

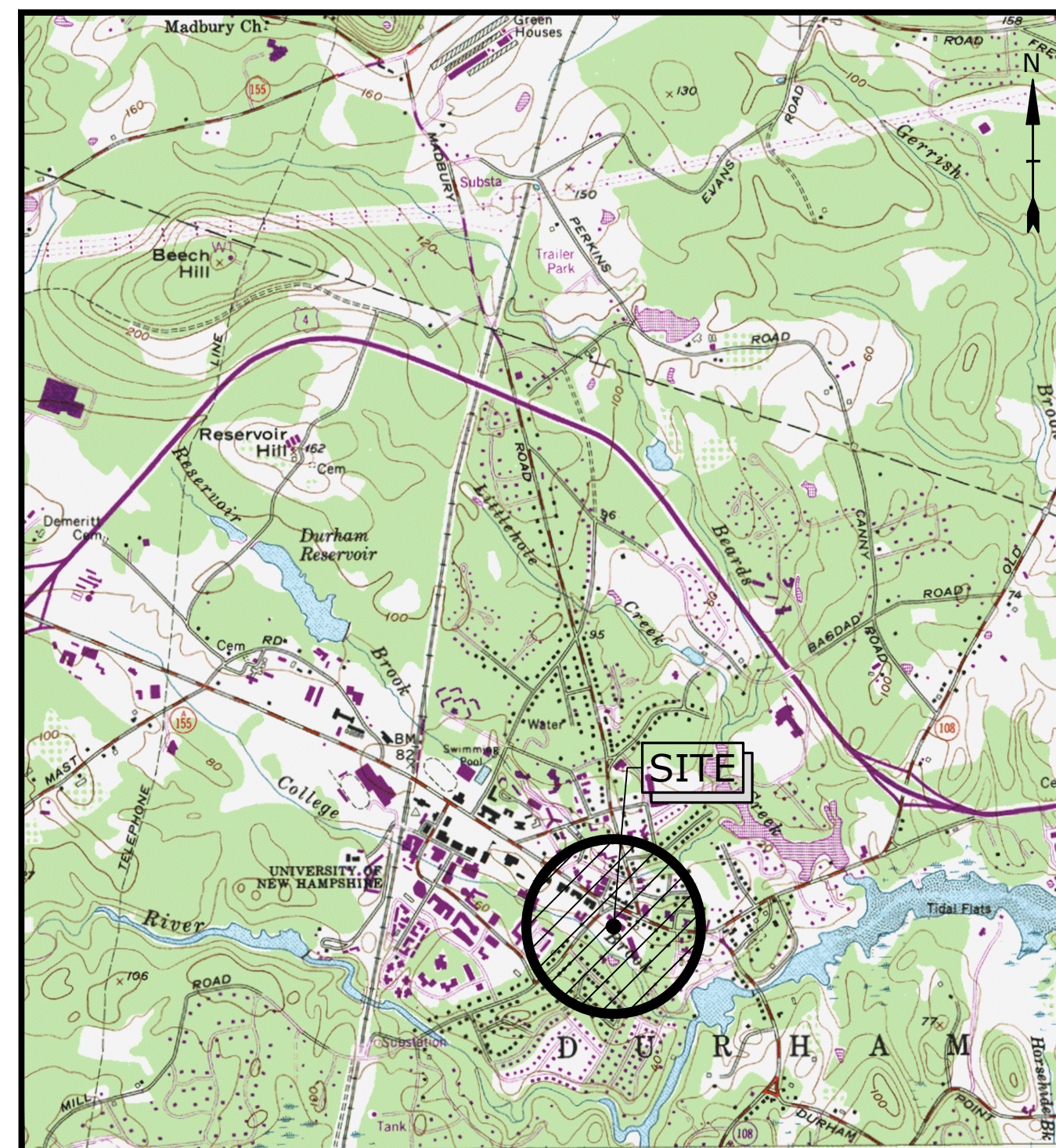
MILL PLAZA REDEVELOPMENT

DURHAM, NEW HAMPSHIRE

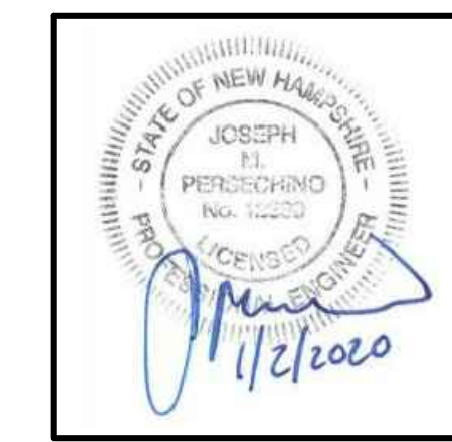
SITE PLANS

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	1/2/2020
G-101	NOTES AND LEGEND SHEET	1/2/2020
C-101	EXISTING CONDITIONS AND DEMOLITION PLAN	1/2/2020
C-102	SITE PLAN	1/2/2020
C-103	GRADING, DRAINAGE, AND EROSION CONTROL PLAN	1/2/2020
C-104	UTILITIES PLAN	1/2/2020
C-501	EROSION CONTROL NOTES AND DETAILS SHEET	1/2/2020
C-502	DETAILS SHEET	1/2/2020
C-503	DETAILS SHEET	1/2/2020
C-504	DETAILS SHEET	1/2/2020
C-505	DETAILS SHEET	1/2/2020
C-506	DETAILS SHEET	1/2/2020
C-507	DETAILS SHEET	1/2/2020
C-508	DETAILS SHEET	1/2/2020
C-601	TRUCK TURNING PLAN	1/2/2020
C-701	BUFFER COVERAGE PLAN	1/2/2020
L2.0	LANDSCAPE OVERALL PLAN	1/2/2020
L2.1	PLANTING PLAN	1/2/2020
L2.2	PLANTING PLAN	1/2/2020
L2.3	PLANTING PLAN	1/2/2020
L2.4	ROOF PLANTING PLANS	1/2/2020
L3.0	PLANTING DETAILS	1/2/2020
L3.1	PLANTING DETAILS	1/2/2020
L3.2	PLANTING DETAILS	1/2/2020
L4.0	HARDSCAPE OVERALL PLAN	1/2/2020
L4.1	HARDSCAPE PLAN	1/2/2020
L4.2	HARDSCAPE PLAN	1/2/2020
ES10.1	ELECTRICAL SITE LIGHTING PLAN	1/2/2020
A20.1	EXTERIOR ELEVATIONS	1/2/2020
A20.2	EXTERIOR ELEVATIONS	1/2/2020
A20.3	RENDERINGS	1/2/2020
A20.4	RENDERINGS	1/2/2020
A20.5	RENDERINGS	1/2/2020
A30.1	SITE SECTIONS	1/2/2020

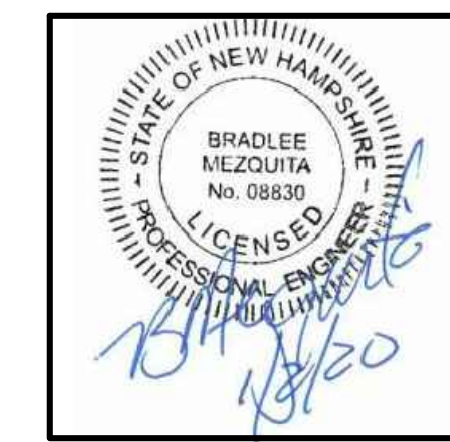
MAY 23, 2018
 REVISED: JANUARY 2, 2020



PREPARED BY:
Tighe & Bond
 Engineers | Environmental Specialists



Joseph M. Persechino, P.E.



Bradlee L. Mezquita, P.E.

OWNER/APPLICANT:
 Colonial Durham Associates, LP
 7 Mill Road, Unit L
 Durham, NH 03824

APPROVED DATE _____
 DURHAM, N.H.
 PLANNING BOARD

THE SITE PLAN REVIEW REGULATIONS OF THE TOWN OF DURHAM ARE A PART OF THIS PLAN, AND APPROVAL OF THIS PLAN IS CONTINGENT UPON COMPLETION OF ALL REQUIREMENTS OF SAID REGULATIONS, EXCEPTING ONLY MODIFICATIONS MADE IN WRITING BY THE BOARD AND ATTACHED HERETO.

PERMIT/APPROVAL	APPROVED	EXPIRES	NUMBER
Town of Durham Site Plan Approval	PENDING	-	-
Town of Durham Conditional Use Approval	PENDING	-	-
NHDES Sewer Connection Permit	PENDING	-	-
NHDES Alteration of Terrain Permit	PENDING	-	-

COMPLETE SET 34 SHEETS



CONSTRUCTION NOTES:
 1. THE CONTRACTOR SHALL NOT RELY ON SCALED DIMENSIONS AND SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF A REQUIRED DIMENSION IS NOT PROVIDED ON THE PLANS.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND FOR SITE CONDITIONS THROUGHOUT CONSTRUCTION. NEITHER THE PLANS NOR THE SEAL OF THE ENGINEER AFFIXED HEREON EXTEND TO OR INCLUDE SYSTEMS REQUIRED FOR THE SAFETY OF THE CONTRACTOR, THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND IMPLEMENTING SAFETY PROCEDURES AND SYSTEMS AS REQUIRED BY THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ANY STATE OR LOCAL SAFETY REGULATIONS.
 3. TIGHE & BOND, ASSUMES NO RESPONSIBILITY FOR ANY ISSUES LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION OF TIGHE & BOND.

UTILITY POLE TABLE

UP1	NETT/4/PSNH/7/1C
UP2	PSNH/7/1A W/EMETER & POWER DOWN
UP3	NO #S W/ POWER DOWN
UP4	BELL ATL3/PSNH/7/1B

SPECIAL NOTE:
CONTRACTOR TO INSTALL INLET PROTECTION BARRIERS (SILT SACK OR APPROVED EQUAL) ON EXISTING CATCH BASINS WITHIN THE LIMIT OF WORK, REGARDLESS IF THEY ARE TO REMAIN AFTER CONSTRUCTION OR NOT. THE INLET PROTECTION BARRIER SHALL BE MAINTAINED UNTIL THE BASIN IS REMOVED, OR UNTIL THE AREA DRAINING TO THE BASIN IS STABILIZED.

LINE TABLE

LINE	BEARING	LENGTH
L1	S 181°02' W	53.66
L2	N 52°35'58" W	19.00
L3	N 38°10'02" E	90.03
L4	N 38°10'02" E	35.55
L5	N 40°50'02" E	50.00
L6	N 45°12'02" E	50.00
L7	N 53°08'02" E	50.00
L8	N 56°28'02" E	50.00
L9	N 61°53'02" E	50.00
L10	N 70°08'02" E	50.00
L11	N 76°50'04" E	49.51
L12	N 241°44'5" E	70.11
L13	N 45°12'02" W	101.33
L14	N 65°59'15" W	50.72
L15	S 65°01'23" E	39.09
L16	S 22°46'30" W	24.21
L17	S 63°41'45" E	83.00
L18	S 08°14'13" E	31.64
L19	S 43°53'42" E	57.85
L20	S 42°58'39" E	18.49
L21	S 55°08'52" E	12.01
L22	N 15°04'04" E	13.33
L23	S 15°11'13" W	34.41
L24	S 69°27'57" E	43.18
L25	S 78°09'27" E	24.73

MONUMENT TABLE

1	1" SMOOTH IRON ROD FOUND, UP 6" (HELD)
2	3/4" THREADED IRON ROD FOUND, UP 15", LOOSE & LEANING, LOCATED AT BASE
3	1" SMOOTH IRON ROD FOUND, UP 22", LOOSE & LEANING, LOCATED AT BASE (HELD)
4	1 1/4" SMOOTH IRON ROD FOUND, UP 12" (HELD)
5	1" SMOOTH IRON ROD FOUND, DOWN 7" (HELD)
6	1" IRON PIPE FOUND, WITH CRIMPED TOP, FLUSH (HELD)
7	5/8" RE-BAR, WITH I.D. CAP, SET UP 1"

TBM TABLE (SEE EXISTING CONDITION NOTE #9)

TBM	DESCRIPTION	ELEVATION
"A"	MAG NAIL SET UP 1" IN UTILITY POLE NETT/2/7/2 ON THE SOUTH SIDE OF MILL ROAD	37.96'
"B"	CHISELED SQUARE IN THE CONCRETE BASE OF THE SOUTHEASTERN MOST LIGHT POLE IN FRONT OF DOMINGS PIZZA	39.67'

SEWER STRUCTURE TABLE

SMH 1127	RIM=41.8' (1) INV. 4" CIP=36.6' (2) INV. 8" ASBESTOS=32.1' (3) INV. 8" ASBESTOS=32.0'
SMH 1128	RIM=41.2' (1) INV. 8" ASBESTOS=35.1' (2) INV. 8" ASBESTOS=35.0' (3) INV. 8" CIP=36.1'
SMH 1311	RIM=35.1' (1) & (4) INV. 18" UNKNOWN CENTER CHANNEL=19.6' (2) INV. 8" UNKNOWN=20.9' (3) INV. 8" ASBESTOS=27.7'
SMH 1312	RIM=41.2' (1) & (3) INV. 18" UNKNOWN CENTER CHANNEL=18.0' (2) INV. UNKNOWN=19.4
SMH 1601	RIM=34.0' (2) & (3) INV. 18" UNKNOWN CENTER CHANNEL=19.6' (1) INV. 8" ASBESTOS=20.9' (4) INV. 8" UNKNOWN=24.6'
SMH 1765	RIM=36.7' (1) & (2) INV. 8" ASBESTOS CENTER CHANNEL=31.3'
SMH 1775	RIM=29.0' LARGE BOULDER ON COVER
SMH 1927	RIM=39.3' (1) & (2) INV. 8" ASBESTOS CENTER CHANNEL=34.1'
SMH 2638	RIM=32.5' (1) INV. 18" UNKNOWN CENTER CHANNEL (1) & (2)=20.7'

DRAINAGE STRUCTURE TABLE

CB 1011	RIM=32.0' (1) INV. 18" RCP=26.5' (2) INV. 24" RCP=26.8'
CB 1012	RIM=31.9' (1) INV. 18" RCP=26.7' (2) INV. 18" RCP=26.7'
CB 1062	RIM=33.1' (1) INV. 18" RCP=27.2' (2) INV. 18" RCP=27.2'
DMH 1129	RIM=42.1' (1) INV. 6" CIP=36.4' (2) INV. 8" CIP=35.1' (3) INV. 8" CIP=35.2'
DMH 1768	RIM=36.2' (1) INV. 12" CMP=29.8' (2) INV. 8" ASBESTOS=29.8' (3) INV. 12" CMP=29.6'
CB 1769	RIM=29.1' (1) INV. 12" CMP=24.2' (2) INV. 18" CMP=23.9'
CB 1912	RIM=36.3' INV. OUT 15" CMP=25.1'
CB 2196	RIM=41.7' W/VERTICAL 12" CPP & PVC PIPES FROM BUILDING INV. OUT 12" CPP=37.4'
CB 2198	RIM=41.2' (1) INV. 12" CPP=35.1' (2) INV. 15" CPP=34.7'
CB 2214	RIM=39.4' (1) INV. 15" CMP=33.4' (2) INV. 8" CIP=33.9' (3) INV. 15" CPP=33.6' (4) INV. 12" CMP=35.7' (5) INV. 8" ASBESTOS=33.7'
DMH 2452	RIM=38.0' (1) INV. 8" PVC=33.3' (2) INV. 15" RCP=30.4' (3) INV. 15" RCP
CB 2453	RIM=38.3' INV. OUT 8" PVC=34.7'
CB 2504	RIM=46.7' SUMP ONLY
CB 2714	RIM=35.3' INV. OUT 10" CPP=32.0'
CB 2717	RIM=39.0' INV. OUT 12" CMP=35.7'
CB 2720	RIM=33.3' (1) INV. 18" RCP=27.9' (2) INV. 15" RCP=28.1'
GRATE DRAIN	RIM=38.0' INV. OUT 6" PVC= 36.8'

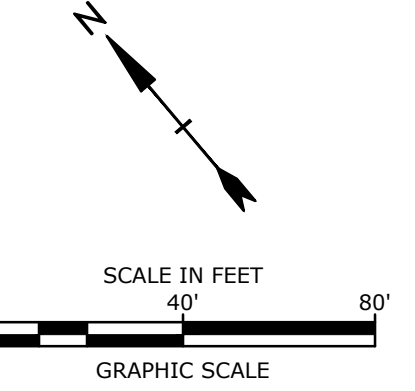
Tighe & Bond
Engineers | Environmental Specialists



Harriman Project No. 16117



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**



**Mill Plaza
Redevelopment**

**Colonial Durham
Associates, LP**

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	GENERAL REVISIONS
	1/2/2020	GENERAL REVISIONS

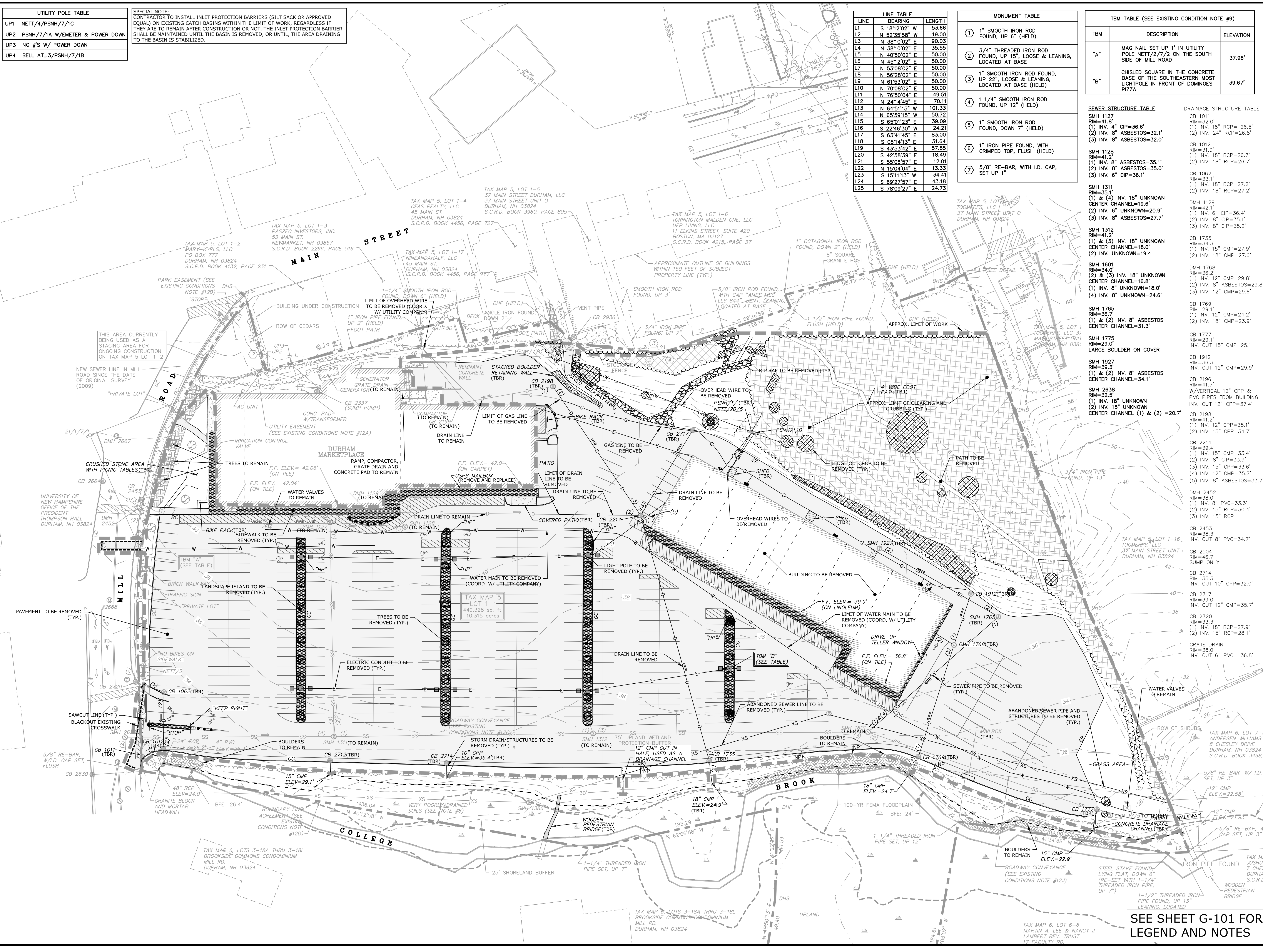
PROJECT NO: M1529-002
DATE: 5/23/2018
FILE: M1529-002-C-DEMO.dwg
DRAWN BY: EGD
CHECKED: JMP
APPROVED: BLM

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: AS SHOWN

C-101

SEE SHEET G-101 FOR
LEGEND AND NOTES



C-101.dwg, 19/01/2018
Printed On: Dec 31, 2018 9:14:00am By: EdDorris
Tighe & Bond: \\M1529-002-DEM.dwg

SITE DATA:
(BASED ON TOWN OF DURHAM ZONING ORDINANCE, DATE VARIES/VESTED)
ZONING DISTRICT: CENTRAL BUSINESS DISTRICT (CB)
PERMITTED USES: PARKING, RESTAURANT, RETAIL, OFFICES, MIXED USE/RESIDENTIAL, BANK WITH DRIVE-THROUGH

DIMENSIONAL REQUIREMENTS:

	REQUIRED	PROPOSED
MINIMUM LOT SIZE:	5,000 SF	449,341 SF
MINIMUM LOT AREA PER UNIT:	1,200 SF	1,742 SF (258 UNITS)
MAXIMUM OCCUPANTS:	N/A	258
MINIMUM STREET FRONTAGE:	50 FT	475 FT
MINIMUM FRONT YARD SETBACK:	N/A	N/A
SIDE SETBACK:	N/A	N/A
REAR SETBACK:	N/A	N/A
MAXIMUM IMPERVIOUS SURFACE RATIO:	100%	<100%
MAXIMUM BUILDING HEIGHT:	30 FT	<41 FT
	(50 FT W/ PB APPROVAL)	
MAXIMUM BUILDING HEIGHT (MIXED USE):	4 STORIES	10 STORIES
MINIMUM BUFFER STRIP TO PROPERTY LINE:	5 FT	10 FT
MINIMUM BUFFER STRIP TO ROW:	0 FT	>10 FT

AREA CALCULATIONS:

	EXISTING	PROPOSED
IMPERVIOUS (ACRES)	6.33	6.73
EFFECTIVE IMPERVIOUS COVER (ACRES)	6.33	0.19

PARKING REQUIREMENTS:

	REQUIRED	PROPOSED
STANDARD STALL DIMENSIONS:	9 FT X 18 FT	9 FT X 18 FT
COMPACT STALL DIMENSIONS:	8 FT X 16 FT	8 FT X 16-18 FT
MINIMUM AISLE WIDTH:	22 FT	24 FT
MINIMUM DRIVEWAY WIDTH:	22 FT	24 FT
NUMBER OF ACCESSIBLE SPACES:	12 SPACES	15 SPACES
2% OF TOTAL FOR 501 TO 1000 SPACES		

NON-RESIDENTIAL PARKING REQUIREMENTS

	REQUIRED	PROPOSED
BANK: 1 PER 250 SF (3,505 SF)	14 SPACES	16 + 6 SPACES
RESTAURANT <4,000 SF: 1 PER 100 SF + 1 PER EMPLOYEE (1,600 SF)	46 SPACES	64 SPACES
RESTAURANT >4,000 SF: 40 + 1 PER 200 SF OVER 4,000 SF (5,032 SF)	64 SPACES	192 SPACES
PROFESSIONAL OFFICE: 1 PER 350 SF (22,226 SF)	64 SPACES	64 SPACES
RETAIL/COMMERCIAL: 1 PER 250 SF (47,887 SF)	192 SPACES	192 SPACES
NON-RESIDENTIAL TOTAL: (80,250 SF)	338 SPACES	424 SPACES

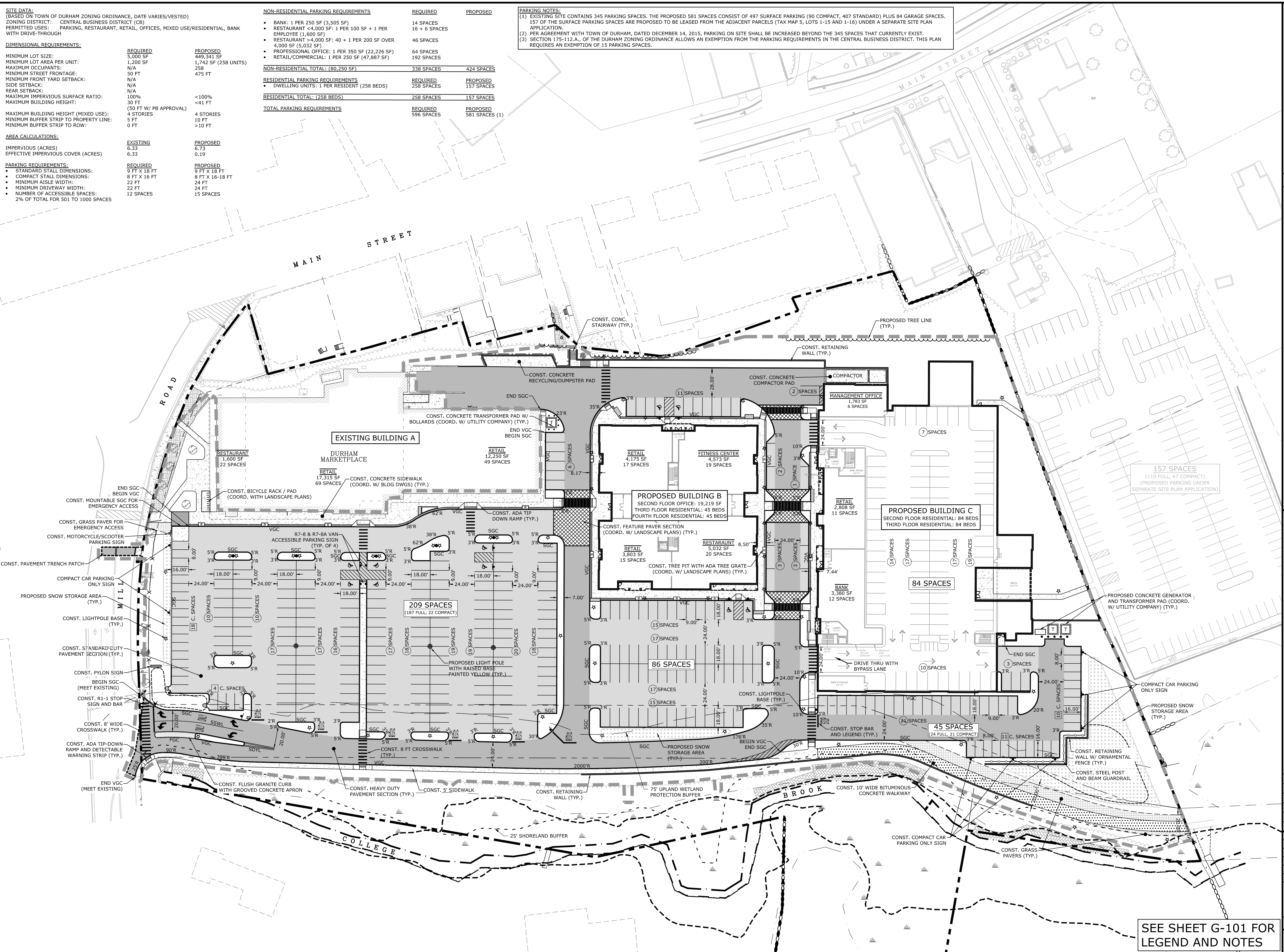
RESIDENTIAL PARKING REQUIREMENTS

	REQUIRED	PROPOSED
DWELLING UNITS: 1 PER RESIDENT (258 BEDS)	258 SPACES	157 SPACES
RESIDENTIAL TOTAL: (258 BEDS)	258 SPACES	157 SPACES

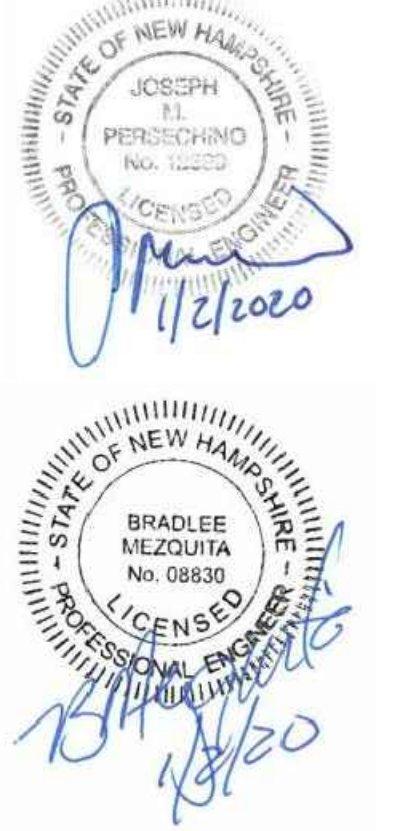
TOTAL PARKING REQUIREMENTS

	REQUIRED	PROPOSED
TOTAL	596 SPACES	581 SPACES (1)

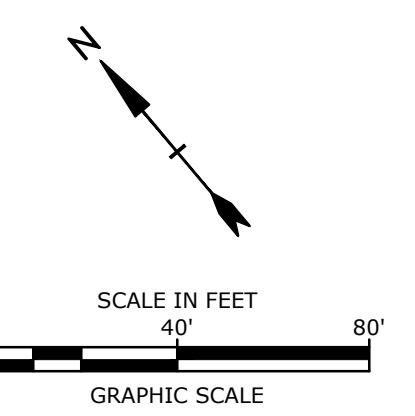
PARKING NOTES:
(1) EXISTING SITE CONTAINS 345 PARKING SPACES. THE PROPOSED 581 SPACES CONSIST OF 497 SURFACE PARKING (90 COMPACT, 407 STANDARD) PLUS 84 GARAGE SPACES. 157 OF THE SURFACE PARKING SPACES ARE PROPOSED TO BE LEASED FROM THE ADJACENT PARCELS (TAX MAP 5, LOTS 1-15 AND 1-16) UNDER A SEPARATE SITE PLAN APPLICATION.
(2) PER AGREEMENT WITH TOWN OF DURHAM, DATED DECEMBER 14, 2015, PARKING ON SITE SHALL BE INCREASED BEYOND THE 345 SPACES THAT CURRENTLY EXIST.
(3) SECTION 175-112.A., OF THE DURHAM ZONING ORDINANCE ALLOWS AN EXEMPTION FROM THE PARKING REQUIREMENTS IN THE CENTRAL BUSINESS DISTRICT. THIS PLAN REQUIRES AN EXEMPTION OF 15 PARKING SPACES.



Harriman Project No. 16117



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**



**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS
	5/23/2018	

PROJECT NO: M1529-002
DATE: 5/23/2018
FILE: M1529-002_C-SITE.dwg
DRAWN BY: EGD
CHECKED: JMP
APPROVED: BLM

SITE PLAN
SCALE: AS SHOWN
C-102

SEE SHEET G-101 FOR
LEGEND AND NOTES

Date Saved: 1/2/2020
 Plotted On: Jan 02, 2020 10:10:10 AM By: E.Doremus
 Tighe & Bond \31\1529\1529_Mill Plaza Drawings - Figures\AutoCAD\Sheet\M1529-002_C-SITE.dwg

DRAINAGE STRUCTURE TABLE

CB 1011
RIM=32.0'
(1) INV. 18" RCP=26.5'
(2) INV. 24" RCP=26.8'

CB 1012
RIM=31.9'
(1) INV. 18" RCP=26.7'
(2) INV. 18" RCP=26.7'

CB 1062
RIM=33.1'
(1) INV. 18" RCP=27.2'
(2) INV. 18" RCP=27.2'

DMH 1129
RIM=42.1'
(1) INV. 6" CIP=36.4'
(2) INV. 8" CIP=35.1'
(3) INV. 8" CIP=35.2'

CB 1735
RIM=34.3'
(1) INV. 15" CMP=27.9'
(2) INV. 18" CMP=27.6'

DMH 1768
RIM=36.2'
(1) INV. 12" CMP=29.8'
(2) INV. 8" ASBESTOS=29.8'
(3) INV. 12" CMP=29.6'

CB 1769
RIM=32.5'
(1) INV. 12" CMP=27.6'
(2) INV. 18" CMP=27.3'

CB 1777
RIM=29.1'
INV. OUT 15" CMP=25.1'

CB 1912
RIM=36.3'
INV. OUT 12" CMP=29.9'

CB 2196
RIM=41.7'
W/VERTICAL 12" CPP & PVC PIPES FROM BUILDING
INV. OUT 12" CPP=37.4'

CB 2198
RIM=41.2'
(1) INV. 12" CPP=35.1'
(2) INV. 15" CPP=34.7'

CB 2214
RIM=39.4'
(1) INV. 15" CMP=33.4'
(2) INV. 8" CIP=33.9'
(3) INV. 15" CPP=33.6'
(4) INV. 12" CMP=33.7'
(5) INV. 8" ASBESTOS=33.7'

DMH 2452
RIM=38.0'
(1) INV. 8" PVC=33.3'
(2) INV. 15" RCP=30.4'
(3) INV. 15" RCP

CB 2453
RIM=38.3'
INV. OUT 8" PVC=34.7'

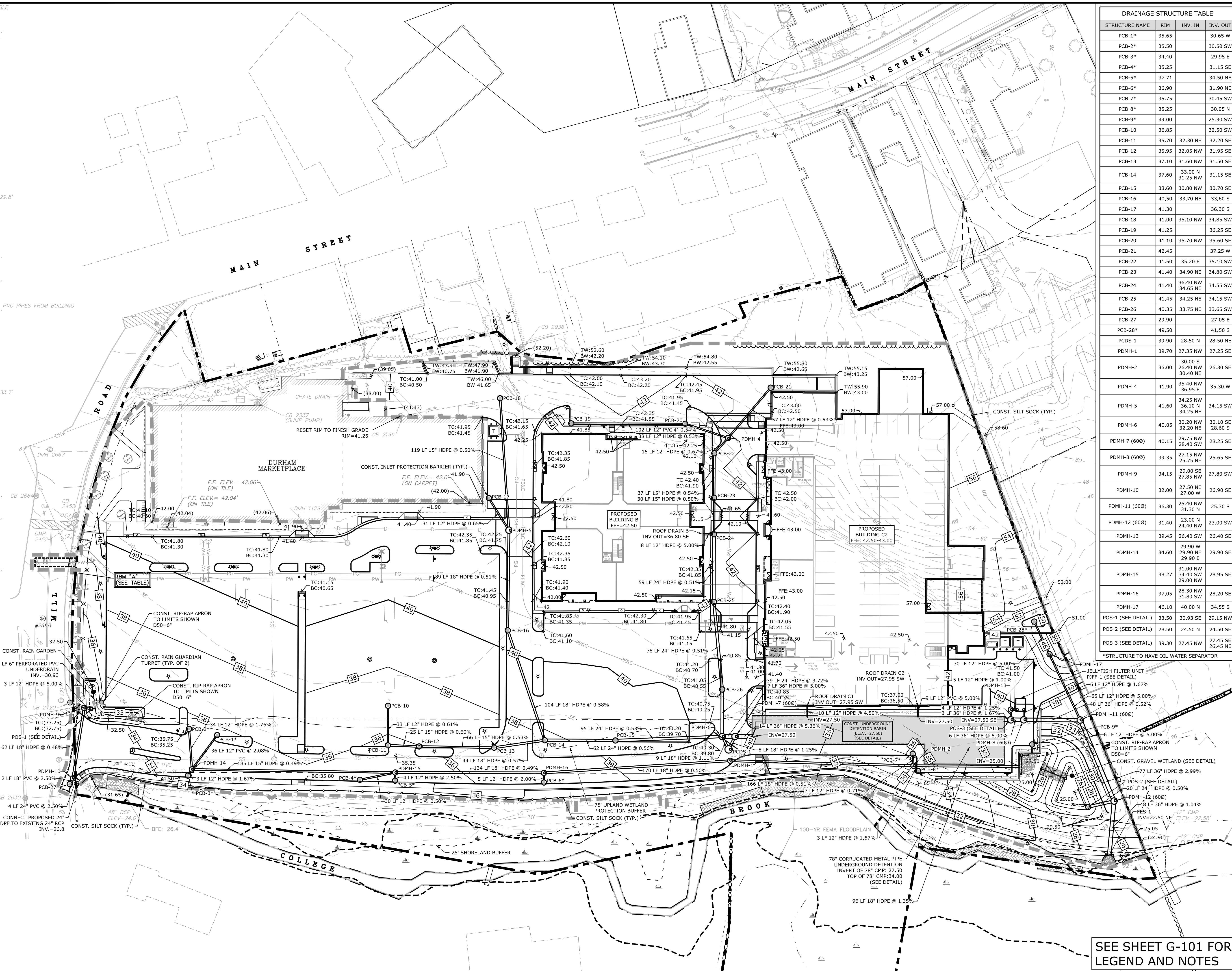
CB 2504
RIM=46.7'
SUMP ONLY

CB 2714
RIM=35.3'
INV. OUT 10" CPP=32.0'

CB 2717
RIM=32.0'
INV. OUT 12" CMP=35.7'

CB 2720
RIM=33.1'
(1) INV. 18" RCP=27.9'
(2) INV. 15" RCP=28.1'

GRATE DRAIN
RIM=38.0'
INV. OUT 6" PVC=36.8'



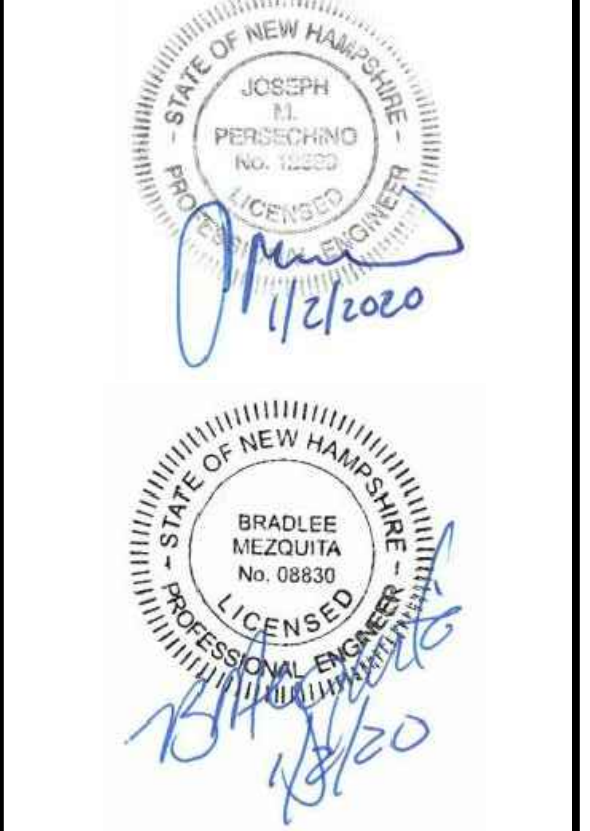
DRAINAGE STRUCTURE TABLE

STRUCTURE NAME	RIM	INV. IN	INV. OUT
PCB-1*	35.65		30.65 W
PCB-2*	35.50		30.50 SW
PCB-3*	34.40		29.95 E
PCB-4*	35.25		31.15 SE
PCB-5*	37.71		34.50 NE
PCB-6*	36.90		31.90 NE
PCB-7*	35.75		30.45 SW
PCB-8*	35.25		30.05 N
PCB-9*	39.00		25.30 SW
PCB-10	36.85	32.30 N	32.50 SW
PCB-11	35.70	32.30 NE	32.20 SE
PCB-12	35.95	32.05 NW	31.95 SE
PCB-13	37.10	31.60 NW	31.50 SE
PCB-14	37.60	33.00 N	31.15 SE
PCB-15	38.60	30.80 NW	30.70 SE
PCB-16	40.50	33.70 NE	33.60 S
PCB-17	41.30		36.30 S
PCB-18	41.00	35.10 NW	34.85 SW
PCB-19	41.25		36.25 SE
PCB-20	41.10	35.70 NW	35.60 SE
PCB-21	42.45		37.25 W
PCB-22	41.50	35.20 E	35.10 SW
PCB-23	41.40	34.90 NE	34.80 SW
PCB-24	41.40	36.40 NW	34.55 SW
PCB-25	41.45	34.25 NE	34.15 SW
PCB-26	40.35	33.75 NE	33.65 SW
PCB-27	29.90		27.05 E
PCB-28*	49.50		41.50 S
PCDS-1	39.90	28.50 N	28.50 NE
PDMH-1	39.70	27.35 NW	27.25 SE
PDMH-2	36.00	30.00 S	26.30 SE
PDMH-3	36.00	26.40 NW	30.40 NE
PDMH-4	41.90	35.40 NW	35.30 W
PDMH-5	41.60	34.25 NW	34.15 SW
PDMH-6	40.05	30.20 NW	28.60 S
PDMH-7 (600)	40.15	29.75 NW	28.25 SE
PDMH-8 (600)	39.35	27.15 NW	25.65 SE
PDMH-9	34.15	29.00 SE	27.80 SW
PDMH-10	32.00	27.50 NE	26.90 SE
PDMH-11 (600)	36.30	25.40 NW	25.30 S
PDMH-12 (600)	31.40	23.00 N	23.00 SW
PDMH-13	39.45	26.40 SW	26.40 SE
PDMH-14	34.60	29.50 W	29.90 SE
PDMH-15	38.27	31.00 NW	28.95 SE
PDMH-16	37.05	28.30 NW	28.20 SE
PDMH-17	46.10	40.00 N	34.55 S
POS-1 (SEE DETAIL)	33.50	30.93 SE	29.15 NW
POS-2 (SEE DETAIL)	28.50	24.50 N	24.50 SE
POS-3 (SEE DETAIL)	39.30	27.45 NW	27.45 SE

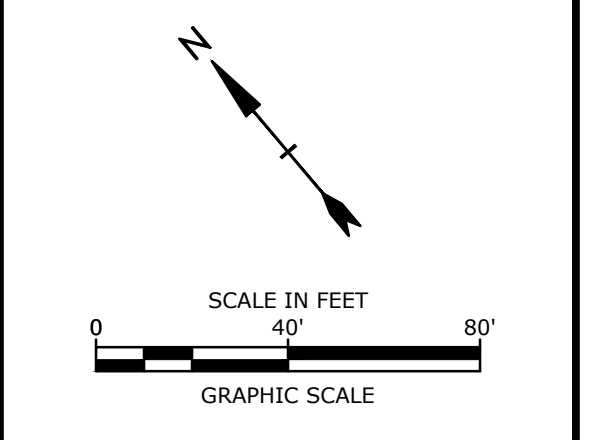
*STRUCTURE TO HAVE OIL-WATER SEPARATOR



Harriman Project No. 16117



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**



Mill Plaza Redevelopment

Colonial Durham Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	GENERAL REVISIONS
	1/27/2020	

PROJECT NO: M1529-002
DATE: 5/23/2018
FILE: M1529-002_C-GRAD.dwg
DRAWN BY: EGD
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APPROVED: BLM

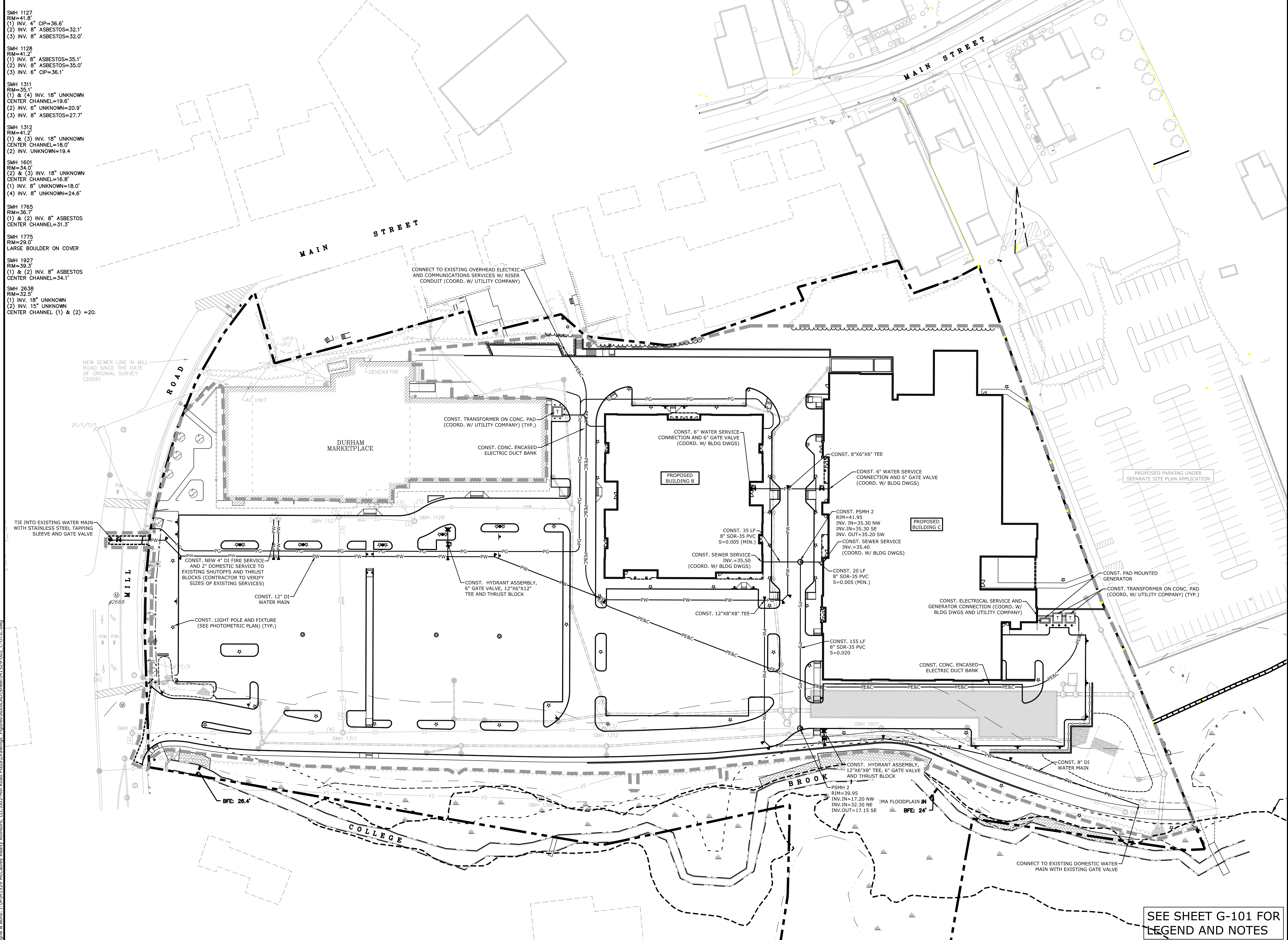
GRADING, DRAINAGE AND
EROSION CONTROL PLAN
SCALE: AS SHOWN
C-103

SEE SHEET G-101 FOR
LEGEND AND NOTES

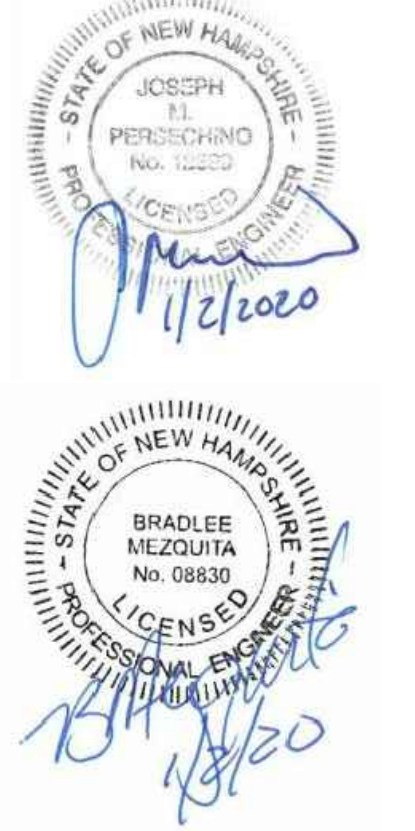
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Plotted On: 01/01/2018 8:21am By: EDeoremus
Tighe & Bond; J:\M1529-002_C-GRAD.dwg

SEWER STRUCTURE TABLE

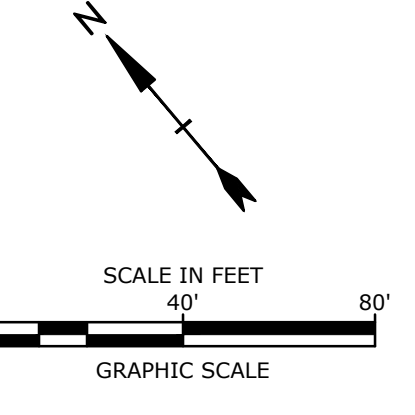
- SMH 1127
RIM=41.8'
(1) INV. 4" CIP=36.6'
(2) INV. 8" ASBESTOS=32.1'
(3) INV. 8" ASBESTOS=32.0'
- SMH 1128
RIM=41.2'
(1) INV. 8" ASBESTOS=35.1'
(2) INV. 8" ASBESTOS=35.0'
(3) INV. 6" CIP=36.1'
- SMH 1311
RIM=35.1'
(1) & (4) INV. 18" UNKNOWN
CENTER CHANNEL=19.6'
(2) INV. 6" UNKNOWN=20.9'
(3) INV. 8" ASBESTOS=27.7'
- SMH 1312
RIM=41.2'
(1) & (3) INV. 18" UNKNOWN
CENTER CHANNEL=18.0'
(2) INV. UNKNOWN=19.4
- SMH 1601
RIM=34.0'
(2) & (3) INV. 18" UNKNOWN
CENTER CHANNEL=16.8'
(1) INV. 8" UNKNOWN=18.0'
(4) INV. 8" UNKNOWN=24.6'
- SMH 1765
RIM=36.7'
(1) & (2) INV. 8" ASBESTOS
CENTER CHANNEL=31.3'
- SMH 1775
RIM=29.0'
LARGE BOULDER ON COVER
- SMH 1927
RIM=39.3'
(1) & (2) INV. 8" ASBESTOS
CENTER CHANNEL=34.1'
- SMH 2638
RIM=32.5'
(1) INV. 18" UNKNOWN
(2) INV. 15" UNKNOWN
CENTER CHANNEL (1) & (2) =20.



Harriman Project No. 16117



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**



**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS
	5/23/2018	

UTILITIES PLAN
SCALE: AS SHOWN
C-104

SEE SHEET G-101 FOR
LEGEND AND NOTES

Plot: Sheet: 1/1/2020
 Plotted On: Jan 01, 2020 8:23am By: EDeRemus
 Tighe & Bond: J:\M1529_Mill Plaza\Drawings - Figures\AutoCAD\Drawings - Figures\M1529-002_C-UTIL.dwg



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**

**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

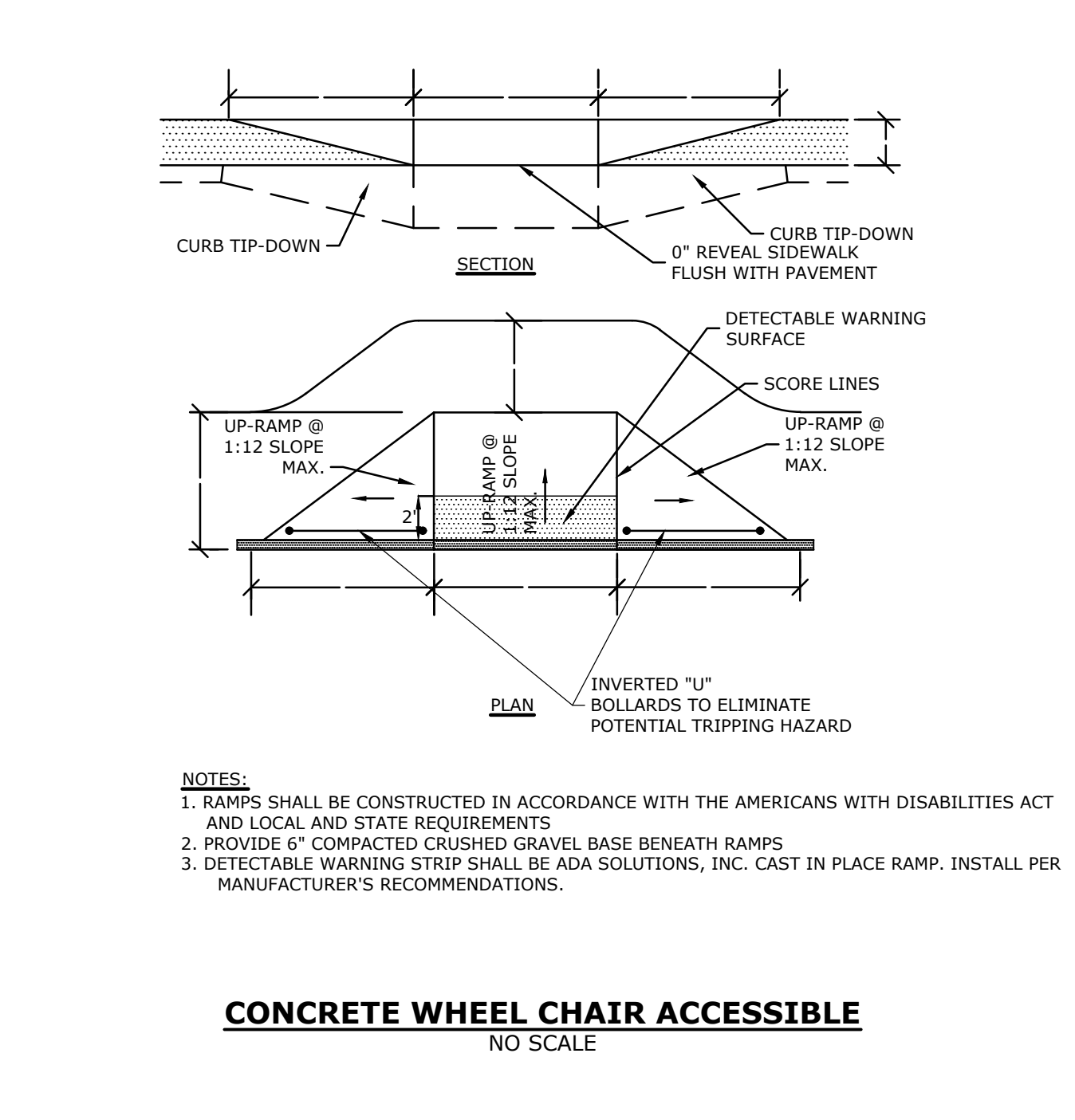
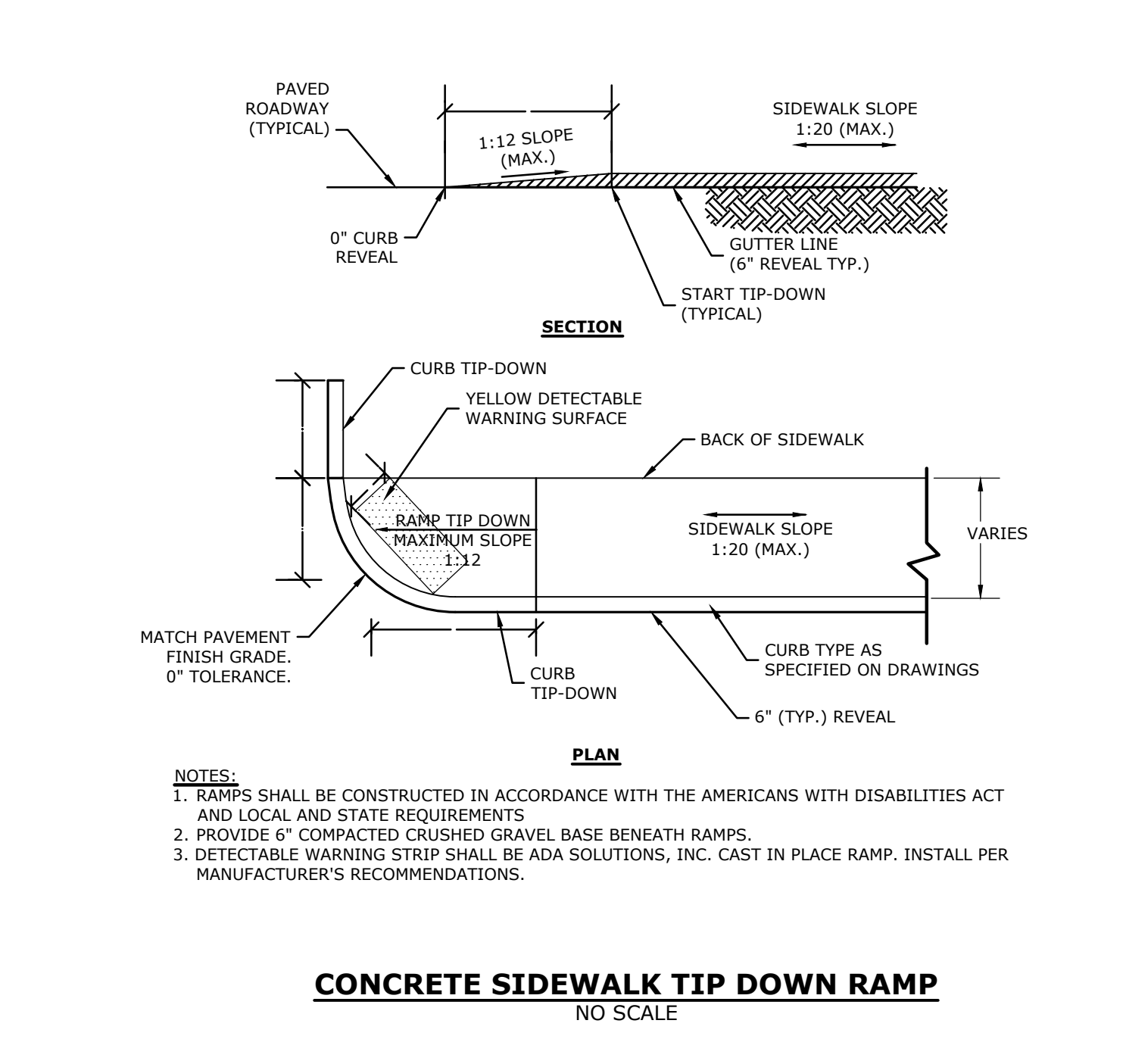
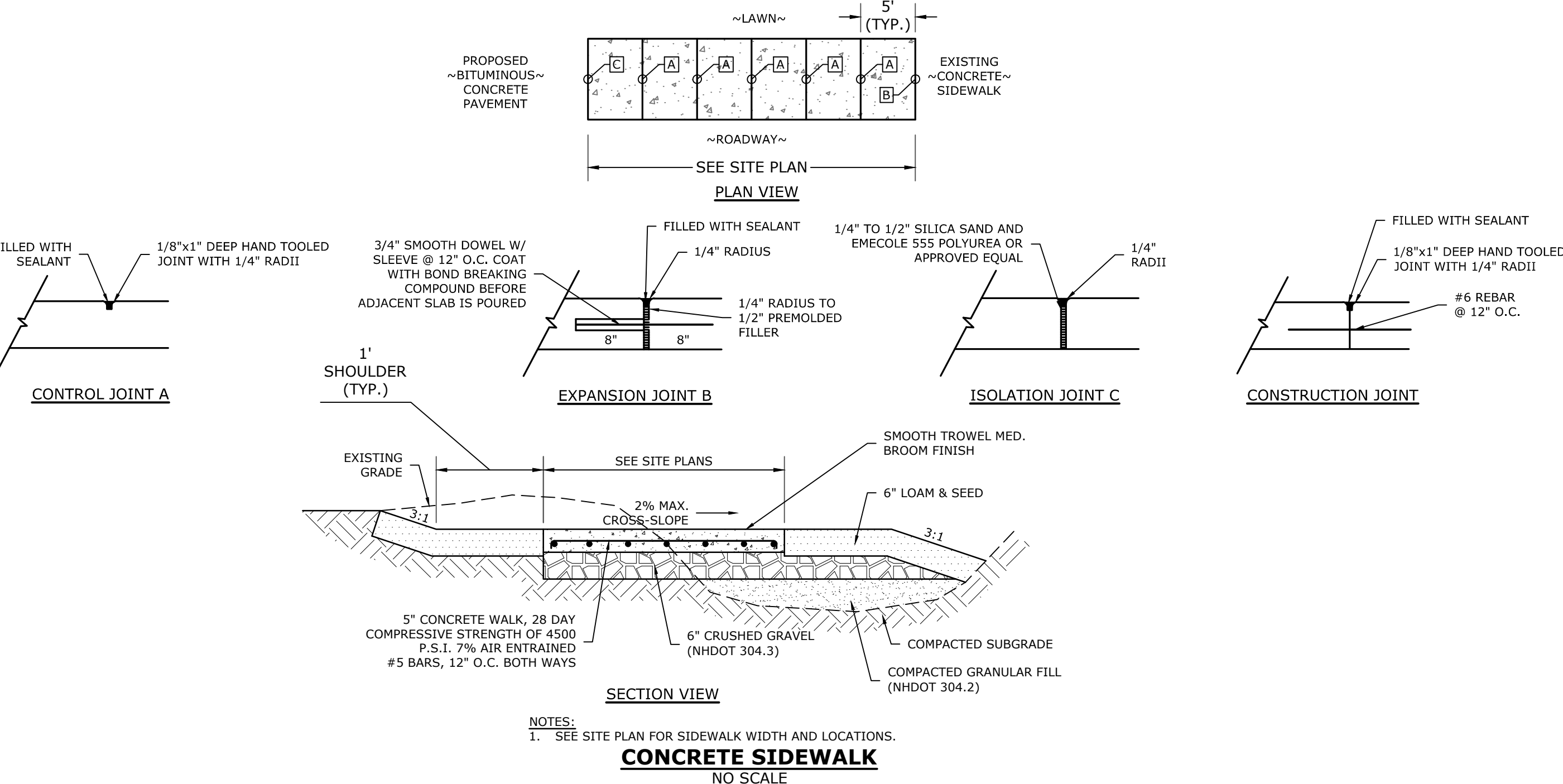
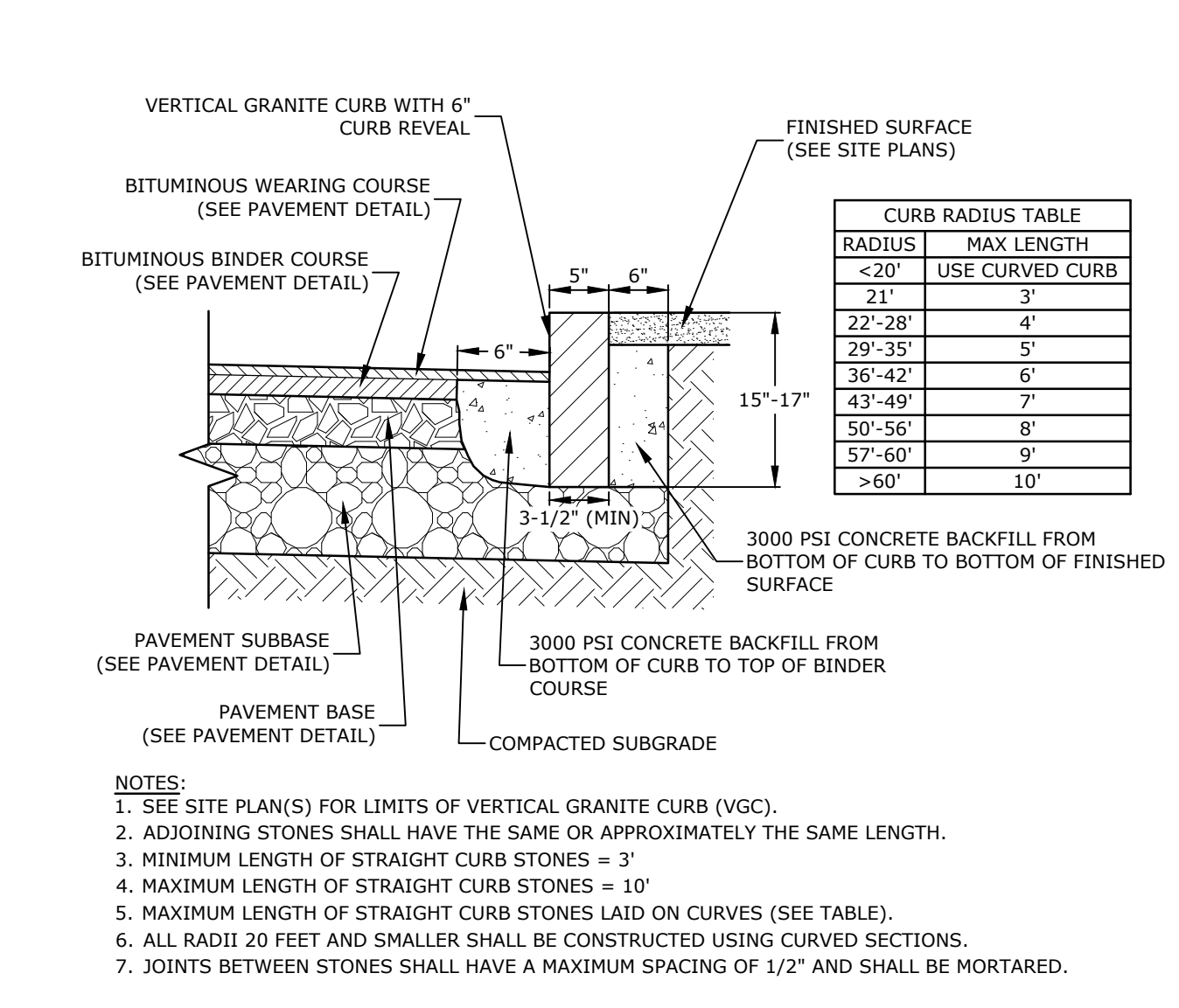
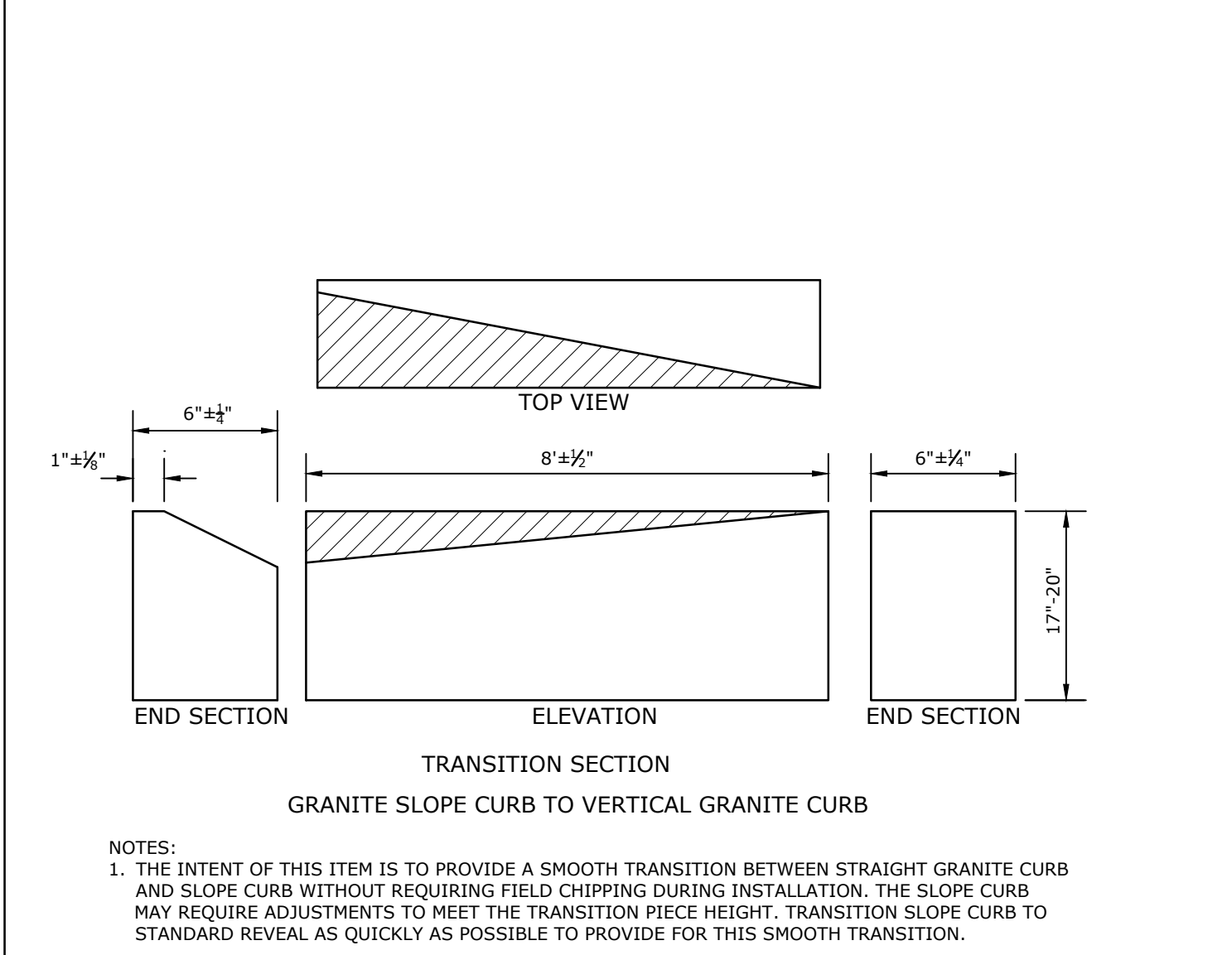
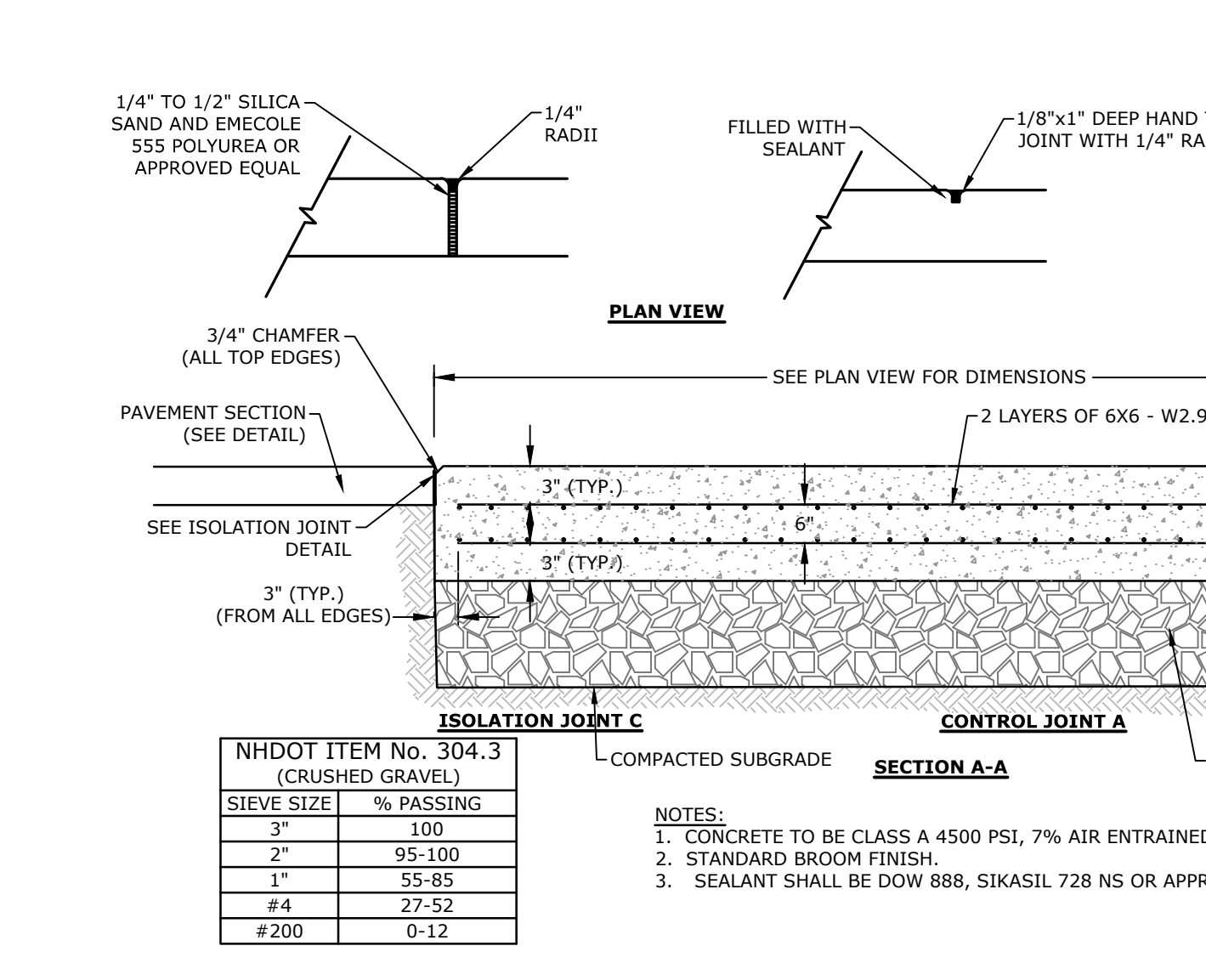
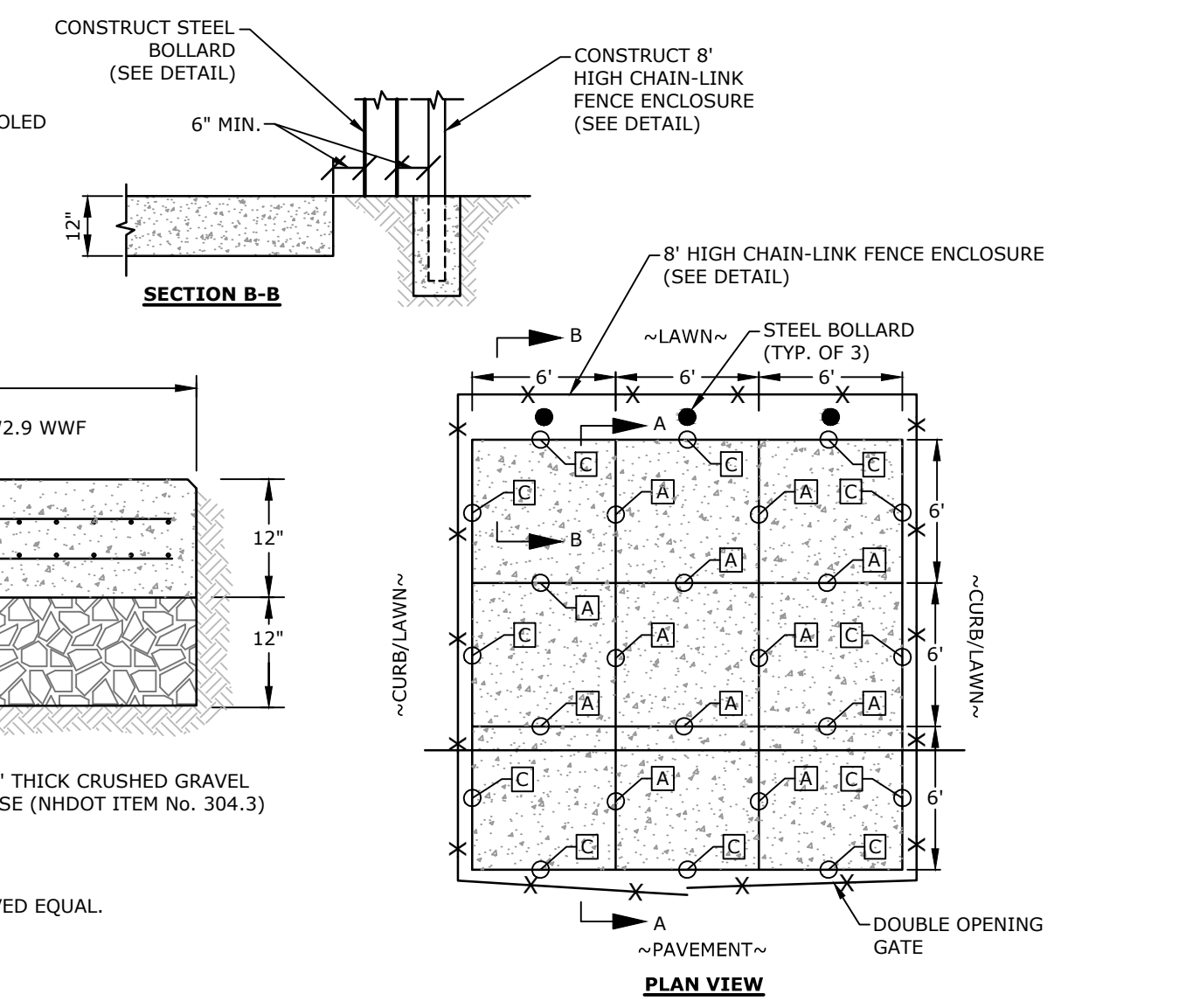
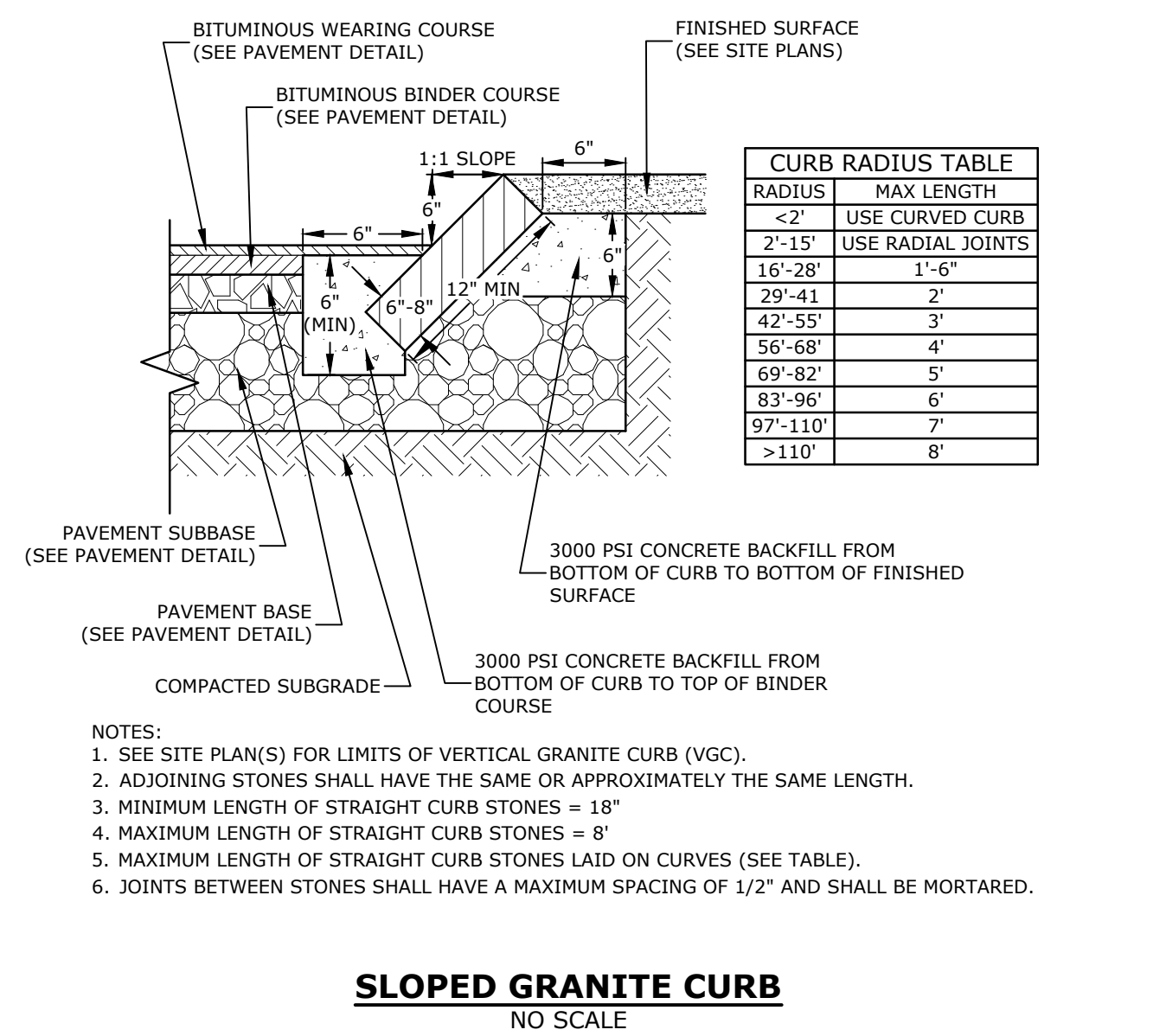
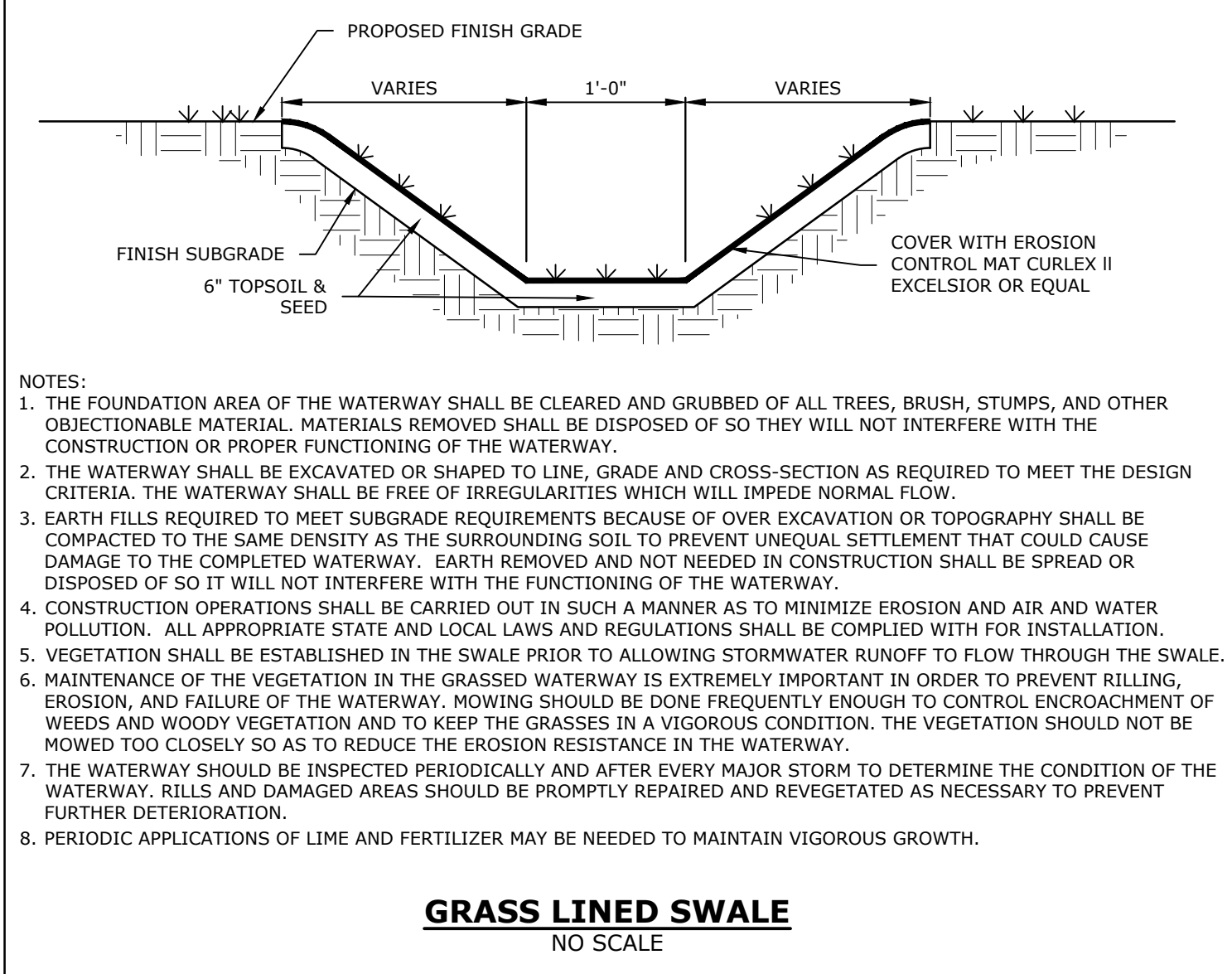
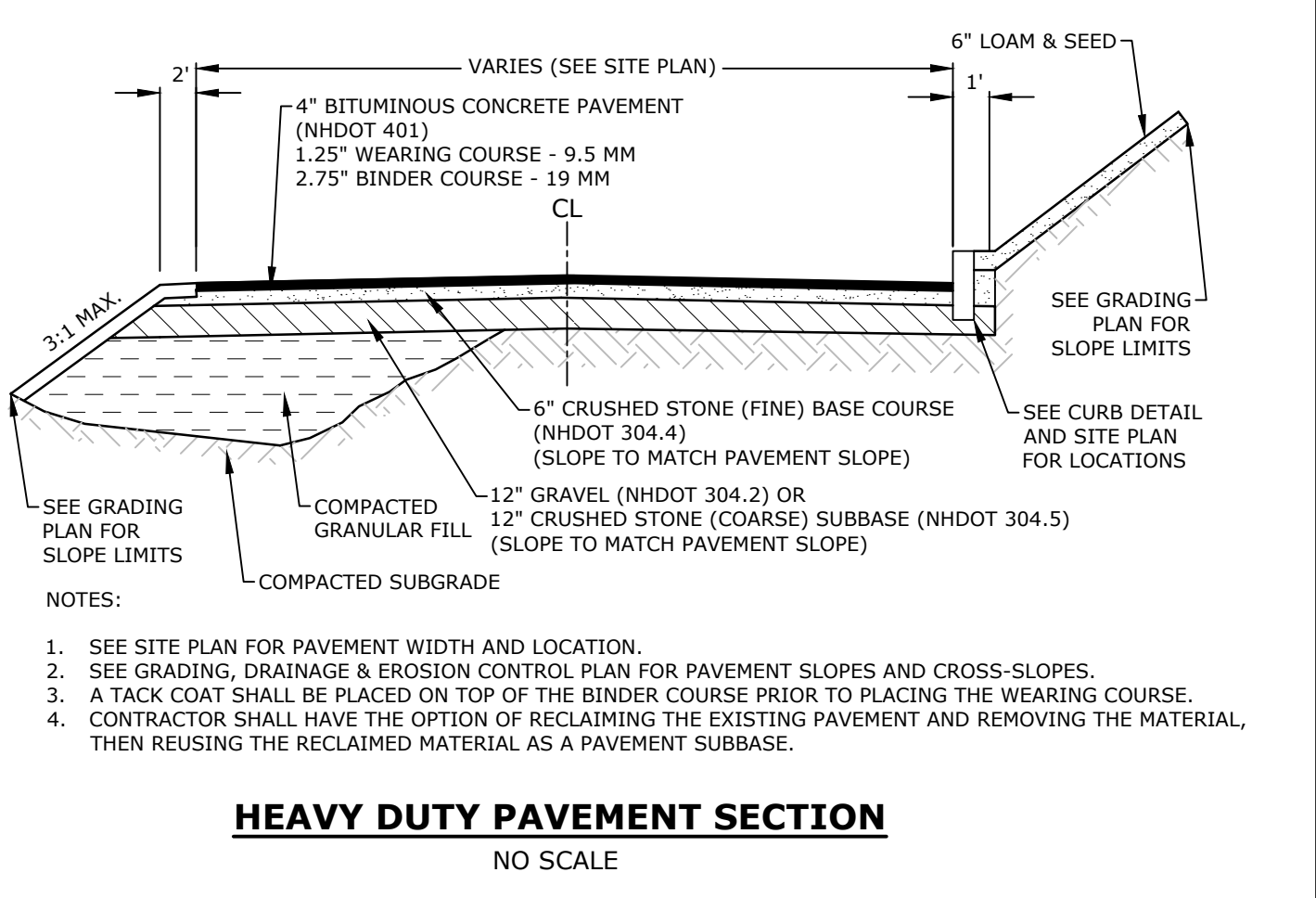
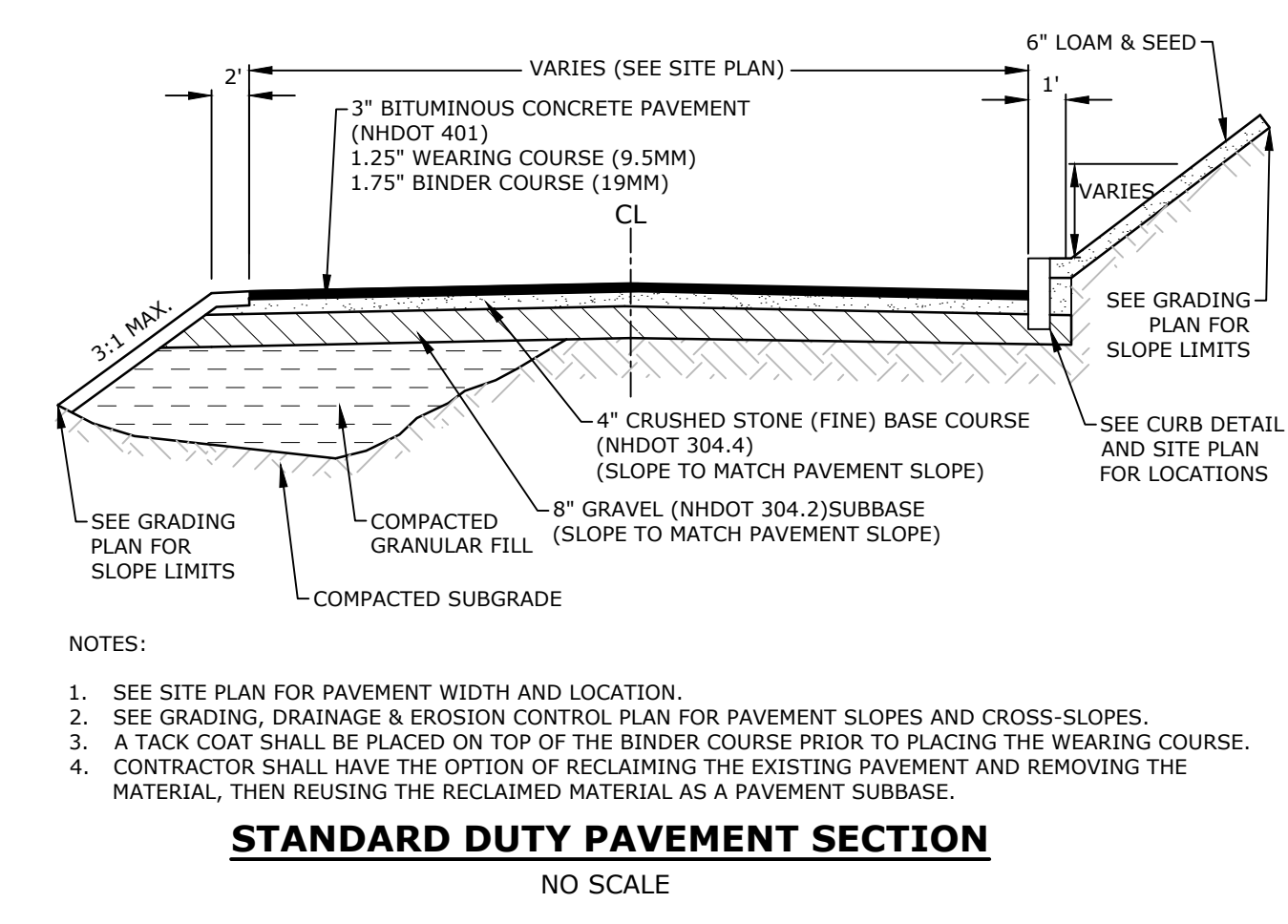
MARK	DATE	GENERAL REVISIONS	DESCRIPTION
	1/2/2020		
	5/23/2018		

PROJECT NO: M1529-002
DATE: 5/23/2018
FILE: M1529-002_C-DTLS.dwg
DRAWN BY: EGD
CHECKED: JMP
APPROVED: BLM

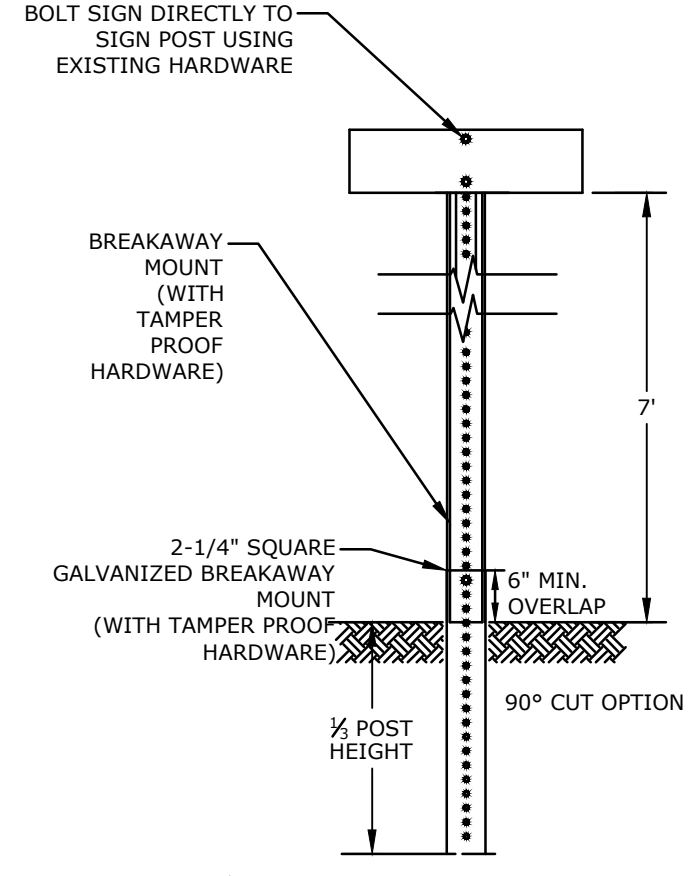
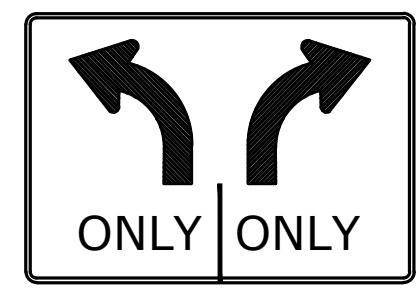
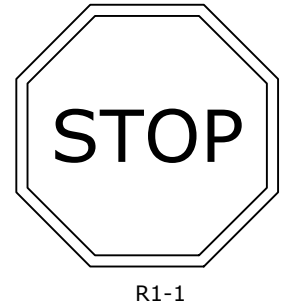
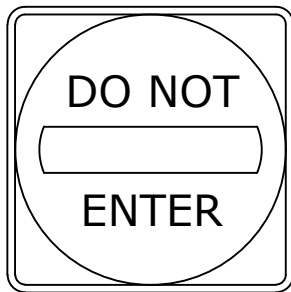
DETAIL SHEET

SCALE: AS SHOWN

C-502

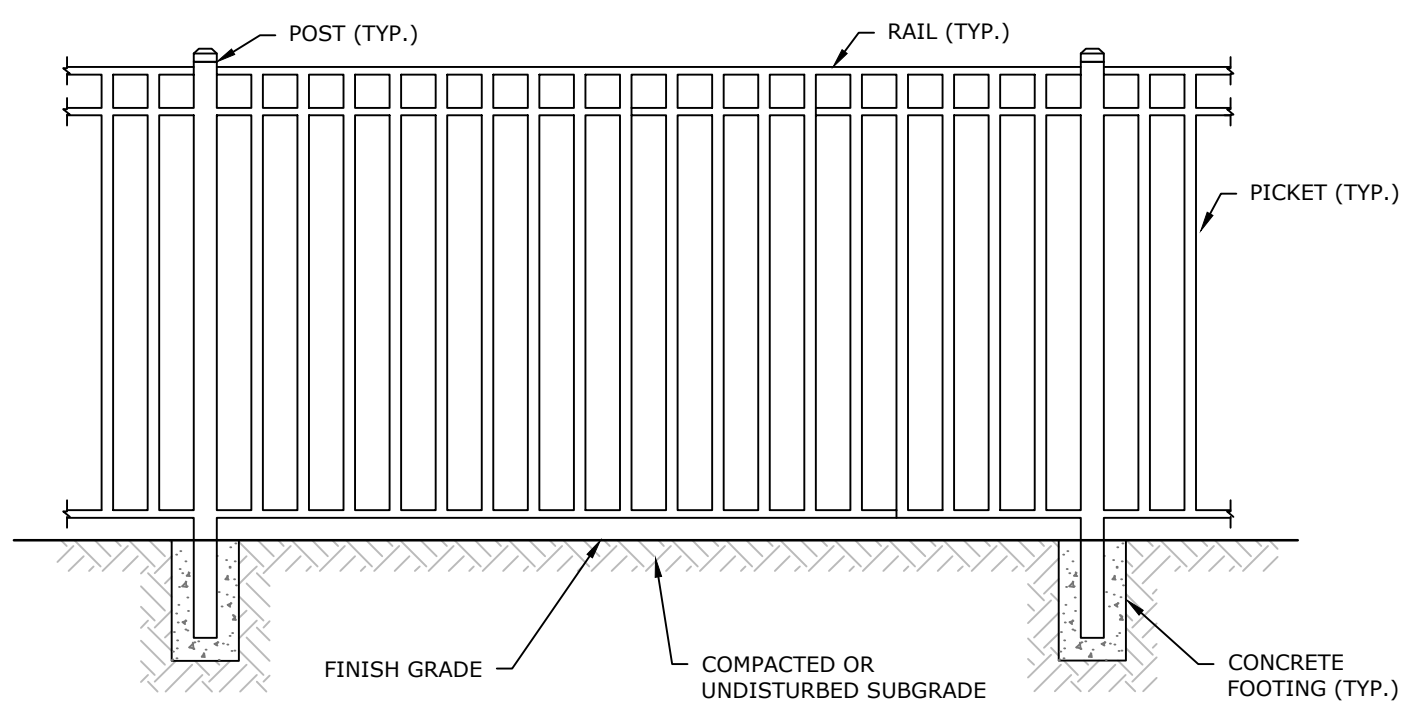


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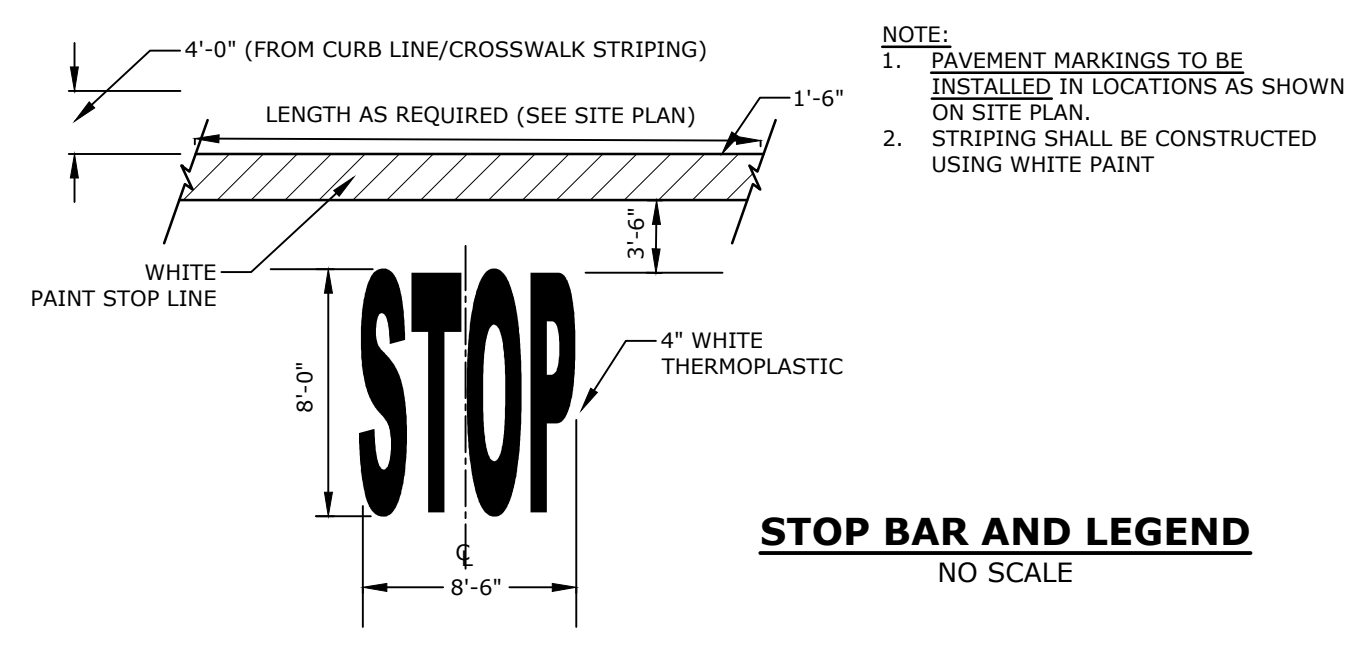
* IN LEDGE DRILL & GROUT TO A MIN OF 2" NOTE:
 ALL SIGNS TO BE CONSTRUCTED PER THE LATEST EDITION OF THE FHWA STANDARD HIGHWAY SIGNS MANUAL AND INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 LENGTH: AS REQUIRED
 WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
 HOLES: 7/16" DIAMETER, 1" C-C FULL LENGTH
 STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080)
 FINISH: STREET SIGNS - GALVANIZED STEEL ALL OTHER - SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN BAKED ON OR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

SIGN LEGEND & SIGN POST
NO SCALE

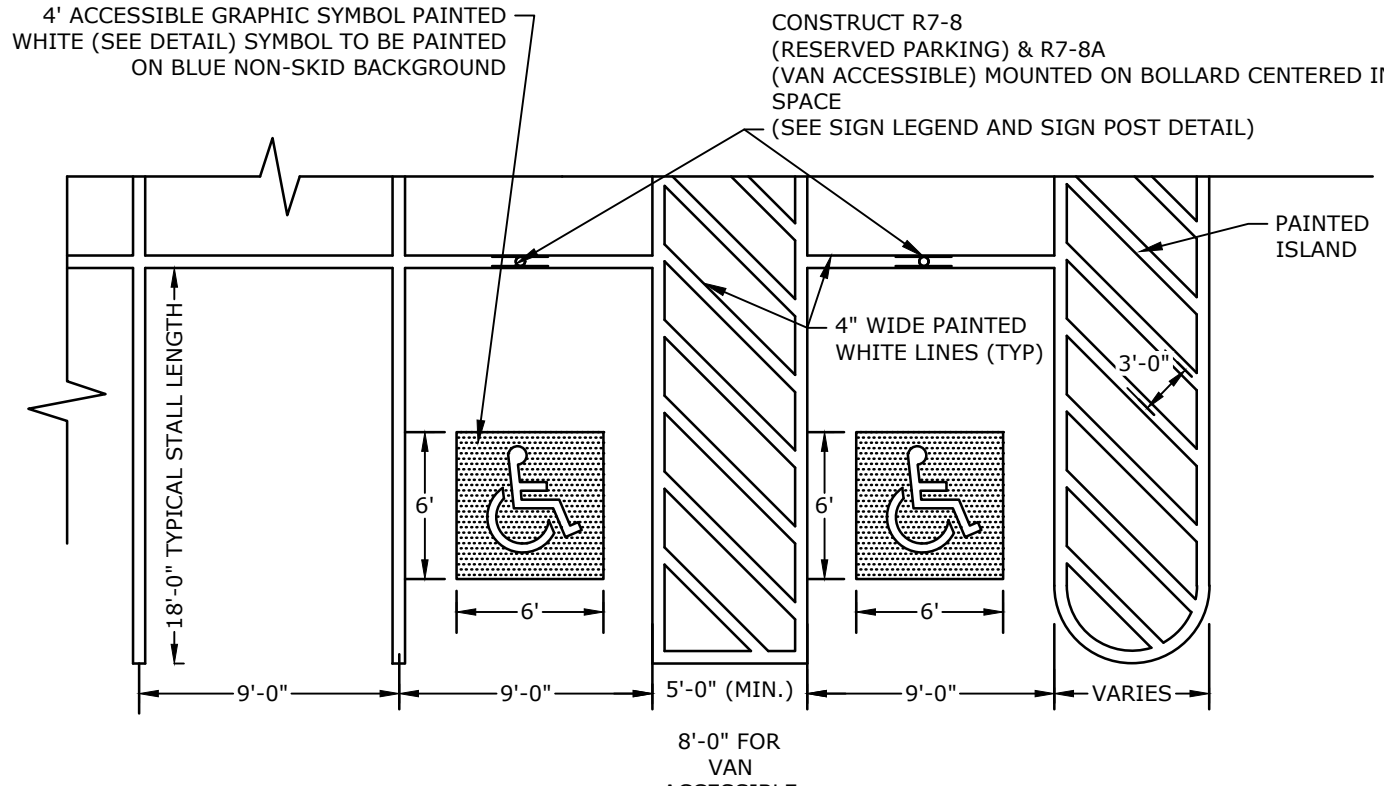


NOTES:
 1. FENCE TO BE NATIONAL FENCE SYSTEMS, INC. OPAL GEMSTONE ALUMINUM STYLE FENCE OR APPROVED EQUAL, AS APPROVED BY OWNER.
 2. FINISH TO BE HOT DIP GALVANIZED, PAINTED WITH ONE COAT TWO-PART EPOXY PRIMER AND FINISH COATED WITH TWO-PART POLYURETHANE. COLOR TO BE FLAT BLACK.
 3. FIELD TOUCH UP ALL FASTENERS AND SCRATCHES DUE TO SHIPPING, PACKAGING, AND ERECTION USING PAINT KIT PROVIDED.
 4. SEE MANUFACTURERS RECOMMENDATIONS FOR CONCRETE FOOTING DIMENSIONS AND SPECIFICATIONS.

ORNAMENTAL METAL FENCE
NO SCALE

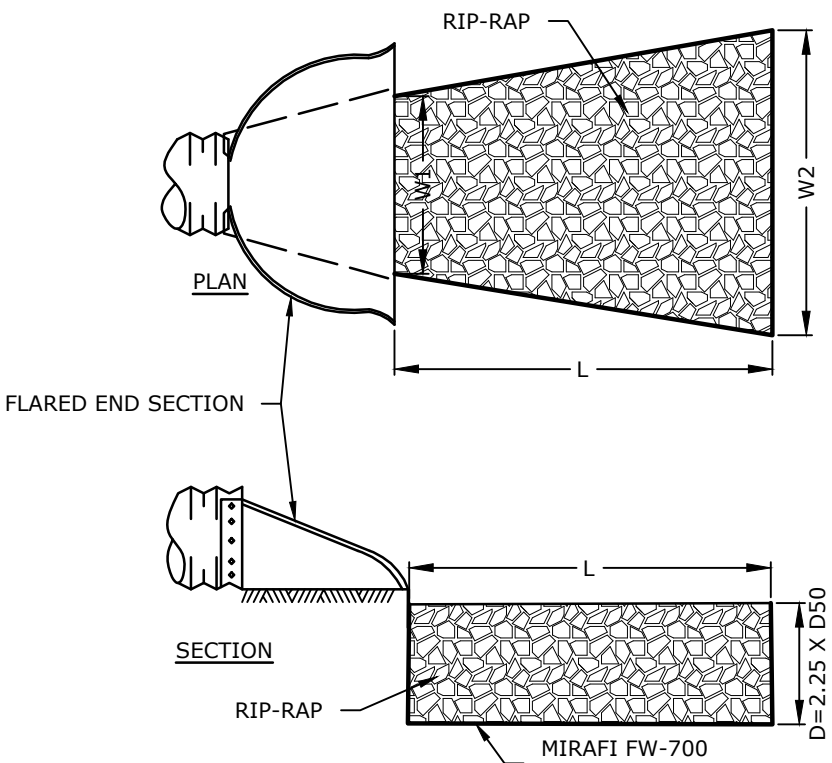


STOP BAR AND LEGEND
NO SCALE



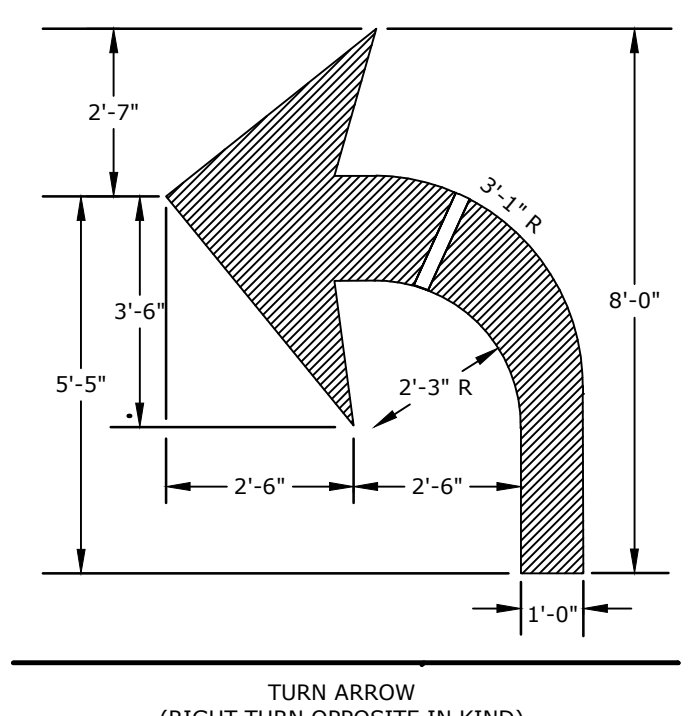
NOTES:
 1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
 3. FINISH PAVEMENT GRADES AT ALL HANDICAP ACCESSIBLE STALLS AND PAINTED ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

PARKING STALL/PAINTED ISLAND STRIPING
NO SCALE

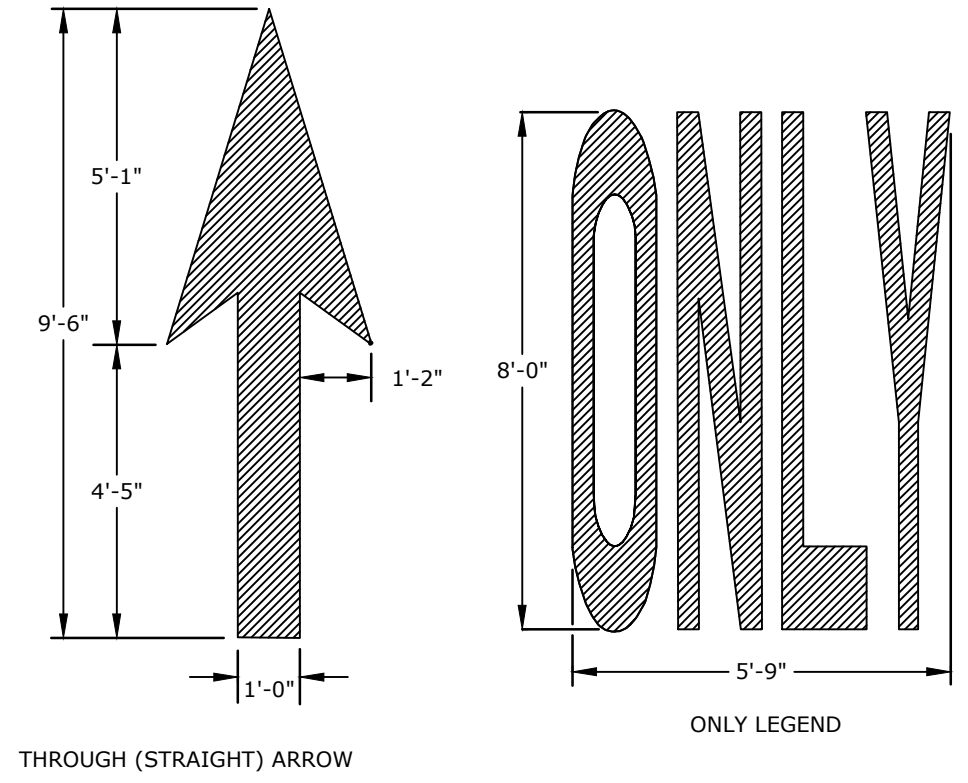


NOTES:
 1. STONE SIZE AND MAT DIMENSIONS DETAILED ON PLANS.
 2. STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE AND IT SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
 3. THE STONE SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50 PERCENT OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE D50 SIZE SPECIFIED. A WELL-GRADED MIXTURE IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZE BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE SIZE IN SUCH A MIXTURE SHALL BE 1.5 TIMES THE D50 SIZE.

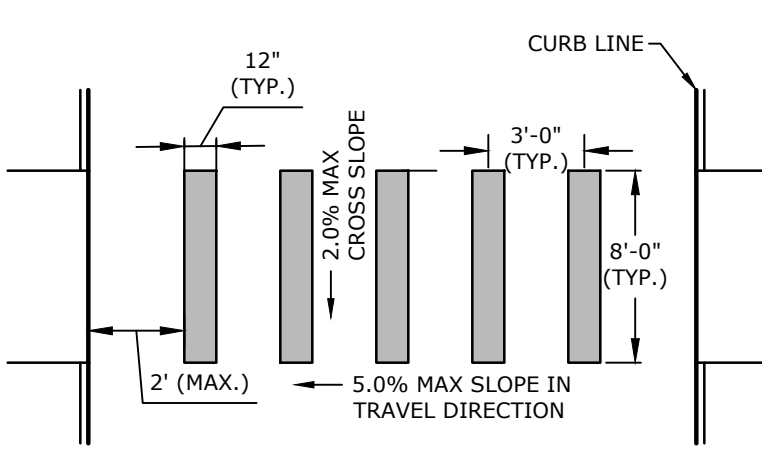
RIP-RAP APRON DETAIL
NO SCALE



PAVEMENT MARKINGS
NO SCALE

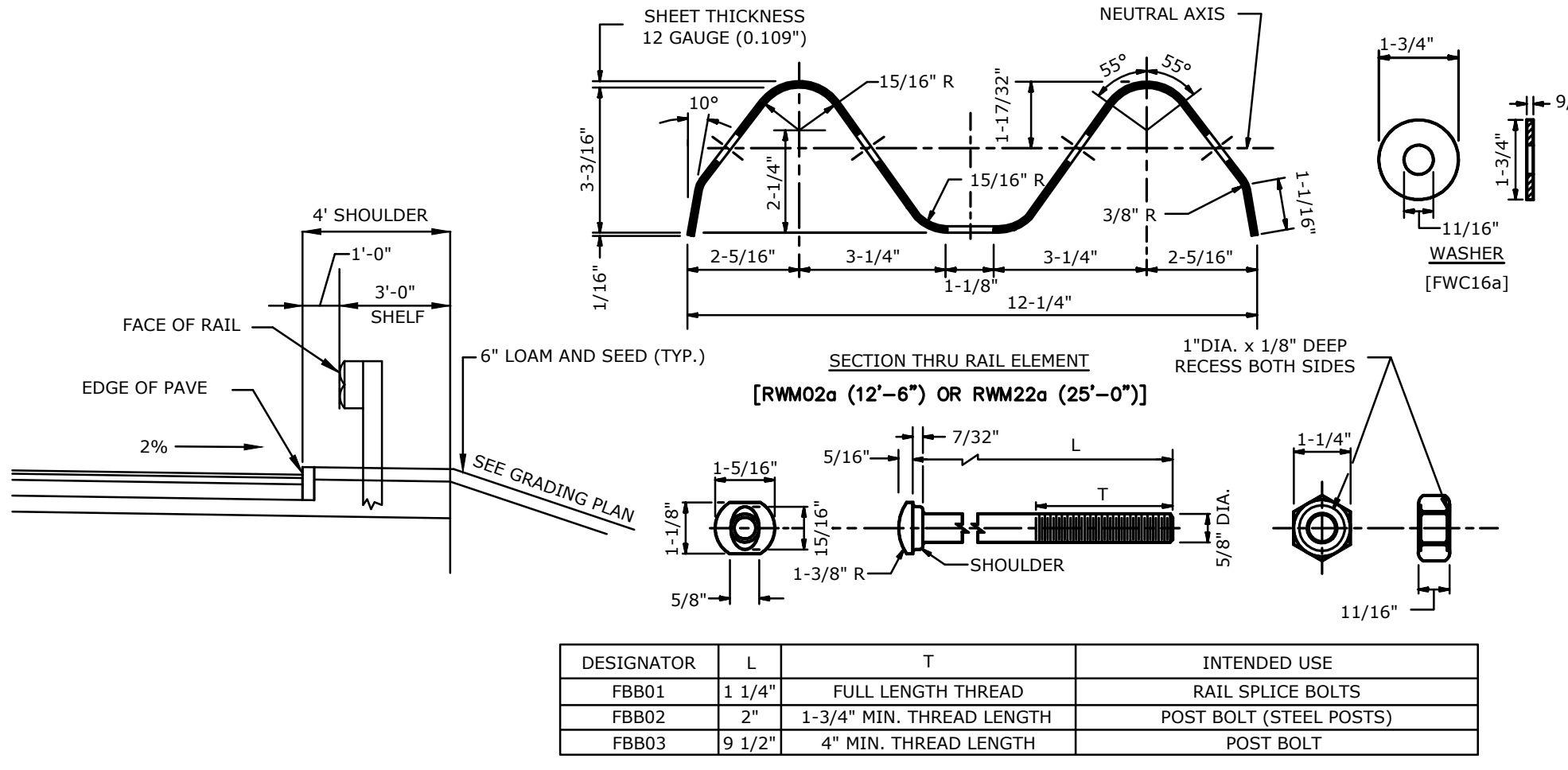


PAVEMENT MARKING NOTES:
 1. ALL WORDS AND SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE LATEST VERSION OF THE MUTCD.
 2. MULTI-WORD MESSAGES SHALL READ "UP"; THAT IS, THE FIRST WORD SHALL BE NEAREST THE APPROACHING DRIVER.
 3. THE WORD "ONLY" SHALL NOT BE USED WITH THROUGH OR COMBINATION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



NOTES:
 1. PAVEMENT MARKINGS AND STRIPING TO BE CONSTRUCTED USING FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 2. 12" INCH LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED.
 3. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURB LINE.
 4. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.

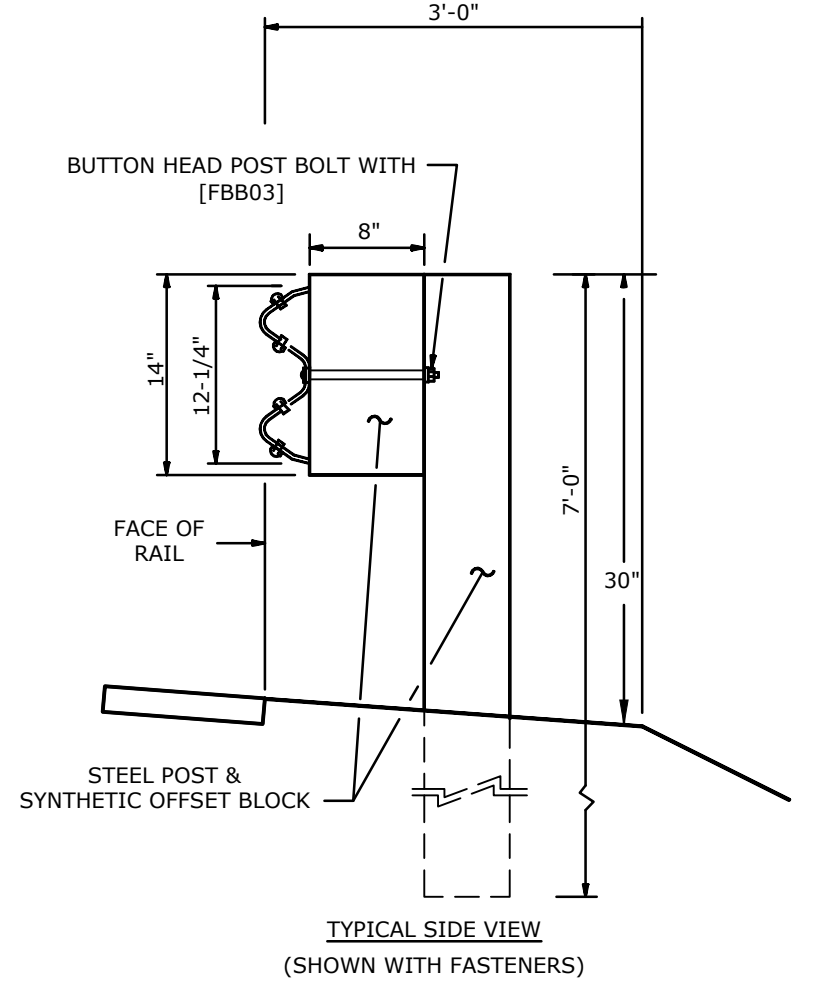
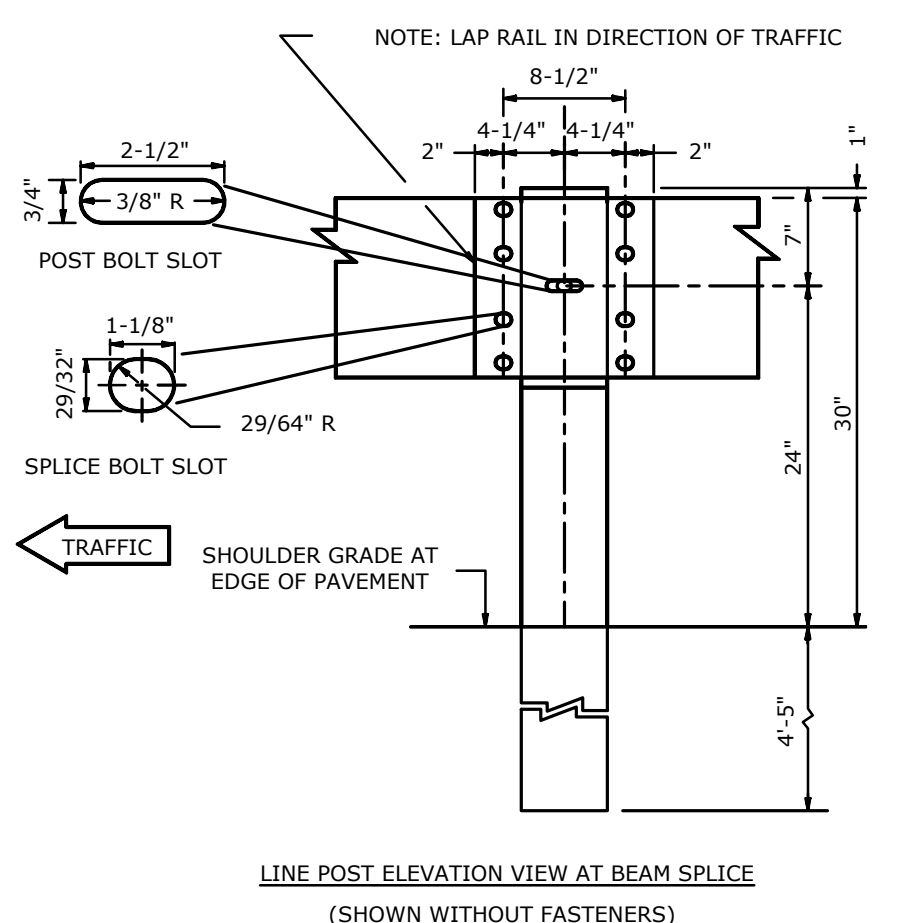
CROSSWALK STRIPING
NO SCALE



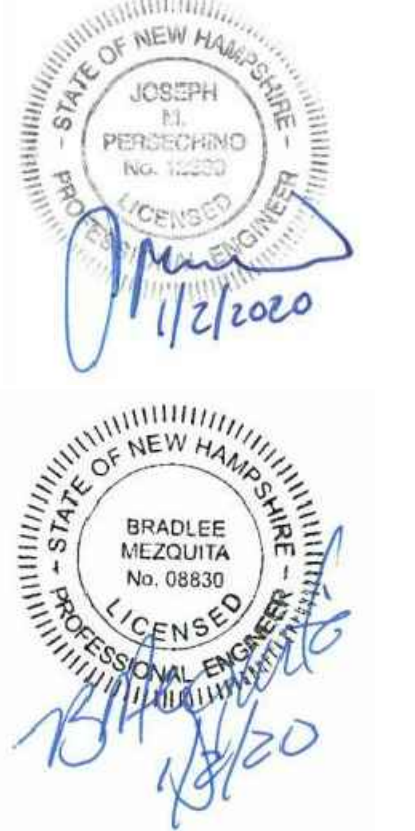
DESIGNATOR	L	T	INTENDED USE
FB01	1 1/4"	FULL LENGTH THREAD	RAIL SPLICE BOLTS
FB02	2"	1-3/4" MIN. THREAD LENGTH	POST BOLT (STEEL POSTS)
FB03	9 1/2"	4" MIN. THREAD LENGTH	POST BOLT

NOTES:
 1. THE LENGTH OF NEED IS THE TOTAL LENGTH OF A LONGITUDINAL BARRIER NEEDED TO SHIELD AN AREA OF CONCERN. TO DETERMINE THE LENGTH OF NEED, REFER TO THE "ROADSIDE DESIGN GUIDE" - AASHTO (1989).
 2. DESIGNATION PROVIDED IN BRACKETS () REFERENCE STANDARD ELEMENTS DETAILED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" (1979) - AASHTO - AGC - ARTBA JOINT COOPERATIVE COMMITTEE.
 3. USE 12'-6" LENGTH RAIL ELEMENT IN CURVES OF LESS THAN 300' RAIL RADIUS.
 4. ALL DIMENSIONS SUBJECT TO MANUFACTURER'S TOLERANCES.
 5. USE 6'-0" LONG POSTS WHEN FILL SLOPE IS 4:1 OR FLATTER AND/OR WHEN FIELD CONDITIONS DICTATE (e.g., LEDGE FILLS), AS DETERMINED BY THE ENGINEER.
 6. WHEN GUARDRAIL IS INSTALLED BEHIND CURB, EITHER 6'-0" BEHIND SLOPE CURB OR AT THE BACK OF SIDEWALK WITH BARRIER CURB, THE RAIL HEIGHT SHALL BE SET FROM THE GRADE AT THE FACE OF RAIL.

STEEL POST/STEEL BEAM GUARDRAIL
NO SCALE



Harriman Project No. 16117



PERMIT DRAWINGS
NOT FOR CONSTRUCTION

Mill Plaza
Redevelopment

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	GENERAL REVISIONS
	1/2/2020	

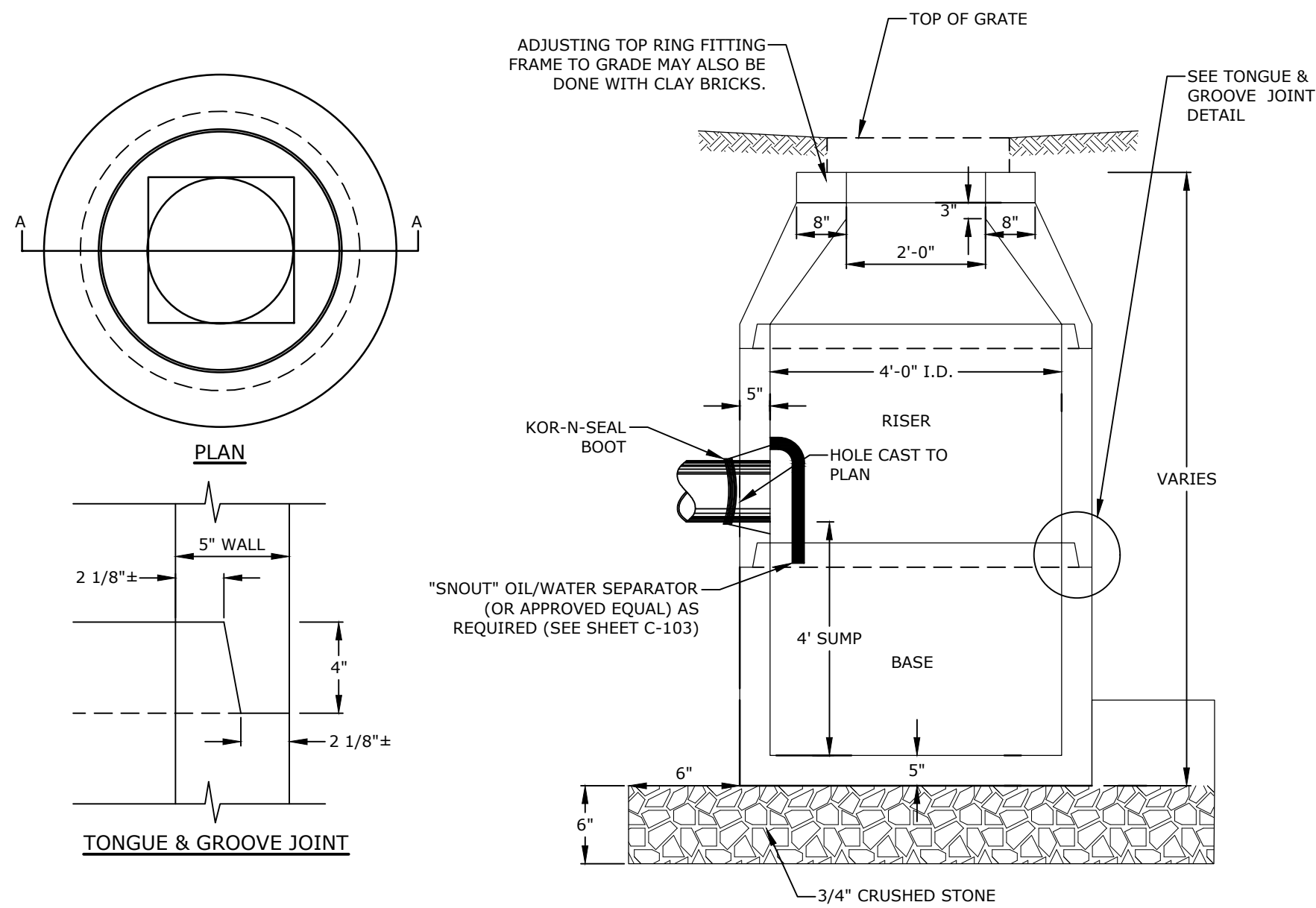
PROJECT NO: M1529-002
 DATE: 5/23/2018
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 DRAWN BY: EGD
 CHECKED: JMP
 APPROVED: BLM

DETAIL SHEET

SCALE: AS SHOWN

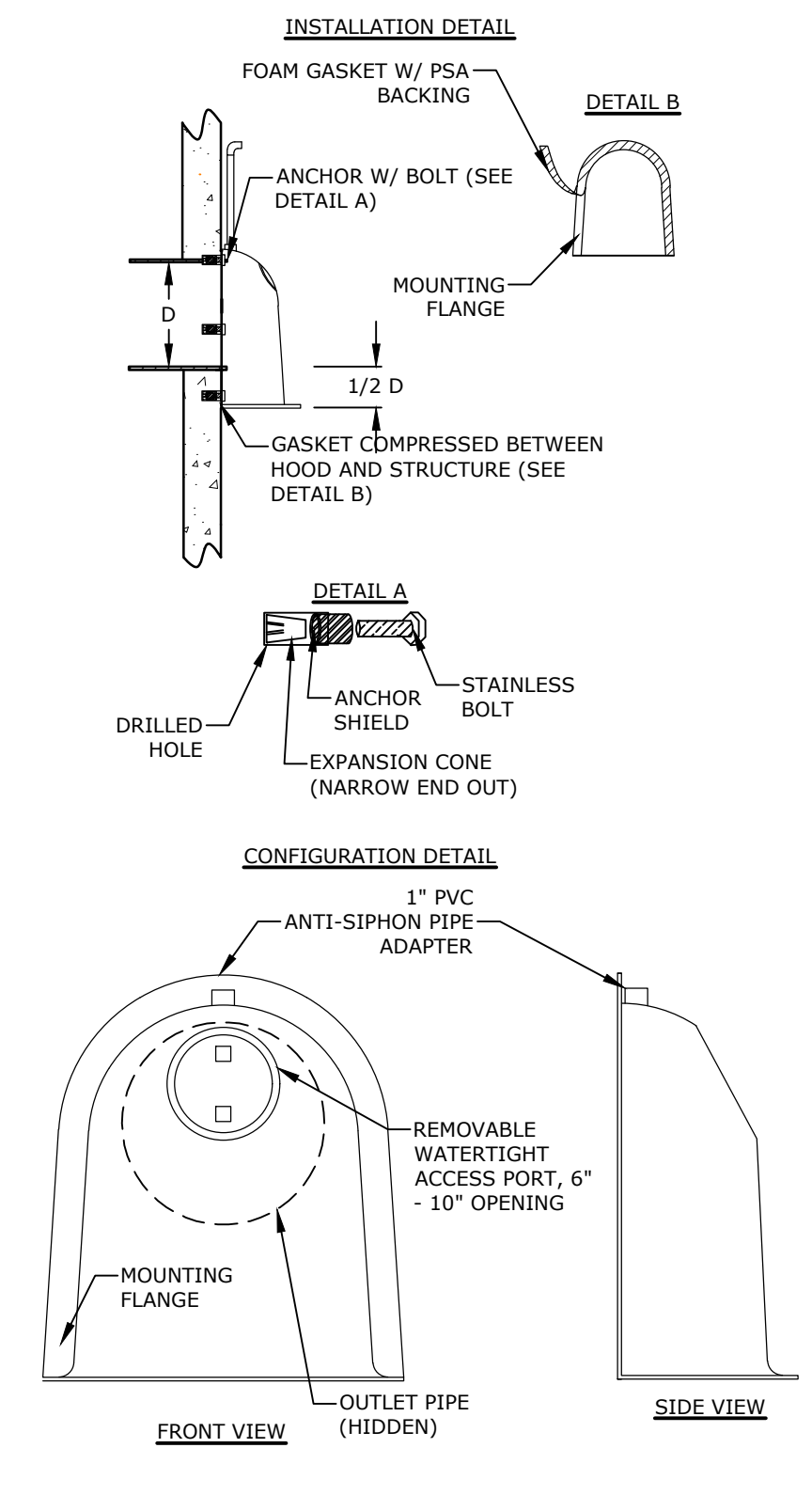
C-503

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 Tighe & Bond: J:\M1529-002\Drawings\Figures\AutoCAD\Sheet\M1529-002_C-DTLS.dwg



- NOTES:
- ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 psi).
 - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF WALL.
 - THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 - RISERS OF 1', 2', 3', & 4' CAN BE USED TO REACH DESIRED DEPTH.
 - THE STRUCTURES SHALL BE DESIGN FOR H2O LOADING.
 - THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.

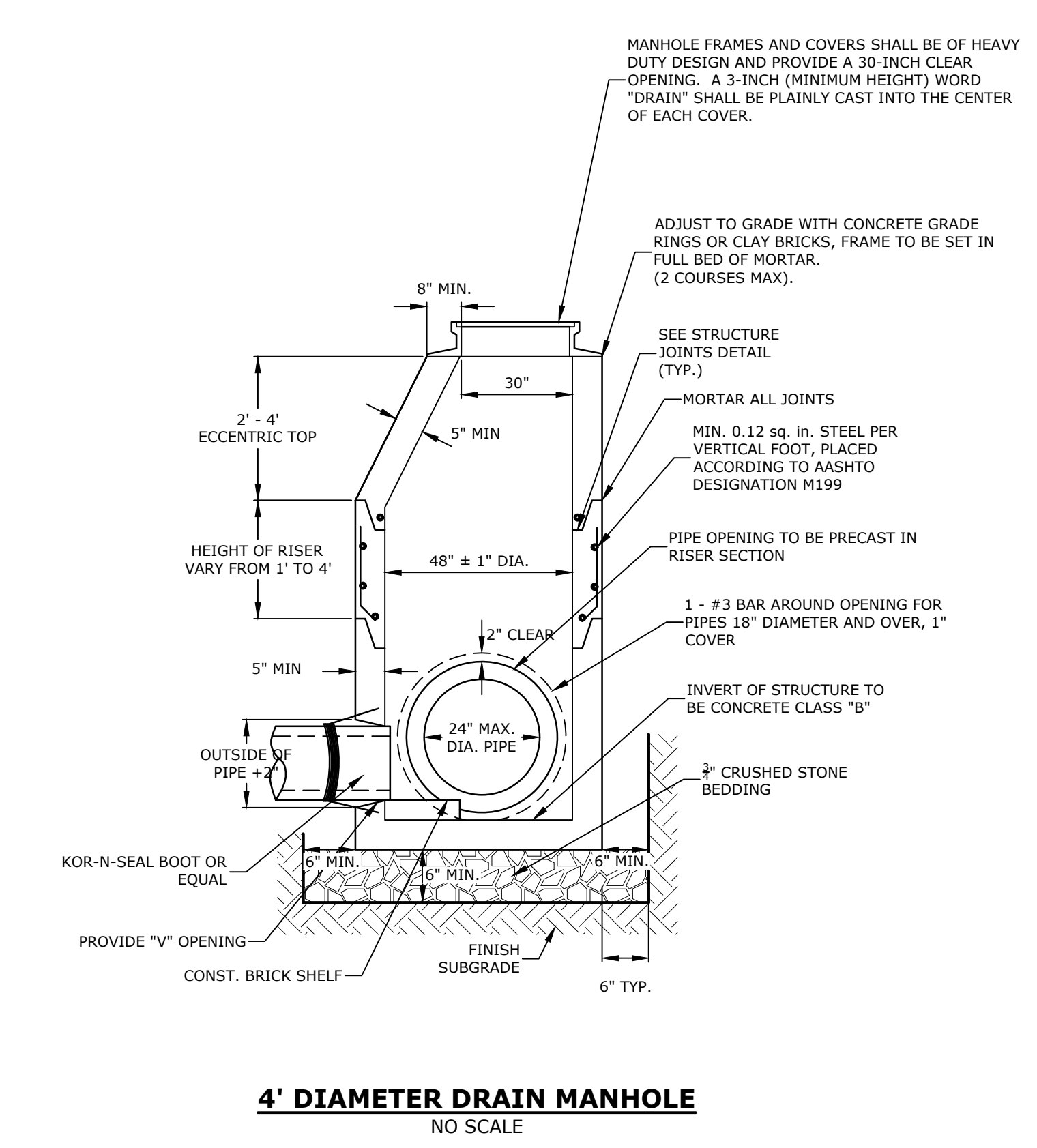
4' DIAMETER CATCHBASIN
NO SCALE



PIPE SIZE (I.D.)	SNOUT MODEL REQ'D
12"	18R
15"	18R
18"	24R
24"	30R
30"	54R
36"	54R
42"	72F
48"	72F
54"	96F
60"	96F
66"	96F

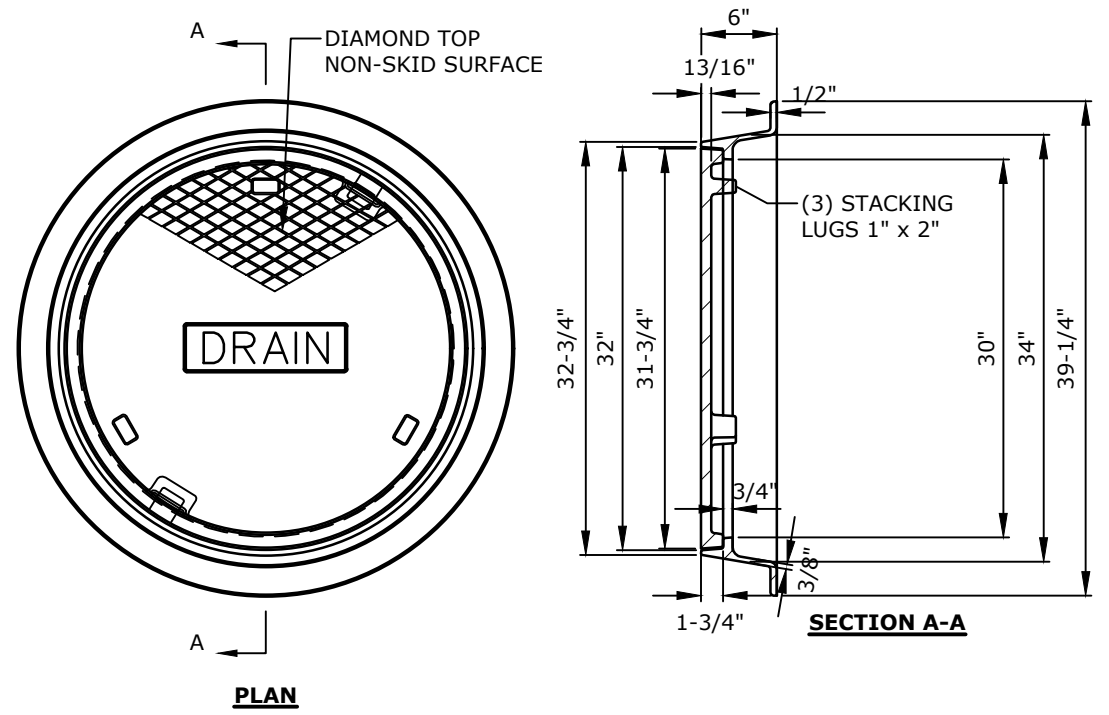
F=SQUARE STRUCTURE
R=CIRCULAR STRUCTURE

SNOUT OIL-WATER-DEBRIS SEPARATOR
NO SCALE



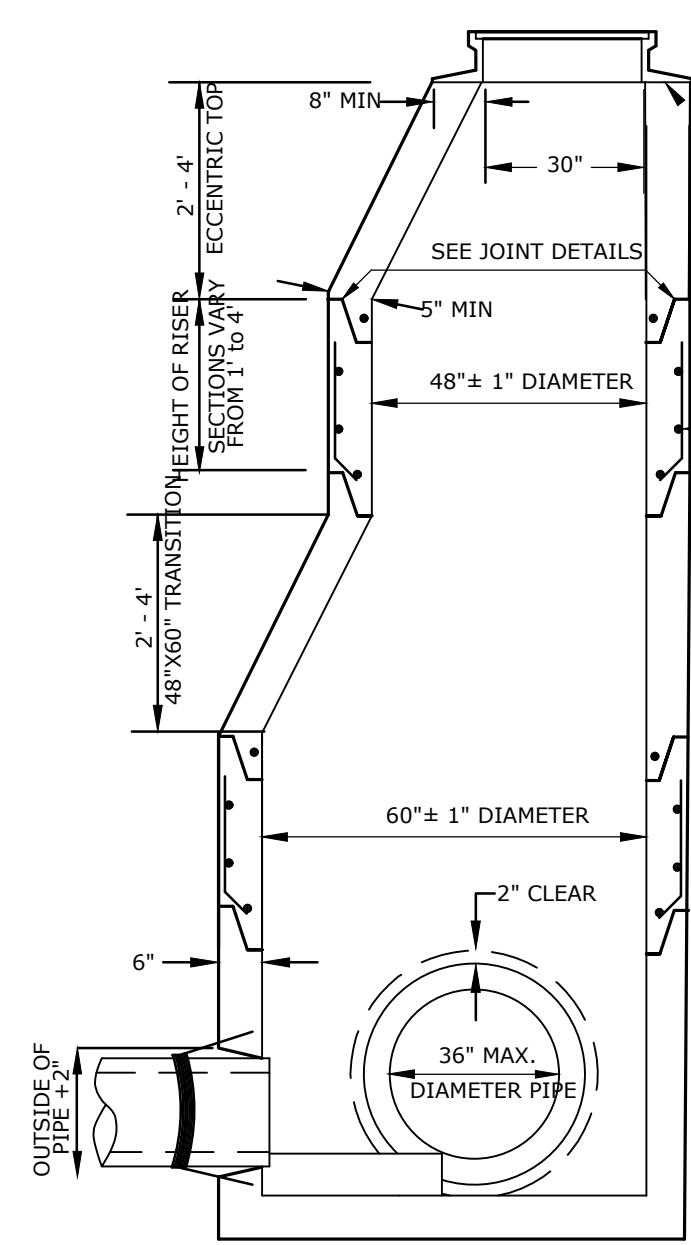
- NOTES:
- ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 - THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 - CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS).
 - THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 - PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 - OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 2" BEYOND INSIDE WALL OF STRUCTURE.
 - PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 - ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

4' DIAMETER DRAIN MANHOLE
NO SCALE

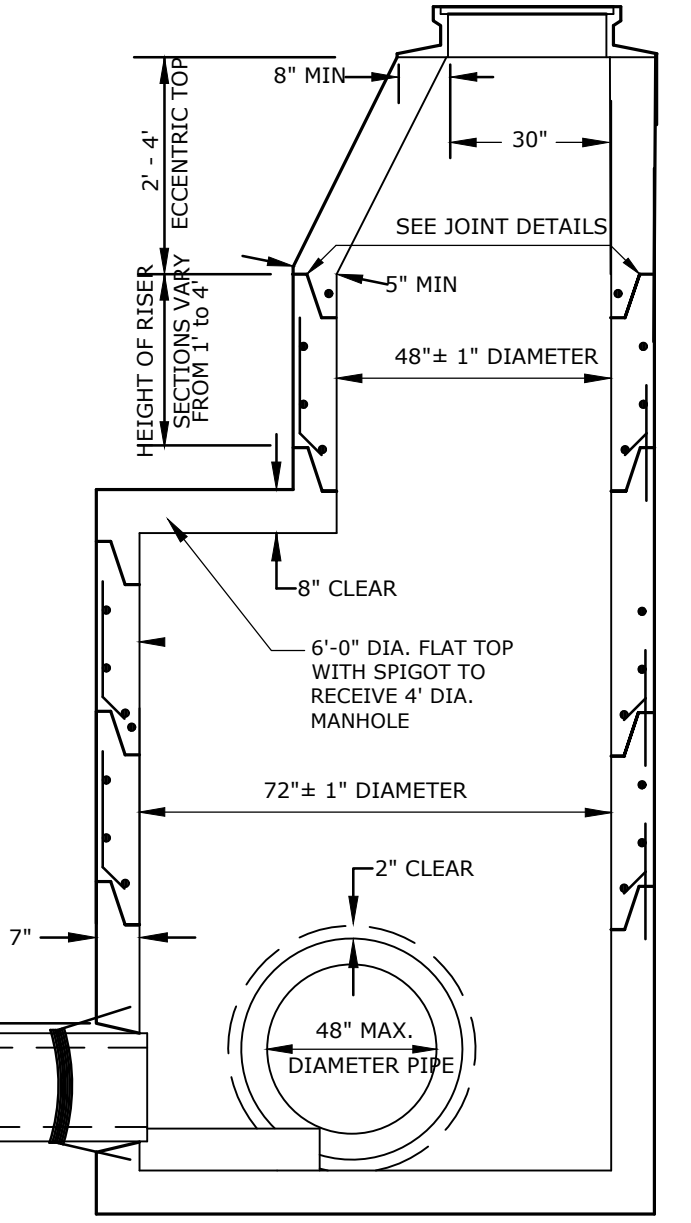


- NOTES:
- ALL DIMENSIONS ARE NOMINAL.
 - FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
 - THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
 - THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
 - ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
 - LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN THE CENTER OF THE COVER.

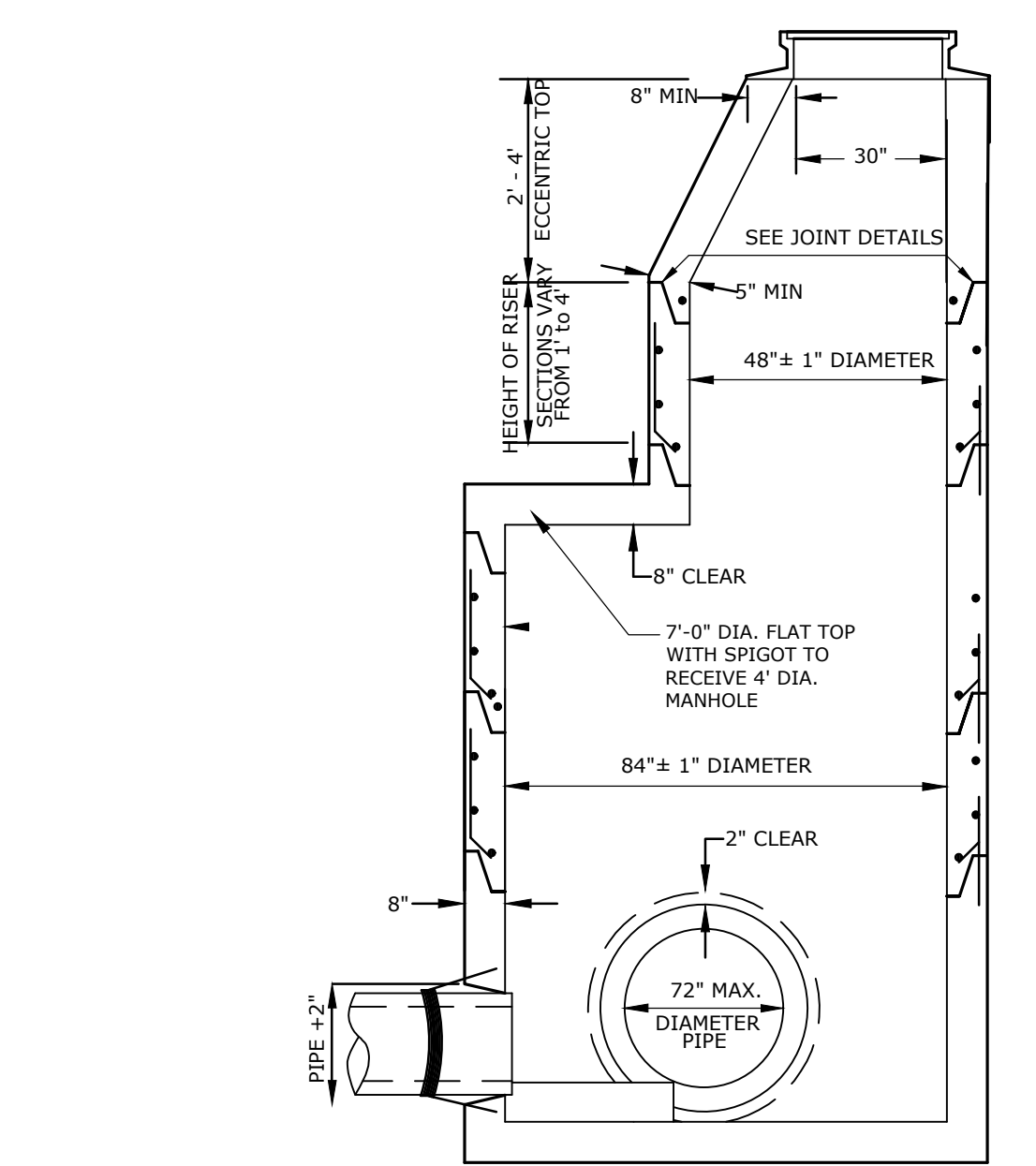
DRAIN MANHOLE FRAME & COVER
NO SCALE



5' DIAMETER DRAIN MANHOLE
NO SCALE

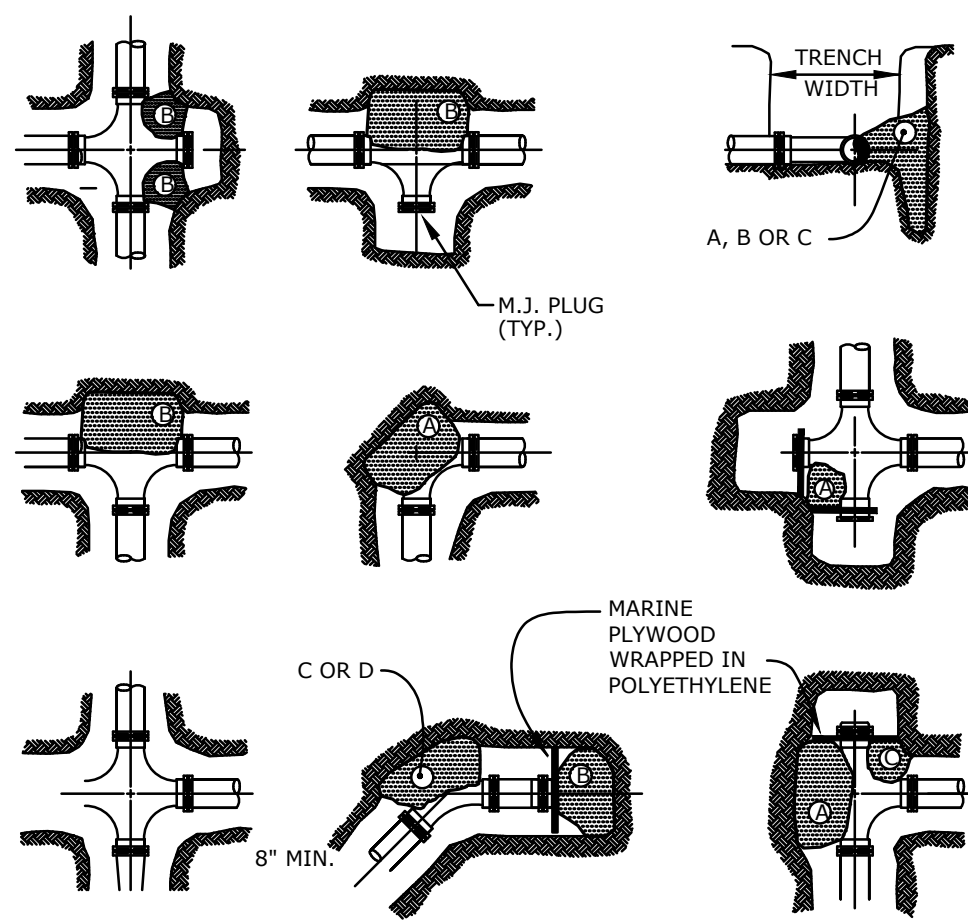


6' DIAMETER DRAIN MANHOLE
NO SCALE



7' DIAMETER DRAIN MANHOLE
NO SCALE

- NOTES:
- ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 - THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 - CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS).
 - THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.



THRUST BLOCK DETAIL
NO SCALE

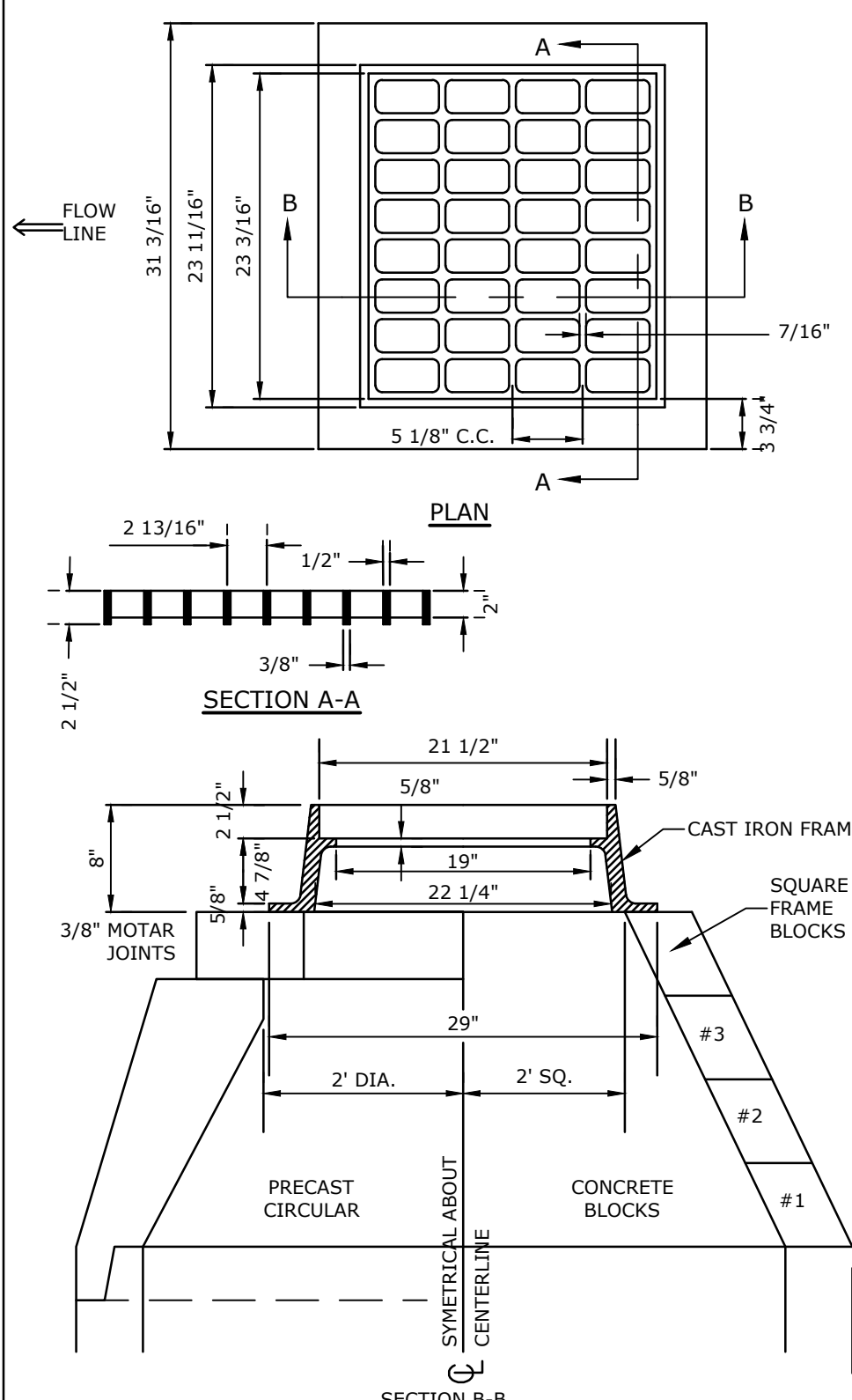
VOLUME OF CONCRETE AS DETERMINED BY ENGINEER

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

TEST PRESSURE = 20A

NOTES:

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



CATCH BASIN FRAME & GRATE
NO SCALE

- NOTE:
- GRATE TO BE CAST IRON (NHDOT TYPE B ALTERNATE 1)
 - FRAME AND GRATE TO BE MANUFACTURED IN THE USA

Last Saved: 12/31/2019 10:36am By: Edorems
 Plotted On: Dec 31, 2019 10:36am By: Edorems
 File: M:\1529-002_C-DTLS.dwg
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 Plot: Mill Plaza Redevelopment - Figures\AutoCAD\Sheet\M1529-002_C-DTLS.dwg



Harriman Project No. 16117



PERMIT DRAWINGS
NOT FOR CONSTRUCTION

Mill Plaza
Redevelopment

Colonial Durham
Associates, LP

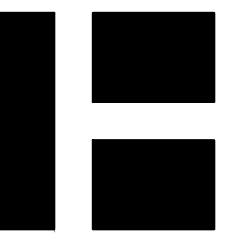
7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS
PROJECT NO:	M1529-002	
DATE:	5/23/2018	
FILE:	M1529-002_C-DTLS.dwg	
DRAWN BY:	EGD	
CHECKED:	JMP	
APPROVED:	BLM	

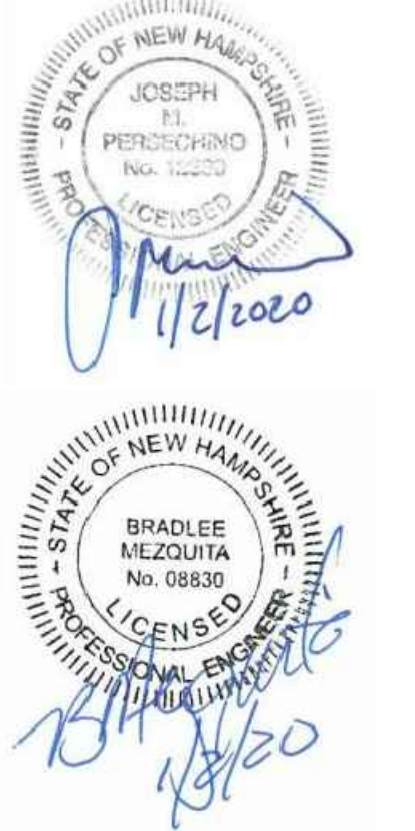
DETAIL SHEET

SCALE: AS SHOWN

C-504



HARRIMAN
AUBURN PORTLAND PORTSMOUTH BOSTON
Harriman Project No. 16117



PERMIT DRAWINGS
NOT FOR CONSTRUCTION

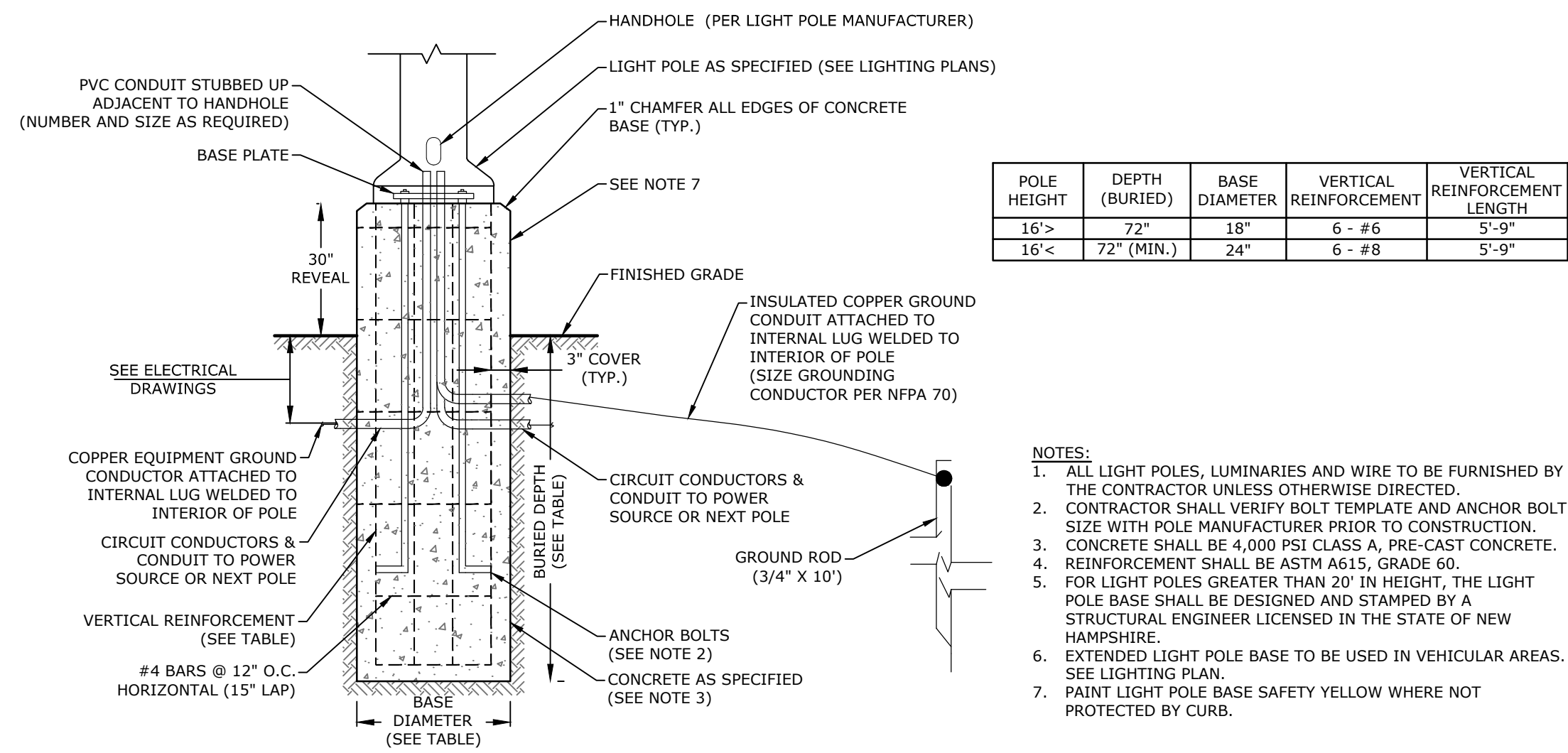
Mill Plaza
Redevelopment

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS
		PROJECT NO: M1529-002
		DATE: 5/23/2018
		FILE: M1529-002_C-DTLS.dwg
		DRAWN BY: EGD
		CHECKED BY: JMP
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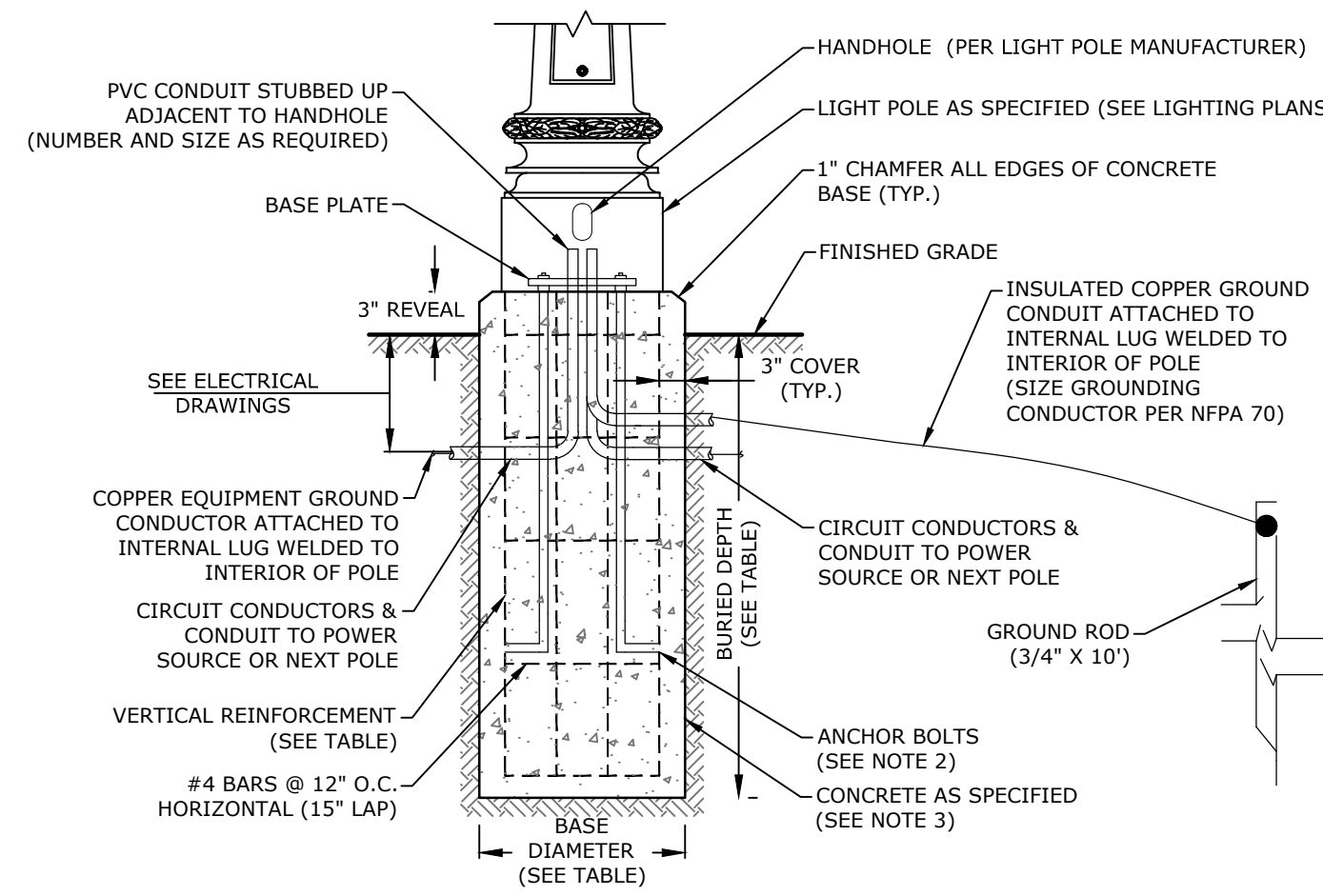
DETAIL SHEET
SCALE: AS SHOWN
C-505



POLE HEIGHT	DEPTH (BURIED)	BASE DIAMETER	VERTICAL REINFORCEMENT	VERTICAL REINFORCEMENT LENGTH
16'-0"	72"	18"	6 - #6	5'-9"
16'-0"	72" (MIN.)	24"	6 - #8	5'-9"

- NOTES:**
1. ALL LIGHT POLES, LUMINARIES AND WIRE TO BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
 2. CONTRACTOR SHALL VERIFY BOLT TEMPLATE AND ANCHOR BOLT SIZE WITH POLE MANUFACTURER PRIOR TO CONSTRUCTION.
 3. CONCRETE SHALL BE 4,000 PSI CLASS A, PRE-CAST CONCRETE.
 4. REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
 5. FOR LIGHT POLES GREATER THAN 20' IN HEIGHT, THE LIGHT POLE BASE SHALL BE DESIGNED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
 6. EXTENDED LIGHT POLE BASE TO BE USED IN VEHICULAR AREAS. SEE LIGHTING PLAN.
 7. PAINT LIGHT POLE BASE SAFETY YELLOW WHERE NOT PROTECTED BY CURB.

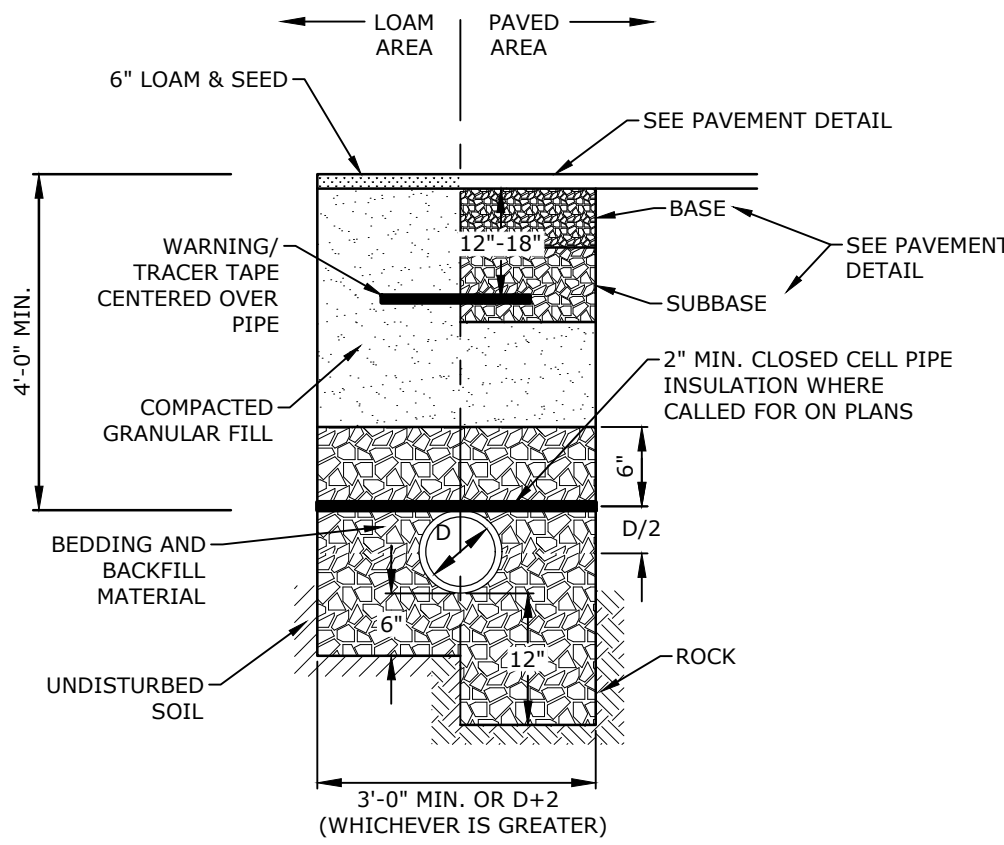
EXTENDED LIGHT POLE BASE
NO SCALE



POLE HEIGHT	DEPTH (BURIED)	BASE DIAMETER	VERTICAL REINFORCEMENT	VERTICAL REINFORCEMENT LENGTH
16'-0"	72"	18"	6 - #6	5'-9"
16'-0"	72" (MIN.)	24"	6 - #8	5'-9"

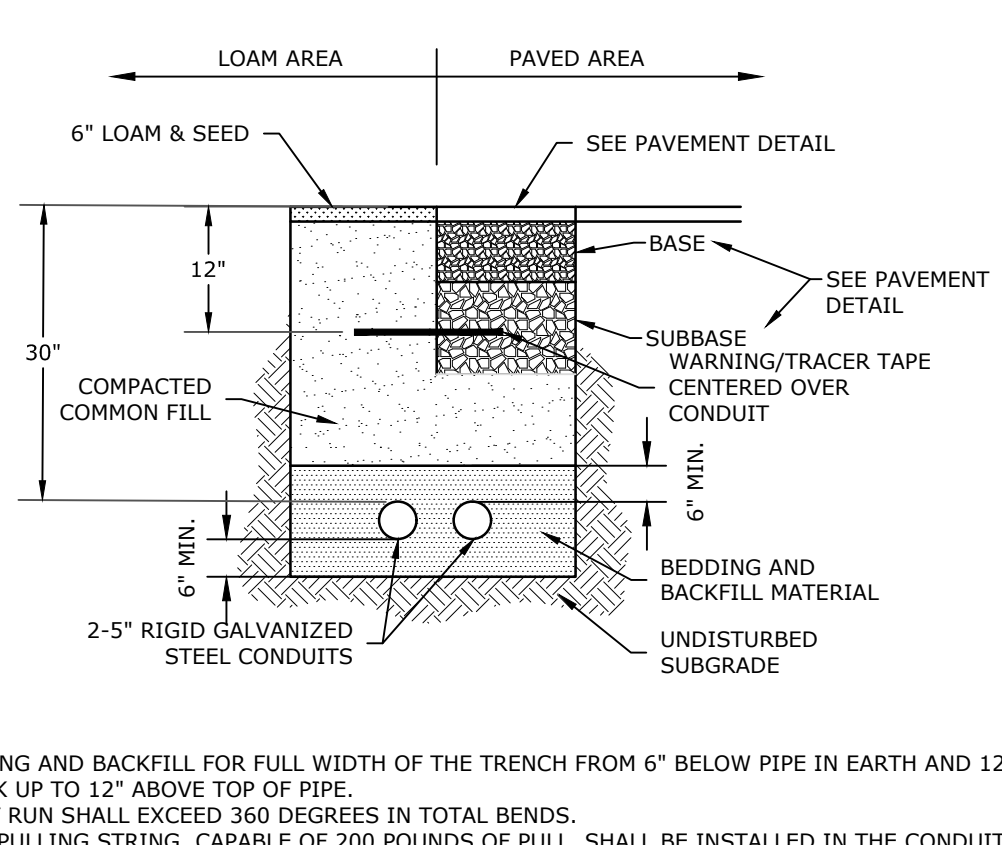
- NOTES:**
1. ALL LIGHT POLES, LUMINARIES AND WIRE TO BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
 2. CONTRACTOR SHALL VERIFY BOLT TEMPLATE AND ANCHOR BOLT SIZE WITH POLE MANUFACTURER PRIOR TO CONSTRUCTION.
 3. CONCRETE SHALL BE 4,000 PSI CLASS A, PRE-CAST CONCRETE.
 4. REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
 5. FOR LIGHT POLES GREATER THAN 20' IN HEIGHT, THE LIGHT POLE BASE SHALL BE DESIGNED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.

LIGHT POLE BASE
NO SCALE



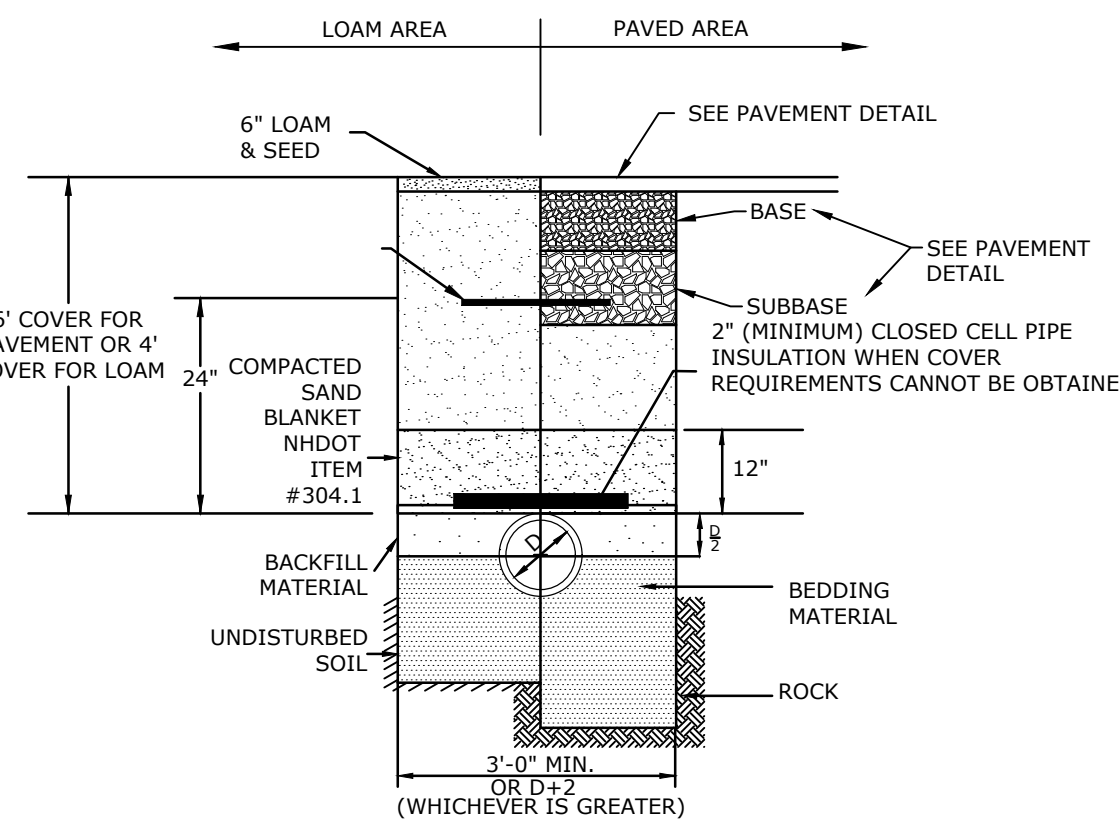
- NOTES:**
1. CRUSHED STONE BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 6" ABOVE TOP OF PIPE.
 2. ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE TOWN OF DURHAM.

STORM DRAIN TRENCH
NO SCALE



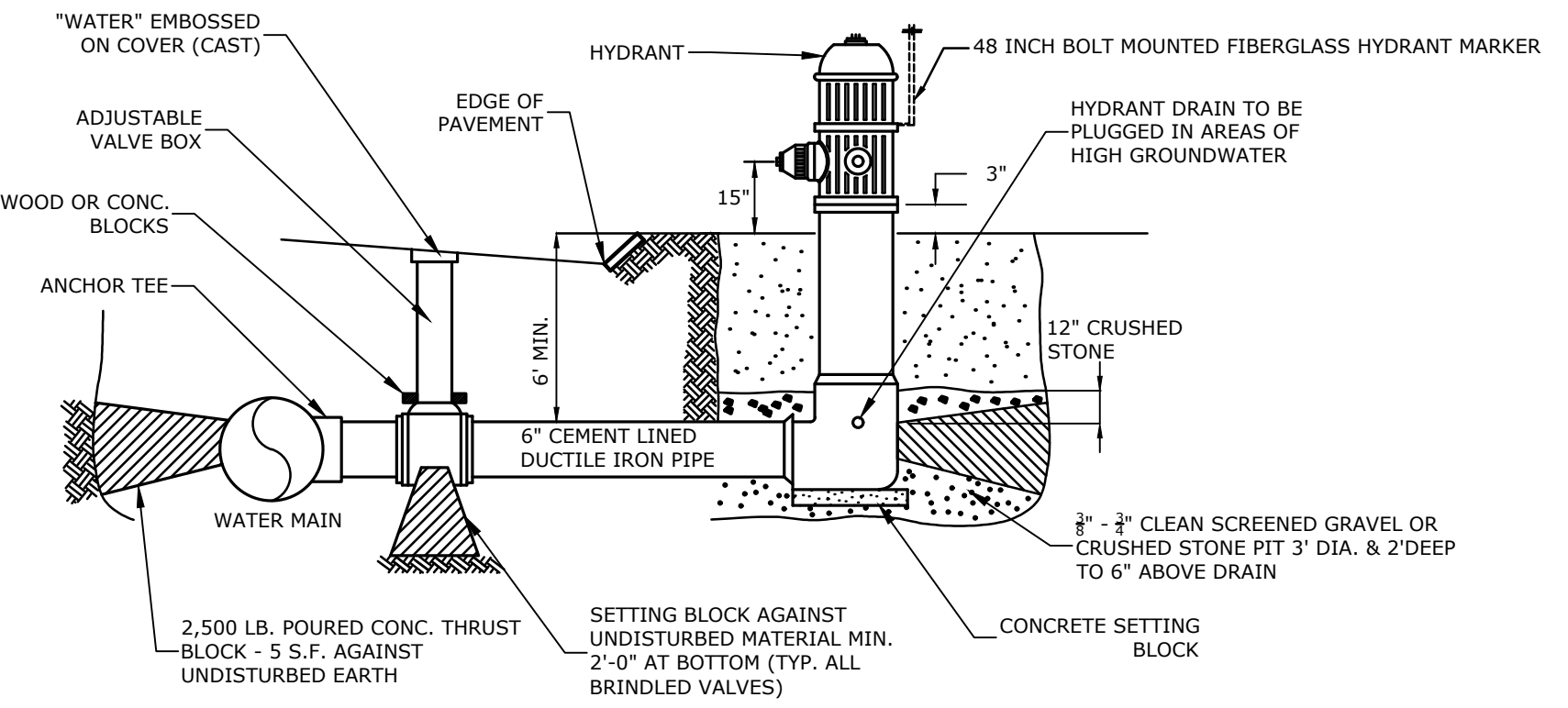
- NOTES:**
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
 2. NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
 3. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, SHALL BE INSTALLED IN THE CONDUIT PRIOR TO INSTALLING CONDUIT. THE STRING SHALL BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
 4. 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.
 5. CONTRACTOR SHALL PERFORM MANDREL TESTING ON ALL CONDUIT. UNCOVER ANY SECTION OF PIPE NOT PASSING THE MANDREL AND REPLACE THE BEDDING AND BACKFILL TO PREVENT EXCESSIVE DEFLECTION. REPLACE SECTIONS OF THE CONDUIT AS NECESSARY. RETEST REPAIRED CONDUIT IMMEDIATELY UPON BACKFILLING OF TRENCH UNTIL ACCEPTABLE.

TELECOMMUNICATIONS CONDUIT TRENCH
NO SCALE



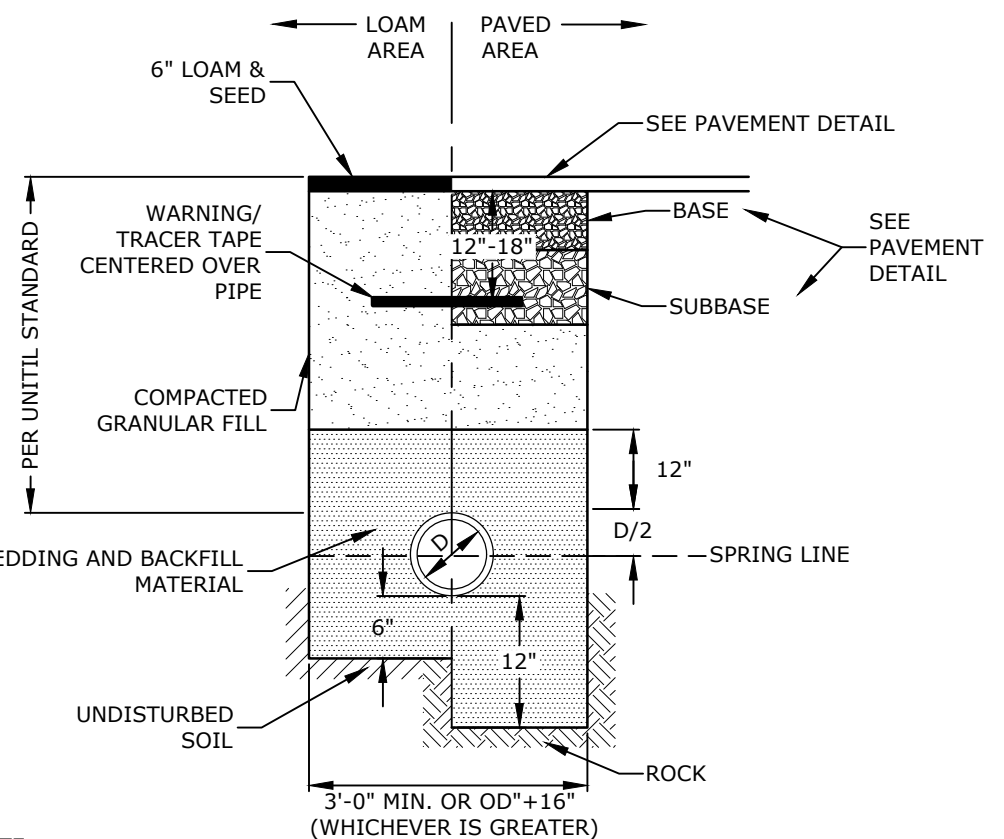
- NOTE:**
1. CRUSHED STONE BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO MIDPOINT OF PIPE.

SEWER TRENCH
NO SCALE



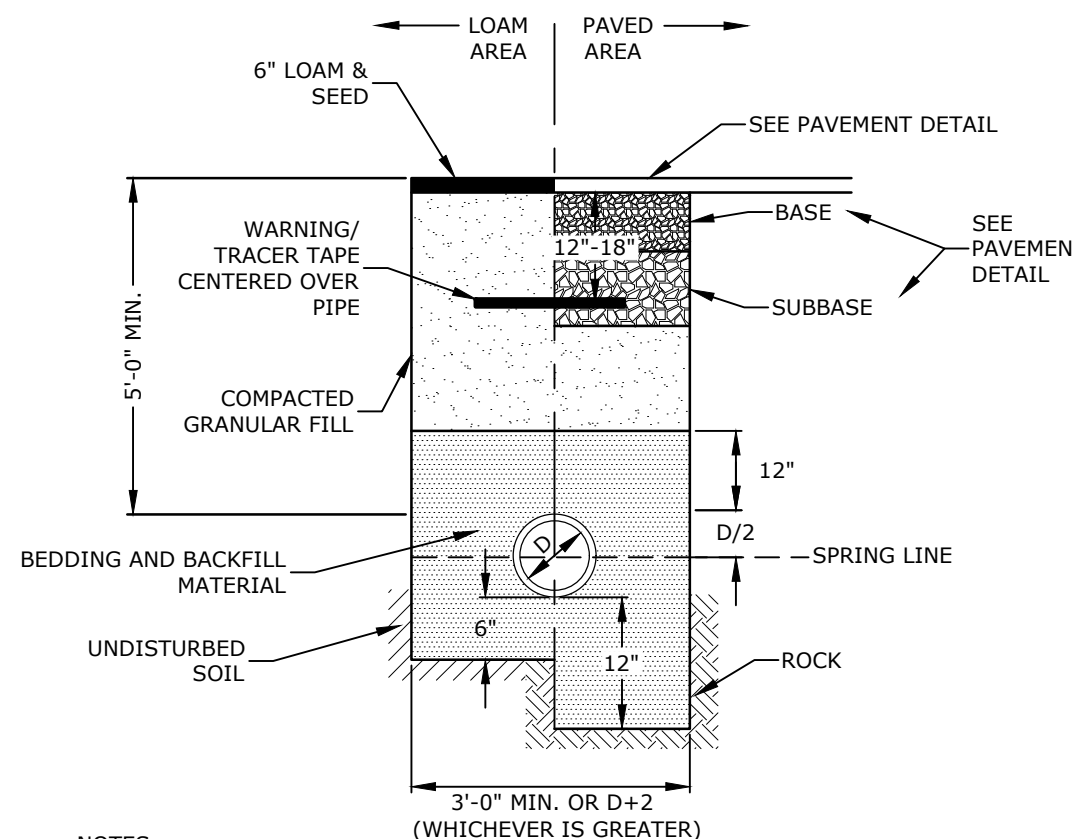
- NOTES:**
1. HYDRANT INSTALLATION AND OPERATION, MANUFACTURE AND MODEL, AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE TOWN OF DURHAM WATER DEPARTMENT AND THE TOWN OF DURHAM FIRE DEPARTMENT.
 2. TIE RODS ON DI PIPE TO BE OPTIONAL. (IF USED THRUST BLOCK AT HYDRANT MAY BE OMITTED)
 3. HYDRANT MARKER TO BE 3/8" FIBERGLASS RODS BY E-ZGUIDE PRODUCTS OR APPROVED EQUAL.
 4. HYDRANT DRAINS ARE TO REMAIN PLUGGED REGARDLESS OF GROUNDWATER OR SOIL CONDITIONS.

FIRE HYDRANT
NO SCALE



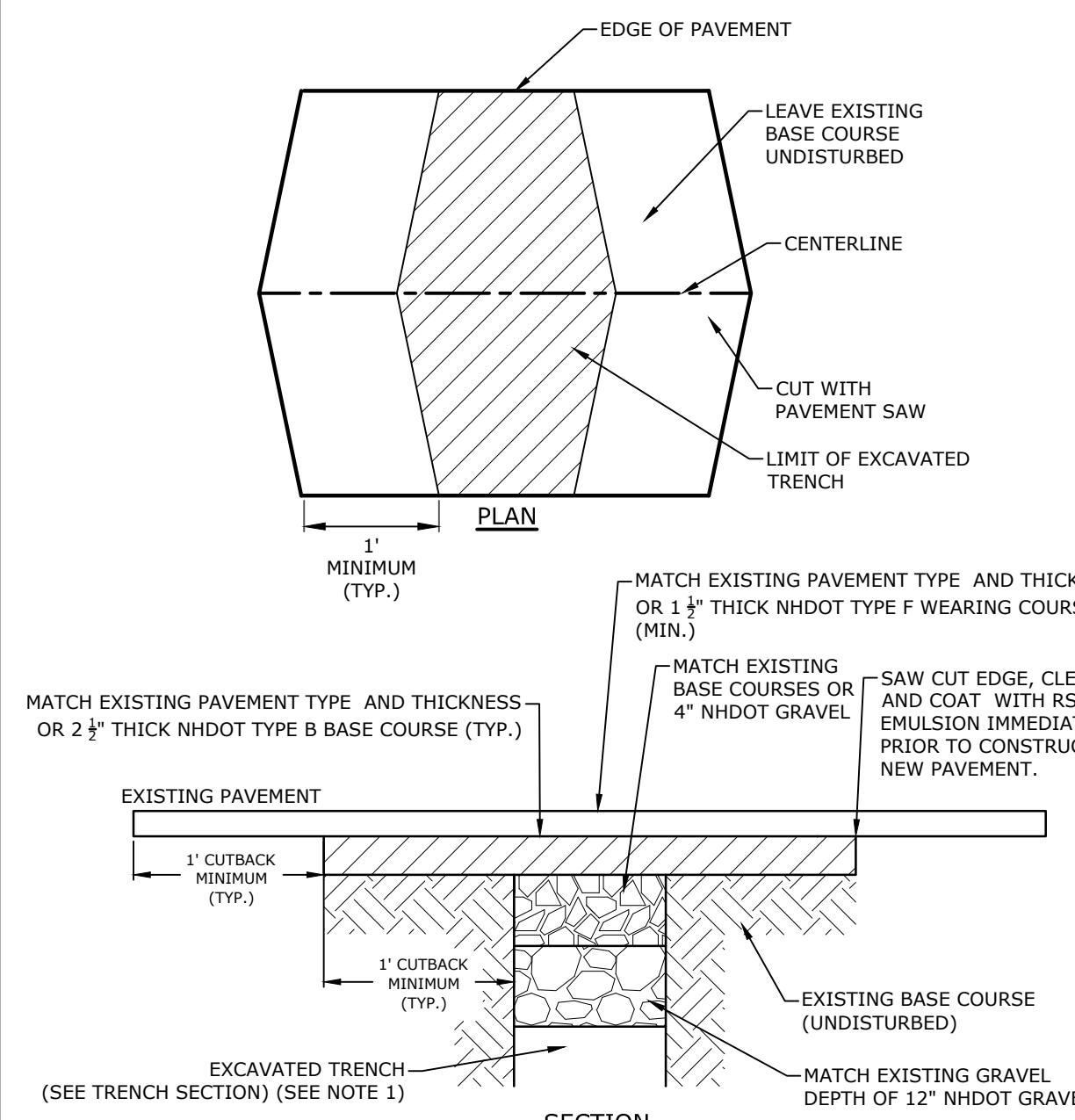
- NOTE:**
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
 2. GAS SHALL BE INSTALLED PER UNITIL STANDARDS. COORDINATE ALL INSTALLATIONS WITH UNITIL AND THE TOWN OF DURHAM.

GAS TRENCH
NO SCALE



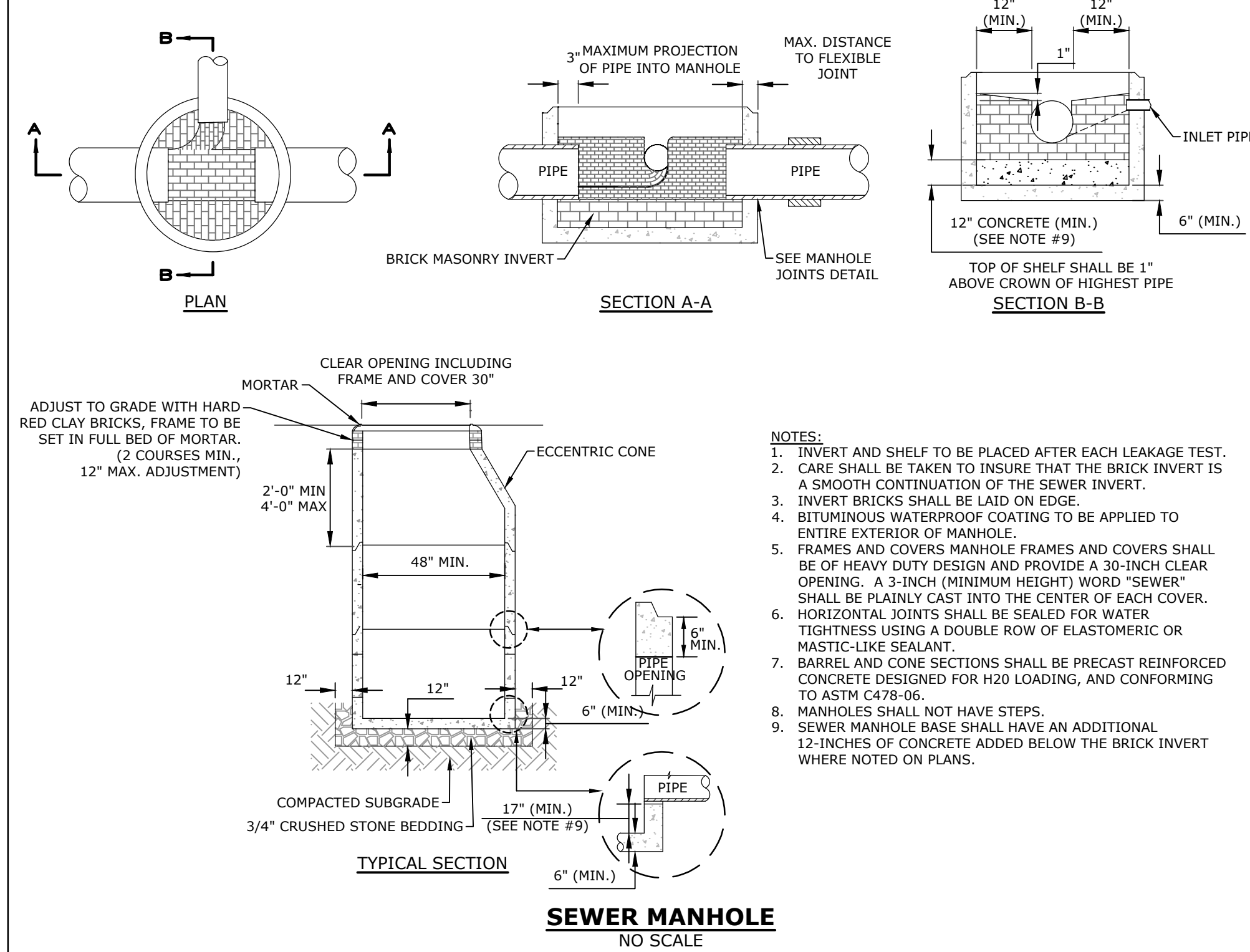
- NOTES:**
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
 2. WATER MAIN SHALL BE INSTALLED PER TOWN OF DURHAM STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE TOWN OF DURHAM.

WATER TRENCH
NO SCALE



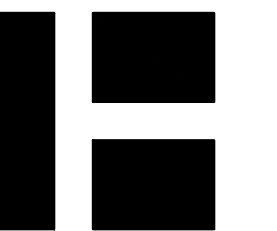
- NOTES:**
1. CUT BACK PAVEMENT BEYOND LIMITS OF UNDERMINING (1' MIN.).

ROADWAY TRENCH PATCH
NO SCALE



- NOTES:**
1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
 2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
 3. INVERT BRICKS SHALL BE LAID ON EDGE.
 4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
 5. 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) WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
 6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
 7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H2O LOADING, AND CONFORMING TO ASTM C478-06.
 8. MANHOLES SHALL NOT HAVE STEPS.
 9. SEWER MANHOLE BASE SHALL HAVE AN ADDITIONAL 12-INCHES OF CONCRETE ADDED BELOW THE BRICK INVERT WHERE NOTED ON PLANS.

SEWER MANHOLE
NO SCALE



HARRIMAN
AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**

**Mill Plaza
Redevelopment**

**Colonial Durham
Associates, LP**

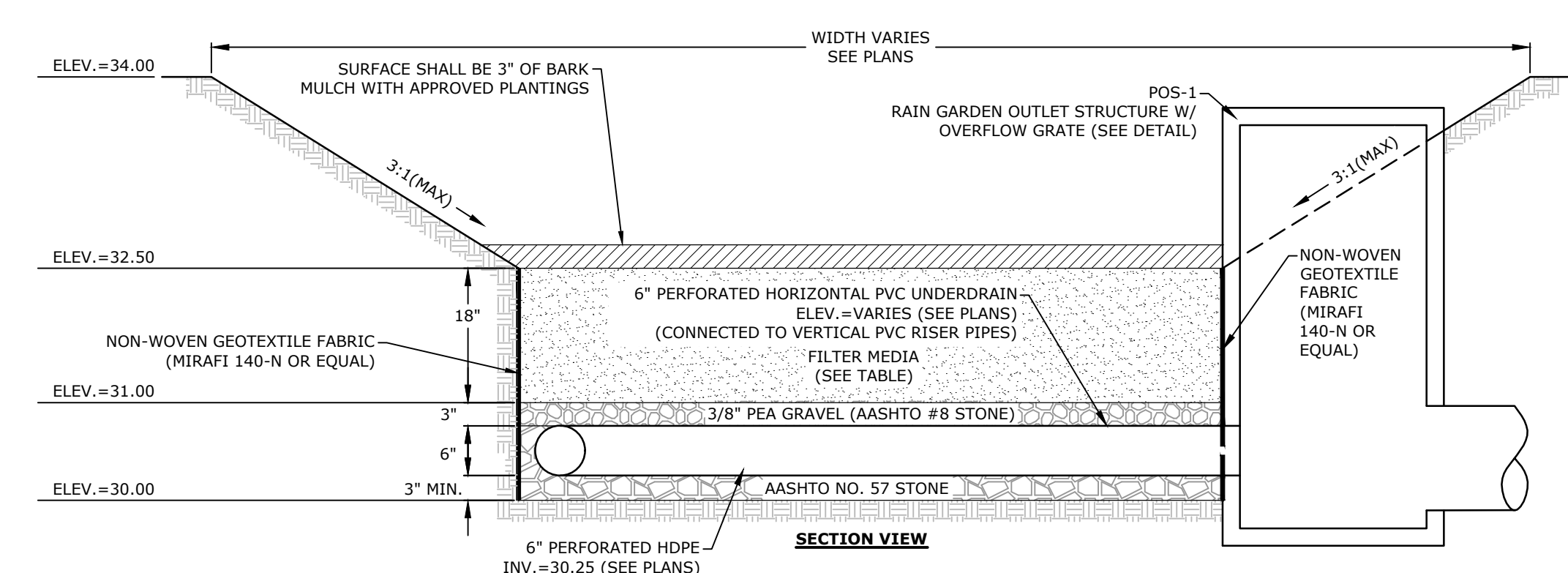
7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS
PROJECT NO:	M1529-002	
DATE:	5/23/2018	
FILE:	M1529-002_C-DTLS.dwg	
DRAWN BY:	EGD	
CHECKED:	JMP	
APPROVED:	BLM	

DETAIL SHEET

SCALE: AS SHOWN

C-506



FILTER MEDIA COMPOSITION:

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

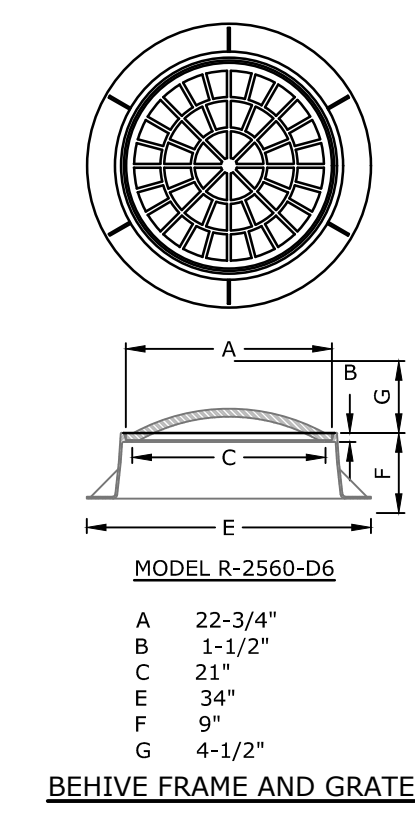
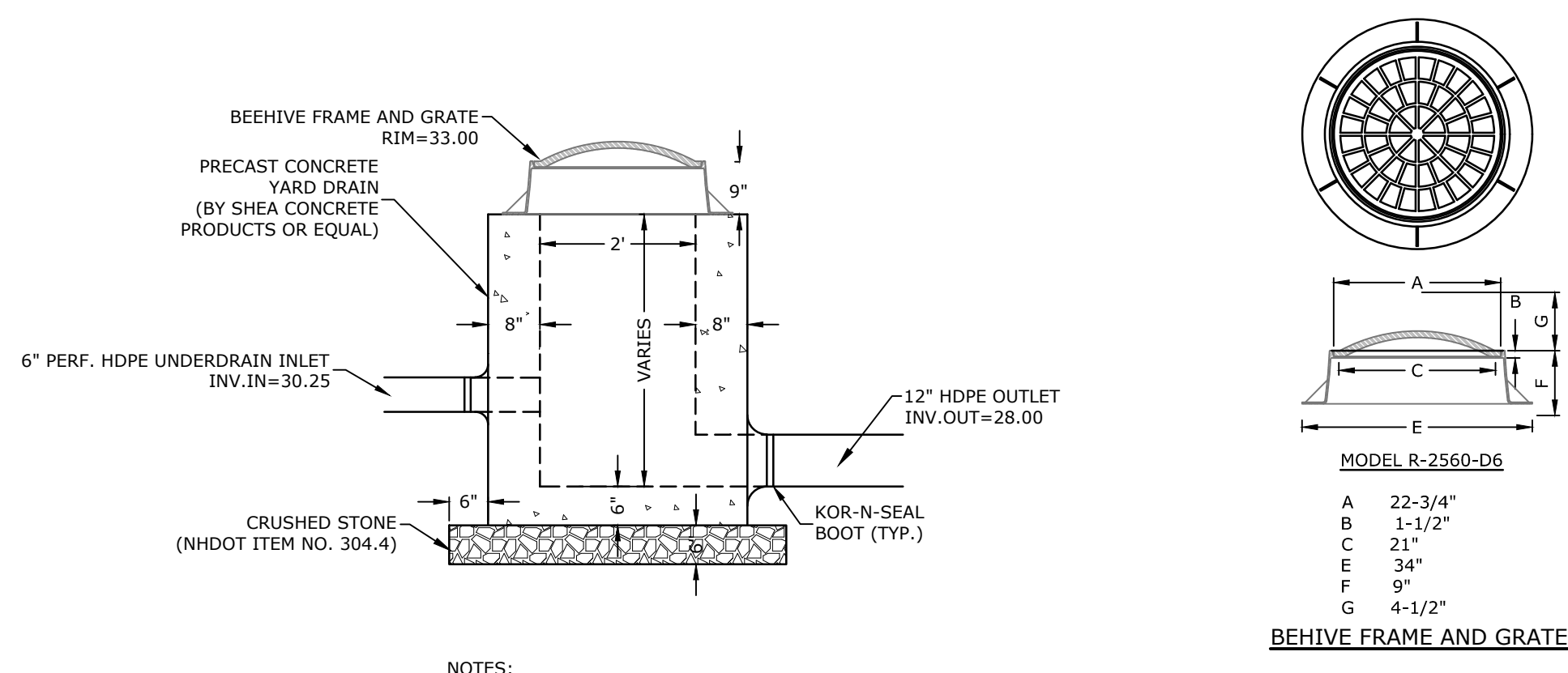
- NOTES:**
- BARK MULCH SHALL BE AGED A MINIMUM OF 12 MONTHS AND SHALL NOT FLOAT.
 - RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
 - THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

AASHTO #8 STONE (#8 to 3/8")

SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

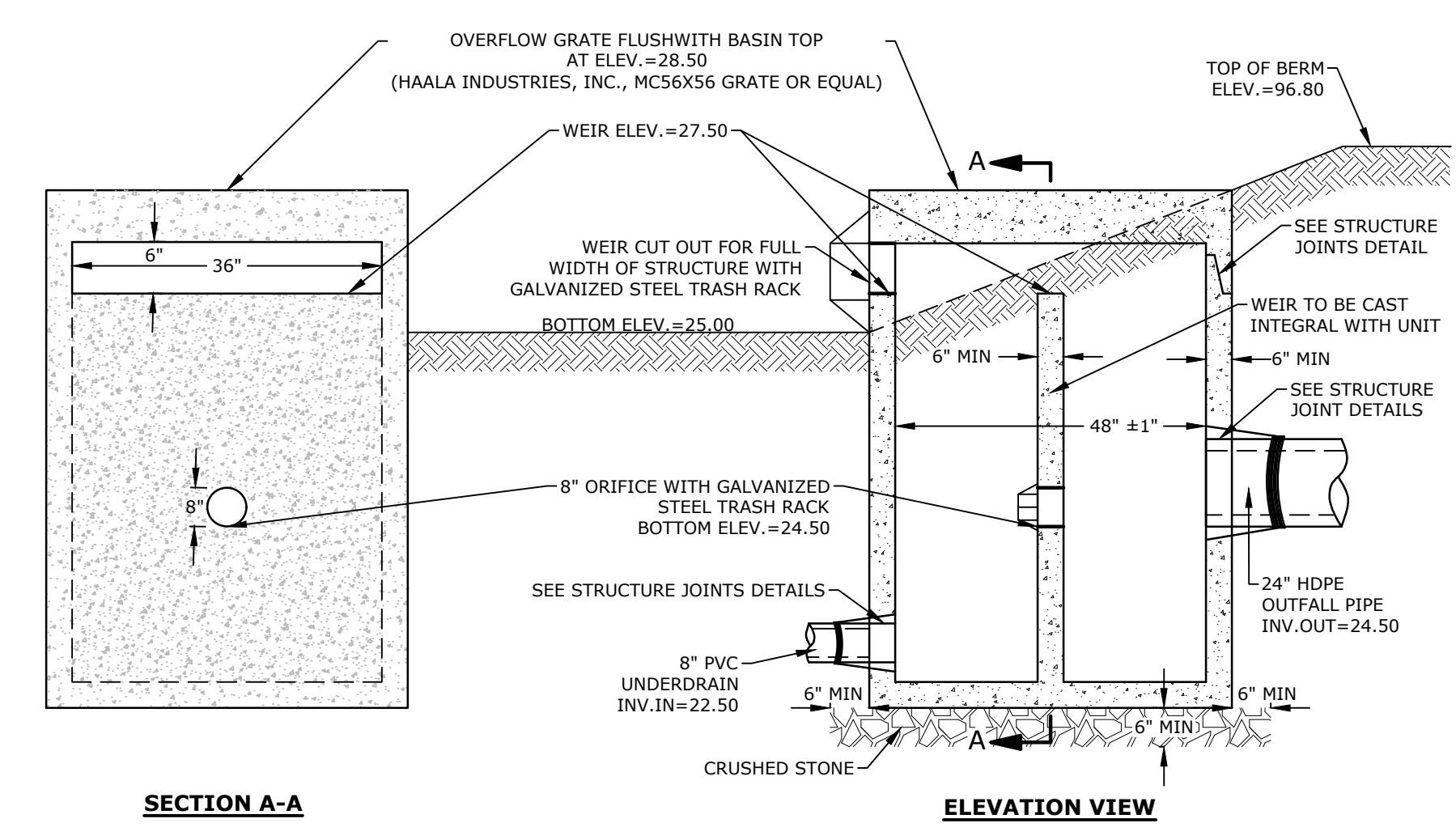
AASHTO #57 STONE (#4 to 1")

SIEVE SIZE	% PASSING
1-1/2"	100
1"	95-100
1/2"	25-60
#4	0-10
#8	0-5



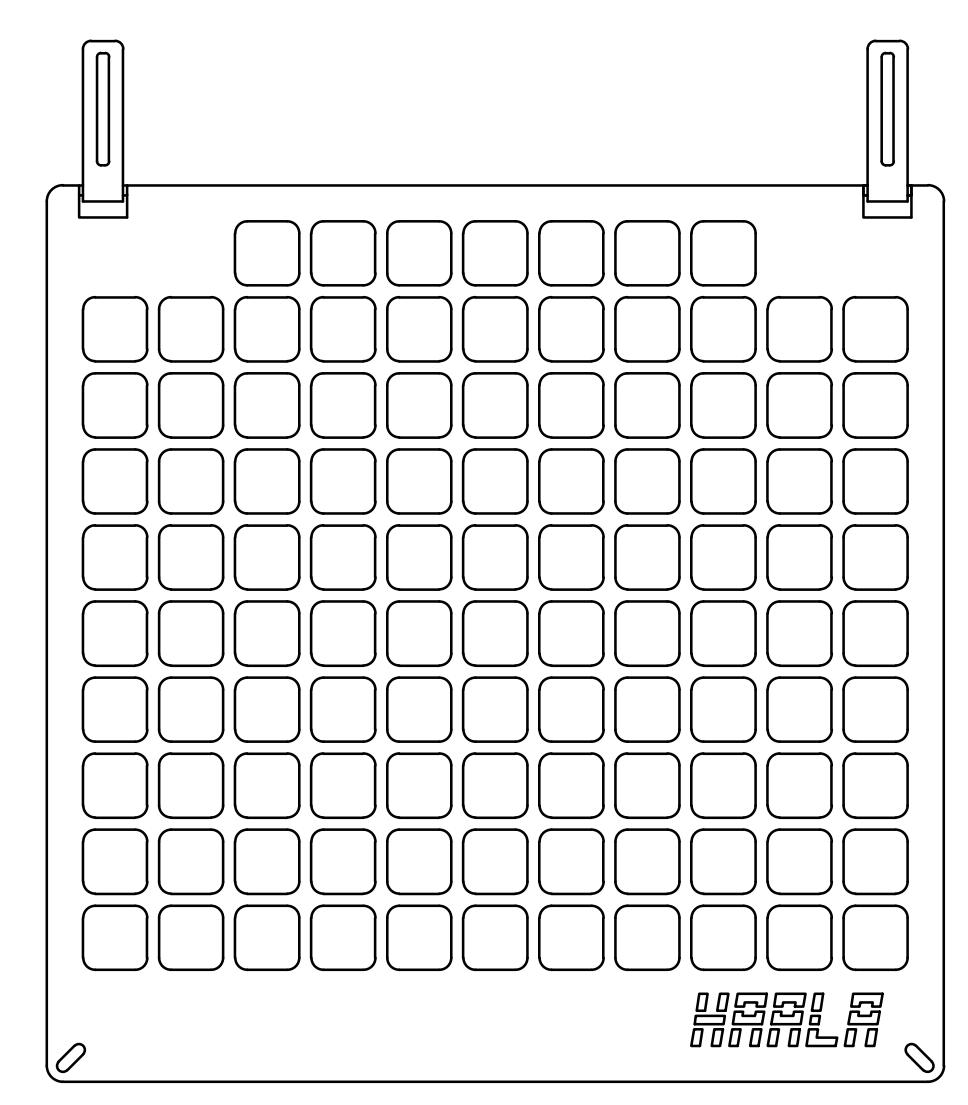
- NOTES:**
- CONCRETE SHALL BE 4,000 PSI (TYPE II CEMENT)
 - SEE SITE, GRADING, DRAINAGE, EROSION CONTROL & UTILITIES PLAN FOR LOCATIONS.
 - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADINGS.
 - ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.
 - FRAME AND GRATE SHALL BE NEENAH FOUNDRIES MODEL R-2560-D8 OR EQUAL.

PROPOSED OUTLET STRUCTURE (POS1)
NO SCALE



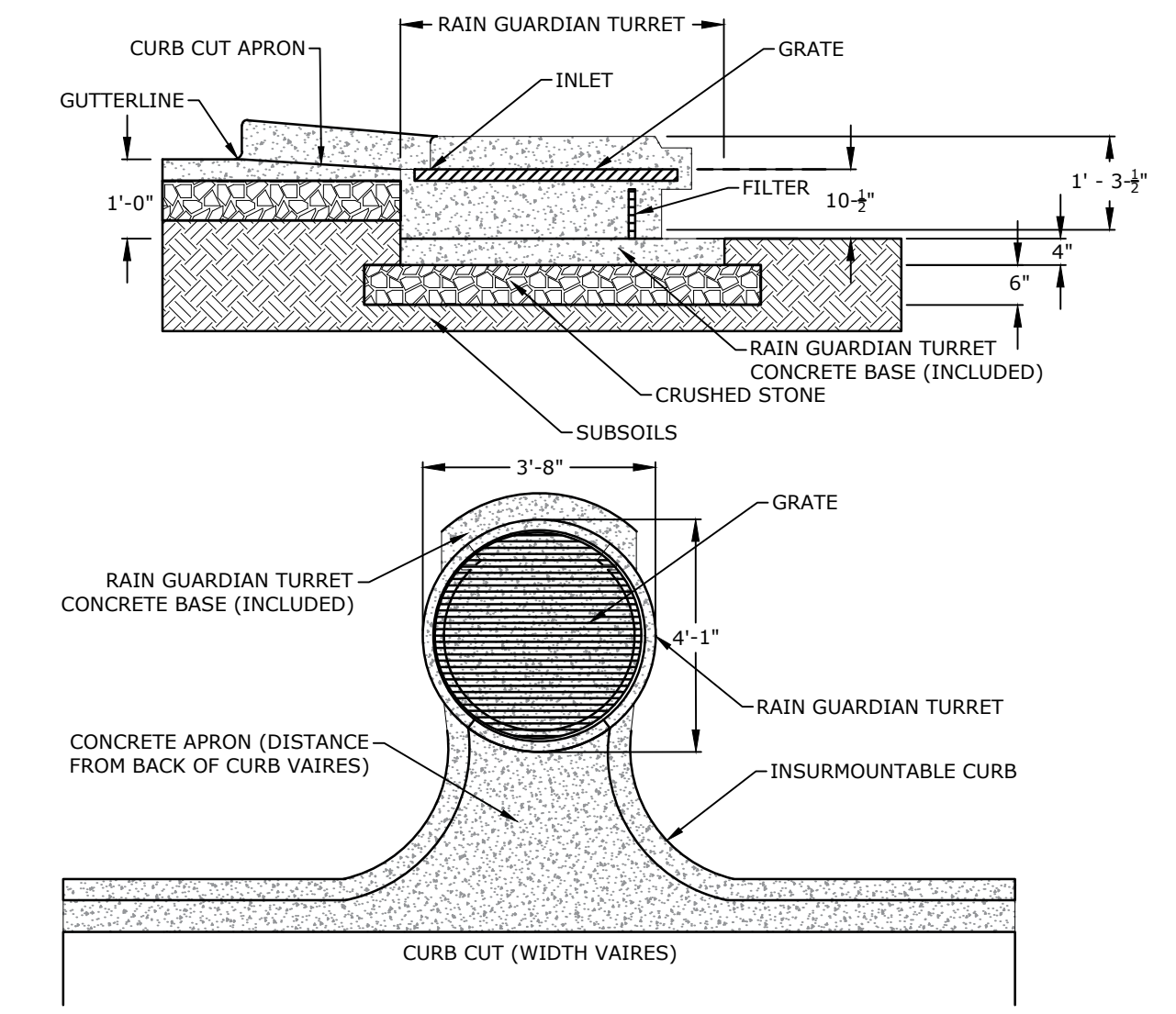
- NOTES:**
- ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
 - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRD WALL.
 - THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 - ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

PROPOSED OUTLET STRUCTURE (POS2)
NO SCALE



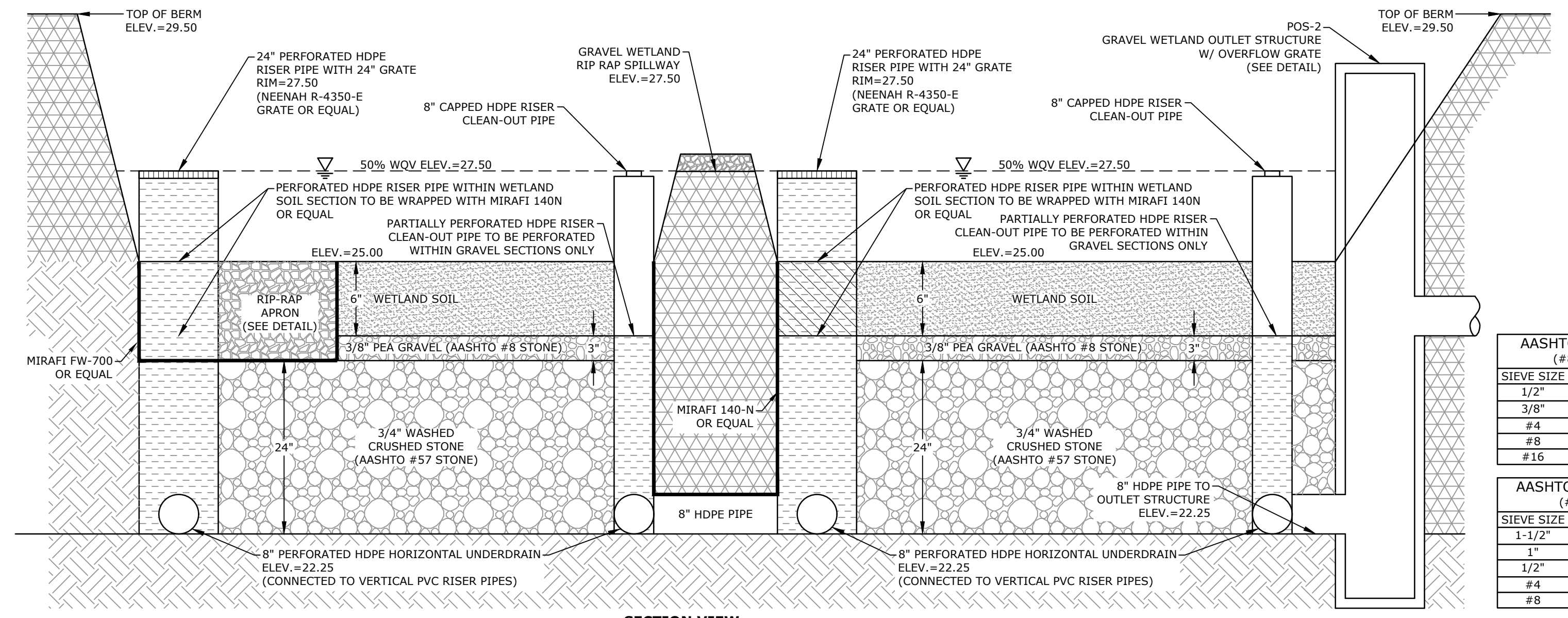
- NOTES:**
- GRATE TO BE CONSTRUCTED OF 3/8" THICK GALVANIZED PLATE.
 - GRATE TO BE SECURED TO CONCRETE STRUCTURE.

HAALA MICHIE CORP. TOP GRATE (56X56)
NO SCALE



- NOTES:**
- RAIN GUARDIAN OR APPROVED EQUAL.
 - CURB INLET SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE RECOMMENDATION.

RAIN GUARDIAN TURRET
NO SCALE



AASHTO #8 STONE (#8 to 3/8")

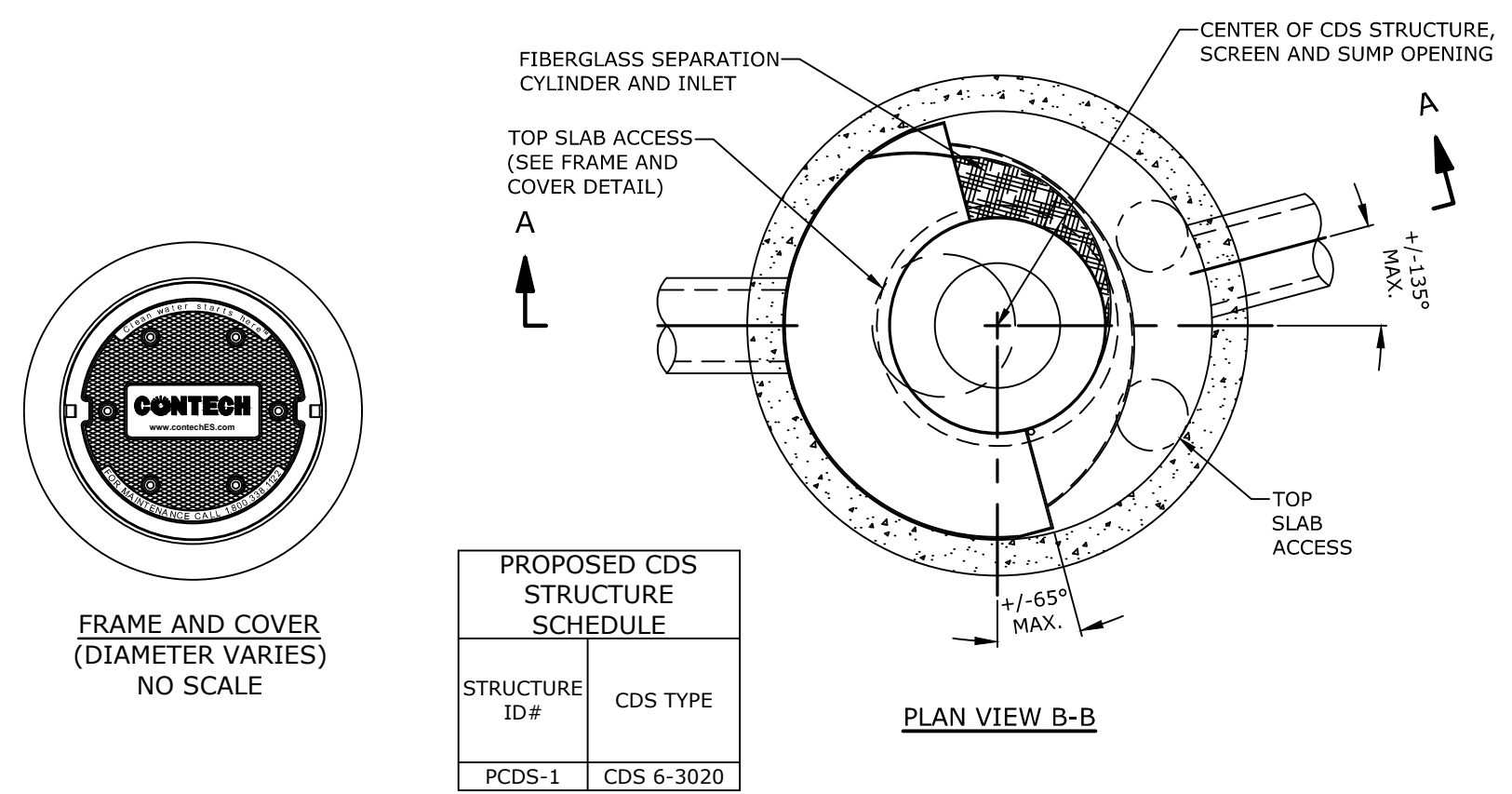
SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

AASHTO #57 STONE (#4 to 1")

SIEVE SIZE	% PASSING
1-1/2"	100
1"	95-100
1/2"	25-60
#4	0-10
#8	0-5

- NOTES:**
- WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
 - PERFORATED HDPE RISERS SHALL HAVE VERTICAL SLOTS CUT INTO HDPE RISERS ABOVE GRADE MEASURING 3"x1/8".

GRAVEL WETLAND
NO SCALE

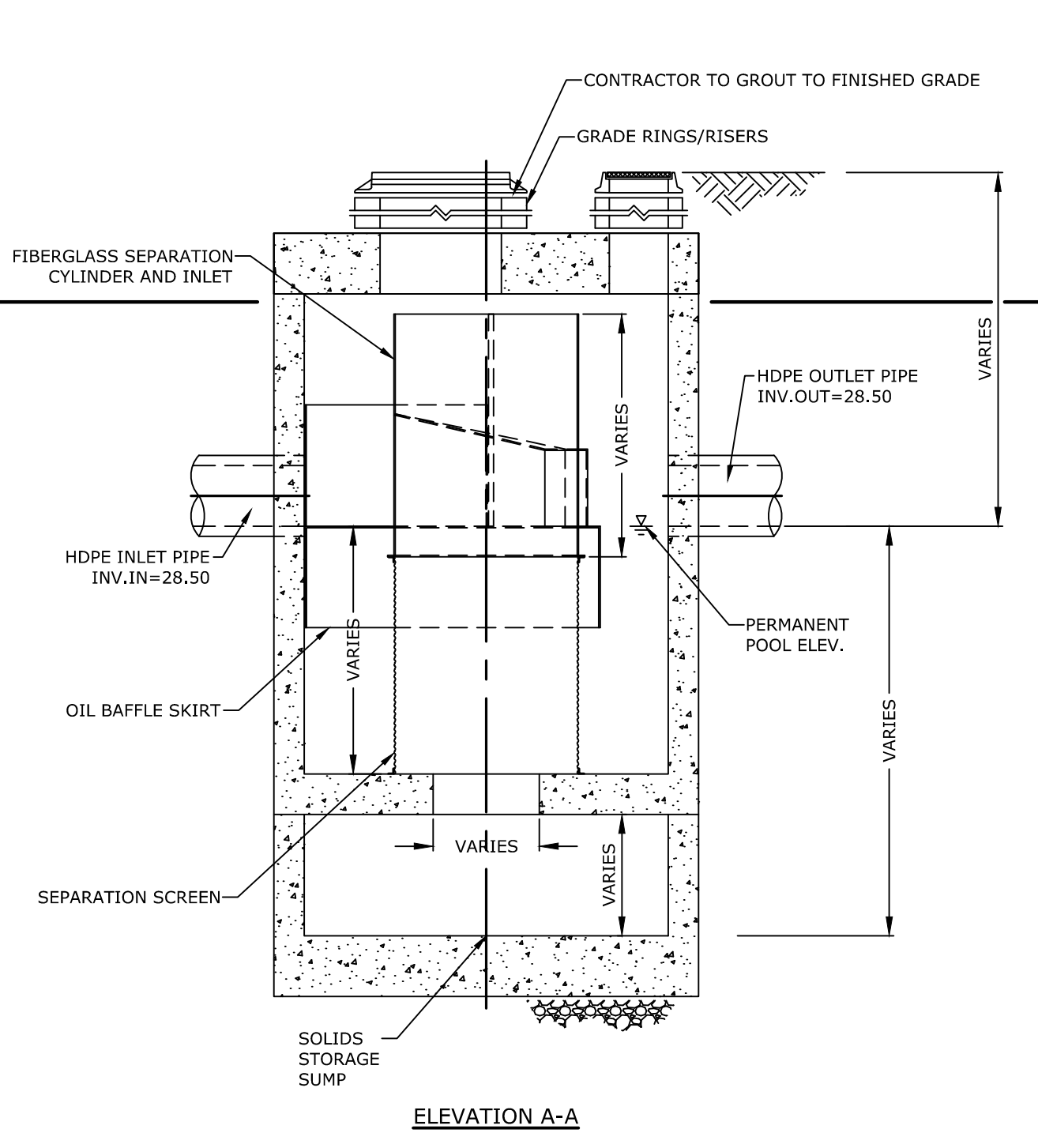


PROPOSED CDS STRUCTURE SCHEDULE

STRUCTURE ID#	CDS TYPE
PCDS-1	CDS 6-3020

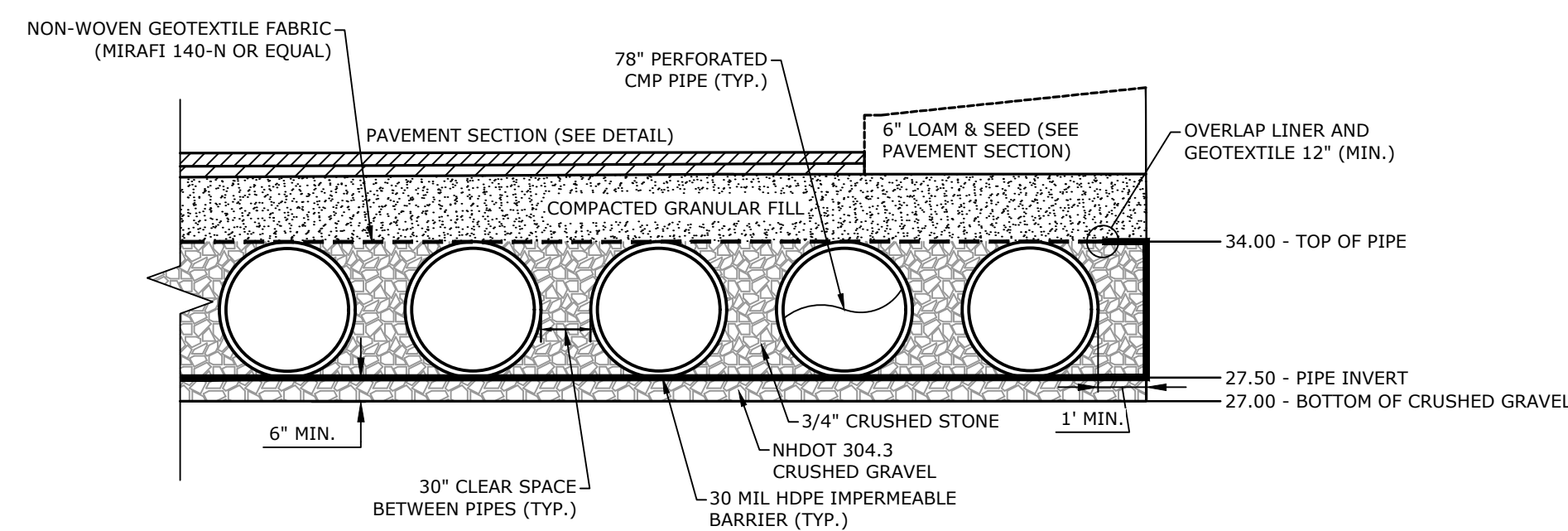
- GENERAL NOTES:**
- CONTECH TO PROVIDE FINAL DIMENSIONS BASED ON APPROVED FLOWS AND ALL MATERIALS UNLESS NOTED OTHERWISE.
 - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
 - PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES:**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN ON GRADING PLAN.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

PROPOSED CDS UNIT
NO SCALE



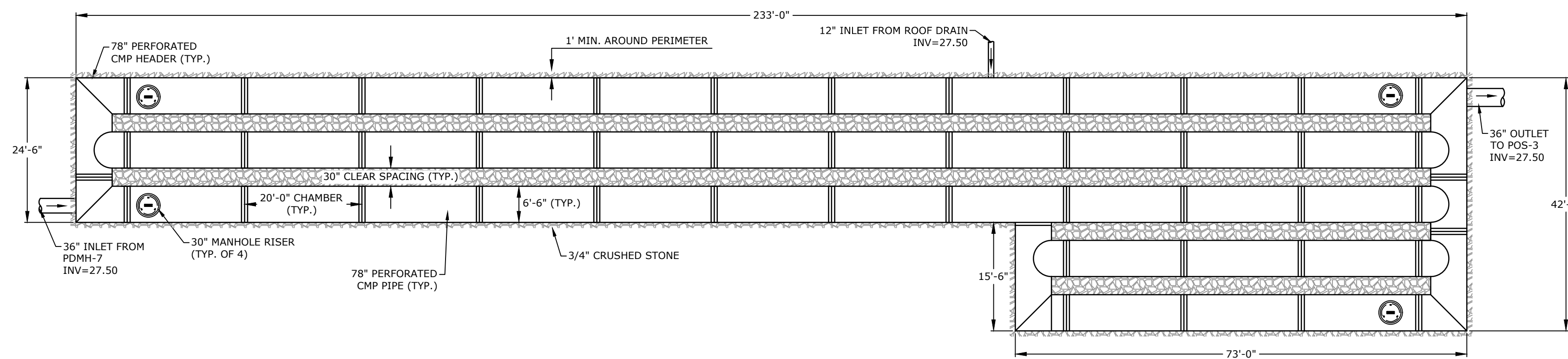
ELEVATION A-A

12/31/2019
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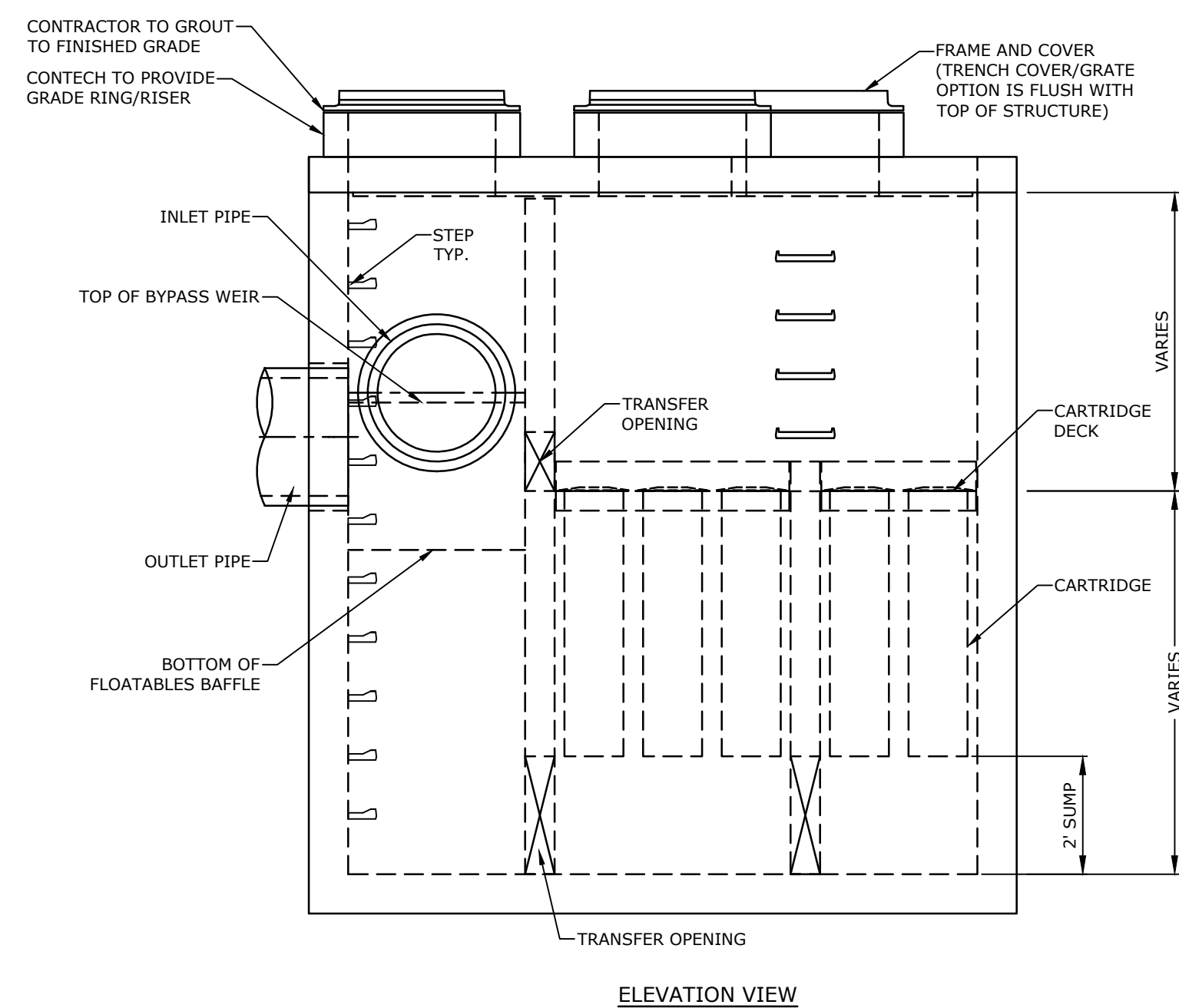
- NOTE:
1. THE UNDERGROUND DETENTION BASIN (UDB) SYSTEM SHALL BE ALUMINIZED 16 GAGE STEEL PIPE DESIGNED FOR H-20 LOADING. CONTRACTOR TO SUBMIT PIPE SPECIFICATIONS AND FINAL MANUFACTURERS DESIGN TO ENGINEER FOR REVIEW AND APPROVAL.
 2. THE CONTRACTOR SHALL SUBMIT PLANS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
 3. THE DESIGN ENGINEER SHALL PROVIDE SUFFICIENT INSPECTION TO CERTIFY THAT THE SYSTEM HAS BEEN INSTALLED PER THE PROPOSED DESIGN PLAN.
 4. THE DESIGN SHALL REQUIRE INSPECTION PORTS/COVERS SUCH THAT SYSTEM CAN BE CLEANED BY VACUUM TRUCK WITH A MINIMUM OF ONE IN EACH CORNER.
 5. APPROXIMATE LENGTH OF 60\"/>

UNDERGROUND DETENTION BASIN
NO SCALE

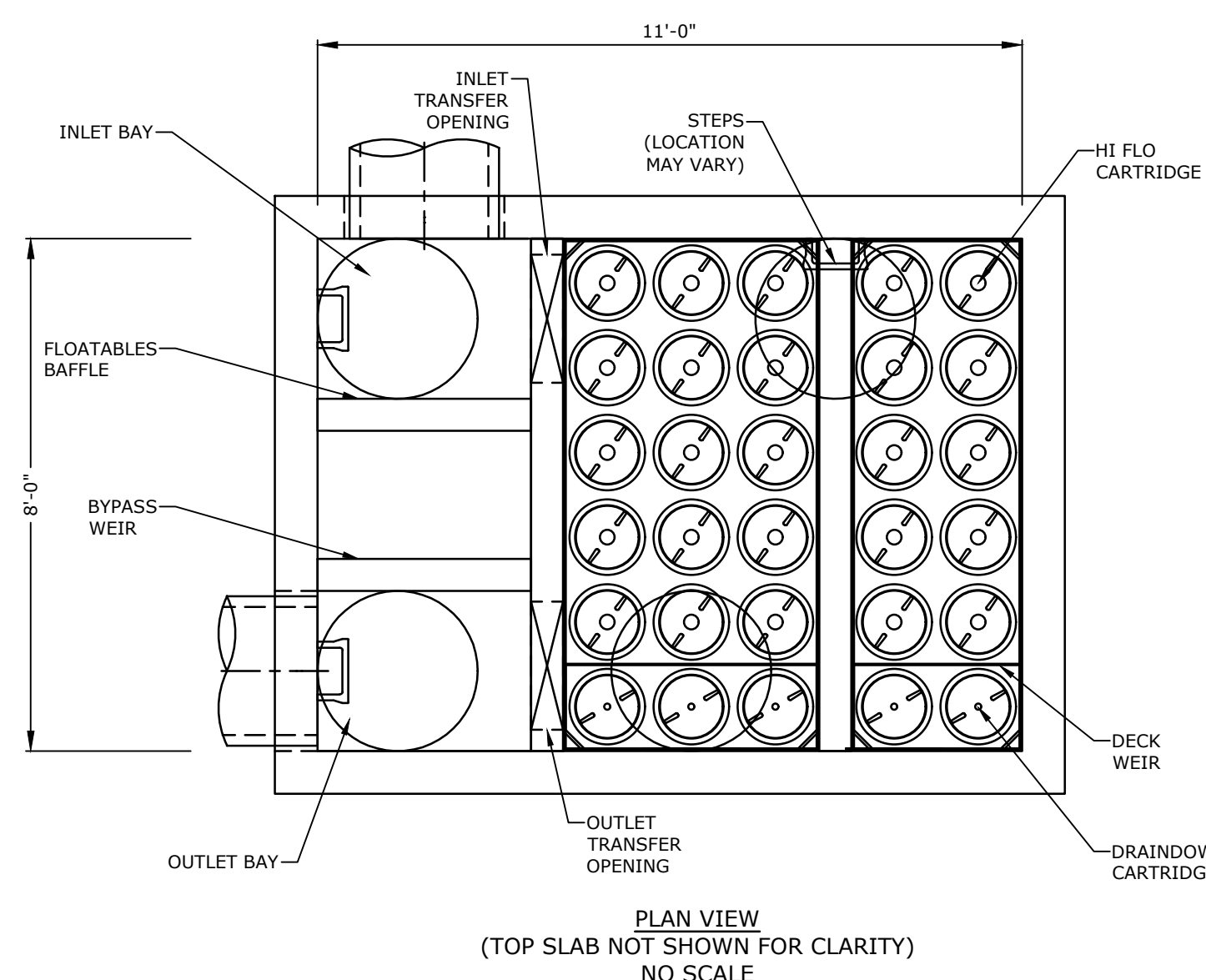


- NOTE:
1. THE UNDERGROUND DETENTION BASIN (UDB) SYSTEM SHALL BE ALUMINIZED 16 GAGE STEEL PIPE DESIGNED FOR H-20 LOADING. CONTRACTOR TO SUBMIT PIPE SPECIFICATIONS AND FINAL MANUFACTURERS DESIGN TO ENGINEER FOR REVIEW AND APPROVAL.
 2. THE CONTRACTOR SHALL SUBMIT PLANS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
 3. THE DESIGN ENGINEER SHALL PROVIDE SUFFICIENT INSPECTION TO CERTIFY THAT THE SYSTEM HAS BEEN INSTALLED PER THE PROPOSED DESIGN PLAN.
 4. THE DESIGN SHALL REQUIRE INSPECTION PORTS/COVERS SUCH THAT SYSTEM CAN BE CLEANED BY VACUUM TRUCK WITH A MINIMUM OF ONE IN EACH CORNER.
 5. APPROXIMATE LENGTH OF 78\"/>

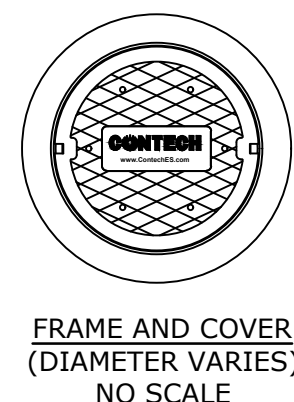
UNDERGROUND DETENTION BASIN
NO SCALE



ELEVATION VIEW



PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)
NO SCALE



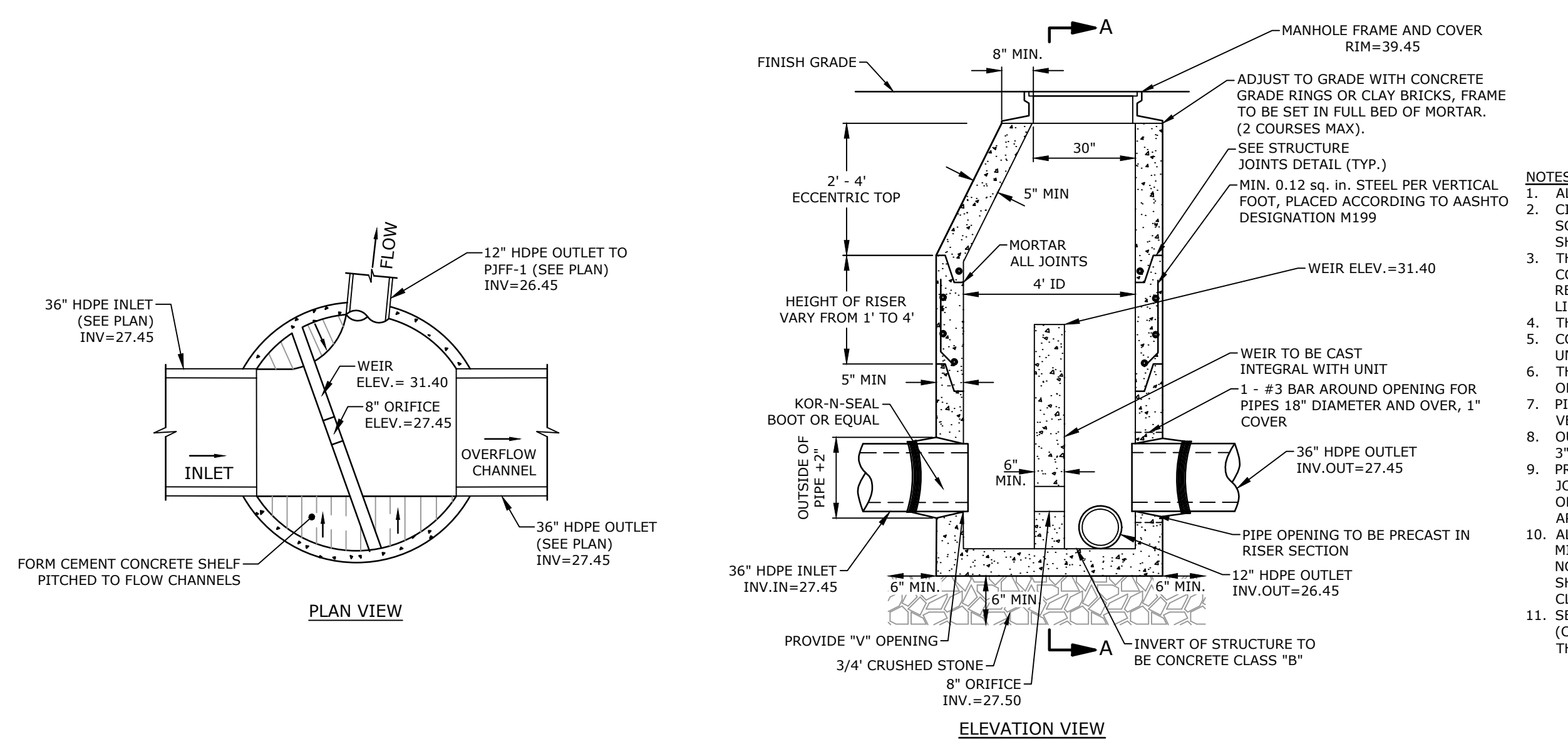
FRAME AND COVER
(DIAMETER VARIES)
NO SCALE

JELLYFISH FILTER STRUCTURE SCHEDULE

JFF TYPE
JFPD0811-16-4

- GENERAL NOTES:
1. CONTECH TO PROVIDE FINAL DIMENSIONS BASED ON APPROVED FLOWS AND ALL MATERIALS UNLESS NOTED OTHERWISE.
 2. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 3. STRUCTURE SHALL MEET AASHTO HS-20 LOADING REQUIREMENTS. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
 4. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- INSTALLATION NOTES:
- A. CONTRACTOR SHALL PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED)
 - B. CONTRACTOR SHALL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
 - C. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
 - D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (866) 740-3318.

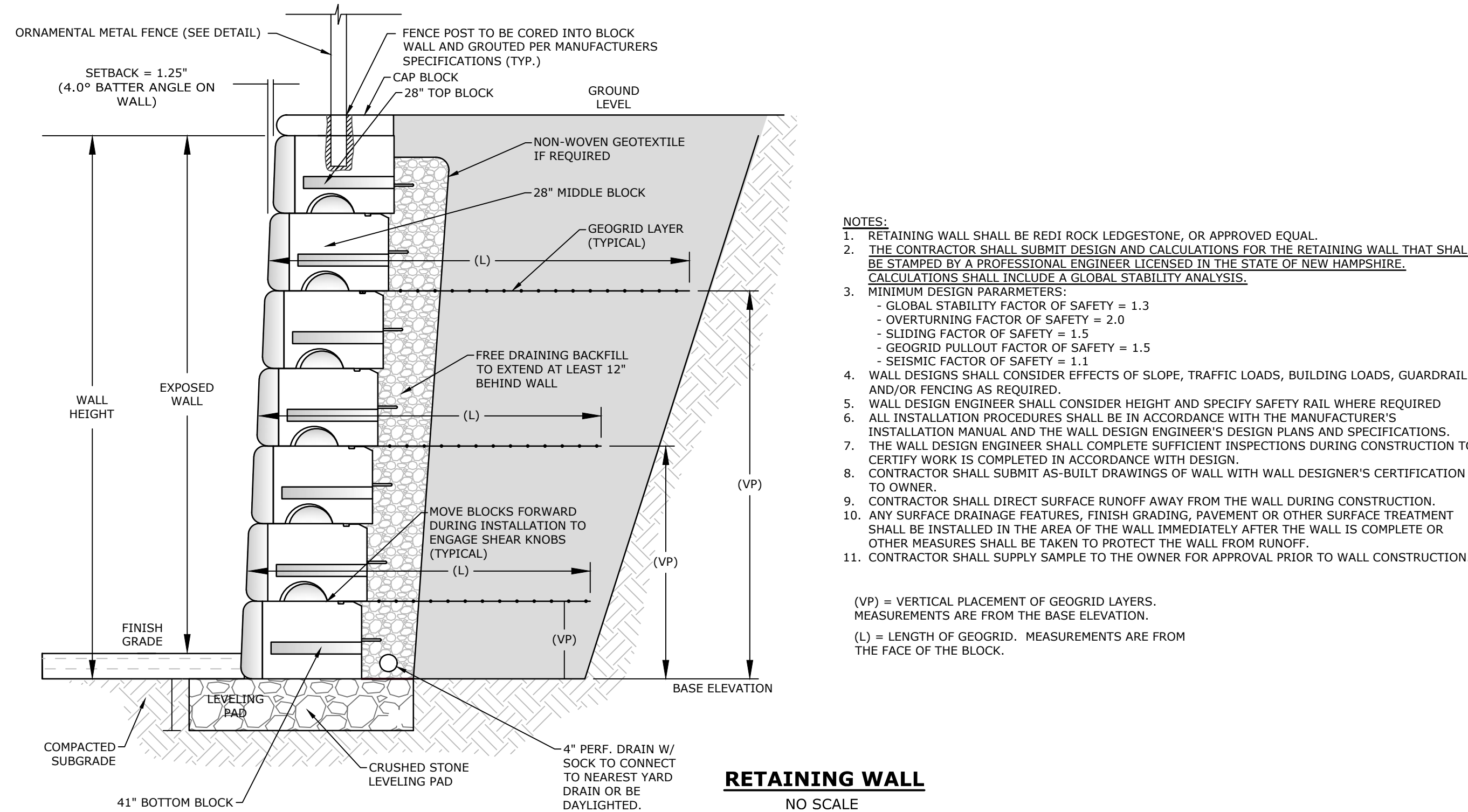
RECTANGULAR JELLYFISH FILTER UNIT
NO SCALE



ELEVATION VIEW

- NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND GROOVE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
 5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6\"/>

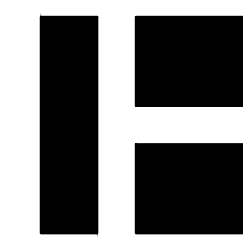
UNDERGROUND DETENTION BASIN OUTLET STRUCTURE (POS3)
NO SCALE



RETAINING WALL
NO SCALE

- NOTES:
1. RETAINING WALL SHALL BE REDI ROCK LEDGESTONE, OR APPROVED EQUAL.
 2. THE CONTRACTOR SHALL SUBMIT DESIGN AND CALCULATIONS FOR THE RETAINING WALL THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE. CALCULATIONS SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
 3. MINIMUM DESIGN PARAMETERS:
 - GLOBAL STABILITY FACTOR OF SAFETY = 1.3
 - OVERTURNING FACTOR OF SAFETY = 2.0
 - SLIDING FACTOR OF SAFETY = 1.5
 - GEOGRID PULLOUT FACTOR OF SAFETY = 1.5
 - SEISMIC FACTOR OF SAFETY = 1.1
 4. WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, BUILDING LOADS, GUARDRAIL AND/OR FENCING AS REQUIRED.
 5. WALL DESIGN ENGINEER SHALL CONSIDER HEIGHT AND SPECIFY SAFETY RAIL WHERE REQUIRED
 6. ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION MANUAL AND THE WALL DESIGN ENGINEER'S DESIGN PLANS AND SPECIFICATIONS.
 7. THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETED IN ACCORDANCE WITH DESIGN.
 8. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS OF WALL WITH WALL DESIGNER'S CERTIFICATION TO OWNER.
 9. CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
 10. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE OR OTHER MEASURES SHALL BE TAKEN TO PROTECT THE WALL FROM RUNOFF.
 11. CONTRACTOR SHALL SUPPLY SAMPLE TO THE OWNER FOR APPROVAL PRIOR TO WALL CONSTRUCTION.

(VP) = VERTICAL PLACEMENT OF GEOGRID LAYERS. MEASUREMENTS ARE FROM THE BASE ELEVATION.
(L) = LENGTH OF GEOGRID. MEASUREMENTS ARE FROM THE FACE OF THE BLOCK.



HARRIMAN

AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117



PERMIT DRAWINGS
NOT FOR CONSTRUCTION

Mill Plaza
Redevelopment

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

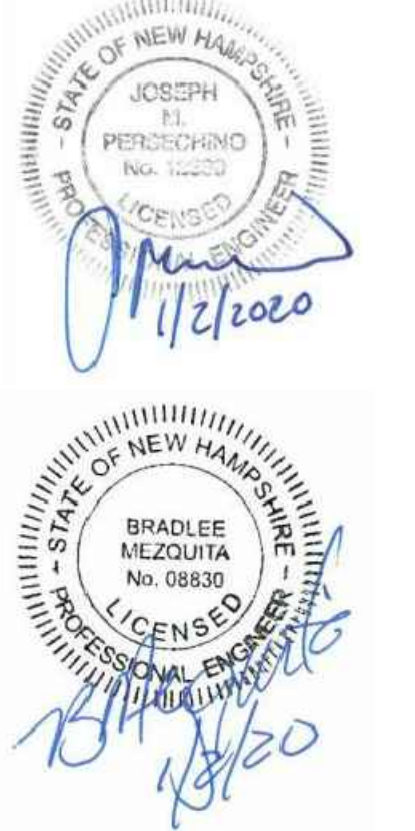
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	1/2/2020	GENERAL REVISIONS

PROJECT NO: M1529-002
DATE: 5/23/2018
FILE: M1529-002_C-DTL5.dwg
DRAWN BY: EGD
CHECKED: JMP
APPROVED: BLM

DETAIL SHEET

SCALE: AS SHOWN

C-507



**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**

**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

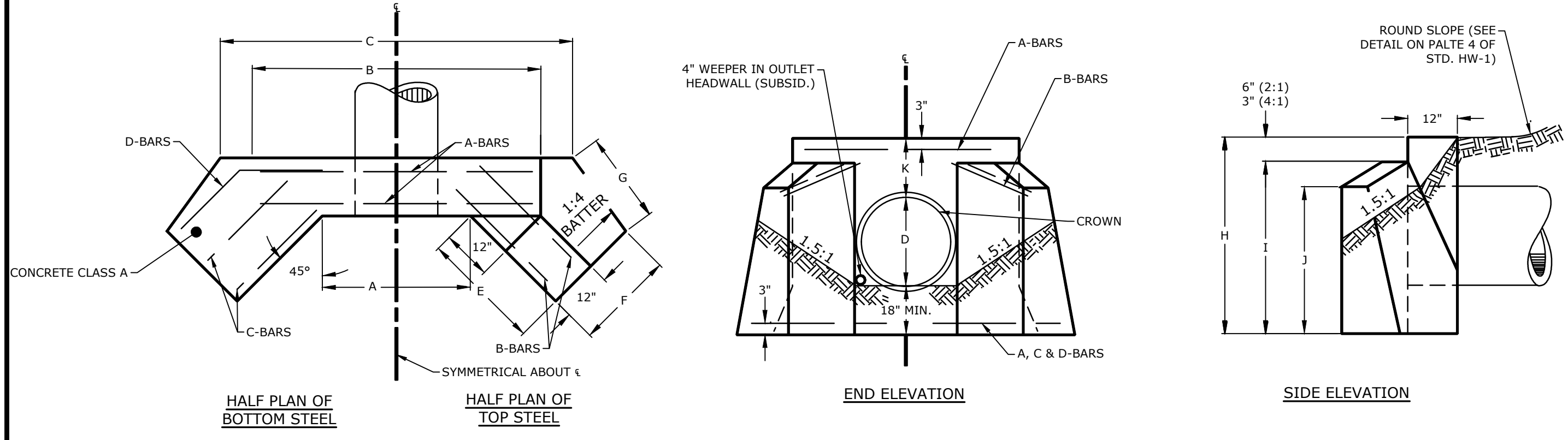
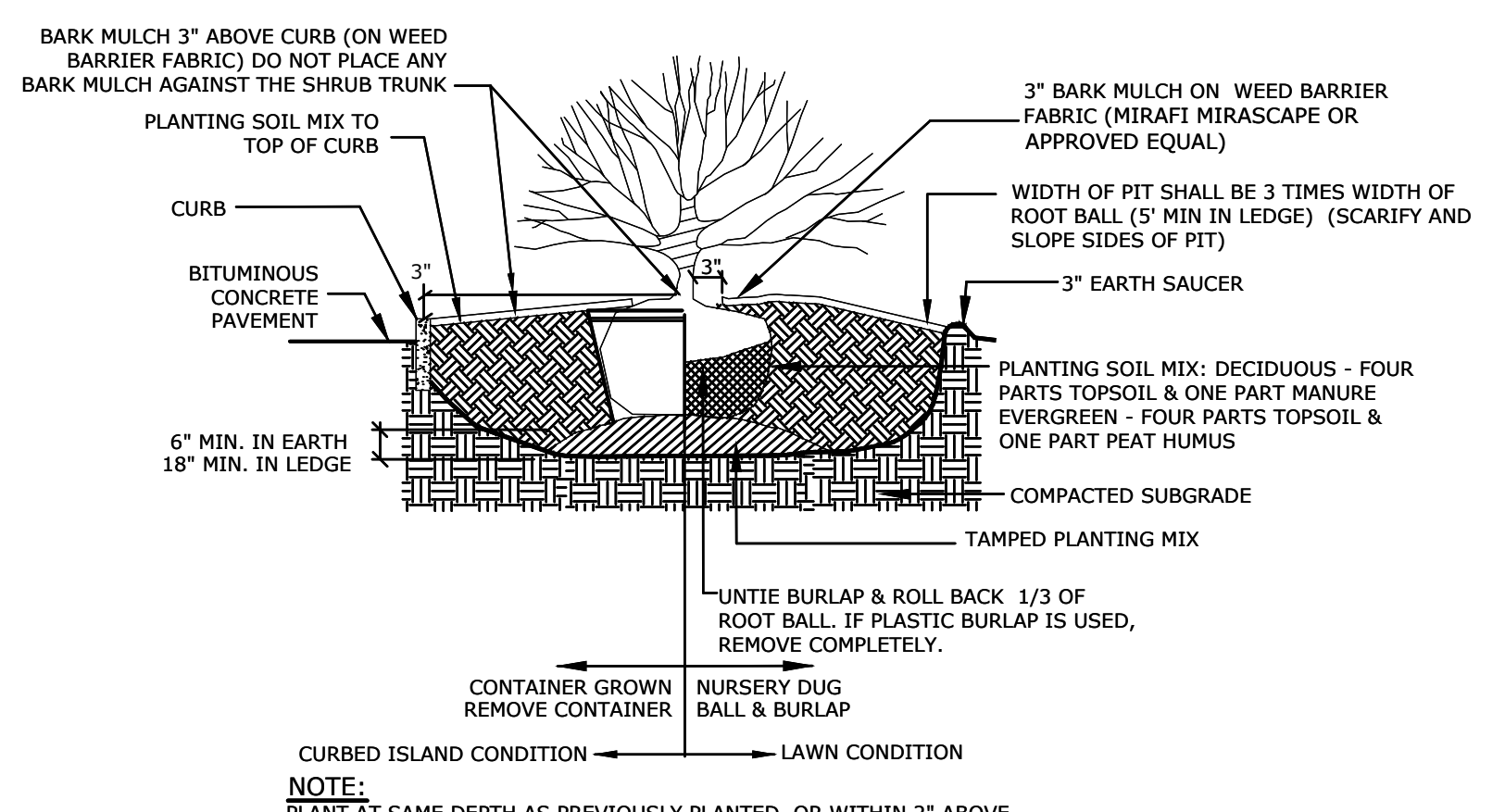
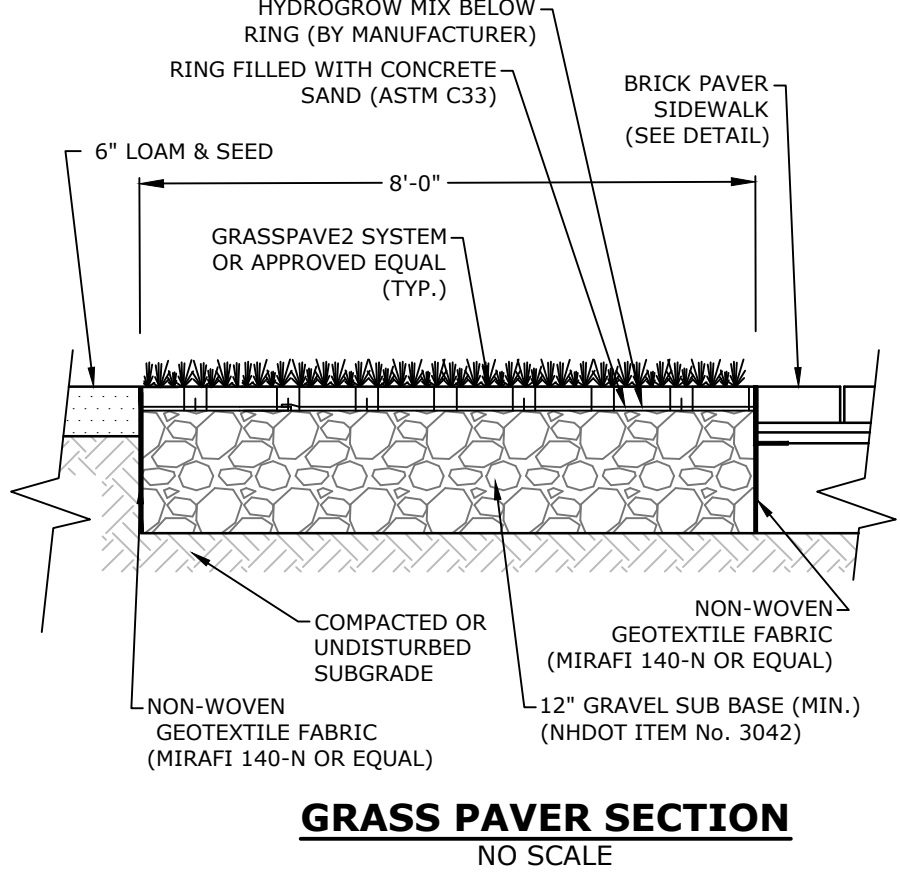
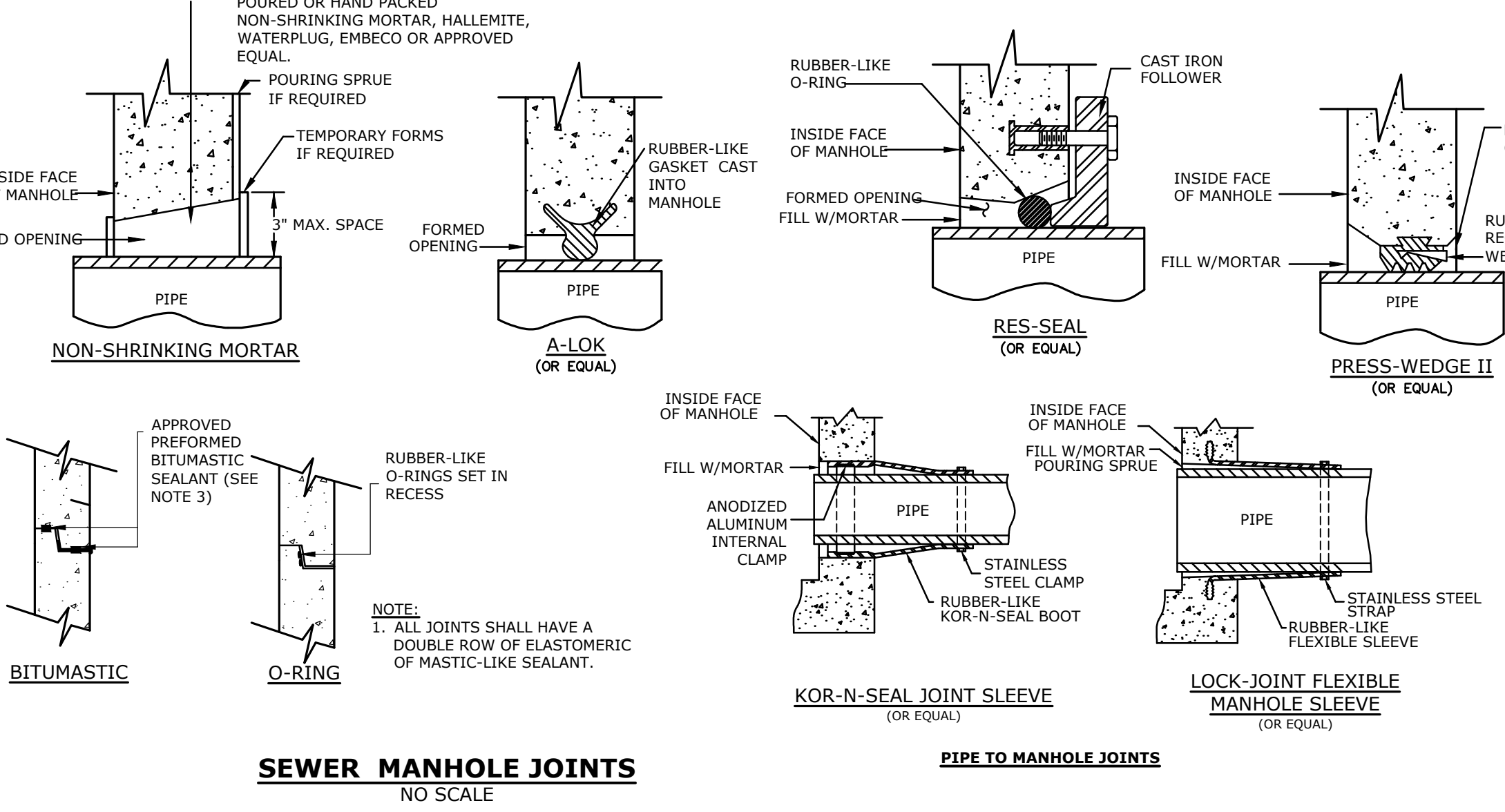
MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS

DETAIL SHEET

SCALE: AS SHOWN

C-508

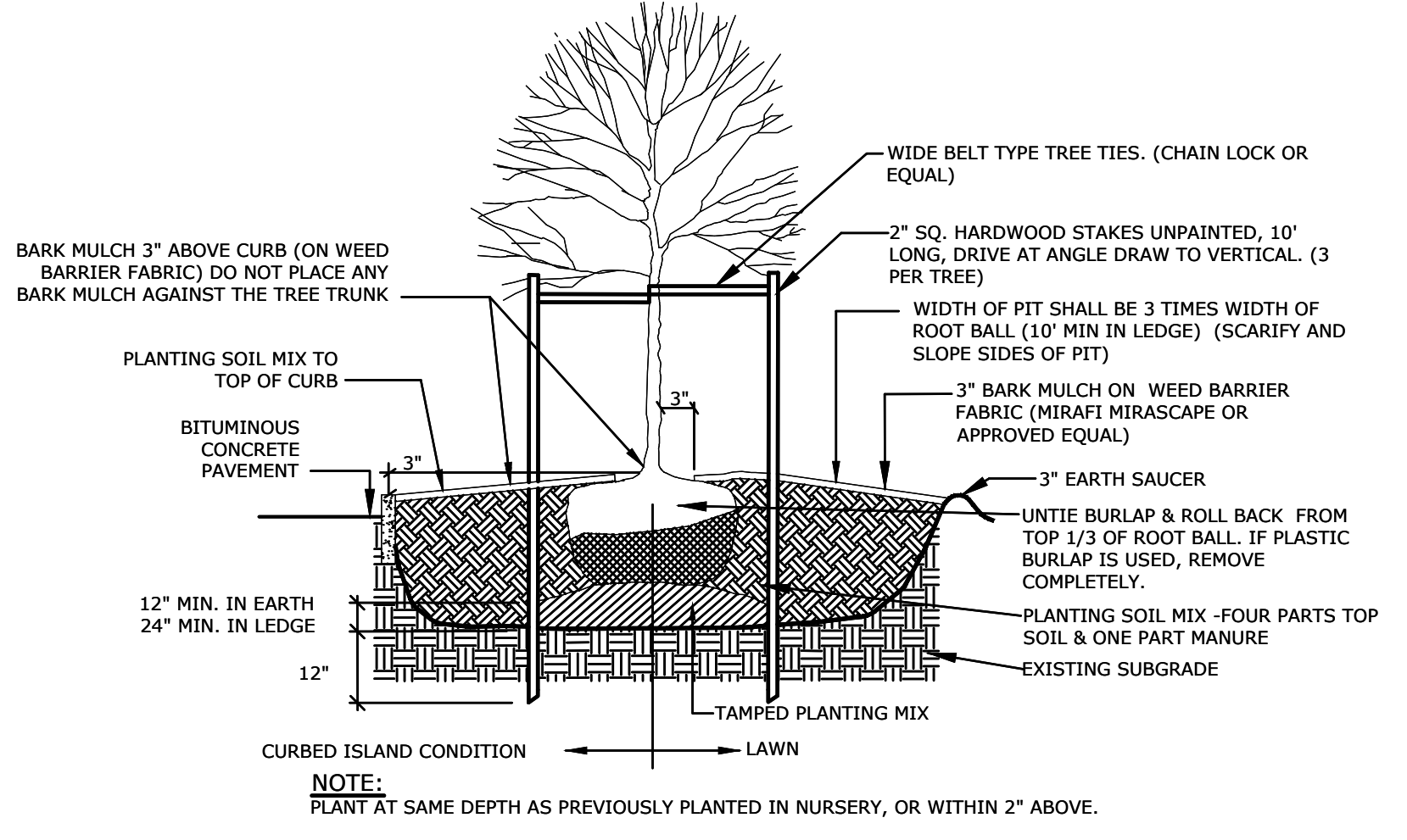
- NOTES:**
- HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE ENGINEER. WHICH TYPE SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
 - PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER IN GENERAL AND, IN GENERAL, WILL DEPEND FOR WATER TIGHTNESS UPON EITHER AN APPROVED NON-SHRINKING MORTAR OR ELASTOMERIC SEALANT.
 - FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 - ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.



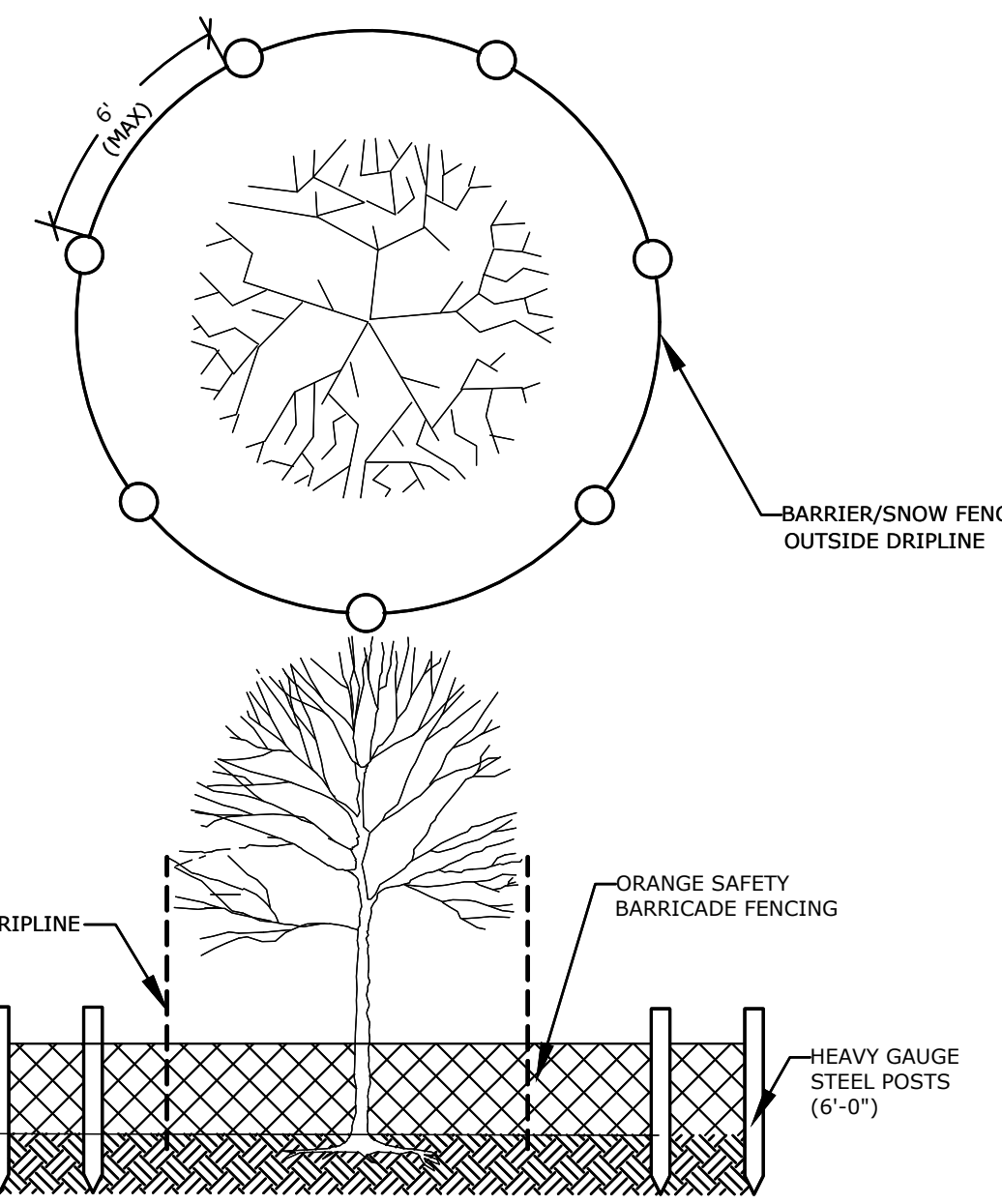
DIAMETER (INCHES)	QUANTITIES PER HEADER			DIMENSIONS										REINFORCING STEEL						
	CONC (CY. YD)	STEEL (LB)	EXC. FOR 1\"/>																	
				36	3.24	47	2.12	3'-8"	6'-6"	8'-5"	4'-2"	2'-1"	3'-3"	6'-0"	5'-6"	4'-4"	1'-6"	#4	6'-2"	4'-3"

NOTE: ALL LIKE BAR IN EACH HEADWALL ARE THE SAME SIZE. EACH STD. HEADER HAS 4 A, B & C-BARS, AND 2 D-BARS

CONCRETE FLARED END SECTION
NO SCALE



DECIDUOUS TREE PLANTING
NO SCALE



EVERGREEN TREE PLANTING
NO SCALE

DECIDUOUS TREE PLANTING
NO SCALE

Last Saved: 12/31/2019
 Plotted On: Dec 31, 2019 10:36am By: Edorenius
 Tighe & Bond 3: M1529-002_C-DTLS.dwg
 LCC 002-Mill Plaza Drawings Figures/AutoCAD/Sheet/M1529-002_C-DTLS.dwg

NOTES:
 1. FIRE TRUCK SHOWN (E-ONE HP100 AERIAL) IS EQUIVALENT TO TOWN OF DURHAM, NH LADDER 3 (1996 E-ONE 110 FOOT AERIAL)

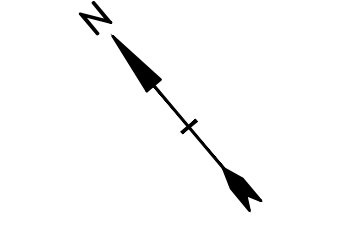


HARRIMAN
 AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117



**PERMIT DRAWINGS
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SCALE IN FEET
 0 40' 80'
 GRAPHIC SCALE

**Mill Plaza
 Redevelopment**

Colonial Durham
 Associates, LP

7 Mill Road, Unit L
 Durham,
 New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS

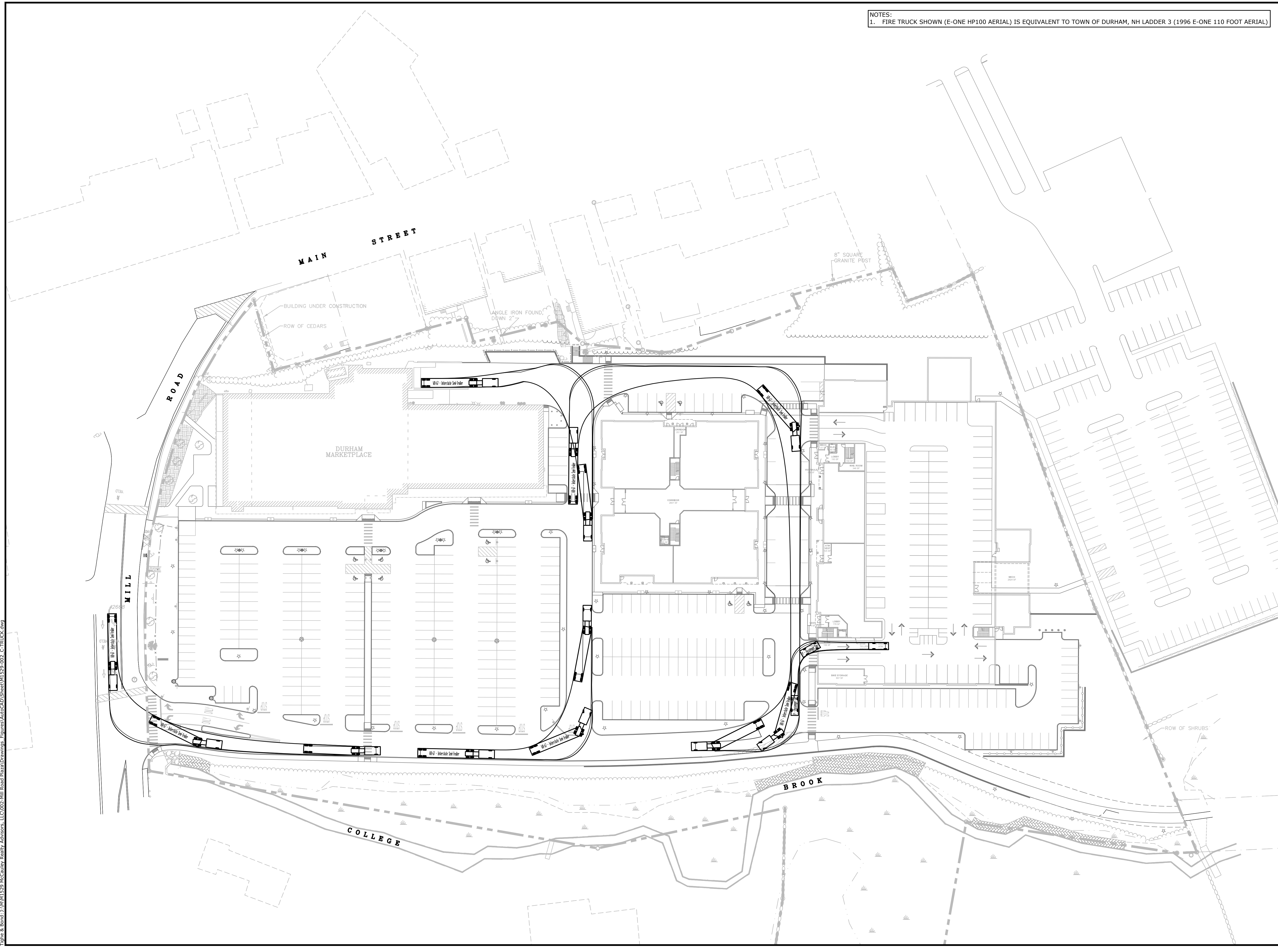
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 DATE: 5/23/2018
 FILE: M1529-002_C-TRUCK.dwg
 DRAWN BY: EGD
 CHECKED: JMP
 APPROVED: BLM

TRUCK TURNING PLAN

SCALE: AS SHOWN

C-601

Last Saved: 12/23/2018 10:38am By: E.Doremus
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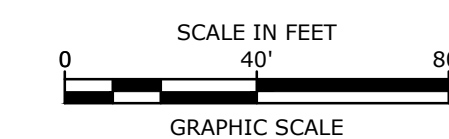
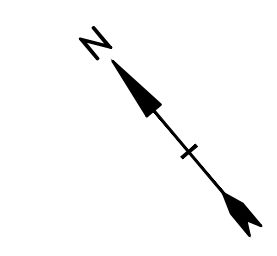


HARRIMAN

Harriman Project No. 16117



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**Mill Plaza
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Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS

PROJECT NO: M1529-002

DATE: 5/23/2018

FILE: M1529-002_C-IMPACT.dwg

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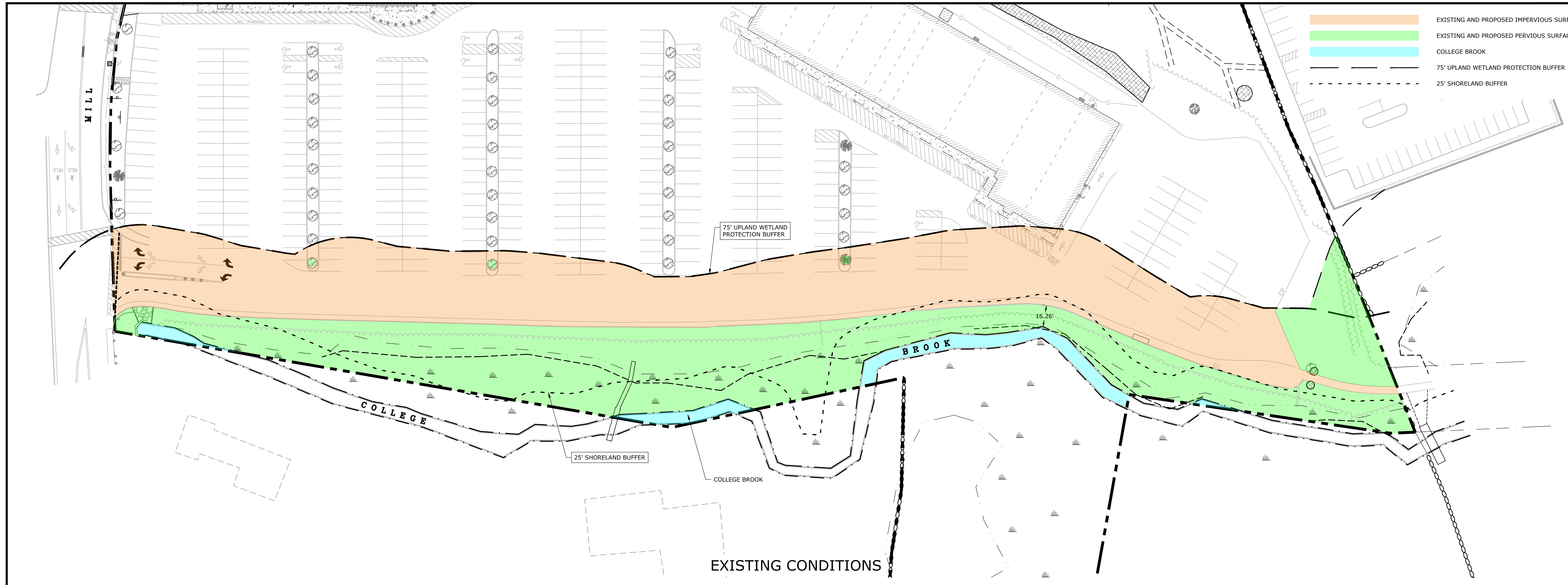
APPROVED: BLM

BUFFER COVERAGE PLAN

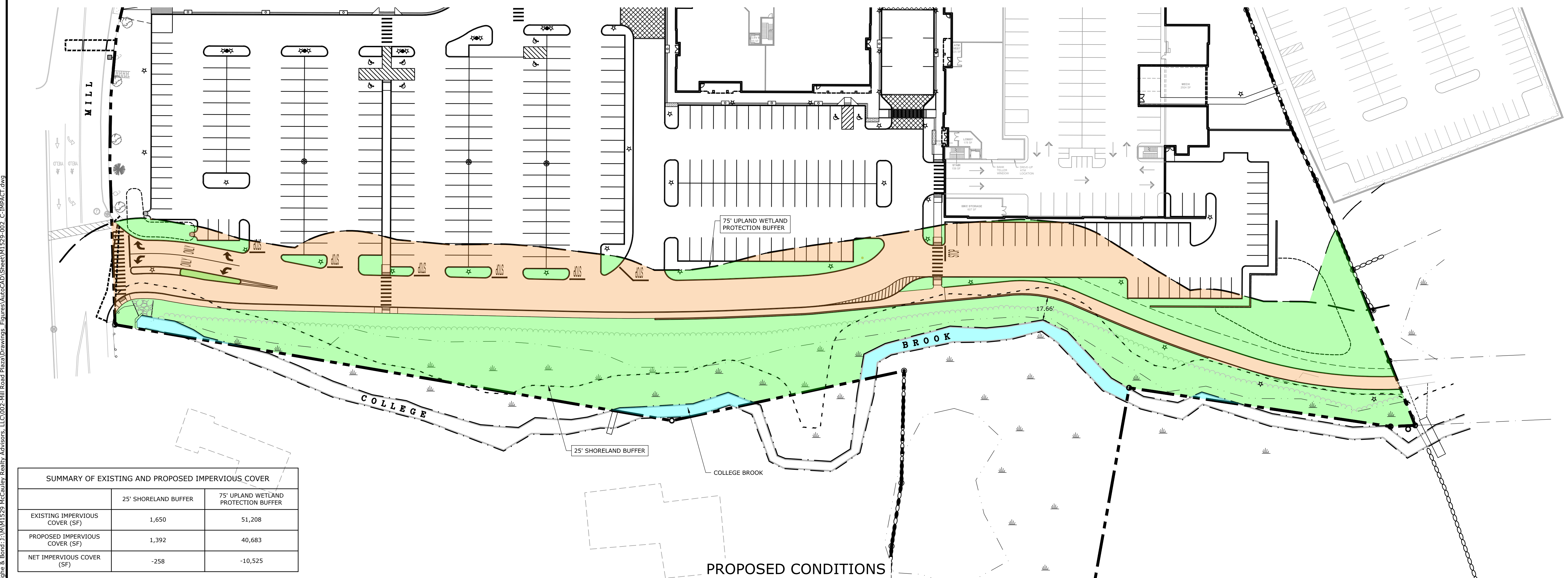
SCALE: AS SHOWN

C-701

- EXISTING AND PROPOSED IMPERVIOUS SURFACE
- EXISTING AND PROPOSED PERVIOUS SURFACE
- COLLEGE BROOK
- 75' UPLAND WETLAND PROTECTION BUFFER
- 25' SHORELAND BUFFER



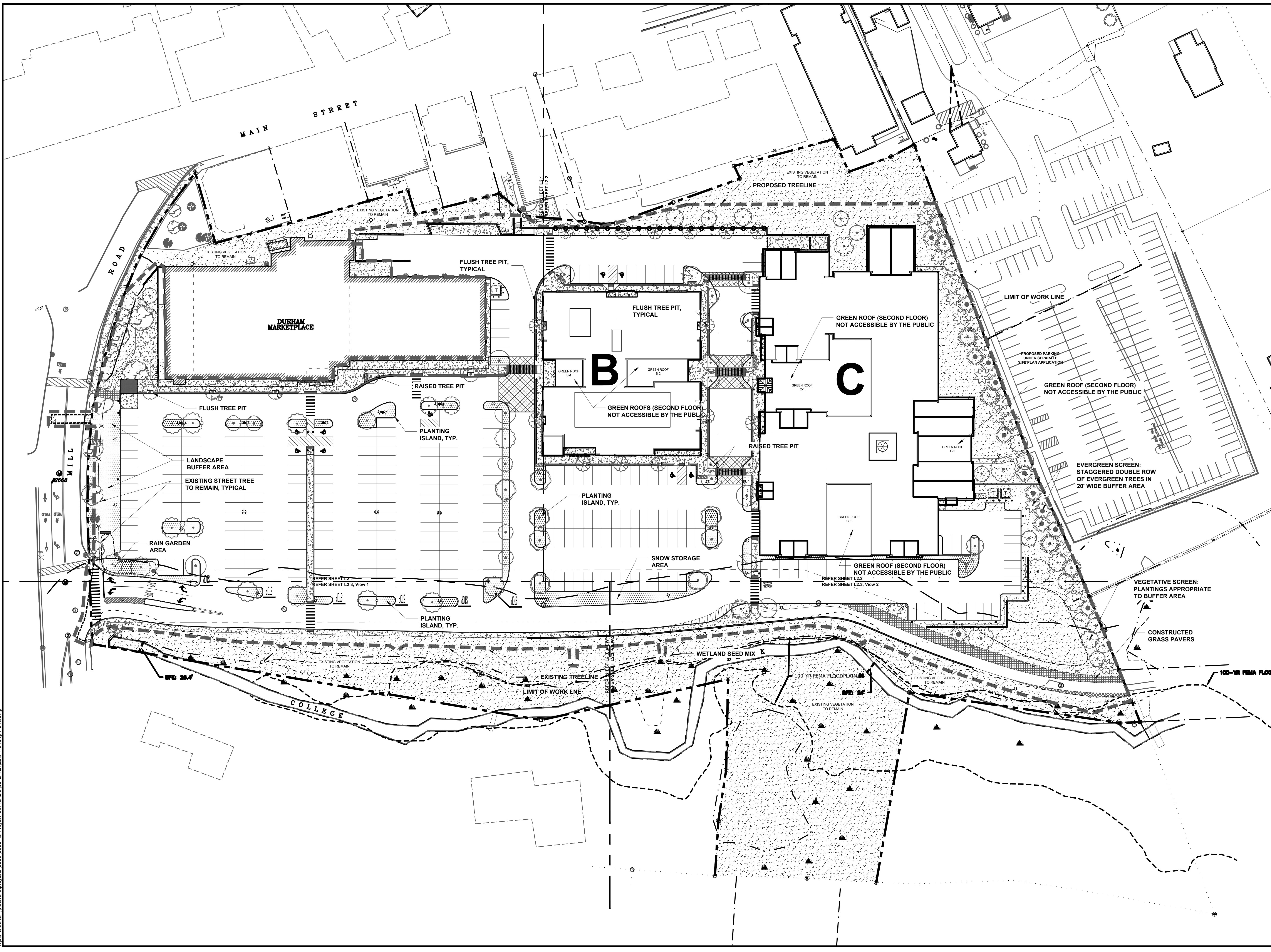
EXISTING CONDITIONS



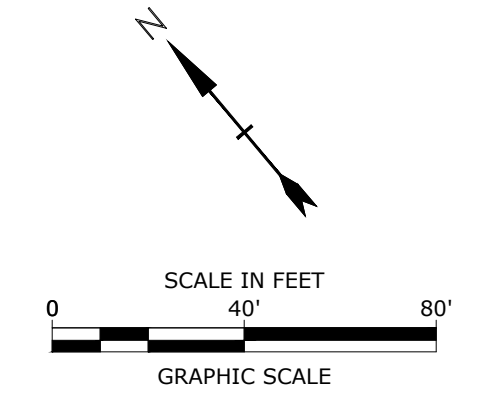
PROPOSED CONDITIONS

SUMMARY OF EXISTING AND PROPOSED IMPERVIOUS COVER		
	25' SHORELAND BUFFER	75' UPLAND WETLAND PROTECTION BUFFER
EXISTING IMPERVIOUS COVER (SF)	1,650	51,208
PROPOSED IMPERVIOUS COVER (SF)	1,392	40,683
NET IMPERVIOUS COVER (SF)	-258	-10,525

Date Saved: 12/17/2019 7:55pm By: EDovermuse
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**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

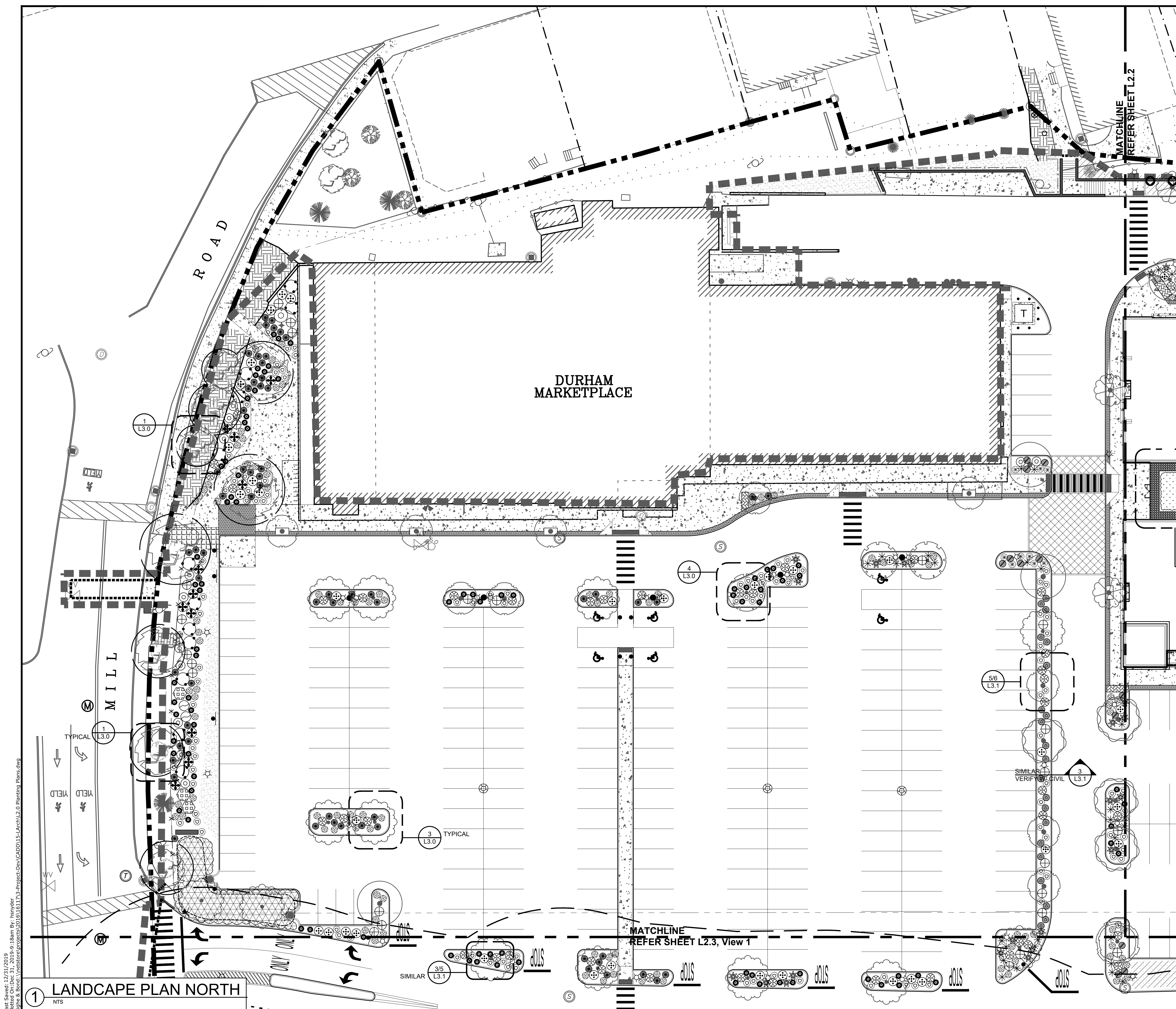
MARK	DATE	DESCRIPTION
	1/2/2020	General Revisions
	05/23/18	

PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L2.0 Planting Plans.dwg
DRAWN BY: HAS/TNE
CHECKED: JMP
APPROVED: BLM

**LANDSCAPE
OVERALL PLAN**

SCALE:
L2.0

Last Saved: 12/31/2019 12:22pm By: henryd
 Plotted On: Dec 31, 2019 12:22pm
 Tighe & Bond: \\netstore\projects\2016\16117\3-project\dev\CADD\L2-Landscape\2.0 Planting Plans.dwg



PLANT LEGEND			
SHADE TREES	SIZE	NOTES	QTY
Existing Tree to Remain Preserve and Protect in Place		Verify in Field	
Acer rubrum October Glory	2'0" - 2'5" Cal.	Zone 3	13
Acer x freemanii 'Armstrong'	2'0" - 2'5" Cal.	Zone 3	15
Carpinus caroliniana American Hornbeam	2'0" - 2'5" Cal.	Zone 3a	3
Celtis occidentalis Common Hackberry	2'0" - 2'5" Cal.	Zone 1	4
Nyssa sylvatica var. Marshall Blackgum	2'0" - 2'5" Cal.	Zone 3	6
Larix laricina Tamarack	2'0" - 2'5" Cal.	Zone 2	1
FLOWERING TREES	SIZE	NOTES	QTY
Amelanchier alboterea Downy Serviceberry	1'5" - 2'0" Cal.	Zone 4	14
Cercis canadensis Eastern Redbud	1'5" - 2'0" Cal.	Zone 4	6
Malus Snowdrift Snowdrift Crabapple	1'5" - 2'0" Cal.	Zone 4	14
ORNAMENTAL TREES	SIZE	NOTES	QTY
Betula nigra 'Heritage' River Birch	12' H. B & B	Zone 3a	3
Stewartia ovata Mountain Stewartia	1'0" - 1'5" Cal.	Zone 5	12
CONIFER TREES	SIZE	NOTES	QTY
Abies balsamea Balsam Fir	12' - 14'	Zone 3	3
Juniperus virginiana Eastern Redcedar	14' - 16'	Zone 2	13
Thuja occidentalis Eastern Arborvitae	8' - 10'	Zone 2	15
Tsuga canadensis Canadian Hemlock	12' - 14'	Zone 3	7
DECIDUOUS SHRUBS	SIZE	NOTES	QTY
Caprillathus occidentalis Buttonbush	3 Gallon	Zone 5	8
Comptonia peregrina Sweetfern	3 Gallon	Zone 3	16
Cornus sericea Redosier Dogwood	3 Gallon	Zone 3	18
Clethra alnifolia Coastal Sweet Pepperbush	3 Gallon	Zone 3	25
Lindera benzoin Spice bush	3 Gallon	Zone 3	31
Dicentra palustris Leatherwood	3 Gallon	Zone 3	2
Ilex verticillata Winterberry	3 Gallon	Zone 3	18
Ledum groenlandicum Labrador Tea	3 Gallon	Zone 2	44
Viburnum trilobum Cranberry bush	3 Gallon	Zone 2	3
EVERGREEN SHRUBS	SIZE	NOTES	QTY
Juniperus communis Common Juniper	3 Gallon	Zone 2	31
Kalmia latifolia Mountain Laurel	3 Gallon	Zone 3	39
GROUNDCOVERS	SIZE	NOTES	QTY
Arctostaphylos uva-ursi Kinnikinnick	1 Gallon	Zone 2	207
Carex lasiocarpa Ticksseed	1 Gallon	Zone 4	137
Vaccinium angustifolium Low Sweet Blueberry	1 Gallon	Zone 2	25
PERENNIALS	SIZE	NOTES	QTY
Aspidistra var. 'Snowdrift' Snowdrift Aspidistra	#2 Container	Zone 4	65
Carex grandiflora Large Flowered Ticksseed	#2 Container	Zone 4a	68
Dicentra Bleeding Heart	#2 Container	Zone 3	11
Echinacea magna Purple Cone Flower	#2 Container	Zone 4a	72
Helianthus scaberrimus Tall Mountain Helianthus	#2 Container	Zone 5	15
Hemerocallis fillosa Hemerocallis	#2 Container	Zone 4	62
Hemerocallis fulva Orange Daylily	#2 Container	Zone 3	27
Nyctaginia hispida Spanish Bluebell	#2 Container	Zone 3	14
Liatris spicata Liatris	#2 Container	Zone 3	21
Polygonatum odoratum Solomon's Seal	#2 Container	Zone 3	17
Pulmonaria 'Baby Blue' Lungwort	#2 Container	Zone 4	44
Rudbeckia triloba Black-eyed Susan	#2 Container	Zone 4a	92
VINE	SIZE	NOTES	QTY
Lonicera sempervirens Trumpet Honeysuckle	#2 Container	Zone 4	21
TURF AND SEED MIX			QTY
Hydroseed			TBD S.F.
Seed mix per specification			TBD S.F.
Conservation / Wildlife Seed Mix			TBD S.F.
Low-maintenance and steeper slopes areas			TBD S.F.
Wetland Seed Mix			TBD S.F.
Basins and bio-retention			TBD S.F.
LANDSCAPE MATERIALS			QTY
Bark Mulch	3" depth		TBD S.F.
Shredded Organic Bark Mulch	all planting areas		TBD S.F.
Landscape Border			TBD LN. FT.
Landscape edging material			TBD LN. FT.

1. Not all plant material species and quantities shown will be used. Final plant material specifications dependent on conformance to, and approval by, local and state regulations and agencies.
 2. Plant material specified shall conform to ANLA American Standard for Nursery Stock, ANSI Z60.1 current edition.
 3. No permanent irrigation system is proposed.

Tighe & Bond
 Engineers | Environmental Specialists

HARRIMAN
 AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117

**PERMIT DRAWINGS
 NOT FOR CONSTRUCTION**

SCALE IN FEET
 0 20' 40'

GRAPHIC SCALE

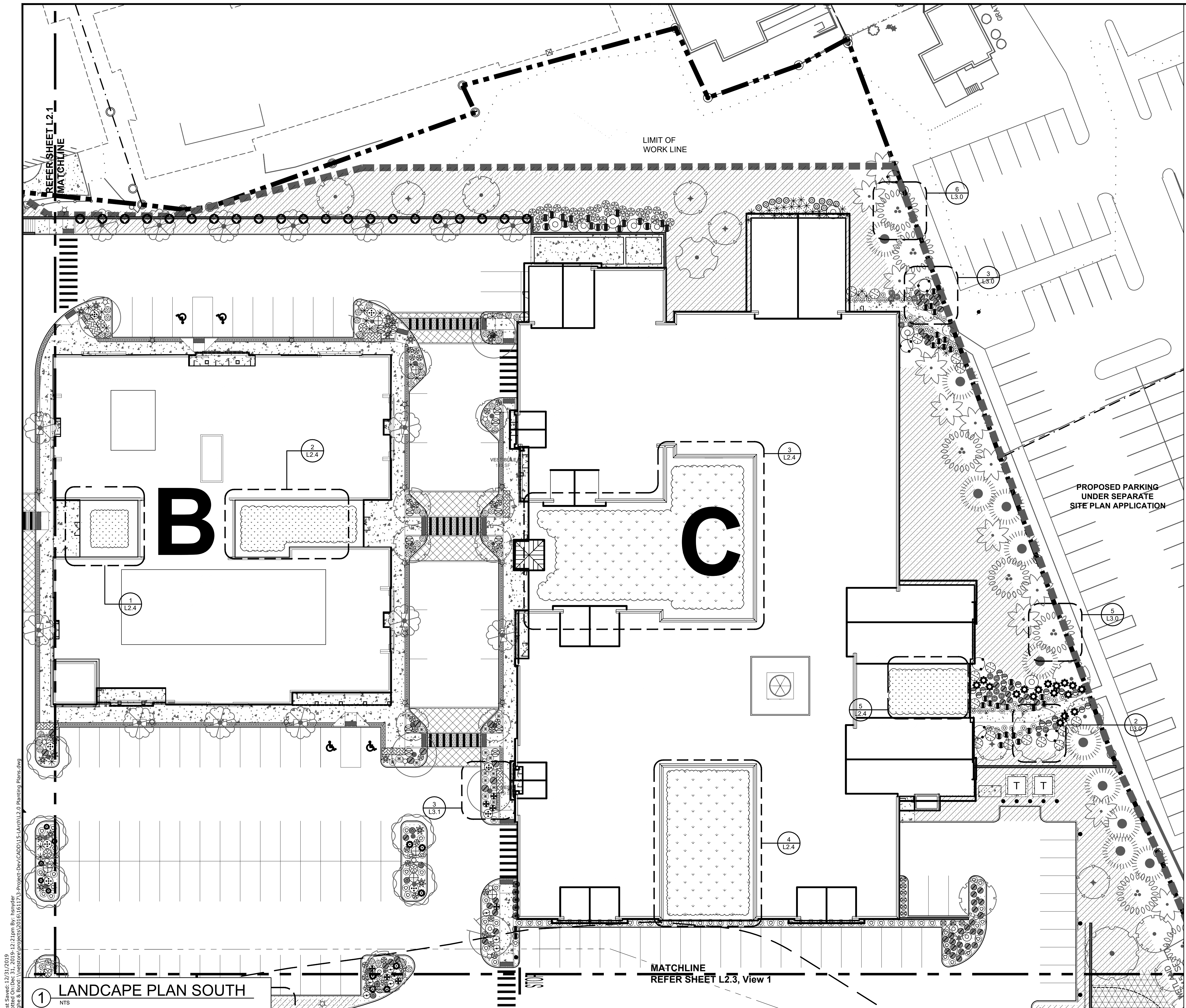
**Mill Plaza
 Redevelopment**

Colonial Durham
 Associates, LP

7 Mill Road, Unit L
 Durham,
 New Hampshire 03824

1/2/2020 General Revisions		
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PROJECT NO:	M1529-002	
DATE:	05/23/18	
FILE:	L2.0 Planting Plans.dwg	
DRAWN BY:	HAS/TNE	
CHECKED:	JMP	
APPROVED:	BLM	
PLANTING PLAN		
SCALE: L2.1		

Last Saved: 12/27/2019 9:18am By: hender
 Tighe & Bond | \projects\2016\16117\3-Project-Dev\CADD\15-Landsc\2.0 Planting Plans.dwg



PLANT LEGEND			
SHADE TREES	SIZE	NOTES	QTY
Existing Tree to Remain Preserve and Protect in Place			
	Acer rubrum October Glory	2.0' - 2.5' Cal. Zone: 3	13
	Acer x freemanii 'Armstrong'	2.0' - 2.5' Cal. Zone: 3	15
	Carpinus caroliniana American Hornbeam	2.0' - 2.5' Cal. Zone: 3a	3
	Celtis occidentalis Common Hackberry	2.0' - 2.5' Cal. Zone: 1	4
	Nyssa sylvatica var. Marshall	2.0' - 2.5' Cal. Zone: 3	6
	Larix laricina Tamarack	2.0' - 2.5' Cal. Zone: 2	1
FLOWERING TREES			
	Amelanchier arborea Downy Serviceberry	1.5' - 2.0' Cal. Zone: 4	14
	Cercis canadensis Eastern Redbud	1.5' - 2.0' Cal. Zone: 4	6
	Malus Snowdrift Snowdrift Crabapple	1.5' - 2.0' Cal. Zone: 4	14
ORNAMENTAL TREES			
	Betula nigra 'Heritage' River Birch	12' H B & B Zone: 3a	5
	Stewartia ovata Mountain Stewartia	1.0' - 1.5' Cal. Zone: 5	12
CONIFER TREES			
	Abies balsamea Balsam Fir	12' - 14' Zone: 3	5
	Juniperus virginiana Eastern Redcedar	14' - 16' Zone: 2	13
	Thuja occidentalis Eastern Arborvitae	8' - 10' Zone: 2	15
	Tsuga canadensis Canadian Hemlock	12' - 14' Zone: 3	7
DECIDUOUS SHRUBS			
	Cephalanthus occidentalis Butterfly Bush	3 Gallon Zone: 5	6
	Comptonia peregrina Sweetfern	3 Gallon Zone: 3	16
	Cornus sericea Redosier Dogwood	3 Gallon Zone: 3	18
	Clethra alnifolia Coastal Sweet Pepperbush	3 Gallon Zone: 3	25
	Lindera benzoin Spice bush	3 Gallon Zone: 3	31
	Dirca palustris Leatherwood	3 Gallon Zone: 3	2
	Ilex verticillata Winterberry	3 Gallon Zone: 3	18
	Ledum groenlandicum Labrador Tea	3 Gallon Zone: 2	44
	Viburnum trilobum Cranberry bush	3 Gallon Zone: 2	3
EVERGREEN SHRUBS			
	Juniperus communis Common Juniper	3 Gallon Zone: 2	31
	Kalmia latifolia Mountain Laurel	3 Gallon Zone: 3	39
GROUNDCOVERS			
	Arctostaphylos uva-ursi Kinnikinnick	1 Gallon Zone: 2	207
	Coreopsis lanceolaria Tickseed	1 Gallon Zone: 4	137
	Vaccinium angustifolium Low Sweet Blueberry	1 Gallon Zone: 2	25
PERENNIALS			
	Asilbe var. 'Snowdrift'	#2 Container Zone: 4	65
	Coreopsis grandiflora Large Flowered Tickseed	#2 Container Zone: 4a	68
	Dicentra Bicolor	#2 Container Zone: 3	11
	Echinacea magna Purple Cone Flower	#2 Container Zone: 4a	72
	Helianthus scaberrimus Tall Mountain Helianthus	#2 Container Zone: 5	16
	Hemerocallis lilloaehodolus Lemon Lily	#2 Container Zone: 4	62
	Hemerocallis fulva Orange Daylily	#2 Container Zone: 3	27
	Hyacinthoides hispanica Spanish Bluebell	#2 Container Zone: 3	14
	Liatris spicata Liatris	#2 Container Zone: 3	21
	Polygonatum odoratum Solomon's Seal	#2 Container Zone: 3	17
	Pulmonaria 'Baby Blue' Lungwort	#2 Container Zone: 4	44
	Rudbeckia trioba Black-eyed Susan	#2 Container Zone: 4a	92
VINE			
	Lonicera sempervirens Trumpet Honeysuckle	#2 Container Zone: 4	21
TURF AND SEED MIX			
	Hydroseed	780 S.F.	
	Conservation / Wildlife Seed Mix	780 S.F.	
	Low-maintenance and steeper slopes areas	780 S.F.	
	Wetland Seed Mix	780 S.F.	
	Berms and bio-swales	780 S.F.	
LANDSCAPE MATERIALS			
	Bark Mulch	3" depth 780 S.F.	
	Shredded Organic Bark Mulch	all planting areas	
	Landscape Border	780 LN. FT.	
	Landscape edging material	780 LN. FT.	

1. Not all plant material species and quantities shown will be used. Final plant material specifications dependent on conformance to, and approval by, local and state regulations and agencies.
 2. Plant material specified shall conform to ANLA American Standard for Nursery Stock, ANSI Z60.1 current edition.
 3. No permanent irrigation system is proposed.

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 Engineers | Environmental Specialists

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 AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117

PERMIT DRAWINGS
 NOT FOR CONSTRUCTION

SCALE IN FEET
 0 20' 40'

GRAPHIC SCALE

Mill Plaza
Redevelopment

Colonial Durham
 Associates, LP

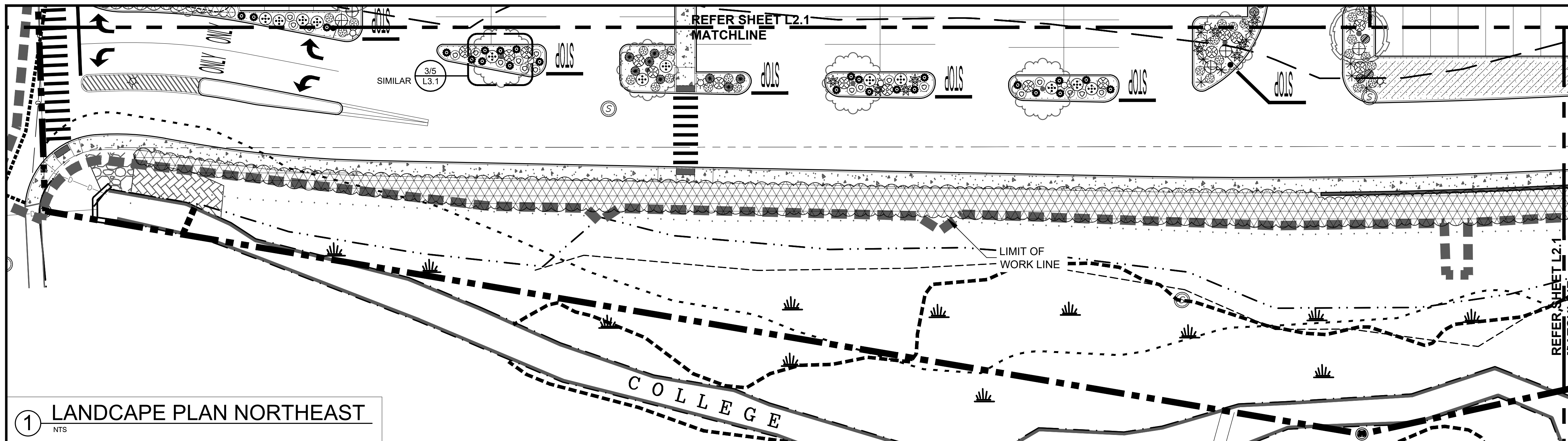
7 Mill Road, Unit L
 Durham,
 New Hampshire 03824

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DATE:	05/23/18	
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DRAWN BY:	HAS/TNE	
CHECKED BY:	JMP	
APPROVED BY:	BLM	

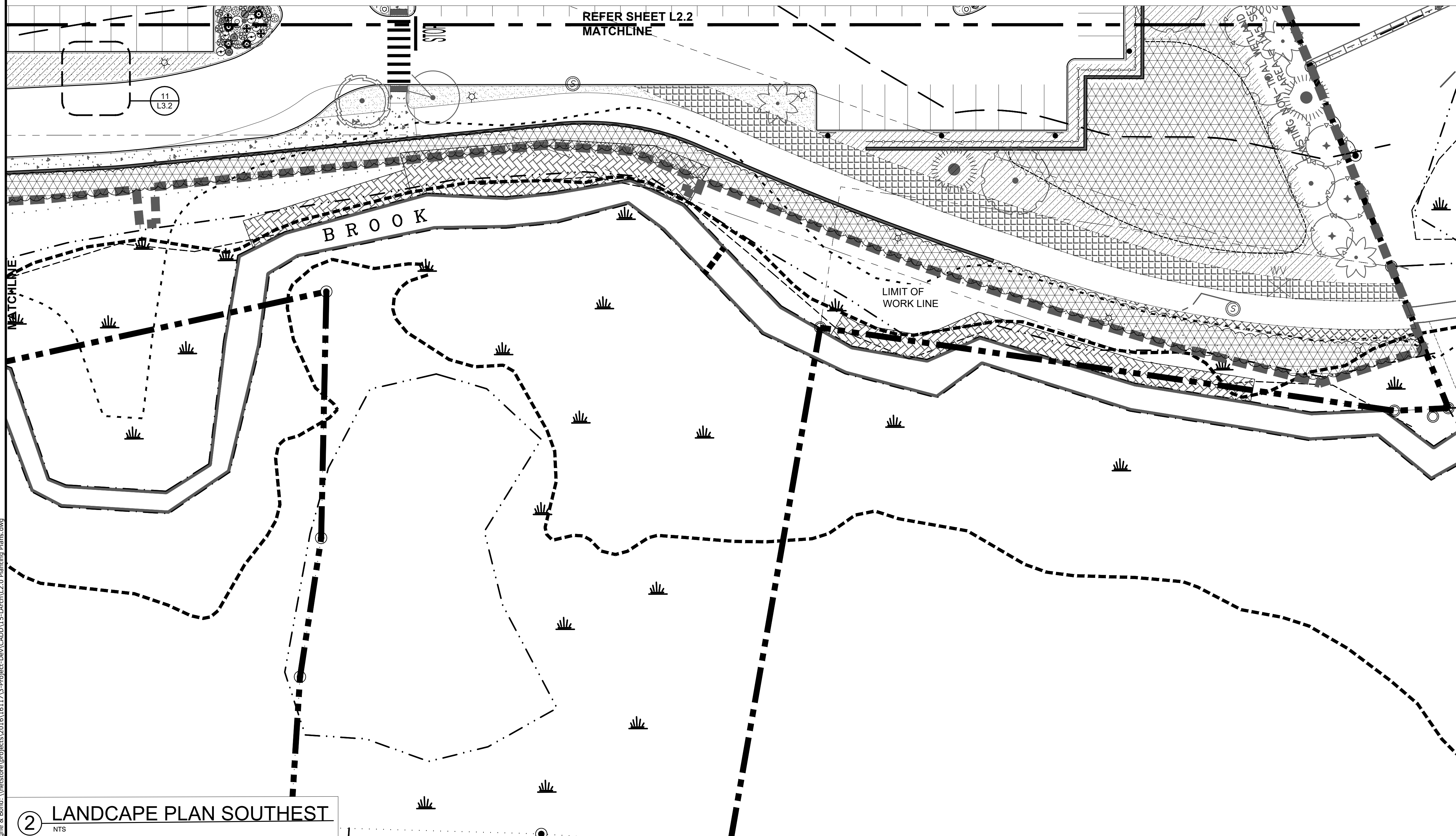
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1 LANDSCAPE PLAN NORTHEAST
NTS



2 LANDSCAPE PLAN SOUTHWEST
NTS

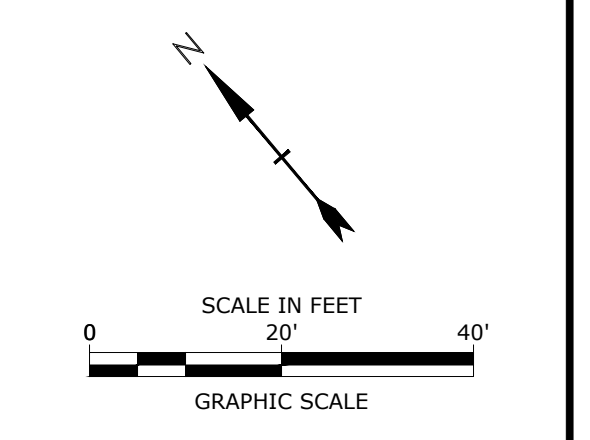
PLANT LEGEND			
SHADE TREES	SIZE	NOTES	QTY
Planting Tree to Remain			Verify in Field
Remove and Protect in Place			
Acer rubrum October Glory	2.0' - 2.5' Cal.	Zone 3	13
October Glory Red Maple		Fall Plant Hazard	
Acer x freemanni 'Armstrong'	2.0' - 2.5' Cal.	Zone 3	15
Freeman Maple (Fastigiate)			
Carpinus caroliniana American Hornbeam	2.0' - 2.5' Cal.	Zone 3a	3
		Fall Plant Hazard	
Celtis occidentalis Common Hackberry	2.0' - 2.5' Cal.	Zone 1	4
		Fall Plant Hazard	
Nyssa sylvatica var. Marshall Blackgum	2.0' - 2.5' Cal.	Zone 3	6
		Fall Plant Hazard	
Larix laricina Tamarack	2.0' - 2.5' Cal.	Zone 2	1
FLOWERING TREES			
SIZE	NOTES	QTY	
Amelanchier arborea Downy Serviceberry	1.5' - 2.0' Cal.	Zone 4	14
Cercis canadensis Redbud	1.5' - 2.0' Cal.	Zone 4	6
		Fall Plant Hazard	
Malus Snowdrift Snowdrift Crabapple	1.5' - 2.0' Cal.	Zone 4	14
		Fall Plant Hazard	
ORNAMENTAL TREES			
SIZE	NOTES	QTY	
Betula nigra 'Heritage' River Birch	12' H. B & B	Zone 3a	3
		Fall Plant Hazard	
Stewartia ovata Mountain Stewartia	10' - 15' Cal.	Zone 5	12
CONIFER TREES			
SIZE	NOTES	QTY	
Abies balsamea Balsam Fir	12' - 14'	Zone 3	3
Juniperus virginiana Eastern Redcedar	14' - 16'	Zone 2	13
		Fall Plant Hazard	
Thuja occidentalis Eastern Arborvitae	8' - 10'	Zone 2	15
Tsuga canadensis Canadian Hemlock	12' - 14'	Zone 3	7
DECIDUOUS SHRUBS			
SIZE	NOTES	QTY	
Cephalanthus occidentalis Butterfly Bush	3 Gallon	Zone 5	8
Comptonia peregrina Sweetfern	3 Gallon	Zone 3	16
Cornus sericea Redosier Dogwood	3 Gallon	Zone 3	18
		Fall Plant Hazard	
Clethra alnifolia Coastal Sweet Pepperbush	3 Gallon	Zone 3	25
Lindera benzoin Spice bush	3 Gallon	Zone 3	31
Dicentra palustris Leatherwood	3 Gallon	Zone 3	2
Ilex verticillata Winterberry	3 Gallon	Zone 3	18
Ledum groenlandicum Labrador Tea	3 Gallon	Zone 2	44
Viburnum trilobum Cranberry bush	3 Gallon	Zone 2	3
EVERGREEN SHRUBS			
SIZE	NOTES	QTY	
Juniperus communis Common Juniper	3 Gallon	Zone 2	31
Kalmia latifolia Mountain Laurel	3 Gallon	Zone 3	39
GROUNDCOVERS			
SIZE	NOTES	QTY	
Arctostaphylos uva-ursi Kinnikinnick	1 Gallon	Zone 2	207
Coreopsis lanceoleaf Tickseed	1 Gallon	Zone 4	137
Vaccinium angustifolium Low Sweet Blueberry	1 Gallon	Zone 2	25
PERENNIALS			
SIZE	NOTES	QTY	
Aspidistra var. 'Snowdrift' Snowdrift Aspidistra	#2 Container	Zone 4	65
Coreopsis grandiflora Large Flowered Tickseed	#2 Container	Zone 4a	68
Dicentra Bleeding Heart	#2 Container	Zone 3	11
Echinacea magna Purple Cone Flower	#2 Container	Zone 4a	72
Helianthus scaberrimus Tall Mountain Helianthus	#2 Container	Zone 5	16
Hemerocallis filicarpa Hemerocallis filicarpa	#2 Container	Zone 4	62
Langens Lily	#2 Container	Zone 3	27
Orange Day Lily	#2 Container	Zone 3	14
Hyacinthoides hispanica Spanish Bluebell	#2 Container	Zone 3	21
Liatris spicata Liatris	#2 Container	Zone 3	17
Polygonatum odoratum Solomon's Seal	#2 Container	Zone 4	44
Pulmonaria 'Baby Blue' Lungwort	#2 Container	Zone 4a	92
Rubbeckia trioba Black-eyed Susan	#2 Container	Zone 4	21
VINE			
SIZE	NOTES	QTY	
Lonicera sempervirens Trumpet Honeysuckle	#2 Container	Zone 4	21
TURF AND SEED MIX			
			QTY
Hydroseed			TBD S.F.
Seed mix per specifications			TBD S.F.
Conservation / Wildlife Seed Mix			TBD S.F.
Low-maintenance and steep slopes areas			TBD S.F.
Wetland Seed Mix			TBD S.F.
Stones and bio-stones			TBD LN. FT.
LANDSCAPE MATERIALS			
			QTY
Bark Mulch	3" depth		TBD S.F.
Shredded Organic Bark Mulch	all planting areas		TBD LN. FT.
Landscape Border			TBD LN. FT.
Landscape edging material			TBD LN. FT.

1. Not all plant material species and quantities shown will be used. Final plant material specifications dependent on conformance to, and approval by, local and state regulations and agencies.
 2. Plant material specified shall conform to ANLA American Standard for Nursery Stock, ANSI Z60.1 current edition.
 3. No permanent irrigation system is proposed.



Harriman Project No. 16117

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**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

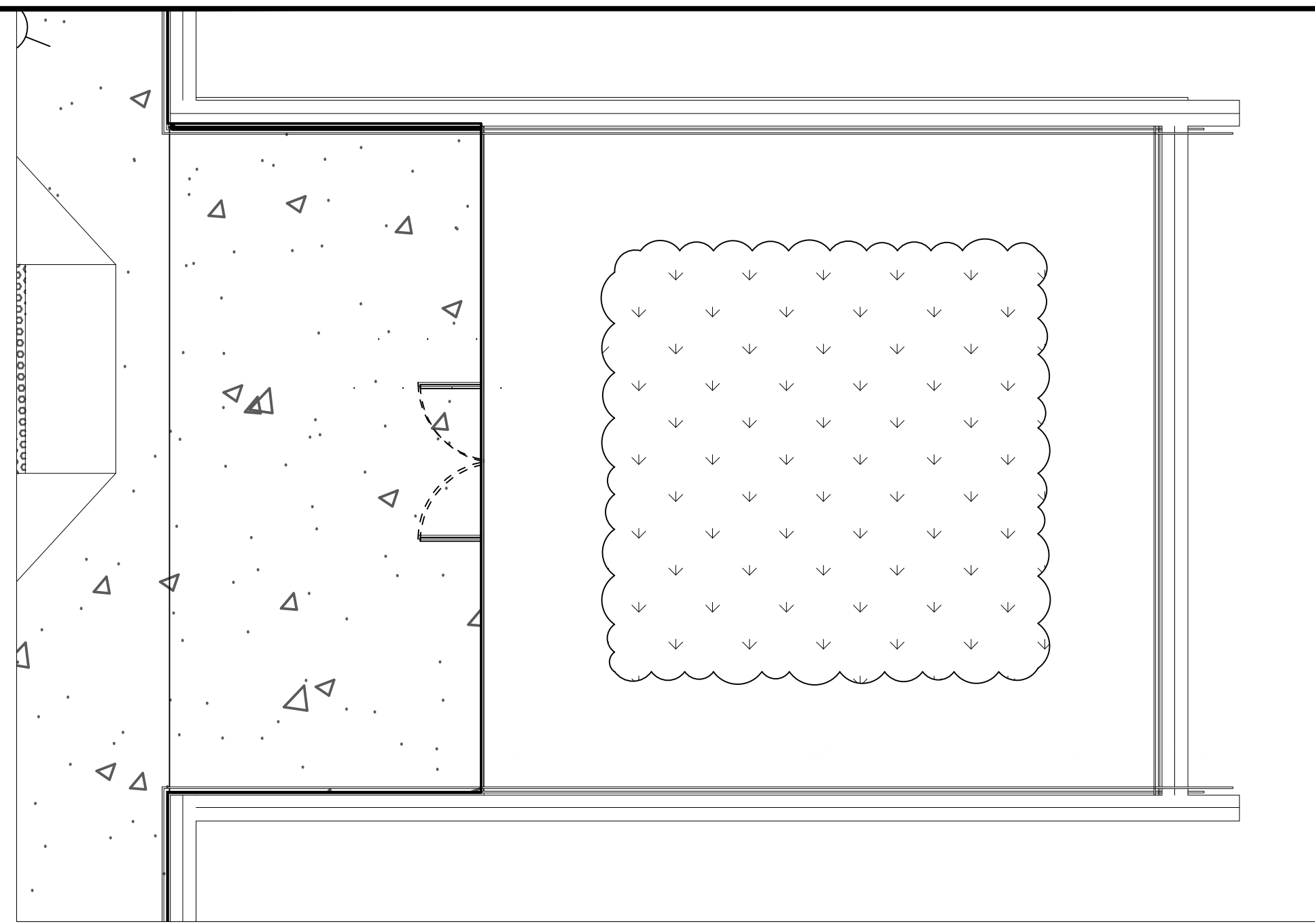
7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	General Revisions
	05/23/18	

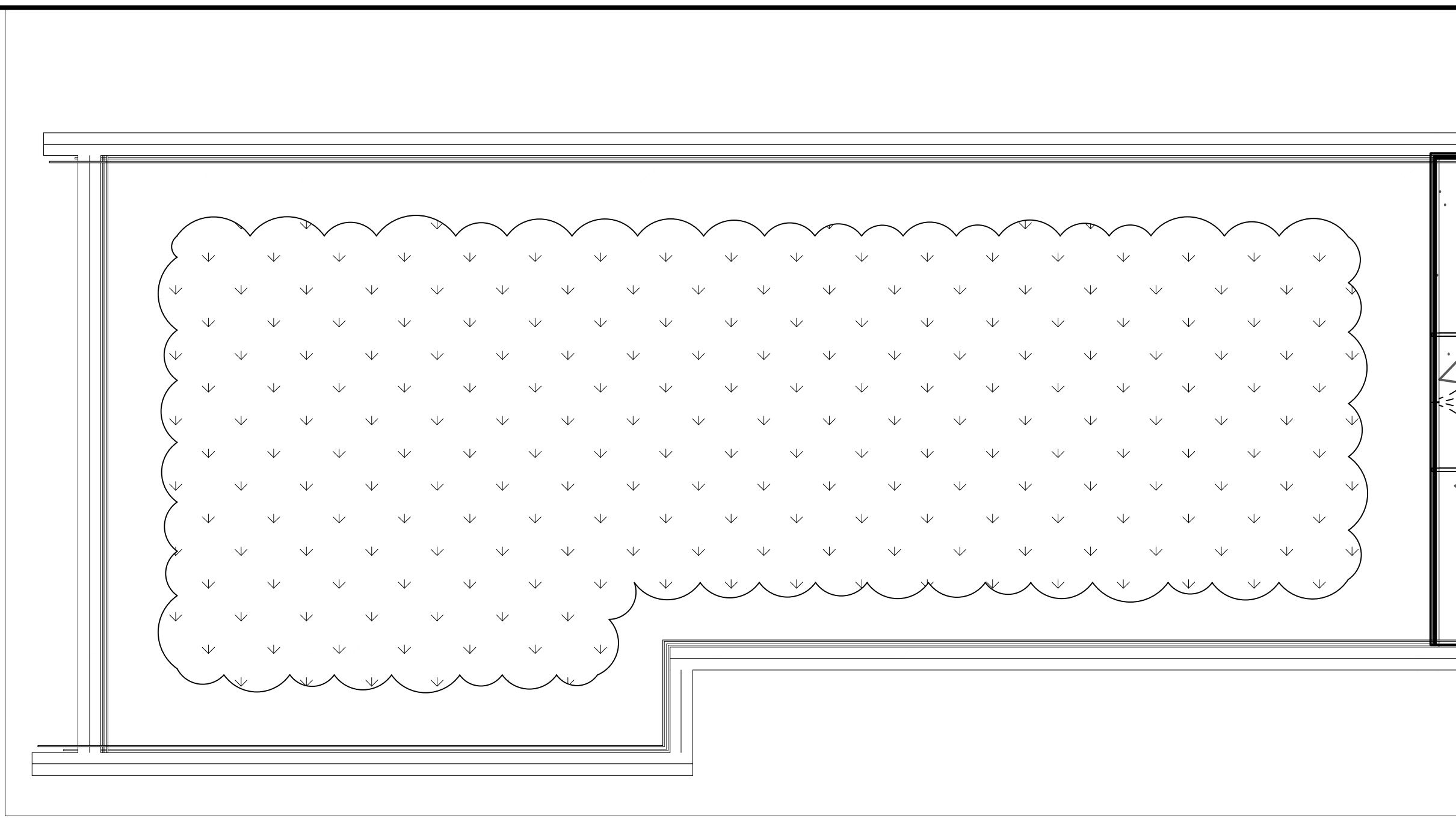
PROJECT NO: M1529-002
 DATE: 05/23/18
 FILE: L2.0 Planting Plans.dwg
 DRAWN BY: HAS/TNE
 CHECKED BY: JMP
 APPROVED BY: BLM

**PLANTING
PLAN**
SCALE:
L2.3

Left Saved: 12/31/2019 9:19am By: hnsydyer
 Plotted On: Dec 31, 2019 9:19am By: hnsydyer
 Tighe & Bond: \\netstore\projects\2016\16117\3-project\Dev\CADD\L2-LAND\15-LAND\15-Planting Plans.dwg



1 GREEN ROOF B-1
1" = 5'



2 GREEN ROOF B-2
1" = 5'

PLANT LEGEND: GREEN ROOFS

DECIDUOUS SHRUBS	SIZE	NOTES	QTY
Buddleia davidii Butterfly Bush	2 Gallon	Zone: 4	20
Nandina domestica 'Nana'	2 Gallon	Zone: 4	20

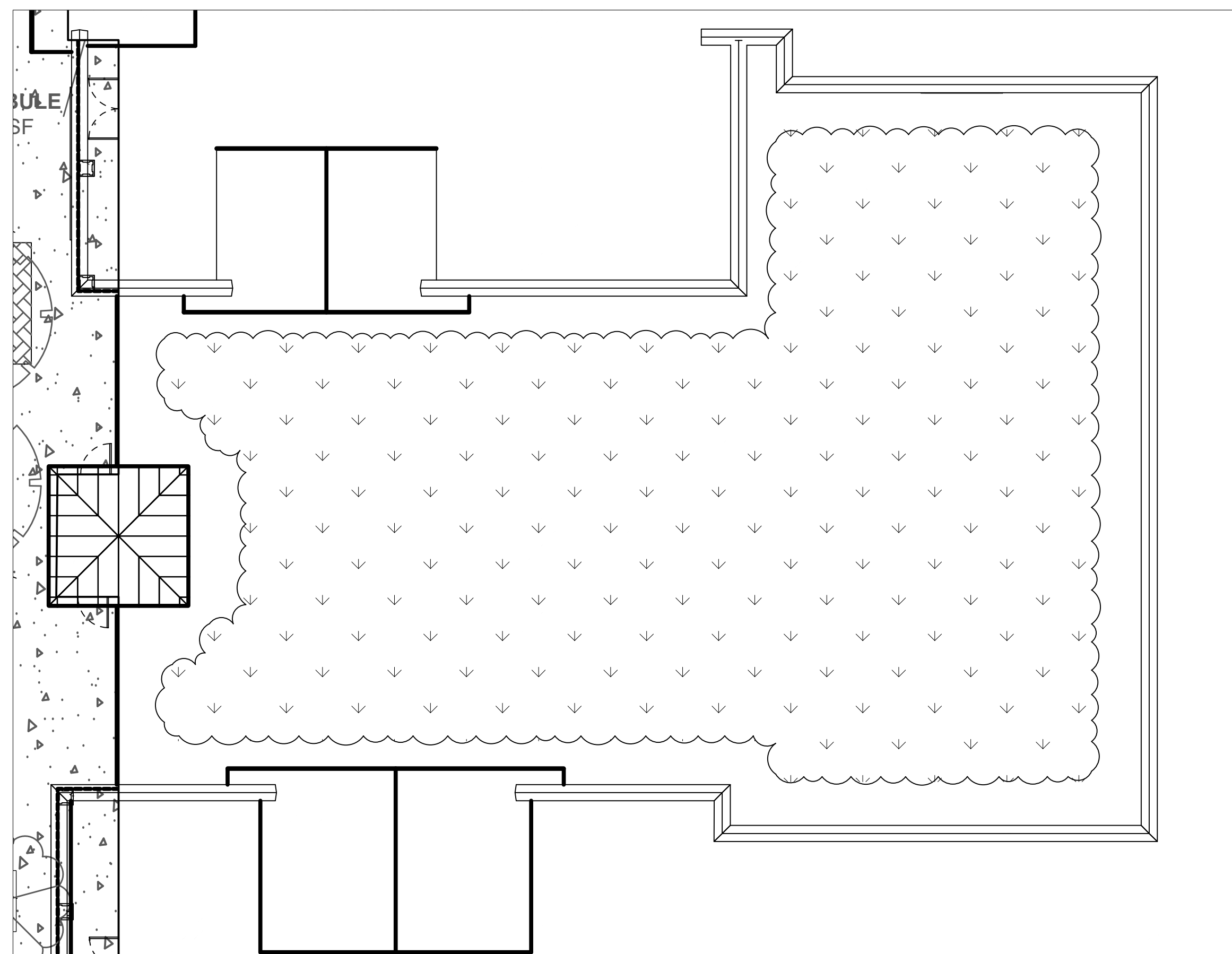
EVERGREEN SHRUBS	SIZE	NOTES	QTY
Juniperus procumbens Common Garden Juniper	1 Gallon	Zone: 4	25
Gaultheria procumbens Wintergreen	1 Gallon	Zone: 3	40

PERENNIALS	SIZE	NOTES	QTY
Achillea millefolium Yarrow	#3 Container	Zone: 3	175
Ajuga reptans Common Bugle	1 Gallon	Zone: 3	175
Allium schoenoprasum Chives	#1 Container	Zone: 4	175
Aquilegia canadensis Columbine	#3 Container	Zone: 3	175
Hemerocallis 'Anna Warner' Day Lily	#3 container	Zone: 3a	175
Lavandula angustifolia English Lavender	#3 Container	Zone: 5	175
Oenothera fruticosa Evening Primrose	#2 Container	Zone: 4	175
Rudbeckia fulgida Orange Coneflower	#3 Container	Zone: 3	175
Sedum varieties Perennial sedum	#1 Container	Zone: 4	175
Stachys byzantina Lamb's Ears	#2 Container	Zone: 4	175
Symphoricarum novae-angliae New England Aster	#3 Container	Zone: 4	175

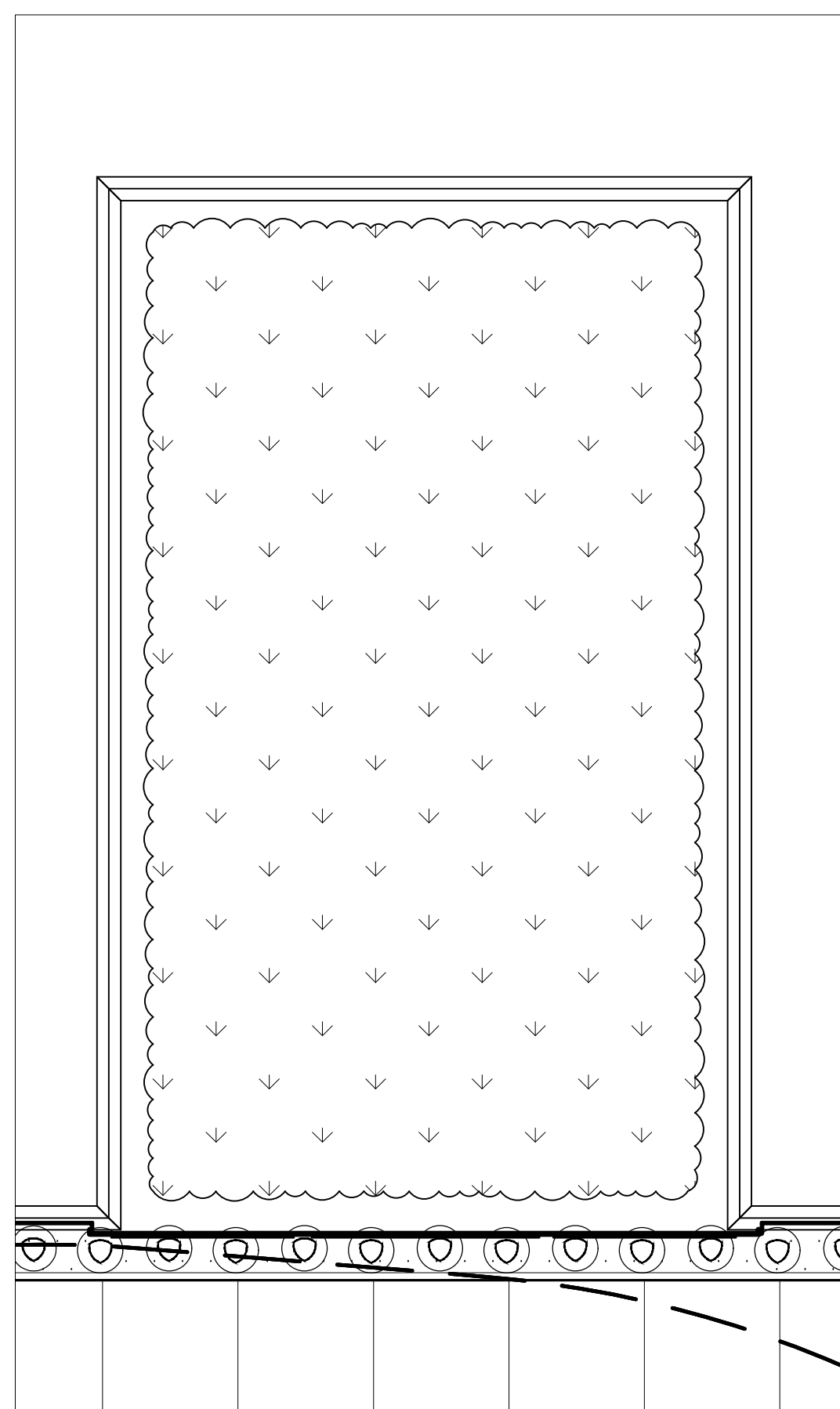
ORNAMENTAL GRASSES	SIZE	NOTES	QTY
Carex flacca Blue - green Sedge	#3 container	Zone: 4	150
Eragrostis spectabilis Purple Lovegrass	#3 container	Zone: 5	200
Festuca glauca Blue Fescue	#3 container	Zone: 4	175

- Not all plant material species and quantities shown will be used. Final plant material specifications dependent on conformance to, and approval by, local and state regulations and agencies.
- Plant material specified shall conform to ANLA American Standard for Nursery Stock, ANSI Z60.1 current edition.
- Plant material installed on roof membrane using 4'x4' tray system.
- No permanent irrigation system is proposed.

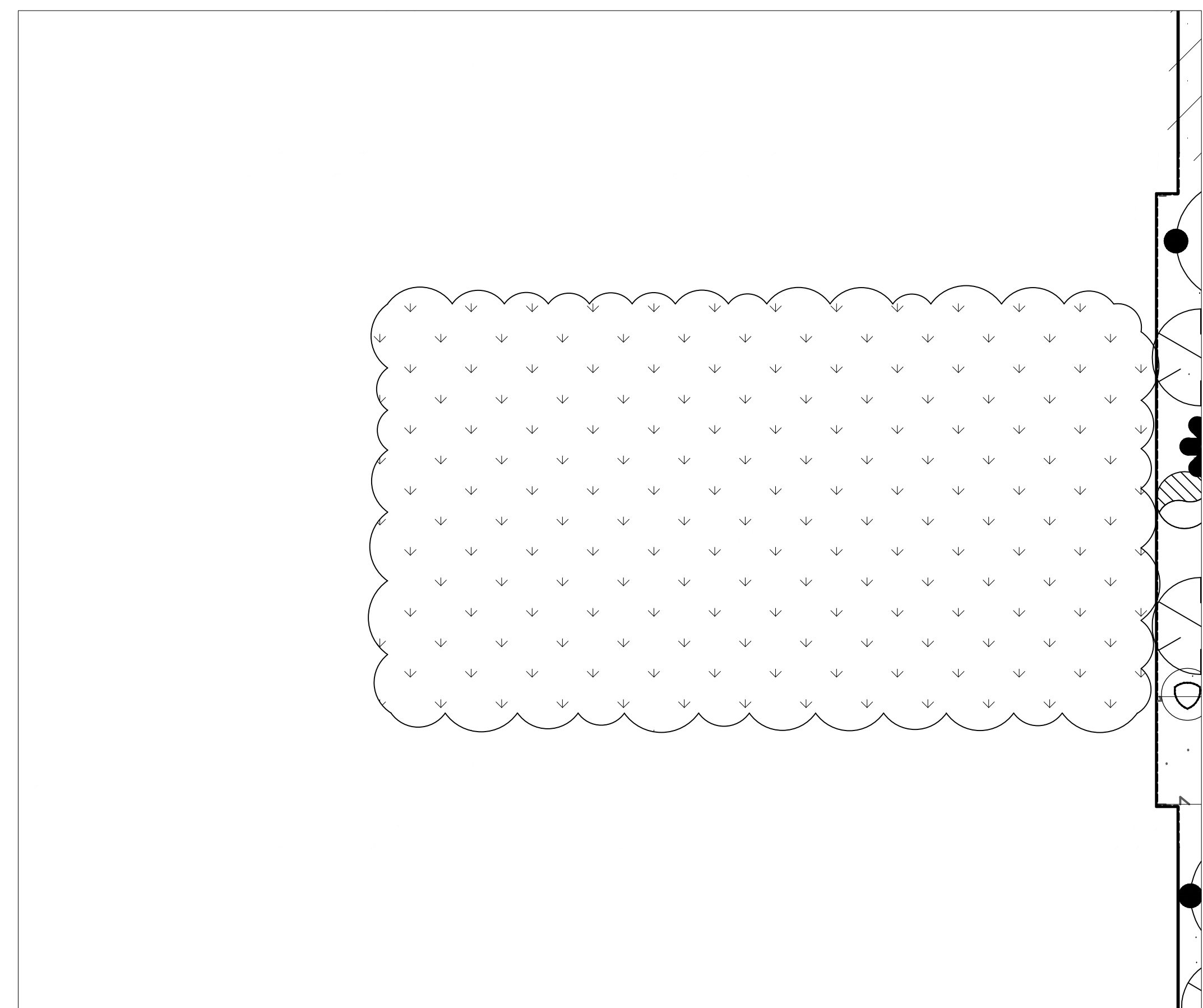
5 PLANT LIST
NTS



3 GREEN ROOF C-1
1" = 10'



4 GREEN ROOF C-2
1" = 10'

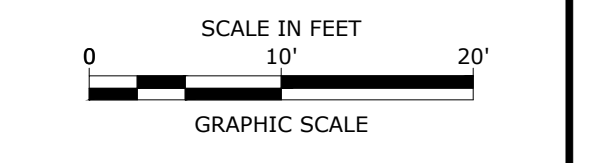
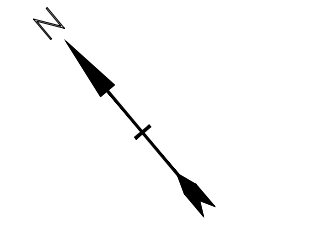


5 GREEN ROOF C-3
1" = 5'



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**Mill Plaza
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	1/2/2020	General Revisions

PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L2.0 Planting Plans.dwg
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**ROOF PLANTING
PLANS**

SCALE:
L2.4

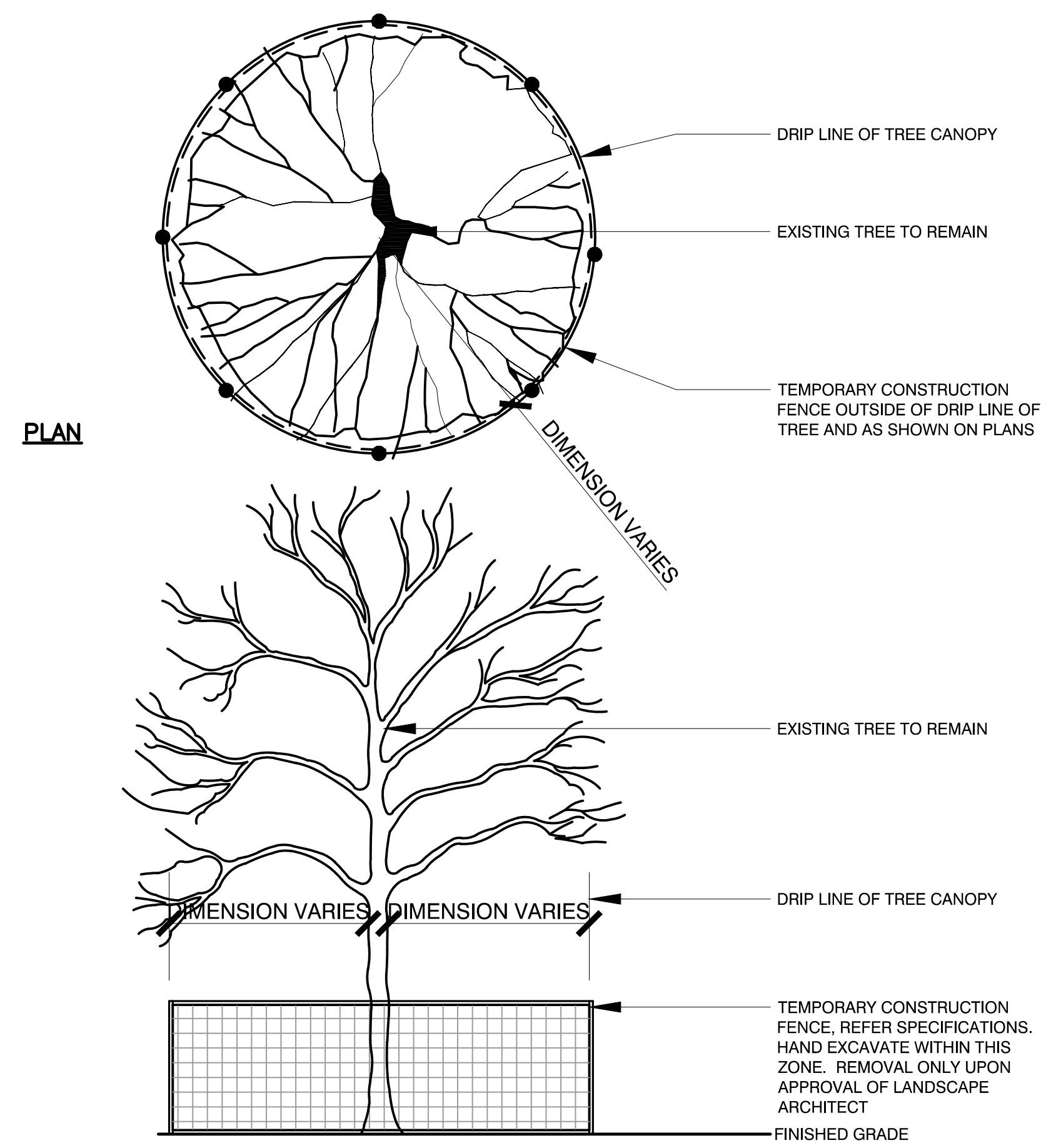
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MARK	DATE	DESCRIPTION
	1/2/2020	General Revisions
PROJECT NO:	M1529-002	
DATE:	05/23/18	
FILE:	L3.0 Planting Details.dwg	
DRAWN BY:	HAS/TNE	
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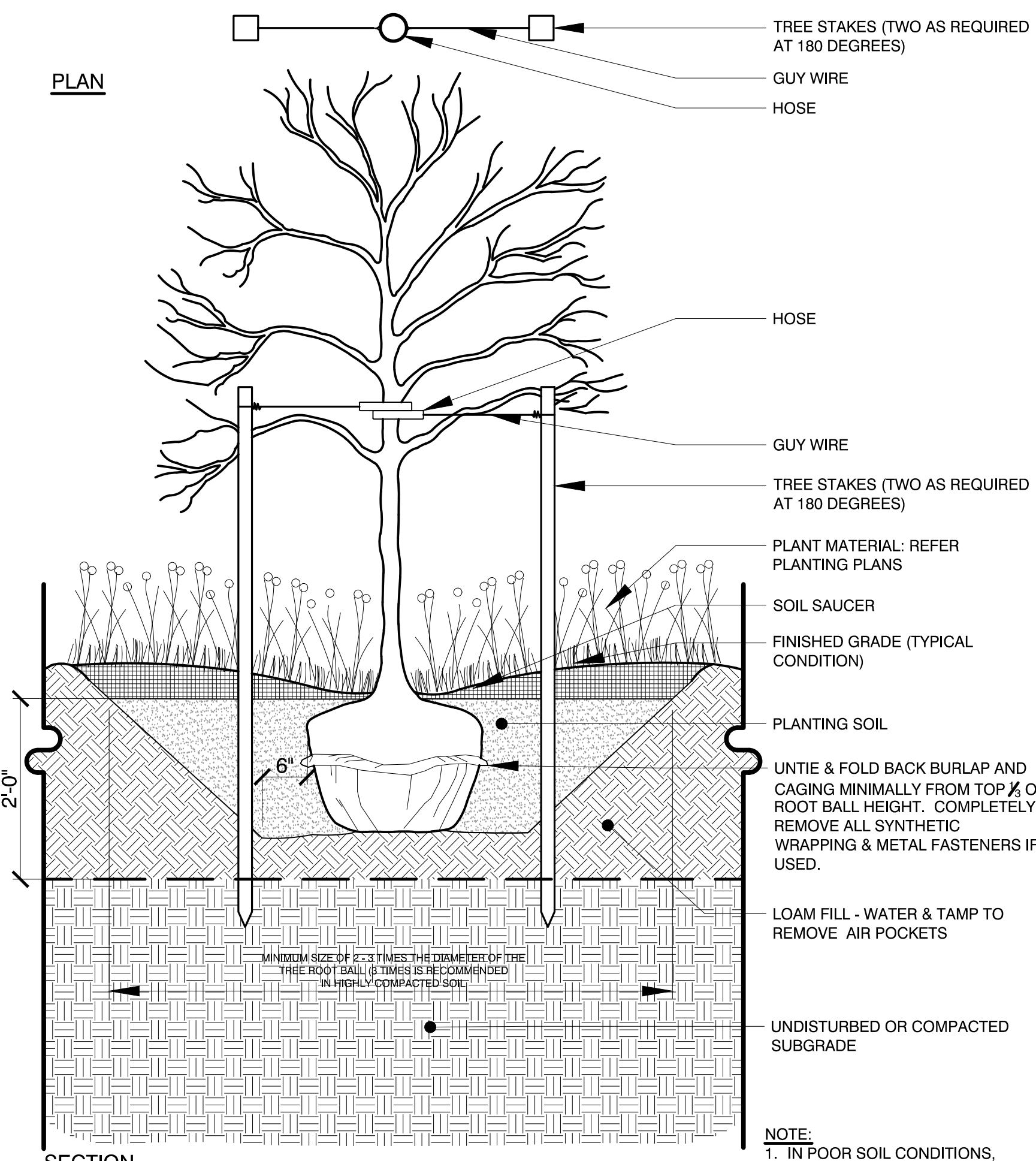
PLANTING
DETAILS

SCALE:

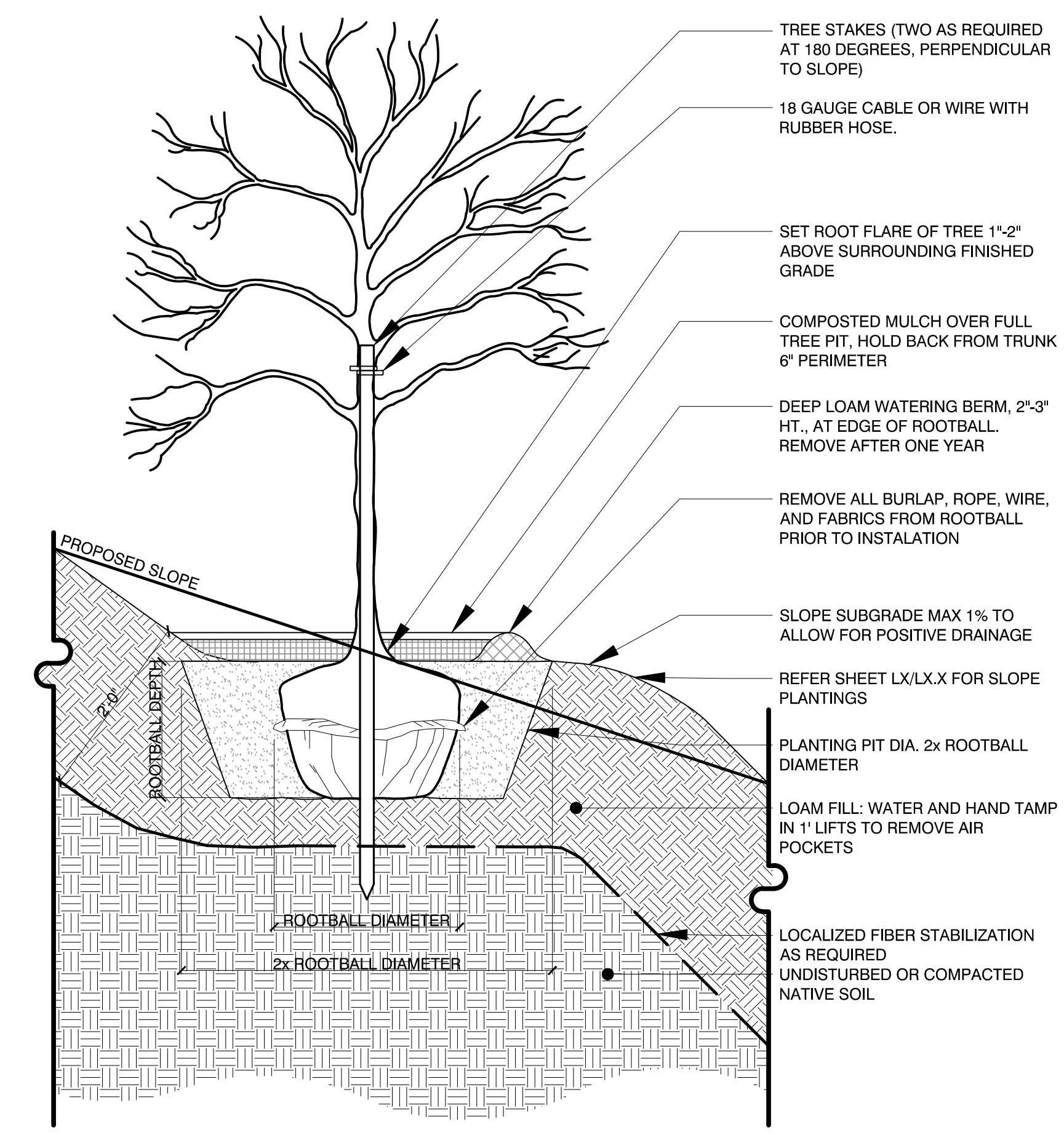
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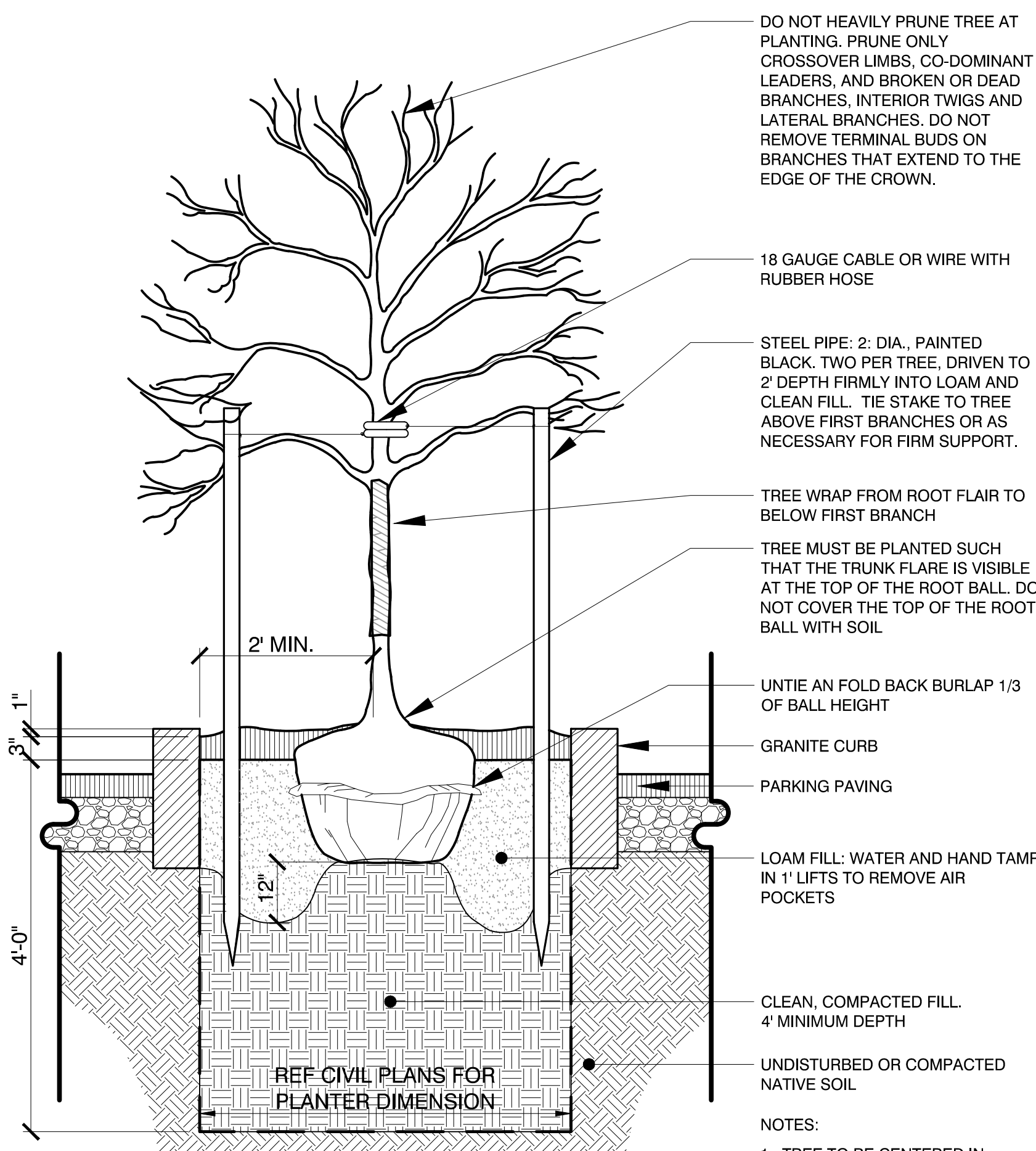
1 PROTECTION FOR EXISTING TREES
Scale: Not To Scale



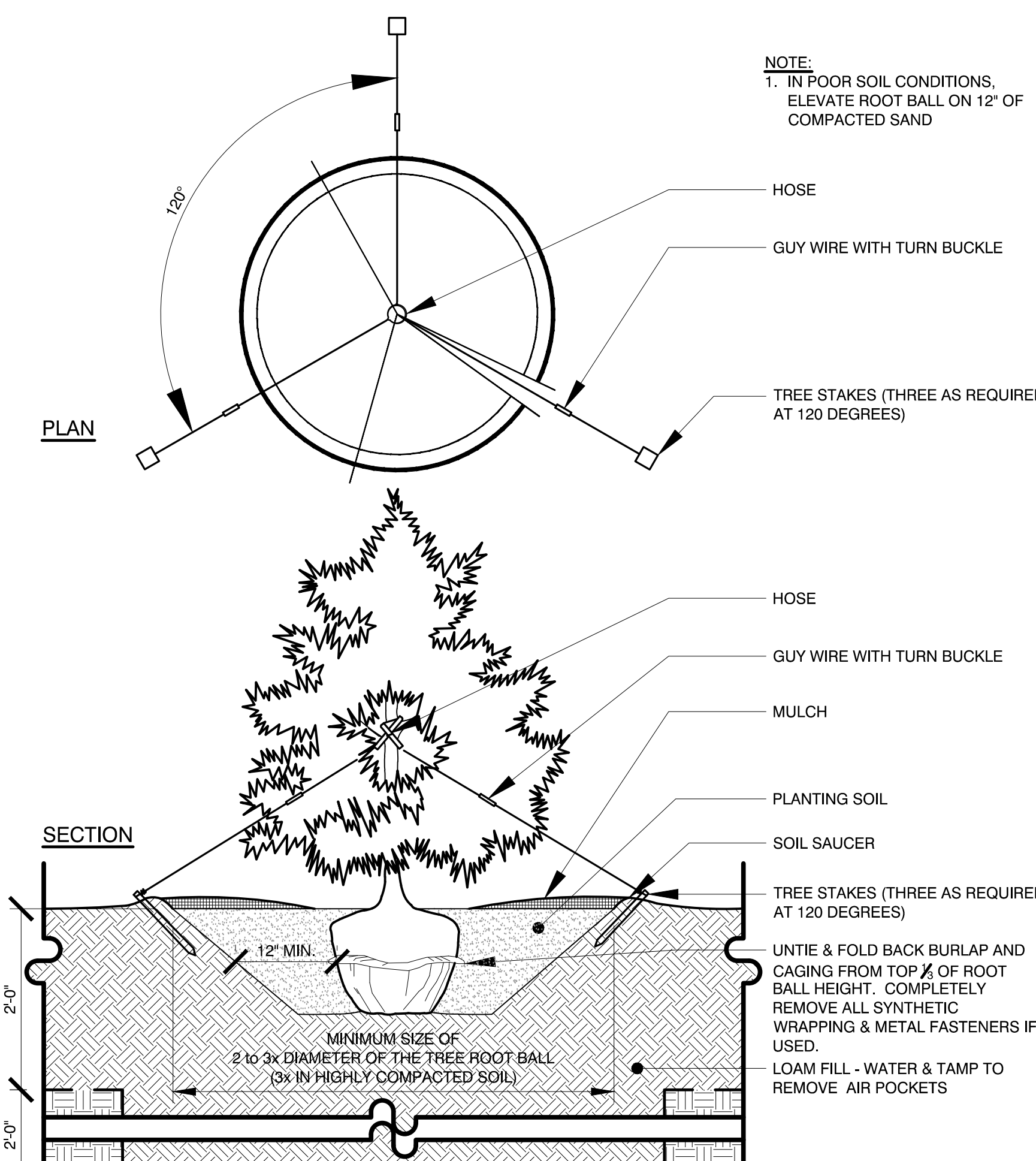
2 DECIDUOUS TREE PLANTING, TYPICAL
Scale: Not To Scale



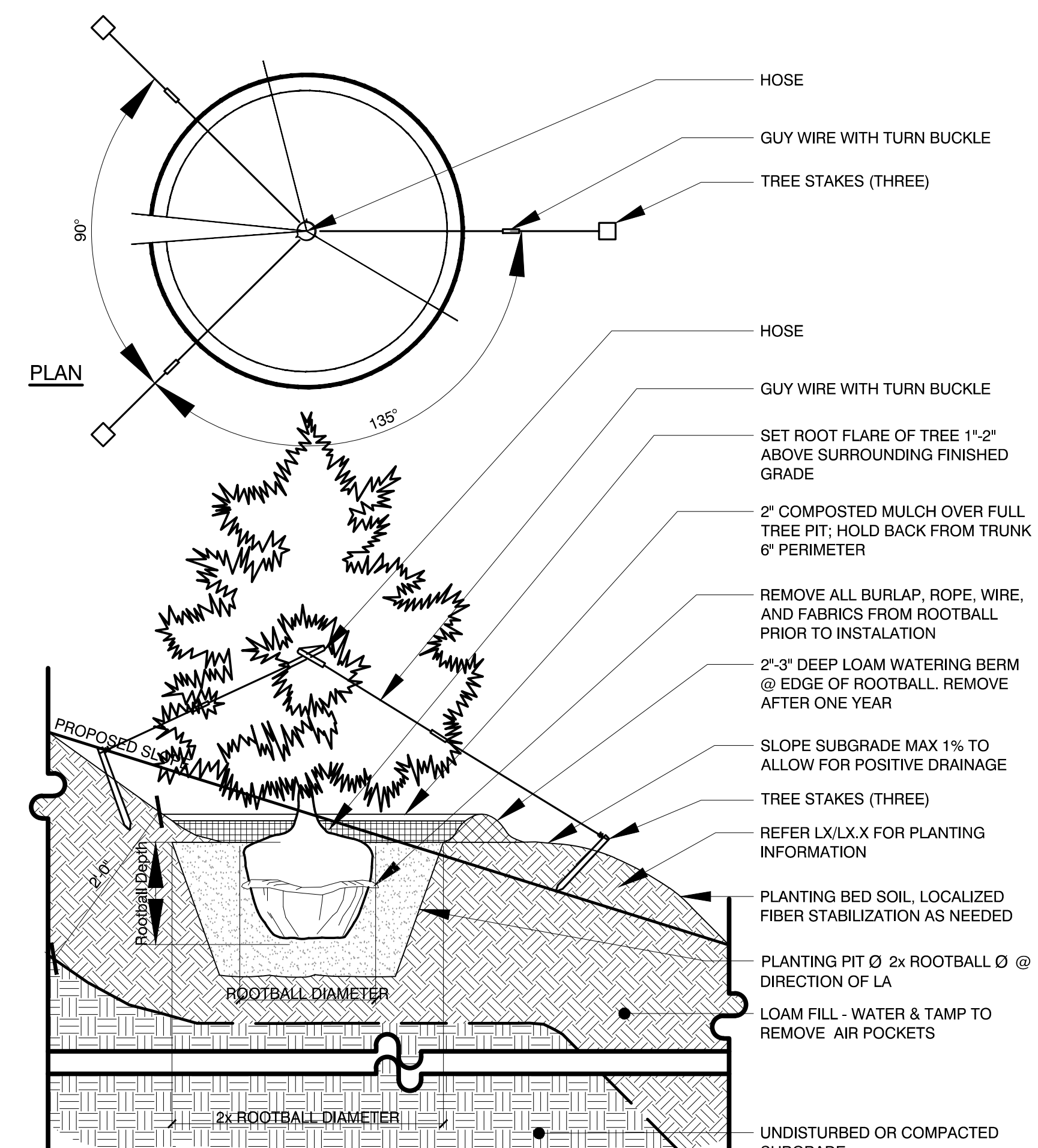
3 DECIDUOUS TREE PLANTING, STEEP TO MODERATE SLOPES
Scale: Not To Scale



4 DECIDUOUS TREE PLANTING: PARKING ISLAND
Scale: Not To Scale

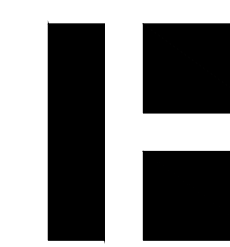


5 EVERGREEN TREE PLANTING, TYPICAL
Scale: Not To Scale



6 EVERGREEN TREE PLANTING, STEEP TO MODERATE SLOPES
Scale: Not To Scale

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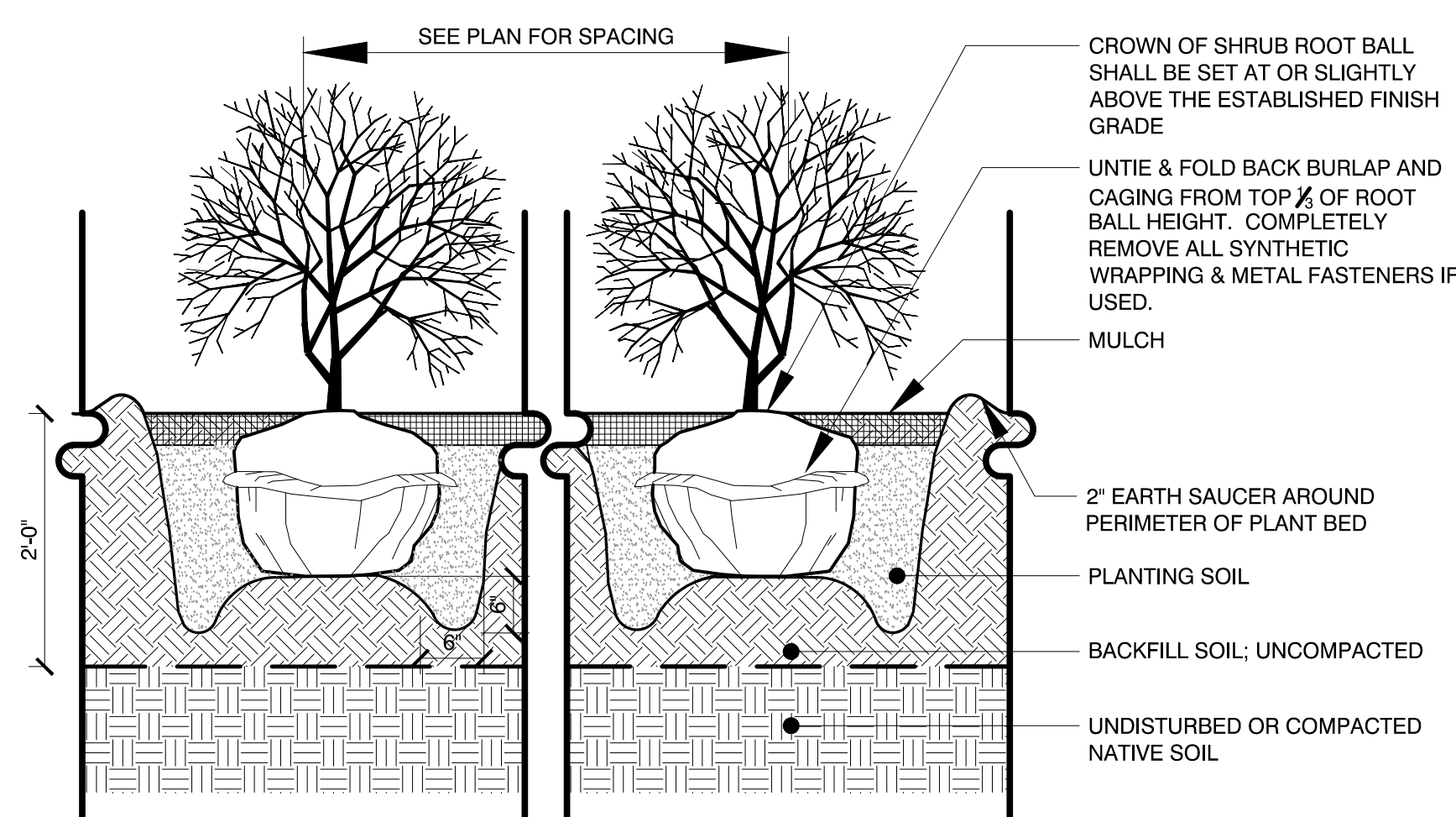
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PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L3.0 Planting Details.dwg
DRAWN BY: HAS/TNE
CHECKED: JMP
APPROVED: BLM

**PLANTING
DETAILS**

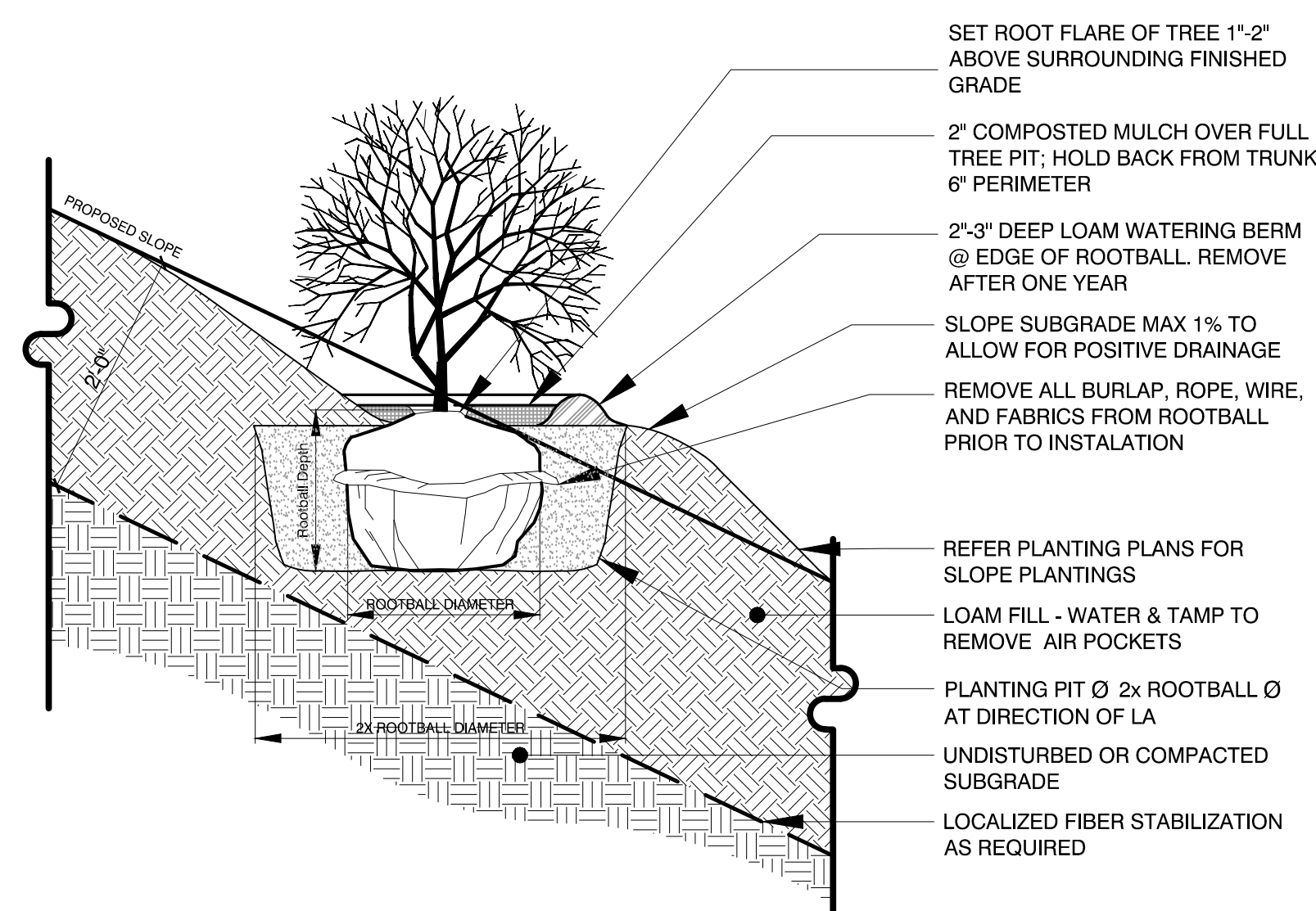
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L3.1



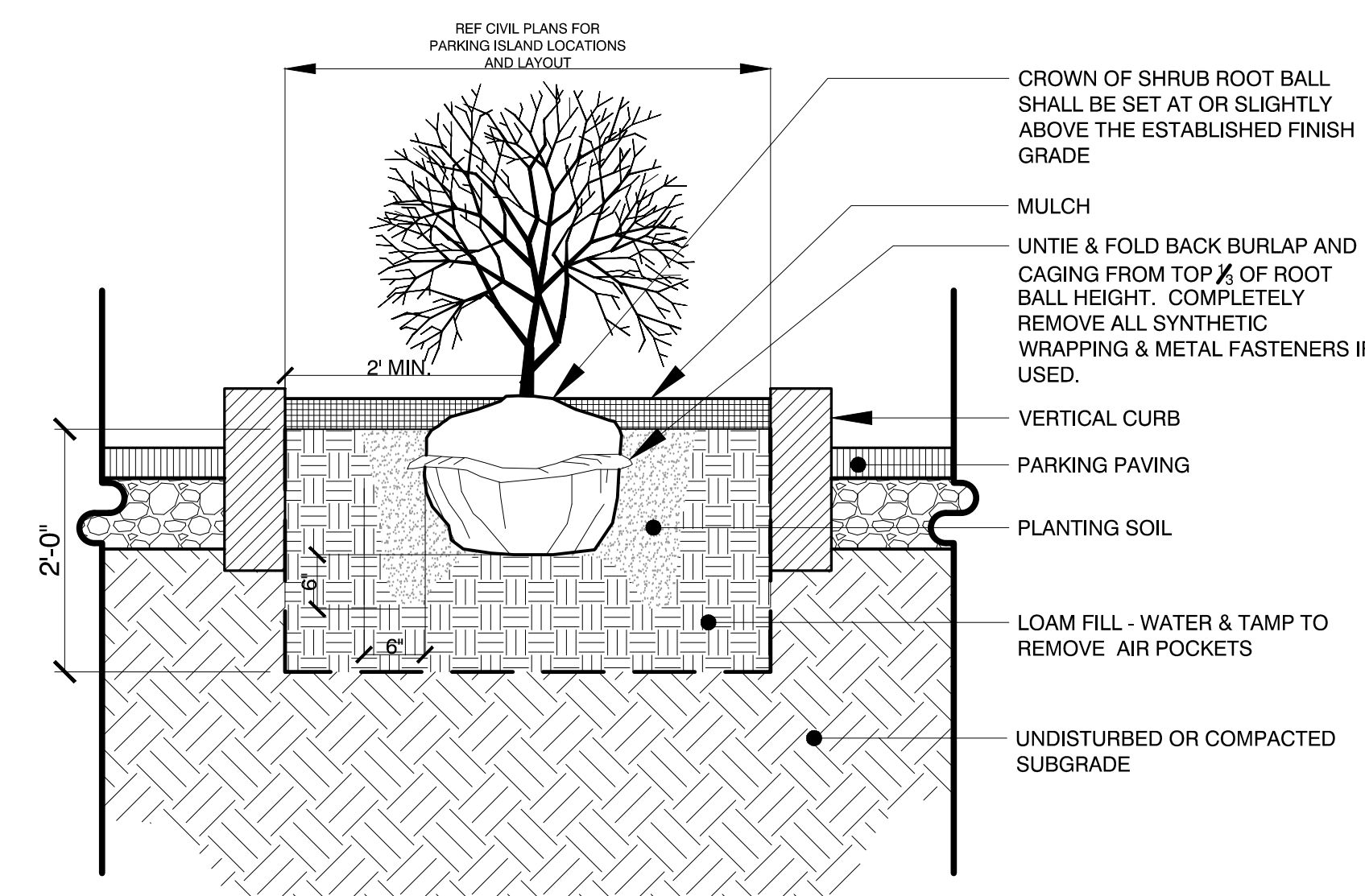
1 SHRUB PLANTING, TYPICAL
Scale: Not To Scale

NOTE:
IN POOR SOIL CONDITIONS,
ELEVATE ROOT BALL ON 12\"/>

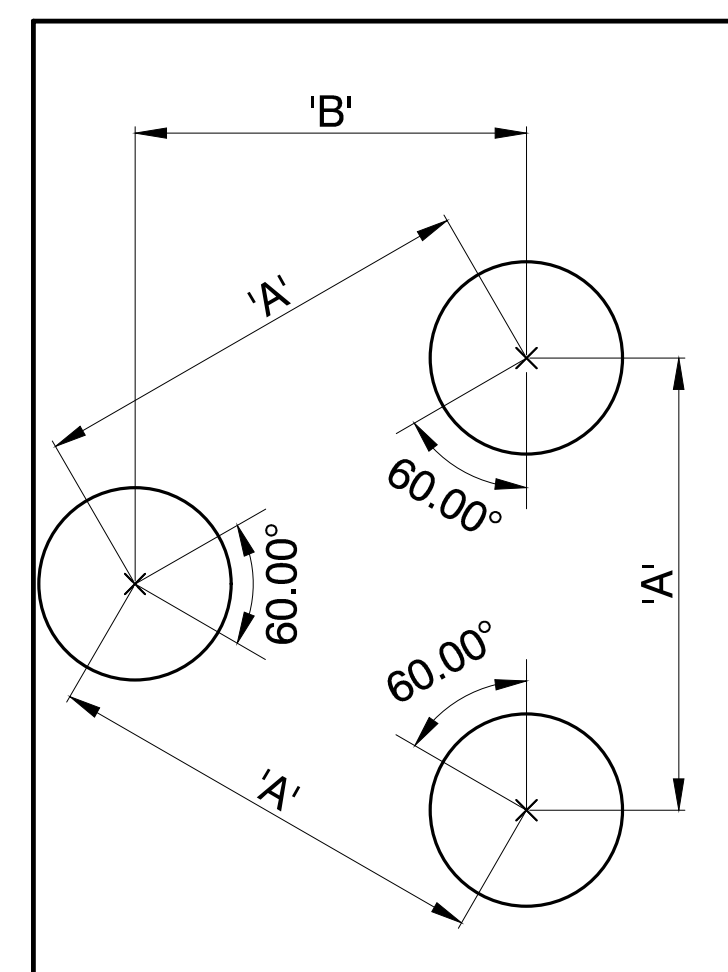


2 SHRUB PLANTING: STEEP TO MODERATE SLOPES
Scale: Not to Scale

NOTE: CONTRACTOR TO REDUCE DEPTH OF HORTICULTURAL SUBSOIL W/ IN ROOT PROTECTION ZONE OF EXISTING VEGETATION AND LEDGE, AS REQUIRED

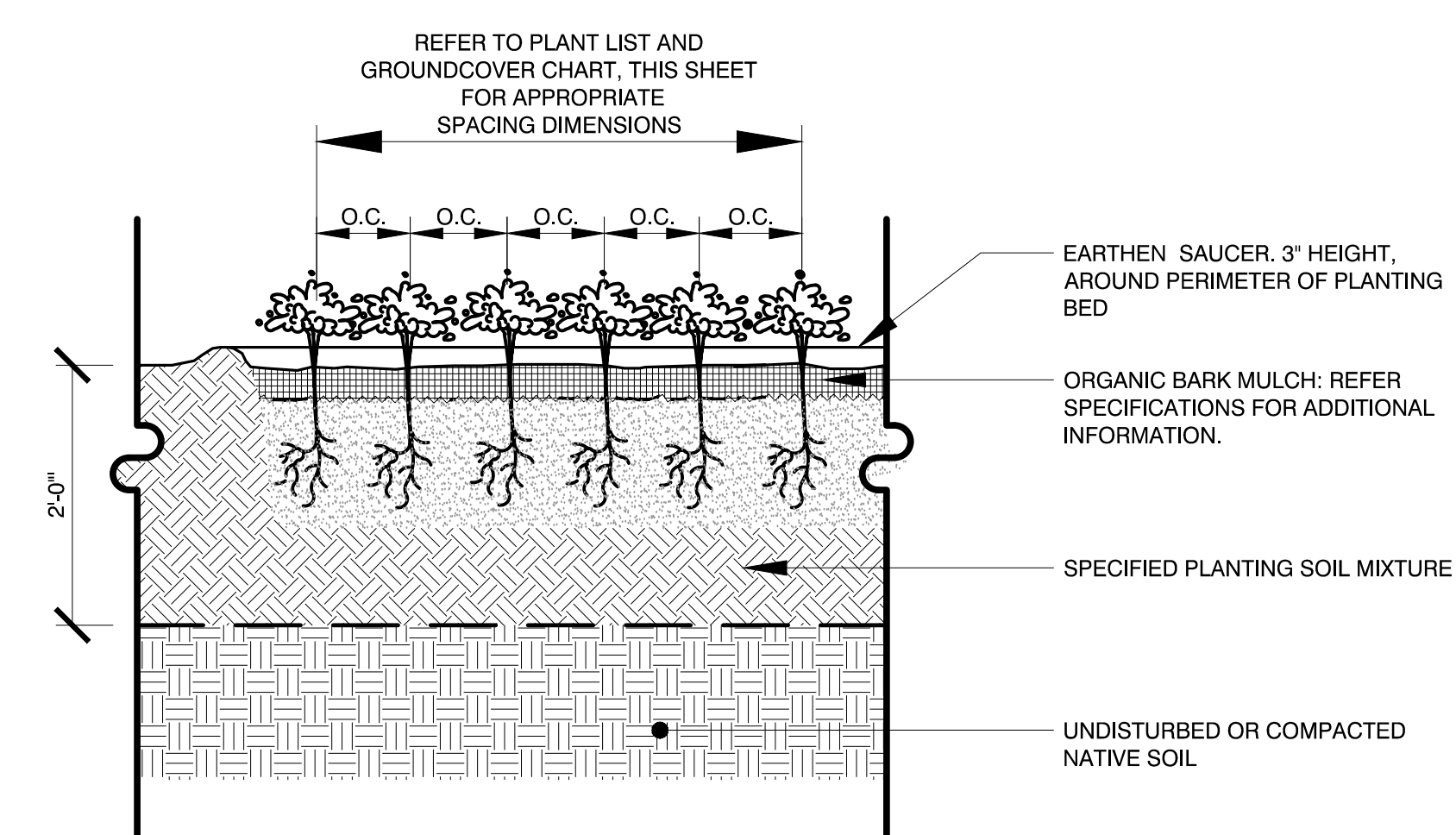


3 SHRUB PLANTING: PARKING ISLAND
Scale: Not To Scale

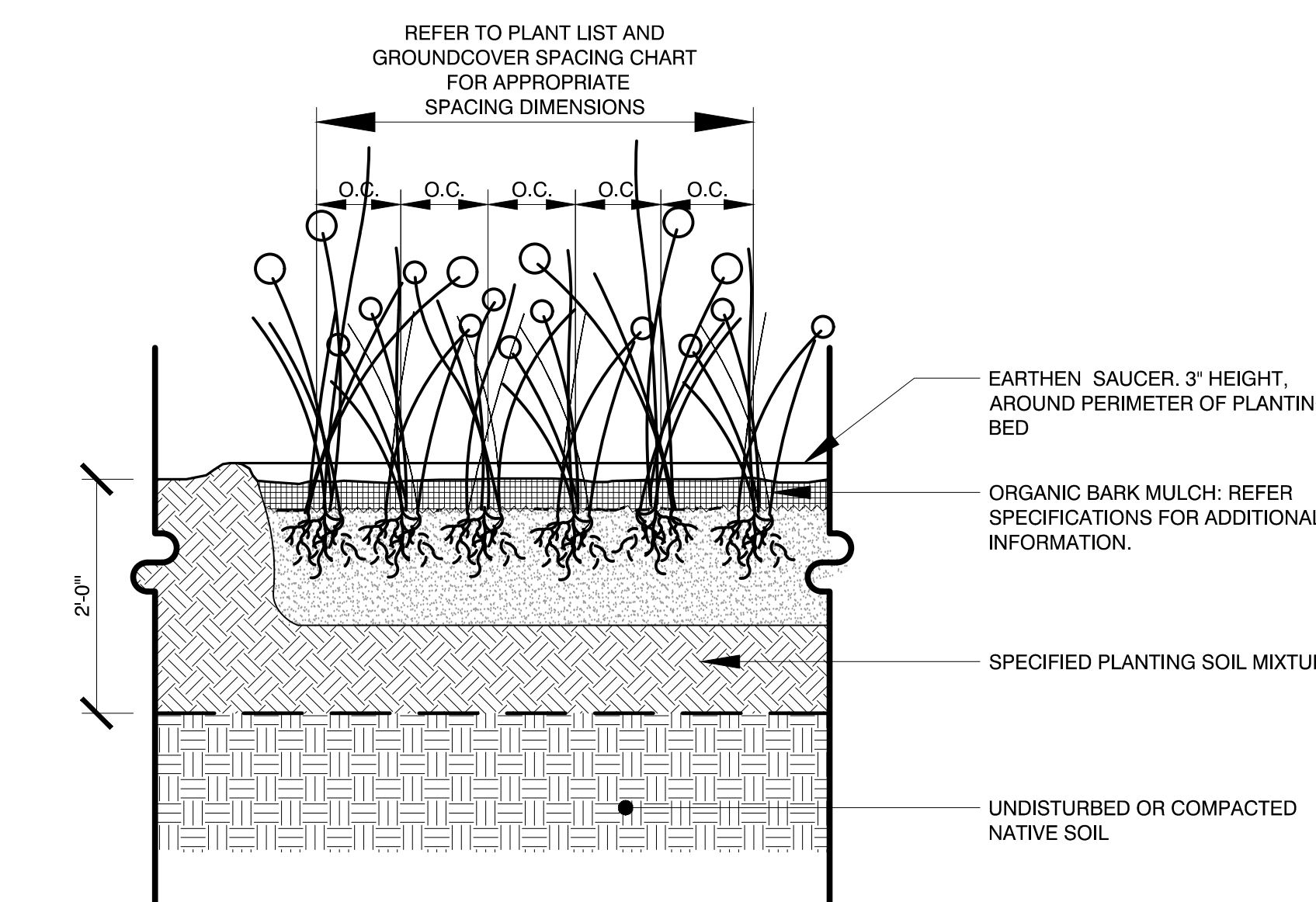


PLANT SPACING ('A')	ROW SPACING ('B')
6 IN. O.C.	5 IN. O.C.
8 IN. O.C.	7 IN. O.C.
10 IN. O.C.	8 1/2 IN. O.C.
12 IN. O.C.	10 1/2 IN. O.C.
15 IN. O.C.	13 IN. O.C.
18 IN. O.C.	16 IN. O.C.
24 IN. O.C.	21 IN. O.C.
30 IN. O.C.	26 IN. O.C.
36 IN. O.C.	30 IN. O.C.
48 IN. O.C.	42 IN. O.C.
54 IN. O.C.	48 IN. O.C.
60 IN. O.C.	54 IN. O.C.

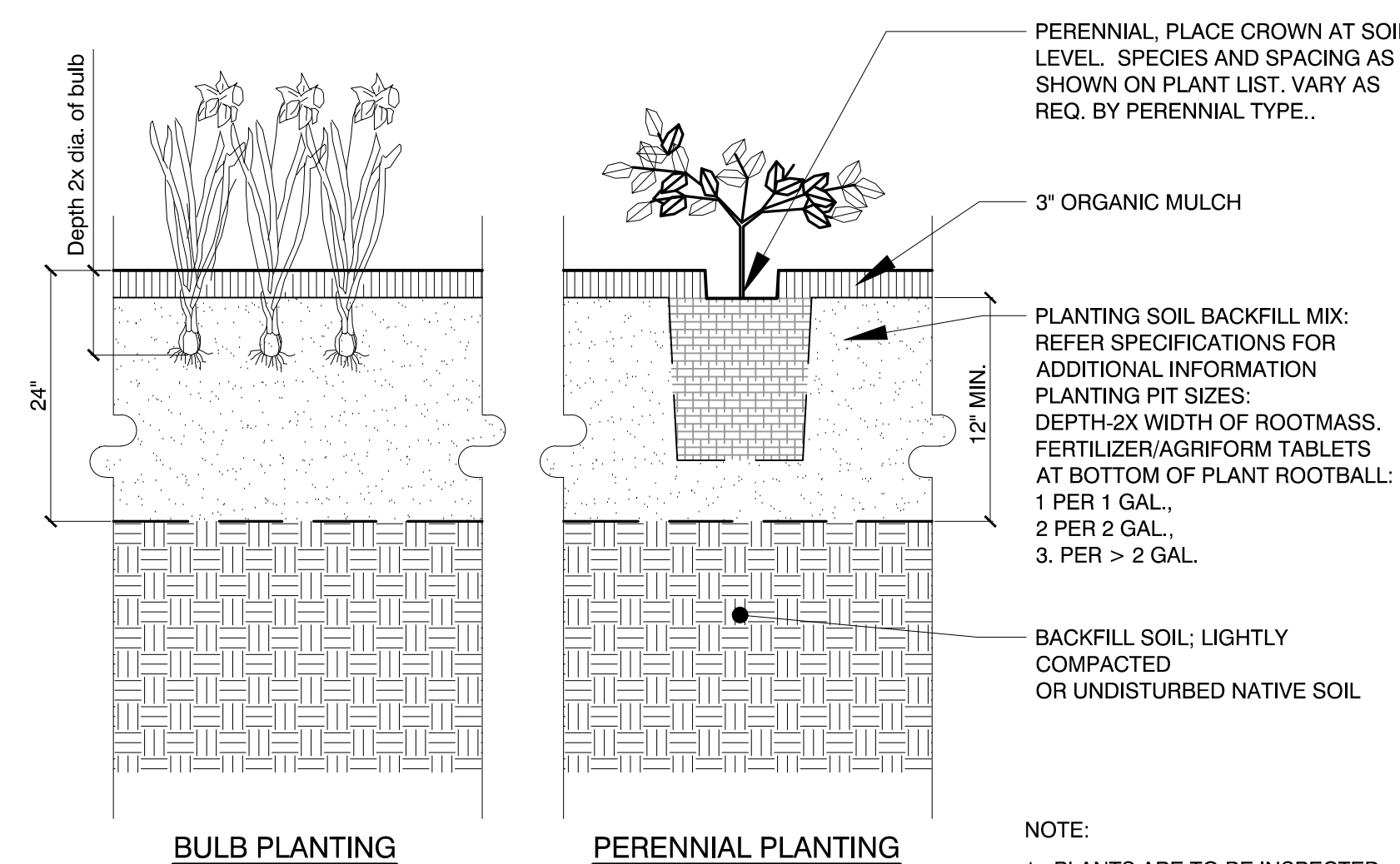
4 GROUND COVER, PERENNIAL AND ORNAMENTAL GRASS SPACING CHART
Scale: Not to Scale



5 GROUND COVER PLANTING, TYPICAL
Scale: Not To Scale

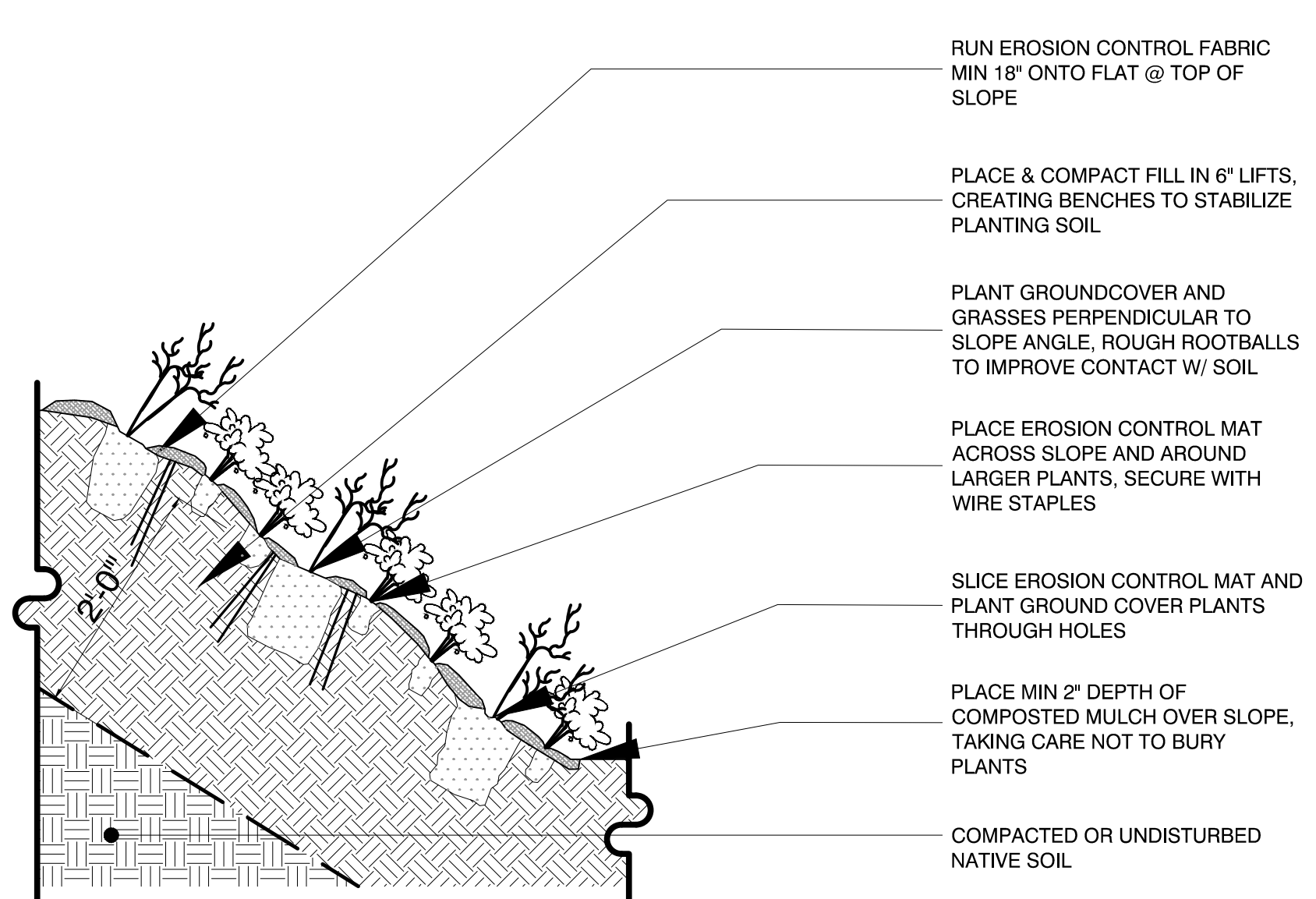


6 ORNAMENTAL GRASS PLANTING, TYPICAL
Scale: Not To Scale

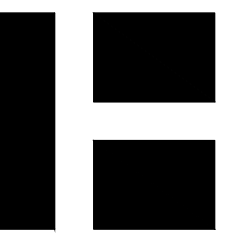


7 BULB AND PERENNIAL PLANTING, TYPICAL
Scale: Not to Scale

NOTE:
1. PLANTS ARE TO BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED IN-KIND WITH PLANT MATERIAL OF SAME SPECIES, SIZE AND FORM.



8 GROUND COVER PLANTINGS: 3:1 SLOPE OR GREATER
Scale: Not to Scale



AUBURN PORTLAND PORTSMOUTH BOSTON

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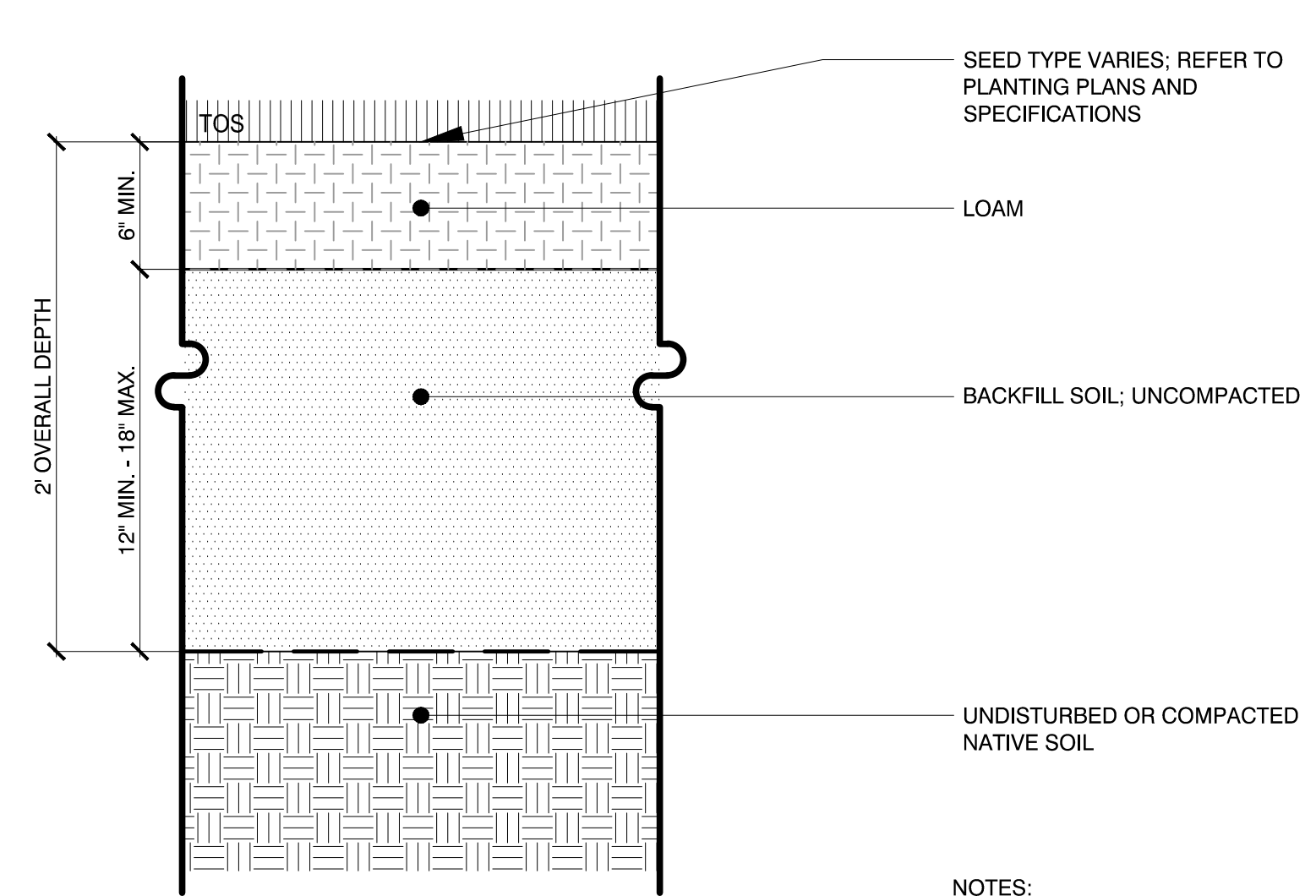
MARK	DATE	DESCRIPTION
	1/2/2020	General Revisions

PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L3.0 Planting Details.dwg
DRAWN BY: HAS/TNE
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APPROVED: BLM

**PLANTING
DETAILS**

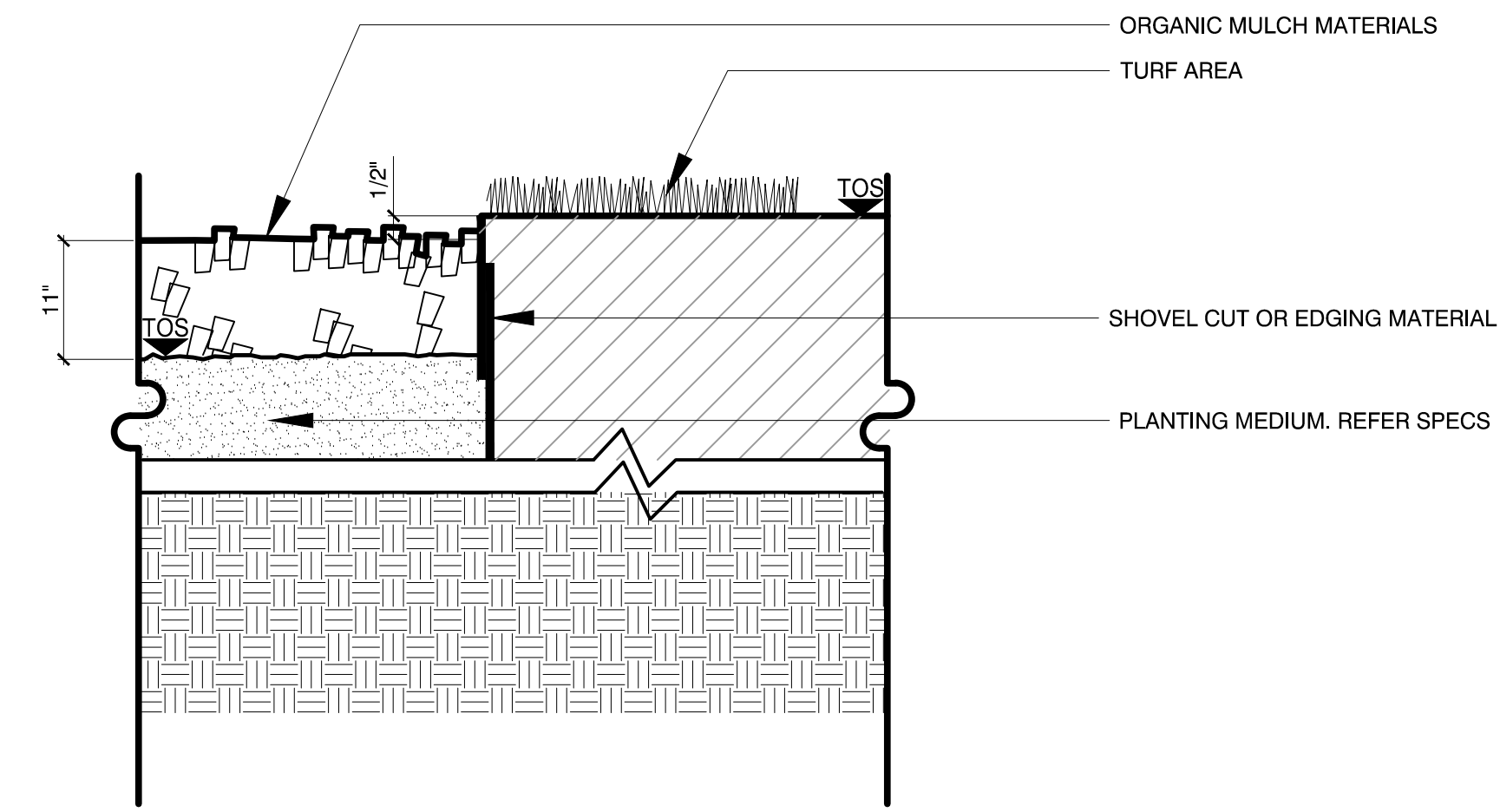
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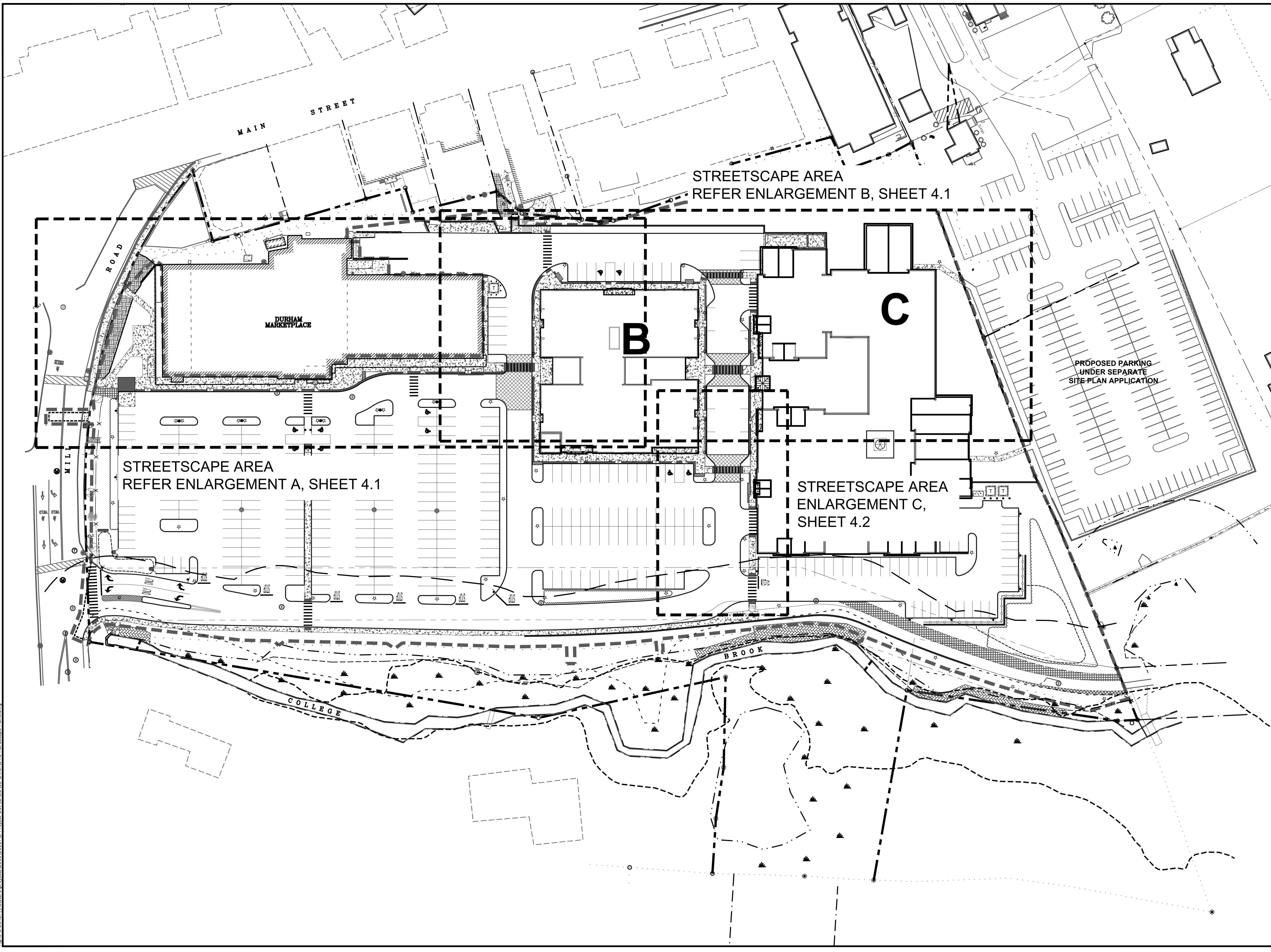
1 SEED COVER
Scale: Not to Scale

NOTES:
1. TOS Top of soil

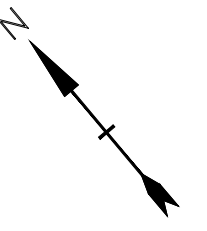


2 ORGANIC MULCH
Scale: Not to Scale

NOTES:
1. TOS Top of Soil



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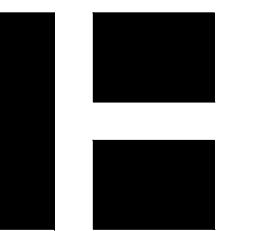
MARK	DATE	DESCRIPTION
	1/2/2020	General Revisions

PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L4.0 Hardscape Plans.dwg
DRAWN BY: HAS/TNE
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**HARDSCAPE
OVERALL PLAN**

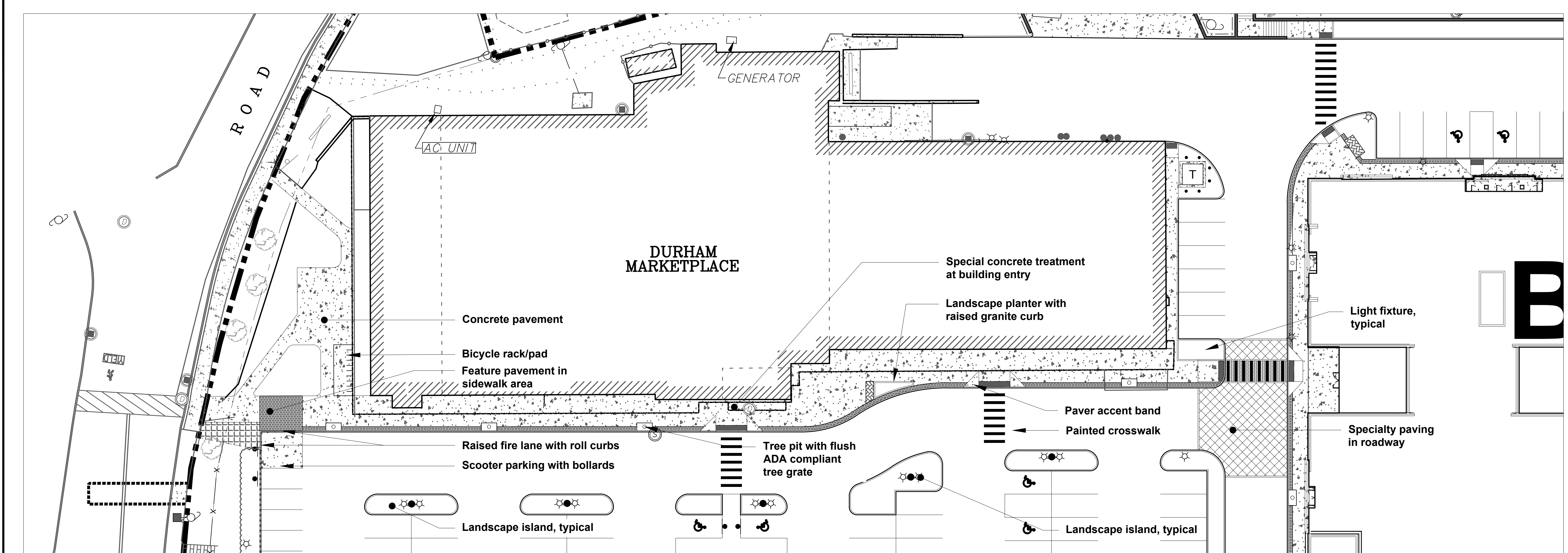
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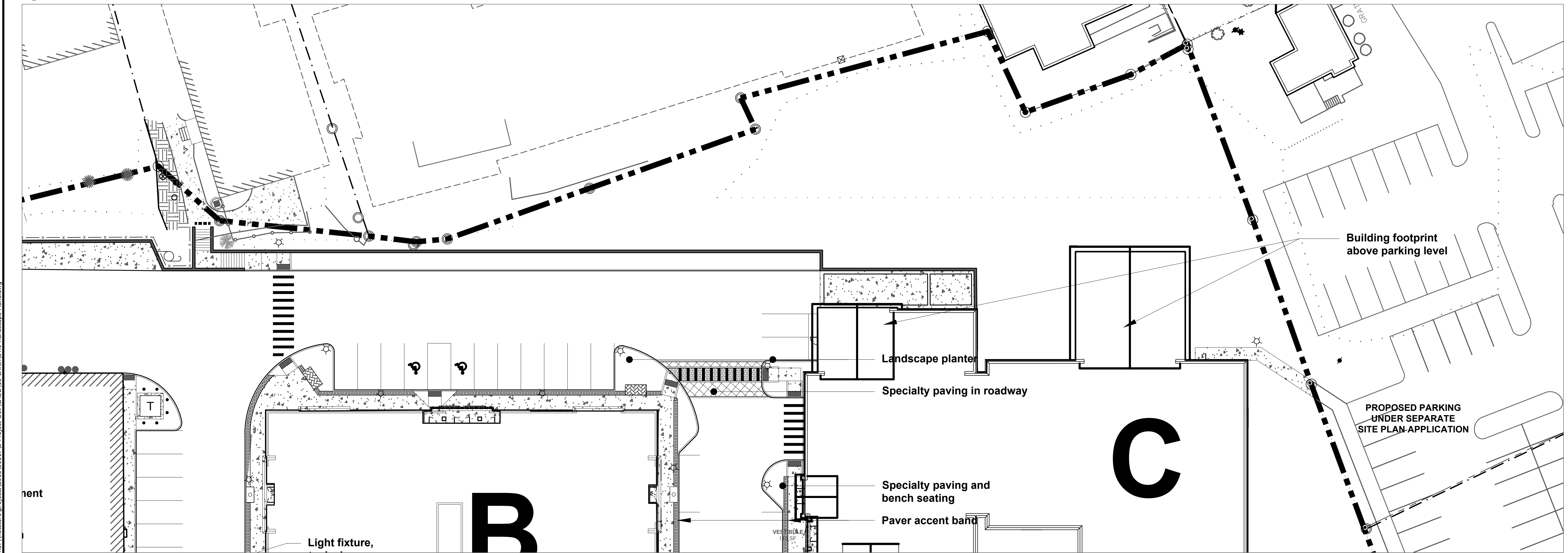


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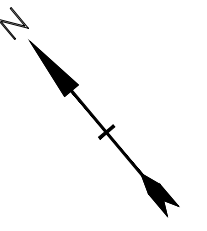


A STREETScape PLAN ENLARGEMENT A
SCALE 1" = 10'-0"



B STREETScape PLAN ENLARGEMENT B
SCALE 1" = 10'-0"

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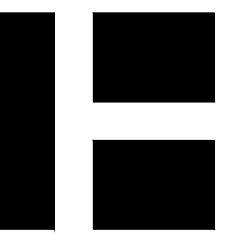
MARK	DATE	DESCRIPTION
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	05/23/18	

PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L4.0 Hardscape Plans.dwg
DRAWN BY: HAS/TNE
CHECKED BY: JMP
APPROVED BY: BLM

**HARDScape
PLAN**

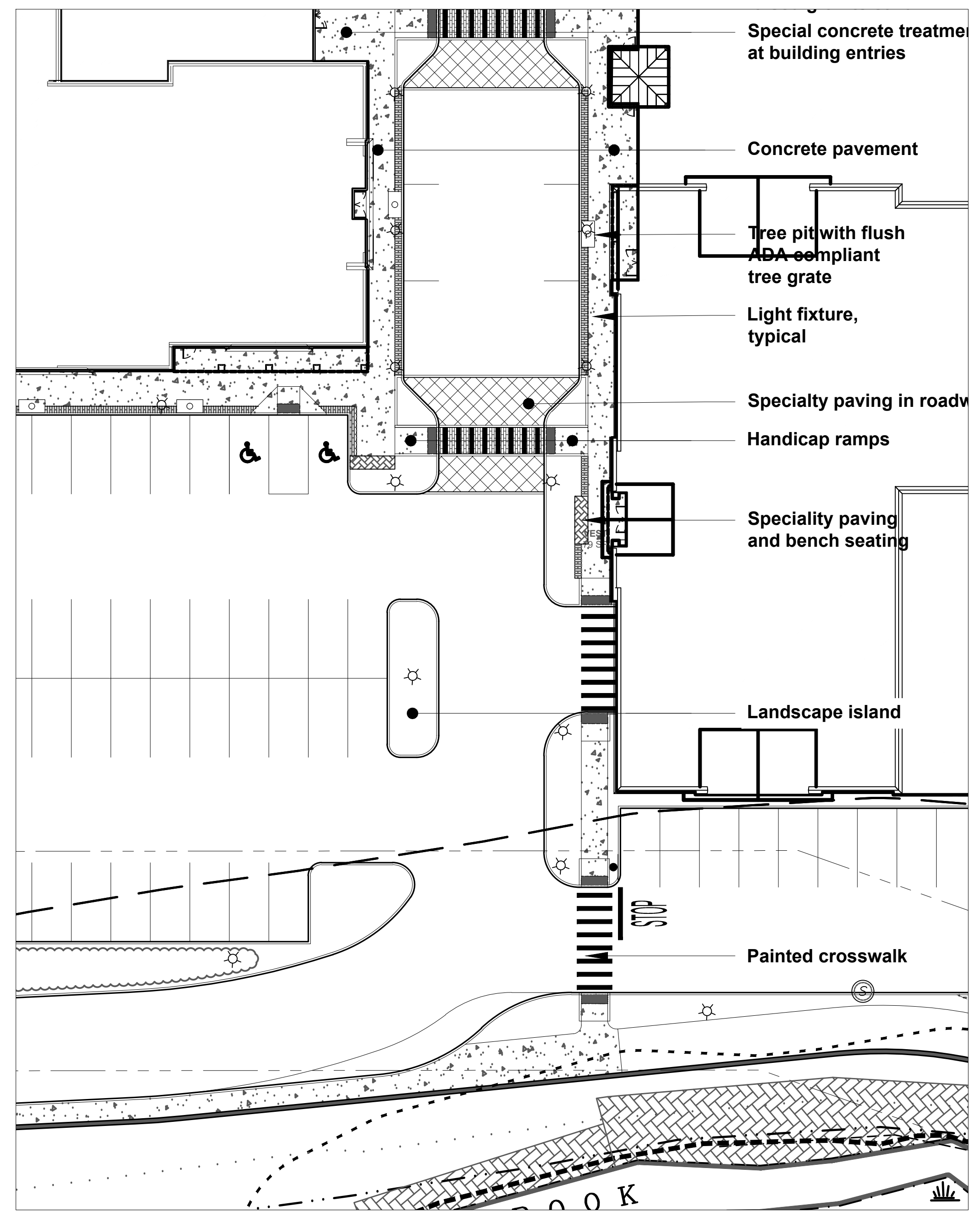
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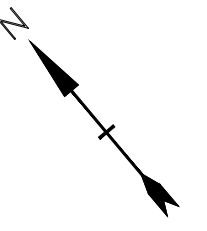
AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117



© STREETScape AREA PLAN ENLARGEMENT C
SCALE 1" = 10'

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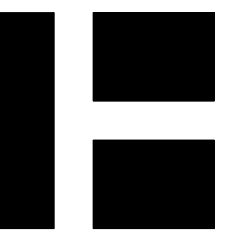
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	05/23/18	

PROJECT NO: M1529-002
DATE: 05/23/18
FILE: L4.0 Hardscape Plans.dwg
DRAWN BY: HAS/TNE
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APPROVED: BLM

**HARDSCAPE
PLAN**

SCALE:

L4.2

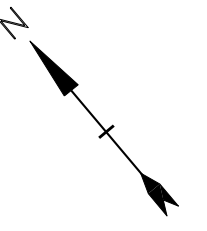


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Harriman Project No. 16117

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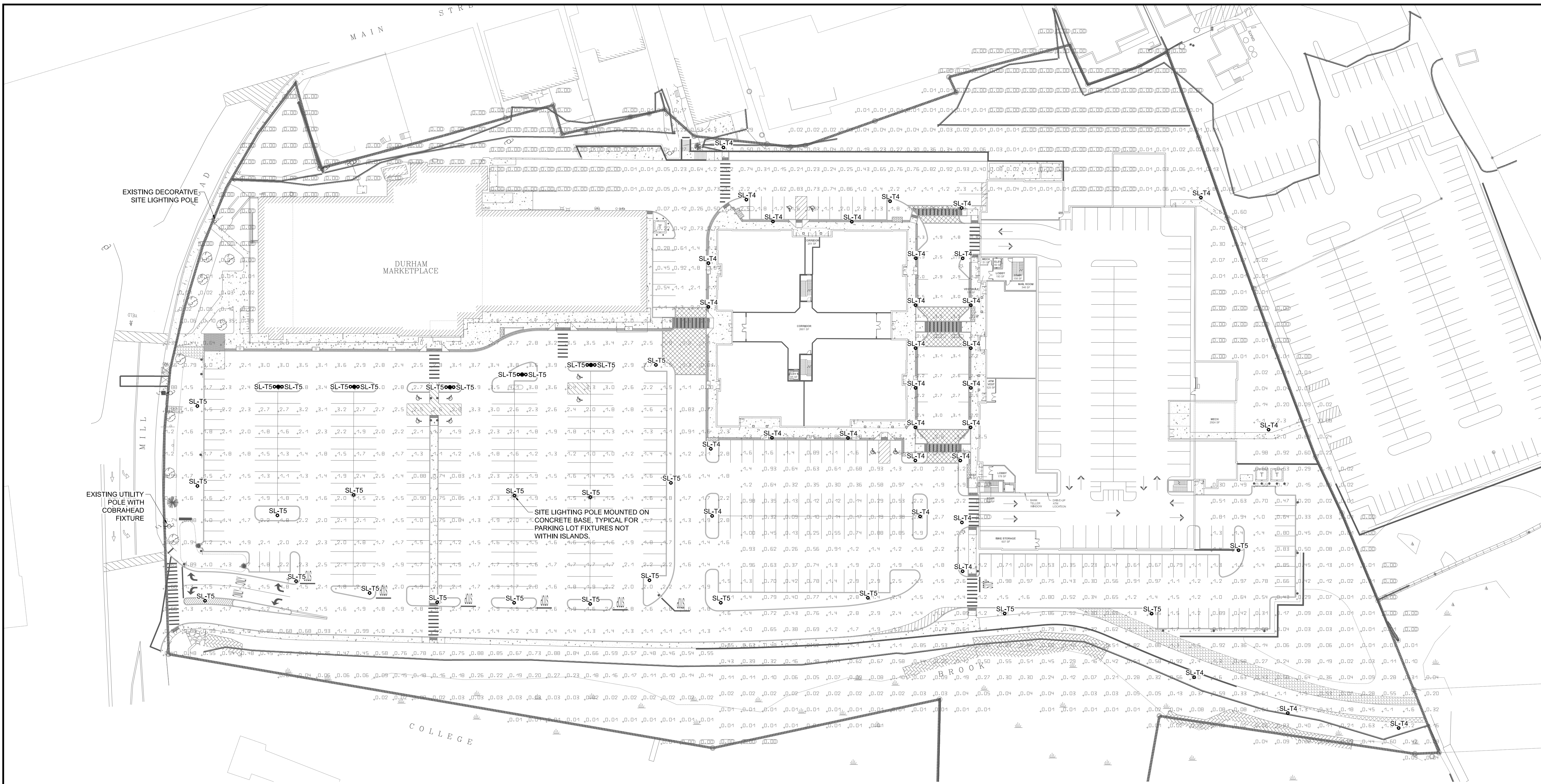


SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

**Mill Plaza
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Colonial Durham
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Durham,
New Hampshire 03824



2 SITE LIGHTING PLAN
SCALE: 1" = 40'

LIGHTING FIXTURE SCHEDULE							
ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH ALL HARDWARE LAMPS, HANGERS, FITTINGS, ETC. FOR A COMPLETE AND PROPER INSTALLATION							
TYPE	MANUFACTURER	CATALOG NO.	MTG.	VOLT	LAMPS		REMARKS/BALLAST INFORMATION
					NO.	WATT	
SL-T4	SITE LIGHT FIXTURE (LED TYPE IV ASYMMETRICAL DISTRIBUTION) - 12' ROUND DECORATIVE STEEL POLE						PROVIDE 12', 16 SHARP FLUTED STEEL POLE. POLE SHALL ACCEPT FOUR 1" CONDUITS. POLE COLOR SHALL MATCH FIXTURE COLOR. POLE SHALL BE RATED FOR FIXTURE EPA RATING WITH 100MPH WIND. 35 INPUT WATTS PER HEAD.
	LUMEC	MPTR-35W32LED4K-L4-277-DMG-FN1-BKTX	POLE	277	35	LED	
	APPROVED EQUAL	POLE: NORTH HAMPTON STYLE STAINLESS STEEL POST WITH BASE. SEE REMARKS.					
SITE LIGHT FIXTURE (LED TYPE V SYMMETRICAL DISTRIBUTION) - 18' ROUND DECORATIVE STEEL POLE							
SL-T5	LUMEC	MPTR-90W80LED4K-L5-277-DMG-FN1-BKTX	POLE	277	87	LED	PROVIDE 18', 16 SHARP FLUTED STEEL POLE. POLE SHALL ACCEPT FOUR 1" CONDUITS. POLE COLOR SHALL MATCH FIXTURE COLOR. POLE SHALL BE RATED FOR FIXTURE EPA RATING WITH 100MPH WIND. 87 INPUT WATTS PER HEAD.
	APPROVED EQUAL	POLE: NORTH HAMPTON STYLE STAINLESS STEEL POST WITH BASE. SEE REMARKS.					

1 SITE LIGHTING FIXTURE SCHEDULE
SCALE: NO SCALE

MARK	DATE	GENERAL REVISIONS
	1/2/2020	GENERAL REVISIONS
PROJECT NO:	M1529-002	
DATE:	05/23/18	
FILE:		
DRAWN BY:	BSO	
CHECKED:	JWT	
APPROVED:	JWT	

**ELECTRICAL SITE
LIGHTING PLAN**

SCALE: AS SHOWN

ES10.1



A1 EXTERIOR ELEVATION - "B" WEST
SCALE: 1/16" = 1'-0"



B1 EXTERIOR ELEVATION - "B" NORTH
SCALE: 1/16" = 1'-0"

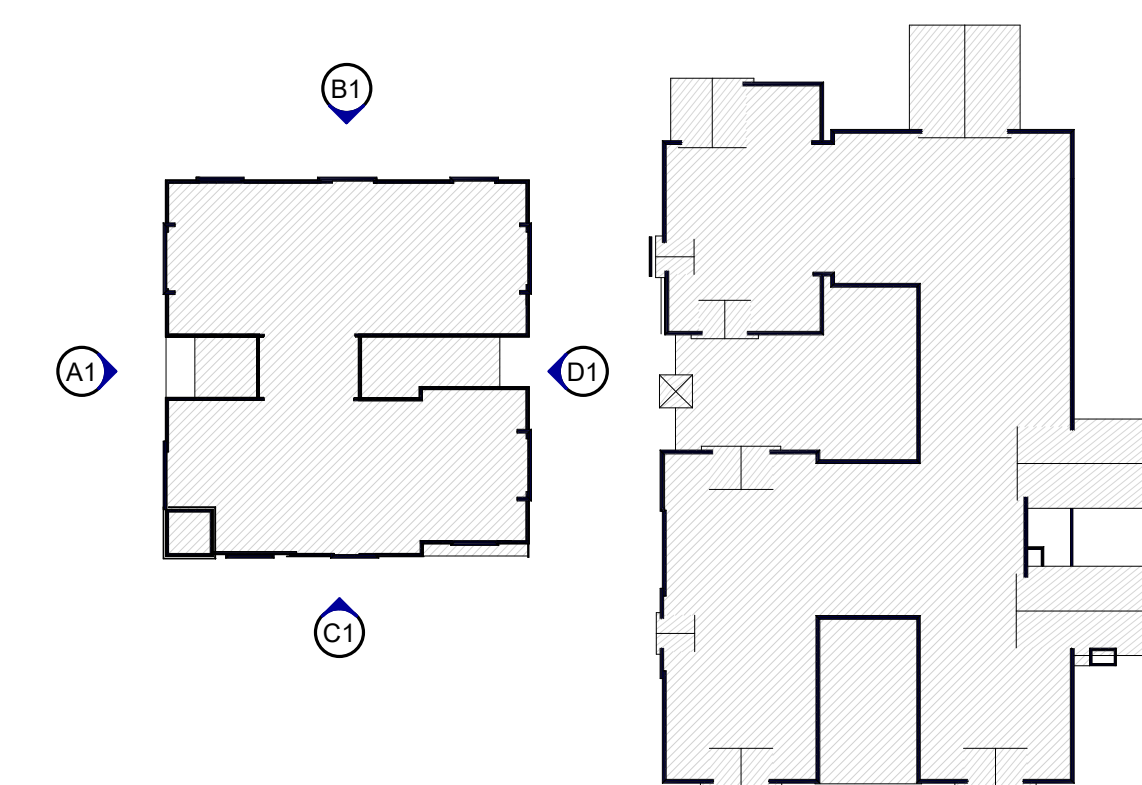
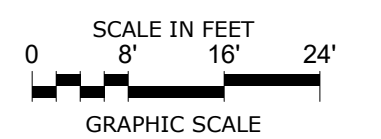


C1 EXTERIOR ELEVATION - "B" SOUTH
SCALE: 1/16" = 1'-0"



D1 EXTERIOR ELEVATION "B" EAST
SCALE: 1/16" = 1'-0"

**PERMIT DRAWINGS
NOT FOR CONSTRUCTION**



A2 KEY PLAN FOR A20.1
SCALE: 1" = 80'-0"

**Mill Plaza
Redevelopment**

Colonial Durham
Associates, LP

7 Mill Road, Unit L
Durham,
New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS

EXTERIOR ELEVATIONS

SCALE: As indicated

A20.1

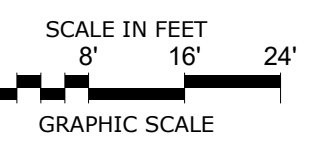


HARRIMAN

AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117

**PERMIT DRAWINGS
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**Mill Plaza
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New Hampshire 03824

MARK	DATE	DESCRIPTION
	1/2/2020	GENERAL REVISIONS
PROJECT NO:	M1529-002	
DATE:	5/23/2018	
FILE:		
DRAWN BY:	ERP/AEW	
CHECKED:	MJB	
APPROVED:	EKI	

EXTERIOR ELEVATIONS

SCALE: As indicated

A20.2



C1 EXTERIOR ELEVATION - "C" EAST
SCALE: 1/16" = 1'-0"



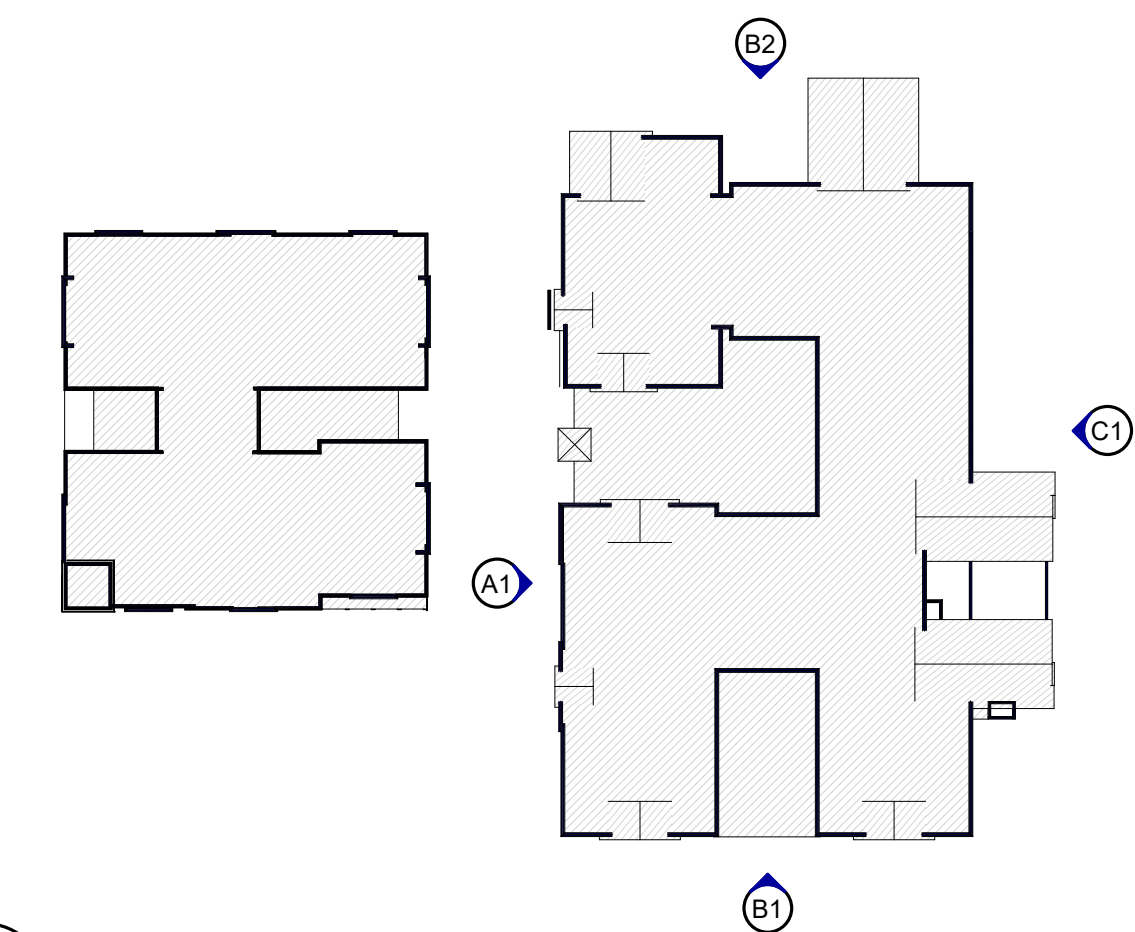
B1 EXTERIOR ELEVATION - "C" SOUTH
SCALE: 1/16" = 1'-0"



B2 EXTERIOR ELEVATION "C" NORTH
SCALE: 1/16" = 1'-0"



A1 EXTERIOR ELEVATION - "C" WEST
SCALE: 1/16" = 1'-0"



A2 KEY PLAN FOR A20.2
SCALE: 1" = 80'-0"



A1 RENDERED ELEVATION "B" WEST
NO SCALE



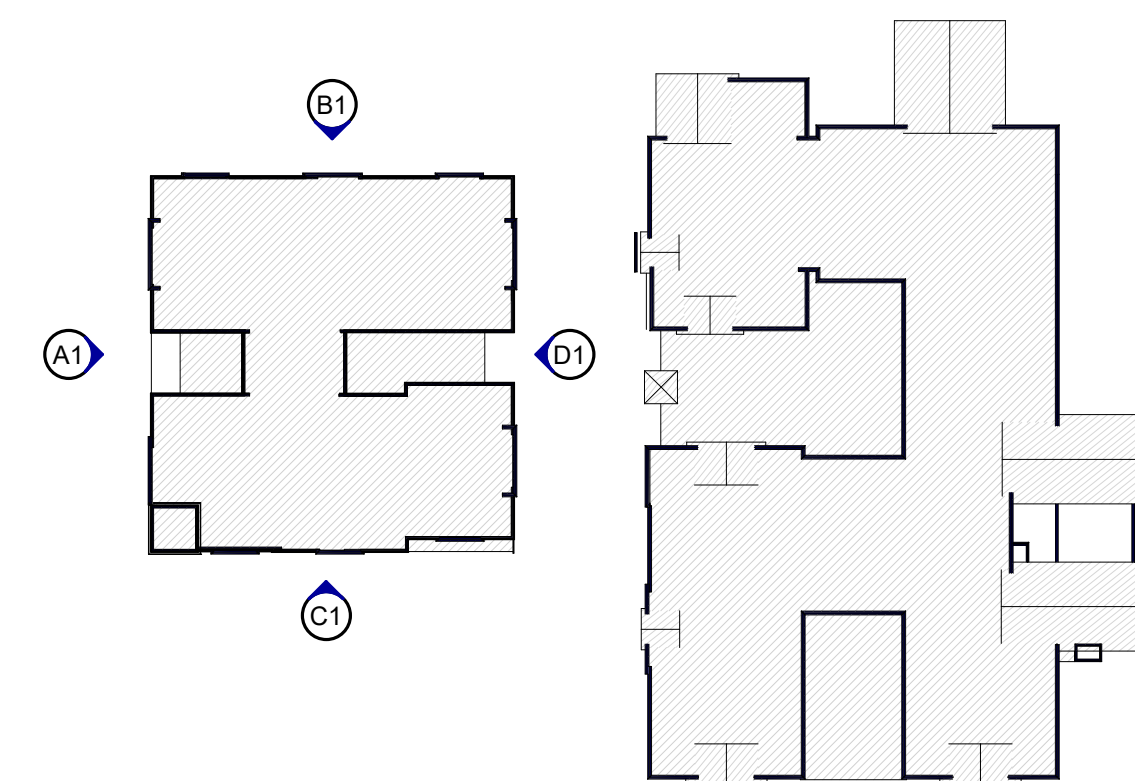
B1 RENDERED ELEVATION "B" NORTH
NO SCALE



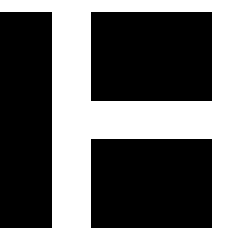
C1 RENDERED ELEVATION "B" SOUTH
NO SCALE



D1 RENDERED ELEVATION "B" EAST
NO SCALE



A2 KEY PLAN FOR A20.3
SCALE: 1" = 80'-0"



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MARK	DATE	DESCRIPTION
1/2/2020 GENERAL REVISIONS		
PROJECT NO: M1529-002		
DATE: 5/23/2018		
FILE:		
DRAWN BY: ERP/AEW		
CHECKED: MJB		
APPROVED: EKI		

RENDERINGS

SCALE: 1" = 80'-0"

A20.3



C1 RENDERED ELEVATION "C" EAST
NO SCALE



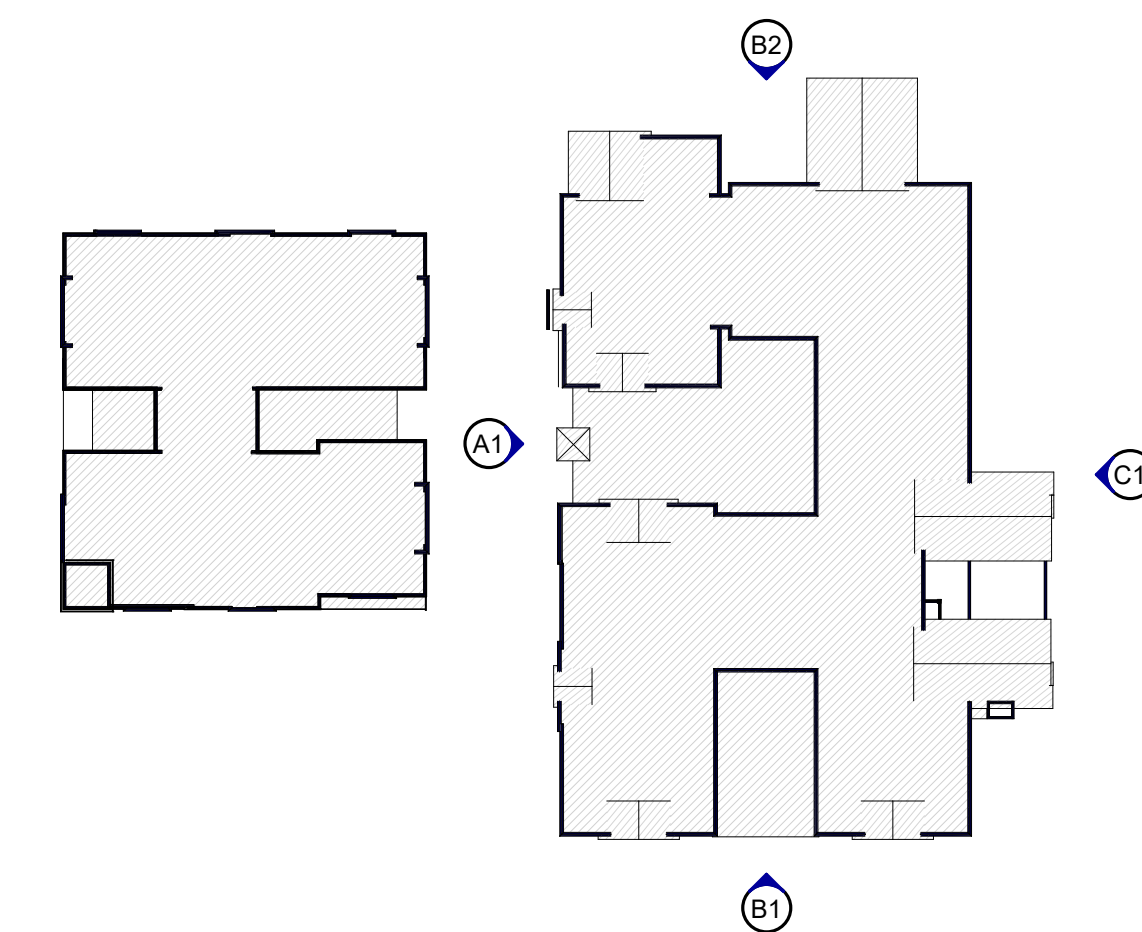
B1 RENDERED ELEVATION "C" SOUTH
NO SCALE



B2 RENDERED ELEVATION "C" NORTH
NO SCALE



A1 RENDERED ELEVATION "C" WEST
NO SCALE



A2 KEY PLAN FOR A20.4
SCALE: 1" = 80'-0"

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MARK	DATE	GENERAL REVISIONS DESCRIPTION
PROJECT NO:	16117	
DATE:	5/23/2018	
FILE:		
DRAWN BY:	ERP/AEW	
CHECKED:	MJB	
APPROVED:	EKI	

RENDERINGS

SCALE: 1" = 80'-0"

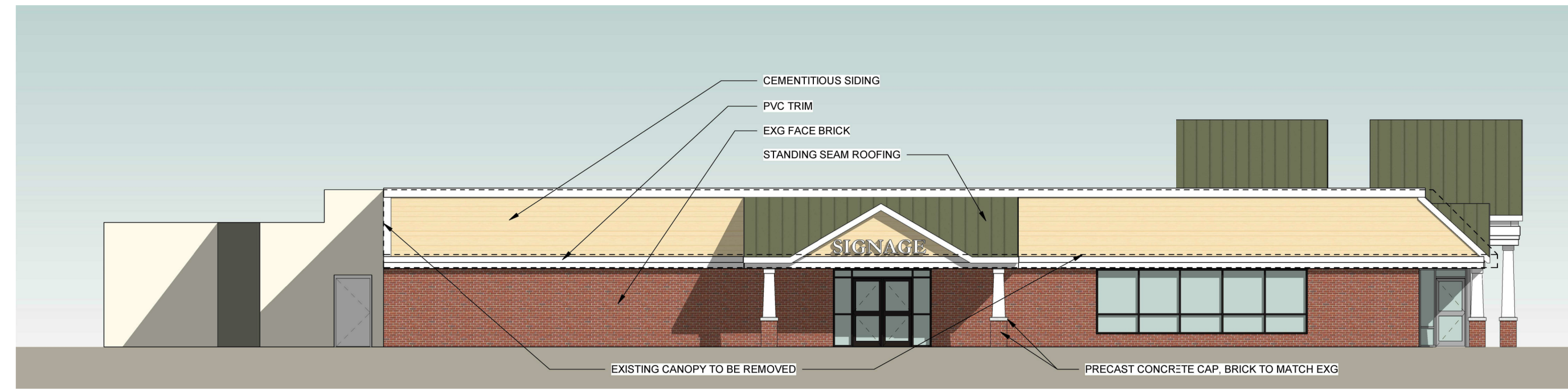
A20.4



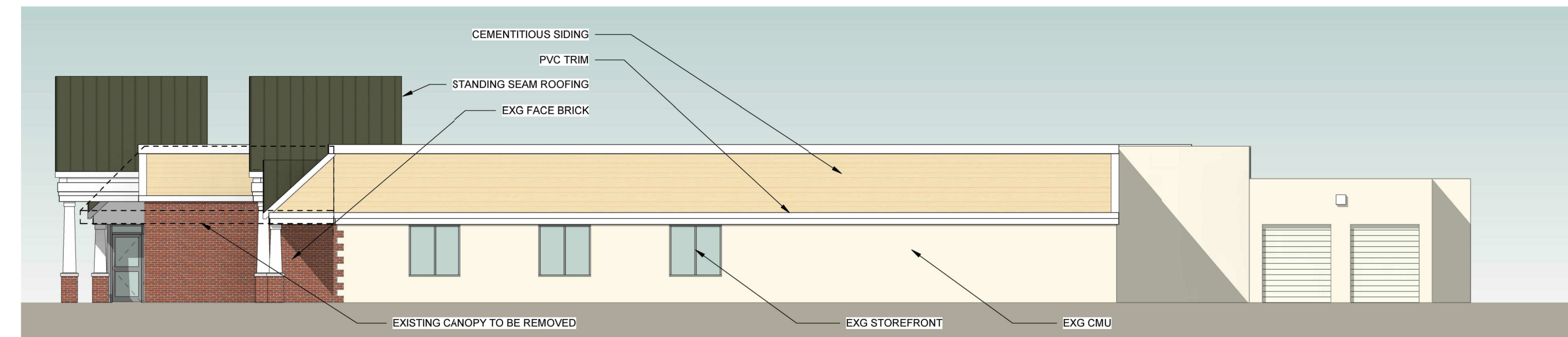
HARRIMAN

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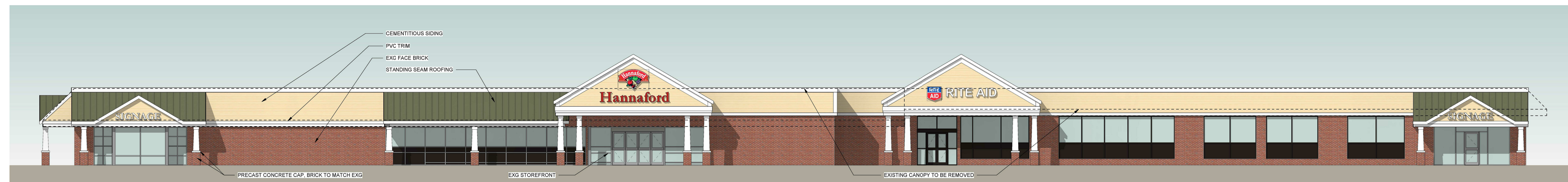
Harriman Project No. 16117



C1 RETAIL - LEFT ELEVATION
SCALE: NO SCALE



B1 RETAIL - RIGHT ELEVATION
SCALE: NO SCALE



A1 RETAIL - FRONT ELEVATION
SCALE: NO SCALE

NOTE: CONCEPTUAL ILLUSTRATION OF FACADE IMPROVEMENTS, SUBJECT TO DISCUSSION WITH HANNAFORD AND RITE AID.

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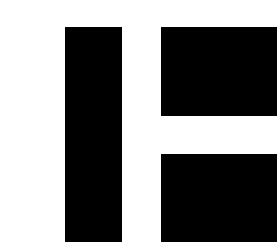
7 Mill Road, Unit L
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New Hampshire 03824

MARK	DATE	GENERAL REVISIONS DESCRIPTION
	1/2/2020	
PROJECT NO: 16117		
DATE: 5/23/2018		
FILE:		
DRAWN BY: DRE		
CHECKED: DRE		
APPROVED: DRE		

RETAIL ELEVATIONS

SCALE: NO SCALE

A20.5

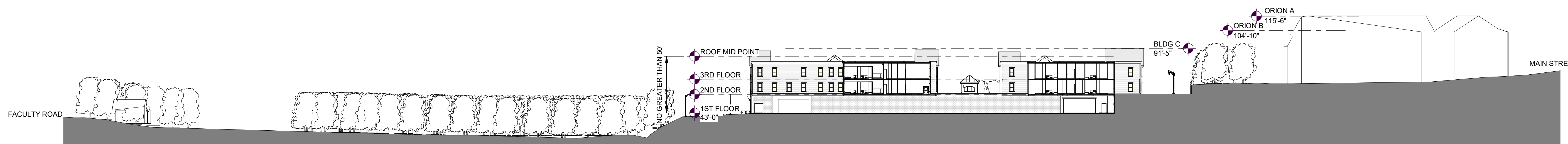


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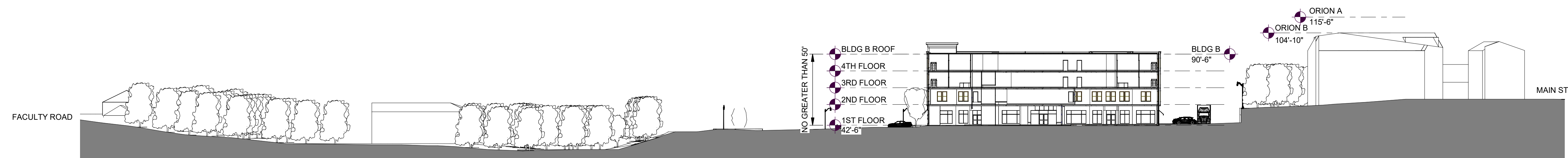
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C1 SOUTH SITE SECTION
SCALE: 1" = 30'-0"



B1 SITE SECTION THROUGH BUILDING C
SCALE: 1" = 40'-0"



A1 SITE SECTION THROUGH BUILDING B
SCALE: 1" = 40'-0"

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PROJECT NO.: M1529-002
DATE: 5/23/2018
FILE:
DRAWN BY: AEW
CHECKED: EKI
APPROVED: EKI

SITE SECTIONS

SCALE: As indicated

A30.1