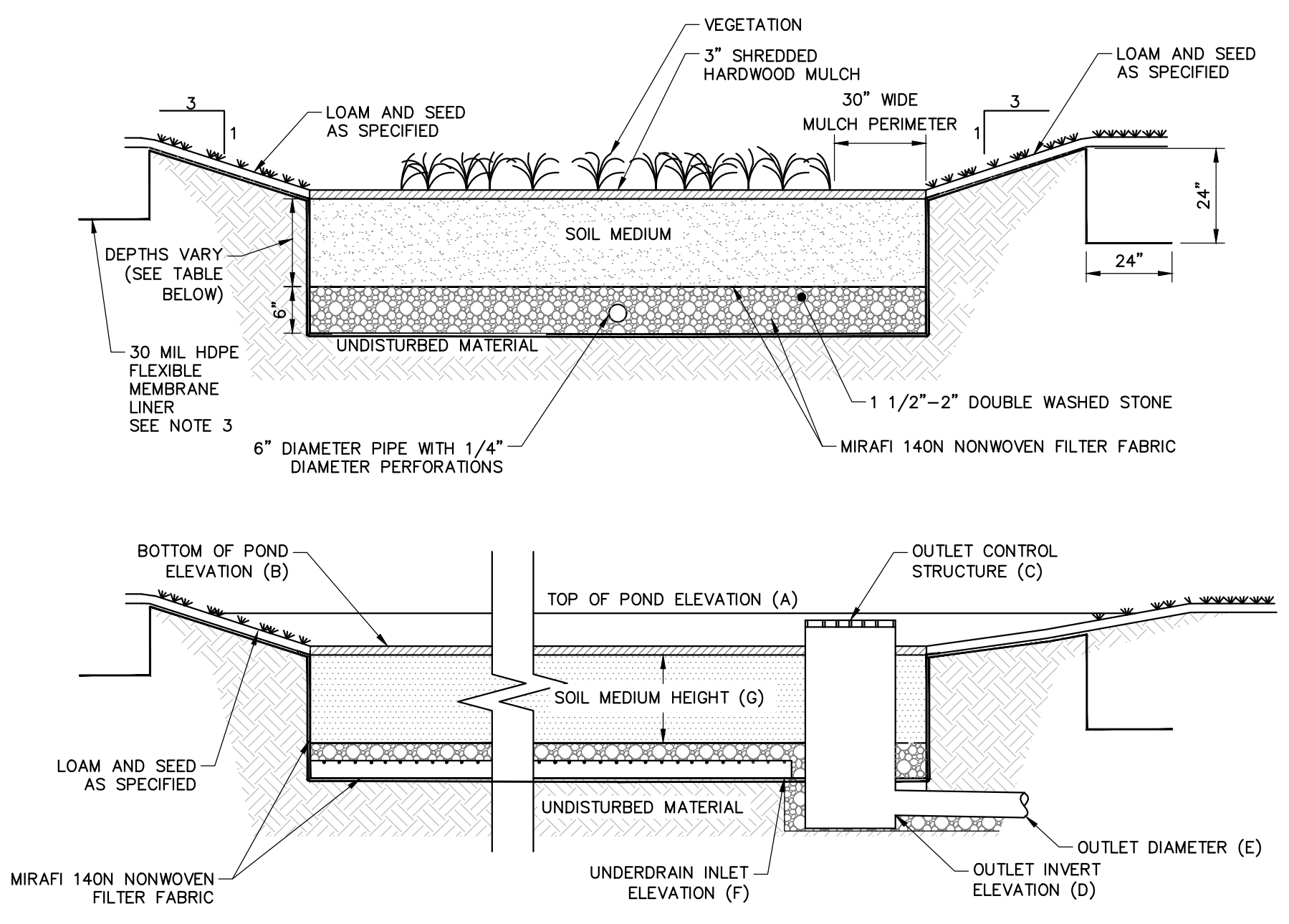
THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

POND	1-YEAR STORM EL.	2-YEAR STORM EL.	10-YEAR STORM EL.	100-YEAR STORM EL.	APPROX. SHGW EL.	BERM EL.	FINISHED GRADE EL.	SEDIMENT FOREBAY BOTTOM EL.	SEDIMENT FOREBAY DEPTH (FT)
3P	76.22	76.25	76.36	76.54	63.42	76.00	77.00	74.00	2.00
6P	78.77	78.80	78.86	78.99	55.50	78.60	79.00	77.00	1.60
9P	71.66	71.70	71.79	71.97	58.83	71.50	72.00	70.00	1.50
10P	70.13	70.16	70.22	70.33	68.50	70.00	71.00	69.00	1.00



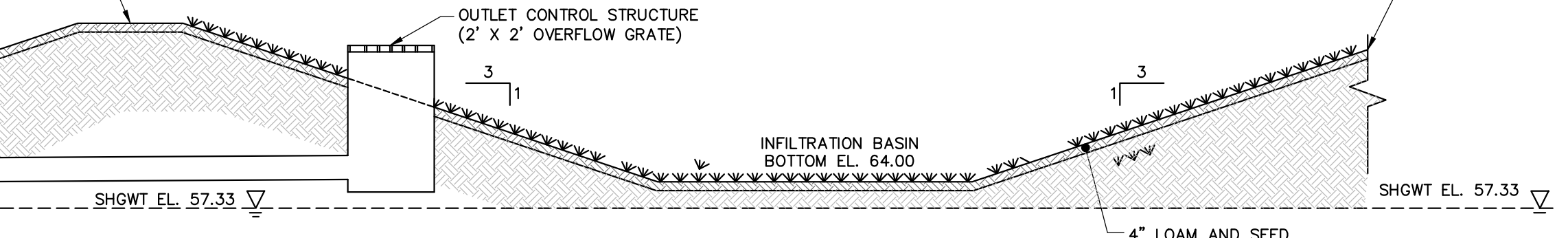
COMPONENT	1P	2P	5P	8P
TOP OF POND EL. (A)	78.00	71.00	75.00	70.00
BOTTOM OF POND EL. (B)	76.00	69.50	73.00	69.00
OUTLET CONTROL STRUCTURE EL. (C)	77.15	N/A	73.44	N/A
OUTLET INVERT EL. (D)	71.75	N/A	70.33	66.00
OUTLET DIAMETER (E)	12"	N/A	24"	6"
UNDERDRAIN INVERT EL. (F)	N/A	N/A	70.33	66.00
SOIL MEDIUM HEIGHT (G)	30"	30"	24"	28"
BOTTOM OF SOIL MEDIUM EL.	73.33	66.83	70.83	66.50
1-YEAR STORM EL.	76.19	70.18	73.26	66.49
2-YEAR STORM EL.	76.57	70.24	73.55	66.60
10-YEAR STORM EL.	77.19	70.34	73.71	66.96
100-YEAR STORM EL.	77.48	70.50	73.97	68.81
APPROX. SHGW EL.	68.33	61.00	64.33	67.33

- NOTES:
- IF UNSUITABLE MATERIAL IS OBSERVED BELOW THE POND DEPTH, AT A MINIMUM IT SHALL BE REMOVED TO A DEPTH OF TWO FEET AND REPLACED WITH CLEAN SAND AND THE ENGINEER SHOULD BE NOTIFIED.
  - SOIL WITHIN BIO-RETENTION AREA TO BE PLACED, DO NOT COMPACT, LIFTS TO BE LIGHTLY WATERED TO ENCOURAGE NATURAL COMPACTION.
  - FLEXIBLE MEMBRANE LINER PROPOSED SOLELY FOR BIO-RETENTION POND 8P.



**BIORETENTION POND**  
NOT TO SCALE

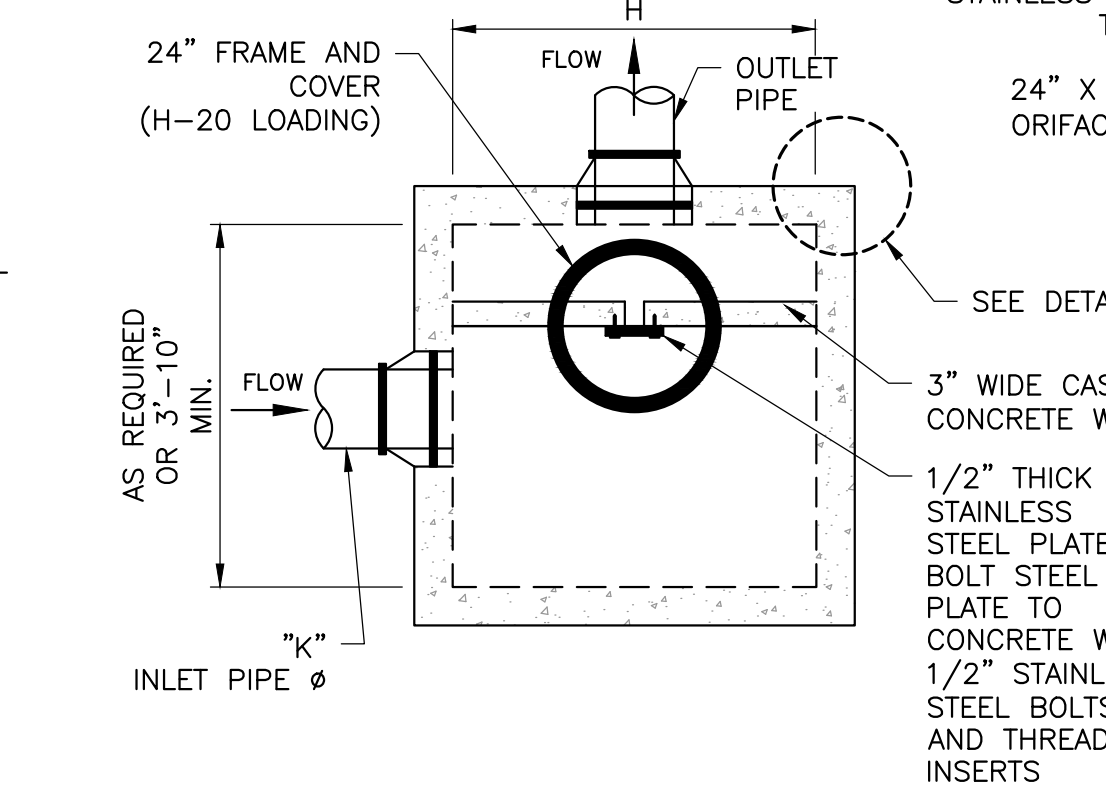
POND	1-YEAR STORM EL.	2-YEAR STORM EL.	10-YEAR STORM EL.	100-YEAR STORM EL.	OUTLET SIZE (IN.)	OUTLET INV.	ORIFICE SIZE (IN.)	ORIFICE INV.	BERM EL.	OUTLET CONTROL STRUCTURE EL.
4P	65.01	65.22	66.64	68.70	18	59	SEE DETAIL	SEE DETAIL	69.70	66.50



**INFILTRATION BASIN**  
NOT TO SCALE



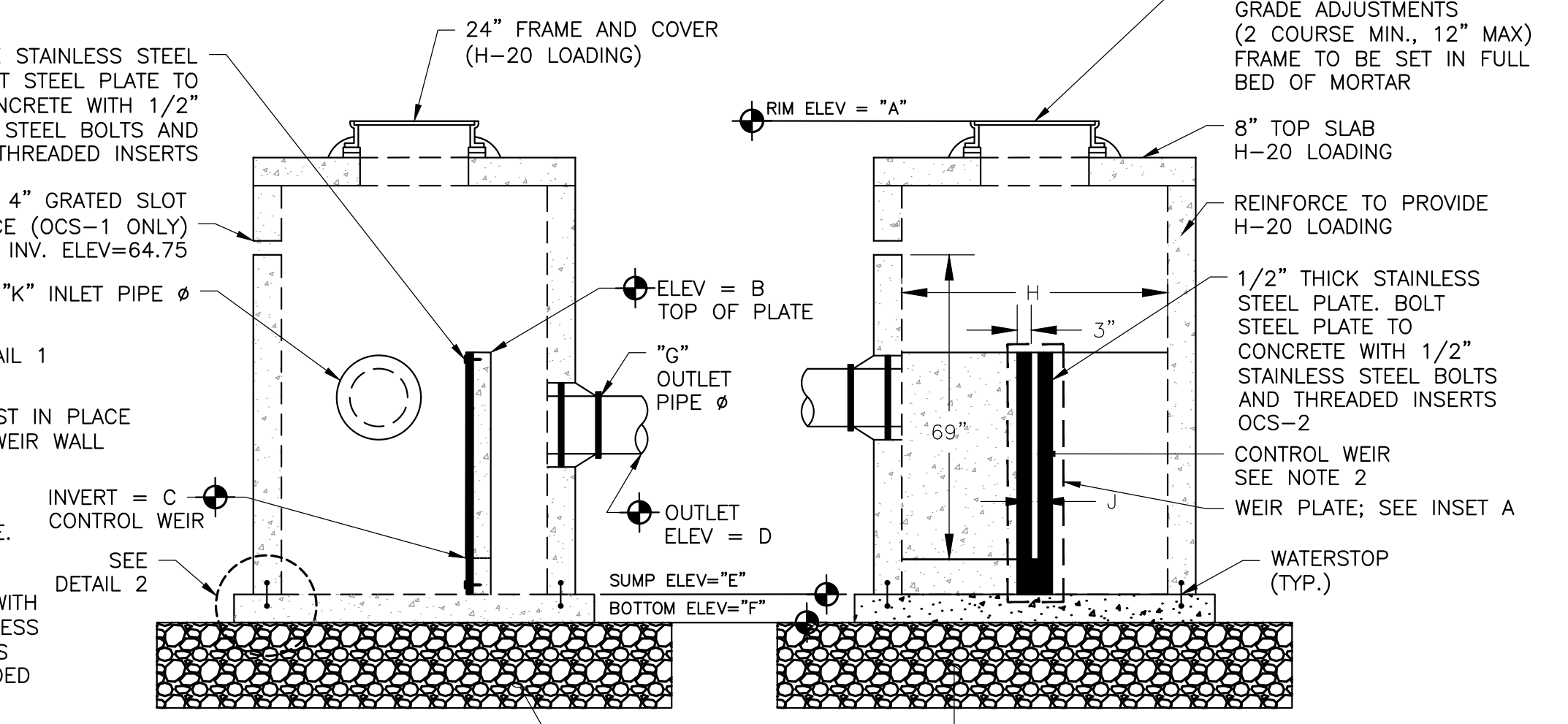
DETAIL 1  
OPTIONAL ANTI-FLOATATION COLLAR



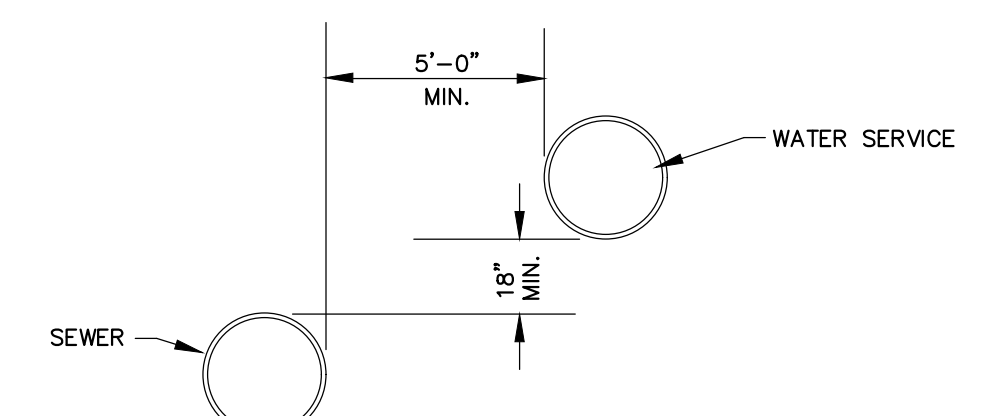
DETAIL 2  
ANTI-FLOATATION COLLAR

LOCATION	A (ELEV)	B (ELEV)	C (ELEV)	D (ELEV)	E (ELEV)	F (ELEV)	G (INCHES)	H (INCHES)	J (INCHES)	K (INCHES)
OUTLET CONTROL STRUCTURE (OCS-1)	66.00	64.00	60.00	59.00	59.00	58.50	18	48(MIN.)	VARIES SEE DETAIL	N/A
OUTLET CONTROL STRUCTURE (OCS-2)	77.15	N/A	N/A	71.75	70.75	70.25	12	48(MIN.)	N/A	N/A
OUTLET CONTROL STRUCTURE (OCS-3)	73.44	N/A	N/A	70.33	69.83	69.33	24	48(MIN.)	N/A	N/A

- NOTES:
- ALL CEMENT CONCRETE TO BE 4000 PSI (MIN).
  - CONTROL WEIR SHALL BE SIZED TO MITIGATE DESIGN STORM AS REQUIRED BY THE REGULATIONS AND IN ACCORDANCE WITH THE APPROVED DRAINAGE CALCULATIONS. STAINLESS STEEL PLATE SHALL BE USED FOR CONTROL WEIRS LESS THAN 2 INCHES WIDE.
  - ALL STAINLESS STEEL SHALL BE GRADE 316.
  - MINIMUM EMBANKMENT ELEVATION TO BE 12" ABOVE 50-YEAR STORM ELEVATION.

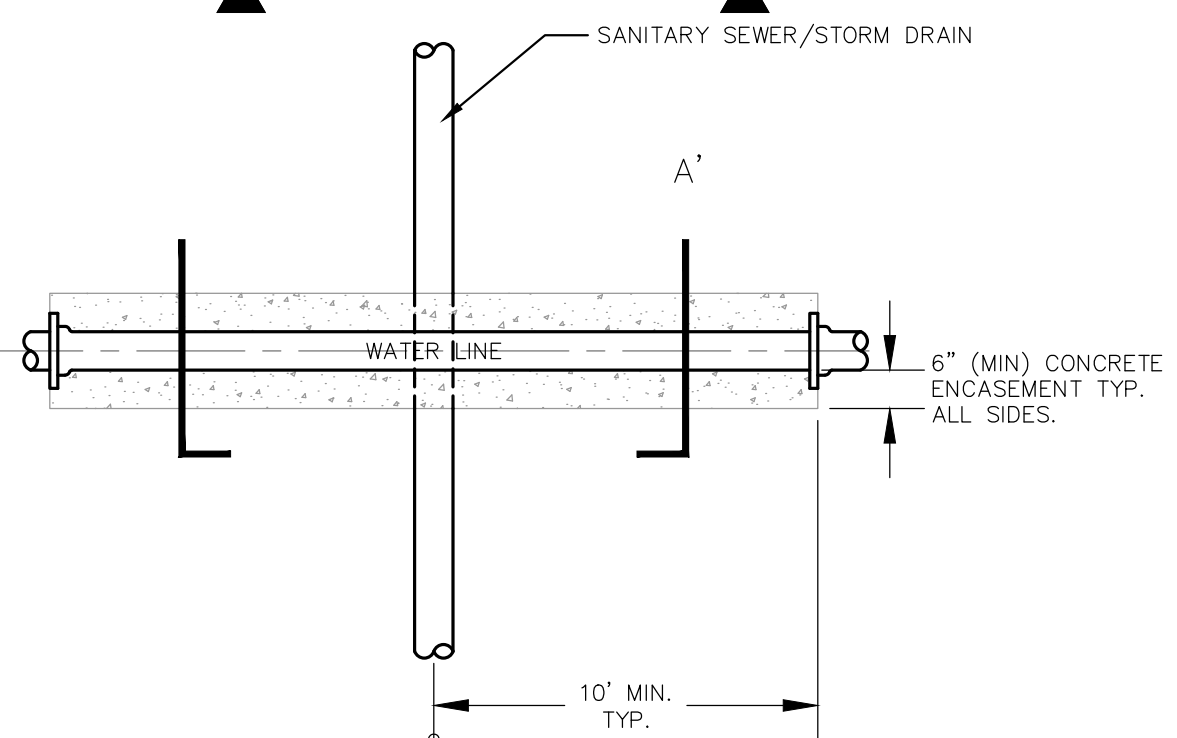


**OUTLET CONTROL STRUCTURE**  
NOT TO SCALE

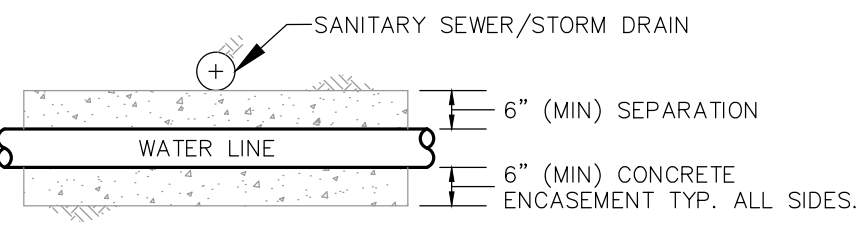


**UNUSUAL CONDITION PARALLEL INSTALLATION**

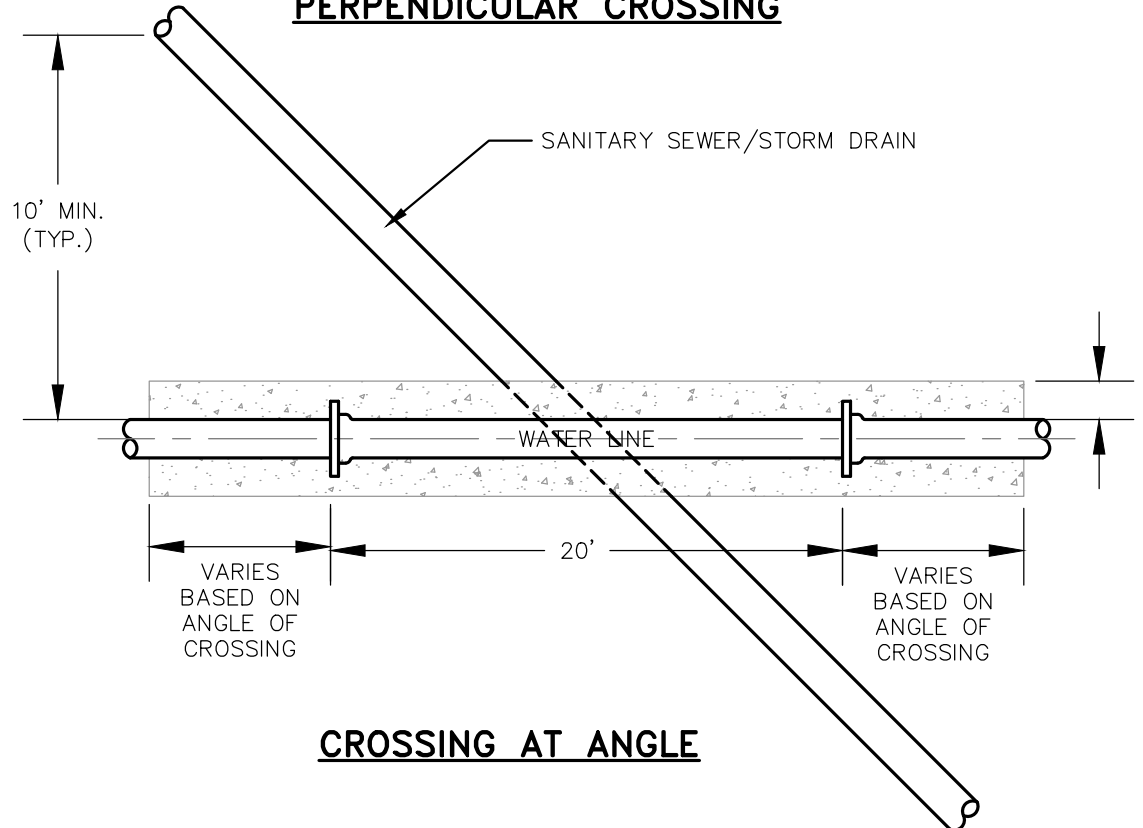
- NOTES:
- THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS.
- PARALLEL INSTALLATION:**
    - NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER MAIN SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
    - UNUSUAL CONDITIONS: WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, THE INSIDE EDGE OF A WATER MAIN MAY BE LAID A MINIMUM OF 5 FEET FROM THE INSIDE EDGE OF A SEWER PROVIDED THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
  - CROSSINGS:**
    - NORMAL CONDITIONS: WHENEVER POSSIBLE, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
    - UNUSUAL CONDITIONS: IF A WATER MAIN MUST CROSS UNDER A SEWER, THE TOP OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES LOWER THAN THE BOTTOM OF THE SEWER. THE WATER MAIN PIPE SHALL BE CENTERED AT THE CROSSING SO THAT THE JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER, AND ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF THE SEWER AT THE CROSSING.



**PERPENDICULAR CROSSING**



**SECTION A-A' - WATER BELOW**



**CROSSING AT ANGLE**

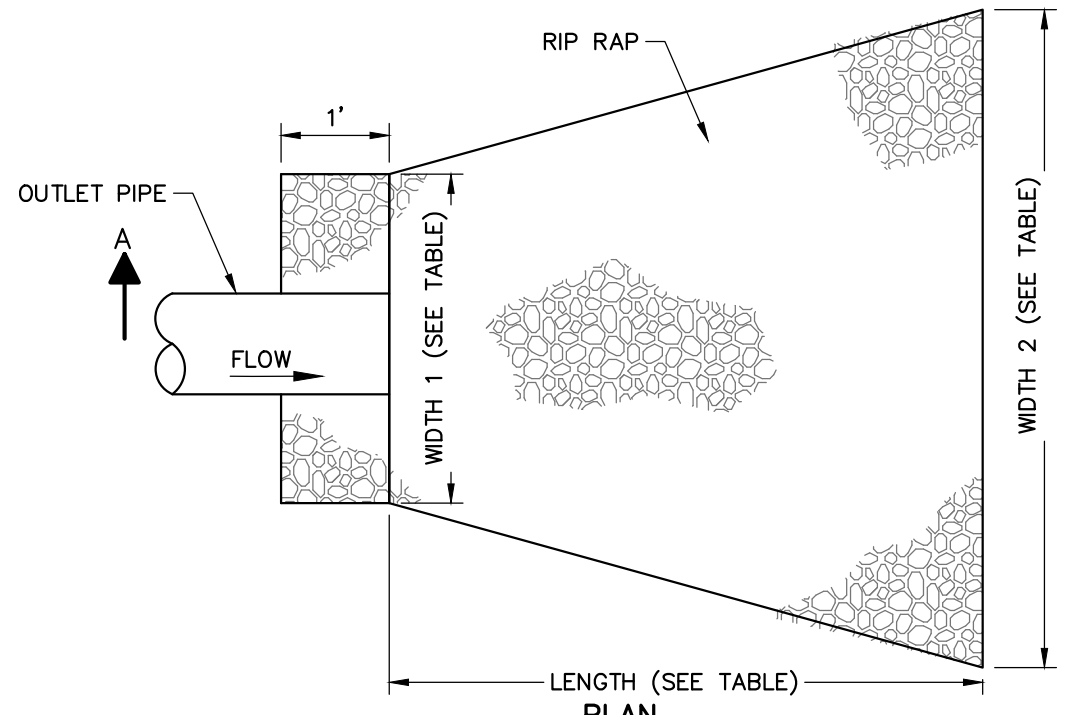
- NOTES:
- WHEN POSSIBLE, CONTRACTOR SHALL INSTALL WATER MAIN CROSSINGS WITH MINIMUM SEPARATION AS SPECIFIED IN DETAIL B IN LIEU OF PROTECTING WATER MAIN AS SHOWN IN THIS DETAIL.
  - INSTALL FULL 20-FOOT LENGTH OF WATER MAIN AT ALL CROSSINGS, CENTERED OVER SEWER OR STORM DRAIN.
  - CONTRACTOR MAY SUBSTITUTE CARRIER PIPE FOR CONCRETE TO PROTECT WATER MAIN.

**SECTION A-A' - WATER ABOVE**

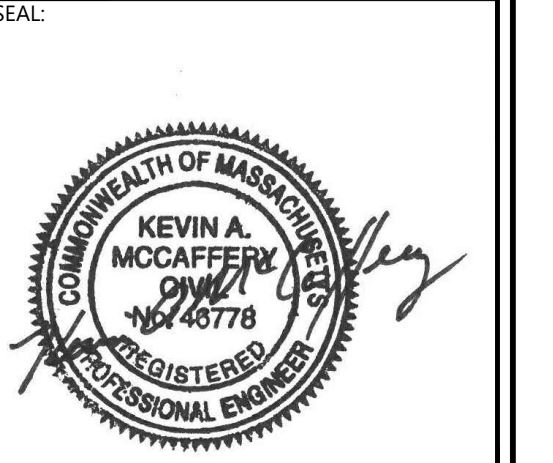
**WATER MAIN AND STORM OR SANITARY SEWER SEPARATION**  
NOT TO SCALE

**WATER MAIN AND STORM OR SANITARY CROSSING ENCASEMENT**  
NOT TO SCALE

POND TYPE	PIPE DIAMETER (FT)	MEDIAN STONE DIAMETER D50 (IN)	LENGTH (FT)	DEPTH (FT)	WIDTH 1 (FT)	WIDTH 2 (FT)
INFILTRATION POND	1.5'	10"	10'	2'	5'	10'
BIORETENTION POND	0.5'	9"	10'	2'	5'	8'
UNDERDRAIN OUTLET NO. 1	1'	9"	10'	2'	5'	10'
UNDERDRAIN OUTLET NO. 2	0.5'	9"	10'	2'	5'	8'



**RIPRAP APRON FOR OUTLETS**  
NOT TO SCALE



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY

STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK  
FILENAME: 0233681.02 C-90X.dwg

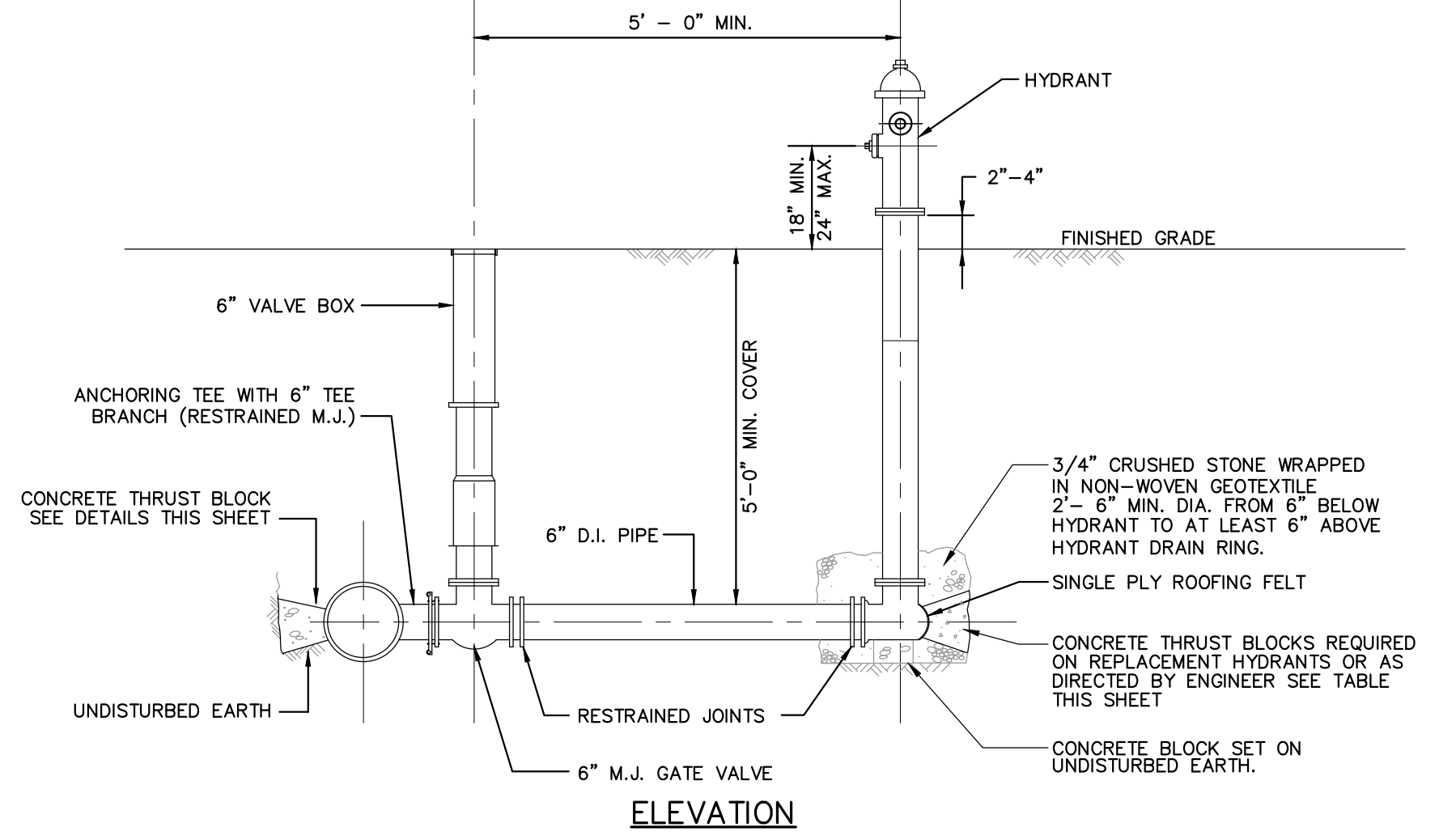
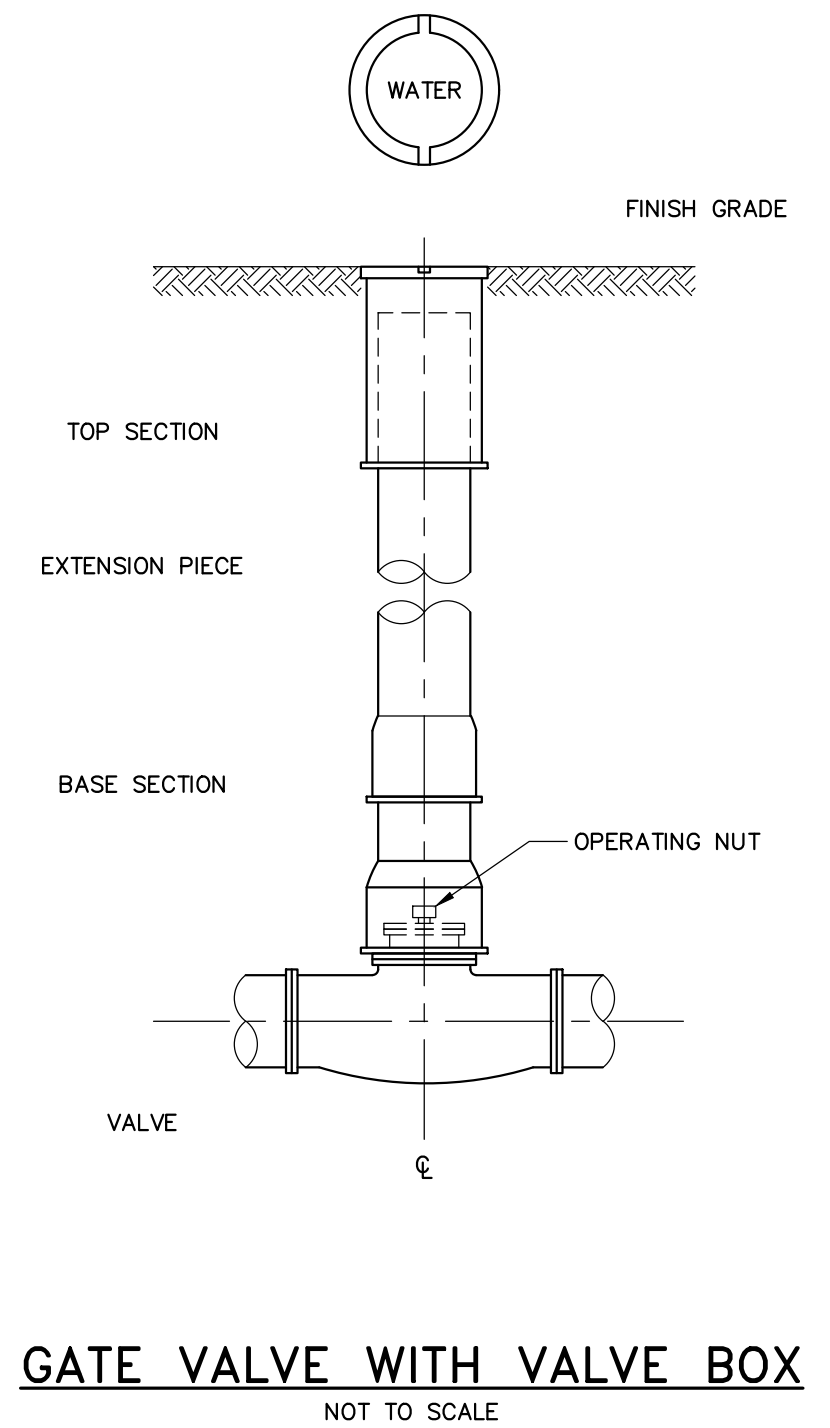
DRAWING TITLE:  
**CIVIL DETAILS 4**  
DRAWING NO:  
**C-903**

WoodardCurran\mshah\Projects\0233681.02\Scituate\ma\stearns\meadow\wtp - design\wtp\Drawings\Civil\PERMITTING\0233681.02 C-90X.dwg, Oct 06, 2023 - 1:35pm MBROVW

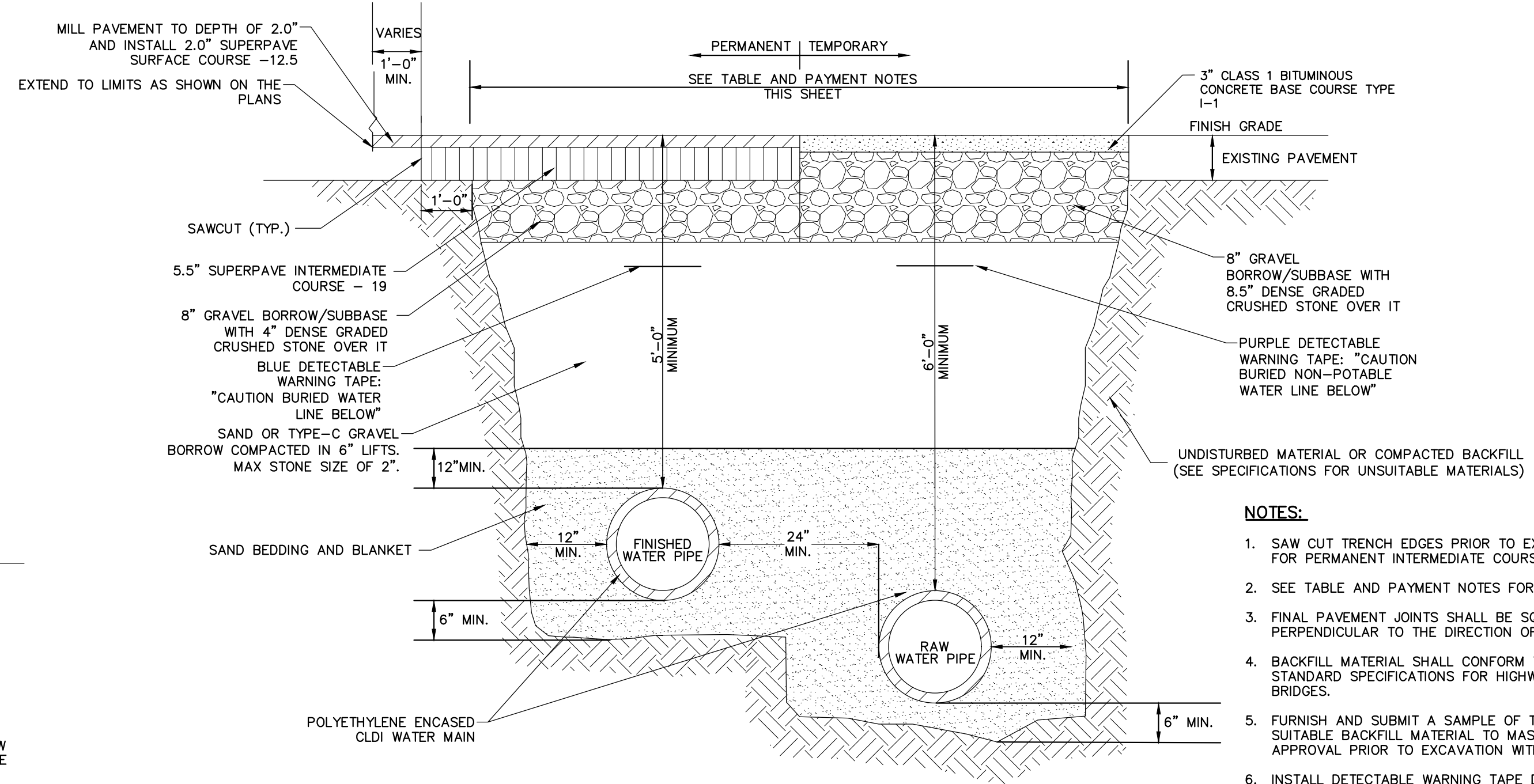




THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.



- NOTES:**
1. ALL HYDRANT, VALVE AND TEE JOINTS TO BE RESTRAINED BY MECHANICAL JOINTS.
  2. HYDRANT LATERALS SHALL BE CONSTRUCTED FROM ONE CONTINUOUS PIPE LENGTH. LATERALS LONGER THAN ONE PIPE LENGTH SHALL USE SOLID SLEEVES BETWEEN PIPES. HYDRANT LATERALS WITH BELL JOINTS AND COUPLINGS SHALL NOT BE ACCEPTED.
  3. PROVIDE THRUST BLOCK WITH MINIMUM BEARING AREA OF 12 SQUARE FEET.
  4. ALL BURIED PIPE, VALVES, AND JOINTS SHALL BE POLYETHYLENE ENCASED.

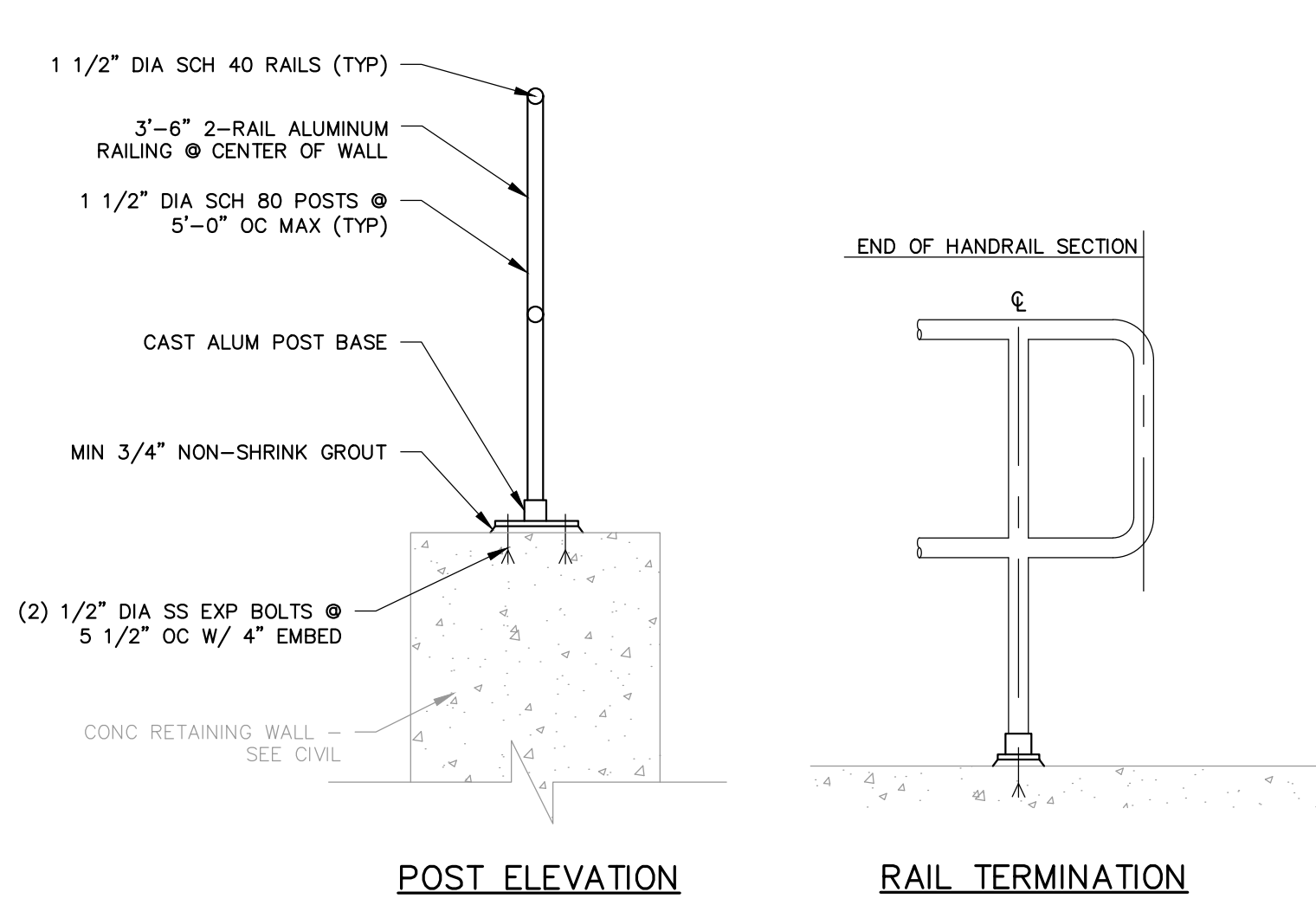


**TRENCH, PAVEMENT & ROCK WIDTH PAY LIMITS (FT.)**

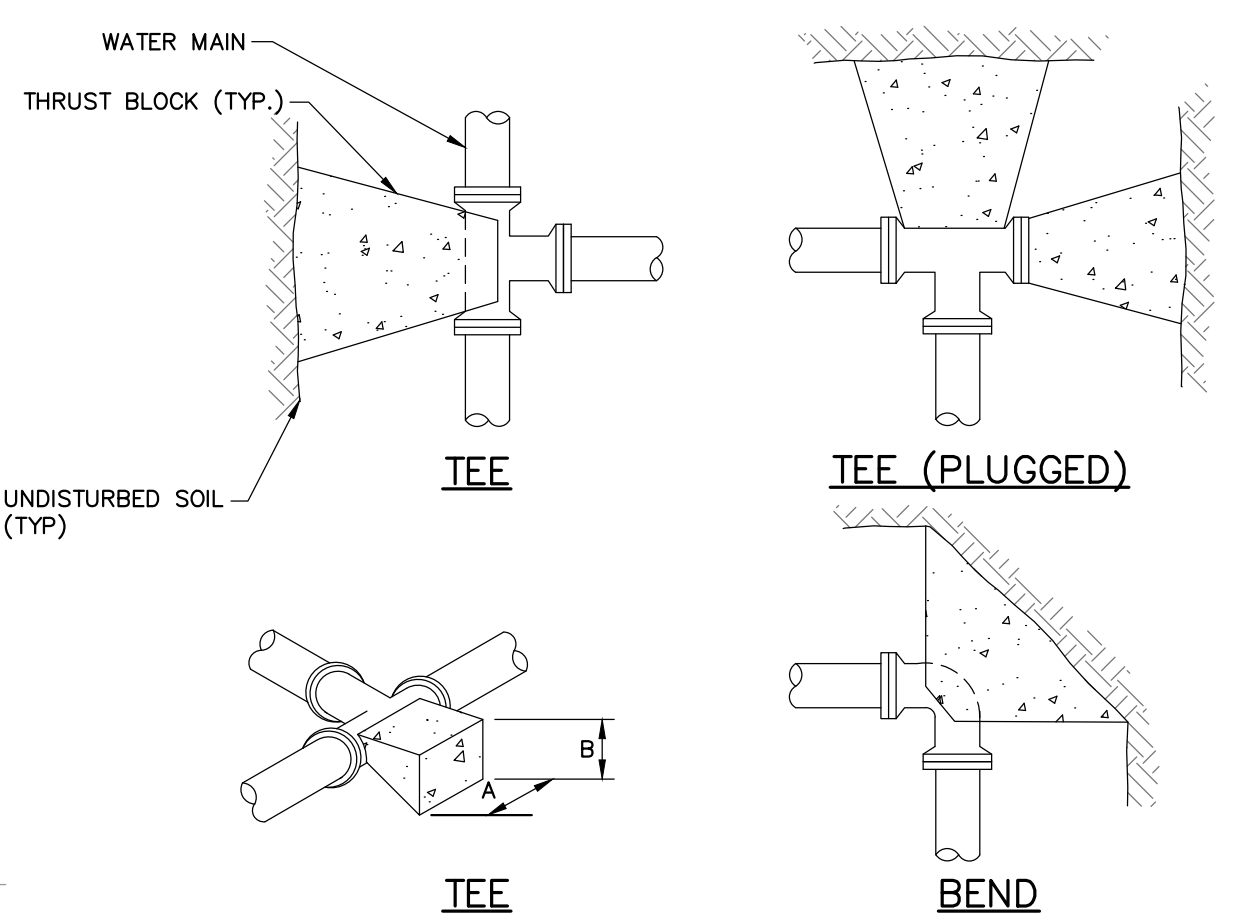
TRENCH DEPTH	NOMINAL PIPE DIAMETER (D)	TRENCH WIDTH	TEMPORARY TRENCH WIDTH PAVEMENT	PERMANENT 5.5" INTERMEDIATE COURSE TRENCH WIDTH PAVEMENT	PERMANENT 2.0" TOP COURSE TRENCH WIDTH PAVEMENT AS SHOWN ON PLANS	ROCK EXCAVATION
0 TO 12"	0 TO 24"	7' - 0"	7' - 0"	9' - 0"	AS SHOWN ON PLANS	7' - 0"

- PAYMENT NOTES:**
1. PAYMENT FOR ROCK REMOVAL SHALL INCLUDE REMOVAL UP TO 6-INCHES BELOW THE BOTTOM OF THE NEW PIPE.

- NOTES:**
1. SAW OUT TRENCH EDGES PRIOR TO EXCAVATING AND FOR PERMANENT INTERMEDIATE COURSE INSTALLATION.
  2. SEE TABLE AND PAYMENT NOTES FOR PAY LIMITS.
  3. FINAL PAVEMENT JOINTS SHALL BE SQUARE AND PERPENDICULAR TO THE DIRECTION OF TRAVEL.
  4. BACKFILL MATERIAL SHALL CONFORM TO THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
  5. FURNISH AND SUBMIT A SAMPLE OF THE PROPOSED SUITABLE BACKFILL MATERIAL TO MASSDOT FOR APPROVAL PRIOR TO EXCAVATION WITHIN ROUTE 3A.
  6. INSTALL DETECTABLE WARNING TAPE DIRECTLY OVER THE PIPE, 18" BELOW THE FINISHED GRADE.
  7. NUCLEAR DENSITY COMPACTION TESTING SHALL BE COMPLETED BY A MASSDOT APPROVED AGENCY.
  8. TRENCHES SHALL BE PAVED BY THE END OF EACH WORKDAY.



- NOTES:**
1. REFER TO PLANS FOR EXTENTS OF RAILINGS.
  2. MINIMUM CLEARANCE BETWEEN RAILING SECTIONS SHALL BE 3" PER OSHA 29 CFR 1910.23(e)(6).



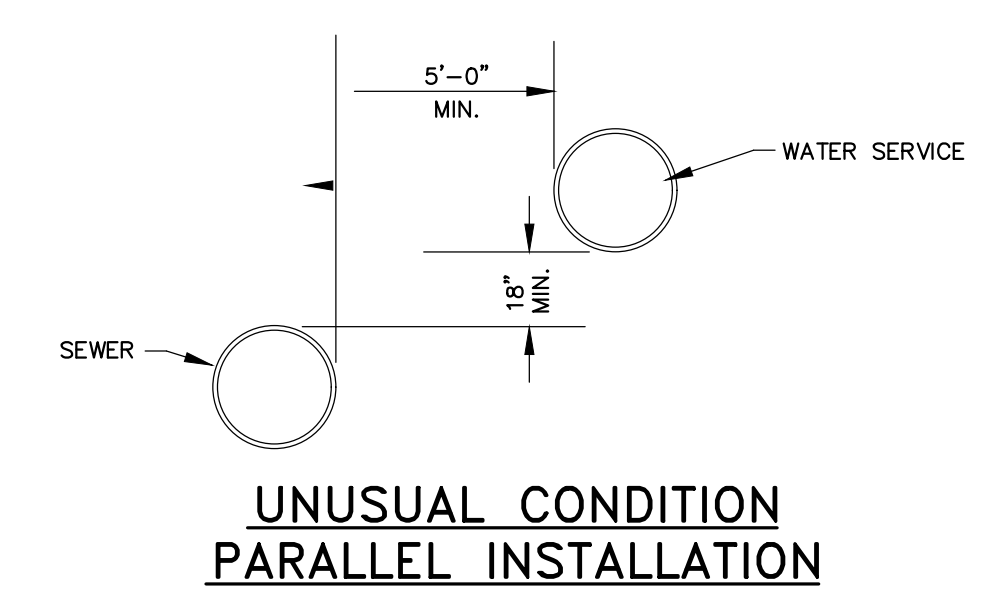
**TABLE 1: 4" THRU 10" FITTINGS**

SOIL TYPE	TEES		BENDS	
	A	B	A	B
SOFT CLAY	48"	24"	48"	24"
SAND	24"	24"	24"	24"
GRAVEL	24"	18"	24"	18"

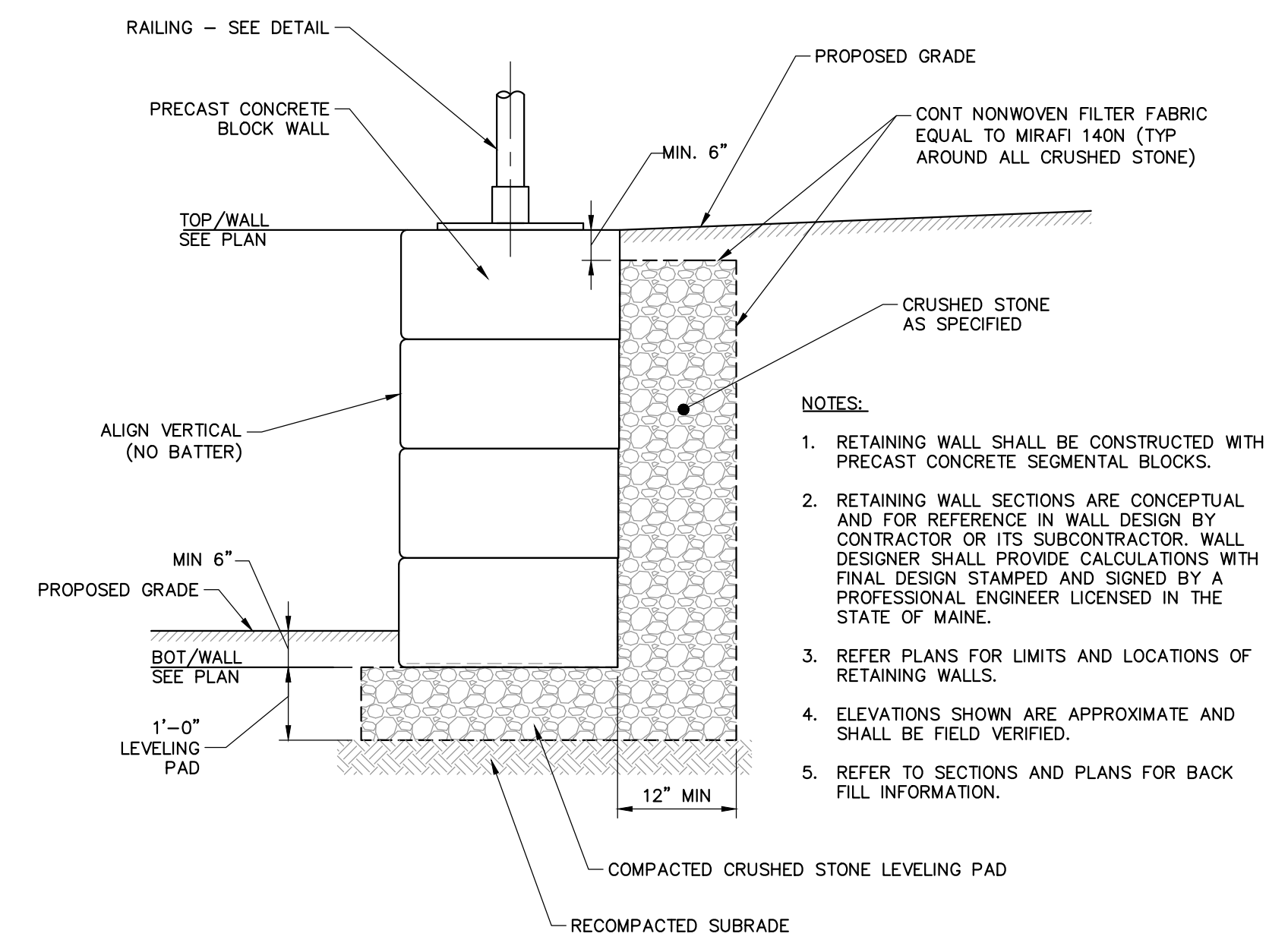
**TABLE 2: 12" THRU 16" FITTINGS**

SOIL TYPE	TEES		BENDS	
	A	B	A	B
SOFT CLAY	60"	36"	72"	36"
SAND	36"	30"	48"	30"
GRAVEL	30"	24"	40"	24"

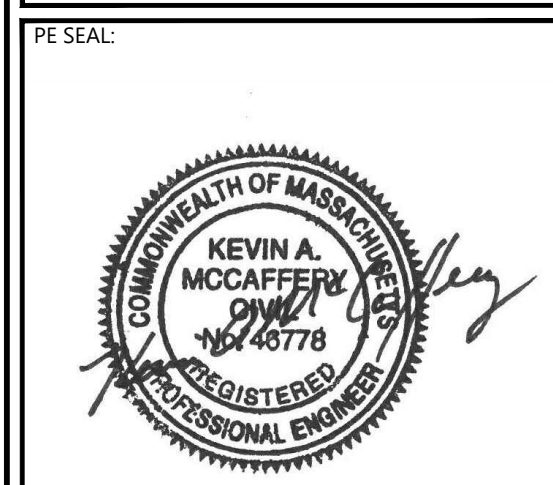
- NOTES:**
1. CONCRETE FOR ALL THRUST BLOCKS TO BE MINIMUM 3,000 PSI, 28 DAY STRENGTH, TYPE I CEMENT, 3/4" STONE.
  2. WHERE POSSIBLE, CONSTRUCT THRUST BLOCKS AGAINST UNDISTURBED SOIL. WHERE NOT POSSIBLE PLACE FILL BETWEEN THE THRUST BLOCK AND THE UNDISTURBED SOIL COMPACTED TO 90% STANDARD PROCTOR DENSITY.
  3. WRAP FITTINGS WITH POLYETHYLENE PRIOR TO CONSTRUCTING THRUST BLOCKS. NO JOINTS SHALL BE COVERED WITH CONCRETE.
  4. THRUST BLOCK DIMENSIONS ARE BASED ON A MAXIMUM WATER MAIN PRESSURE OF 150 PSI.



- NOTES:**
- THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS.
- A. PARALLEL INSTALLATION:**
1. NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER MAIN SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
  2. UNUSUAL CONDITIONS: WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, THE INSIDE EDGE OF A WATER MAIN MAY BE LAID A MINIMUM OF 5 FEET FROM THE INSIDE EDGE OF A SEWER PROVIDED THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
- B. CROSSINGS:**
1. NORMAL CONDITIONS: WHENEVER POSSIBLE, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
  2. UNUSUAL CONDITIONS: IF A WATER MAIN MUST CROSS UNDER A SEWER, THE TOP OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES LOWER THAN THE BOTTOM OF THE SEWER, THE WATER MAIN PIPE SHALL BE CENTERED AT THE CROSSING SO THAT THE JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER, AND ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF THE SEWER AT THE CROSSING.



- NOTES:**
1. RETAINING WALL SHALL BE CONSTRUCTED WITH PRECAST CONCRETE SEGMENTAL BLOCKS.
  2. RETAINING WALL SECTIONS ARE CONCEPTUAL AND FOR REFERENCE IN WALL DESIGN BY CONTRACTOR OR ITS SUBCONTRACTOR. WALL DESIGNER SHALL PROVIDE CALCULATIONS WITH FINAL DESIGN STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE.
  3. REFER PLANS FOR LIMITS AND LOCATIONS OF RETAINING WALLS.
  4. ELEVATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.
  5. REFER TO SECTIONS AND PLANS FOR BACK FILL INFORMATION.



**ISSUE FOR PERMIT**

CLIENT INFO:  
TOWN OF SCITUATE,  
MASSACHUSETTS  
453 CHIEF JUSTICE  
CUSHING HIGHWAY

STEARNS MEADOW  
DRINKING WATER  
TREATMENT PLANT

REV.	MM/DD/YY	DESCRIPTION
1	10/06/2023	PEER REVIEW RESPONSE

JOB NO: 0233681.02  
DATE: AUGUST 2023  
SCALE: AS SHOWN  
DESIGNED BY: JC  
DRAWN BY: MB  
CHECKED BY: SK/KM  
FILENAME: 0233681.02 C-90X.dwg

DRAWING TITLE:

**CIVIL DETAILS 5**

DRAWING NO:  
**C-904**

WoodardCurran.net\shane\Projects\0233681.02\_Scitate ma stearns meadow wtp - design\wp\Drawings\Civil\Permit\0233681.02\_C-90X.dwg, Oct 06, 2023, 1:35pm MBROWN