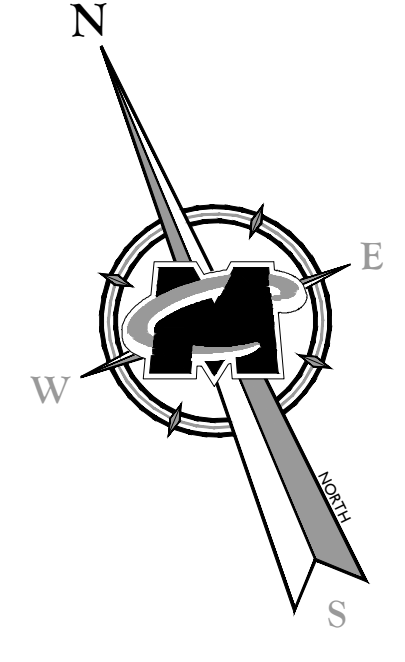


**GENERAL NOTES:**

1. SURVEY INFORMATION BASED ON SURVEY TITLED "ALBANYPS LAND TITLE SURVEY FOR COSTCO WHOLESALE CORPORATION", PREPARED BY MASER CONSULTING P.A. DATED 11/19/18
2. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. MASER CONSULTING HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES. INTERPRETATIONS, CONCLUSIONS OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.



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REV	DATE	DESCRIPTION
1	11/19/18	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS
2	08/02/20	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS
3	10/20/20	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND
4	09/02/21	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND

REV	DATE	DESCRIPTION
1	11/19/18	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS
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**RUSSELL T. McFALL II**  
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 900030

**SPECIAL USE PERMIT SITE PLANS**  
FOR  
**COSTCO WHOLESALE**  
CROSSGATES MALL  
TAX MAP 52.10, 52.14 & 52.01  
TOWN OF GUILDERLAND  
ALBANY COUNTY  
STATE OF NEW YORK

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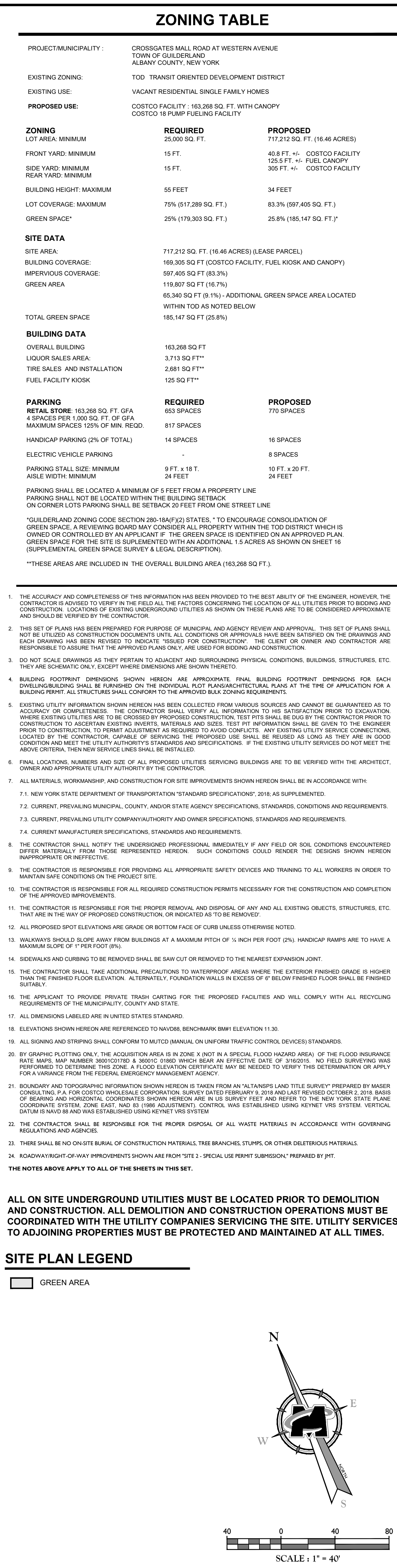
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SCALE: 1" = 40'

2 of 22

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.









GRADING AND DRAINAGE NOTES

1. REFER TO THE SITE PLAN FOR SPECIFIC DETAILS AND DIMENSIONS OF SITE PARKING LAYOUT AND RELATED IMPROVEMENTS.
2. PROPOSED SPOT ELEVATIONS PROVIDED REPRESENT BOTTOM FACE OF CURB ELEVATIONS. TOP OF CURB ELEVATIONS ARE 0.5' ABOVE EDGE OF CURB ELEVATION UNLESS OTHERWISE NOTED.
3. ALL PERIMETER BUILDING SIDEWALKS TO SLOPE AT 1% MINIMUM (1/8"FT.) AND 2% MAXIMUM (1/4"FT.) AWAY FROM THE BUILDING TO THE FACE OF CURB OR EDGE OF PAVING.
4. REFER TO THE UTILITY PLAN FOR UTILITY LAYOUT AND RELATED IMPROVEMENTS.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED. NO CERTIFICATION MADE BY MASER CONSULTING AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA, A UTILITY MARK-OUT IS OBTAINED.
6. NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPILL. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST SIX (6) INCHES OF COVER TO ALL LANDSCAPE AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING.
7. THE EROSION AND SEDIMENTATION CONTROL PLANS SHALL BE REFERENCED AND USED IN CONJUNCTION WITH THIS DRAWING TO COMPLETE CONSTRUCTION PHASING.
8. LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND OBSERVATIONS AT THE SITE. COMPLETENESS OR ACCURACY OF LOCATIONS AND DEPTH CANNOT BE GUARANTEED. ALL CONTRACTORS AND OTHER PERSONS UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED THAT EACH INDIVIDUAL USING THIS PLAN MUST VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE STARTING WORK.
9. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITIES ENTERING THE BUILDING INCLUDING SANITARY SEWER LATERALS, DOMESTIC WATER AND FIRE PROTECTION SERVICE, ELECTRIC, TELEPHONE AND GAS SERVICE. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO THEIR FACILITIES.
10. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
11. IN AREAS OF PROPOSED EARTHWORK, EARTH MAY BE EXCAVATED USING CONVENTIONAL EQUIPMENT, INCLUDING EXCAVATORS, LOADERS AND DOZERS. LARGE ROCKS MAY BE BROKEN UP OR DISCLOSED BY HOE RAMS AND DOZERS WITH RIPPERS. BLASTING IS NOT ANTICIPATED ON THIS SITE.
12. THE SITE IS TO BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE PROPOSED CONTOURS AND SPOT ELEVATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING A POSITIVE DRAINAGE FLOW TO STORM WATER FACILITIES AND STRUCTURES WITHOUT CREATING FLAT SPOTS THAT WILL RESULT IN STANDING WATER (POUNDING OR PONDING).
13. NY ONE-CALL SYSTEM CALL BEFORE YOU DIG: 811.
14. CONTRACTOR TO PROVIDE PROTECTION FOR ANY EXISTING STORM PIPING AND APPURTENANCES ON THE PROPOSED SITE INDICATED ON THE DRAWINGS.
15. STORM STRUCTURE TYPES PER STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION DRAINAGE STRUCTURE DETAILS.
16. PRIOR TO CONSTRUCTION THESE PLANS MUST BE REVIEWED AND APPROVED BY THE NYSDOT FOR COVERAGE UNDER SPDES GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITY (SP-4-20-01).
17. GRADING AND DRAINAGE DESIGN TO BE COORDINATED WITH THE PROPOSED ROADWAY IMPROVEMENTS BY JMT.

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RUSSELL T. McFALL II

NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS

FOR

COSTCO WHOLESALE

CROSSGATES MALL

TAX MAP 52.10, 52.14, & 52.01

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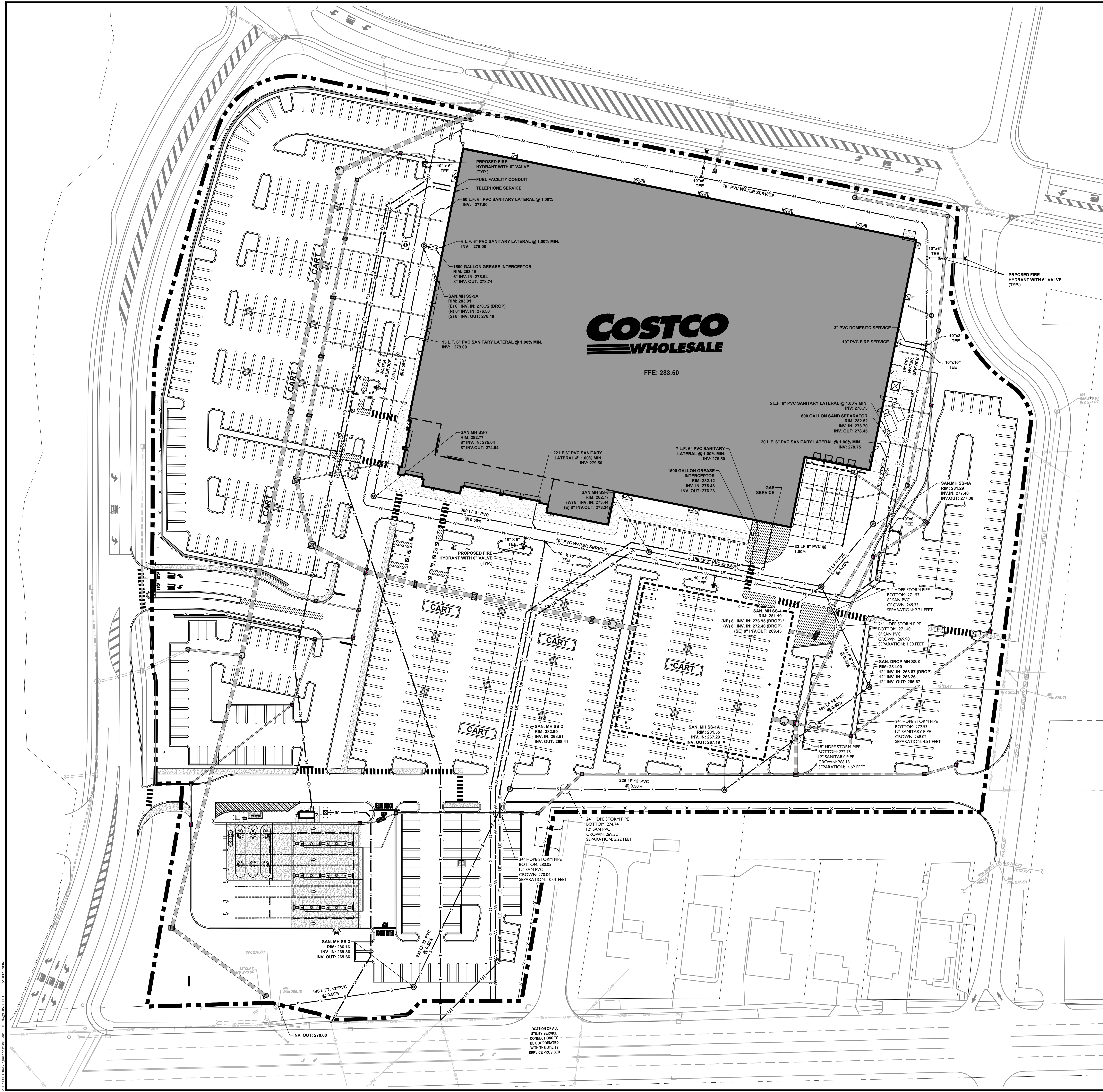
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SCALE: AS SHOWN DATE: 10/28/19 DRAWN BY: DJB CHECKED BY: RTM PROJECT NUMBER: 1300120544 DRAWING NAME: C-GRD

SHEET TITLE: GRADING AND DRAINAGE PLAN SHEET NUMBER: 4 of 22

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.





- ### UTILITY NOTES
1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER. HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
  2. THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY ARE USED FOR BIDDING AND CONSTRUCTION.
  3. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
  4. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION. TO ASCERTAIN EXISTING UTILITIES MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LOCATED BY THE CONTRACTOR, CAPABLE OF SERVING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
  5. FINAL LOCATIONS, NUMBERS AND SIZE OF ALL PROPOSED UTILITIES SERVING BUILDINGS ARE TO BE VERIFIED WITH THE ARCHITECT, OWNER AND APPROPRIATE UTILITY AUTHORITY BY THE CONTRACTOR.
  6. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
  7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
  8. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
  9. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS AND SIZES OF ALL UTILITIES ENTERING THE BUILDING, INCLUDING SANITARY SEWER, WATER, GAS, ELECTRIC AND TELEPHONE SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED.
  10. CONTRACTOR IS TO COORDINATE WITH THE UTILITY COMPANIES AS TO THE LOCATION AND SCHEDULING OF SERVICE CONNECTIONS TO THE UTILITY SURVEY FACILITIES.
  11. UTILITY COMPANIES MUST BE NOTIFIED PRIOR TO ANY DEMOLITION, EXCAVATION AND/OR CONSTRUCTION. CALL 811 TO ORDER UTILITY MARK-OUTS AT THE SITE.
  12. THE ROUTING OF ALL UTILITIES IS SUBJECT TO ADJUSTMENT TO MEET UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS. WHEN BUILDING PLUMBING AND MECHANICAL DRAWINGS ARE COMPLETE AND UTILITY REQUIREMENTS ARE FINALIZED ADJUSTMENTS MAY BE NECESSARY TO THE UTILITY SERVICE LOCATIONS AND SIZES.
  13. THE CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, COVERS, MANHOLES, VALVE BOXES AND OTHER UTILITY FACILITY STRUCTURES TO BE FLUSH WITH FINISH SURFACE GRADE ELEVATIONS.
  14. ALL CONCRETE IS TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
  15. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
    - A) NEW YORK DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS CURRENTLY AMENDED.
    - B) CURRENT, PREVAILING TOWN OF GUILDERLAND STANDARDS AND REQUIREMENTS.
    - C) CURRENT, PREVAILING UTILITY COMPANY AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.

- ### UTILITY INSTALLATION AND TRENCH EXCAVATION GUIDELINES
1. CONSTRUCTION REQUIREMENTS
    - A. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
    - B. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING, AS REQUIRED, TO A FACILITY FOR REMOVAL OF SEDIMENT IN ACCORDANCE WITH N.J.-DEP. GUIDELINES.
    - C. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO BE FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE AT THE END OF EACH WEEK.
  2. BACKFILLING-AFTER THE PIPE AND ITS APPURTENANCES HAVE BEEN SATISFACTORILY INSTALLED AND COVERED, THE TRENCH SHALL BE BACKFILLED IN SIX (6) INCH LAYERS AND IN SUCH A MANNER AS NOT TO DISTURB THE PIPE. HOWEVER, EACH LAYER WILL BE PERMITTED WHEN USING VIBRATORY COMPACTION EQUIPMENT PROVIDED BACKFILL MATERIAL IS SUITABLE FOR COMPACTION TESTING. EACH LAYER OF BACKFILL SHALL BE THOROUGHLY COMPACTED WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS. FOR THE FULL TRENCH WIDTH, THE BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 90% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.
  3. EXCEPTIONS: IN CERTAIN CASES TRENCHES CAN NOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED. IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM 1. (CONSTRUCTION REQUIREMENTS) WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
    - A. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY.
    - B. IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES OR FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDING AND MULCHING WITHIN THE NEXT TWO CALENDAR DAYS.
    - C. SIDES OF TRENCHES SHALL BE KEPT AS NEARLY VERTICAL AS POSSIBLE, AND THE TRENCHES SHALL BE EXCAVATED TRUE TO THE LINE SO THAT A CLEAR SPACE EIGHT (8) INCHES IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE TO A HEIGHT OF LESS THAN ONE (1) FOOT ABOVE THE TOP OF THE PIPE. IF SHEETING IS REQUIRED AT THE LEVEL OF THE PIPE, THE DIMENSIONS IN THE FOREGOING SENTENCE SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING.
    - D. THE MUNICIPALITY SHALL HAVE THE RIGHT TO LIMIT THE AMOUNT OF TRENCH OPENED IN ADVANCE OF PIPE LAYING AND THE AMOUNT OF PIPE LAID IN ADVANCE OF BACKFILLING, BUT IN NO CASE SHALL MORE THAN FOUR HUNDRED (400) FEET OF TRENCH BE OPENED AT ANY ONE PLACE IN ADVANCE OF THE COMPLETED PIPE. THE TRENCH SHALL NOT BE OPENED FOR A DISTANCE OF MORE THAN FIVE HUNDRED (500) FEET AT ANY ONE TIME.
    - E. NO TRENCH WITHIN A PUBLIC STREET SHALL BE LEFT UNCOVERED AT THE CLOSE OF THE WORK DAY. NO OTHER TRENCH SHALL BE LEFT UNCOVERED FOR MORE THAN FIVE CONSECUTIVE WORKING DAYS. STEEL PLATES OF ADEQUATE STRENGTH MAY BE USED TO COVER OPENINGS WITH THE PRIOR APPROVAL OF THE MUNICIPAL ENGINEER.
    - F. PRIOR TO PERFORMING ANY BLASTING, THE CONTRACTOR MUST OBTAIN ALL NECESSARY LICENSES AND PERMITS. PROTECTIVE MEASURES MUST BE USED TO INSURE SAFETY TO ADJACENT PROPERTY.
    - G. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INJURY TO PERSONS OR PROPERTY THAT MAY RESULT FROM THE USE OF EXPLOSIVES. ALL BLASTING SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED BLASTER, AND SHALL BE SUBJECT TO STATE, COUNTY AND LOCAL REGULATIONS.
    - H. WHEN PIPE IS TO BE INSTALLED IN FILL, THE EMBANKMENT SHALL BE CONSTRUCTED TO AT LEAST ONE (1) FOOT ABOVE THE PROPOSED TOP OF THE PIPE. THE EMBANKMENT SHALL THEN BE EXCAVATED TO THE PROPER FORM AND GRADE, AND THE PIPE INSTALLED. THE EMBANKMENT SHALL THEN BE CONSTRUCTED TO NOT LESS THAN THREE AND ONE HALF (3 1/2) FEET ABOVE THE TOP OF THE PIPE.

- ### WATER MAIN NOTES
1. CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING, DISINFECTION, AND BACTERIOLOGICAL ANALYSIS OF THE NEW WATER MAIN.
  2. CONTRACTOR TO PROVIDE PROTECTION FOR ANY EXISTING WATER MAINS AND APPURTENANCES ON THE PROPOSED SITE DEVELOPMENT PROPERTY.

- ### SANITARY SEWER NOTES
1. CONTRACTOR TO PROVIDE PROTECTION FOR ANY EXISTING SEWER PIPING AND APPURTENANCES ON THE PROPOSED SITE DEVELOPMENT PROPERTY.

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2	08/02/20	DR	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS
3	10/05/20	DR	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS
4	08/02/21	DR	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS
5	09/02/21	DR	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS

RUSSELL T. McFALL II  
NEW YORK LICENSED PROFESSIONAL  
ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS  
FOR

CROSSGATES MALL  
TAX MAP 52.10, 52.14, & 52.01  
TOWN OF GUILDERLAND  
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STATE OF NEW YORK

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PROJECT NUMBER:	DRAWING NAME:
130012054	C-UTIL

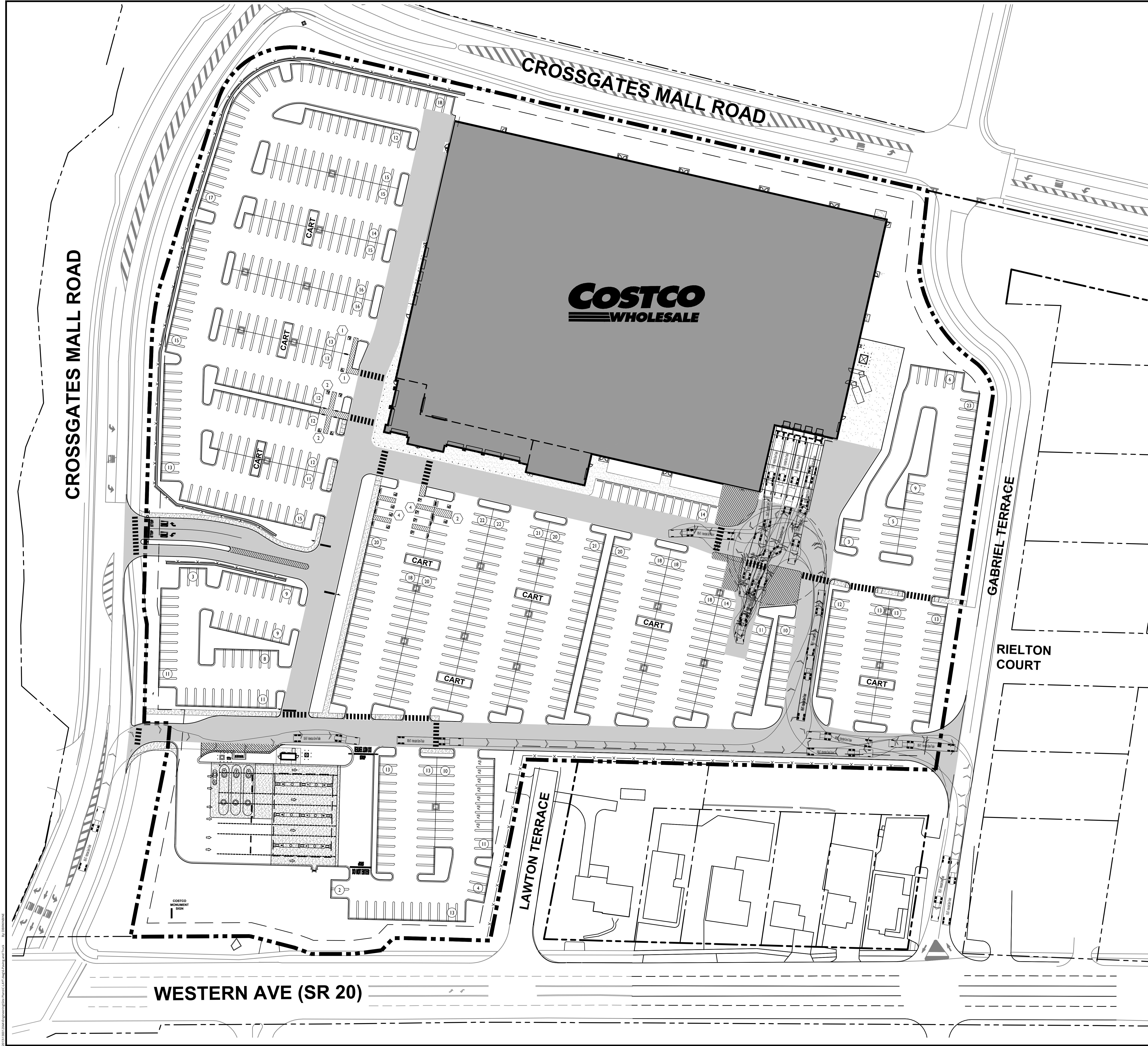
SHEET TITLE:
UTILITIES PLAN

SHEET NUMBER:
5 of 22

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**LEGEND**

WB-67 TRUCK (73.5 FEET LONG)  
HEAVY DUTY PAVEMENT SECTION

FOR HEAVY DUTY AND STANDARD DUTY PAVEMENT DETAILS REFER TO SHEET X

N  
E  
S  
W

40 0 40 80

SCALE: 1" = 40'

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1	04/22/20	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS	RTM			
2	08/02/20	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS	RTM			
3	10/29/20	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND	RTM			
4	09/02/21	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND	RTM			
5	09/02/21	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND	RTM			

RUSSELL T. McFALL II

NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS

FOR

**Costco**  
WHOLESALE

CROSSGATES MALL  
TAX MAP 52.10, 52.14, & 52.01

TOWN OF GUILDERLAND  
ALBANY COUNTY  
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Colliers

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PROJECT NUMBER:	DRAWING NAME:
13001204A	C-LAY

SHEET TITLE:

TRUCK MOVEMENTS AND PAVEMENT PLAN

SHEET NUMBER:

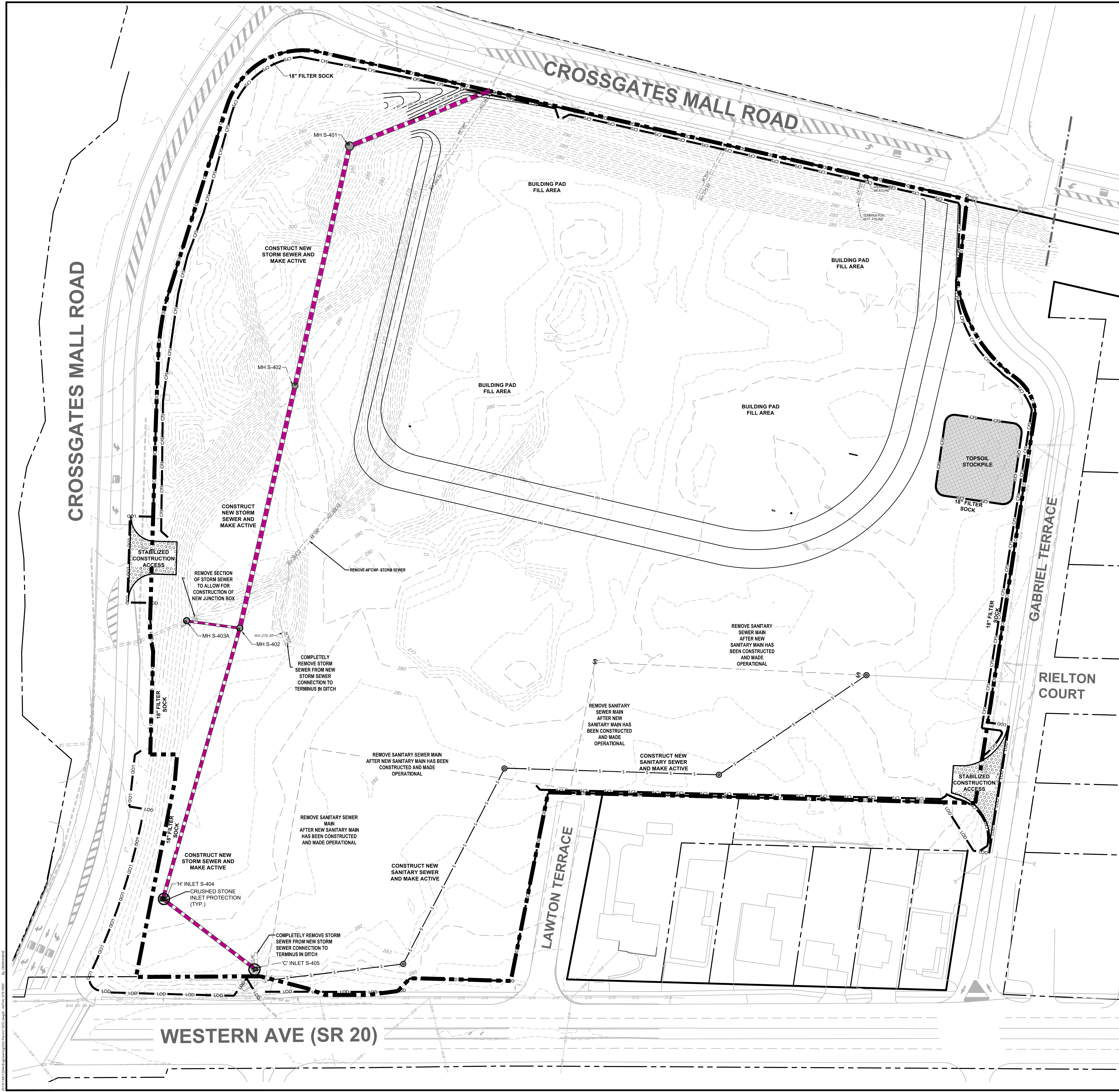
6 of 22

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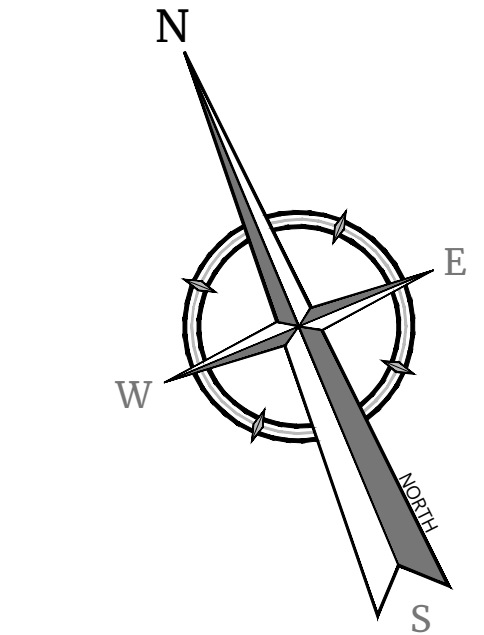


EROSION CONTROL LEGEND	
	PROPERTY LINE
	LIMIT OF DISTURBANCE
	SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE
	TOPSOIL STOCKPILE
	PROPOSED CONTOURS
	EXISTING CONTOURS
	STORM PIPE
	SANITARY SEWER PIPE

- INITIAL SITE PREPARATION SEQUENCE OF ACTIVITIES:**
- AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PREPARED, AND THE SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.
- AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED ON THOSE ACTIVITIES SHALL NOTIFY THE NEW YORK UTILITY ONE-CALL SYSTEM AT 811 TO OBTAIN A UTILITY MARK-OUT.
- ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.
- CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CONTROL PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE.
1. THE TOWN OF GUILDERLAND AND THE SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
  2. INSPECT SEDIMENT CONTROL BARRIERS INSTALLED AS PART OF THE DEMOLITION PROCEDURES. RE-ESTABLISH SEDIMENT CONTROL BARRIERS AS NECESSARY. REFER TO DETAILS.
  3. VERIFY ALL ON SITE UTILITIES HAVE BEEN LOCATED, DECOMMISSIONED AND REMOVED. UTILITY REMOVAL SHALL BE COORDINATED WITH EACH RESPECTIVE UTILITY SERVICE PROVIDER.
  4. CLEAR AND GRUB AREAS OF CONSTRUCTION.
  5. STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREAS. STABILIZE TOPSOIL STOCKPILE WITH TEMPORARY SEEDING REQUIREMENTS.
  6. CONSTRUCT SANITARY SEWER MAIN AND STORM SEWERS TO THE EXTENTS SHOWN ON THIS PLAN. START PLACING FILL FOR THE BUILDING PAD.
  7. DEMOLISH AND REMOVE THE EXISTING SANITARY SEWER MAIN. DEMOLISH AND REMOVE SECTIONS OF STORM SEWER NOTED ON THIS PLAN.
  8. BACKFILL ALL Voids CREATED FROM CONSTRUCTION PROCEDURES WITH STRUCTURAL FILL MATERIAL PLACED AND COMPACTED IN ACCORDANCE WITH TECHNICAL SPECIFICATION.
  9. INSPECT AND RECONSTRUCT EROSION CONTROL MEASURES IN PREPARATION FOR THE NEXT PHASE OF SITE DEVELOPMENT.

TOTAL PROJECT DISTURBANCE: 735,400 SF

FOR EXISTING WETLANDS REFER TO AQUATIC RESOURCE DELINEATION, LANDS NOW OR FORMERLY OF CROSSGATES RELEASE CO LLC, PREPARED BY THE CHAZEN COMPANIES, DATED 8/28/10.



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REV	DATE	DESCRIPTION	BY	DATE	DESCRIPTION	BY
1	02/22/20	1. AMEND NOTE REVISIONS	DB			
2	08/02/20	2. REVISION PER TOWN OF GUILDERLAND REVIEW COMMENTS	DB			
3	10/29/20	3. REVISION PER TOWN OF GUILDERLAND REVIEW COMMENTS	DB			
4	09/02/21	4. REVISION PER TOWN OF GUILDERLAND REVIEW COMMENTS	DB			
5	09/02/21	5. REVISION PER TOWN OF GUILDERLAND REVIEW COMMENTS	DB			

**RUSSELL T. McFALL II**  
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

**SPECIAL USE PERMIT SITE PLANS**  
FOR  
 **COSTCO WHOLESALE**

CROSSGATES MALL  
TAX MAP 52.10, 52.14 & 52.01

TOWN OF GUILDERLAND  
ALBANY COUNTY  
STATE OF NEW YORK

410 Eagleview Boulevard, Suite 104  
Extont, PA 19341  
Phone: 610.254.5140  
COLLIERS ENGINEERING & DESIGN, INC.  
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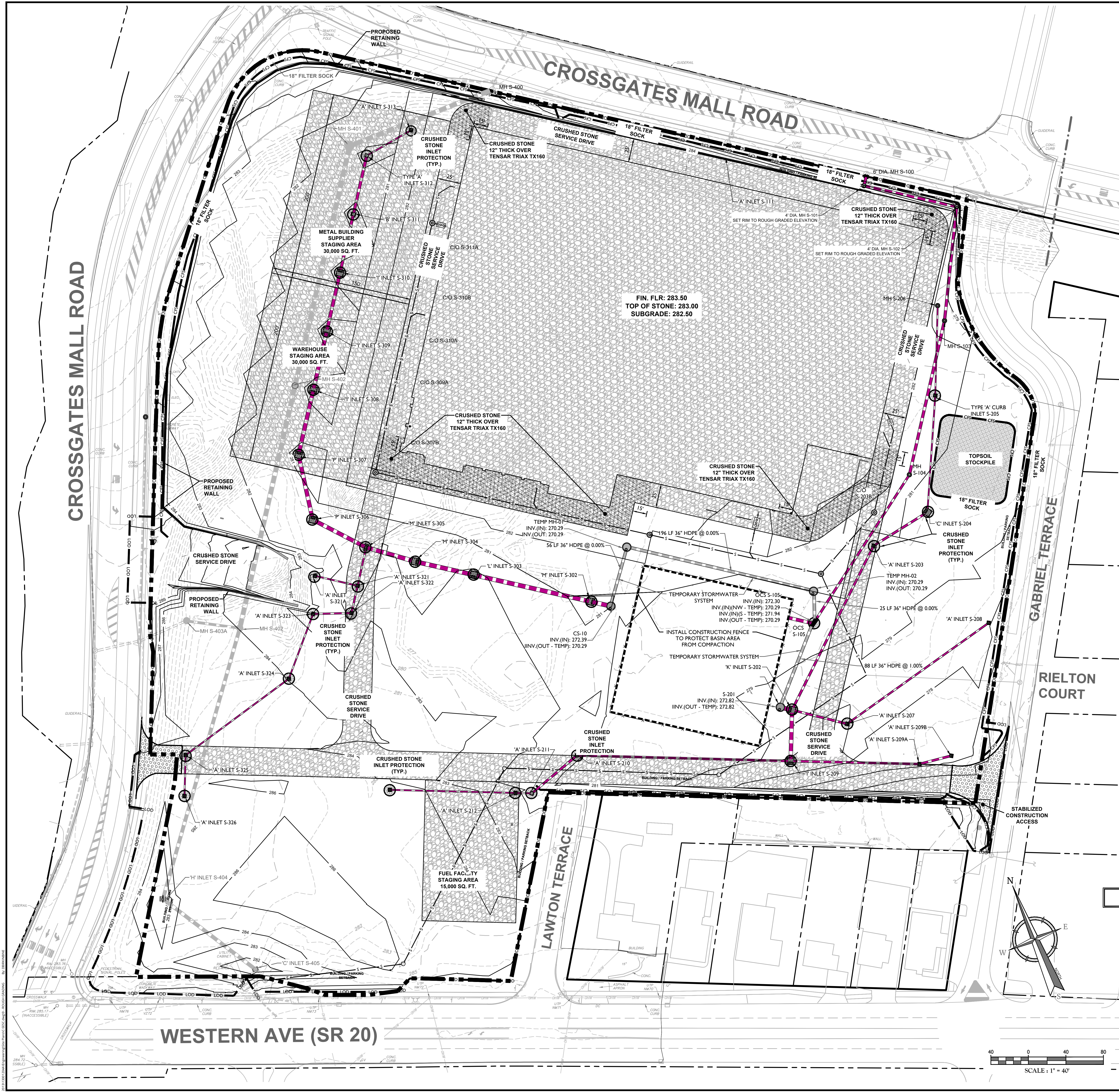
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/28/19	DB	RTM
PROJECT NUMBER:	DRAWING NAME:		
13001204A	C-SESC		

SHEET TITLE:  
**EROSION CONTROL INITIAL SITE PREPARATION**

SHEET NUMBER:  
**8 of 22**

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.





ROUGH GRADING SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS FOR DISTURBANCES LESS THAN FIVE (5) ACRES AND SEVEN (7) DAYS FOR DISTURBANCES GREATER THAN FIVE (5) ACRES, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
3. PERMANENT VEGETATION TO BE SEEDING OR SOODED ON ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING. WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
5. A SUBGRADE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
7. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULPHIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL, HAVING A PH OF 5 OR MORE PRIOR TO SEEDING. PREPARATION AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY-FOUR (24) INCHES OF SOIL HAVING A PH OF 5 OR MORE.
8. AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
9. CONDUIT OUTLET PROTECTION MUST BE REVIEWED AND SUPPLEMENTED AT ALL OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
10. UNFILTERED DEWATERING IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STATE STANDARDS.
11. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
12. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION AND SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR EFFLUENTS AS A RESULT OF CONSTRUCTION OF THE PROJECT.
13. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD, SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN.
14. CONCRETE WASHOUT, DUMPSITE, AND STAGING AREA LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED AT THE PRE-CONSTRUCTION MEETING. THE CONSTRUCTION ENTRANCE AND STAGING AREAS SHALL BE USED PRIOR TO EXITING THE PROJECT SITE. THE LOCATION SHALL BE IN A PRACTICAL, CLEARLY DELINEATED, AREA AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
15. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
16. IF SOIL ACTIVITIES HAVE BEEN TEMPORARILY SUSPENDED, W. WINTER SHUTDOWN, ALL DISTURBED AREAS MUST BE TEMPORARILY STABILIZED AND ONCE A MONTH INSPECTIONS CAN OCCUR.
17. ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, AND SHALL BECOME THEIR RESPONSIBILITY.
18. PAVEMENT AREAS ARE TO BE KEPT CLEAN AT ALL TIMES.
19. DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THESE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE PROJECT ENGINEER.
20. ALL TEMPORARY STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED, WHEN ALL CONSTRUCTION ACTIVITY IDENTIFIED IN THE SWPPP HAS BEEN COMPLETED, ALL AREAS OF DISTURBANCE HAVE ACHIEVED FINAL STABILIZATION, AND ALL POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE SWPPP AND ARE OPERATIONAL.

ROUGH GRADING SEQUENCE OF ACTIVITIES:

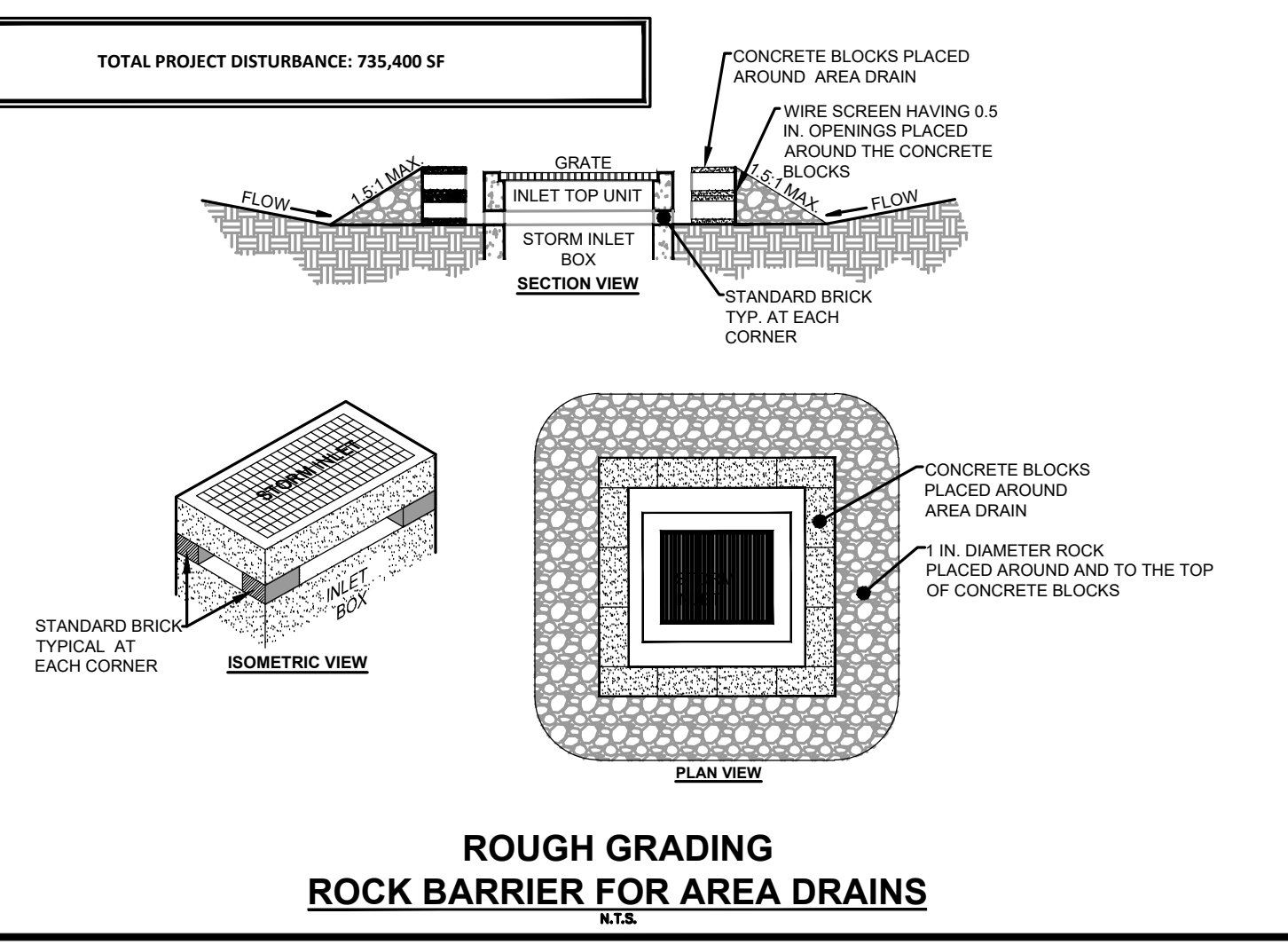
- AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THESE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PREPARER, AND THE HUDSON RIVER PASSAGE SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.
- ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.
- CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CONTROL PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE.
- THIS PLAN IS A CONTINUATION OF PROCEDURES INITIATED ON THE INITIAL SITE PREPARATION PLAN.
1. INSPECT ALL SOIL EROSION / SEDIMENT CONTROL MEASURES CONSTRUCTED AS PART OF THE INITIAL SITE PREPARATION ACTIVITIES INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL BARRIERS, INLET PROTECTION AND CONSTRUCTION ACCESS. REPAIR OR REPLACE AS NECESSARY.
  2. BEGIN ROUGH GRADING, FILLING AND COMPACTING SITE.
  3. CONSTRUCT STORM SEWERS AS ROUGH GRADING OPERATIONS PERMIT.
  4. ALL STORM INLETS CONSTRUCTED DURING ROUGH GRADING OPERATIONS ARE TO HAVE HOODS BASED ON BRICKS TO FACILITATE RUNOFF ENTERING THE INLET DURING ROUGH GRADING. ALL INLET BOXES TO HAVE CRUSHED STONE SEDIMENT PROTECTION INSTALLED AS SOON AS INLET TOPS ARE SET.
  5. CONSTRUCTION OF SANITARY SEWERS, WATER MAINS AND GAS SERVICE CAN BE CONSTRUCTED AS ROUGH GRADING OPERATIONS PERMIT.
  6. CURBING CAN BE CONSTRUCTED AS ROUGH GRADING PROGRESSES AND CONDITIONS ALLOW.
  7. PAVING STONE BASE CAN BE PLACED AS ROUGH GRADING PROGRESSES AND CONDITIONS ALLOW.
  8. COMPLETE ROUGH GRADING OF SITE.
  9. AS SOON AS SUBGRADE ELEVATION HAS BEEN ESTABLISHED WITHIN THE LIMITS OF THE BUILDING, PLACE AND COMPACT CRUSHED STONE BUILDING PAD, EXCEPT FOR FINISH PAVEMENT.
  10. CONSTRUCT CRUSHED STONE LAYDOWN AREAS AND 25 FT. WIDE CRUSHED STONE ACCESS DRIVE AS INDICATED ON THIS PLAN.
  11. CONSTRUCTION OF BUILDING CAN BEGIN AS SOON AS THE BUILDING PAD AND LAYDOWN AREAS ARE IN PLACE AND HAVE BEEN APPROVED.
  12. CONSTRUCTION OF GASOLINE FUELING FACILITIES CAN BEGIN AS SOON AS THE BUILDING PAD AND LAYDOWN AREAS ARE IN PLACE AND HAVE BEEN APPROVED.
  13. CONSTRUCT BUILDING UTILITY SERVICE CONNECTIONS TO WITHIN 5 FEET OF THE BUILDING LIMITS.
  14. INSPECT AND RECONITION EROSION CONTROL MEASURES IN PREPARATION FOR THE NEXT PHASE OF CONSTRUCTION.

FILL MATERIALS, PLACEMENT AND COMPACTION

- SITE PREPARATION**
1. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION/SEDIMENT CONTROL PLANS.
  2. DECOMMISSION AND REMOVE ALL UNDERGROUND AND ABOVE-GROUND UTILITIES IN BUILDING AREAS.
  3. COMPLETELY REMOVE FROM BUILDING AREAS ALL EXISTING STRUCTURES INCLUDING BELOW-GRADE COMPONENTS (FOUNDATIONS, STORAGE TANKS, ETC.) AND OTHER SITE IMPROVEMENTS (FENCING, LIGHT POLES, ETC.) NOT TO REMAIN.
  4. ALL DEMOLISHED COMPONENTS SHOULD BE DISPOSED OFF-SITE.
  5. REMOVE AND DISPOSE OFF-SITE ALL TREES AND SURFACE VEGETATION NOT TO REMAIN.
  6. STRIP ALL TOPSOIL FROM CONSTRUCTION AREA INCLUDING 5 FEET PERIMETER ZONE AND STOCKPILE ON-SITE.
  7. EARTHWORK MAY BE PERFORMED USING CONVENTIONAL CONSTRUCTION EQUIPMENT (EXCAVATORS, LOADERS, DOZERS, ETC.).
  8. PRIOR TO FILL PLACEMENT, COMPACT EXPOSED SUBGRADE WITH MIN. 10-TON ROLLER AND PROOF-ROLL WITH LOADED TANDEM-AXLE DUMP TRUCK. SELECTIVELY EXCAVATE ANY UNSTABLE AREAS DETECTED AND REPLACE WITH COMPACTED STRUCTURAL FILL. THE EXCAVATED MATERIALS MAY BE REUSED PROVIDED THEY MEET THE CRITERIA FOR STRUCTURAL FILL/BACKFILL.
  9. PLACE AND COMPACT STRUCTURAL FILL AS NECESSARY TO ACHIEVE THE FINAL SUBGRADE ELEVATIONS. STRUCTURAL FILL MUST BE BENCHED INTO EXISTING SLOPES WITH MIN. HORIZONTAL AND VERTICAL SLOPE DIMENSIONS OF 1:1 HORIZONTAL TO 1 VERTICAL (H:V).
  10. THE CONTRACTOR MUST BE PREPARED TO REMOVE STANDING WATER OR FROZEN PRECIPITATION FROM THE COMPLETED BUILDING PAD SUBGRADE WITHIN 24 HOURS OF EACH PRECIPITATION EVENT THROUGHOUT THE CONSTRUCTION PERIOD.
  11. SURFACE RUNOFF SHOULD BE DIRECTED AWAY FROM SOIL SLOPES AND OPEN EXCAVATIONS. SLOPES SHOULD BE PROTECTED FROM PRECIPITATION UNTIL PERMANENT EROSION PROTECTION MEASURES ARE IN-PLACE, WHICH SHOULD BE ESTABLISHED AS SOON AS PRACTICAL.
  12. ALL EXCAVATIONS SHOULD BE SLOPED, BENCHED, OR SHORED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) WHICH CAN BE FOUND IN THE CODE OF FEDERAL REGULATIONS, TITLE 29, PART 1926.29 PART 1926, SUBPART M AND P. THE CONTRACTOR SHOULD DESIGNATE AND PROVIDE A "COMPETENT PERSON" WHOSE RESPONSIBILITIES INCLUDE SELECTION OF TEMPORARY SLOPE ANGLES OR SUPPORT SYSTEMS FOR EXCAVATION SLOPES.
  13. TEMPORARY SLOPES SHOULD BE MONITORED FOR MOVEMENT DURING THE ENTIRE CONSTRUCTION PERIOD.
  14. PERMANENT SOIL SLOPES SHOULD BE DESIGNED AND CONSTRUCTED WITH A SLOPE FACE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3H:1V).

STRUCTURAL FILL AND BACKFILL

1. ALL FILL PROPOSED FOR SUPPORT OF LOAD-BEARING COMPONENTS (BUILDINGS, PAVEMENTS, ETC.) IS CONSIDERED STRUCTURAL FILL. STRUCTURAL FILL SHOULD CONSIST OF INORGANIC MATERIALS OF MODERATELY WELL SORTED, SUITABLE FOR CONSTRUCTION, AND BE FREE OF DILUTIOUS MATERIAL, DEBRIS, CLAY CLODS, AND FROZEN MATERIAL. ON-SITE SOILS EXCAVATED DURING EARTHWORK OPERATIONS THAT MEET THESE CRITERIA MAY BE REUSED AS STRUCTURAL FILL.
2. THE MAXIMUM PARTICLE SIZE FOR STRUCTURAL FILL UP TO 4 FEET BELOW THE BUILDING SUBGRADE LEVELS SHOULD BE 18 INCHES. THE MAXIMUM PARTICLE SIZE WITHIN 4 FEET BELOW THE BUILDING SUBGRADE LEVELS SHOULD BE 6 INCHES AND WITHIN 3 FEET BELOW THE BUILDING SUBGRADE LEVELS SHOULD BE 2 INCHES.
3. IMPORTED STRUCTURAL FILL MATERIALS SHOULD MEET THE ABOVE CRITERIA AND CONTAIN NO MORE THAN 2% MATERIAL PASSING THE #200 SIEVE WITH A LIQUID LIMIT (LL) NOT EXCEEDING 25 AND PLASTIC INDEX (PI) NOT EXCEEDING 10.
4. STRUCTURAL FILL SHOULD BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS. THINNER LIFTS MAY BE REQUIRED DEPENDING ON MATERIAL TYPE, PREVAILING WEATHER CONDITIONS, AND PERFORMANCE OF THE COMPACTED SOIL. ALL FILL MATERIAL SHOULD BE PLACED ON APPROVED SUBGRADES, PROPERLY STRIPPED AND SCARIFIED AS NEEDED.
5. FILL SHOULD NOT BE PLACED ON FROZEN OR SATURATED SUBGRADES.
6. FILL SHOULD BE PLACED AND COMPACTED TO COSTCO'S MINIMUM COMPACTION REQUIREMENTS INCLUDED IN THE GEOTECHNICAL REPORT.
7. IN-SITU DENSITY TESTS SHOULD BE PERFORMED FOR EACH LIFT OF FILL AT A MINIMUM FREQUENCY SPECIFIED BY COSTCO AND INCLUDED IN THE GEOTECHNICAL REPORT.



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FOR

**COSTCO WHOLESALE**

CROSSGATES MALL

TAX MAP 52.10, 52.14 & 52.01

TOWN OF GUILDERLAND

ALBANY COUNTY

STATE OF NEW YORK

Colliers

Engineering & Design

410 Eagleview Boulevard, Suite 104  
Ext. 104  
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Phone: 610.254.5140  
COLLIERS ENGINEERING & DESIGN, INC.  
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SCALE	DATE	DRAWN BY	CHECKED BY
AS SHOWN	10/26/19	DB	RTM

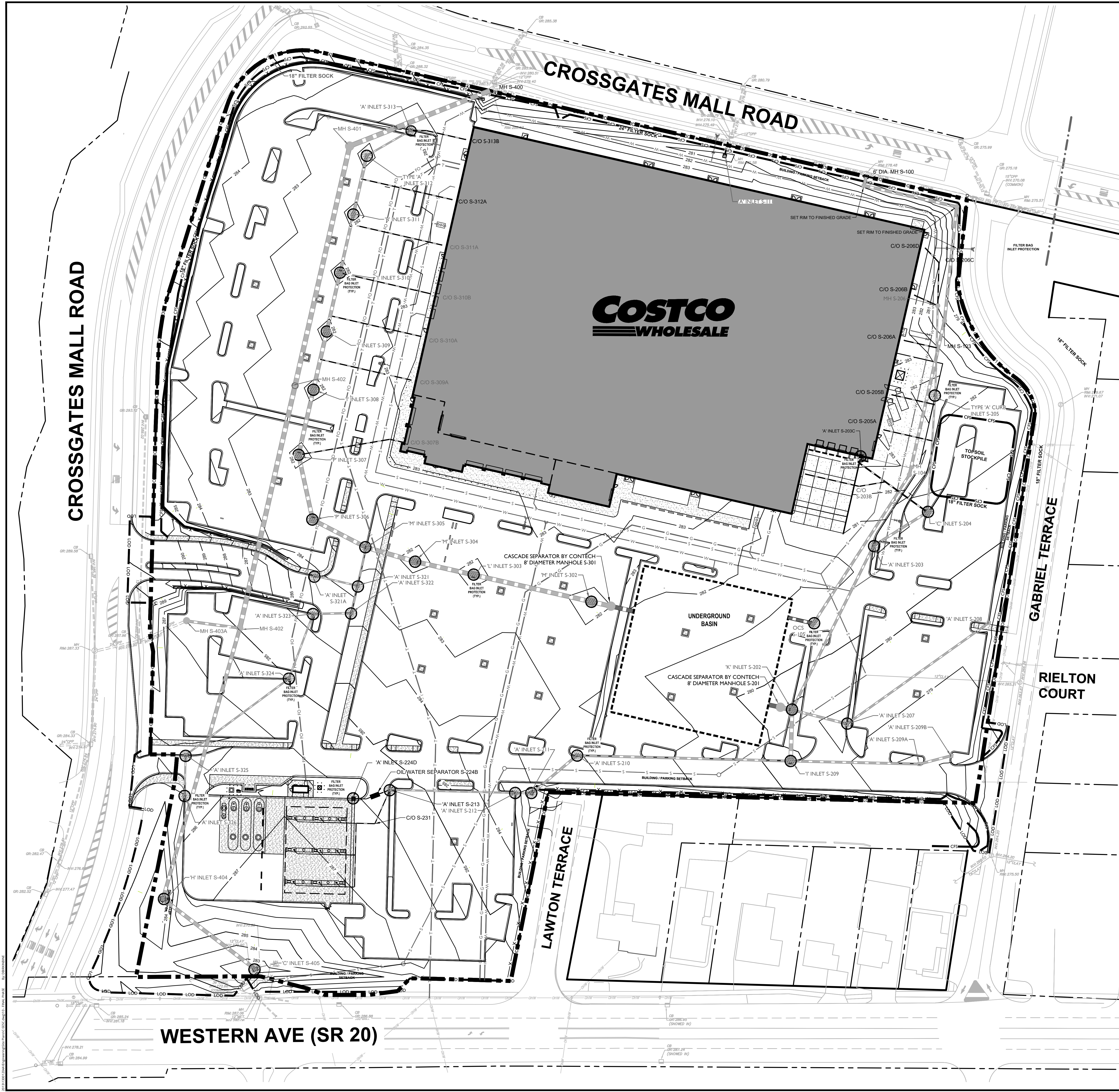
PROJECT NUMBER	DRAWING NAME
130012046A	C-55C

SHEET TITLE
EROSION CONTROL
ROUGH GRADING PLAN

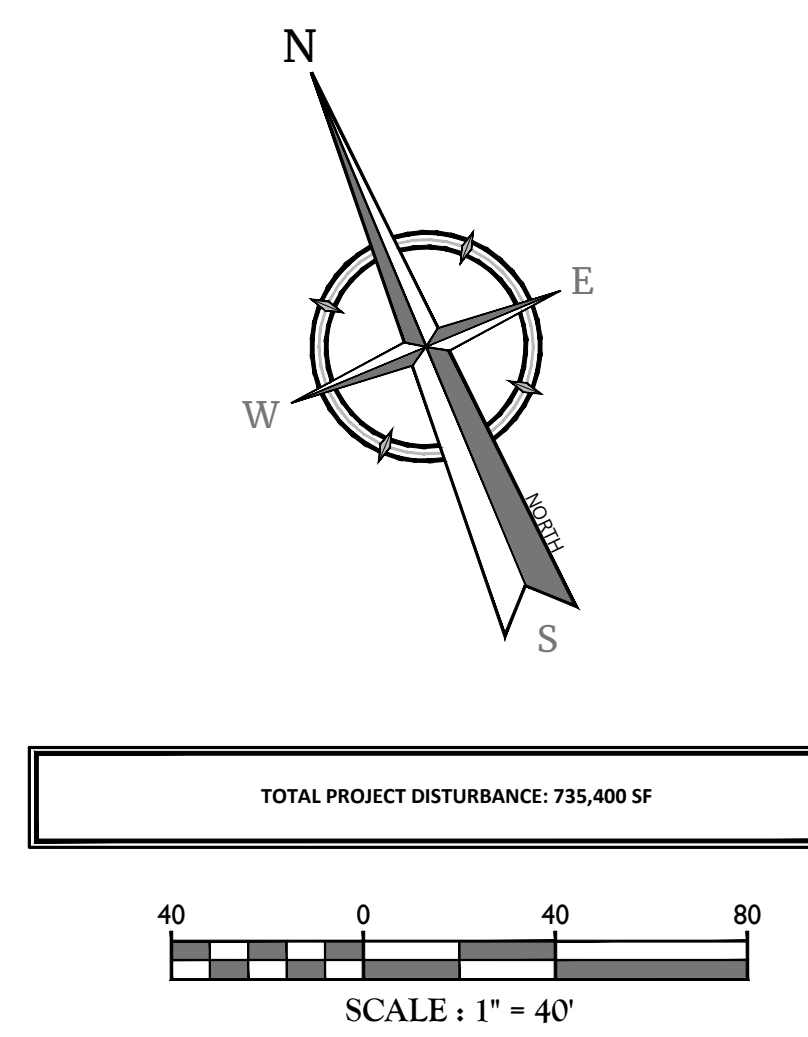
SHEET NUMBER
9 of 22

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.





- FINAL SEQUENCE OF ACTIVITIES:**
- AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PREPARER, AND THE SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.
- AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED ON THOSE ACTIVITIES SHALL NOTIFY THE NEW YORK UTILITY ONE-CALL SYSTEM AT 811 TO ORDER A UTILITY MARK-OUT AT THE SITE.
- ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.
- CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CONTROL PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE.
- THIS PLAN IS A CONTINUATION OF PROCEDURES INITIATED ON THE DEMOLITION, INITIAL SITE PREPARATION AND ROUGH GRADING PLANS.
1. INSPECT ALL SOIL EROSION / SEDIMENT CONTROL MEASURES INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL BARRIERS AND STONE CONSTRUCTION ACCESS, REPAIR OR REPLACE AS NECESSARY.
  2. CONSTRUCT UNDERGROUND STORMWATER MANAGEMENT SYSTEM COMPLETE WITH DISCHARGE CONTROL STRUCTURE.
  3. FINISH CONSTRUCTION OF ALL REMAINING STORM SEWERS.
  4. FINISH CONSTRUCTION OF ALL ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICE CONNECTIONS. CONSTRUCT FOUNDATIONS FOR AREA LIGHT STANDARDS AND RUN ELECTRIC SERVICE TO FOUNDATIONS AND ALL LOCATIONS FOR ILLUMINATED SIGNS (DIRECTIONAL, MONUMENT, AND PYLON).
  5. FINISH CONSTRUCTION OF ALL CURBING AROUND PERIMETER OF NEW PARKING AND DRIVEWAY AREAS. CONSTRUCT CURBING AROUND BUILDING. CONSTRUCT CURBING AROUND LANDSCAPE ISLANDS.
  6. FINISH PLACEMENT OF PAVING STONE BASE COURSE ON AREAS TO BE PAVED AND COMPACTED.
  7. ALL INLETS SET DURING ROUGH GRADING OPERATIONS WITH TEMPORARY GRATE ELEVATIONS ARE TO BE SET TO PERMANENT GRATE ELEVATIONS AS SOON AS PAVING STONE BASE HAS BEEN PLACED AROUND THE INLET. REPLACE CRUSHED STONE INLET PROTECTION WITH FILTER BAG INLET PROTECTION.
  8. CONSTRUCT ALL CONCRETE PADS AND CONCRETE PAVEMENT.
  9. INSTALL ASPHALT PAVING BINDER COURSE.
  10. INSTALL ALL SIGNAGE ON THE SITE INCLUDING TRAFFIC CONTROL AND DIRECTIONAL SIGNS.
  11. SPREAD TOPSOIL IN ALL AREAS TO BE LANDSCAPED OR SEEDED AND ESTABLISH PERMANENT GROUND COVER AND LANDSCAPING AS SPECIFIED BY LANDSCAPING PLAN. MULCH ALL EXPOSED AREAS AS SPECIFIED BY THESE PLANS.
  12. INSTALL FINAL PAVING WEARING SURFACE. APPLY PARKING AREA AND TRAFFIC CONTROL PAVEMENT PAINT.
  13. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS. ESTABLISH PERMANENT VEGETATION ON ALL AREA DISTURBED BY THE REMOVAL OF THE TEMPORARY CONTROLS. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 85 PERCENT PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.



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811

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NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS

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Costco

WHOLESALE

CROSSGATES MALL

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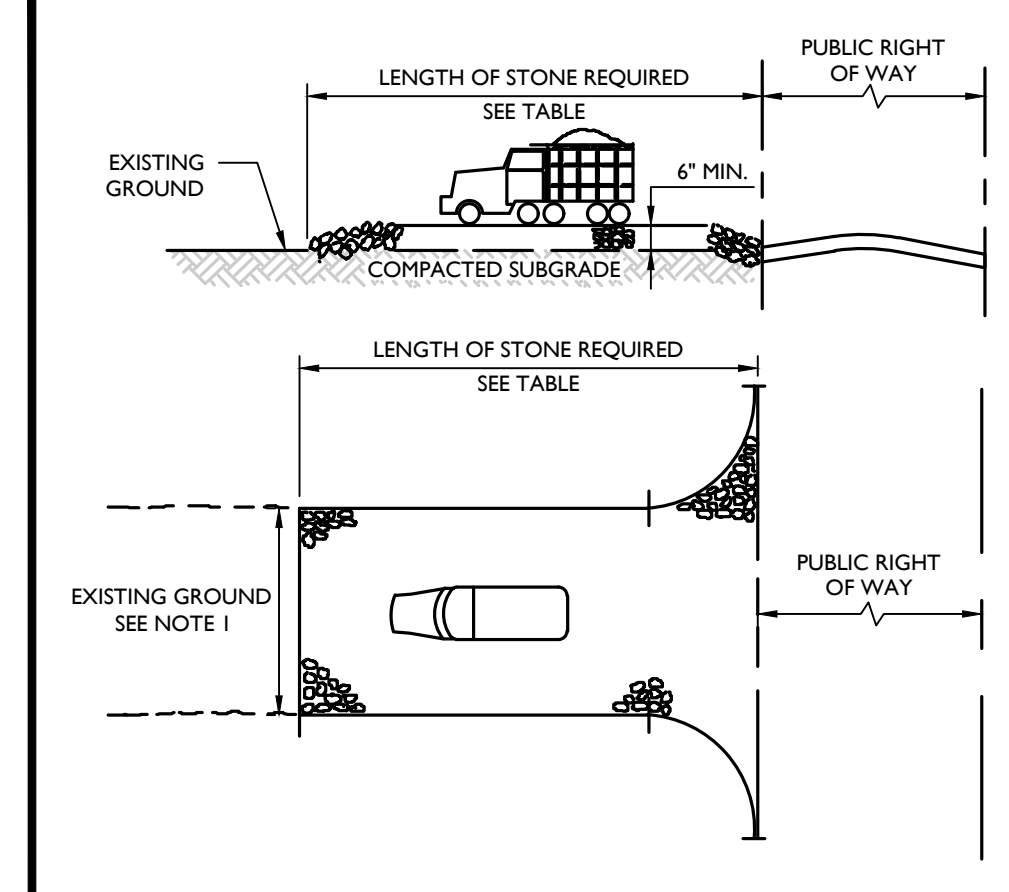
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SHEET TITLE:
EROSION CONTROL FINAL PHASE

SHEET NUMBER:
10 of 22

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



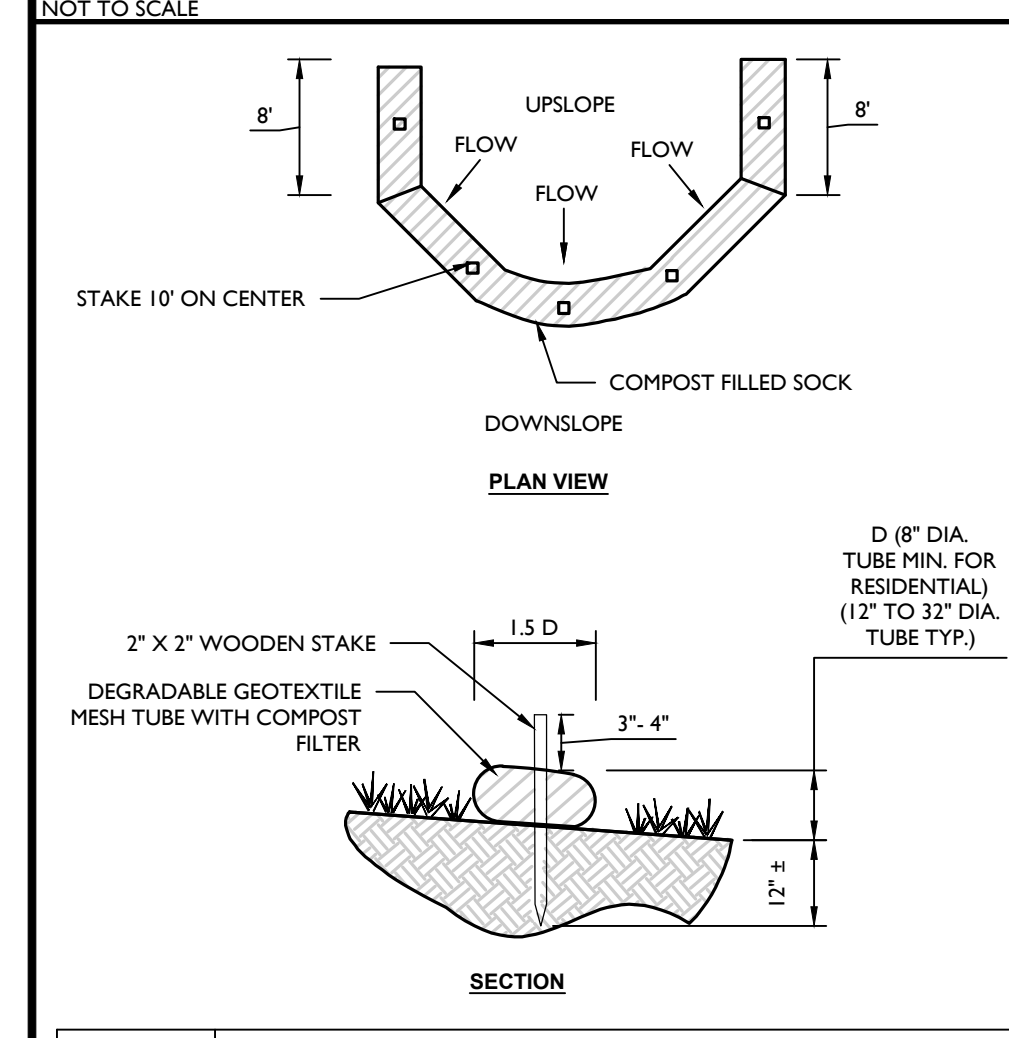


NOTES:

- THE WIDTH OF CONSTRUCTION ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF POINTS OF INGRESS OR EGRESS, OR AS SHOWN ON THE PLAN.
- THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS.
- THE ENTRANCE SHALL BE PERIODICALLY TOP DRESSED WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS ON-SITE CONDITIONS REQUIRE.
- SPILLED, DROPPED, WASHED, OR TRACKED SEDIMENT ONTO ROADWAYS OR OTHER IMPERVIOUS SURFACES SHALL BE REMOVED IMMEDIATELY.
- WHERE ACCUMULATION OF DUST AND SEDIMENT IS INADEQUATELY CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER SHALL BE USED TO CLEAN PAVED AREAS.
- ALL OTHER ACCESS POINTS TO THE SITE WHICH DO NOT CONTAIN A CONSTRUCTION ACCESS PAD SHALL BE BLOCKED OFF.
- STONE SIZE PER ASTM C-33, SIZE #2 (2" TO 1 1/2") OR #3 (2" TO 1") STONE.
- INDIVIDUAL INTERIOR LOT INGRESS/EGRESS CONSTRUCTION ACCESS SHALL HAVE #3 (1" TO 2") STONE, MINIMUM 10' (L) X 10' (W) AND 6" THICK.

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED
0% TO 2%	50 FT
2% TO 5%	100 FT
> 5%	ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE, MIX 1.2

STABILIZED CONSTRUCTION ACCESS DETAIL

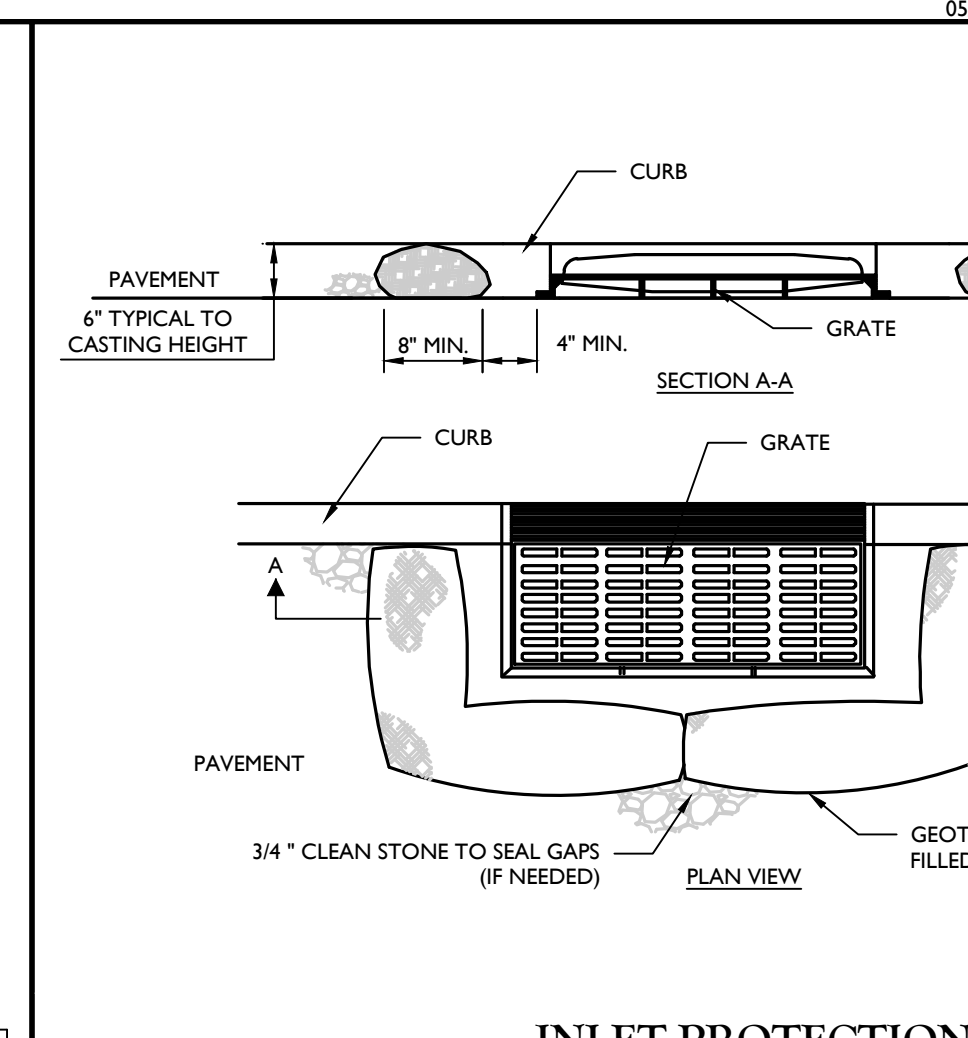
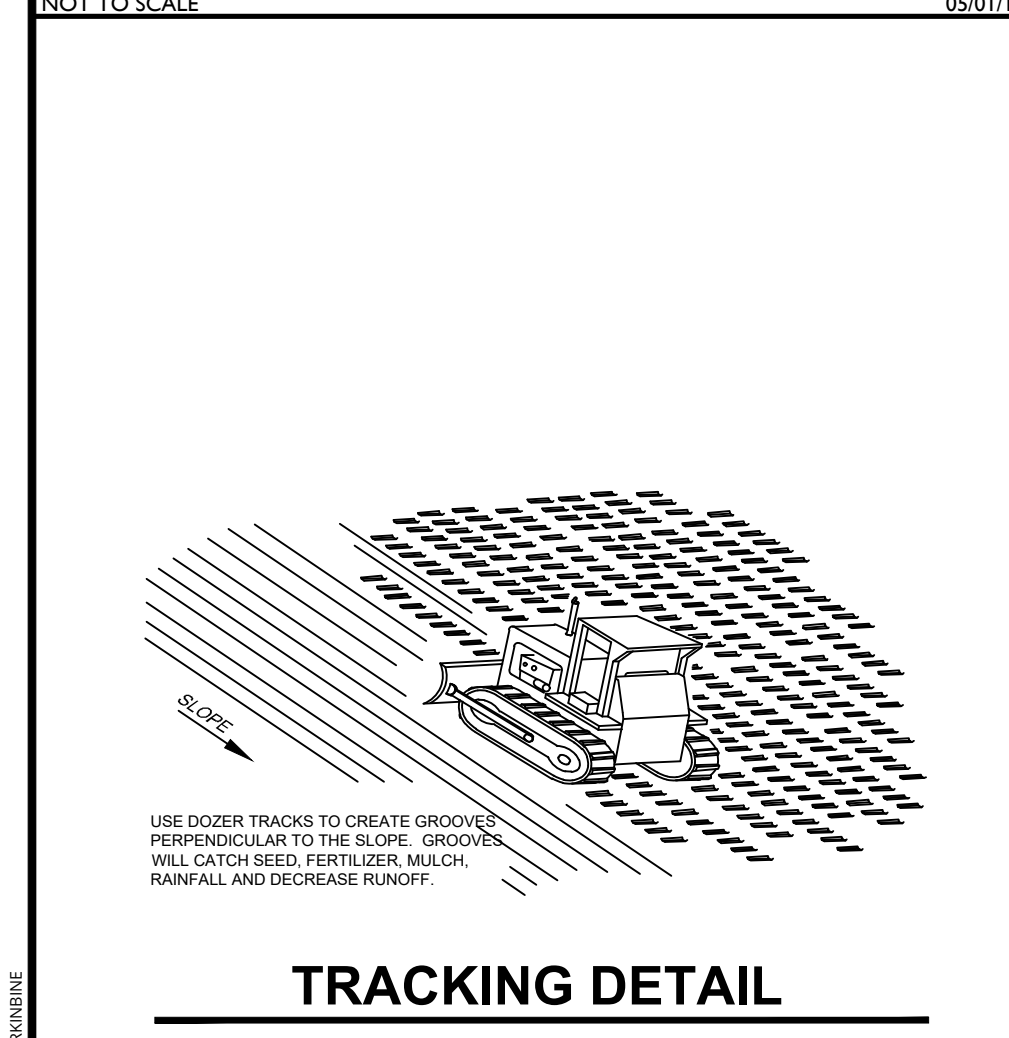
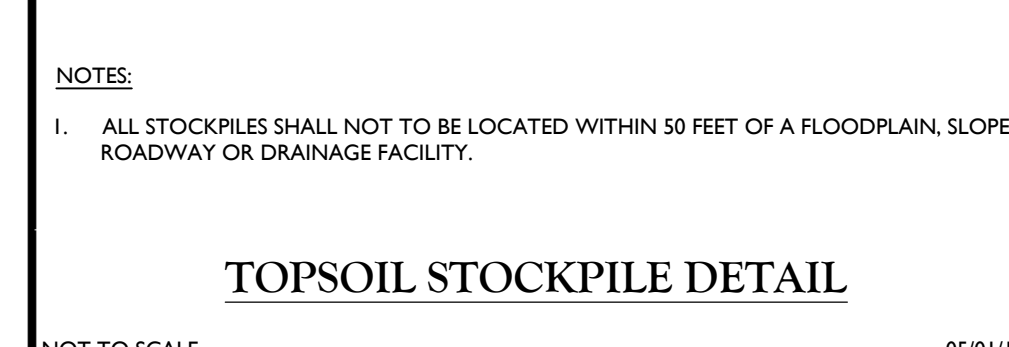
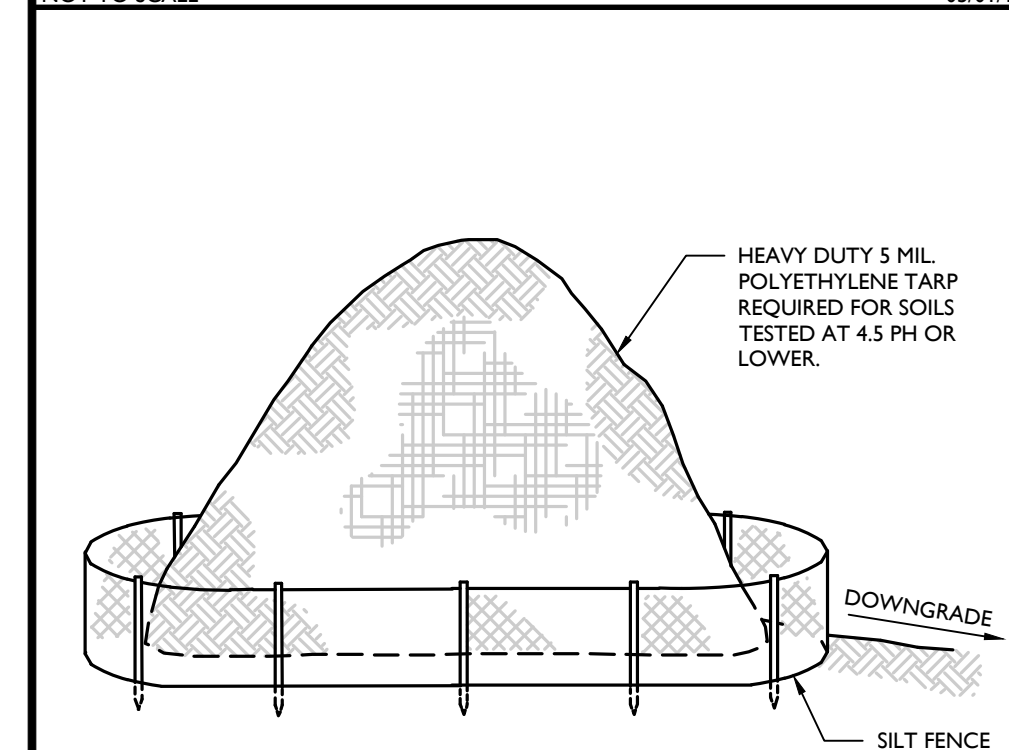


NOTES:

- GEOTEXTILE TO BE WOVEN POLYPROPYLENE PRODUCT, OR APPROVED EQUAL.
- FILLER CORE MAY BE SAND, COMPOST, OR PEA GRAVEL COMPLETELY CONTAINED WITHIN GEOTEXTILE SEAMS, CLOSED BY SUITABLE MECHANICAL MEANS TO PREVENT LEAKAGE OF FILLER.
- WHERE NO CURB IS PRESENT, BARRIER SHALL COMPLETELY ENCLOSE THE DRAIN INLET.
- INLET GRATE OPENING IS TO BE KEPT CLEAR OF OBSTRUCTIONS AT ALL TIMES.
- THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR/24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.
- OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- INSPECTIONS SHALL BE FREQUENT. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARDS THE INLET HAS BEEN STABILIZED.

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12	250	225	125	65	50	40	25
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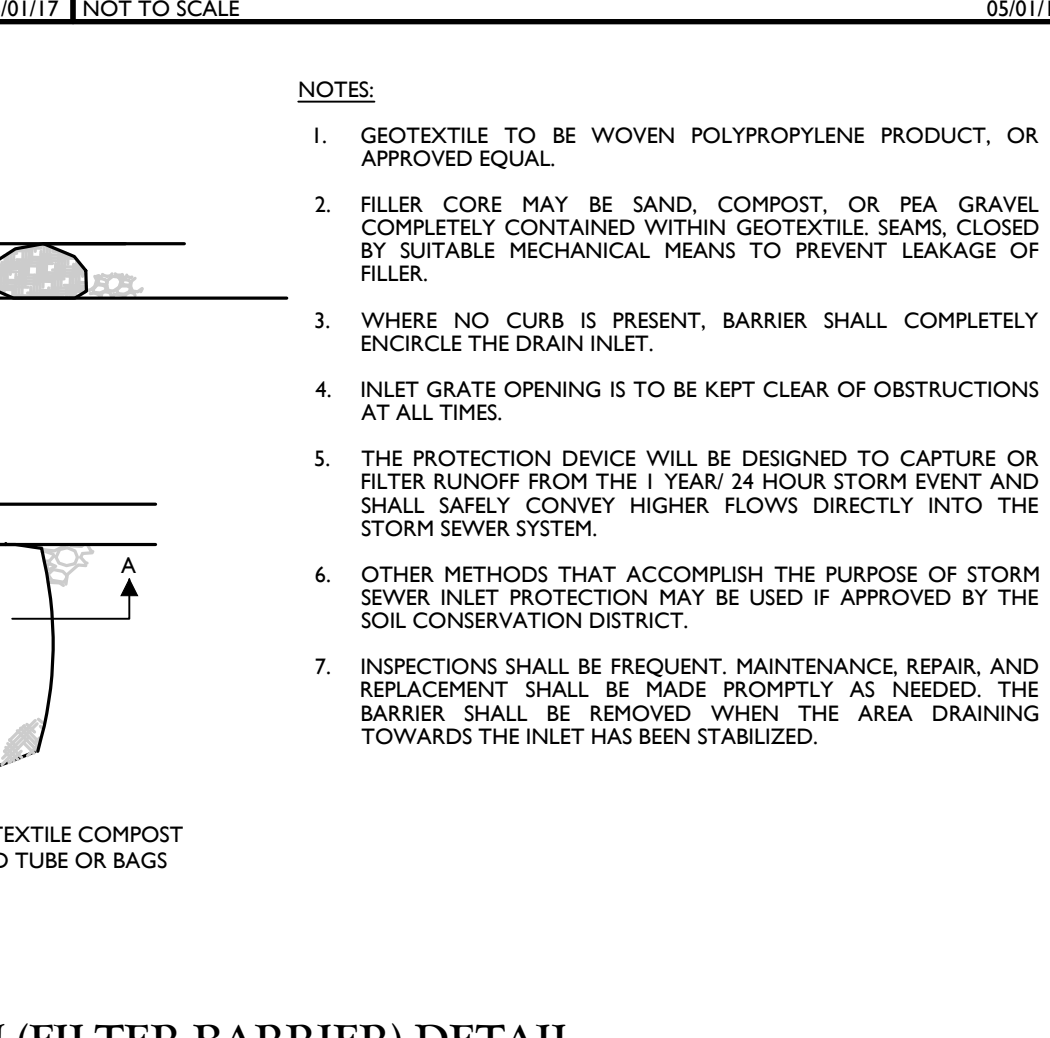
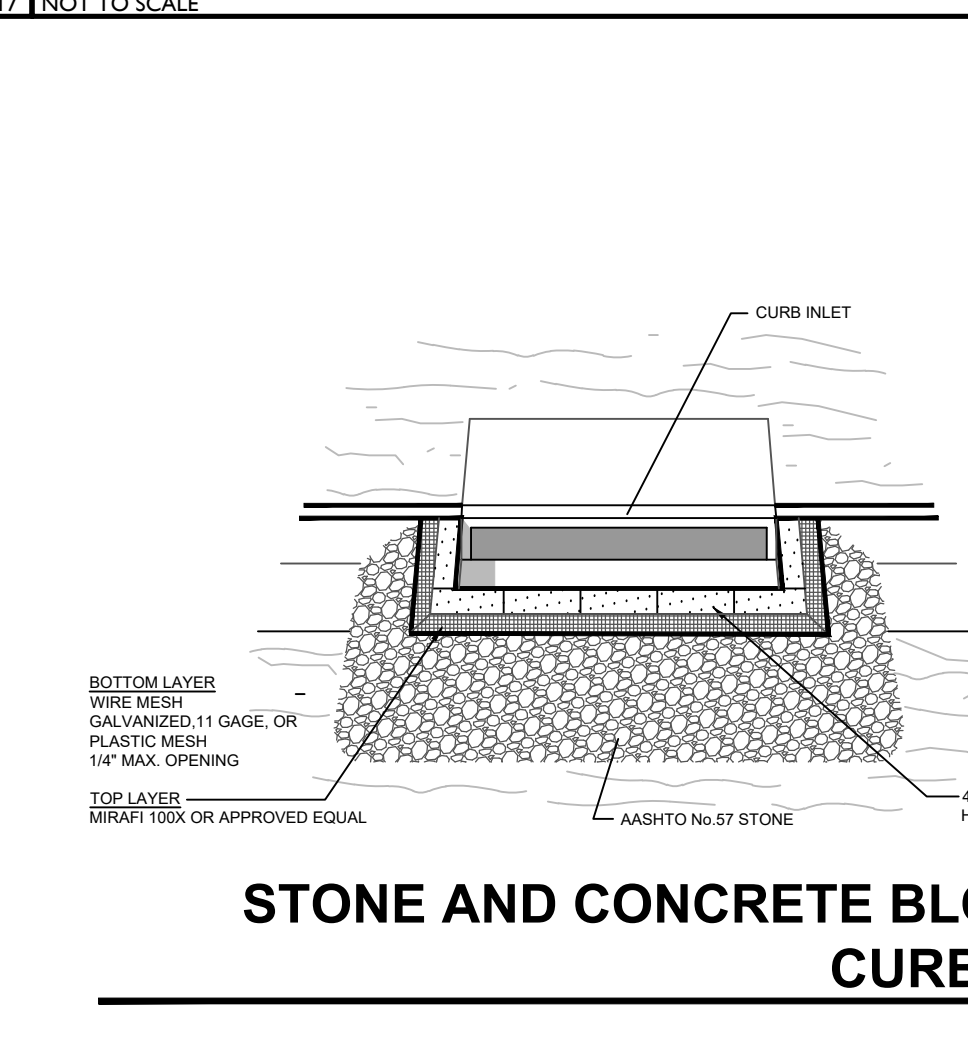
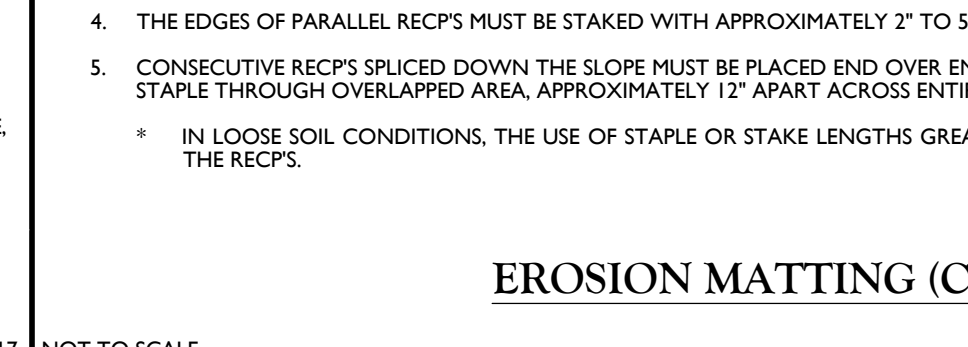
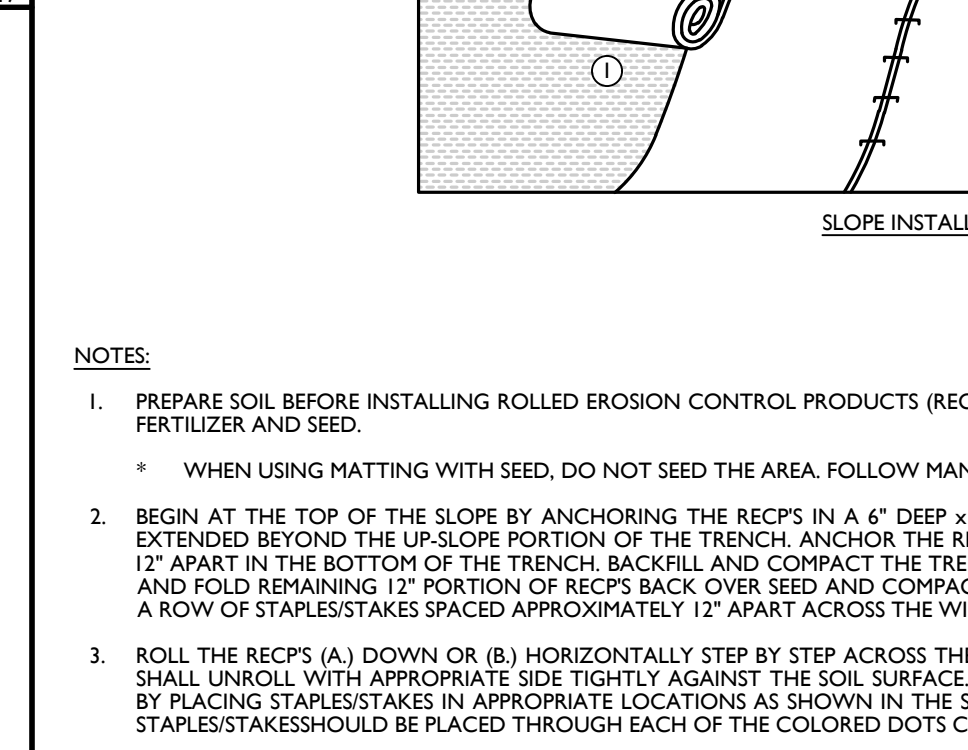
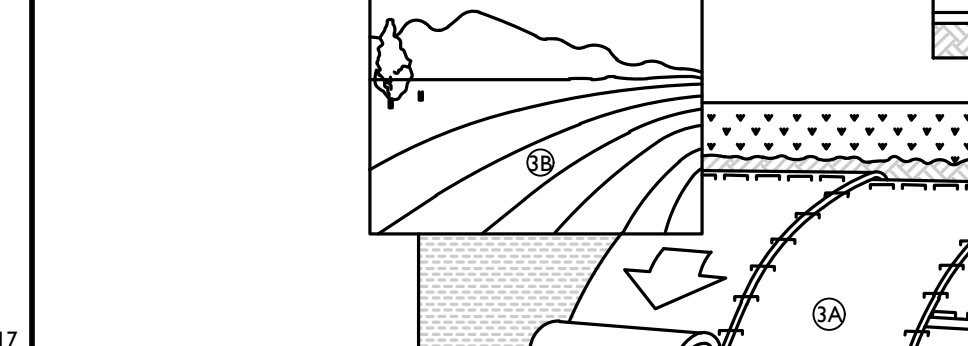
\*Length in feet



NOTES:

- ALL MATERIAL TO MEET **FILTREXX SILT-SOX** SPECIFICATIONS OR APPROVED EQUAL.
- COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
- COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

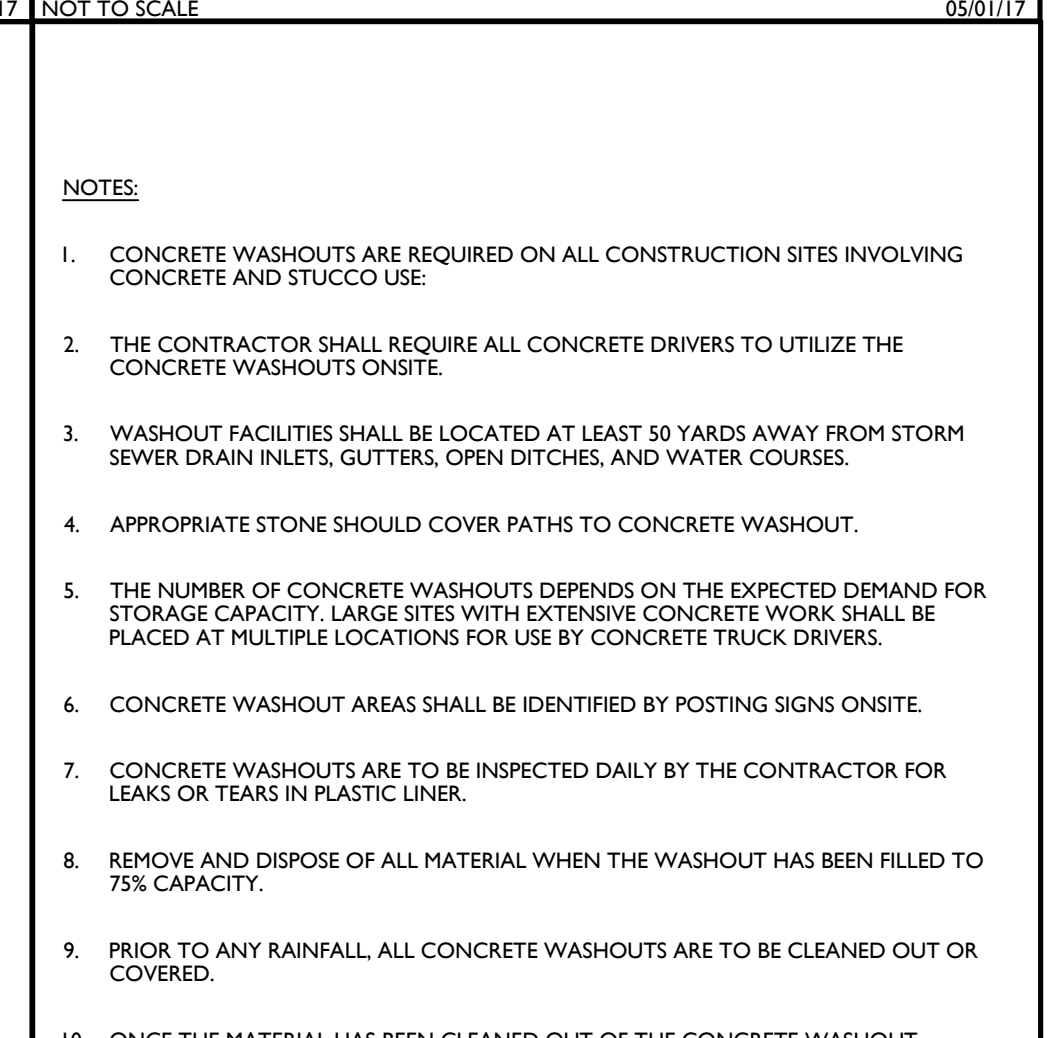
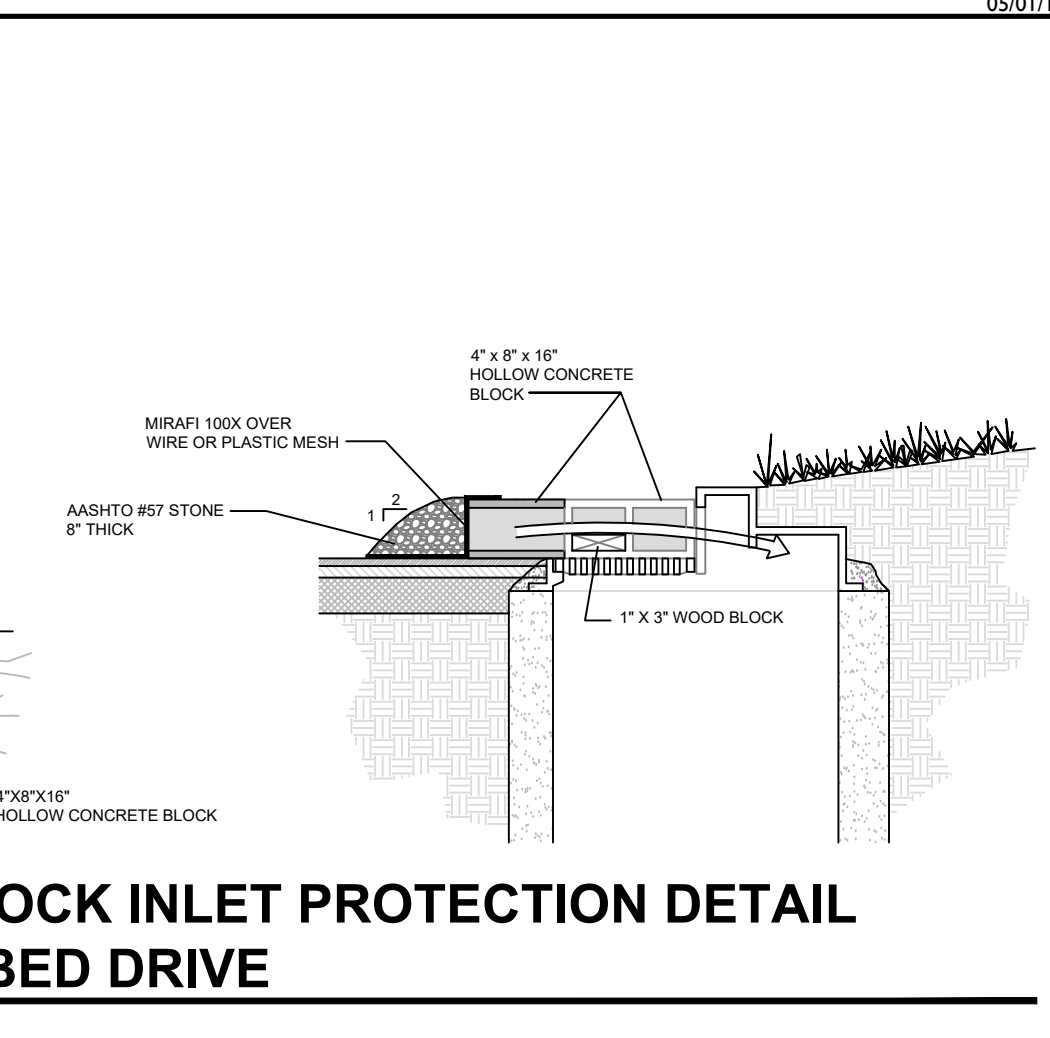
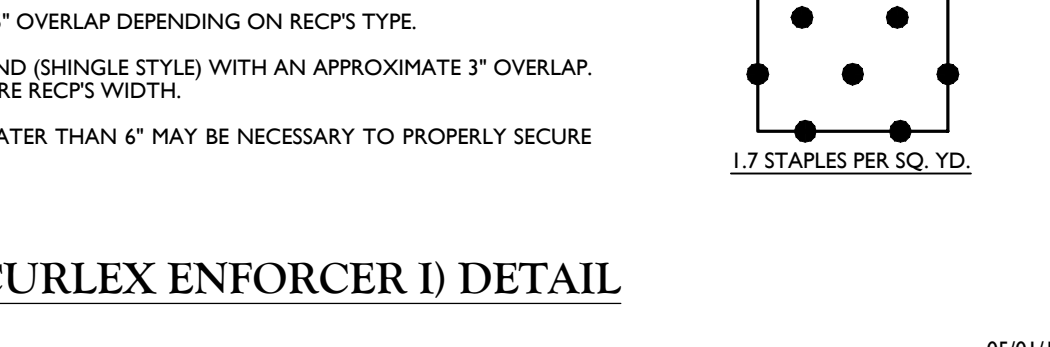
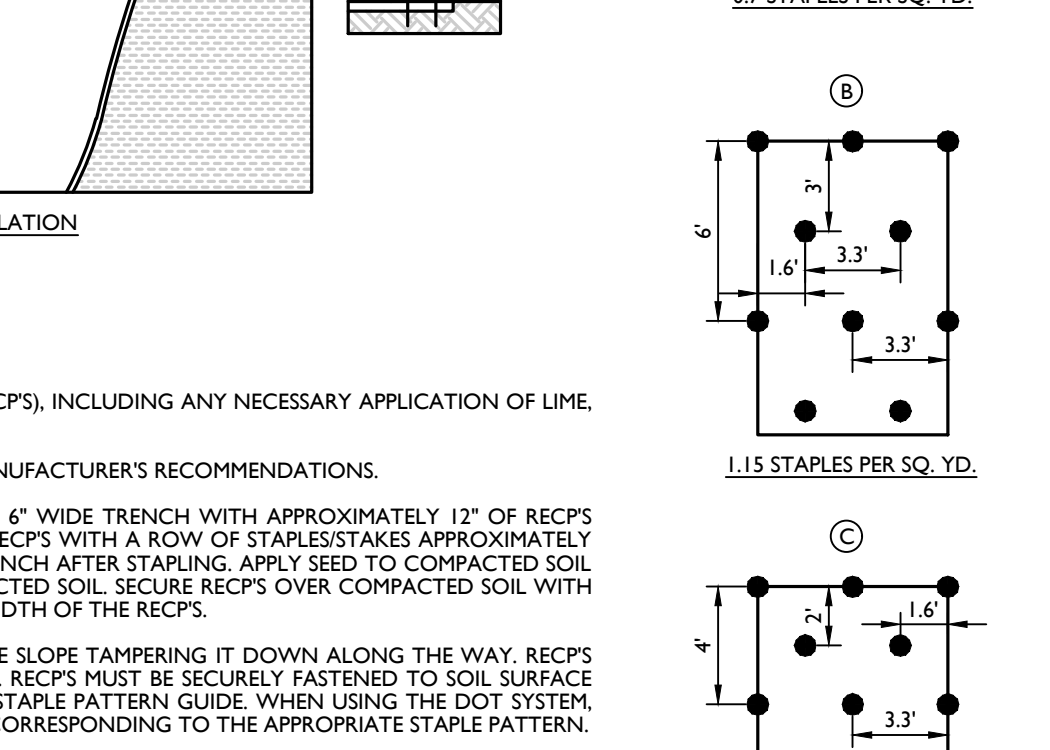
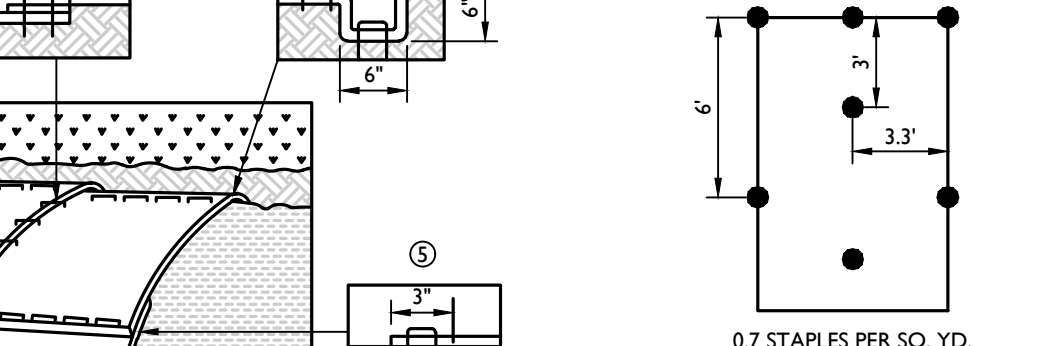
COMPOST FILTER SOCK DETAIL



NOTES:

- ALL STOCKPILES SHALL NOT BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

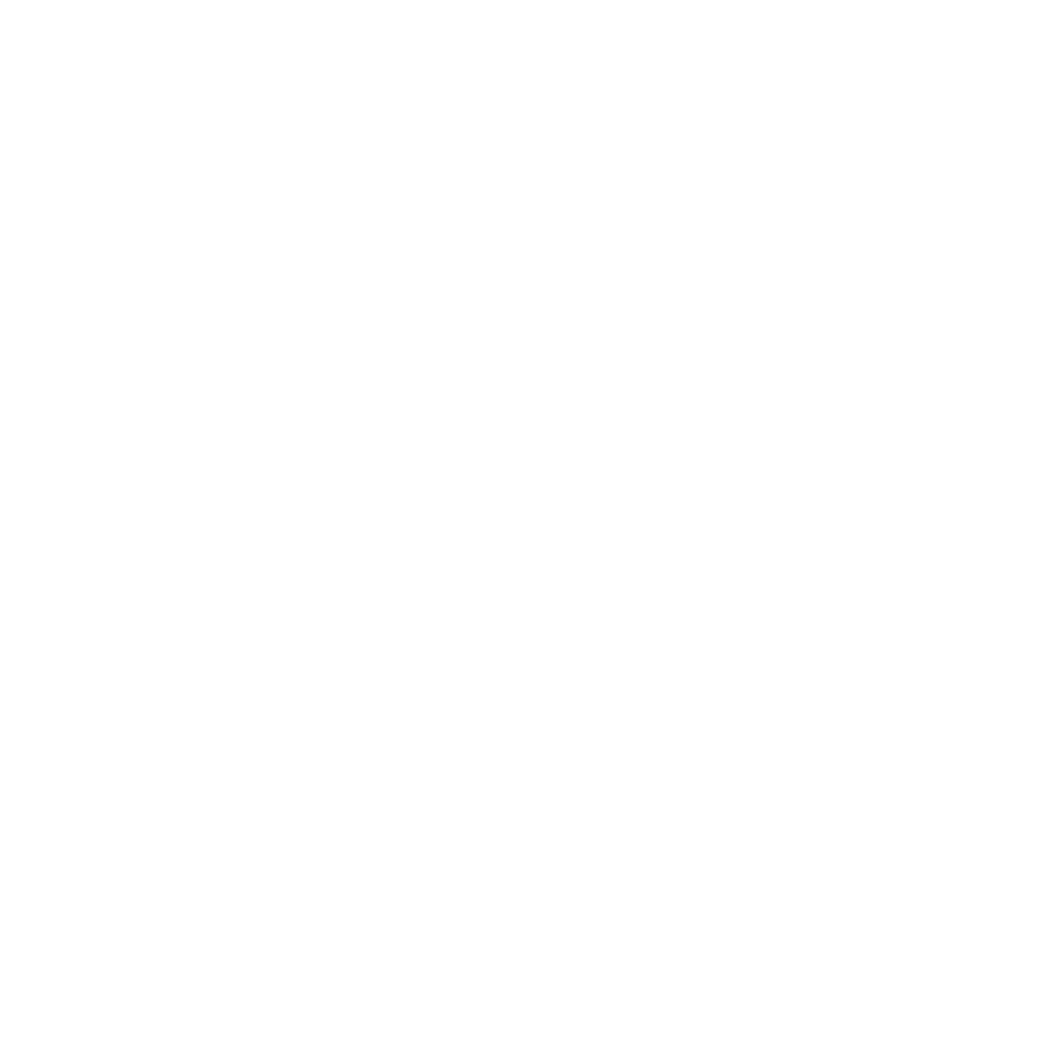
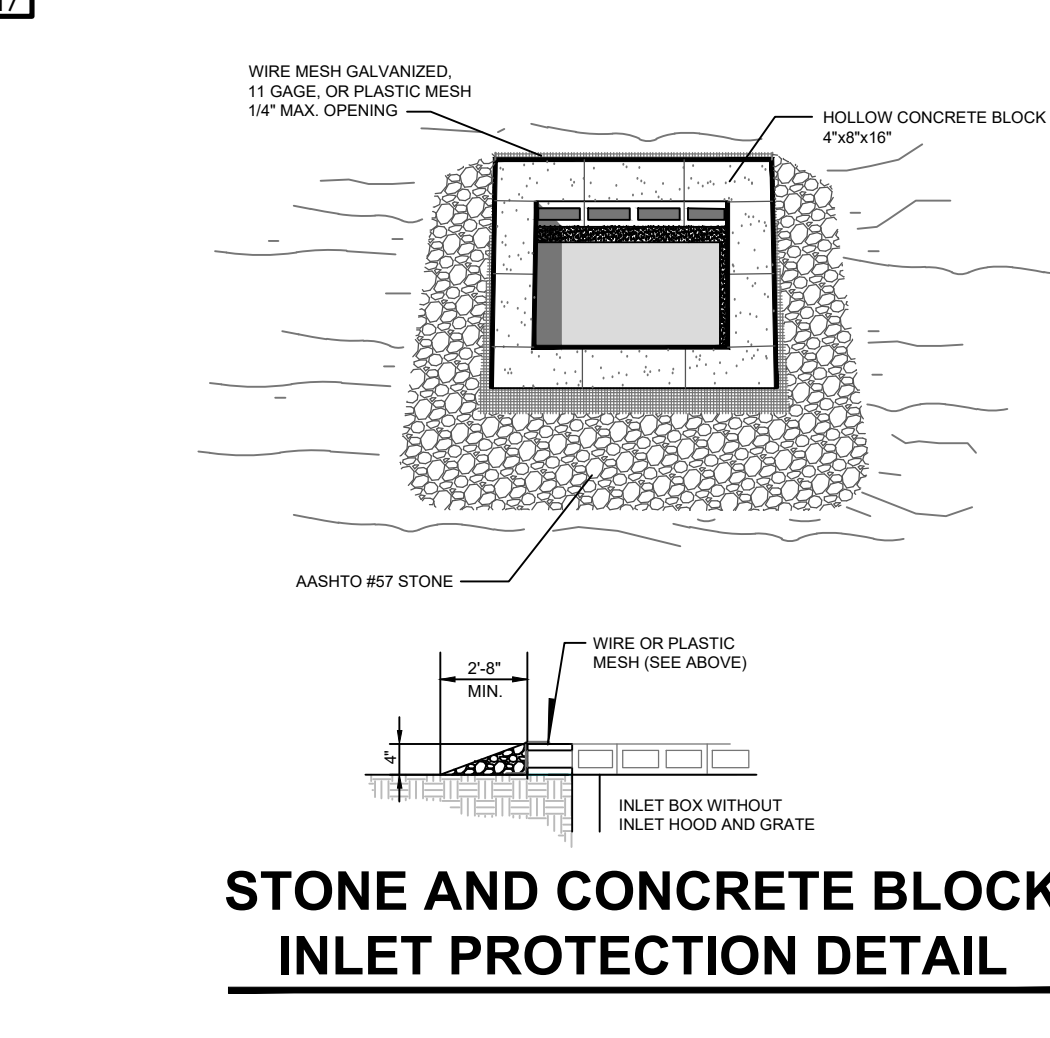
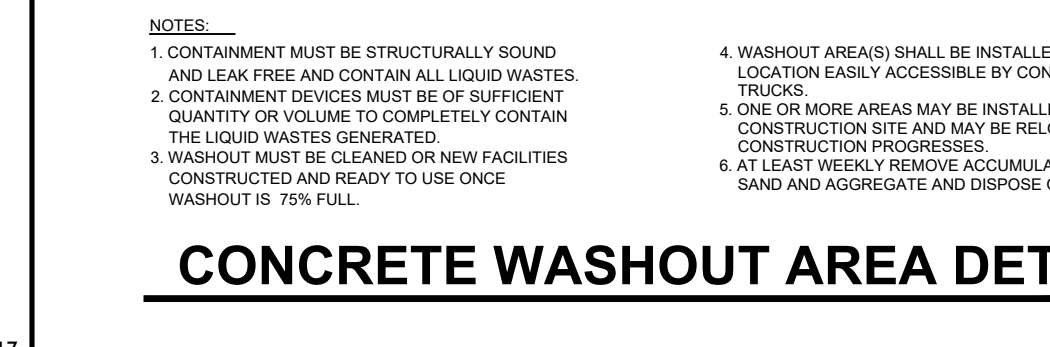
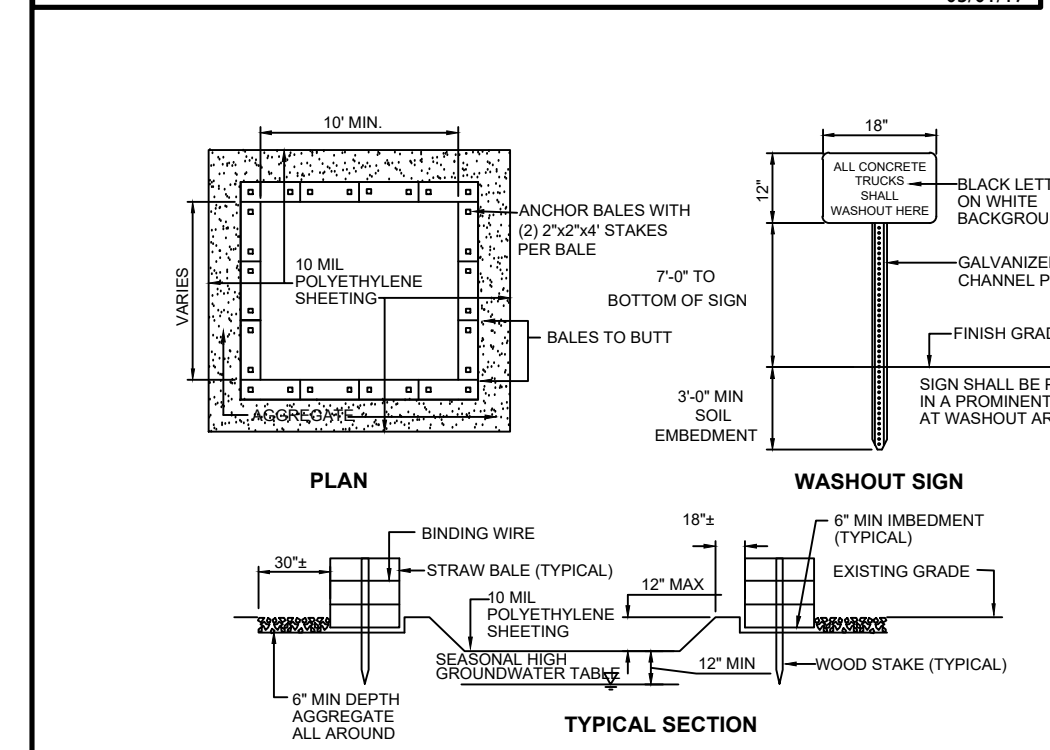
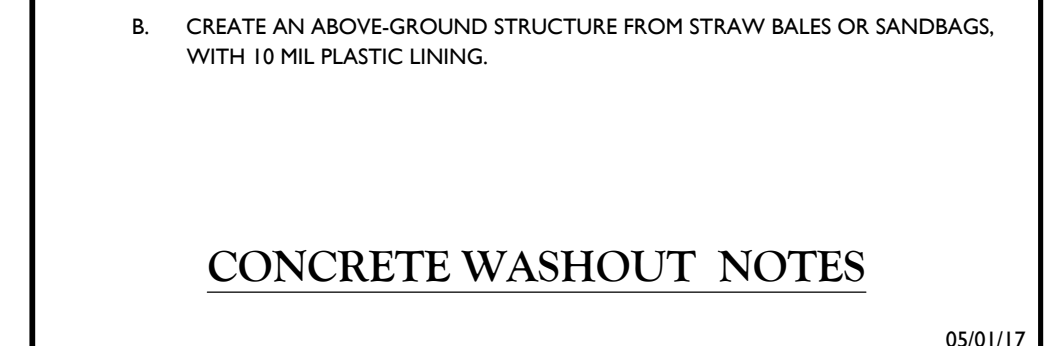
TOPSOIL STOCKPILE DETAIL



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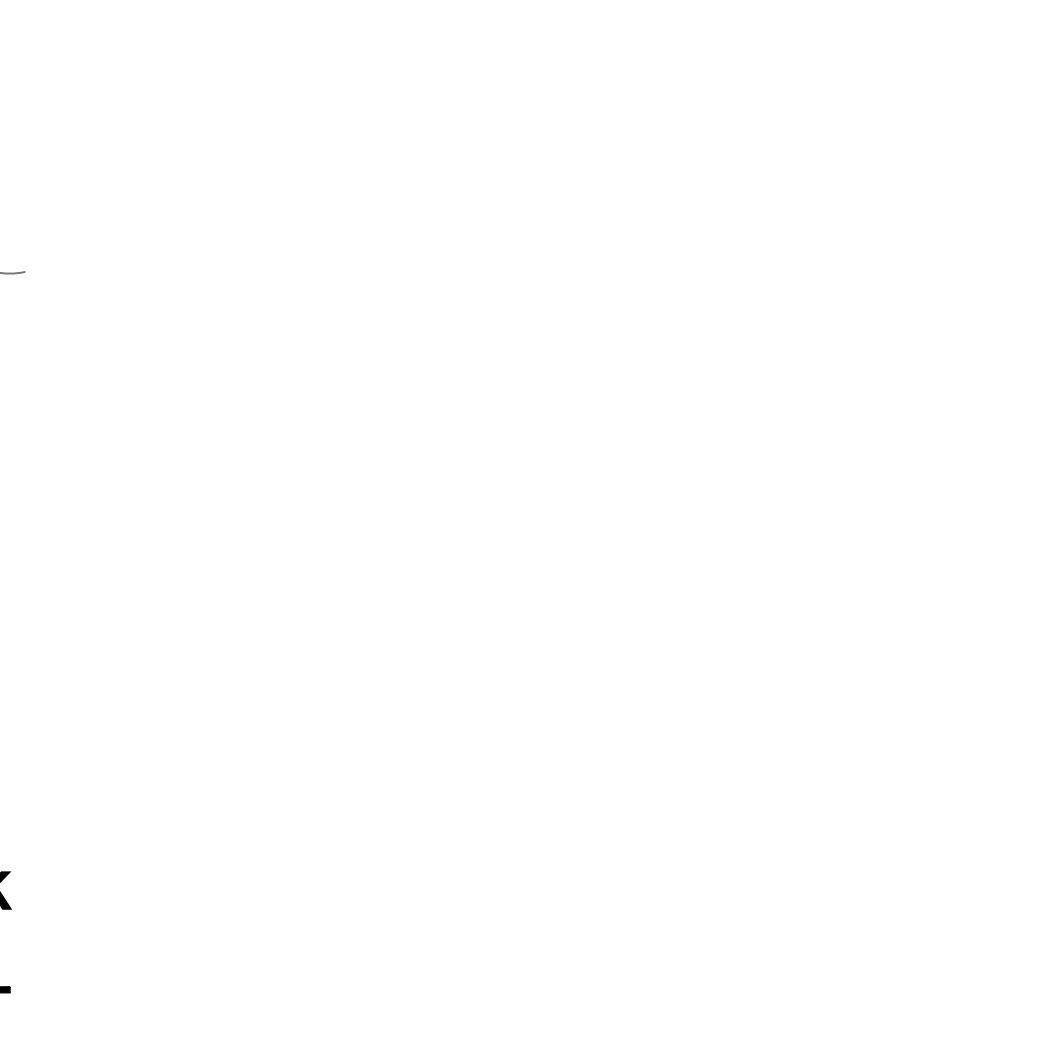
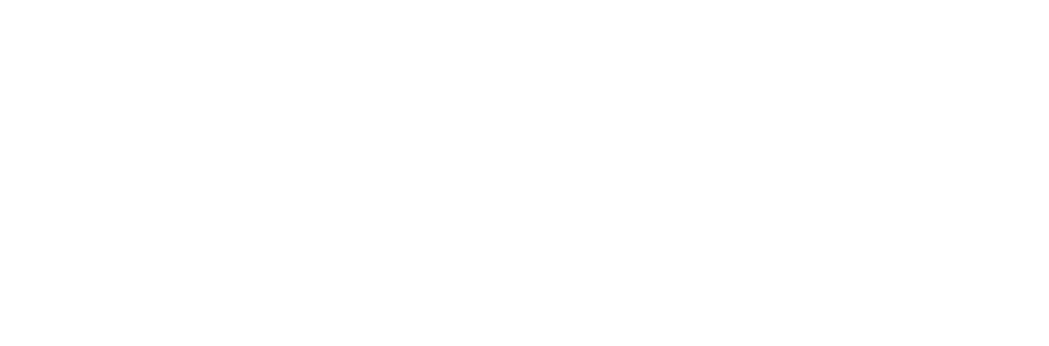
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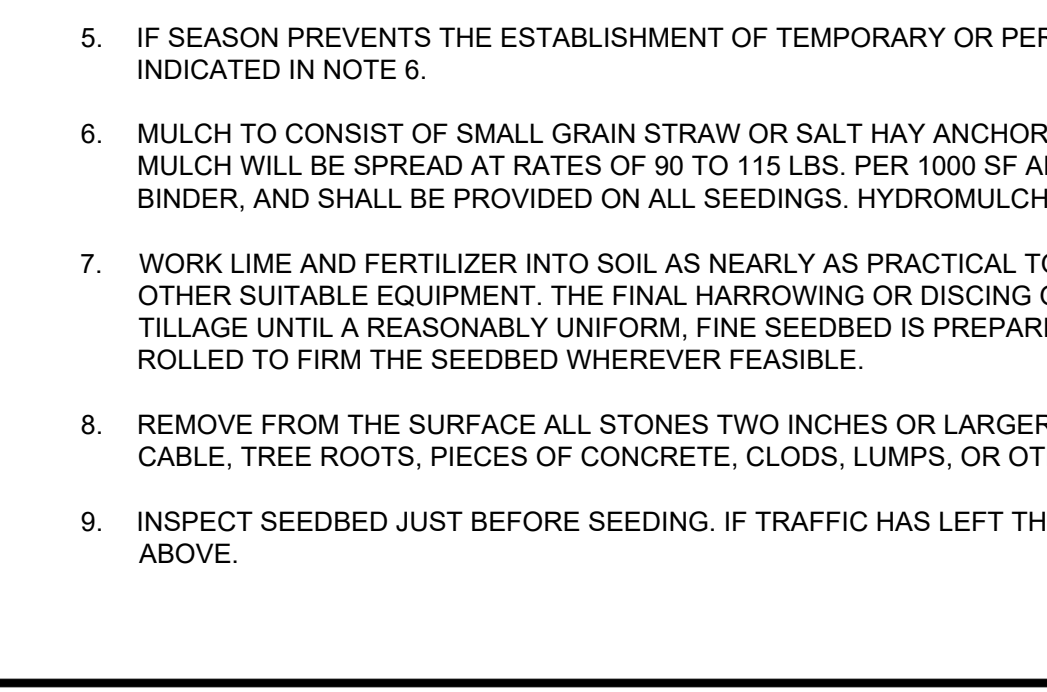
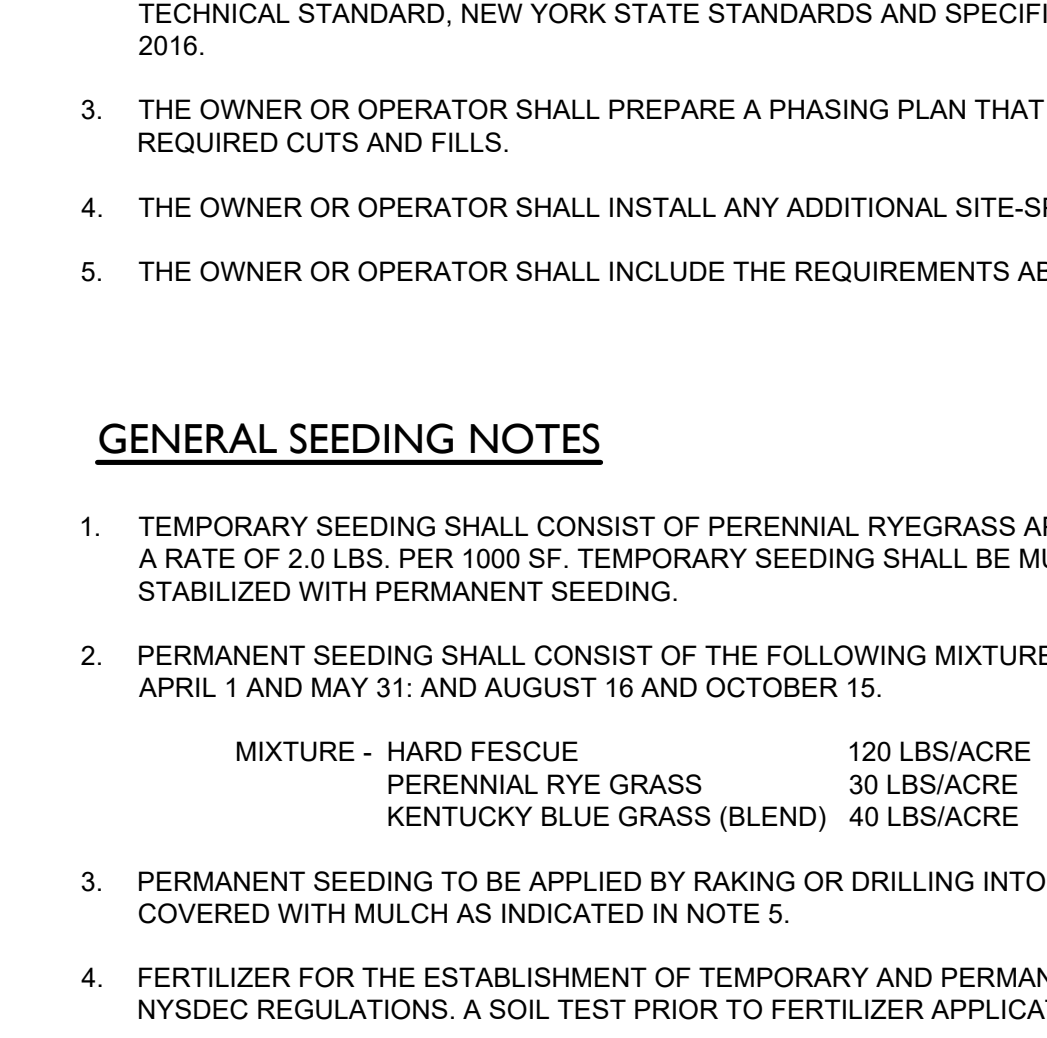
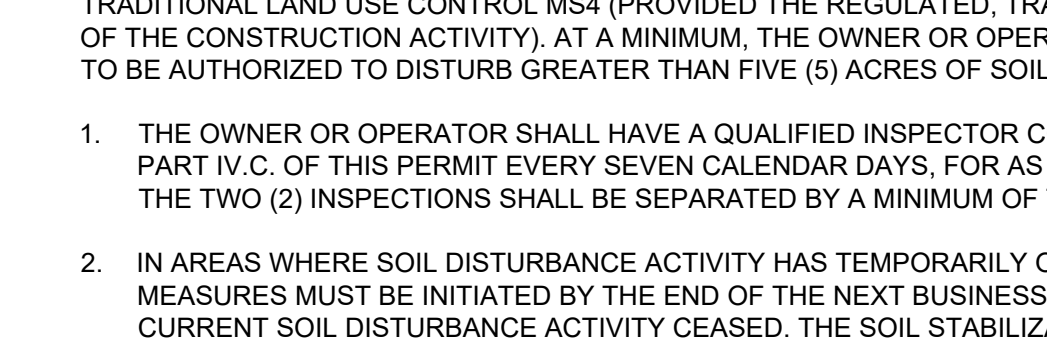
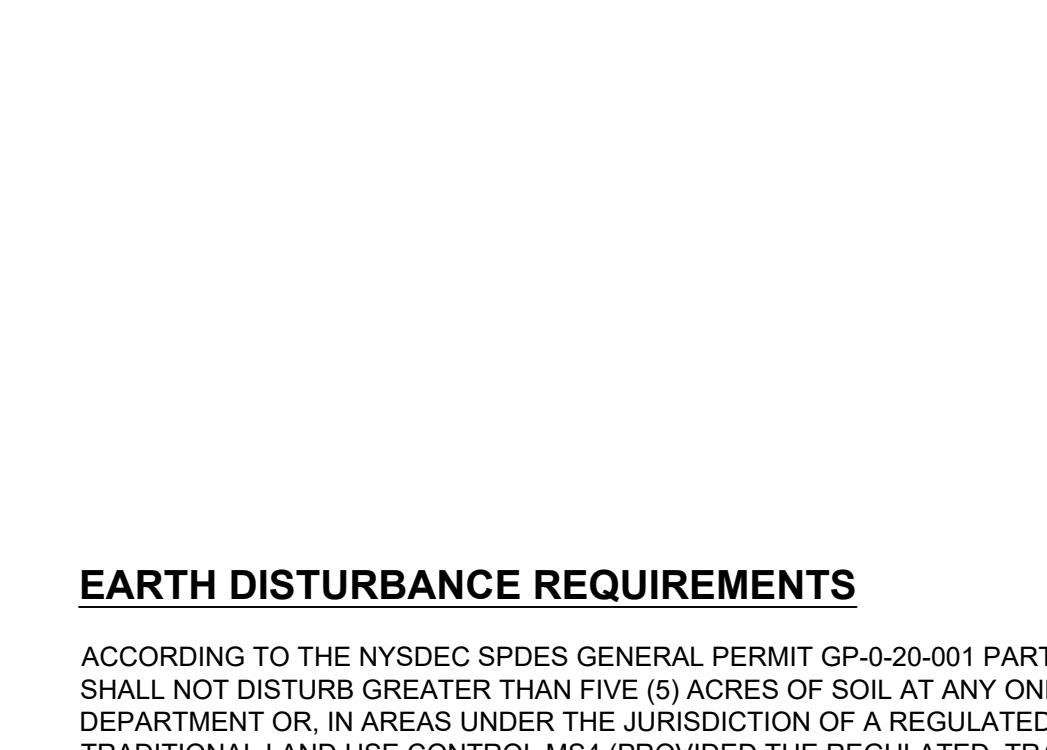
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NOTES:

- ALL STOCKPILES SHALL NOT BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

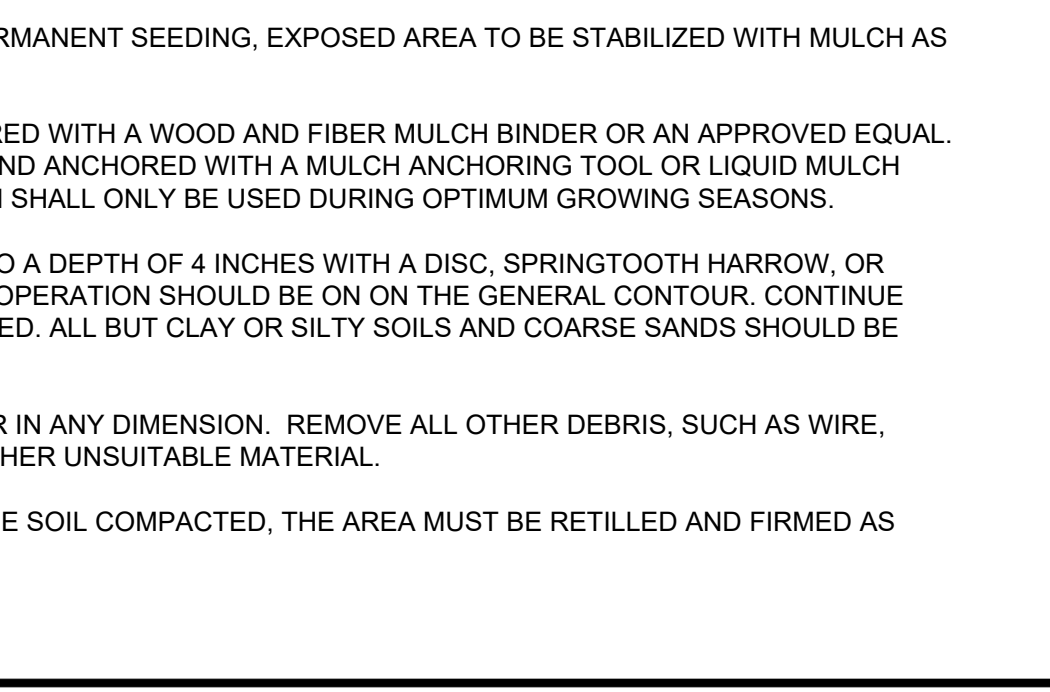
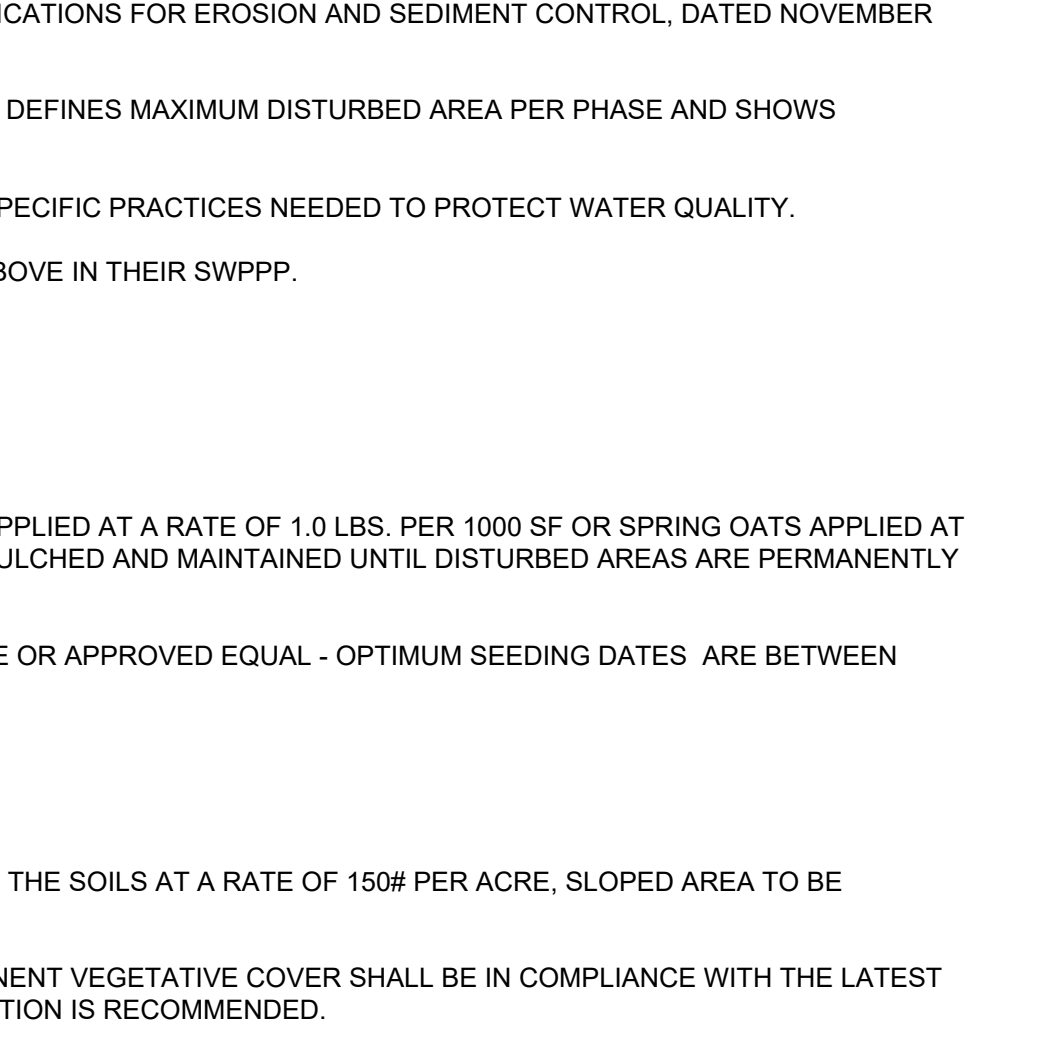
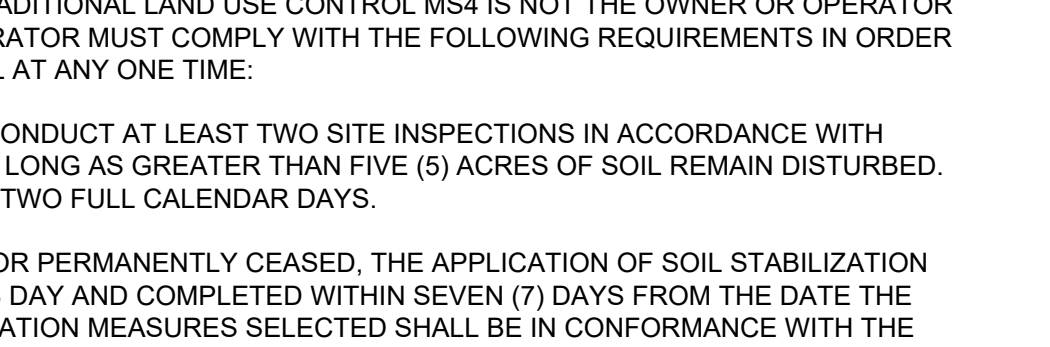
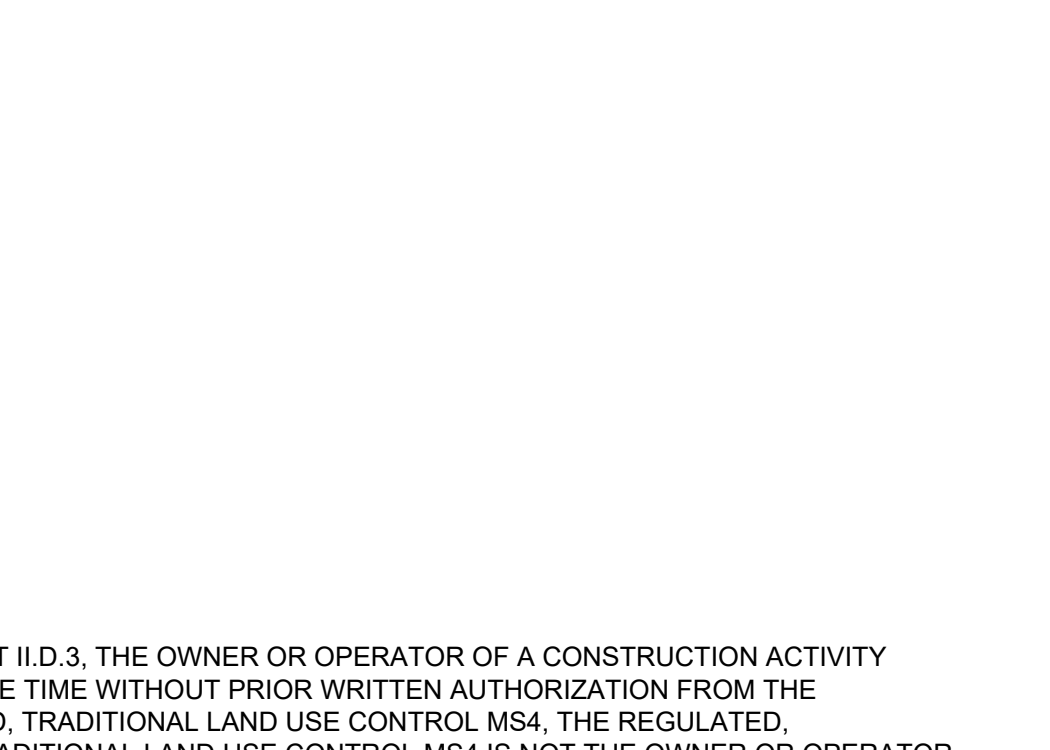
TOPSOIL STOCKPILE DETAIL



NOTES:

- ALL STOCKPILES SHALL NOT BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

TOPSOIL STOCKPILE DETAIL



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DATE	DESCRIPTION	DATE	DESCRIPTION
1/10/2020	1. INITIAL DESIGN	1/10/2020	1. INITIAL DESIGN
1/10/2020	2. REVISIONS	1/10/2020	2. REVISIONS
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**RUSSELL T. McFALL II**

NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

**PRELIMINARY/FINAL LAND DEVELOPMENT**

FOR

**COSTCO WHOLESALE**

**CROSSGATES MALL TAX MAP 52.10 & 52.14**

**TOWN OF GUILDERLAND ALBANY COUNTY STATE OF NEW YORK**

**Colliers**

Engineering & Design

410 Eagleview Boulevard, Suite 104, Ext. 104, Albany, NY 12243

Phone: 610.254.5140

COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING

SCALE	DATE	DRAWN BY	CHECKED BY
AS SHOWN	10/28/19	DJB	RTM

PROJECT NUMBER	DRAWING NAME
13001204A	C-50C

SHEET TITLE: **EROSION CONTROL NOTES AND DETAILS**

SHEET NUMBER: 11 of 21

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



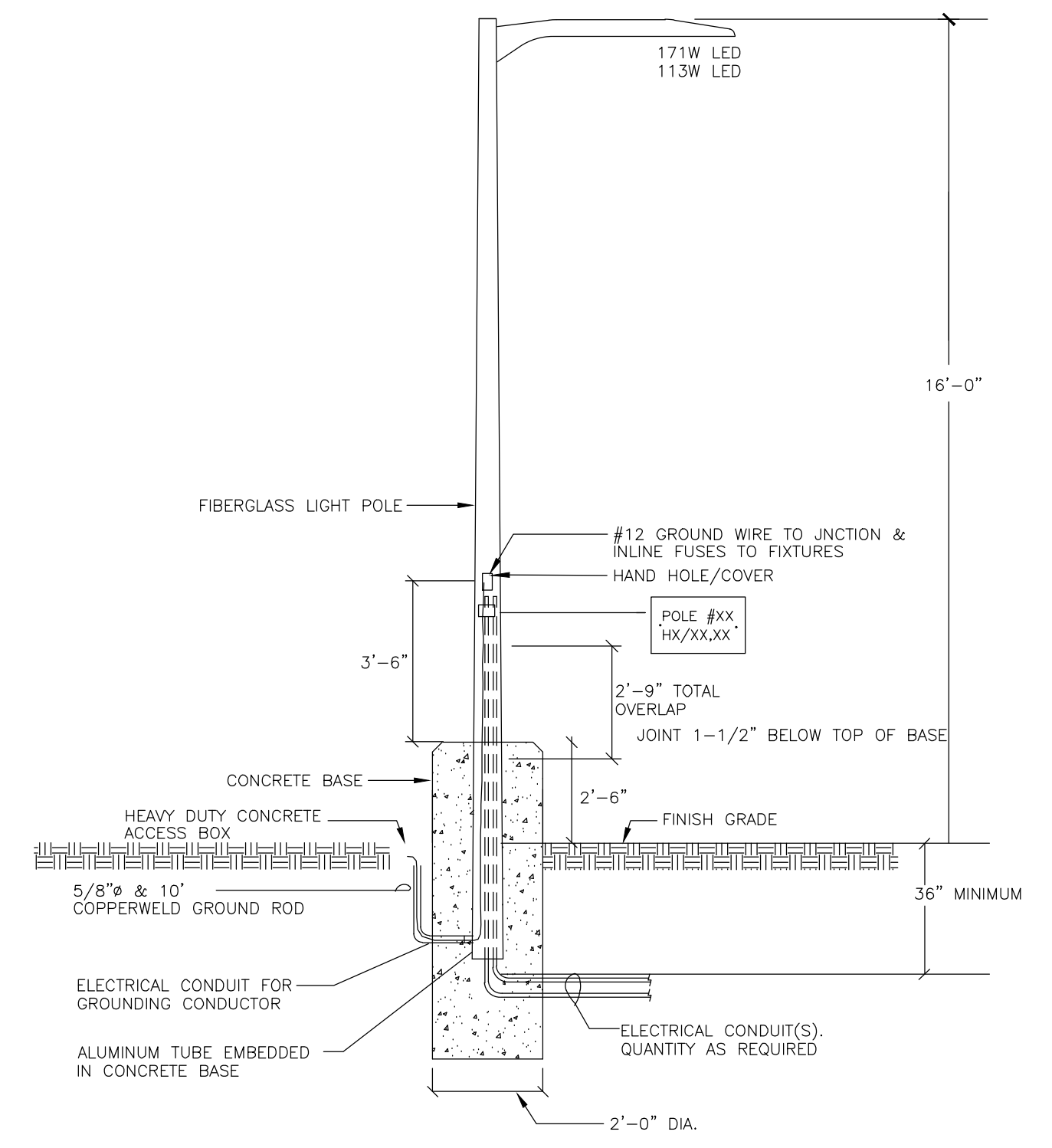






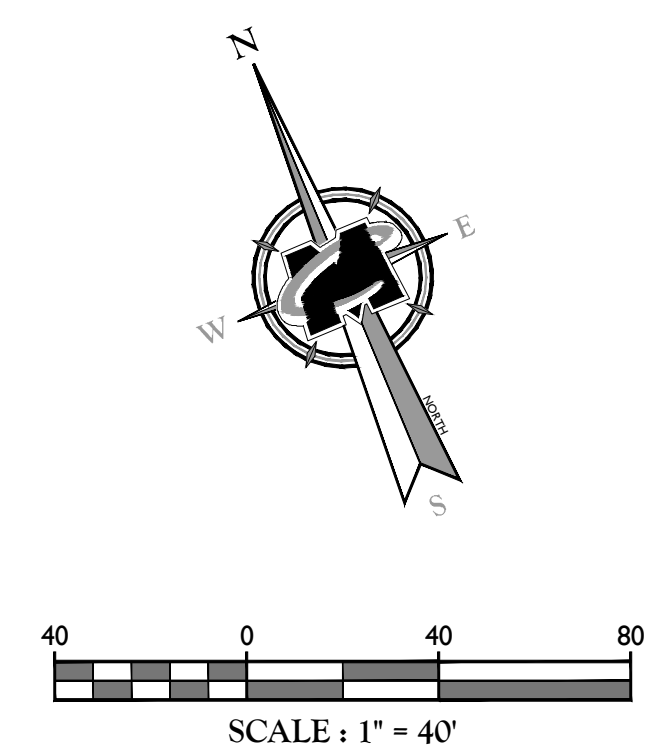
16'-0" STATISTICS			
	SITE FC	PL FC	
MAX	33.9	0.2	
AVG	3.6	0.1	
MIN	0.0	0.0	
AVG/MIN	--	--	
132 POLES		0.8 LIF	
132 FIXTURES			

FIXTURE DESCRIPTION	
P	COOPER GALLEON GLEON-SA-4A-740-U-SWQ-BZ, 129W TYPE 5 DISTRIBUTION, FIBERGLASS POLE 16'-0" ABOVE GRADE, WITH 2'-6" BASE.
P1	COOPER GALLEON GLEON-SA-4A-740-U-SWQ-BZ, 129W TYPE 5 DISTRIBUTION, FIBERGLASS POLE 16'-0" ABOVE GRADE, WITH 2'-6" BASE.
P2	COOPER GALLEON GLEON-SA-2B-740-U-SWQ-BZ, 85W TYPE 5 DISTRIBUTION, FIBERGLASS POLE 16'-0" ABOVE GRADE, WITH 2'-6" BASE.
P3	COOPER GALLEON GLEON-SA-2B-740-U-SL3-HSS-BZ, 85W TYPE 3 DISTRIBUTION, FIBERGLASS POLE 16'-0" ABOVE GRADE, WITH 2'-6" BASE.
P4	COOPER GALLEON GLEON-SA-4A-740-U-SL4-HSS-BZ, 85W TYPE 4 DISTRIBUTION, FIBERGLASS POLE 16'-0" ABOVE GRADE, WITH 2'-6" BASE.
W	LITHONIA DSXW2 LED 30K 30C 1000 T2M, 109W LED, 18' MOUNTING HEIGHT
W1	LITHONIA DSXW2 LED 30K 30C 1000 T4M, 109W LED, 18' MOUNTING HEIGHT
W2	LITHONIA DSXW2 LED 30K 30C 530 TFTM, 54W LED, 18' MOUNTING HEIGHT
DA	96W LED, SURFACE SYMMETRIC DOWN LIGHT, FLAT LENS, 18' MOUNTING HEIGHT



NOTE: PROVIDE CONCRETE J-BOX AS REQUIRED. THIS DETAIL IS FOR ELECTRICAL CONDUITS ROUTING ONLY. SEE STRUCTURAL DRAWINGS S0.2 FOR DETAILS.

**POLE DETAIL**  
SCALE: NTS



LIGHTING PLAN PREPARED BY T.E., INC.  
FOR BIDDING AND ADDITIONAL  
INFORMATION PLEASE CONTACT:  
T.E., INC.  
830 N. RIVERSIDE DRIVE  
SUITE #200  
RENTON, WA 98057  
PHONE# (425) 970-3753  
FAX# (425) 970-3756

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1	10/20/19	ISSUED FOR TOWN OF GUILDERLAND REVIEW COMMENTS			
2	10/20/19	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS			
3	10/20/19	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS			
4	10/20/19	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS			
5	10/20/19	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS			
6	10/20/19	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS			

**RUSSELL T. McFALL II**  
PENNSYLVANIA REGISTERED PROFESSIONAL  
ENGINEER - LICENSE NUMBER: PE6408

**SPECIAL USE PERMIT SITE PLANS**  
FOR  
  
**CROSSGATES MALL**  
TAX MAP 52.10, 52.14, & 52.01  
**TOWN OF GUILDERLAND**  
ALBANY COUNTY  
STATE OF NEW YORK

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Exton, PA 19341  
Phone: 610.254.5140  
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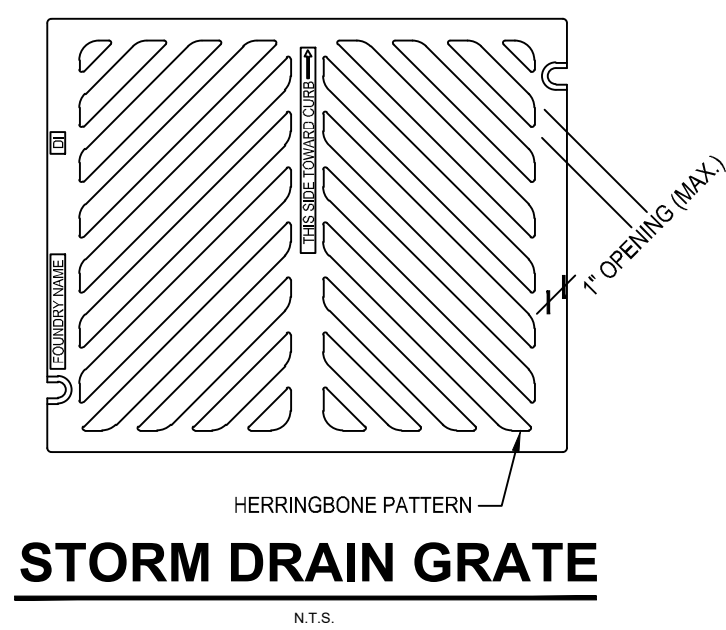
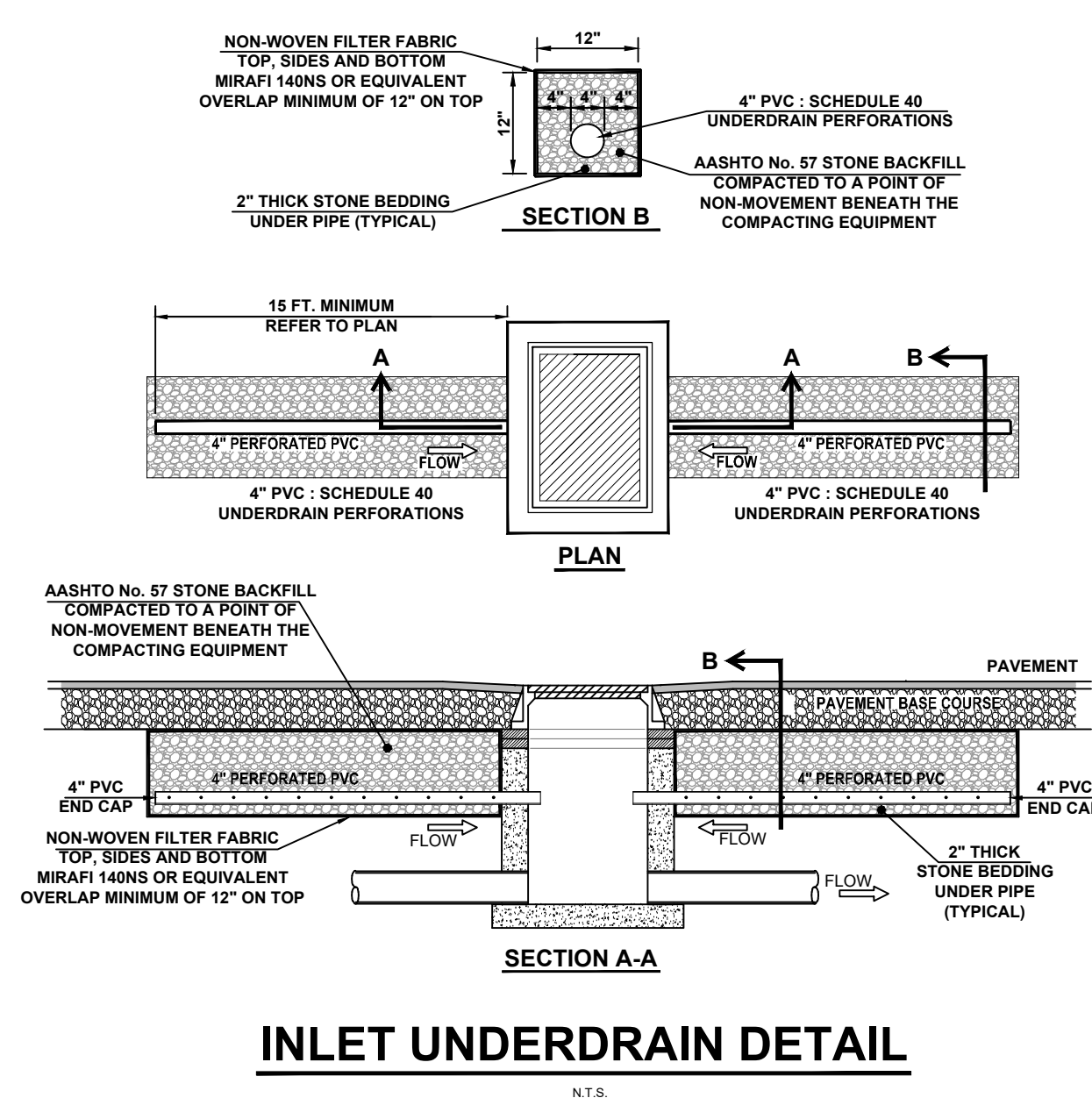
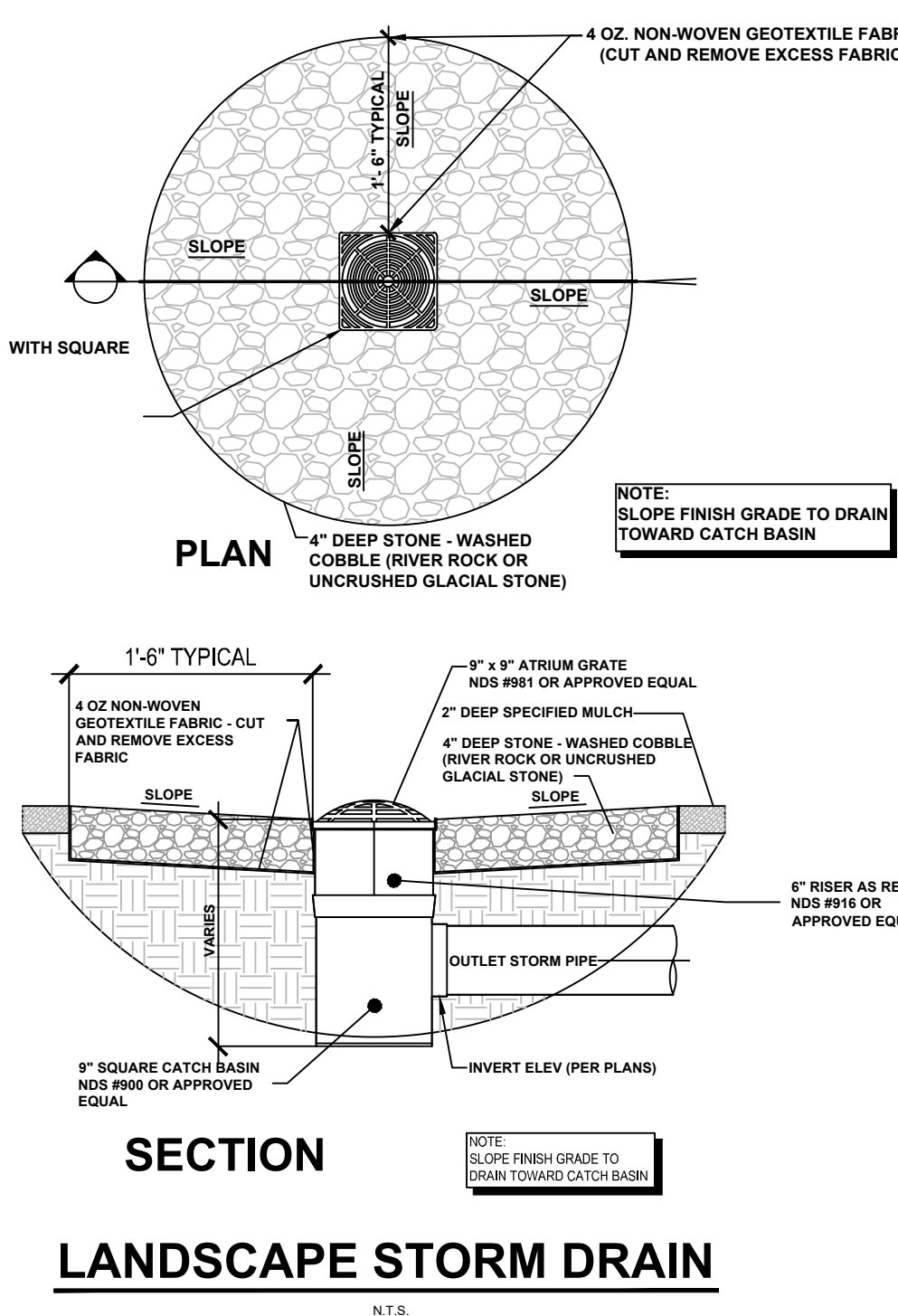
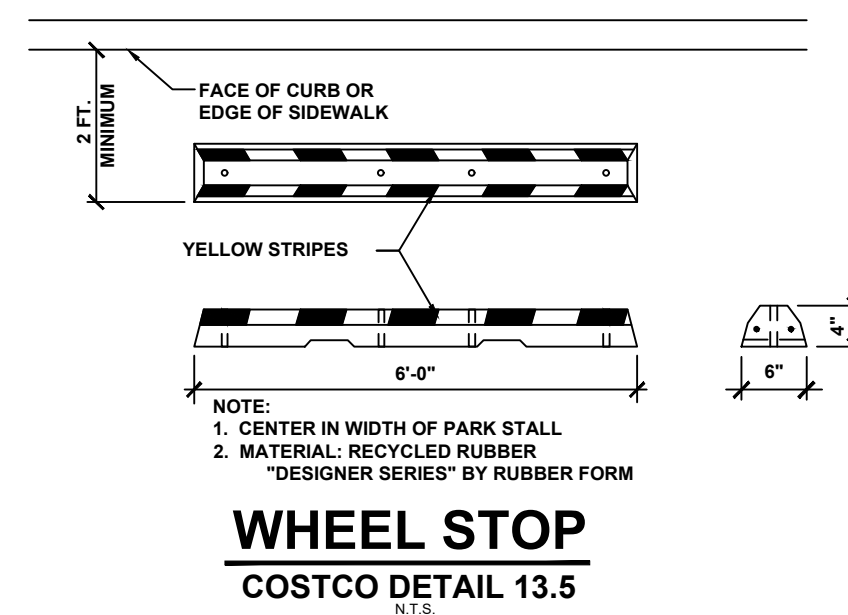
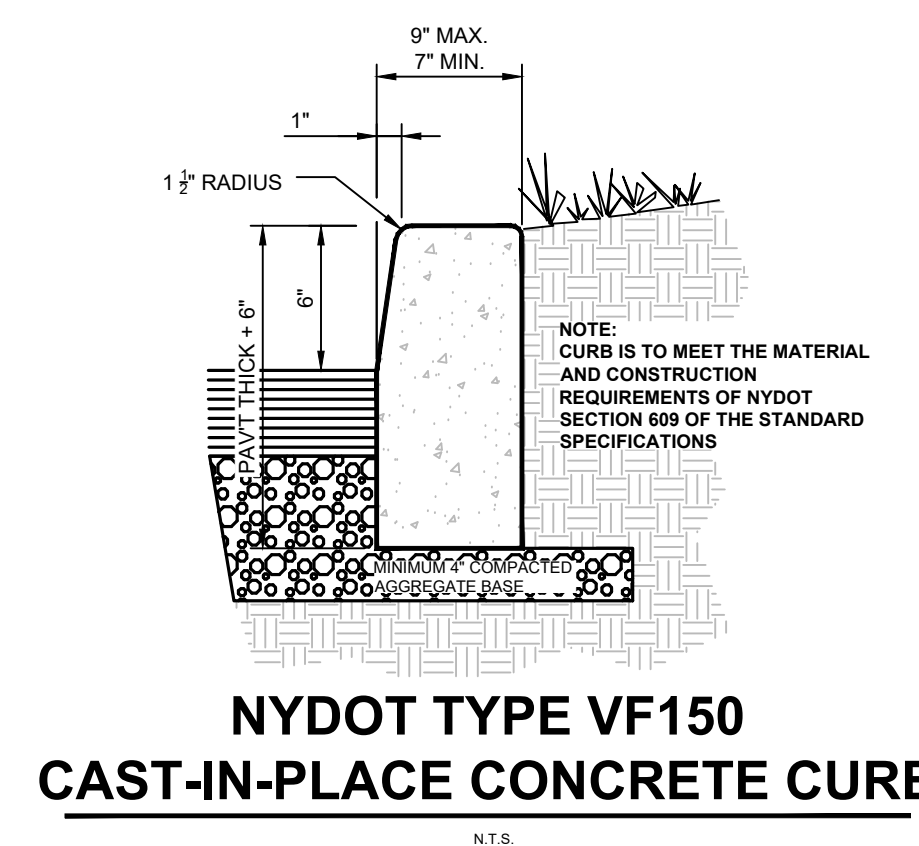
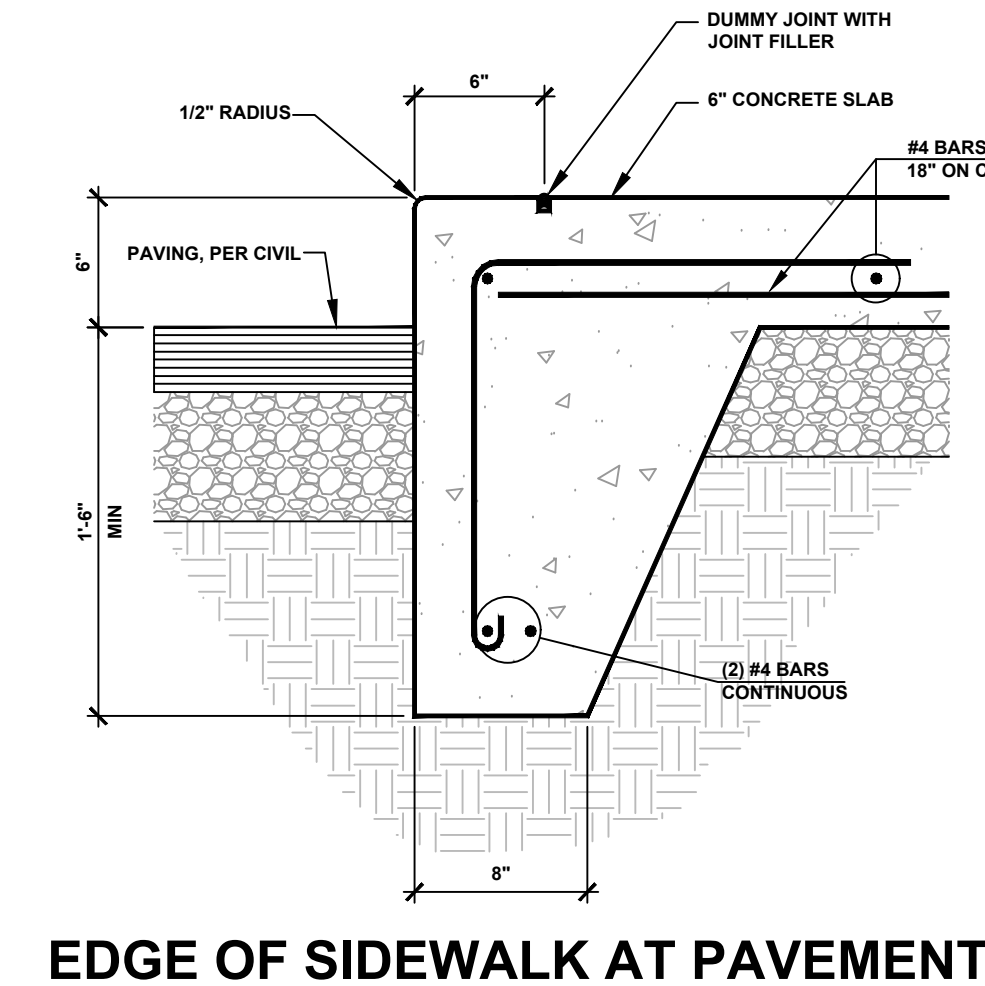
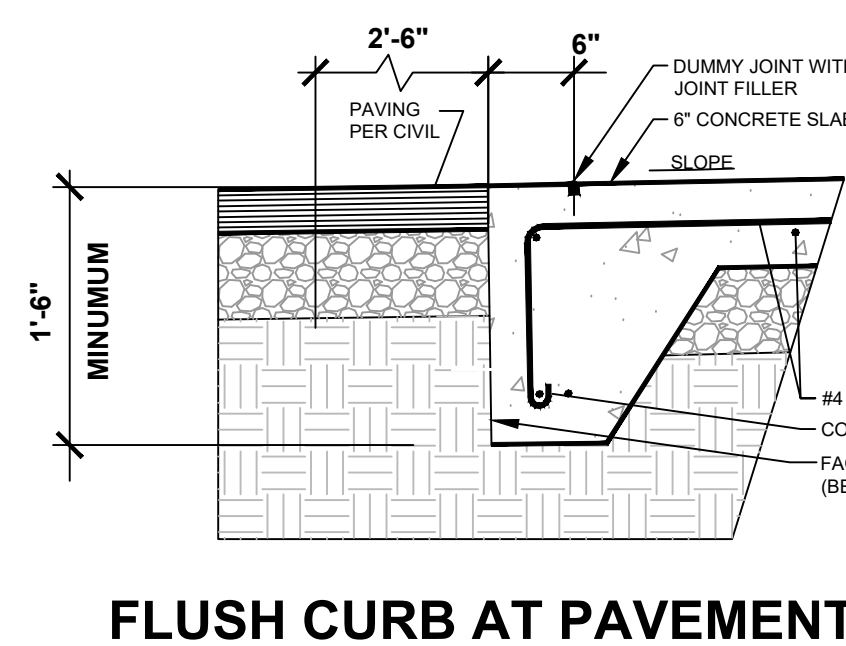
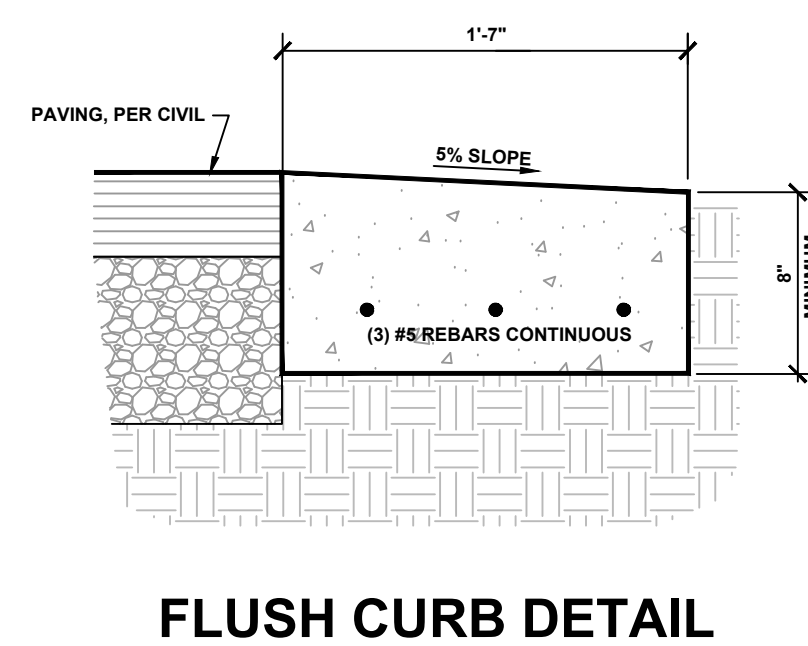
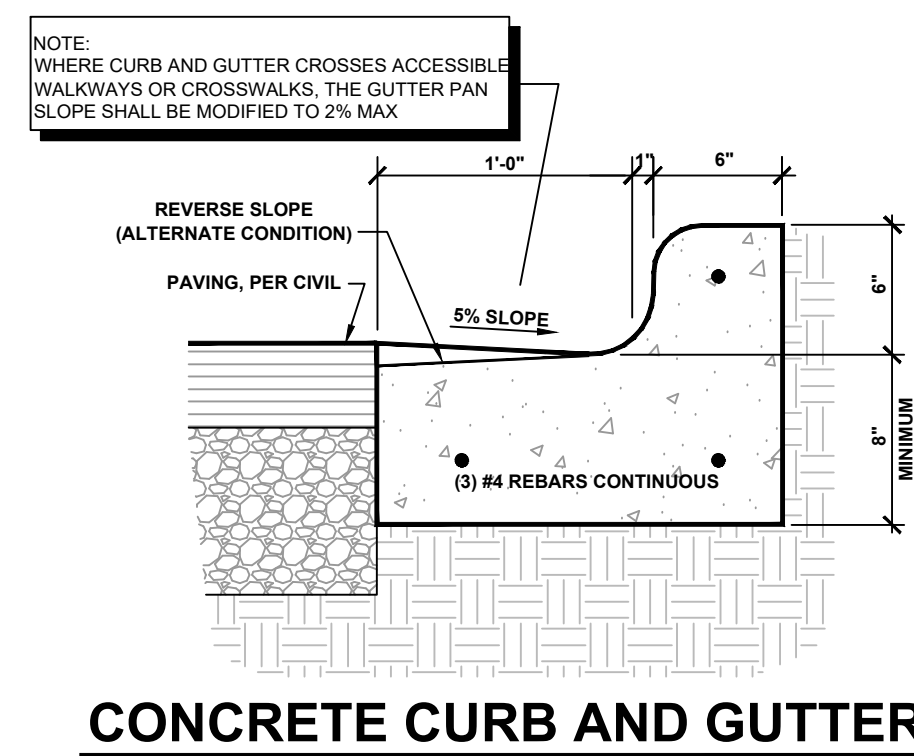
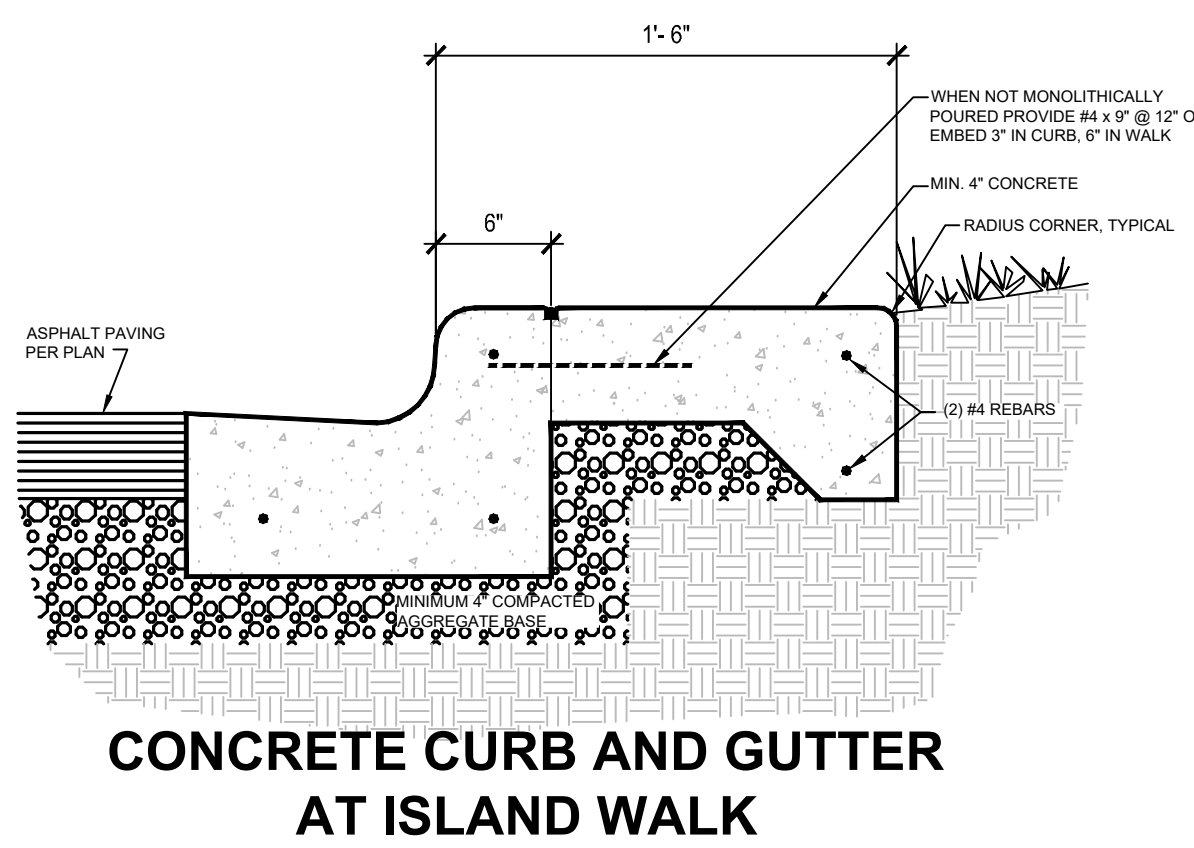
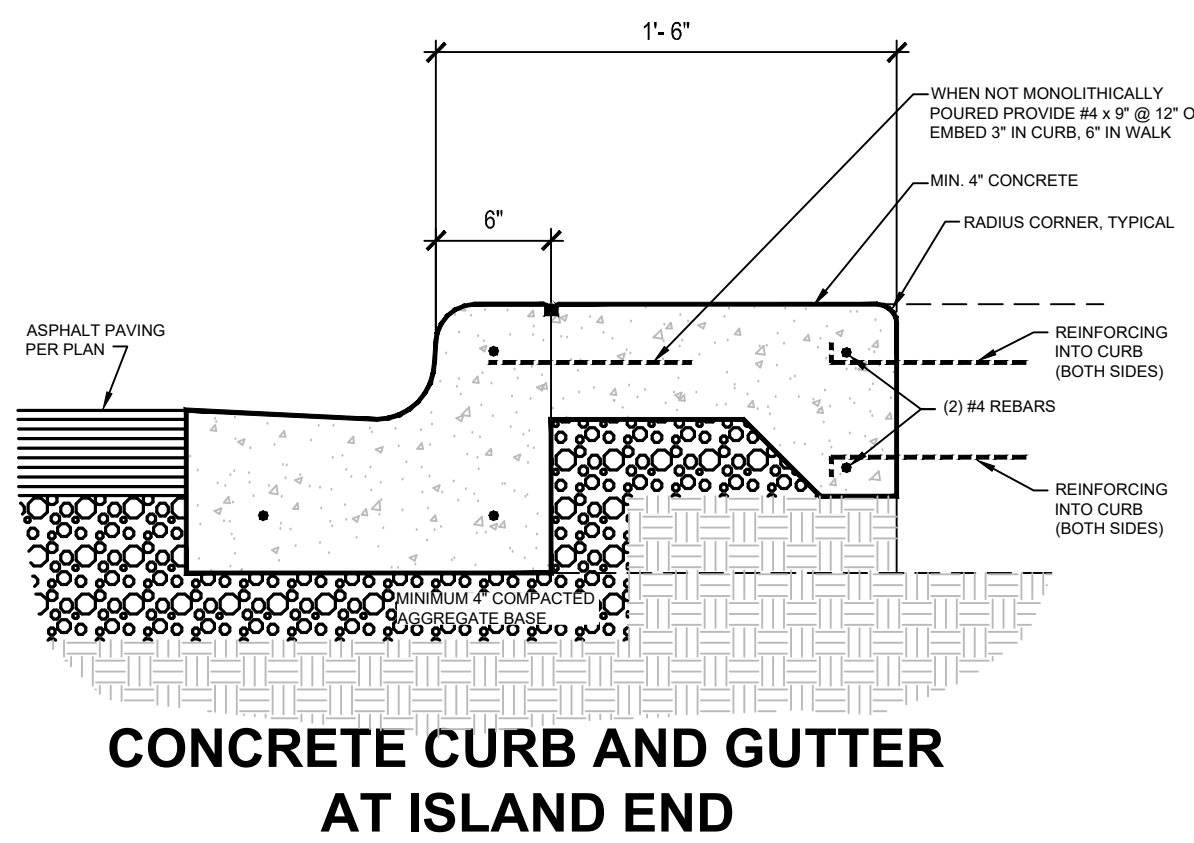
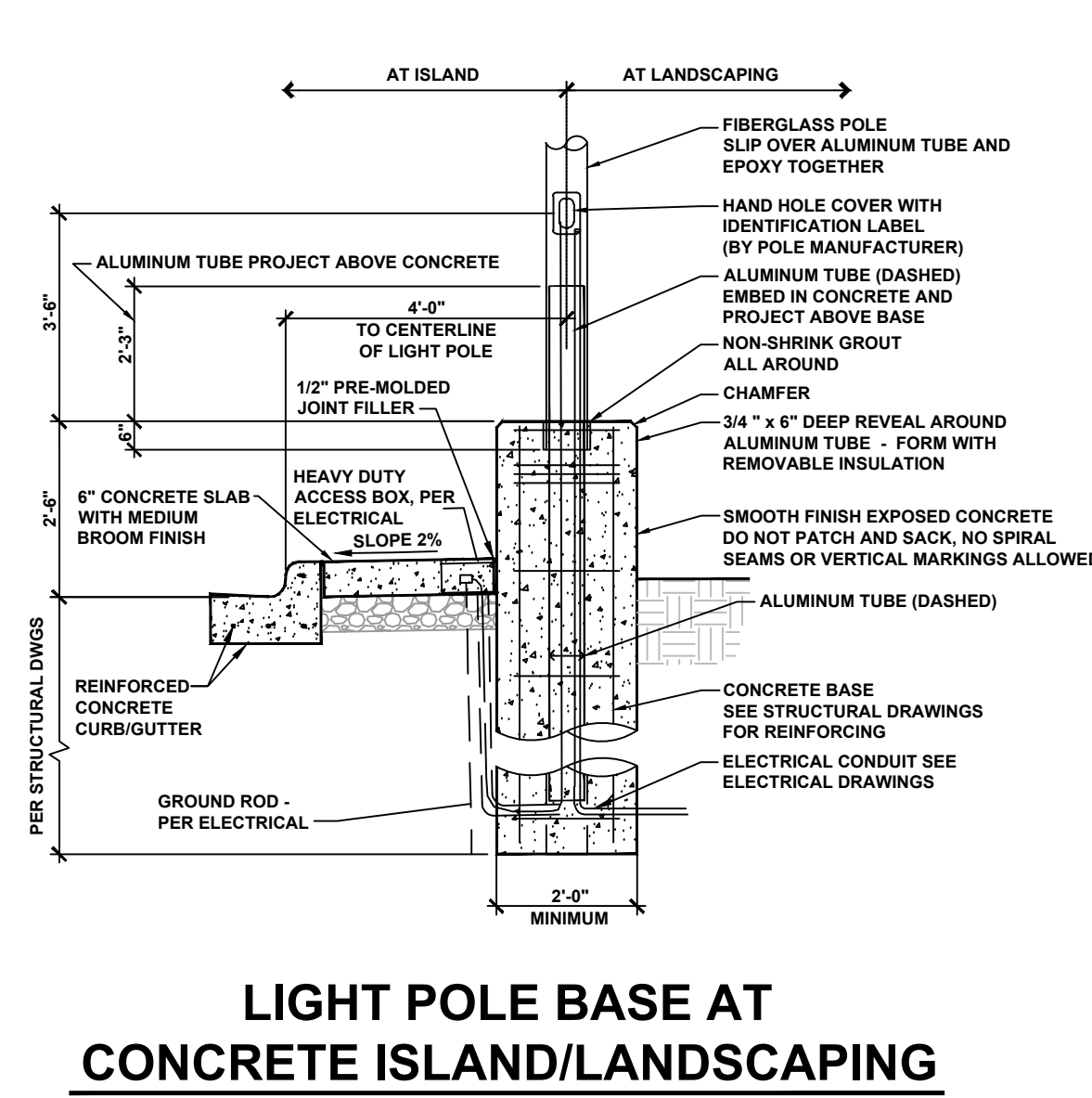
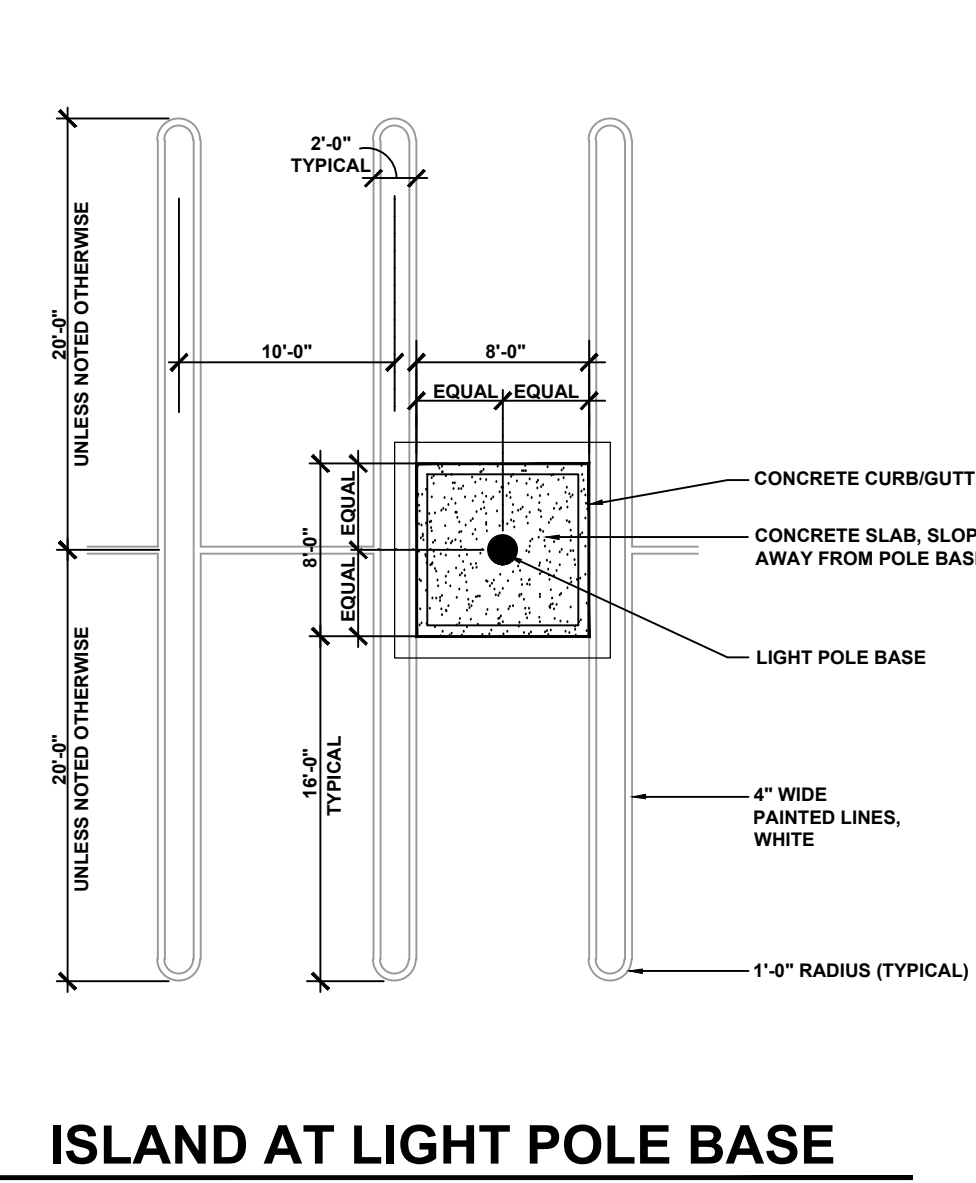
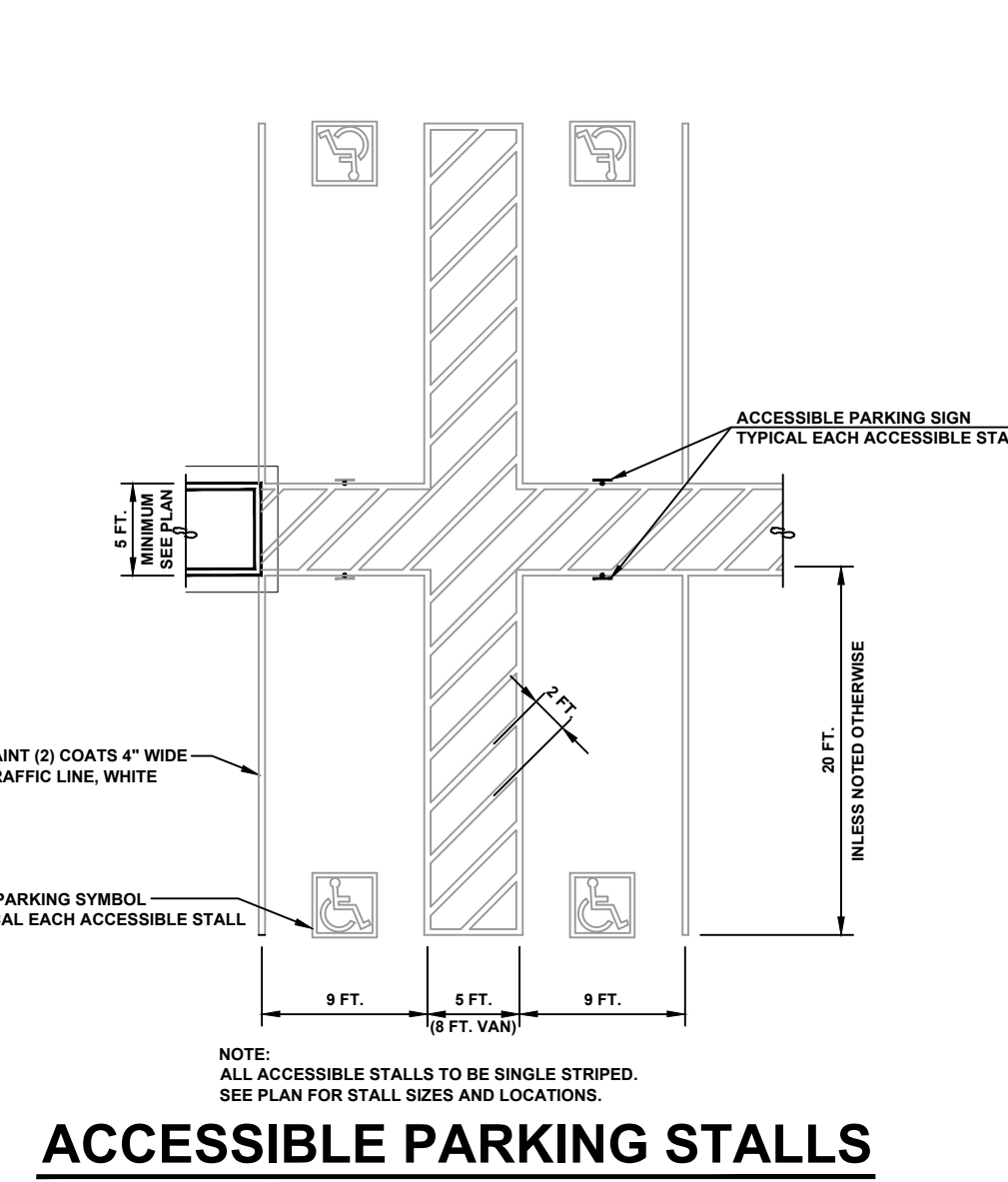
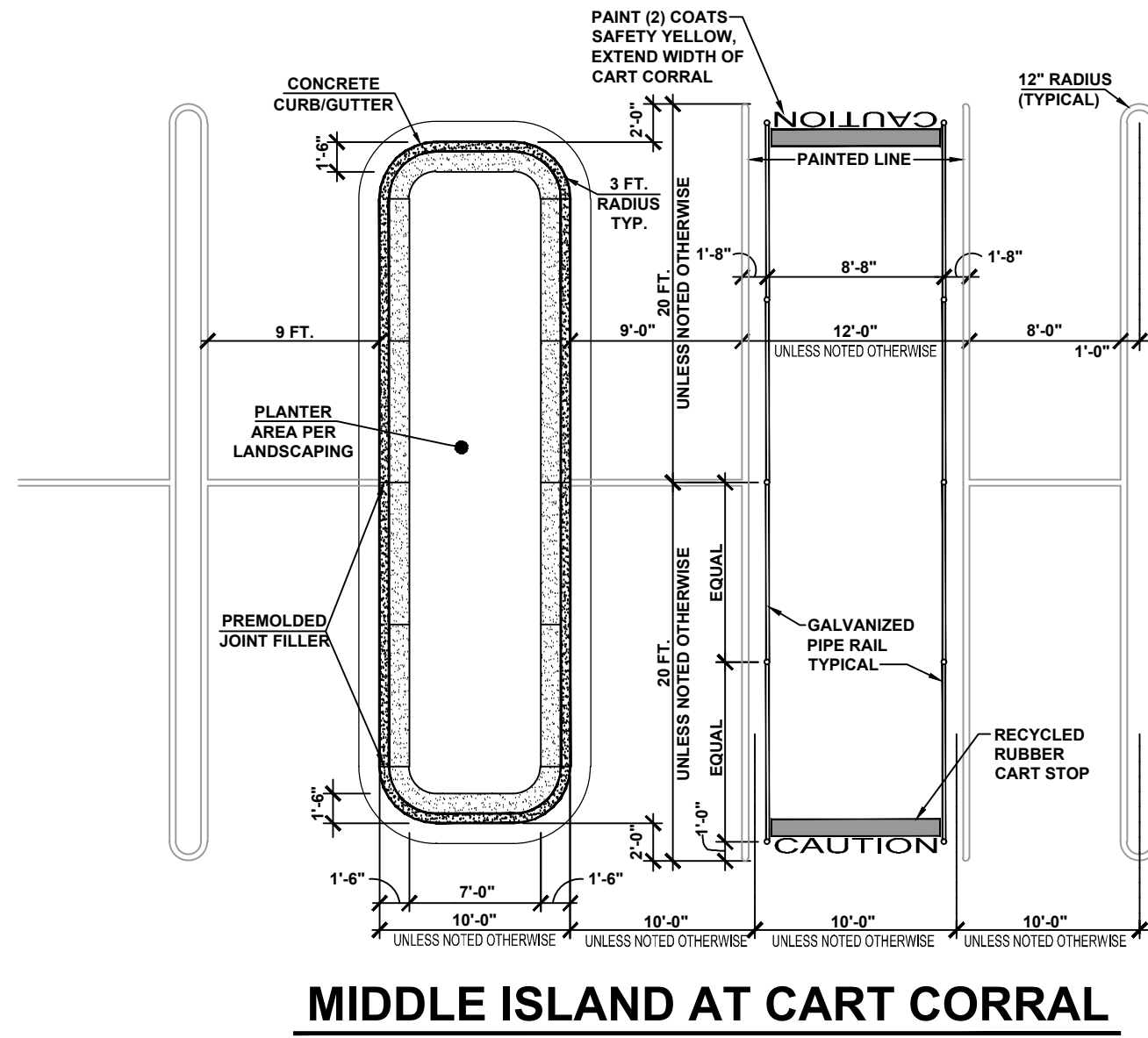
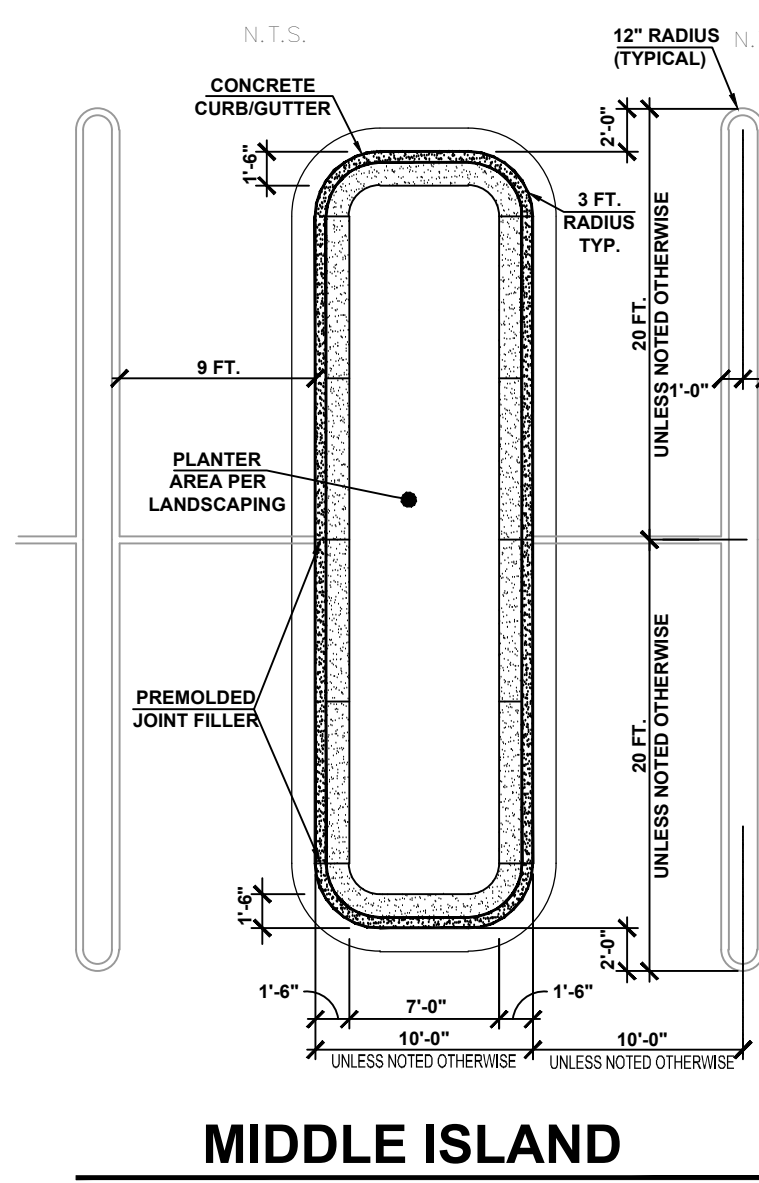
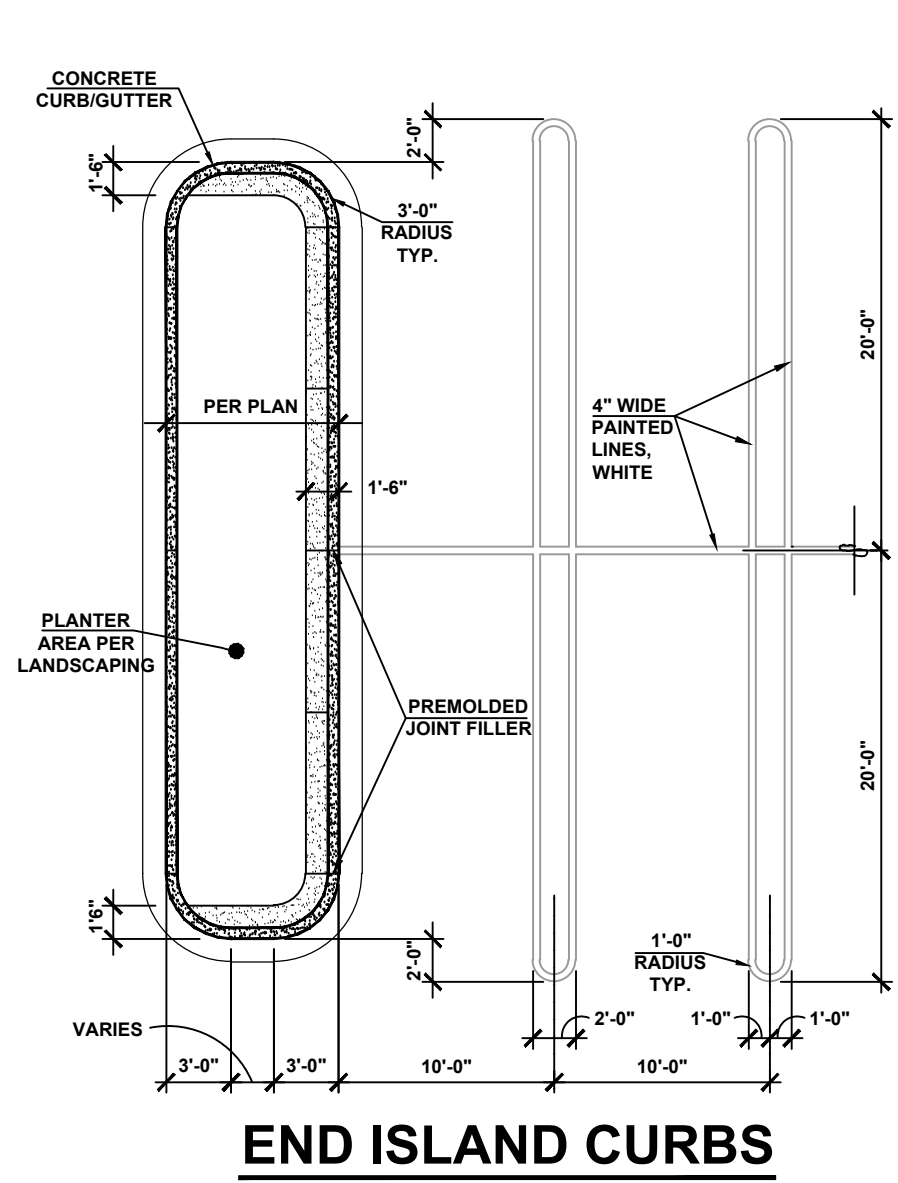
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AS SHOWN	10/28/19	DB	RTM
PROJECT NUMBER:	DRAWING NAME:		
13001204A	C.LIGHT		

SHEET TITLE:  
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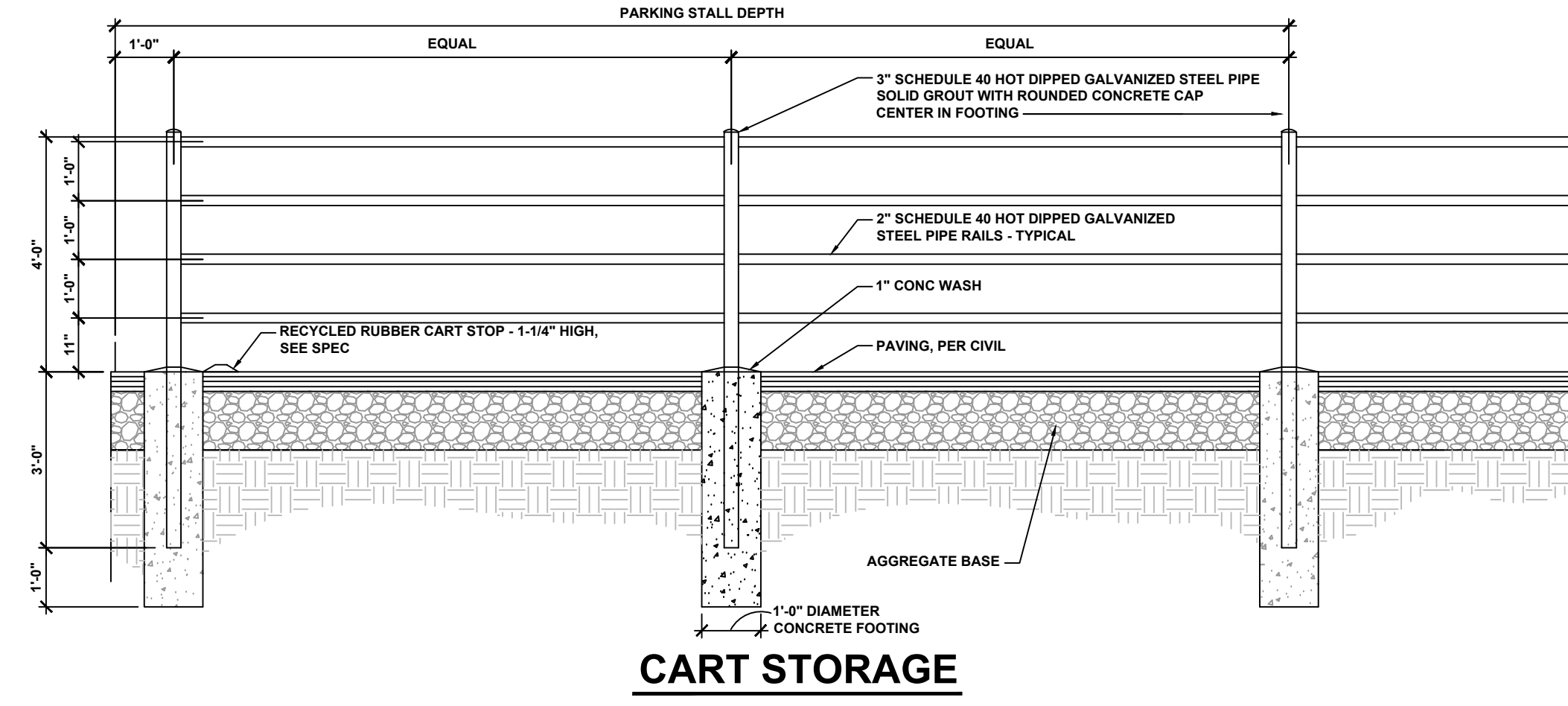
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13 of 22

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.





FOR STORM STRUCTURE DETAILS, REFER TO NYSDOT STANDARD DETAILS



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2	08/22/13	REVISIONS		
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5	08/22/13	REVISIONS		

RUSSELL T. McFALL II  
NEW YORK LICENSED PROFESSIONAL  
ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS

FOR  
**COSTCO WHOLESALE**

CROSSGATES MALL  
TAX MAP 52.10, 52.14 & 52.01

TOWN OF GUILDERLAND  
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STATE OF NEW YORK

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410 Eagleview Boulevard,  
Suite 104  
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PA 19341  
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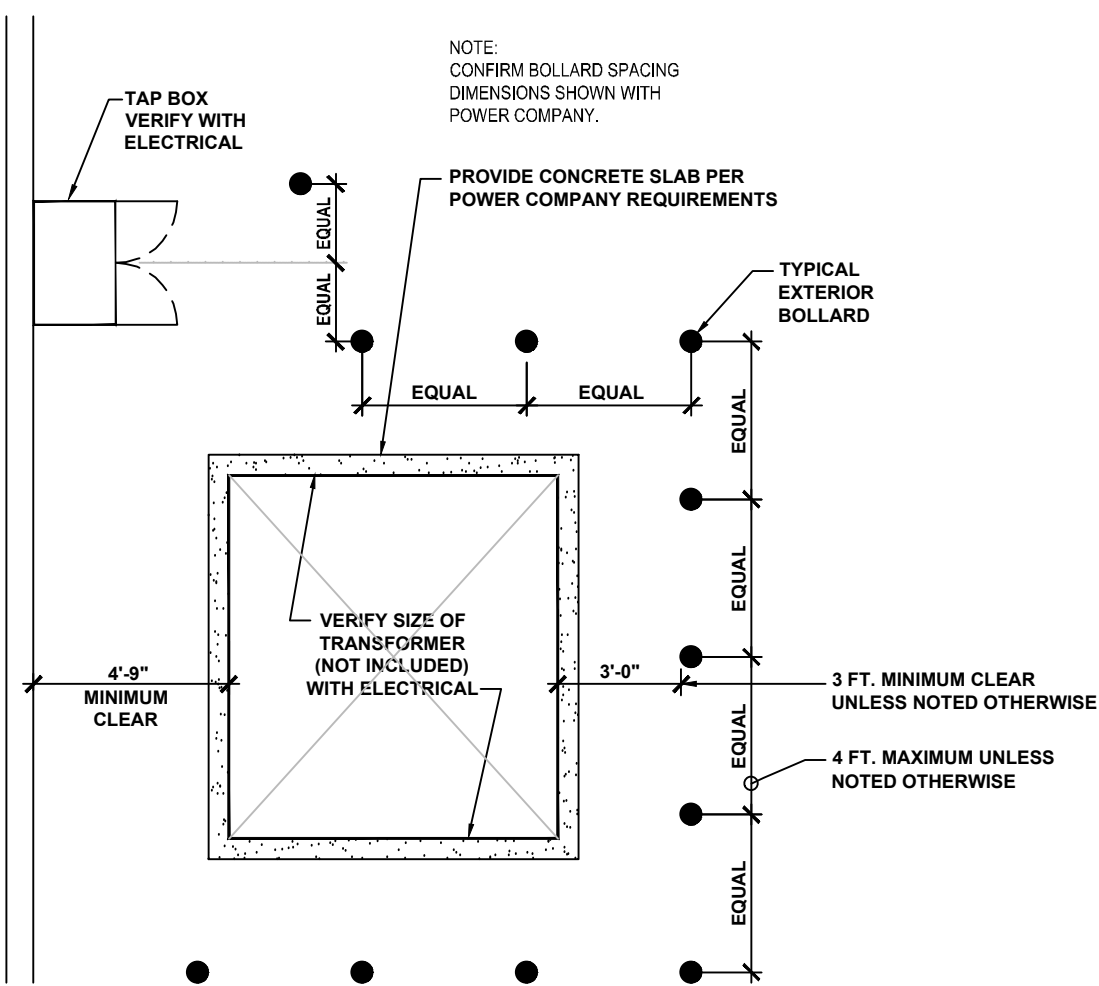
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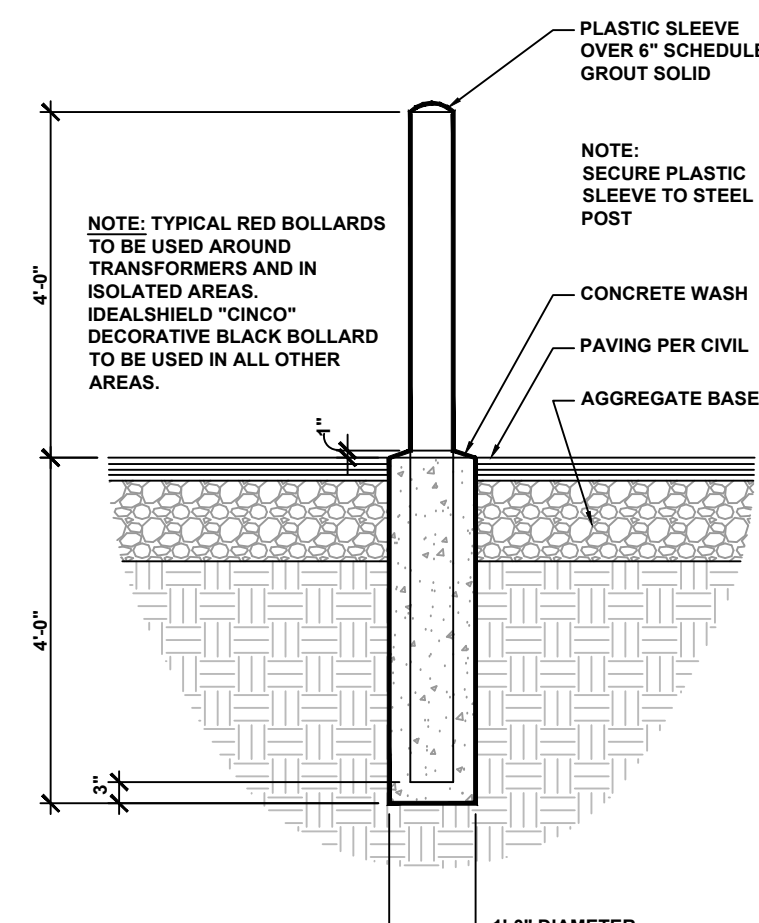
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NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

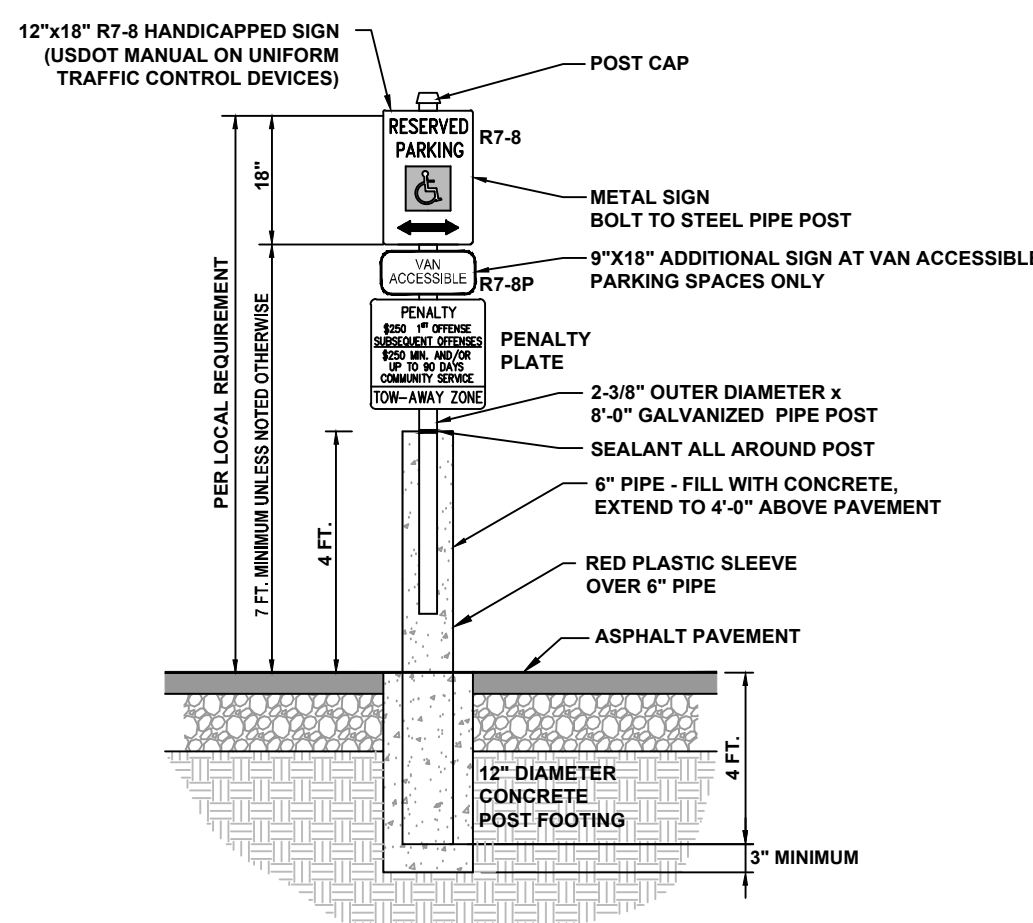




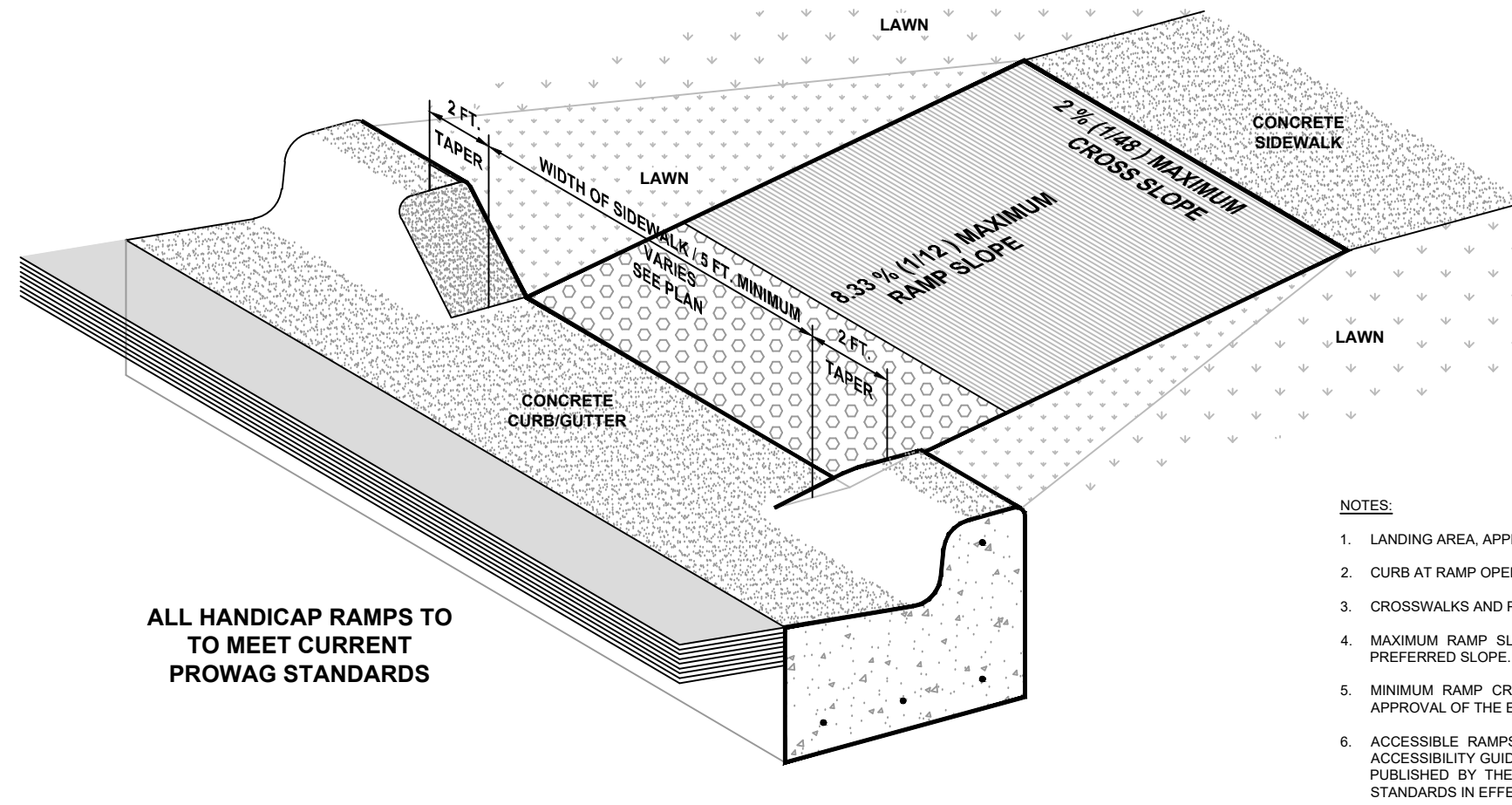
**BOLLARDS AT TRANSFORMER**



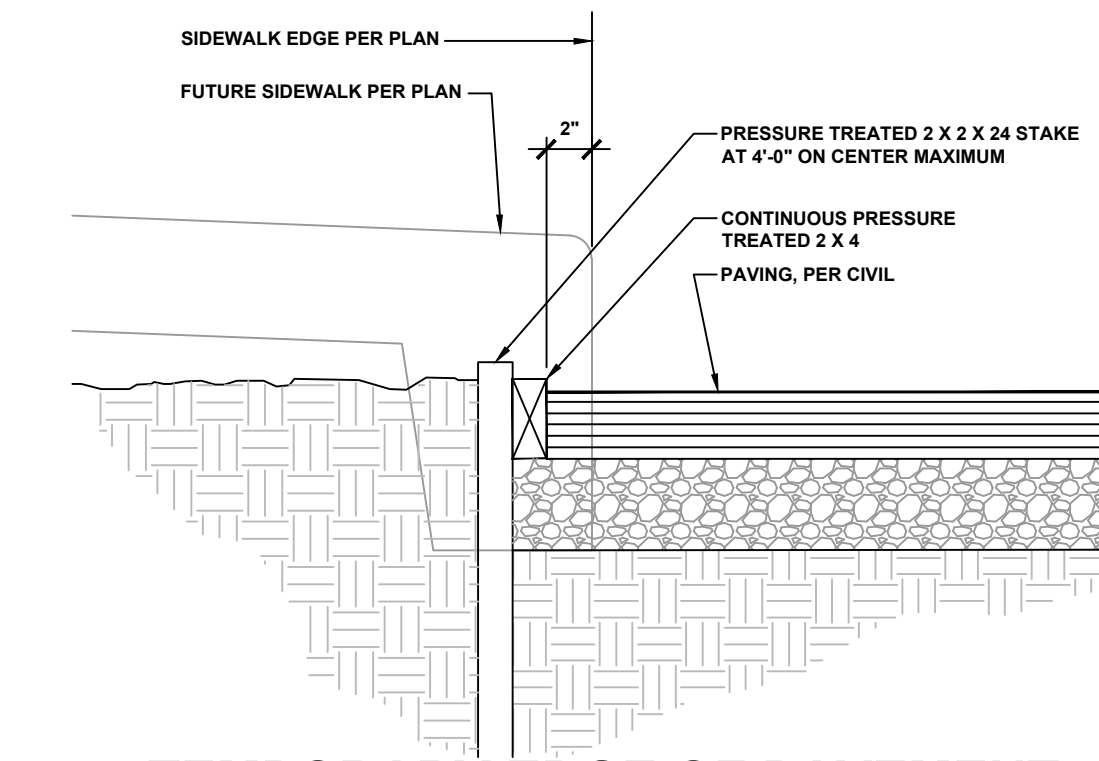
**TYPICAL EXTERIOR BOLLARD**



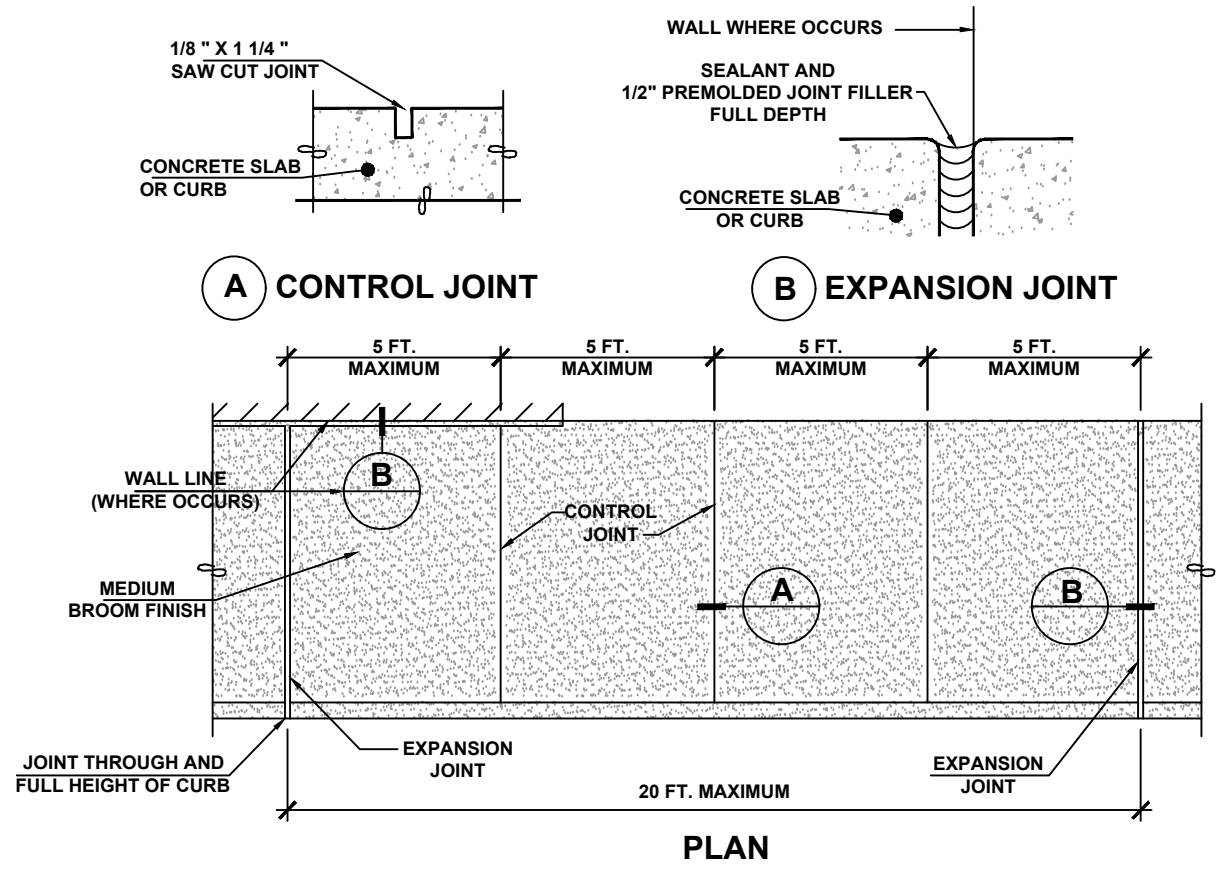
**ADA ACCESSIBLE PARKING SIGN**



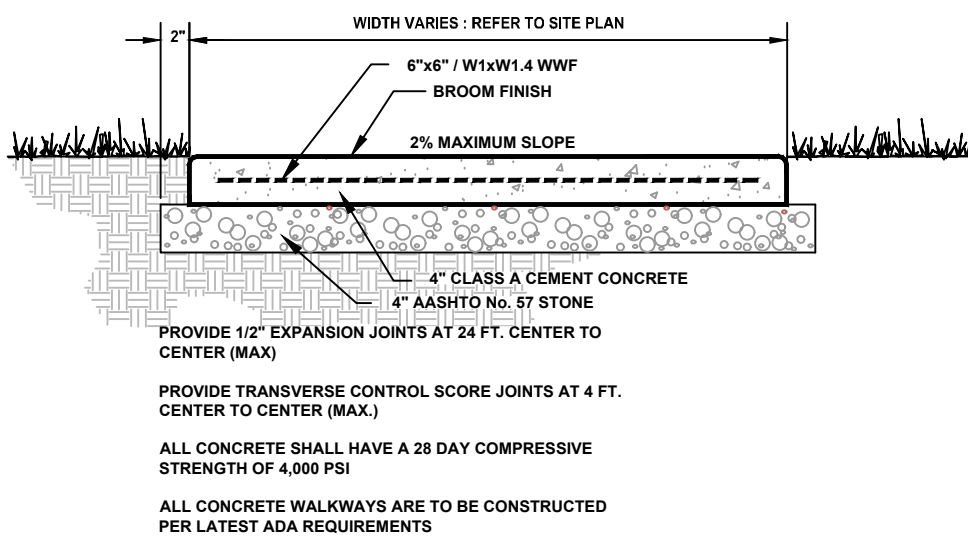
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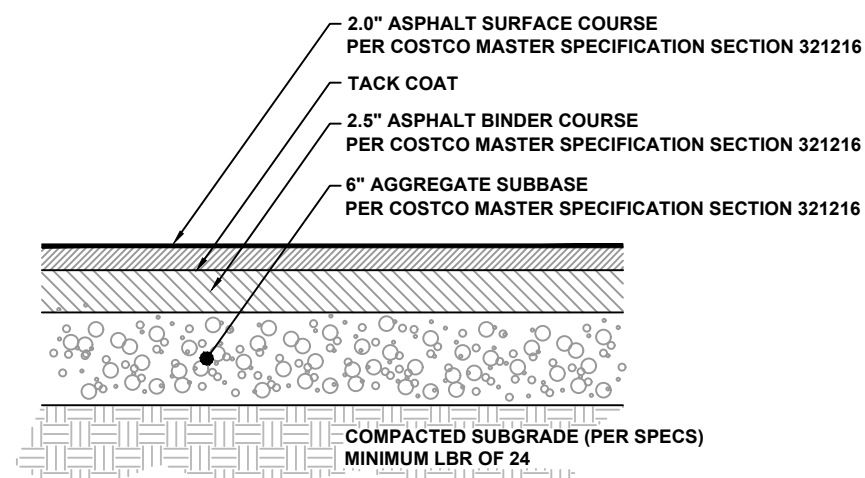
**TEMPORARY EDGE OF PAVEMENT**



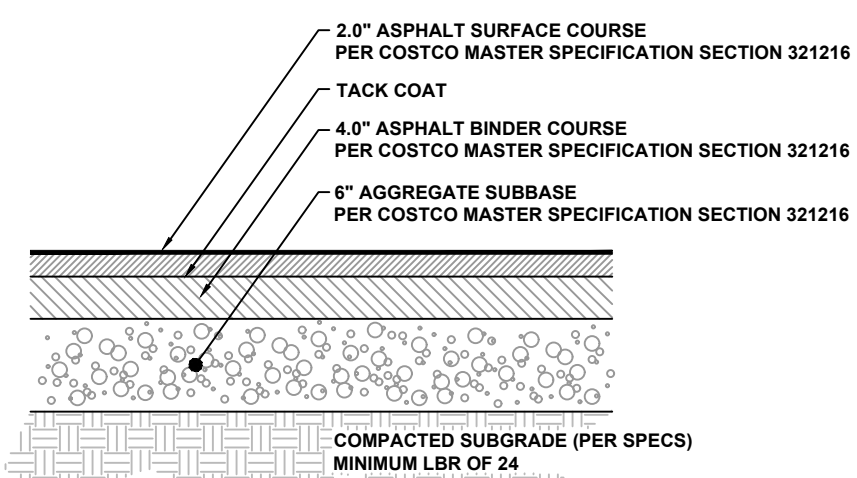
**ON-SITE WALKS (EXCEPT AT ENTRY CANOPY)**



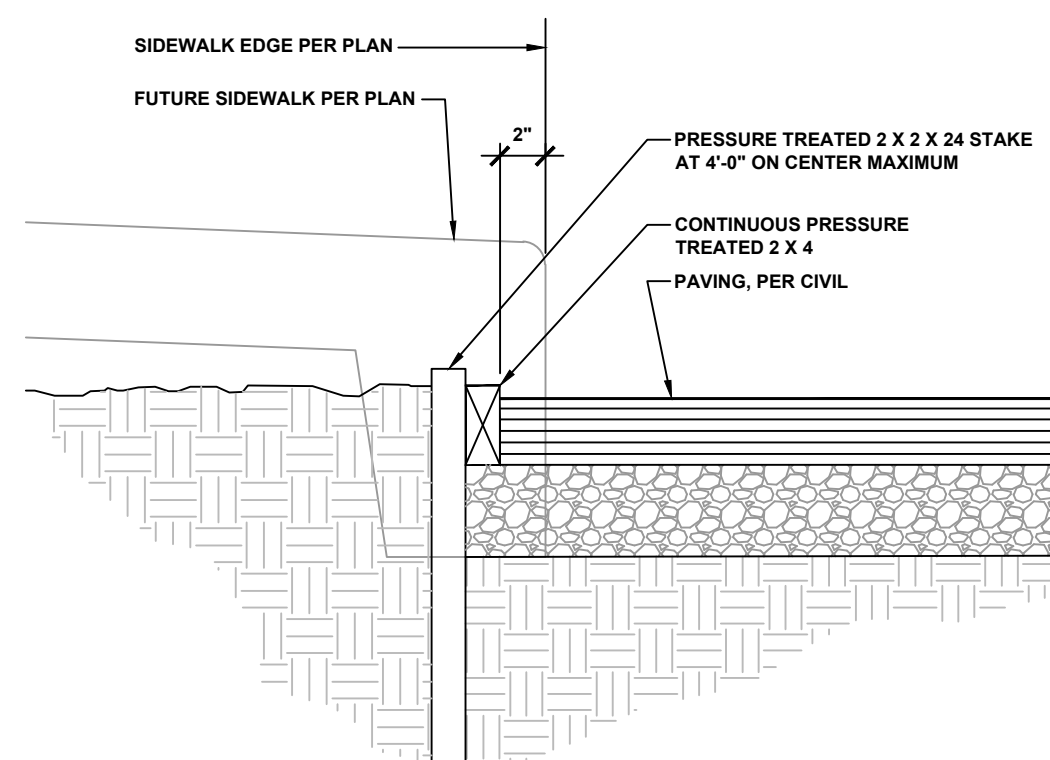
**CONCRETE SIDEWALK DETAIL**



**ASPHALT PAVEMENT SECTION STANDARD DUTY**



**ASPHALT PAVEMENT SECTION HEAVY DUTY**



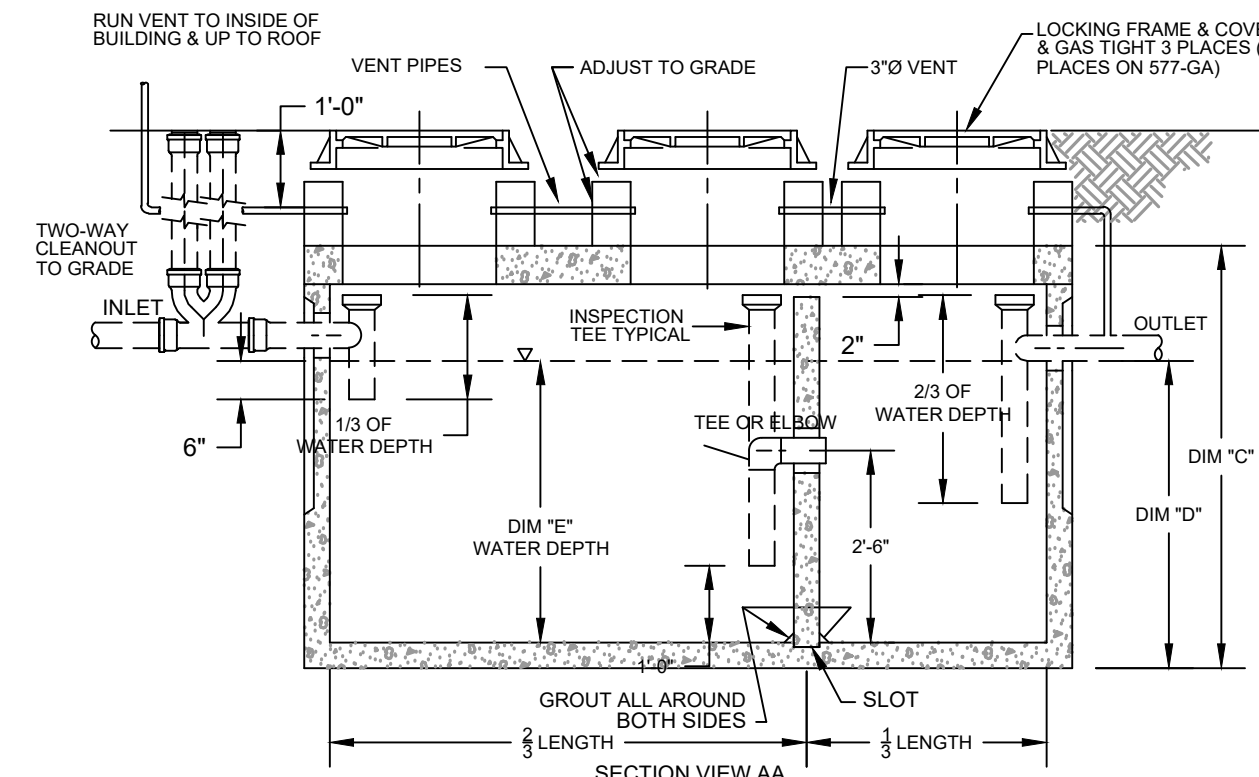
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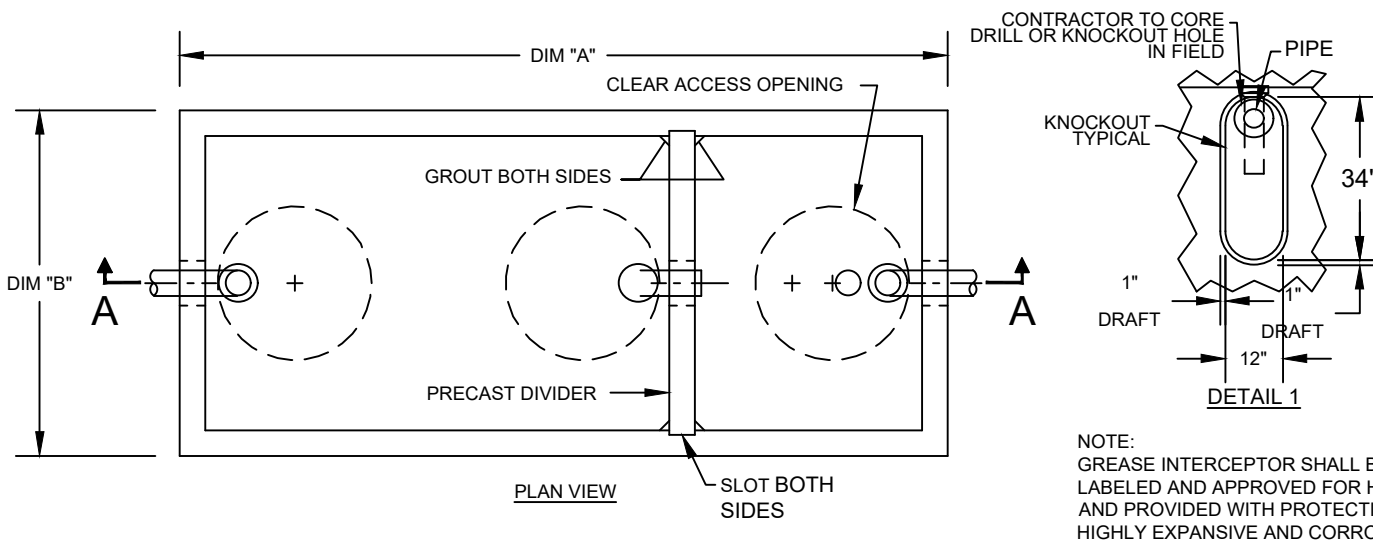
**MONUMENT SIGN DETAIL**

- ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH COSTCO MASTER SPECIFICATION SECTION 321216
- ASPHALT MIXES SHOULD USE PERFORMANCE GRADE BINDER OIL:
  - 0 TO 20% RAP - PG 64-22
  - 20% TO 30% RAP - PG 58-28
- REFER TO GEOTECHNICAL REPORT PREPARED BY MASER CONSULTING P.A.

- ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH COSTCO MASTER SPECIFICATION SECTION 321216
- ASPHALT MIXES SHOULD USE PERFORMANCE GRADE BINDER OIL:
  - 0 TO 20% RAP - PG 64-22
  - 20% TO 30% RAP - PG 58-28
- REFER TO GEOTECHNICAL REPORT PREPARED BY MASER CONSULTING P.A.



**GREASE INTERCEPTOR DETAIL**



- 1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH  $F'_c = 4500$  PSI
- 2. REBAR: ASTM A-615 GRADE 60
- 3. MESH: ASTM A-185 GRADE 65
- 4. DESIGN: AC-308.2 BUILDING CODE
- 5. DESIGN: AC-308.2 BUILDING CODE
- 6. DESIGN: AC-308.2 BUILDING CODE
- 7. DESIGN: AC-308.2 BUILDING CODE
- 8. GREY WATER ONLY - BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER
- 9. INTERCEPTOR SHALL BE APPROVED BY ALL AUTHORITIES HAVING JURISDICTION AND SHALL BE F.O.D. APPROVED

GALLON CAPACITY	1500
UV CO. MODEL NO.	S108-GA
DIM "A"	11'-2"
DIM "B"	9'-6"
DIM "C"	3'-2"
DIM "D"	4'-3"
DIM "E"	3'-11"
WATER DEPTH	3'-11"

NOTE: GREASE INTERCEPTOR SHALL BE LISTED AND APPROVED FOR HEAVY TRAFFIC AND PROVIDED WITH PROTECTION FOR HIGHLY EXPANSIVE AND CORROSIVE SOILS.

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REV	DATE	DESCRIPTION	DRAWN BY	DATE	DESCRIPTION
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12					

RUSSELL T. McFALL II  
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS

FOR  
**COSTCO WHOLESALE**

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STATE OF NEW YORK

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SCALE	DATE	DRAWN BY	CHECKED BY
AS SHOWN	10/28/19	DB	RTM

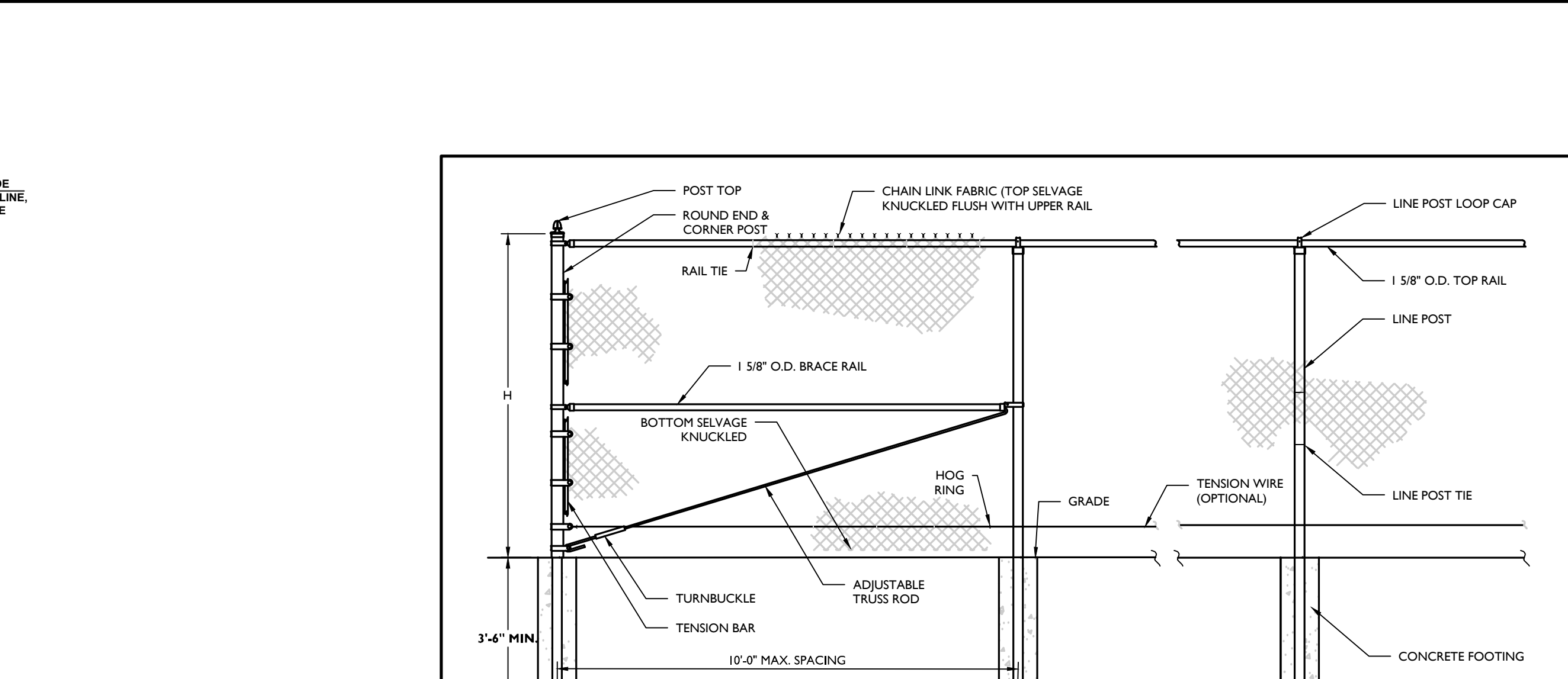
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DRAWING NAME: C-0115

SHEET TITLE:  
**ADDITIONAL COSTCO DETAILS**

SHEET NUMBER:  
15 of 22

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

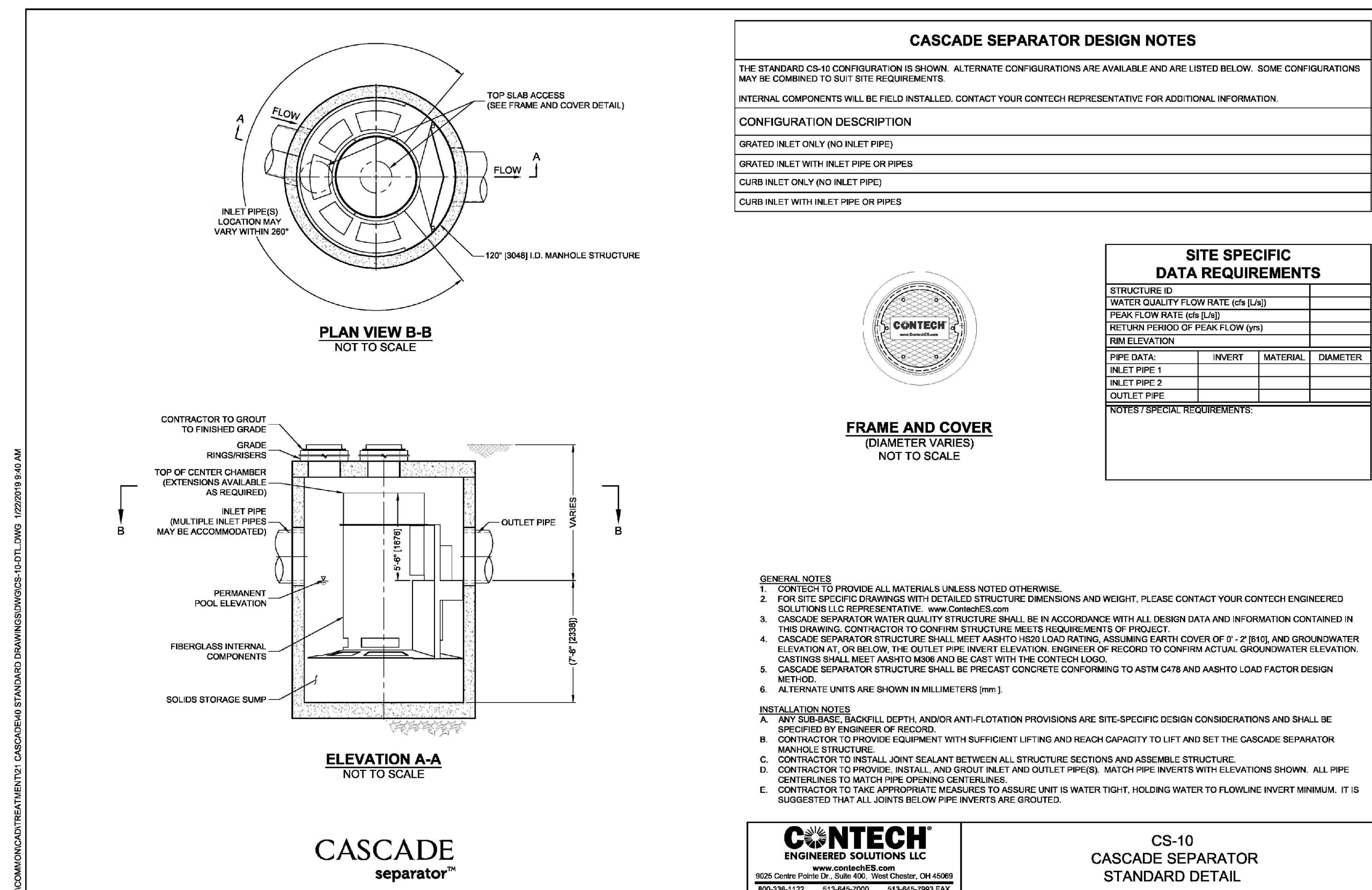
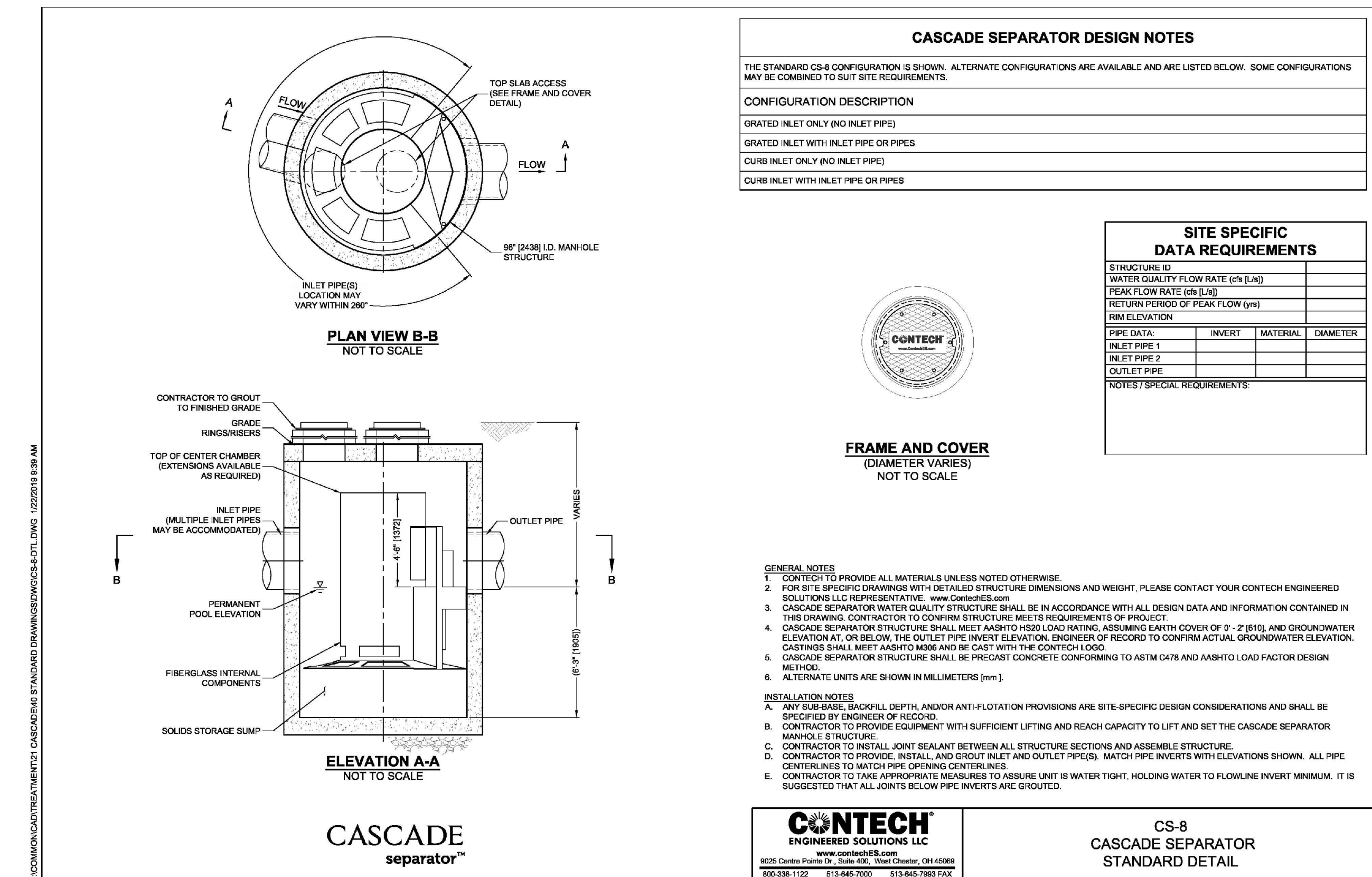
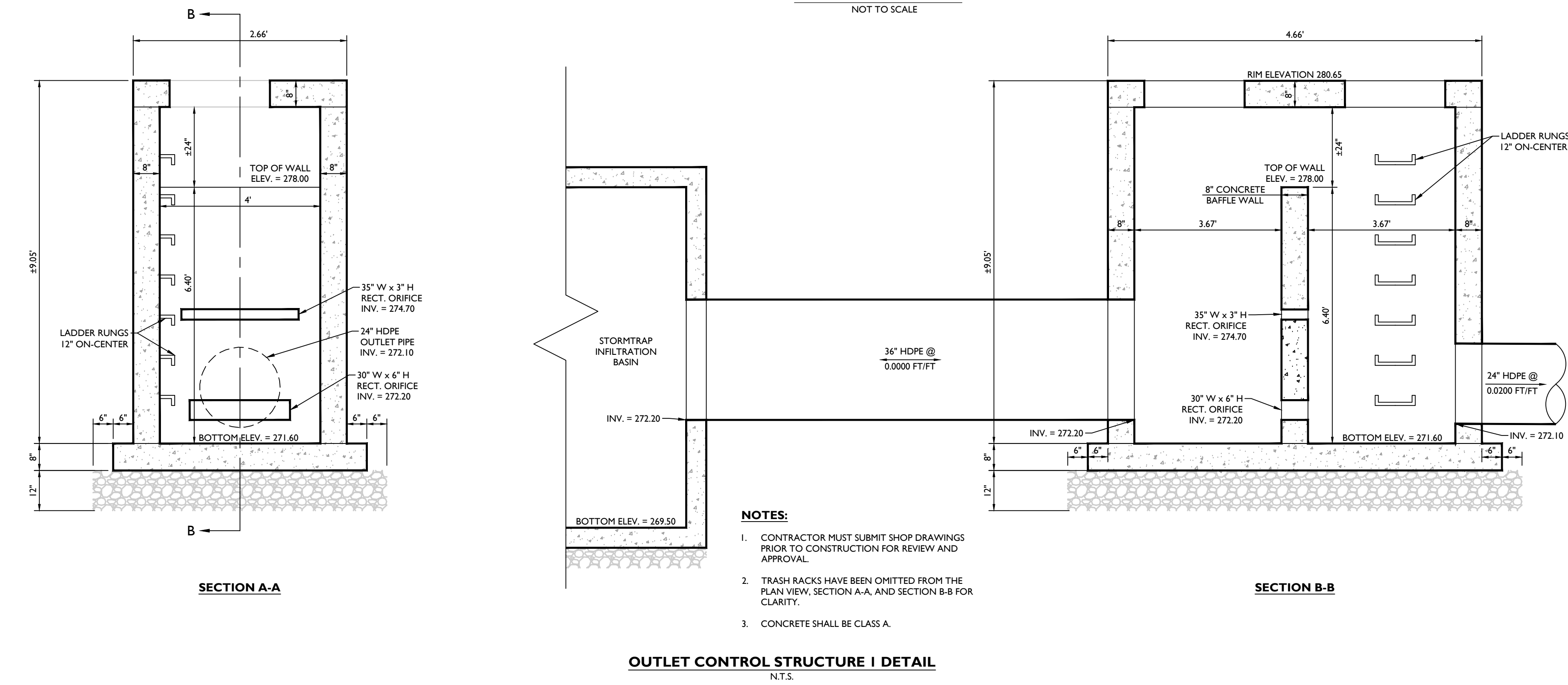
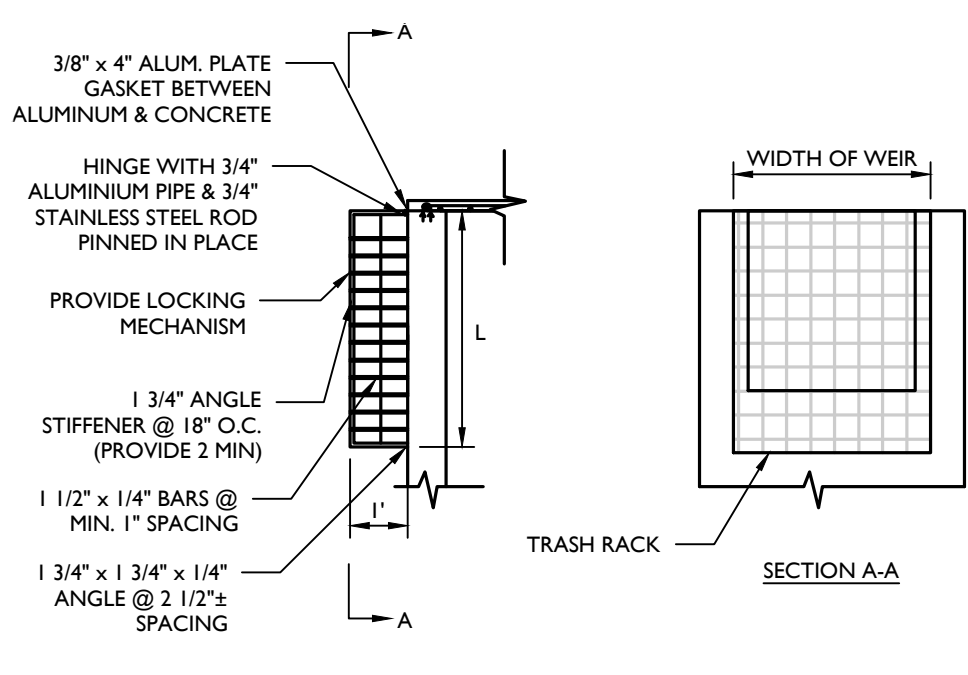
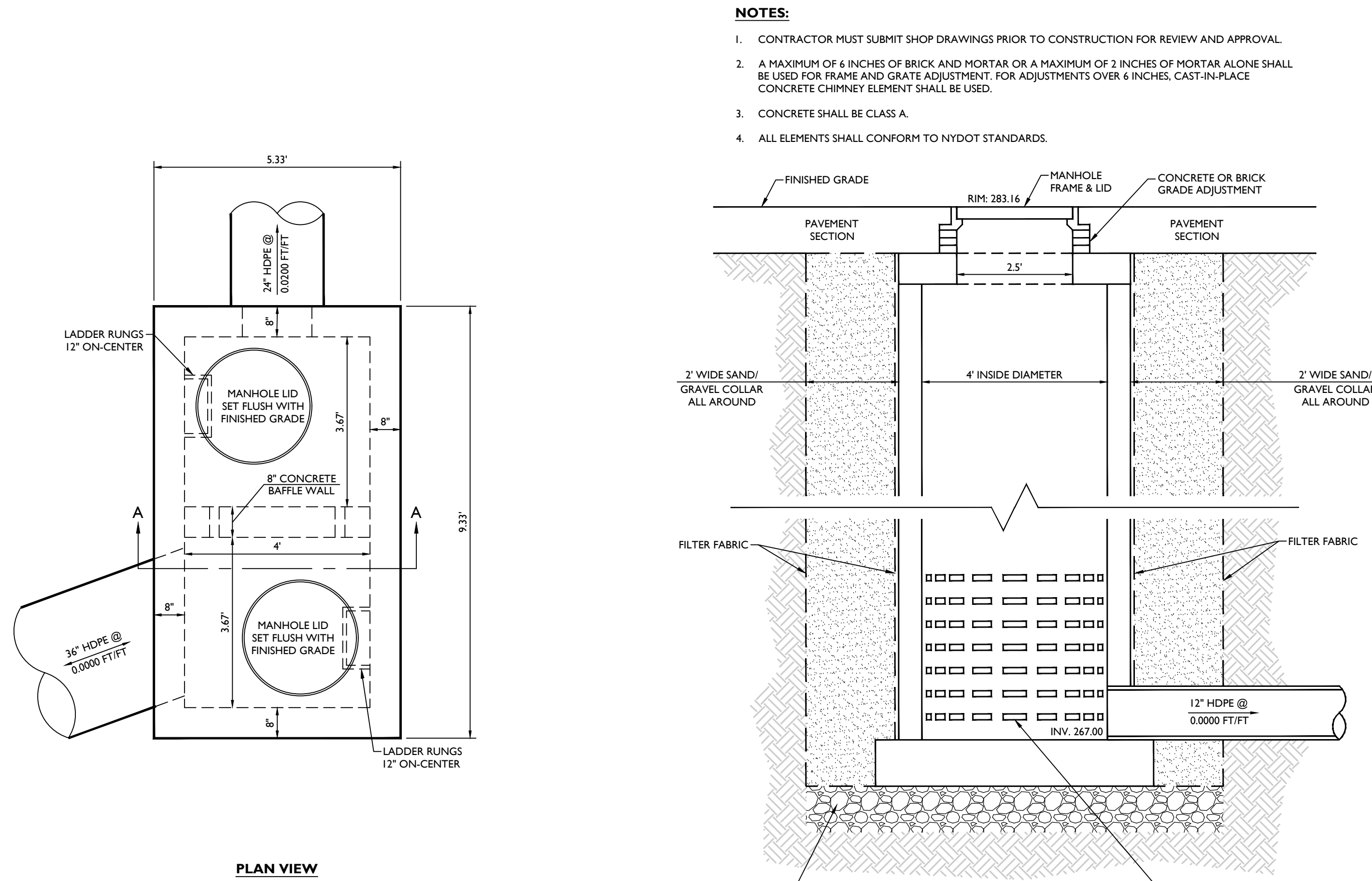
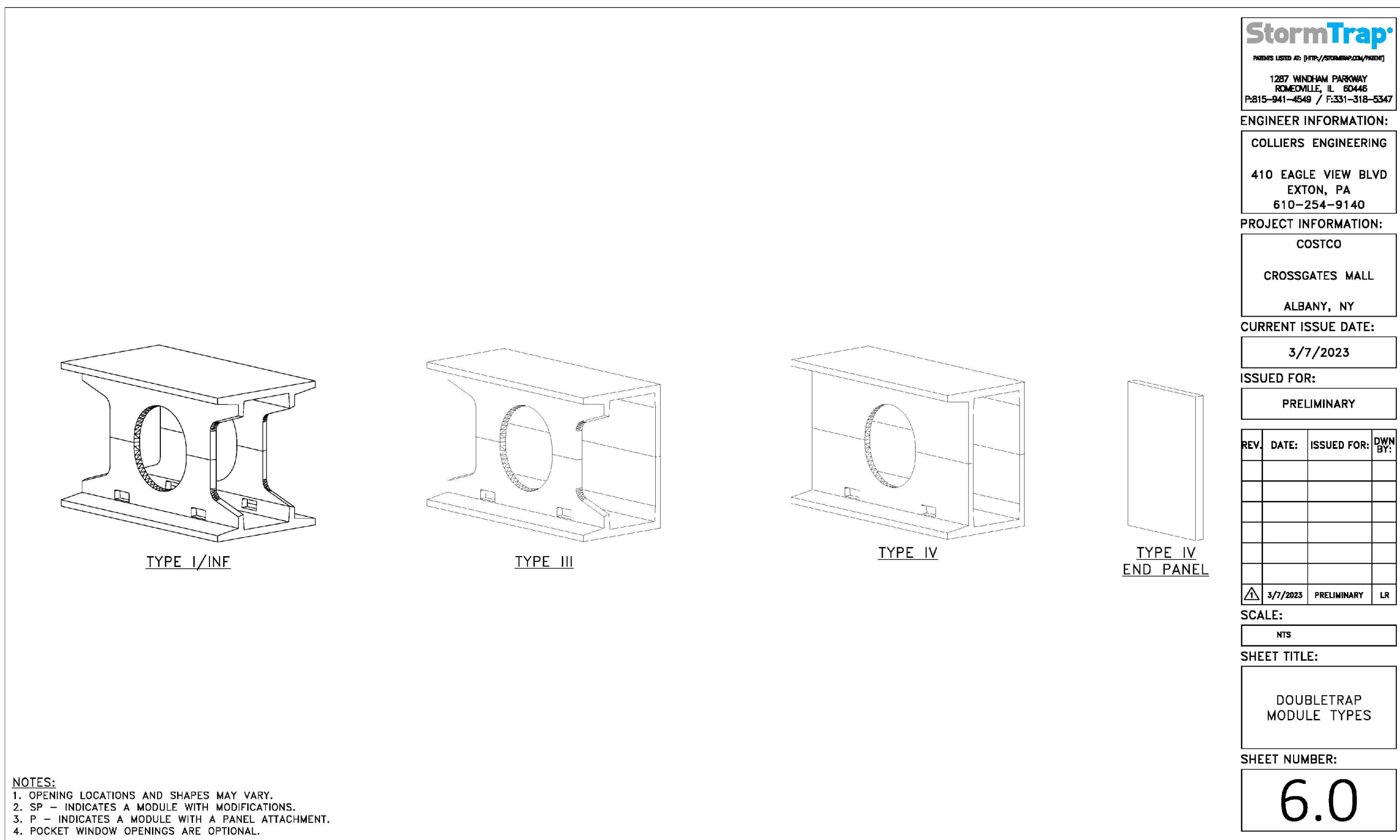
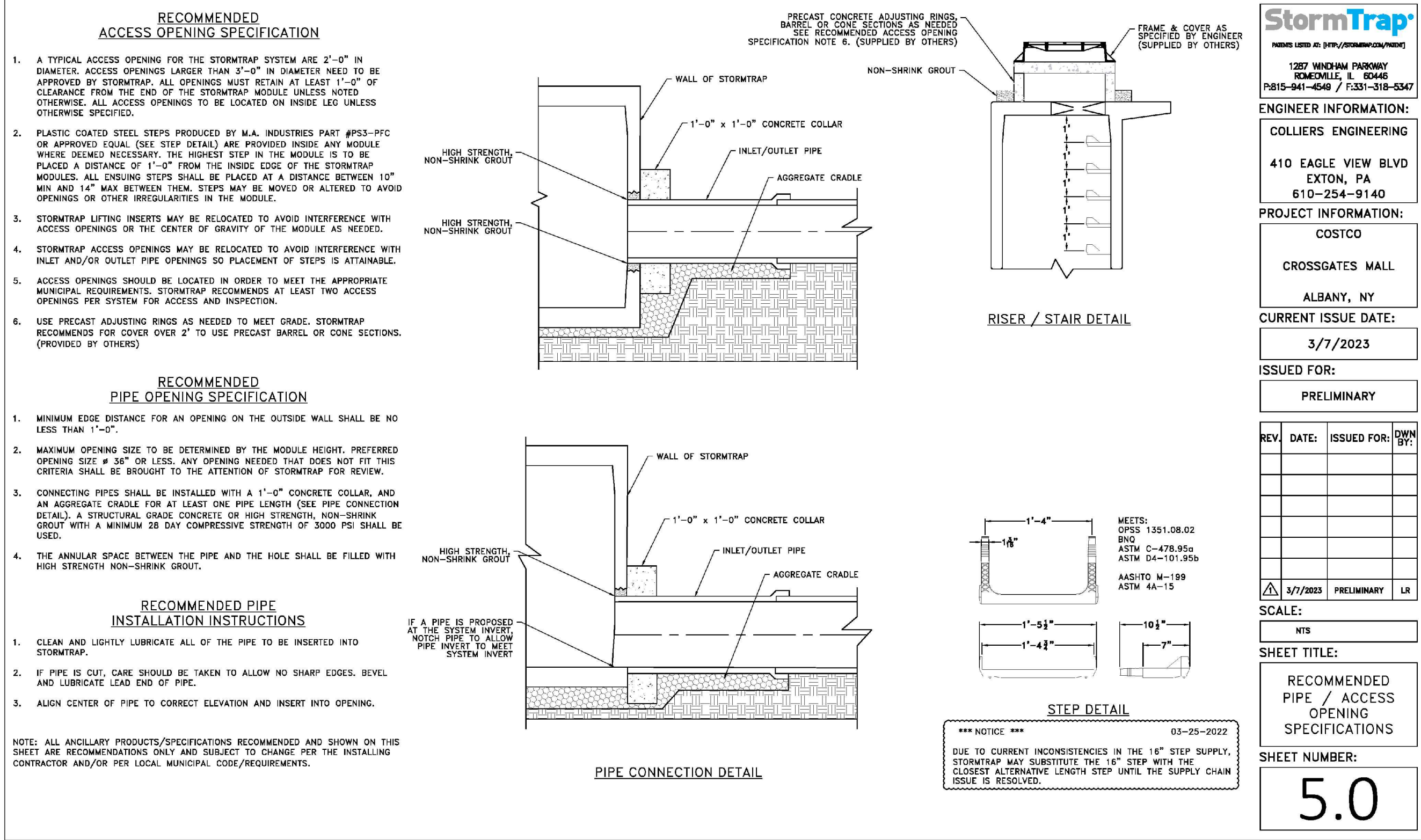


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CONTECH CASCADE SEPARATOR OPERATION AND MAINTENANCE:

1. THE CASCADE SEPARATORS REQUIRE REGULAR INSPECTION AND MAINTENANCE TO ENSURE OPTIMAL PERFORMANCE. MAINTENANCE FREQUENCY WILL BE DRIVEN BY SITE CONDITIONS. QUARTERLY VISUAL INSPECTIONS ARE RECOMMENDED. AT WHICH TIME THE ACCUMULATION OF POLLUTANTS CAN BE DETERMINED. ON AVERAGE, THE CASCADE SEPARATORS REQUIRE ANNUAL REMOVAL OF ACCUMULATED POLLUTANTS.

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PROJECT NUMBER: 13001204A

DRAWING NAME: C-0115

SHEET TITLE: STORMWATER MANAGEMENT DETAILS

SHEET NUMBER: 18 of 22

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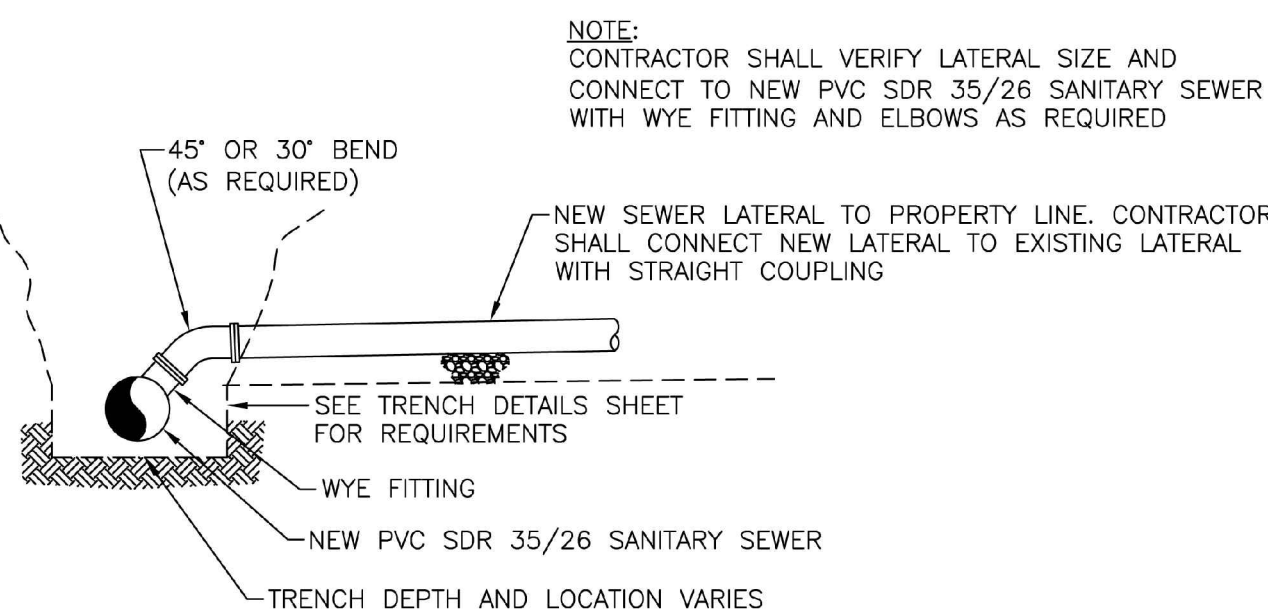




## TRENCH REQUIREMENTS

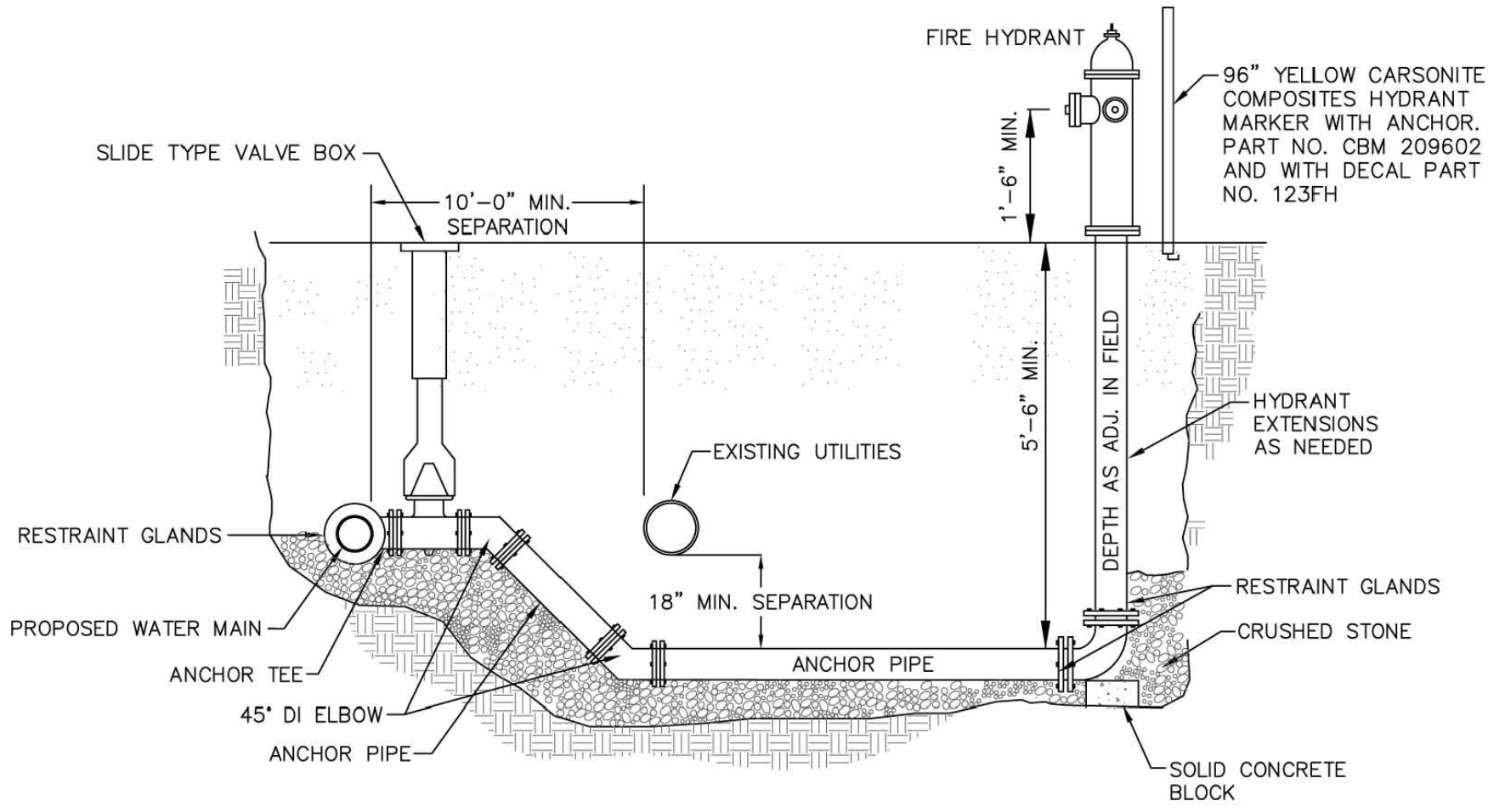


NOTE: N.T.S.  
1. PIPE AND FITTINGS AS MANUFACTURED BY AD OR APPROVED EQUAL.



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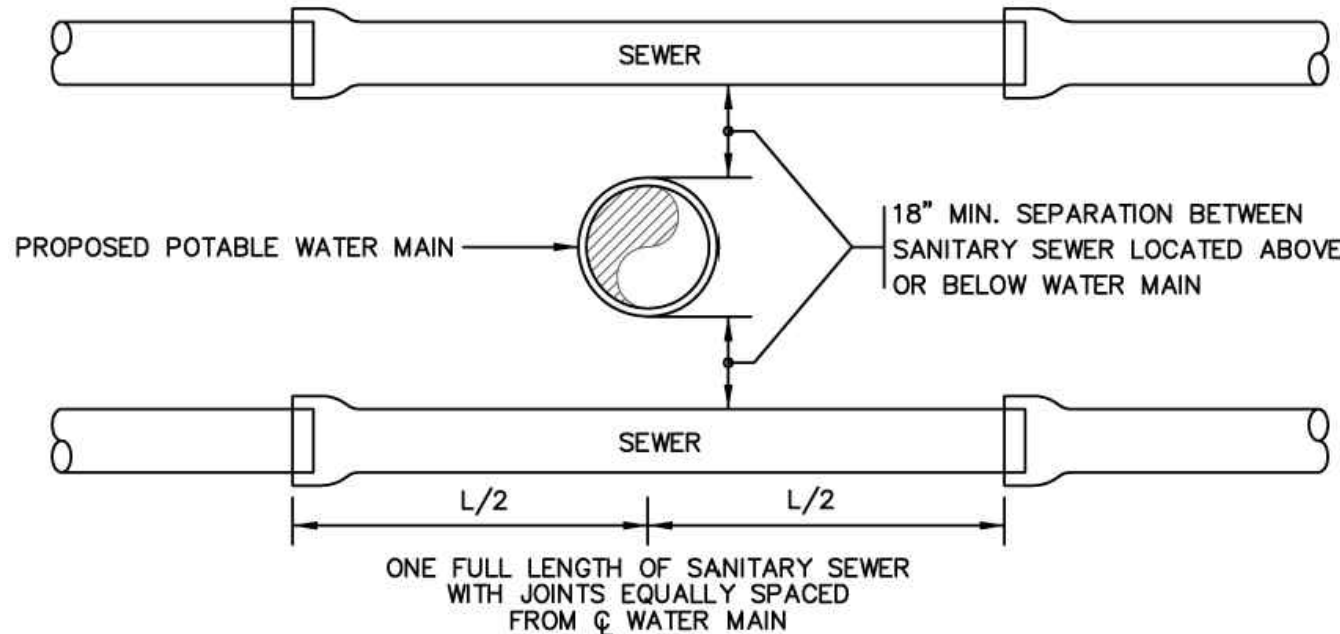
- NOTES:
1. DUCTILE IRON WATERMAIN PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C-151 CLASS 2 (52) THICKNESS DESIGNATION, CASTINGS, MARKINGS, TESTING AND INSTALLATION STANDARDS.
  2. HYDRANT EXTENSIONS SHALL BE PROVIDED AS NECESSARY AT NO ADDITIONAL COST.
  3. AT LOCATIONS OF HIGH GROUNDWATER, HYDRANT DRIP RODS SHALL BE PLUGGED.

**TYPICAL HYDRANT LEAD CROSSING UTILITIES DETAIL**  
N.T.S.

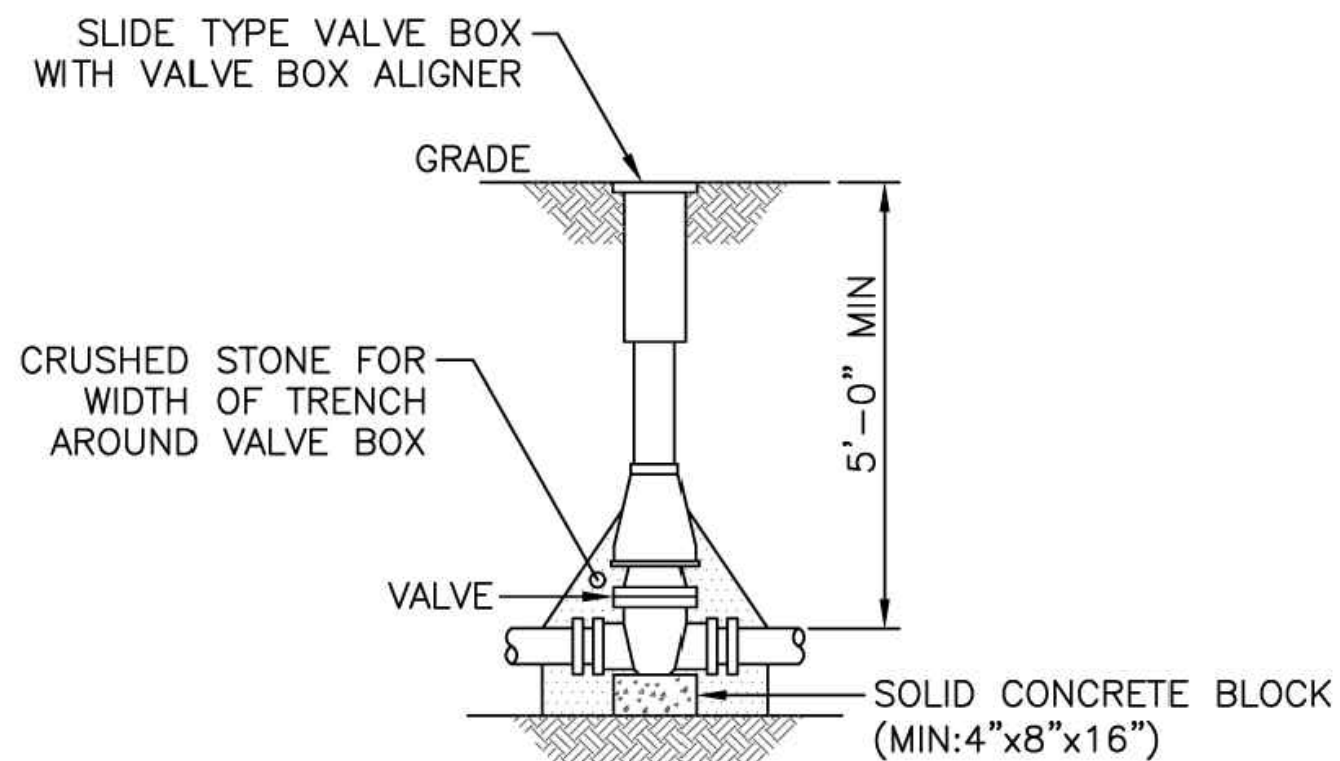
## WATER NOTES:

1. THE CONTRACTOR SHALL REFER TO THE LATEST EDITION OF "A GUIDE FOR THE INSTALLATION OF DUCTILE IRON PIPE" PUBLISHED BY THE CAST IRON PIPE RESEARCH ASSOCIATION FOR DESIGN AND INSTALLATION OF RESTRAINT SYSTEM.
2. THRUST BLOCKS SHALL BE USED AT DEAD ENDS AND TEES ONLY.
3. ALL JOINTS SHALL BE MECHANICALLY RESTRAINED PER RESTRAINT SCHEDULE.
4. ALL DUCTILE IRON PIPE SHALL BE ENCASED WITH POLYWRAP.

NOTE:  
MAINTAIN A 10 FT. MIN. HORIZONTAL SEPARATION WHERE POTABLE WATER MAIN RUNS PARALLEL TO SANITARY SEWER

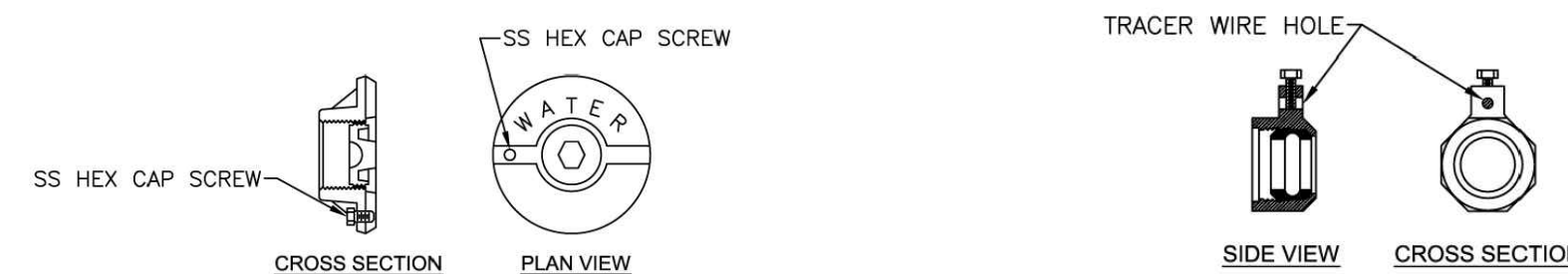


**TYPICAL SANITARY SEWER & POTABLE WATER MAIN CROSSING WITH 18" MIN VERTICAL SEPERATION**  
N.T.S.



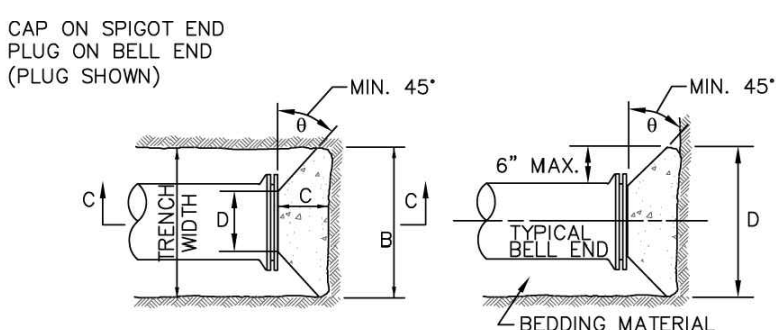
- NOTES:
1. VALVE BOX SHALL BE CENTERED ON VALVE AND SET ON COMPACTED BACKFILL.
  2. USE VALVE BOX ALIGNER.
  3. ALL BOLTS AND NUTS SHALL BE 304 SS WITH ANTI-SIEZE PER SPECS

**TYPICAL VALVE DETAIL**  
N.T.S.

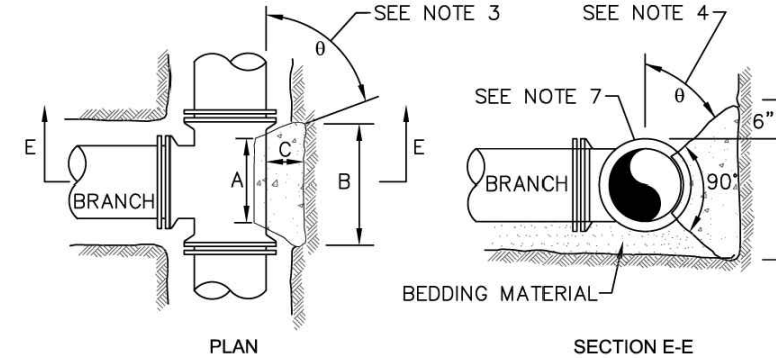


**CURB BOX LID DETAIL**  
N.T.S.

**COMPRESSION NUT DETAIL**  
N.T.S.



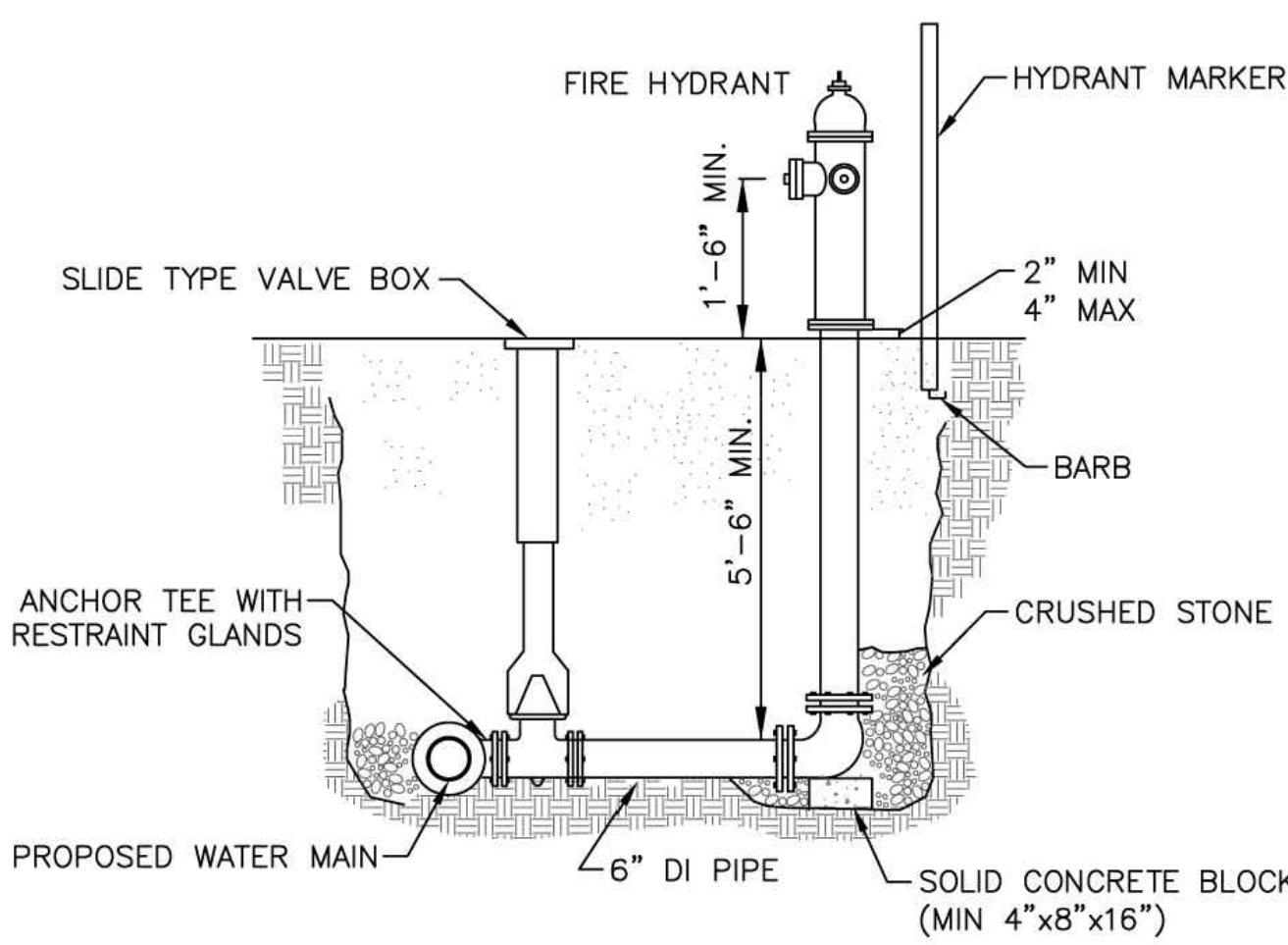
**THRUST BLOCK DETAILS - DEAD END**  
N.T.S.



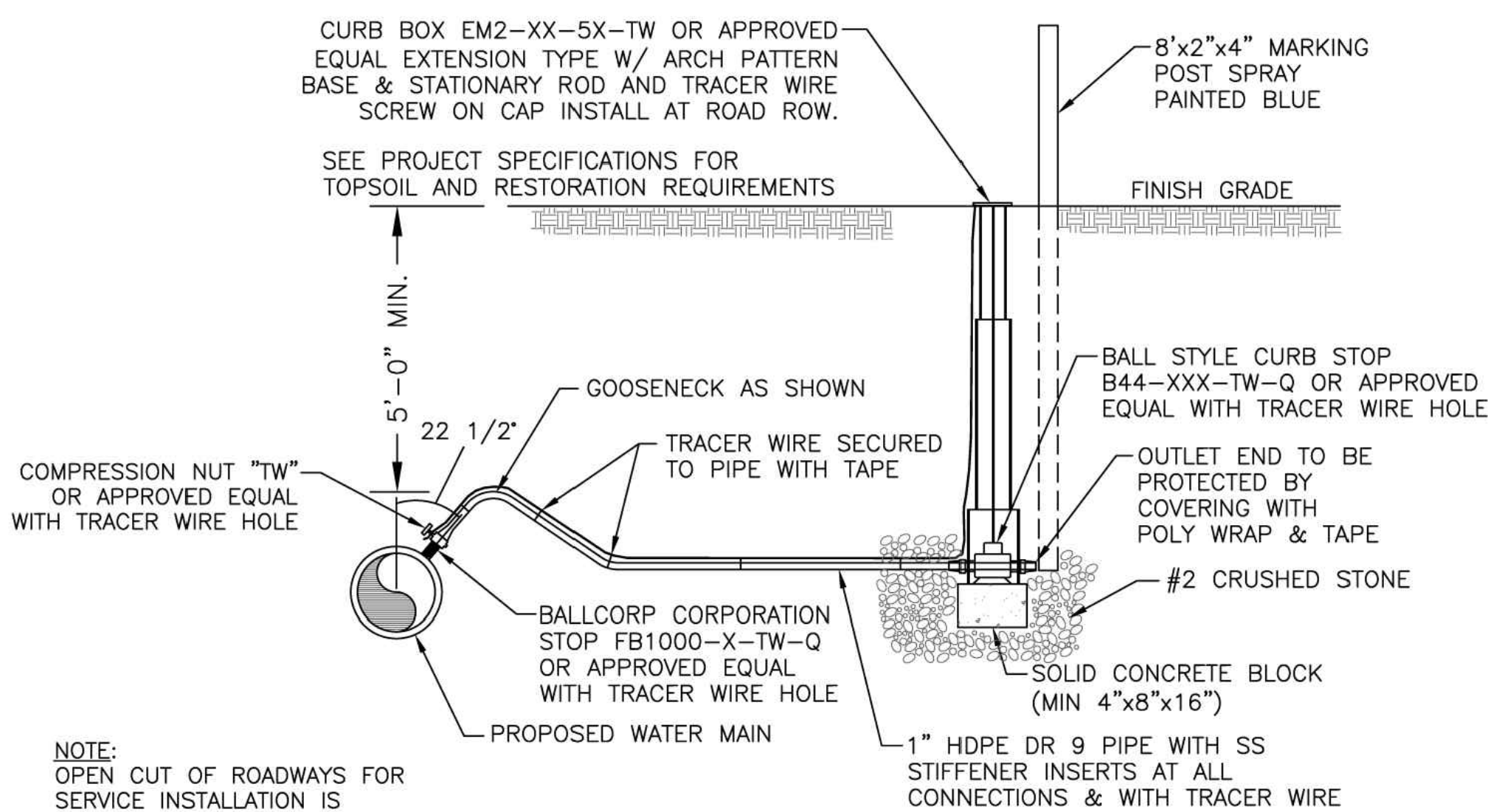
**THRUST BLOCK DETAILS - TEES**  
N.T.S.

NOTES:

1. DUCTILE IRON WATERMAIN PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C-151 CLASS 2 (52) THICKNESS DESIGNATION, CASTINGS, MARKINGS, TESTING AND INSTALLATION STANDARDS.
2. HYDRANT EXTENSIONS SHALL BE PROVIDED AS NECESSARY AT NO ADDITIONAL COST.
3. AT LOCATIONS OF HIGH GROUNDWATER, HYDRANT DRIP RODS SHALL BE PLUGGED.
4. FIBERGLASS MARKERS SHALL BE 4' WITH HEAVY COIL SPRING AND WITH "L" MOUNTING BRACKET

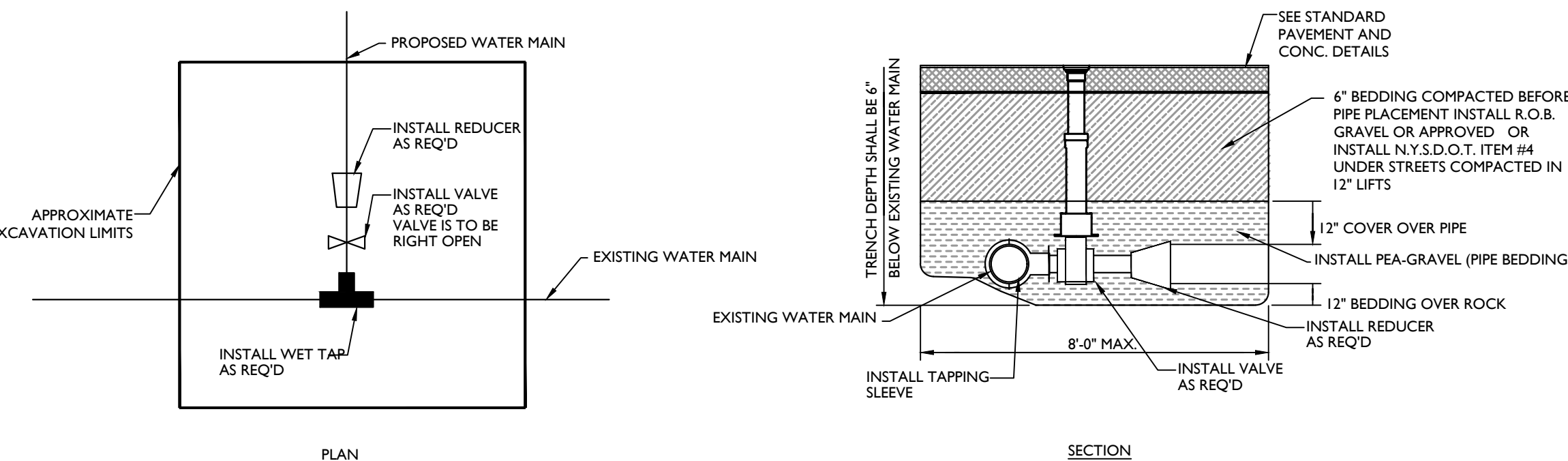


**TYPICAL HYDRANT DETAIL**  
N.T.S.



NOTE:  
OPEN CUT OF ROADWAYS FOR SERVICE INSTALLATION IS STRICTLY PROHIBITED.

**TYPICAL SERVICE CONNECTION DETAIL**  
N.T.S.

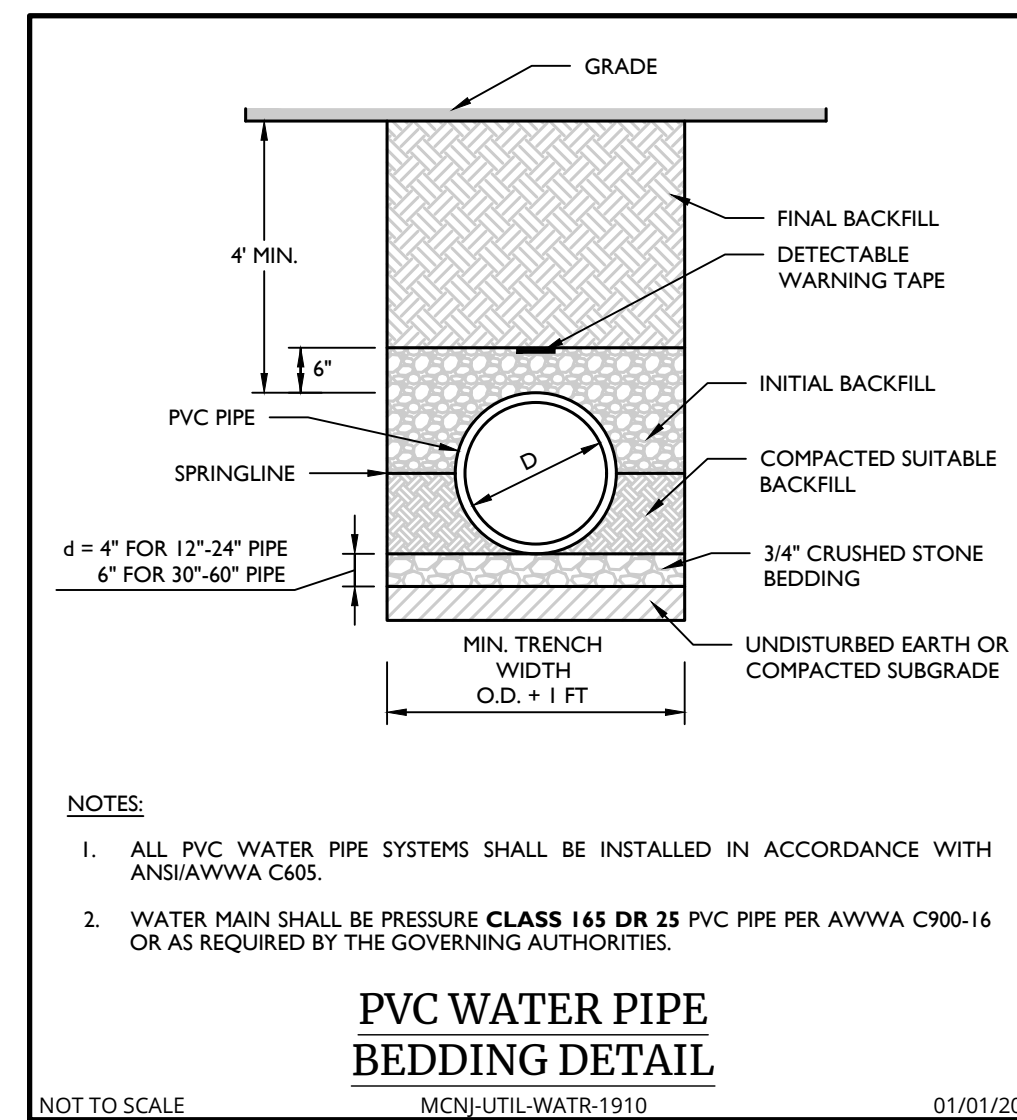


NOTE: ALL BACKFILL TO BE PLACED IN 1' LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR (ASTM 1557)

**TAPPING SLEEVE & VALVE**  
N.T.S.

## TOWN OF GUILDERLAND CONSTRUCTION OF WATER DISTRIBUTION SYSTEM NOTES

1. INTENTION: THE DECLARED AND ACKNOWLEDGED INTENTION TO SECURE A NEW WATER DISTRIBUTION SYSTEM, COMPLETE, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS. ALL NEW WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "RECOMMENDED STANDARDS FOR WATER WORKS."
2. GENERAL: ALL MATERIALS SHALL BE NEW AND UNUSED. MATERIALS SHALL BE WARRANTED BY THE CONTRACTOR AS TO MATERIALS, WORKMANSHIP, AND ACCURACY OF AS-BUILT DRAWINGS FOR A PERIOD OF ONE YEAR FROM THE DATE OF BENEVOLE USE OF THE FACILITIES. WORKMANSHIP SHALL BE OF GOOD QUALITY, I.E., MANS SHALL BE LAD IN A UNIFORM ALIGNMENT, FITTINGS SHALL BE PROPERLY RESTRAINED, TRENCHES SHALL BE PROPERLY EXCAVATED AND BACKFILLED, FIRE HYDRANTS AND VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE.
3. SURVEYS: THE UTILITY CONTRACTOR SHALL PROVIDE ALL SURVEYS NECESSARY FOR THE LAYOUT AND CONSTRUCTION OF THE WORK OF HIS CONTRACT.
4. EARTHWORK: EARTHWORK SHALL INCLUDE ALL EXCAVATION, FILL AND BACKFILL (MACHINE), COMPACTION AND ROUGH GRADING OF MATERIALS ENCOUNTERED. NO UNSUITABLE MATERIAL INCLUDING, BUT NOT LIMITED TO, CLAY, MUCK, OR PEAT, REMOVED FROM PIPE TRENCHES ARE TO BE USED FOR BACKFILL. ALL FILL OR BACKFILL SHALL BE EITHER TYPE A OR SANDY CLAY, FREE FROM ROCKS, TRASH, OR OTHER DEBRIS. ALL OTHER BACKFILL SHALL BE COMPACTED BY MACHINE OPERATION CAREFULLY TO 95% (OUTSIDE OF PAVING), 98% (UNDER PAVING) OF ITS OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698, LATEST.
5. JOINT RESTRAINT: ALL DIP FITTINGS SHALL BE PROPERLY AND ADEQUATELY RESTRAINED AGAINST LATERAL MOVEMENT AT ALL WATER MAIN TEES, CROSSES, VALVES, BENDS, AND FIRE HYDRANTS. RESTRAINTS SHALL BE MECA-LUG TYPE FOR MECHANICAL JOINTS AND FIELD LOK GASKETS FOR PUSH JOINTS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
6. DUCTILE IRON PIPE: DUCTILE IRON PIPE SHALL CONFORM TO ANSI SPECIFICATION A21.50 (AWWA C150) LATEST, CLASS 52 MINIMUM AND SHALL BE ANSI A21.51 (AWWA C151), LATEST CENTRICALLY CAST PIPE. WHEN PIPING RATING IS REDUCED BY THREADING, INCREASE PIPE WEIGHT TO CLASS 52. LAYING LENGTHS SHALL BE 20 FEET, EACH LENGTH CLEARLY MARKED WITH PRESSURE RATING, THICKNESS CLASS, HEIGHT OF PIPE WITHOUT LING, LENGTH, AND MANUFACTURER. THE PIPE SHALL HAVE DESIGN VALUES OF 80,000 PSI MINIMUM TENSILE STRENGTH, AND 42,000 PSI MINIMUM YIELD STRENGTH. ALL PIPE SHALL BE POLYETHYLENE ENCASED.
7. DUCTILE IRON FITTINGS: DUCTILE IRON FITTINGS SHALL BE C153 CEMENT LINED AND SUITABLE FOR THE TYPE AND CLASS OF PIPE TO WHICH CONNECTED. GASKETS SHALL BE SUITABLE FOR POTABLE AND DOMESTIC WATER SERVICE.
8. HIGH DENSITY POLYETHYLENE PIPE: POLYETHYLENE PIPES AND FITTINGS SHALL COMPLY WITH THE FOLLOWING STANDARDS: STANDARD FOR POLYETHYLENE WATER MAINS (ASTM F714) LATEST, STANDARD SPECIFICATION FOR POLYETHYLENE PLASTIC PIPES AND FITTING MATERIALS (ASTM D3350) LATEST, DIP MUI ADAPTERS (AWWA C906-99) LATEST, AND (ANSI 61). HIGH DENSITY POLYETHYLENE PIPING ACCESSORIES (AWWA C906-99) LATEST, AND (ANSI 61). HIGH DENSITY POLYETHYLENE PIPE OUTER DIAMETER (OD) SHALL BE COMPATIBLE WITH STANDARD DUCTILE IRON PIPE SIZES. HOPE PIPES FOR WATER SHALL BE DR 11 AND MANUFACTURED WITH A BLUE LONGITUDINAL COLOR STRIPE PATTERN OF THREE EQUALLY SPACED PAIRS OF COLOR STRIPES EXTENDING INTO THE PIPE WITH TRACER WIRE. ALL HOPE WATER SERVICES SHALL BE DR 9 WITH SS STIFFENER INSERTS AND TRACER WIRE, CURB STOP, CORP STOP, AND CURB BOX COMPATIBLE WITH HOPE WATER SERVICES.
9. STEEL CASING PIPE: STEEL CASING PIPE, WHEN REQUIRED, SHALL BE OF SIZE INDICATED ON THE DRAWINGS AND SHALL CONFORM TO ASTM A152, WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI.
10. GATE VALVES AND BOXES: GATE VALVES SHALL BE NON-RISING STEM TYPE AND SHALL BE SUITABLE FOR 175 PSI (3"-12") AND 150 PSI (14"-48") WORKING PRESSURE GATE VALVE, WHICH, SHALL BE MECHANICAL JOINT. GATE VALVES SHALL HAVE A 2" OPERATING NUT AND OPEN COUNTER-CLOCKWISE. GATES VALVES SHALL HAVE JOINTS SUITABLE FOR THE TYPE OF MAIN ON WHICH INSTALLED. GATE VALVES 4" AND LARGER SHALL BE IRON BODY, BRONZE FITTED WITH RESILIENT SEAT. VALVES SHALL BE OF DOMESTIC (AMERICAN) MANUFACTURE AND SHALL BE CLOW, KENNEDY VALVE, MUELLER, OR APPROVED EQUAL. VALVE BOXES SHALL BE 5 1/4" DIAMETER, CAST IRON, SLIDING TYPE WITH CENTERING DEVICE, ADJUSTABLE WITH THE WORD "WATER" CAST IN THE COVER. ALL SECTIONS OF THE VALVE BOX SHALL BE INTERCHANGEABLE WITH OLD BUFFALO FOUNDRY BOXES; STYLE #5001. VALVE BOXES SHALL BE BINGHAM AND TAYLOR OR APPROVED EQUAL.
11. CURB STOPS: CURB VALVES SHALL HAVE A COMPRESSION NUT CONNECTION AT THE INLET AND OUTLET AND SHALL BE BALL STYLE CURB STOP FOR HOPE WATER SERVICES. MODEL B44-XXX-TW-Q AS MANUFACTURED BY FORD BALLCORP CORPORATION OR APPROVED EQUAL.
12. CORP STOPS: CORPORATION STOPS SHALL HAVE A COMPRESSION CONNECTION AT THE OUTLET AND SHALL BE COMPLETE, WITH A TRACER WIRE HOLE AS MANUFACTURED BY FORD BALLCORP CORPORATION MODEL FB1000-X-TW-Q OR APPROVED EQUAL.
13. CURB BOXES: CURB BOXES SHALL BE TELESCOPIC WITH OPERATING ROD AND SHALL BE MANUFACTURED BY FORD COMPANY MODEL EM2-XX-5X-TW WITH PL LID OR APPROVED EQUAL. FOOT PIECE SHALL BE PROVIDED FOR ALL SERVICES 1.5" AND LARGER. COVERS SHALL HAVE "WATER" CAST IN.
14. FIRE HYDRANTS: FIRE HYDRANTS SHALL BE MANUFACTURED BY CLOW EDDY MODEL F-2840. HYDRANTS SHALL HAVE HOSE NOZZLE WITH NST THREADS WITH 2 1/2" DIAMETER NOZZLES, 4 1/2" PUMPER NOZZLE WITH NST THREADS AND 5 1/4" MAIN VALVE OPENING. LEAD PIPE FROM HYDRANT SHALL BE CONNECTED TO A CURB VALVE WHICH IS CONNECTED TO AN ANCHOR TEE. FIRE HYDRANTS SHALL BE PAINTED RED WITH 1 1/2" PENTAGON NUT, OPENING COUNTER-CLOCKWISE. ALL HYDRANTS SHALL BE EQUIPPED WITH HYDRANT MARKER MANUFACTURED BY CARSONITE COMPOSITES MODEL #CBM209602. 96" YELLOW WITH ANCHOR ATTACHED WITH DECAL (MODEL #123FH).
15. INSTALLATION: THE MINIMUM COVER OVER TOP OF A POTABLE WATER MAIN SHALL BE 60" MINIMUM. ALL WATER LINES AND APPURTENANCES SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER BEFORE BEING LOWERED INTO THE TRENCH AND SHALL BE KEPT CLEAN DURING LAYING OPERATIONS BY MEANS OF PLUGS OR OTHER APPROVED METHODS. ALL PIPES SHALL BE CHECK FOR DEFECTS BEFORE BEING LOWERED INTO THE TRENCH. DEFECTIVE PIPES SHALL NOT BE USED. PIPES FOUND TO BE DEFECTIVE AFTER INSTALLATION, SHALL BE REMOVED AND REPLACED WITH A SOUND PIPE AT NO ADDITIONAL EXPENSE TO THE OWNER. THE FULL LENGTH OF EACH SECTION OF PIPE SHALL REST SOLELY ON THE PIPE BED, WITH RECESSES EXCAVATED TO ACCOMMODATE THE BELLS AND JOINTS. ALL PIPES THAT HAVE THEIR GRADES OR JOINTS DISTURBED AFTER INSTALLATION, SHALL BE TAKEN UP AND REINSTALLED. THE PIPE SHALL NOT BE LAID IN WATER, OR WHEN TRENCH OR WEATHER CONDITIONS ARE UNFAVORABLE FOR THE WORK. ALL JOINTS SHALL BE CLEANED OF ALL FOREIGN MATTER BEFORE MAKING THE JOINT. FITTINGS AT BENDS IN THE PIPE SHALL BE PROPERLY RESTRAINED WITH JOINT RESTRAINTERS AND ADEQUATELY SIZED TO PREVENT MOVEMENT AND DISLOCATING OR BLOWING OFF WHEN THE LINE IS UNDER PRESSURE. SERVICE LATERALS SHALL TERMINATE AT THE POINT WHERE NOTED IN THE DETAILS. CONTRACTOR MUST FIELD VERIFY EXISTING UTILITIES AND INSTALL NEW WATER MAINS OVER OR UNDER THEM MAINTAINING PROPER SEPARATION DISTANCES AND 60" MINIMUM COVER. THERE WILL BE NO ADDITIONAL COMPENSATION TO AVOID EXISTING UTILITIES.
16. PRESSURE TESTING: AFTER ALL PRESSURE PIPE (WATER MAINS, SERVICES, AND FORCE MAINS) ARE LAID, THE JOINTS COMPLETED, AND THE TRENCHES BACKFILLED, THE NEWLY LAID PIPES AND APPURTENANCES SHALL BE SUBJECTED TO A PRESSURE TEST OF 150 PSI OR 1.5 TIMES WORKING PRESSURE (WHICHEVER IS GREATER) FOR A PERIOD OF AT LEAST 2 HOURS. THE ENGINEER MUST BE NOTIFIED AT LEAST 24 HOURS BEFORE A TEST IS TO BE PERFORMED. ANY LEAKS DETECTED SHALL BE CORRECTED AND THE SECTIONS OF THE PIPELINE RETESTED. THE 2 HOUR TEST SHALL BEGIN WHEN ALL JOINTS HAVE BEEN DETERMINED TO BE WATER TIGHT. LEAKAGE SHALL BE LIMITED TO THAT ALLOWANCE SET FORTH IN SECTION 4 OF AWWA STANDARD C600. HYDROSTATIC TEST, LEAKAGE TEST, AND BLOW-DOWN (ZEROING OF GAUGE) MUST OCCUR BEFORE SAMPLING FOR BACTERIOLOGICAL TEST. THE MAXIMUM ALLOWABLE PRESSURE LOSS IS 5 PSI REGARDLESS OF THE LENGTH OF PIPE. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE PROJECT ENGINEER.
17. DISINFECTION: AFTER COMPLETION OF CONSTRUCTION AND TESTING, THE WATER SYSTEM SHALL BE DISINFECTED WITH CHLORINE IN ACCORDANCE WITH AWWA STANDARD C651. THE AMOUNT OF CHLORINE APPLIED SHALL BE SUFFICIENT TO PROVIDE A DOSEAGE OF 25 mg/l OR MORE. THE CHLORINE SOLUTION SHALL REMAIN IN THE SYSTEM FOR A PERIOD OF AT LEAST 24 HOURS, DURING WHICH TIME EVERY VALVE IN THE SYSTEM SHALL BE OPENED AND CLOSED SEVERAL TIMES TO ASSURE CONTACT WITH EVERY SURFACE OF THE SYSTEM. AFTER A 24 HOUR RETENTION PERIOD, FLUSH THE MAIN UNTIL THE MAXIMUM CHLORINE CONCENTRATION IS 1 mg/l. THE CONTRACTOR SHALL OBTAIN BACTERIOLOGICAL CLEARANCES AS REQUIRED BY THE NEW YORK STATE DEPARTMENT OF HEALTH. AFTER BACTERIOLOGICAL CLEARANCES, THE PRESSURE IN THE MAIN SHALL NOT DROP BELOW 20 PSI. A CLEARANCE REPORT SHALL BE SUBMITTED TO THE ENGINEER. ANY PROJECT WHERE THE BACTERIOLOGICAL CLEARANCES ARE OBTAINED MORE THAN 30 DAYS OLD PRIOR TO PLACING A WATER MAIN INTO SERVICE, THE CONTRACTOR MAY BE REQUIRED TO PULL MORE SAMPLES AND OBTAIN MORE BACTERIOLOGICAL CLEARANCES. PRIOR TO INTRODUCING THE CHLORINE SOLUTION, THE LINES SHALL BE THOROUGHLY FLUSHED WITH CLEAN WATER UTILIZING FULL PIPE DIAMETER FLUSHING FOR PIPE UP TO AND INCLUDING 8" DIAMETER. CONTRACTOR SHALL BE RESPONSIBLE FOR DECHLORINATION OF THE DISINFECTANT WATER PRIOR TO ANY DISCHARGE TO ANY DITCH OR SURFACE WATERS.
18. BACTERIOLOGICAL SAMPLING: CONTRACTOR SHALL ASSURE THE PROJECT CONSTRUCTION IS COMPLETELY FINISHED PRIOR TO ANY BACTERIOLOGICAL SAMPLING AND TESTING.
19. ABANDONMENT OF EXISTING MAINS AND APPURTENANCES: EXISTING WATER MAINS TO BE ABANDONED IN PLACE SHALL BE PHYSICALLY SEPARATED BY A MINIMUM OF 12" AND A 24" LONG 2500 PSI CONCRETE PLUG INSTALLED. ALL VALVES TO BE ABANDONED SHALL BE CLOSED AND THE ENTIRE VALVE BOX REMOVED.



NOTES:

1. ALL PVC WATER PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ANSIAWWA C605.
2. WATER MAIN SHALL BE PRESSURE CLASS 165 DR 25 PVC PIPE PER AWWA C900-16 OR AS REQUIRED BY THE GOVERNING AUTHORITIES.

**PVC WATER PIPE BEDDING DETAIL**  
MCN/UTIL-WATR-1910

JOINT RESTRAINED SCHEDULE									
PIPE SIZE	90°	45°	22 1/2°	11 1/4°	TEES (ALONG BRANCH)	REDUCER (LARGER O.D.)	DEAD ENDS		
6"	15'	10'	5'	5'	20'	—	60'		
8"	20'	10'	5'	5'	55'	—	70'		
10"	25'	10'	5'	5'	65'	—	85'		
12"	30'	15'	10'	5'	80'	—	95'		
8"x6"	—	—	—	—	35'	30'	—		
10"x8"	—	—	—	—	50'	30'	—		
12"x8"	—	—	—	—	45'	55'	—		
12"x10"	—	—	—	—	65'	30'	—		

**JOINT RESTRAINT SCHEDULE**  
N.T.S.

1. MINIMUM LENGTH IN FEET TO BE RESTRAINED IN EACH DIRECTION.
2. ACTUAL LENGTH SHALL BE BASED ON SOIL CONDITIONS.
3. RESTRAINT BASED ON TYPICAL SOIL CONDITIONS, 150 PSI TEST PRESSURE AND BEDDING PER PROJECT TRENCH DETAIL. FOR VALVES USE LENGTHS AS INDICATED FOR 90° BEND.
4. RESTRAINT BASED ON DUCTILE IRON PIPE WITH POLYETHYLENE ENCASEMENT
5. APPROVED RESTRAINTERS: APPROVED MECA-LUG TYPE FOR MECHANICAL JOINTS AND FIELD LOK GASKETS FOR PUSH JOINTS
6. ALL RESTRAINT BOLTS AND NUTS SHALL BE STEEL, ASTM A307, GRADE B, AND SHALL BE CADMIUM PLATED PER SPECS.
7. THRUST BLOCKS SHALL ONLY BE USED ON DEAD ENDS PER CONTRACT PLANS.
8. MIN 5' GROUND COVER REQUIRED.
9. IF RESTRAINT LENGTH IS LESS THAN THE LENGTH OF PIPE, CONTRACTOR SHALL RESTRAIN THE NEXT JOINT.
10. ALL RESTRAINTS FOR ELBOWS ARE FOR HORIZONTAL INSTALLATION. CONTRACTOR SHALL CONSULT ENGINEER FOR VERTICAL RESTRAINT SCHEDULE.

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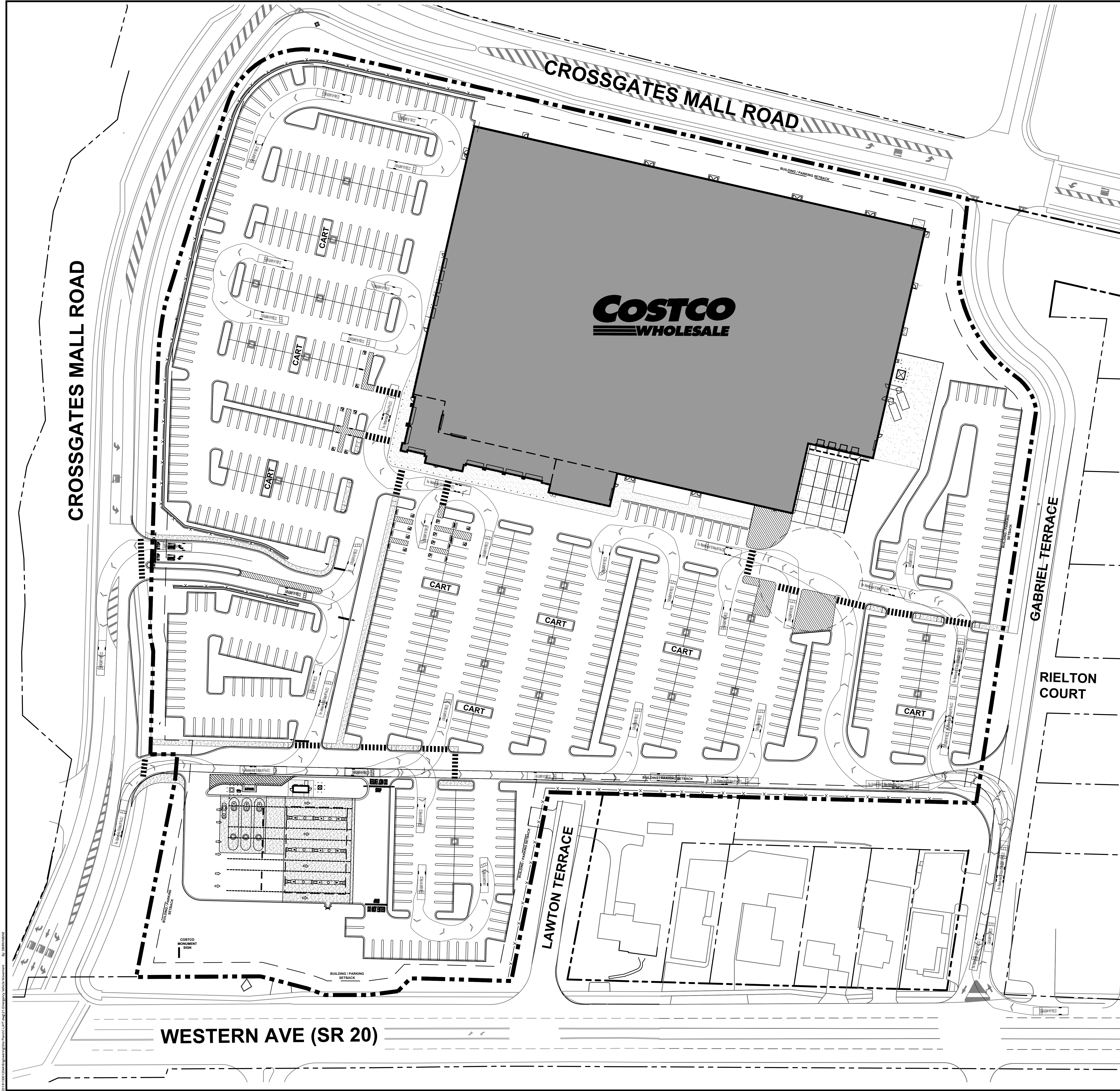
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**LEGEND**

Freight Vehicle (18' x 6' x 6')  
Semi-Trailer (18' x 6' x 6')

WESTMERE LADDER TRUCK  
(49.7 FEET LONG)

E-98 PUMP TRUCK  
(37.3 FEET LONG)

**SCALE : 1" = 40'**

**North Arrow**

Colliers

Engineering & Design

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PROTECT YOURSELF

ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, ENGINEERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

REV	DATE	DRAWN BY	DESCRIPTION
1	06/27/20	DB	MINOR NOTE REVISIONS
2	08/02/20	DB	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS
3	10/29/20	DB	REVISED PER TOWN OF GUILDERLAND REVIEW COMMENTS
4	09/02/21	DB	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND
5	09/02/21	DB	REVISED SITE LAYOUT AND ENGINEERING PER TOWN OF GUILDERLAND

RUSSELL T. McFALL II

NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE PLANS

FOR

**Costco**

WHOLESALE

CROSSGATES MALL

TAX MAP 52.10, 52.14, & 52.01

TOWN OF GUILDERLAND

ALBANY COUNTY

STATE OF NEW YORK

Colliers

Engineering & Design

410 Eagleview Boulevard, Suite 104  
Ext. 104  
Ext. 104  
Phone: 610.254.5140  
COLLIERS ENGINEERING & DESIGN, INC.  
DOING BUSINESS AS MASER CONSULTING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/28/19	DB	RTM

PROJECT NUMBER:	DRAWING NAME:
13001204A	C-LAY1

SHEET TITLE:

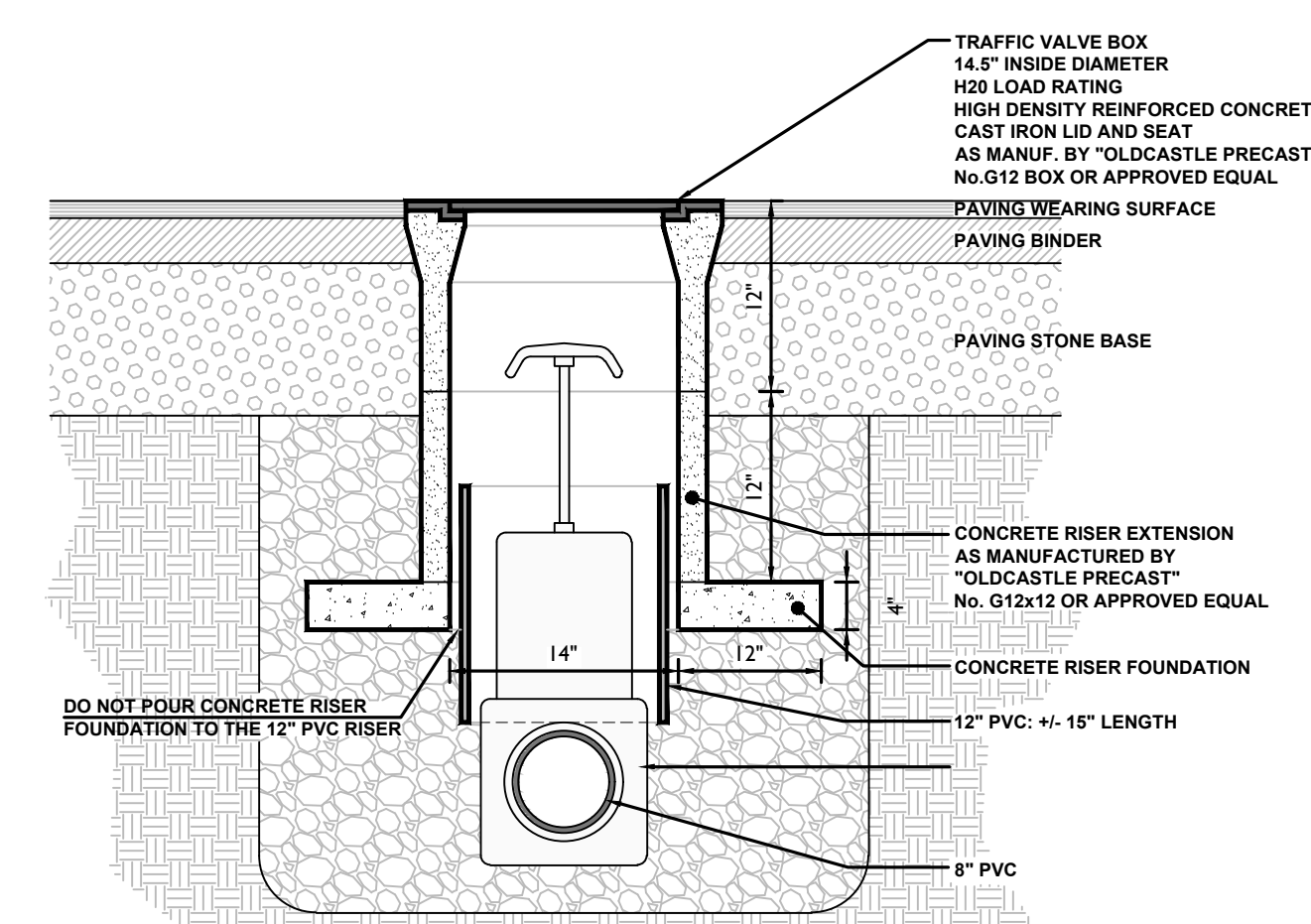
EMERGENCY VEHICLE MOVEMENT PLAN

SHEET NUMBER:

21 of 22

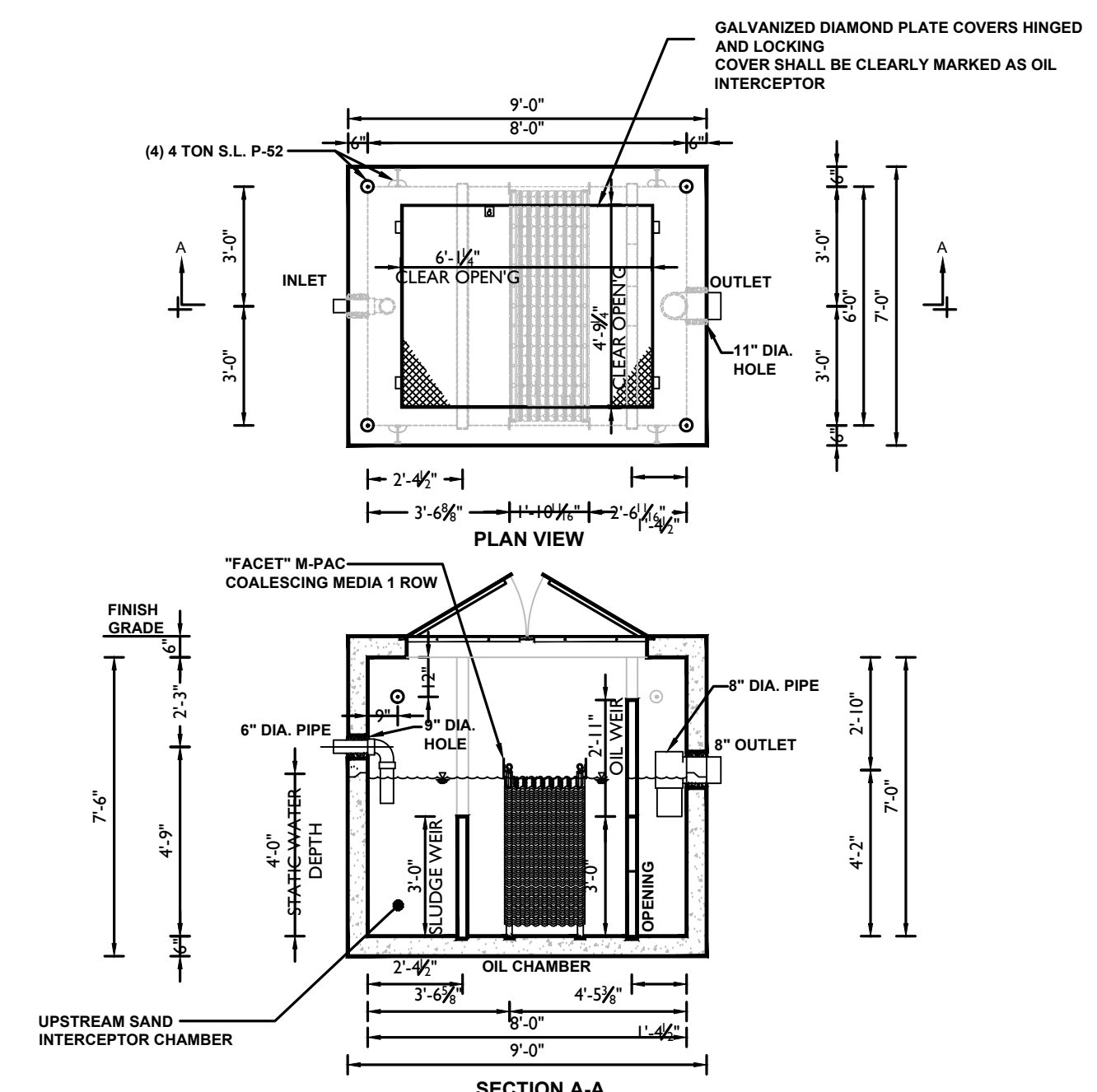
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.





### OIL/WATER SEPARATOR EMERGENCY SHUTOFF VALVE DETAIL

NOT TO SCALE

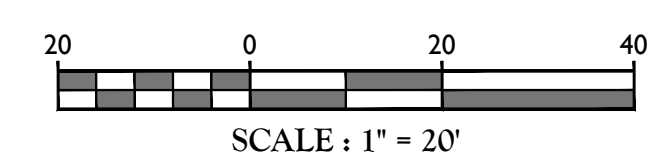
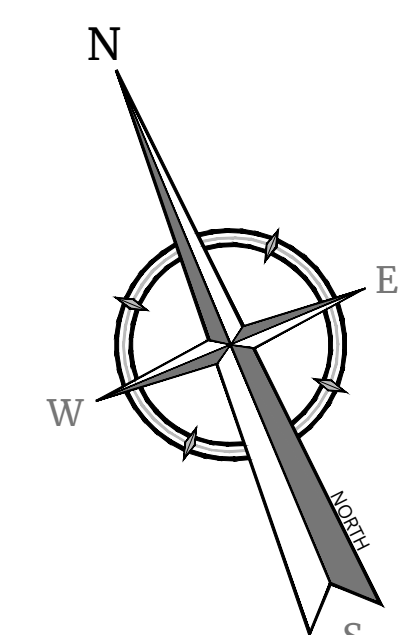


**OIL/WATER SEPARATOR  
1,400 GALLON CAPACITY**

NOT TO SCALE

**GENERAL NOTES:**

1. ELEVATIONS SHOWN ARE IN REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. EXISTING INFORMATION SHOWN HAS BEEN COMPILED FROM MULTIPLE SOURCES AND DOES NOT REPRESENT A SURVEY.
3. ROADWAY IMPROVEMENTS SHOWN ARE FROM "SITE 2 - SPECIAL USE PERMIT SUBMISSION," PREPARED BY JMT. DRIVEWAY CONNECTIONS, GRADING TIE-INS, AND STORM DRAINAGE TO BE COORDINATED WITH THE PROPOSED ROADWAY IMPROVEMENTS BEING DESIGNED BY JMT.

[illegible][illegible]

**RUSSELL T. McFALL II**  
NEW YORK LICENSED PROFESSIONAL  
ENGINEER - LICENSE NUMBER: 090030

SPECIAL USE PERMIT SITE  
PLANS

FOR



CROSSGATES MALL  
TAX MAP 52.10, 52.14 & 52.01

TOWN OF GUILDERLAND  
ALBANY COUNTY  
STATE OF NEW YORK

SCALE: AS SHOWN	DATE: 10/28/19	DRAWN BY: DJH	CHECKED BY: RTM
PROJECT NUMBER: 13001204A		DRAWING NAME: C-GRAD	

EET TITLE:

FUEL FACILITY PLAN

SHEET NUMBER:

22 of 22