

Mixed-Use Development Site Subdivision and Site Plan Review

200 CHASE DRIVE Portsmouth, New Hampshire Assessor's Parcel 210-02

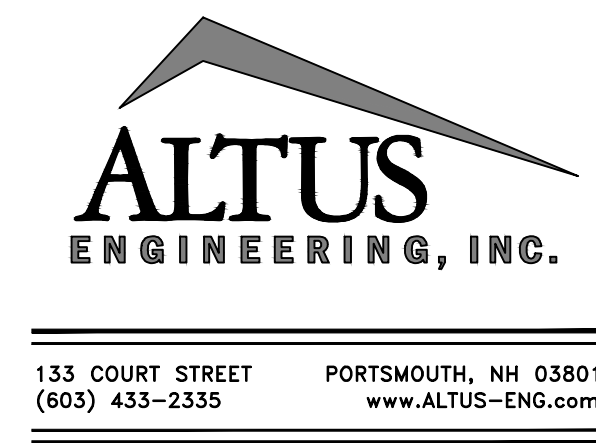
Owner:

BETHEL ASSEMBLY OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

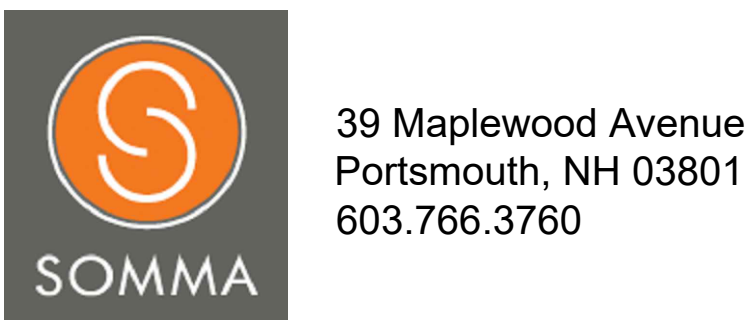
Applicant:

200 Chase Drive, LLC
c/o Cove Workspace
36 Maplewood Avenue
PORTSMOUTH, NH 03801

Civil Engineer:



Architect:



Surveyor:



Issued:

JUNE 26, 2019

PLANNING BOARD DESIGN REVIEW

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE



Locus Map

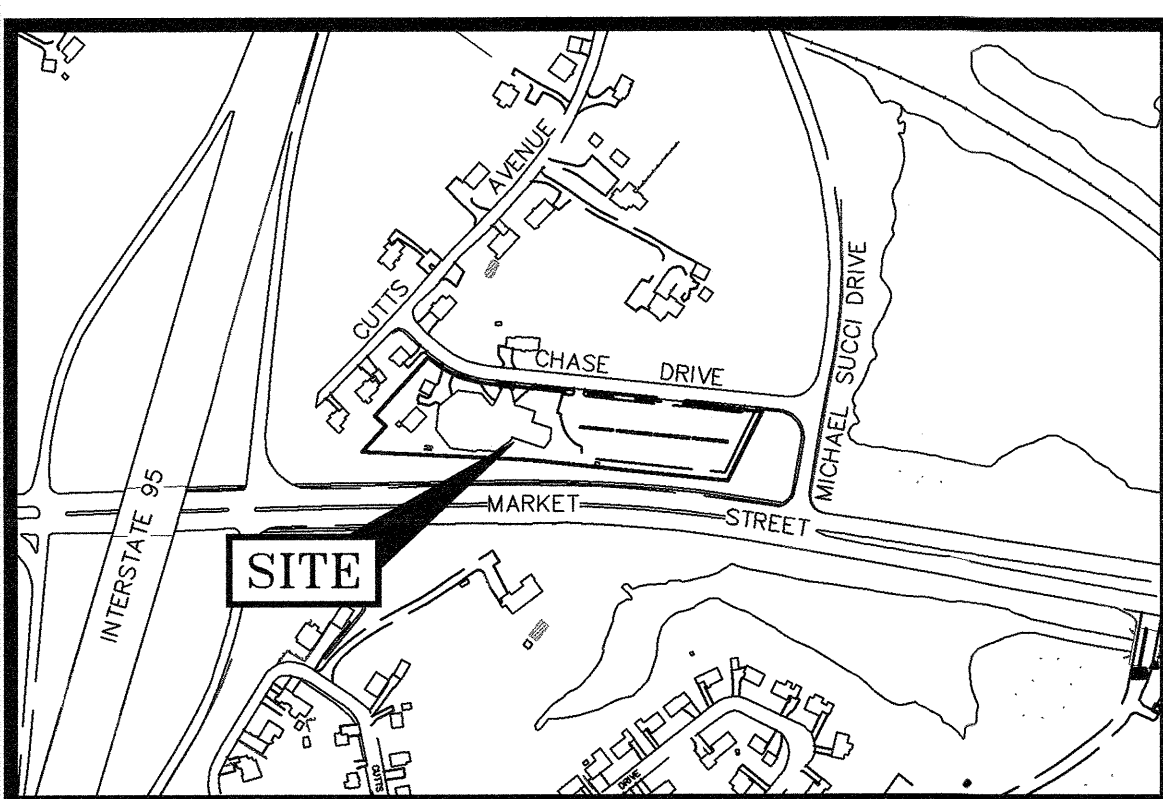
Scale: Not to Scale

Sheet Index
Title

Existing Conditions Plans (by Ambit Engineering, Inc.)
Existing Utilities Plans (by Ambit Engineering, Inc.)
Preliminary Subdivision Plan
Overall Site Plan
Site Plan
Community Space Plan
Preliminary Grading and Drainage Plan
Utilities Plan (Not Included)
Landscape Plan (Not Included)
Site Lighting Plan (Not Included)
Erosion Control Details
Construction Details
Construction Details
Construction Details
Construction Details
Construction Details
Construction Details
Typical Floor Plan (by SOMMA Studios)
Exterior Elevations (Not Included)
Building Rendering (by SOMMA Studios)

Sheet
No.: *Rev.* *Date*

C1	0	02/11/19
C2	0	02/11/19
C.3	1	06/26/19
C.4	1	06/26/19
C.5	1	06/26/19
C.6	0	06/26/19
C.7	0	06/26/19
C.8	0	—
L-1	0	—
1 of 1	0	—
D.1	0	06/26/19
D.2	0	06/26/19
D.3	0	06/26/19
D.4	0	06/26/19
D.5	0	06/26/19
D.6	0	06/26/19
D.7	0	06/26/19
1 of 1	0	06/26/19
—	0	—
1 of 1	0	06/26/19



LOCATION MAP

SCALE 1"=400'

PLAN REFERENCE:

1) LOT LINE ADJUSTMENT PLAN 200 CHASE DRIVE & 373 CUTTS AVENUE PORTSMOUTH, NEW HAMPSHIRE ASSESSOR'S PARCELS 210-2 & 210-5 FOR KRISTEN G. BOUCHIE & THE BETHEL ASSEMBLY OF GOD. PREPARED BY JAMES VERRA AND ASSOCIATES, INC. DATED MAY 23, 2013, FINAL REVISION DATE JUNE 25, 2013. R.C.R.D. PLAN D-38287.

2) SEE PLAN REFERENCE 1 FOR ADDITIONAL PLAN REFERENCES.

WETLAND NOTES:

- 1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 8/3/2018 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
- U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.1, USDA-NRCS, 2017 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEWPCC WETLANDS WORK GROUP (2017).
 - NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
 - "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) WETLAND FLAGS WERE FIELD LOCATED BY AMBIT ENGINEERING, INC.

LEGEND:

EXISTING

N/F
RP
RCRD
(11/21)

RR SPK FND
IR FND
IP FND
DH FND
NHFB FND
TB FND
BND w/DH
ST BND w/DH

RR SPK SET
IR SET
IP SET
DH SET

BND w/DH
ST BND w/DH

NOW OR FORMERLY
RECORD OF PROBATE
ROCKINGHAM COUNTY
REGISTRY OF DEEDS
MAP 11 / LOT 21

RAILROAD SPIKE FOUND/SET
IRON ROD FOUND/SET
IRON PIPE FOUND/SET
DRILL HOLE FOUND/SET
NHFB FOUND
TOWN BOUND FOUND
BOUND w/ DRILL HOLE
STONE BOUND w/DRILL HOLE

SWOPA - NHDES 250' PROTECTED SHORELAND
HOTL - HIGHEST OBSERVABLE TIDE LINE

STORM DRAIN
UNDERGROUND ELECTRIC
OVERHEAD ELECTRIC WIRES
EDGE OF PAVEMENT (EP)
WOODS / TREE LINE

UTILITY POLE (w/ GUY)

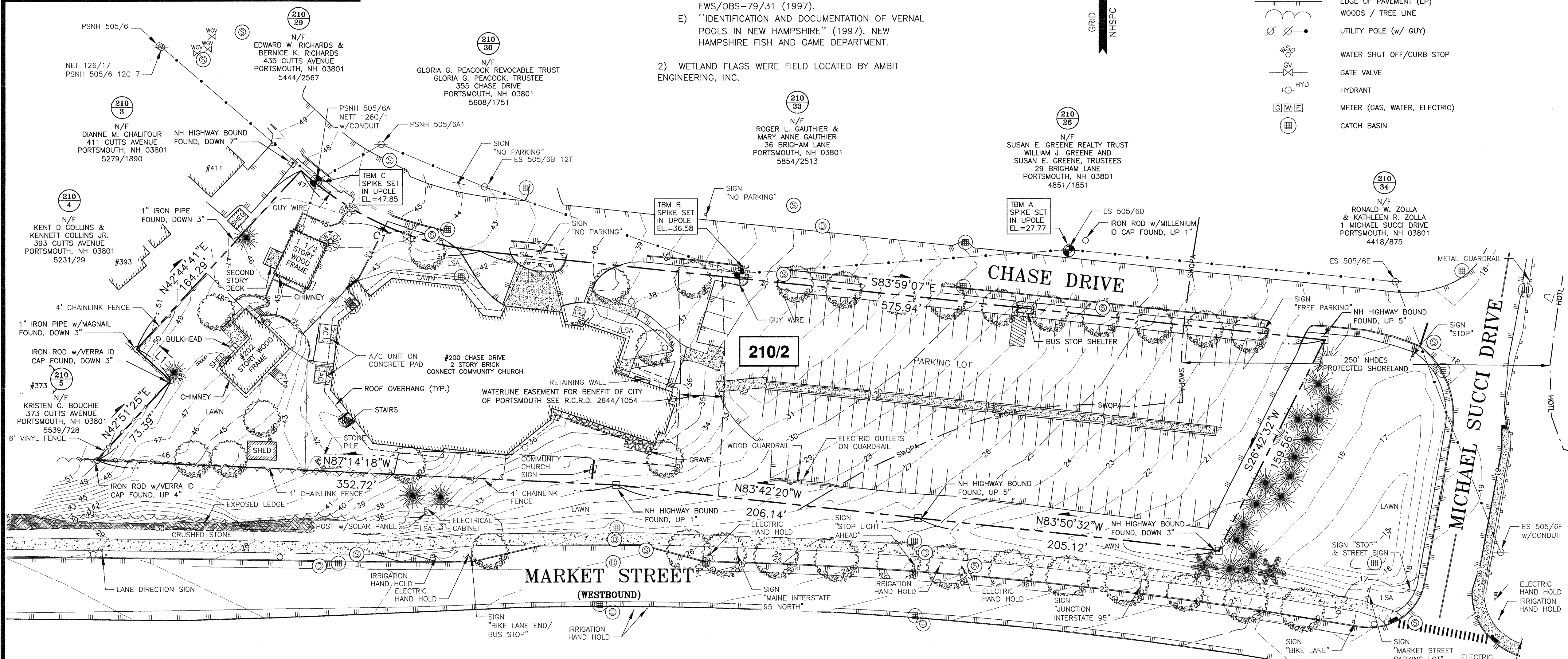
WATER SHUT OFF/CURB STOP

GATE VALVE

HYDRANT

METER (GAS, WATER, ELECTRIC)

CATCH BASIN



LENGTH TABLE

LINE	BEARING	DISTANCE
L1	N47°21'20"W	31.46'

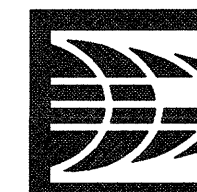
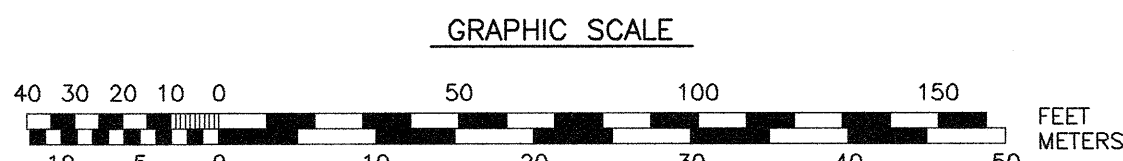
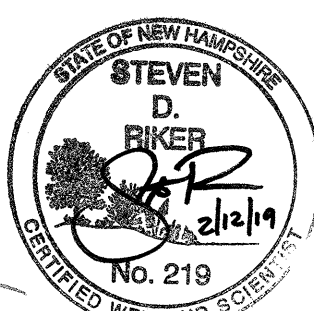
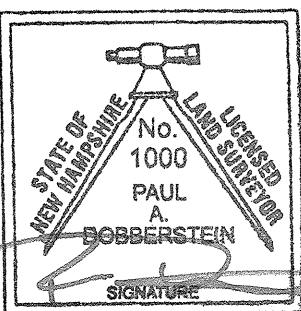
CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	215.00'	135.68'	133.44'	S65°54'23"E	36°09'27"

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

PAUL A DOBBERSTEIN, LLS

DATE



AMBIT ENGINEERING, INC.

Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 210 AS LOT 2.
- OWNER OF RECORD:
BETHEL ASSEMBLY OF GOD
200 CHASE DRIVE
PORTSMOUTH, N.H. 03801
1986/395 & 2248/889
D-38287
- PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE 5/17/2005.
- EXISTING LOT AREA:
116,591 S.F.
2.6766 ACRES
- PARCEL IS LOCATED IN THE GATEWAY CENTER (G2) ZONING DISTRICT.
- DIMENSIONAL REQUIREMENTS:
SEE ZONING ORDINANCE
- THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULT OF A STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY OF TAX MAP 210 LOT 2 IN THE CITY OF PORTSMOUTH.
- VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS (±0.2").
- SEE SHEET C2 FOR UTILITIES AND INVERT INFORMATION.

BETHEL ASSEMBLY
OF GOD
200 CHASE DR
PORTSMOUTH, N.H.

1	PLAN UPDATE	2/11/19
0	ISSUED FOR COMMENT	8/6/18
NO.	DESCRIPTION	DATE

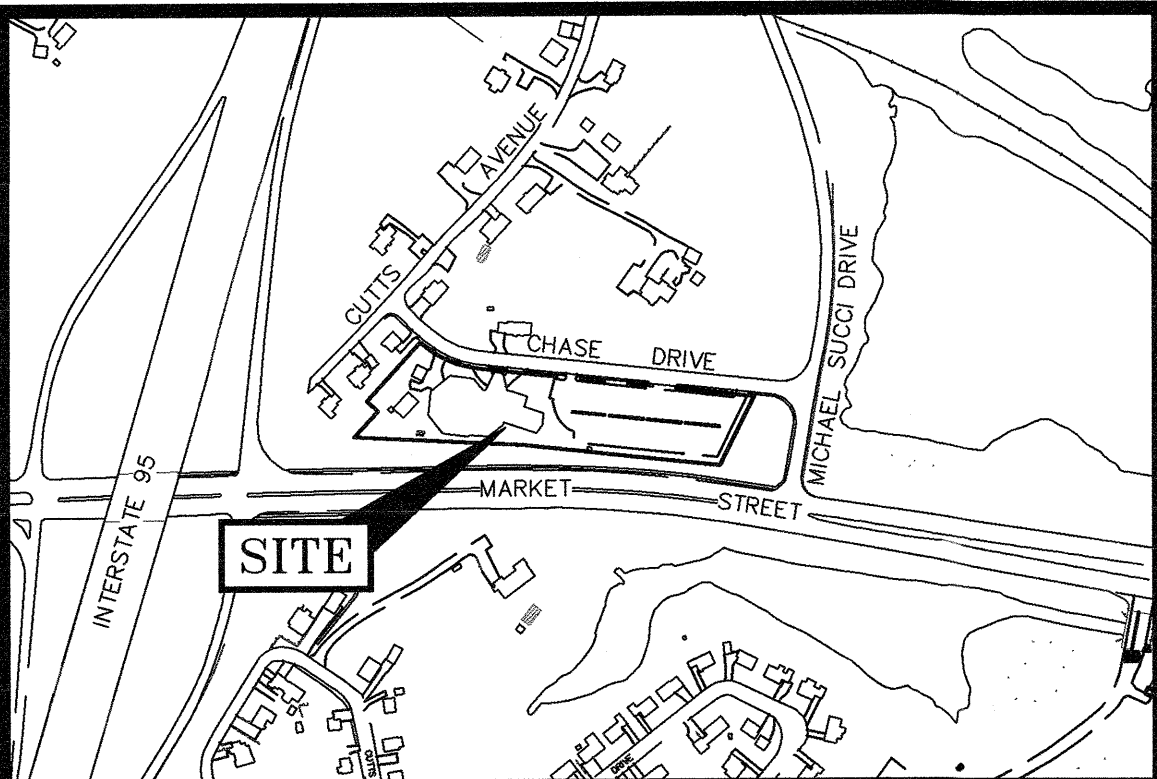
REVISIONS

SCALE 1" = 40'

AUGUST 2018

EXISTING CONDITIONS
PLAN

C1



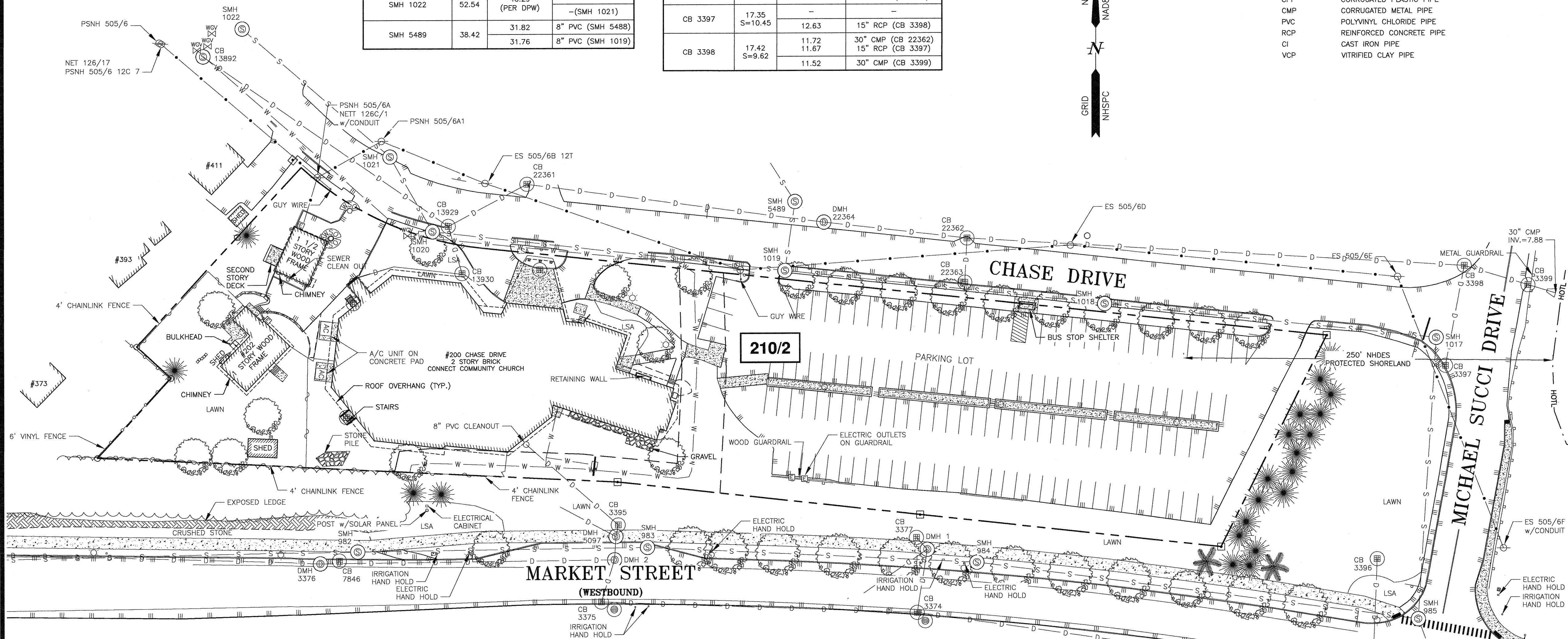
LOCATION MAP

SCALE 1"=400'

PLAN REFERENCE:

1) LOT LINE ADJUSTMENT PLAN 200 CHASE DRIVE & 373 CUTTS AVENUE PORTSMOUTH, NEW HAMPSHIRE ASSESSOR'S PARCELS 210-2 & 210-5 FOR KRISTEN G. BOUCHIE & THE BETHEL ASSEMBLY OF GOD. PREPARED BY JAMES VERRA AND ASSOCIATES, INC. DATED MAY 23, 2013, FINAL REVISION DATE JUNE 25, 2013. R.C.R.D. PLAN D-38287.

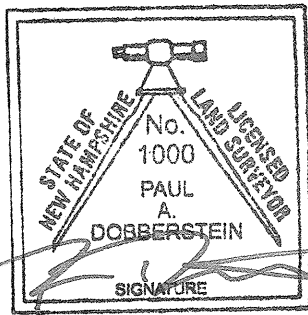
2) SEE PLAN REFERENCE 1 FOR ADDITIONAL PLAN REFERENCES.



"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

PAUL A DOBBERSTEIN, LLS

DATE



SEWER STRUCTURE TABLE			
STRUCTURE	RIM ELEV.	INV. ELEV. IN INV. ELEV. OUT	PIPE SIZE & TYPE (FROM/TO)
SMH 981	29.16	21.67 (PER DPW)	15" VCP (SMH 980) 15" VCP (SMH 982)
SMH 982	27.65	19.21 (PER DPW)	10" VCP (SMH 983)
SMH 983	26.00	17.53 17.51	10" VCP (SMH 982) 10" VCP (SMH 984)
SMH 984	23.60	15.54 15.49	10" CI (SMH 983) 10" CI (SMH 985)
SMH 985	18.36	12.66 9.36 9.32	10" CI (FROM ?) 10" CI (SMH 984) 15" CI (SMH 1017)
SMH 1017	18.09	9.26 10.93 10.45	15" CI (SMH 2365) 8" VCP (SMH 1018) 15" CI (SMH 1016)
SMH 1018	26.75	10.41 20.10	15" CI (SMH 985) 8" VCP (SMH 1019)
SMH 1019	34.84	20.08 28.94 28.40	8" VCP (SMH 1017) 8" PVC (SMH 5489) 8" VCP (SMH 1020)
SMH 1020	44.81	28.34 34.87	8" VCP (SMH 1018) 8" VCP (SMH 1021)
SMH 1021	45.92	36.65 36.59	8" VCP (SMH 1022) 8" VCP (SMH 1020)
SMH 1022	52.54	40.29 (PER DPW)	8" VCP (SMH 1021) 8" VCP (SMH 1021)
SMH 5489	38.42	31.82 31.76	8" PVC (SMH 5488) 8" PVC (SMH 1019)

DRAIN STRUCTURE TABLE			
STRUCTURE	RIM ELEV.	INV. ELEV. IN INV. ELEV. OUT	PIPE SIZE & TYPE (FROM/TO)
DMH 1 (NO DPW #)	23.97 S=12.27	17.67 13.74	15" CPP (CB 3377) 6" CMP (SW)
DMH 2 (NO DPW #)	25.85	13.52	15" RCP (CB 3374)
DMH 3376	27.11	-	-
DMH 5097	26.78	21.78 21.53	8" PVC (WNW) 12" CPP (CB 3395)
DMH 22364	34.02 S=26.82	29.82 27.19 27.02	15" CPP (DMH 22365) 30" CMP (CB 22361) 30" CPP (CB 22362)
CB 611	17.91	-	-
CB 3374	22.36	-	-
CB 3375	24.88	-	-
CB 3377	23.85 S=15.25	18.00± (OIL SEPARATOR)	15" CPP (DMH 1)
CB 3395	26.55	(CANNOT OPEN)	-
CB 3396	14.02 S=9.97	10.57	15" CMP (CB 611)
CB 3397	17.35 S=10.45	12.63	15" RCP (CB 3398)
CB 3398	17.42 S=9.62	11.72 11.67 11.52	30" CMP (CB 22362) 15" RCP (CB 3397) 30" CMP (CB 3399)

DRAIN STRUCTURE TABLE			
STRUCTURE	RIM ELEV.	INV. ELEV. IN INV. ELEV. OUT	PIPE SIZE & TYPE (FROM/TO)
CB 3399	17.82 S=8.62	9.62 9.05	30" CMP (CB 3398) 30" CMP (TO OUTFALL)
CB 7846	26.97	-	-
CB 13892 (DMH w/SEWER COVER)	51.00	-	-
CB 13929	43.86 S=36.36	37.16 36.80 36.76	8" PVC (CB 13930) 30" RCP (CB 13892) 30" RCP (CB 22361)
CB 13930	40.70	(CANNOT OPEN)	-
CB 22361	40.92 S=32.52	35.32 35.12	30" RCP (CB 13929) 30" CMP (DMH 22364)
CB 22362	29.79 S=22.29	24.49 23.54 23.29	15" RCP (CB 22363) 30" CMP (DMH 22364) 30" CMP (CB 3398)
CB 22363	29.81 S=22.21	- 24.76	- 15" RCP (CB 22362)

LEGEND:

EXISTING

N/F
RP
RCRD
(11/21)

RR SPK FND

IR FND

IP FND

DH FND

NHFB FND

TB FND

BND w/DH

ST BND w/DH

D

STORM DRAIN

UNDERGROUND ELECTRIC

OVERHEAD ELECTRIC WIRES

EDGE OF PAVEMENT (EP)

WOODS / TREE LINE

UTILITY POLE (w/ GUY)

WATER SHUT OFF/CURB STOP

GATE VALVE

HYDRANT

METER (GAS, WATER, ELECTRIC)

CATCH BASIN

CPP

CMP

PVC

RCP

CI

VCP

NOW OR FORMERLY

RECORD OF PROBATE

ROCKINGHAM COUNTY

REGISTRY OF DEEDS

MAP 11 / LOT 21

RAILROAD SPIKE FOUND/SET

IRON ROD FOUND/SET

IRON PIPE FOUND/SET

DRILL HOLE FOUND/SET

NHDOT BOUND FOUND

TOWN BOUND FOUND

BOUND w/ DRILL HOLE

STONE BOUND w/DRILL HOLE

SWOPA - NHDES 250' PROTECTED SHORELAND

HOTL - HIGHEST OBSERVABLE TIDE LINE



AMBIT ENGINEERING, INC.

Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 210 AS LOT 2.
- 2) OWNER OF RECORD: BETHEL ASSEMBLY OF GOD
200 CHASE DRIVE
PORTSMOUTH, N.H. 03801
1986/395 & 2248/889
D-38287
- 3) PARCEL IS IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE 5/17/2005.
- 4) EXISTING LOT AREA:
116,591 S.F.
2.6766 ACRES
- 5) PARCEL IS LOCATED IN THE GATEWAY CENTER (G2) ZONING DISTRICT.
- 6) DIMENSIONAL REQUIREMENTS:
SEE ZONING ORDINANCE
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING UTILITIES AND INVERTS ON TAX MAP 210 LOT 2 IN THE CITY OF PORTSMOUTH.
- 8) VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS (±0.2').

BETHEL ASSEMBLY
OF GOD
200 CHASE DR
PORTSMOUTH, N.H.

0 ISSUED FOR COMMENT 2/11/19

NO. DESCRIPTION DATE

REVISIONS

SCALE 1" = 40' FEBRUARY 2019

EXISTING UTILITIES
PLAN

C2

NOTE:

THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED SUBDIVISION OF TAX MAP LOT 210, LOT 2 FOR THE CREATION OF A NEW LOT, TAX MAP 210, LOT 2-1. THE PROPOSED SITE IMPROVEMENTS FOR TAX MAP 210, LOT 2-1 ARE DEPICTED ON THE SITE PLANS.

PLAN REFERENCES:

- EXISTING CONDITIONS PLAN, BETHEL ASSEMBLY OF GOD 200 CHASE DRIVE, PORTSMOUTH, N.H. BY AMBIT ENGINEERING. INC. DATED AUGUST 6, 2018, AND STAMPED BY PAUL A. DOBBERSTEIN, NH LICENSED LAND SURVEYOR NO. 1000 ON AUGUST 7, 2018.
- LOT LINE ADJUSTMENT PLAN 200 CHASE DRIVE & 373 CUTTS AVENUE PORTSMOUTH, NEW HAMPSHIRE ASSESSOR'S PARCELS 210-2 & 210-5 FOR KRISTEN G. BOUCHIE & THE BETHEL ASSEMBLY OF GOD, PREPARED BY JAMES VERRA AND ASSOCIATES, INC. DATED MAY 23, 2013, FINAL REVISION DATE JUNE 25, 2013, R.C.R.D PLAN D-38287.

ZONING SUMMARY (TAX MAP 210, LOTS 2 AND 2-1)

ZONING DISTRICT G2 (GATEWAY NEIGHBORHOOD MIXED USE CENTER)

THE TWO PROPOSED LOTS WILL BE A DEVELOPMENT SITE AS TWO CONTIGUOUS LOTS.

DEVELOPMENT SITE AREA 2.677± ACRES

PERMITTED USES MULTI-FAMILY GREATER THAN 8 UNITS

PLACE OF ASSEMBLY (EXISTING)

SINGLE FAMILY RESIDENTIAL (EXISTING)

* SEE SITE PLAN FOR PROPOSED SITE IMPROVEMENTS TO LOT 210/2-1 AND ZONING SUMMARY

PROPOSED LOTS:

TAX MAP 210, LOT 2 (EXISTING CHURCH)

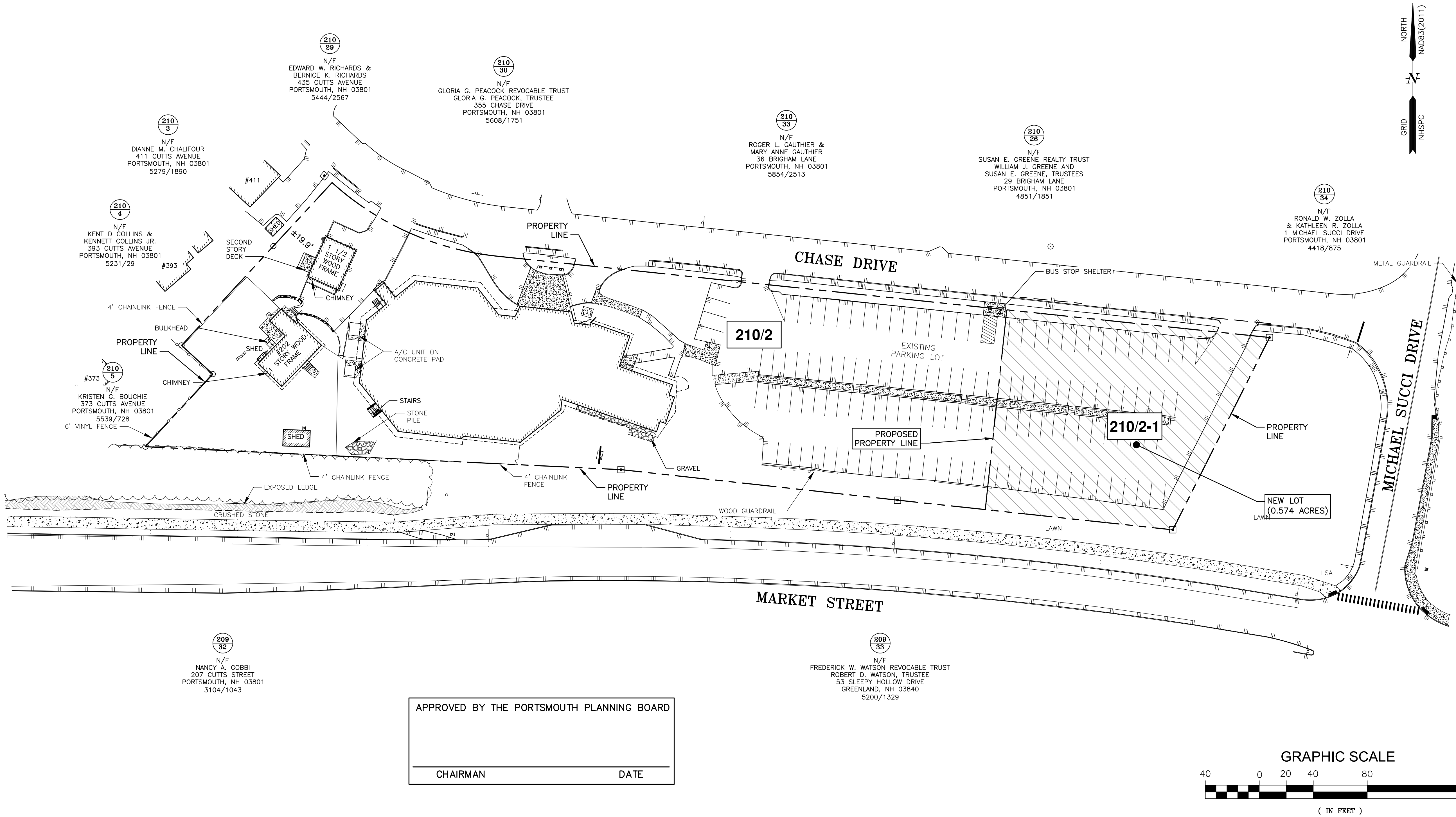
LOT AREA 91,596± S.F. (2.103 ACRES)

SPECIAL EXCEPTION PLACE OF ASSEMBLY – RELIGIOUS (EXISTING)

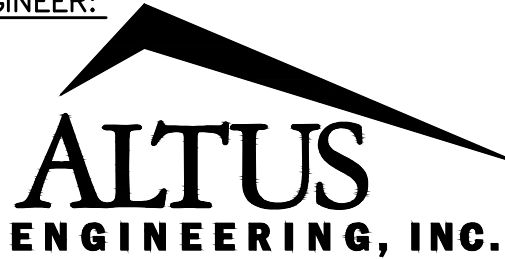
TAX MAP 210, LOT 2-1 (NEW LOT)

LOT AREA 24,995± S.F. (0.574± ACRES)

22 UNIT RESIDENTIAL APARTMENT (NEW USE)



ENGINEER:



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

ISSUED FOR:

DESIGN REVIEW

ISSUE DATE:

JUNE 26, 2019

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	CDB	06/04/19
1	DESIGN REVIEW	CDB	06/26/19

DRAWN BY: _____ CDB

APPROVED BY: _____ EDW

DRAWING FILE: _____ 4950.DWG

SCALE:

22" x 34" - 1" = 40'
11" x 17" - 1" = 80'

OWNER/APPLICANT:

BETHEL ASSEMBLY
OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

PROJECT:

TWO
LOT
SUBDIVISION

200 CHASE DRIVE
PORTSMOUTH, NH

ASSESSOR'S PARCEL
210-2

TITLE:

PRELIMINARY
SUBDIVISION
PLAN

SHEET NUMBER:

C.3

P4950

LEGEND

----- PROPOSED PROPERTY LINE
[] DEVELOPMENT SITE AREA

NOTES:

1. THE INTENT OF THIS PLAN IS TO DEPICT THE PROPOSED DEVELOPMENT SITE PER CITY OF PORTSMOUTH ZONING DISTRICT G2 (GATEWAY NEIGHBORHOOD MIXED USE DISTRICT) AND THE DEVELOPMENT SITE STANDARDS (SECTION 10.5B40).
2. THE EXISTING LOT 210-2 CONSISTS OF A COMMUNITY BUILDING AND TWO SINGLE FAMILY RESIDENTIAL BUILDINGS. THE INTENT IS TO SUBDIVIDE THE EXISTING LOT TO CREATE LOT 210-2-1 WHICH WILL CONSTRUCT A NEW 22 UNIT APARTMENT BUILDING PER SECTION 10.5B34.40. THE TWO CONTIGUOUS LOTS WILL BE INCLUDED IN THE DEVELOPMENT SITE.
3. THE EXISTING USE OF THE COMMUNITY BUILDING AS A PLACE OF ASSEMBLY IS PERMITTED AS AN EXISTING USE. AS NOTED IN SECTION 10.5B50, "THE PURPOSE OF THIS SECTION IS TO ESTABLISH STANDARDS FOR THE CONTINUED UTILIZATION OF EXISTING BUILDINGS IN THE GATEWAY NEIGHBORHOOD MIXED USE DISTRICTS CONSTRUCTED PRIOR TO THE EFFECTIVE DATE OF ARTICLE 10.5B".
4. A NHDES WETLANDS BUREAU SHORELAND PERMIT WILL BE REQUIRED FOR WORK WITHIN 250 FT OF THE HIGHEST OBSERVABLE TIDE LINE (HOTL).

ZONING SUMMARY

ZONING DISTRICT G2 (GATEWAY NEIGHBORHOOD MIXED USE CENTER)
TAX MAP 210, LOTS 2 & 2-1 (NEWLY CREATED LOT)
DEVELOPMENT SITE AREA 2.6± ACRES
PERMITTED USES MULTI-FAMILY GREATER THAN 8 UNITS
PLACE OF ASSEMBLY (EXISTING)
SINGLE FAMILY RESIDENTIAL (EXISTING)

PROPOSED MIXED USE DEVELOPMENT SITE (PER SECTION 10.5B40)

DEVELOPMENT SITE STANDARDS	REQUIRED	PROVIDED
MINIMUM DEVELOPMENT SITE AREA	20,000 SF	116,591 SF
MINIMUM SITE WIDTH	100 FT	139.2 FT
MINIMUM SITE DEPTH	100 FT	147.7 FT
MINIMUM PERIMETER BUFFER TO RESIDENTIAL, MIXED RESIDENTIAL OR CHARACTER DISTRICT	75 FT	NA
MAXIMUM BLOCK LENGTH	800 FT	764 FT
MAXIMUM BLOCK PERIMETER	2,200 FT	1,905 FT
MAXIMUM BUILDING COVERAGE	70%	24.2% (28,200 SF)
MINIMUM OPEN SPACE COVERAGE	20%	37.5%
COMMUNITY SPACE	20%	20%

ZONING SUMMARY CONTINUED:

APARTMENT BUILDING DESIGN STANDARDS (PER SECTION 10.5B34.40):

	REQUIRED	PROVIDED
MINIMUM LOT DEPTH	NR	
MINIMUM STREET FRONTAGE	50 FT	±159 FT
SETBACKS:		
FRONT: MARKET STREET	10-30 FT	11.0± FT
CHASE STREET	10-30 FT	13.2± FT
MICHAEL SUCCI DRIVE	10-30 FT	10.3± FT
INTERIOR LOT LINES	0 FT	79± FT

BUILDING LOT USE:

MAXIMUM DWELLING UNITS PER BUILDING	24	22
MAXIMUM DWELLING UNIT SIZE	NR	

DESIGN STANDARDS:

MAXIMUM BUILDING HEIGHT -	4 STORIES (50FT)	4 STORIES (50 FT)
MINIMUM STREET FACING FAÇADE HEIGHT	24 FT	24+ FT
MAXIMUM FINISHED FLOOR SURFACE OF GROUND FLOOR ABOVE SIDEWALK GRADE	36 INCHES	<3 FT
MAXIMUM BUILDING COVERAGE	50%	28.6%
MAXIMUM BUILDING FOOTPRINT	20,000 SF	7,600± SF
MAXIMUM FAÇADE MODULATION LENGTH	50 FEET	48 FEET
MINIMUM STREET FACING FAÇADE GLAZING	20% (GROUND FLOOR)	20%+
STREET FACING ENTRANCE	REQUIRED	PROVIDED
FAÇADE TYPES	FORECOURT, STEP, RECESSED ENTRY, DOORYARD, PORCH	DOORYARD

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

PARKING REQUIREMENTS:

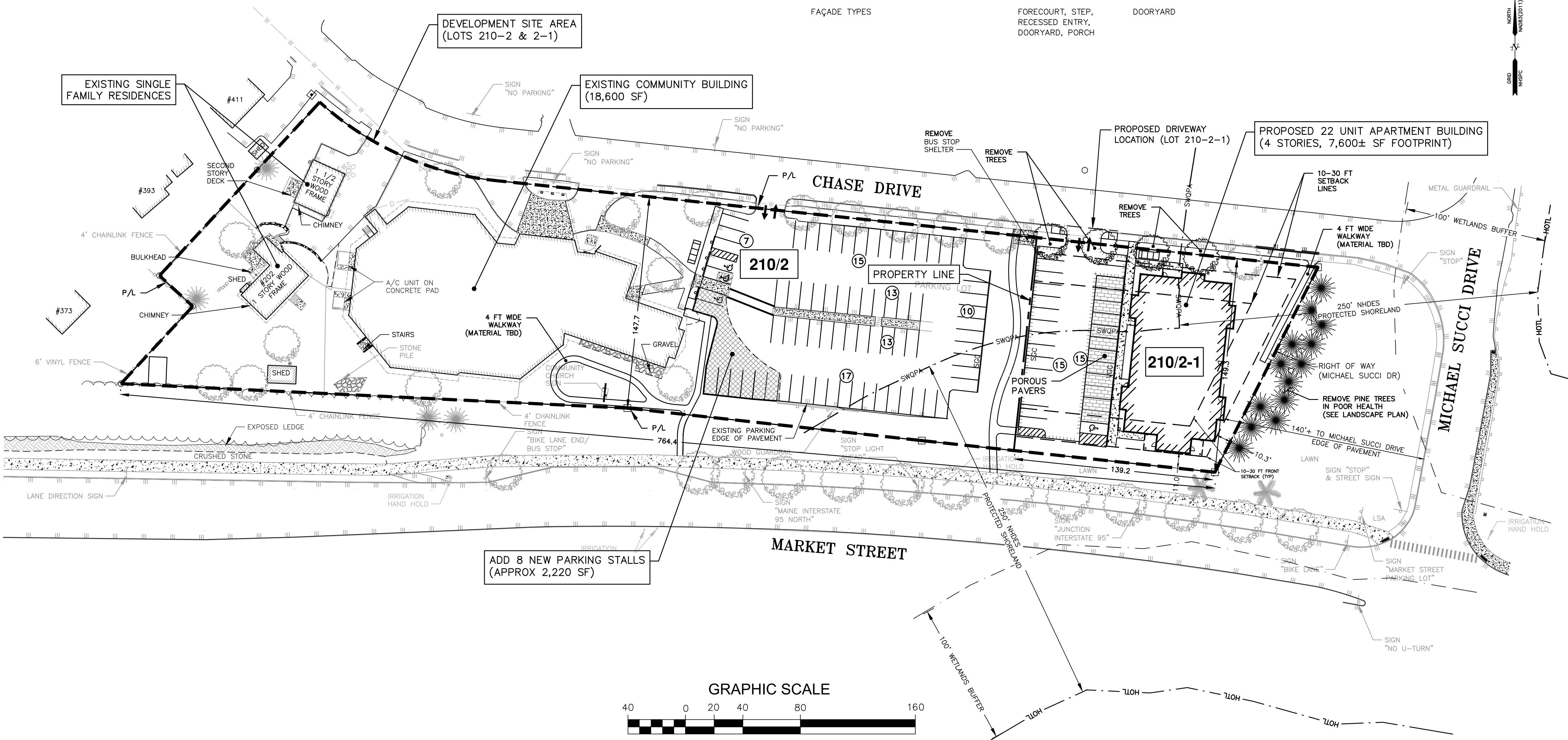
DWELLING UNITS	1.3 SPACES PER DWELLING UNIT
	28.6 MINIMUM REQUIRED (22 DWELLING UNIT)
	4.4 VISITOR PARKING SPACES (1 PER 5 UNITS)
	33 SPACES REQUIRED

PARKING INCENTIVE SECTION 10.5B82.10 A)

20% REDUCTION IN SPACES PER 10.5B82.10.A)	27 SPACES REQUIRED
20% INCREASE ALLOWED	33 SPACES ALLOWED
	30 SPACES PROPOSED

BICYCLE PARKING REQUIRED

1 SPACE PER 5 DWELLING UNITS
4.4 SPACES REQUIRED
5 SPACES PROVIDED



ENGINEER:

ALTUS
ENGINEERING, INC.

133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

ISSUED FOR:

DESIGN REVIEW

ISSUE DATE:

JUNE 26, 2019

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	CDB	06/04/19
1	DESIGN REVIEW	CDB	06/26/19

DRAWN BY:

CDB

APPROVED BY:

EDW

DRAWING FILE:

4950-SITE.DWG

SCALE:

22" x 34" - 1" = 40'
11" x 17" - 1" = 80'

OWNER/APPLICANT:

BETHEL ASSEMBLY
OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

PROJECT:

MIXED USE
DEVELOPMENT SITE

200 CHASE DRIVE
PORTSMOUTH, NH

ASSESSOR'S PARCEL
210-2 AND 2-1

TITLE:

OVERALL
SITE PLAN

SHEET NUMBER:

C.4

LEGEND

* SEE SHEET C-1 FOR EXISTING FEATURES

----- PROPERTY LINE

===== PROPOSED PAVEMENT

VGC SGC BCC
VERTICAL GRANITE CURB/SLOPED GRANITE CURB/
BITUMINOUS CONCRETE CURB (CAPE COD)

----- SAWCUT LINE/MATCH EXISTING

////// PROPOSED BUILDING

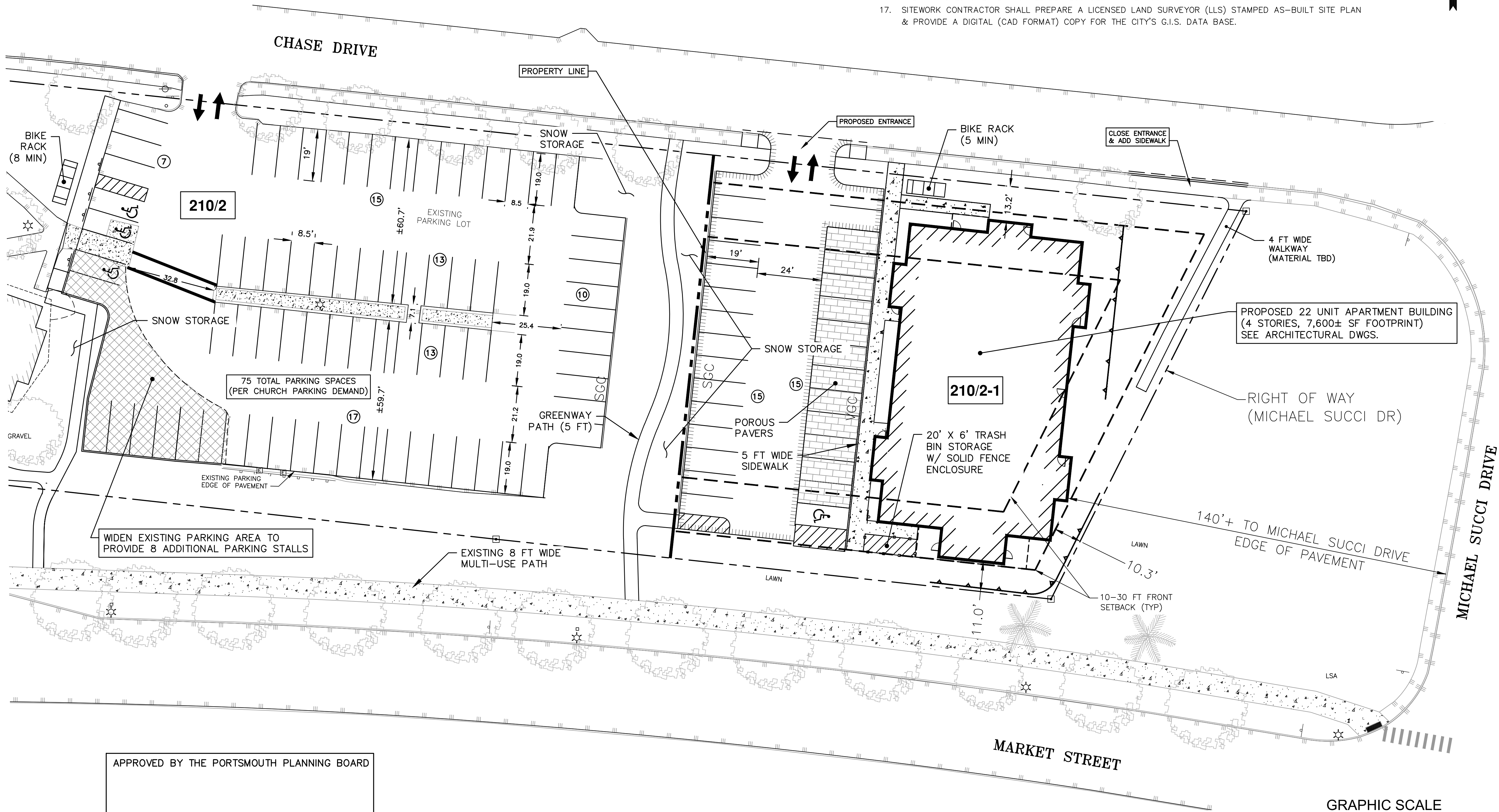
▲▲▲▲ PROPOSED RETAINING WALL

SITE NOTES

- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE, LOCAL AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- CONTRACTOR SHALL CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO COMMENCING CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY SEDIMENT AND EROSION CONTROL ITEMS TO PREVENT SEDIMENT FROM CONSTRUCTION ACTIVITIES FROM LEAVING THE SITE. CONTROLS SHALL BE INSPECTED ON A REGULAR BASIS AND AFTER ALL RAIN EVENTS OF 0.25 INCHES OR GREATER. ANY DEFICIENCIES IN THE CONTROLS SHALL BE ADDRESSED IMMEDIATELY AND BROUGHT TO THE ATTENTION OF THE OWNER. ALL STORMS DRAINS WITHIN OR ADJACENT TO THE WORK AREA, WITH THE POTENTIAL TO RECEIVE RUNOFF FROM EXPOSED CONSTRUCTION AREAS, SHALL RECEIVE STORM DRAIN INLET PROTECTION.
- CONTRACTOR SHALL PREVENT TRACKING OF DIRT ONTO ANY PUBLIC OR PRIVATE ROADWAYS. IF TRACKING OF DIRT FROM CONSTRUCTION VEHICLES IS PRESENT ON THE OPEN STREETS, CONTRACTOR WILL BE REQUIRED TO SWEEP THE ROADWAY AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL BONDS AND FEES SHALL BE PAID/POSTED PRIOR TO INITIATING CONSTRUCTION.
- ALL CONDITIONS OF APPROVAL SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH & NHDOT'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.

SITE NOTES CONT'D

- CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION.
- FOR AREAS OF DISTURBANCE OVER 43,560 SF, COVERAGE UNDER EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT IS WILL BE REQUIRED.
- SNOW SHALL BE STORED AT THE EDGE OF PAVEMENT, IN UPLAND AREAS SHOWN THEREON. NO SNOW STORAGE SHALL BE PROVIDED WITHIN THE LANDSCAPED AREA BETWEEN THE DRIVEWAY ENTRANCE THAT WOULD RESTRICT SITE VEHICULAR AND PEDESTRIAN SIGHT DISTANCE. IF ADEQUATE ON-SITE SNOW STORAGE IS NOT AVAILABLE, THE SNOW SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED.
- PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES," "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA), LATEST EDITIONS.
- ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
- THE APPROVED SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- SITWORK CONTRACTOR SHALL PREPARE A LICENSED LAND SURVEYOR (LLS) STAMPED AS-BUILT SITE PLAN & PROVIDE A DIGITAL (CAD FORMAT) COPY FOR THE CITY'S G.I.S. DATA BASE.



LEGEND

--- PROPERTY LINE

[---] DEVELOPMENT SITE AREA

[---] PROPOSED COMMUNITY SPACE

COMMUNITY SPACE

REQUIRED 20% OF SITE DEVELOPMENT AREA = 23,320 SF

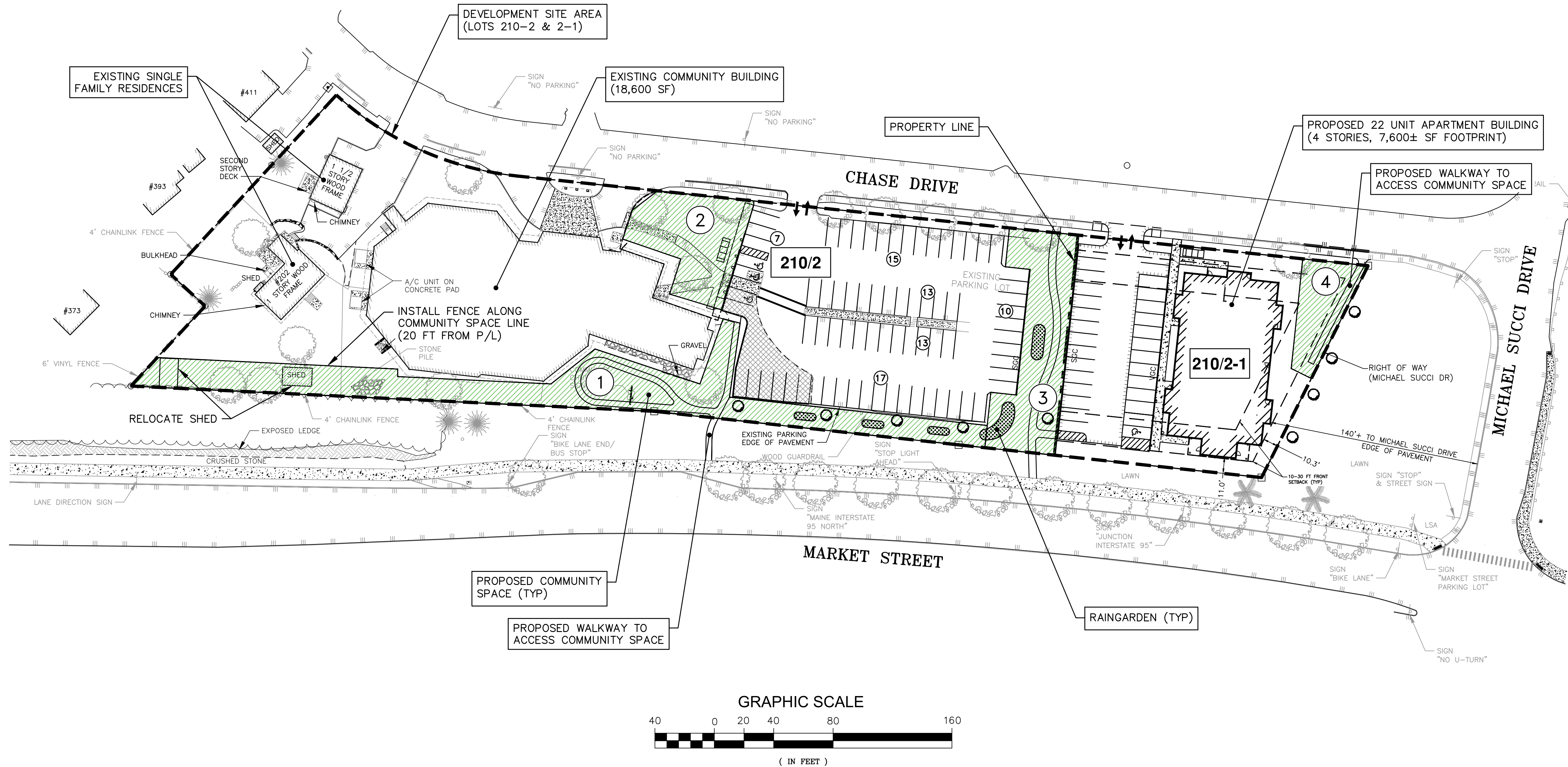
AREA 1 = 11,660 SF – TYPE = GREENWAY/COMMUNITY GARDEN

AREA 2 = 4,200 SF – TYPE = POCKET PARK

AREA 3 = 5,600 SF – TYPE = GREENWAY/POCKET PAK

AREA 4 = 2,285 SF – POCKET PARK

TOTAL = 23,745 SF COMMUNITY SPACE PROVIDED (20%)



A linear **community space** that may follow natural corridors providing unstructured and limited amounts of structured recreation. A **greenway** may be spatially defined by **landscaping** rather than buildings. Its landscape shall consist of **paths** and trails, waterbodies, and trees, naturalistically disposed.

Permitted Districts: All Districts



A **community space** available for informal activities in close proximity to neighborhood residences. A **pocket park** is spatially defined by buildings. Its landscape shall consist of **paths**, lawns and trees, formally disposed. The minimum size shall be 500 sq. ft.

Permitted Districts: All Districts



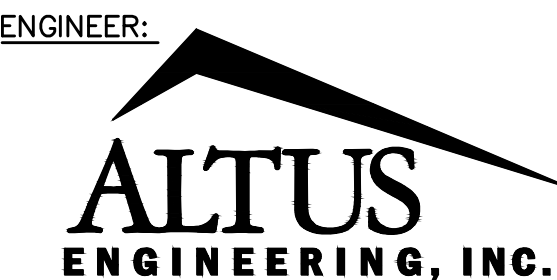
A space designed as individual garden plots available to residents for urban agriculture purposes, including storage facilities for necessary equipment. Community gardens may be freestanding or incorporated as a subordinate feature of a community park, neighborhood park, or pocket park.

Permitted districts: All Districts

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE



133 COURT STREET
(603) 433-2335

PORTSMOUTH, NH 03801
www.ALTUS-ENG.com

ISSUED FOR: DESIGN REVIEW

ISSUE DATE: JUNE 26, 2019

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	CDB	06/04/19
1	DESIGN REVIEW	CDB	06/26/19

DRAWN BY: CDB

APPROVED BY: EDW

DRAWING FILE: 4950-SITE.DWG

SCALE:

22" x 34" – 1" = 40'

11" x 17" – 1" = 80'

OWNER/APPLICANT:

BETHEL ASSEMBLY OF GOD

200 CHASE DRIVE

PORTSMOUTH, NH 03801

PROJECT:

MIXED USE DEVELOPMENT SITE

200 CHASE DRIVE

PORTSMOUTH, NH

ASSESSOR'S PARCEL

210-2 AND 2-1

TITLE:

COMMUNITY SPACE PLAN

SHEET NUMBER:

C.6

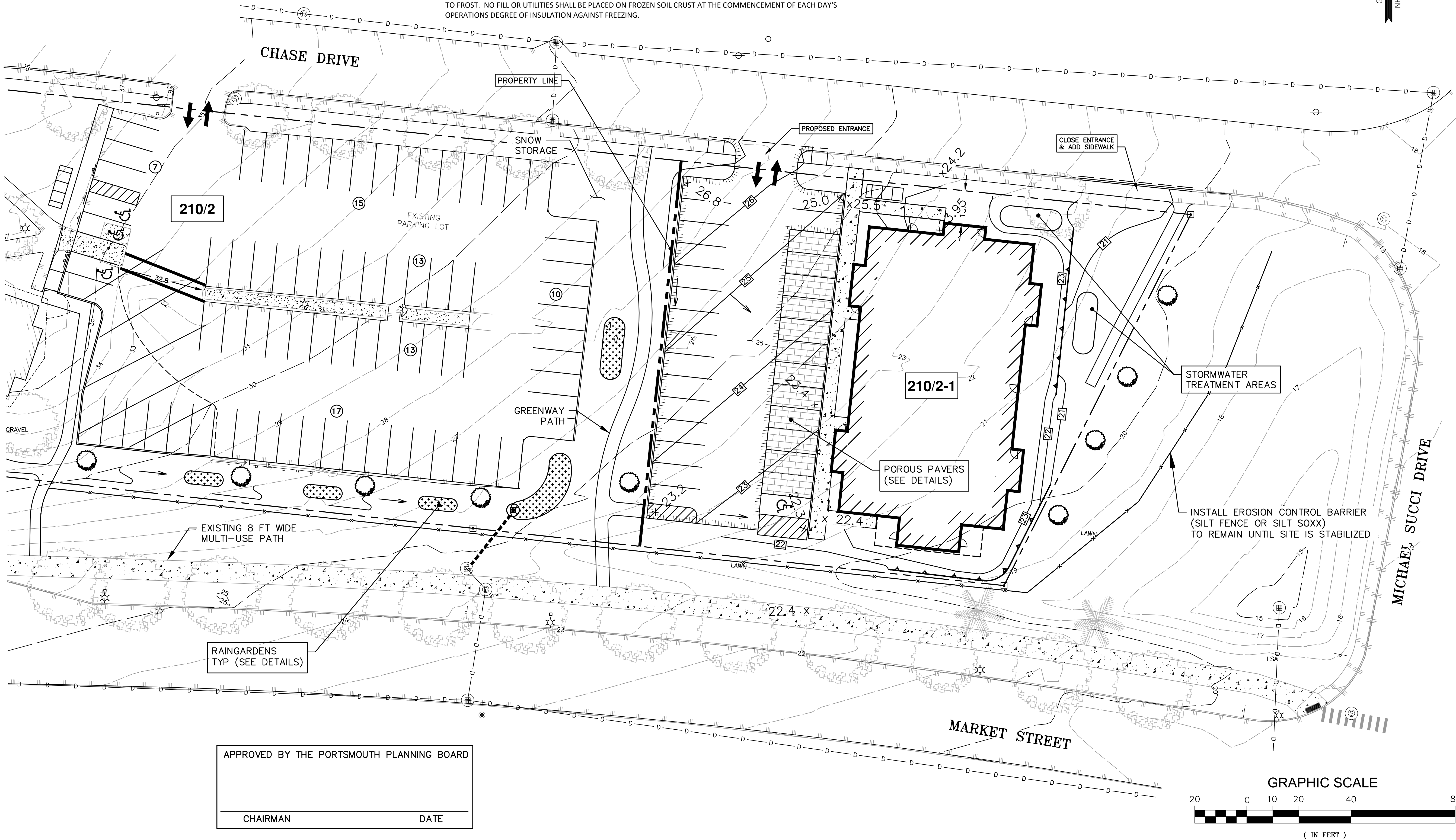
P4950

LEGEND

- * SEE SHEET C-1 FOR EXISTING FEATURES
- PROPERTY LINE
 - 250 FT SHORELAND BUFFER
 - WETLAND SETBACK LINE
 - PROPOSED PAVEMENT
 - VERTICAL GRANITE CURB/SLOPED GRANITE CURB/
BITUMINOUS CONCRETE CURB (CAPE COD)
 - SAWCUT LINE/MATCH EXISTING
 - PROPOSED BUILDING
 - PROPOSED RETAINING WALL

GRADING AND DRAINAGE NOTES

- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SCHEDULED TO REMAIN.
- ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL READ AND FAMILIARIZE THEMSELVES WITH THE PROJECT GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
- DEWATERING ACTIVITIES SHALL BE DONE IN ACCORDANCE WITH EPA AND NHDES REGULATIONS AND GUIDELINES.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES AREA SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS DEGREE OF INSULATION AGAINST FREEZING.
- IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
- ALL STORM DRAIN PIPE SHALL BE ADS N-12 OR EQUAL AND APPROVED BY THE ENGINEER.
- ALL CATCH BASIN, GATE VALVE COVERS, AND MANHOLE RIMS SHALL BE SET FLUSH WITH OR NO LESS THAN 0.1' BELOW FINISHED GRADE. ANY RIM OR VALVE COVER ABOVE SURROUNDING FINISHED GRADE WILL NOT BE ACCEPTED.
- ALL CATCH BASINS SHALL BE PRECAST, LOCATED IN PAVEMENT AREAS, H-20 LOADING AND BE EQUIPPED WITH 4-FOOT DEEP MIN SEDIMENTATION SUMPS AND GREASE HOODS. (SEE DETAILS)
- ALL SPOT GRADES ARE AT THE FINISH GRADE AND BOTTOM OF CURB WHERE APPLICABLE.
- UNLESS OTHERWISE SPECIFIED, RETAINING WALL AND BUILDING PERIMETER DRAINS SHALL BE DIRECTED TO THE NEAREST DRAINAGE STRUCTURE. IF DEEMED APPROPRIATE, CONTRACTOR SHALL PROVIDE ADDITIONAL UNDERDRAINS AT THE DIRECTION OF THE ENGINEER.



ENGINEER:

ALTUS
ENGINEERING, INC.

133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

ISSUED FOR: DESIGN REVIEW

ISSUE DATE: JUNE 26, 2019

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OWNER/APPLICANT:

BETHEL ASSEMBLY
OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

PROJECT:

MIXED USE
DEVELOPMENT SITE

200 CHASE DRIVE
PORTSMOUTH, NH
ASSESSOR'S PARCEL
210-2

TITLE:

PRELIMINARY
GRADING AND
DRAINAGE PLAN

SHEET NUMBER:

C.7

SEDIMENT AND EROSION CONTROL NOTES

PROJECT NAME AND LOCATION

Owner:
BETHEL ASSEMBLY OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

LATITUDE: 04°3' 05" 05" N
LONGITUDE: 070° 46' 10" W

DESCRIPTION

The proposed Mixed Use Site Development in the Gateway Neighborhood Mixed Use District (G2) will subdivide the existing 2.7 acre lot into two lots and develop the lots under the Site Development regulations as contiguous lots. A new 22 unit residential apartment building will be constructed on the new lot along with associated site improvements.

DISTURBED AREA

The total area to be disturbed on the parcel and for the buildings, driveway, parking area, drainage, and utility construction is approximately 48,000 SF± (1.1 acres±). The combined disturbed area exceeds 43,560 SF (1 acre), thus a SWPPP will be required for compliance with the USEPA-NPDES Construction General Permit.

NPDES CONSTRUCTION GENERAL PERMIT

Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with federal storm water permit requirements (see "Developing Your Stormwater Pollution Prevention Plan", EPA 833-R-060-4). The SWPPP must be prepared in a format acceptable to the Owner and provided to the City at least fourteen (14) days prior to initiating construction. Contractor is responsible for all cost associated with preparation and implementation of SWPPP including any temporary erosion control measures (whether indicated or not on these drawings) as required for the contractor's sequence of activities.

The Contractor and Owner shall each file a Notice of Intent (NOI) with the U.S.E.P.A. under the NPDES Construction General Permit. (U.S.E.P.A., 1200 Pennsylvania Avenue NW, Washington, DC 20460) All work shall be in accordance with NPDES General Permit: NHG07000, including NOI requirements, effluent limitations, standards and management for construction. The Contractor shall be responsible for obtaining a USEPA Construction Dewatering Permit, if required.

SEQUENCE OF MAJOR ACTIVITIES

1. Prepare SWPPP and file NPDES Notice of Intent, prior to any construction activities (Required).
2. Hold a pre-construction meeting with City & stake holders.
3. Install temporary erosion control measures, including silt fences and stabilized construction entrance.
4. Protect specified trees (see plans).
5. Remove pavement & construct utility infrastructure.
6. Rough grade lot to prepare for site development. Construct temporary sediment control basins. Stabilize swales prior to directing flow to them.
7. Construct building foundations. Construct parking, driveways, sidewalks & curbing.
8. Loom and seed disturbed areas.
9. Construct raingardens & landscaping after site is stabilized.
10. When all construction activity is complete and site is stabilized, remove all hay bales, stone check dams (if applicable), silt fences and temporary structures and sediment that has been trapped by these devices.
11. File a Notice of Termination (N.O.T.) with U.S.E.P.A. (Required)

NAME OF RECEIVING WATER

The majority of the site connects to the municipal stormwater collection system and eventually discharging to the Piscataqua River.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 – 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, the silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hay bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown on the drawings.

Stabilize all ditches, swales, stormwater ponds, level spreaders and their contributing areas prior to directing flow to them.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

These are general inspection and maintenance practices that shall be used to implement the plan:

1. The smallest practical portion of the site shall be denuded at one time, but in no case shall it exceed 5 acres at one time.
2. All control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater.
3. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
4. Built-up sediment shall be removed from silt fence or other barriers when it has reached one-third the height of the fence or bale, or when "bulges" occur.
5. All diversion dikes shall be inspected and any breaches promptly repaired.
6. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
7. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans.
8. All roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.
9. All cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade.
10. An area shall be considered stable if one of the following has occurred:
 - a. Base coarse gravels have been installed in areas to be paved;
 - b. A minimum of 85% vegetated growth has been established;
 - c. A minimum of 3 inches of non-erosive material such as stone or riprap has been installed;– or –
11. The length of time of exposure of area disturbed during construction shall not exceed 45 days.

B. MULCHING

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

1. Timing – In order for mulch to be effective, it must be in place prior to major storm events. There are two (2) types of standards which shall be used to assure this:
 - a. Apply mulch prior to any storm event. This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.
 - b. Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CON'T)

2. Guidelines for Winter Mulch Application –

Type	Rate per 1,000 s.f.	Use and Comments
Hay or Straw	70 to 90 lbs.	Must be dry and free from mold. May be used with plantings.
Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrub plantings.
Jute and Fibrous Matting (Erosion Blanket)	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	<ul style="list-style-type: none">* The organic matter content is between 80 and 100%, dry weight basis.* Particle size by weight is 100% passing a 6" screen and a minimum of 70 % maximum of 85% passing a 0.75" screen.* The organic portion needs to be fibrous and elongated.* Large portions of silts, clays or fine sands are not acceptable in the mix.* Soluble salts content is less than 4.0 mmhos/cm.* The pH should fall between 5.0 and 8.0.

3. Maintenance – All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

C. TEMPORARY GRASS COVER

1. Seedbed Preparation – 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.

2. 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). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance – Temporary seedings 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.).

D. FILTERS

1. Tubular Sediment Barrier
 - a. See detail.
 - b. Install per manufacturer's requirements.
2. Silt Fence (if used)
 - a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

<u>Physical Property</u>	<u>Test</u>	<u>Requirements</u>
Filtering Efficiency	VTM-51	75% minimum
Tensile Strength at 20% Maximum Elongation*	VTM-52	Extra Strength 50 lb/lin in (min) Standard Strength 30 lb/lin in (min)
Flow Rate	VTM-51	0.3 gal/sf/min (min)

* Requirements reduced by 50 percent after six (6) months of installation.

Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizer to provide a minimum of six (6) months of expected usable construction life at a temperature range of 0 degrees F to 120° F.

- a. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location or as recommended by the manufacturer and driven securely into the ground (minimum of 16 inches).
- c. A trench shall be excavated approximately six (6) inches wide and eight (8) inches deep along the line of posts and upslope from the barrier.
- d. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one (1) inch long, tie wires or hog rings. The wire shall extend no more than 36 inches above the original ground surfaces.
- e. The "standard strength" filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
- f. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of item (g) applying.

- g. The trench shall be backfilled and the soil compacted over the filter fabric.
 - h. Silt fences shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.
3. Sequence of Installation – Sediment barriers shall be installed prior to any soil disturbance of the contributing upslope area.

4. Maintenance –
 - a. Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water, the sediment barriers shall be replaced with a temporary stone check dam.

- b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
- c. Sediment deposits must be removed when deposits reach approximately one-third (1/3) the height of the barrier.

- d. Any sediment deposits remaining in place after the silt fence or other barrier is no longer required shall be removed. The area shall be prepared and seeded.

- e. Additional stone may have to be added to the construction entrance, rock barrier and riprap lined swales, etc., periodically to maintain proper function of the erosion control structure.

E. PERMANENT SEEDING –

1. Bedding – stones larger than 1 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a

depth of 5" to prepare a seedbed and mix fertilizer into the soil.

2. Fertilizer – lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:

Agricultural Limestone @ 100 lbs. per 1,000 s.f.
10-20-20 fertilizer @ 12 lbs. per 1,000 s.f.

3. Seed Mixture (See Landscape Drawings for additional information):

- 3.1. Lawn seed mix shall be a fresh, clean new seed crop. The Contractor shall furnish a dealer's guaranteed statement of the composition of the mixture and the percentage of purity and germination of each variety.
- 3.2. Seed mixture shall consist of
 - a. 1/3 Kentucky blue,
 - b. 1/3 perennial rye, and
 - c. 1/3 fine fescue.
- 3.1. Turf type tall fescue is unacceptable.

4. Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding on area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

WINTER CONSTRUCTION NOTES

1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. 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;
2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
3. After November 15th, 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.

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Long Term Inspection & Maintenance Schedule

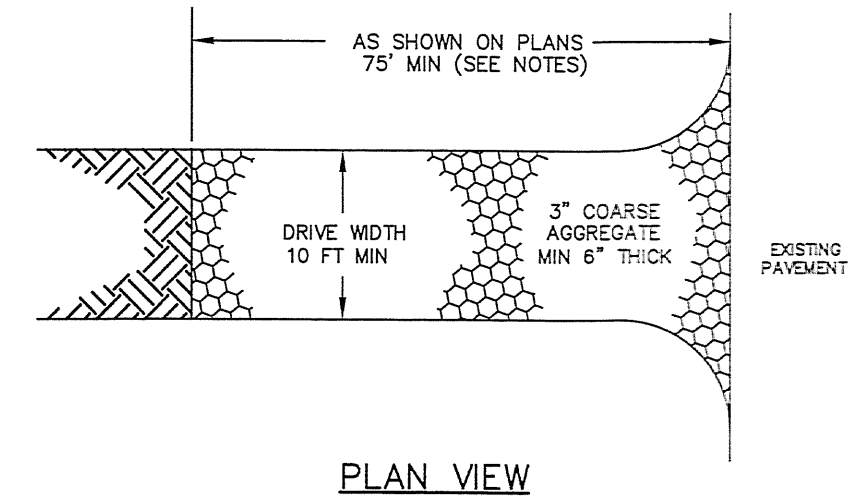
	Spring	Fall or Early Spring	After Major Storm	Every 2-5 Years
Vegetated Areas				
Inspect all slopes and embankments	x	x	x	
Replant bare areas or areas with sparse growth	x	x	x	
Armor areas with rill erosion with an appropriate lining or divert the erosive flows to on-site areas able to withstand concentrated flows.	x	x	x	
Stormwater Channels				
Inspect ditches, swales and other open stormwater channels	x	x	x	
Remove any obstructions and accumulated sediments or debris	x	x	x	
Control vegetated growth and woody vegetation	x	x	x	
Repair any erosion of the ditch lining	x	x	x	
Mow vegetated ditches	x	x	x	
Remove woody vegetation growing through riprap	x	x	x	
Repair any slumping side slopes	x	x	x	
Replace riprap where underlying filter fabric or underdrain gravel is exposed or where stones have been dislodged	x	x	x	
Culverts				
Remove accumulated sediments and debris at inlet, outlet and within the conduit	x	x	x	
Repair any erosion damage at the culvert's inlet and outlet	x	x	x	
Remove woody vegetation growing through riprap	x	x	x	
Roadways and Parking Surfaces				
Remove accumulated winter sand along roadways	x	x	x	
Sweep pavement to remove sediment	x	x	x	
Grade road shoulders and remove excess sand either manually or by a front-end loader	x	x	x	
Grade gravel roads and gravel shoulders	x	x	x	
Clean out sediment contained in water bars or open-top culverts	x	x	x	
Ensure that stormwater is not impeded by accumulations of material or false ditches in the roadway shoulder	x	x	x	
Runoff Infiltration Facilities				
Remove vegetation and any accumulated sediment (normally at the entrance to the garden) to allow for new growth	x	x	x	
Weed, add additional hardwood mulch to suppress weeds	x	x	x	
Mow turf three (3) times a growing season	x	x	x	
Aerate area with deep tines, if water ponds on the surface for more than 24 hours during the first year or for a length of 72 hours	x	x	x	
Vegetative Swale				
Mow grass swales monthly	x	x	x	
Inspect swale following significant rainfall event	x	x	x	
Control vegetated growth and woody vegetation	x	x	x	
Repair any erosion of the ditch	x	x	x	
Remove debris and litter as necessary	x	x	x	

NOTE:
ALL FACILITIES SHOULD BE INSPECTED ON AN ANNUAL BASIS AT A MINIMUM. IN ADDITION, ALL FACILITIES SHOULD BE INSPECTED AFTER A SIGNIFICANT PRECIPITATION EVENT TO ENSURE THE FACILITY IS DRAINING APPROPRIATELY AND TO IDENTIFY ANY DAMAGE THAT OCCURRED AS A RESULT OF THE INCREASED RUNOFF. FOR THE PURPOSE OF THE STORMWATER MANAGEMENT PROGRAM, A SIGNIFICANT RAINFALL EVENT IS CONSIDERED AN EVENT OF THREE (3) INCHES IN A 24-HOUR PERIOD OR 0.5 INCHES IN A ONE-HOUR PERIOD. IT IS ANTICIPATED THAT A SHORT, INTENSE EVENT IS LIKELY TO HAVE A HIGHER POTENTIAL OF EROSION FOR THIS SITE THAN A LONGER, HIGH VOLUME EVENT.

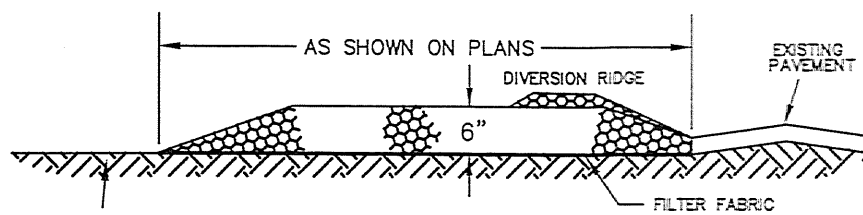
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CHAIRMAN

DATE



PLAN VIEW

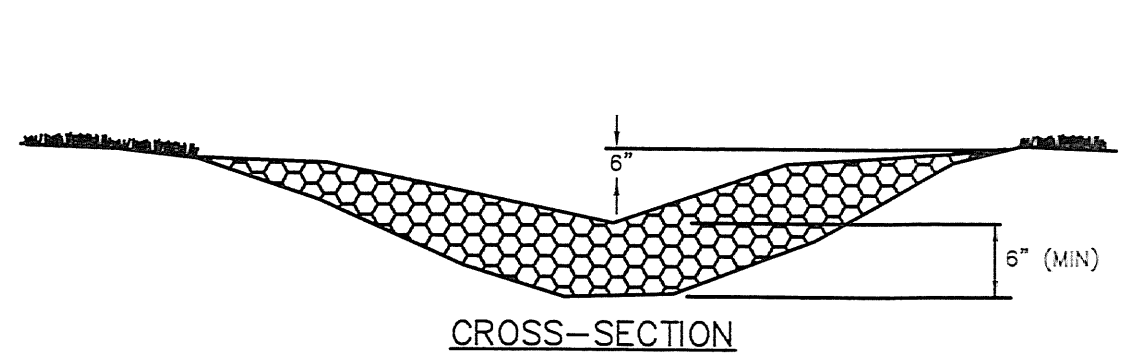


PROFILE

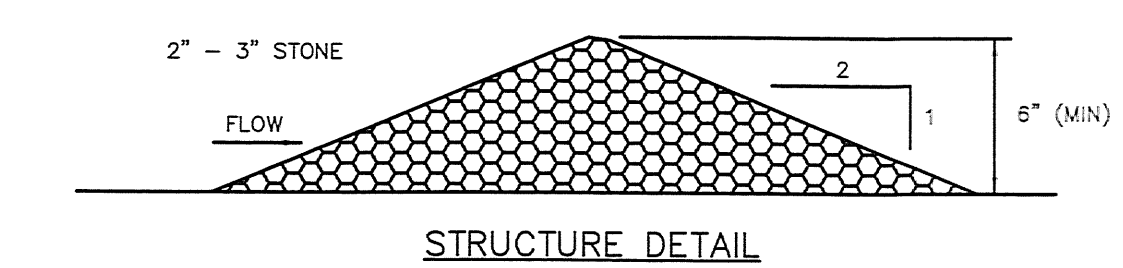
CONSTRUCTION SPECIFICATIONS

1. REFERENCE NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3 (LATEST EDITION), SECTION 4.2
2. TEMPORARY CONSTRUCTION EXIT REQUIREMENTS AND BMP DETAIL
3. STONE SIZE – 3" COARSE AGGREGATE
4. THICKNESS – SIX (6) INCHES (MINIMUM)
5. LENGTH – 75 FOOT MINIMUM, OR 50 FOOT ALLOWED WHEN DIVERSION RIDGE IS PROVIDED.
6. WIDTH – 1/2 OF DRIVEWAY (10 FOOT MINIMUM).
7. FILTER FABRIC – MIRAFI 600X OR APPROVED EQUAL
8. SURFACE WATER CONTROL – ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
9. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
10. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

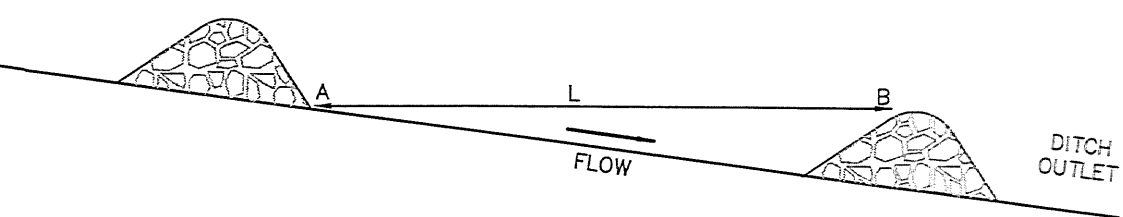
STABILIZED CONSTRUCTION EXIT NOT TO SCALE



CROSS-SECTION



STRUCTURE DETAIL



SPACING BETWEEN STRUCTURES

1. L = DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION
2. CHECK DAM SHALL BE CONSTRUCTED OF 2' TO 3' STONE WITH COMPLETE COVERAGE OF DITCH OR SWALE TO INSURE THAT THE CENTER OF THE STRUCTURE IS LOWER THAN THE EDGES.

MAINTENANCE

TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEED, AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

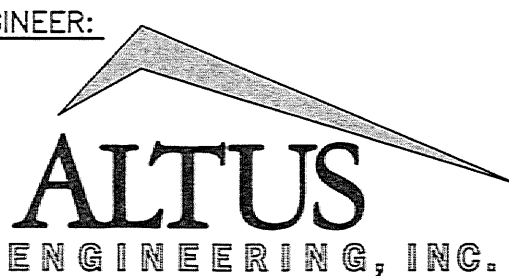
CONSTRUCTION SPECIFICATIONS

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATE MANUAL.
4. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

STONE CHECK DAM

NOT TO SCALE

ENGINEER:



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(603) 433-2335

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EDW

DRAWING FILE:

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SCALE:

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OWNER/APPLICANT:

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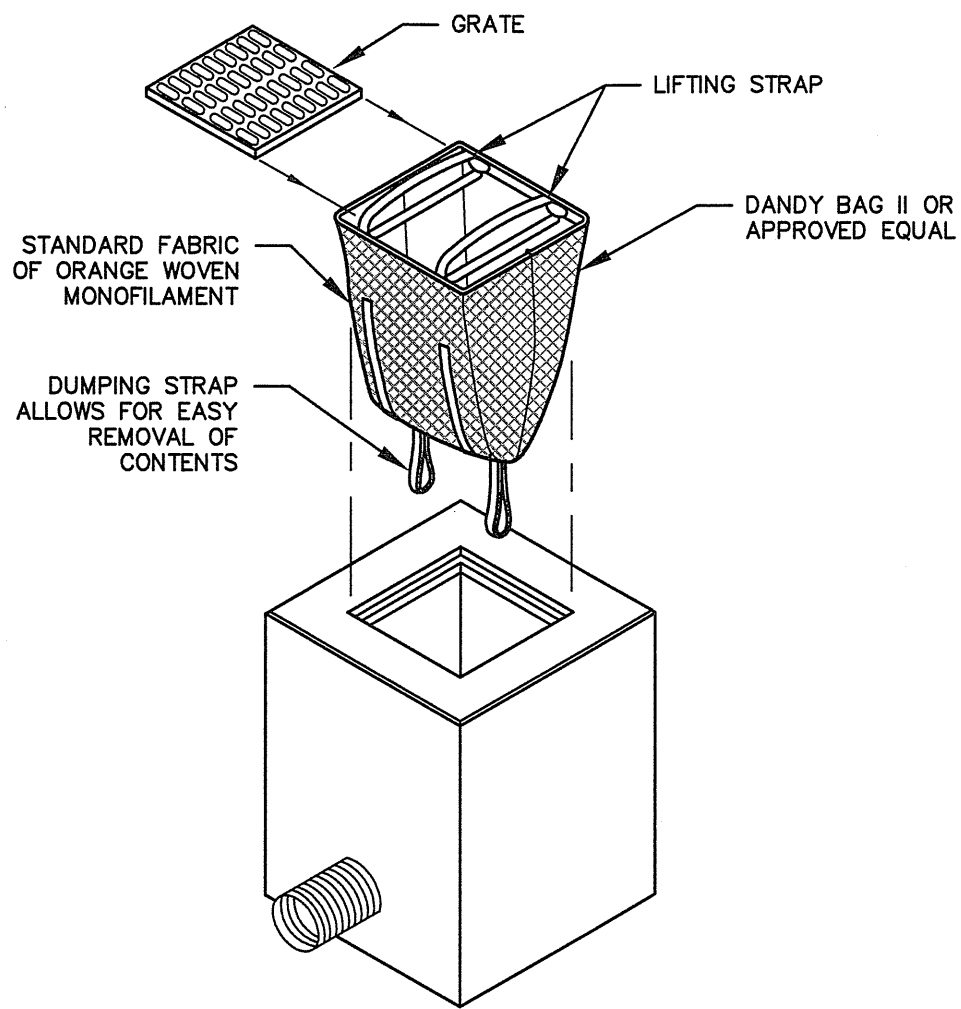
TITLE:

EROSION CONTROL
DETAILS

SHEET NUMBER:

D.1

P4950



INSTALLATION AND MAINTENANCE:

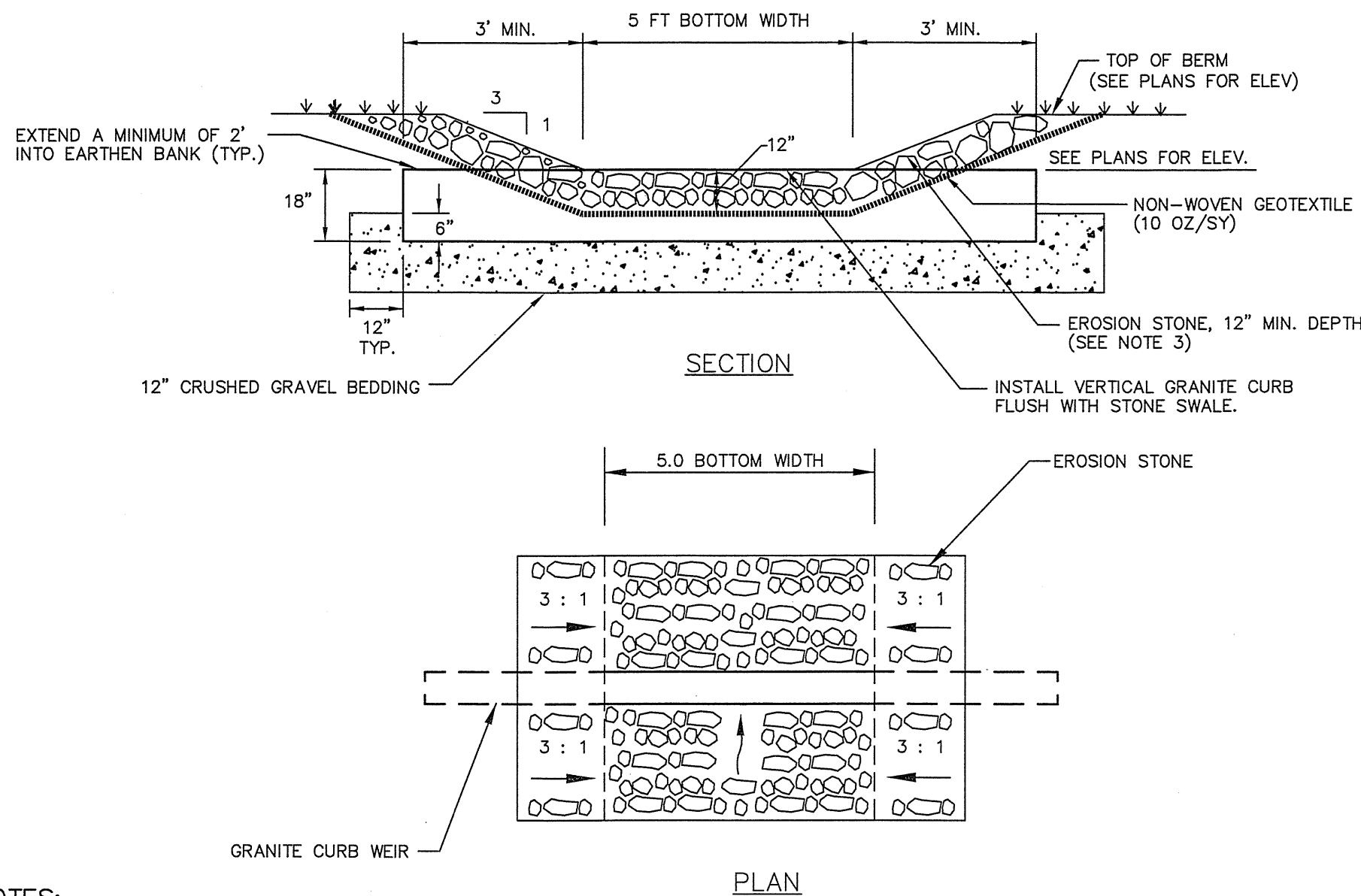
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLOW IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN. INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION.

UNACCEPTABLE INLET PROTECTION METHOD:

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

STORM DRAIN INLET PROTECTION NOT TO SCALE



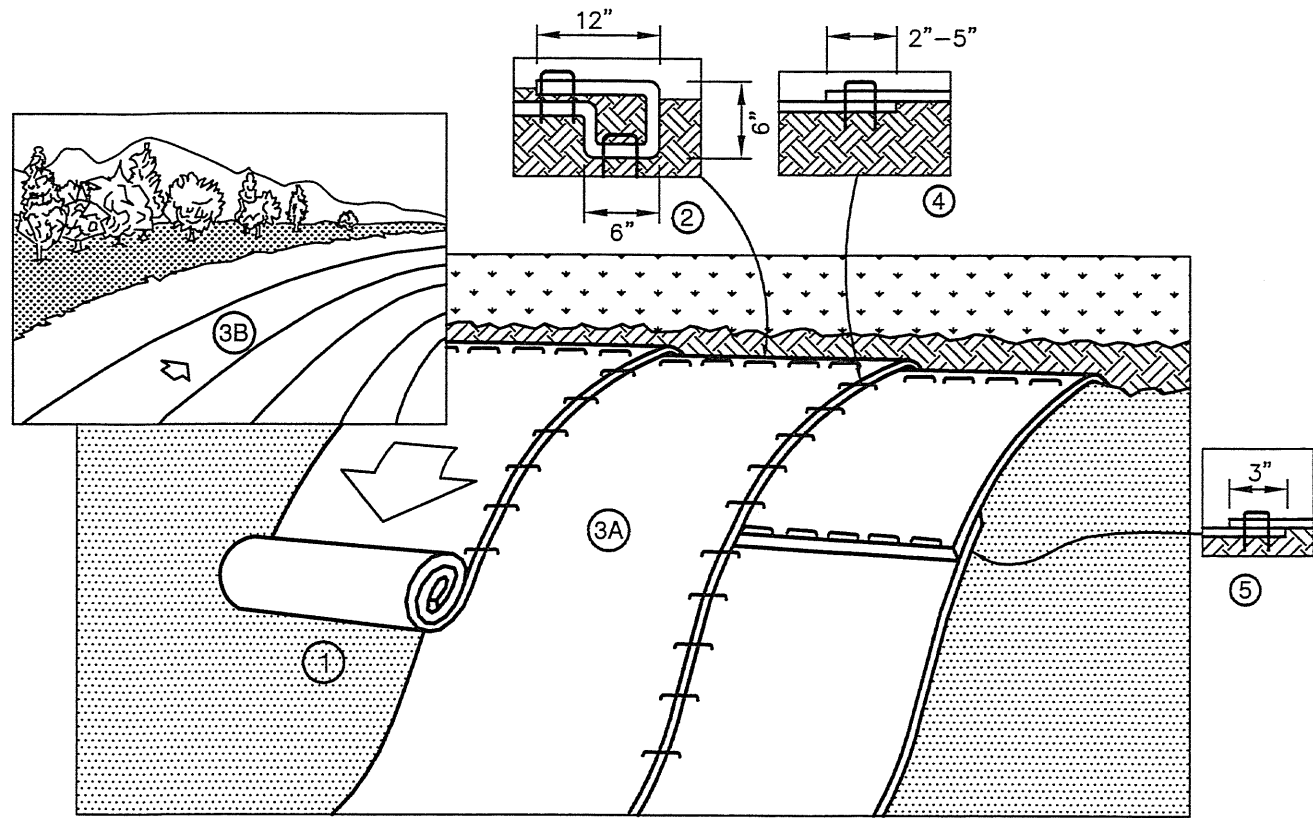
NOTES:

1. CONSTRUCT OUTLET CONTROL STRUCTURE TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
2. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
3. EROSION STONE SHALL MEET THE FOLLOWING GRADATION:

SIZE	PERCENT PASSING BY WEIGHT
18"	100
12"	90-100
4"	0-15

4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.
5. THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

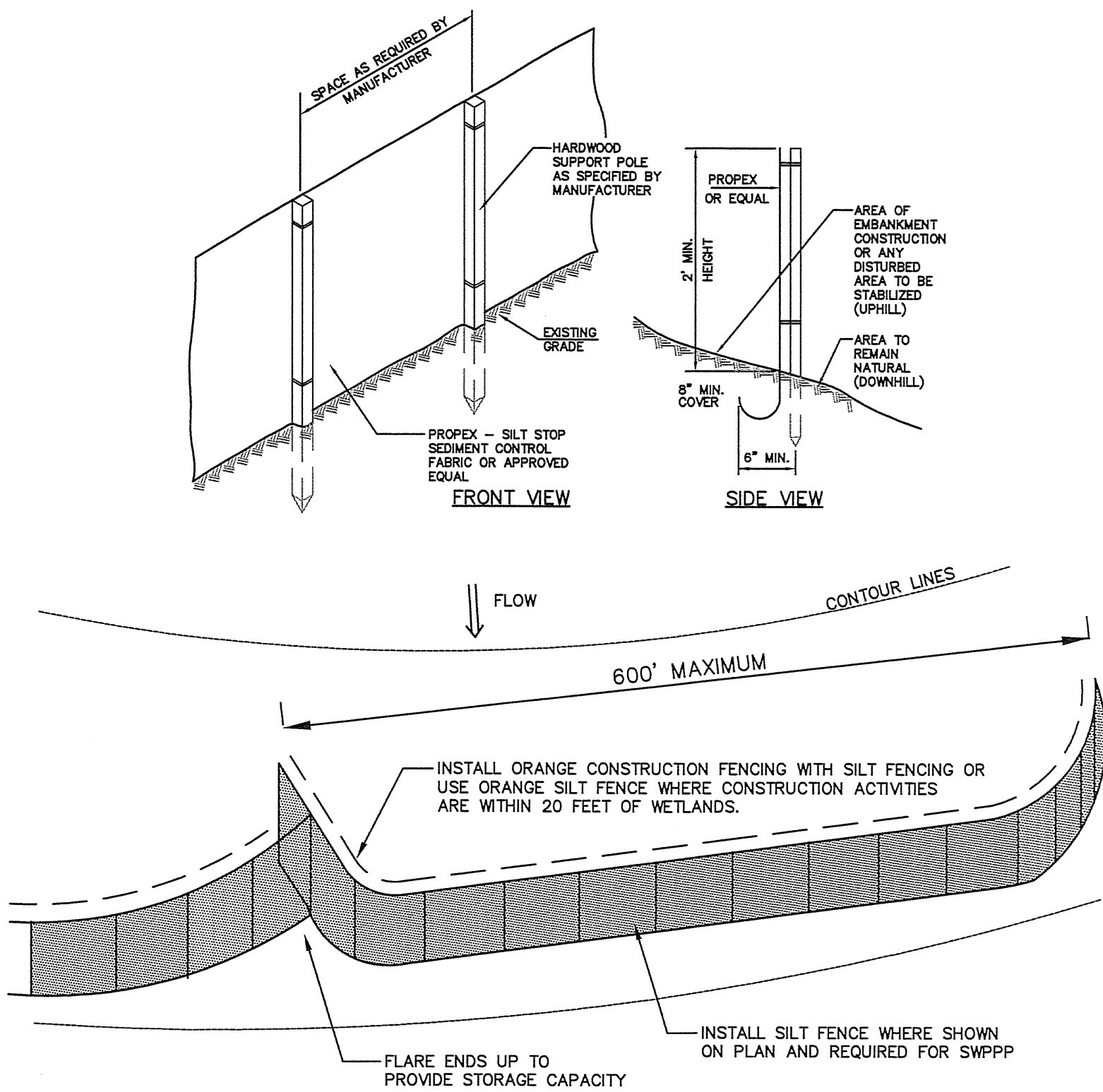
OVERFLOW WEIR /OUTLET STRUCTURE NOT TO SCALE



NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET - SLOPE NOT TO SCALE



SILT AND ORANGE CONSTRUCTION FENCE DETAIL NOT TO SCALE

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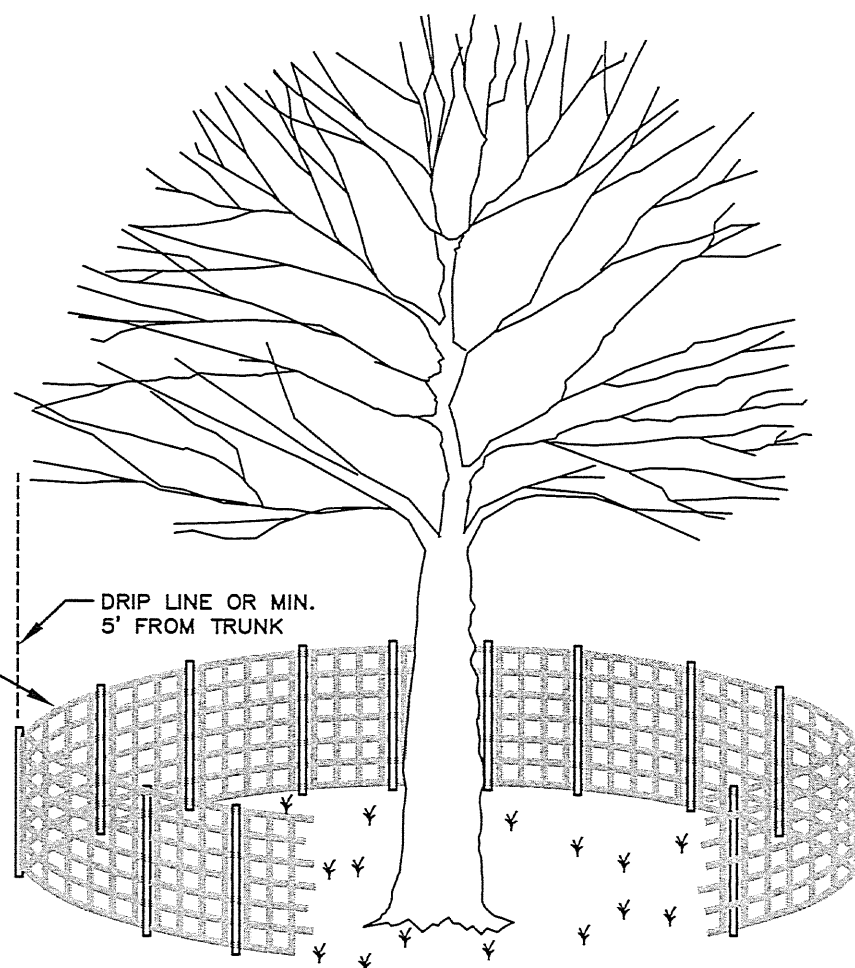
CHAIRMAN

DATE

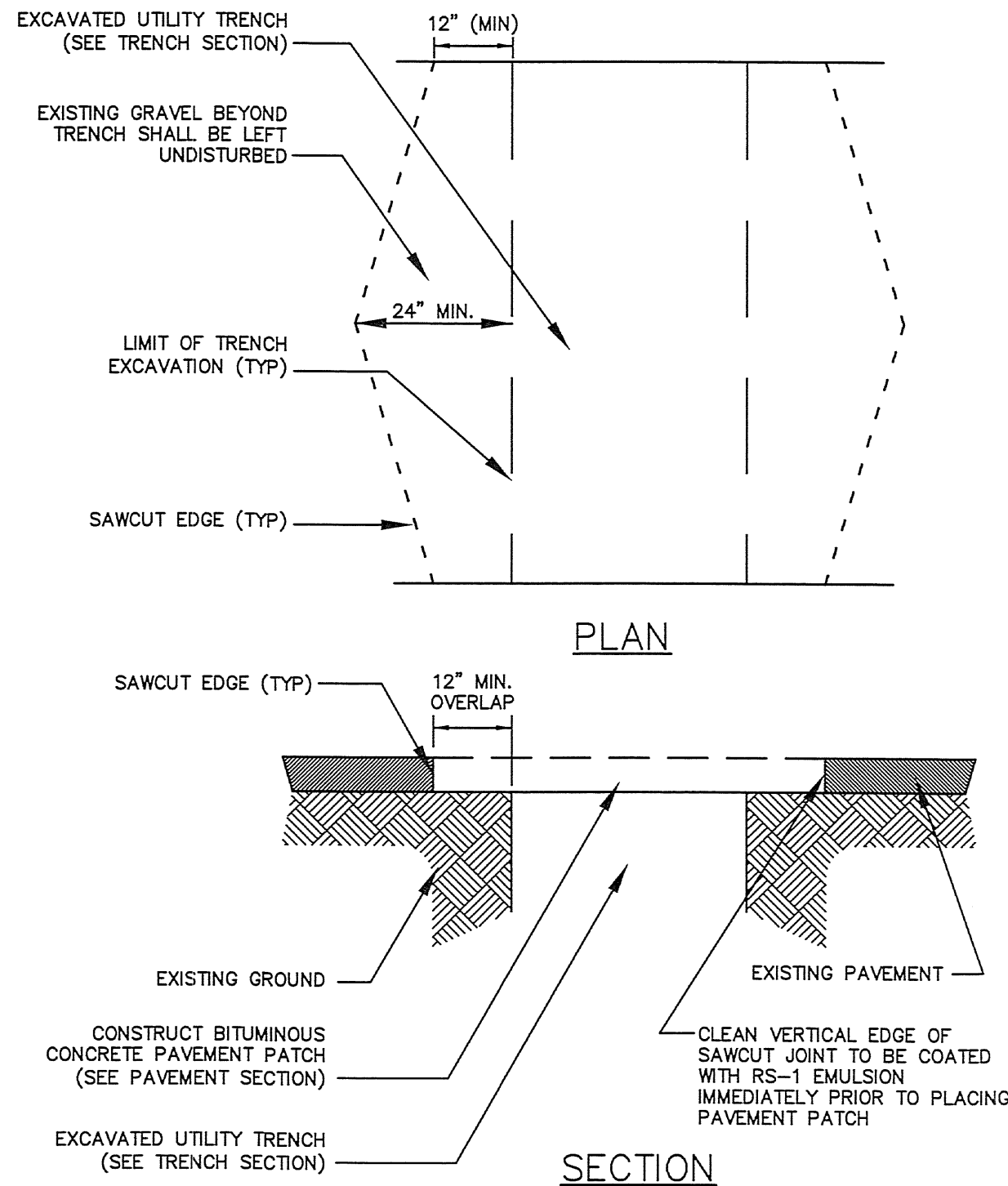
NOTE:
IF SOIL BECOMES COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHOULD BE AERATED BY PUNCHING SMALL HOLES IN IT WITH SUITABLE AERATING EQUIPMENT.

ANY DAMAGE TO THE CROWN, TRUNK OR ROOT SYSTEM OF ANY TREE RETAINED ON SITE SHOULD BE REPAIRED IMMEDIATELY. CONSULT A FORESTER OR TREE SPECIALIST FOR MORE SERIOUS DAMAGE OF TREES.

CONTRACTOR TO USE TREE PROTECTION WHERE SUITABLE AND/OR AS DIRECTED BY THE ENGINEER.



TREE PROTECTION DETAILS NOT TO SCALE



NOTES:

1. MACHINE CUT EXISTING PAVEMENT.
2. ALL TEMPORARY, DAMAGED OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS.
3. DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET NHDOT REQUIREMENTS.

TYPICAL TRENCH PATCH NOT TO SCALE

ENGINEER:

ALTUS
ENGINEERING, INC.

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0	INITIAL SUBMISSION	CDB	06/26/19

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APPROVED BY: EDW

DRAWING FILE: 4950.DWG

SCALE:

NOT TO SCALE

OWNER/APPLICANT:

BETHEL ASSEMBLY
OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

PROJECT:

MIXED-USE
DEVELOPMENT
SITE

200 CHASE DRIVE
PORTSMOUTH, NH

ASSESSOR'S PARCEL
210-2

TITLE:

CONSTRUCTION
DETAILS

SHEET NUMBER:

D.2

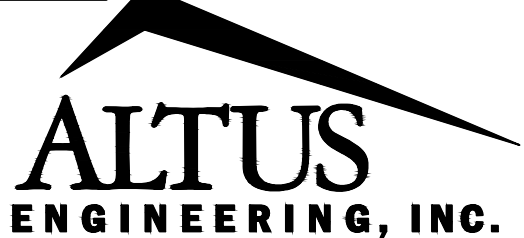
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APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

ENGINEER:



133 COURT STREET
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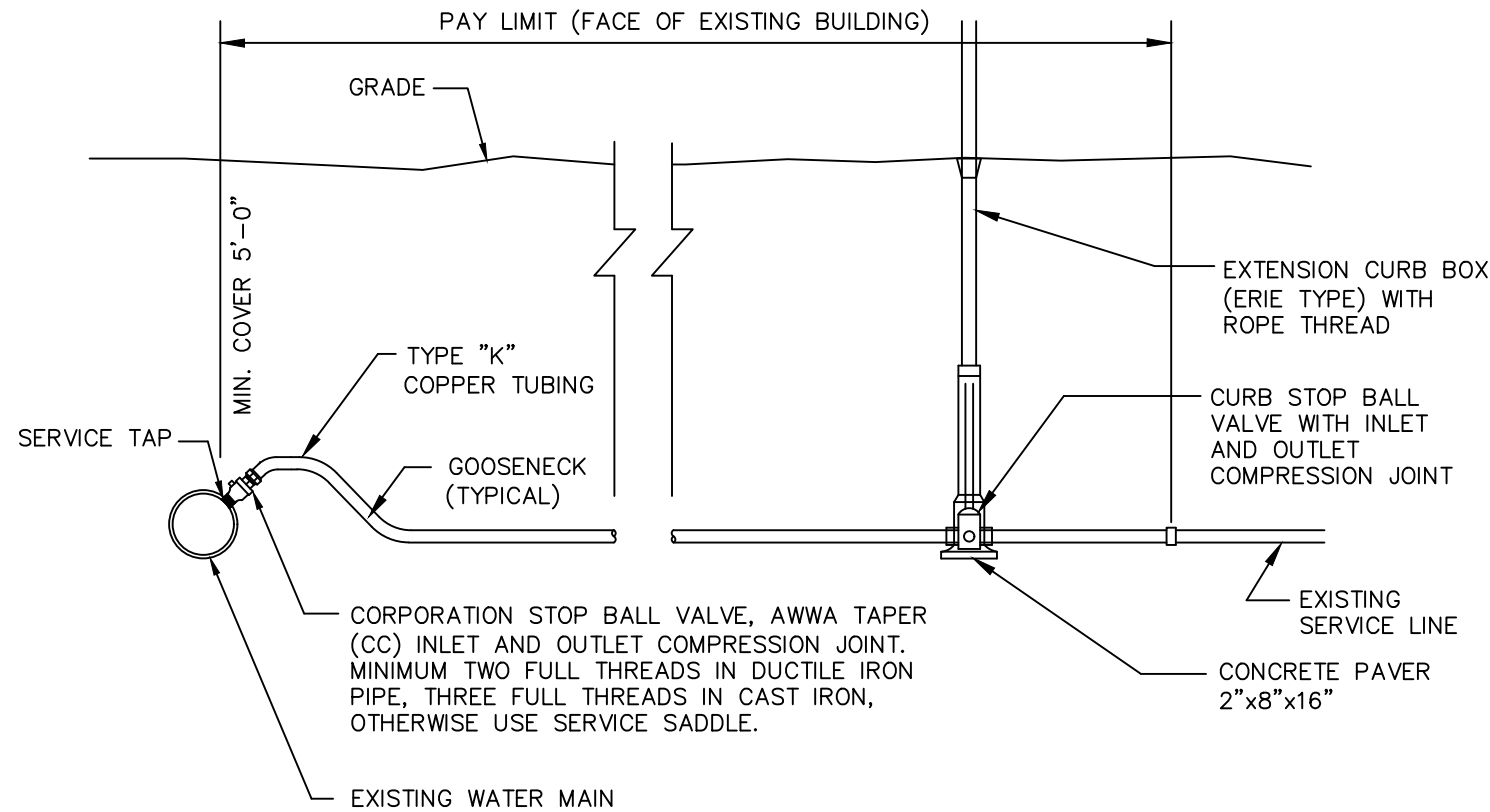
ASSESSOR'S PARCEL
210-2

TITLE:

CONSTRUCTION
DETAILS

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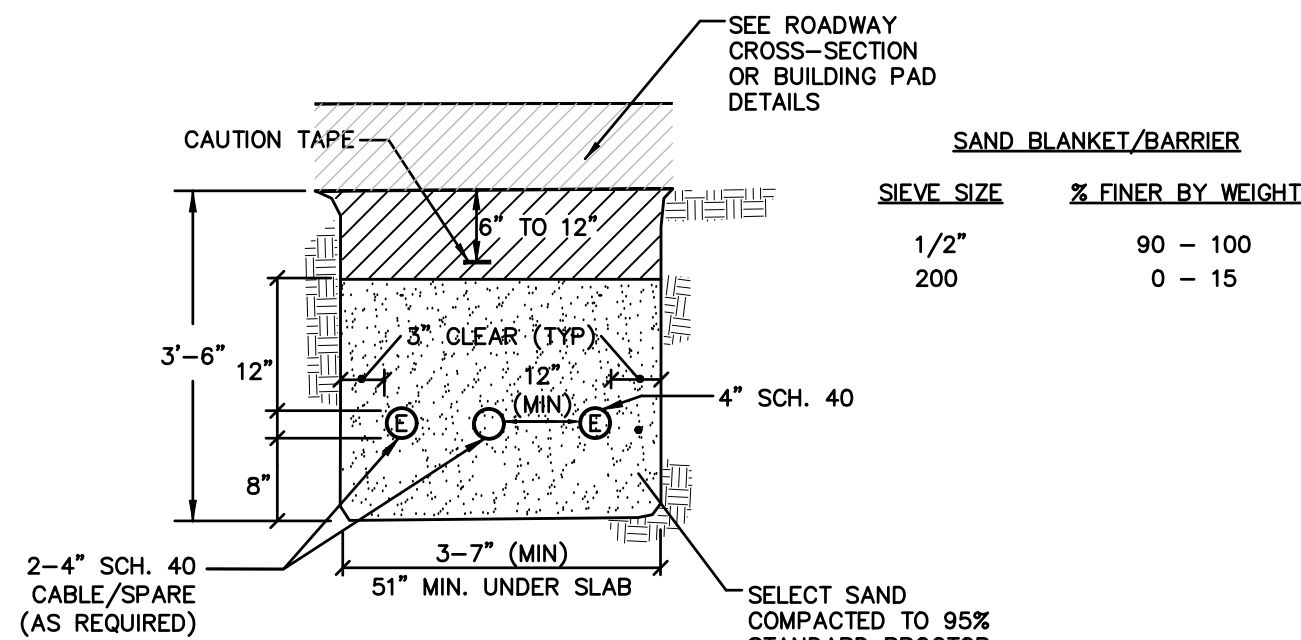
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NOTES

1. PROVIDE NEW LINE USING CONTINUOUS LENGTHS OF COPPER. NO COUPLING ALLOWED IN ROADWAY WITHOUT APPROVAL OF ENGINEER.
2. TAPS TO BE MADE AT APPROXIMATELY 2:00 & 10:00
3. PROVIDE FOR SERVICE LINE CONTRACTION AND EXPANSION BY INSTALLING "S" IN SERVICE LINE NEAR MAIN.
4. IF SERVICE IS INSTALLED WITH LESS THAN 5' COVER, INSULATE OVER LINE.
5. REMOVE EXISTING CURB STOP.
6. CONNECT CURB STOP TO EXISTING SERVICE LINE AT PROPERTY LINE OR AT LOCATION APPROVED BY THE ENGINEER (NO COUPLING WITHOUT APPROVAL OF ENGINEER) AFTER PRESSURE TESTING AND DISINFECTION.
7. SHUT OFF EXISTING CORPORATION AND REMOVE OR ABANDON EXISTING SERVICE LINE.
8. CURB BOX SHALL BE SET IN THE GRASS/LANDSCAPE AREA BETWEEN CURB AND SIDEWALK UNLESS DIRECTED OTHERWISE.
9. 2" OR LARGER SERVICE CONNECTIONS SHALL USE A STAINLESS STEEL SERVICE SADDLE.

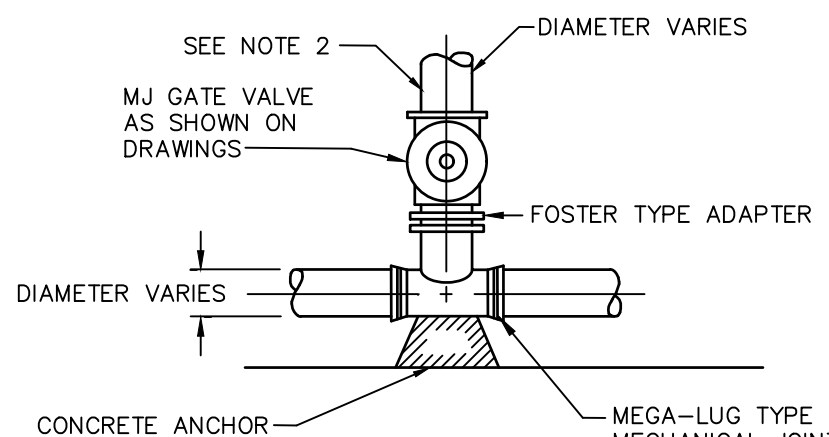
SERVICE CONNECTION DETAIL NOT TO SCALE



NOTES

1. ALL CONDUIT IS TO BE SCHEDULE 40 PVC, ELECTRICAL GRADE, GRAY IN COLOR AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE SERVICE PROVIDER DESIGNER, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING PULLING OF THE CABLE. ALL JOINTS ARE TO BE WATERTIGHT.
2. ALL 90 DEGREE SWEEPS WILL BE MADE WITH RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES.
3. BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY SERVICE PROVIDER. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE IN 6-INCH LAYERS AND THOROUGHLY COMPACTED.
4. A SUITABLE PULLING STRING, CAPABLE OF 300 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE SERVICE PROVIDER IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT. A MINIMUM OF TWENTY-FOUR (24") INCHES OF ROPE SLACK SHALL REMAIN AT THE END OF EACH DUCT. PULL ROPE SHALL BE INSTALLED IN ALL CONDUIT FOR FUTURE PULLS. PULL ROPE SHALL BE NYLON ROPE HAVING A MINIMUM TENSILE STRENGTH OF THREE HUNDRED (300#) LBS.
5. SERVICE PROVIDER SHALL BE GIVEN THE OPPORTUNITY TO INSPECT ALL CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD SERVICE PROVIDER BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
6. TYPICAL CONDUIT SIZES ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY. HOWEVER, SERVICE PROVIDERS MAY REQUIRE DIFFERENT NUMBERS, TYPES AND SIZES OF CONDUIT THAN THOSE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDUIT SIZES, TYPES AND NUMBERS WITH EACH SERVICE PROVIDER PRIOR TO ORDERING THEM.
7. ROUTING OF CONDUIT, LOCATION OF MANHOLES, TRANSFORMERS, CABINETS, HANDHOLES, ETC., SHALL BE DETERMINED BY SERVICE PROVIDER DESIGNER. THE CONTRACTOR SHALL COORDINATE WITH ALL SERVICE PROVIDERS PRIOR TO THE INSTALLATION OF ANY CONDUIT.
8. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE. WHERE REQUIRED BY UTILITY PROVIDER, CONDUIT SHALL BE SUPPORTED IN PLACE USING PIPE STANCHIONS PLACED EVERY FIVE (5') FEET ALONG THE CONDUIT RUN.
9. UNDER A BUILDING SLAB THE CONDUIT SHALL BE ENCASED IN 8" OF CONCRETE ON ALL SIDES.
10. ALL CONDUIT TERMINATIONS SHALL BE CAPPED TO PREVENT DEBRIS FROM ENTERING CONDUIT.

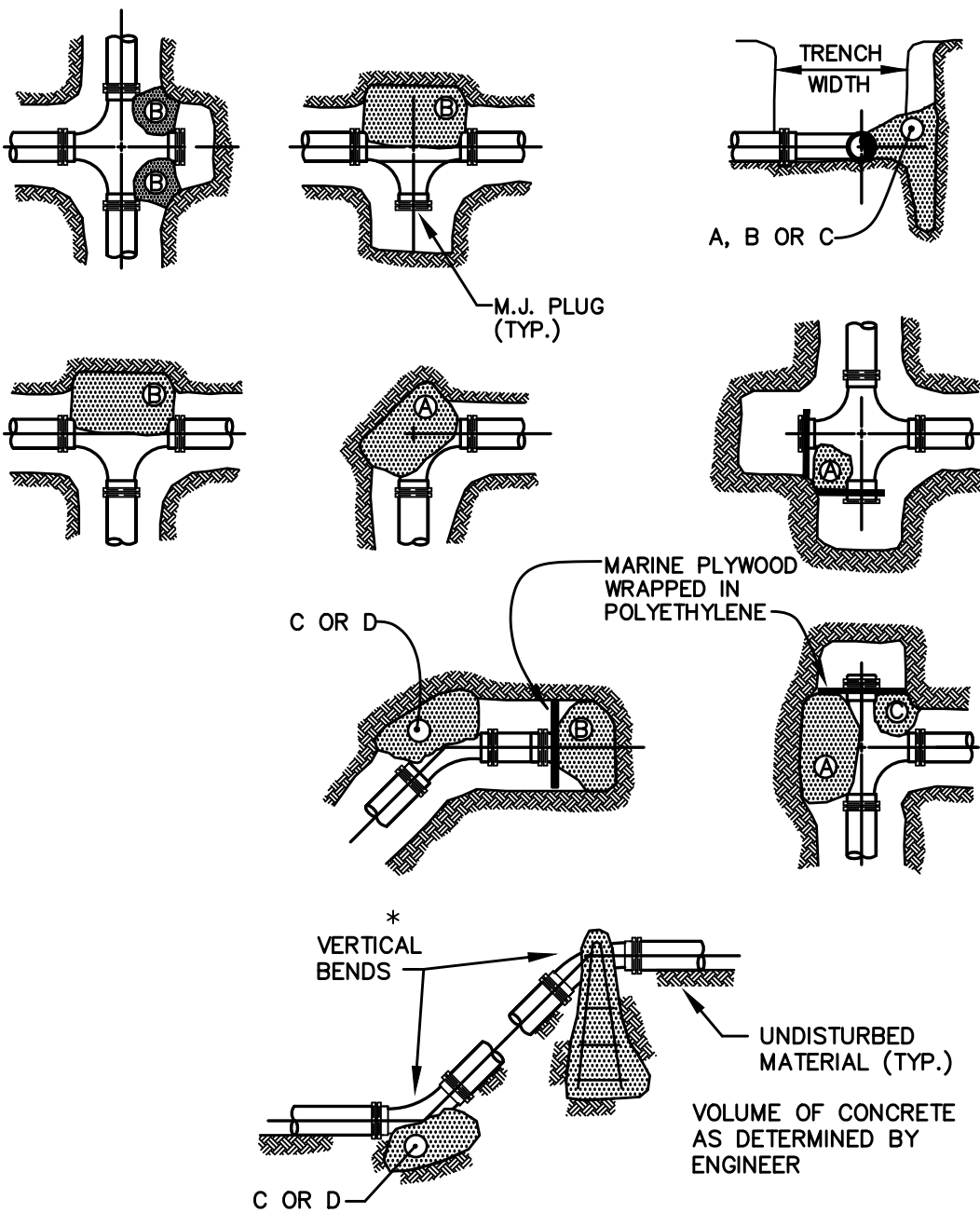
ELECTRIC / COMMUNICATION TRENCH NOT TO SCALE



NOTES:

1. GATE VALVES SHALL OPEN RIGHT, PER CITY STANDARDS.
2. BRANCH PIPING SHALL BE MECHANICALLY RESTRAINED AS NOTED UNDER THRUST BLOCK DETAIL REQUIREMENTS.

TEE & GATE VALVE ASSEMBLY DETAIL NOT TO SCALE

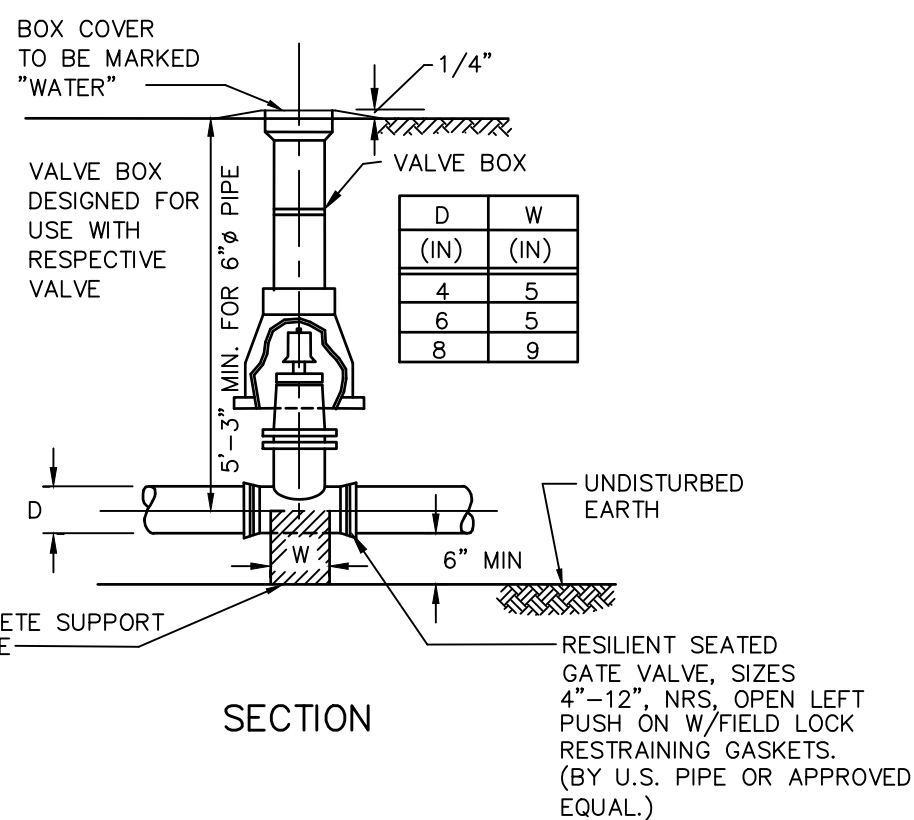


REACTION TYPE	PIPE SIZE				
	4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24
B 180°	0.65	1.55	2.75	8.38	12.00
C 45°	0.48	1.19	2.12	6.02	9.32
D 22-1/2°	0.25	0.60	1.06	3.08	4.74
E 11-1/4°	0.13	0.30	0.54	1.54	2.38

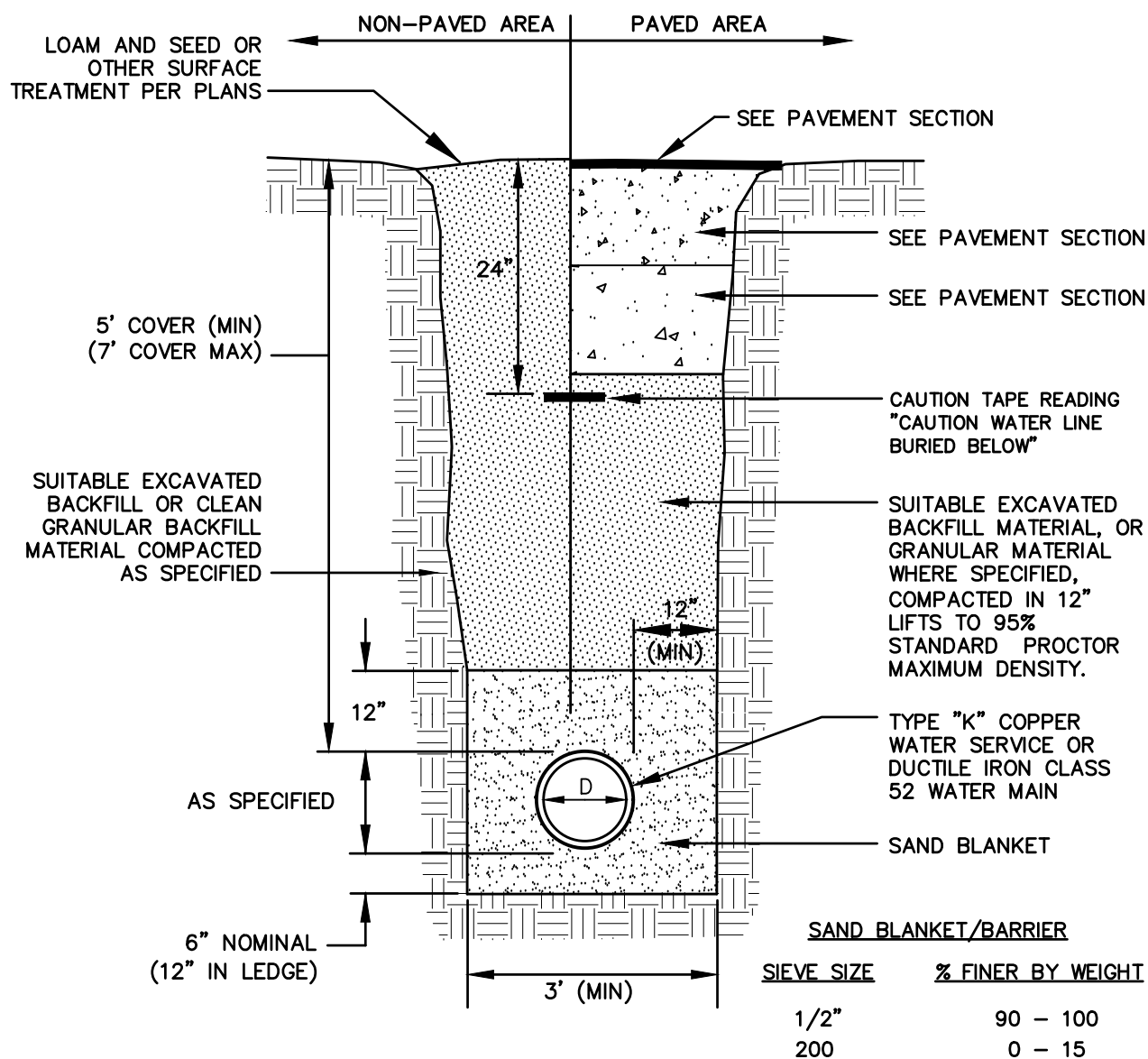
NOTES:

1. 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.
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
5. POLYETHYLENE (6 MIL) SHALL BE PLACED AROUND FITTINGS PRIOR TO CONCRETE PLACEMENT.

THRUST BLOCKING DETAIL NOT TO SCALE



WATER VALVE DETAIL NOT TO SCALE



NOTES

1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
2. WATER MAINS SHALL BE POLY WRAPPED.
3. WATER MAINS SHALL HAVE 3 WEDGES PER JOINT.

WATER MAIN TRENCH NOT TO SCALE

MANHOLE NOTES:

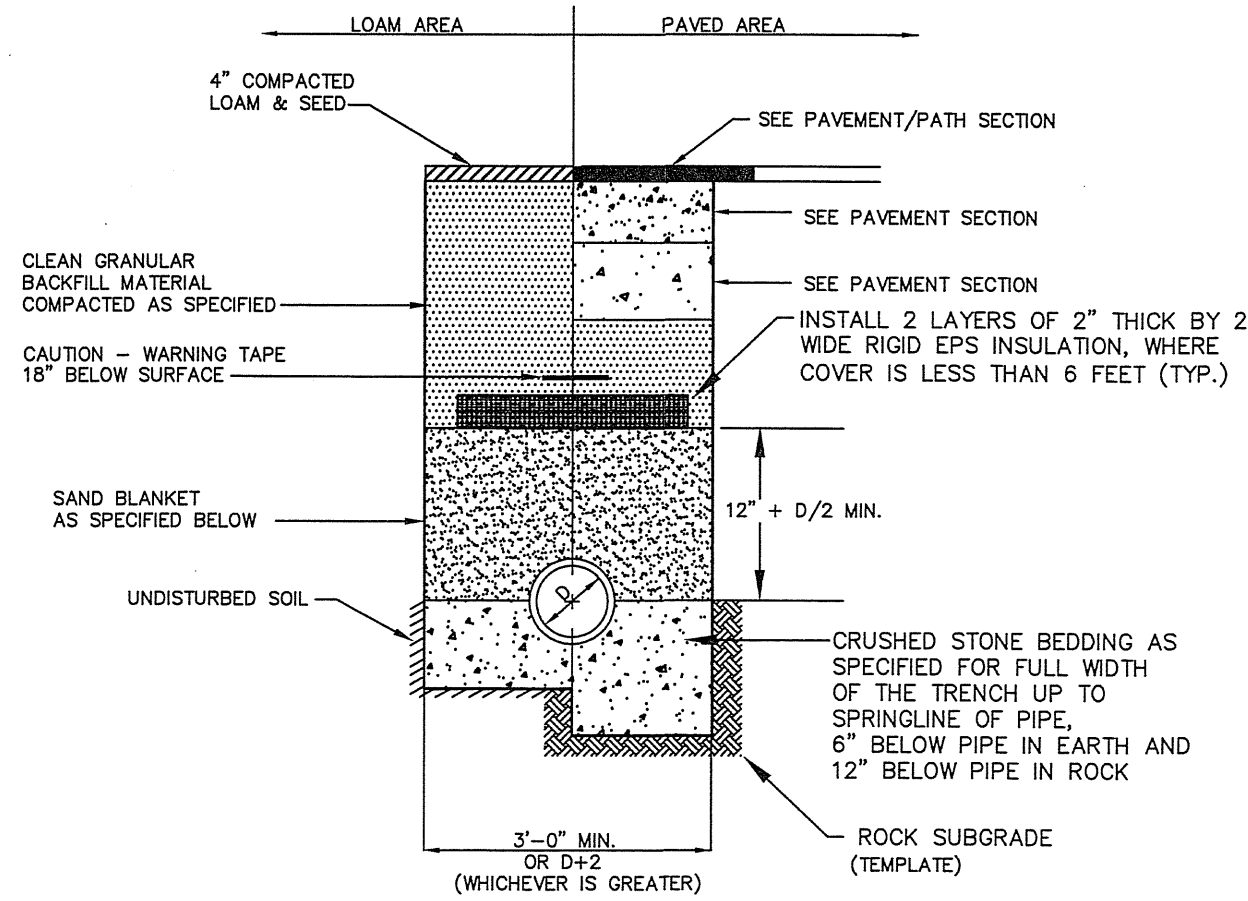
- IT IS THE INTENTION OF THE NHDES THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY BY THE COMMISSION FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT IN ANY APPROVED MANHOLE. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED.
- PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C475.
- LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN'S STANDARD SPECIFICATIONS.
- INVERTS AND SHELVES MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES, OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
- FRAMES AND COVERS MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) LETTER "S" FOR SEWERS OR "D" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
- BEDDING SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33.

100% PASSING 1 INCH SCREEN	0-10% PASSING #4 SIEVE
90-100% PASSING 3/4 INCH SCREEN	0-5% PASSING #8 SIEVE
20-55% PASSING 3/8 INCH SCREEN	

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2" TO 1/2" SHALL BE USED.
- CONCRETE FOR DROP SUPPORT SHALL CONFORM TO THE REQUIREMENT FOR CLASS A (3000 LBS.) CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:

CEMENT	6.0 BAGS PER CUBIC YARD
WATER	5.75 GALLONS PER BAG CEMENT
MAXIMUM SIZE OF AGGREGATE	1 INCH
- FLEXIBLE JOINT A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:

PVC PIPE - 60"
RCP & CI PIPE - ALL SIZES - 48"
AC & VC PIPE - UP THROUGH 12" DIAMETER - 18"
AC & VC PIPE - LARGER THAN 12" DIAMETER - 36"
- SHALLOW MANHOLE IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.



BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

SAND BLANKET		CRUSHED STONE BEDDING *	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

* EQUIVALENT TO STANDARD STONE SIZE #7 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

SEWER TRENCH SECTION NOT TO SCALE

STANDARD TRENCH NOTES:

- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN OF THE DRAWING.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, STONE SIZE NO. 67.

100%	PASSING 1 INCH SCREEN
90 - 100%	PASSING 3/4 INCH SCREEN
20 - 55%	PASSING 3/8 INCH SCREEN
0-10%	PASSING #4 SIEVE
0-5%	PASSING #8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.
- SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90 - 100% PASSES 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
- BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.
- SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
- W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:

CEMENT:	6.0 BAGS PER CUBIC YARD
WATER:	5.75 GALLONS PER BAG CEMENT
MAXIMUM SIZE OF AGGREGATE:	1 INCH

CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE.
- CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
- NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO CITY'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

ENGINEER:

ALTUS
ENGINEERING, INC.

133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

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DESIGN REVIEW

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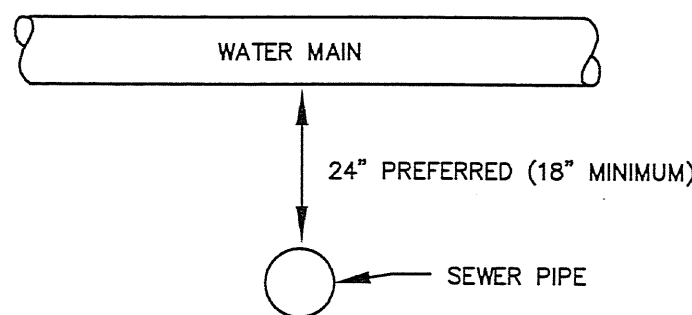
ASSESSOR'S PARCEL
210-2

TITLE:

CONSTRUCTION
DETAILS

SHEET NUMBER:

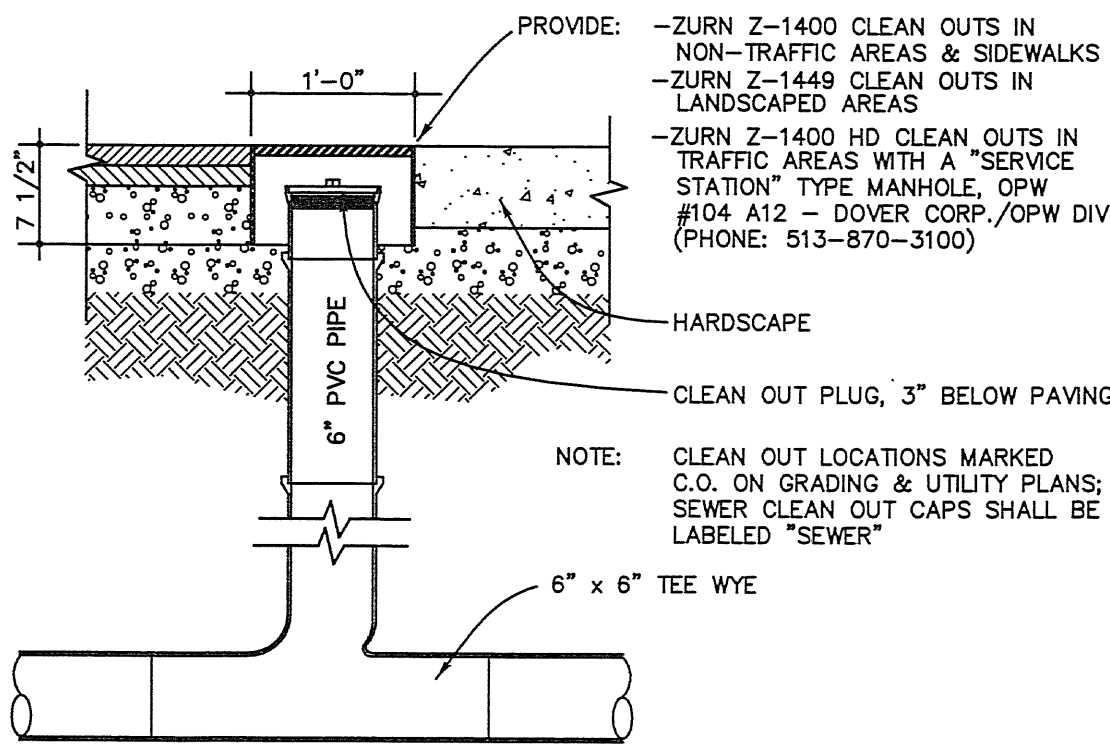
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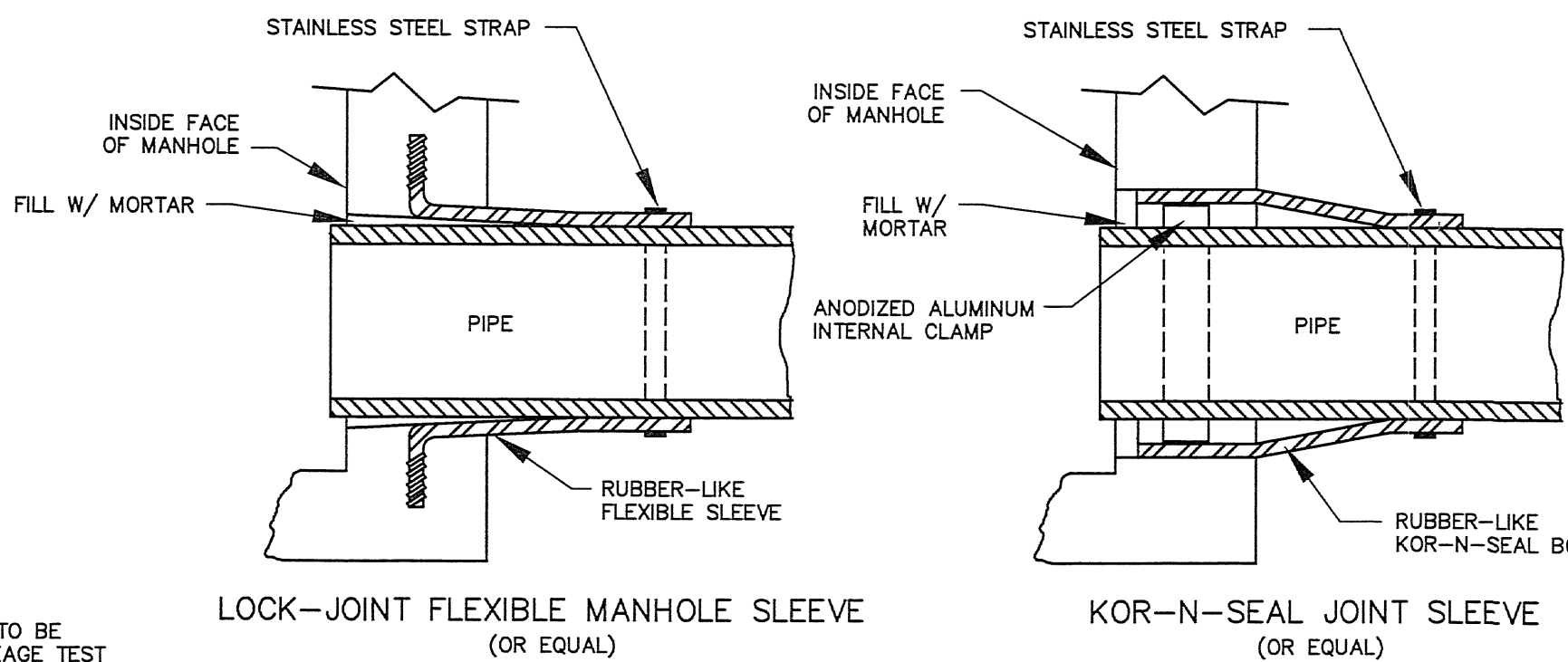
NOTES

- A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER AND SEWER MAINS. A MINIMUM VERTICAL DISTANCE WITH WATER ABOVE SEWER SHALL BE MAINTAINED.
- SEWER PIPE JOINTS SHALL BE LOCATED A MINIMUM OF 6 FEET HORIZONTALLY FROM WATER MAIN.
- IF THE REQUIRED CONFIGURATION CANNOT BE MET, THE SEWER MAIN SHALL BE CONSTRUCTED TO MEET THE NHDES REQUIREMENTS FOR FORCE MAIN CONSTRUCTION.

WATER MAIN / SEWER CROSSING NOT TO SCALE



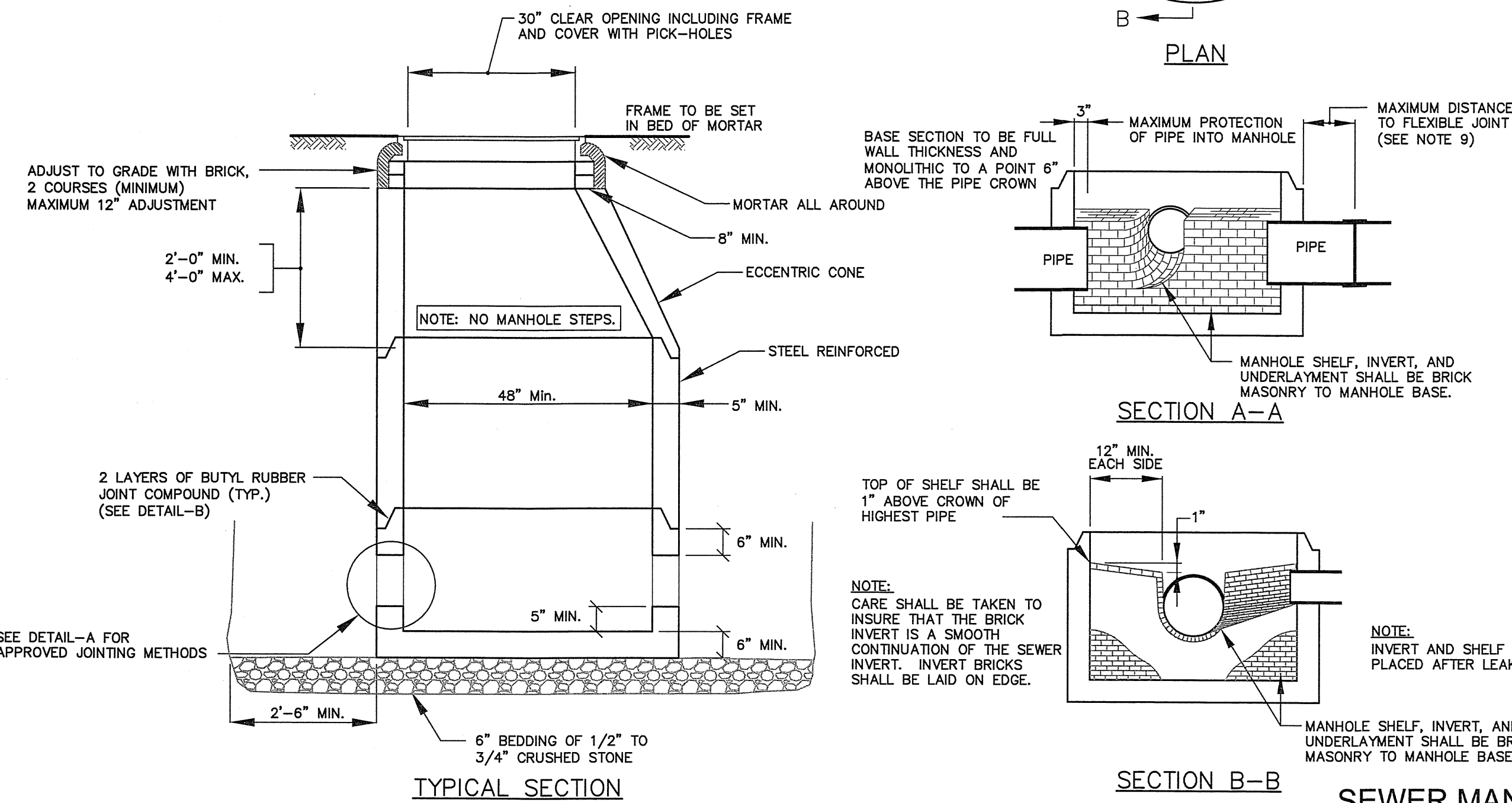
CLEANOUT DETAIL NOT TO SCALE



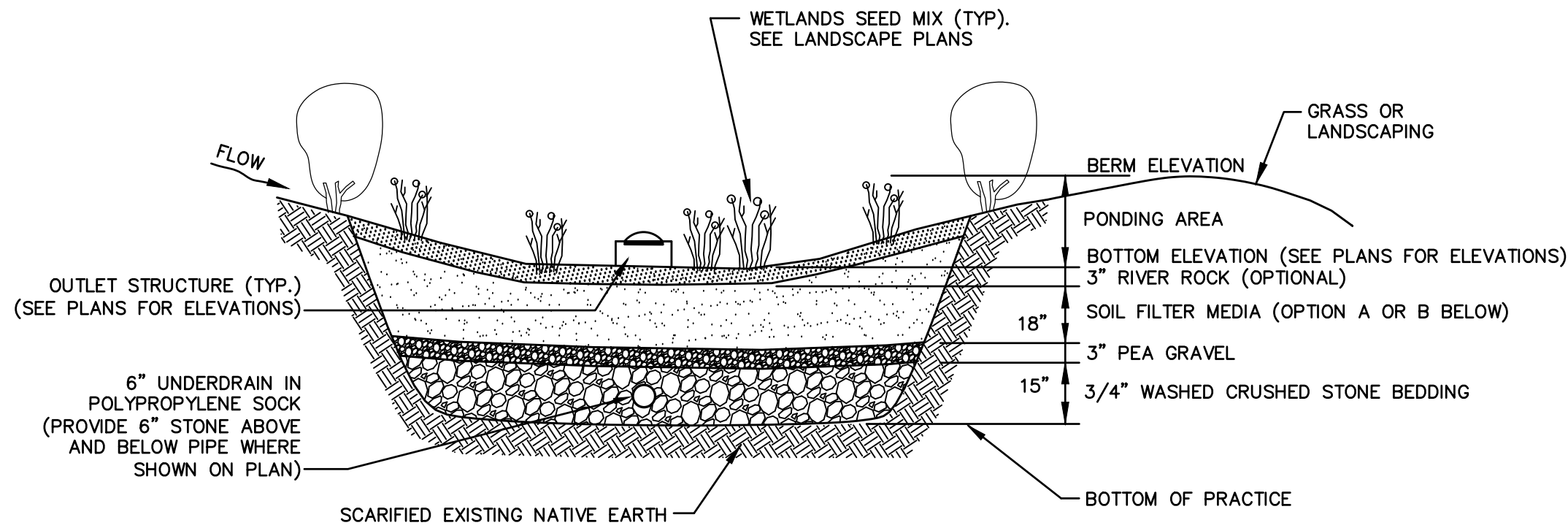
NOTE: ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

DETAIL-B

DETAIL-B
(APPROVED MANHOLE SECTION JOINTING METHODS)



SEWER MANHOLE DETAILS NOT TO SCALE



NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL EITHER OPTION A OR OPTION B AT CONTRACTOR'S DISCRETION.

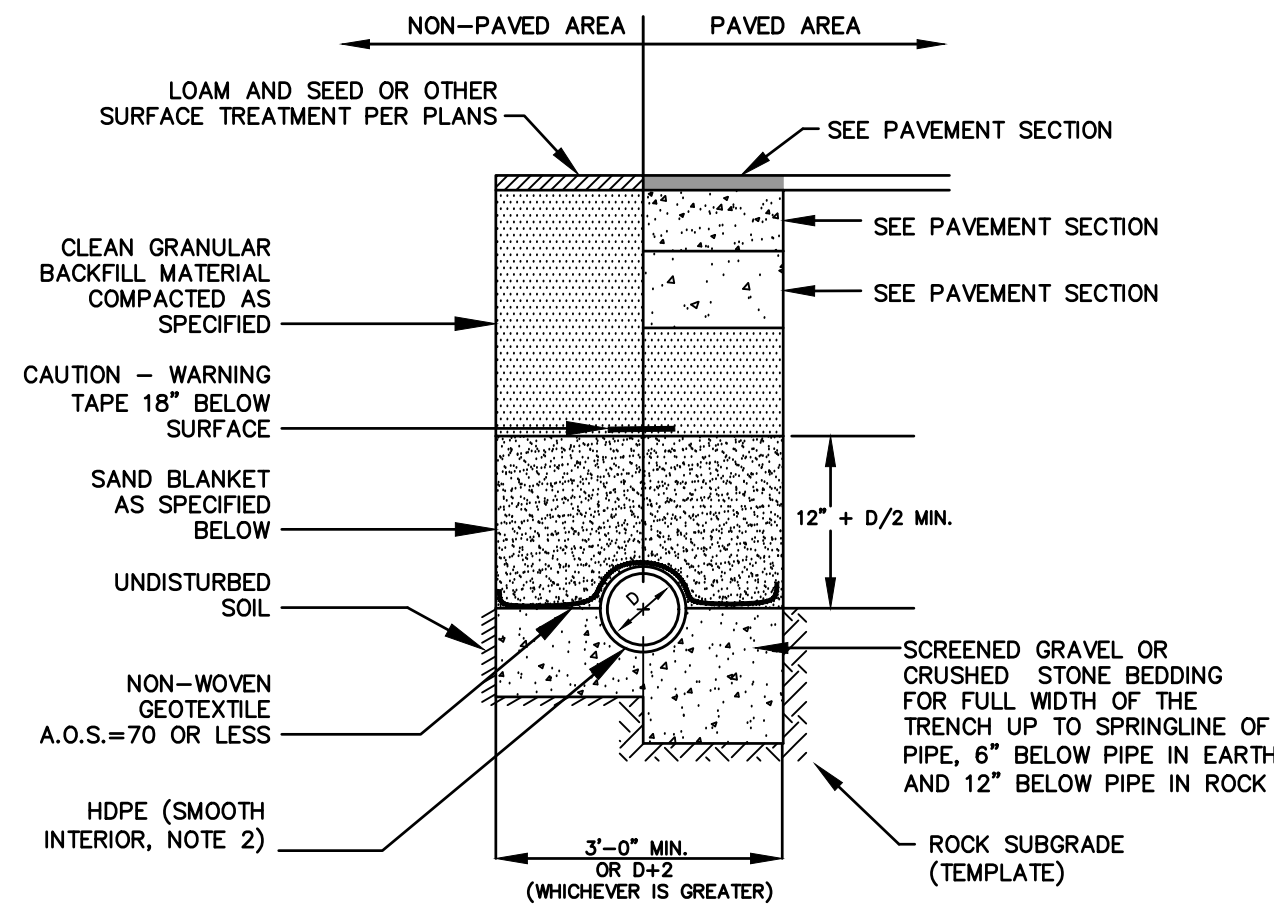
MAINTENANCE REQUIREMENTS

- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
- VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

- UNH STORMWATER CENTER
- EPA (1999A)
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

TYPICAL RAINGARDEN



NOTES:

1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
2. ALL PIPE SHALL BE HDPE WITH SMOOTH INTERIOR AND CORRUGATED EXTERIOR, ADS TYPE N-12 OR APPROVED EQUAL.

SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

* EQUIVALENT TO STANDARD STONE SIZE #67 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

STORM DRAIN TRENCH

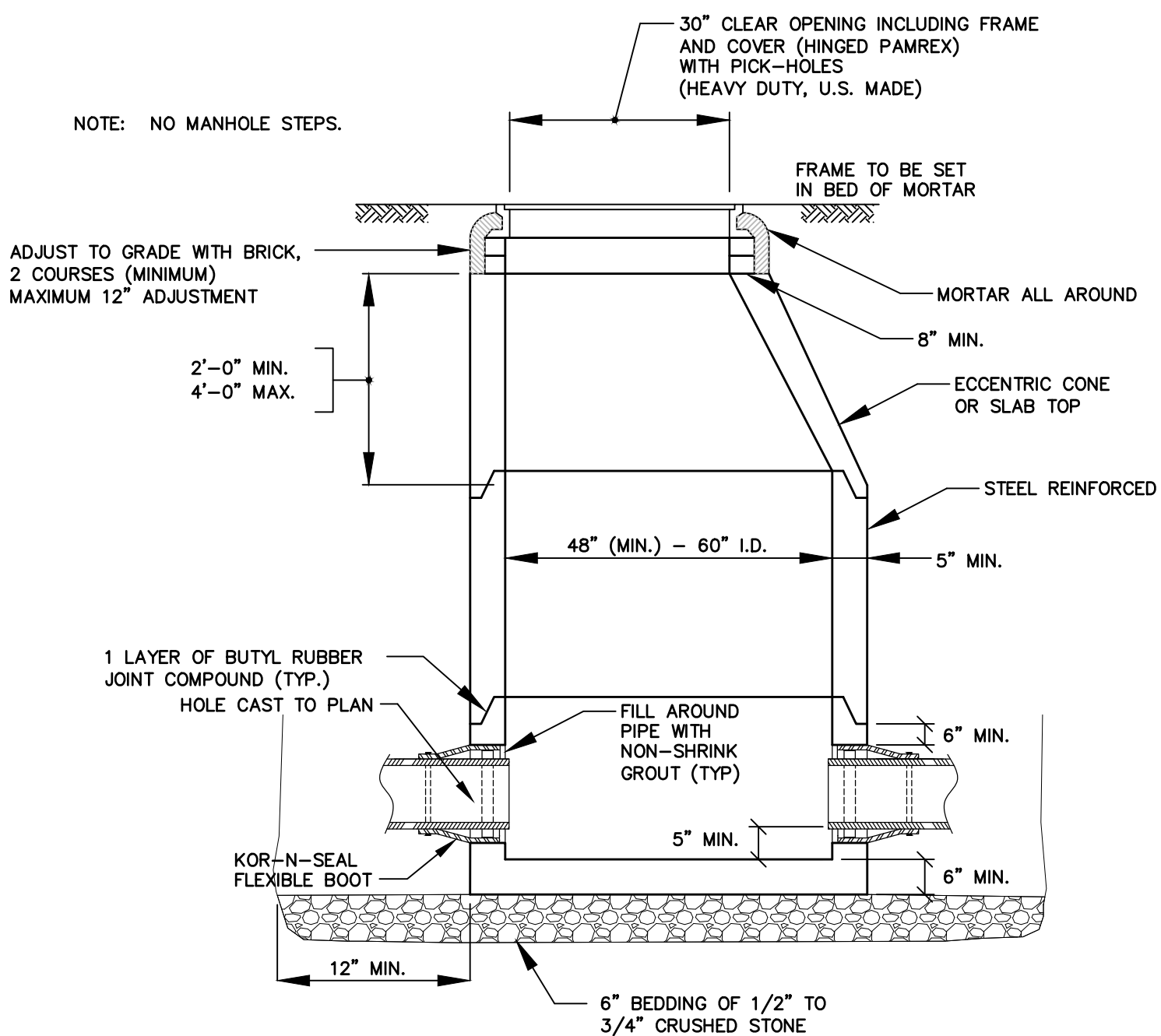
NOT TO SCALE

CRUSHED STONE BEDDING *		
SIEVE SIZE	% PASSING BY WEIGHT	
1"	100	
3/4"	90 - 100	
3/8"	20 - 55	
# 4	0 - 10	
# 8	0 - 5	

* EQUIVALENT TO STANDARD STONE SIZE #67 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

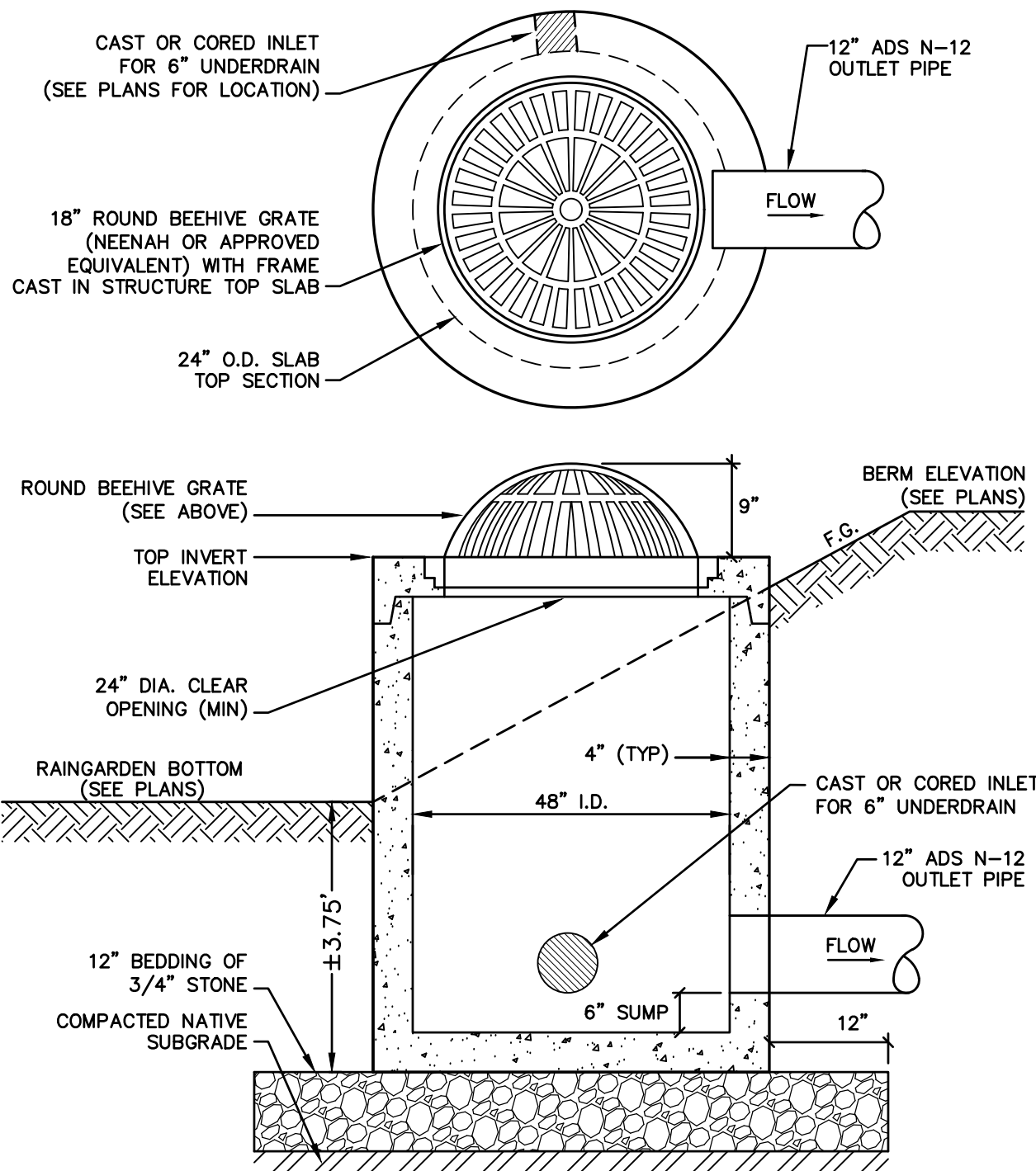
FILTER MEDIA MIXTURES			
Component Material	Percent of Mixture by Volume	Gradation of material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
Filter Media Option B			
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
Loamy coarse sand	70 to 80	10	85 to 100
		20	70 to 100
		60	15 to 40
		200	8 to 15

NOT TO SCALE



DRAIN MANHOLE DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. OUTLET STRUCTURE SHALL BE CONSTRUCTED ONSITE OR PRECAST TO EQUAL DIMENSIONS.
2. ALL JOINTS AND PIPE OPENINGS SHALL BE SEALED WATERTIGHT WITH MORTAR.
3. STRUCTURE IS TO BE BUILT TO WITHSTAND H2O LOADING.
4. SOIL UNDERLYING THE STRUCTURE'S GRAVEL BASE PAD AND THE PAD ITSELF ARE TO BE COMPACTED TO 95% MODIFIED PROCTOR.
5. ALL CONCRETE SHALL BE 4,000 PSI MINIMUM.

OUTLET STRUCTURE DETAIL

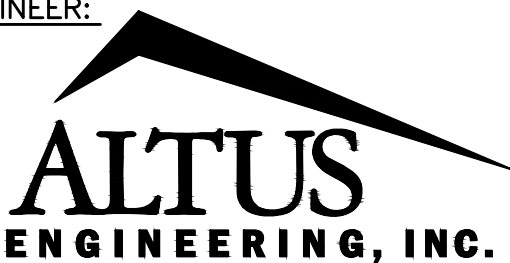
NOT TO SCALE

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

ENGINEER:



133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

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SCALE:

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OWNER/APPLICANT:

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OF GOD
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PORTSMOUTH, NH 03801

PROJECT:

MIXED-USE
DEVELOPMENT
SITE

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ASSESSOR'S PARCEL
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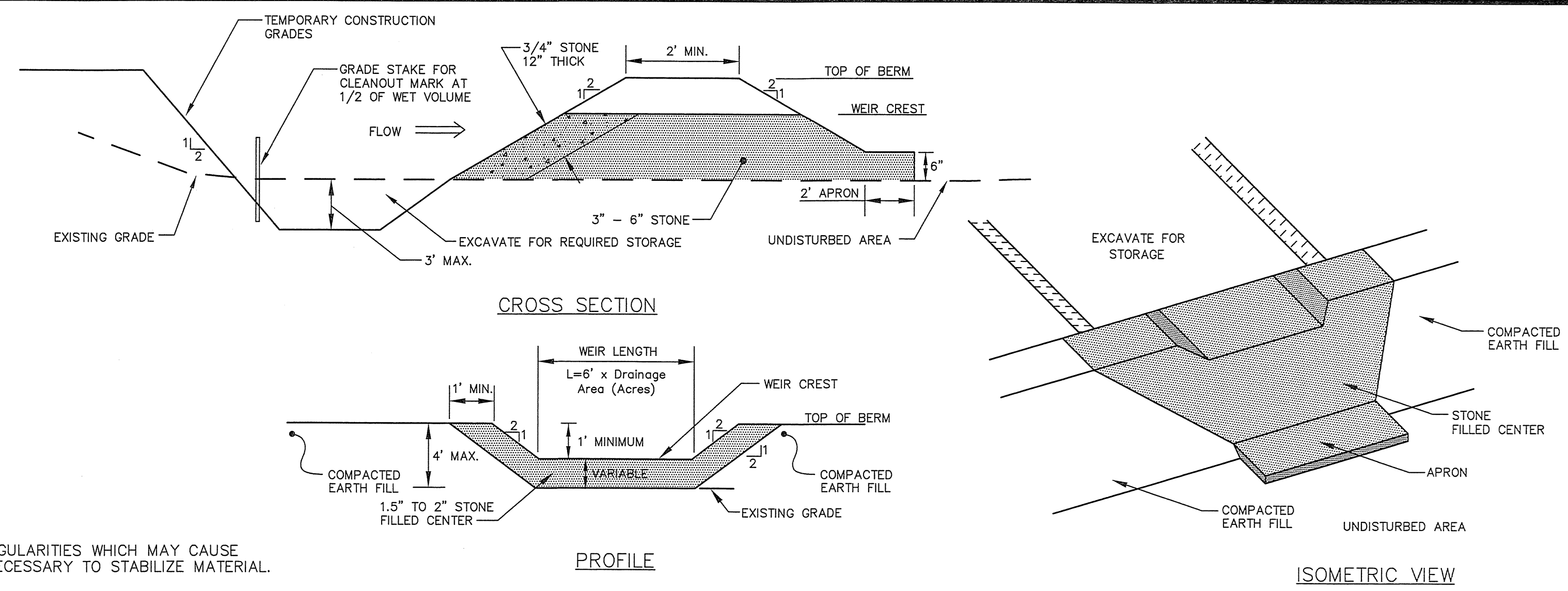
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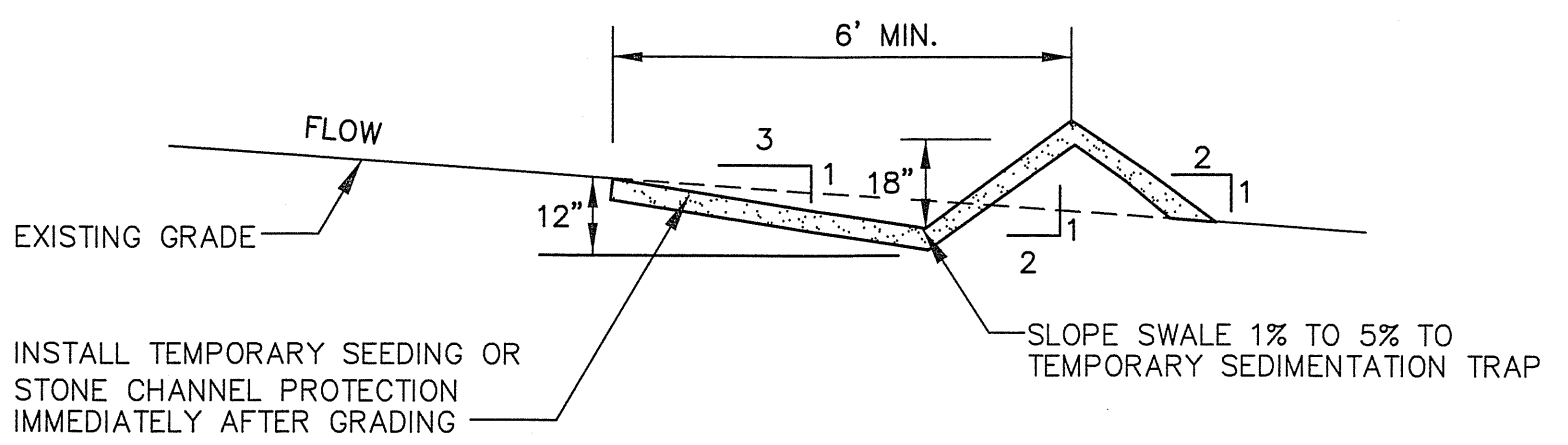
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SWALE SHALL BE FREE OF IRREGULARITIES WHICH MAY CAUSE PONDING. COMPACT FILLS AS NECESSARY TO STABILIZE MATERIAL.



TEMPORARY DIVERSION SWALE NOT TO SCALE

- MAINTENANCE**
1. SEDIMENT SHALL BE REMOVED AND THE TRAP SHALL BE RESTORED TO ITS ORIGINAL CAPACITY WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN STORAGE VOLUME. SEDIMENT REMOVED SHALL BE DISPOSED OF SO THAT IT DOES NOT CAUSE A SEDIMENT PROBLEM AT ANOTHER LOCATION.
 2. THE STRUCTURE SHALL BE CHECKED BI-WEEKLY AND AFTER EVERY MAJOR STORM TO INSURE THAT IT IS WORKING PROPERLY AND IS NOT DAMAGED. DAMAGE TO THE STRUCTURE SHALL BE REPAIRED IMMEDIATELY.
 3. 3/4\"/>
 4. WHEN THE DRAINAGE AREA FLOWING INTO THE BASIN HAS BEEN FULLY STABILIZED, THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA VEGETATED USING LOAM AND SEED WITH MULCH (OR SOD IF NECESSARY) WITHIN 72 HOURS OF THE REMOVAL OF THE BASIN.

TEMPORARY SEDIMENT TRAP (TST) OUTLET NOT TO SCALE

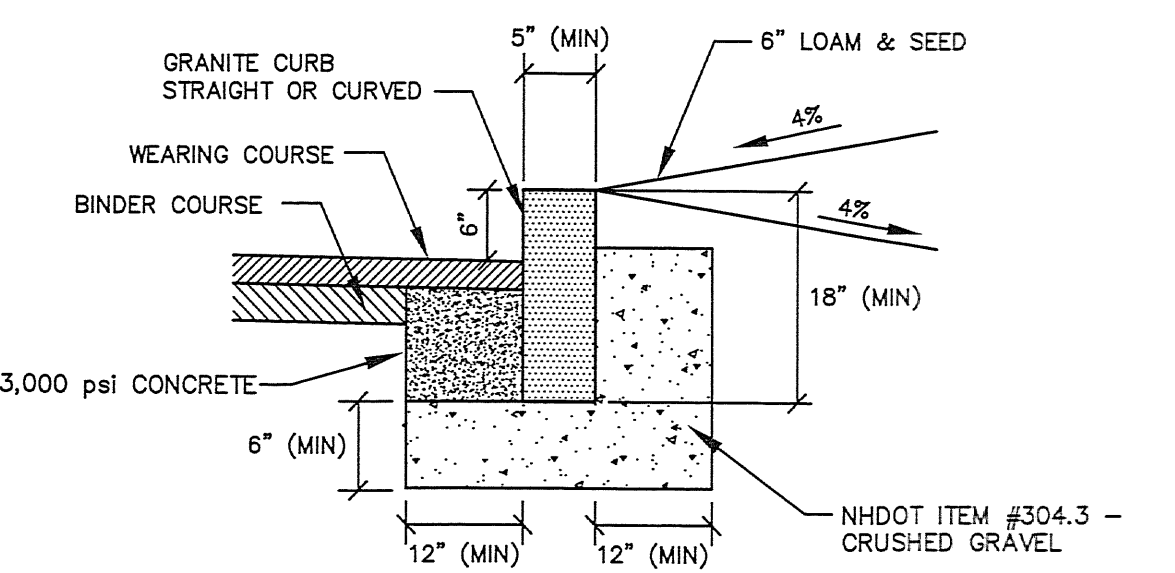
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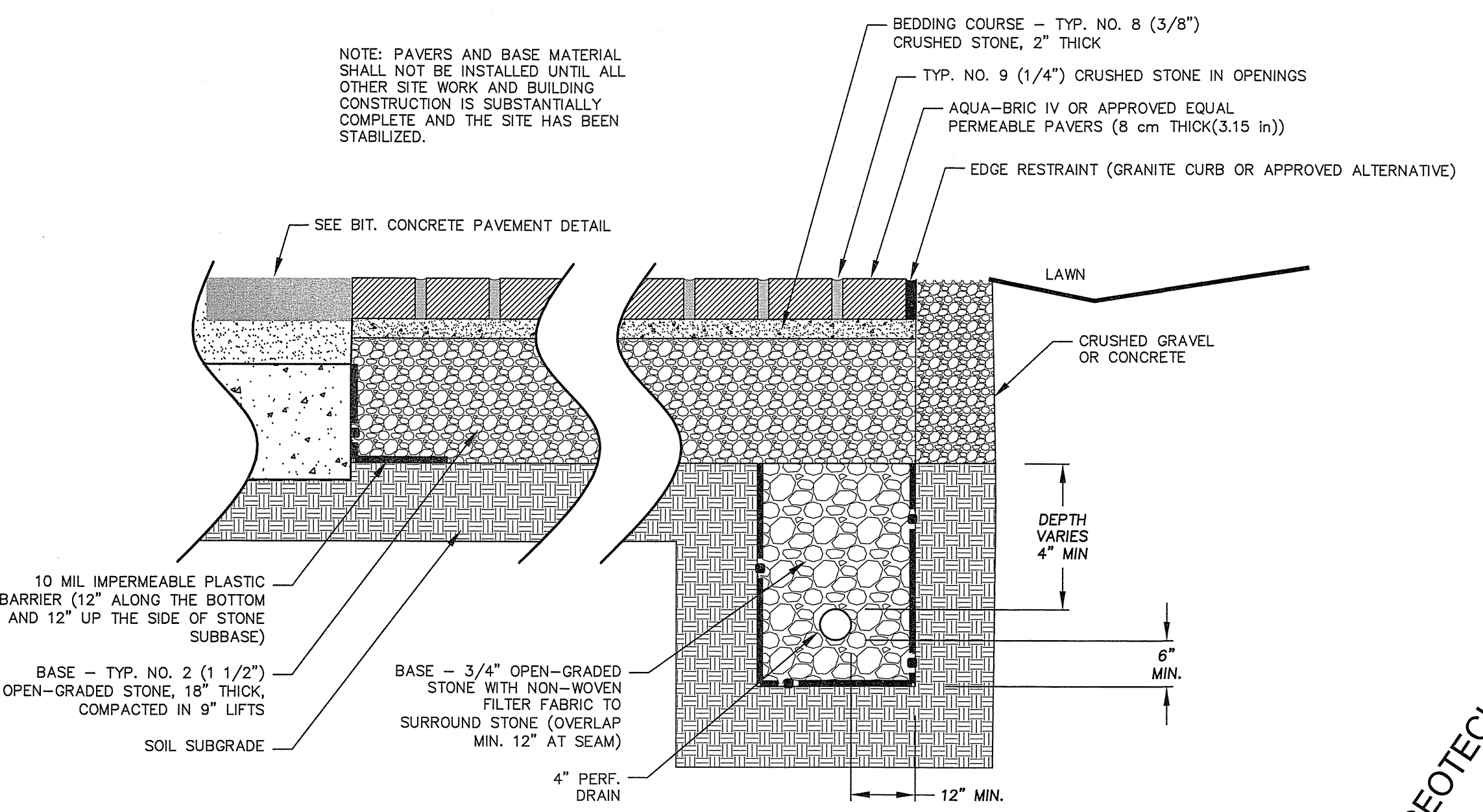


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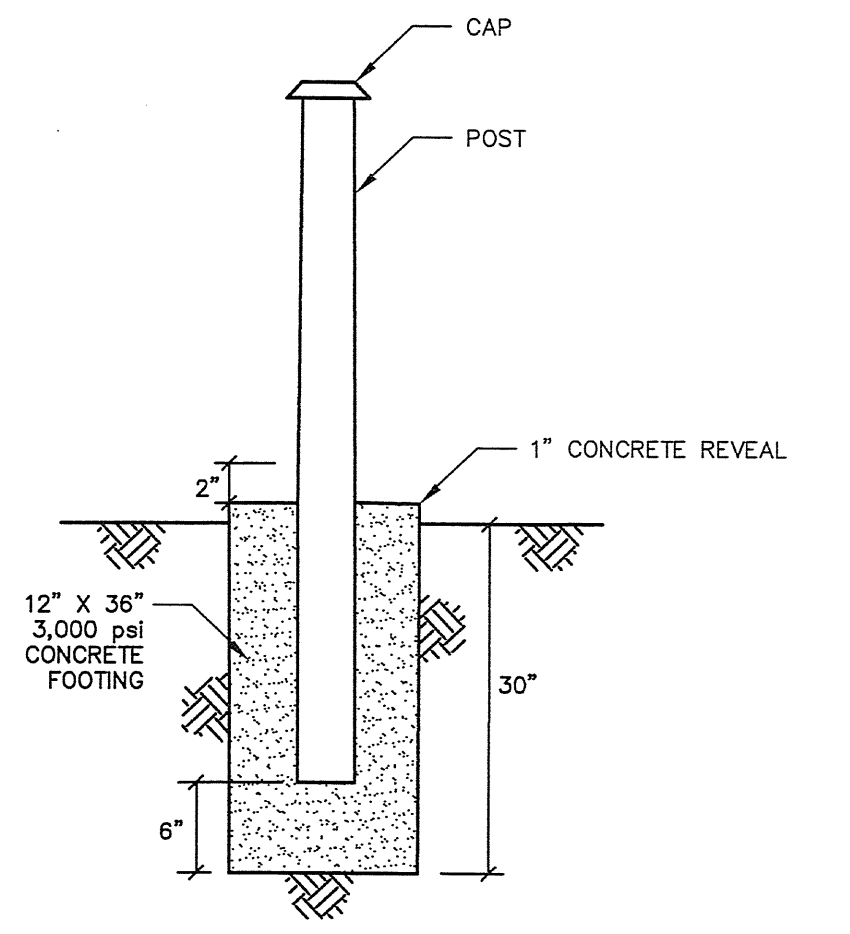
1. SEE PLANS FOR CURB LOCATION.
2. SEE PLANS FOR PAVEMENT CROSS SECTION.
3. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
4. MINIMUM LENGTH OF CURB STONES = 4'.
5. MAXIMUM LENGTH OF CURB STONES = 10'.
6. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART.
7. CURB ENDS TO ROUNDED AND BATTERED FACES TO BE CUT WHEN CALL FOR ON THE PLANS.
8. CURB SHALL BE INSTALLED PRIOR TO PLACEMENT OF TOP PAVEMENT COURSE.
9. JOINTS BETWEEN CURB STONES SHALL BE MORTARED.

RADIUS	MAX. LENGTH
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
OVER 60'	10'

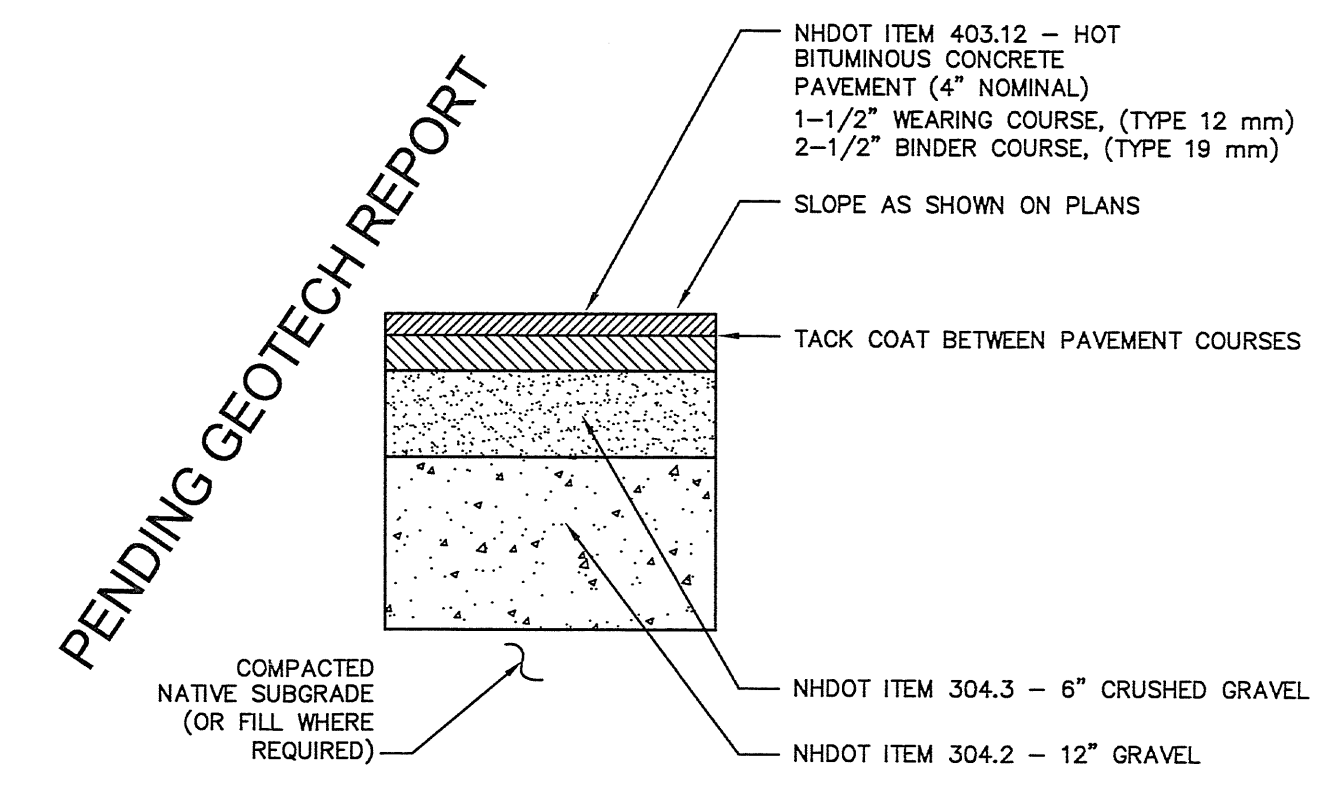
VERTICAL GRANITE CURB NOT TO SCALE



POROUS PAVERS DETAIL NOT TO SCALE



FENCE POST DETAIL NOT TO SCALE



PAVEMENT CROSS SECTION NOT TO SCALE

POST CAP STYLE

NEW ENGLAND - V55NE

POST OPTION

5" X 5" - .140 Wall
Post set in concrete

FENCE HEIGHT

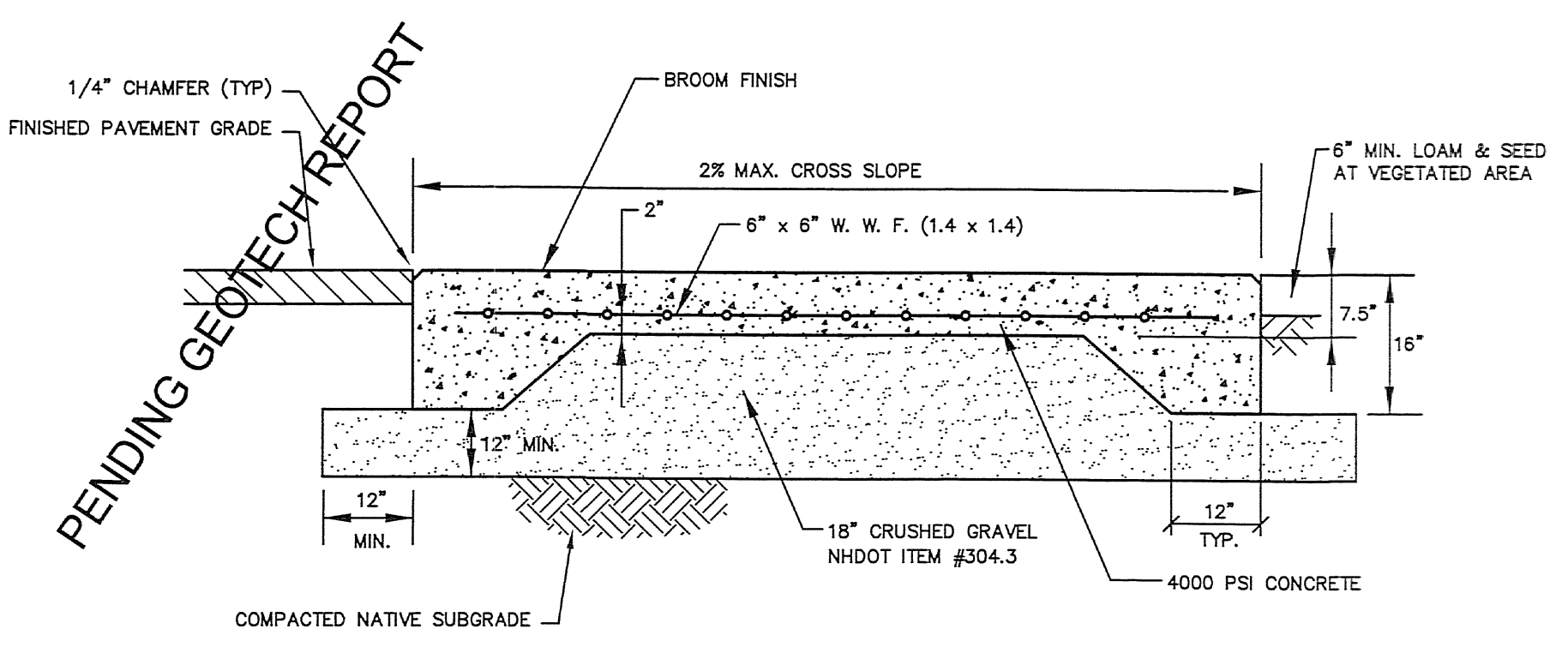
6'-0", see height schedule below

	A	B	C	D			
H(FT) INCHES	H(FT) INCHES	H(FT) INCHES	H(FT) INCHES	H(FT) INCHES			
3	60	3	22	3	8.5	3	38
4	84	4	34	4	20.5	4	48
5	96	5	34	5	32.5	5	60
6	108	6	34	6	44.5	6	72
8	144	8	46	8	68.5	8	96
10	168	10	46	10	92.5	10	120

NOTE:

1. FENCE SHALL BE ILLUSION VINYL FENCE PRODUCT OR APPROVED EQUAL.
2. COLOR SHALL BE DETERMINE BY LANDSCAPE ARCHITECT OR APPLICANT.
3. POST SHALL BE SET IN CONCRETE.
4. OPENING CLEARANCE DIMENSIONS PER OWNER REQUIREMENT.

DUMPSTER SCREENING DETAIL NOT TO SCALE



DUMPSTER SLAB DETAILS NOT TO SCALE

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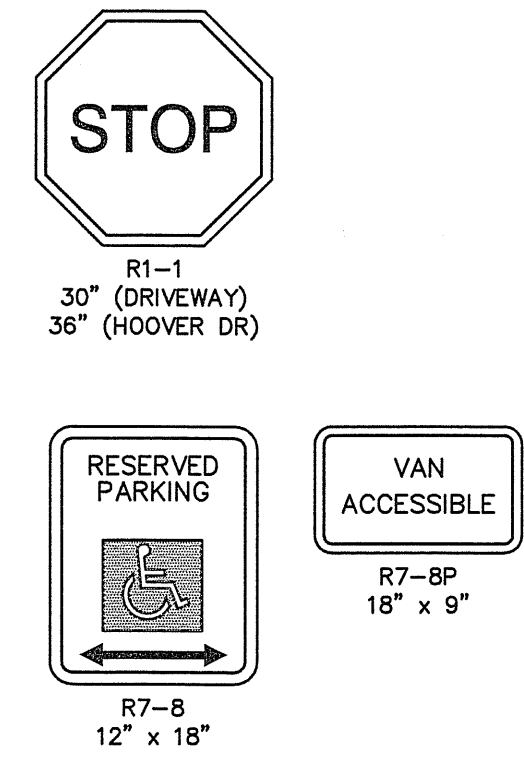
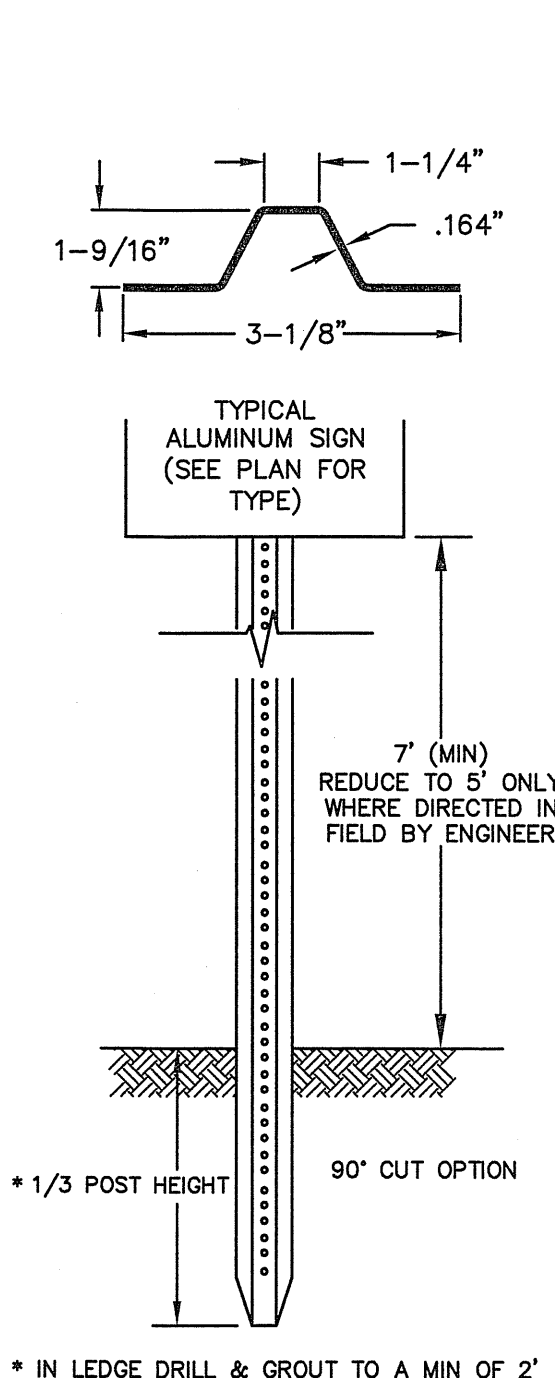
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DETAILS

SHEET NUMBER:

D.6

P4950

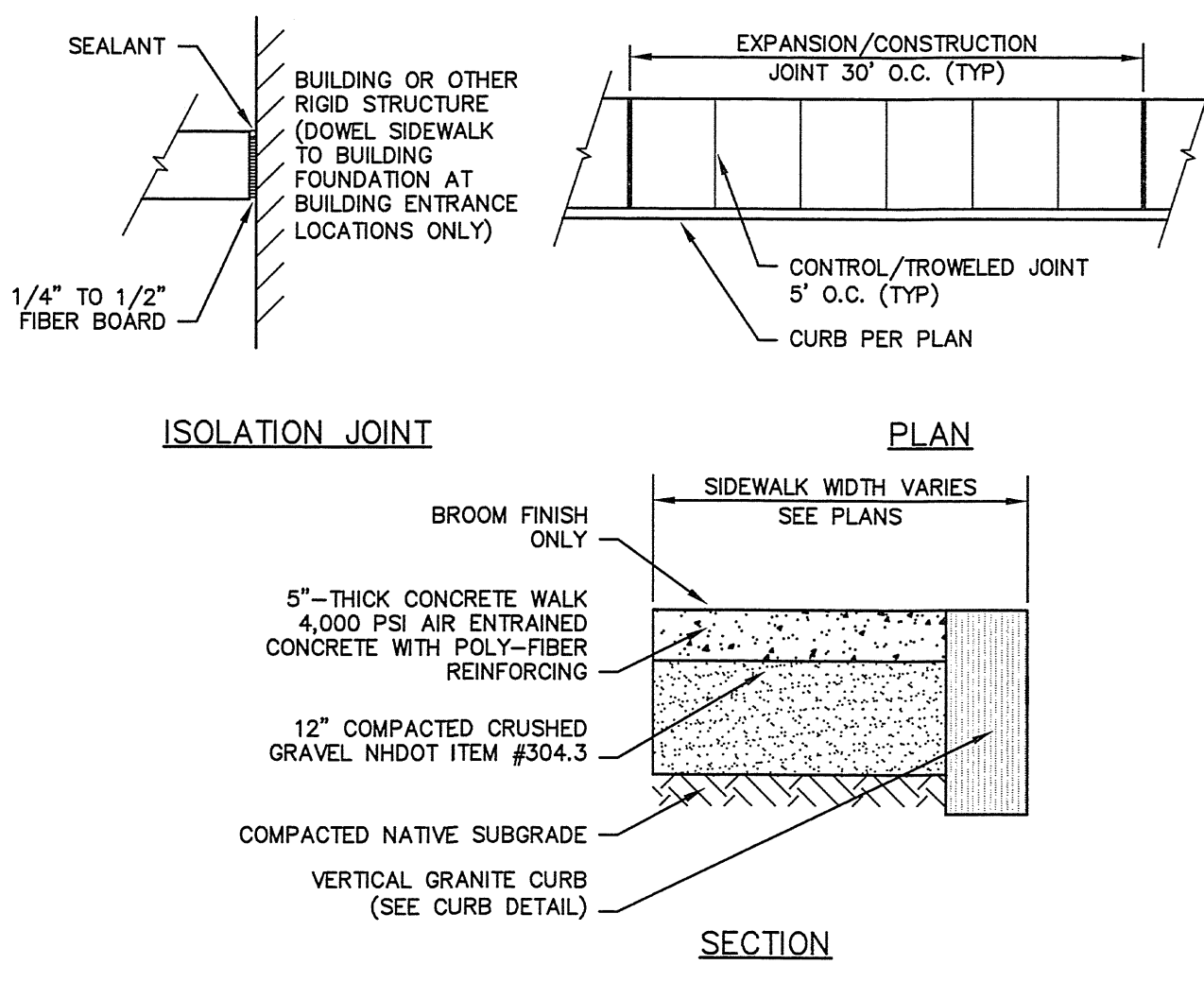
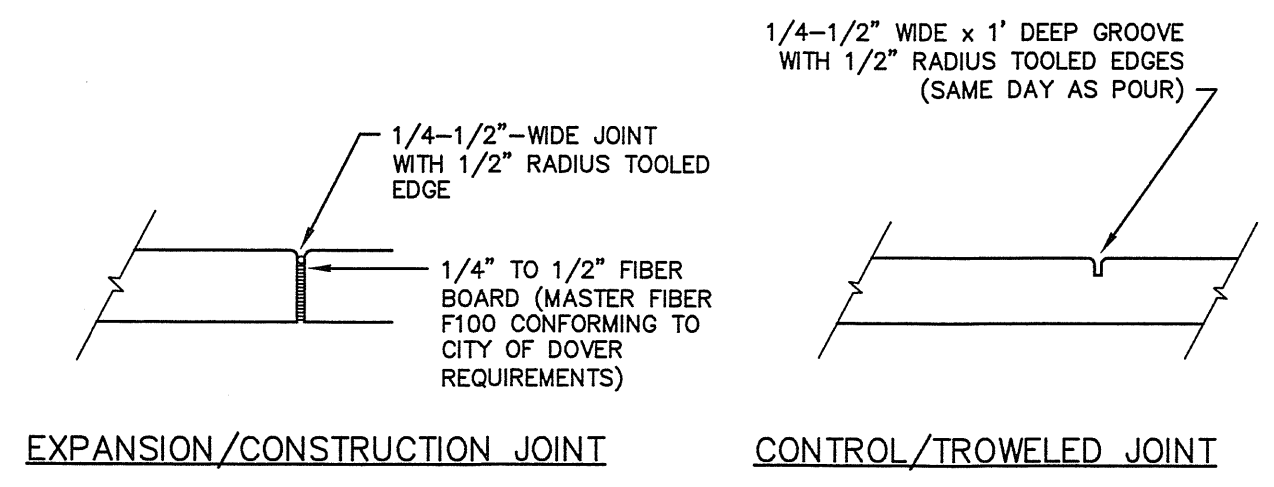


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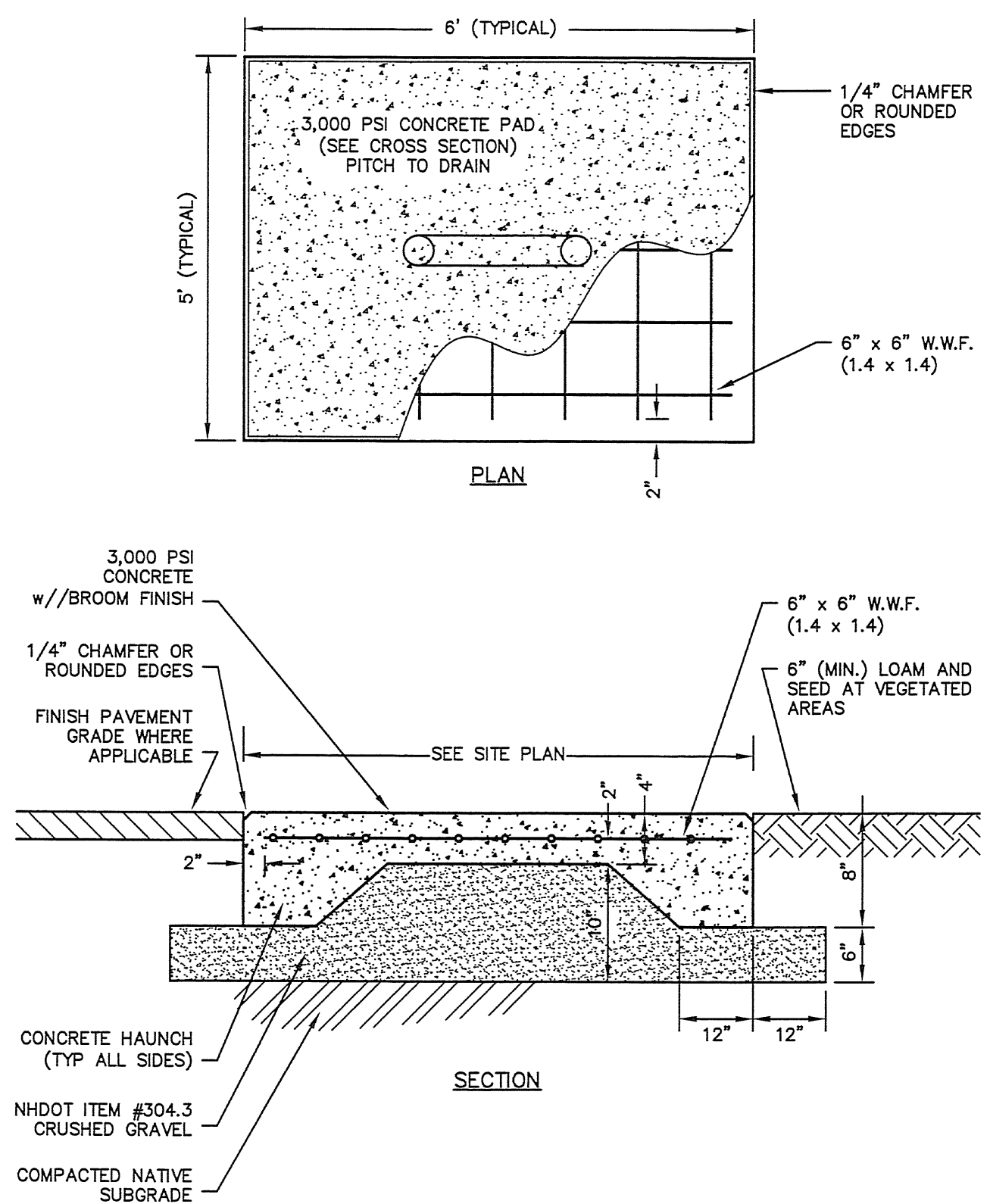
1. ALL SIGNS SHALL MEET THE REQUIREMENTS OF AND BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

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

SIGN DETAILS NOT TO SCALE



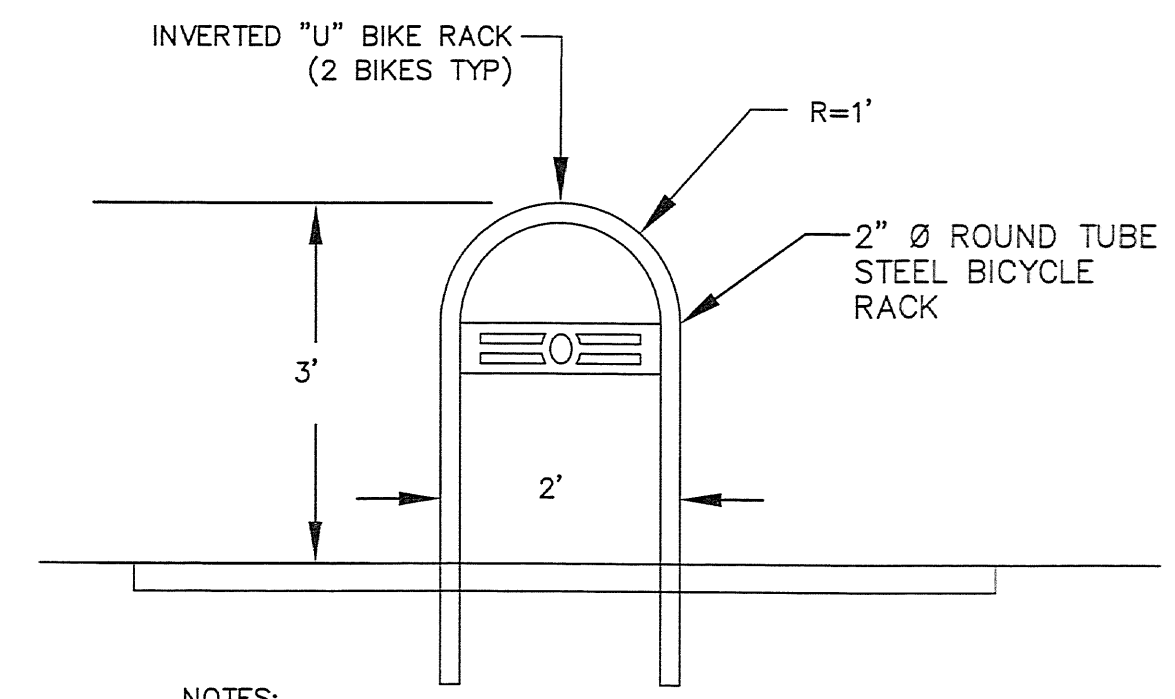
CONCRETE SIDEWALK DETAIL NOT TO SCALE



BICYCLE RACK PAD NOT TO SCALE

APPROVED BY THE PORTSMOUTH PLANNING BOARD

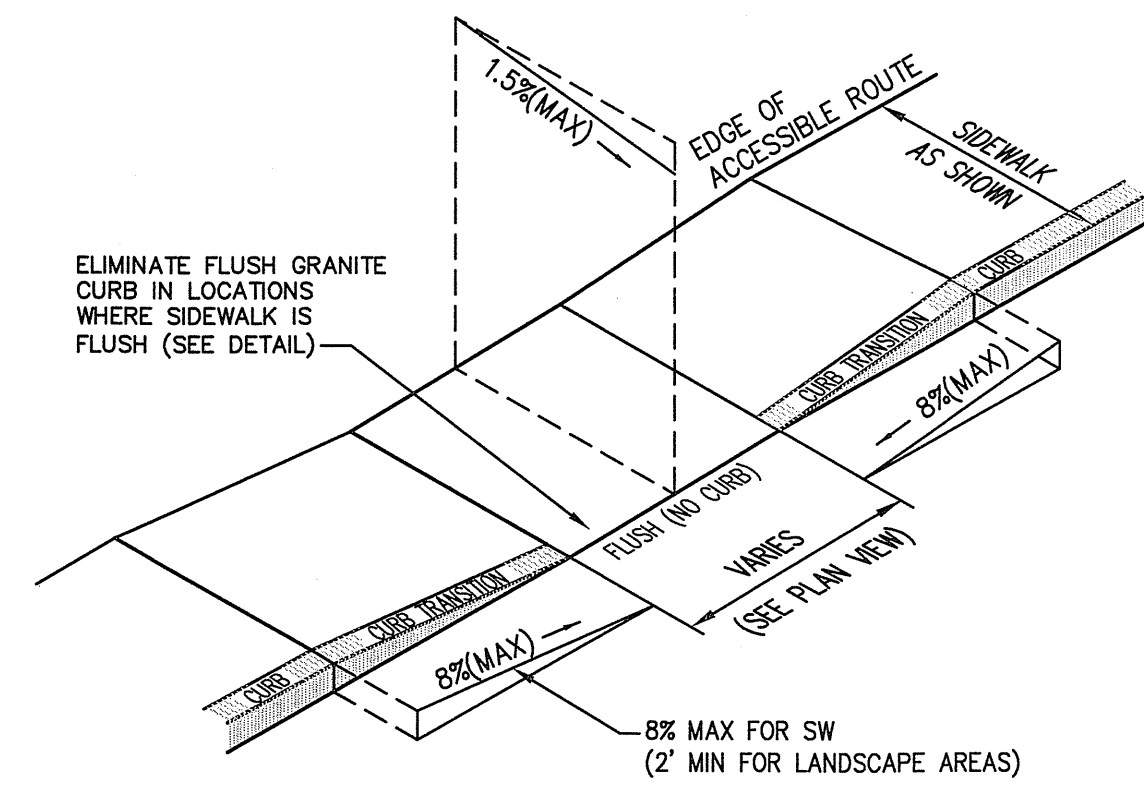
CHAIRMAN _____ DATE _____



NOTES:

1. INSTALL BICYCLE RACK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. DETAIL DEPICTS IN-GROUND MOUNT. USE SURFACE MOUNT BICYCLE RACK FOR INSTALLATIONS ON CONCRETE PADS.
3. SEE SITE PLAN FOR FINAL CONCRETE PAD SIZE. PROVIDE SEVEN BIKE RACKS FOR 2 BICYCLES AND A MINIMUM OF 1.5 FEET TO EDGE OF CONCRETE PAD.

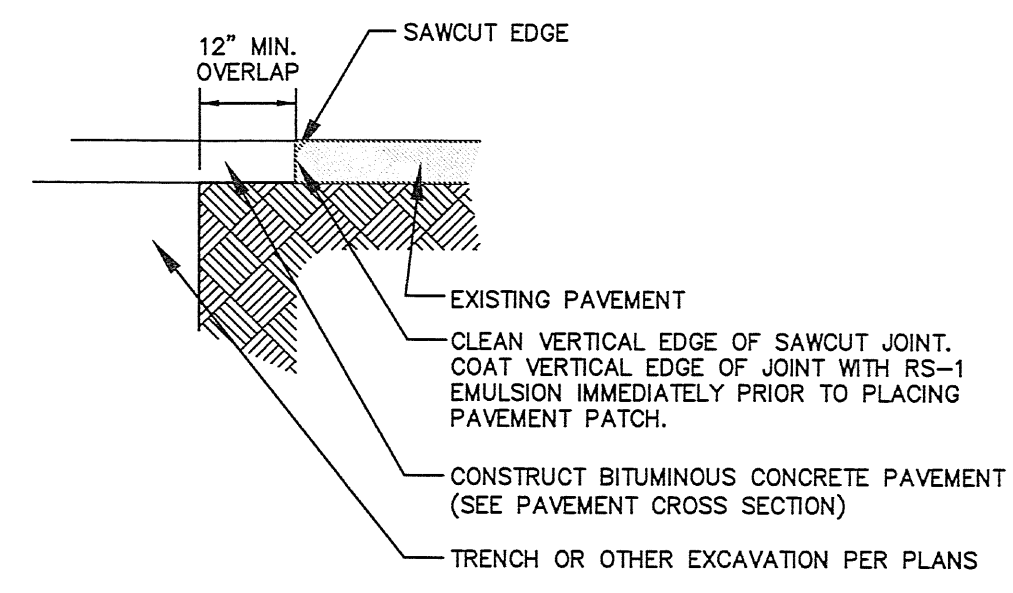
BICYCLE RACK DETAIL NOT TO SCALE



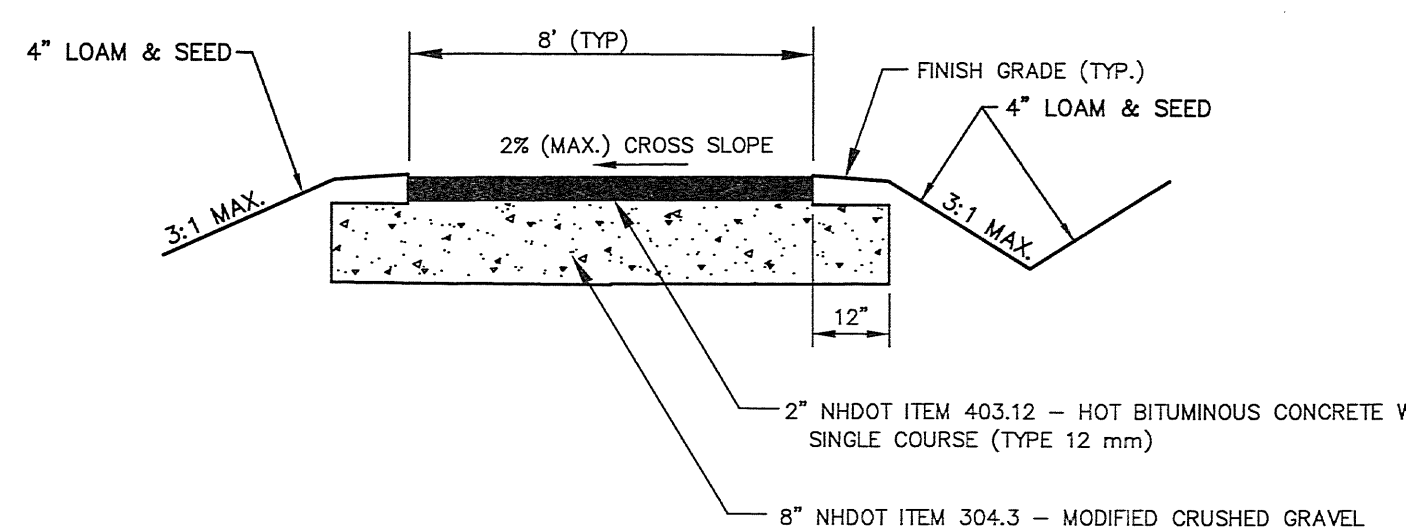
CURB RAMP NOT TO SCALE

ADDITIONAL NOTES APPLICABLE TO ALL CURB RAMPS:

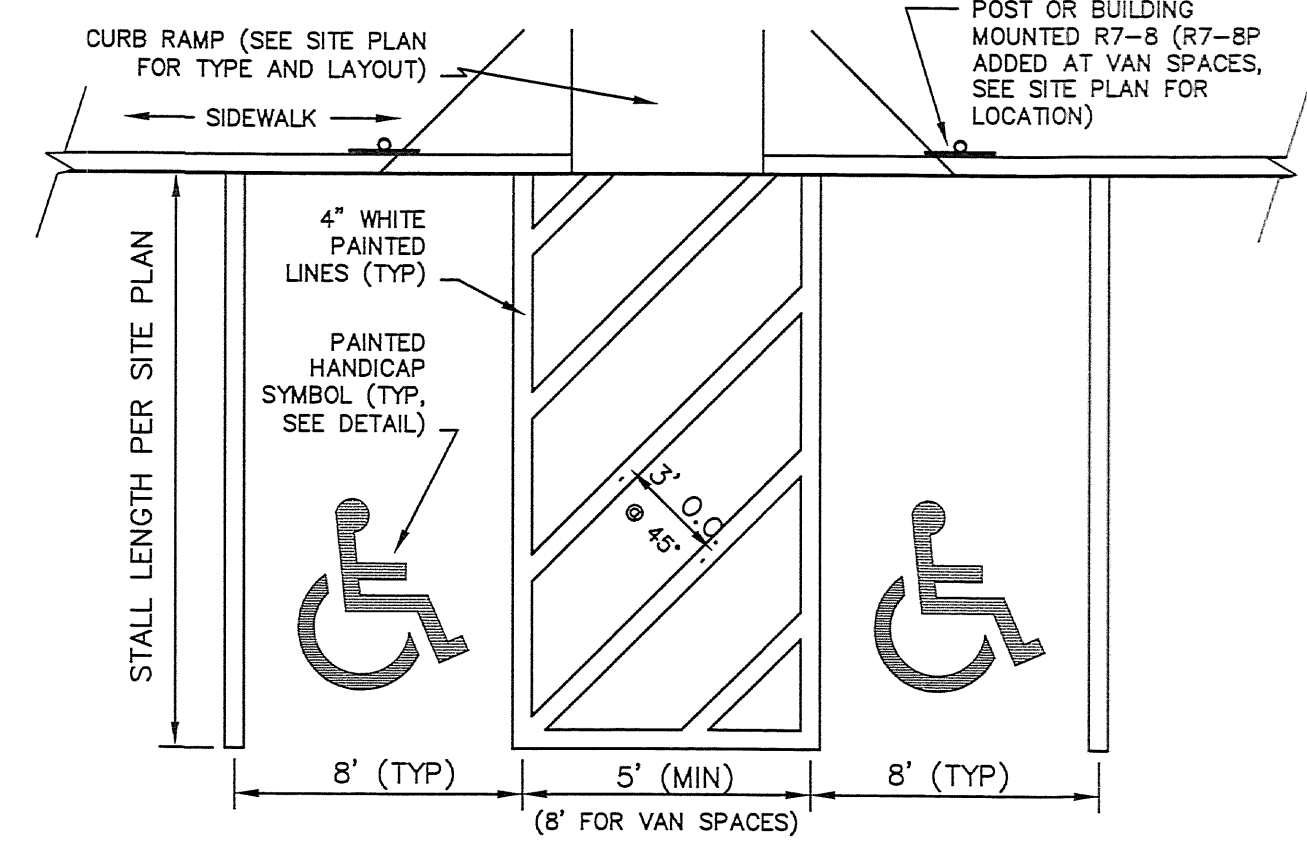
1. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA) AND ALL APPLICABLE CODES.
2. THE MAXIMUM ALLOWABLE CROSS SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 2%.
3. THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
4. THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) CURB RAMP SHALL BE 8.3% FOR A MAXIMUM ELEVATION CHANGE OF 6\"/>
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT THE PONDING OF WATER. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
7. FLUSH CURB SECTIONS SHALL HAVE A MAXIMUM LIP REVEAL OF 1/4\"/>
8. EDGES OF SIDEWALK FOOTINGS ALONG FLUSH CURBS SHALL BE HAUNCHED SO AS TO EXTEND TO A MINIMUM DEPTH OF 1\"/>
9. NO RAMP SHALL BE LESS THAN 4\"/>
10. CURB RAMPS SHALL HAVE A FLAT 2% MAX LANDING AT THE TOP AND BOTTOM OF THE RAMPS WHEN THERE IS A CHANGE IN DIRECTION.



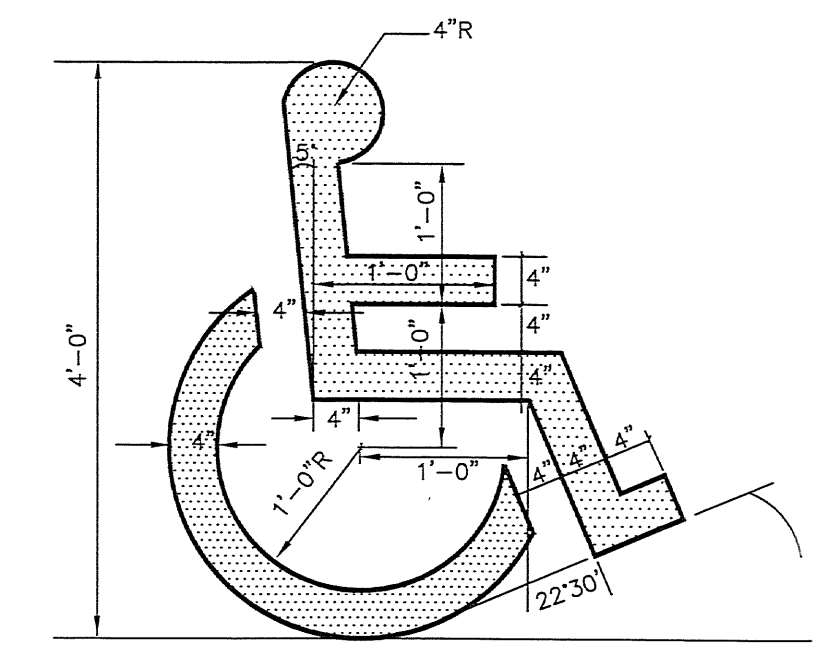
TYPICAL PAVEMENT SAWCUT NOT TO SCALE



BITUMINOUS CONCRETE SIDEWALK NOT TO SCALE



PARKING STALL LAYOUT NOT TO SCALE



NOTES:

1. SYMBOL TO BE PAINTED IN ALL HANDICAPPED ACCESSIBLE SPACES IN WHITE PAINT (BLUE-PAINTED SQUARE BACKGROUND OPTIONAL).

PAINTED ADA SYMBOL NOT TO SCALE

ENGINEER:

ALTUS
ENGINEERING, INC.

133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

ISSUED FOR: **DESIGN REVIEW**

ISSUE DATE: **JUNE 26, 2019**

REVISIONS:

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	CDB	06/28/19

DRAWN BY: _____ CDB
APPROVED BY: _____ EDW
DRAWING FILE: _____ 4950.DWG

SCALE:

NOT TO SCALE

OWNER/APPLICANT:

BETHEL ASSEMBLY
OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

PROJECT:

MIXED-USE
DEVELOPMENT
SITE

200 CHASE DRIVE
PORTSMOUTH, NH

ASSESSOR'S PARCEL
210-2

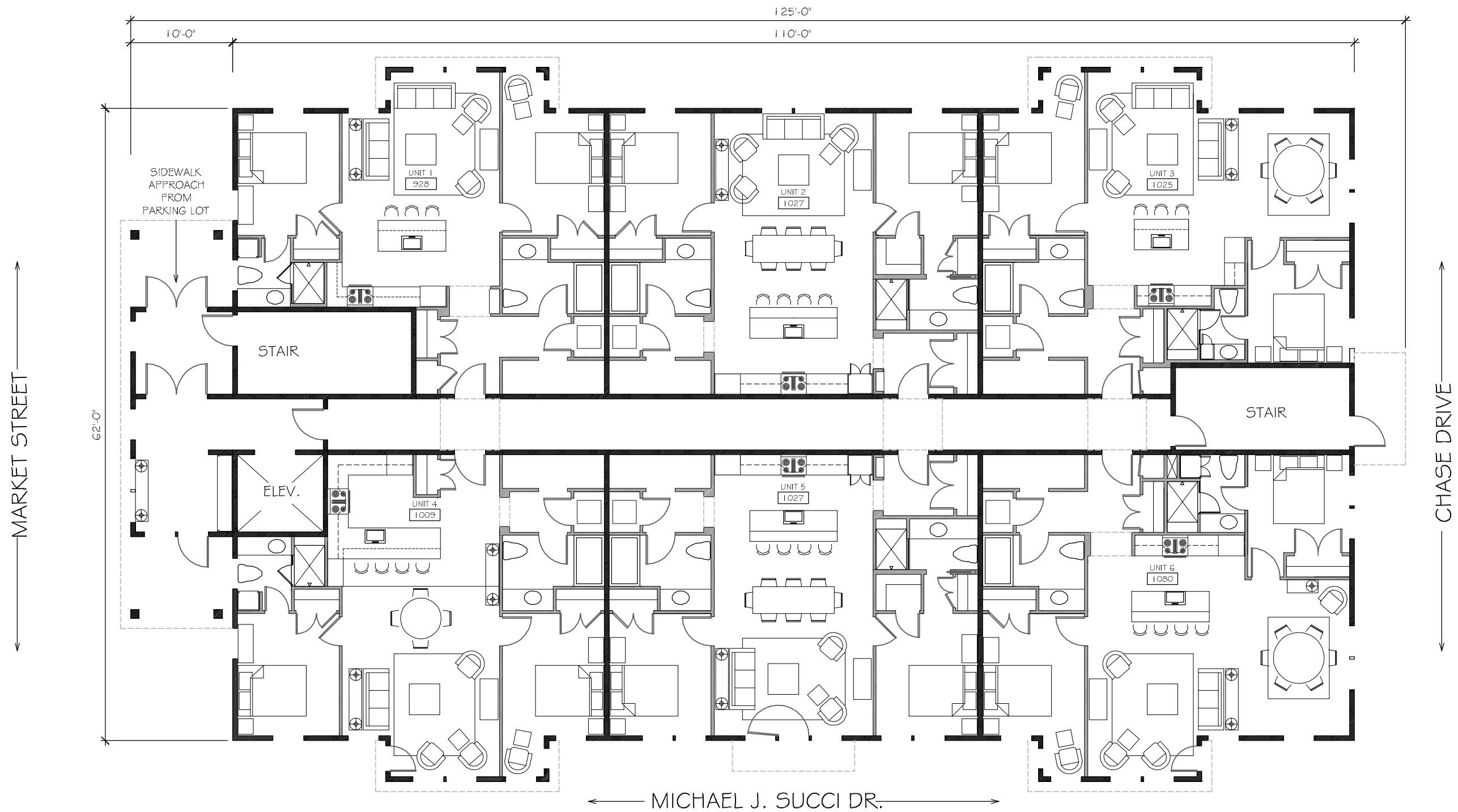
TITLE:

CONSTRUCTION
DETAILS

SHEET NUMBER:

D.7

P4950



SUBDIVISION at 200 CHASE DRIVE
PORTSMOUTH, NEW HAMPSHIRE

FIRST FLOOR PLAN SKETCH
(SIMILAR TO 2nd, 3rd Floor. 4th FLOOR IS SMALLER WITH LESS UNITS)

7.2019
 $\frac{3}{32} = 1'-0"$



200 Chase Ave, Portsmouth, NH
June 2019

Artist Renderings of Michael Succi Drive Elevation

