

— DEFINITIVE SITE PLAN —
OLD WASHINGTON PLACE
631 WASHINGTON STREET
PEMBROKE, MASSACHUSETTS
ASSESSORS MAP E10 LOT 10

PLANNING BOARD APPROVAL

THIS SITE PLAN DOES NOT NECESSARILY INDICATE
COMPLIANCE WITH THE ZONING BY-LAW.

DATE APPROVED: _____

PEMBROKE TOWN CLERK

I, TOWN CLERK OF THE TOWN OF PEMBROKE, MA
HEREBY CERTIFY THAT THE NOTICE OF APPROVAL
OF THIS PLAN BY THE PLANNING BOARD HAS BEEN
RECEIVED AND RECORDED AT THIS OFFICE AND NO
APPEAL WAS RECEIVED DURING THE NEXT TWENTY
DAYS AFTER RECEIPT AND RECORDING OF SAID NOTICE.

DATE _____

TOWN CLERK, TOWN OF PEMBROKE

REVISIONS

2.	4/26/22	MOVE BASIN
1.	3/22/22	PB PEER REVIEW COMMENTS

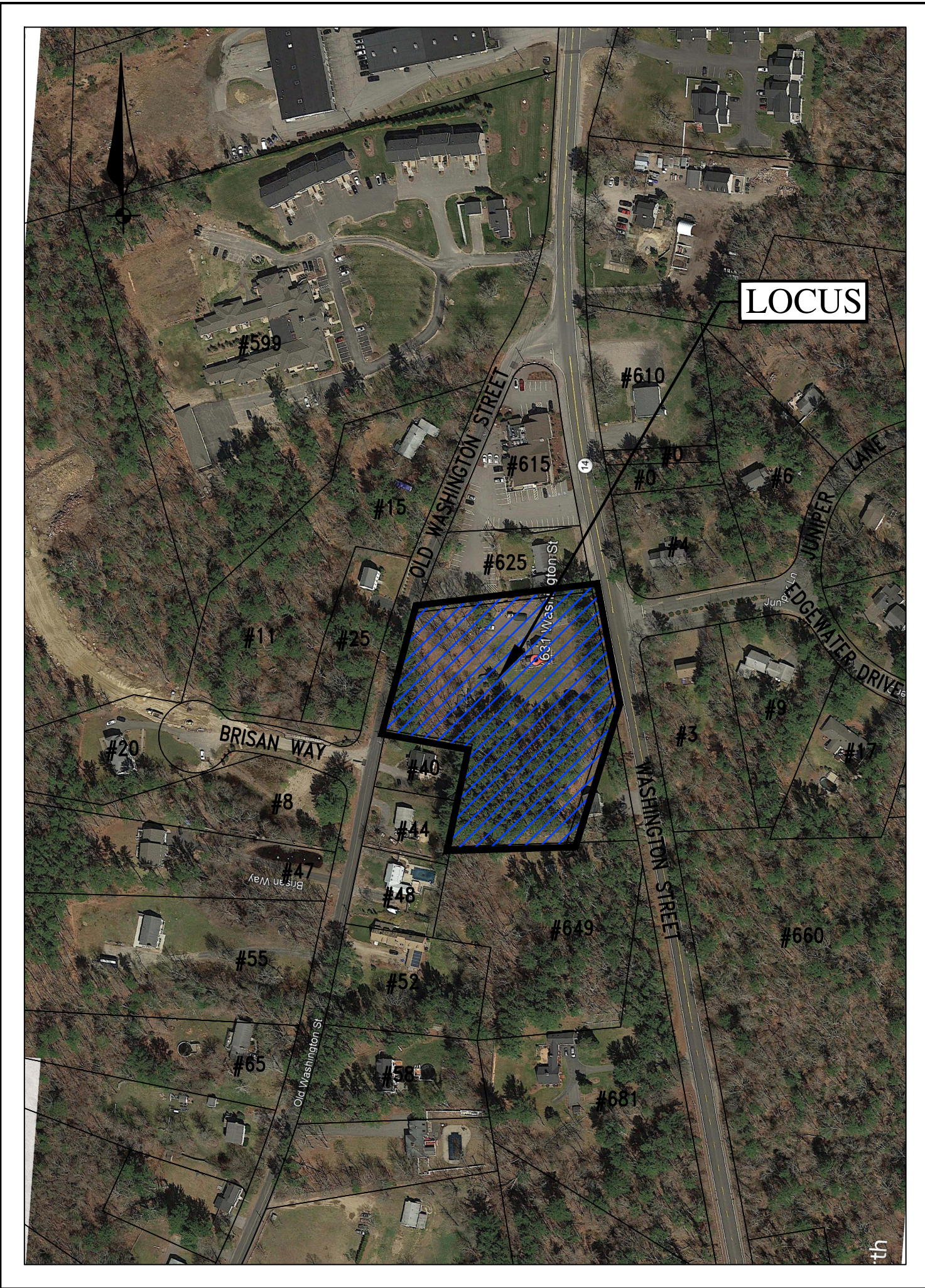
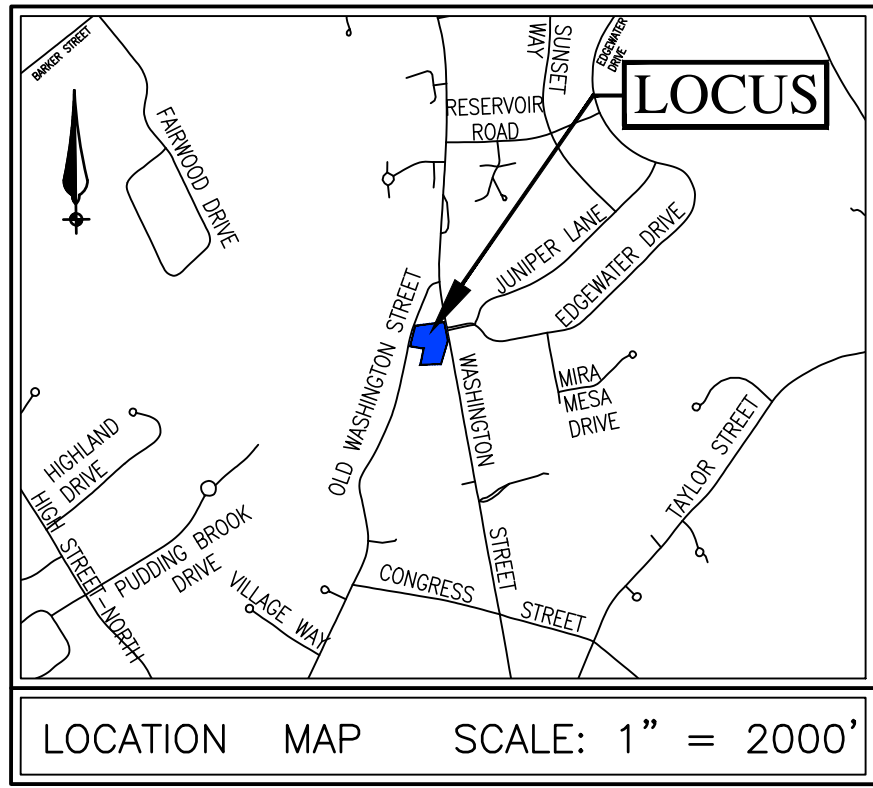


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DESIGNED BY: PAL/DA

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4	LAYOUT, ZONING & LANDSCAPE
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— VICINITY MAP —
SCALE: 1"=200'

RECORD OWNER:
ASSESSORS MAP #E10 LOT 10
631 WASHINGTON STREET
JOAN MADDY, TRUSTEE
MADDY TRUST
631 WASHINGTON STREET
PEMBROKE, MA 02359
DEED BOOK 38389 PAGE 201
LOT 5: PLAN BOOK 10 PAGE 179

FEBRUARY 2, 2022

SCALE: AS NOTED

JOB NO. 21-204

LATEST REVISION:
APRIL 26, 2022

VICINITY & INDEX

PERMIT SET
NOT FOR
CONSTRUCTION
SHEET 1 OF 9

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BRISAN
WAY

OLD WASHINGTON STREET
(PUBLIC - 40' WIDTH - DISCONTINUED S.H.I.O.)

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TOWN CLERK, TOWN OF PEMBROKE

PARCEL ID: E10-24
N/F
JOHN D. CANNON
BOOK: 43712
PAGE: 526

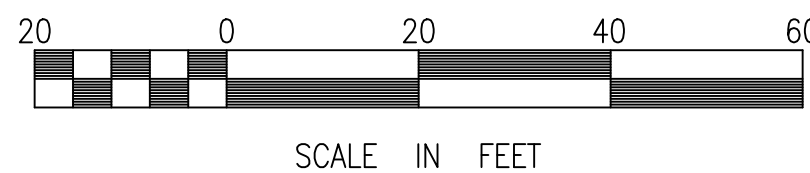
PARCEL ID: E10-25
N/F
LOUISE M. BISSCHOP
BOOK: 19744
PAGE: 282

PARCEL ID: E10-23
N/F
US BANK TRUST
BOOK: S1984
PAGE: 59

PARCEL ID: F10-14
N/F
THE GREGORY SCOTT
TRUST OF 2017
BOOK: 50090
PAGE: 311

PARCEL ID: E10-22
N/F
JEFFREY J. THOMAS
BOOK: 35534 PAGE: 198

LOT AREA
105,360 SF
2.42 AC ±



LEGEND	
	CONCRETE BOUND W/DRILL
	IRON PIPE FOUND
	DRAIN MANHOLE
	ELECTRIC METER
	GAS GATE
	GAS SERVICE
	MAILBOX
	ROOF HEIGHT
	SEPTIC COVER
	THRESHOLD
	TOP OF FOUNDATION
	DECIDUOUS TREE
	CONIFEROUS TREE
	UTILITY POLE
	WATER GATE
	CONTOUR LINE
	LANDSCAPE AREA
	GAS LINE
	OVERHEAD WIRES
	WATER LINE
	FIELD STONEWALL

RECORD OWNER:

ASSESSORS MAP #E10 LOT 10
631 WASHINGTON STREET

JOAN MADDY, TRUSTEE
MADDY TRUST
631 WASHINGTON STREET
PEMBROKE, MA 02359
DEED BOOK 38389 PAGE 201
LOT 5: PLAN BOOK 10 PAGE 179

NOTES:

- TOPOGRAPHIC AND DETAIL INFORMATION SHOWN HEREON IS BASED UPON AN ON THE GROUND SURVEY PERFORMED BY MERRILL ENGINEERS AND LAND SURVEYORS DURING OCTOBER OF 2021. TOPOGRAPHY SUPPLEMENTED W/ NOAA LIDAR WHERE NEEDED.
- ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- SUBJECT SITE IS IN THE "RESIDENTIAL-COMMERCIAL" ZONE AS DEPICTED ON THE TOWN OF PEMBROKE ZONING MAP.
- EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE AND AVAILABLE RECORD PLANS AND ARE TO BE CONSIDERED APPROXIMATE. MERRILL ENGINEERS AND LAND SURVEYORS DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.
- THE PEMBROKE BOARD OF HEALTH DOES NOT HAVE ANY RECORD SEPTIC AS-BUILT PLANS ON FILE.

FLOOD NOTE:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X OF THE FLOOD INSURANCE RATE MAP, AS SHOWN ON COMMUNITY MAP No. 25023C0209K, WHICH BEARS AN EFFECTIVE DATE OF JULY 6, 2021, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

REVISIONS

2.	4/26/22	MOVE BASIN
1.	3/22/22	PB PEER REVIEW COMMENTS



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SHEET 2 OF 9

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BRISAN
WAY

OLD WASHINGTON STREET
(PUBLIC - 40' WIDTH - DISCONTINUED S.H.L.O.)

PLANT SCHEDULE

KEY	COMMON NAME	QUANTITY	SIZE
BP	BRADFORD PEAR	4	2" - 3" CAL.
KD	KOUSSA DOGWOOD	4	7-8"
JV	EASTERN RED CEDAR	40	4-6"
BC	BIRCH CLUMP	2	12-14"
CP	FALSE CYPRRESS	5	3 GAL
RC	ROSEUM ELEGANS RHODODENDRON	4	2.5 B&B
IG	INKBERRY	5	3 GAL
SP	LILAC	12	3"
MS	MAIDEN GRASS	12	2 GAL
DG	SLENDER DEUTZIA	12	2"
NF	NEPETA	20	2 GAL
CG	GRACILIS CYPRESS	5	3 GAL

REQUIRED RELIEF

- A VARIANCE IS REQUIRED FROM SECTION IV.2.D.5 (SIDE YARDS) TO ALLOW PROPOSED BUILDINGS (31.0±) TO BE CONSTRUCTED WITHIN THE REQUIRED 40' SETBACK. (VARIANCE GRANTED BY ZBA; SEE DECISION OF THE ZONING BOARD OF APPEALS, CASE #11-21 DATED 1/20/22)
- A VARIANCE IS REQUIRED FROM SECTION IV.2.D.1 (LOT SIZES) (105,563± S.F. EXISTING, 120,000 S.F. REQUIRED) (VARIANCE GRANTED BY ZBA; SEE DECISION OF THE ZONING BOARD OF APPEALS, CASE #11-21 DATED 1/20/22)
- A VARIANCE IS REQUIRED FROM SECTION IV.2.D.2 (FRONTAGE) FOR THE MINIMUM REQUIREMENT OF 250' OF CONTIGUOUS FRONTAGE. THE LOT CURRENTLY HAS 210± OF FRONTAGE ALONG OLD WASHINGTON STREET AND 173± ALONG WASHINGTON STREET. (VARIANCE GRANTED BY ZBA; SEE DECISION OF THE ZONING BOARD OF APPEALS, CASE #11-21 DATED 1/20/22)
- A WAIVER IS REQUESTED FOR THE APPLICANT TO ALLOW THE OUTER PARKING AREAS AND DRIVEWAY TO BE CONSTRUCTED WITH BITUMINOUS CONCRETE CAPE COD BERM. (VARIANCE GRANTED BY ZBA; SEE DECISION OF THE ZONING BOARD OF APPEALS, CASE #11-21 DATED 1/20/22)
- MULTI UNIT DWELLINGS ARE ALLOWED BY SPECIAL PERMIT ISSUED BY THE PLANNING BOARD AS THE SPECIAL PERMIT GRANTING AUTHORITY.

PARCEL ID: E10-25
N/F
LOUISE M. BISSCHOP
BOOK: 19744
PAGE: 282

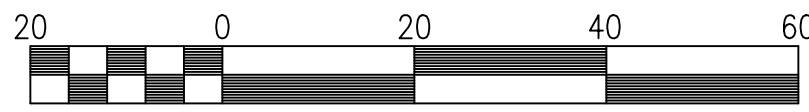
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105,360 SF
2.42 AC ±



SCALE IN FEET

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TOWN CLERK, TOWN OF PEMBROKE

DOUGLAS L. AABERG, P.L.S.

DATE _____

ZONING REQUIREMENTS

ZONE: RESIDENTIAL - COMMERCIAL DISTRICT

USE: EXISTING: SINGLE FAMILY DWELLING PROPOSED: MULTI UNIT DWELLING DEVELOPMENT

AREA:	REQUIRED	EXISTING	PROPOSED
	120,000 S.F.	105,870 S.F.	NO CHANGE
	1 UNIT/10,000 S.F.	N/A	1 UNIT/11,763 S.F.
FRONTAGE:	250 FEET	WASHINGTON ST: 173± FEET OLD WASHINGTON ST: 210± FEET	NO CHANGE NO CHANGE
MINIMUM YARD SETBACKS			
FRONT	100 FEET	74.7± FEET	100.0± FEET
SIDE	40 FEET	18.9± FEET	31.0± FEET
SIDE (FROM RESIDENTIAL LOTS)	100 FEET	54.5± FEET	100.0± FEET
REAR	50 FEET	75.7± FEET	52.1± FEET
REAR (FROM RESIDENTIAL LOTS)	100 FEET	N/A	N/A

BUFFERS:			
SIDELINE BUFFER	40 FEET X 0.40 = 16FT	0 FEET	16 FEET
REARLINE BUFFER	40 FEET X 0.40 = 16FT	70± FEET	16 FEET
BUILDING HEIGHT:	2.5 STORIES MAX	2	2 (SEE ARCH. DRAWINGS)
LOT PERIMETER RATIO:	>55	76.2± (EXISTING)	NO CHANGE
LOT COVERAGE			
BUILDINGS		1,831 S.F.±	5,400 S.F.±
PAVEMENT		782 S.F.±	11,108 S.F.±
TOTAL	<60%	2.5±%	15.6±% (OR 84.4±% OPEN SPACE)

LOT WIDTH	170 FEET	209.8 FEET	NO CHANGE
BUILDING FLOOR AREA	<35%	2.8% (2,975± S.F.)	10.2% (10,800± S.F.)
UNIT COUNT	1 UNIT/10,000 S.F.	10.6 UNITS ALLOWABLE	9 UNITS PROPOSED

PARKING REQUIREMENTS

2 PARKING SPACES/UNIT: 9 UNITS x 2 SPACES/UNIT = 18 SPACES (MIN)
19 SPACES PROVIDED (+1 ACCESSIBLE PARKING SPACE)
SPACE SIZE - 9' x 18'
AISLE WIDTH - 24'

LANDSCAPING REQUIREMENTS

- 25% OPEN SPACE; 84.4±% PROPOSED
- 1 TREE W/ 60 S.F. PERMEABLE LANDSCAPE AREA PER 6 SPACES:
19 SPACES x 1 TREE/6 SPACES = 4 TREES (MIN - 7 PROPOSED)
- 50' WIDE MIN. LANDSCAPE BUFFER STRIP WHEN ABUTTING RES. PROPERTIES (70± PROPOSED)

WASTEWATER GENERATION:

9-2 BEDROOM UNITS = 18 BEDROOMS
18 BEDROOMS X 150 GALLONS/BEDROOM = 2,700 GAL/DAY

WATER CONSUMPTION:

(ASSUME 80% OF WATER CONSUMPTION IS DISCHARGED AS WASTEWATER)
2,700 GAL PER DAY/0.80 = 3,375 GAL/DAY

STOPPING SIGHT DISTANCE (SSD)

POSTED SPEED (V) = 30MPH
BRAKE REACTION TIME (t) = 2.5 SEC
DECELERATION RATE (a) = 11.2 FT/SEC²

SSD=1.47Vt + 1.075V²/a

SSD=196.6 FT (MIN)

REVISIONS

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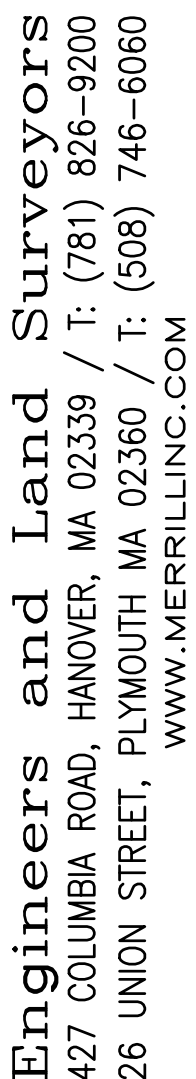
LAYOUT, ZONING
& LANDSCAPE PLAN

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SHEET 4 OF 9



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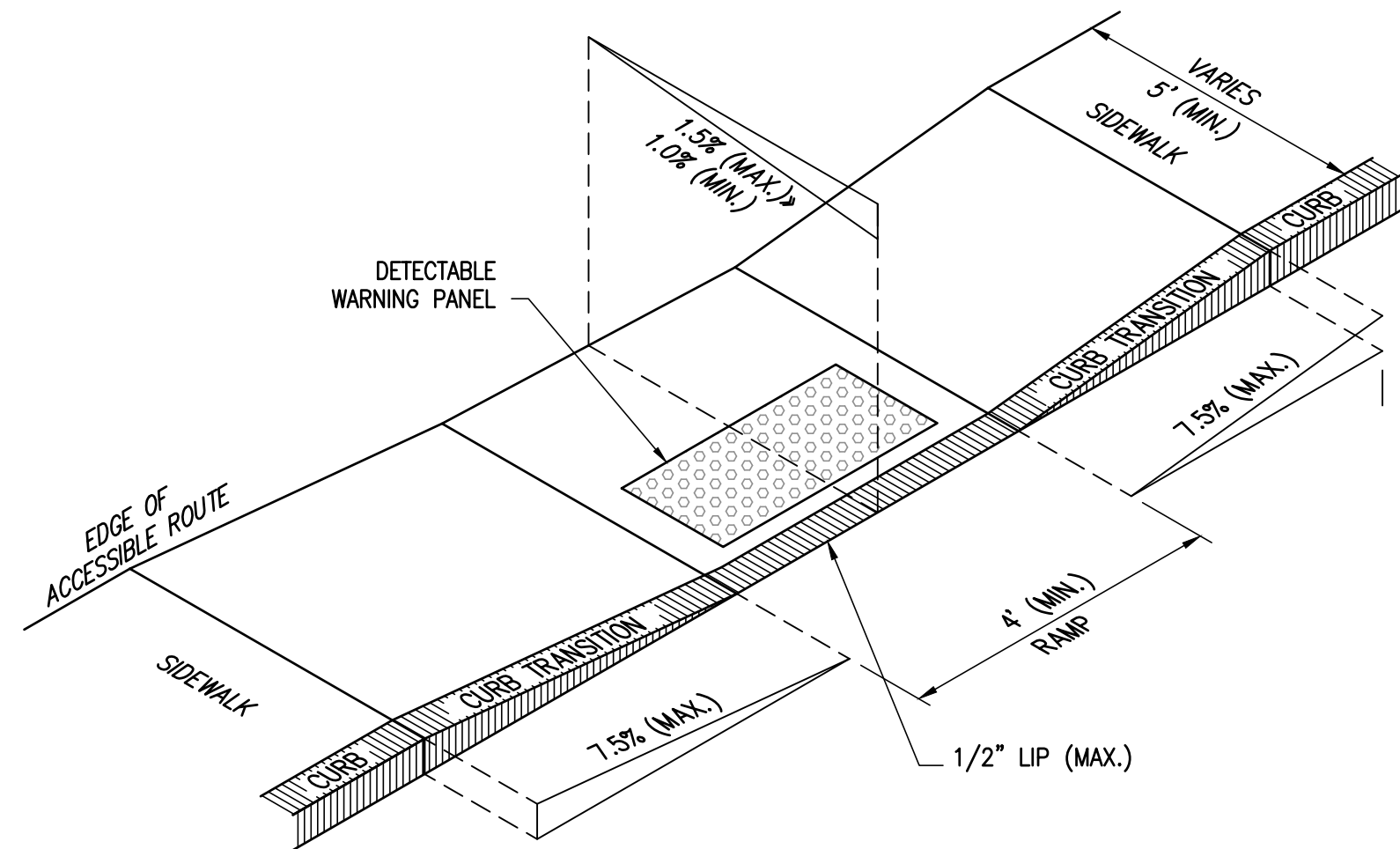


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ACCESSIBLE CURB RAMP DETAIL (TYPE A)

(NOT TO SCALE)

NOTES:

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5% (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. PROVIDE DETECTABLE WARNINGS AS REQUIRED BY CURRENT REGULATIONS.

ROADWAY PROFILE GRADE	* HIGH SIDE TRANSITION LENGTH
	ENGLISH UNITS
%	
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" Max

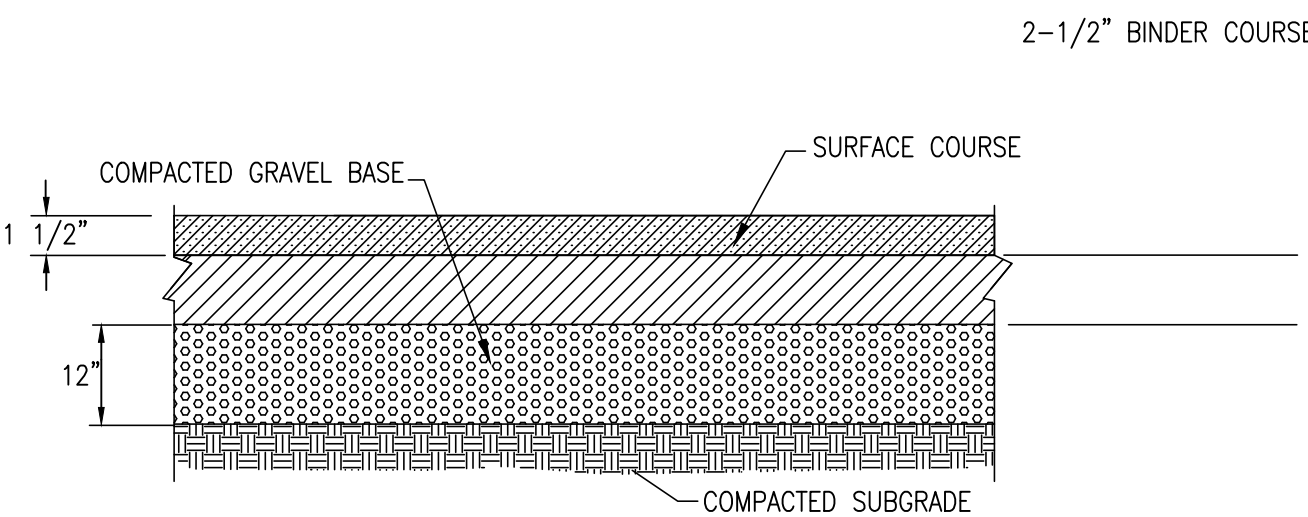
NOTE:

- * BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

** USED FOR DESIGN

CURB TRANSITION LENGTH FOR WHEELCHAIR

(NOT TO SCALE)

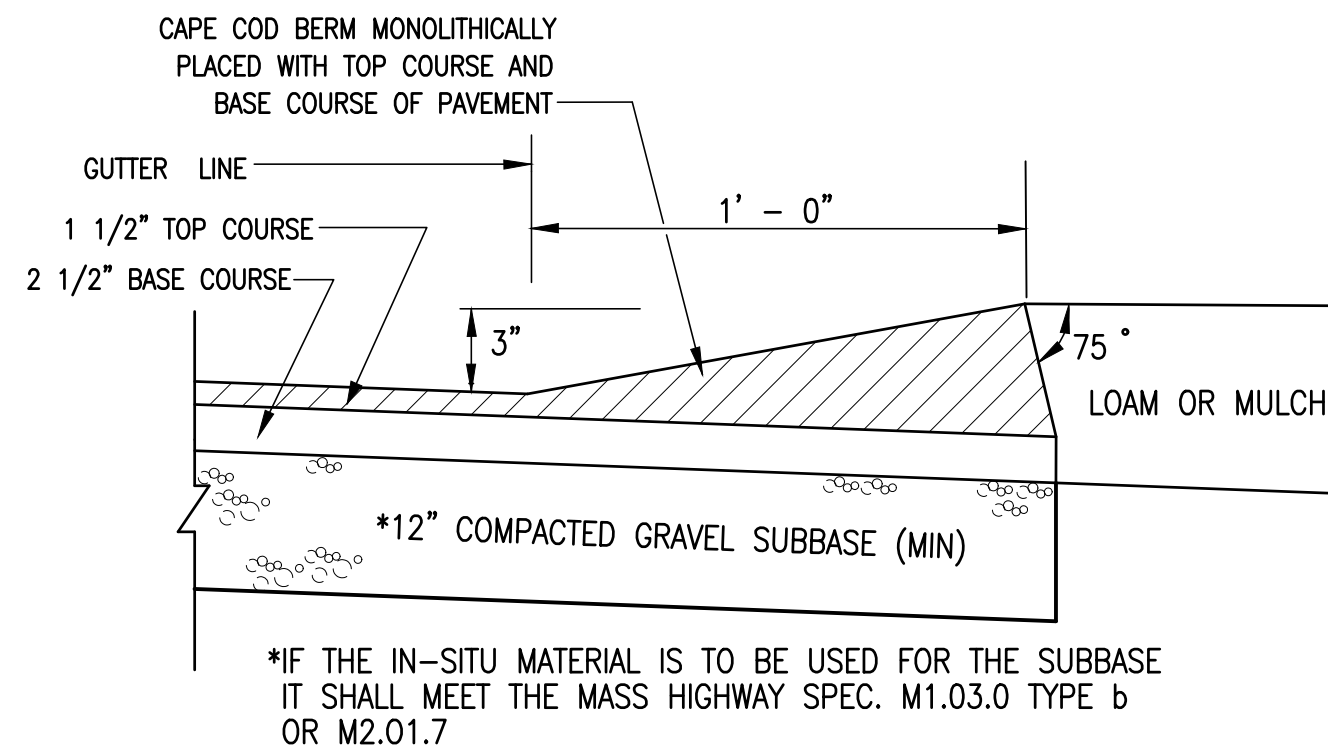


BITUMINOUS CONCRETE PAVEMENT

(NOT TO SCALE)

NOTE:

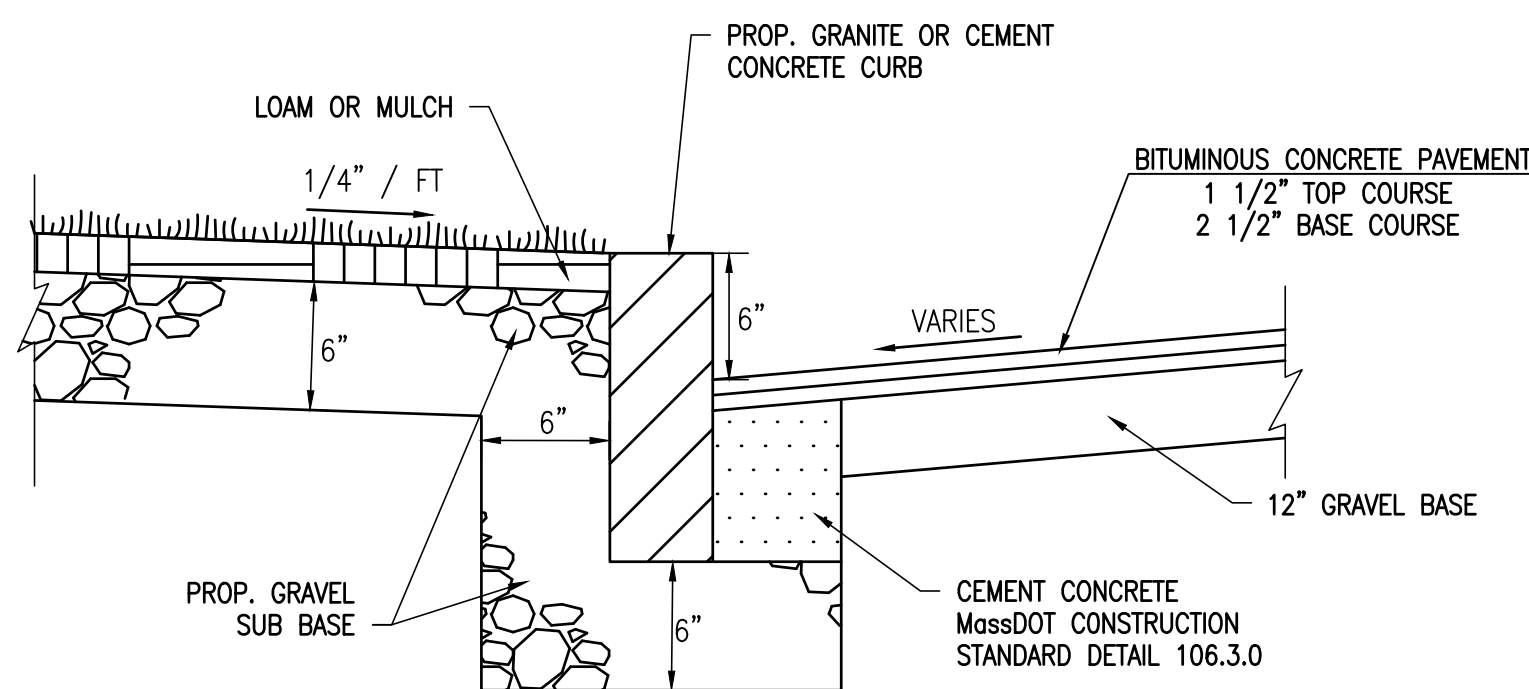
1. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH CLEAN GRAVEL BASE (90% COMPACTION)
2. ALL DRIVEWAY AND PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS SPECIFICATIONS.



CAPE COD BERM DETAIL

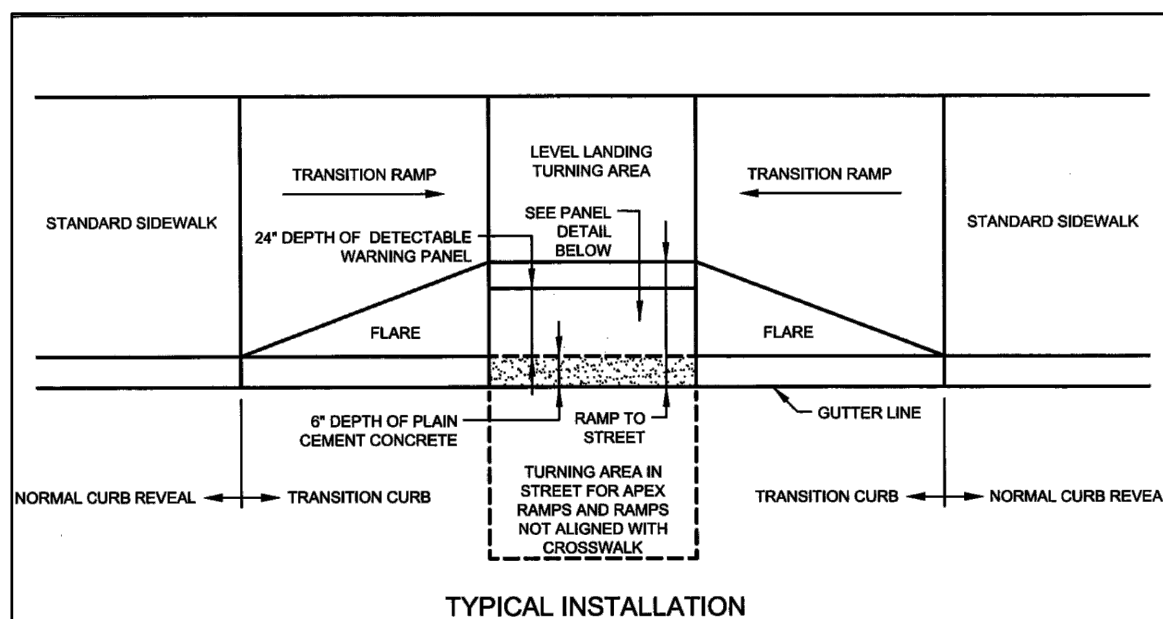
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*IF THE IN-SITU MATERIAL IS TO BE USED FOR THE SUBBASE IT SHALL MEET THE MASS HIGHWAY SPEC. M1.03.0 TYPE b OR M2.01.7

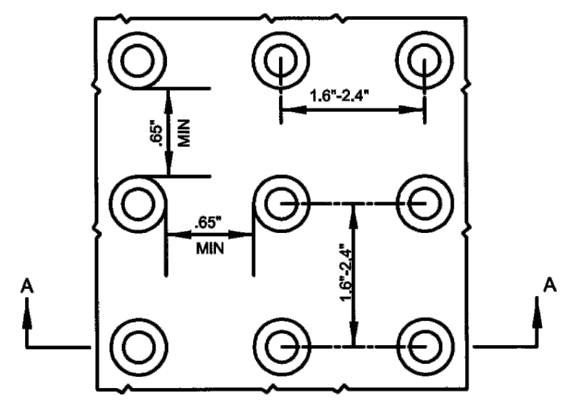


VERTICAL GRANITE CURB DETAIL

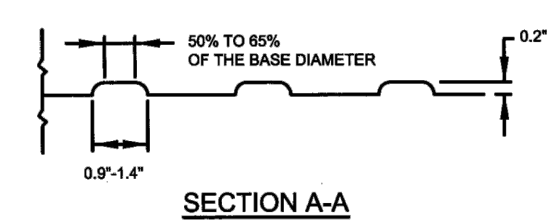
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TYPICAL INSTALLATION



DETAIL OF DETECTABLE WARNING PANEL



SECTION A-A

NOTE:

PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

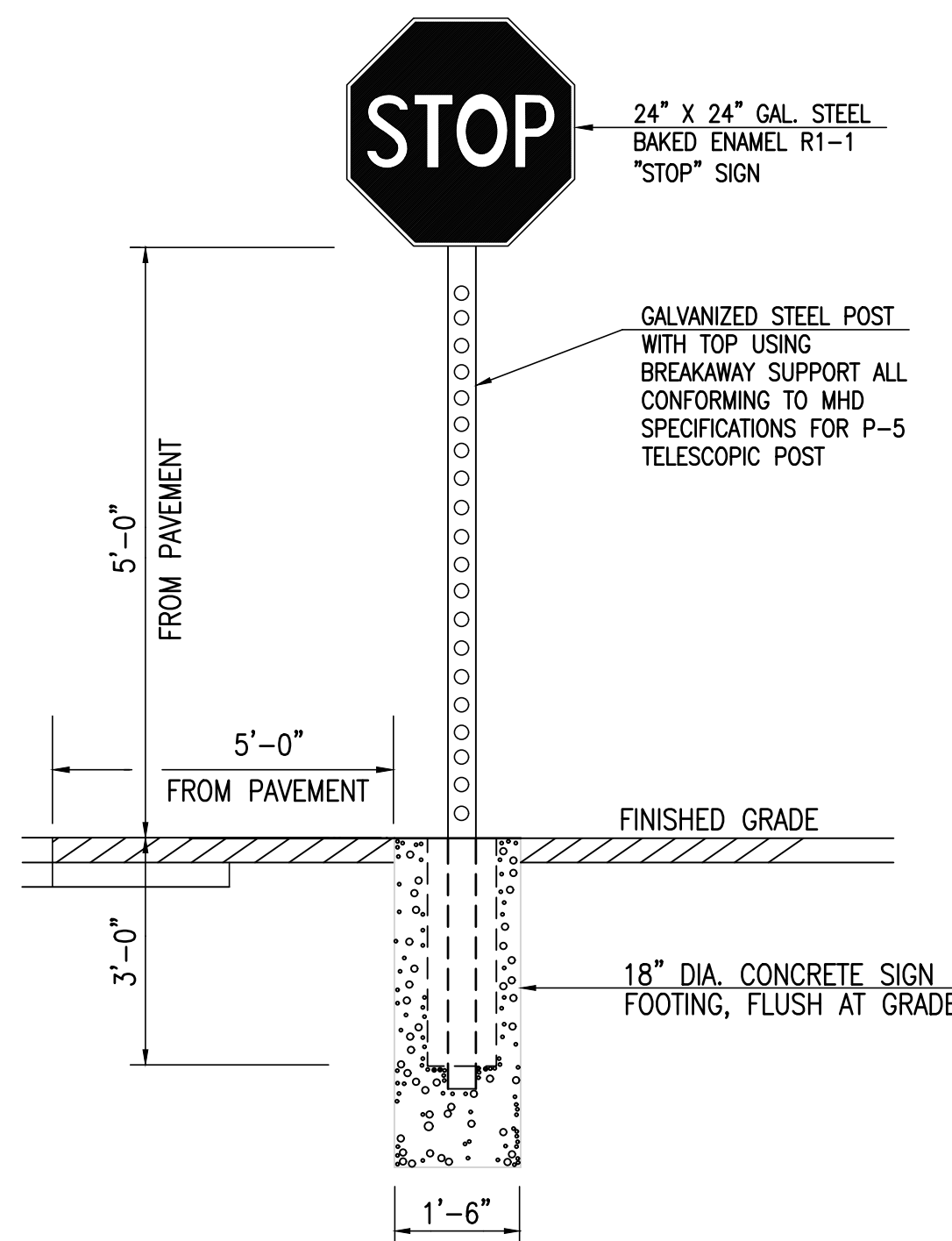


DETECTABLE WARNING PANEL FOR WHEELCHAIR
RAMPS AND STANDARD RAMP TERMINOLOGY

DATE OF ISSUE
MARCH 2012
DRAWING NUMBER
E 107.6.5R

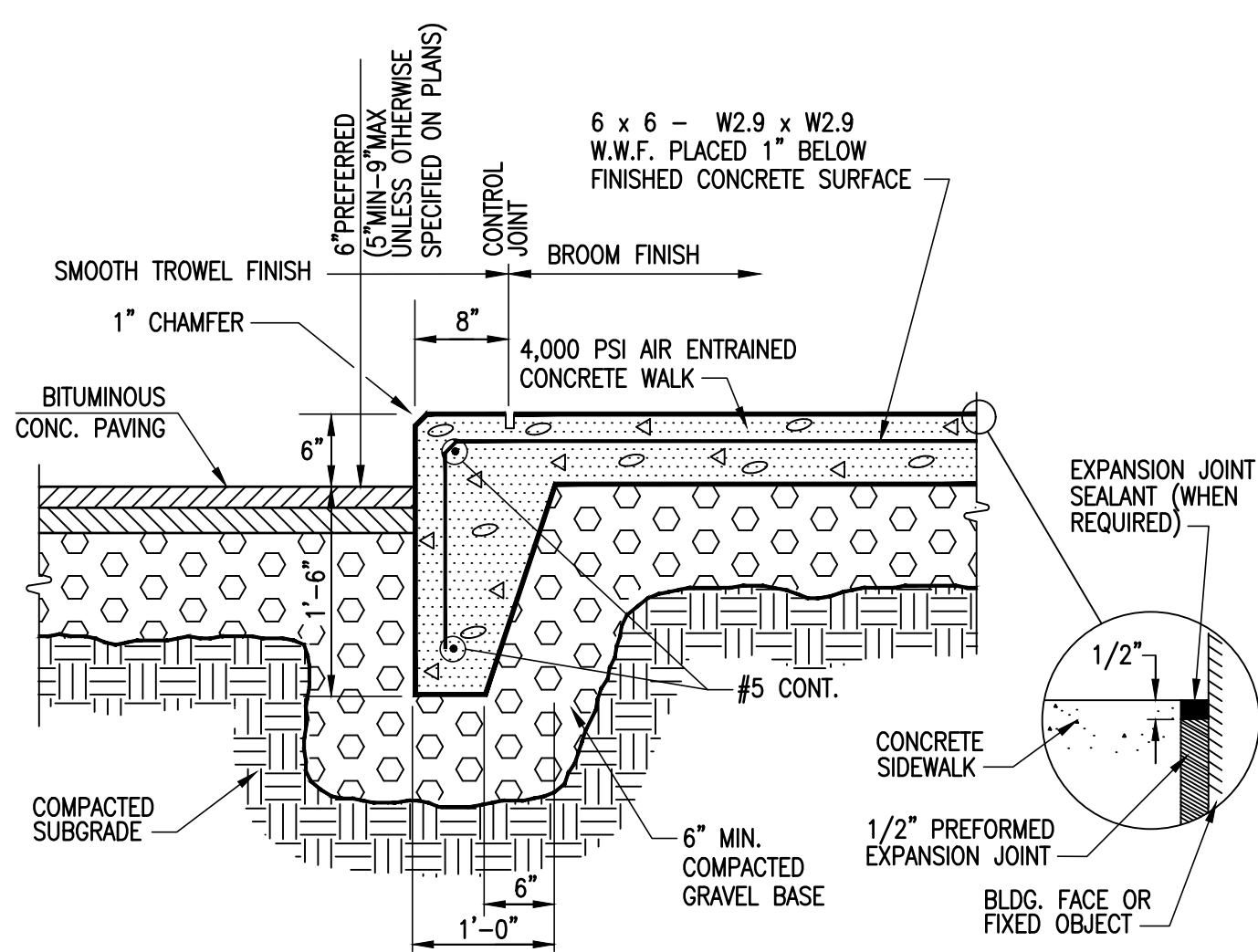
DETECTABLE WARNING PANEL FOR WHEELCHAIR

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STOP SIGN DETAIL

(NOT TO SCALE)

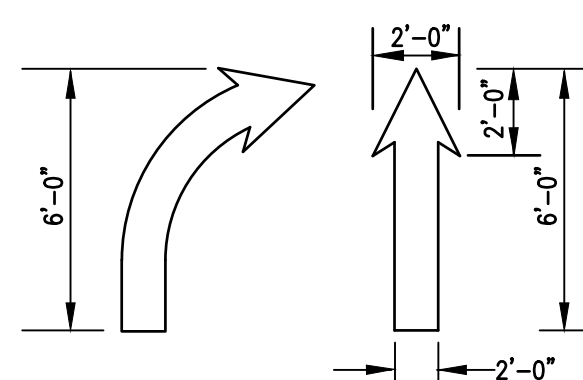


NOTES:

1. PROVIDE CONTROL JOINTS AS SHOWN AND AT 5'-0" O.C. MIN.
2. PROVIDE EXPANSION JOINTS AT 20'-0" O.C. MIN. JOINTS TO BE TRANSVERSE TO DIRECTION OF WALK EXCEPT AS SHOWN.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.

CONCRETE WALK-CURB DETAIL

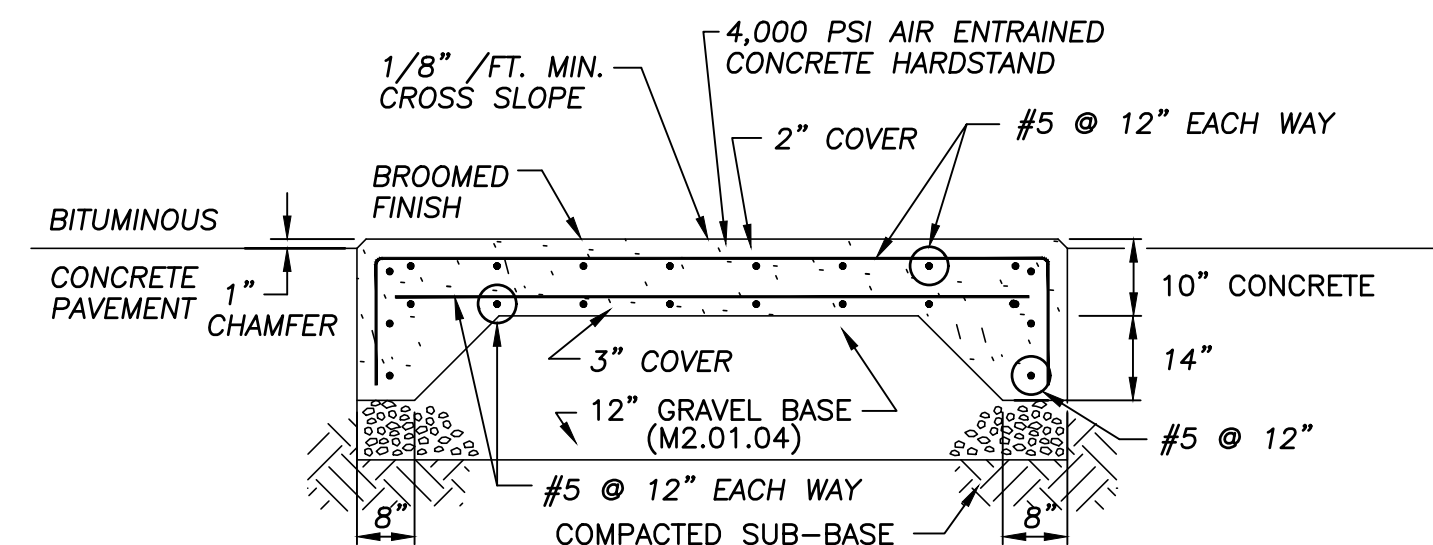
(NOT TO SCALE)



NOTE:
PAINT TO BE ONE COAT OF STANDARD DRY OIL BASED PAINT FOR MARKING ASPHALT OR CONCRETE, SPRAY APPLICATION. WHITE UNLESS OTHERWISE NOTED.

PAINTED TRAFFIC ARROW

(NOT TO SCALE)

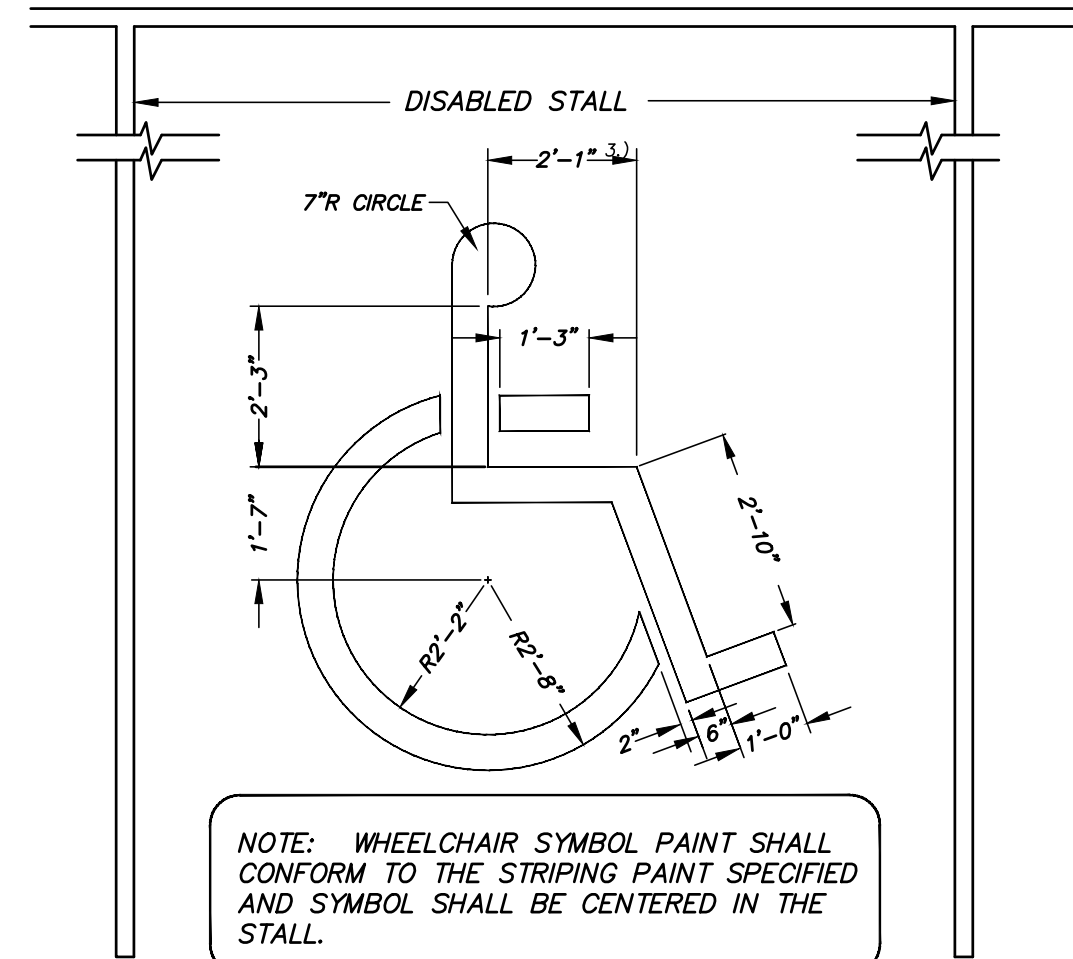


DUMPSTER PAD DETAIL DETAIL

(NOT TO SCALE)

NOTES:

- 1) LOCATIONS PER SITE PLAN
- 2) PROVIDE 1/2" DEEP CONTROL JOINTS AT 5' O.C.
- 3) PROVIDE CONSTRUCTION JOINT WITH 1/4" PREMOLDED 6" EXPANSION JOINT FILLER AT 25' O.C.



NOTE: WHEELCHAIR SYMBOL PAINT SHALL CONFORM TO THE STRIPING PAINT SPECIFIED AND SYMBOL SHALL BE CENTERED IN THE STALL.

ACCESSIBLE PARKING SPACE

PAINTING DETAIL

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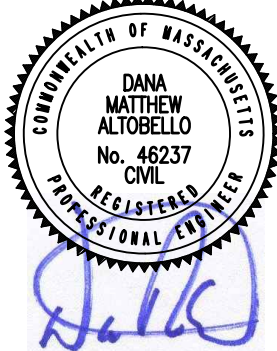
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SHEET 6 OF 9

2.	4/26/22	MOVE BASIN
1.	3/22/22	PB PEER REVIEW COMMENTS



DRAWN BY: PAL

DESIGNED BY:

CHECKED BY: DA



DEFINITIVE SITE PLAN
631 WASHINGTON STREET
ASSESSORS MAP E10 LOT 10
PEMBROKE, MASSACHUSETTS
OWNER/APPLICANT: BILL PAPPAS/TRAITS
633 SUMMER STREET
MARSHFIELD, MA 02050
(781)248-0277

FEBRUARY 2, 2022

SCALE: AS NOTED

JOB NO. 21-204

LATEST REVISION:
APRIL 26, 2022

CONSTRUCTION DETAILS

PERMIT SET
NOT FOR
CONSTRUCTION

SHEET 7 OF 9

PLANNING BOARD APPROVAL

THIS SITE PLAN DOES NOT NECESSARILY INDICATE COMPLIANCE WITH THE ZONING BY-LAW.

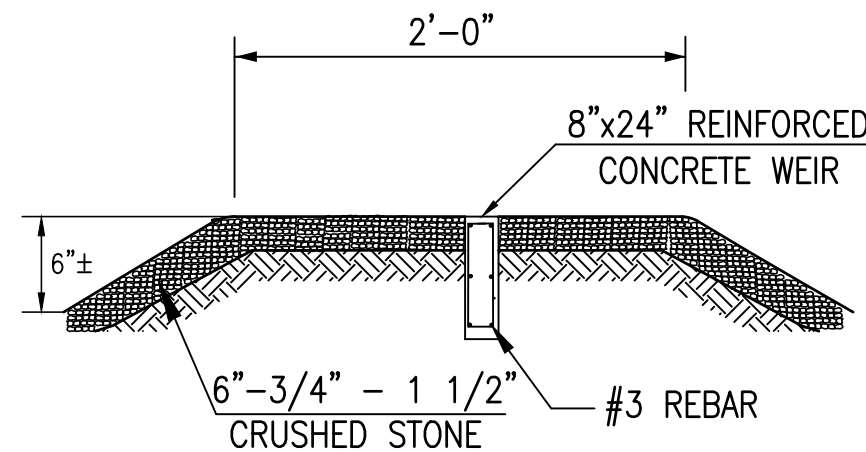
DATE APPROVED: _____

PEMBROKE TOWN CLERK

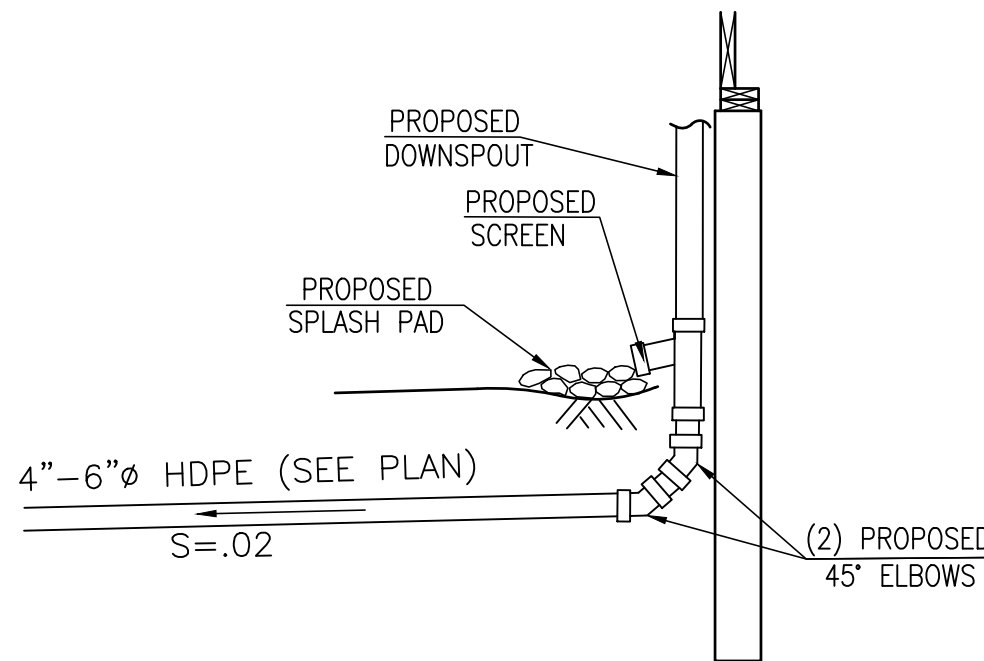
I, TOWN CLERK OF THE TOWN OF PEMBROKE, MA HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND NO APPEAL WAS RECEIVED DURING THE NEXT TWENTY DAYS AFTER RECEIPT AND RECORDING OF SAID NOTICE.

DATE _____

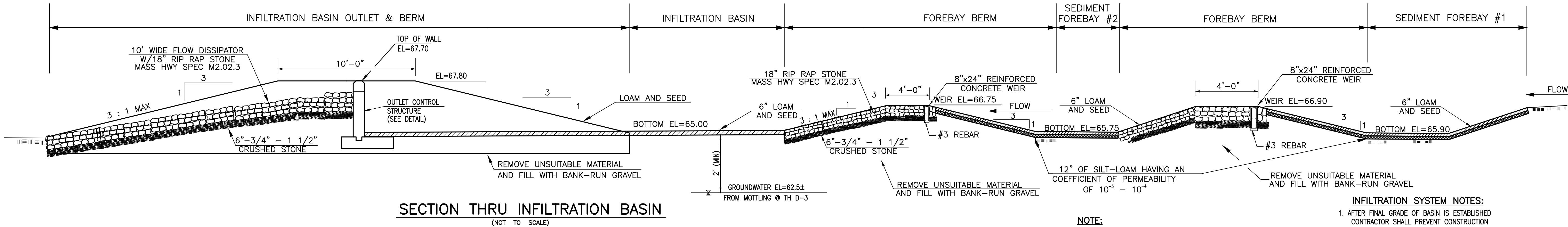
TOWN CLERK, TOWN OF PEMBROKE



TYPICAL CHECK DAM DETAIL
(NOT TO SCALE)



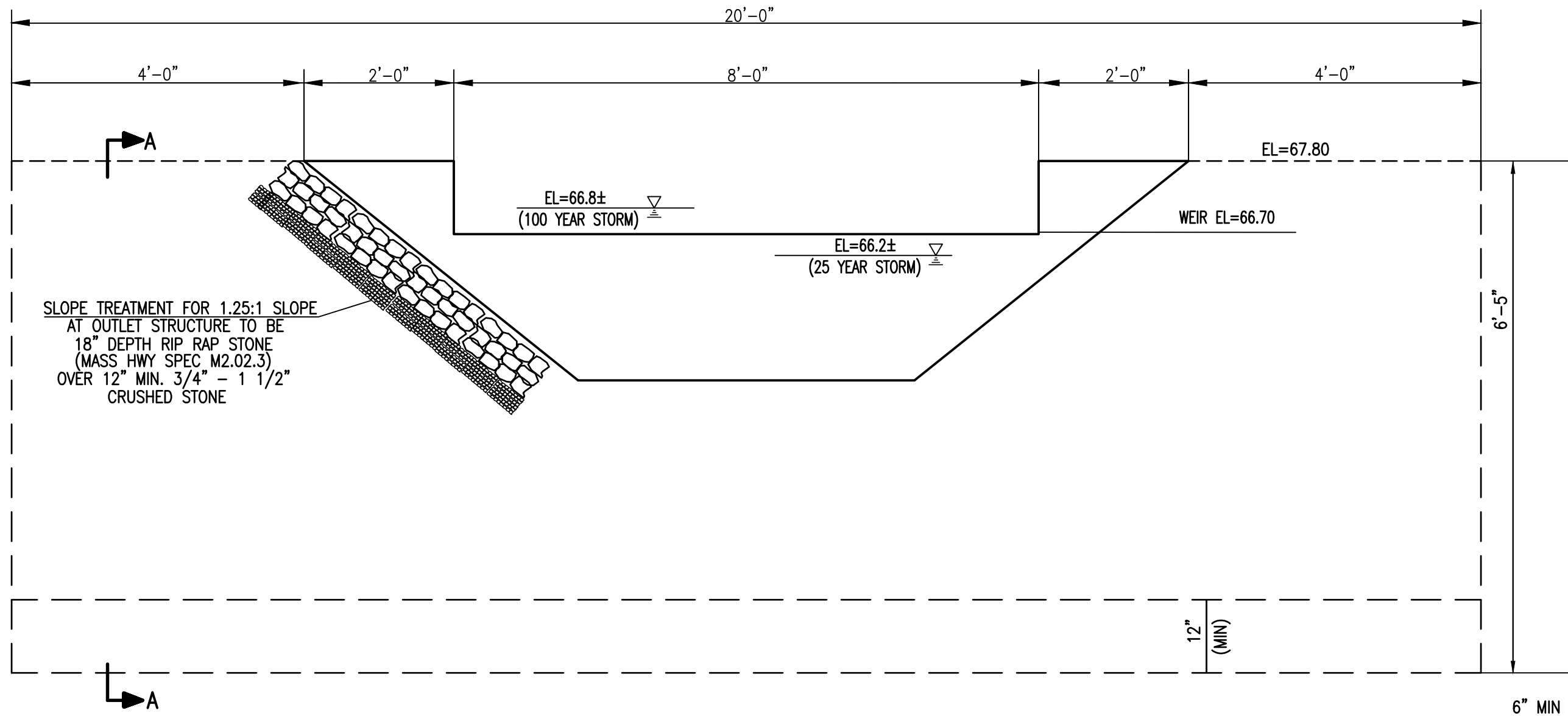
TYPICAL DOWNSPOUT DETAIL
(NOT TO SCALE)



NOTE:
FILL DIKES SHALL BE A COMBINATION OF COMPACTED GRAVEL, SAND AND SILT TO INSURE WATER TIGHTNESS AND STABILITY. (ASTM D2487 TYPE GM OR GC)

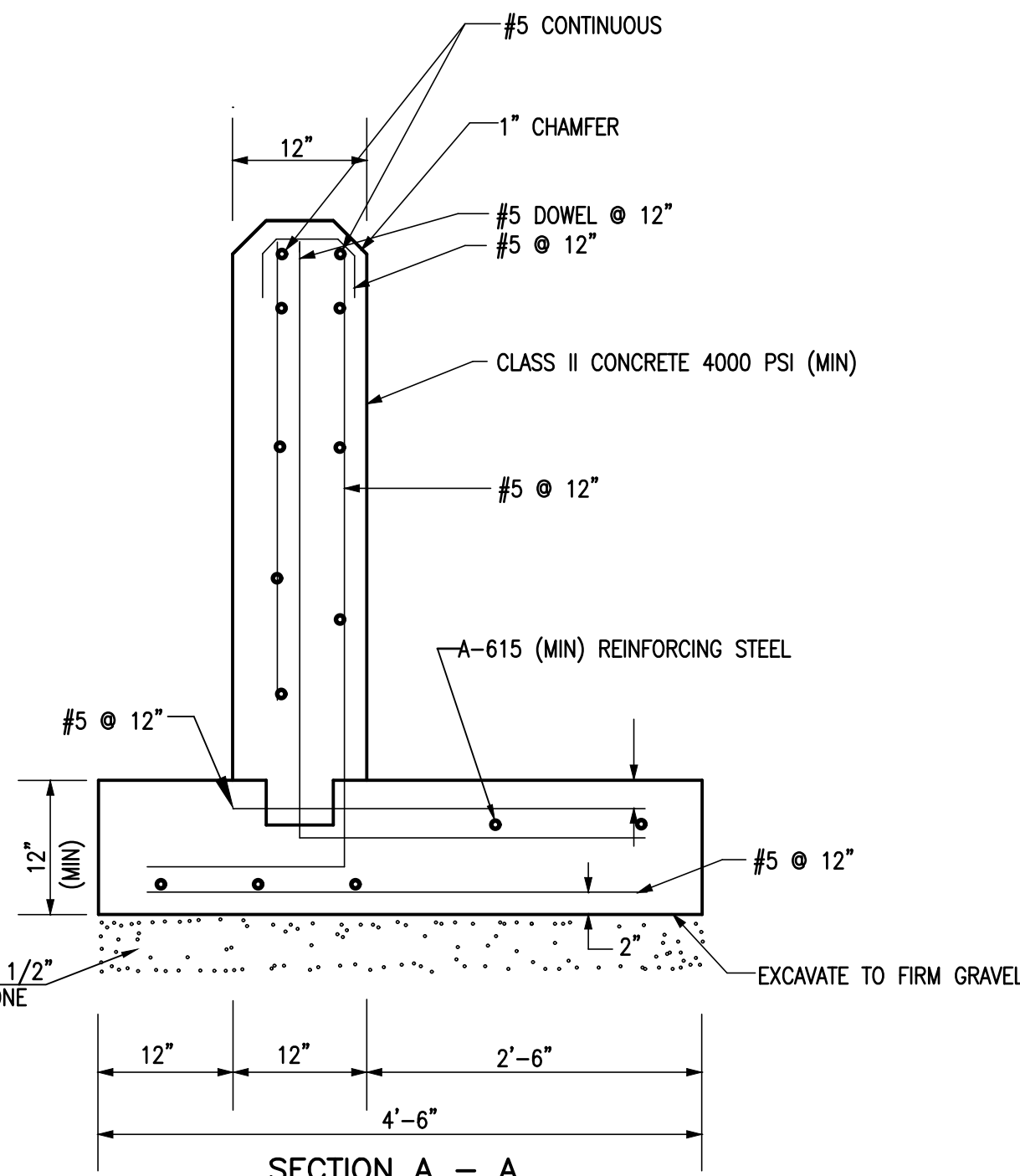
INFILTRATION SYSTEM NOTES:

- AFTER FINAL GRADE OF BASIN IS ESTABLISHED CONTRACTOR SHALL PREVENT CONSTRUCTION TRAFFIC OVER ALL INFILTRATION SURFACES.
- CONTRACTOR SHALL NOT DISCHARGE SEDIMENT-LADEN WATER INTO STORMWATER BASIN.
- STORMWATER BASIN SHALL NOT BE PLACED INTO OPERATION PRIOR TO INSTALLATION OF PAVEMENT AND STABILIZATION OF ALL SURFACES CONTRIBUTING TO CLOSED DRAINAGE SYSTEM.
- EXCAVATE ALL MATERIAL BELOW INFILTRATION BASIN TO GRAVELLY COARSE SAND LAYER (SEE LOGS) AND REPLACE WITH CLEAN COARSE FILL IN ACCORDANCE WITH 310 CMR 15.255.



ELEVATION

DETAIL - INFILTRATION BASIN OUTLET STRUCTURE
(NOT TO SCALE)



SECTION A - A

SOIL LOGS

PERFORMED BY: JOSHUA GREEN, E.I.T.

T.H. D-1
DATE: 7/27/21
EL. 68.5±

0'-6"
Ap HORIZON
SANDY LOAM
10YR 3/2
68.0

6'-26"
Bw HORIZON
SANDY LOAM
10YR 5/4
66.3

26'-144"
C LAYER
SANDY LOAM
2.5Y 6/4
66.3

D=144"
REDOX
@ 90"
EL. 61.0±

0'-10"
Ap HORIZON
SANDY LOAM
10YR 3/2
66.2

10'-32"
Bw HORIZON
LOAMY SAND
10YR 5/4
64.3

32'-88"
C1 LAYER
LOAMY SAND
2.5Y 6/2
59.7

88'-144"
C2 LAYER
SANDY LOAM
2.5Y 5/2
55.0

D=144"
REDOX
@ 75"
EL. 60.7±

0'-5"
Ap HORIZON
LOAMY SAND
10YR 3/2
66.7

5'-26"
Bw HORIZON
LOAMY SAND
10YR 5/4
64.9

26'-128"
C LAYER
SANDY LOAM
2.5Y 6/4
56.4

D=128"
REDOX
@ 55"
EL. 62.5±

0'-10"
Ap HORIZON
LOAMY SAND
10YR 3/2
67.6

10'-28"
Bw HORIZON
LOAMY SAND
10YR 5/4
66.1

28'-58"
C1 LAYER
LOAMY SAND
2.5Y 6/2
63.6

58'-68"
C2 LAYER
LOAMY SAND
10YR 4/4
62.7

68'-98"
C3 LAYER
LOAMY SAND
2.5Y 6/2
60.2

D=98"
REDOX
@ 48"
EL. 64.4±

T.H. 22-1D
DATE: 1/21/22
EL. 68.4±

0'-10"
Ap HORIZON
LOAMY SAND
10YR 3/2
67.6

10'-28"
Bw HORIZON
LOAMY SAND
10YR 5/4
66.1

28'-58"
C1 LAYER
LOAMY SAND
2.5Y 6/2
63.6

58'-68"
C2 LAYER
LOAMY SAND
10YR 4/4
62.7

68'-98"
C3 LAYER
LOAMY SAND
2.5Y 6/2
60.2

D=98"
REDOX
@ 48"
EL. 64.4±

T.H. 22-2D
DATE: 1/21/22
EL. 69.2±

0'-14"
Ap HORIZON
SANDY LOAM
10YR 3/2
68.1

14'-60"
C1 HORIZON
SANDY LOAM
2.5Y 6/2
63.1

60'-92"
C2 LAYER
MED. SAND
2.5Y 5/2
61.6

D=92"
REDOX
@ 42"
EL. 65.7±

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE, WITHOUT THE EXPRESS WRITTEN CONSENT OF MERRILL CORPORATION. WITH THE EXCEPTION OF ANY REGULATORY AUTHORITY WHICH MAY REPRODUCE IT IN CONNECTION WITH THE PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION, ANY MODIFICATIONS MADE TO THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF MERRILL CORPORATION SHALL RENDER IT UNUSABLE.

-

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY. ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
3. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH ALL LOCAL MUNICIPAL STANDARDS AND REQUIREMENTS. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.
4. PRIMARY WATER METER AND BACKFLOW PREVENTER SHALL BE LOCATED AT THE POINT WHERE THE WATER LINE ENTERS THE BUILDING UNLESS OTHERWISE NOTED OR DETAILED ON THE DRAWINGS.
5. ALL GRAVITY SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE PIPE (P.V.C.) S.D.R. 35 AND SHALL CONFORM WITH ASTM-D3034 UNLESS NOTED OTHERWISE.
6. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST EIGHTEEN INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IF MECHANICAL JOINT PIPE IS NOT USED THEN BOTH THE WATER MAIN AND SANITARY SEWER SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
7. PROPOSED GAS SERVICE LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM WITH THE GAS COMPANY THAT GAS LINE INSTALLATION SHALL BE BY THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION AND BACKFILL AND COMPACTION FOR THE GAS LINE.
8. DUE TO THE SMALL SCALE OF THE SITE WORK DRAWINGS, EXACT LOCATION OF UTILITY STUBS FOR BUILDING CONNECTIONS SHALL BE VERIFIED WITH THE BUILDING DRAWINGS. SERVICE STUBS TO THE BUILDING SHALL BE INSTALLED TO A POINT 10 FEET FROM THE BUILDING WALL UNLESS OTHERWISE NOTED OR DETAILED.

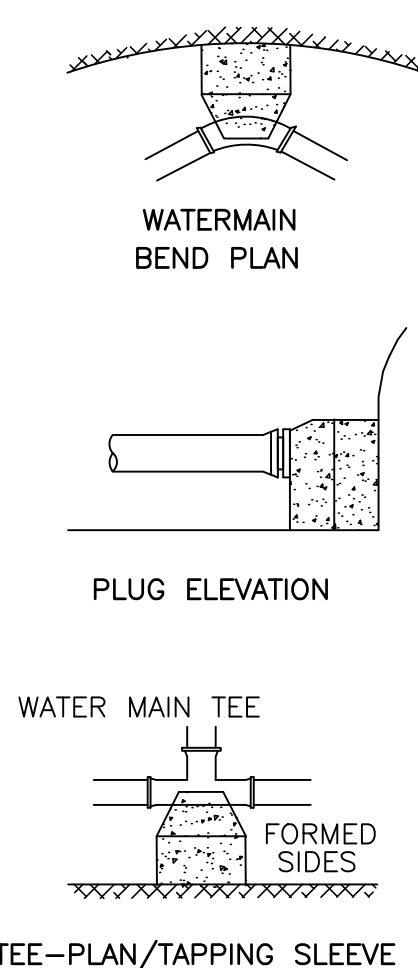
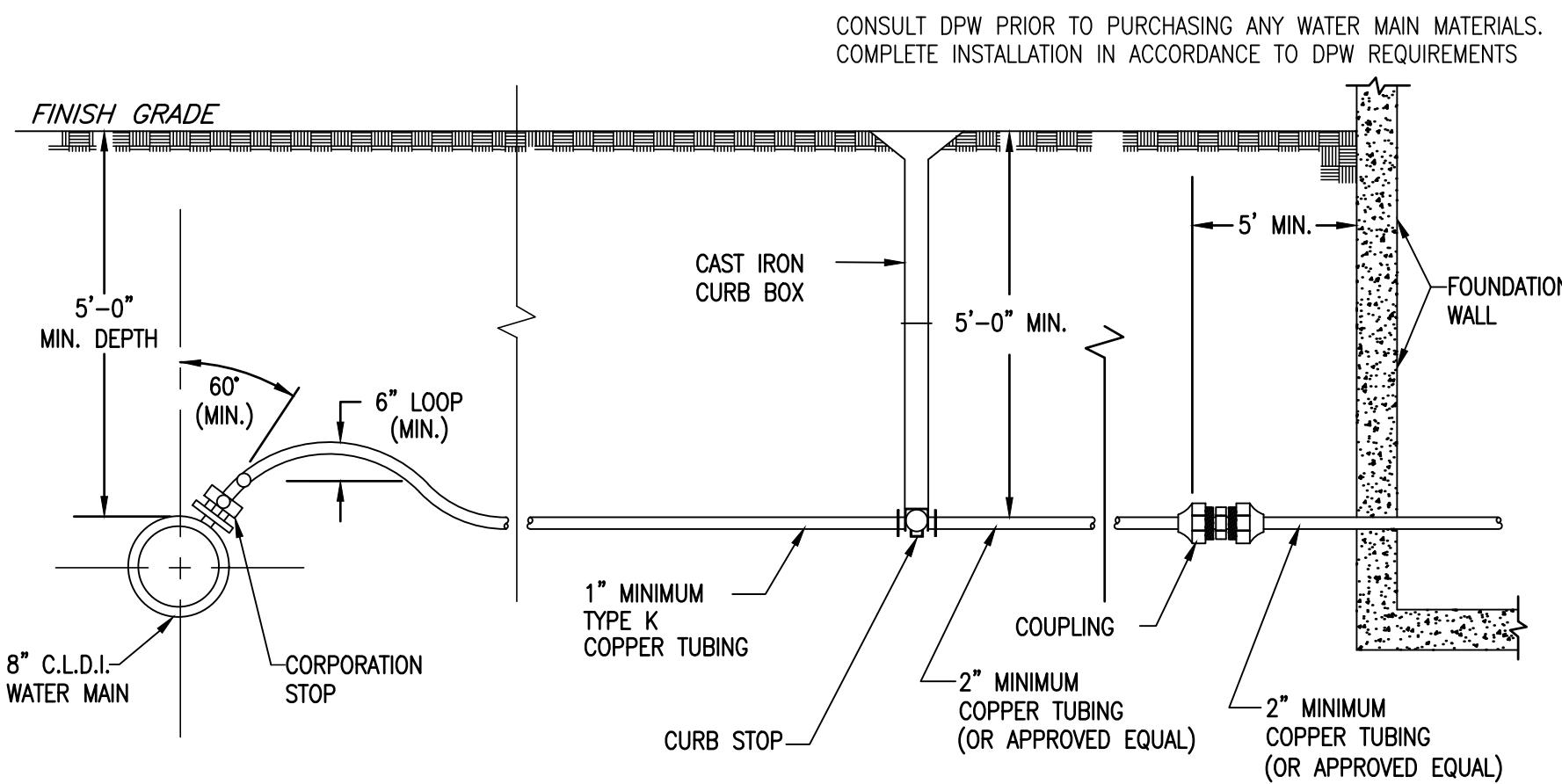
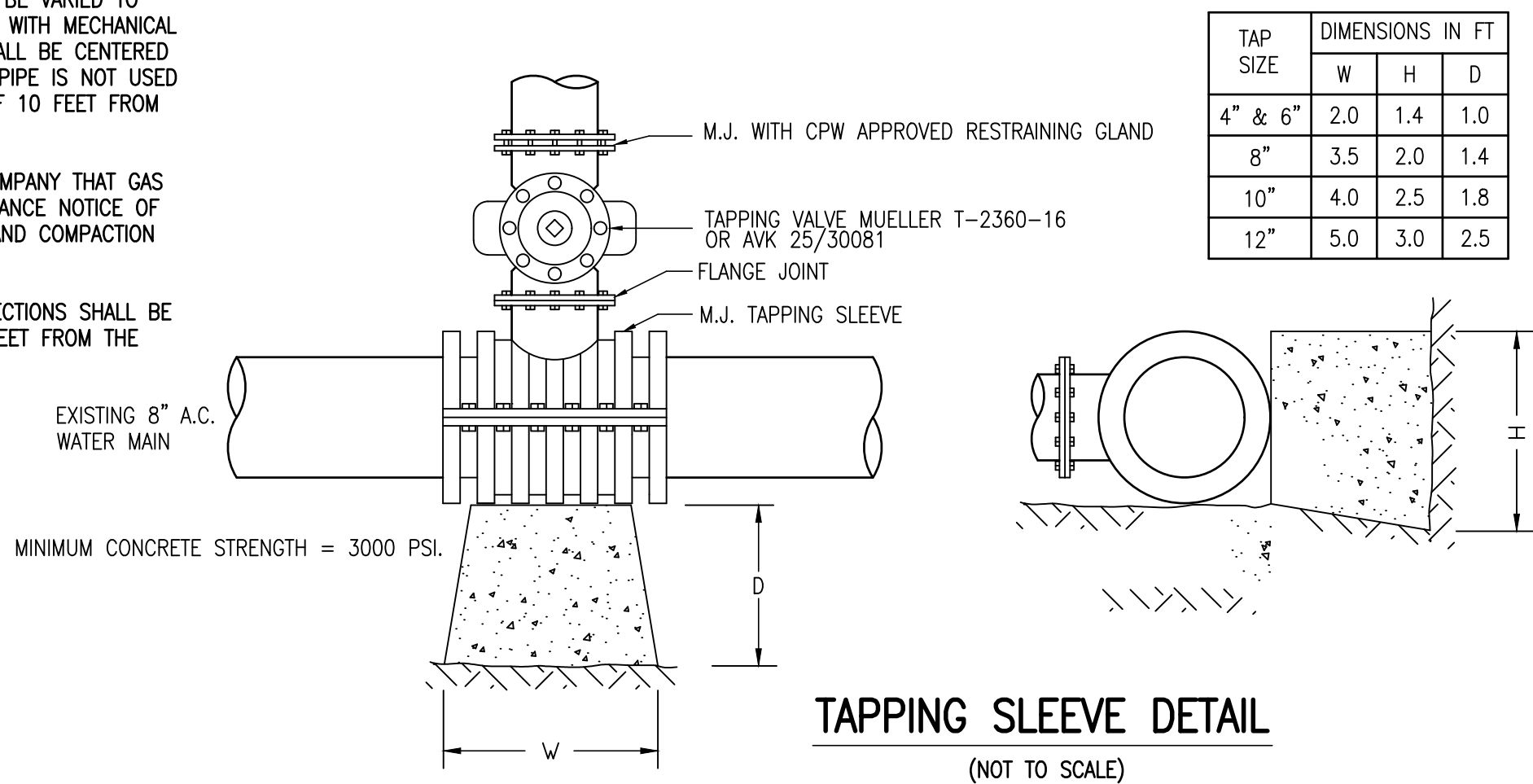


TABLE OF BEARING AREAS (S.F.)			
SIZE OF MAIN(IN)	90° BEND	TEES & PLUGS	45° BEND
8	5	4	3

(NOT TO SCALE)

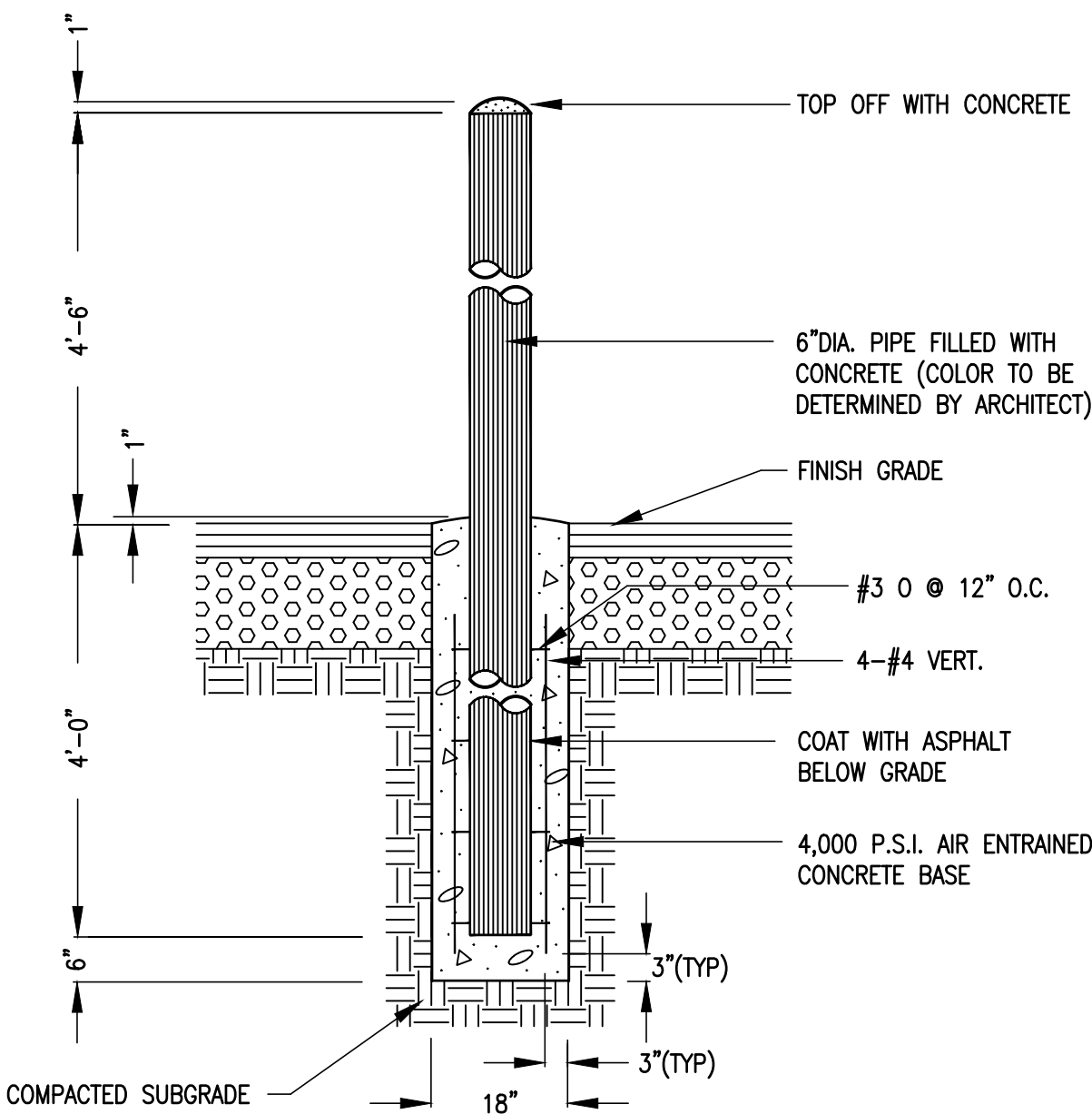


(NOT TO SCALE)

[illegible]

TAP SIZE	DIMENSIONS IN FT		
	W	H	D
4" & 6"	2.0	1.4	1.0
8"	3.5	2.0	1.4
10"	4.0	2.5	1.8
12"	5.0	3.0	2.5

1. TAPPING SADDLES ARE NOT ALLOWED FOR MAIN-ON-MAIN TAPS.
2. USE MUELLER OR AMERICAN DARLING DUCTILE IRON OR 316 STAINLESS STEEL TAPPING SLEEVES FOR TAP SIZES 4" - 24".
3. USE 316 STAINLESS STEEL TAPPING SLEEVES BY DRESSER OR CASCADE FOR TAPS ON MAINS 30" AND GREATER.
4. BOLTS AND NUTS FOR ALL TAPPING SLEEVES SHALL BE 316 SS.
5. USE THRUST BLOCKING ONLY FOR WET TAPS UNLESS OTHERWISE APPROVED BY CPW.
6. DEPTH FROM GROUND SURFACE TO TOP OF BLOCKING SHALL BE GREATER THAN HEIGHT OF BLOCKING.
7. THE END OF THE TAPPING SLEEVE SHALL BE NO CLOSER THAN 4 FEET TO A JOINT.



(NOT TO SCALE)

Merrill
Engineers and Land Surveyors
427 COLUMBIA ROAD, HANOVER, MA 02339 / T: (781) 826-9200
26 UNION STREET, PLYMOUTH MA 02360 / T: (508) 746-6060
WWW.MERRILLINC.COM

DEFINITIVE SITE PLAN

631 WASHINGTON STREET
ASSESSORS MAP E10 LOT 10
PEMBROKE, MASSACHUSETTS

OWNER/APPLICANT BILL PAPPASTRATIS
633 SUMMER STREET
MARSHFIELD, MA 02050
(781)248-0277

(781)248-0277

1003 SUMMIT STREET
MARSHFIELD, MA 02050

1

2

/

1

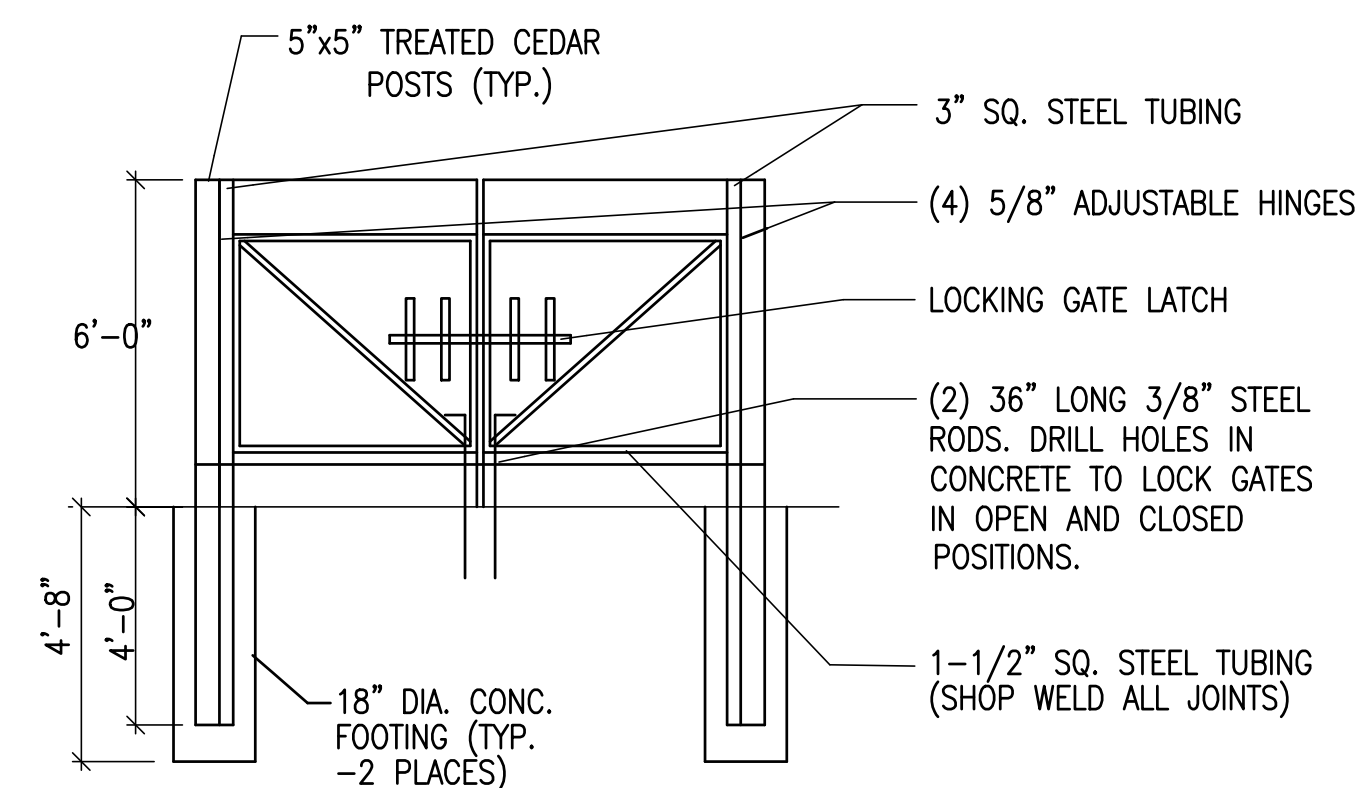


Diagram illustrating the cross-section of a stone weir structure. The structure is composed of layers of stone and crushed stone, with dimensions specified in feet and inches.

Dimensions and Components:

- Total width of the main structure: 10'-0"
- Left side slope: 7'-6"
- Right side slope: 2'-0"
- Additional right side slope: 3'-0"
- Minimum height of the stone layer: 12" (MIN)
- Minimum height of the crushed stone layer: 6" MIN 3/4" - 1 1/2"
- Material: 12" RIP RAP STONE (MASS HIGHWAY SPEC. M2.02.3)
- Base material: 6" MIN 3/4" - 1 1/2" CRUSHED STONE
- Legend: STONE (represented by a circle with a dot) and 2:1 SLOPE ALONG

Technical drawings of a parking stall bumper. The top drawing is a perspective view of a 6'-0" long bumper with two dowel holes. The bottom-left drawing is a side elevation showing the bumper centered in a parking stall with a 2'-0" (typical) width. The bottom-right drawing is a cross-section of the bumper, showing a 6" height, 10" width, and a 5 1/2" mounting arm, secured with a #3 rod or equal.

UNPAVED

PAVED

6" TOPSOIL & SEED

MATCH EXISTING

SHEETING (IF REQ'D)
TO BE CUT OFF 5' MIN
BELOW GROUND & 2' MIN
ABOVE TOP OF PIPE

SELECT BACKFILL

BACKFILL WITH GRAVEL
BEDDING 12" OVER PIPE
WHEN PVC PIPE IS USED

BACKFILL WITH GRAVEL
BEDDING TO MID-DIAMETER
WHEN OTHER THAN PVC
PIPE IS USED

WATER, SEWER, DRAIN,
OR FORCE MAIN PIPE

HALF SECTION
IN EARTH

HALF SECTION
IN ROCK

(D+2' 3 MIN.)

DETAIL - UTILITY TRENCH
(NOT TO SCALE)