

# DEFINITIVE SITE PLAN APPROVAL DCU/RETAIL EXPANSION PROJECT 225 SHREWSBURY STREET WORCESTER, MASSACHUSETTS

ISSUED FOR DEFINITIVE SITE PLAN APPROVAL / SPECIAL PERMIT: NOVEMBER 7TH, 2024



CLIENT:  
LUNDGREN EQUITY PARTNERS  
163 Washington Street  
Auburn, MA 01501

CONSULTANT:



**LOCATION PLAN**  
SCALE: 1"=200'

## PROJECT TEAM

<b>CIVIL ENGINEER:</b>	<b>HIGHPOINT ENGINEERING, INC.</b> 980 WASHINGTON STREET, SUITE 216 DEDHAM, MA 02026 TEL: (781) 770-0970 ATTN: DOUGLAS J. HARTNETT WWW.HIGHPOINTENG.COM	<b>OWNER/APPLICANT:</b>	<b>LUNDGREN EQUITY PARTNERS LLC</b> 163 WASHINGTON STREET AUBURN, MA 01501 TEL: (508) 749-4255 ATTN: PATRICK LUNDGREN
<b>ARCHITECT:</b>	<b>NES GROUP ARCHITECTS</b> 905 SOUTH MAIN ST, BLDG B, STE 201 MAANSFIELD, MA 02048 TEL: (508) 339-6600 ATTN: PAUL CAVOLOWSKY WWW.NES-GROUP.COM	<b>SURVEYOR:</b>	<b>HANCOCK ASSOCIATES</b> 185 CENTRE STREET DANVERS, MA 01923-1425 TEL: (978) 777-3050 ATTN: WAYNE C. JALBERT, PLS WWW.HANCOCKASSOCIATES.COM
<b>TRAFFIC ENGINEER:</b>	<b>CHAPPELL ENGINEERING ASSOCIATES</b> 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752 TEL: (508) 481-7400 ATTN: PATRICK BRADLEY WWW.CHAPPELLENGINEERING.COM	<b>LANDSCAPE ARCHITECT:</b>	<b>RADNER DESIGN ASSOCIATES, INC.</b> 3 ALLIED DRIVE, SUITE 303 DEDHAM, MA 02026 TEL: (508) 736-6144 ATTN: MICHAEL RADNER, ASLA, LEEDap WWW.RADNERDESIGN.COM

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SUMMARY OF REQUIRED PERMITS & ZONING RELIEF REQUESTED			
ZO SECTION	SPGA	REQUIREMENT	REQUEST
§IX-7	PLANNING BOARD	SITE PARKING REQUIREMENTS	ALLOWABLE REDUCTION OF SITE PARKING REQUIREMENTS IN THE COMMERCIAL CORRIDOR OVERLAY DISTRICT BY 41%
§IX-4.C.1	ZONING BOARD OF APPEALS	PERMITTED USE REGULATION	ALLOW FOR RELOCATION OF EXISTING DRIVE-THRU
§IV-7	ZONING BOARD OF APPEALS	LOADING REQUIREMENTS	WAIVER OF THE REQUIREMENT TO PROVIDE ONE (1) LOADING SPACES FOR THE PROPOSED BUILDING

DCU/RETAIL EXPANSION PROJECT  
225 SHREWSBURY STREET  
WORCESTER, MA  
OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

REV DATE DESCRIPTION

ISSUE TYPE:  
**PERMIT**

ISSUE DATE:  
**11/07/2024**

PROJECT NUMBER:  
**24009**

DRAWN BY: MJH  
CHECKED BY: DTB/DJH

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SHEET TITLE:  
**TITLE SHEET**

SHEET NUMBER:  
**T100**

GENERAL NOTES

- 1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS...

SEDIMENTATION/EROSION CONTROL NOTES

- 1. UNLESS DIRECTED OTHERWISE, ALL EXISTING TURF OR VEGETATED AREAS WITHIN THE PROPOSED LIMITS OF WORK FOR EXCAVATION, GRADING, OR IMPROVEMENT SHALL BE CLEARED AND GRUBBED...

SITE LAYOUT AND MATERIALS NOTES

- 1. CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER OR OWNERS REPRESENTATIVE FOR RESOLUTION.

GRADING NOTES

- 1. THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER OR HIS REPRESENTATIVE.

UTILITY NOTES

- 1. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON EXISTING CONDITIONS PLANS AND POTENTIALLY INFORMATION PROVIDED BY THE LOCAL MUNICIPALITIES...

EXISTING SYMBOL LEGEND

Table with 2 columns: Symbol and Description. Includes items like Accessible Parking Pavement Marking, Sign, Concrete Wall, Concrete Curb, Cape Cod Berm, etc.

CONSTRUCTION NOTES

- 1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS...

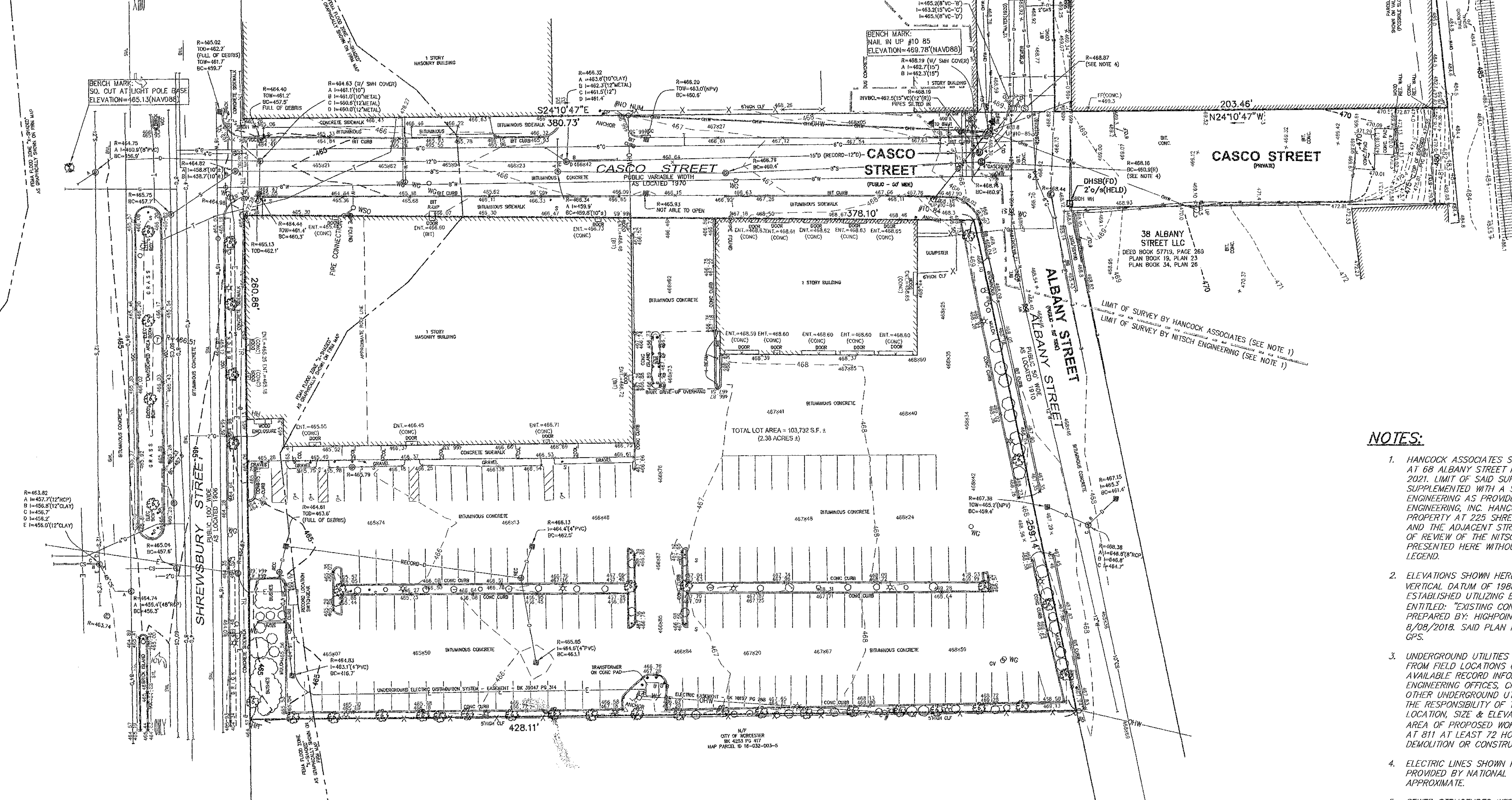
DRAINAGE NOTES

- 1. ALL STORM DRAIN SHALL HIGH DENSITY POLYETHYLENE (HDPE) PIPE UNLESS OTHERWISE NOTED...

Project information: HIGHTPOINT ENGINEERING, INC. DCU/RETAIL EXPANSION PROJECT. 225 SHREWSBURY STREET WORCESTER, MA. OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS.

**LEGEND**

- 472 — SURFACE CONTOUR
- — — EDGE OF PAVEMENT
- x-x-x- CHAIN LINK FENCE
- 476.75 — CURB WITH TOP AND BOTTOM CURB ELEVATION
- 476.25 —
- S — SEWERLINE & MANHOLE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION
- D — DRAINAGE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION, CATCHBASIN, MANHOLE & ROUND CATCHBASIN
- W — WATER MANHOLE, WATER MAIN WITH SIZE, TEE, GATE VALVE & FIRE HYDRANT
- G — GAS MAIN WITH SIZE & GATE VALVE
- OHW — EXISTING UTILITY POLE WITH DESIGNATION OVERHEAD WIRES AND GUY POLE
- E — ELECTRIC MANHOLE & UNDERGROUND ELECTRIC LINES
- T — TELEPHONE MANHOLE & UNDERGROUND TELEPHONE LINES
- 478.8 — RETAINING WALL WITH TOP AND BOTTOM ELEVATIONS
- 473.2 —
- × 471.2 SPOT ELEVATION
- SMH ⊙ SEWER MANHOLE
- DMH ⊙ DRAIN MANHOLE
- CB ⊙ CATCH BASIN
- CU ⊙ CONNECTION UNKNOWN
- (R) RECORD INFORMATION
- (C) CALCULATED
- (R/H) RECORD AND HELD
- (M) FIELD MEASURED
- (FD) FOUND
- DHSB □ DRILL HOLE IN STONE BOUND
- BB BITUMINOUS BERM
- BIT. CONC. BITUMINOUS CONCRETE
- CLF CHAIN LINK FENCE
- GM GAS METER
- WHH○ WATER HAND HOLE
- N.F.O. NOT FIELD OBSERVED
- BC BOTTOM CENTER OF CHANNEL
- CL CENTERLINE
- N.P.V. NO PIPES VISIBLE
- FF FIRST FLOOR



**ASSESSORS:**  
MAP 16, BLOCK 31, LOT 3

**REFERENCES:**  
DEED BOOK 57149, PAGE 233  
PLAN BK. 231, PLAN 110

**RECORD OWNER:**  
68 ALBANY, LLC

**ZONING:**  
DISTRICT 'MG 2.0'

**#68 ALBANY STREET & #225 SHREWSBURY STREET**

Worcester, Massachusetts 01604

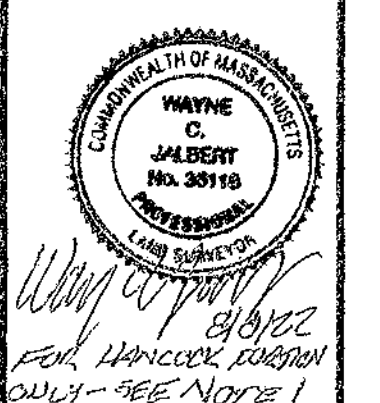
PREPARED FOR:  
**LUNDGREN EQUITY PARTNERS**

c/o CM&B, Inc.  
75 Sylvan Street, Building C  
Danvers, Massachusetts 01923

**HANCOCK ASSOCIATES**

Civil Engineers  
Land Surveyors  
Wetland Scientists

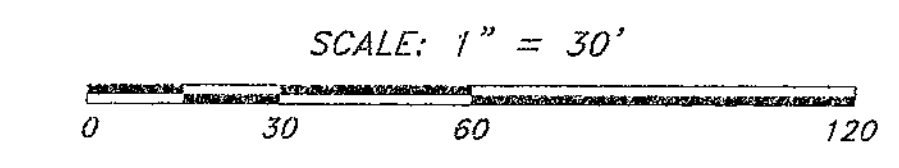
185 CENTRE STREET, DANVERS, MA 01923  
VOICE (978) 777-3050, FAX (978) 774-7816  
WWW.HANCOCKASSOCIATES.COM



**NOTES:**

1. HANCOCK ASSOCIATES SURVEYED THE PROPERTY LOCATED AT 68 ALBANY STREET IN DECEMBER 2022 & JANUARY 2021. LIMIT OF SAID SURVEY IS SHOWN HEREON AND SUPPLEMENTED WITH A SURVEY PREPARED BY NITSCH ENGINEERING AS PROVIDED AND REQUESTED BY HIGHPOINT ENGINEERING, INC. HANCOCK HAS NOT SURVEYED THE PROPERTY AT 225 SHREWSBURY STREET SHOWN HEREON AND THE ADJACENT STREETS OR PERFORMED ANY TYPE OF REVIEW OF THE NITSCH ENGINEERING DATA. IT IS PRESENTED HERE WITHOUT THE ASSOCIATED NOTES OR LEGEND.
2. ELEVATIONS SHOWN HEREON REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). SAID DATUM WAS ESTABLISHED UTILIZING BENCHMARKS SHOWN ON A PLAN ENTITLED: "EXISTING CONDITIONS PLAN, SHEET C200", PREPARED BY: HIGHPOINT ENGINEERING, INC. DATED: 8/08/2018. SAID PLAN PURPORTS TO BE ON NAVD88 VIA GPS.
3. UNDERGROUND UTILITIES SHOWN HEREON ARE COMPILED FROM FIELD LOCATIONS OF STRUCTURES AND FROM AVAILABLE RECORD INFORMATION ON FILE AT THE CITY ENGINEERING OFFICES, CITY D.P.W. AND UTILITY COMPANIES. OTHER UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.
4. ELECTRIC LINES SHOWN HEREON FROM SCHEMATIC PLANS PROVIDED BY NATIONAL GRID AND SHOULD BE CONSIDERED APPROXIMATE.
5. SEWER STRUCTURES WERE NOT OPENED. RECORD INFORMATION SHOWN WHERE AVAILABLE.

ELEVATION BENCH MARKS		
▲ DATUM: NAVD88 (SEE NOTE 2)		
NO.	DESCRIPTION	ELEV.
1.	LIGHT POLE BASE: BOX CUT	465.13
2.	UP#10-85: NAIL(FD) (1.0'A.G.)	469.78
3.	UP#11: NAIL(FD) (1.0'A.G.)	470.75



NO.	BY	APP	DATE	ISSUE/REVISION	DESCRIPTION
DATE:	7/29/2022	DRAWN BY:	MMM		
SCALE:	1" = 30'	CHECK BY:	WCU		

**EXISTING CONDITIONS PLAN OF LAND IN WORCESTER, MA**

PROJECT NO.: **24392**

PLT DATE: 04/23/2022 5:18 pm  
PATH: P:\G4 30 Projects\24392-Landry-Worcester\Gm\DWG\ DWG: 24392ec2.dwg  
LAYOUT: EC  
SHEET: 1 OF 1

**DCU/RETAIL EXPANSION PROJECT**

225 SHREWSBURY STREET  
WORCESTER, MA

OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

REV	DATE	DESCRIPTION

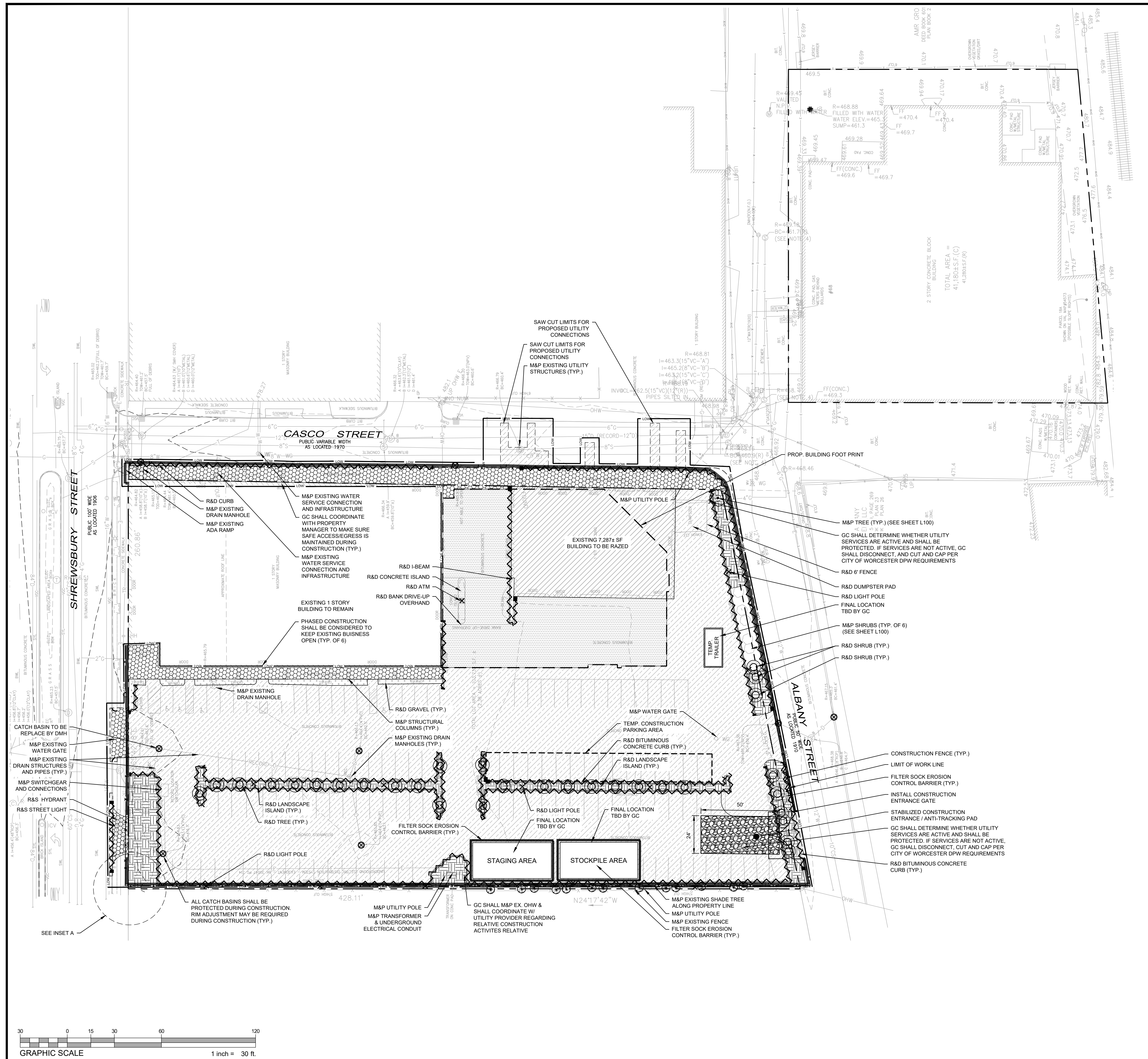
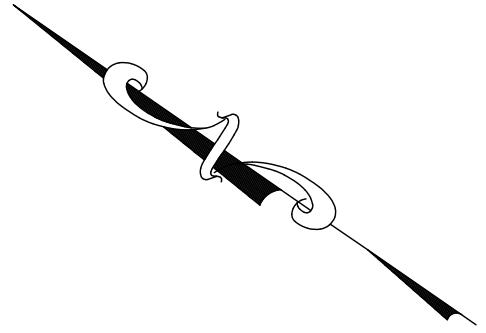
ISSUE TYPE:  
**PERMIT**  
ISSUE DATE:  
11/07/2024  
PROJECT NUMBER:  
24009

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**SITE  
PREPARATION,  
DEMOLITION, &  
EROSION  
CONTROL PLAN**

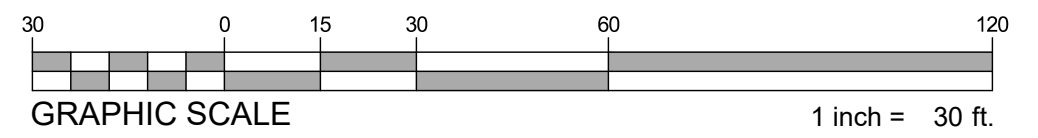
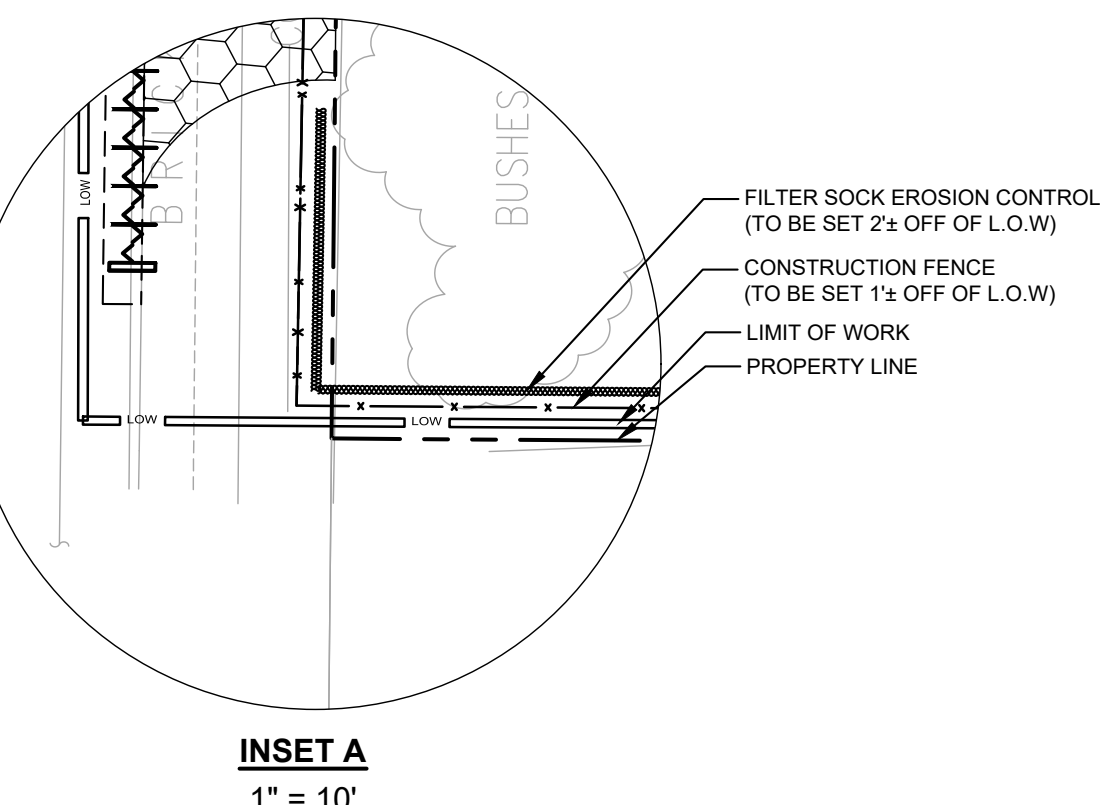
SHEET NUMBER:  
**C100**

ISSUED FOR: PERMIT



**DEMOLITION & EROSION CONTROL LEGEND**

R&D	REMOVE AND DISPOSE
M&P	MAINTAIN AND PROTECT
R/S	REMOVE AND STOCKPILE
[Pattern]	DEMOLISH AND REMOVE PAVEMENT TO FULL BASE DEPTH IN PREPARATION FOR BUILDING
[Pattern]	DEMOLISH AND REMOVE PAVEMENT / BINDER COURSE
[Pattern]	DEMOLISH AND REMOVE SIDEWALK
[Pattern]	REMOVE TOPSOIL AND ALL VEGETATION AND SURFACE FEATURES. OVER-EXCAVATE AS NECESSARY
[Pattern]	DEMOLISH AND REMOVE CURB OR BERM
[Symbol X]	REMOVE AND DISPOSE EXISTING OBJECT
[Symbol S]	SILTSACK INLET PROTECTION DEVICE
[Symbol T]	TEMPORARY CONSTRUCTION FENCE
[Symbol F]	FILTER SOCK EROSION CONTROL BARRIER
[Symbol L]	LIMIT OF WORK
[Symbol SCL]	SAW CUT LINE
[Symbol G]	REMOVE GRAVEL AREA
[Symbol B]	DEMOLISH AND REMOVE EXISTING BUILDING
[Symbol SE]	STABILIZED CONSTRUCTION ENTRANCE
[Symbol T]	TREE TO BE REMOVED



OFF STREET PARKING DEMAND SUMMARY			
USE/TENANT	CCOD-S MINIMUM PARKING REQUIREMENT	CCOD-S MINIMUM PARKING CALCULATION	BASE PARKING REQUIREMENT
PROPOSED USES			
PROPOSED RETAIL-1 (CURRENTLY DCU BANK)	1/500 SF	5,100 SF	11 SPACES
PROPOSED RETAIL-2	1/500 SF	4,383 SF	9 SPACES
PROPOSED RETAIL-3	1/500 SF	4,383 SF	9 SPACES
PROPOSED DCU BANK	1/400 SF & 0.75/1 TELLER STATION	5,100 SF 7 TELLER STATIONS 4 ATMS	22 SPACES
EXISTING USES TO REMAIN			
FOOD SERVICE (IN-HOUSE COFFEE)	1/4 OCCUPANTS	32 TOTAL OCCUPANTS 25 SEATS 7 EMPLOYEES	8 SPACES
FOOD SERVICE (MEXICALI)	1/4 OCCUPANTS	258 OCCUPANTS 238 SEATS 20 EMPLOYEES	65 SPACES
FOOD SERVICE (ALL SYSTEMS GO)	1/4 OCCUPANTS	123 OCCUPANTS 110 SEATS 13 EMPLOYEES	31 SPACES
CLINIC (DENTIST)	3 / TREATMENT RM	11 ROOMS	33 SPACES
BASE PARKING REQUIREMENT=			188 SPACES
**BICYCLE PARKING CREDIT=			(-) 5 SPACES
BASE PARKING REQUIREMENT (AFTER BICYCLE CREDITS)=			183 SPACES
TOTAL PARKING IN 225 SHREWSBURY LOT =			118 SPACES
PARKING RELIEF REQUIRED VIA SPECIAL PERMIT=			65 SPACES
MIXED USE PARKING CREDIT SOUGHT BY SPECIAL PERMIT (MAX. 50%)=			36%

\*\*BICYCLE PARKING CREDIT OF 3 SPACES BY ADMINISTRATIVE APPROVAL PURSUANT TO ARTICLE IV, SECTION 7.C.1.

ELECTRICAL VEHICLE PARKING STALLS (20% REQUIRED= 25 SPACES)	
7% EV READY (EV)	8 SPACES
13% EV FUTURE (EV/F)	17 SPACES

PROPOSED OFF-STREET PARKING TYPE BREAKDOWN	
ADA PARKING	6 SPACES
COMPACT PARKING	30 SPACES (25%)
STANDARD PARKING	82 SPACES

PER ZONING ORDINANCE: OFF STREET ACCESSORY PARKING REQUIREMENTS NOTE 3  
COMPACT SPACES - IN PARKING LOTS CONTAINING MORE THAN TEN (10) SPACES, UP TO TWENTY-FIVE PERCENT (25%) OF THE REQUIRED PARKING MAY BE SET ASIDE FOR COMPACT CARS AS A MATTER OF RIGHT. UPON GRANT OF A SPECIAL PERMIT, THE PERCENTAGE OF PARKING SPACES FOR COMPACT CARS MAY BE INCREASED TO NOT MORE THAN FIFTY PERCENT (50%). EACH COMPACT SPACE SHALL BE NOT LESS THAN (8) FEET IN WIDTH AND SIXTEEN (16) FEET IN LENGTH.

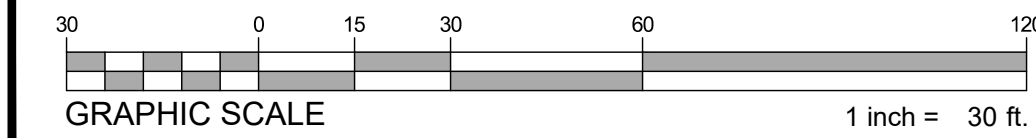
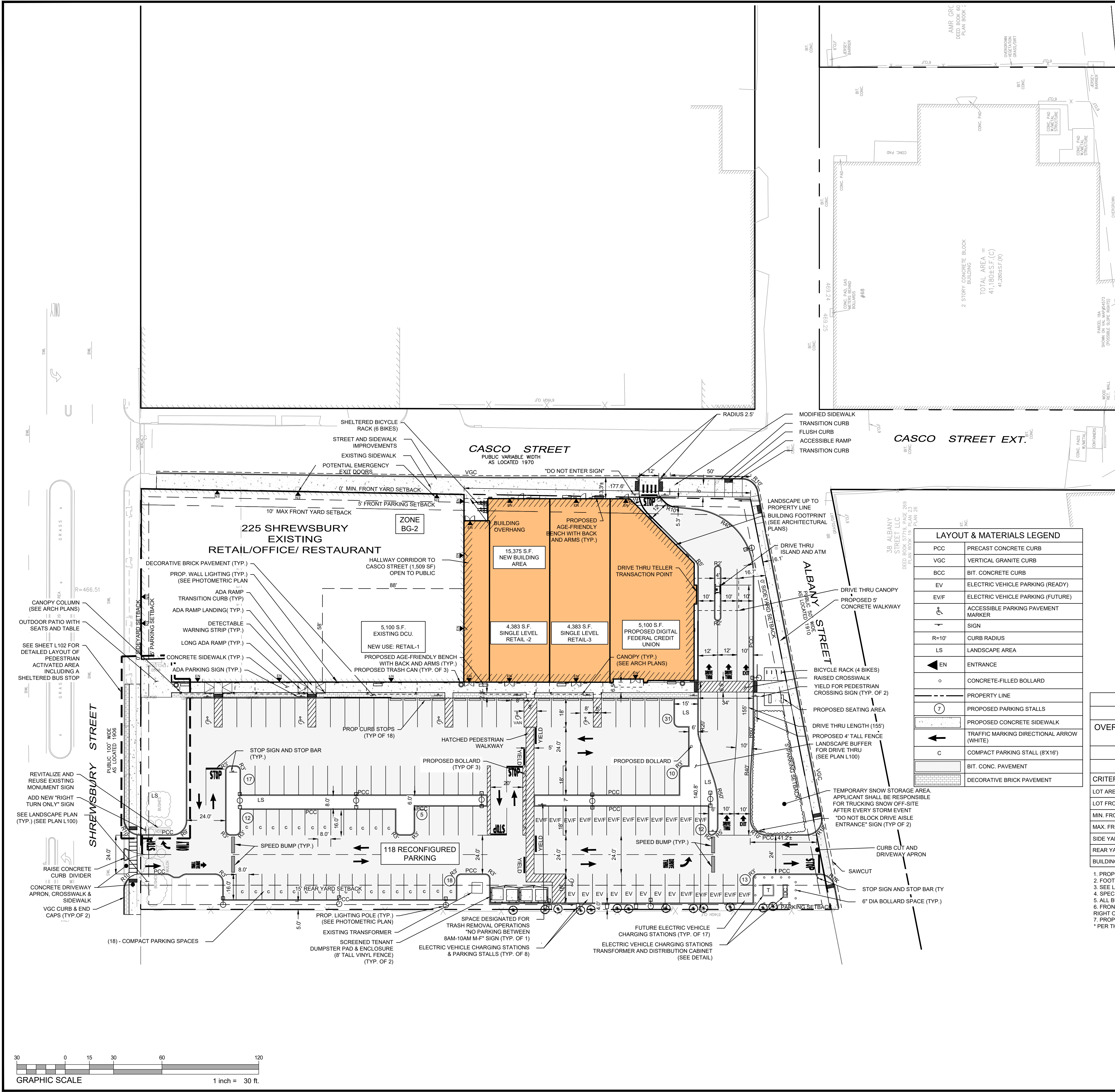
SECTION 7 - OFF-STREET ACCESSORY PARKING & LOADING REQUIREMENTS (CCOD)  
PARKING LOTS WITH UP TO 18 SPACES SHALL NOT BE REQUIRED TO CONFORM TO THE DIMENSIONAL REQUIREMENTS FOR PARKING SPACES AND AISLE WIDTHS, BUT MUST PROVIDE SAFE VEHICULAR ACCESS AND CIRCULATION AS DEFINED BY PROFESSIONAL TRAFFIC ENGINEERING STANDARDS AND TO THE SATISFACTION OF THE BUILDING COMMISSIONER OR ZONING ENFORCEMENT OFFICER.

ZONING ORDINANCE DIMENSIONAL SUMMARY - 225 SHREWSBURY STREET

ZONING DISTRICT: BG-2  
OVERLAY DISTRICTS: COMMERCIAL CORRIDOR OVERLAY DISTRICT - SHREWSBURY STREET (CCOD-S), UNION STATION VIEW CORRIDOR SIGN OVERLAY DISTRICT (USOD)

CRITERIA	USE: BUSINESS				ZONING COMPLIANCE
	BG-2.0	CCOD-S*	EXISTING	PROPOSED	
LOT AREA <sup>(1)</sup>	5,000 SF	-	2.38 ac.	2.38 ac.	YES
LOT FRONTAGE <sup>(1)</sup>	40.0'	40.0'	178±	178'	YES
MIN. FRONT YARD	N/A	0'	0±	1±	YES
MAX. FRONT YARD	N/A	10.0'	0±	1±	YES
SIDE YARD <sup>(2)</sup>	N/A	-	0±	16.7±	YES
REAR YARD	15.0'	-	141±	141±	YES
BUILDING HEIGHT	50.0'	-	<50'	-	-

- PROPOSED DEVELOPMENT FRONTAGE AND YARD SETBACKS SHOWN ARE TAKEN FROM CASCO STREET.
  - FOOTPRINT OF EXISTING SHOPPING PLAZA BUILDING IS NOT CHANGING.
  - SEE LANDSCAPE AND ARCHITECTURAL PLANS FOR MORE INFORMATION.
  - SPECIAL PERMIT NEEDED FROM PLANNING BOARD TO RELOCATE EXISTING DRIVE THRU TO ACCOMMODATE NEW DCU BANK.
  - ALL BUILDING DIMENSIONS SHOWN ARE APPROXIMATE AND SHOULD BE VERIFIED BY LICENSED LAND SURVEYOR.
  - FRONTAGE, STREET - A CONTINUOUS PORTION OF A LOT ABUTTING ONE (1) STREET MEASURED ALONG THE FRONT LOT LINE DIVIDING THE LOT FROM THE RIGHT OF WAY.
  - PROPOSED EXTERIOR SIDE YARD SETBACK IS BASED UPON ALBANY STREET AND SHREWSBURY STREET.
- \*PER THE REQUIREMENTS OF ARTICLE IX OF THE CITY OF WORCESTER ZONING BY LAW.



**DCU/RETAIL EXPANSION PROJECT**

225 SHREWSBURY STREET  
 WORCESTER, MA

OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

REV	DATE	DESCRIPTION

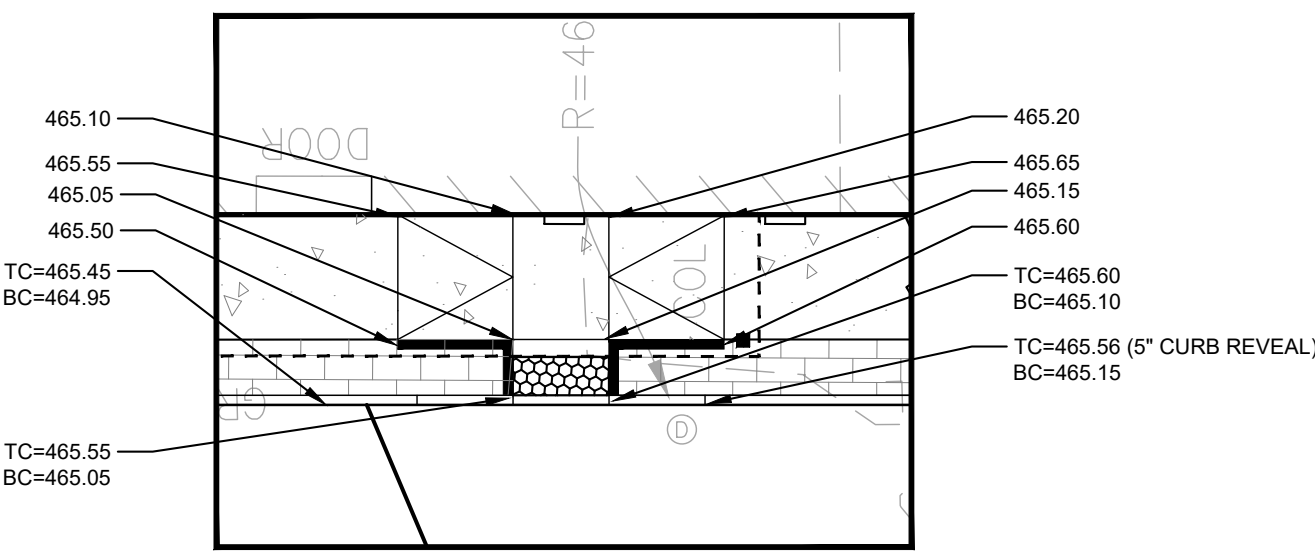
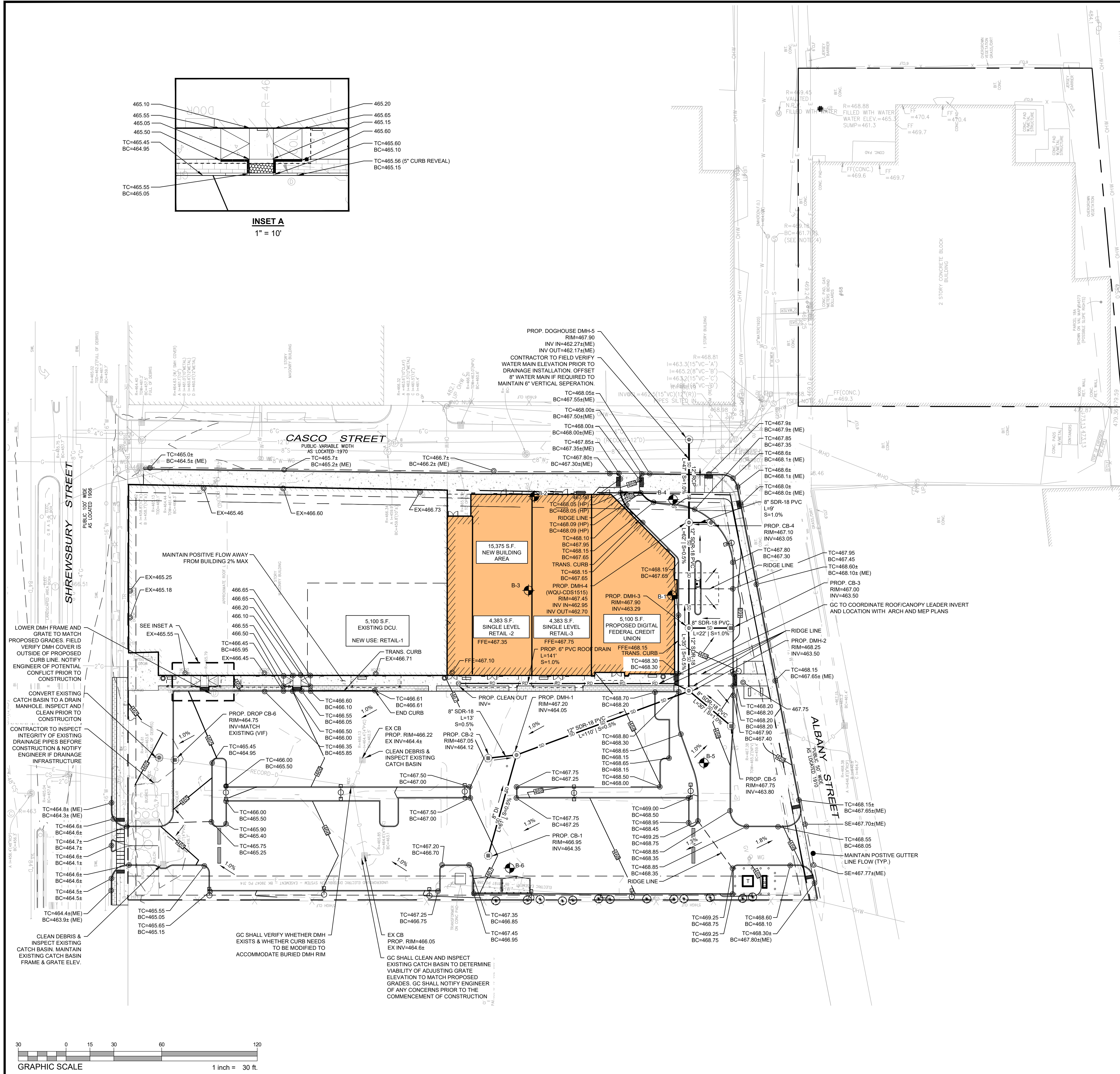
ISSUE TYPE:  
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**11/07/2024**  
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SHEET TITLE:  
**GRADING & DRAINAGE PLAN**

SHEET NUMBER:  
**C300**

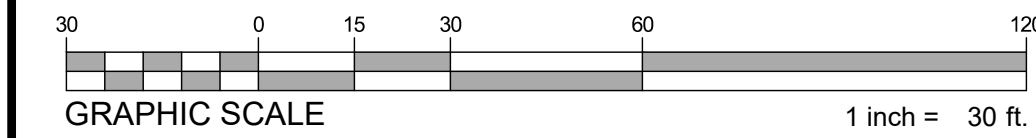
ISSUED FOR: PERMIT



**INSET A**  
 1" = 10'

**GRADING & UTILITIES LEGEND**

	ELEVATION CONTOUR
	SPOT ELEVATION
	TOP AND BOTTOM OF CURB
	CATCH BASIN
	DOUBLE CATCH BASIN
	DRAIN MANHOLE
	CLEANOUT
	STORM DRAIN PIPE
	TEST BORINGS LOCATION
	HIGH POINT / LOW POINT
	ROOF DRAIN
	FLOW ARROW
	RCP REINFORCED CONCRETE PIPE
	HDPE HIGH-DENSITY POLYETHYLENE
	PVC POLYVINYL CHLORIDE
	DI DUCTILE IRON
	ME MATCHING EXISTING
	B-5 BORING HOLE



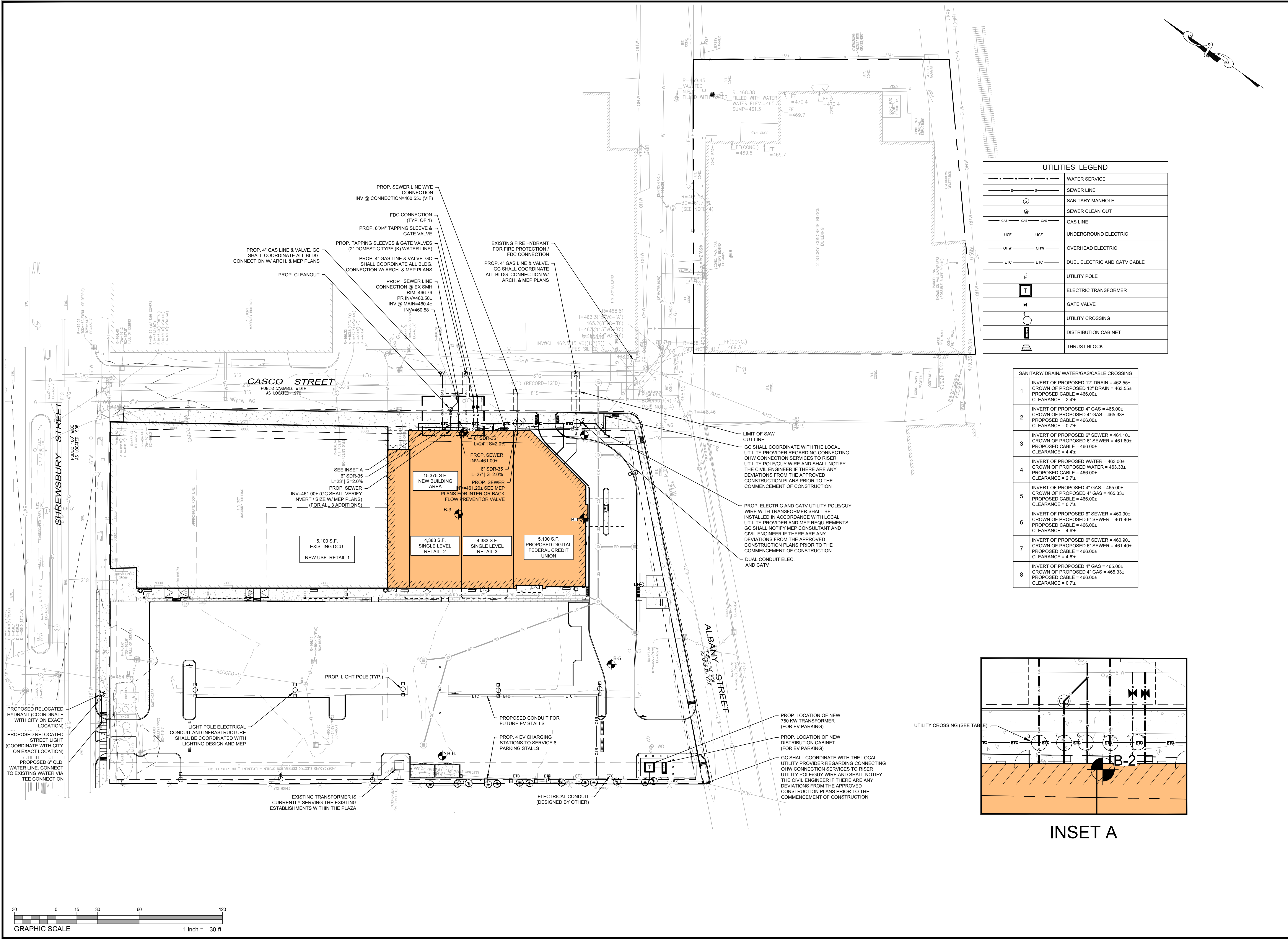
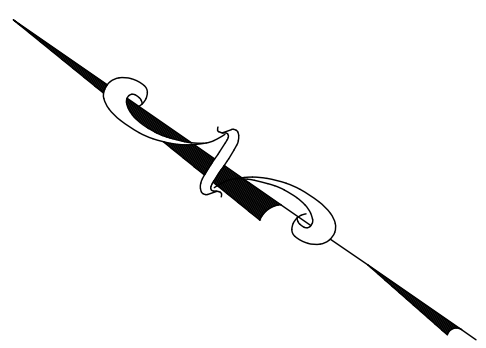
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**DRAWN BY:** MJH  
**CHECKED BY:** DTB/DJH  
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**SHEET TITLE:**  
 UTILITY PLAN

**SHEET NUMBER:**  
**C400**  
 ISSUED FOR : PERMIT

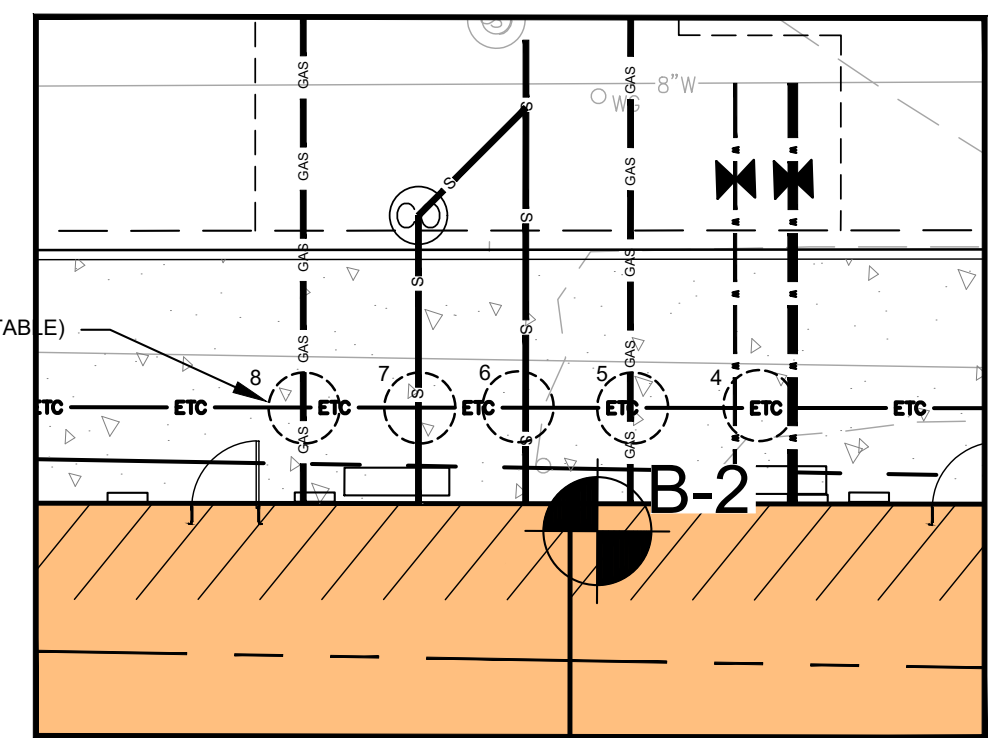


**UTILITIES LEGEND**

—●—	WATER SERVICE
—S—	SEWER LINE
—(S)—	SANITARY MANHOLE
—C—	SEWER CLEAN OUT
—GAS—	GAS LINE
—UG—	UNDERGROUND ELECTRIC
—OHW—	OVERHEAD ELECTRIC
—ETC—	DUEL ELECTRIC AND CATV CABLE
⊕	UTILITY POLE
T	ELECTRIC TRANSFORMER
M	GATE VALVE
⊗	UTILITY CROSSING
□	DISTRIBUTION CABINET
△	THRUST BLOCK

**SANITARY/ DRAIN WATER/GAS/CABLE CROSSING**

1	INVERT OF PROPOSED 12" DRAIN = 462.55' CROWN OF PROPOSED 12" DRAIN = 463.55' PROPOSED CABLE = 466.00' CLEARANCE = 2.45'
2	INVERT OF PROPOSED 4" GAS = 465.00' CROWN OF PROPOSED 4" GAS = 465.33' PROPOSED CABLE = 466.00' CLEARANCE = 0.72'
3	INVERT OF PROPOSED 6" SEWER = 461.10' CROWN OF PROPOSED 6" SEWER = 461.60' PROPOSED CABLE = 466.00' CLEARANCE = 4.40'
4	INVERT OF PROPOSED WATER = 463.00' CROWN OF PROPOSED WATER = 463.33' PROPOSED CABLE = 466.00' CLEARANCE = 2.72'
5	INVERT OF PROPOSED 4" GAS = 465.00' CROWN OF PROPOSED 4" GAS = 465.33' PROPOSED CABLE = 466.00' CLEARANCE = 0.72'
6	INVERT OF PROPOSED 6" SEWER = 460.90' CROWN OF PROPOSED 6" SEWER = 461.40' PROPOSED CABLE = 466.00' CLEARANCE = 4.60'
7	INVERT OF PROPOSED 6" SEWER = 460.90' CROWN OF PROPOSED 6" SEWER = 461.40' PROPOSED CABLE = 466.00' CLEARANCE = 4.60'
8	INVERT OF PROPOSED 4" GAS = 465.00' CROWN OF PROPOSED 4" GAS = 465.33' PROPOSED CABLE = 466.00' CLEARANCE = 0.72'



**INSET A**



REV	DATE	DESCRIPTION

ISSUE TYPE:  
PERMIT  
ISSUE DATE:  
11/07/2024  
PROJECT NUMBER:  
24009

DRAWN BY: MJH  
CHECKED BY: DTB/DJH  
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DETAILS

SHEET NUMBER:  
**C500**

ISSUED FOR : PERMIT

GRAVEL BEDDING (FOR UTILITIES) SHALL BE GRAVEL, CRUSHED QUARRY ROCK OR CRUSHED GRAVEL FROM OFF-SITE SOURCES GRADED WITHIN THE FOLLOWING LIMITS:

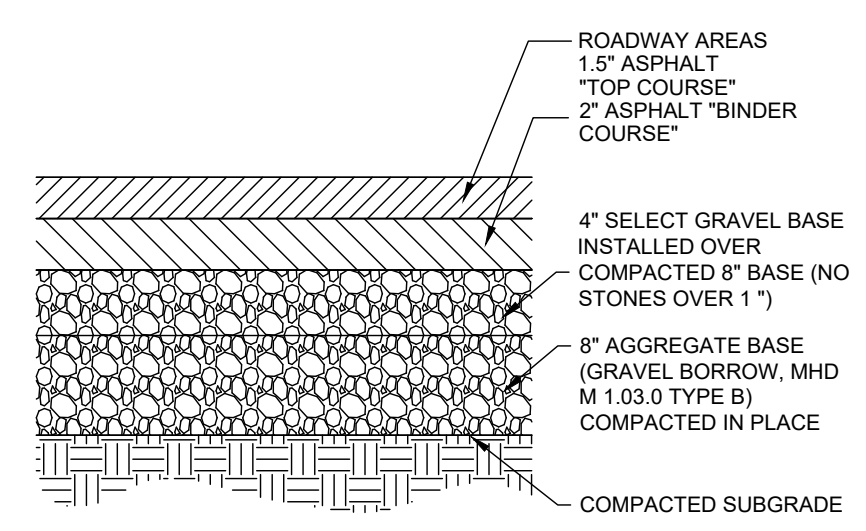
SIEVE SIZE	% PASSING BY WEIGHT
1 IN.	100
3/4 IN.	90-100
3/8 IN.	20-55
NO. 4	0-10
NO. 8	0-5

STONE (FOR UTILITIES) SHALL BE A DURABLE, CRUSHED STONE OR GRAVEL FROM OFF-SITE SOURCES, GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% PASSING BY WEIGHT
2-1/2 IN.	100
2 IN.	60-90
1-1/4 IN.	25-50
3/4 IN.	0

SELECT FILL SHALL BE A COARSE GRANULAR MATERIAL CONSISTING OF HARD, DURABLE, ANGULAR MATERIAL, GRADED WITHIN THE FOLLOWING LIMITS. MATERIAL PASSING THE NO. 40 SIEVE SHALL HAVE A PLASTICITY INDEX OF NOT MORE THAN 10 AND A LIQUID LIMIT NOT TO EXCEED 35%.

SIEVE SIZE	% PASSING BY WEIGHT
4 IN.	100
1 IN.	60-100
NO. 4	30-80
NO. 40	5-30
NO. 200	0-8



**GRAVEL BORROW (MHD M1.03.0 TYPE B)**

GRAVEL BORROW SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE AND COARSE SAND, FREE FROM LOAM AND CLAY, SURFACE COATING, AND DELETERIOUS MATERIALS.

GRADATION REQUIREMENTS FOR GRAVEL SHALL BE DETERMINED BY AASHTO-T11 AND T27 AND SHALL CONFORM TO THE FOLLOWING:

SIEVE DESIGNATION	PERCENT PASSING
1/2 IN.	100
NO. 4	60-100
NO. 50	30-55
NO. 200	0-5

MAXIMUM SIZE OF STONE IN GRAVEL SHALL BE AS FOLLOWS:

GRAVEL TYPE	LARGEST DIMENSION
M1.03.0 TYPE A	6 INCHES
M1.03.0 TYPE B	3 INCHES
M1.03.0 TYPE C	2 INCHES

GRANULAR FILL SHALL CONSIST OF WELL GRADED NATURAL SANDS AND GRAVELS, FREE FROM PLASTIC FINES, ORGANIC MATTER AND DELETERIOUS MATERIAL AND SHALL HAVE THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING BY WEIGHT
2 IN.	100
1 IN.	60-100
NO. 4	25-85
NO. 20	10-60
NO. 50	4-35
NO. 200	3-10

PROCESSED GRAVEL FILL SHALL CONSIST OF WELL GRADED NATURAL GRAVELS AND SANDS, FREE FROM PLASTIC FINES, ORGANIC MATTER AND DELETERIOUS MATERIAL AND SHALL HAVE THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING BY WEIGHT
2 IN.	100
1 1/2 IN.	70-100
3/4 IN.	50-85
NO. 4	30-60
NO. 200	0-10

3/4 INCH MINUS CRUSHED STONE FILL SHALL HAVE THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING BY WEIGHT
1 IN.	100
3/4 IN.	90-100
1/2 IN.	10-50
3/8 IN.	0-20
NO. 4	0-5

COMMON FILL (IN LANDSCAPED AREAS) SHALL BE BANK RUN SAND, GRAVEL, OR MIXTURE THEREOF, GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% PASSING BY WEIGHT
6 IN.	100
NO. 4	30-95
NO. 200	0-15

DENSE GRADED CRUSHED STONE SHALL CONSIST OF CRUSHER-RUN COARSE AGGREGATES OF CRUSHED STONE OR GRAVEL AND FINE AGGREGATES OF NATURAL SAND OR STONE SCREENINGS, UNIFORMLY PRE-MIXED WITH A PREDETERMINED QUANTITY OF WATER. COARSE AGGREGATE SHALL HAVE A PERCENTAGE OF WEAR OF NOT MORE THAN 45 BY THE LOS ANGELES TEST.

THE COMPOSITE MATERIAL SHALL BE FREE FROM CLAY, LOAM AND ALL OTHER PLASTIC MATERIALS, AND SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	PERCENTAGE BY MASS PASSING SQ. MESH SIEVES
2 inches	100
1 1/2 inches	70-100
3/4 inch	50-85
No. 4	30-55
No. 50	8-24
No. 200	3-10

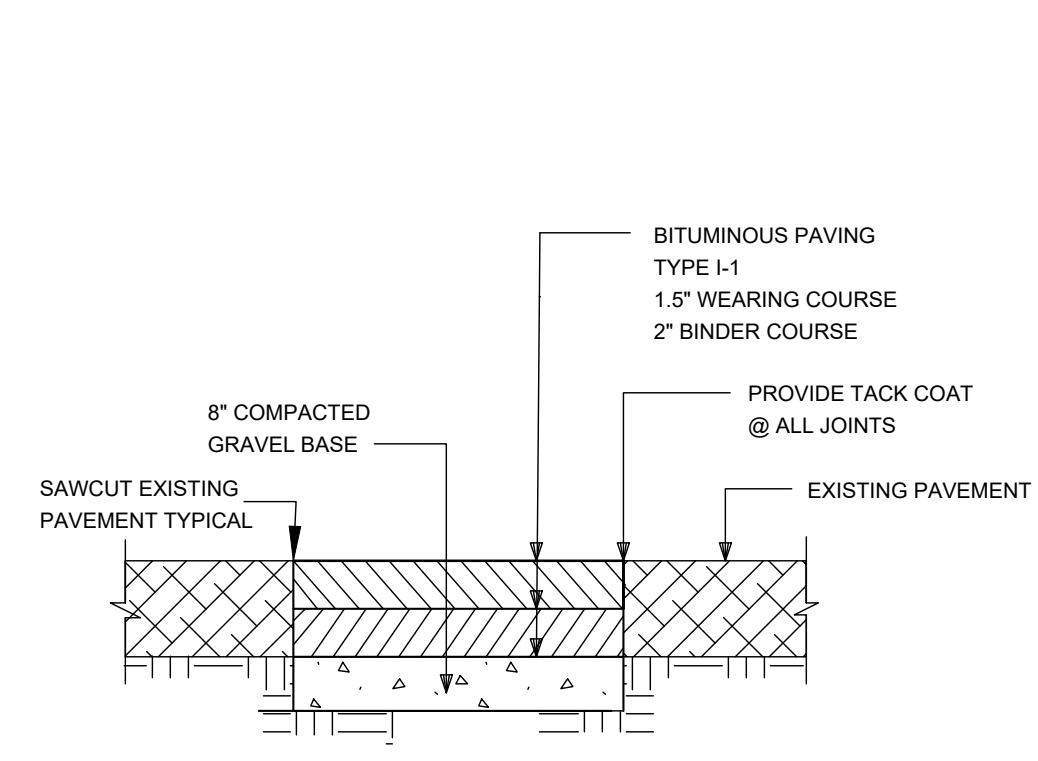
SAMPLING AND TESTING SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARD AASHTO METHODS:

- SIEVE ANALYSIS: AASHTO T27
- PASSING NO. 200 SIEVE: AASHTO T11

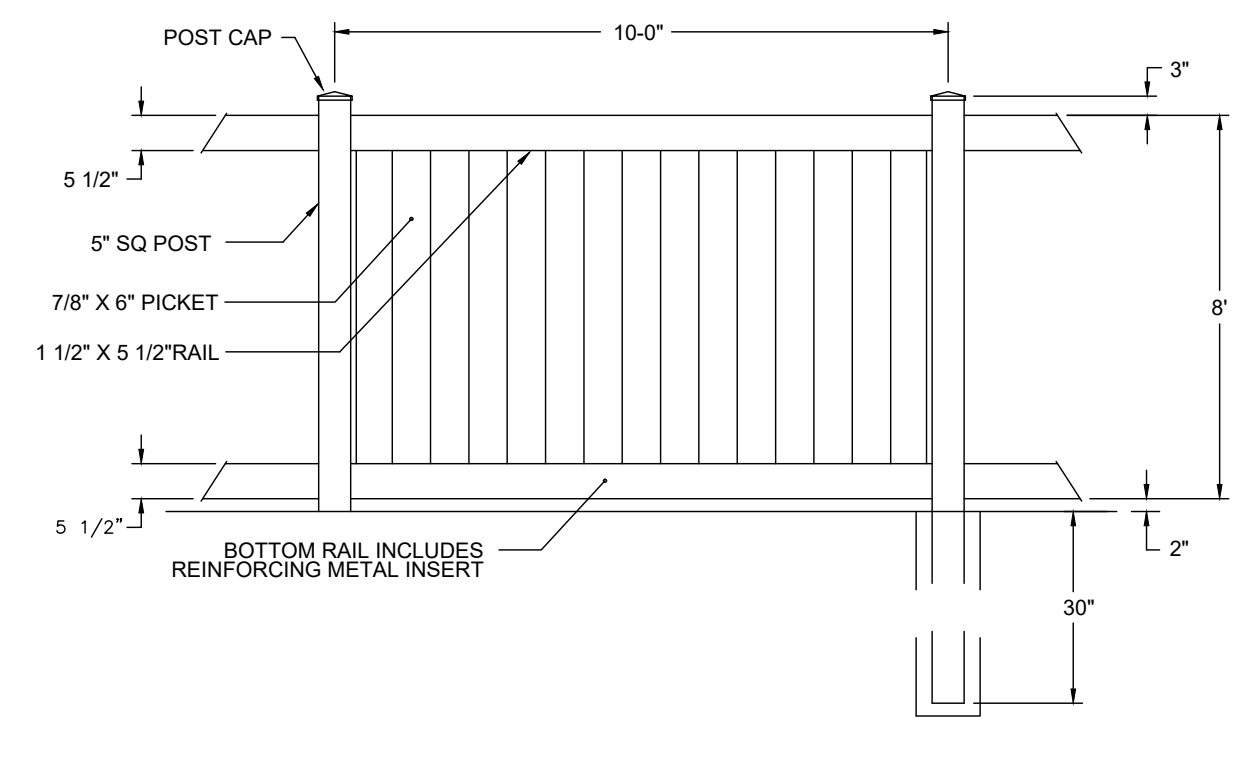
ALL GRANULAR FILL AND PROCESSED GRAVEL FILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY DETERMINED BY ASTM D1557.

BITUMINOUS CONCRETE PAVEMENT NOT TO SCALE **C2**

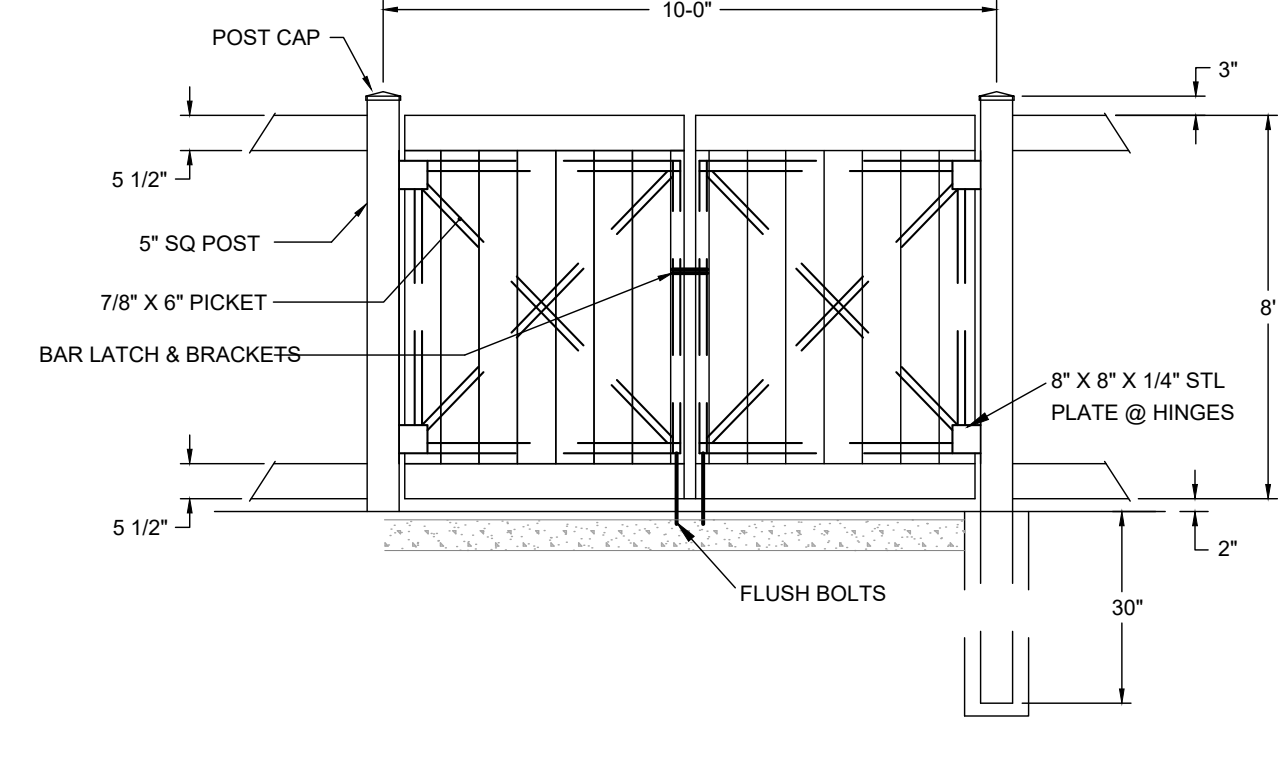
BACKFILL MATERIAL GRADATION REQUIREMENTS NOT TO SCALE **C1**



PAVEMENT MATCH SAWCUT NOT TO SCALE **B2**

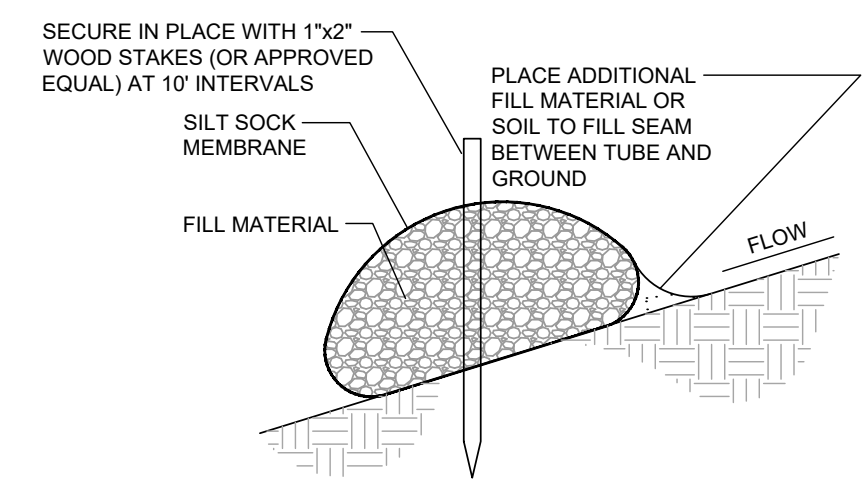


VINYL STOCKADE FENCE NOT TO SCALE



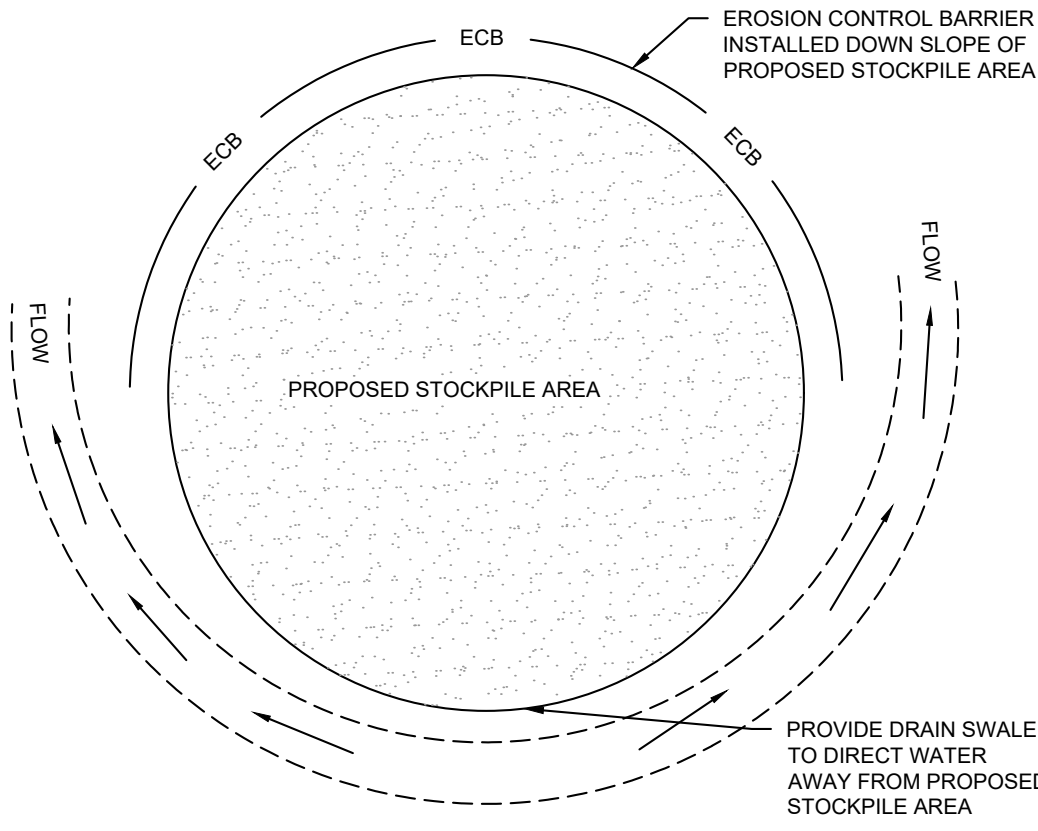
POWDER COATED ALUMINUM GATE DETAIL NOT TO SCALE

DUMPSTER FENCING NOT TO SCALE **B1**



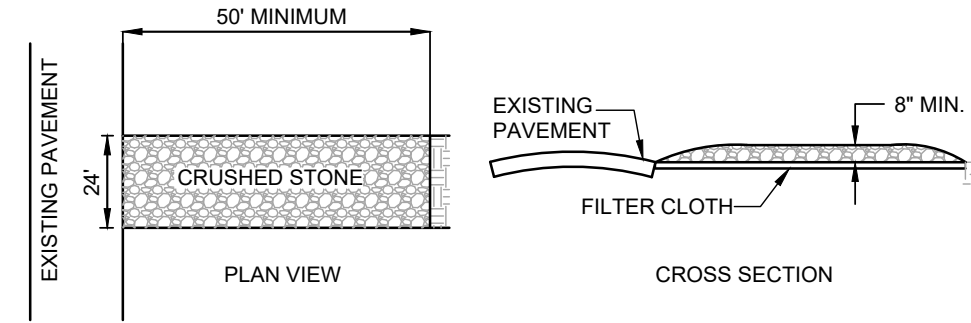
- NOTES**
- SOCK MEMBRANE SHALL BE 12\"
  - FILL MATERIAL SHALL BE WOOD CHIPS, MULCH OR A COMBINATION THEREOF, AND SCREENED TO REMOVE FINES.
  - IN AREAS WHERE STAKING IS INFEASIBLE, I.E. ON PAVED SURFACES, FILTER MEDIA SHALL CONSIST OF CLEAN BANK-RUN GRAVEL.
  - THE SOCK SHALL BE FILLED USING A PNEUMATIC BLOWER OR SIMILAR DEVICE. HAND FILLING IS NOT ACCEPTABLE.

FILTER SOCK EROSION BARRIER NOT TO SCALE **A4**



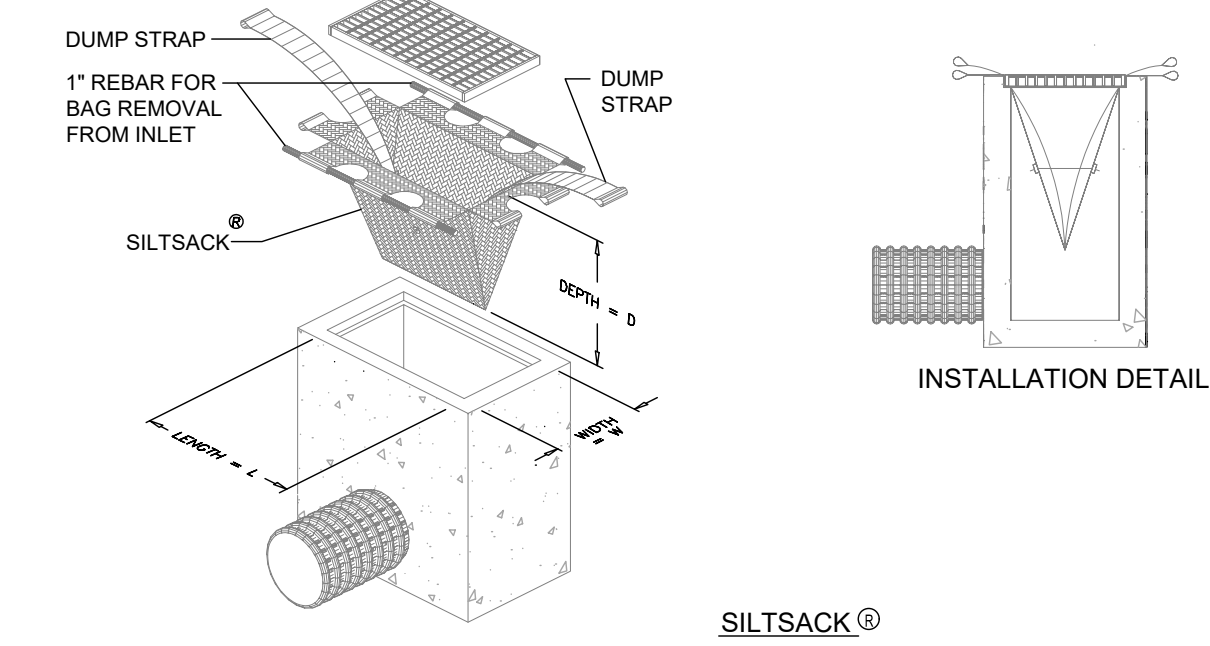
- NOTES**
- SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH HAY AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
  - SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

STOCKPILE PROTECTION NOT TO SCALE **A3**



- TRACKING PAD NOTES**
- STONE SIZE - USE 2\"
  - FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
  - SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.
  - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

CRUSHED STONE TRACKING PAD NOT TO SCALE **A2**



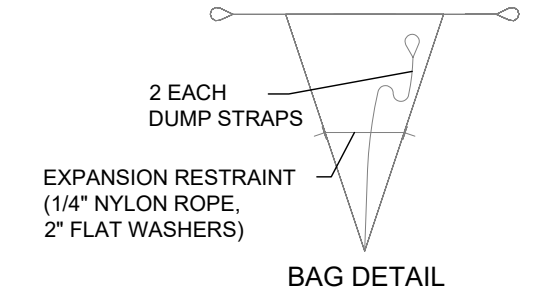
**SILTSACK® SPECIFICATIONS**

NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE SPECIFICATIONS PROVIDED.

**REGULAR FLOW SILTSACK®**

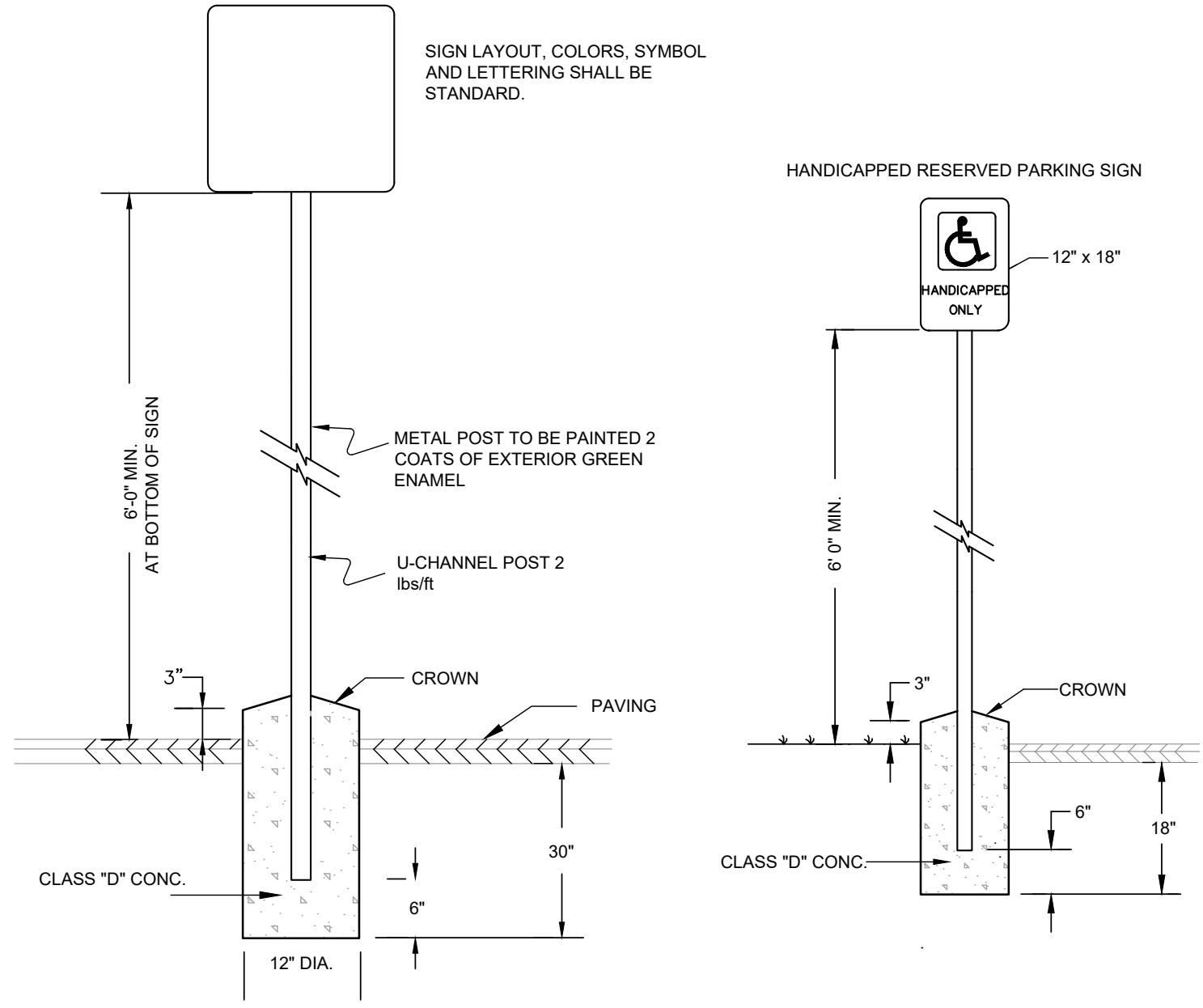
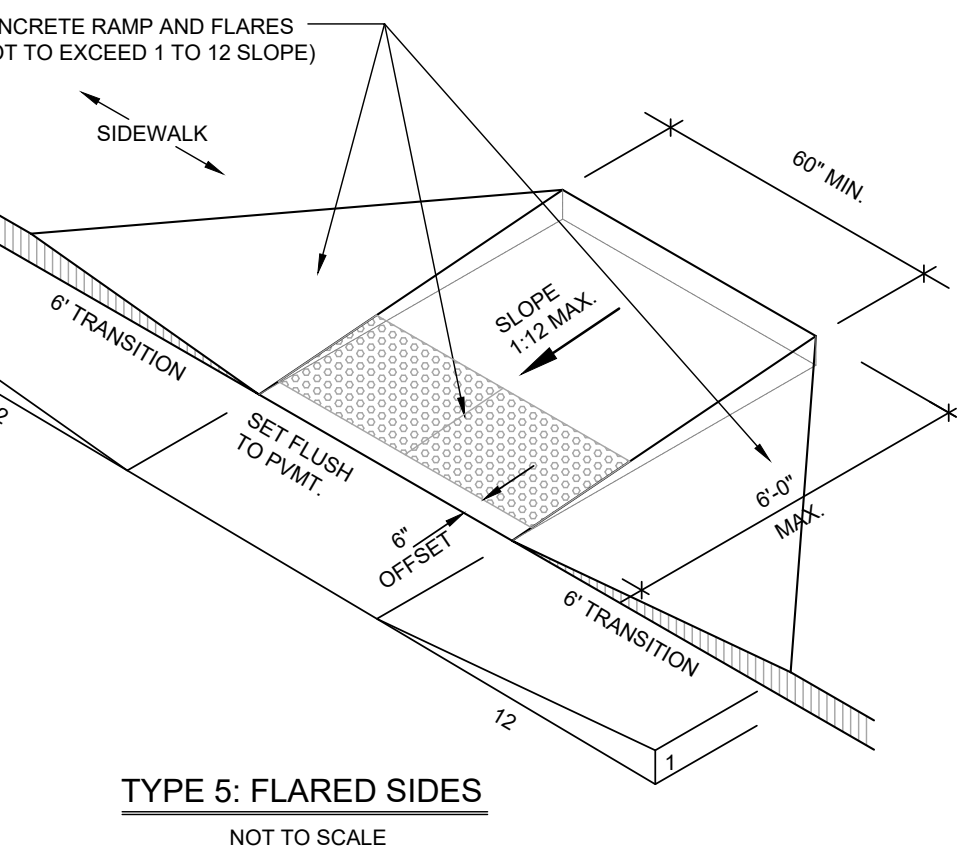
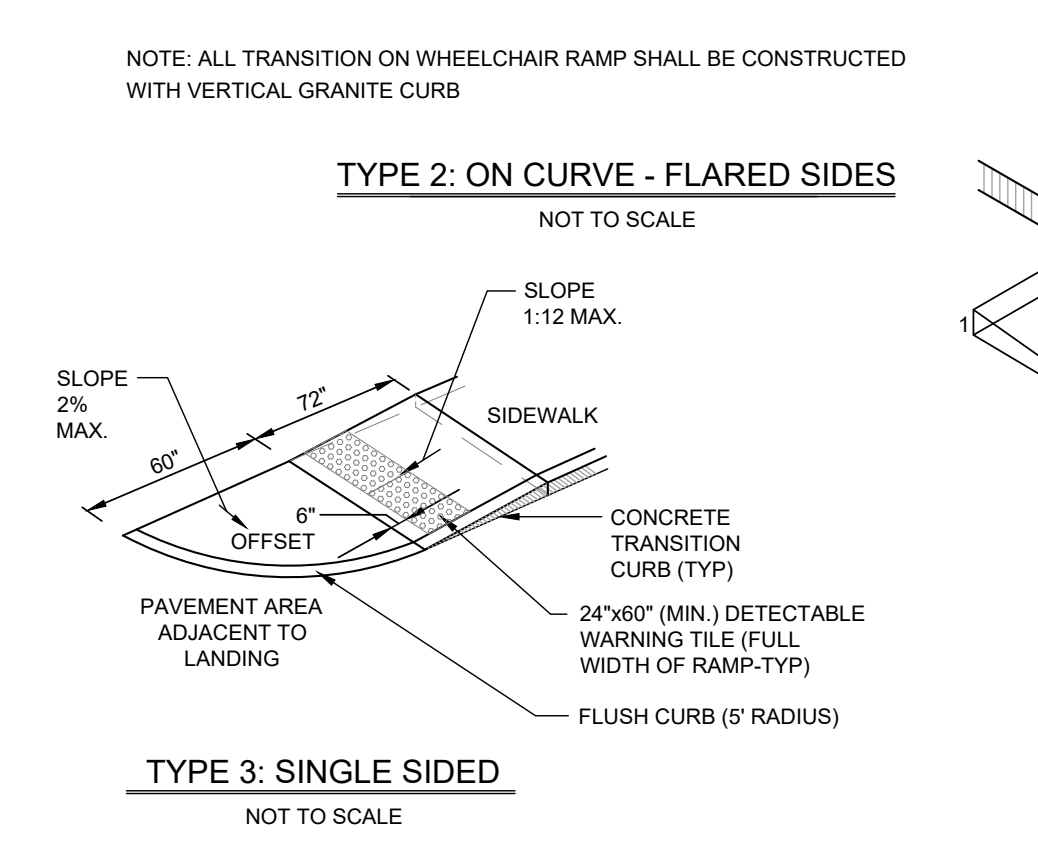
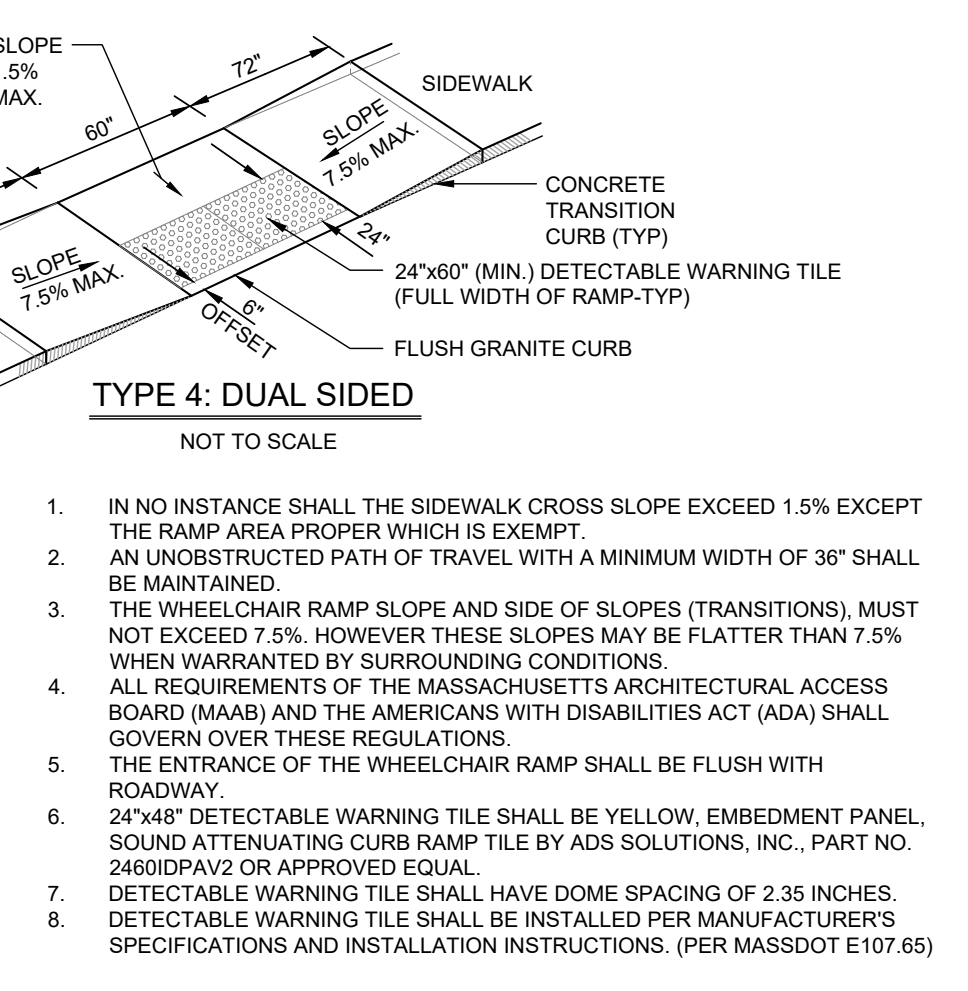
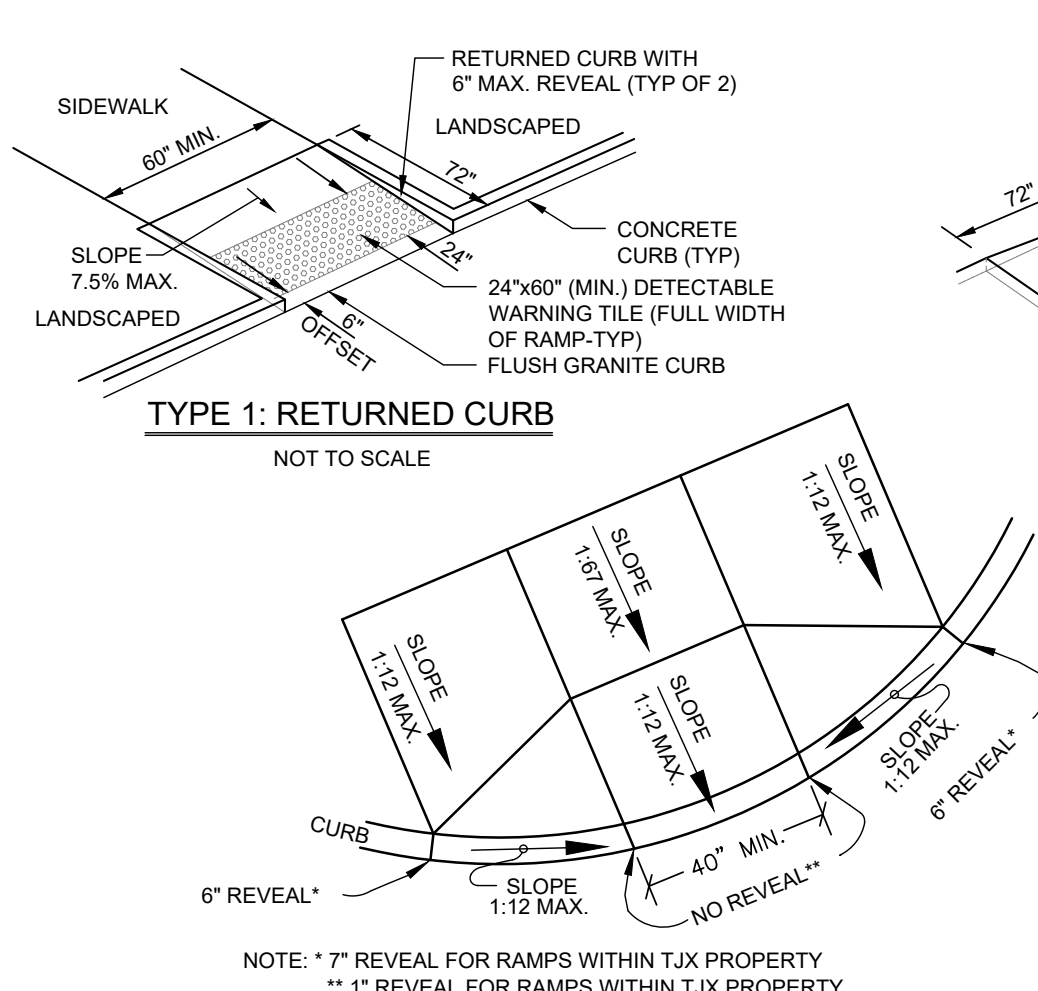
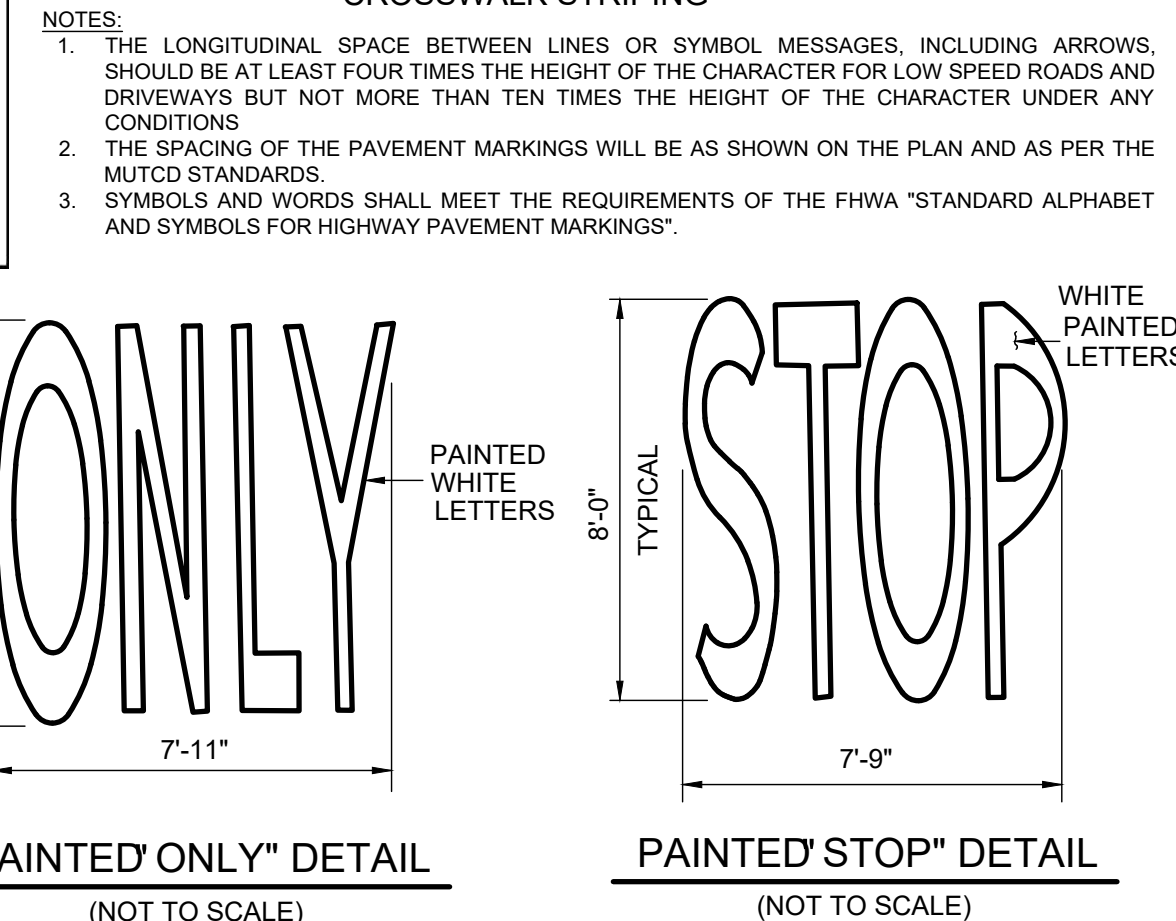
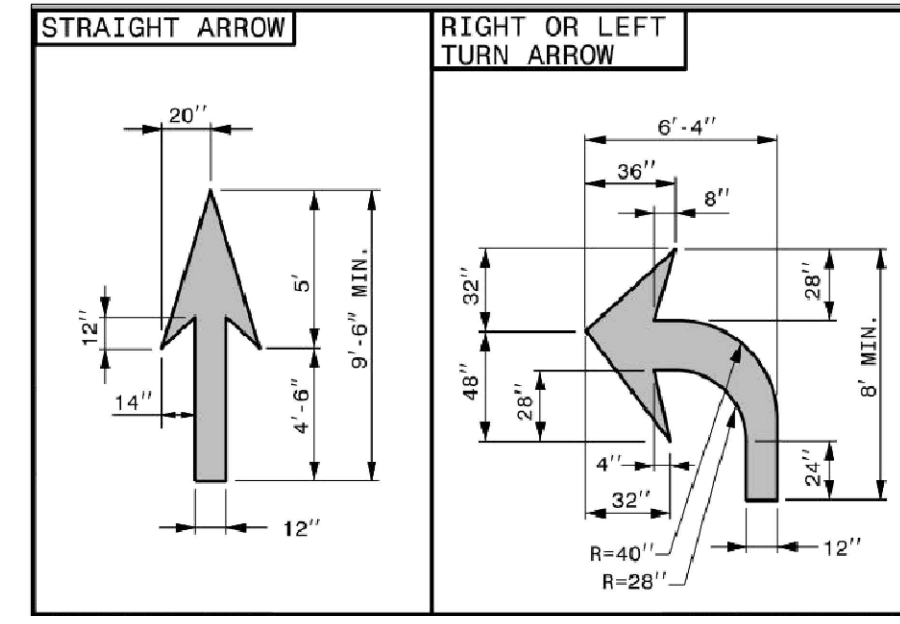
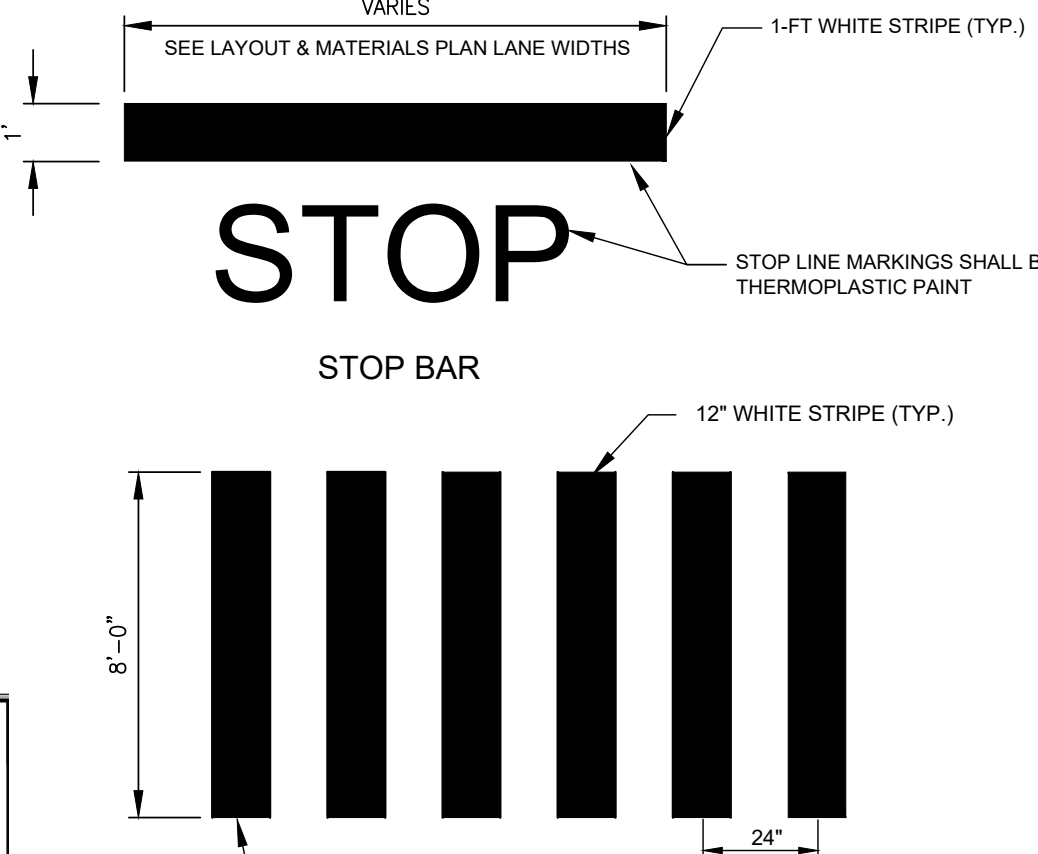
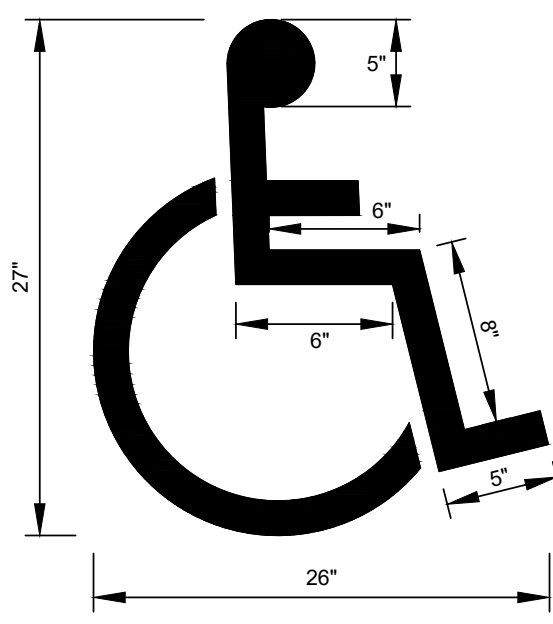
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4633	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4633	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1



SILTSACK INLET PROTECTION PROTECTION NOT TO SCALE **A1**





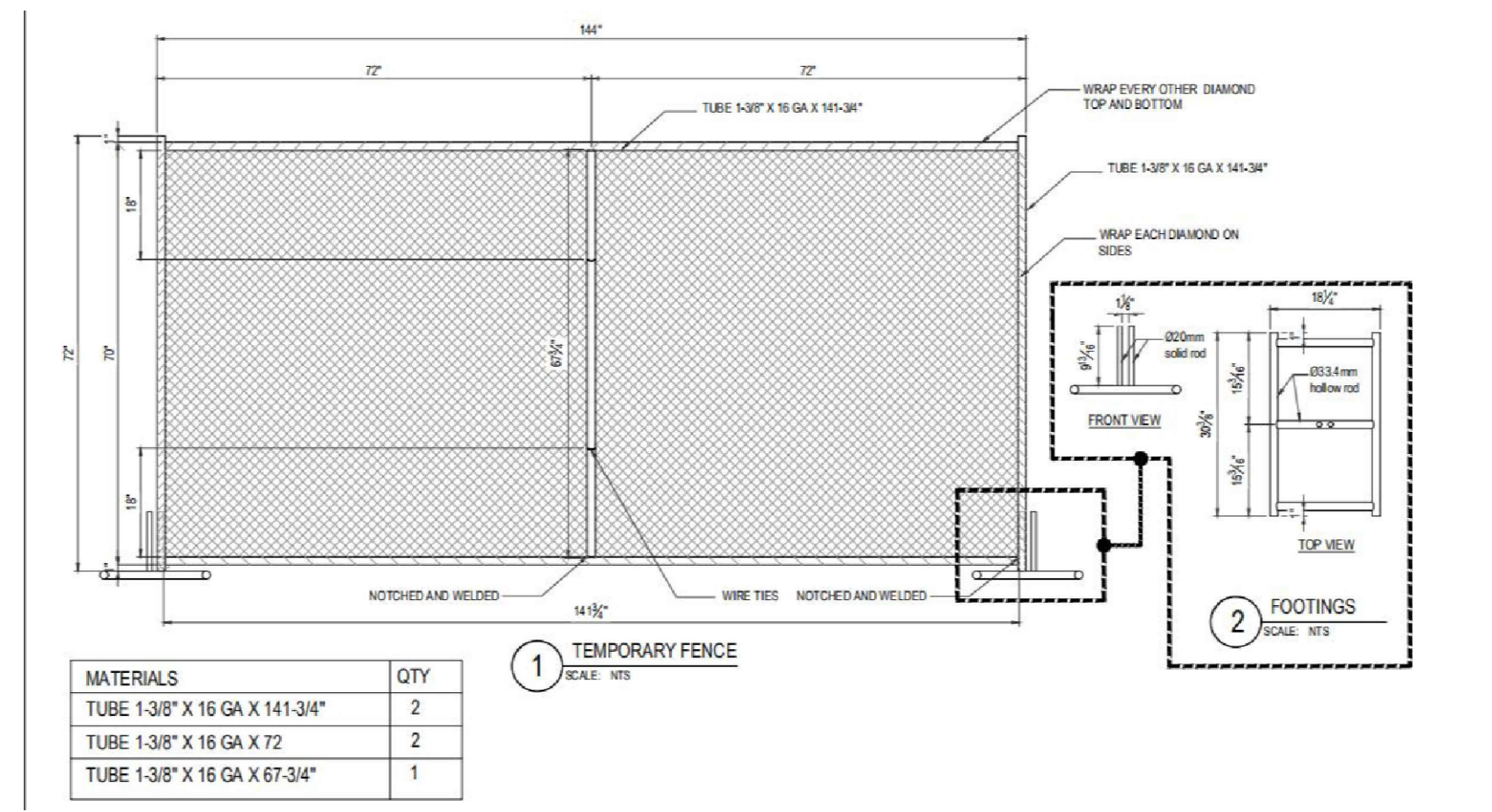
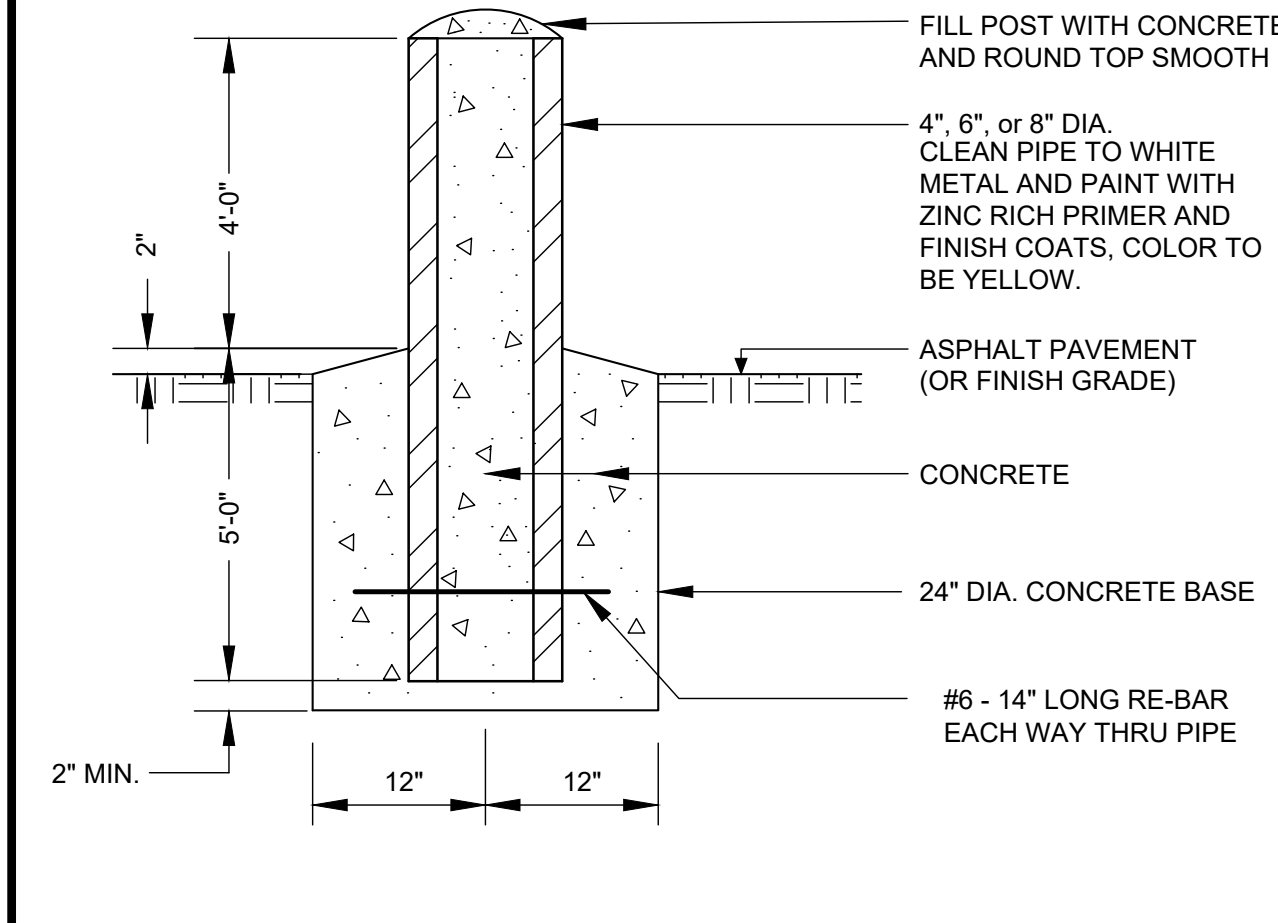
ELEVATION  
NOTE: 1. SIGN LAYOUT, COLORS, SYMBOL AND LETTERING SHALL BE STANDARD.  
2. TO BE LOCATED ON SITE AS DIRECTED.  
3. METAL POST TO BE PAINTED 2 COATS OF EXTERIOR GREEN ENAMEL (SEE SPECS.)  
4. TO BE LOCATED AT APPROPRIATE SPACES.

NOTES:  
1. ALL REGULATORY SIGNS / MOUNTINGS SHALL CONFORM TO UNIFORM TRAFFIC CONTROL DEVICES UTCD.

PAVEMENT MARKINGS NOT TO SCALE **C3**

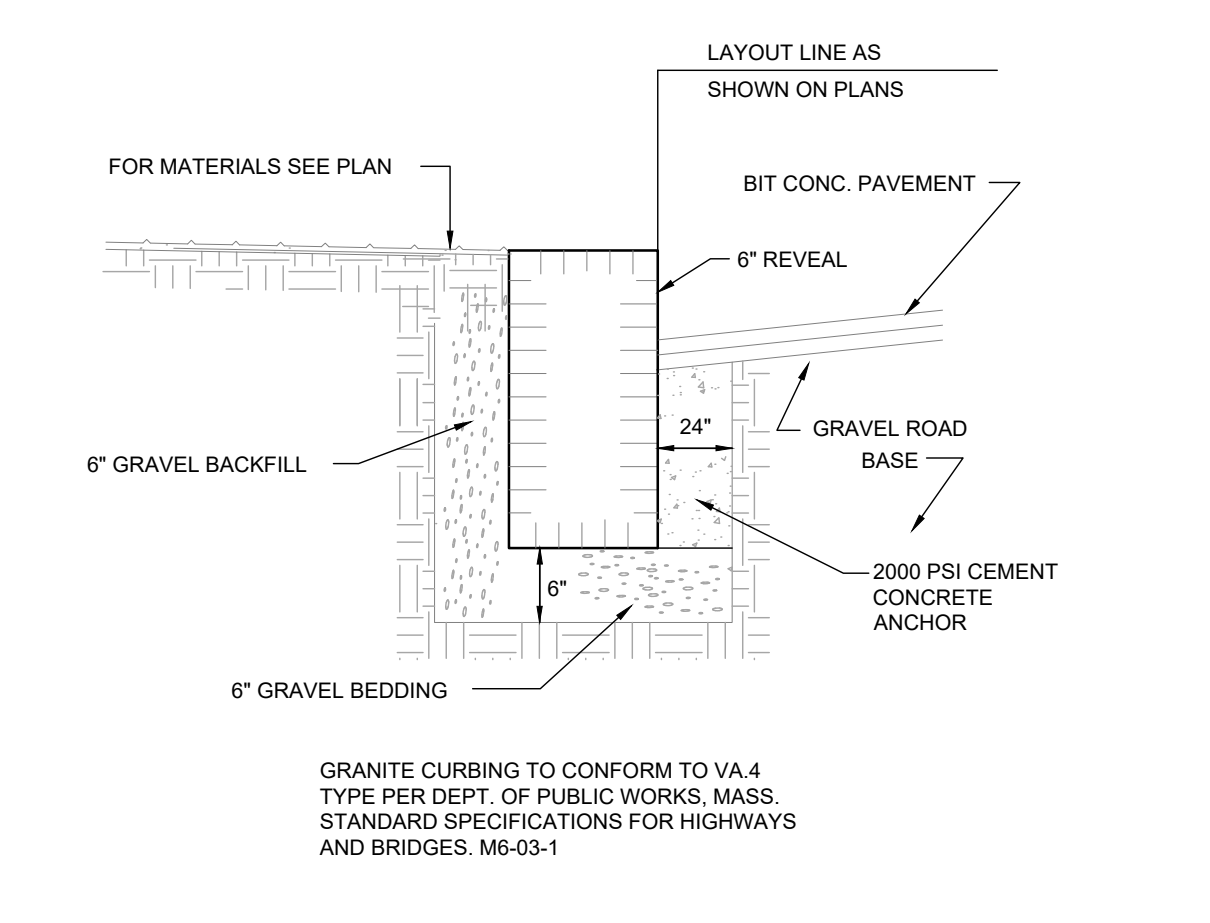
HANDICAP RAMP AND DETECTABLE WARNING SURFACE NOT TO SCALE **C2**

SIGN DETAIL NOT TO SCALE **C1**

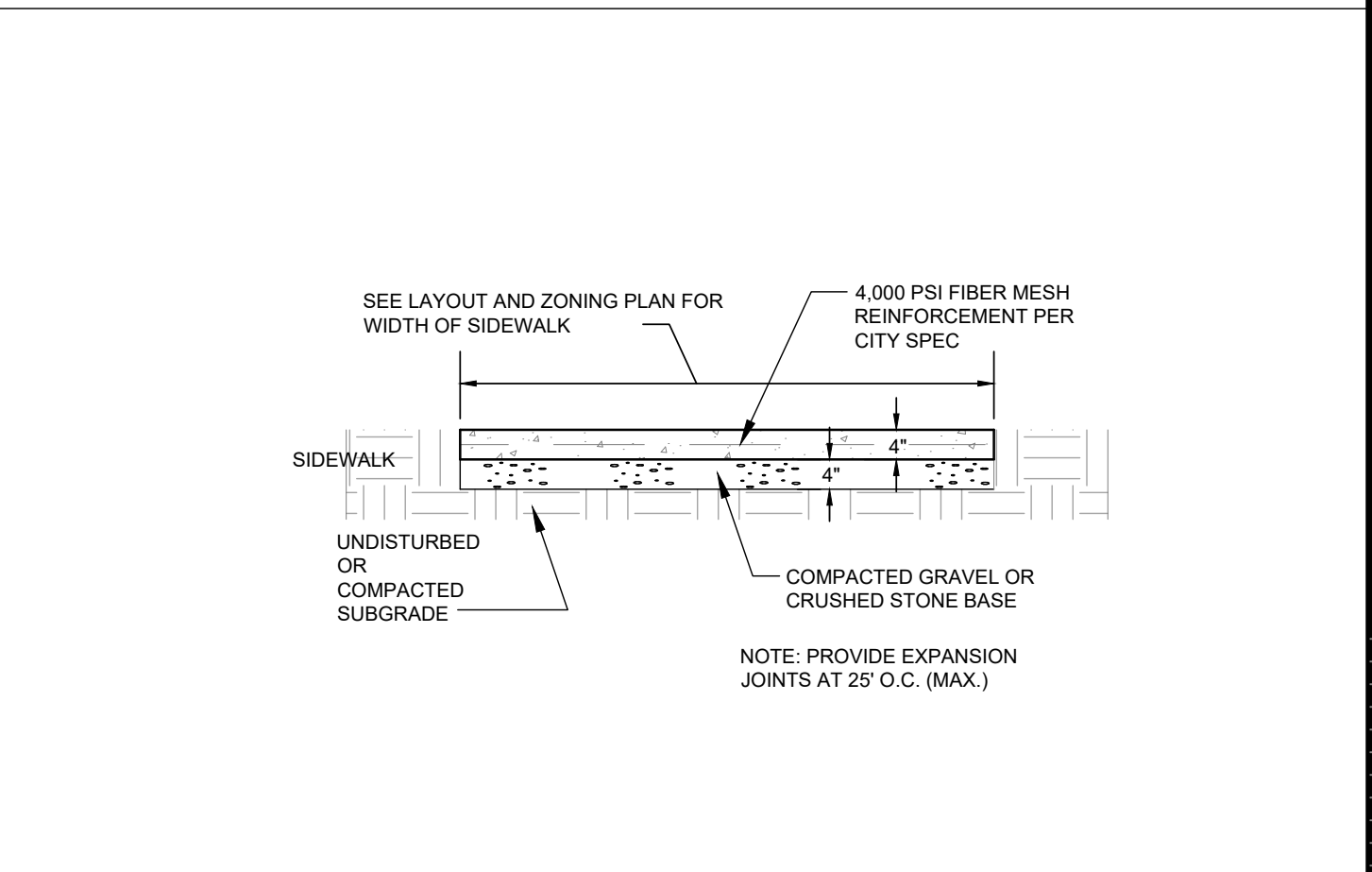


CONCRETE FILLED PIPE BOLLARD NOT TO SCALE **B4**

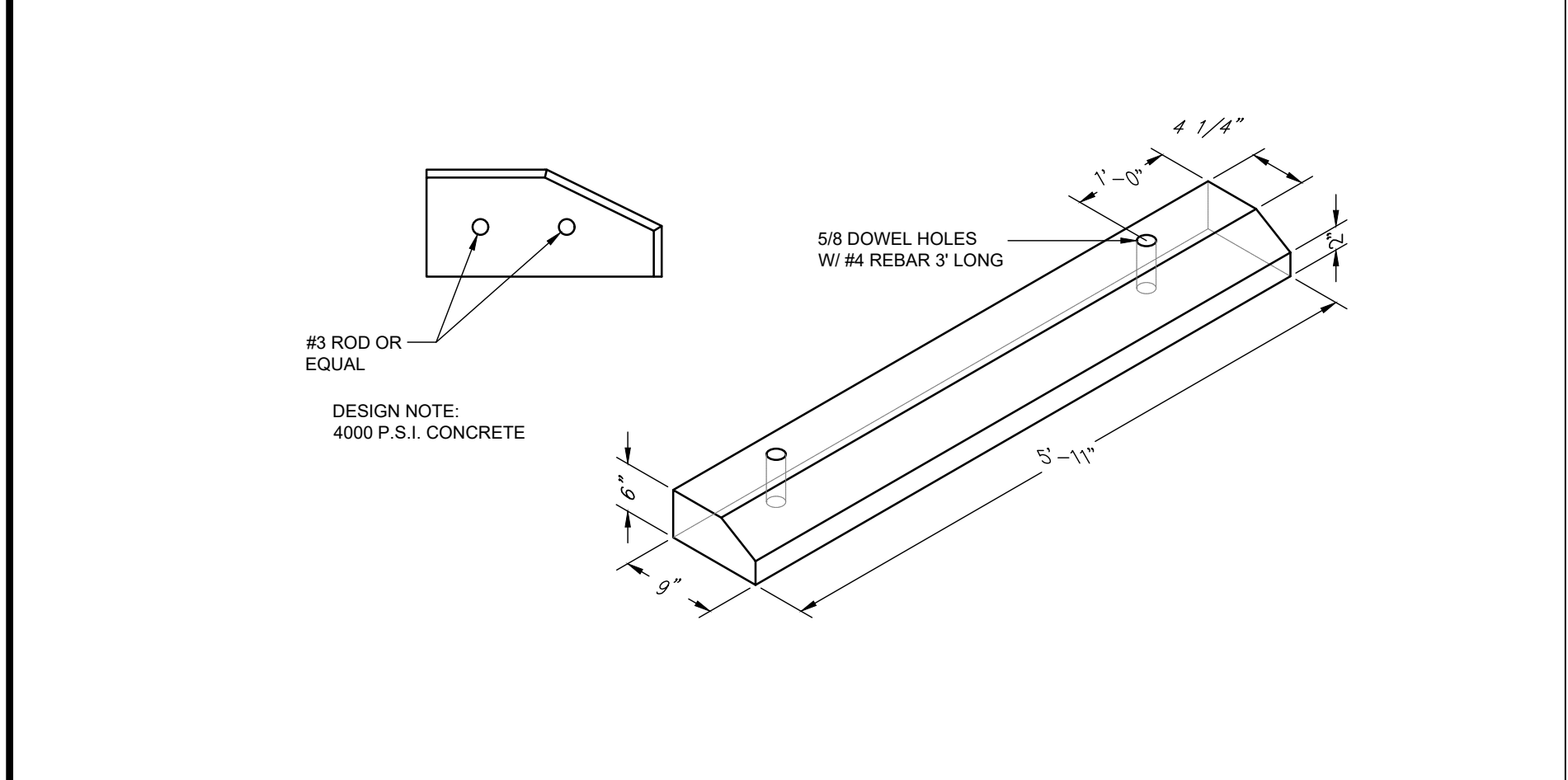
TEMPORARY CONSTRUCTION FENCE NOT TO SCALE **B3**



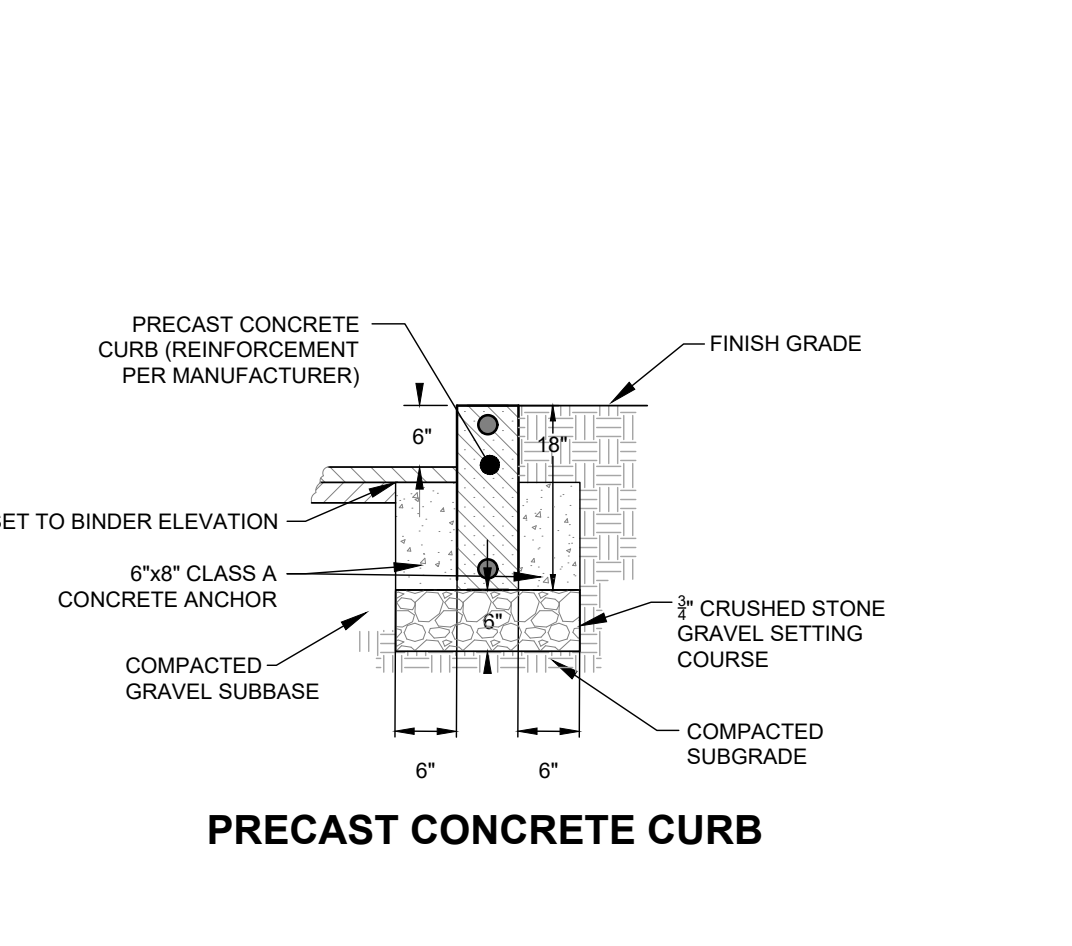
VERTICAL GRANITE CURB NOT TO SCALE **B2**



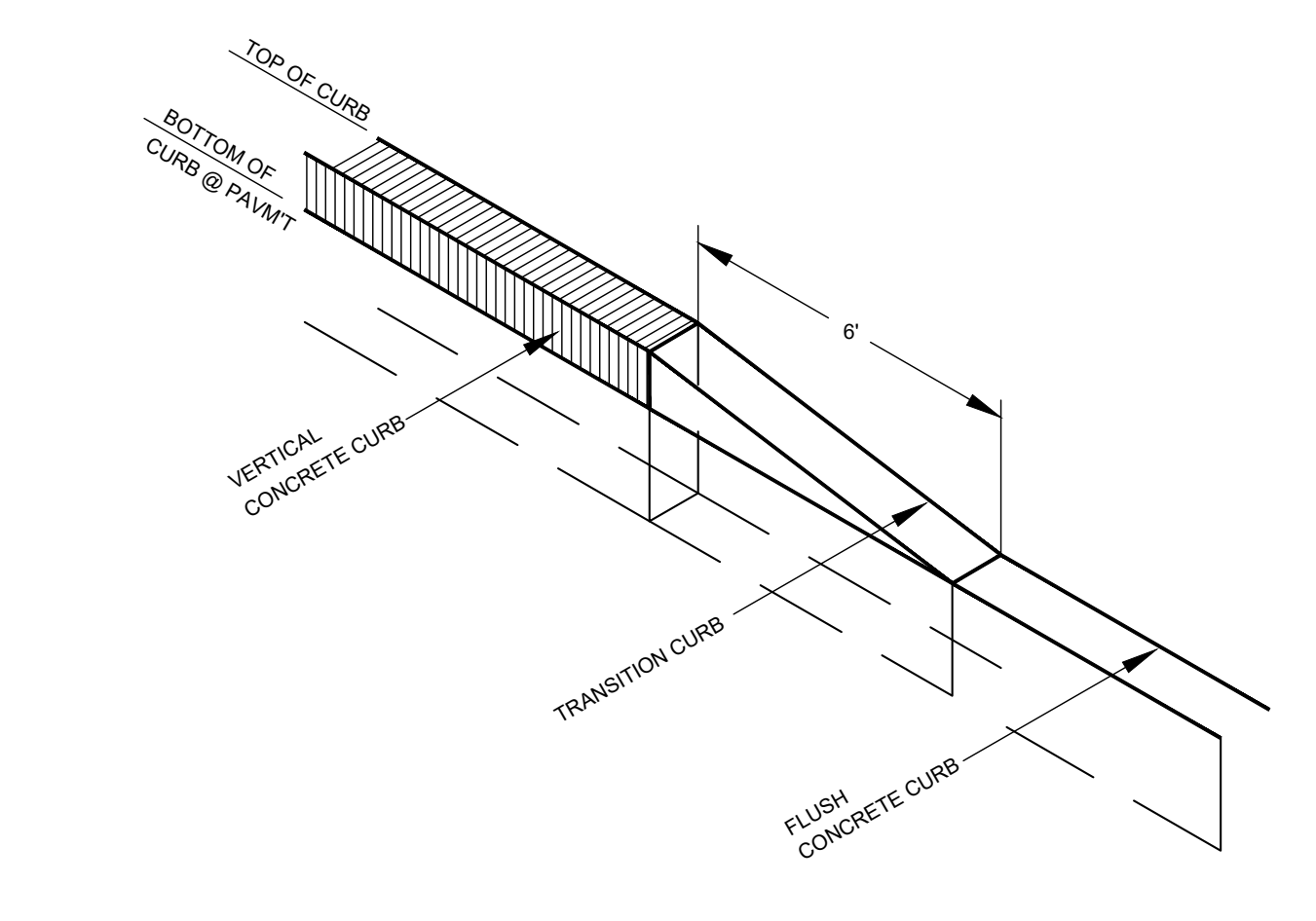
CONCRETE WALKWAY NOT TO SCALE **B1**



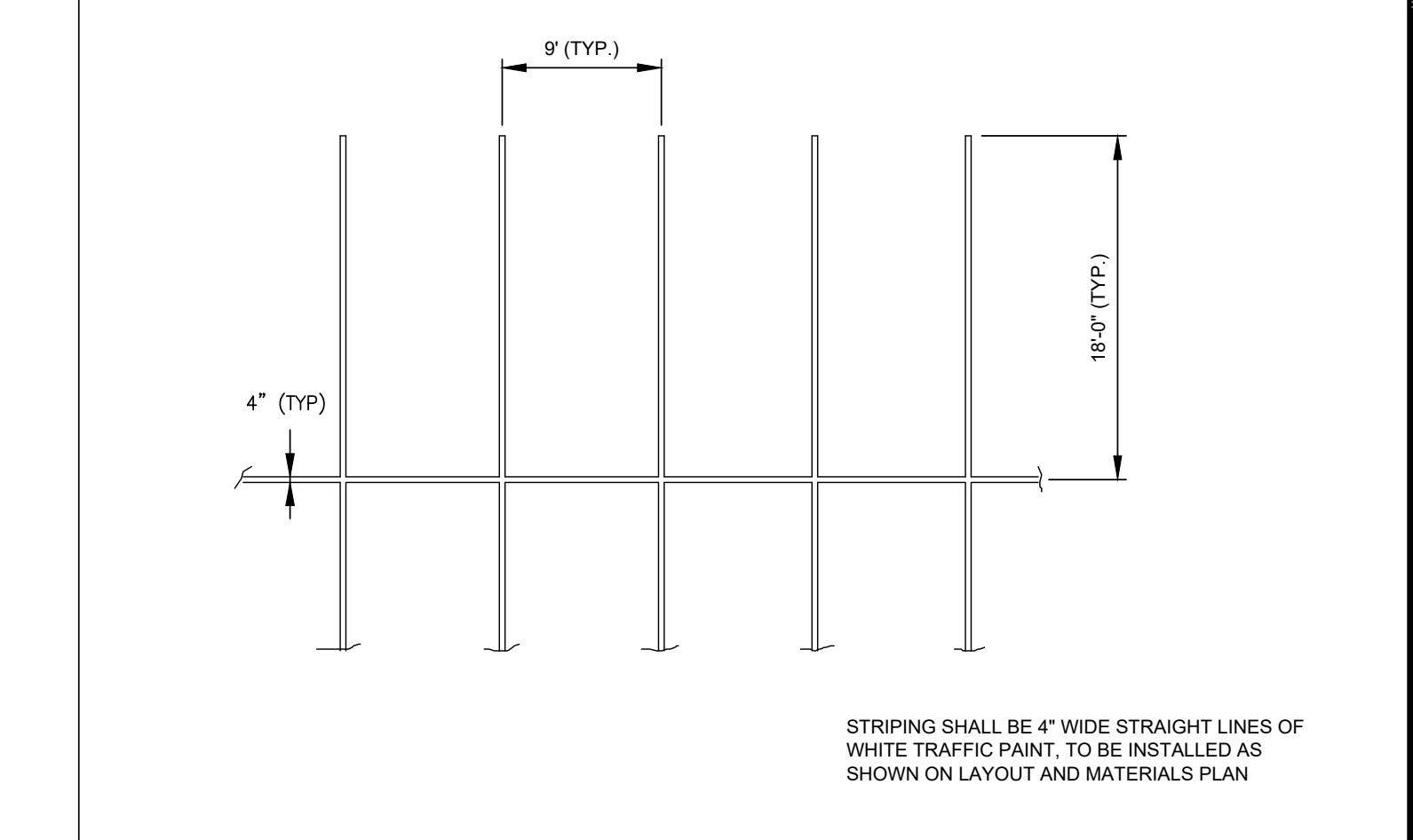
PRECAST CONCRETE CURB STOP NOT TO SCALE **C4**



PRECAST CONCRETE CURB NOT TO SCALE **A3**



TRANSITION CONCRETE CURB NOT TO SCALE **A2**



TYPICAL PARKING SPACE STRIPING NOT TO SCALE **A1**

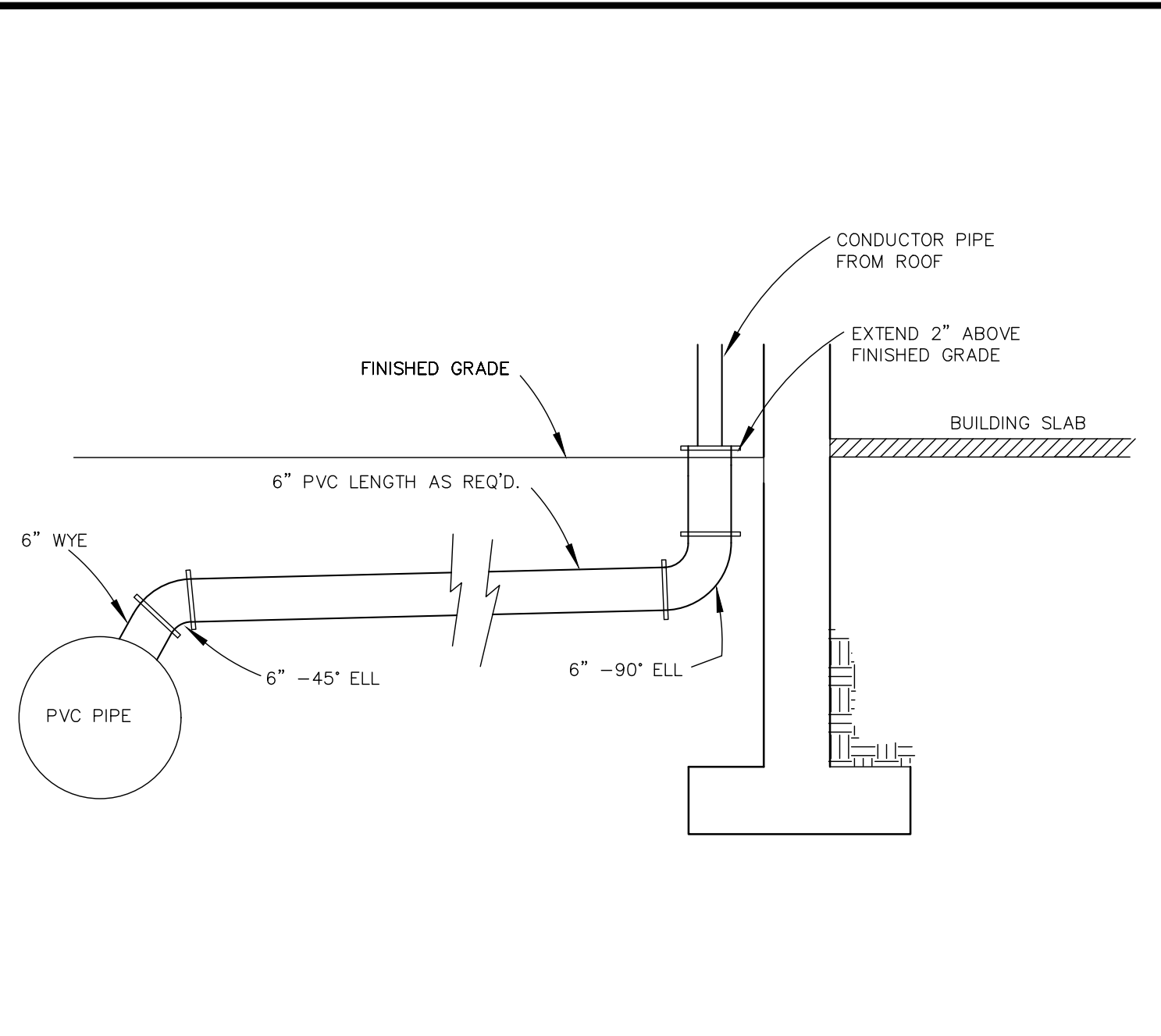
REV	DATE	DESCRIPTION

ISSUE TYPE:  
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**24009**  
 DRAWN BY: MJH  
 CHECKED BY: DTB/DJH  
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 SHEET TITLE:  
**DETAILS**  
 SHEET NUMBER:  
**C501**

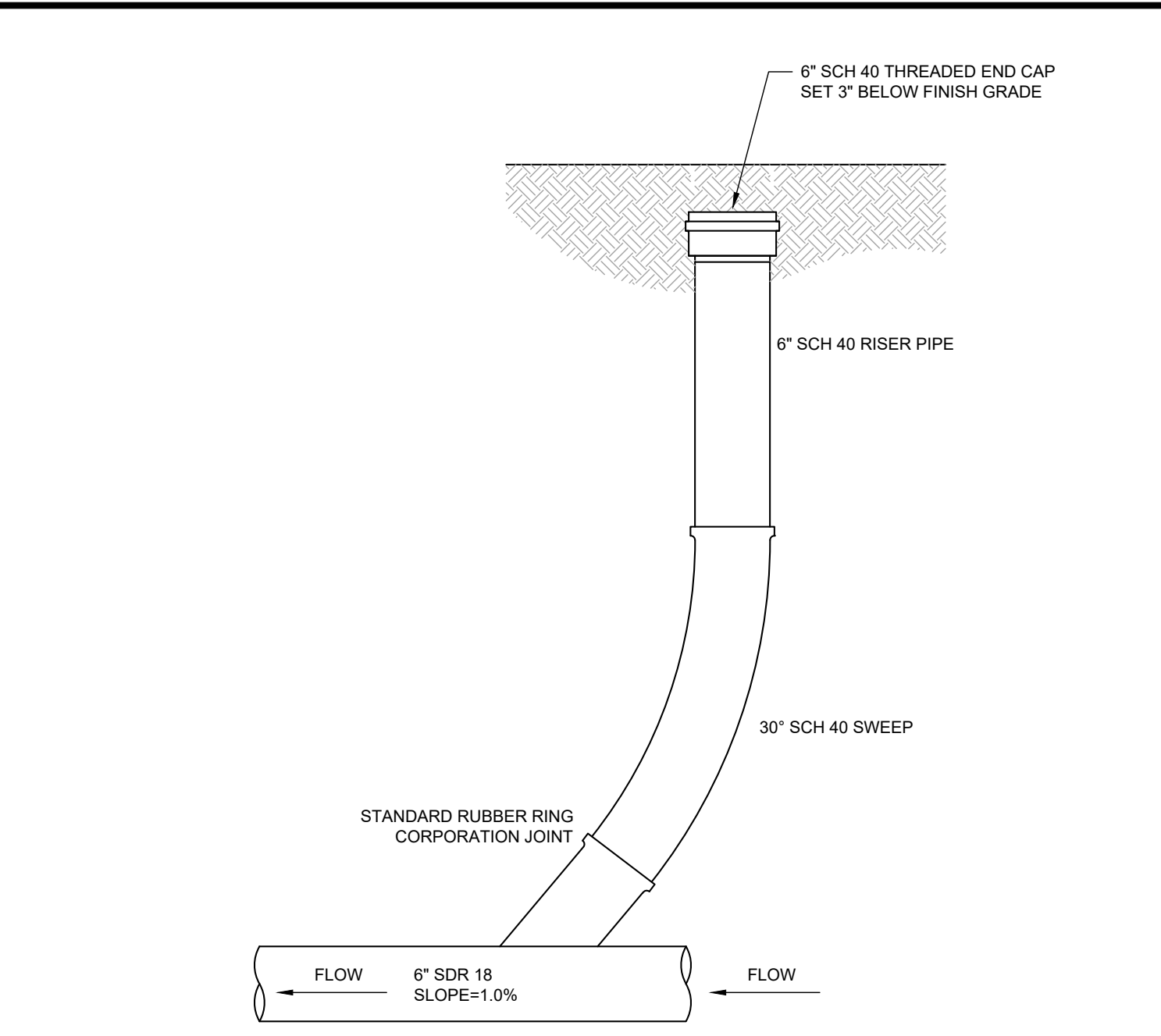
CLIENT:  
**LUNDGREN EQUITY PARTNERS**  
 163 Washington Street  
 Auburn, MA 01501

CONSULTANT:

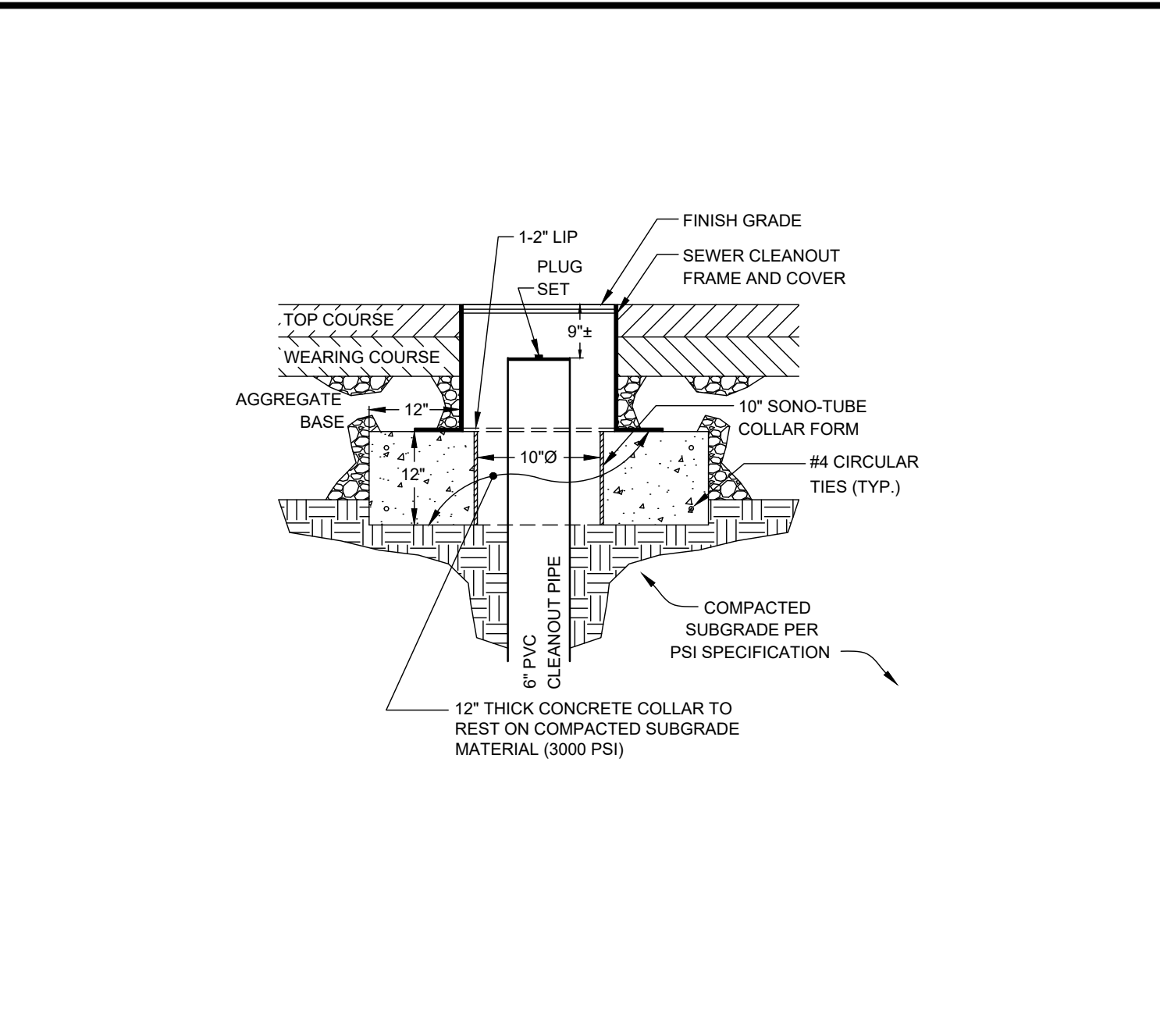
SCALE:



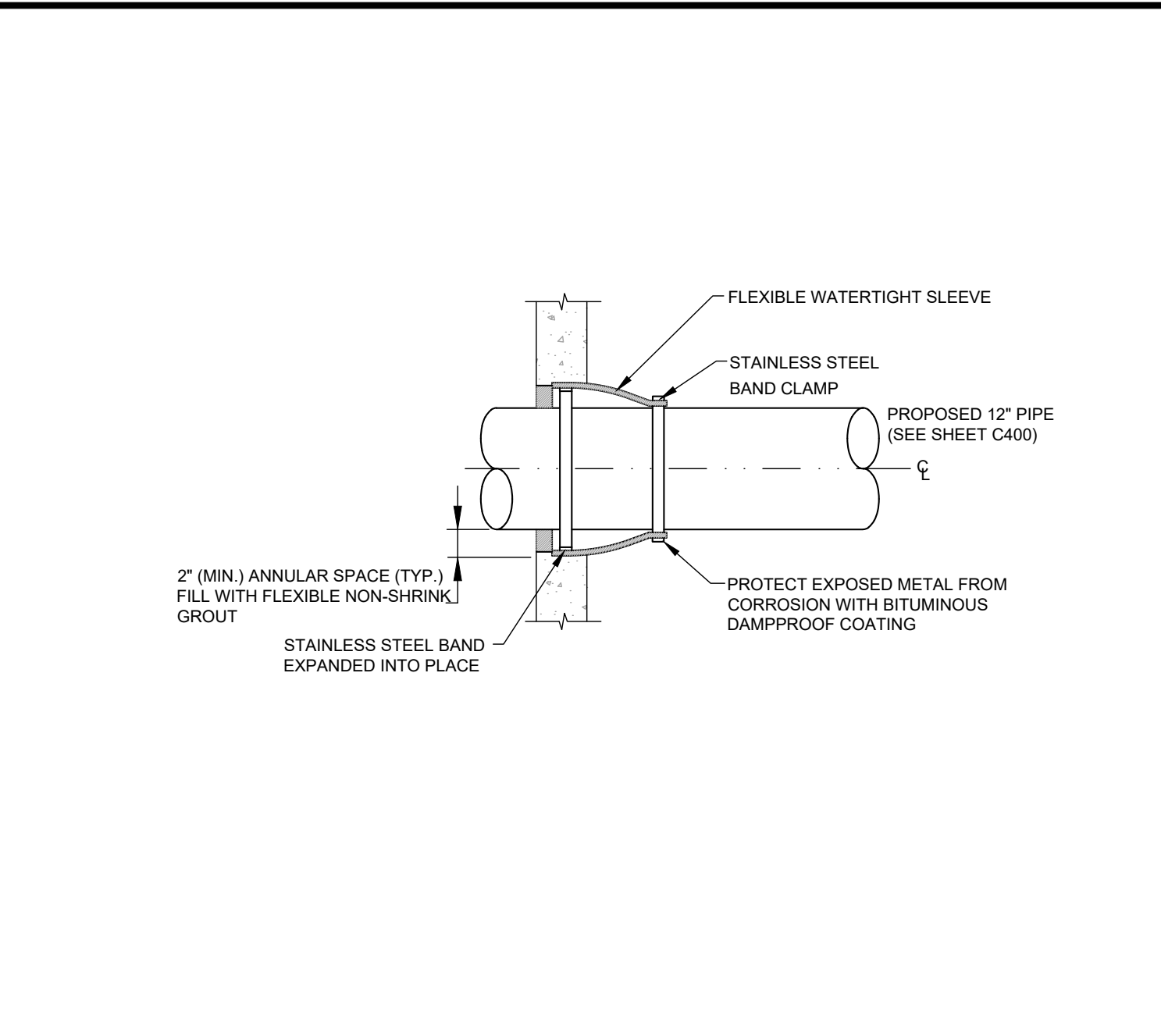
TYPICAL ROOF DRAIN CONNECTION DETAIL  
 NOT TO SCALE **C4**



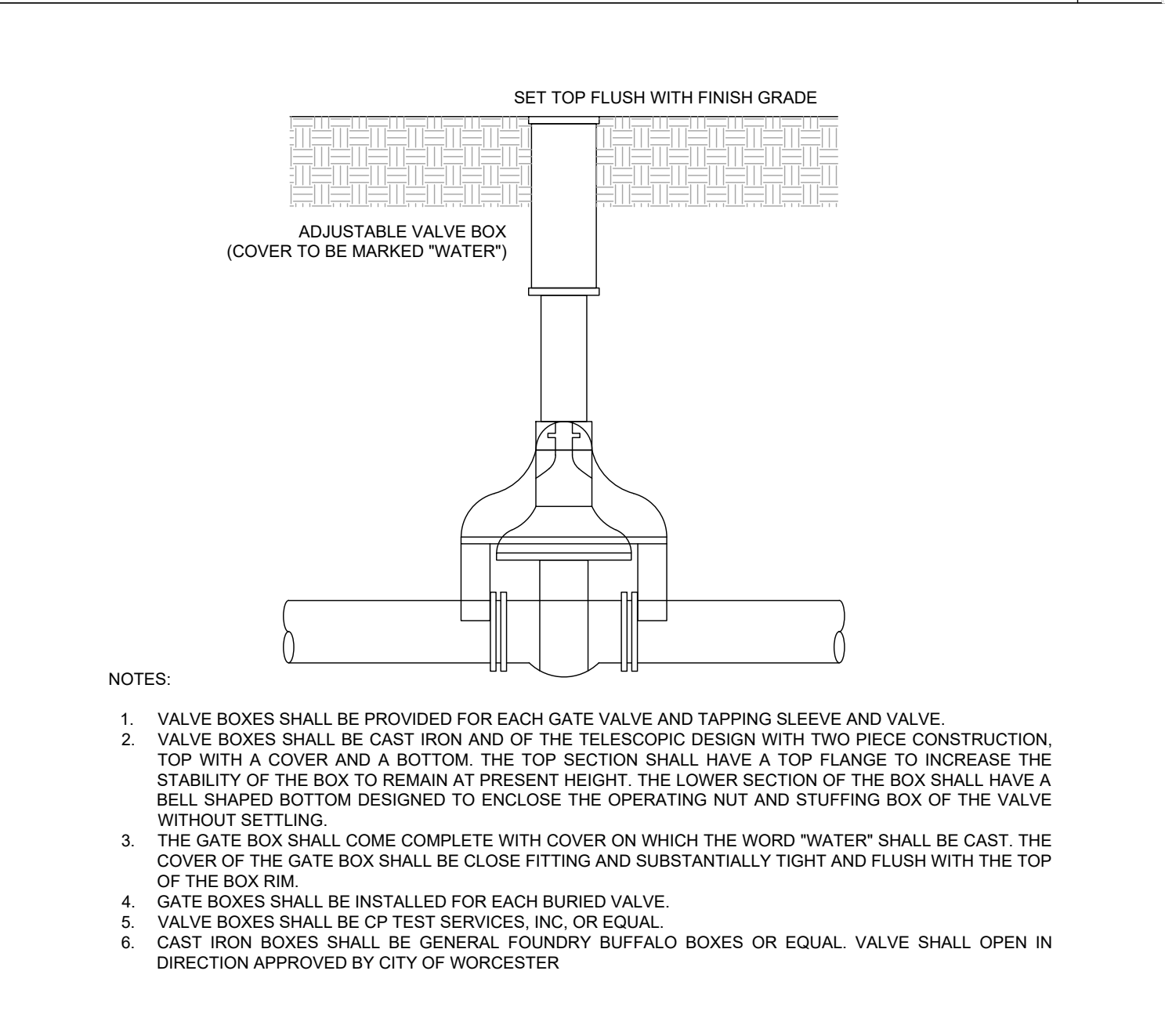
AT-GRADE CLEANOUT (ROOF DRAIN)  
 NOT TO SCALE **C3**



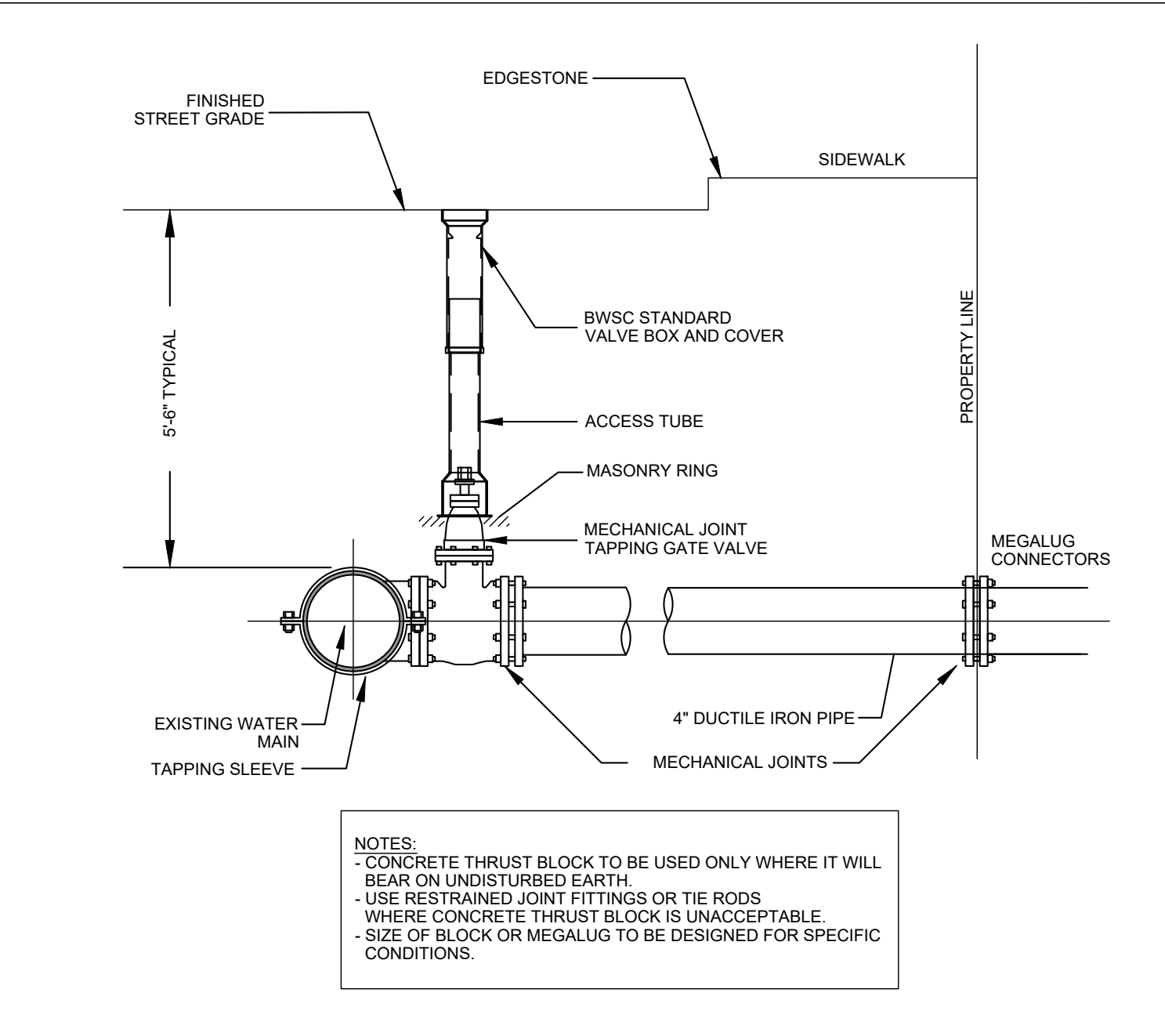
SEWER CLEANOUT COVER  
 NOT TO SCALE **C2**



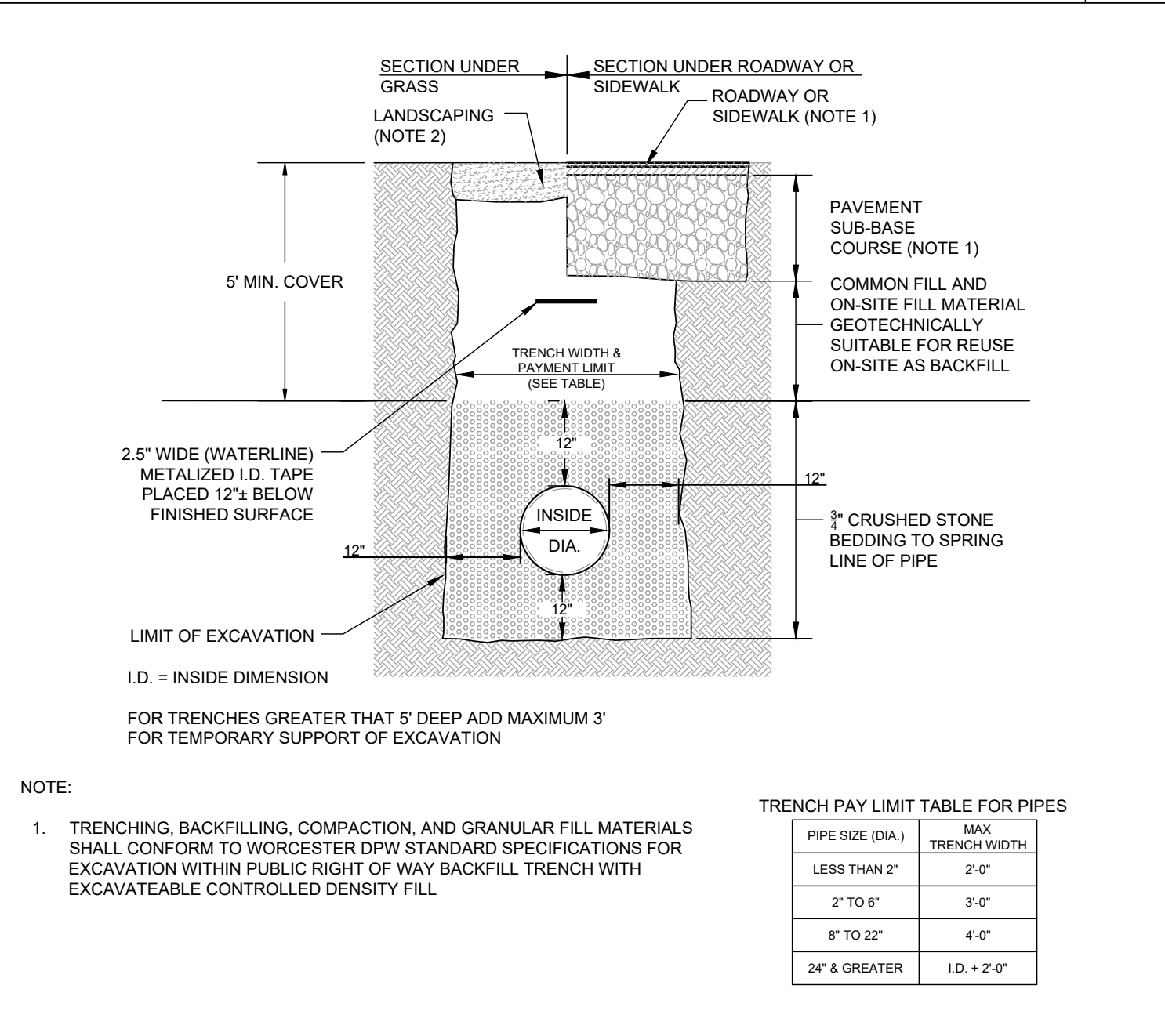
FLEXIBLE SLEEVE CONNECTION TO MANHOLE  
 NOT TO SCALE **C1**



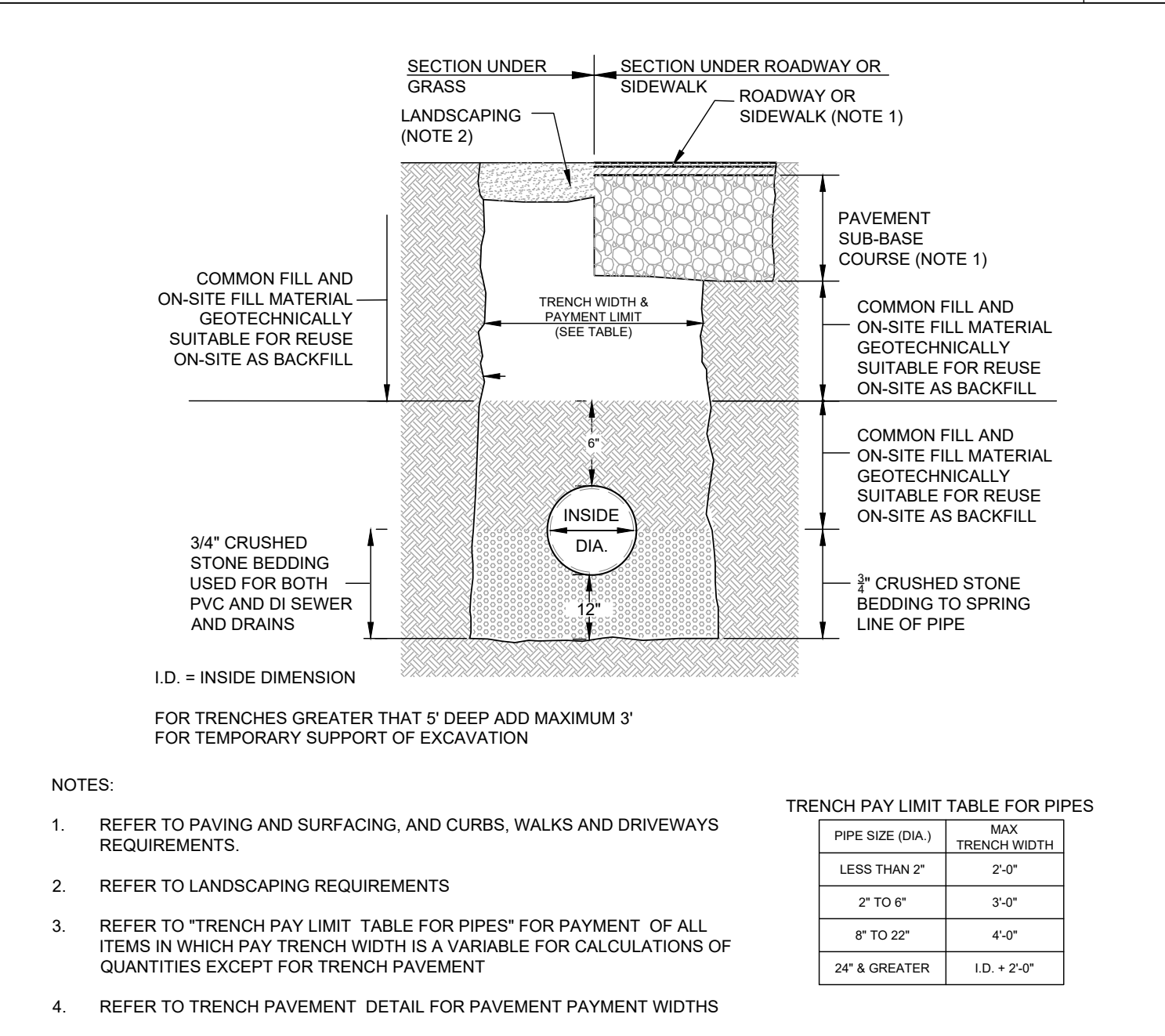
WATER GATE VALVE BOX  
 NOT TO SCALE **B4**



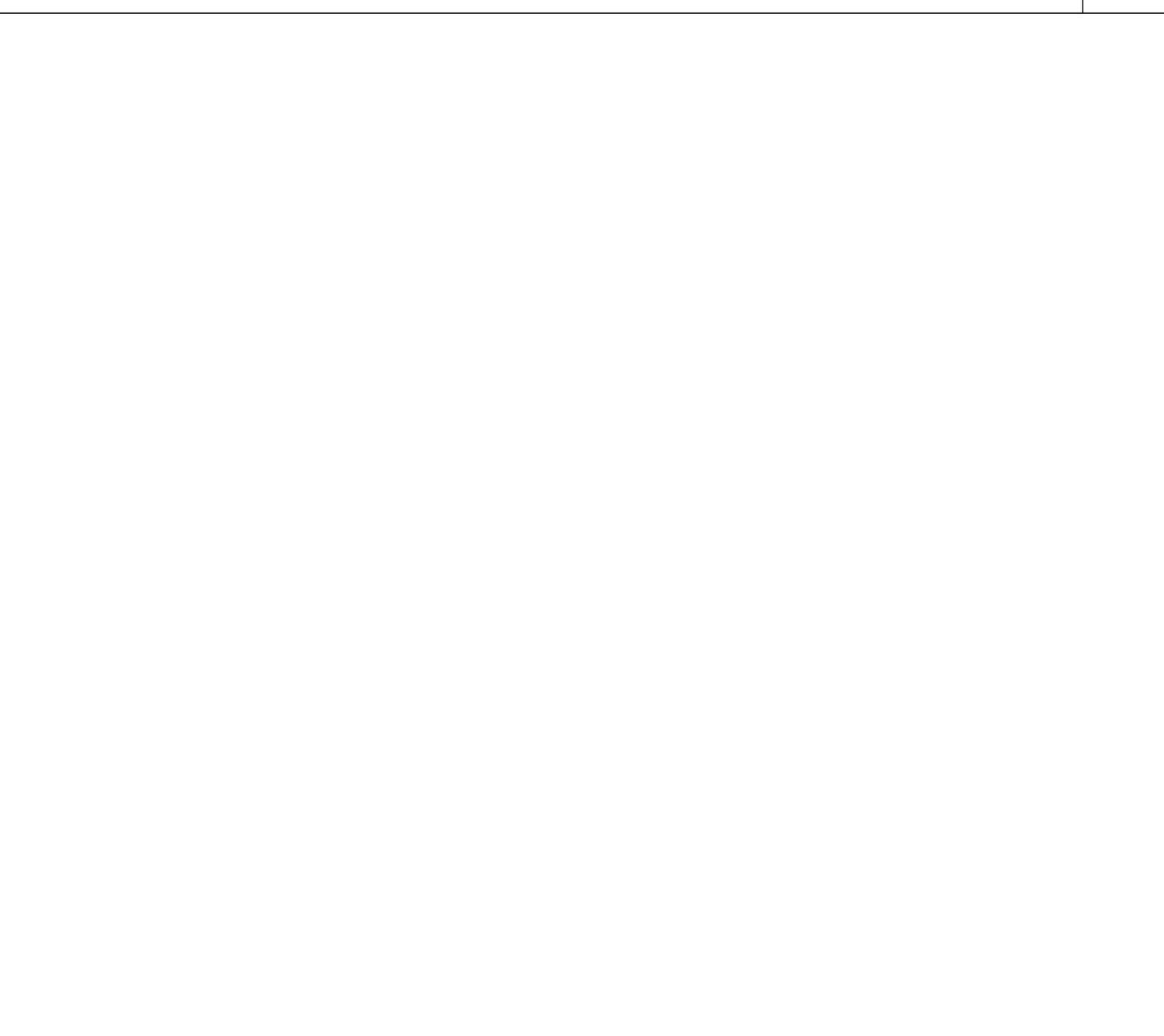
WATER PIPE CONNECTION WITH TAPPING SLEEVE & GATE VALVE  
 NOT TO SCALE **B3**



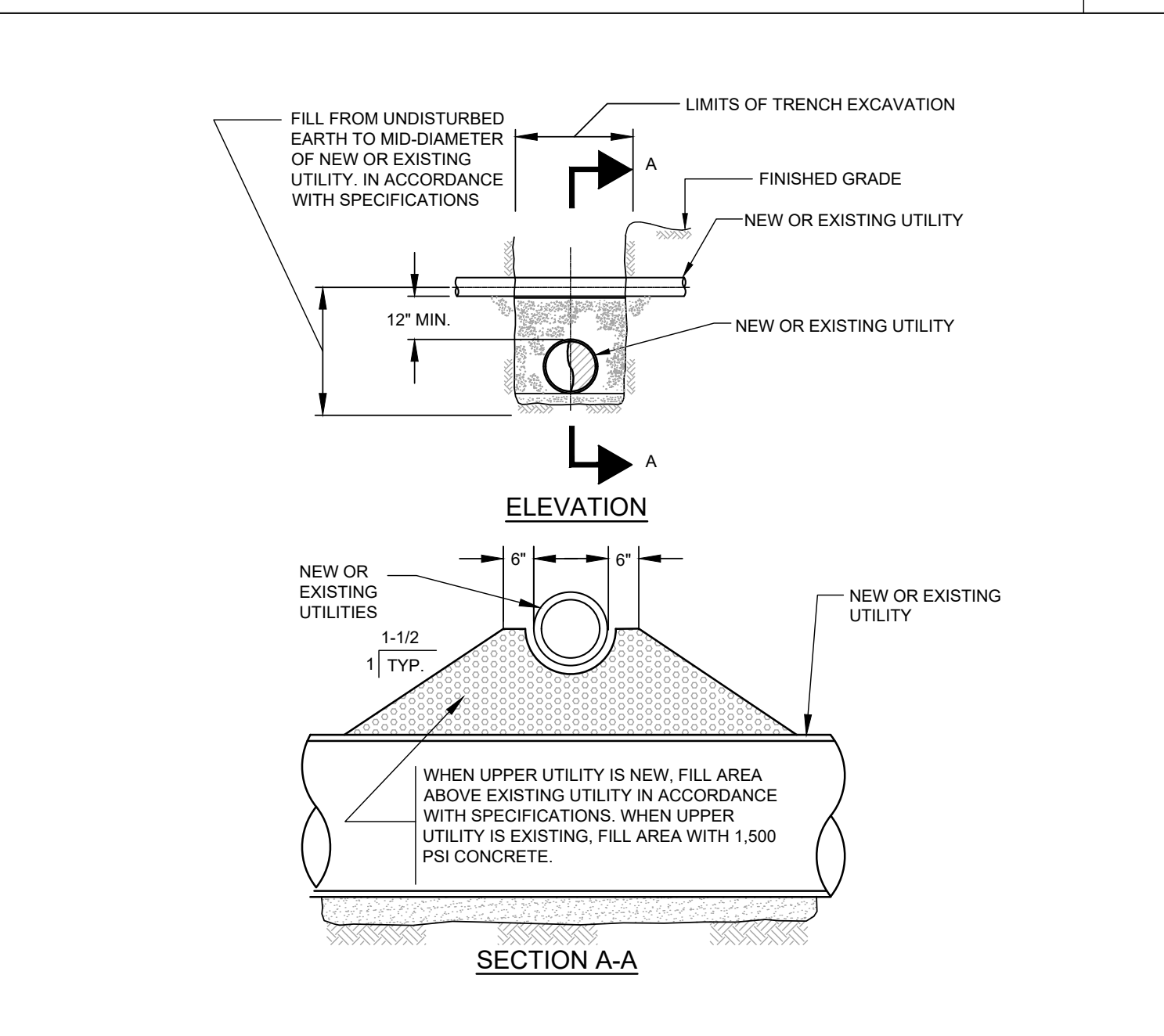
WATER TRENCH  
 NOT TO SCALE **B2**



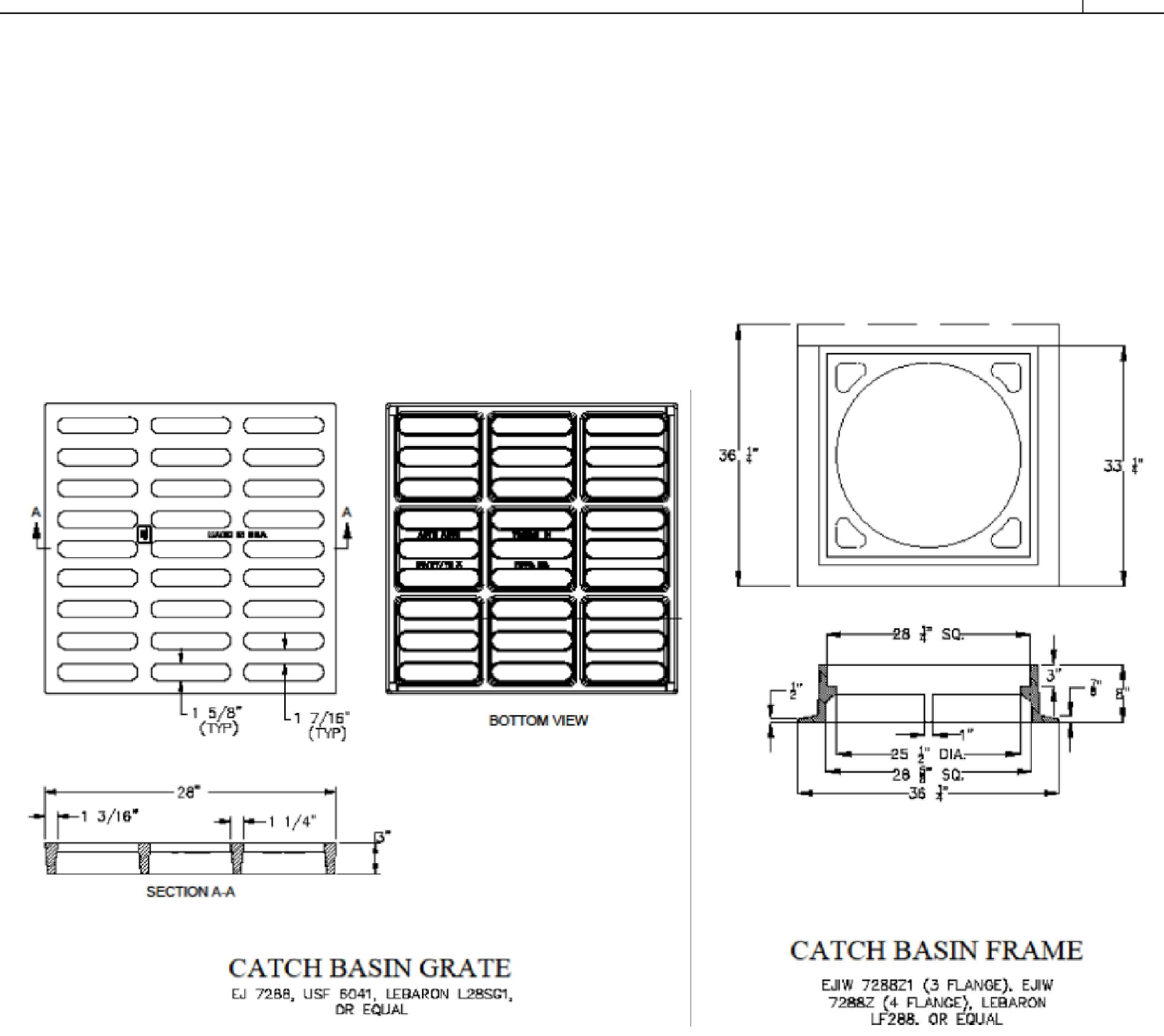
SEWER AND DRAINAGE TRENCH  
 NOT TO SCALE **B1**



UTILITY CROSSING  
 NOT TO SCALE **A3**



MANHOLE FRAME AND COVER  
 NOT TO SCALE **A2**



CATCH BASIN FRAME AND COVER  
 NOT TO SCALE **A1**

DCU/RETAIL EXPANSION PROJECT

225 SHREWSBURY STREET  
 WORCESTER, MA

OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

REV. DATE. DESCRIPTION

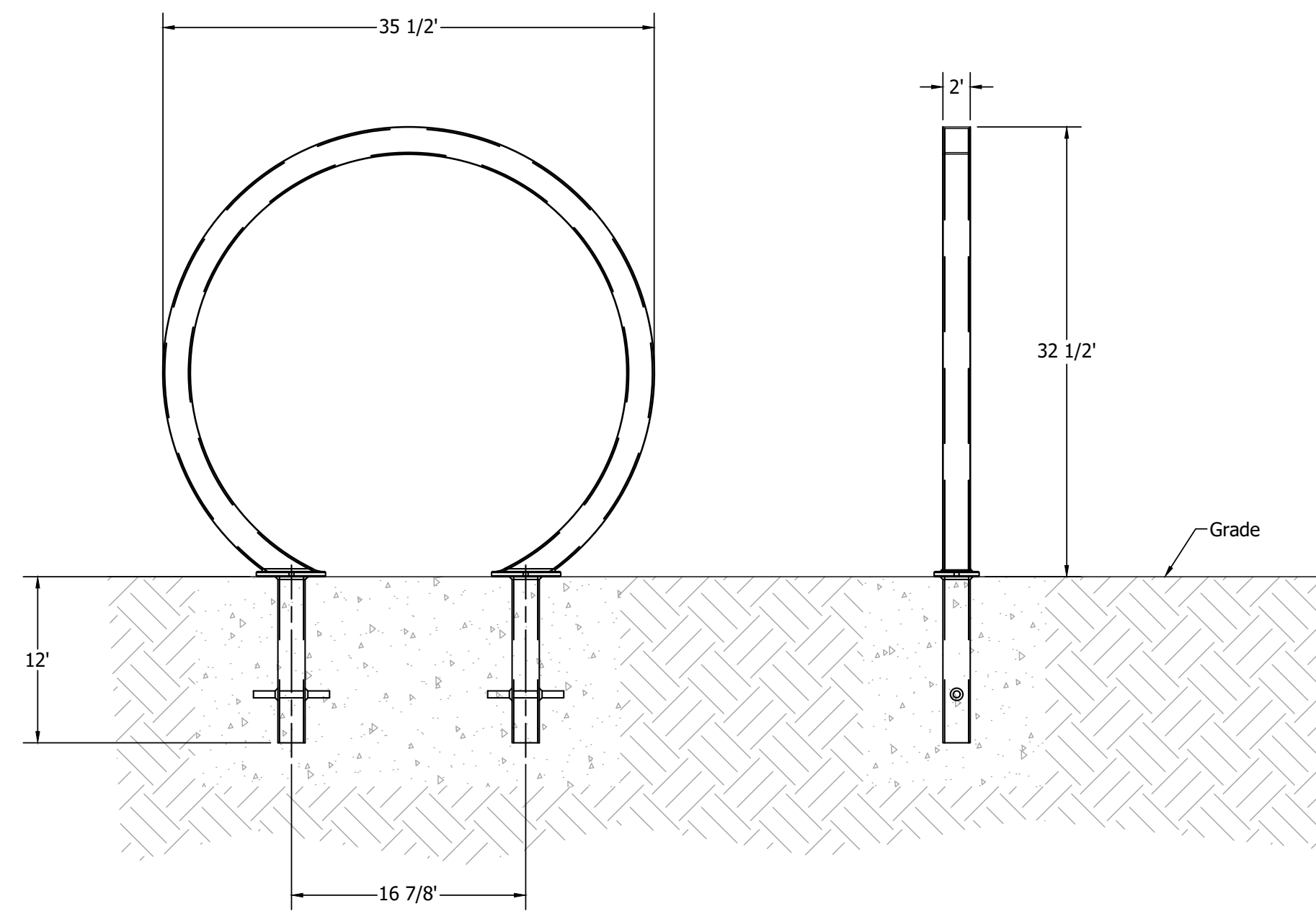
ISSUE TYPE:  
**PERMIT**  
 ISSUE DATE:  
**11/07/2024**  
 PROJECT NUMBER:  
**24009**

DRAWN BY: MJH  
 CHECKED BY: DTB/DJH  
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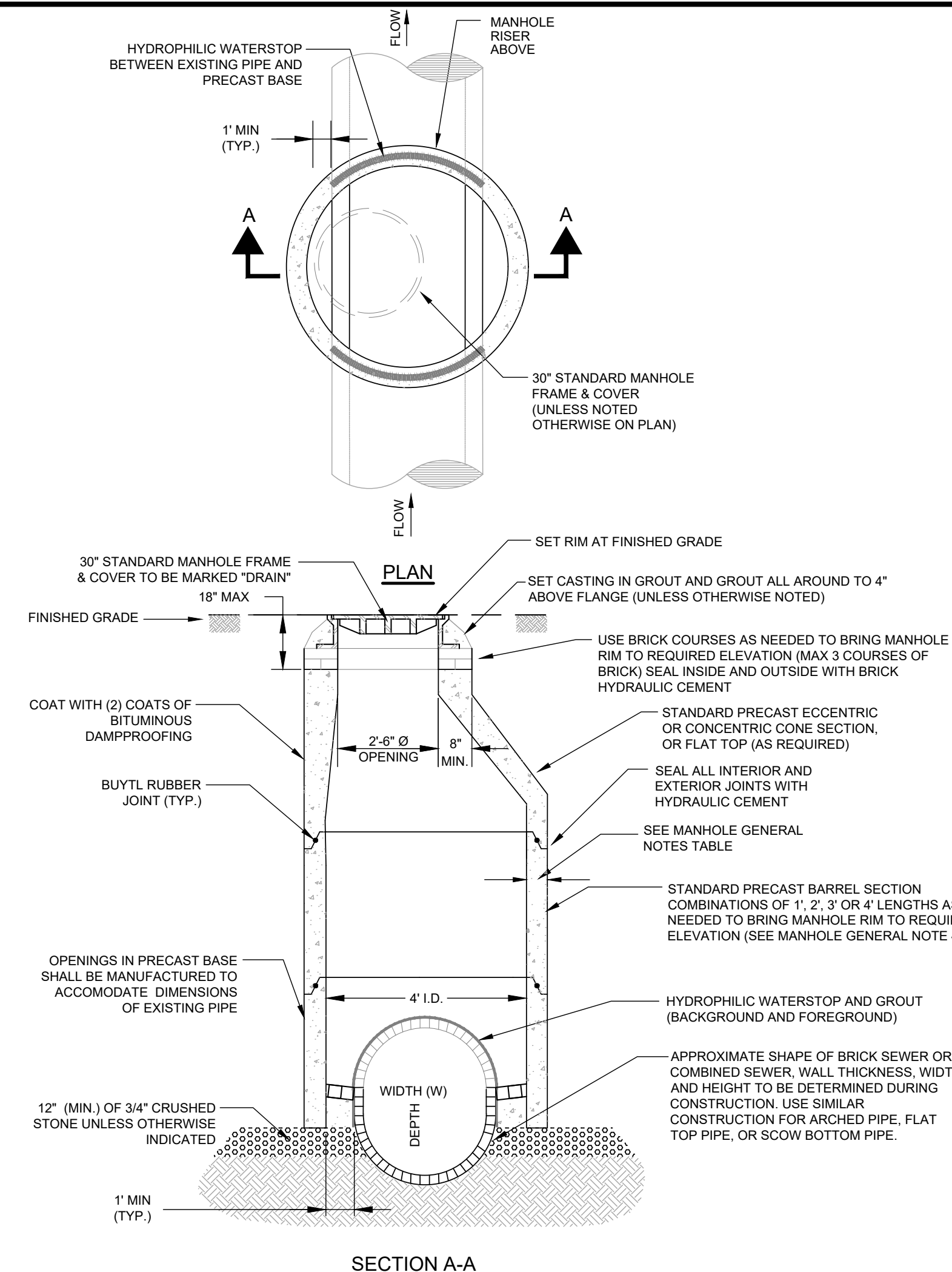
SHEET TITLE:  
**DETAILS**

SHEET NUMBER:  
**C502**

ISSUED FOR: PERMIT

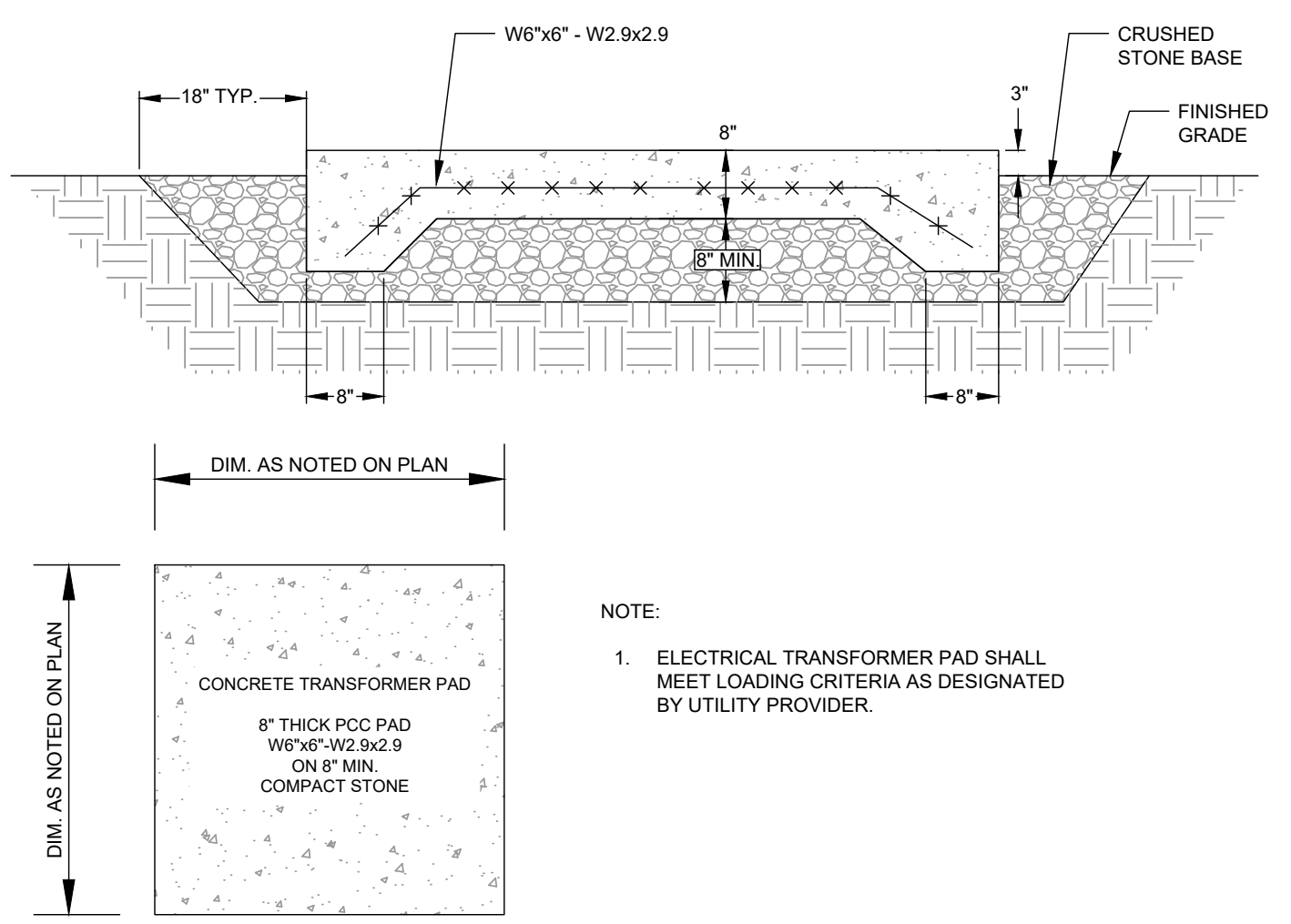


NOTES:  
 • EMBEDMENT DETAILS ARE FOR REFERENCE ILLUSTRATION ONLY. MINIMUM FOUNDATION SIZES DEPEND ON LOCAL SOIL CONDITIONS, WEATHER CONDITIONS AND ENGINEERING REQUIREMENTS.  
 • THIS DRAWING IS NOT DRAWN TO SCALE. DIMENSIONS PROVIDED HEREIN ARE FOR REFERENCE ONLY.

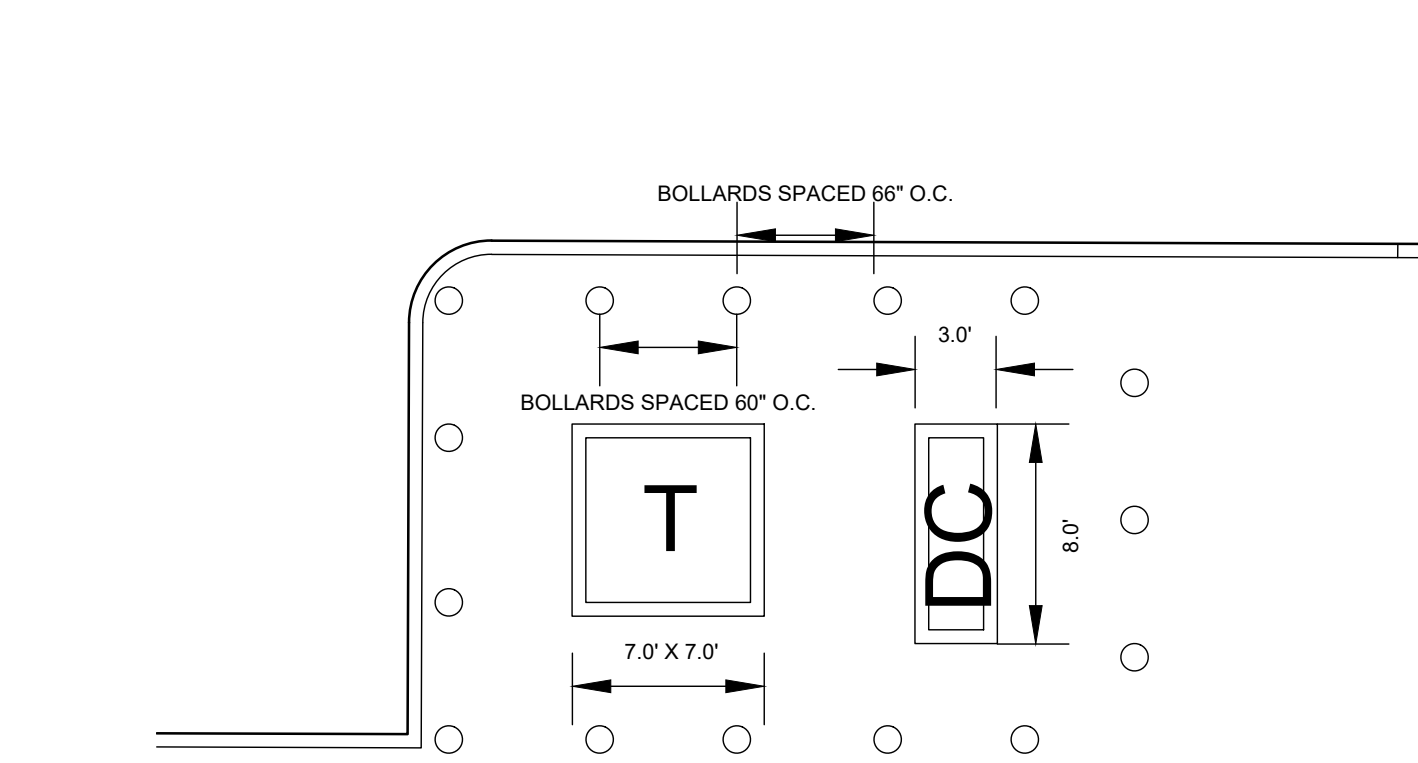


**VISITOR'S BICYCLE PARKING RACK**  
 NOT TO SCALE **B2**

**PRECAST DROP-OVER DRAIN MANHOLE**  
 NOT TO SCALE **B1**

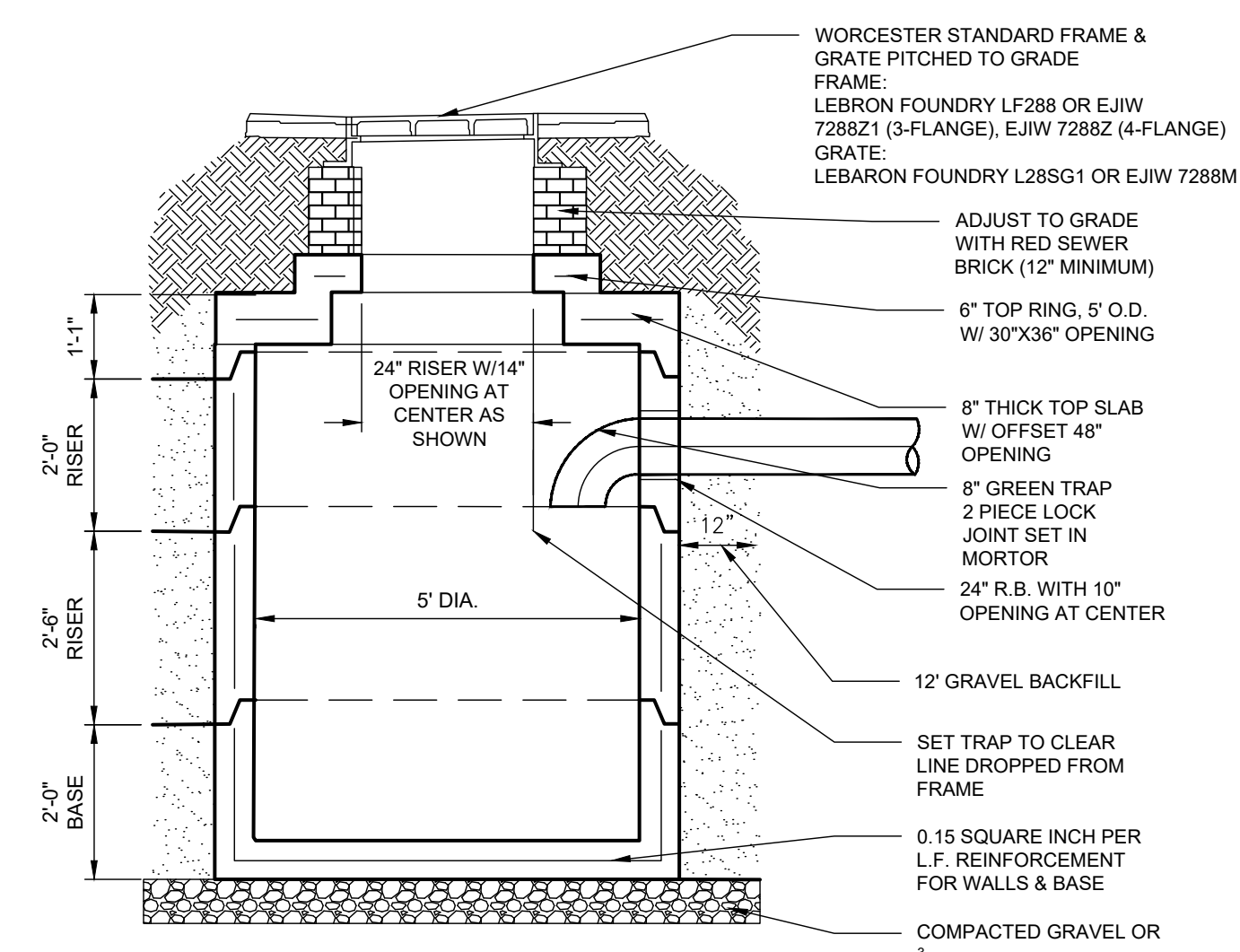


NOTE:  
 1. ELECTRICAL TRANSFORMER PAD SHALL MEET LOADING CRITERIA AS DESIGNATED BY UTILITY PROVIDER.



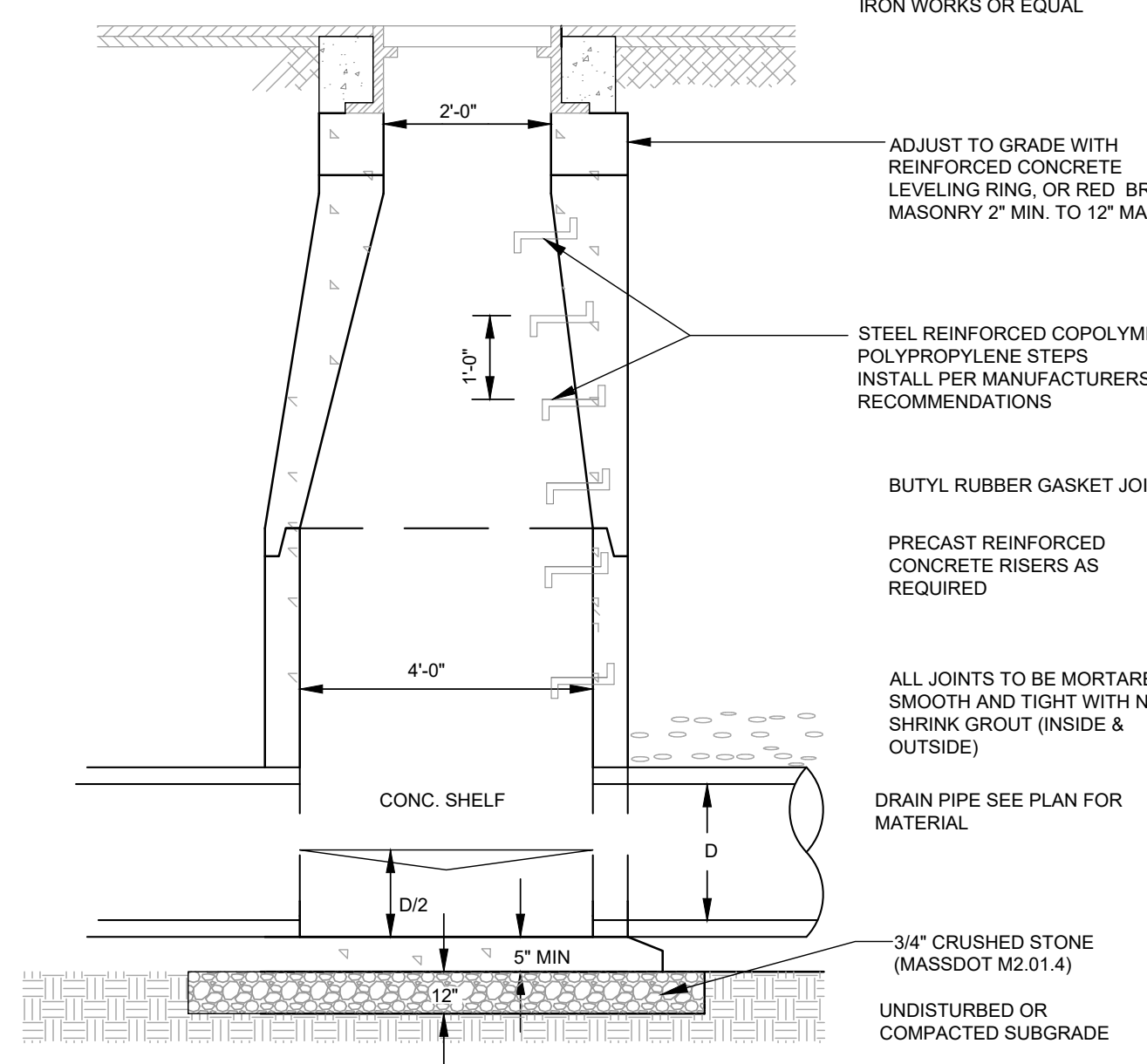
PLAN VIEW: NTS

**TYPICAL ELECTRICAL TRANSFORMER PAD**  
 NOT TO SCALE **A4**



NOTES:  
 • Catch basins shall be constructed of the materials, size, form thickness and in the manner shown in detail on a plan titled Typical Pre-Cast Catch Basin and shall conform to the applicable provisions of Section 201, (MSSH-B).  
 • Pre-cast concrete basins shall consist of pre-cast reinforced riser sections, a flat slab top and top ring, and a base section conforming to the typical catch basin details.  
 • Pre-cast catch basin sections shall be manufactured in accordance with ASTM Designation C478. The minimum compressive strength of the concrete for all sections shall be 4,000 PSI on a 28 Day Test. The circumferential steel reinforcement for riser sections and base walls shall be 0.17 square inch per linear foot of reinforcement in the bottoms of basins shall be of the same design. Reinforcing shall extend into the tongue and groove of each catch basin section wall.  
 • Each section of the pre-cast manhole shall have two holes for the purpose of handling and laying. These holes shall be tapered and shall be plugged with hydraulic cement after installation.  
 • Type II cement to be used. Sections shall be set so as to be vertical and in true alignment. Joints shall be completely mortared by buttering the groove and immediately prior to setting a section, or approved alternative sealant, assuring a watertight sump.  
 • Catch basin connection to the catch basin shall be made prior to constructing the catch basin above the invert grade of the trap.  
 • Red sewer brick shall be used in the catch basins. Limits of Class B rock excavation will be six (6) inches below and twelve (12) inches outside the base.  
 • GRAVEL BACKFILL SHALL BE FURNISHED BY THE CONTRACTOR AT NO ADDITIONAL COST, AND SHALL BE POWER TAMPED IN TWELVE (12) INCH LIFTS, JETTED OR CDF MAY BE USED AS DIRECTED BY THE CONTRACTING OFFICER.  
 • All excavated material, except as directed by the Contracting Officer, shall be removed from the site 3/4" crushed stone foundation six (6) inches in depth is required under the pre-cast base at no additional cost.  
 • Traps, frames, grates and inlets shall be furnished and installed as specified under their respective items. A minimum of 12 inches of red sewer brick shall be used under the frame. The grates shall fit so as to prevent rocking or unnecessary space at the joints.

**TYPICAL PRECAST CATCH BASIN**  
 NOT TO SCALE **A3**



MASSACHUSETTS STANDARD MANHOLE FRAME AND COVER MARKED "DRAIN" EAST JORDAN IRON WORKS OR EQUAL

ADJUST TO GRADE WITH REINFORCING CONCRETE LEVELING RING, OR RED BRICK MASONRY 2" MIN. TO 12" MAX.

BUTYL RUBBER GASKET JOINTS PRECAST REINFORCED CONCRETE RISERS AS REQUIRED

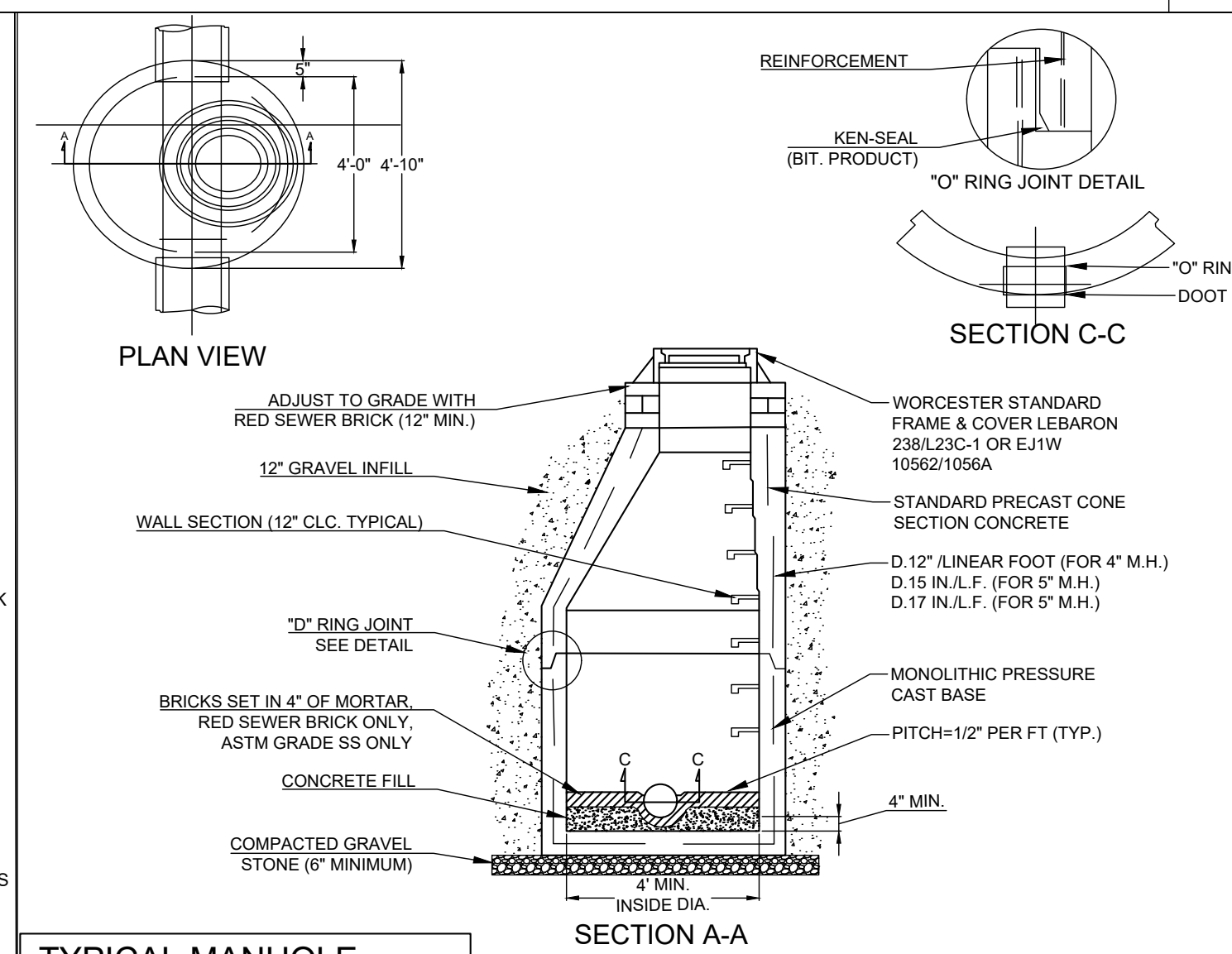
ALL JOINTS TO BE MORTARED SMOOTH AND TIGHT WITH NON SHRINK GROUT (INSIDE & OUTSIDE)

DRAIN PIPE SEE PLAN FOR MATERIAL

3/4" CRUSHED STONE (MASSDOT M2.01.4)

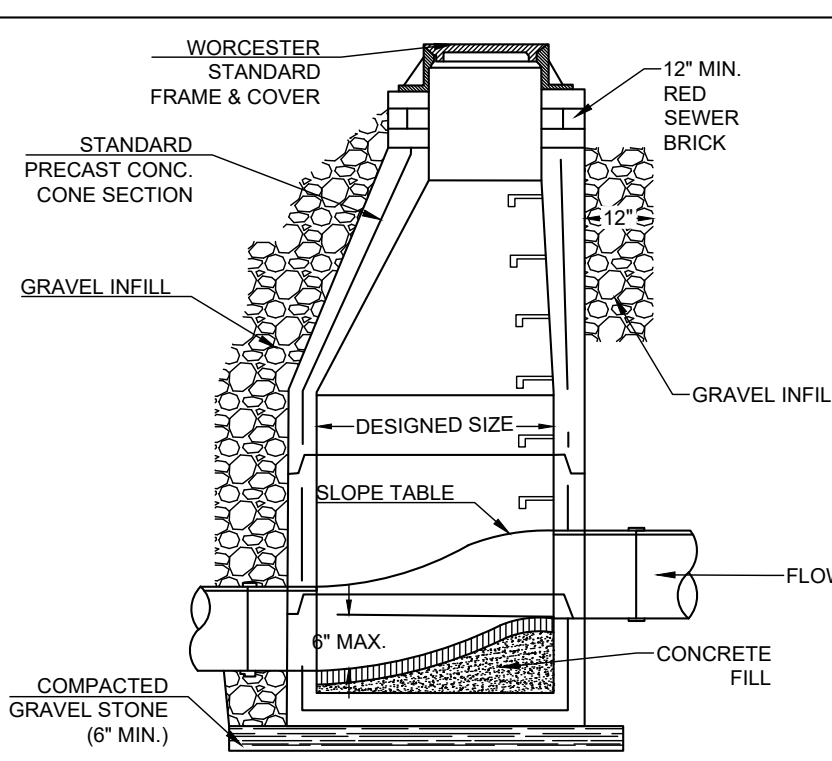
UNDISTURBED OR COMPACTED SUBGRADE

**DRAIN MANHOLE**  
 NOT TO SCALE **A2**



**TYPICAL MANHOLE**

**TYPICAL STEP MANHOLE**



**SANITARY SEWER MANHOLE**  
 NOT TO SCALE **A1**

**PLAN VIEW B-B**  
N.T.S.

**CDS1515-3-C DESIGN NOTES**

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.  
 THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.

**ELEVATION A-A**  
N.T.S.

**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	WATER QUALITY FLOW RATE (CFS OR L/s)	PEAK FLOW RATE (CFS OR L/s)	RETURN PERIOD OF PEAK FLOW (YRS)	SCREEN APERTURE (2400 OR 4700)
	*	*	*	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION: \*

ANTI-FLOTATION BALLAST: WIDTH \* HEIGHT \*

NOTES/SPECIAL REQUIREMENTS:  
 \* PER ENGINEER OF RECORD

**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
- CDS 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.
- STRUCTURE SHALL MEET AASHTO HSD180 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M206 AND BE CAST WITH THE CONTECH LOGO.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

**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.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- 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.

www.contechES.com  
 8025 Centre Pointe Dr., Suite 402, West Chester, OH 45069  
 800-338-1122 513-645-7000 513-645-7993 FAX

**CDS1515-3-C  
 ONLINE CDS  
 STANDARD DETAIL**



TEST BORING LOG SHEET 1									
Soil Exploration Corp. Geotechnical Drilling Groundwater Monitor Well 148 Pioneer Drive Loomis, MA 01453 978 840-0391			Proposed Building Site: 233 Shrewsbury Street Worcester, MA			BORING B-5 PROJECT NO. 17-0647 DATE: June 30, 2017			
Ground Elevation: Date Started: June 29, 2017 Date Finished: June 29, 2017 Driller: TF					GROUNDWATER OBSERVATIONS				
					DATE	DEPTH	CASING	STABILIZATION	
					6/29/17	7 ft	no		
Soil Engineer/Geologist:					Visual Identification of Soil and / or Rock Sample				
Depth Ft.	Casing No.	No.	Probe	Sample Depth	Blow(s)	Strata			
1	1	12"	10' - 30'	4-5-7-6	4"	Asphalt			
						Dark Brown, fine to medium Sand, little gravel, little trace, brick, cinders			
5	2	6"	50' - 70'	4-4-6-6		Sand & Gravel w/ silt, rubble, ash, wet (FILL)			
10	3	10"	100' - 120'	4-4-6-7		Brown, fine to coarse Sand, trace rubble, wet (FILL)			
					12'	Dark Brown, Organic Silt, wood fibers (ORGANIC)			
15	5	12"	150' - 170'	9-8-4-3	15'	Grey, Clay & Silt, little fine sand (FLUVIAL)			
20	6	21"	200' - 220'	WOH-1-1-1	23'				
25	7	18"	250' - 270'	4-5-7-8		Brown, medium to coarse Sand, little gravel, minor silt, wet			
30						End of Boring at 30 ft due to "Running Sand" Water at 8 ft upon completion			
35									

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V, Loose, 4 - 10 Loose, 10 - 30 M Dense, 30 - 50 Dense, 50+ V	Trace 0 to 10%, Little 10 to 20%, Some 20 to 35%, And 35% to 50%	CASING ID SIZE (IN)	SAMPLE SS	CORE TYPE 140 lb. HAMMER WGT (LB) 30"
Cohesive: 0 - 2 V Soft, 2 - 4 Soft, 4 - 8 M, 8 - 15 Stiff, 15 - 30 V, Stiff, 30+ Hard				

TEST BORING LOG SHEET 2									
Soil Exploration Corp. Geotechnical Drilling Groundwater Monitor Well 148 Pioneer Drive Loomis, MA 01453 978 840-0391			Proposed Building Site: 233 Shrewsbury Street Worcester, MA			BORING B-6 (Page 1/2) PROJECT NO. 17-0647 DATE: June 30, 2017			
Ground Elevation: Date Started: June 29, 2017 Date Finished: June 29, 2017 Driller: TF					GROUNDWATER OBSERVATIONS				
					DATE	DEPTH	CASING	STABILIZATION	
					6/29/17	8 ft	no		
Soil Engineer/Geologist:					Visual Identification of Soil and / or Rock Sample				
Depth Ft.	Casing No.	No.	Probe	Sample Depth	Blow(s)	Strata			
1	1	10"	10' - 30'	5-7-8-6	4"	Asphalt			
						Brown, fine to medium Sand, little gravel, little silt			
5	2	6"	50' - 70'	4-5-9-7		Brick, rubble (FILL) Trace cinders, concrete			
10	3	12"	100' - 120'	5-5-6-7		F-c Sand, little gravel, wet (FILL)			
15	4	12"	150' - 170'	2-2-2-3	14'	Organic Silt, fibers (ORGANIC)			
20	5	24"	200' - 220'	WOH-1-1	18'				
25	6	24"	250' - 270'	1-1-1-1		Clay & Silt little some fine sand seams and fine sand layers (FLUVIAL)			
30	7	24"	300' - 320'	WOH-1-1-1					
35	8	24"	350' - 370'	1-1-1-1		Continued			

Notes: Hollow Stem Auger Size - 4 1/4"


Cohesionless: 0 - 4 V, Loose, 4 - 10 Loose, 10 - 30 M Dense, 30 - 50 Dense, 50+ V	Trace 0 to 10%, Little 10 to 20%, Some 20 to 35%, And 35% to 50%	CASING ID SIZE (IN)	SAMPLE SS	CORE TYPE 140 lb. HAMMER WGT (LB) 30"
Cohesive: 0 - 2 V Soft, 2 - 4 Soft, 4 - 8 M, 8 - 15 Stiff, 15 - 30 V, Stiff, 30+ Hard				

TEST BORING LOG SHEET 3									
Soil Exploration Corp. Geotechnical Drilling Groundwater Monitor Well 148 Pioneer Drive Loomis, MA 01453 978 840-0391			Proposed Building Site: 233 Shrewsbury Street Worcester, MA			BORING B-6 (page 2/2) PROJECT NO. 17-0647 DATE: June 30, 2017			
Ground Elevation: Date Started: June 29, 2017 Date Finished: June 29, 2017 Driller: TF					GROUNDWATER OBSERVATIONS				
					DATE	DEPTH	CASING	STABILIZATION	
					6/29/17	8 ft	no		
Soil Engineer/Geologist:					Visual Identification of Soil and / or Rock Sample				
Depth Ft.	Casing No.	No.	Probe	Sample Depth	Blow(s)	Strata			
40									
45	9	24"	450' - 470'	1-1-2-2		Clay & Silt little fine sand seams and fine sand layers (FLUVIAL)			
50	10	24"	500' - 520'	1-1-2-3					
55	11	12"	550' - 570'	11-16-17-22	54'	Grey, fine to medium Sand, some gravel, some silt, cobble (GLACIAL)			
60	12	10"	600' - 620'	17-25-29-43		weathered rock at bottom			
65						End of Boring at 62 ft Water at 8 ft upon completion			
70									
75									

Notes: Hollow Stem Auger Size - 4 1/4"

Cohesionless: 0 - 4 V, Loose, 4 - 10 Loose, 10 - 30 M Dense, 30 - 50 Dense, 50+ V	Trace 0 to 10%, Little 10 to 20%, Some 20 to 35%, And 35% to 50%	CASING ID SIZE (IN)	SAMPLE SS	CORE TYPE 140 lb. HAMMER WGT (LB) 30"
Cohesive: 0 - 2 V Soft, 2 - 4 Soft, 4 - 8 M, 8 - 15 Stiff, 15 - 30 V, Stiff, 30+ Hard				

BORING LOG 225 SHREWSBURY STREET  
NOT TO SCALE **B1**



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980 WASHINGTON STREET  
SUITE 212  
DORHAM, MA 02030  
www.HighpointEng.com

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CLIENT:  
**LUNDGREN EQUITY PARTNERS**  
163 Washington Street  
Auburn, MA 01501

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CONSULTANT:

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SEAL

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**DCU/RETAIL EXPANSION PROJECT**

225 SHREWSBURY STREET  
WORCESTER, MA

OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

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REV	DATE	DESCRIPTION

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ISSUE TYPE:  
**PERMIT**

ISSUE DATE:  
**11/07/2024**

PROJECT NUMBER:  
**24009**

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DRAWN BY: AUA  
CHECKED BY: DJH/DTB

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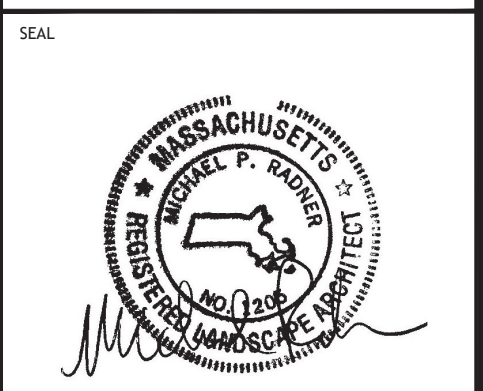
SHEET TITLE:  
**TEST BORING LOGS SHEET 2**

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SHEET NUMBER:  
**C601**

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ISSUED FOR : PERMIT



**DCU/RETAIL EXPANSION PROJECT**

225 SHREWSBURY STREET  
 WORCESTER, MA

OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

ISSUE TYPE:  
**PERMIT**

ISSUE DATE:  
**11/07/2024**

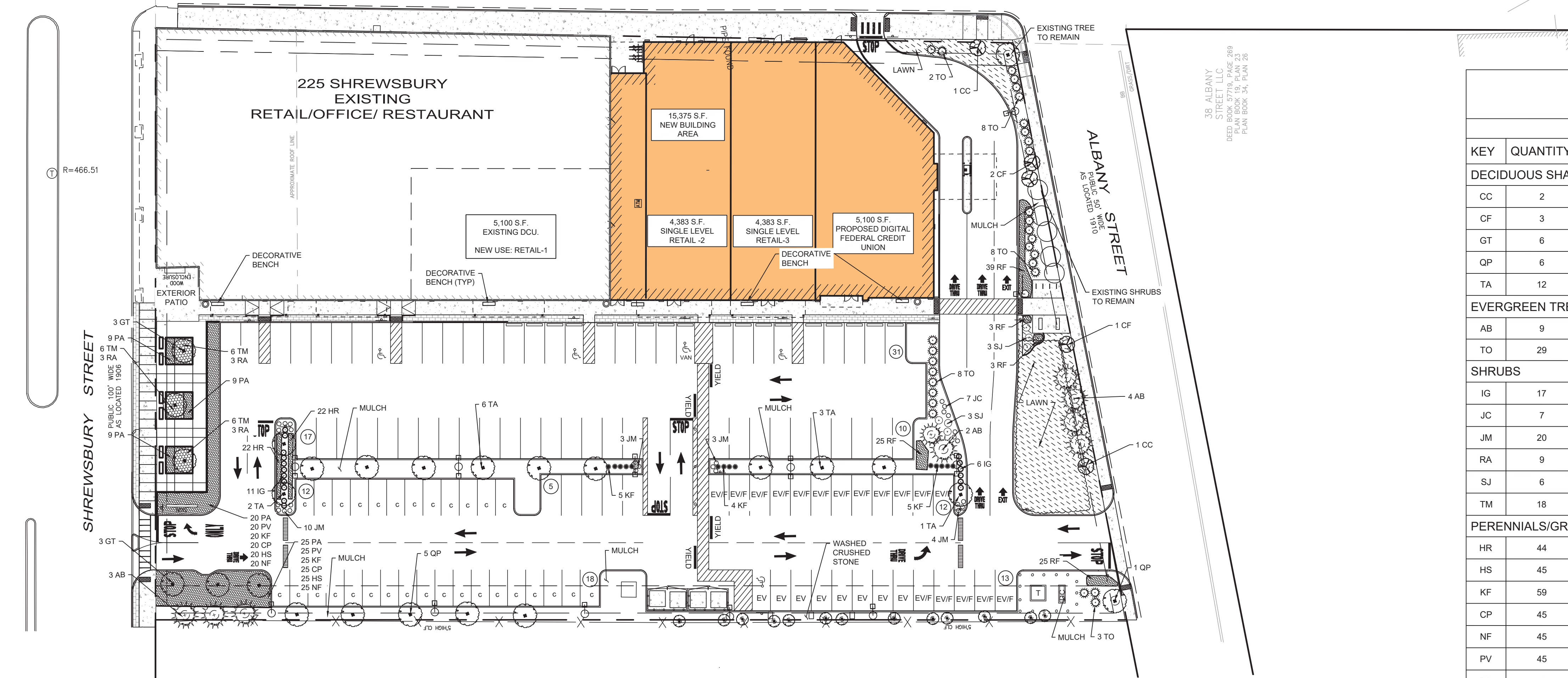
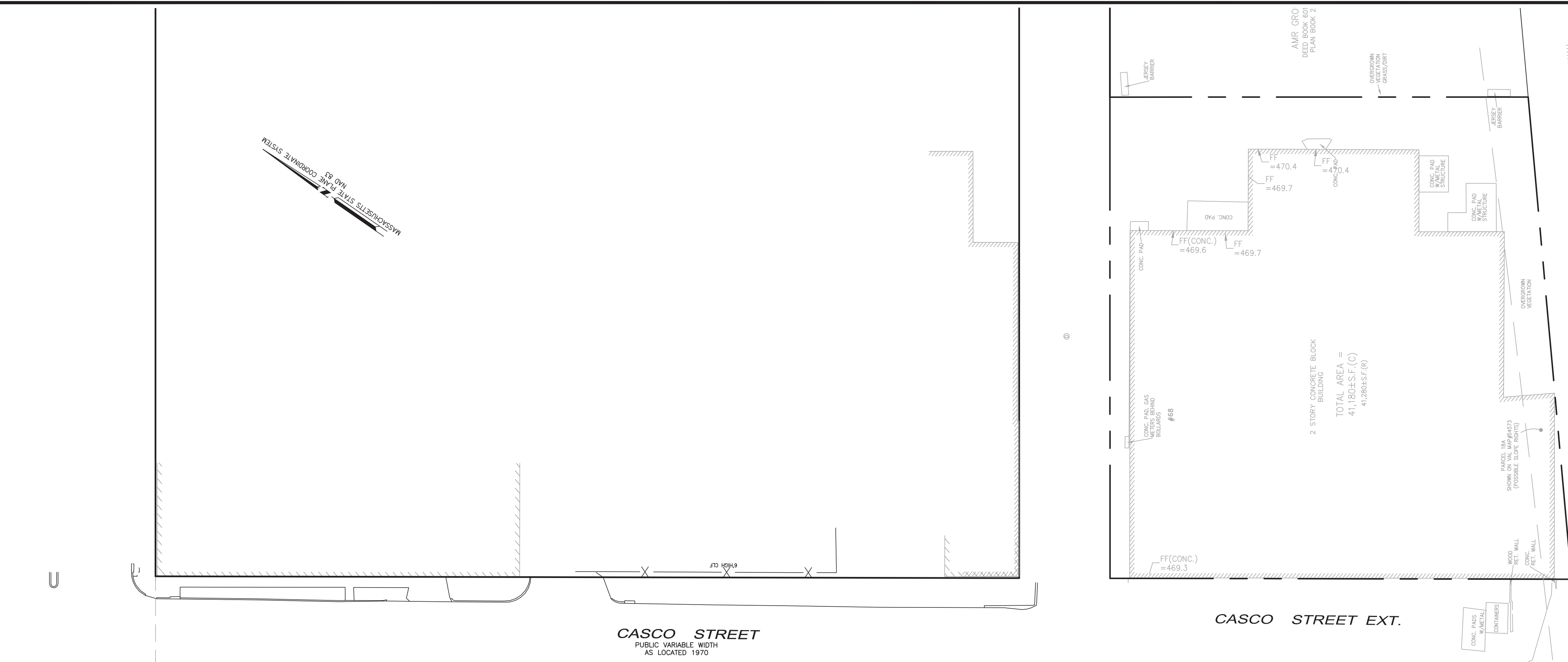
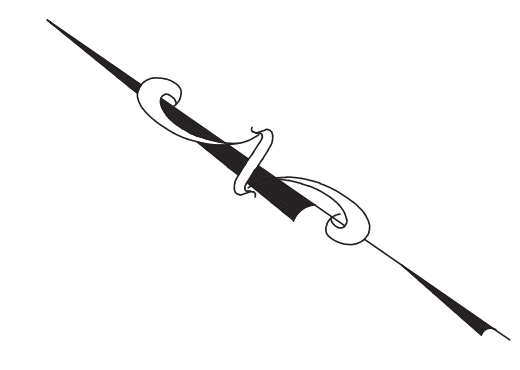
PROJECT NUMBER:  
**24009**

DRAWN BY: CM  
 CHECKED BY: DTB/DJH  
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**LANDSCAPE PLAN**

SHEET NUMBER:  
**L100**

ISSUED FOR : PERMIT



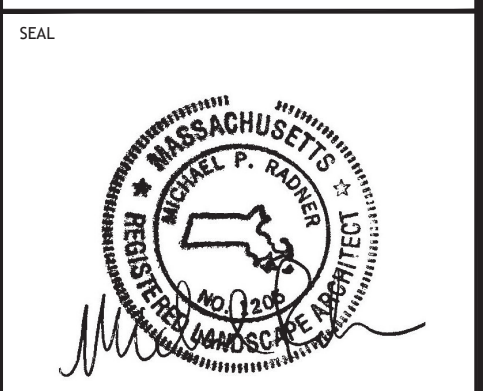
**SITE PLANT LIST**

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	COMMENT
<b>DECIDUOUS SHADE TREES / FLOWERING TREES</b>					
CC	2	CERCIS CANADENSIS	EASTERN REDBUD	3.0"-3.5" CAL	NATIVE-ALB/EAB
CF	3	CORNUS FLORIDA 'CHEROKEE DAYBREAK'	CHEROKEE DAYBREAK FLOWERING DOGWOOD	3.0"-3.5" CAL	NATIVE -ALB/EAB
GT	6	GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE'	SKYLINE HONEYLOCUST	3.0"-3.5" CAL	NATIVE -ALB/EAB
QP	6	QUERCUS PALUSTRIS	PIN OAK	3.0"-3.5" CAL	NATIVE-ALB/EAB
TA	12	TILIA AMERICANA	AMERICAN LINDEN/BASWOOD	3.0"-3.5" CAL.	NATIVE
<b>EVERGREEN TREES</b>					
AB	9	ABIES CONCOLOR	WHITE FIR	8'-10' HT	NATIVE-ALB/EAB
TO	29	THUJA OCCIDENTALIS 'AMERICAN PILLAR'	AMERICAN PILLAR ARBORVITAE	6'-8' HT	NATIVE-ALB/EAB
<b>SHRUBS</b>					
IG	17	ILEX GLABRA 'SHAMROCK'	INKBERRY	24"-30" HT	POT/NATIVE
JC	7	JUNIPERUS COMMUNIS 'SMNJCB'	TORTUGA JUNIPER	18"-24" SPREAD	POT/NATIVE
JM	20	JUNIPERUS X MEDIA 'DAUB'S FROSTED'	DAUB'S FROSTED JUNIPER	18"-24" SPREAD	POT
RA	9	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	18"-24" HT	POT
SJ	6	SPIRAEA JAPONICA 'FLAMING MOUND'	FLAMING MOUND SPIRAEA	18"-24" SPREAD	POT
TM	18	TAXUS X MEDIA 'DENSIFORMIS'	DENSE SPREADING YEW	24"-30" HT	POT
<b>PERENNIALS/GRASSES</b>					
HR	44	HEMEROCALLIS 'ROSY RETURNS'	ROSY RETURN DAYLILLY	#2	STAGGERED
HS	45	HEMEROCALLIS 'STELLA D'ORO'	STELLA D'ORO DAYLILY	#1	24" O.C.
KF	59	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#3	AS SHOWN
CP	45	COMPTONIA PEREGRINA	SWEETFERN	#2	30" O.C. NATIVE
NF	45	NEPETA X FAASSENII 'CAT'S MEOW'	CAT'S MEOW NEPETA	#1	24" O.C.
PV	45	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCHGRASS	#2	36" O.C. NATIVE
PA	72	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	#2	30" O.C.
RF	95	RUDBECKIA FULGIDA 'GOLDSTRUM'	GOLDSTRUM CONEFLOWER	#2	NATIVE

\* ALB/EAB = ASIAN LONGHORN BEETLE AND EMERALD BORER RESISTANT SPECIES

CLIENT:  
LUNDGREN EQUITY PARTNERS  
163 Washington street  
Auburn, MA 01501

CONSULTANT:  
MICHAEL P. BARKER  
PROFESSIONAL LANDSCAPE ARCHITECT  
NO. 1234  
MASSACHUSETTS REG. PROFESSIONAL LANDSCAPE ARCHITECT



**DCU/RETAIL EXPANSION PROJECT**  
225 SHREWSBURY STREET  
WORCESTER, MA

OWNER/APPLICANT: LUNDGREN EQUITY PARTNERS

### LANDSCAPE NOTES

ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF WORCESTER, MA. ALL PLANTING SHALL COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK.

PLANTING PLAN IS DIAGRAMMATIC IN NATURE. FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, ANY PERMITTING AGENCIES, AND "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS IN ADVANCE OF ANY WORK THAT WILL REQUIRE EXCAVATION. CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY CONFLICTS IN WRITING.

NO PLANT MATERIAL SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. ANY TREES NOTED AS "SEAL" OR "SELECTED SPECIMEN" SHALL BE TAGGED AND SEALED BY THE LANDSCAPE ARCHITECT.

ALL TREES SHALL BE BALLED AND BURLAPPED (8&8) UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT.

CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT LIST. QUANTITIES SHOWN ON PLANS SHALL GOVERN OVER PLANT LIST.

ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.

ALL PLANT MATERIALS INSTALLED SHALL MEET THE GUIDELINES ESTABLISHED BY THE STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE.

ALL DISTURBED AREAS NOT OTHERWISE NOTED SHALL RECEIVE 6" OF SUITABLE LOAM & SEED LAWNS WITH 3:1 OR GREATER SLOPES SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET.

ANY FALL TRANSPLANTING HAZARD PLANTS SHALL BE DUG IN THE SPRING AND STORED FOR FALL PLANTING.

TREES SHALL HAVE A MINIMUM CALIPER AS INDICATED ON THE PLANTING SCHEDULE TAKEN ONE FOOT ABOVE THE ROOT CROWN.

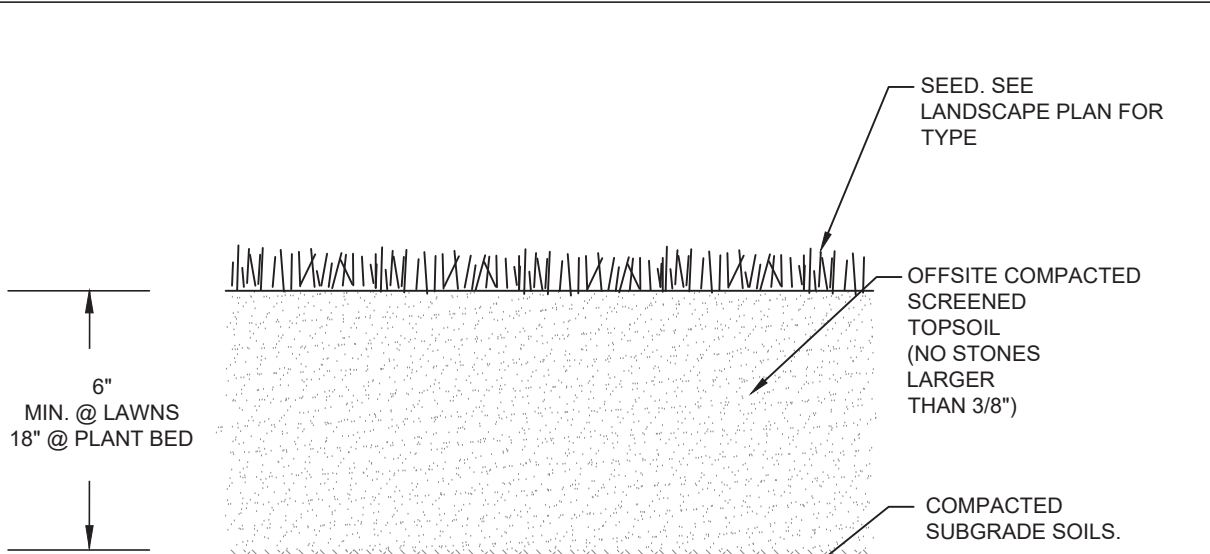
ALL PLANT BEDS AND TREE SAUCERS TO RECEIVE 3" OF PINE BARK MULCH. GROUND COVER AREAS SHALL RECEIVE 1" OF PINE BARK MULCH.

ALL DECIDUOUS TREES ADJACENT TO WALKWAYS AND ROADWAYS SHALL HAVE A BRANCHING PATTERNS TO ALLOW FOR A MINIMUM OF 7' OF CLEARANCE BETWEEN THE GROUND AND THE LOWEST BRANCH.

ALL TREE STAKES SHALL BE STAINED DARK BROWN.

CONTRACTOR RESPONSIBLE FOR WATERING, AND RESEEDING OF BARE SPOTS UNTIL A UNIFORM STAND OF VEGETATION IS ESTABLISHED AND ACCEPTED.

ALL LANDSCAPE AREAS WITH SHRUBS, TREES AND PERENNIALS TO HAVE 18" MINIMUM DEPTH OF TOPSOIL. THE 18" OF TOPSOIL AROUND TREES AND SHRUBS DOES NOT INCLUDE AMENDED PLANTING SOIL WITHIN TREE/SHRUB PIT FOR FULL DEPTH OF ROOTBALLS. SEE PLANTING DETAILS FOR PLANTING DEPTH AT SHRUBS AND TREES. ALL AREAS OF LOAM AND SEED TO HAVE A MINIMUM OF 6" DEPTH OF TOPSOIL. TOPSOIL TO BE TESTED BY CONTRACTOR AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND OR PLACEMENT. GENERAL CONTRACTOR, DEMOLITION CONTRACTOR, AND LANDSCAPE CONTRACTOR TO COORDINATE PROPER DEPTH OF EXISTING MATERIAL REMOVAL ACROSS THE SITE SO THAT 18" MINIMUM AND 6" MINIMUM DEPTHS OF PROPOSED TOPSOIL NOTED ABOVE ARE MET AT NO ADDITIONAL COST TO THE OWNER. SEE TOPSOIL DETAIL.



TEXTURE CLASS	% OF TOTAL WEIGHT
SAND	45% - 65%
SILT	15% - 35%
CLAY	5% - 20%

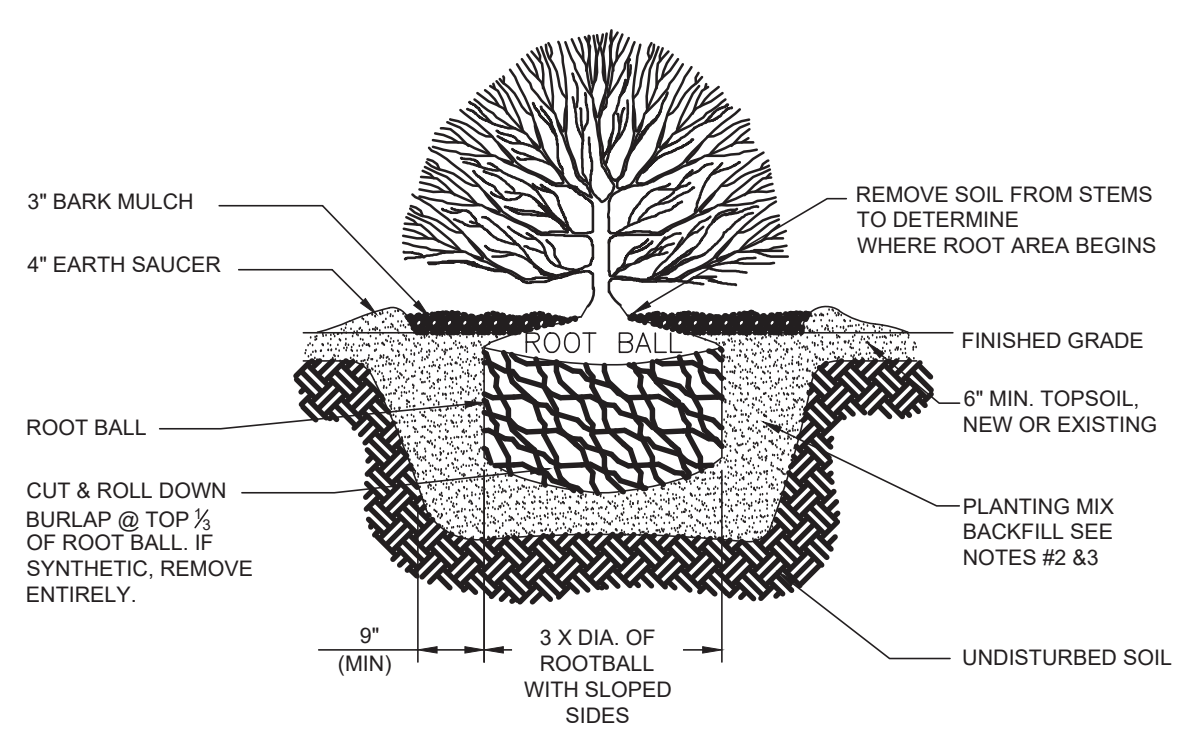
  

SIEVE	% PASSING
3/8"	100
NO. 4	85-100
NO. 40	60-85
NO. 100	38-60
NO. 200	10-35
20 um	LESS THAN 5%

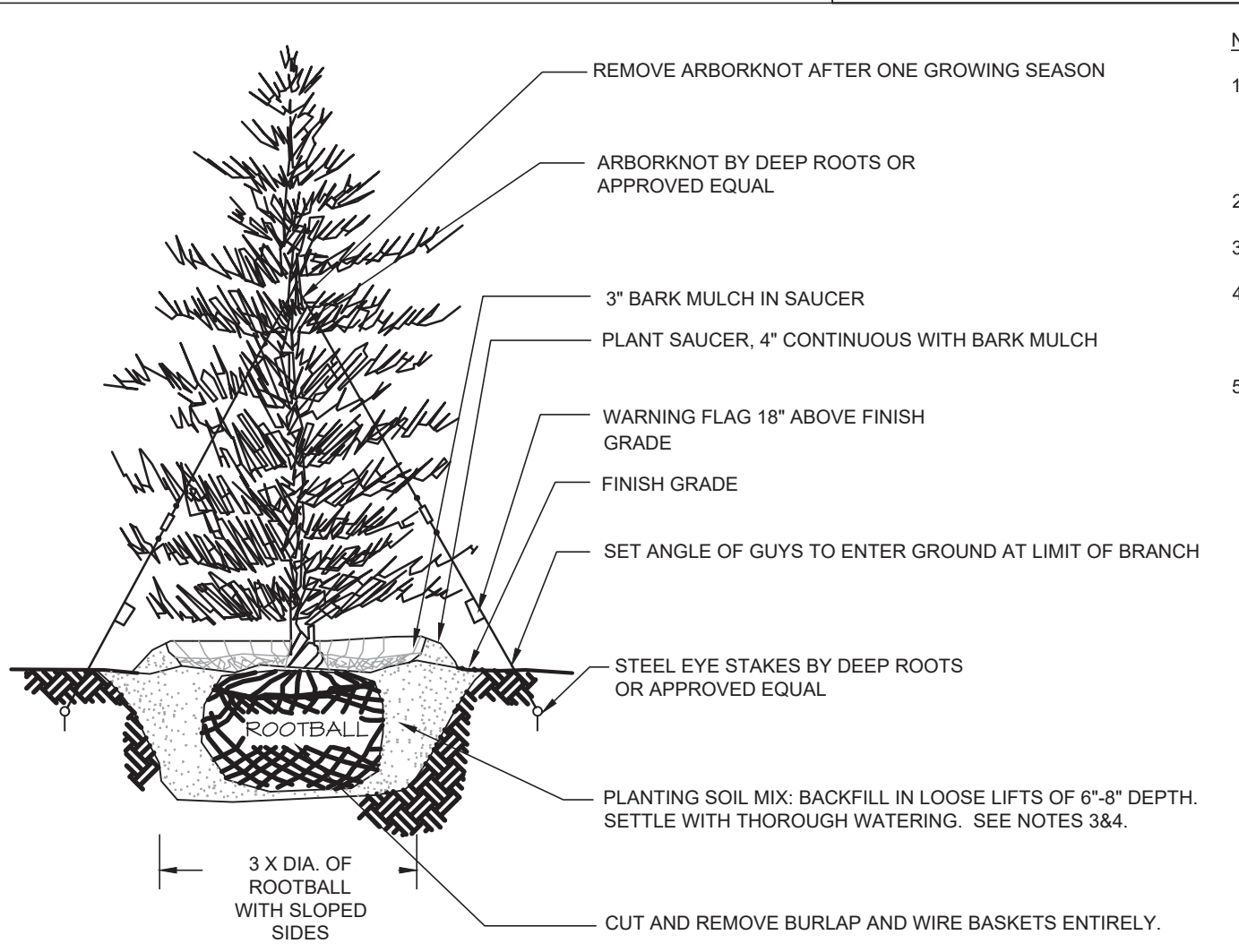
- NOTES:
- 1. TOP OF LOAM (TOPSOIL) IS FINISH GRADE.
  - 2. ALL TOPSOIL (BOTH ONSITE AND OFFSITE SOURCES) SHALL BE COMPOSED OF A NATURAL, FERTILE, FRABLE SOIL TYPICAL OF CULTIVATED TOPSOILS OF THE LOCALITY. OFFSITE SOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND SUPPORT OF VEGETATIVE GROWTH. WITH ADDITIVES, IF REQUIRED, TO ACHIEVE PARTICLE DISTRIBUTION AND ORGANIC CONTENT BELOW. TOPSOIL SHALL BE TAKEN FROM A WELL-DRAINED, ARIABLE SITE. FREE OF SUBSOIL, LARGE STONES, EARTH CLOUDS, STICKS, STUMPS, CLAY LUMPS, ROOTS, OTHER OBJECTIONABLE, EXTRANEOUS MATTER OR DEBRIS NOR CONTAIN TOXIC SUBSTANCES.
  - 3. THE CONTRACTOR SHALL PROVIDE THE OWNER / LANDSCAPE ARCHITECT WITH TOPSOIL TEST RESULTS (RECOMMEND UNASS AMHERST SOIL TESTING LAB) FOR APPROVAL PRIOR TO OBTAINING AND PLACING THE SOIL. IF ANY TOPSOIL IS PURCHASED OR PLACED PRIOR TO APPROVAL BY OWNER / LANDSCAPE ARCHITECT, IT IS AT CONTRACTORS RISK, AND IT CAN BE REMOVED AT NO ADDITIONAL COST TO THE OWNER. IF THE PLANTING SOIL (BOTH ONSITE AND OFFSITE SOURCES) DOES NOT FALL WITHIN THE REQUIRED SIEVE ANALYSIS, TEXTURAL CLASS, ORGANIC CONTENT, OR PH RANGE, IT SHALL BE ADJUSTED TO MEET THE SPECIFICATIONS THROUGH THE ADDITION OF SAND, COMPOST, LIMESTONE, OR ALUMINUM SULFATE TO BRING IT WITHIN THE SPECIFIED LIMITS AT NO ADDITIONAL COST TO THE OWNER.
  - 4. TOPSOIL SHALL HAVE A PH VALUE BETWEEN 5.5 AND 6.5. TOPSOIL SHALL CONTAIN 8% ORGANIC MATTER OF TOTAL DRY WEIGHT AND SHALL CONFORM TO THE FOLLOWING GRADATION AND TEXTURE CLASS ABOVE.

**TOP SOIL FOR LAWN, TREES, SHRUBS & PERENNIALS NOT TO SCALE A2**

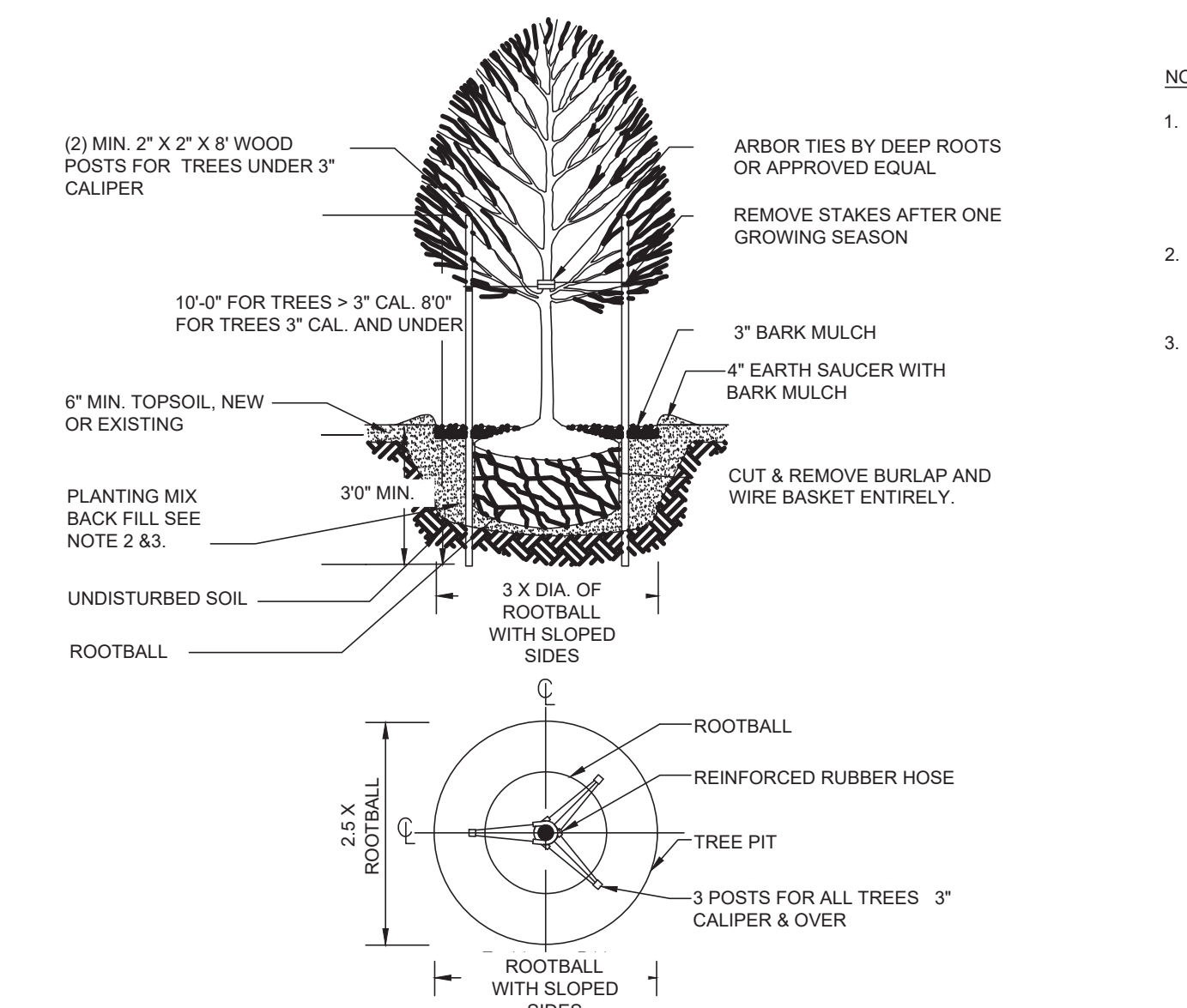
- NOTES:
- 1. ALL SHRUBS SHALL HAVE THE SAME RELATIONSHIP TO FINISH GRADE AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY SETTING. SET SHRUB 1" ABOVE FINISH GRADE.
  - 2. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND.
  - 3. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.
  - 4. SHRUB BEDS TO HAVE 24" MIN. OF CONTINUOUS PLANTING SOIL.



**SHRUB PLANTING DETAIL NOT TO SCALE C1**



**EVERGREEN TREE DETAIL NOT TO SCALE B1**



**DECIDUOUS TREE DETAIL NOT TO SCALE A1**

### LOAM AND SEEDING NOTES:

CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER MATERIALS, AND AT AREAS SHOWN ON THE PLAN PER SPECIFICATIONS BELOW

SCIENTIFIC NAME	COMMON NAME	PROPORTION BY WEIGHT	PERCENT PURITY	PERCENT GERMINATION
FESTUCA RUBRA	CREEPING RED FESCUE	37%	95%	90%
PAO PRAENTENSIS 'BARON'	BARON KENTUCKY BLUEGRASS	40%	85%	90%
LOLUM PERENNE 'PALMER'	PALMER PERENNIAL RYEGRASS	15%	95%	90%
FESTUCA RUBRA COMMUTATA WILMA	WILMA CHEWINGS	8%	95%	80%

- 1. SEED TO BE SPREAD AT MINIMUM RATE OF 5 LBS. PER 1000 SQ. FT.
- 2. SEEDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RESEEDING OF BARE SPOTS. IF UNABLE TO SEED WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS. ADD SOIL STABILIZER FLUX TERRA HP-FGM SOIL STABILIZER AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE). AT NO ADDITIONAL COST TO THE OWNER, CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER.
- 3. COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE SPREAD AT THE RATE OF 100 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIZING SOURCES OF UREA-FORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.
- 4. LAWN AREAS TO BE SEED BY SOWING EVENLY WITH AN APPROVED MECHANICAL SEEDER AT THE RATE OF TEN POUNDS PER 1000 SQUARE FEET.
- 5. CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RESEEDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.

- NOTES:
- 1. ALL TREES SHALL HAVE THE SAME RELATIONSHIP TO FINISH GRADE AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY SETTING. ROOT FLARE SHALL BE 2" ABOVE FINISH GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL ROOTBALL AREA.
  - 2. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND.
  - 3. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.

REV	DATE	DESCRIPTION

ISSUE TYPE:  
**PERMIT**

ISSUE DATE:  
**11/07/2024**

PROJECT NUMBER:  
**24009**

DRAWN BY: CM  
CHECKED BY: DTB/DJH

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SHEET TITLE:  
**LANDSCAPE DETAILS PLAN**

SHEET NUMBER:  
**L101**

ISSUED FOR : PERMIT



SHREWSBURY STREET PERSPECTIVE




REV	DATE	DESCRIPTION
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ISSUE TYPE:  
PERMIT

ISSUE DATE:  
11/07/2024

PROJECT NUMBER:  
24009

DRAWN BY:  
CHECKED BY:

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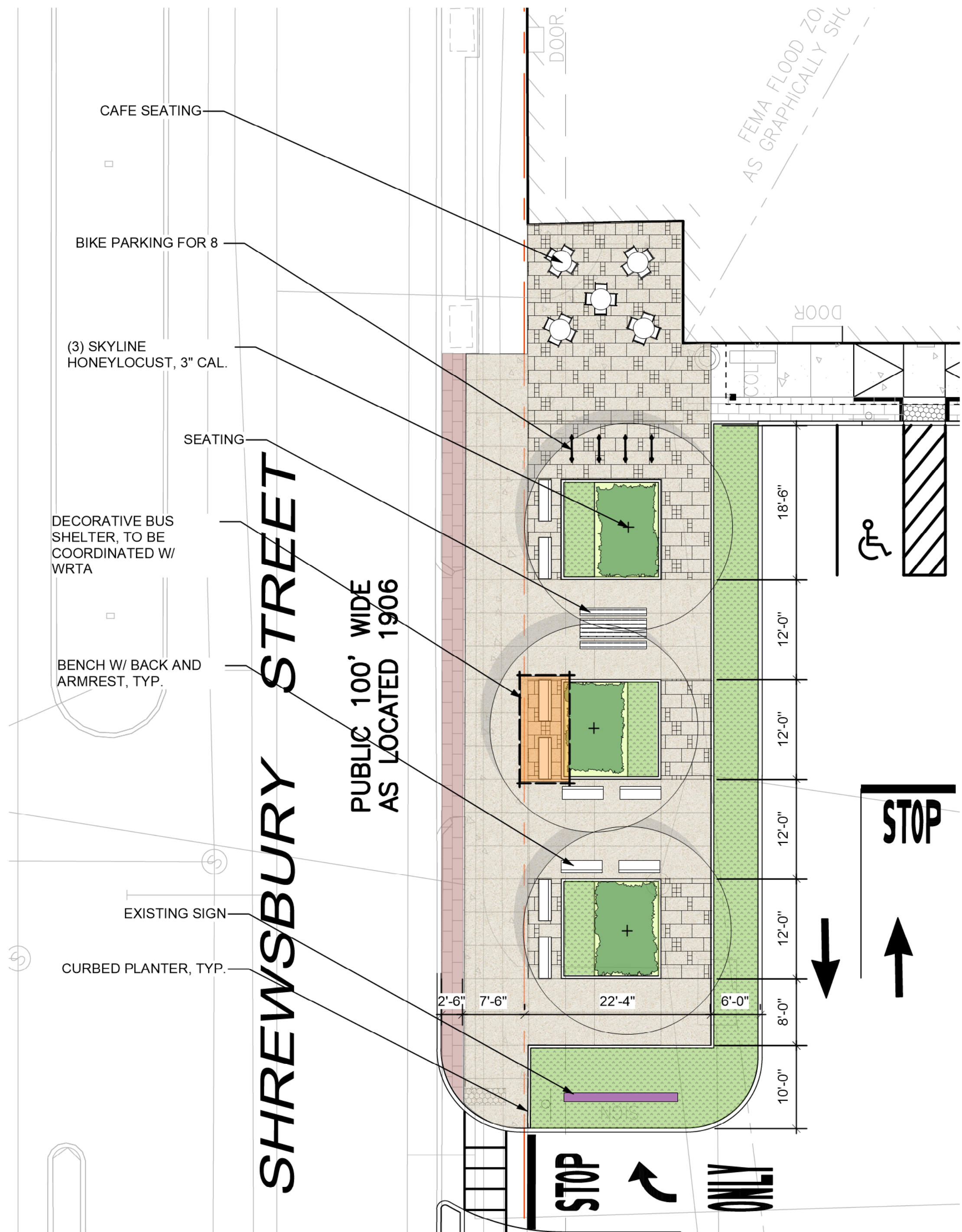
SHEET TITLE:

LANDSCAPE  
INSERT PLAN





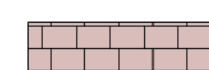
SHEET NUMBER:

L102

ISSUED FOR: PERMIT



LEGEND:

-  C.I.P. CONCRETE SIDEWALK
-  SPECIALTY PAVING
-  SHRUB BED - MATURE PLANT HEIGHT 2'
-  PERENNIAL/ORNAMENTAL GRASSES BED - MATURE PLANT HEIGHT 2'-5'
-  BRICK BAND

STREET TREE



Skyline Honeylocust  
*Gleditsia triacanthos f. inermis*  
'Skycole'

SHRUB BED - MATURE PLANT HEIGHT 2'



Dense Spreading Yew  
*Taxus x media 'Densiformis'*



Sweetfern  
*Comptonia peregrina*



Gro-Low Sumac  
*Rhus aromatica 'Gro-Low'*

PERENNIAL/ORNAMENTAL GRASSES BED - MATURE PLANT HEIGHT 2'-5'



Heidebraut Moor Grass  
*Molinia caerulea subsp. caerulea*  
'Heidebraut'



Fountain Grass  
*Pennisetum alopecuroides*



Shenandoah Switchgrass  
*Panicum virgatum 'Shenandoah'*



Feather Reed Grass  
*Calamagrostis acutiflora 'Karl Foerster'*



Stella D'Oro Daylily  
*Hemerocallis 'Stella D'Oro'*



Walker's Low Nepeta  
*Nepeta x faassenii 'Walker's Low'*

