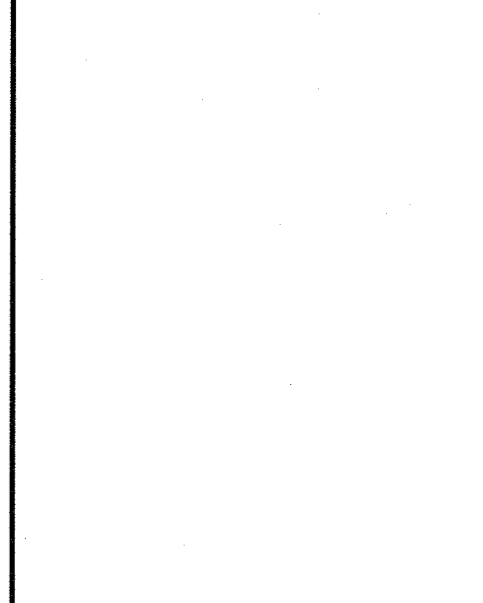


NO	DATE	REVISIONS
1	06/21/2021	PERMIT SUBMISSION
2	09/13/2021	RESPONSE TO COMMENTS

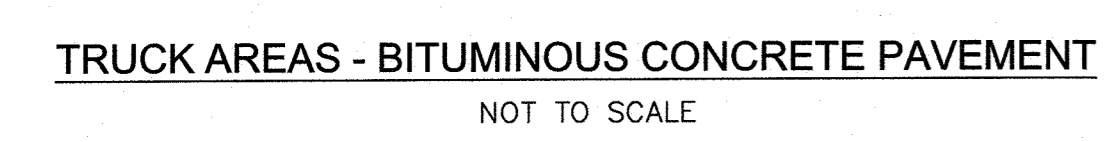
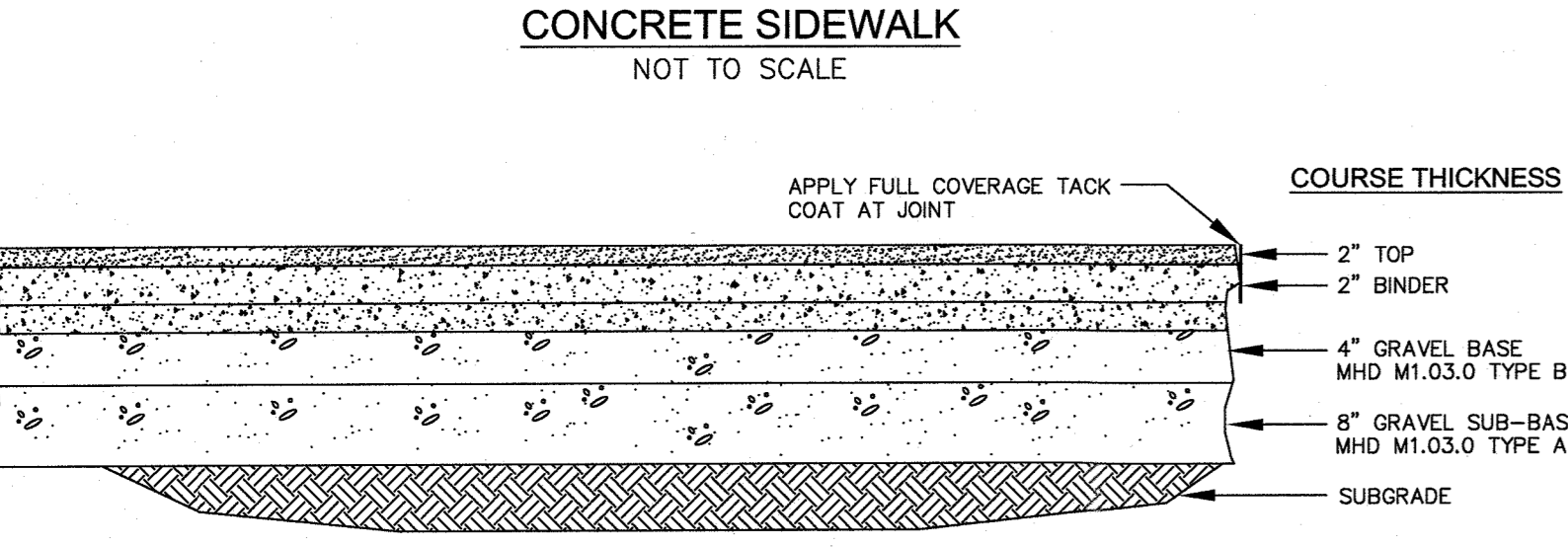
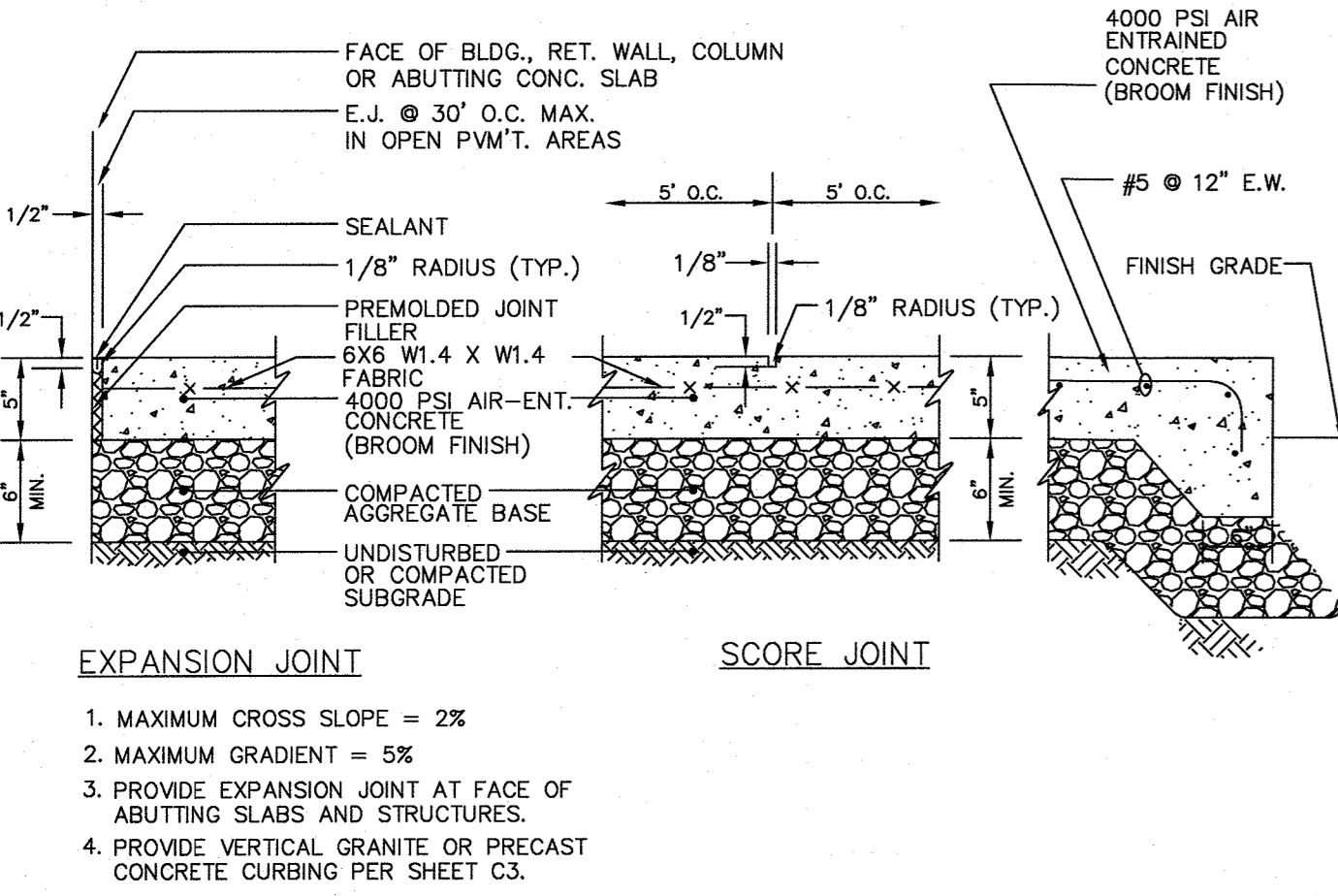
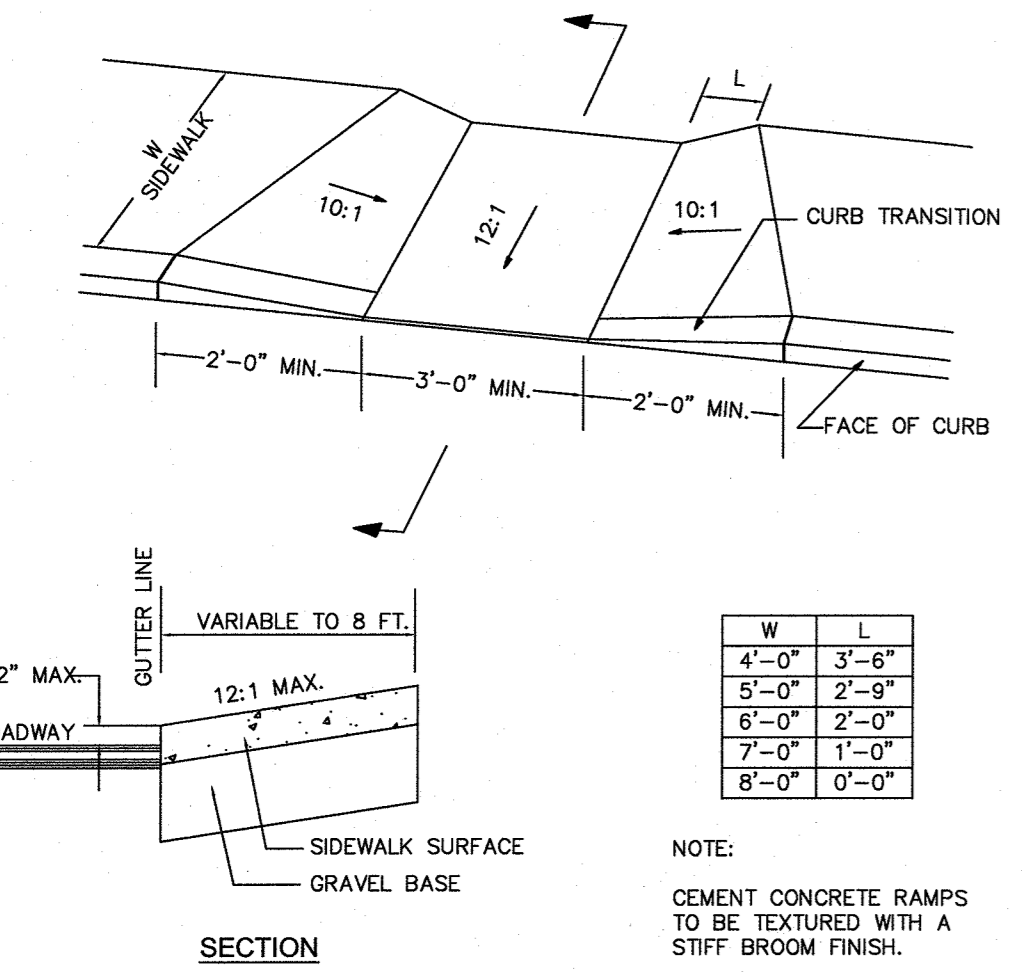
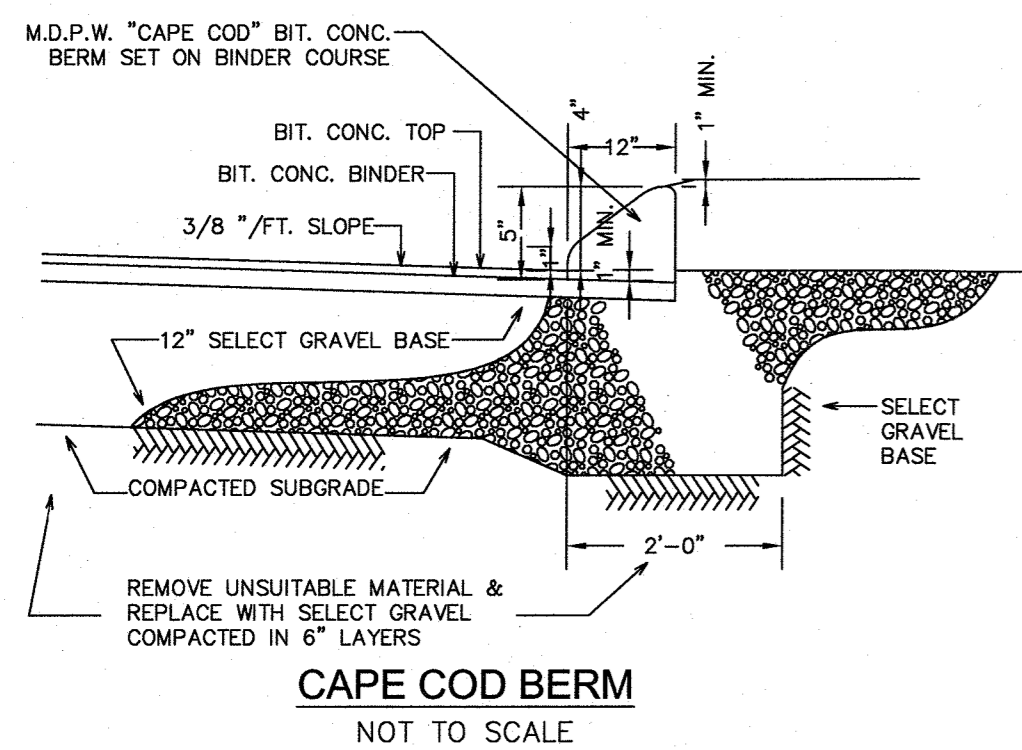
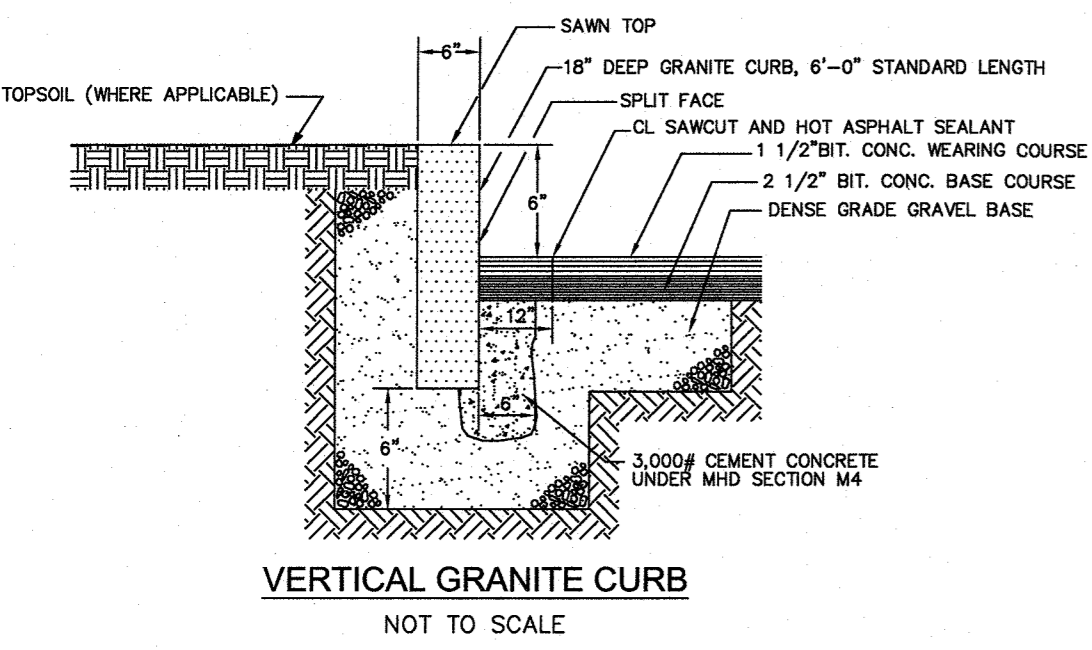
DATE: JUNE 21, 2021
 DRAWN: DRC
 SCALE: 1" = 20"



THE ENGINE YARD
 COMMERCIAL/RESIDENTIAL REUSE
 PARCEL ID 279-181-000-000
 40 ALPINE ROW
 FRANKLIN, MASSACHUSETTS

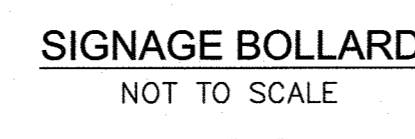
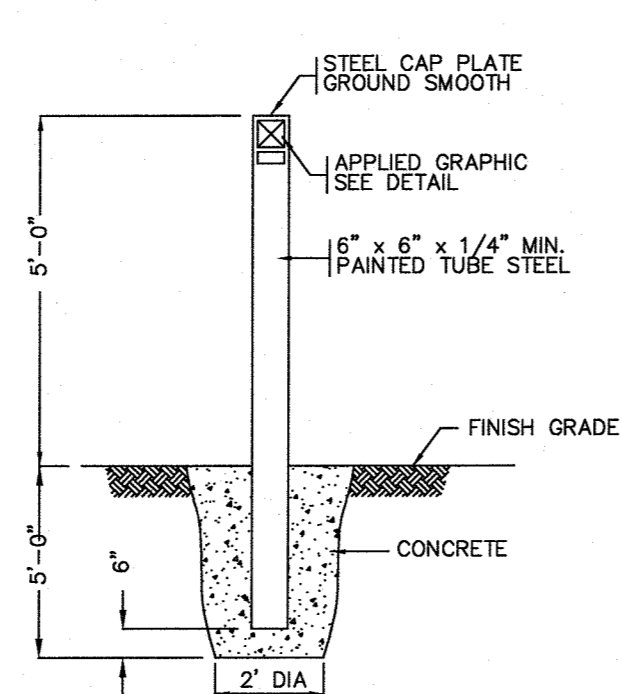
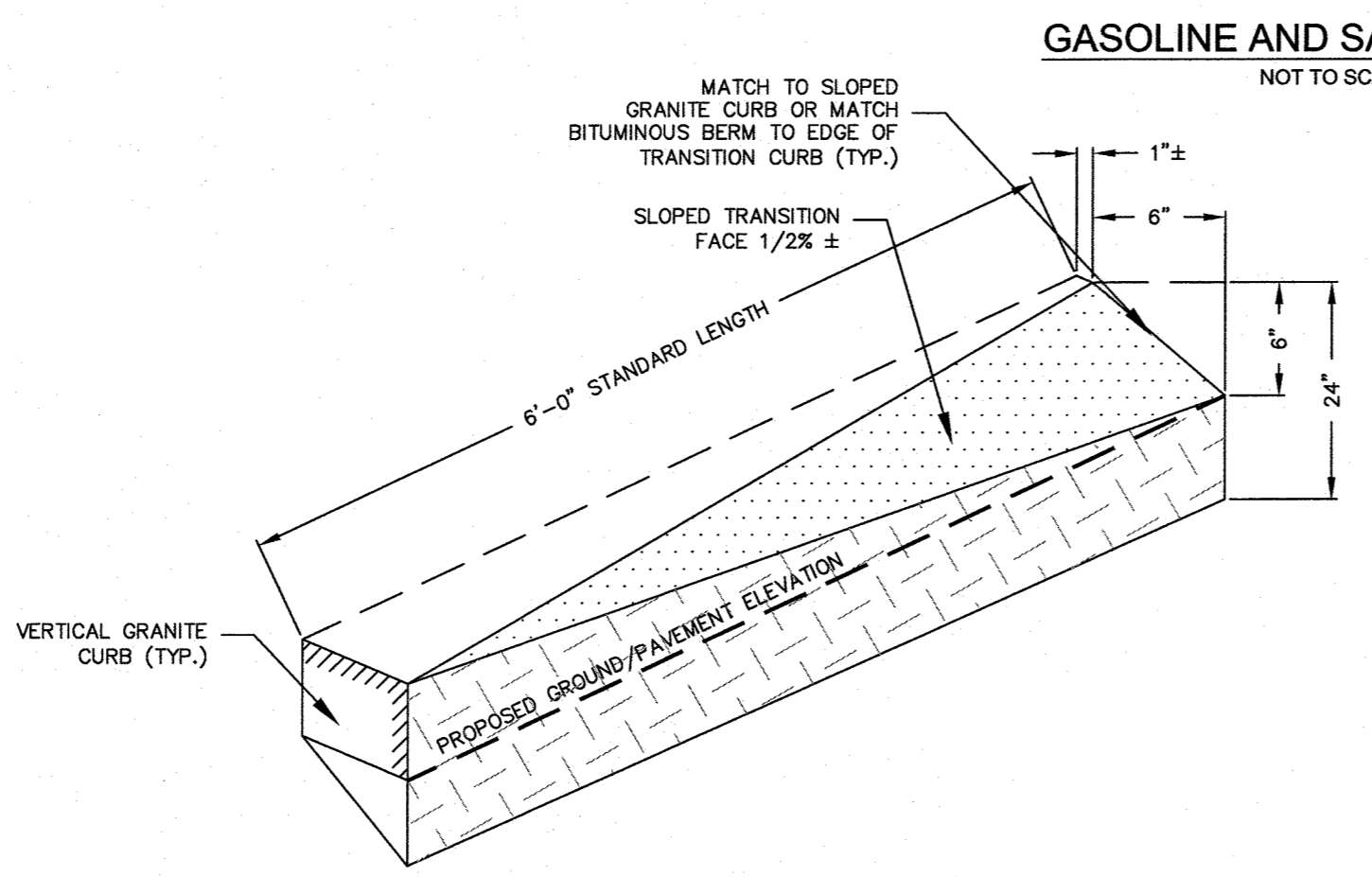
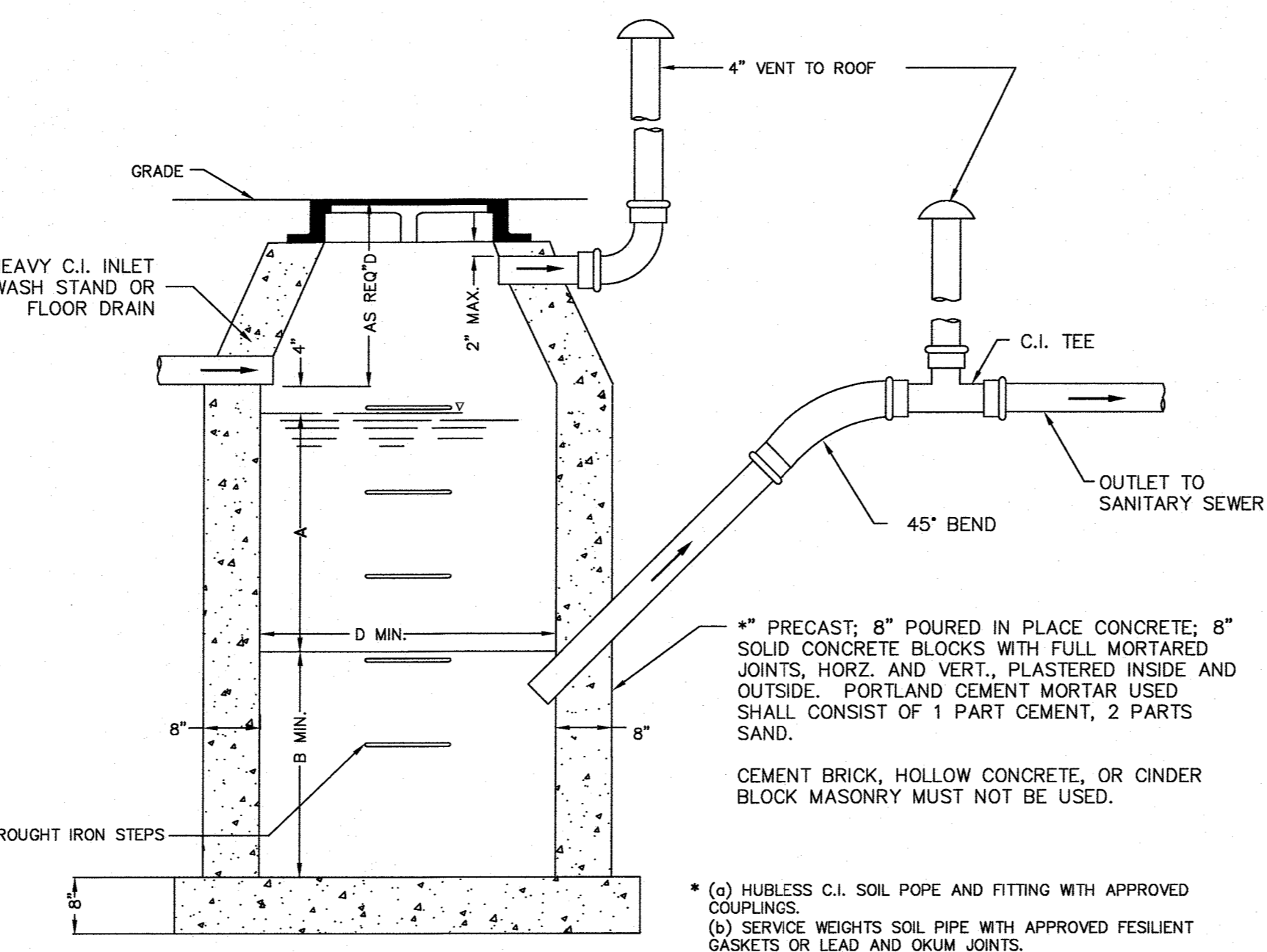
LEVEL
 CIVIL ENGINEERING / LAND SURVEYING
 249 SOUTH STREET
 UNIT 1
 PLAINVILLE, MA 02762
 TEL. (508) 895-2221 FAX. (508) 895-2219

TYPICAL DETAILS
C-4.0
 SHEET 6 OF 7
1880.00



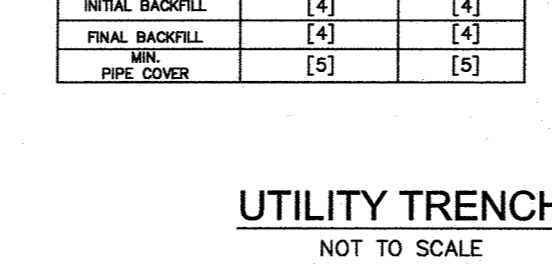
INLET	D	A	B
4"	3'-6"	3'-0"	2'-6"
5"	3'-6"	5'-0"	4'-0"
	3'-6" x 3'-6"	4'-0"	3'-0"
	4'-0" x 4'-0"	3'-6"	3'-0"
	4'-0" x 4'-0"	3'-0"	2'-6"
6"	4'-0"	5'-0"	4'-6"
	4'-0" x 4'-0"	4'-0"	3'-6"
	4'-0" x 4'-0"	4'-0"	3'-6"
	4'-6" x 4'-6"	3'-6"	3'-0"
	5'-0" x 5'-0"	3'-0"	2'-6"
8"	5'-0"	6'-0"	5'-0"
	5'-6" x 5'-6"	4'-6"	4'-0"
	6'-0" x 6'-0"	4'-0"	3'-6"
	6'-0" x 6'-0"	3'-0"	2'-6"
	6'-6" x 6'-6"	3'-6"	3'-0"
	6'-6" x 6'-6"	3'-0"	2'-6"

NOTE:
 FOR INLETS LARGER THAN 10" THE DESIGN AND DIMENSIONS WILL BE DETERMINED FOR EACH PARTICULAR CASE

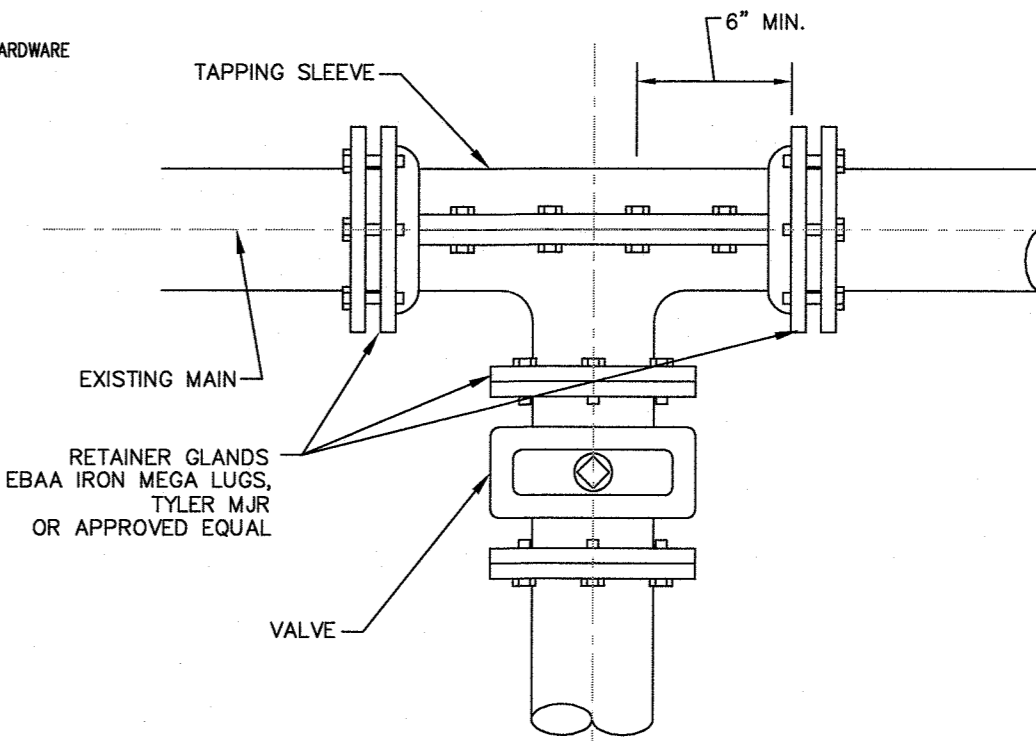
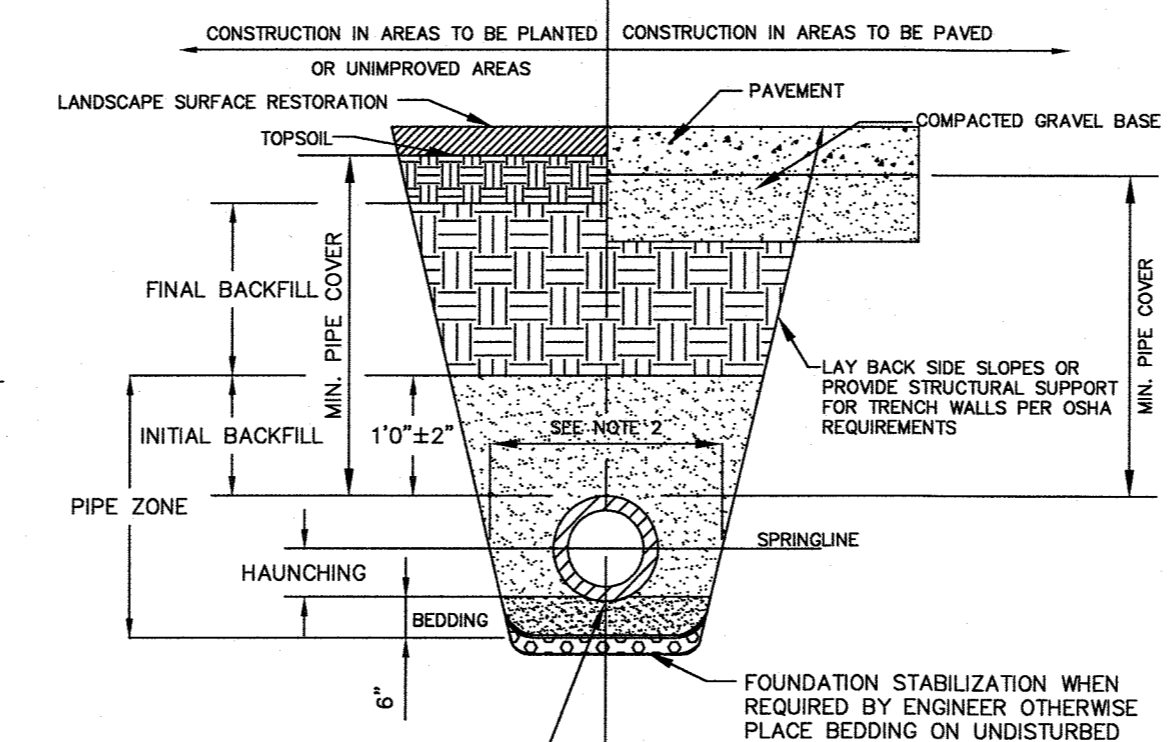
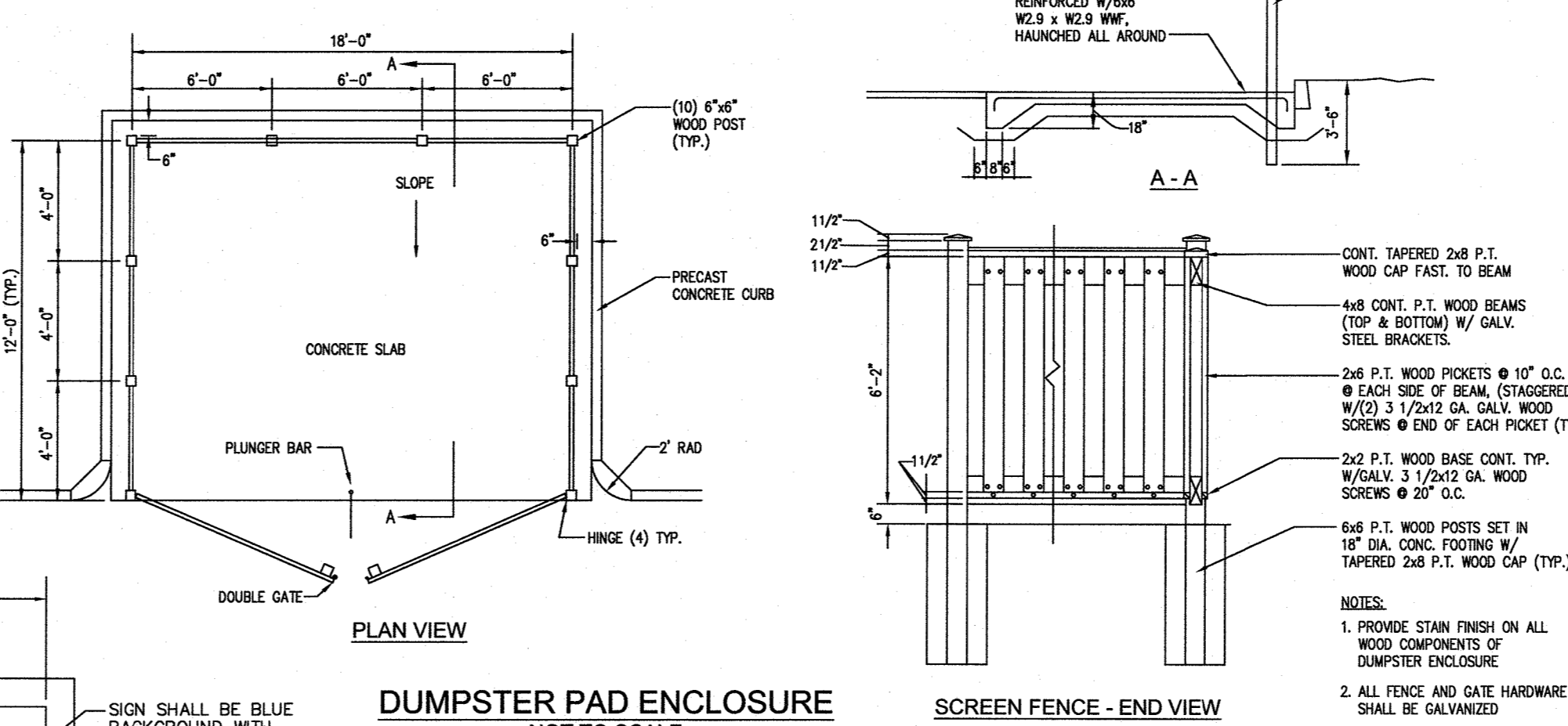
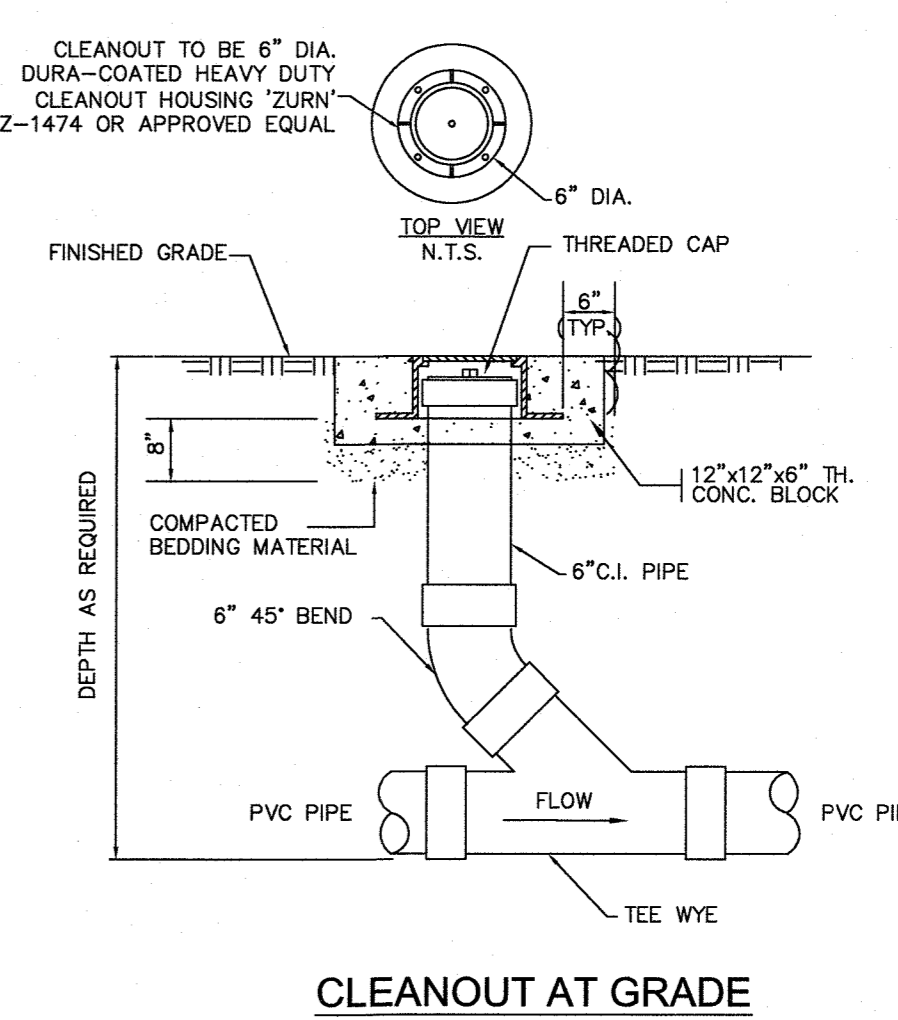
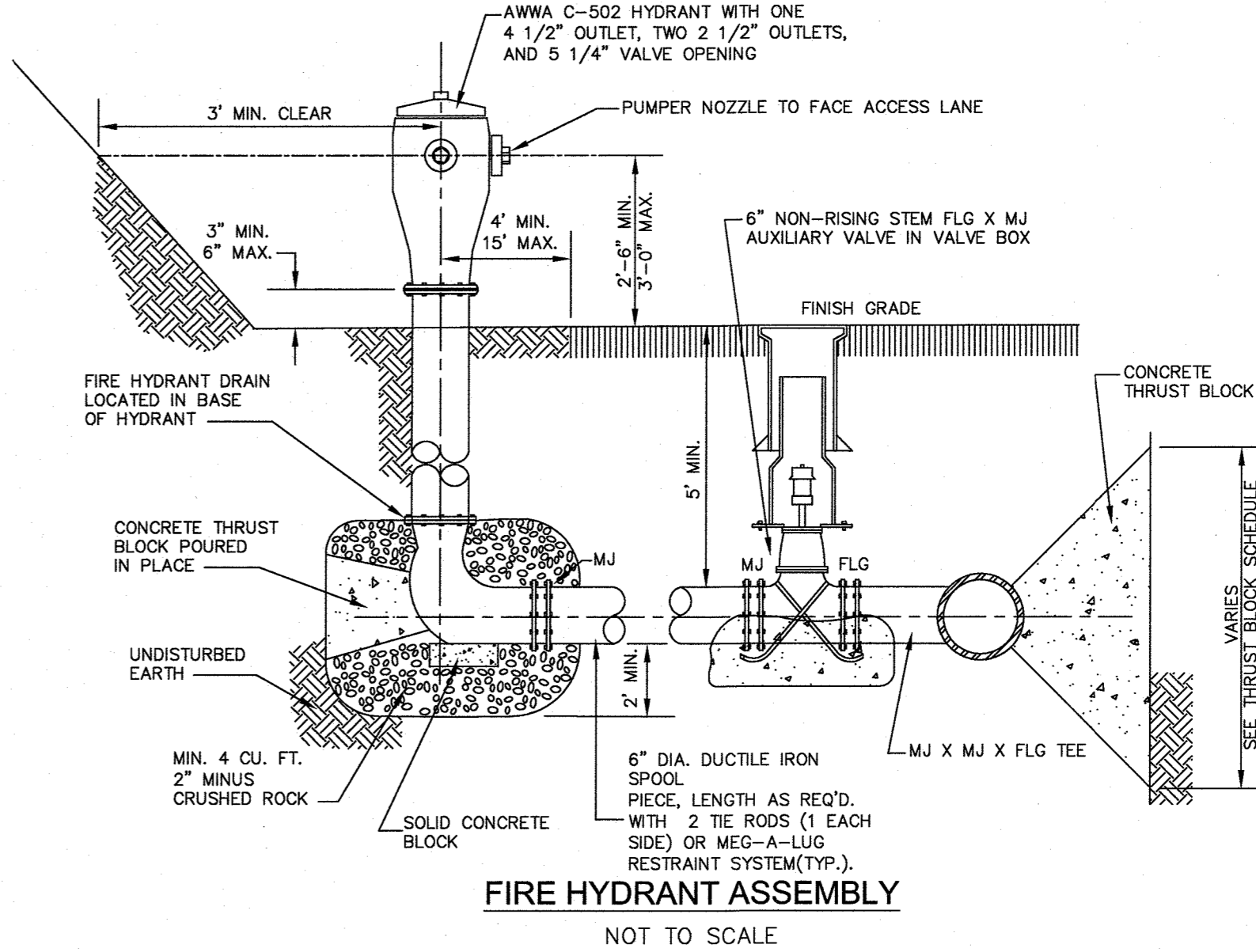


FOUNDATION, BEDDING AND BACKFILL MATERIALS

PIPE MATERIAL	HDP	PVC	RC	DI
FOUNDATION STABILIZATION	[6]	[6]	[6]	[6]
BEDDING	[1]	[1]	[1]	[1]
HAUNCHING	[1]	[1]	[1]	[1]
INITIAL BACKFILL	[4]	[4]	[4]	[4]
FINAL BACKFILL	[4]	[4]	[4]	[4]
MIN. PIPE COVER	[5]	[5]	[5]	[5]



- GENERAL CONSTRUCTION NOTES:**
1. BASIN TO BE LOCATED OUTSIDE OF BUILDING WHERE POSSIBLE. COVER TO HAVE A CENTER HOLE.
 2. A TIGHT COVER MUST BE USED IF BASIN IS LOCATED INSIDE OF BUILDING.
 3. OPENING SHALL BE NO LESS THAN 24-INCHES.
 4. THE CATCH BASIN SHALL BE SO LOCATED AND CONSTRUCTED THAT SURFACE WATER SHALL BE EXCLUDED.
 5. INLET PIPE SHALL BE AT LEAST 4-INCHES ABOVE NORMAL WATER LINE.
 6. WHERE SUBJECT TO FROST OR CRUSHING CONDITIONS, OUTLET SHALL BE AT LEAST 3- FEET BELOW THE SURFACE.
 7. ALL OIL AND GASOLINE MUST BE REMOVED BEFORE CLEANING OUT THE BASIN AND MUST NOT BE DISCHARGED INTO THE SEWER.
 8. SPECIFICATION FOR COVERING SPECIAL CASES OR CONDITIONS, SHALL BE APPROVED BY THE LOCAL AUTHORITIES AND THE AUTHORITIES OF THE STATE OF MASSACHUSETTS.
 9. IRON STEPS SHALL BE SPACED AT LEAST 10-INCHES APART.
 10. BOTH VENTS SHALL BE EXTENDED INDEPENDENTLY 10-INCHES ABOVE THE ROOF, OR AS APPROVED BY THE LOCAL AUTHORITIES AND THE AUTHORITIES OF THE STATE OF MASSACHUSETTS.
 11. CONSTRUCTION OF GASOLINE AND SAND TRAP IS TO BE IN ACCORDANCE WITH THE TOWN OF FRANKLIN AND THE STATE OF MASSACHUSETTS PLUMBING REGULATIONS.

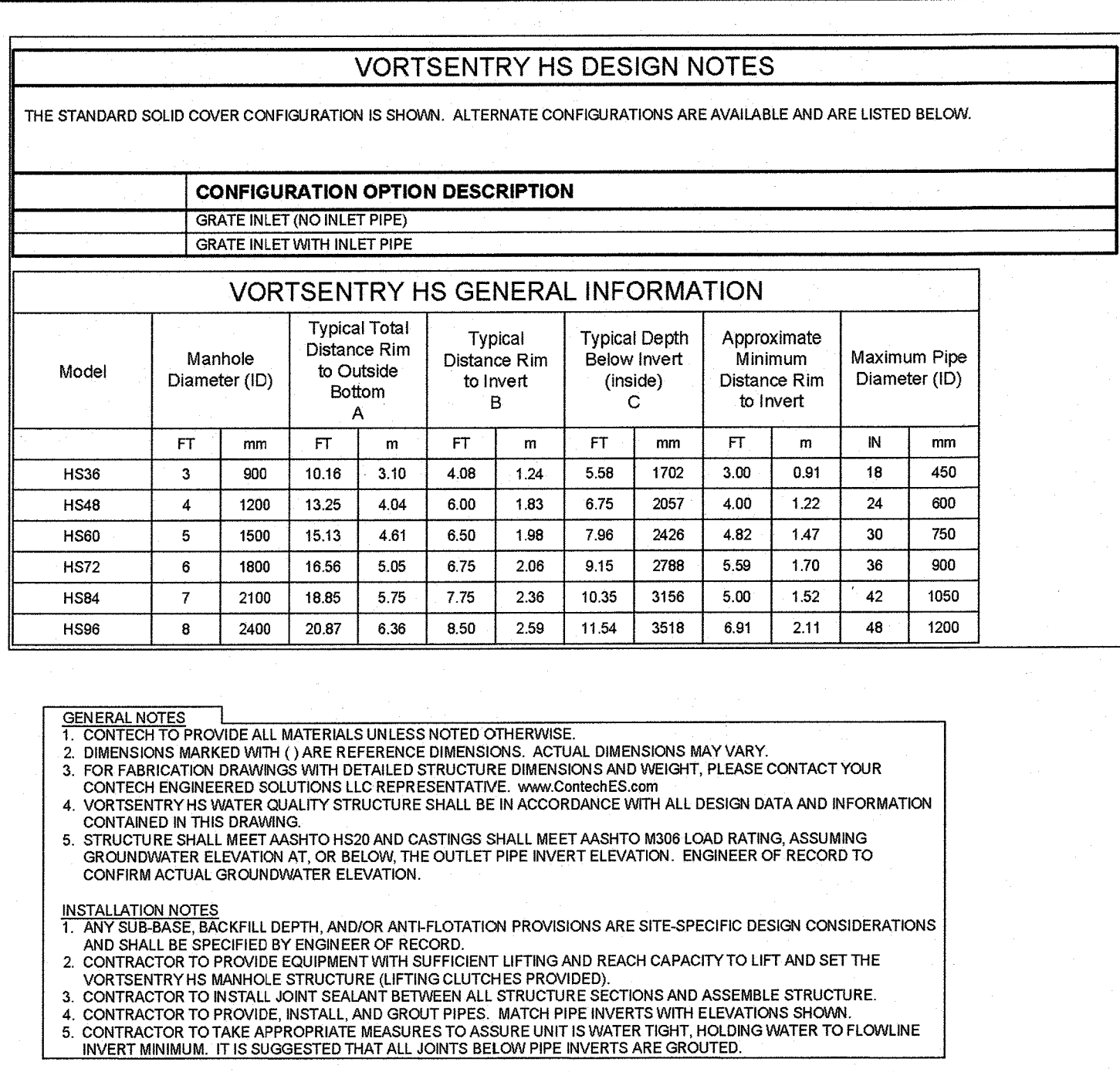
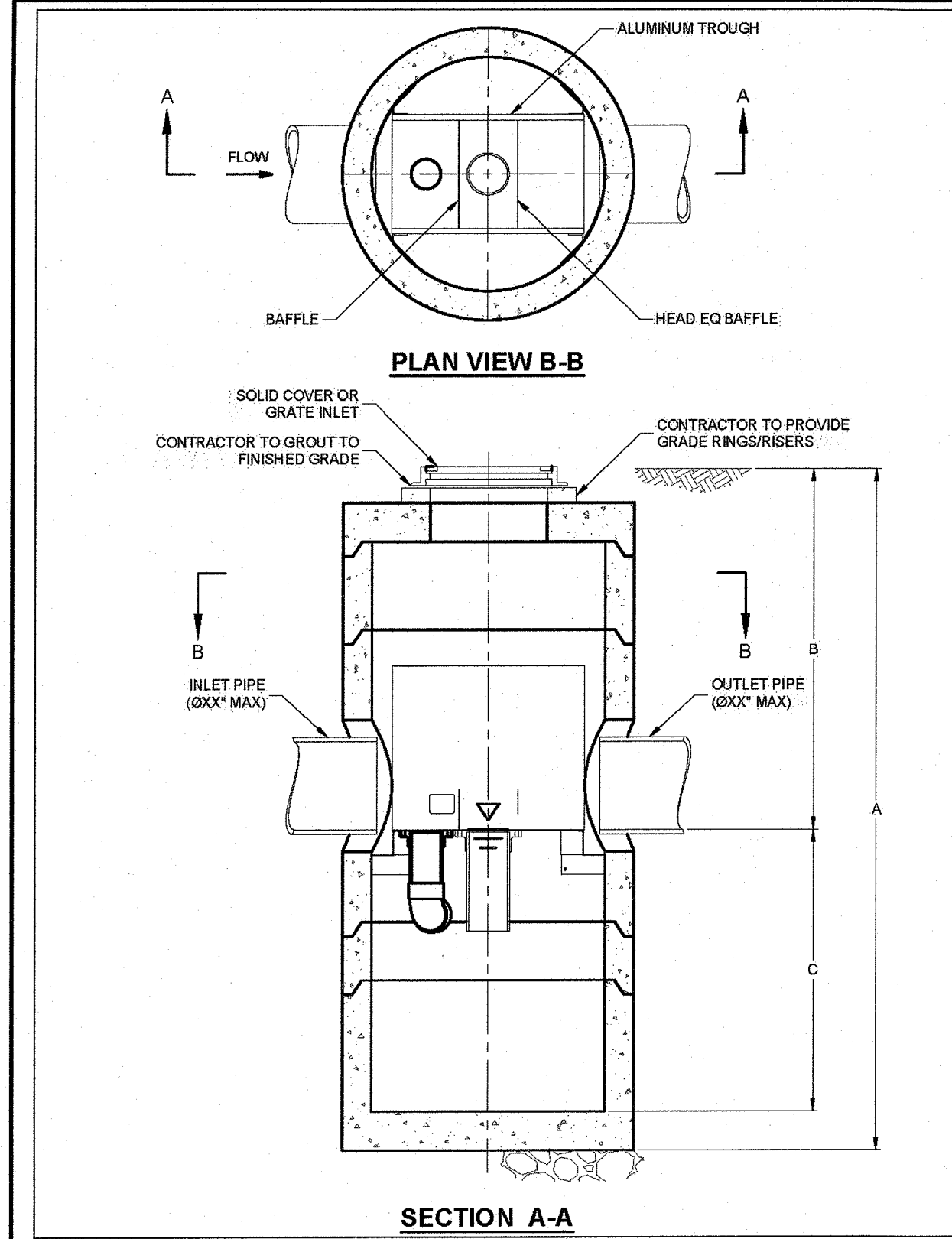


RESTRAINED JOINT SCHEDULE

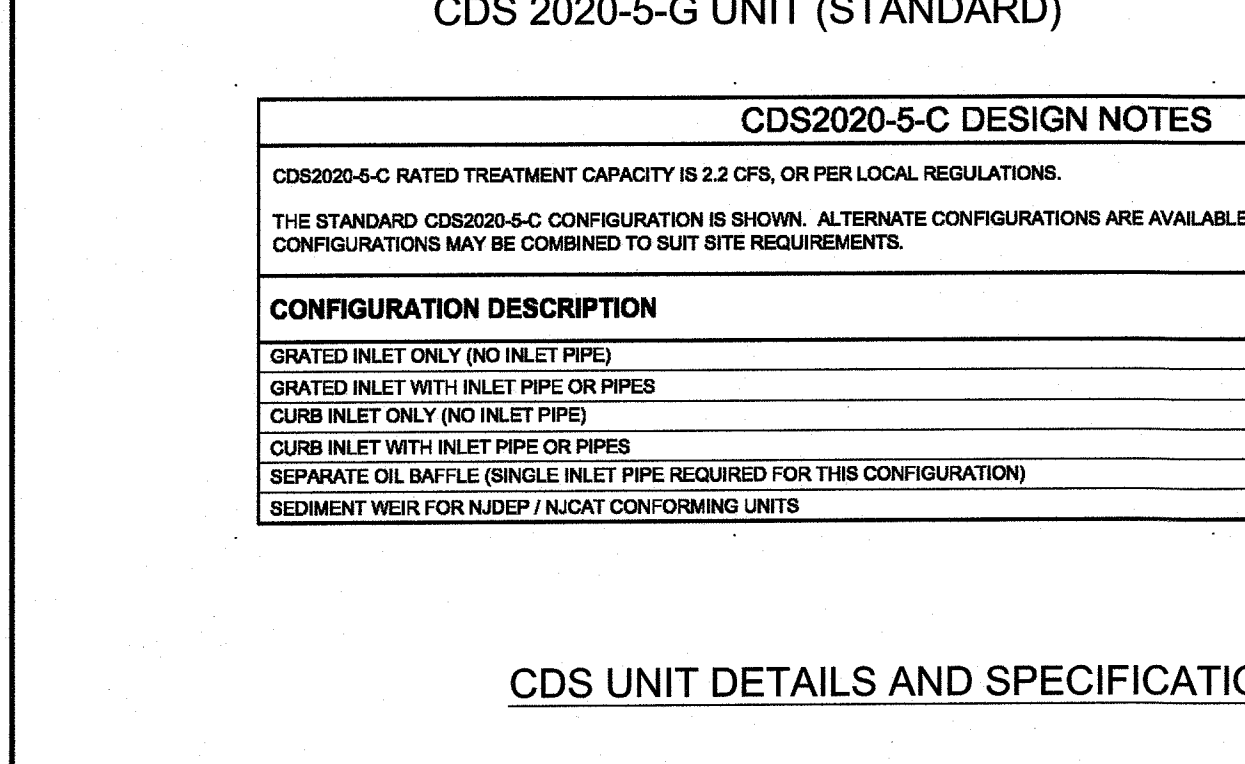
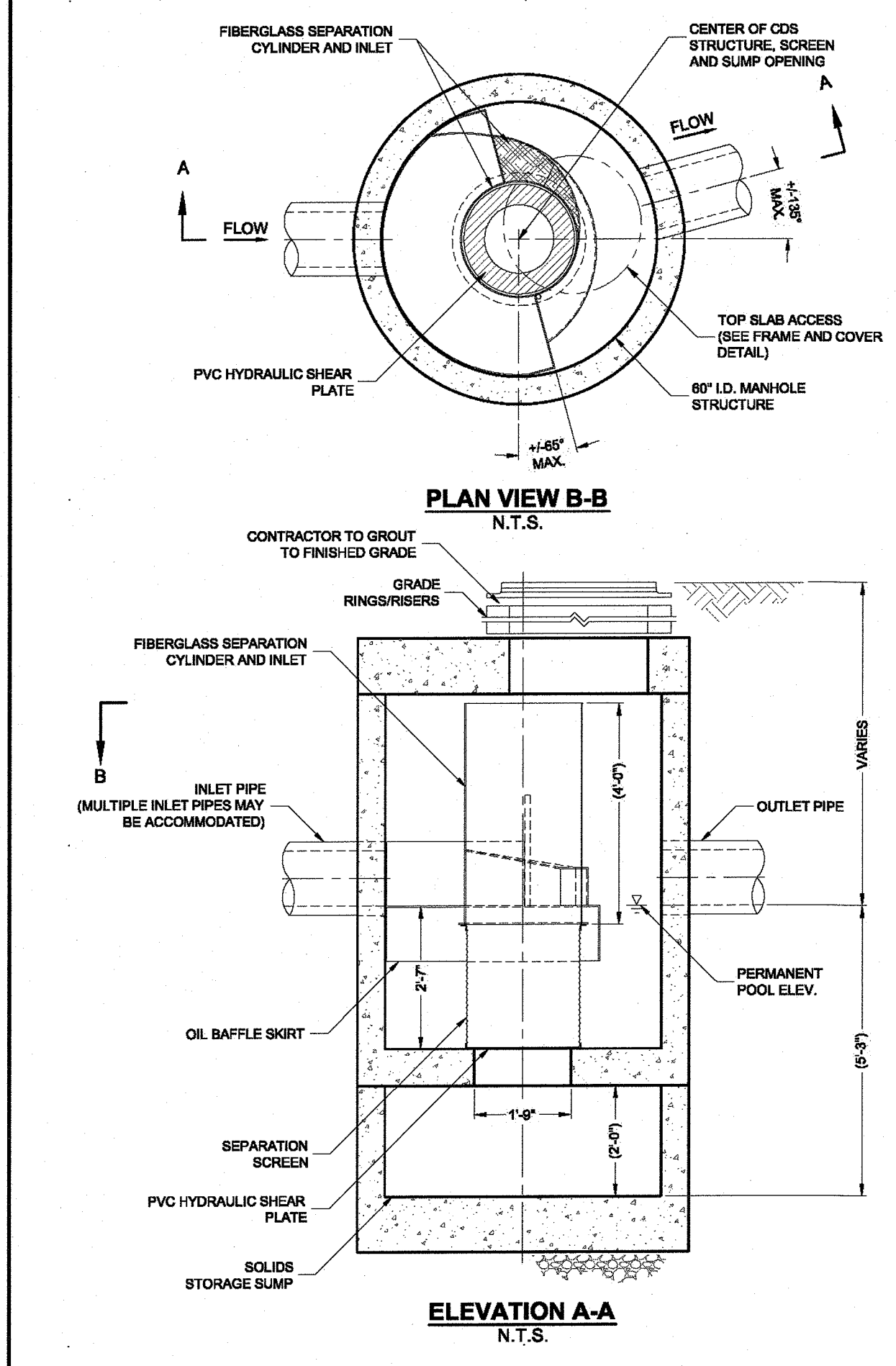
PIPE SIZE	RESTRAINED LENGTH FOR 90° BENDS			
	90'	45'	22 1/2'	11 1/4'
	D. I.	D. I.	D. I.	D. I.
12"	92'	38'	18'	9'
10"	78'	32'	16'	8'
8"	66'	27'	13'	7'
6"	51'	21'	10'	5'
4"	38'	16'	8'	4'

- NOTES:
1. RESTRAINED LENGTH FOR TEES, CROSSES, VALVES AND PLUGS SHALL EQUAL RESTRAINED LENGTH FOR 90° BENDS.
 2. SEE SCHEDULES FOR ADDITIONAL INFORMATION REGARDING RESTRAINED JOINTS. THE SCHEDULES SHOWN IS FOR THE FOLLOWING SERVICE CONDITIONS 150 psig INTERNAL PRESSURE; SOIL TYPE: SAND-SILT; 36 INCHES OF COVER AND TYPE 2 LAYING CONDITIONS.
 3. RESTRAINED LENGTHS SHOWN IN TABLE ARE MINIMUM LENGTHS (IN FEET) AND ARE REQUIRED IN EACH DIRECTION FROM FITTINGS OR VALVES.
 4. THRUST BLOCKS TO BE INSTALLED AS REQUIRED.

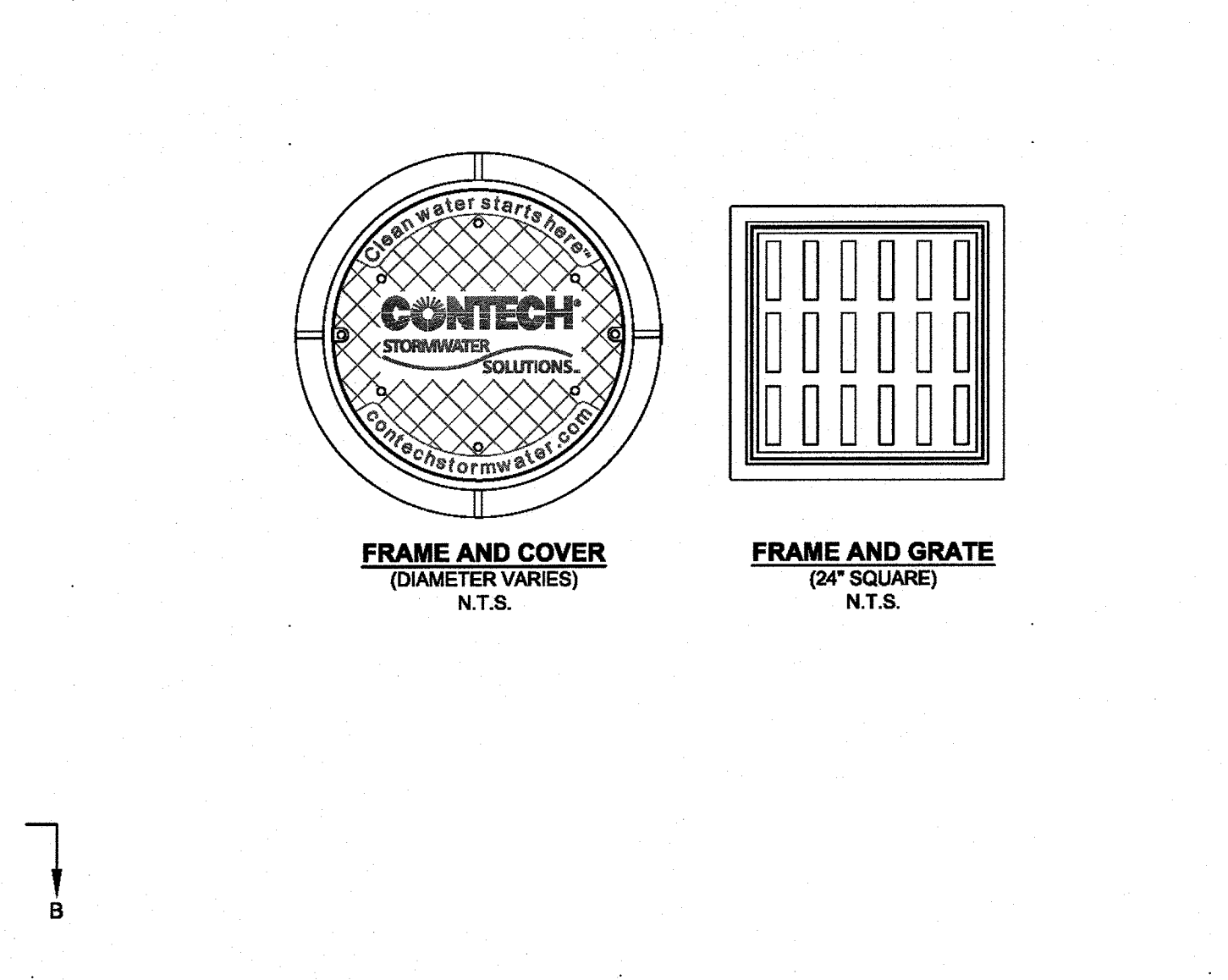
- NOTES:
- [1] PLACE 3/4" MINUS GRADED GRANULAR BACKFILL AT OPTIMUM MOISTURE IN HORIZONTAL 8" DEEP LOOSE LAYERS, COMPACT TO 95% PER ASTM D-1557
 - [2] MINIMUM WIDTH OF TRENCH MEASURED AT SPRINGLINE OF PIPE, INCLUDING ANY NECESSARY SHEATHING
 - [3] INSTALL PIPE IN CENTER OF TRENCH.
 - [4] IN PLANTED OR UNIMPROVED AREAS, USE ON-SITE EXCAVATED MATERIAL FOR FINAL BACKFILL. COMPACT TO 95% PER ASTM D-1557. IN PAVED AREAS, OBTAIN ENGINEER APPROVAL OF ON-SITE EXCAVATED MATERIALS FOR USE AS FINAL BACKFILL.
 - [5] MINIMUM COVER OVER TOP OF PIPE
 - [6] FOR FOUNDATION STABILIZATION, USE 2" MINUS CRUSHED STONE



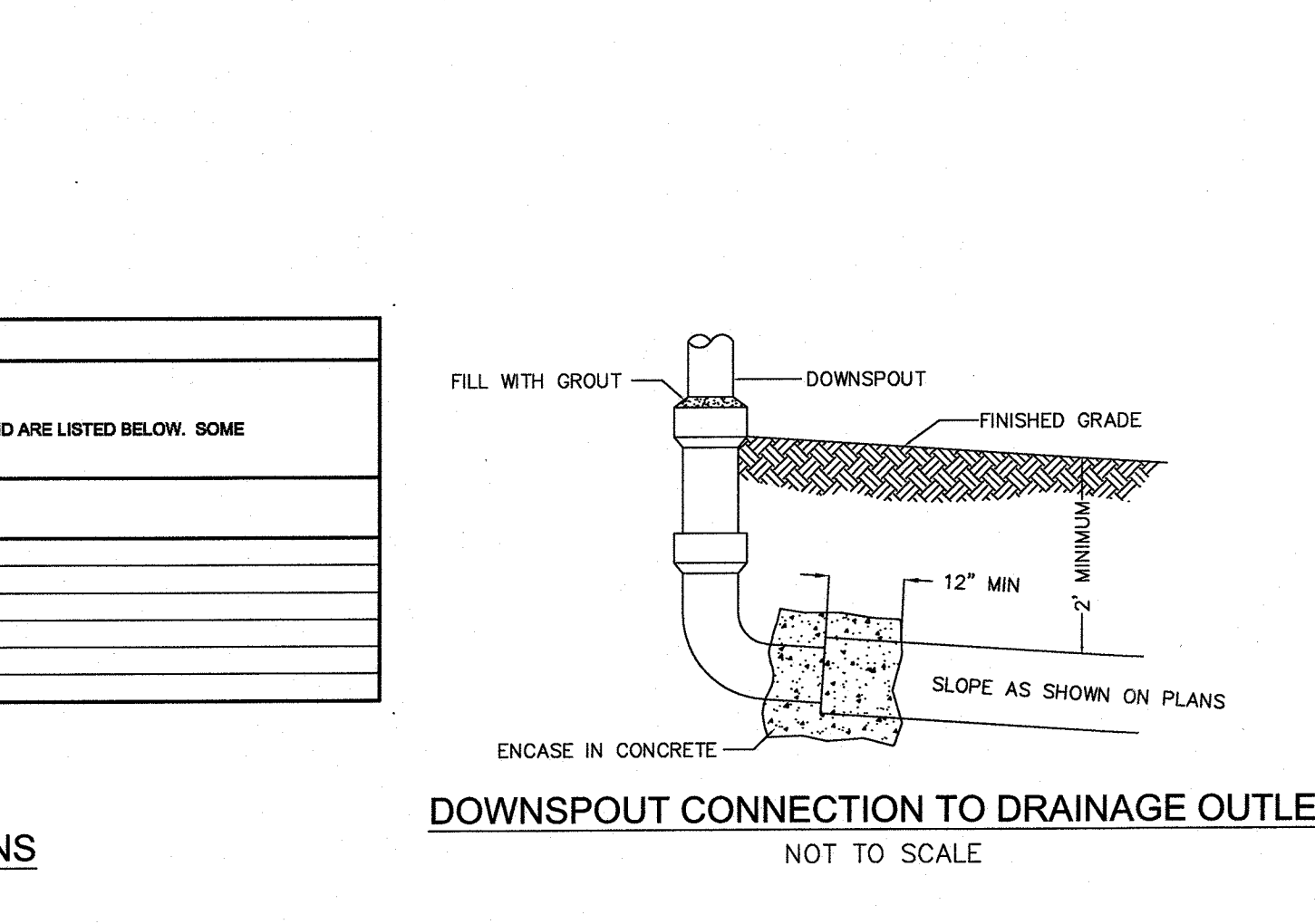
VORTSENTRY DETAILS AND SPECIFICATIONS
NOT TO SCALE



CDS UNIT DETAILS AND SPECIFICATIONS



GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH (1) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH CONSTRUCTION PROJECT REPRESENTATIVE. www.contech.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO H20 AND CASTINGS SHALL MEET AASHTO M208 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROU... PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. 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 GROU...
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.



PRECAST CONCRETE DOUBLE CATCH BASIN WITH GAS AND OIL SEPARATOR
NOT TO SCALE

STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740 OR SC-310.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-TERM DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418-16 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET, THE 50 YEAR CRISP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
 - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

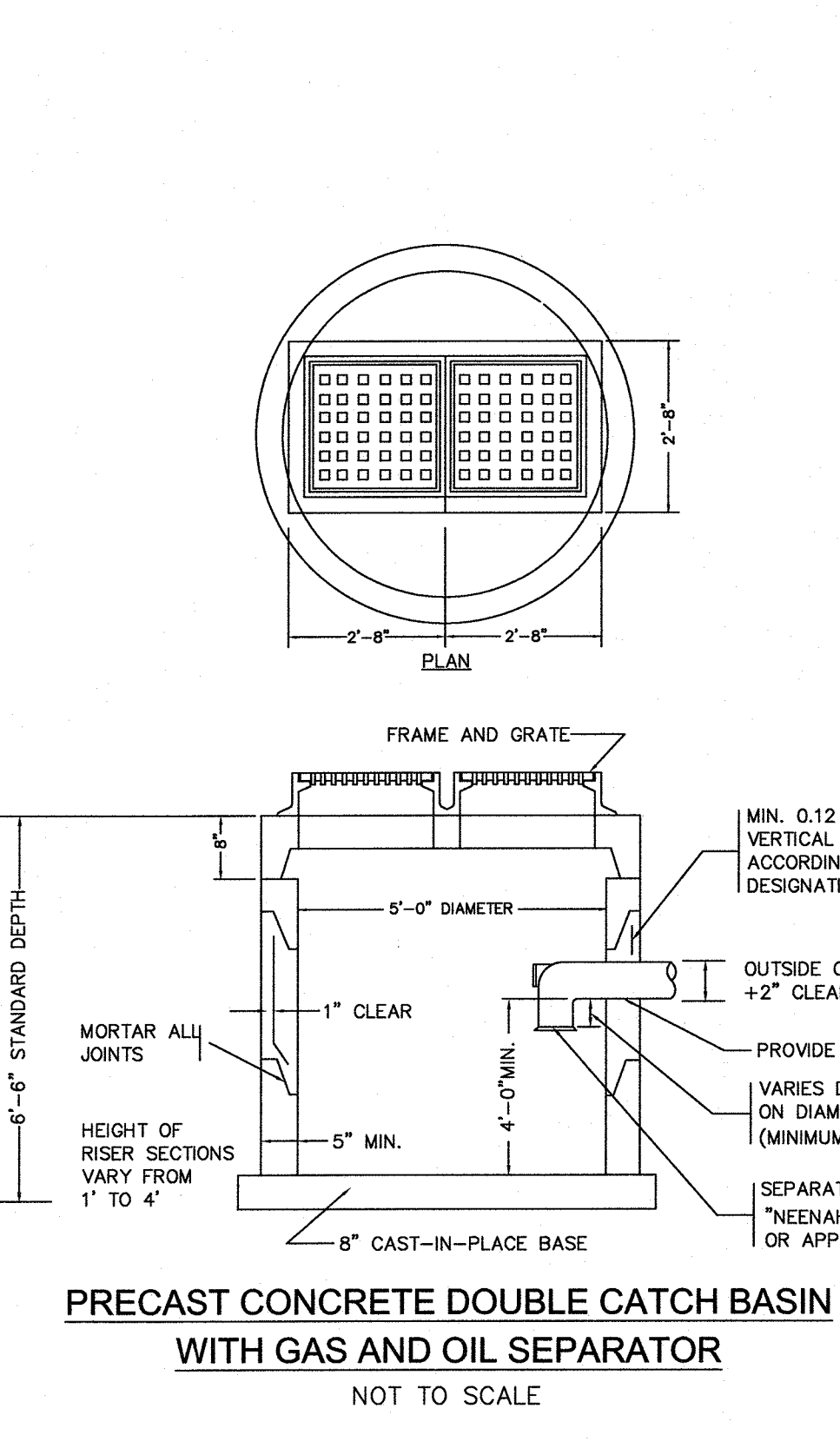
IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIRE LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

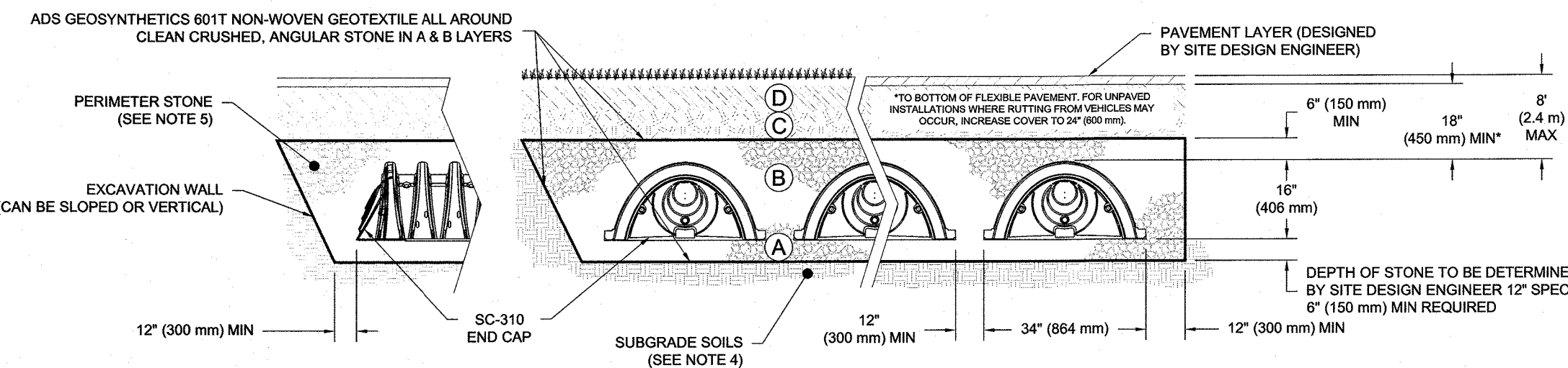


PRECAST CONCRETE DRAIN MANHOLE
NOT TO SCALE

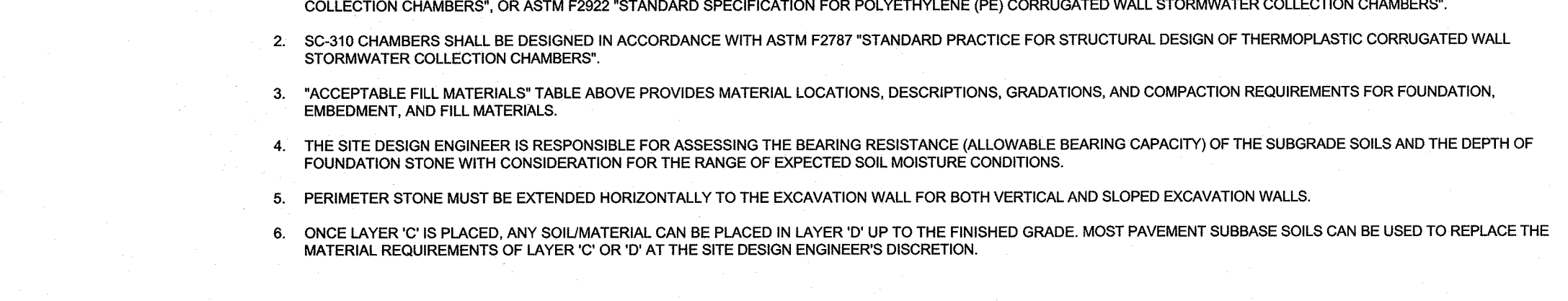
ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER.	AASHTO M1451 A-1, A-2.4, A-3 OR AASHTO M431 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 80, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M431 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M431 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ¹

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTOR REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

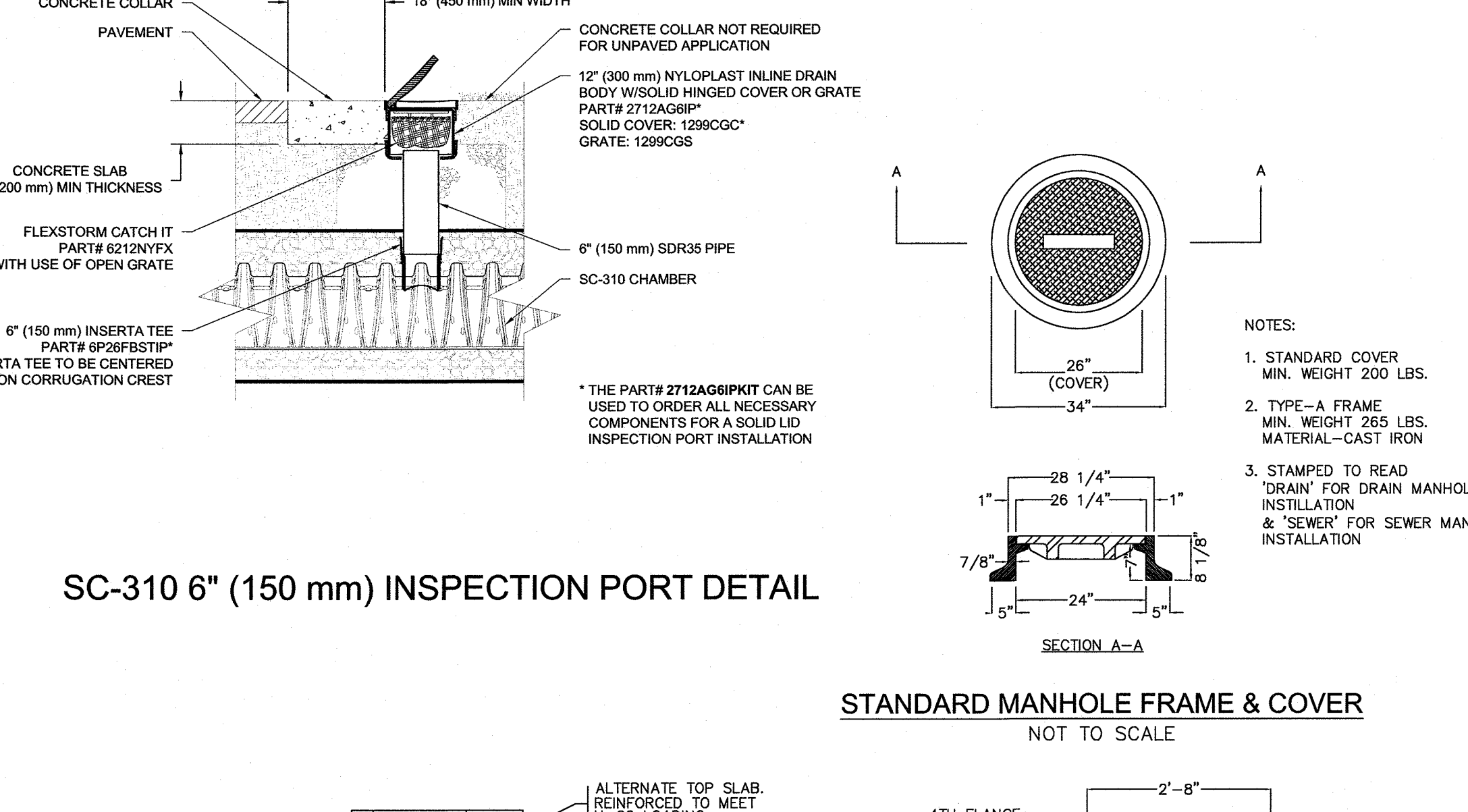


NOTES:
1. SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

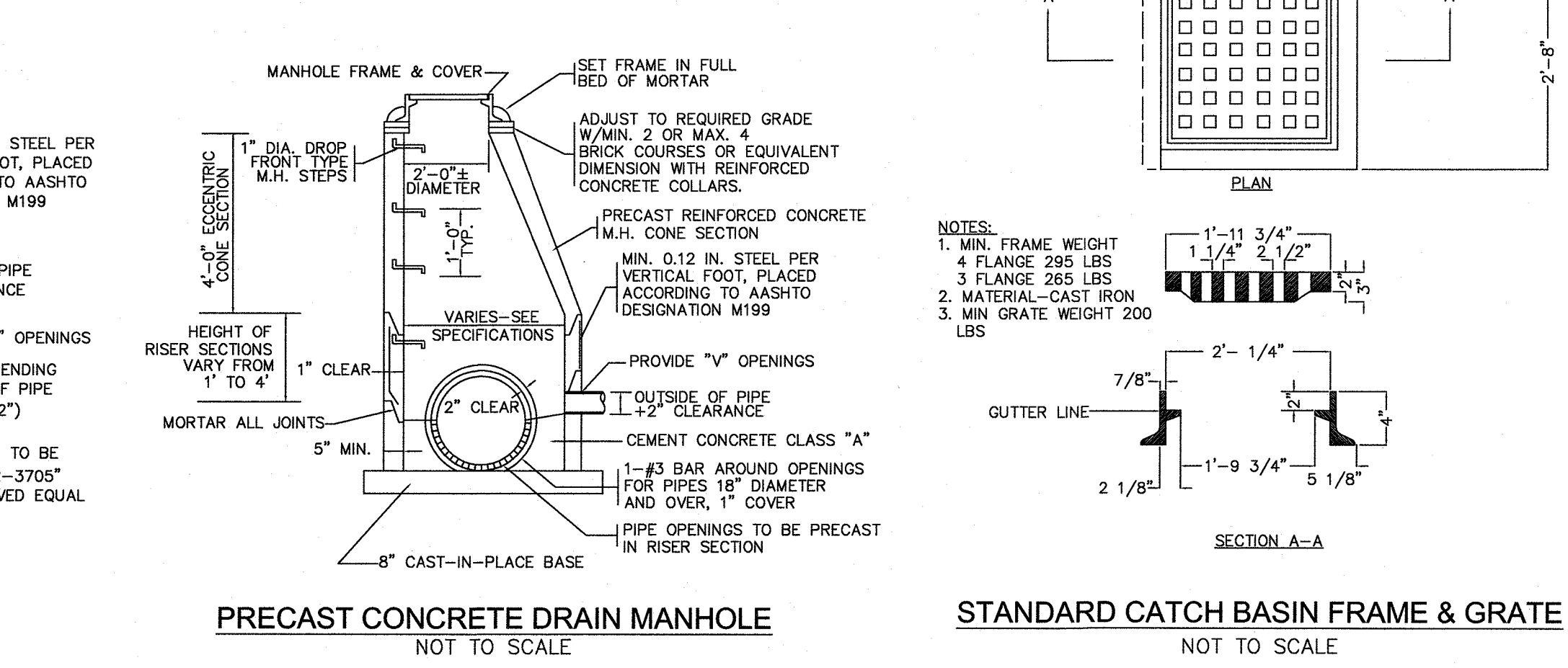


NOTES:
1. STANDARD COVER MIN. WEIGHT 200 LBS.
2. TYPE-A FRAME MIN. WEIGHT 265 LBS. MATERIAL-CAST IRON
3. STAMPED TO READ "DRAIN" FOR DRAIN MANHOLE INSTALLATION & "SEWER" FOR SEWER MANHOLE INSTALLATION

SC-310 CROSS SECTION DETAIL STORMTECH SC-310 DETAILS AND SPECIFICATIONS
NOT TO SCALE

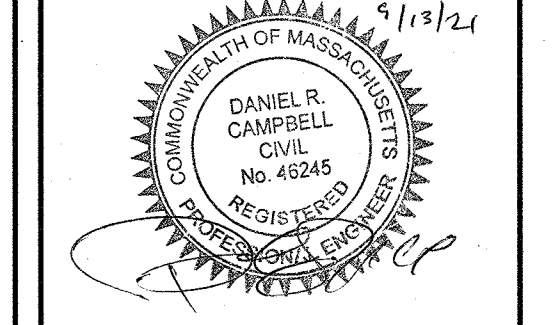


STANDARD MANHOLE FRAME & COVER
NOT TO SCALE



STANDARD CATCH BASIN FRAME & GRATE
NOT TO SCALE

NO	DATE	REVISIONS
1	08/21/2021	PERMIT SUBMISSION
2	09/13/2021	RESPONSE TO COMMENTS



DATE: JUNE 21, 2021
DRAWN: DRC
SCALE: 1" = 2'

THE ENGINE YARD
COMMERCIAL/RESIDENTIAL REUSE
PARCEL ID 279-181-000-000
40 ALPINE ROW
FRANKLIN, MASSACHUSETTS

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PLAINVILLE, MA 02762
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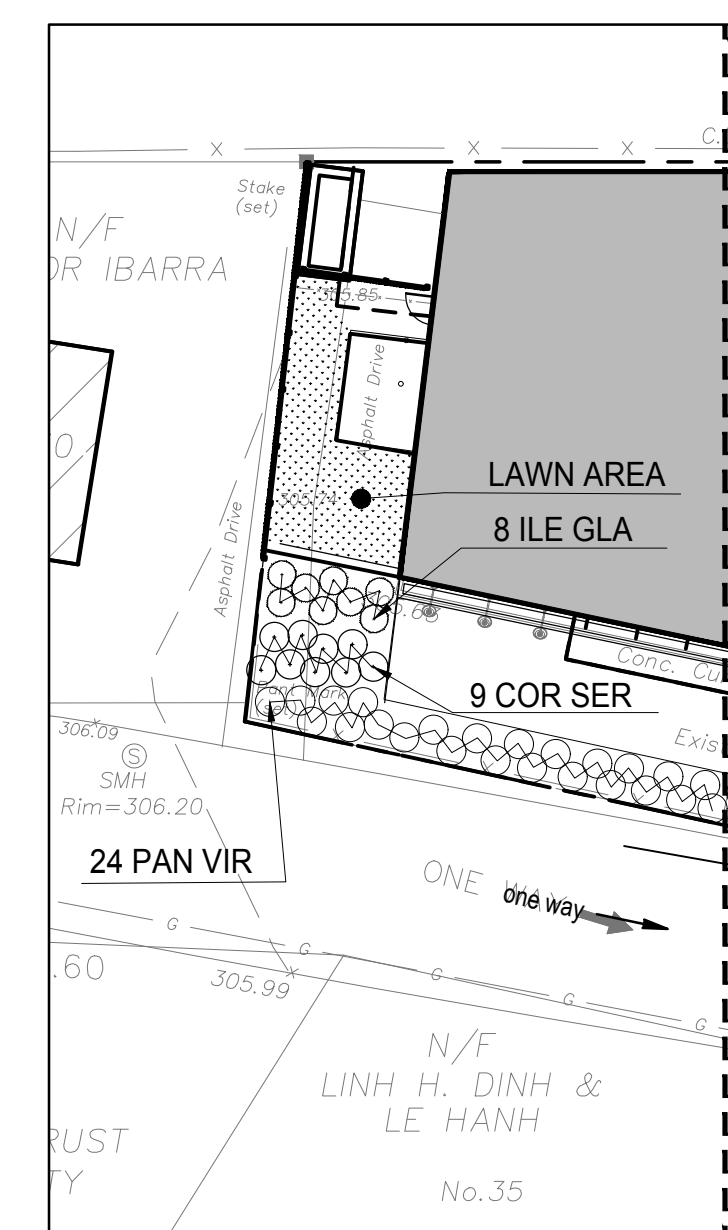
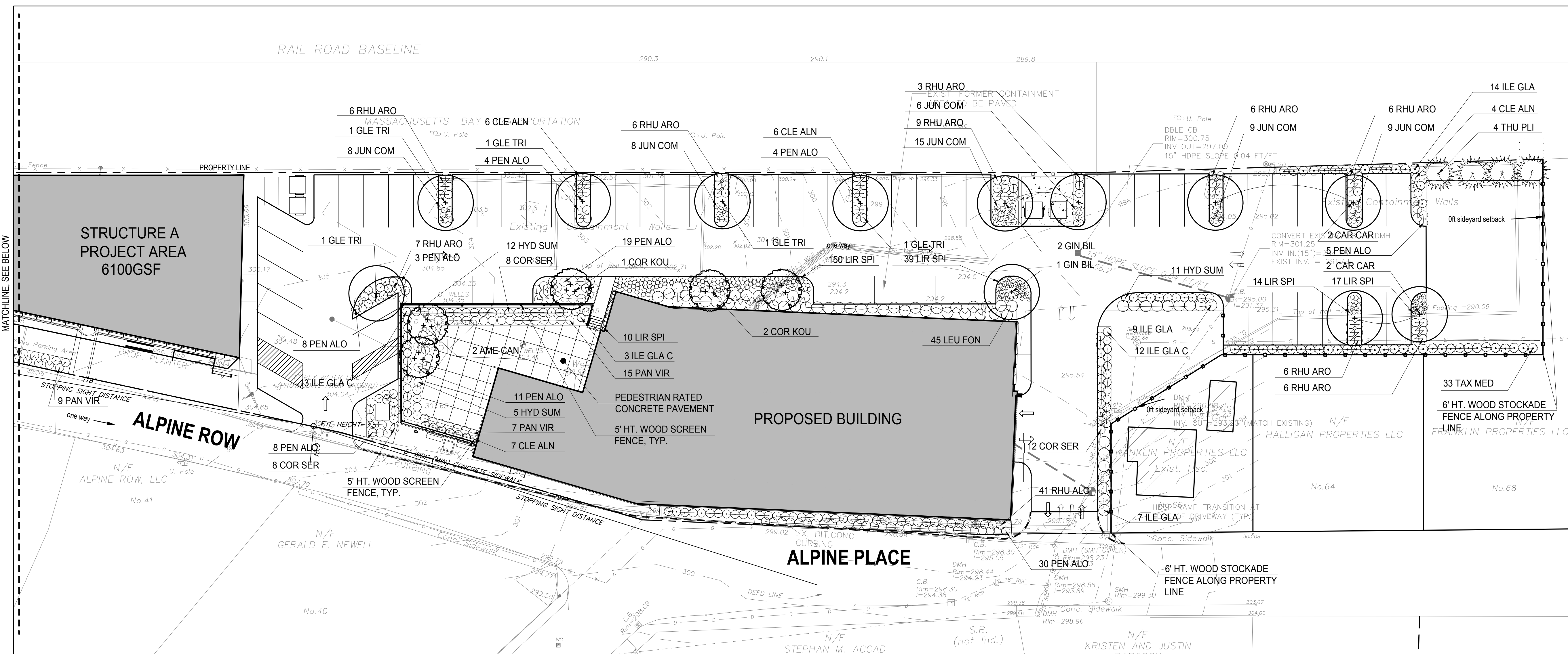
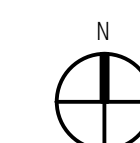
TYPICAL DETAILS
C-4.1
SHEET 7 OF 7
1880.00

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DATE	DESCRIPTION
SEPTEMBER 17, 2021	DATE
440	PROJECT NUMBER
JL	CHECKED
JL	APPROVED
1"= 20'-0"	SCALE
	SHEET NAME

SITE LANDSCAPE PLAN

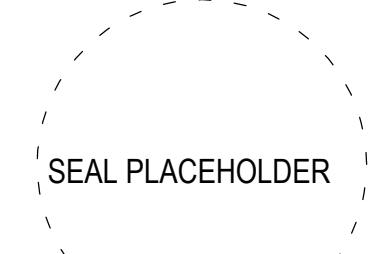


PLANTING NOTES

1. BASE FILE SURVEY INFORMATION PROVIDED BY JOE THE ARCHITECT, MAY 05, 2021.
2. IF DISCREPANCIES EXIST BETWEEN THE NUMBER OF PLANTS DRAWN ON THE PLANTING PLAN AND THE NUMBER OF PLANTS IN THE PLANT LIST, THE PLANTING PLAN SHALL GOVERN.
3. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. IN ADDITION, ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF SPECIMEN QUALITY.
4. ALL NEW PLANTS TO BE BALLED AND BURLAPPED OR CONTAINER-GROWN, UNLESS OTHERWISE NOTED ON THE PLANT LIST.
5. THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
6. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AFTER WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
7. CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE LANDSCAPE ARCHITECT.
8. STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY OWNER'S REP PRIOR TO THE COMMENCEMENT OF PLANTING.
9. NEW SHRUBS AND GROUND COVER SHALL BEAR THE SAME RELATIONSHIP TO GRADE AS IT BORE TO PREVIOUS GRADE. TREES SHALL BE SET 3" HIGHER THAN PREVIOUS GRADE. NO TREES SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.
10. ALL PLANT BEDS TO RECEIVE THREE INCHES (3") OF BARK MULCH AS PER THE SPECIFICATIONS.
11. ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. PROTECTION TECHNIQUES SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REP.
12. PRUNE EXISTING AND NEW TREES IN ACCORDANCE WITH THE SPECIFICATIONS.
13. CONTRACTOR SHALL PROVIDE FULL DEPTHS OF LOAM AS NOTED ON DETAILS AND AS SPECIFIED, FOR ALL PLANTING.
14. ALL TREES TO BE REMOVED FROM SCOPE OF WORK SHALL INCLUDE GRINDING OF STUMP AND REMOVAL OFF-SITE.
15. ANY EXISTING TREES AFFECTED BY CONSTRUCTION SHALL HAVE ROOTS PRUNED PER THE SPECIFICATIONS.

PLANTING SCHEDULE

SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING/NOTES
SHADE TREES					
GIN BIL	3	<i>Ginkgo biloba</i>	Ginkgo	2 - 2 1/2" CAL	B&B
GLE TRI	5	<i>Gleditsia triacanthos</i>	Honeylocust	2 - 2 1/2" CAL	B&B
CAR CAR	4	<i>Carpus carolinia</i>	American Hornbeam	2 - 2 1/2" CAL	B&B, NATIVE
ORNAMENTAL TREES					
AME CAN	2	<i>Amelanchier canadensis</i>	Serviceberry	8-10' HT.	B&B; Multi-stem, NATIVE
COR KOU	3	<i>Cornus kousa</i>	Kousa Dogwood	8-10' HT.	B&B; Multi-stem
EVERGREEN TREES					
THU PLI	4	<i>Thuja plicata 'Nana'</i>	Dwarf Western Arbovitae	8-10' HT.	B&B
EVERGREEN SHRUBS					
ILE GLA C	28	<i>Ilex glabra 'compacta'</i>	Compact Inkberry	24"-36" HT	36" O.C. NATIVE
ILE GLA	38	<i>Ilex glabra</i>	Inkberry	24"-36" HT	42" O.C. NATIVE
LEU FON	45	<i>Leucothoe fontanesiana 'Compacta'</i>	Compact Drooping Leucothoe	2 Gal.	48" O.C. NATIVE
TAX MED	33	<i>Taxus media 'Hill's Upright'</i>	Hill's Upright Yew	36"-48" HT	36" O.C.
DECIDUOUS SHRUBS					
CLE ALN	23	<i>Clethra alnifolia 'Compacta'</i>	Compact Summersweet	3 Gal.	48" O.C. NATIVE
COR SER	37	<i>Cornus Sericea 'kelsey'</i>	Kelsey Dogwood	3 Gal.	48" O.C. NATIVE
HYD SUM	28	<i>Hydrangea 'Endless Summer'</i>	Endless Summer Hydrangea	3 Gal.	36" O.C.
RHU ARO	90	<i>Rhus aromatica 'Gro Low'</i>	Gro-Low Fragrant Sumac	3 Gal.	36" O.C. NATIVE
ORNAMENTAL GRASSES AND PERENNIALS					
JUN COM	37	<i>Juniperus communis</i>	Common Juniper	1 Gal.	24" O.C. NATIVE
LIR SPI	230	<i>Liriope spicata</i>	Lily Turf	1 Gal.	18" O.C.
PAN VIR	55	<i>Panicum virgatum 'Shenandoah'</i>	Switch Grass	1 Gal.	36" O.C. NATIVE
PEN ALO	92	<i>Pennisetum alopecuroides 'hameln'</i>	Hameln Fountain Grass	1 Gal.	36" O.C.

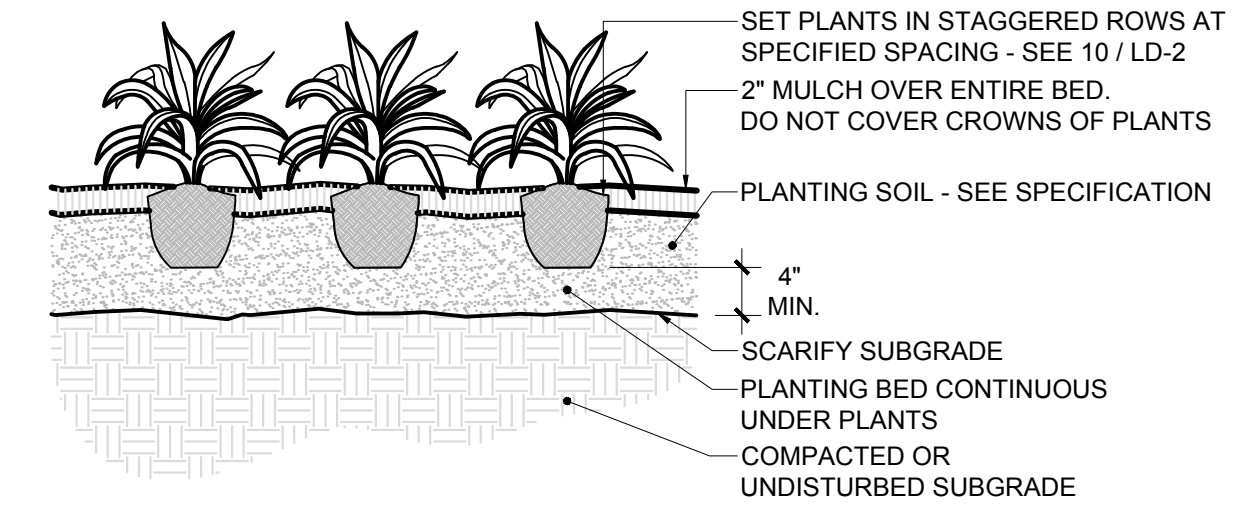
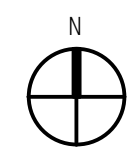


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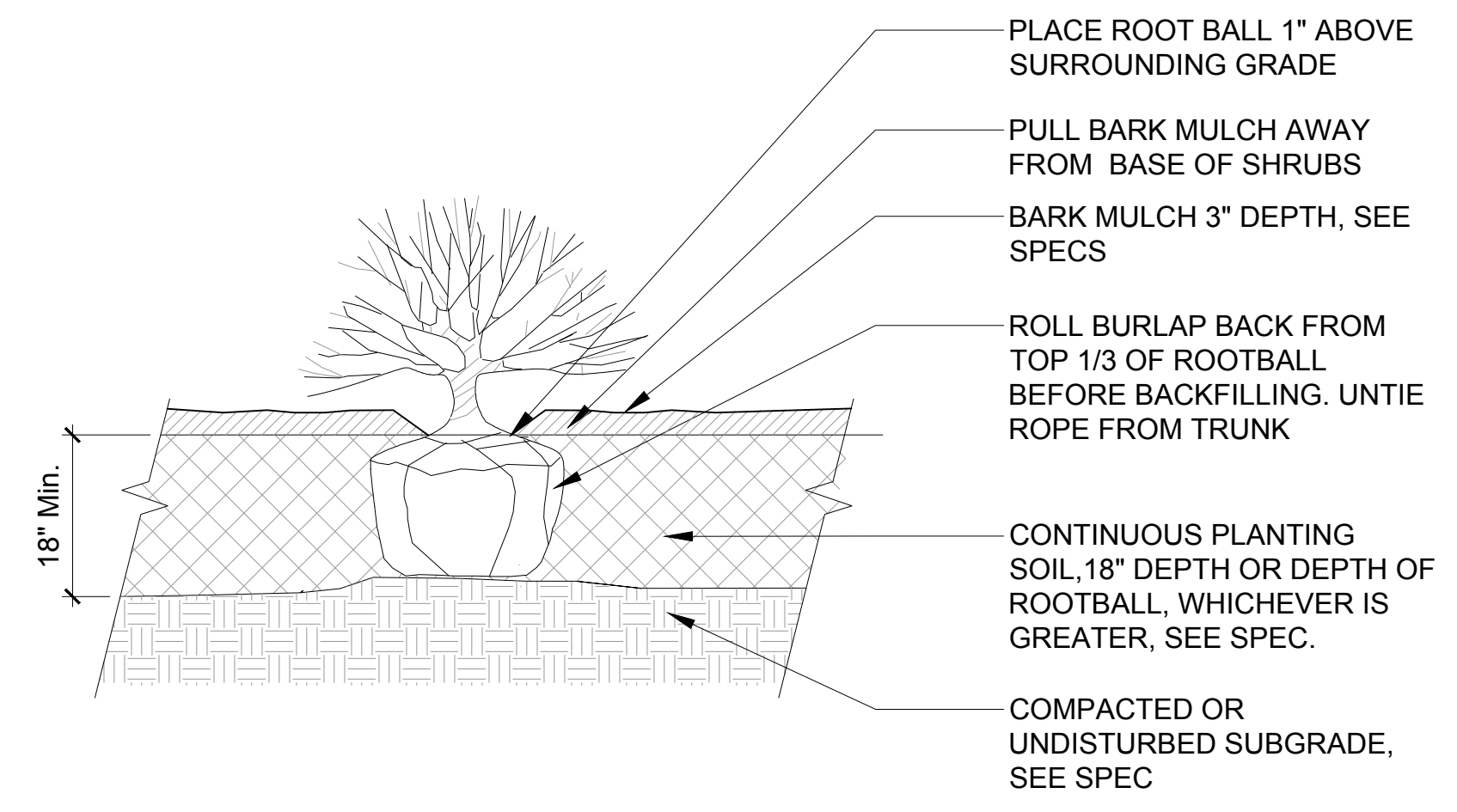
SEPTEMBER 17, 2021	DATE
440	PROJECT NUMBER
JL	CHECKED
JL	APPROVED
1"= 20'-0"	SCALE
	SHEET NAME

SITE LANDSCAPE DETAILS



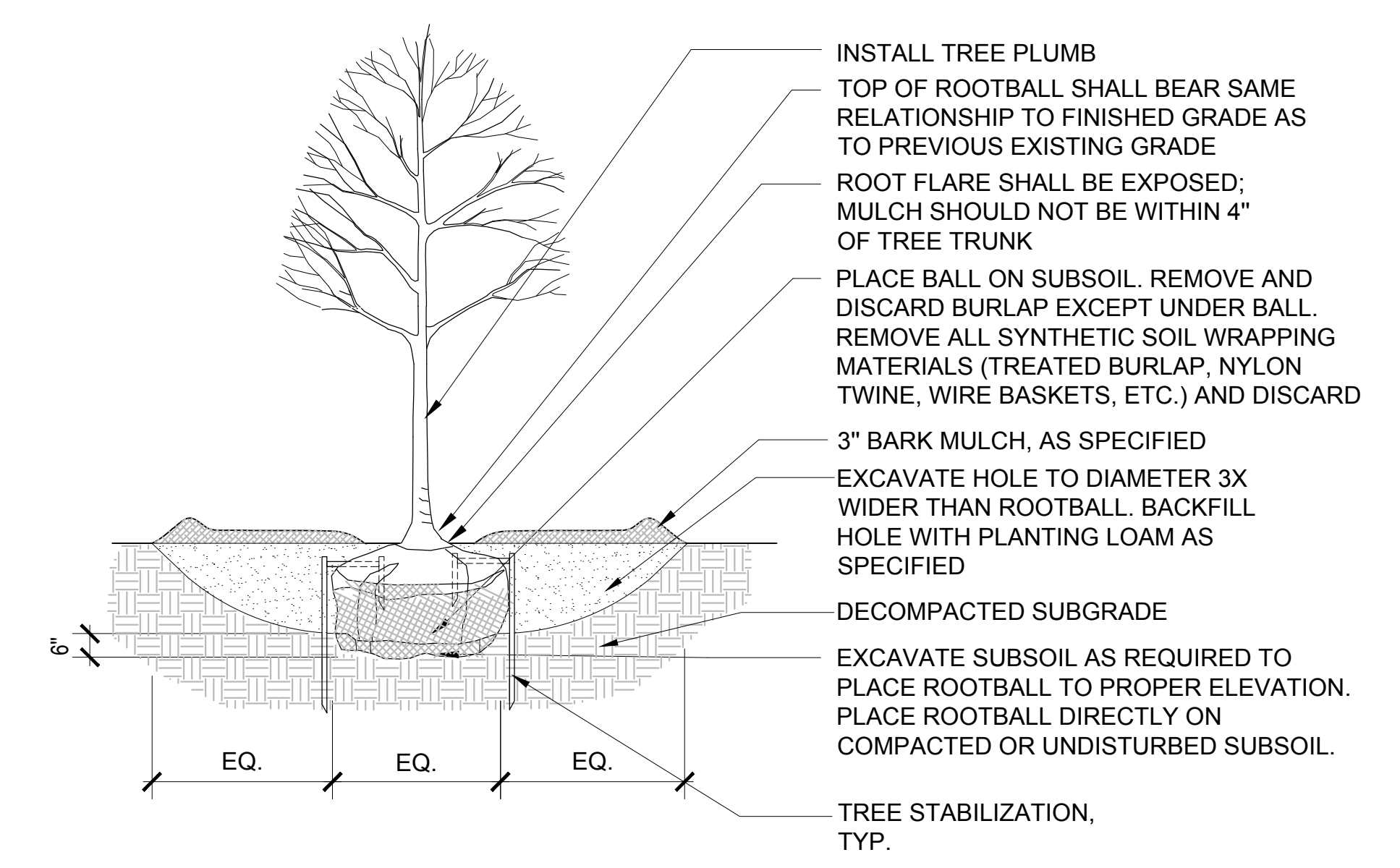
4 PERENNIAL/GROUNDCOVER PLANTING

SCALE: NTS



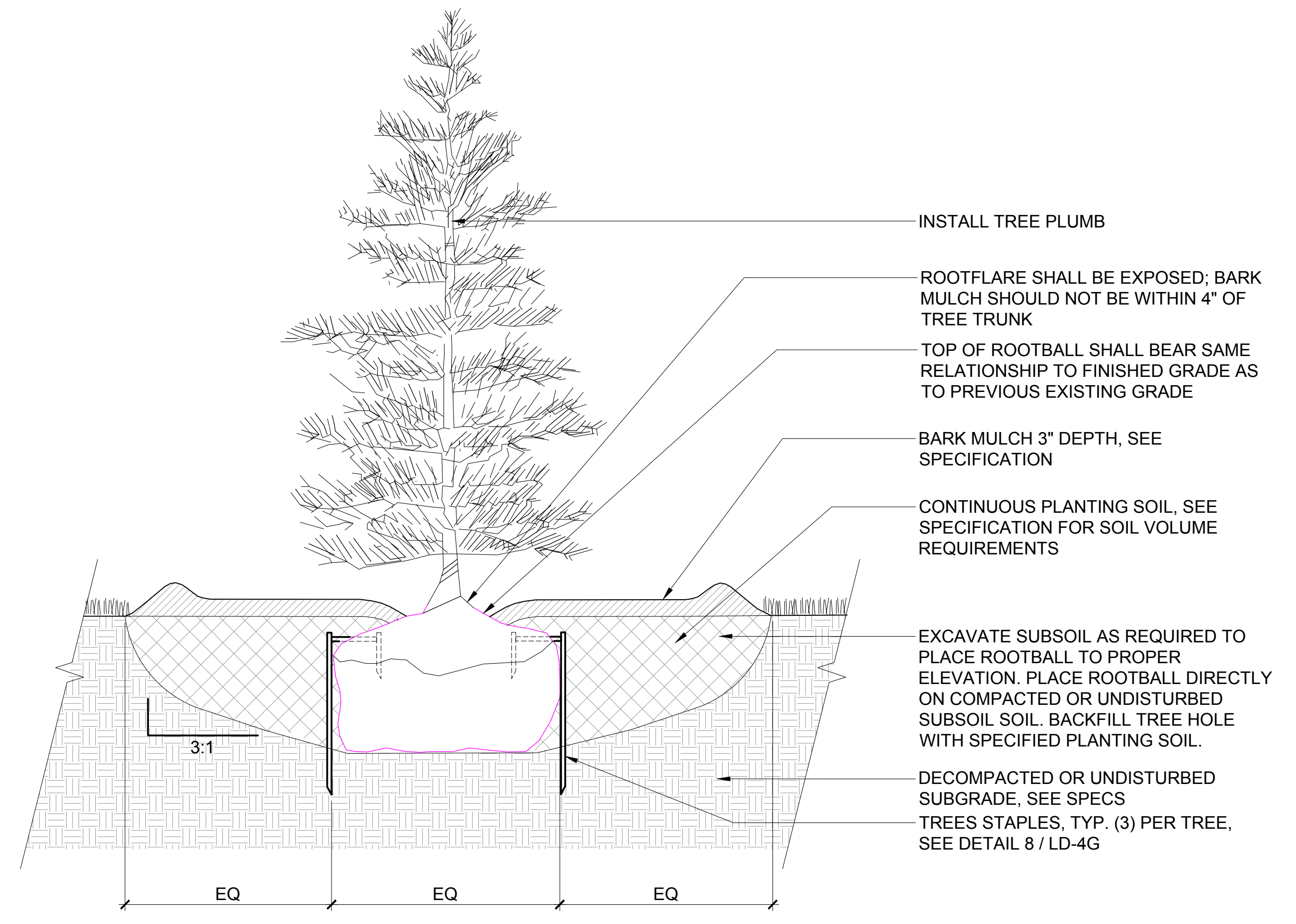
5 SHRUB PLANTING

SCALE: NTS



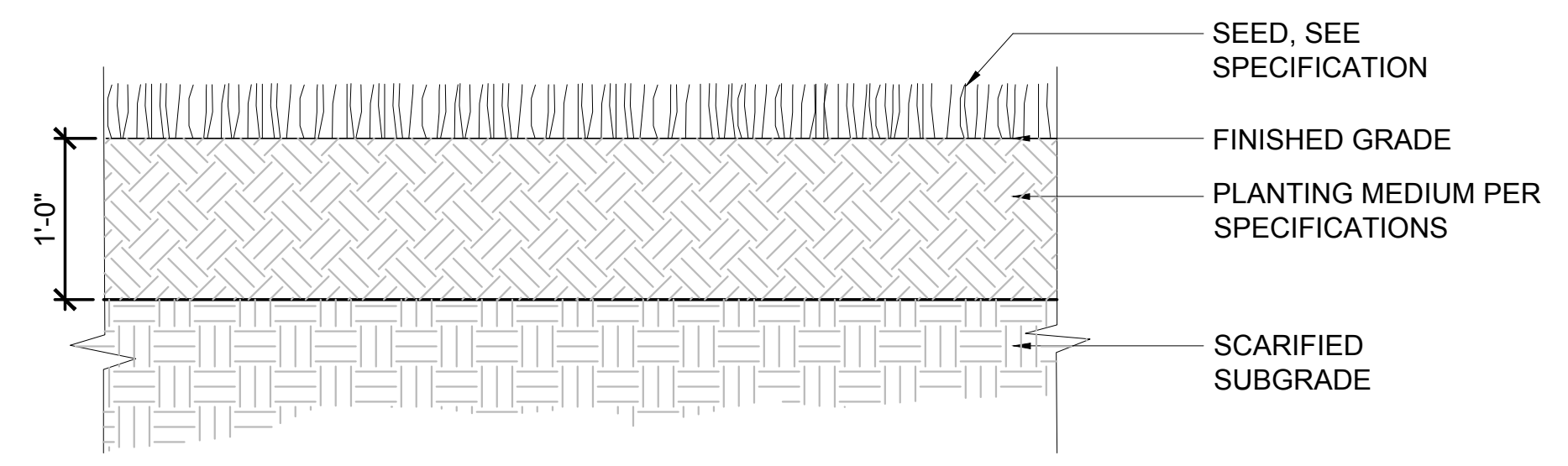
1 DECIDUOUS TREE PLANTING

SCALE: NTS



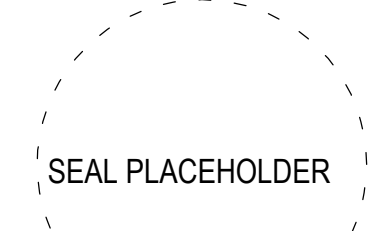
2 EVERGREEN TREE PLANTING

SCALE: NTS



3 SEEDED LAWN

SCALE: NTS

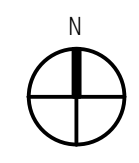


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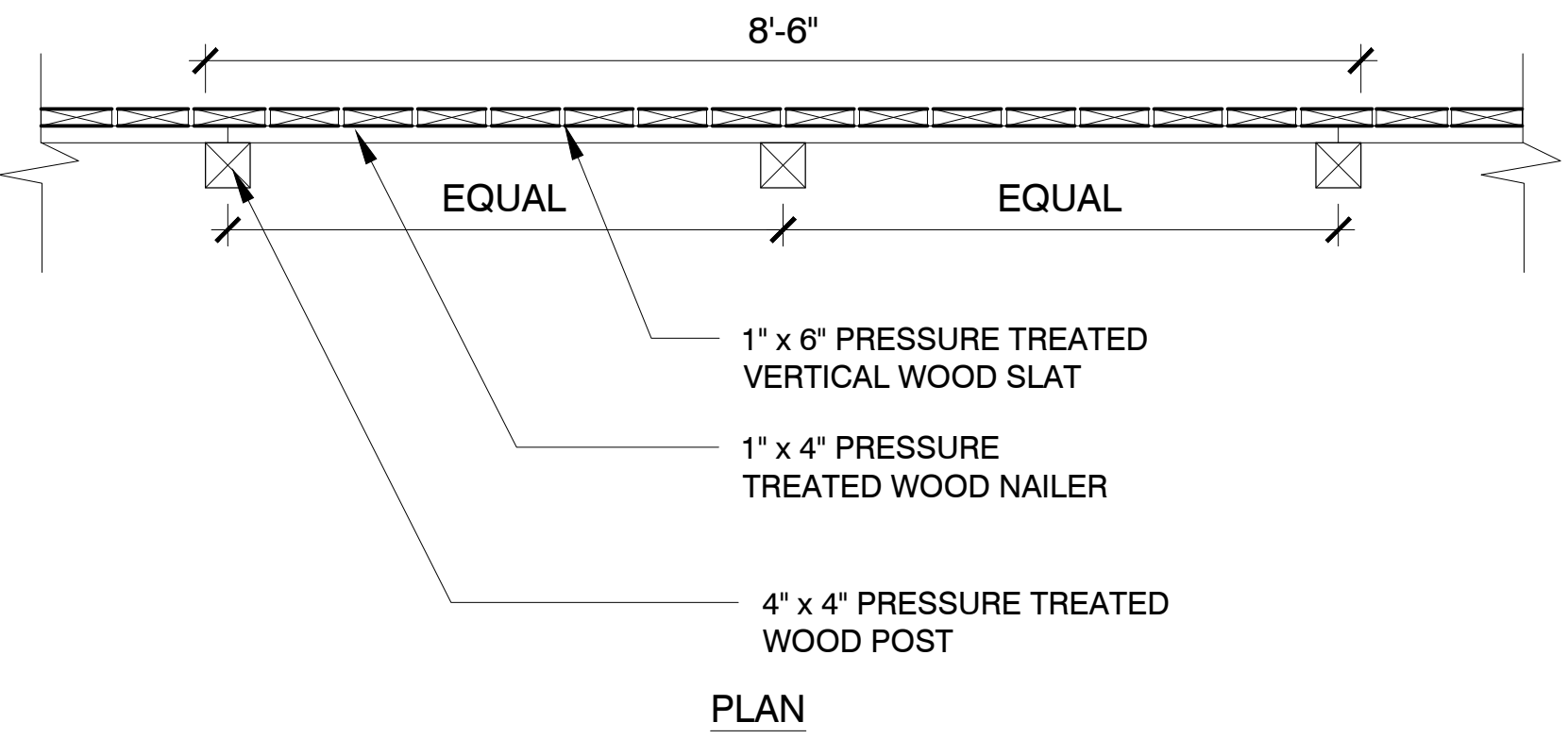
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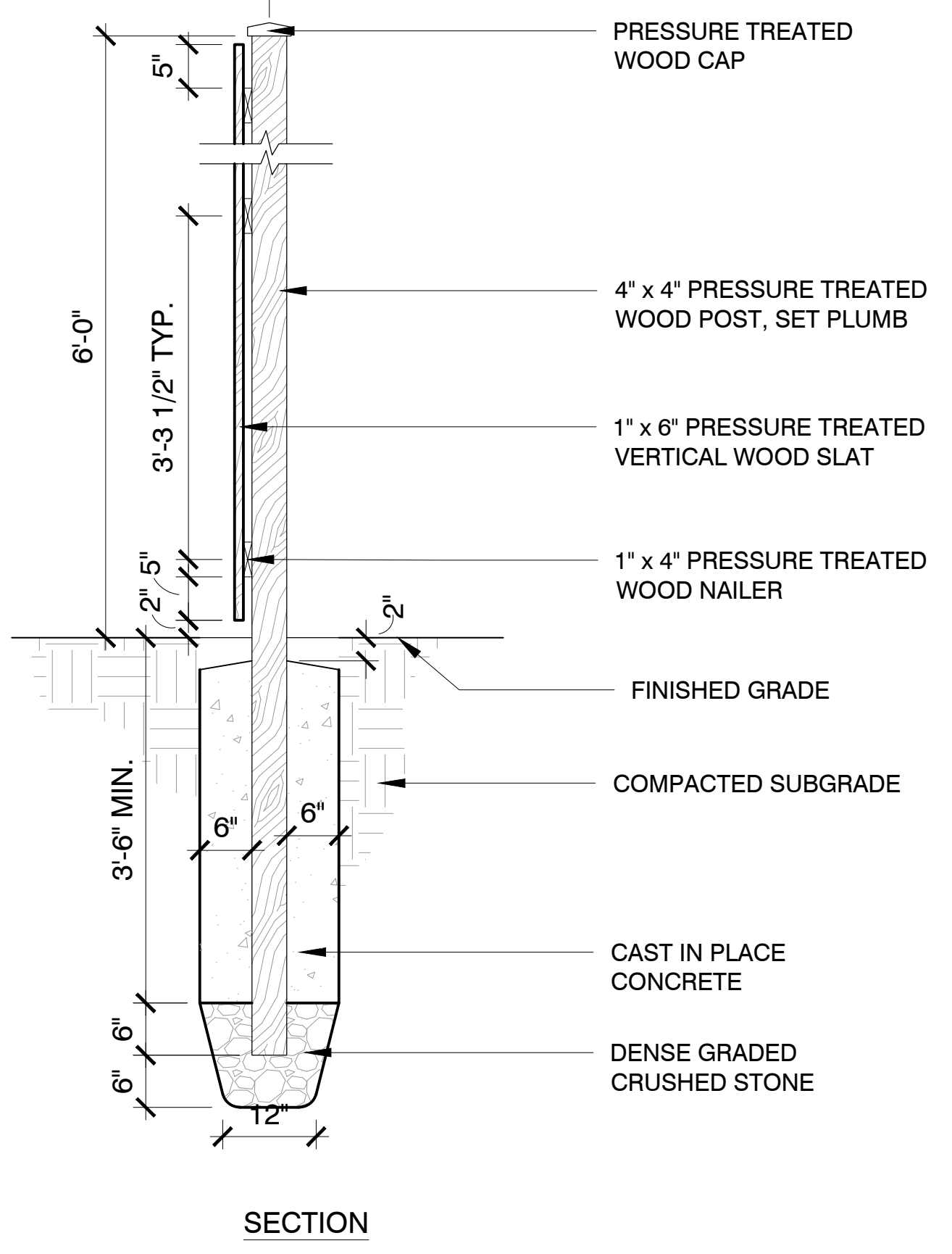
SITE LANDSCAPE DETAILS



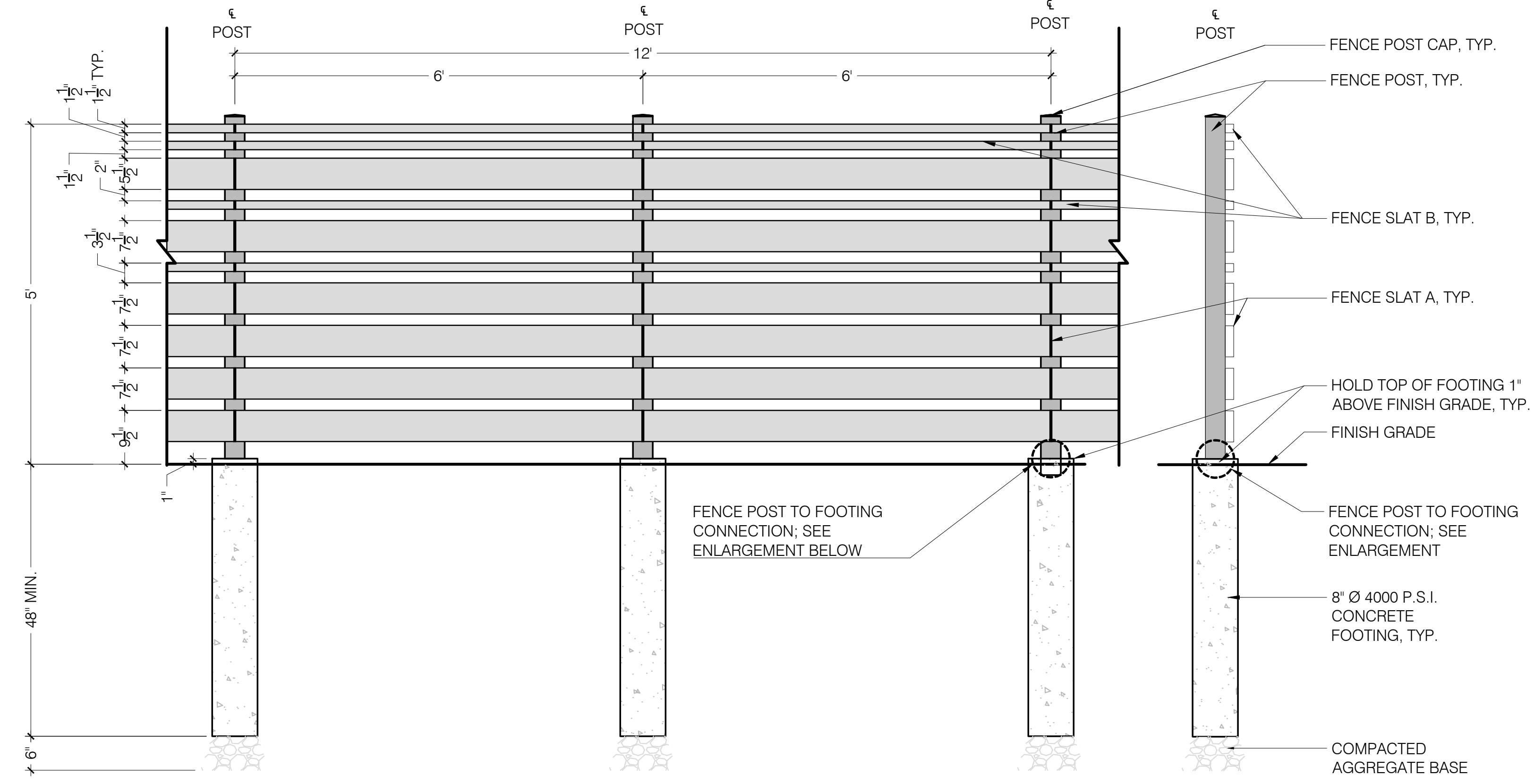
LA-03



← ADJACENT PROPERTY PARKING LOT →

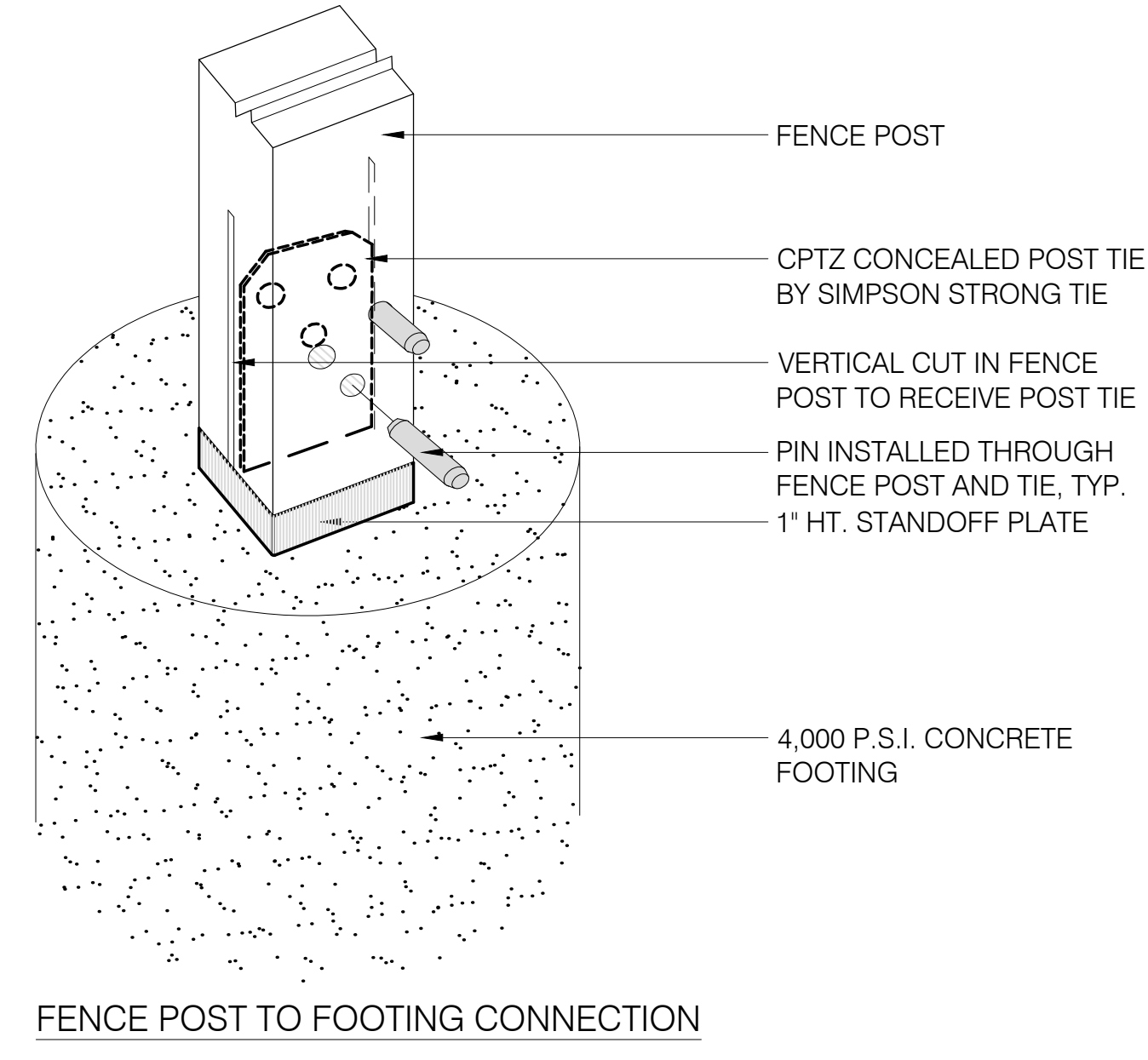


SECTION

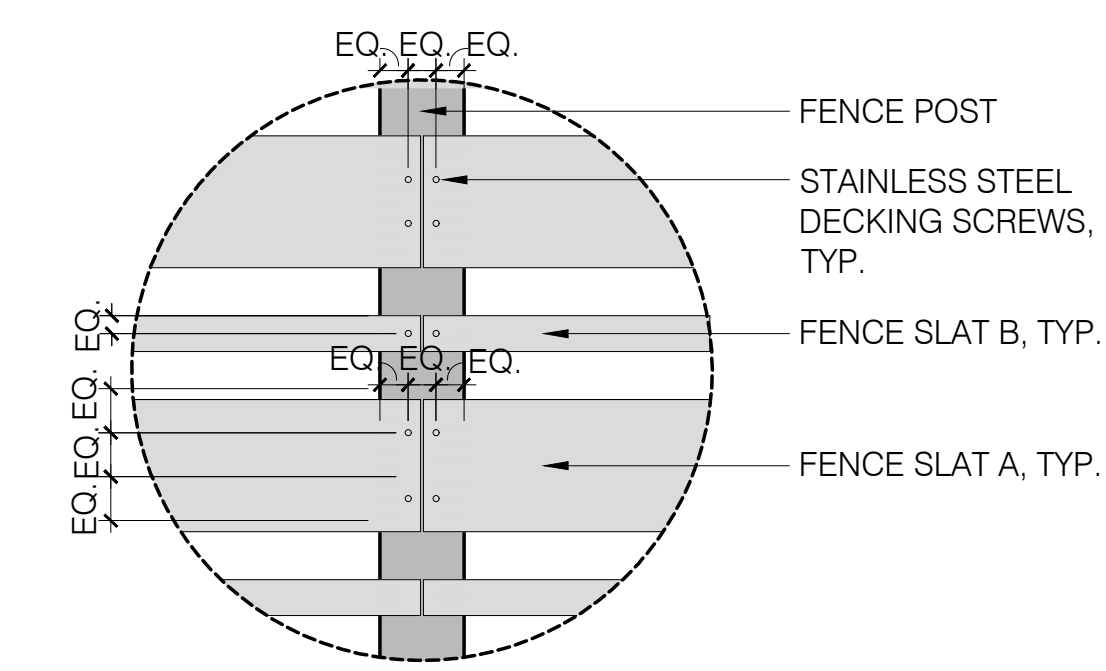


SCREEN FENCE A - ELEVATION

SCREEN FENCE A - SECTION



FENCE POST TO FOOTING CONNECTION



FENCE SLAT CONNECTION

NOTES:

1. FENCE POST SHALL BE 4X4 NOM. EASTERN RED CEDAR POST
2. FENCE SLAT 'A' SHALL BE 2X6 NOM. EASTERN RED CEDAR BOARD
3. FENCE SLAT 'B' SHALL BE 2X2 NOM. EASTERN RED CEDAR BOARD
4. GAPS BETWEEN FENCE SLATS SHALL BE 2" CLEAR, TYP. EXCEPT WHERE SHOWN ON THE DETAIL
5. ALL FENCE PANELS SHALL BE INSTALLED PARALLEL WITH VARYING HORIZONTAL AND LINEAR OFFSETS.
6. PROVIDE SHOP DRAWINGS PRIOR TO FABRICATION.

2 6' HT. WOOD STOCKADE FENCE
SCALE: NTS

1 WOOD SCREEN FENCE AT OUTDOOR TERRACE
SCALE: NTS

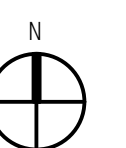


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**SITE LANDSCAPE
 PLANT IMAGERY**



DECIDUOUS TREES -

- Carpinus caroliniana* American Hornbeam
- Ginkgo biloba* Maidenhair Tree
- Gleditsia tricanthos* Thornless Honeylocust

ORNAMENTAL TREES -

- Amelanchier canadensis* Serviceberry
- Cornus kousa* Kousa Dogwood

EVERGREEN TREES -

- Thuja plicata 'Nana'* Dwarf Western Arborvitae



Amelanchier canadensis



Ginkgo biloba



Cornus kousa



Thuja plicata 'Nana'



Carpinus caroliniana



Gleditsia tricanthos var. inermis



TREE PLANTING OPTIONS
 MAY 17, 2021

EVERGREEN SHRUBS -

- Taxus media 'Hill's Upright'* Hill's Upright Yew
- Ilex glabra 'Compacta'* Compact Inkberry
- Ilex glabra* Inkberry

DECIDUOUS SHRUBS -

- Hydrangea macrophylla 'Endless Summer'* Endless Summer Hydrangea
- Rhus aromatica 'Gro-low'* Gro-low Fragrant Sumac
- Clethra alnifolia* Summersweet Clethra
- Cornus sericea* Redtwig Dogwood

PERENNIALS/GRASSES/GROUNDCOVER -

- Liriope muscari* Blue Lilyturf
- Pennisetum alopecuroides* Fountain Grass
- Panicum virgatum 'Shenandoah'* Shenandoah Switch Grass
- Juniperus communis* Common Juniper



Taxus media 'Hill's Upright'



Ilex glabra



Hydrangea macrophylla



Juniperus communis



Cornus sericea



Liriope muscari



Pennisetum alopecuroides



Panicum virgatum



Clethra alnifolia



Cornus sericea



Rhus aromatica 'Gro-Low'

SHRUB & PERENNIAL PLANTING OPTIONS
 MAY 17, 2021



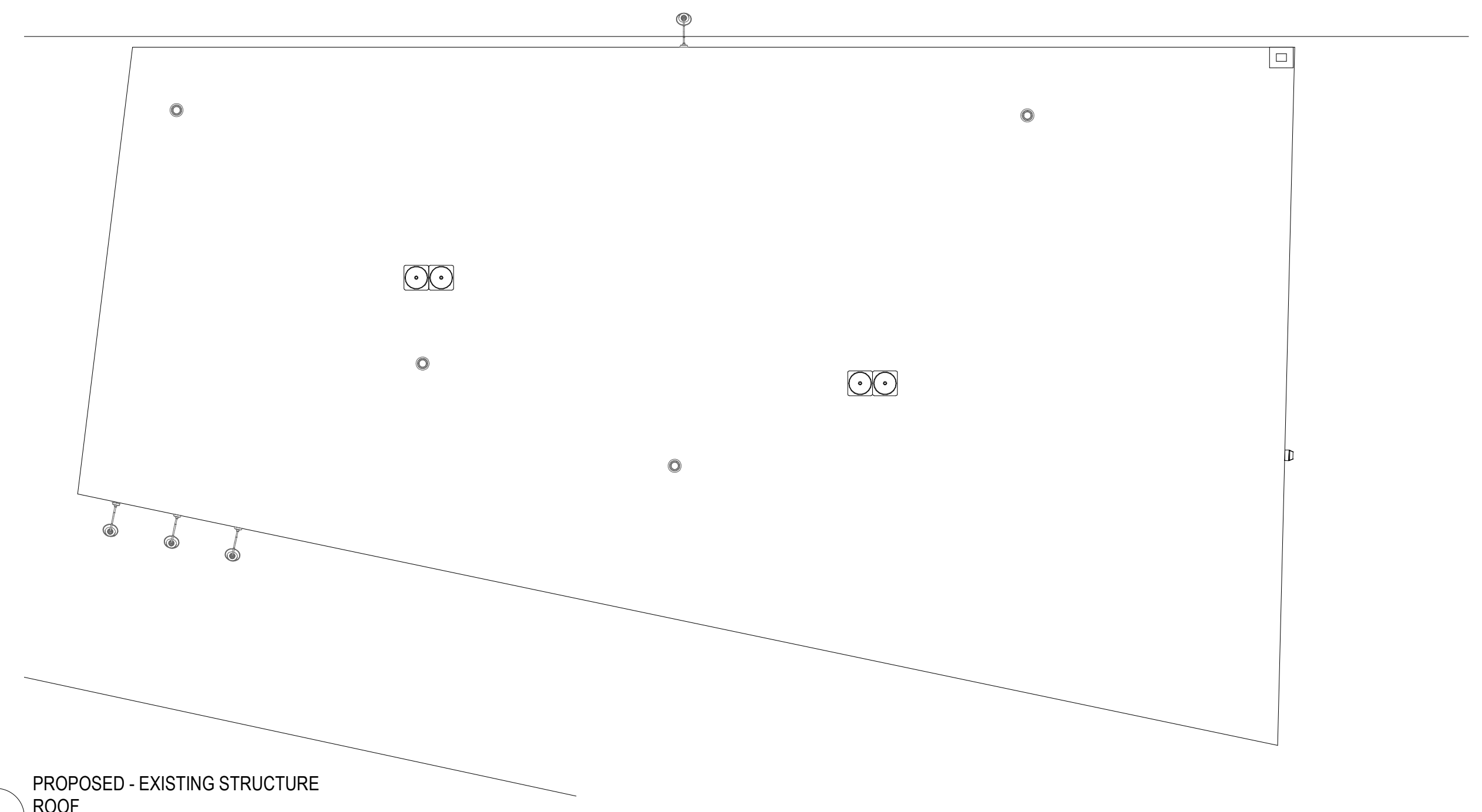
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ISSUE	DATE
440	PROJECT NUMBER
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Approver	APPROVED
3/32" = 1'-0"	SCALE
SHEET NAME	

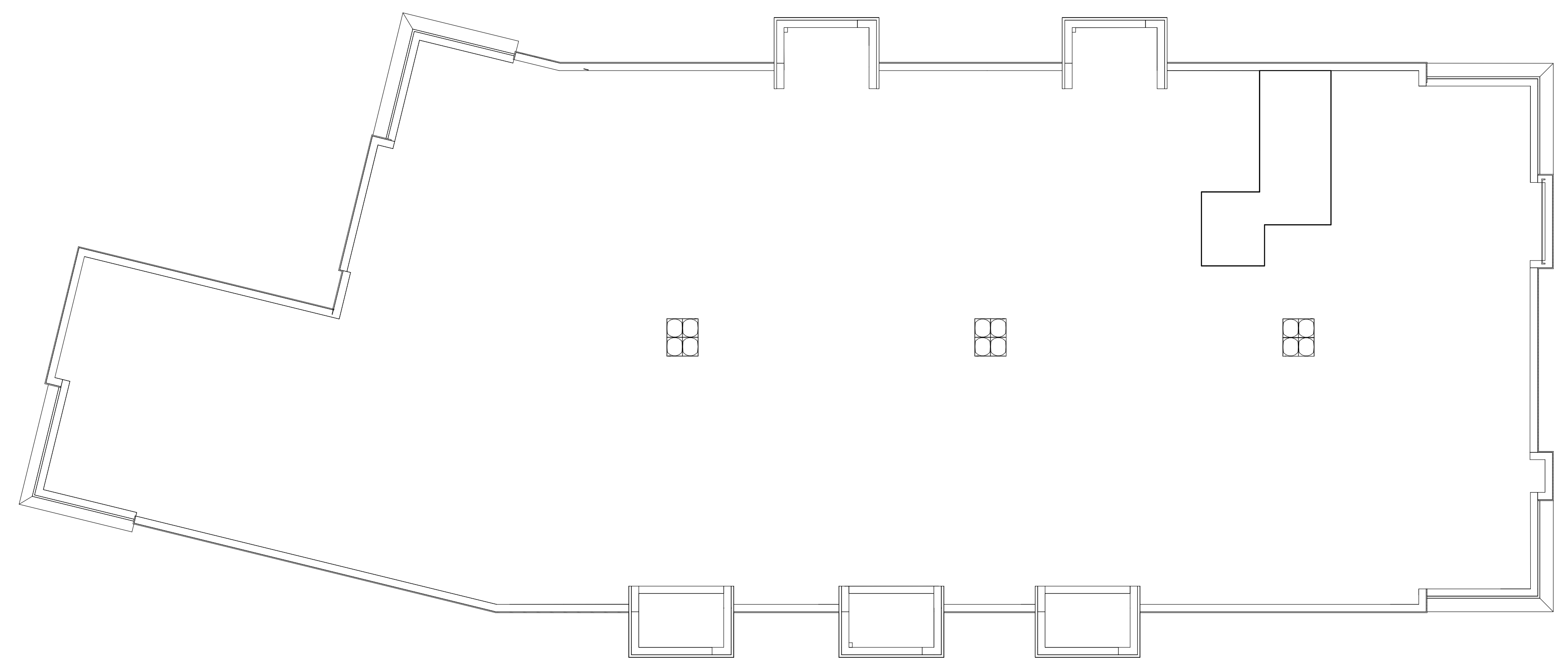
PROPOSED ROOF PLAN



1 VIEW FROM SOUTH PROPERTY LINE
 A050



2 PROPOSED - EXISTING STRUCTURE ROOF
 3/32" = 1'-0"
 A050



3 RESIDENTIAL BUILDING - PROPOSED ROOFTOP UNITS
 3/32" = 1'-0"
 A050



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2	DESIGN REVIEW	06/23/2021
1	PLANNING BOARD	06/23/2021

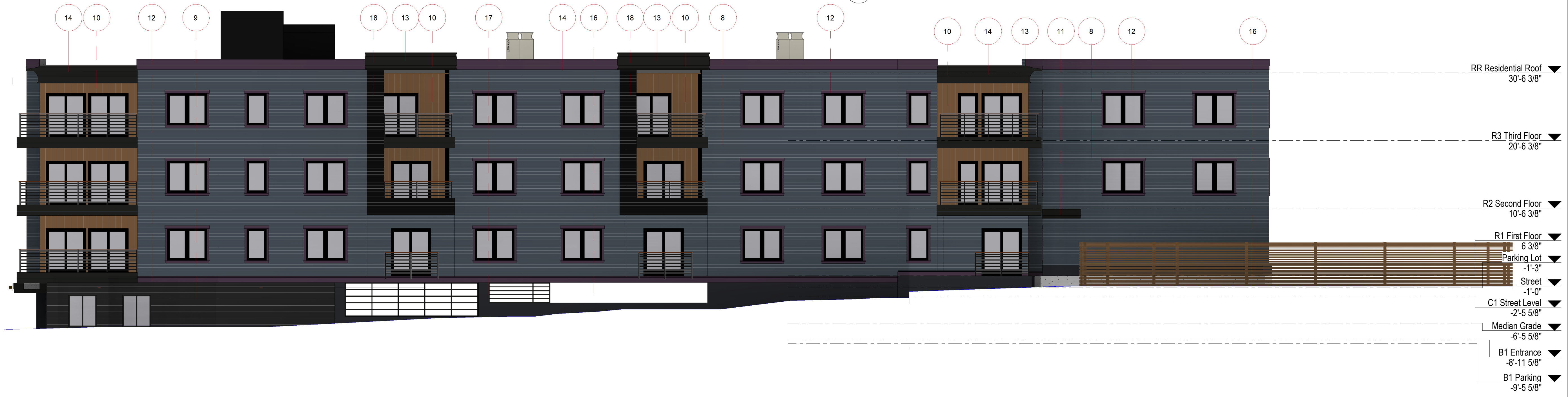
N	ISSUE	DATE
	440	PROJECT NUMBER
	Checker	CHECKED
	Approver	APPROVED
	1/8" = 1'-0"	SCALE

PROPOSED BUILDING FINISHES

- 1 | concrete masonry unit, to be powerwashed clean & painted; sherwin-williams duration series SW 7006 extra white satin.
- 2 | brick masonry - running bond; to be powerwashed clean & painted; sherwin-williams duration series SW 7006 extra white satin.
- 3 | existing awning, awning angle support, and fascia trim to be painted; sherwin-williams duration series SW 6258 tricorn black matte
- 4 | underside of existing awning to be painted; sherwin-williams duration series SW 7006 extra white satin
- 5 | existing storefront to be replaced with similar; new sealant and metal black satin finish.
- 6 | existing concrete landscape curb & new concrete ramp and steps to be painted; sherwin-williams H&C Acryla-deck; Muddy Gray HC172; with concrete sealer.
- 7 | new landscaped surround to be concrete retaining wall block; painted sherwin-williams H&C Acryla-deck; Muddy Gray HC172
- 8 | siding to be composite cement board; color new england pewter
- 9 | siding to be sugi ban (charred black natural wood)
- 10 | siding to be a natural pine (stained) or a natural looking composite pine.
- 11 | awnings to be a black metal fascia (satin black).
- 12 | parapet trim/ drip edge/window trim to be azek composite; color pantone 20-0100
- 13 | top parapet cap to be metal fascia; color satin black
- 14 | parapet cap @ balconies to be metal fascia; color satin black
- 15 | siding/trim to be composite cement board or azek; color khaki brown
- 16 | retaining wall; black ledge stone
- 17 | garage parking area openings to be concealed with open air louvre or fence to match the balconies above. black satin metal finish.
- 18 | siding to be composite cement board; color black

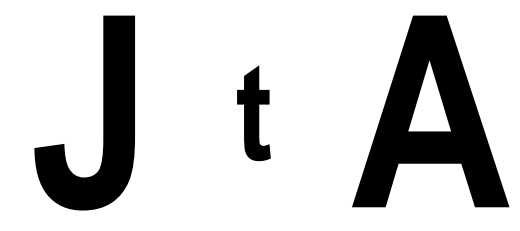


1
A201
PROPOSED ELEVATION EAST -
STRUCTURE B
1/8" = 1'-0"



2
A201
PROPOSED ELEVATION NORTH A -
STRUCTURE B
1/8" = 1'-0"

3
A201
PROPOSED ELEVATION NORTH B -
STRUCTURE B
1/8" = 1'-0"



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www.joethearchitect.com



WALKER DEVELOPMENT
5 MT. ROYAL AVENUE, MARLBOROUGH, MA 01752



THE ENGINE YARD

40 ALPINE ROW
FRANKLIN, MA 02038

FOR ZONING

8/18/2021 4:25:40 PM

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2	DESIGN REVIEW	06/23/2021
1	PLANNING BOARD	06/23/2021

N	ISSUE	DATE
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	as	CHECKED
	ac	APPROVED
	1/8" = 1'-0"	SCALE

EXTERNAL ELEVATIONS

A202

PROPOSED BUILDING FINISHES

	1 concrete masonry unit, to be powerwashed clean & painted; sherwin-williams duration series SW 7006 extra white satin.		8 siding to be composite cement board; color new england pewter
	2 brick masonry - running bond; to be powerwashed clean & painted; sherwin-williams duration series SW 7006 extra white satin.		9 siding to be sugi ban (charred black natural wood)
	3 existing awning, awning angle support, and fascia trim to be painted; sherwin-williams duration series SW 6258 tricorn black matte		10 siding to be a natural pine (stained) or a natural looking composite pine.
	4 underside of existing awning to be painted; sherwin-williams duration series SW 7006 extra white satin		11 awnings to be a black metal fascia (satin black).
	5 existing storefront to be replaced with similar; new sealant and metal black satin finish.		12 parapet trim/ drip edge/window trim to be azek composite; color pantone 20-0100
	6 existing concrete landscape curb & new concrete ramp and steps to be painted; sherwin-williams H&C Acryla-deck; Muddy Gray HC172; with concrete sealer.		13 top parapet cap to be metal fascia; color satin black
	7 new landscaped surround to be concrete retaining wall block; paintedsherwin-williams H&C Acryla-deck; Muddy Gray HC172		14 parapet cap @ balconies to be metal fascia; color satin black
			15 siding/trim to be composite cement board or azek; color khaki brown
			16 retaining wall; black ledge stone
			17 garage parking area openings to be concealed with open air louvre or fence to match the balconies above. black satin metal finish.
			18 siding to be composite cement board; color black



3
A202
PROPOSED ELEVATION WEST -
STRUCTURE B
1/8" = 1'-0"



1
A202
PROPOSED ELEVATION SOUTH A -
STRUCTURE B
1/8" = 1'-0"

2
A202
PROPOSED ELEVATION SOUTH B -
STRUCTURE B
1/8" = 1'-0"