

PRELIMINARY / FINAL LAND DEVELOPMENT PLAN FOR 2509 MILL ROAD TOWNHOMES LOCATED IN UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA ZONING HEARING APPLICATION EXHIBIT "A" PLAN SHEETS: 1 - 8



PENNSYLVANIA ACT 38
(1991) AS AMENDED
REQUIRES NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S
SURFACE ANYWHERE IN THE
COMMONWEALTH. SERIAL NO.
20211971405 IN UPPER
ALLEN TOWNSHIP 7/27/2021

UTILITY CO. CONTACTS

COMPANY: VERIZON
PENNSYLVANIA LLC
ADDRESS: 1026 HAY ST
PITTSBURGH, PA 15221
CONTACT: DEBORAH BARUM
deborah.d.della@verizon.com

COMPANY: MESSIAH UNIVERSITY
ADDRESS: FACILITY SERVICES
ONE UNIVERSITY AVE SUITE 3001
MECHANICSBURG, PA 17055
CONTACT: RUSSE EHRICH
REHRICH@MESSIAH.EDU

COMPANY: UPPER ALLEN
TOWNSHIP PUBLIC WORKS
ADDRESS: 100 GETTYSBURG PIKE
MECHANICSBURG, PA 17055
CONTACT: STEPHEN BATEMAN
sbateman@uag.com

COMPANY: UGI UTIL LANCASTER
ADDRESS: 1301 AIP DRIVE
MECHANICSBURG, PA 17055
CONTACT: STEPHEN BATEMAN
sbateman@ugl.com

COMPANY: SUEZ WATER
CORPORATION
ADDRESS: 6310 ALLENTOWN
BLVD
HARRISBURG, PA 17112
CONTACT: NATHANIEL SHEFFER
nathaniel.sheffer@suez.com

COMPANY: PPL ELECTRIC UTILITIES
CORPORATION
ADDRESS: 434 SUSQUEHANNA
TRL
NORTHUMBERLAND, PA 17857
CONTACT: DOUGLAS HAUPPT
dlaupt@pplweb.com

COMPANY: UPPER ALLEN
TOWNSHIP
ADDRESS: 100 GETTYSBURG PIKE
MECHANICSBURG, PA 17055
CONTACT: KODI HOCKENBERRY
khockenberry@uatwp.org

GENERAL NOTES:

- The purpose of this plan is to create a Preliminary / Final Land Development Plan depict the improvements required for 14 rental Townhouse-style Attached Dwellings.
- All existing buildings within the site will be removed prior to development.
- The site survey is on State Plane Coordinates (NAD 83 PA SOUTH ZONE GRID). Elevations are on NAVD 88 Datum referenced from Benchmark (Iron Pin Found at southern front property corner at 529.29. The existing ground topography shown on this plan is a combination of a field survey conducted from 7/22/2021 to 11/30/2021 by R. J. Fisher & Associates, Inc.
- Proposed gravity sanitary sewer system, low pressure force main sewer and duplex grinder pump station shall be privately owned and maintained.
- Within clear sight triangles shown, no structure or growing material shall exceed a height of 3 feet above the grade of the street, and no branch of a tree, or obstruction, shall be lower than 9 feet above the grade of the street, with the exception of traffic signs, public utility poles, and similar-type structures.
- All new utilities shall be placed underground.
- All stormwater drainage facilities located outside of dedicated and accepted public street rights-of-way shall be private, and shall be maintained by the developer. The developer shall maintain the drainage facilities to the design, dimensions and elevations indicated on these drawings, and such facilities shall be permanent unless and until a revised stormwater management plan is approved by Upper Allen Township, and/or PA D.E.P.
- The proposed water system shown hereon is schematic only, and shall be superseded by the water company design when Final Plans are approved.
- A minimum of 10-foot separation, or an 18" vertical separation, shall be maintained wherever possible between water lines and sanitary sewer lines.
- Approval by the Cumberland County Conservation District of a soil erosion and sedimentation control plan must be obtained prior to any earthmoving. Implementation of the erosion control plan is the responsibility of the lot owner.
- According to FEMA maps, there is no designated floodplain on this site.
- Concrete monuments will be set where indicated. All other property corners not already marked shall be marked with iron pins. Monuments and markers shall be of the proper size and material as outlined in section 220-5.11 of the Subdivision & Land Development Ordinance of Upper Allen Township.
- All public improvements shall comply with the applicable municipality's construction specifications, for the municipality in which the work is located.
- All work shall be in accordance with PennDOT Publication 408, Specifications and Publication 72, Roadway Construction Standards, unless otherwise noted.
- Signs shall be installed per PennDOT standards and specifications.
- Manhole covers for storm manholes shall be cast with the word "Storm Sewer" for identification purpose.
- Construction of all work within the public street right-of-way and work related to storm drainage facilities requires inspection by the Township.
- Contractor shall schedule a pre-construction site meeting with the Upper Allen Township Engineer at least 48 hours prior to starting site construction activities.
- Nothing shall be placed, planted, set or put within the area of an easement or planting strip that would adversely affect the function of the easement or planting strip or conflict with an easement agreement. No structures shall be placed in any easement or planting strip unless otherwise noted in an agreement. Paper and digital Record Drawings shall be provided to Upper Allen Township, horizontal datum to be NAD 83 PA South Grid and vertical datum to be NAVD 88.
- All sanitary sewer construction in public street rights-of-way shall be subject to backfill compaction testing at the developer's expense.
- Upon Township acceptance of any sanitary sewer mains, laterals, manholes, and other appurtenances located in public streets but not yet dedicated to the Township, developer grants to Township a temporary sanitary sewer easement thirty feet in width measured from the centerline of the sanitary sewer main for that purpose of emergency or other repairs to the sanitary sewer system, until such time they are dedicated to the Township.
- Location of underground utilities is shown approximately hereon. Contractor shall contact PA One Call prior to any excavation or construction and filed verify utility locations and follow utility company requirements for protection, relocation, or removal.
- As-built Mylar plans and electronic data files shall be provided to the Township. All drawings must be signed and sealed by a professional engineer or land surveyor attesting to the correctness of the facility information shown, in accordance with Section 220- 4.2.C(3) of the Codified Ordinances of Upper Allen Township.
- The average slope of entire lot is < 15%.
- Agricultural Nuisance Disclaimer - Lands, such as this site, that are within the Residential Districts are located within an area where land is used for commercial agricultural production. Owners, residents and others users of this property may be subjected to inconvenience, discomfort and the possibility of injury to property and health arising from normal and accepted agricultural practices and operations, including, but not limited to, noise, odors, dust, the operation of machinery of any kind, including the storage and disposal of manure, the application of fertilizers and soil amendments. Owners, occupants and users of this property should be prepared to accept such inconveniences, discomfort and possibility of injury from normal agricultural operations and are hereby put on official notice that Section 4 of the Pennsylvania Act 133 of 1982, as amended, otherwise known as the "Right to Farm Law," [1] may bar them from obtaining legal judgment against such normal agricultural operations used in a prudent manner.
- A Wetland Investigation by Vortex Environmental, Inc. on December 20, 2021 revealed no wetlands at this site.
- A Recreation Fee in-lieu-of land dedication will be provided.
- Stormwater flow discharging at the southeast corner of site onto adjacent property, currently a farm field owned by Messiah College, will not be increased, relocated, or otherwise altered without approval of the affected owner. Stormwater flow will be collected, controlled, and discharged over a rock apron stilling discharge at same location as existing condition.

PLAN APPROVAL BLOCKS

REVIEWED THIS _____ DAY OF _____
20____ BY CUMBERLAND COUNTY PLANNING DEPARTMENT.

DIRECTOR OF PLANNING _____ DATE _____

APPROVED BY THE PLANNING COMMISSION OF UPPER ALLEN TOWNSHIP, THIS _____ DAY OF _____, 20____.

SECRETARY _____ DATE _____

CHAIRMAN _____ DATE _____

APPROVED BY THE BOARD OF COMMISSIONERS OF UPPER ALLEN TOWNSHIP, THIS _____ DAY OF _____, 20____.

THE CONDITIONS OF APPROVAL WERE SATISFIED THIS ____ DAY OF 20____.

ATTEST: _____ SECRETARY _____ DATE _____

CHAIRMAN _____ DATE _____

OWNER CERTIFICATION

I, _____, the undersigned, owner of the real estate shown and described herein, do hereby certify that we have laid off and platted and hereby lay off and plan, said real estate in accordance with the within plan. The land development shall be known and designated as 2509 Mill Rd. All streets and alleys shown and not heretofore dedicated are hereby dedicated to the public.

Building setback lines are hereby established as shown on this plan, between which lines and the property lines of the street there shall be erected or maintained no building or structure.

There are strips of ground 10-30 feet in width as shown on this plan and marked: "Easement, reserved for the use of public utilities for the installation of water and sewer mains, poles, ducts, lines and wires, subject at all times to the proper authorities and to the easement herein reserved." No buildings or other structures are to be erected or maintained upon said strips of land, but owner of lot in this land development shall take their titles subject to the rights of the utilities.

The foregoing covenants (or restrictions), as recorded at the Cumberland County Courthouse, are to run with the land and shall be binding on all parties and all persons claiming under them until January 1, 2048, at which time said covenants (or restrictions) shall be automatically extended for successive periods of 10 years and shall remain in full force and effect unless changed at the end of such period of 10 years by vote of a majority of the then owners of the building site covered by these covenants (or restrictions).

The right to enforce these provisions by injunction, together with the right to cause the removal, by due process of law, of any structure or part thereof erected or maintained in violation hereof, is hereby dedicated to the public and reserved to the owner of this land development and to their heirs and assigns.

Witness our Hands and Seals this ____ day of _____, 20____.

Commonwealth of Pennsylvania: _____

County of Cumberland: _____

On this, the ____ day of _____, 20____ before me,

_____, the undersigned officer, personally came

known to me (or satisfactorily proven) to be the person

whose name is subscribed to the within instrument, and acknowledged that _____ executed the same for the purposes therein contained.

OWNER : x _____

IN WITNESS WHEREOF, I have hereunto set my hand and Official Seal.

Notary Public _____

My Commission expires: _____

Sheet List Table

Sheet Number	Sheet Title
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7	E & S POLLUTION CONTROL PLAN
8	SITE LIGHTING PLAN
9	SANITARY SEWER PLAN & PROFILE
10	STORM SEWER PLAN & PROFILES
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14	SWM DETAILS
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18	UTILITY DETAILS
19	E&S CONTROL DETAILS
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21	E&S CONTROL DETAILS

ZONING REQUIREMENTS

Medium Density Residential	Required	Proposed
Minimum Street Frontage	20 feet (interior), 35 feet (exterior)	84.72 Feet
Maximum Building Coverage	30%	14.5%
Maximum Impervious Coverage	45%	44.73%
Lot Size	2000 s.f.	1.75 AC.
Minimum Front Yard	25 Feet	25 Feet
Minimum Side Yard	10 Feet (exterior side)	10 Feet
Minimum Rear Yard	15 Feet	15 Feet
Minimum Lot Width	20 feet (interior), 35 feet (exterior)	20 feet (interior), 35 feet (exterior)
Maximum Building Height	35 Feet	<35 Feet
Parking (2.25 space/unit)	32 Spaces	36 Spaces
Handicap Parking	1 Space	1 Space

REQUIRED AGENCY APPROVALS/ PERMITS

APPROVAL	NUMBER	APPROVAL DATE	EXPIRATION DATE
PA DEP SEWAGE PLANNING MODULE EXEMPTION			
UPPER ALLEN TOWNSHIP SEWAGE PLANNING MODULE EXEMPTION CERTIFICATION			
UPPER ALLEN ZONING HEARING BOARD - SPECIAL EXCEPTION			
UPPER ALLEN TOWNSHIP LAND DEVELOPMENT PLAN APPROVAL			
CUMBERLAND COUNTY CONSERVATION DISTRICT EROSION & SEDIMENT CONTROL PLAN ADEQUACY DETERMINATION			
CUMBERLAND COUNTY CONSERVATION DISTRICT / DEP NPDES NOTICE OF INTENT ACKNOWLEDGEMENT			

TAX PARCEL NUMBER:

42-30-2110-028

RECORDING:

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR

CUMBERLAND COUNTY THIS _____ DAY OF _____, 20____.

PLAN BOOK _____, PAGE _____.

INSTRUMENT NUMBER _____.

SITE DATA:

- Record owner and applicant: Mihail Malinov 2509 Mill Rd. Mechanicsburg, PA 17055 Phone: (717) 713-3892
- Deed reference: INST # 201623365
- Property is zoned Medium Density Residential (R-2) in Upper Allen Township.
- Gross acreage: 1.75 acres
- Existing number of lots: 1
- Proposed number of lots: 1
- Existing number of dwelling units: 1
- Proposed number of dwelling units: 14
- Proposed Density: 10.3 Units/ac.
- Proposed use: 14 Single-Family Attached (Townhouse) dwellings.
- Proposed total length of new public streets: 0 linear feet.
- Proposed total length of new private streets: 0 linear feet
- There are no streams, wetlands, significant rock outcrops, soil subsidences, floodplains, or contaminated soils known to exist on the Upper Allen Township portion of this site.
- Proposed water supply: public (Suez Water)
- Proposed sewage disposal: public
- Maximum proposed building height is 35 feet.
- Site is tax parcel number 42-30-2110-028.

GEOLOGIST CERTIFICATION:

I, BLAIR C. KITLINSKI, P.E., OF F.T. KITLINSKI & ASSOCIATES, INC. (CONSULTING GEOTECHNICAL ENGINEERS) HEREBY CERTIFY THAT THE SITE IS NOT UNDERLAIN BY LIMESTONE BEDROCK OR OTHER CARBONATE GEOLOGIC FORMATION.

OWNER & APPLICANT

MIHAIL MALINOV
2509 MILL RD.
MECHANICSBURG, PA 17055
(717) 713-3892

BY UPPER ALLEN TOWNSHIP, I, MIHAIL MALINOV, HEREBY ACKNOWLEDGE THAT THE STORMWATER MANAGEMENT FACILITIES AND BMP'S ARE TO BE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN



R. J. FISHER & ASSOCIATES, INC.

▣ SITE PLANNING ▣ CIVIL ENGINEERING ▣ LAND SURVEYS

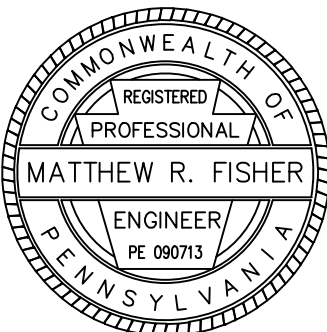
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070

PHONE: (717) 774-7534 FAX: (717) 774-7190

WWW.RJFISHERENGINEERING.COM

ENGINEER & SURVEYOR

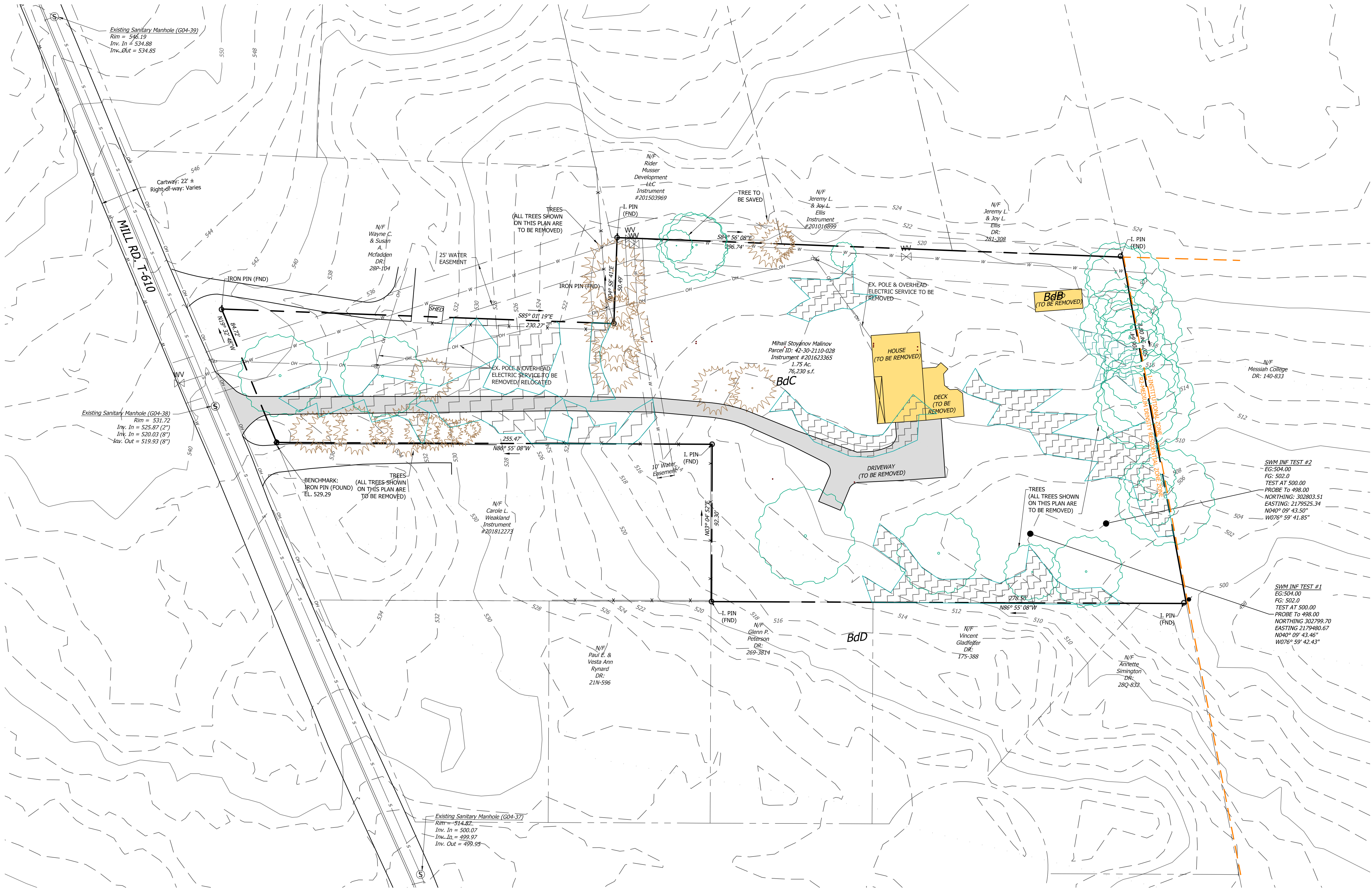
R.J. FISHER & ASSOCIATES
ENGINEERING, PLANNING & SURVEYING
1546 BRIDGE STREET
NEW CUMBERLAND, PA 17070
(717) 774-7534



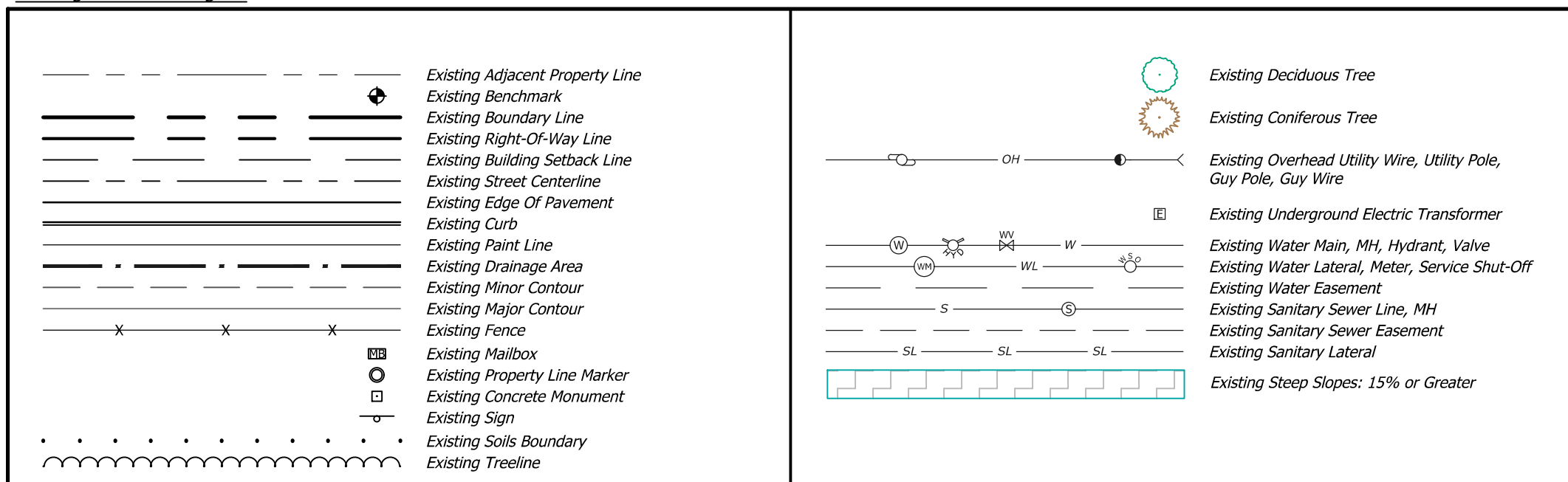
I, MATTHEW R. FISHER, P.E., P.L.S., HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND A REGISTERED ENGINEER IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT THIS PLAN CORRECTLY REPRESENTS A SURVEY COMPLETED BY ME ON 11/30/2021; THAT ALL THE MONUMENTS SHOWN THEREON ACTUALLY EXIST; AND THAT THEIR LOCATION, SIZE, TYPE AND MATERIAL ARE ACCURATELY SHOWN. ALL ELEMENTS OF THE PLAN ARE IN CONFORMITY WITH TOWNSHIP CODE AND ANY APPLICABLE STATE REGULATIONS.

MATTHEW R. FISHER, P.L.S., P.E.

No.	REVISION	DATE	DRAWING ID
1	PER TWP PC REPORT 5/17/22	6/21/22	221013-1-COV
2	PER COCD COMOMENTS	7/22/2022	
3	—	—	DATE: 04/25/2022
4	—	—	
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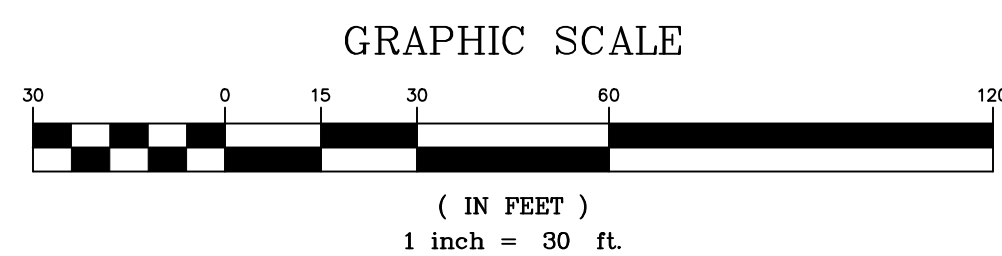


Existing Conditions Legend



NOTES:

1. ALL TREES WITHIN PROPERTY AND LIMIT OF DISTURBANCE TO BE REMOVED, EXCEPT AS NOTED.



EXISTING CONDITIONS & DEMO PLAN

FOR
2509 MILL ROAD TOWNHOMES

LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA



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NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
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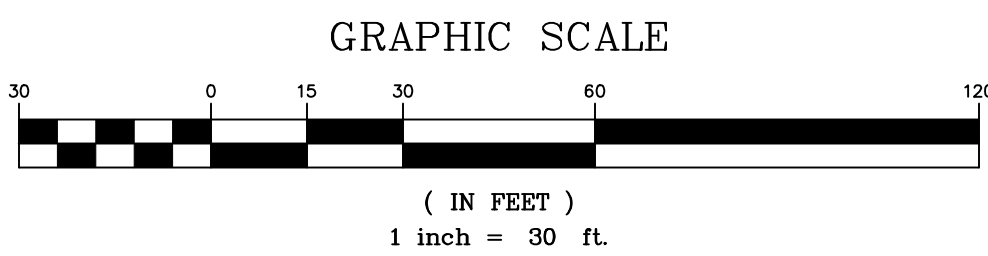
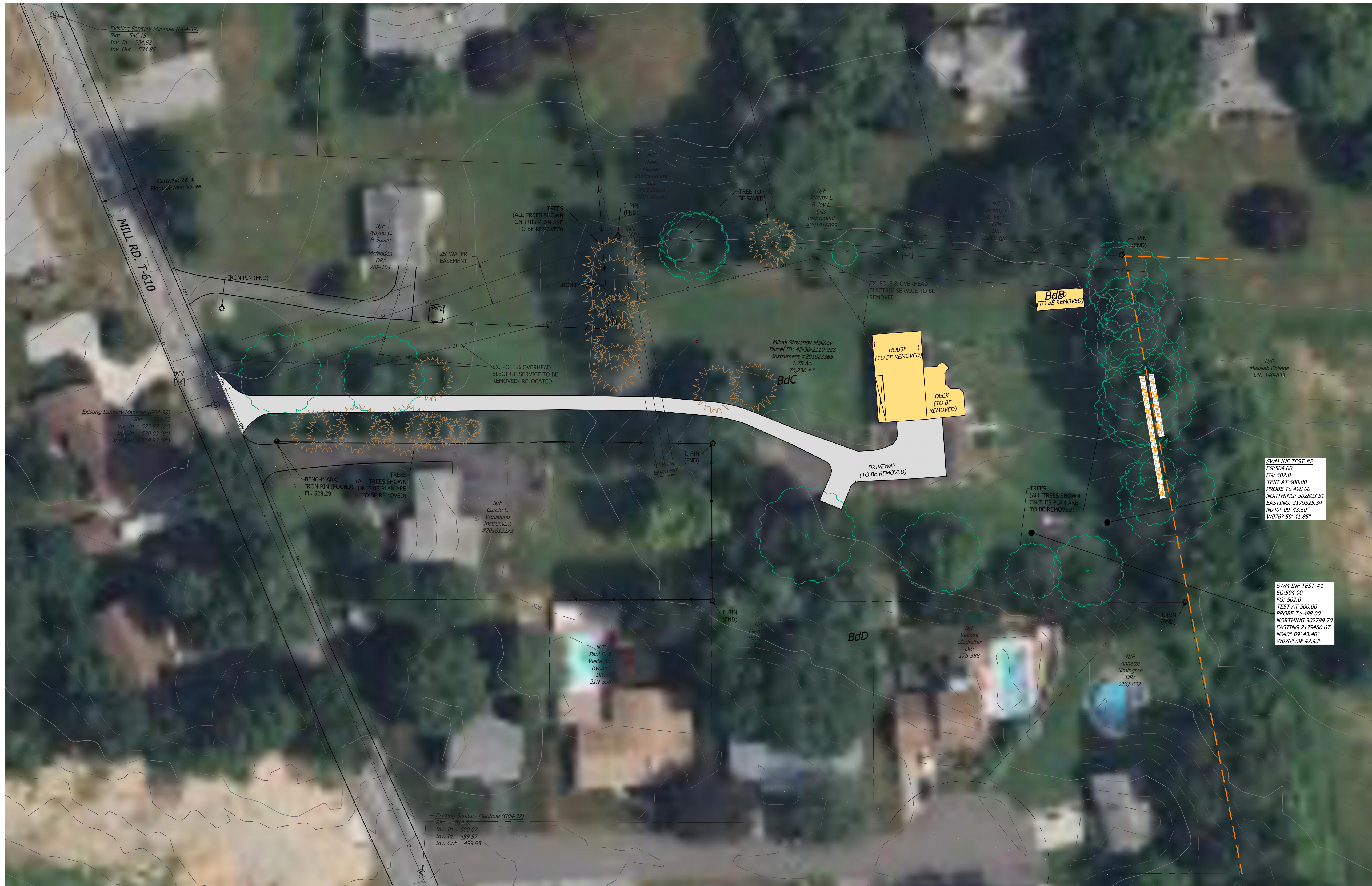
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BY: JCF

Existing Conditions Legend

	<ul style="list-style-type: none">Existing Adjacent Property LineExisting BenchmarkExisting Boundary LineExisting Right-Of-Way LineExisting Building Setback LineExisting Street CenterlineExisting Edge Of PavementExisting CurbExisting Paint LineExisting Drainage AreaExisting Minor ContourExisting Major ContourExisting FenceExisting MailboxExisting Property Line MarkerExisting Concrete MonumentExisting SignExisting Soil BoundaryExisting Treeline
	<ul style="list-style-type: none">Existing Deciduous TreeExisting Coniferous TreeExisting Overhead Utility Wire, Utility Pole, Guy WireExisting Underground Electric TransformerExisting Water Main, MH, Hydrant, ValveExisting Water Lateral, Meter, Service Shut-OffExisting Water EasementExisting Sanitary Sewer Line, MHExisting Sanitary Sewer EasementExisting Sanitary Lateral

NOTES:

1. ALL TREES WITHIN PROPERTY AND LIMIT OF DISTURBANCE TO BE REMOVED, EXCEPT AS NOTED.



EXISTING CONDITIONS PLAN (AERIAL)

FOR
2509 MILL ROAD TOWNHOMES

LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA



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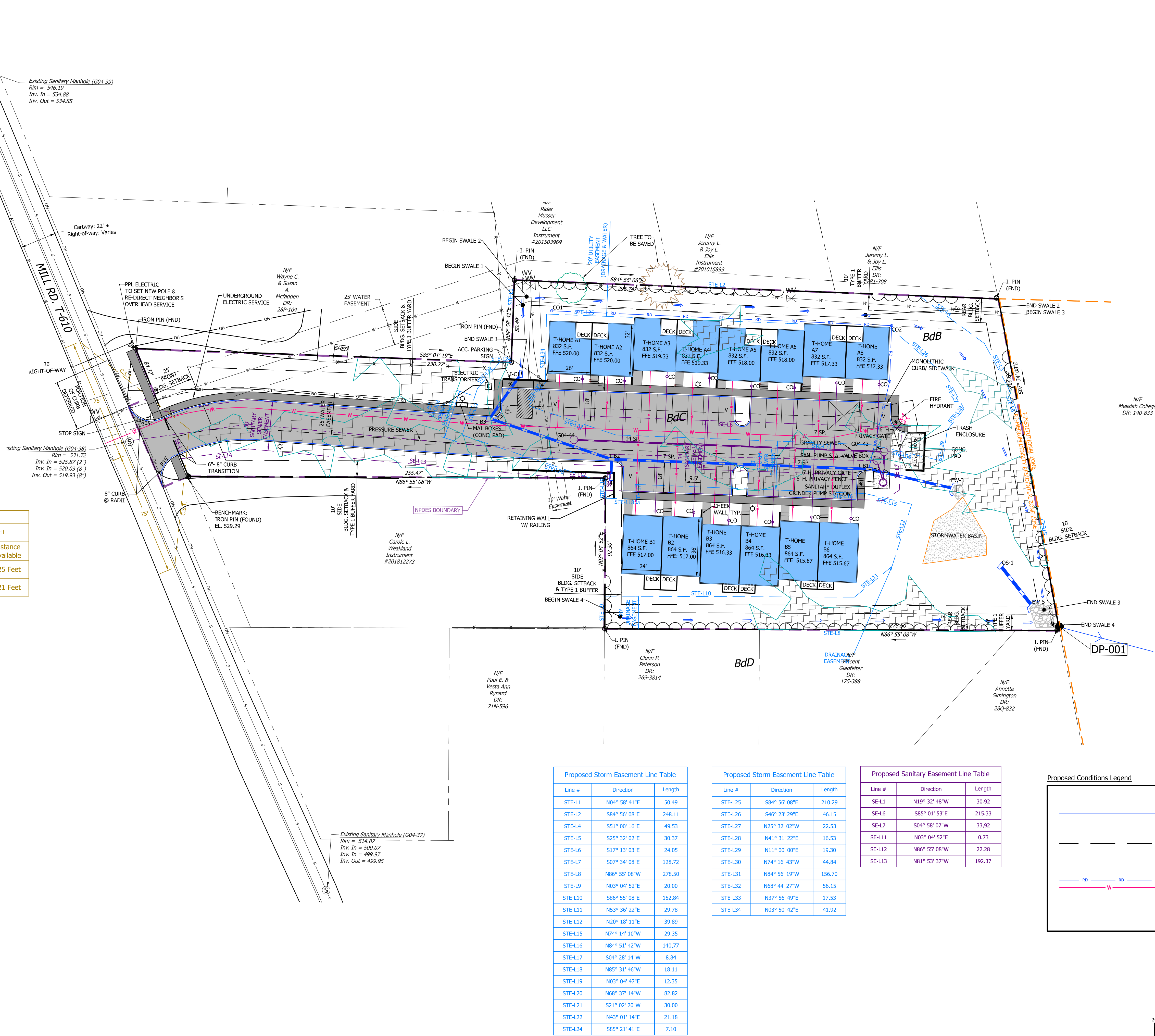
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DRAWING ID:	221013-EC
PROJECT:	221013
DATE:	04/25/2022
SHEET:	3 OF 21

NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
4	—	—
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Sight Distance Table				
CL Access Drive & Mill Road Speed Limit = 25 MPH				
View From	Slope	Distance Required	Distance Available	
Left	Down Hill @ 7%	97 Feet	325 Feet	
Right	Up Hill @ 6%	100 Feet	421 Feet	

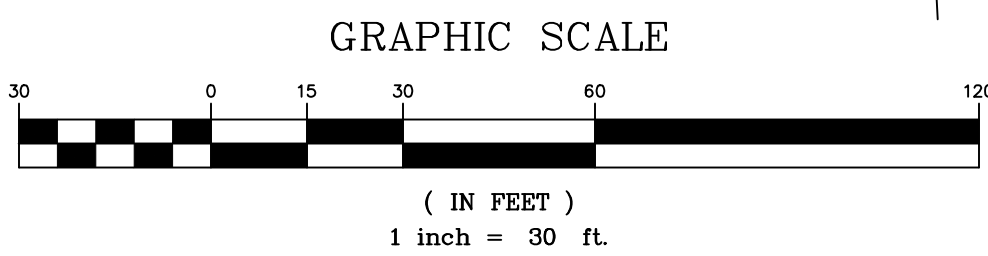
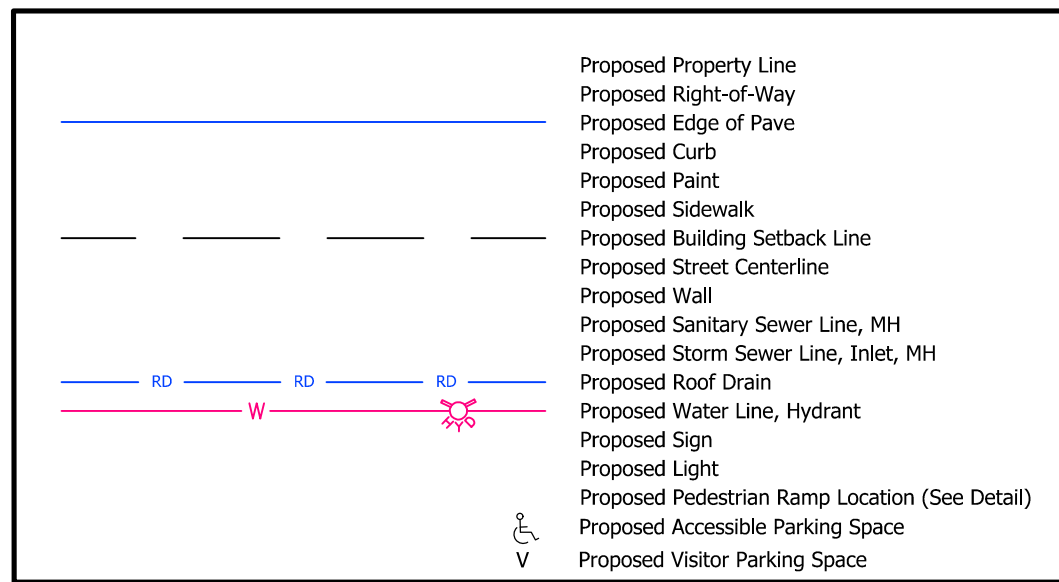


Proposed Storm Easement Line Table		
Line #	Direction	Length
STE-L1	N04° 58' 41"E	50.49
STE-L2	S84° 58' 08"E	248.11
STE-L4	S51° 00' 16"E	49.53
STE-L5	S25° 32' 02"E	30.37
STE-L6	S17° 13' 03"E	24.05
STE-L7	S07° 34' 08"E	128.72
STE-L8	N86° 55' 08"W	278.50
STE-L9	N03° 04' 52"E	20.00
STE-L10	S86° 55' 08"E	152.84
STE-L11	N53° 36' 22"E	29.78
STE-L12	N20° 18' 11"E	39.89
STE-L15	N74° 14' 10"W	29.35
STE-L16	N84° 51' 42"W	140.77
STE-L17	S04° 28' 14"W	8.84
STE-L18	N85° 31' 46"W	18.11
STE-L19	N03° 04' 47"E	12.35
STE-L20	N68° 37' 14"W	82.82
STE-L21	S21° 02' 20"W	30.00
STE-L22	N43° 01' 14"E	21.18
STE-L24	S85° 21' 41"E	7.10

Proposed Storm Easement Line Table		
Line #	Direction	Length
STE-L25	S84° 56' 08"E	210.29
STE-L26	S46° 23' 29"E	46.15
STE-L27	N25° 32' 02"W	22.53
STE-L28	N41° 31' 22"E	16.53
STE-L29	N11° 00' 00"E	19.30
STE-L30	N74° 16' 43"W	44.84
STE-L31	N84° 56' 19"W	156.70
STE-L32	N68° 44' 27"W	56.15
STE-L33	N37° 56' 49"E	17.53
STE-L34	N03° 50' 42"E	41.92

Proposed Sanitary Easement Line Table		
Line #	Direction	Length
SE-L1	N19° 32' 48"W	30.92
SE-L6	S85° 01' 53"E	215.33
SE-L7	S04° 58' 07"W	33.92
SE-L11	N03° 04' 52"E	0.73
SE-L12	N86° 55' 08"W	22.28
SE-L13	N81° 53' 37"W	192.37

Proposed Conditions Legend



LAND DEVELOPMENT PLAN - SITE LAYOUT

FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

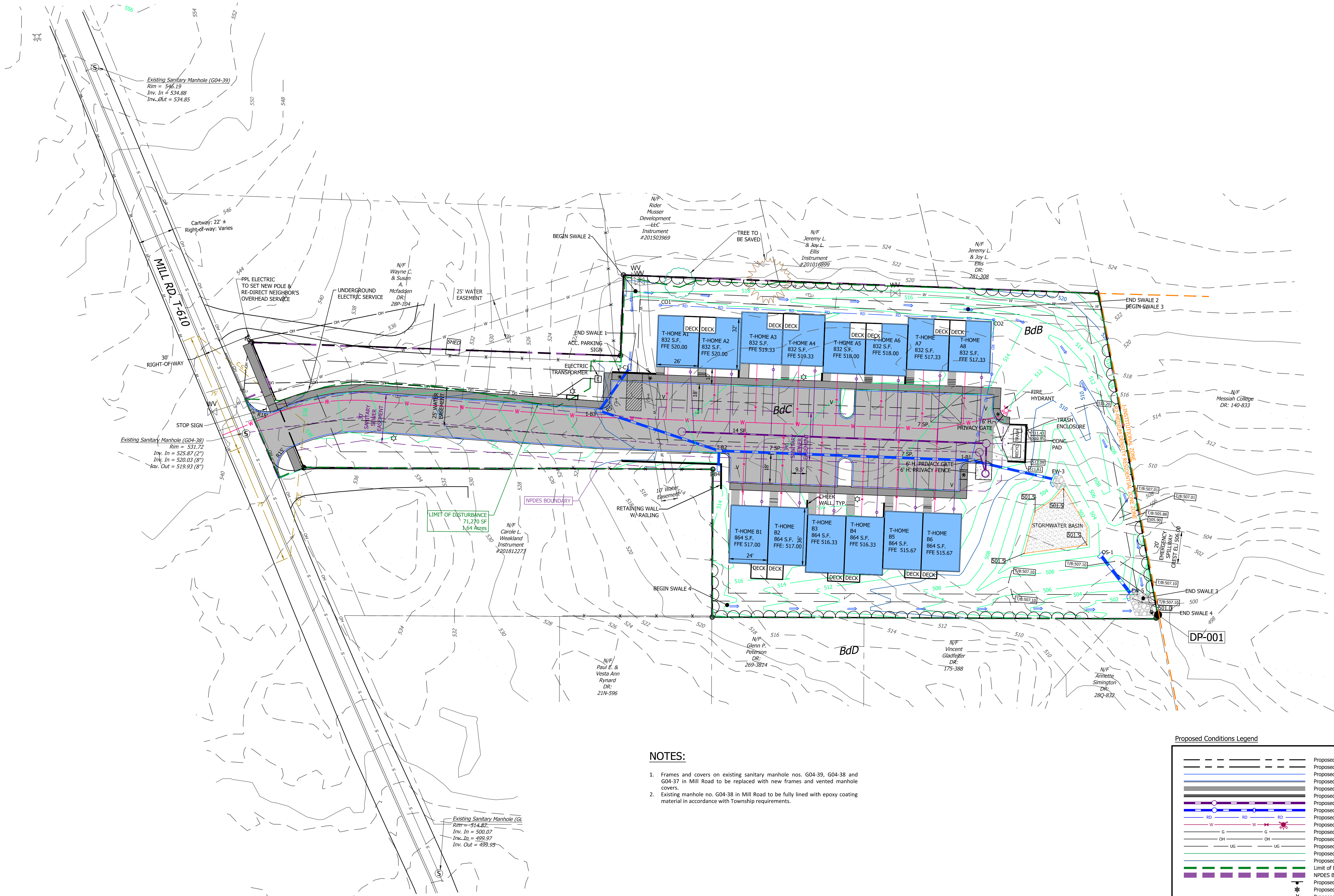
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PROJECT:	221013
DATE:	04/25/2022
SHEET:	4 OF 21



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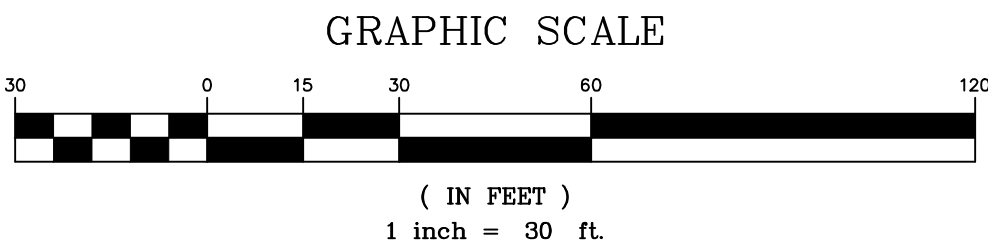
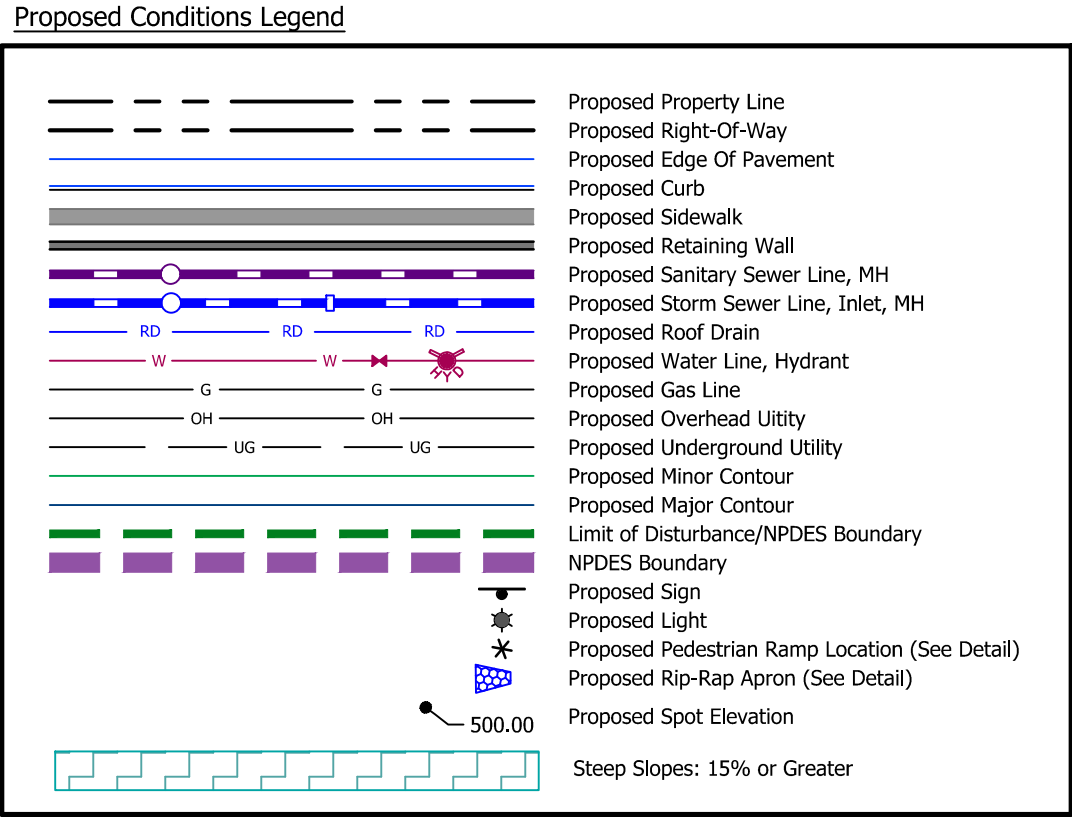
NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
4	—	—
5	—	—

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NOTES:

- Frames and covers on existing sanitary manhole nos. G04-39, G04-38 and G04-37 in Mill Road to be replaced with new frames and vented manhole covers.
- Existing manhole no. G04-38 in Mill Road to be fully lined with epoxy coating material in accordance with Township requirements.



GRADING & DRAINAGE PLAN
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

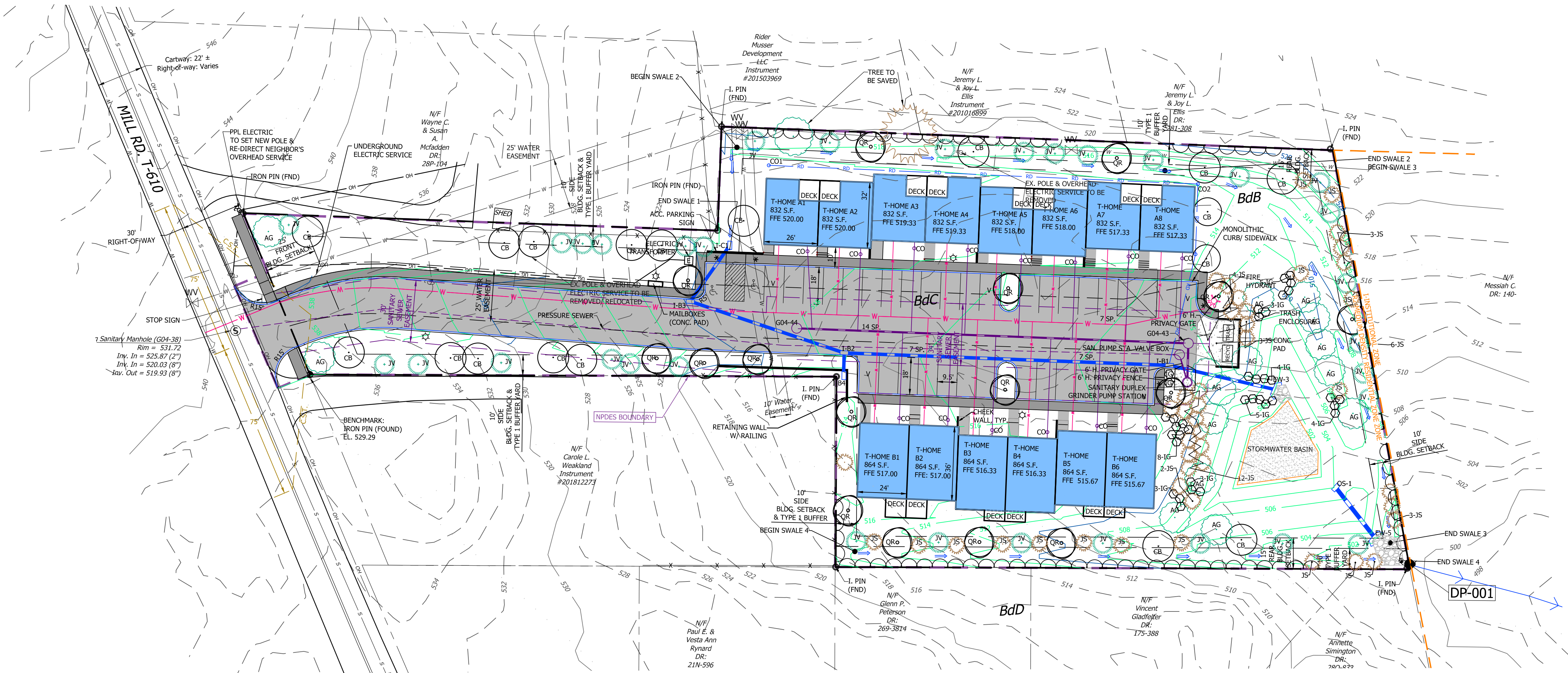
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221013-5-GD
PROJECT: 221013
DATE: 04/25/2022
SHEET:
5 OF 21

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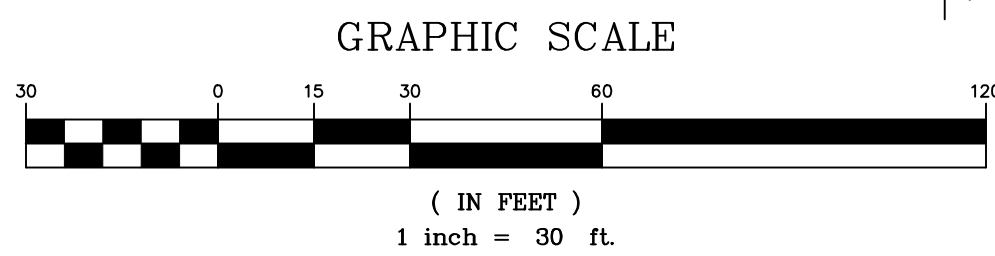
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PLANTING SCHEDULE						
245-16.5.C., 220-5.13.B1, TYPE 1 BUFFER REQUIRES 1 SHADE TREE PER 50 LF OF BUFFER AND 1 EVERGREEN TREE PER 40 LF OF BUFFER YARD; 220-5.13 DUMPSTER SCREENING: 1 SHADE TREE PER 40 LF AND 1 EVERGREEN PER 5 LF OF VISIBILITY (70/40=2 SHADE TREES REQ'D., 70/5=14 EVERGREEN TREES); 1285' OF TYPE 1 BUFFER = 26 SHADE TREES REQUIRED, 26 PROPOSED; 33 EVERGREENS REQ'D., 47 PROPOSED; 4 EVERGREENS @ 70' OF DUMPSTER ENCLOSURE PERIMETER PLUS 10 EVERGREENS AND 2 SHADE TREES ELSEWHERE PER WAIVER MODIFICATION PER UAT PC						
SYMBOL	ID	QUANTITY	BOTANICAL NAME	COMMON NAME	PLANTING SIZE/ CONDITIONS	MATURE SIZE / GENERAL TYPE
	CB	16	CARPINUS BETULUS 'FASTIGIATA'	UPRIGHT EUROPEAN HORNBEEAM	2 to 2-1/2" CAL. B&B, 40' O.C MAX	15'W. X 30'H. MAJOR DECIDUOUS TREE
	QR	10	QUERCUS ROBAR 'FASTIGIATA'	COLUMNAR ENGLISH OAK	2 to 2-1/2" CAL. B&B	15'W. X 50'H. MAJOR DECIDUOUS TREE
	JV	33	JUNIPERUS VIRGINIANA 'BRODIE'	BRODIE EASTERN RED CEDAR	5'H. B&B, ADJUST LOCATION TO AVOID PLANTING WITHIN 10' OF HEALTHY TREE TO BE SAVED	10'W. X 35'H. EVERGREEN TREE
	JS	14	JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER	5' H., #10 CONTAINER	8' W. X 20' H. EVERGREEN TREE
220-5.13.D.7 STREET TREES REQUIRED 2 PER 100 LF OF RIGHT-OF-WAY, 84/100 = 2 REQUIRED, 2 PROPOSED						
	AG	2	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE APPLE SERVICEBERRY	2" CALIPER (CAL.), BALLED & BURLAPPED (B&B) ROOT	20' W. X 20' H. ORNAMENTAL SMALL ST. TREE
205-5.13.g.5 TYPE 3 BUFFER REQUIRED FOR STORMWATER FACILITY, 1 SHADE TREE PER 30 LF AND 1 EVERGREEN TREE PER 10 LF AND 1 SHRUB PER 10 LF OF BERM PERIMETER REQUIRED PERIMETER = 340', 340/30 = 12 SHADE TREES REQUIRED, 12 PROPOSED; 340/10 = 34 EVERGREEN TREES REQ'D., 34 SHRUBS PROPOSED						
	AG	12	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE APPLE SERVICEBERRY	2" CALIPER (CAL.), BALLED & BURLAPPED (B&B) ROOT	20' W. X 20' H. ORNAMENTAL SMALL ST. TREE
	JS	34	JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER	5' H., #10 CONTAINER	8' W. X 20' H. EVERGREEN TREE
	IG	34	ILEX GLABRA 'INKBERRY'	COMPACT INKBERRY HOLLY	18" H., #3 CONTAINER	4' W. X 4' H. EVERGREEN SHRUB
205-5.13.B.2.b 1 SHADE TREE FOR EACH LANDSCAPE ISLAND REQUIRED						
	QR	6	QUERCUS ROBAR 'FASTIGIATA'	COLUMNAR ENGLISH OAK	2 to 2-1/2" CAL. B&B	15'W. X 50'H. MAJOR DECIDUOUS TREE

GENERAL LANDSCAPE NOTES:

- ALL LANDSCAPE MATERIALS SHALL BE PLACED AND PLANTED IN ACCORDANCE WITH THIS PLAN AND ALL APPLICABLE STANDARDS AND REQUIREMENTS OF THE UPPER ALLEN TOWNSHIP ZONING AND SUBDIVISION/ LAND DEVELOPMENT ORDINANCES.
- THE OWNER WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL PLANT MATERIALS. ALL PLANTINGS WILL BE INSTALLED, MAINTAINED AND REPLACED BY THE OWNER, IF DEAD OR DISEASED, IN LOCATIONS AS SHOWN ON THIS APPROVED LANDSCAPE PLAN.
- ALL PLANT MATERIALS SHALL BE PLANTED IN ACCORDANCE WITH GOOD NURSERY AND LANDSCAPING PRACTICES WITH ADEQUATE UNPAVED SURFACE AROUND EACH FOR WATER AND AIR AND SHALL BE PROPERLY PROTECTED BY CURBS, CURB STOPS, DISTANCE OR OTHER PROTECTIVE DEVICES TO PREVENT DAMAGE FROM VEHICLES. ANY AND ALL OTHER APPLICABLE STANDARDS ESTABLISHED BY THE TOWNSHIP SHALL ALSO APPLY. INDIVIDUAL PLANTS SHOULD BE MULCHED IN A CIRCLE OF MINIMUM DIAMETER OF 3 FT.. GROUPS OF SHRUBS SHOULD BE IN A CONTINUOUS ORGANICALLY-SHAPED MULCH BED.
- ALL PLANT MATERIALS SHALL BE NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE LOCALITY OF THE SUBJECT TRACT.
- ALL PLANT MATERIALS SHALL HAVE A NORMAL, SYMMETRICAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY AND VIGOROUS AND SHALL BE FREE FROM DISEASE, INSECTS, INSECT EGGS AND LARVAE.
- REQUIREMENTS FOR THE MEASUREMENT, BRANCHING, GRADING, QUALITY, BALLING AND BURLAPPING OF PLANT MATERIALS SHALL FOLLOW THE CODE OF STANDARDS RECOMMENDED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z.60, CURRENT EDITION. PLANTS SHALL BE SO TRAINED IN DEVELOPMENT AND APPEARANCE TO BE PROPER IN FORM, COMPACTNESS AND SYMMETRY. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE AND INSECTS OF ANY KIND.
- LAYOUT OF PLANTS PRIOR TO PLANTING SHALL BE VERIFIED BY THE OWNER/DEVELOPER AND/OR THEIR REPRESENTATIVE.
- PRIOR TO PLANTING, TREES SHALL BE INSPECTED BY THE OWNER/DEVELOPER AND/OR THEIR REPRESENTATIVE FOR INJURY TO TRUNKS, EVIDENCE OF INSECT INFESTATION, OR IMPROPER PRUNING.
- ALL ROPES, STAVES, TAGS OR OTHER BINDINGS SHALL BE CUT OFF THE TOPS AND SIDES OF THE BALLS AND REMOVED FROM PITTS. ALL ROT-PROOF, ROT-RESISTANT, PLASTIC BURLAP AND TOP HALF OF WIRE BASKET (MINIMUM) BALL COVERINGS SHALL BE REMOVED BEFORE PLANTING.
- DIAMETER OF PITTS FOR TREES AND B+H SHRUBS SHALL BE AT LEAST 2 FEET GREATER THAN THE DIAMETER OF THE BALL OR SPREAD OF ROOTS. DIAMETER OF PITTS FOR BARE-ROOTED TREES AND SHRUBS SHALL BE AT LEAST 1 FOOT GREATER THAN THE SPREAD OF ROOTS. NEVER CUT LEADER, PRUNE TOP OF BARE-ROOTED SHRUBS AND LATERAL BRANCHES OF TREE TO BALANCE LOSS OF ROOTS RESULTING FROM DIGGING. REFER TO DETAIL SHEET FOR PLANTING DETAILS.
- PLANT SUBSTITUTIONS MAY BE PERMITTED IF APPROVED BY THE OWNER/DEVELOPER AND LEMOYNE BOROUGH. ANY APPROVED SUBSTITUTION SHALL BE MADE IN LIKE KIND, SUITABLE FOR MICRO-CLIMATE AND SOIL CONDITIONS OF PLANTING SITE AND BE EQUIVALENT IN MATURE HEIGHT & WIDTH, GENERAL TYPE, HARDINESS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR IDENTIFYING AND AVOIDING DISRUPTION OR DAMAGE OF ANY AND ALL UNDERGROUND UTILITY LOCATIONS, PRIOR TO DIGGING, PERFORMING A PA ONE CALL, AND PERFORMING EXPLORATORY TESTING AS MAY OTHERWISE BE REQUIRED. ANY AND ALL DAMAGE TO UNDERGROUND UTILITIES, WHETHER KNOWN OR UNKNOWN, IS AND WILL BE THE SOLE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL SPRAY PAINT OR OTHERWISE MARK ALL PROPOSED PLANTING BED LINES FOR OWNER APPROVAL PRIOR TO CUTTING IN PROPOSED BEDS.
- IF ANY DISCREPANCIES BETWEEN QUANTITIES IN PLANTING SCHEDULES AND THOSE SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
- ALL TREES SHALL BE GUYED OR STAKED FOR ONE YEAR FOLLOWING PLANTING. ALL GUYS OR STAKES SHOULD BE REMOVED ONE YEAR FROM INSTALLATION.
- TREE CANOPIES WILL BE MAINTAINED TO BE CLEAR OF BRANCHES AND LEAVES FROM GROUND TO 8 FT HEIGHT ABOVE CLEAR SIGHT TRIANGLE, SIDEWALKS, STREETS, PARKING AREAS AND OTHER AREAS OF PEDESTRIAN / VEHICLE CIRCULATION AREAS.
- PLANT BACKFILL MIX SHALL BE 75% TOPSOIL AND 25% PEAT (TOPSOIL & PEAT CONFORMING TO PENNDOT PUB. 408, SECTION 802 SPECIFICATIONS).



R. J. FISHER & ASSOCIATES, INC.
SITE PLANNING ■ CIVIL ENGINEERING ■ LAND SURVEYS
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070
PHONE: (717) 774-7534 ■ FAX: (717) 774-7190
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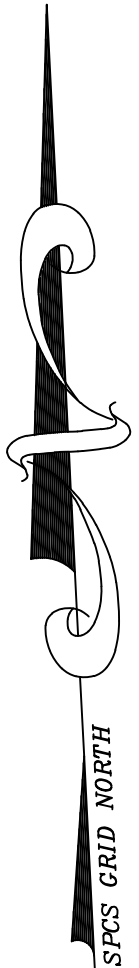
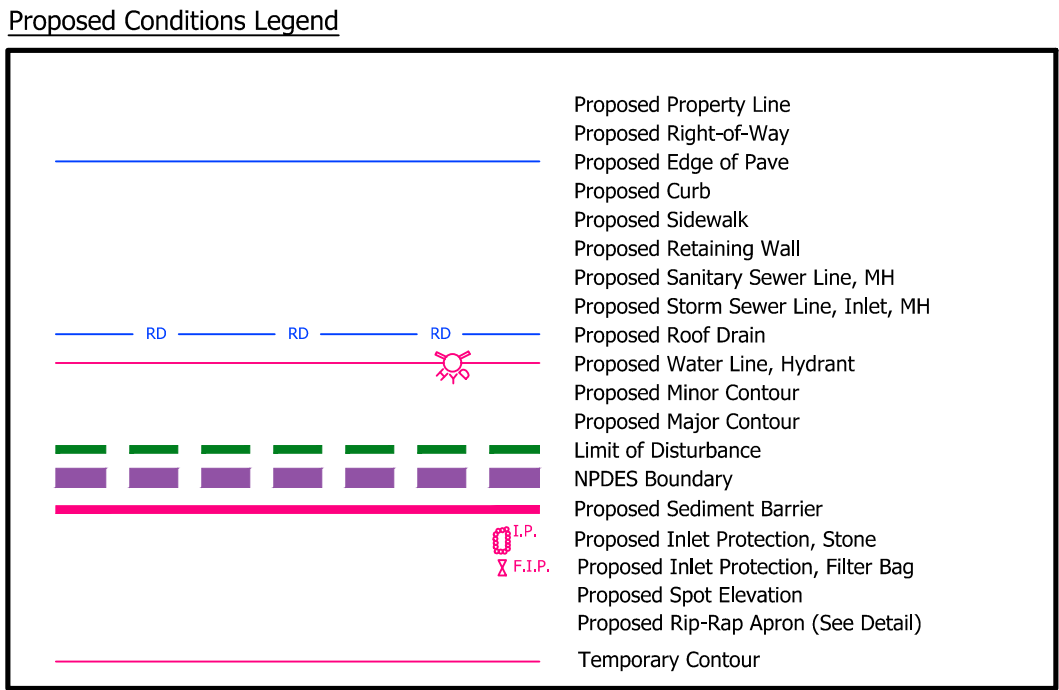


LANDSCAPE PLAN
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID: 221013-6-LSP
PROJECT: 221013
DATE: 04/25/2022
SHEET: 6 OF 21

NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
4	—	—
5	—	—

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E & S POLLUTION CONTROL PLAN
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID:	221013-3-LD
PROJECT:	221013
DATE:	04/25/2022
SHEET:	7 OF 21

NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
4	—	—
5	####	####

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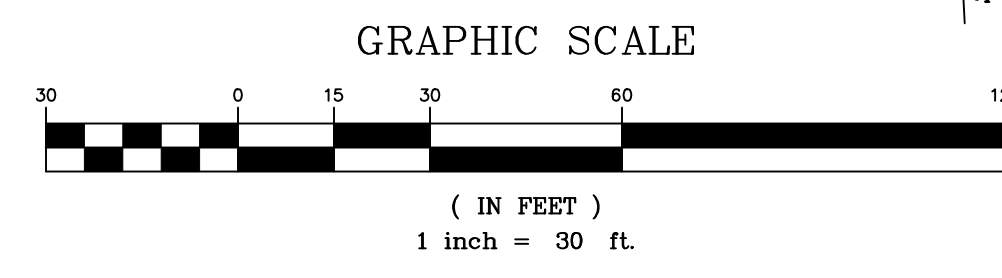
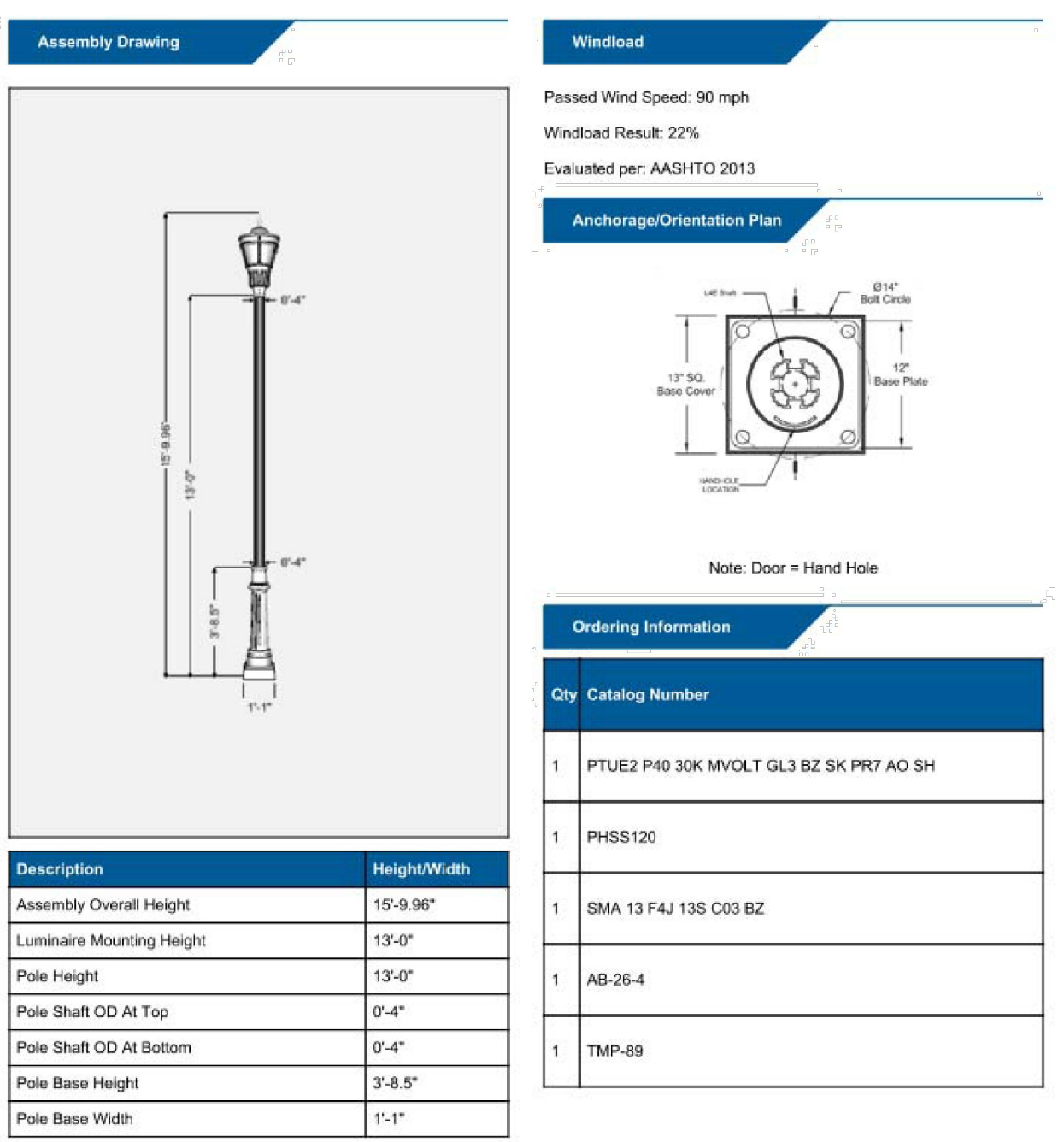
SITE LIGHTING PLAN
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

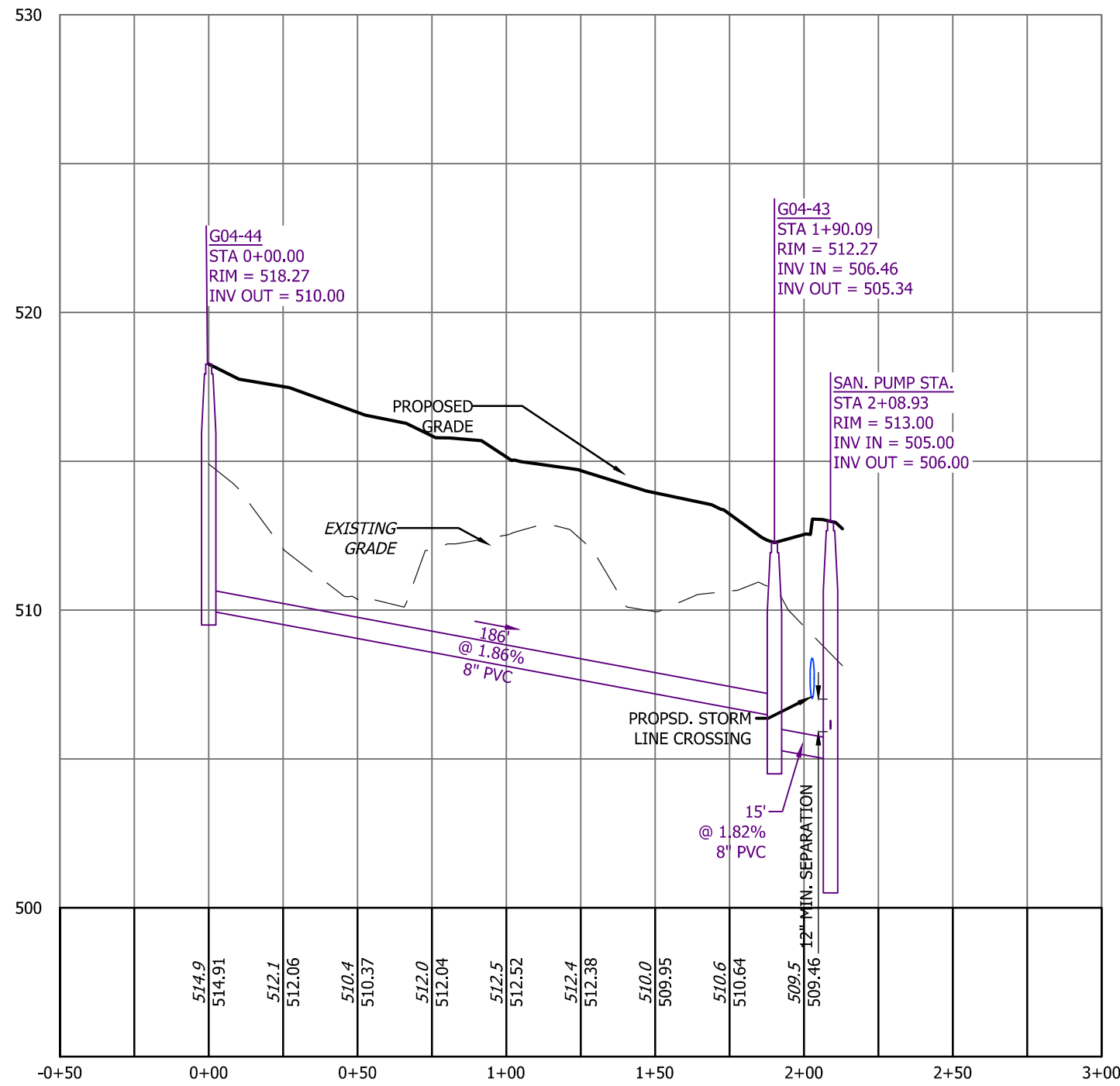
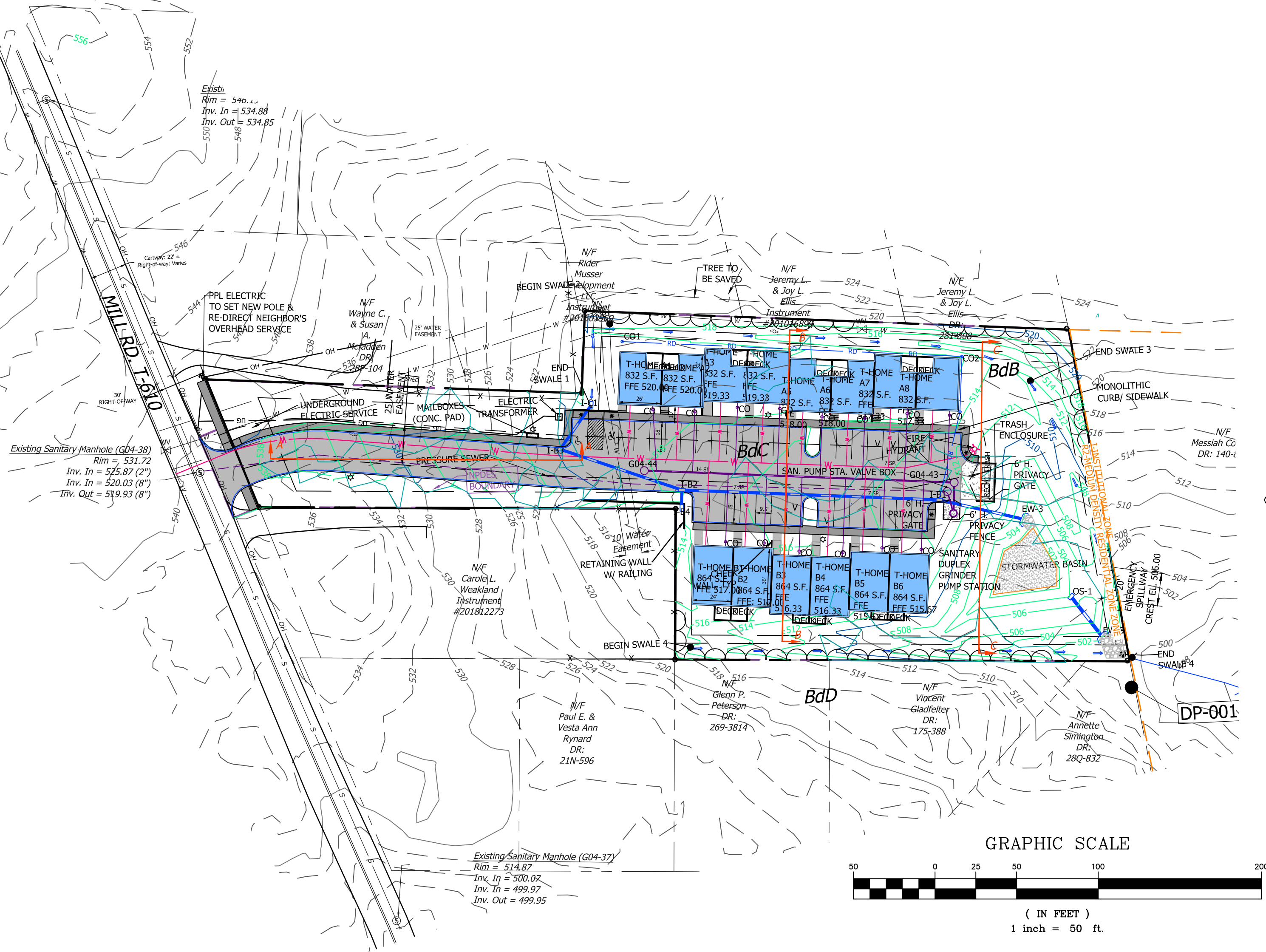
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PROJECT: 221013

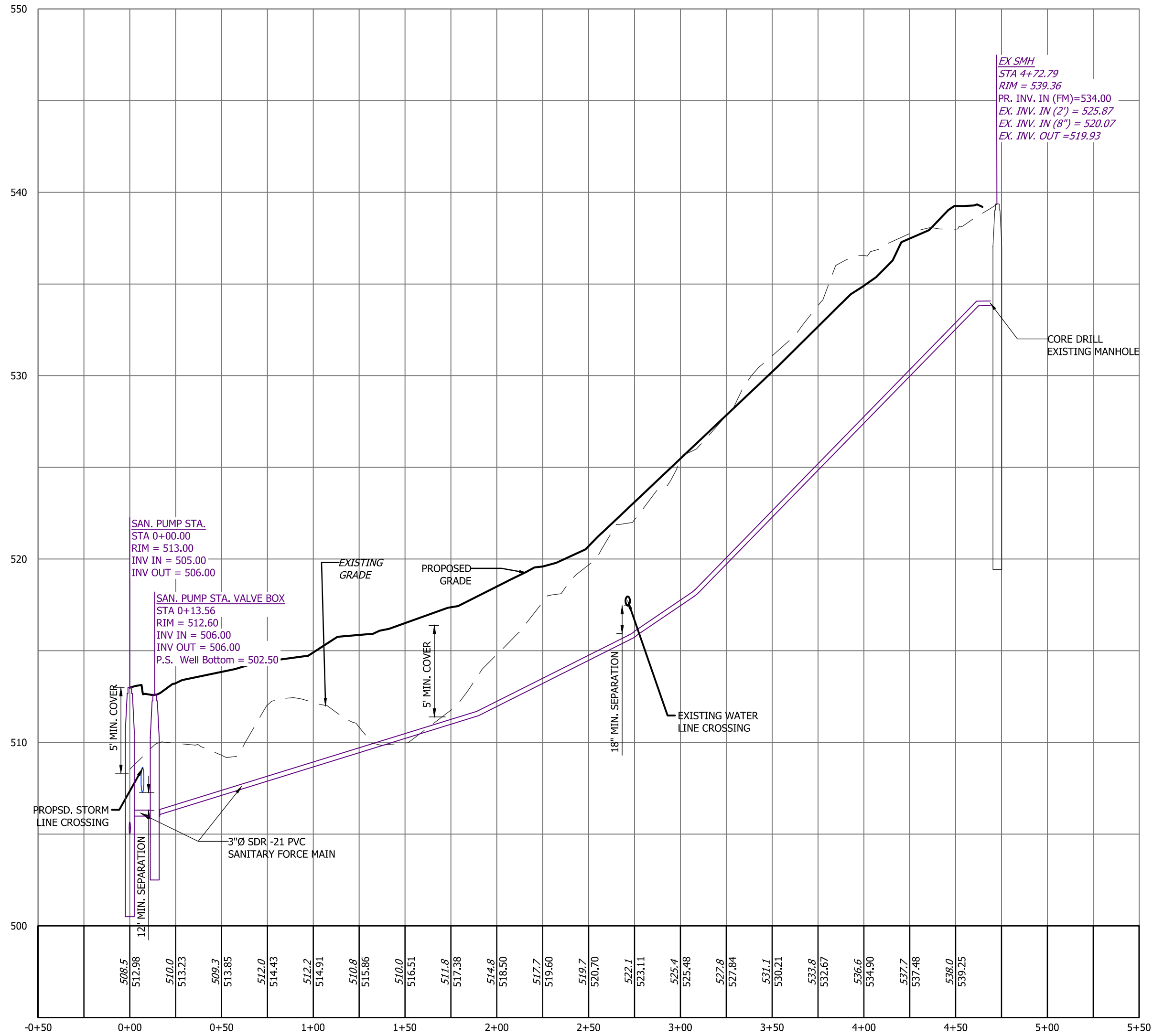
DATE: 04/25/2022

SHEET: 8 OF 21





Profile View of G04-44 to SPS
Sta: -0+50.00 - 3+00.00
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'



Profile View of Sanitary Force Main
Sta: -0+50.00 - 5+50.00
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'

- NOTES:
1. Frames and covers on existing sanitary manhole nos. G04-39, G04-38 and G04-37 in Mill Road to be replaced with new frames and vented manhole covers.
 2. Existing manhole no. G04-38 in Mill Road to be fully lined with epoxy coating material in accordance with Township requirements.

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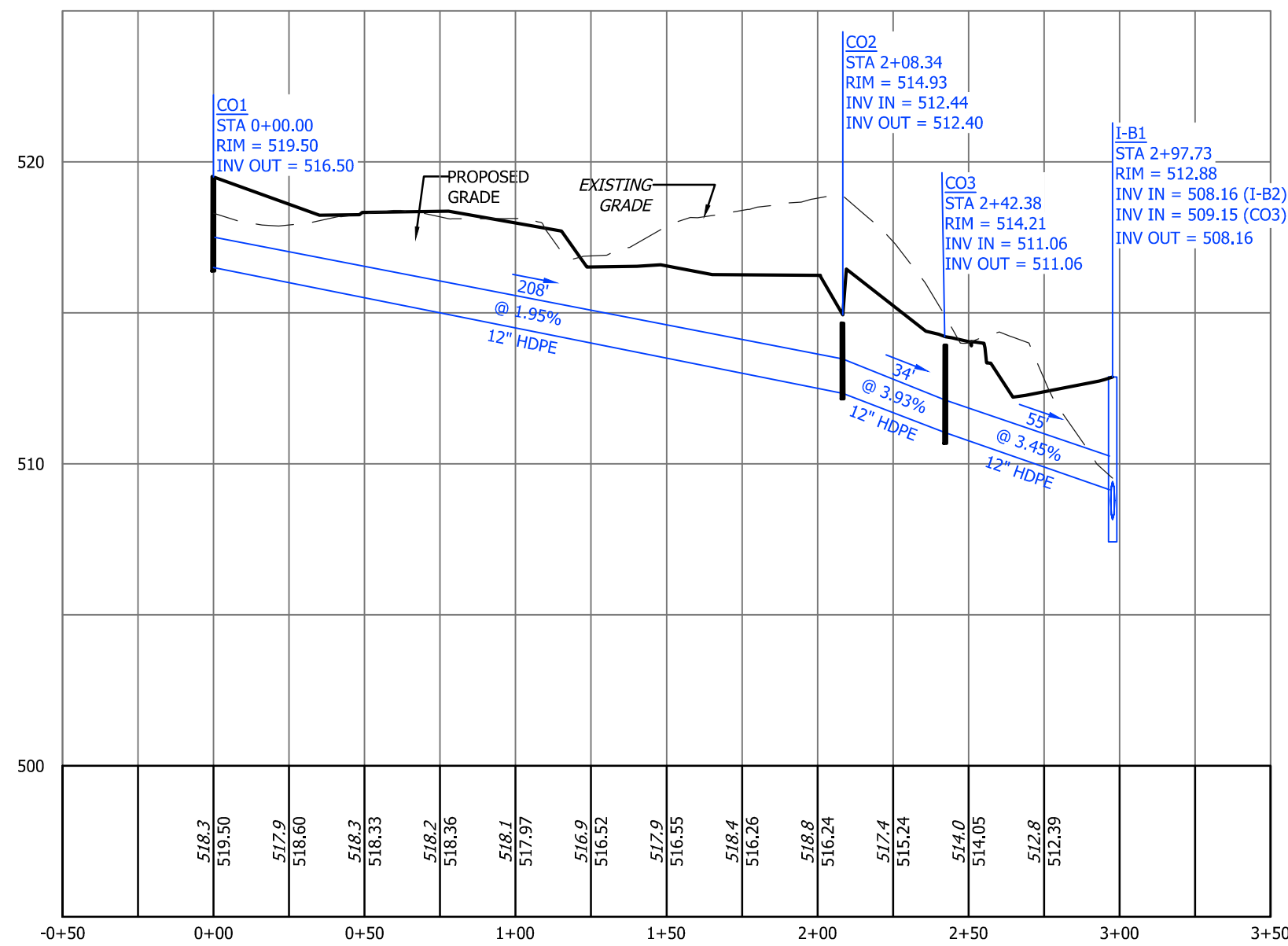
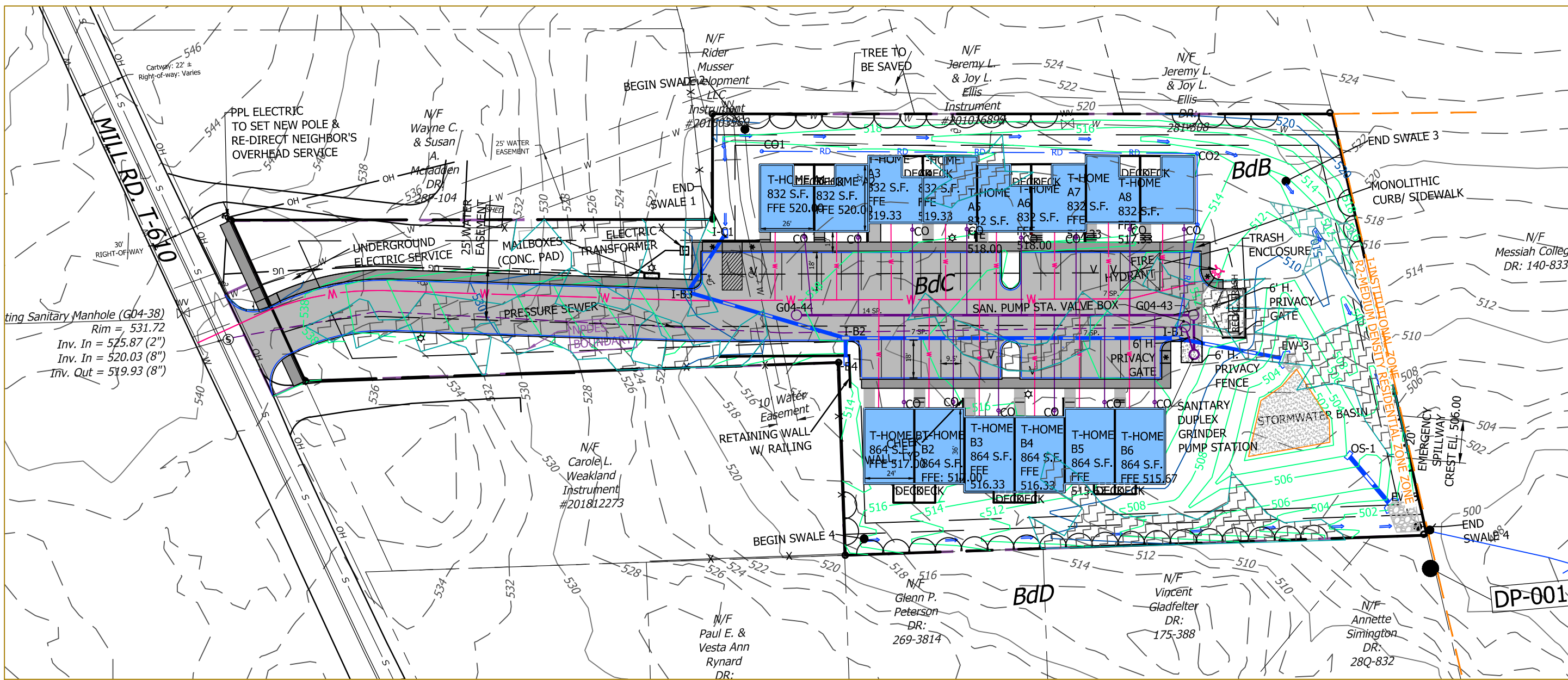
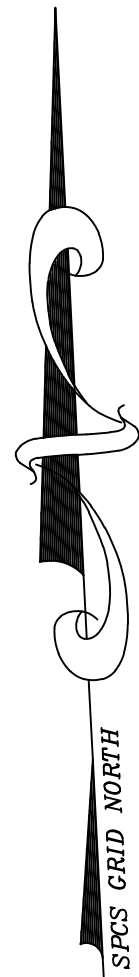
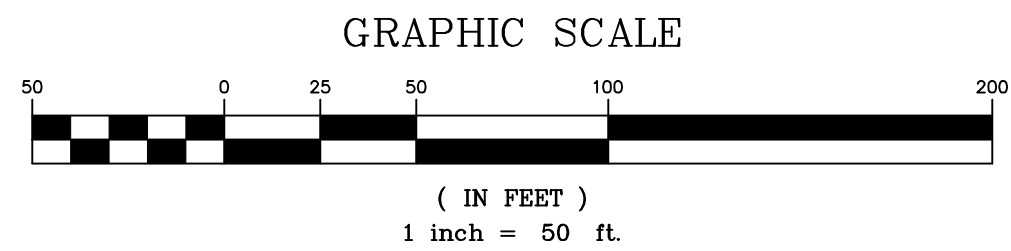


SANITARY SEWER PLAN & PROFILE
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

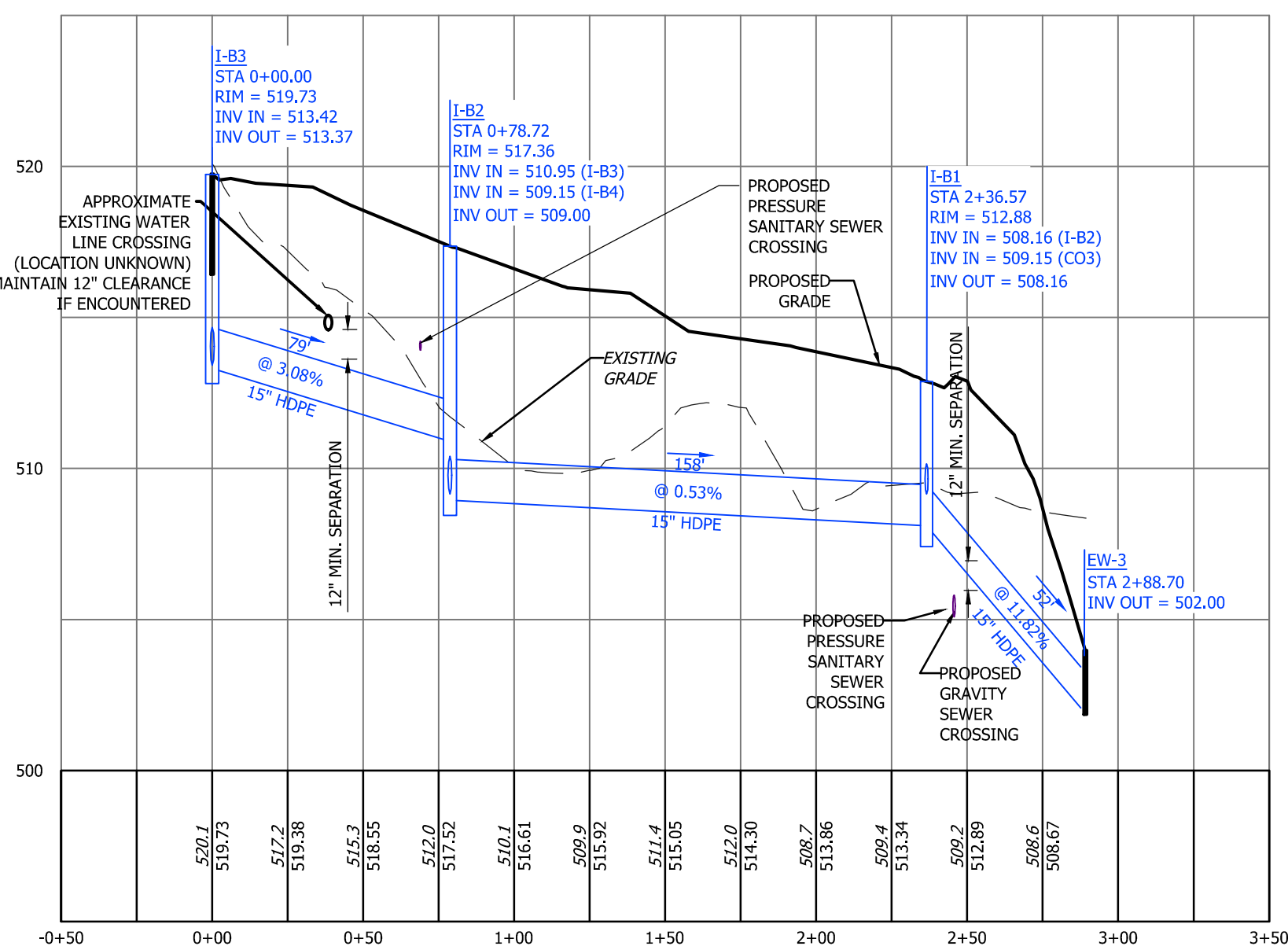
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PROJECT: 221013
DATE: 04/25/2022
SHEET: 9 OF 21

NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	---	---
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5	###	###

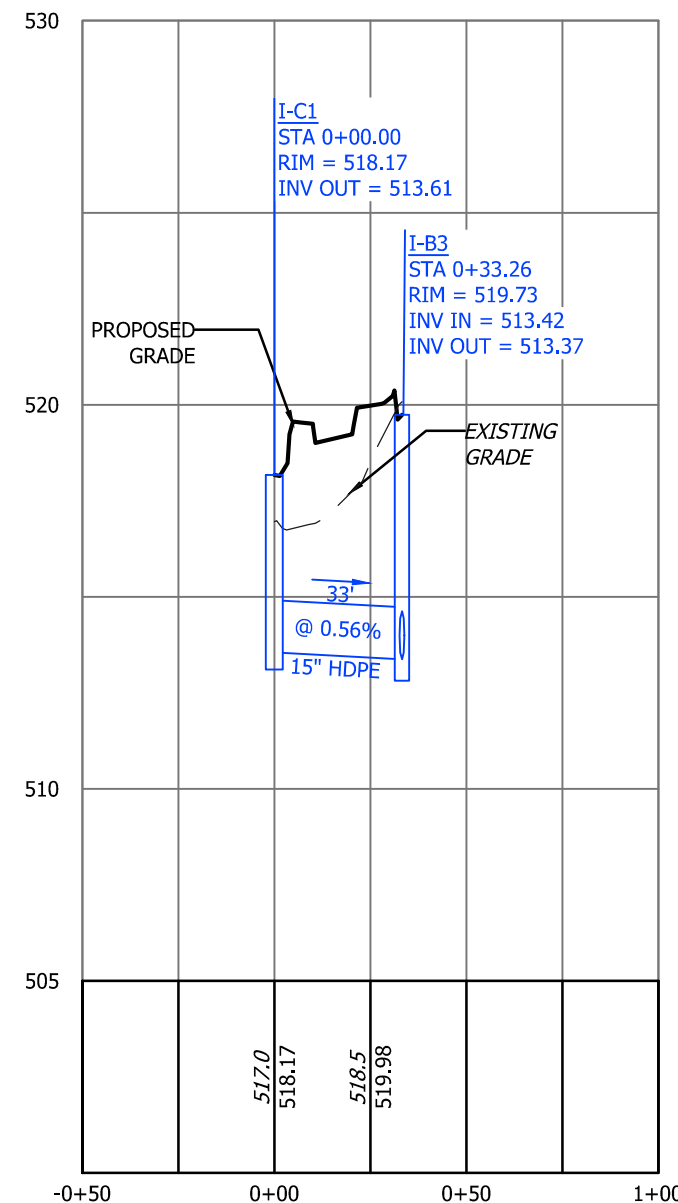
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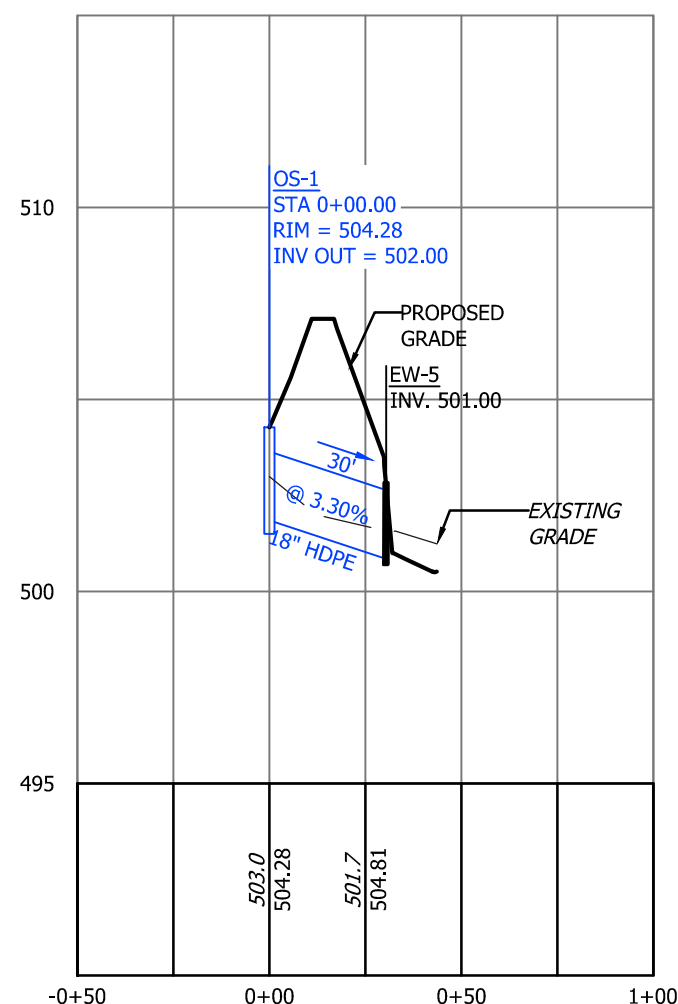
Profile View of CO1- I-B1
Sta: -0+50.00 - 3+50.00
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'



Profile View of I-B2 TO EW-3
Sta: -0+50.00 - 3+50.00
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'



Profile View of I-C1 TO I-B2
Sta: -0+50.00 - 1+00.00
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'



Profile View of OS-1- EW5
Sta: -0+50.00 - 1+00.00
Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 5'

STORM SEWER PLAN & PROFILES

FOR 2509 MILL ROAD TOWNHOMES

LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

R. J. FISHER & ASSOCIATES, INC.

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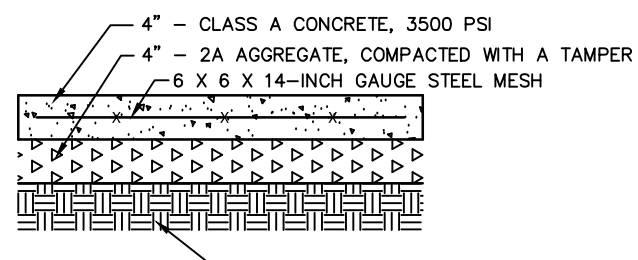
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NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	---	---
4	---	---
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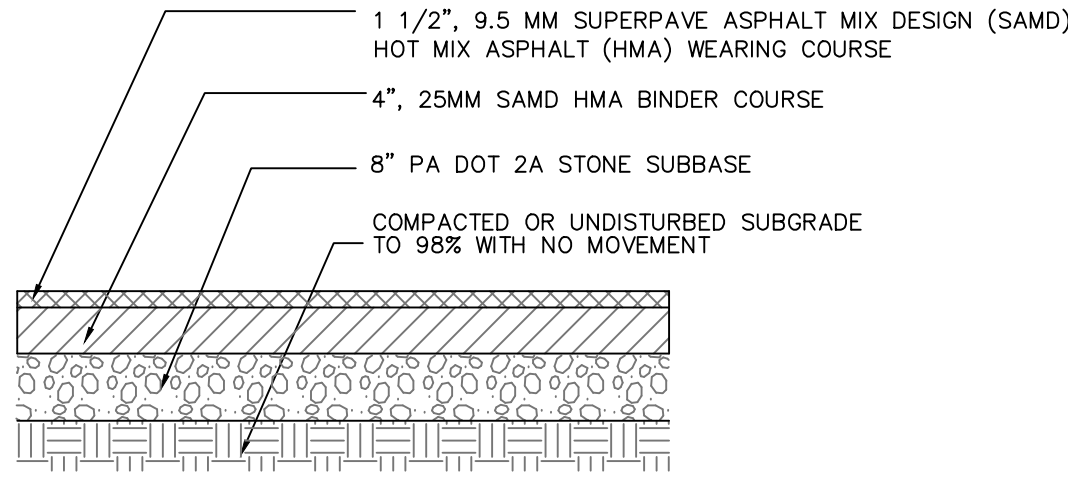
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DRAWING ID:	221013-7-STM-PR
PROJECT:	221013
DATE:	04/25/2022
SHEET:	10 OF 21

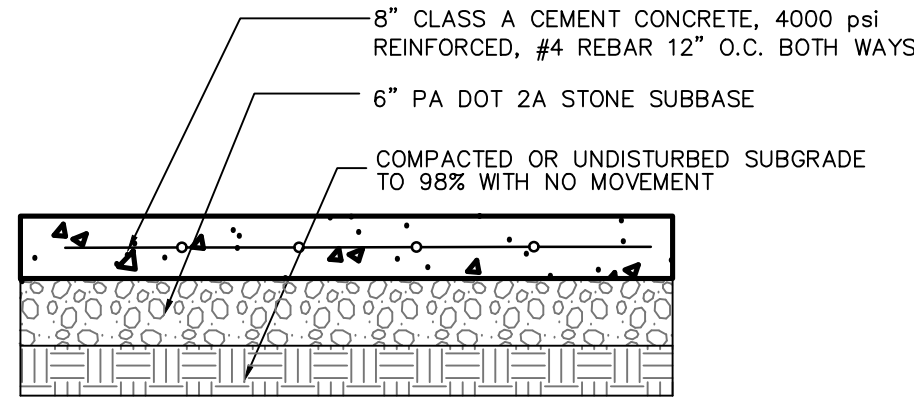


- NOTE: 1. PROVIDE TRANSVERSE ASPHALT TYPE EXPANSION JOINTS SPACED 30' MAX.
2. PROVIDE CONSTRUCTION JOINTS @ 4' INTERVALS OR AS SPECIFIED.
3. A TOOLED EDGE SHALL BE PROVIDED ON ALL EDGES INCLUDING EXPANSION JOINTS.
4. IN THE CASE WHERE SIDEWALKS ARE PROPOSED DIRECTLY AGAINST CURB OR BUILDING, EXPANSION MATERIAL SHALL BE INSTALLED CONTINUOUSLY ALONG THE COMMON EDGE.
5. PROVIDE A BROOM FINISH.
6. WHERE PROPOSED SIDEWALKS CROSS A DRIVEWAY, A CONCRETE APRON SHALL BE PROVIDED FROM THE EDGE OF THE STREET CARRYWAY TO THE FAR EDGE OF THE SIDEWALK. CONCRETE DRIVEWAY APRONS SHALL HAVE A MINIMUM DEPTH OF SIX INCHES AND CONSTRUCTED WITH REINFORCED WIRE OF FIBERGLASS SUBSTITUTE FOR STRENGTHENING PURPOSES.
7. JOINTS SHALL BE SEALED IN ACCORDANCE WITH PENNDOT SECTION 705.4.

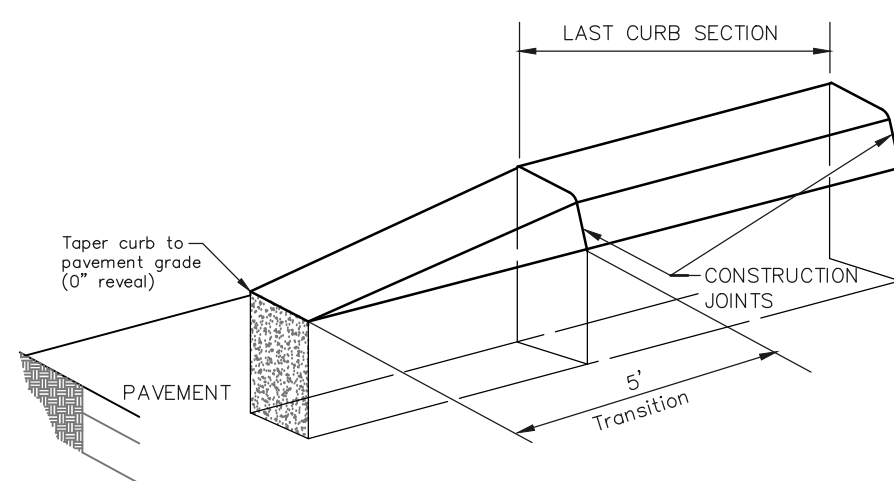
CONCRETE SIDEWALK DETAIL
N.T.S.



PAVING DETAIL
N.T.S.

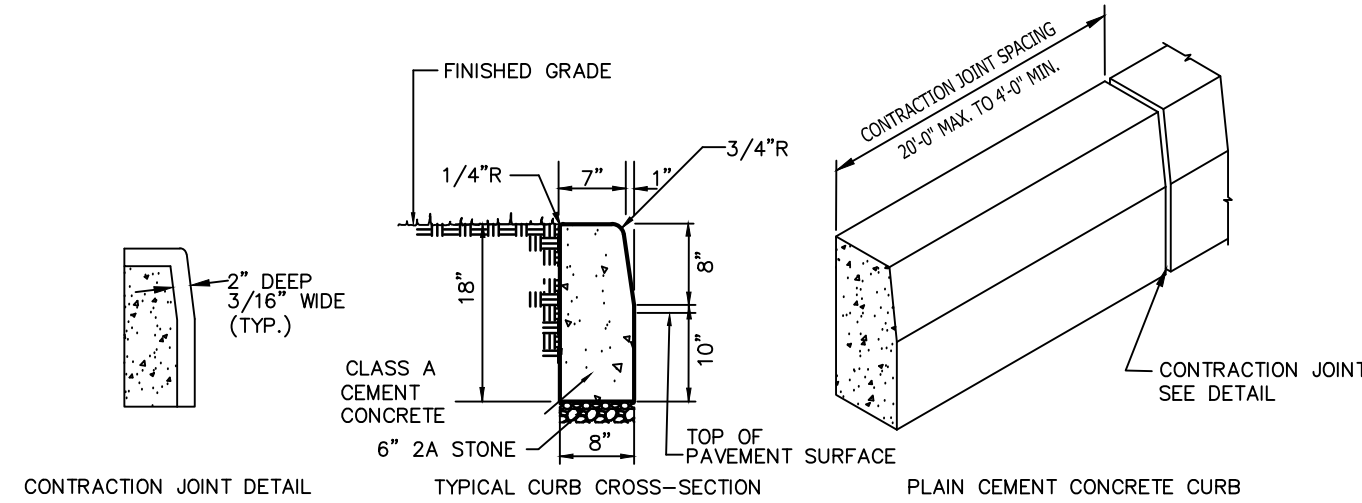


DUMPSTER & SEWAGE PUMP STATION
PAD PAVING DETAIL
N.T.S.



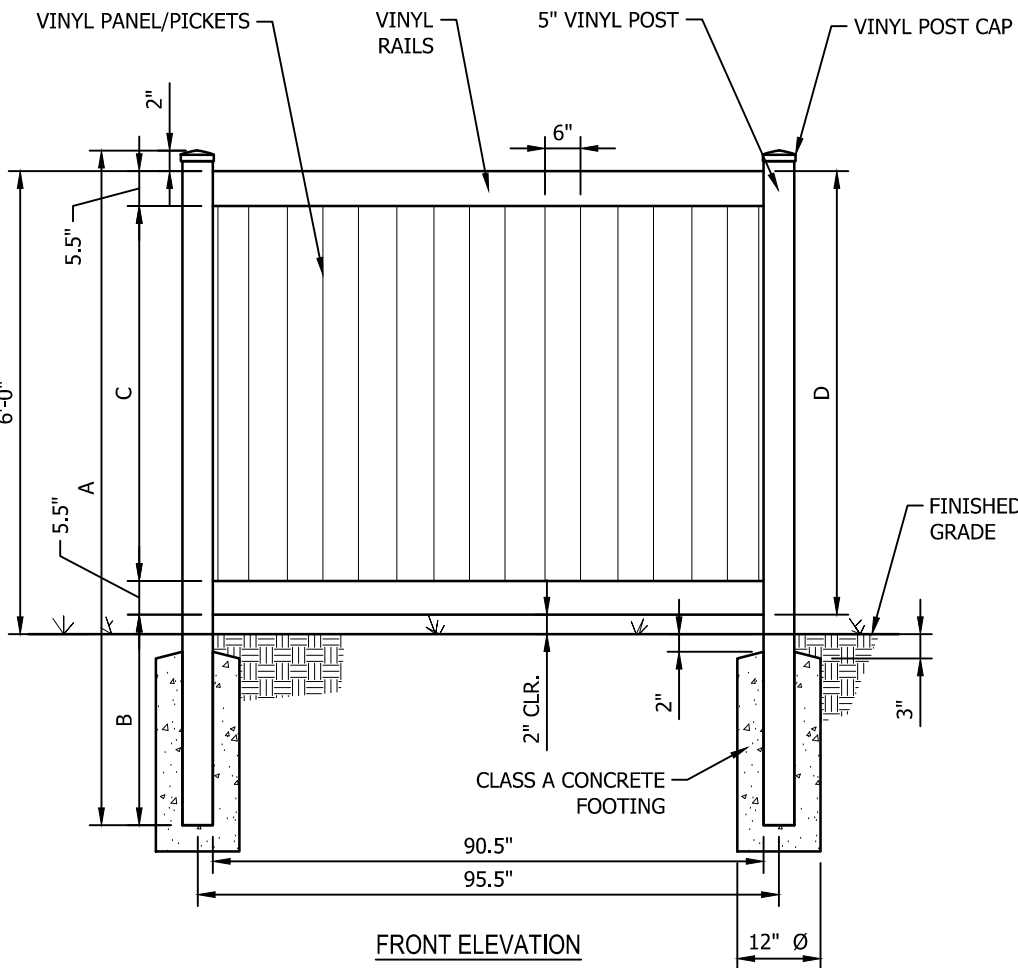
- NOTES:
1. ALL CONSTRUCTION MATERIALS AND STRUCTURES SHALL BE IN CONFORMANCE WITH PENN DOT STANDARDS FOR ROADWAY CONSTRUCTION AS AMENDED AUGUST 28, 2000.
2. ALL CURBSHALL BE IN CONFORMANCE WITH RC-64M STANDARDS.
3. SEE PLAN FOR LIMITS OF VERTICAL CURB INSTALLATION.
4. CURB TAPERS SHALL BE PROVIDED AT CURB ENDS WITH A 5' TRANSITION AND A 0" TERMINUS REVEAL.

CURB TAPER DETAIL
N.T.S.



- NOTES:
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUB. 408, SECTION 630 FOR PLAIN CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CONCRETE CURB AND PLAIN CONCRETE CURB CUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4-INCH PREMOULDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

8" VERTICAL CONCRETE CURB DETAIL
(DRIVEWAY RADII @ MILL ROAD)
N.T.S.



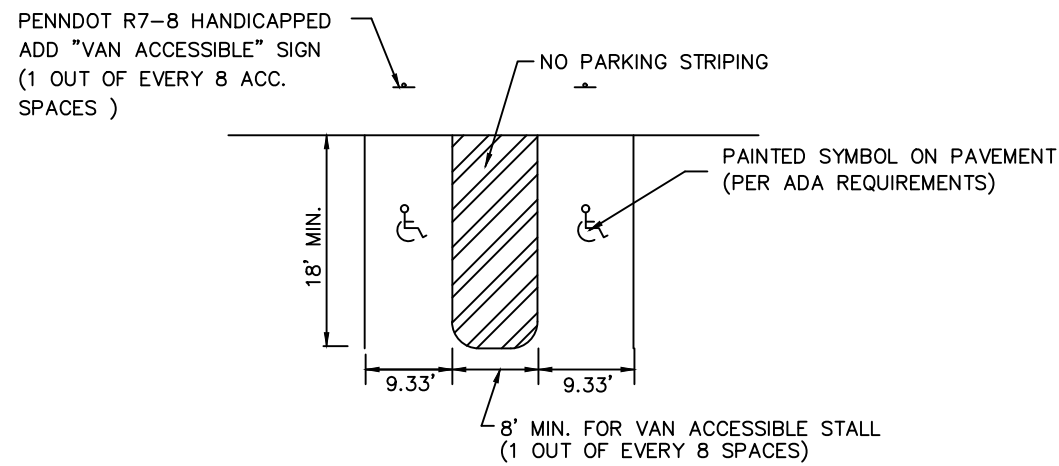
A	B	C	D
INCHES	INCHES	INCHES	INCHES
108	34	59	72

- NOTES:
1. ALL ILLUSIONS VINYL FENCES ARE ASTM F842-03 COMPLIANT.
2. AVAILABLE IN GRAND ILLUSIONS COLOR SPECTRUM (35 COLORS) AND GRAND ILLUSIONS VINYL WOODBOND (5 AUTHENTIC WOODGRAINS), CHOSEN BY OWNER.
3. INCLUDES METAL REINFORCEMENT BOTTOM RAIL.
4. PROVIDE DBL.-LEAF MATCHING GATE WITH LATCH.

V300-6 ILLUSIONS FENCE PRODUCT AS MANUFACTURED BY ILLUSIONS VINYL FENCE MEDFORD, NY 11763 WWW.ILLUSIONSFENCE.COM TOLL FREE: 1-800-339-3362

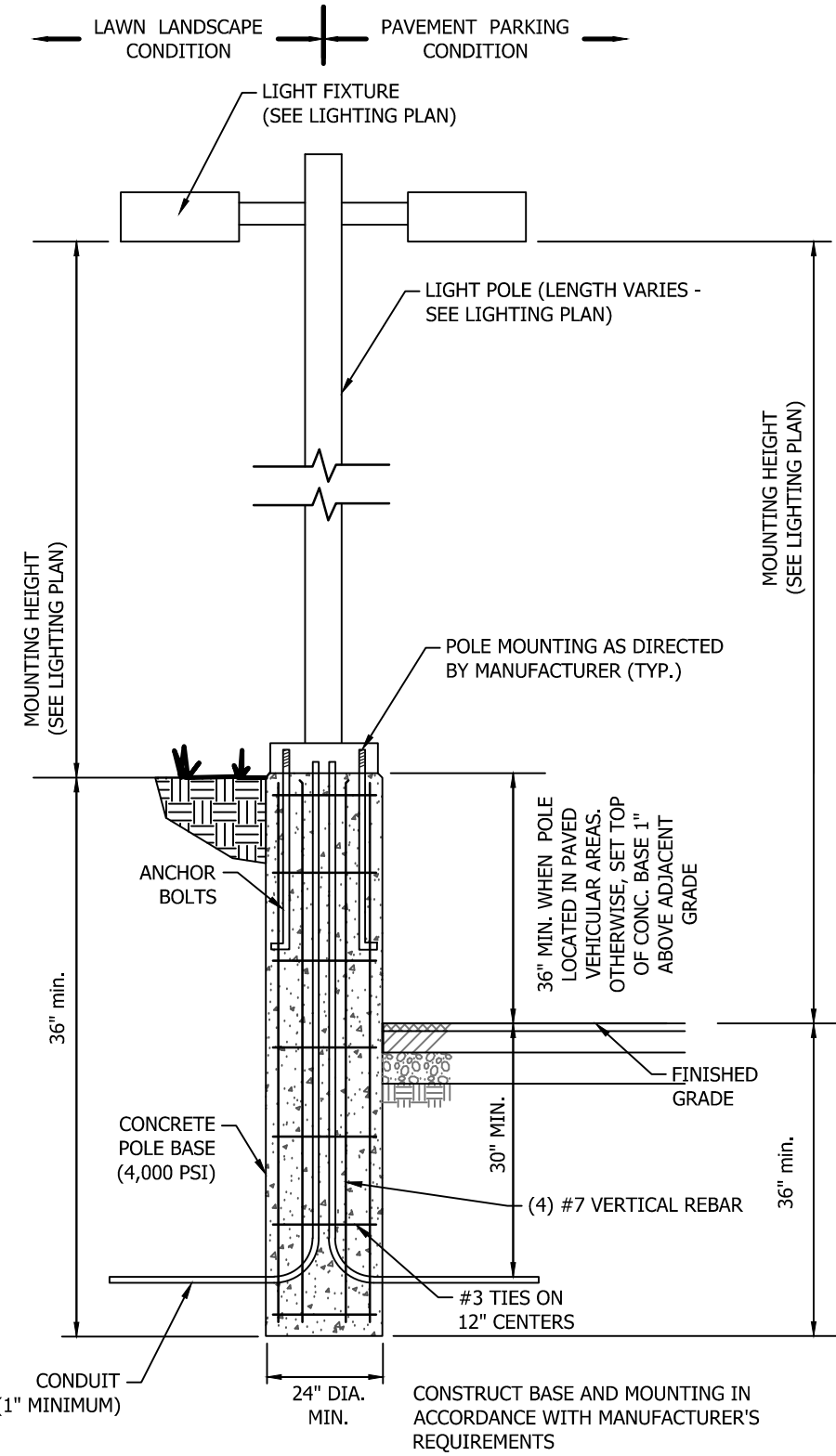
POST CAP MODEL: FLAT - V55FO
POST OPTIONS: 5" X 5" I.D. - .250 WALL

(SOLID TONGUE AND GROOVE)
6" H. VINYL PRIVACY FENCE
NOT TO SCALE



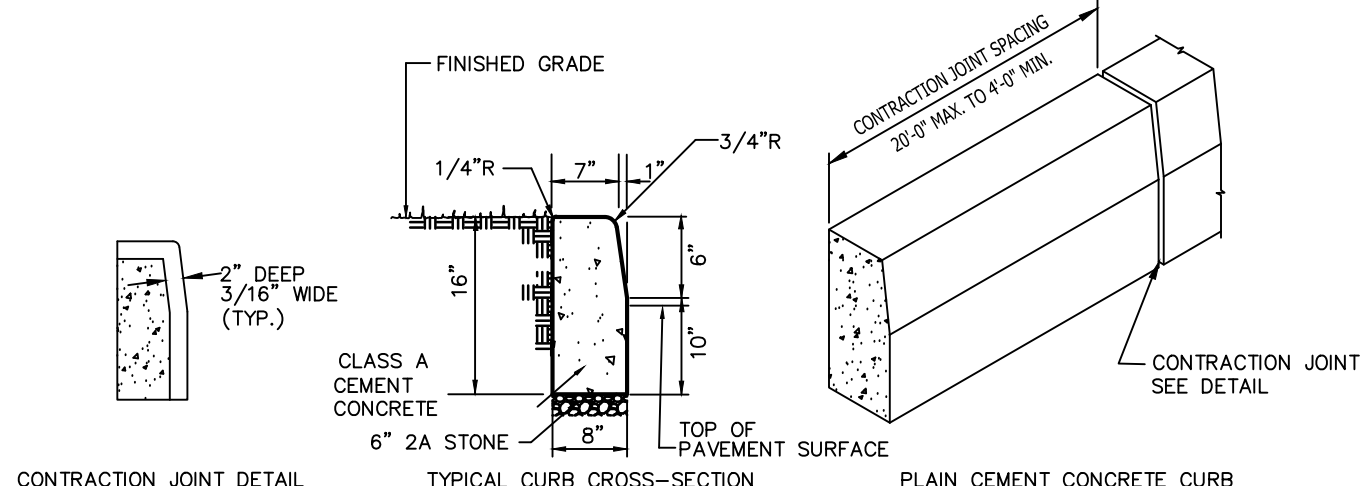
NOTE: HANDICAPPED RAMPS AND STALLS SHALL COMPLY WITH THE AMERICANS WITH DISABILITY ACT DESIGN STANDARDS

TYPICAL HANDICAP PARKING SPACE
N.T.S.



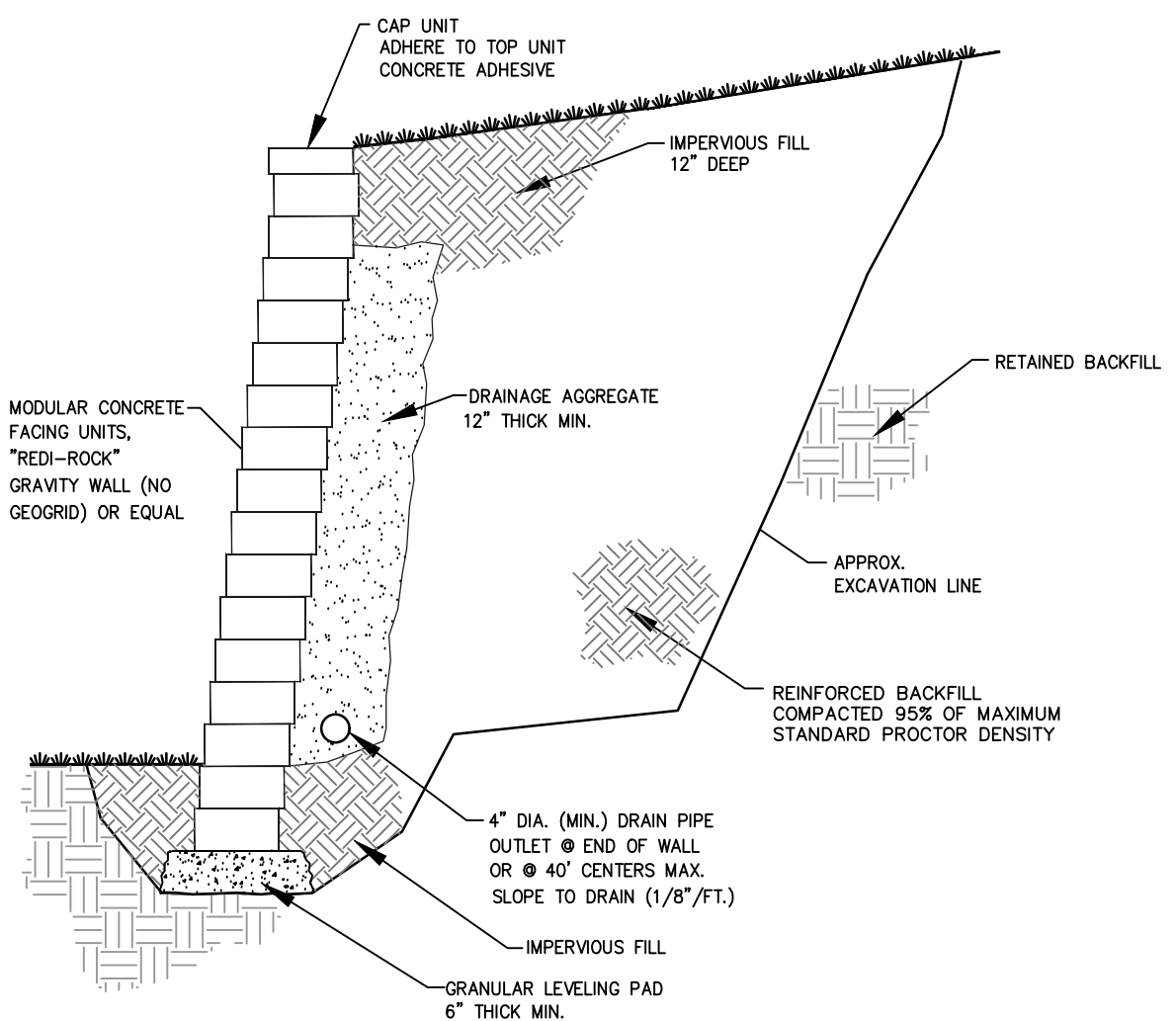
- NOTES:
1. SEE ELECTRICAL DRAWINGS FOR CONDUIT LOCATIONS.
2. NUMBER AND SIZE OF ANCHOR BOLTS PER MANUFACTURER'S REQUIREMENTS.
3. FOUNDATION INFORMATION AND DESIGN TO BE PROVIDED BY THE LIGHTING DESIGNER.
4. POLES MUST BE GROUNDING.

LIGHT STANDARD BASE DETAIL
N.T.S.



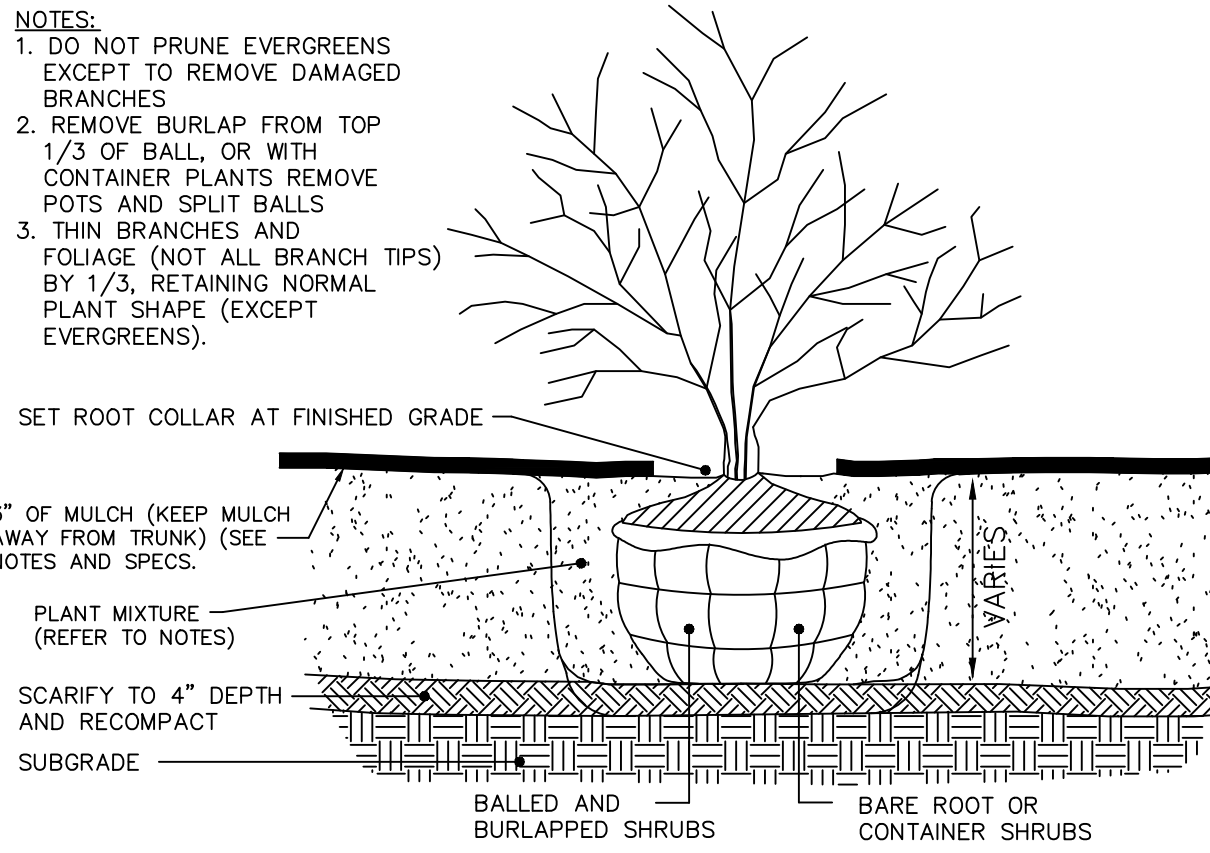
- NOTES:
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUB. 408, SECTION 630 FOR PLAIN CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CONCRETE CURB AND PLAIN CONCRETE CURB CUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4-INCH PREMOULDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

6" VERTICAL CONCRETE CURB DETAIL
(ON-SITE)
N.T.S.



NOTE: THIS DETAIL IS A REPRESENTATION ONLY. ACTUAL DESIGN OF THE RETAINING WALL SHALL BE AS CERTIFIED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH MANUFACTURER'S DESIGN REQUIREMENTS AND PROVIDED TO TOWNSHIP FOR REVIEW IN CONJUNCTION WITH TOWNSHIP BUILDING PERMIT APPLICATION.

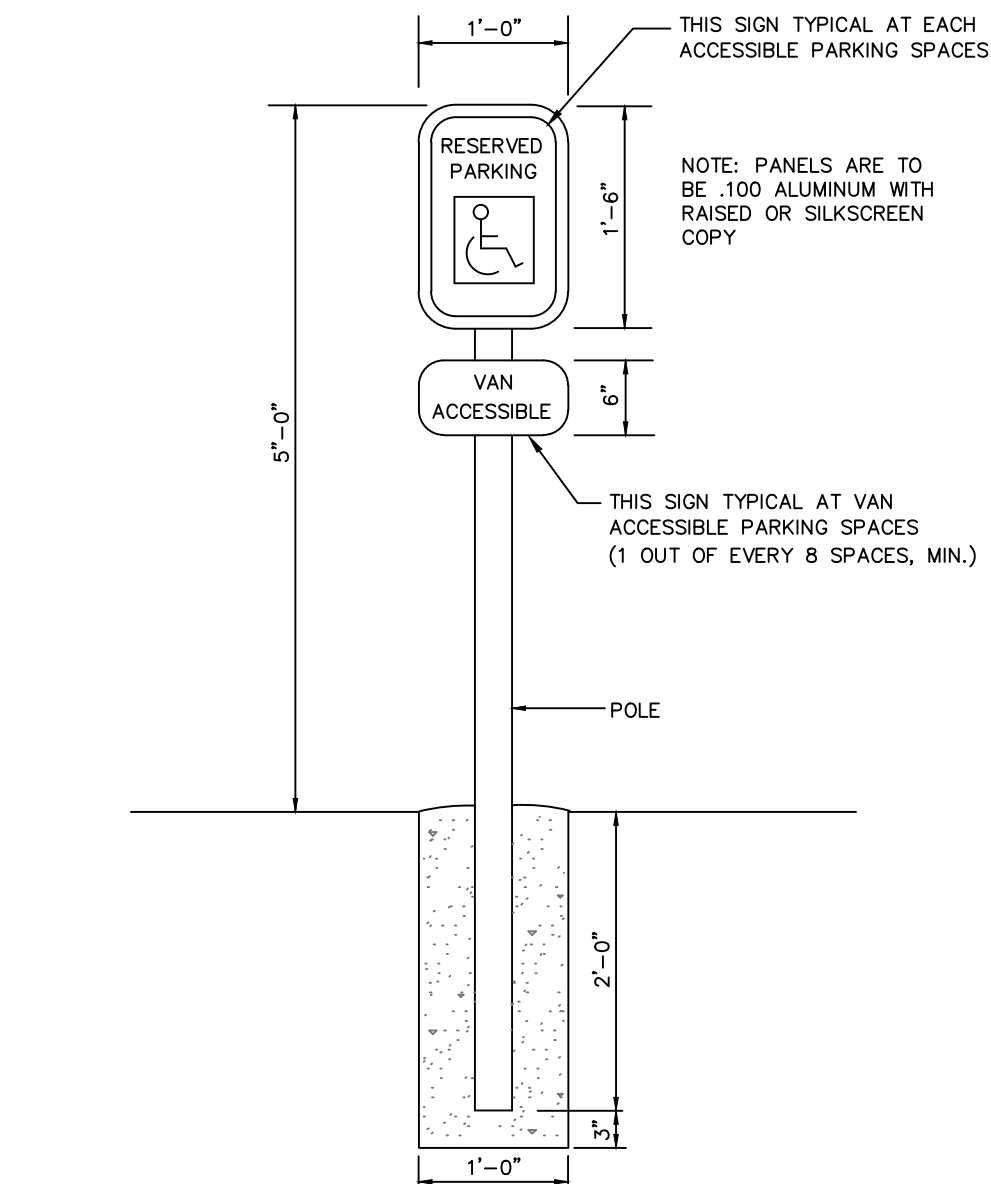
TYPICAL SECTION - RETAINING WALL
NOT TO SCALE



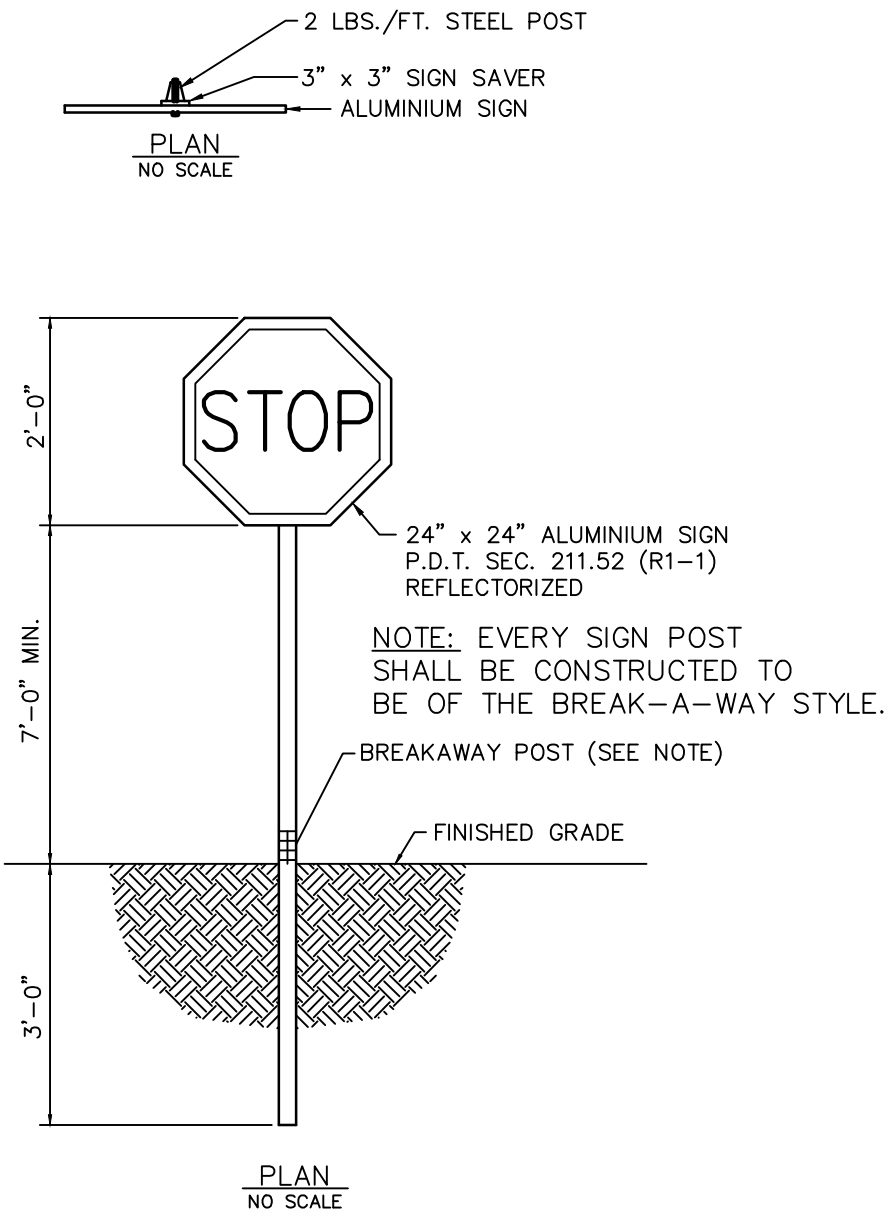
- NOTES:
1. DO NOT PRUNE EVERGREENS EXCEPT TO REMOVE DAMAGED BRANCHES.
2. REMOVE BURLAP FROM TOP 1/3 OF BALL, OR WITH CONTAINER PLANTS REMOVE POTS AND SPLIT BALLS.
3. THIN BRANCHES AND FOLIAGE (NOT ALL BRANCH TIPS) BY 1/3, RETAINING NORMAL PLANT SHAPE (EXCEPT EVERGREENS).

SET ROOT COLLAR AT FINISHED GRADE.
3" OF MULCH (KEEP MULCH AWAY FROM TRUNK) (SEE NOTES AND SPECS).
PLANT MIXTURE (REFER TO NOTES).
SCARIFY TO 4" DEPTH AND RECOMPACT SUBGRADE.
BALLED AND BURLAPPED SHRUBS
BARE ROOT OR CONTAINER SHRUBS

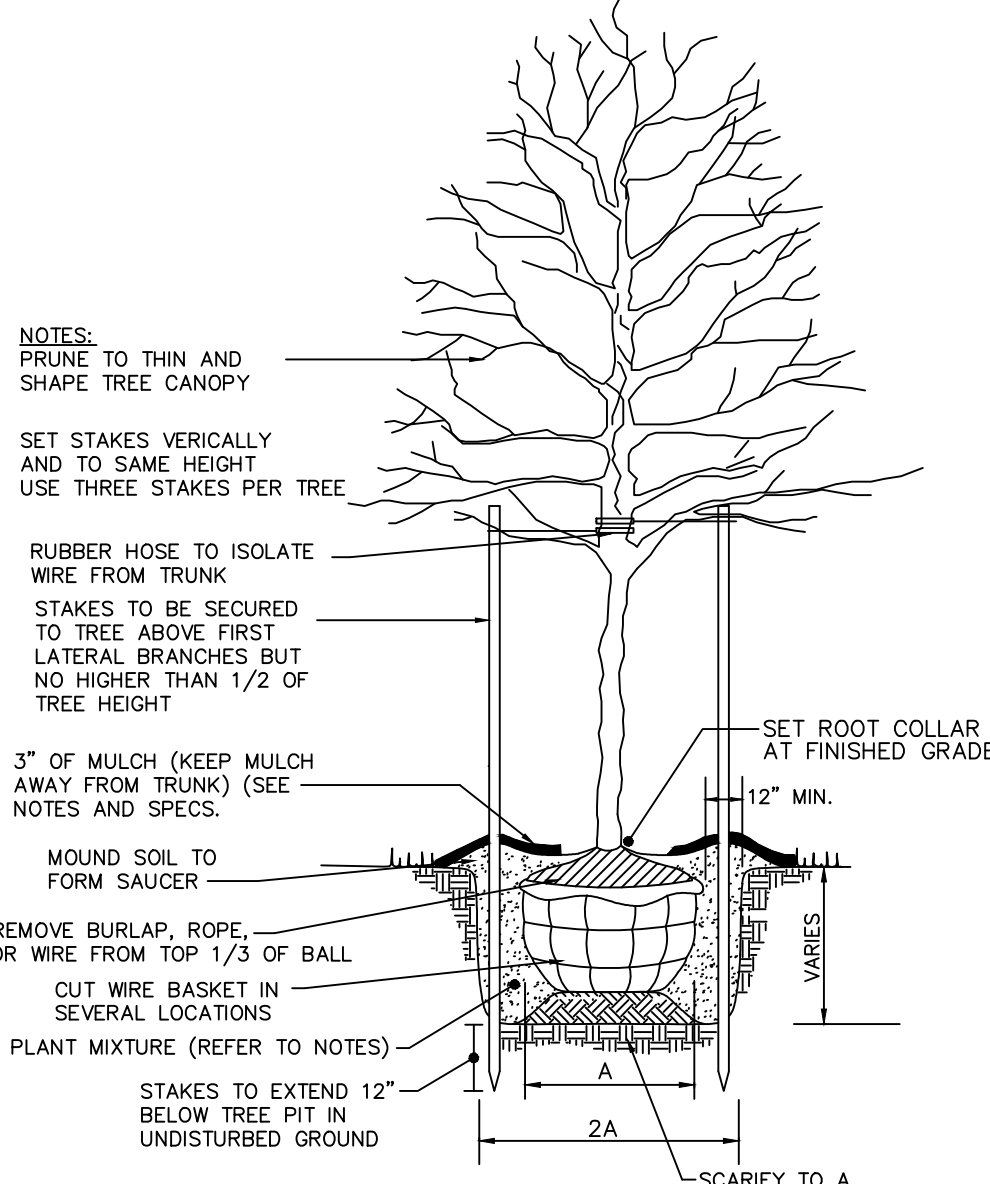
SHRUB PLANTING



TYPICAL ACCESSIBLE PARKING SIGN DETAIL
N.T.S.

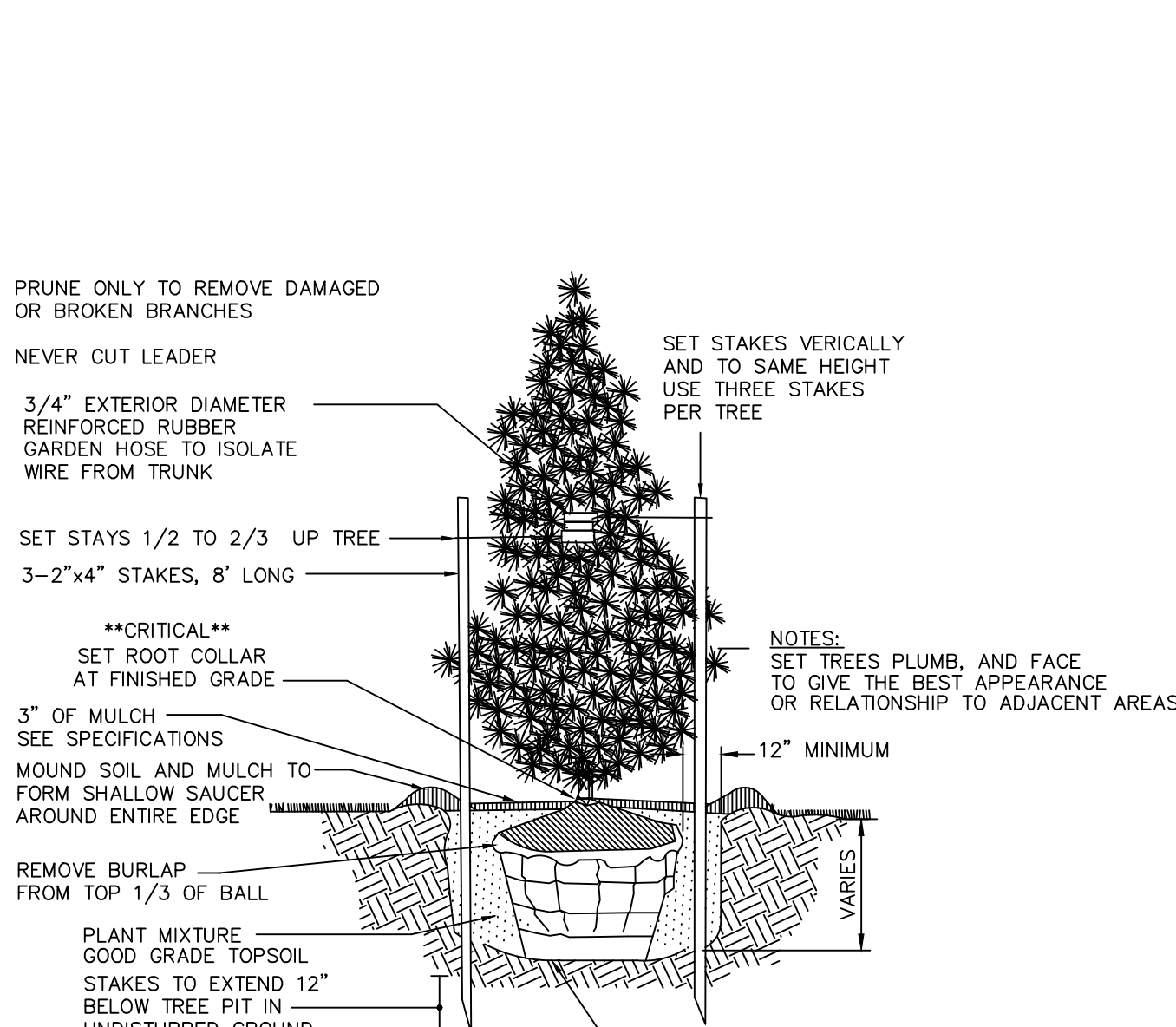


24" STOP SIGN
Pa.D.O.T. SIGN, R1-1
NTS



- NOTES:
PRUNE ONLY TO THIN AND SHAPE TREE CANOPY.
NEVER CUT LEADER.
3/4" EXTERIOR DIAMETER REINFORCED RUBBER GARDEN HOSE TO ISOLATE WIRE FROM TRUNK.
SET STAYS 1/2 TO 2/3 UP TREE.
3-2"x4" STAKES, 8' LONG.
SET ROOT COLLAR AT FINISHED GRADE.
3" OF MULCH (SEE SPECIFICATIONS).
MOUND SOIL AND MULCH TO FORM SHALLOW SAUCER AROUND ENTIRE EDGE.
REMOVE BURLAP FROM TOP 1/3 OF BALL.
PLANT MIXTURE GOOD GRADE TOPSOIL.
STAKES TO EXTEND 12" BELOW TREE PIT IN UNDISTURBED GROUND.
SCARIFY TO A DEPTH OF 4" AND RECOMPACT.

DECIDUOUS TREE PLANTING
NTS



- NOTES:
PRUNE ONLY TO THIN AND SHAPE TREE CANOPY.
NEVER CUT LEADER.
3/4" EXTERIOR DIAMETER REINFORCED RUBBER GARDEN HOSE TO ISOLATE WIRE FROM TRUNK.
SET STAYS 1/2 TO 2/3 UP TREE.
3-2"x4" STAKES, 8' LONG.
SET ROOT COLLAR AT FINISHED GRADE.
3" OF MULCH (SEE SPECIFICATIONS).
MOUND SOIL AND MULCH TO FORM SHALLOW SAUCER AROUND ENTIRE EDGE.
REMOVE BURLAP FROM TOP 1/3 OF BALL.
PLANT MIXTURE GOOD GRADE TOPSOIL.
STAKES TO EXTEND 12" BELOW TREE PIT IN UNDISTURBED GROUND.
SCARIFY TO A DEPTH OF 4" AND RECOMPACT.

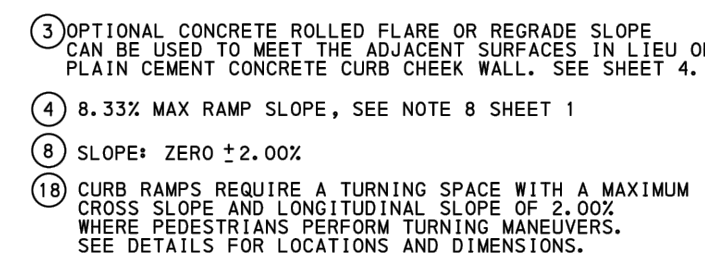
CONIFEROUS TREE PLANTING
NTS

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SITE PLANNING & CIVIL ENGINEERING & LAND SURVEYS
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070
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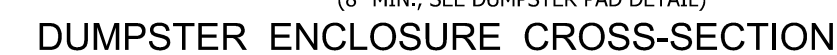


SITE DETAILS
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID: 221013-3-LD
PROJECT: 221013
DATE: 04/25/2022
SHEET: 11 OF 21



RECOMMENDED JUN. 10, 2013 <i>Tr. W. Kelly</i> CHIEF, HWY. DELIVERY DIVISION	RECOMMENDED JUN. 10, 2013 <i>[Signature]</i> ACTING DIR. BUREAU OF PROJECT DELIVERY	SHT 3 OF 14 RC-67M
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[illegible]

N.T.S

NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
4	—	—
5	—	—


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SITE DETAILS

DE

2509 MILL ROAD TOWNHOMES

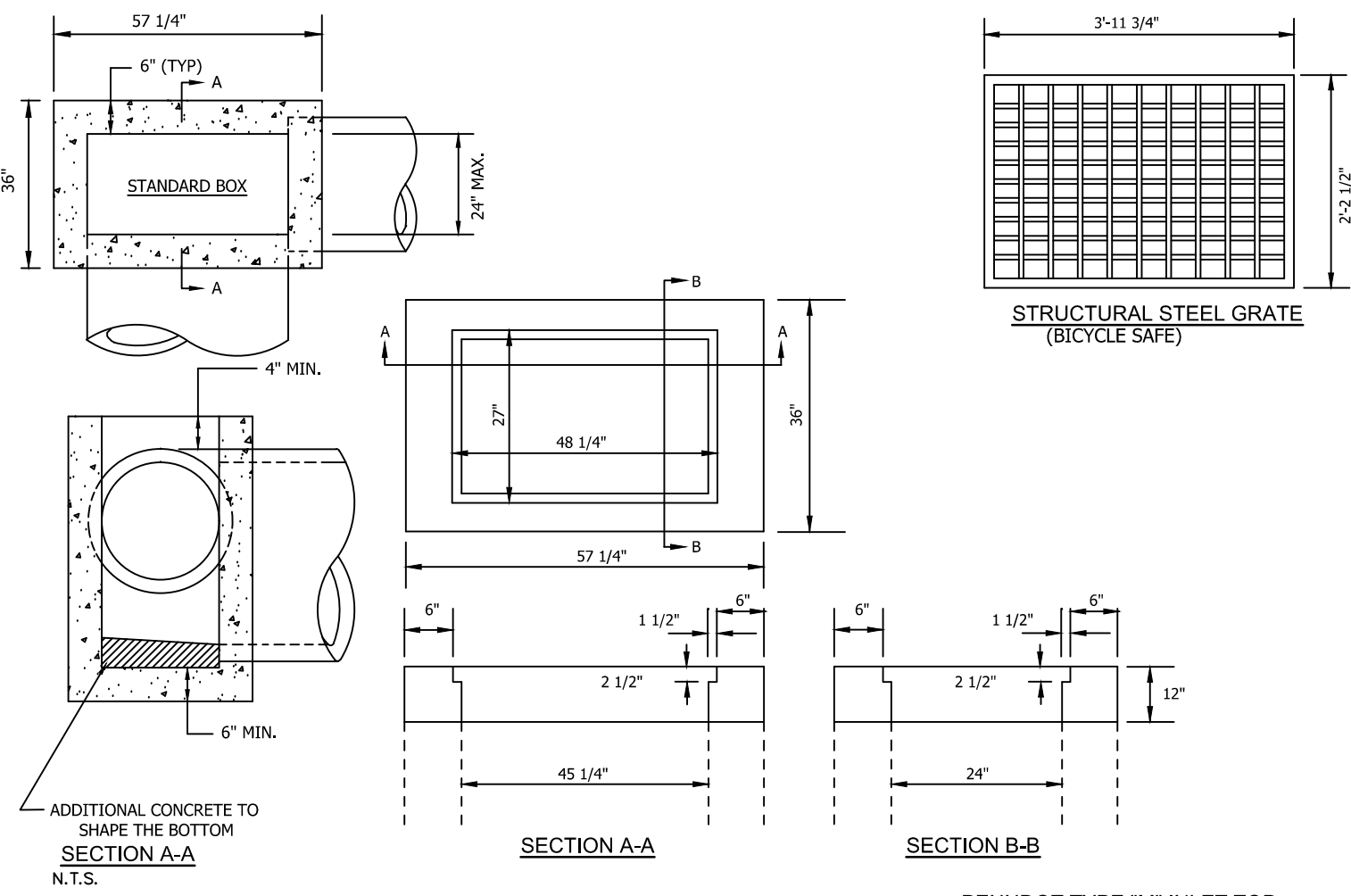
LOCATED IN
UPPER ALLEN TOWNSHIP, CLUMBERLAND COUNTY, PA

DRAWING ID:
221013-3-LD

PROJECT: 221013

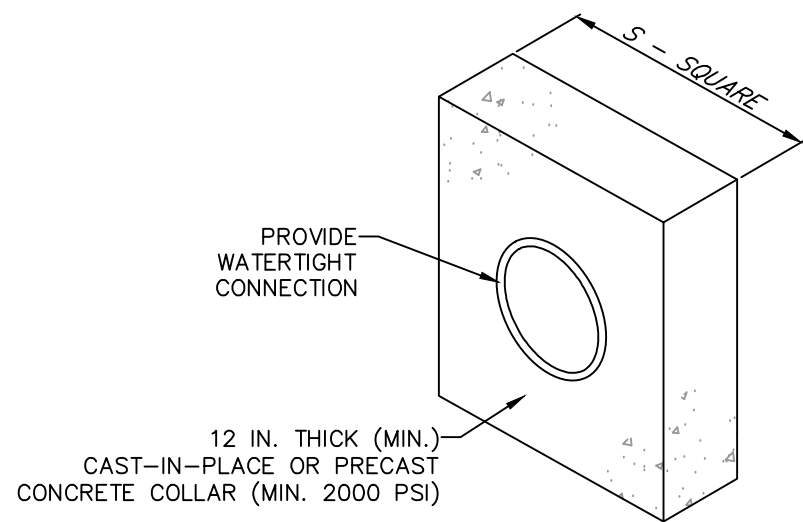
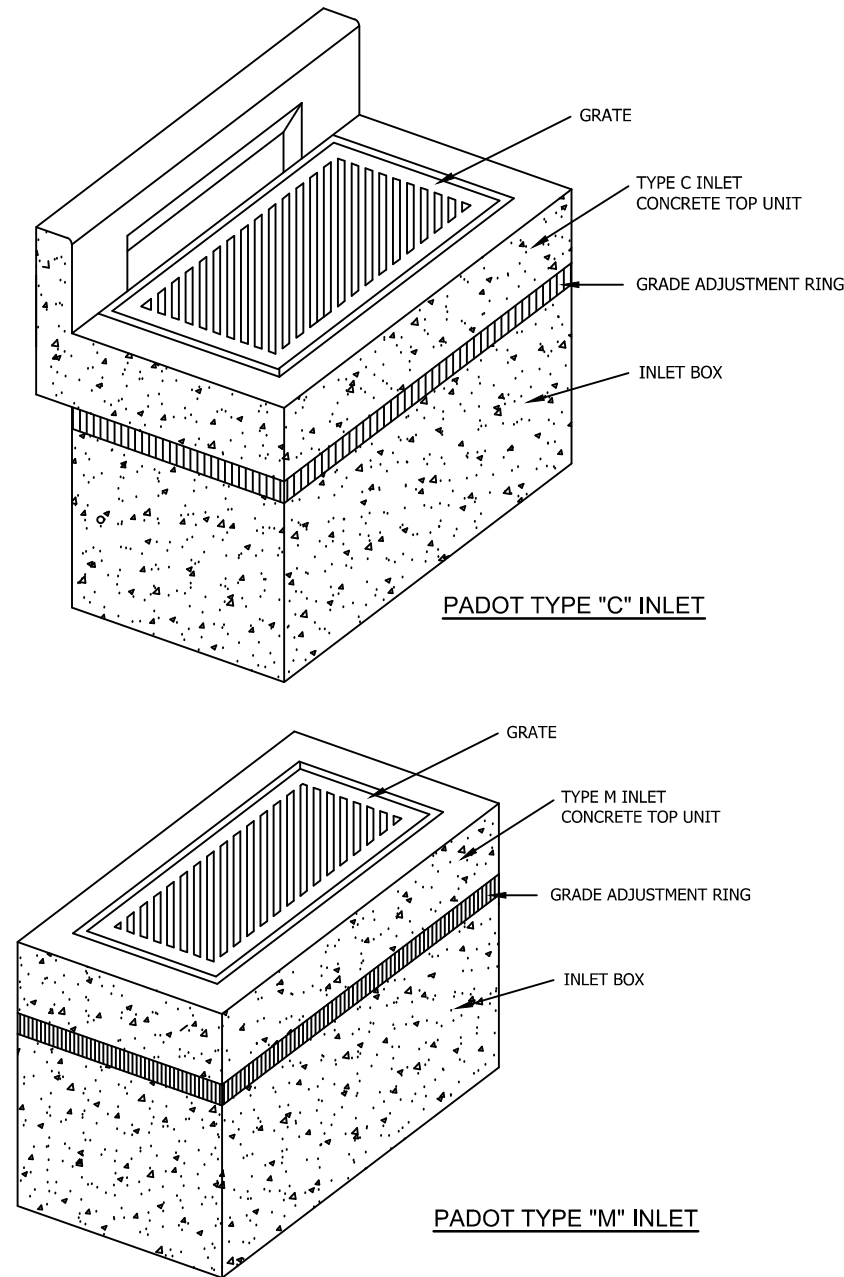
DATE: 04/25/2022

SHEET:
12 OF 21



STORM INLET

NOTE: CONSTRUCTION OF STORMWATER INLETS SHALL CONFORM TO AND BE IN ACCORDANCE WITH ALL APPLICABLE RC STANDARDS, PENNDOT PUBLICATION 72M AND ALL AMENDMENTS.

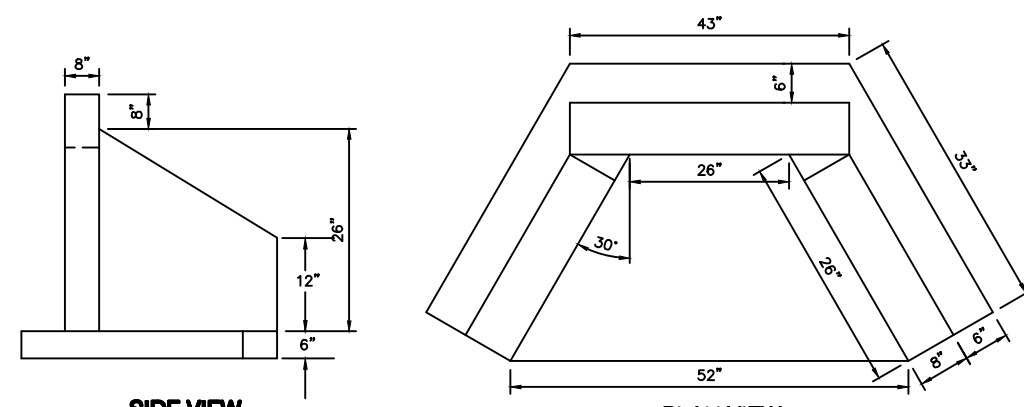


BASIN OR TRAP NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO COLLAR (FT)	COLLAR SPACING (FT)
1	18	36	2	10'	5'

NOTES:
ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.
COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

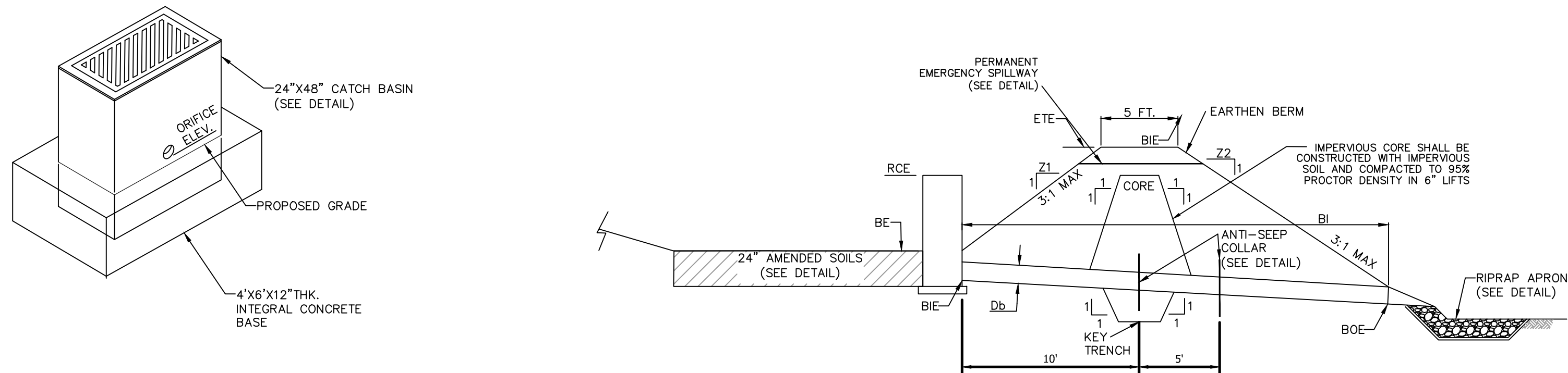
STANDARD CONSTRUCTION DETAIL #7-16 CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

N.T.S.



TYPE D-W ENDWALL (MAX. PIPE SIZE 21") DETAIL

N.T.S.



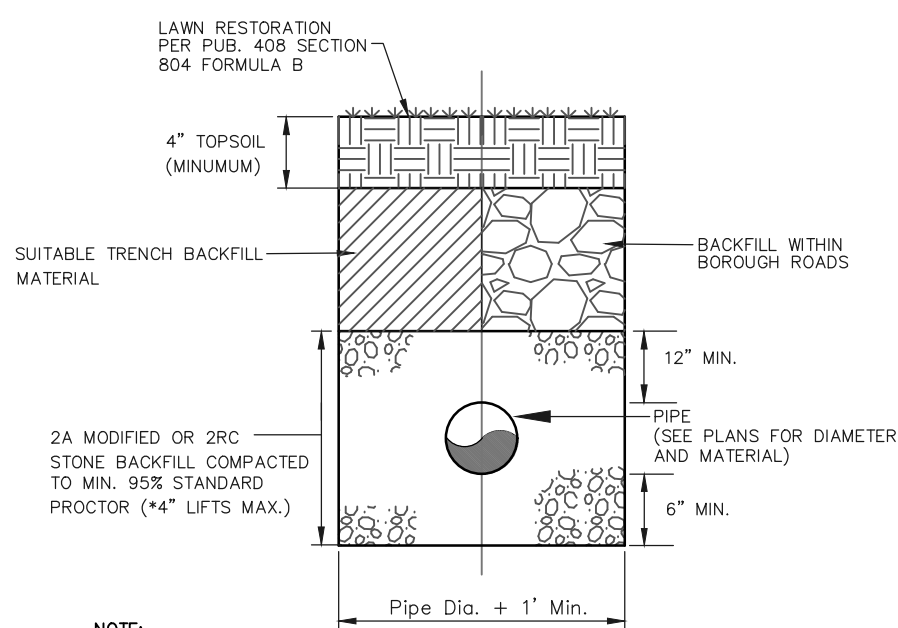
BASIN/ BMP NO.	TOP ELEV RCE (FT)	RISER		U. D. ELEV UDE (FT)	MAT'L	DIA Db (IN)	BARREL		OUTLET ELEV BOE (FT)
		SIZE (IN)	ELEV (FT)				INLET ELEV BIE (FT)	LENGTH BI (FT)	
1	505.7	12"	503.5	---	RCP	18	501.5	26	501.0

BASIN NO.	Z1 (FT)	Z2 (FT)	EMBANKMENT				BOTTOM ELEV BE (FT)
			TOP ELEV ETE (FT)	KEY TRENCH DEPTH ETw (FT)	KEY TRENCH WIDTH (FT)	KEY TRENCH DEPTH (FT)	
1	3	3	507.10	5.0	3.0	5.0	501.5

- NOTES:
- PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
 - IF POSSIBLE, INSTALL INFILTRATION BASIN DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT-LADEN WATER FROM ENTERING INLETS AND PIPES.
 - INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
 - IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT SUBGRADE.
 - INSTALL OUTLET CONTROL STRUCTURES. OUTLET STRUCTURES SHOULD PROVIDE MEANS TO MODIFY THE ORIFICES THROUGH THE USE OF REMOVABLE PLATES UNDER THE DIRECTION OF THE TOWNSHIP.
 - SEED, INSTALL LIVE SHRUB STAKES AND STABILIZE WITH TOPSOIL. SEED WITH SPECIALTY SEEDING PER NATIVE SLOPE MIX AND RETENTION BASIN MIX HEREON. INSTALL LIVE STAKES PER SCHEDULE ON SHEET 6.
 - DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.
 - PLAT IS TO BE IN PLACE DURING CONSTRUCTION AND TO BE REMOVED FOR THE PERMANENT CONDITION

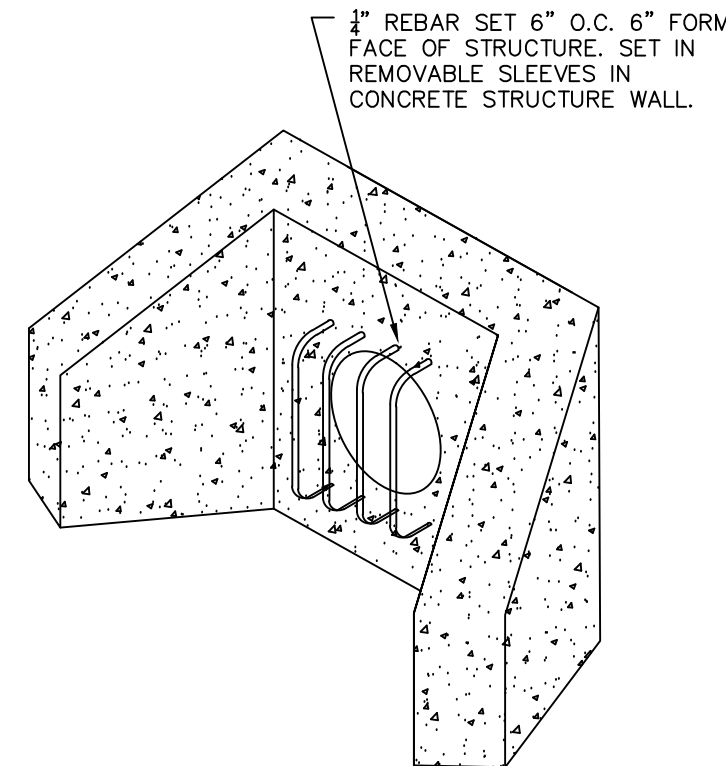
OUTLETE STRUCTURE & INFILTRATION BASIN DETAIL

NOT TO SCALE



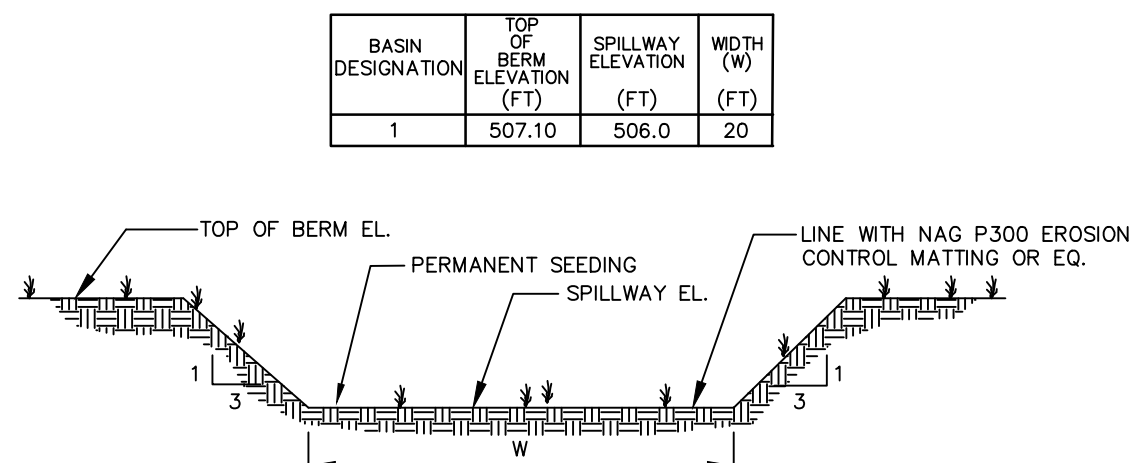
DETAIL FOR STORM SEWER TRENCHES

NTS



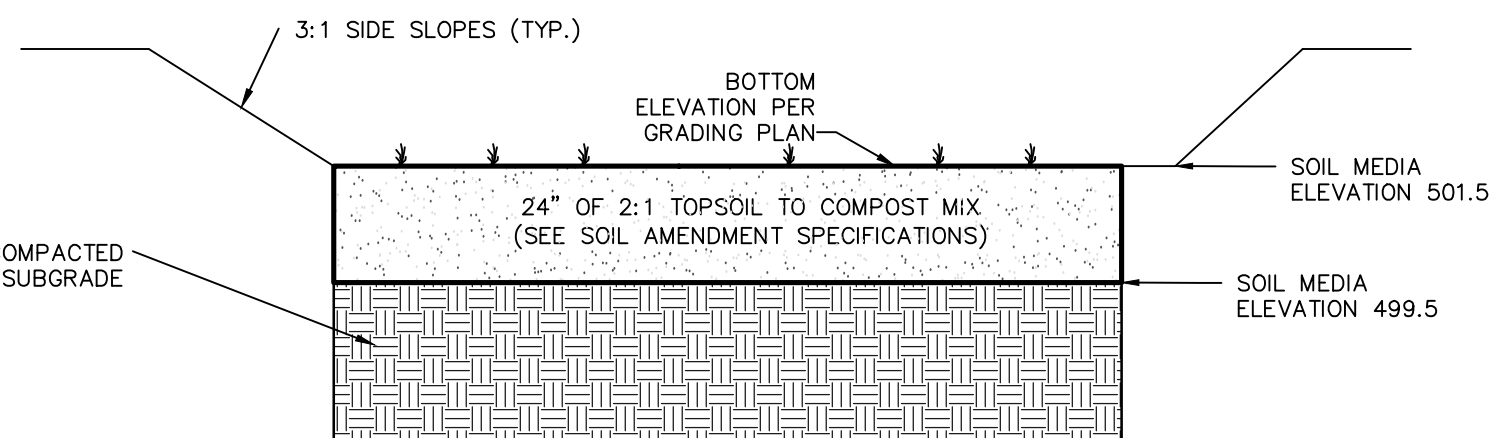
GUARD AT ENDWALL DETAIL

N.T.S.



PERMANENT EMERGENCY SPILLWAY DETAIL

N.T.S.



SOIL MEDIA IN BASIN

NOT TO SCALE

SWM DETAILS

FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

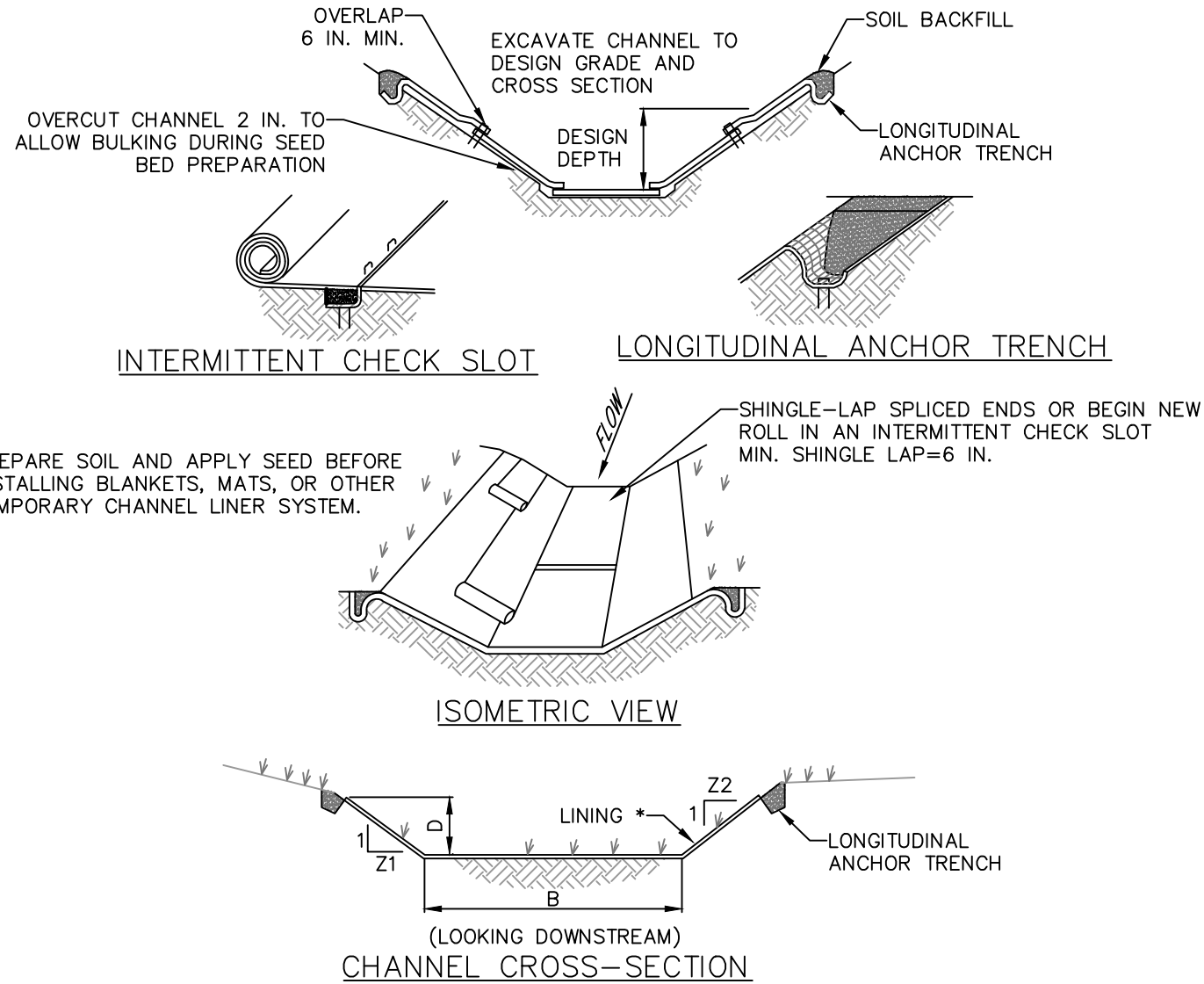


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NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCOD COMMENTS	7/22/2022
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4	—	—
5	—	—

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DRAWING ID:	221013-3-LD
PROJECT:	221013
DATE:	04/25/2022
SHEET:	13 OF 21



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	AVG. SLOPE (%)	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *	COVER
Swale 1	6.7	2	1	8	3	3	NAG S75BN	CLASS D VEG.
Swale 2	2.0	2	1	8	3	3	NAG S75BN	CLASS D VEG.
Swale 3	6.5	2	1	8	3	3	NAG S75BN	CLASS D VEG.
Swale 4	6.0	2	1	8	2	2	NAG S75BN	CLASS D VEG.

* NOTE:
N.A.G. INDICATES NORTH AMERICAN GREEN PRODUCT, WITH PRODUCT #.

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE

STORMWATER BMP OPERATION AND MAINTENANCE PLAN

OPERATION AND MAINTENANCE SCHEDULE

The storm water volume and quality control Best Management Practices (BMPs) constructed for this project will be maintained to function as designed, and shall implement the procedures described below. The owner of the lot on which facilities are located shall own and maintain the facilities as shown on the drawings.

Excess materials will be properly recycled or disposed of.

The approved facilities are to be permanent, and can only be removed or altered after approval by one or more of the following entities which may have jurisdiction: Upper Allen Township, and/or PA D.E.P. The tasks outlined herein shall be accomplished by the lot owner.

The following physical facilities shall be maintained to the original design and dimensions shown on the design plans approved by Upper Alle Township, until such time as an amended plan is approved by the Township:

- stormwater pipes;
- riprap aprons at pipe outlets;
- drain inlets, manholes and open pipe ends;
- stormwater infiltration basin
- drainage easements associated with all of the above.

For any structural facility (pipe, inlet, manhole), it must be repaired or replaced if damaged more than superficially, in a way that is a safety hazard, if structurally unsound, or if not substantially performing as it is intended per the original design. The lot owner shall keep record of any repaired or replaced facility, including costs, dates, materials removed, materials placed, and the contractor(s) information.

Swales

--Inspect annually at a minimum and after significant rain events of greater than 1" rainfall. Remove any accumulated sediment, debris and trash, promptly. Any scoured or bare earth should be re-stabilized with swale lining, or seeding or sod that is watered until established. Repair any torn or displaced matting.

Riprap Aprons inspection and maintenance tasks--

--Inspect annually at a minimum. Remove any accumulated debris and trash, and remove promptly. Dislodged rock should be reset in place. Any scouring of earth at or below the apron should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established, rock should be placed in non-growing seasons, even if temporary.

Storm Pipes and Inlets inspection and maintenance tasks--

- Examine annually at a minimum. Remove man-made trash and dispose of properly.
- Examine inlet bottoms via grates, for accumulated debris. Remove accumulated grit and other debris. Check for any obvious structure deterioration.
- Examine swales for obstructions and erosion. Any scouring of earth should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.
- All inlets, storm piping, swales and drainage structures shall be kept free of any obstructions and foreign material that would cause disruption of water flow Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.
- All impervious surfaces shall be maintained clean of oil, fuel or other toxic spills, in accordance with State, Federal or local regulations.

Drainage Easements inspection and maintenance tasks--

- Inspect annually at a minimum.
- Notify the landowner if any obstructions or alteration of the ground surface interfere with the purpose and use of the easement, and request removal / correction of the problem.
- Examine any swales for obstructions and erosion. Any scouring of earth should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.

Stormwater Infiltration Basin

- Inspect annually at a minimum.
- The bottom of the stormwater infiltration basin can be maintained as maintained meadow, or natural brush succession, per the desires and budget of the lot owner. The basin berms shall be maintained as meadow, being mowed once per year in the fall. Removal of sediment / debris shall take place when the basin bottom has dried, if possible. Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.
- Examine for and clean out the outlet structure and trash rack, of accumulated trash, grit and the like.
- Remove grit, sand, soil or organic matter if it accumulates to a depth of 3" or more, so that storage volume is maintained
- Infiltration Basin. If standing water is present for greater than 72 hours after the last rainfall pump out the basin to

SWM DETAILS

FOR

2509 MILL ROAD TOWNHOMES

LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID:
221013-3-LD
PROJECT: 221013
DATE: 04/25/2022
SHEET:
14 OF 21

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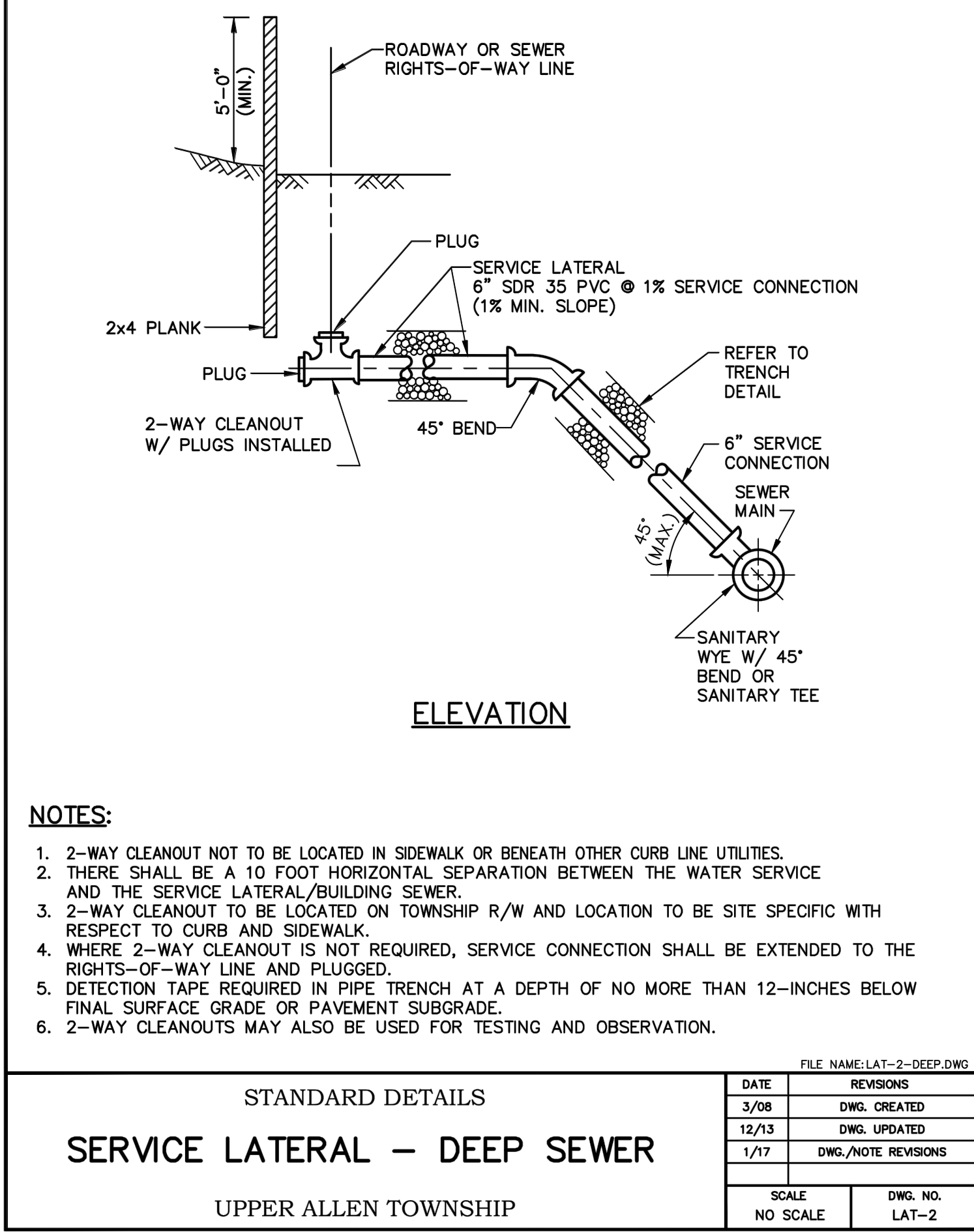
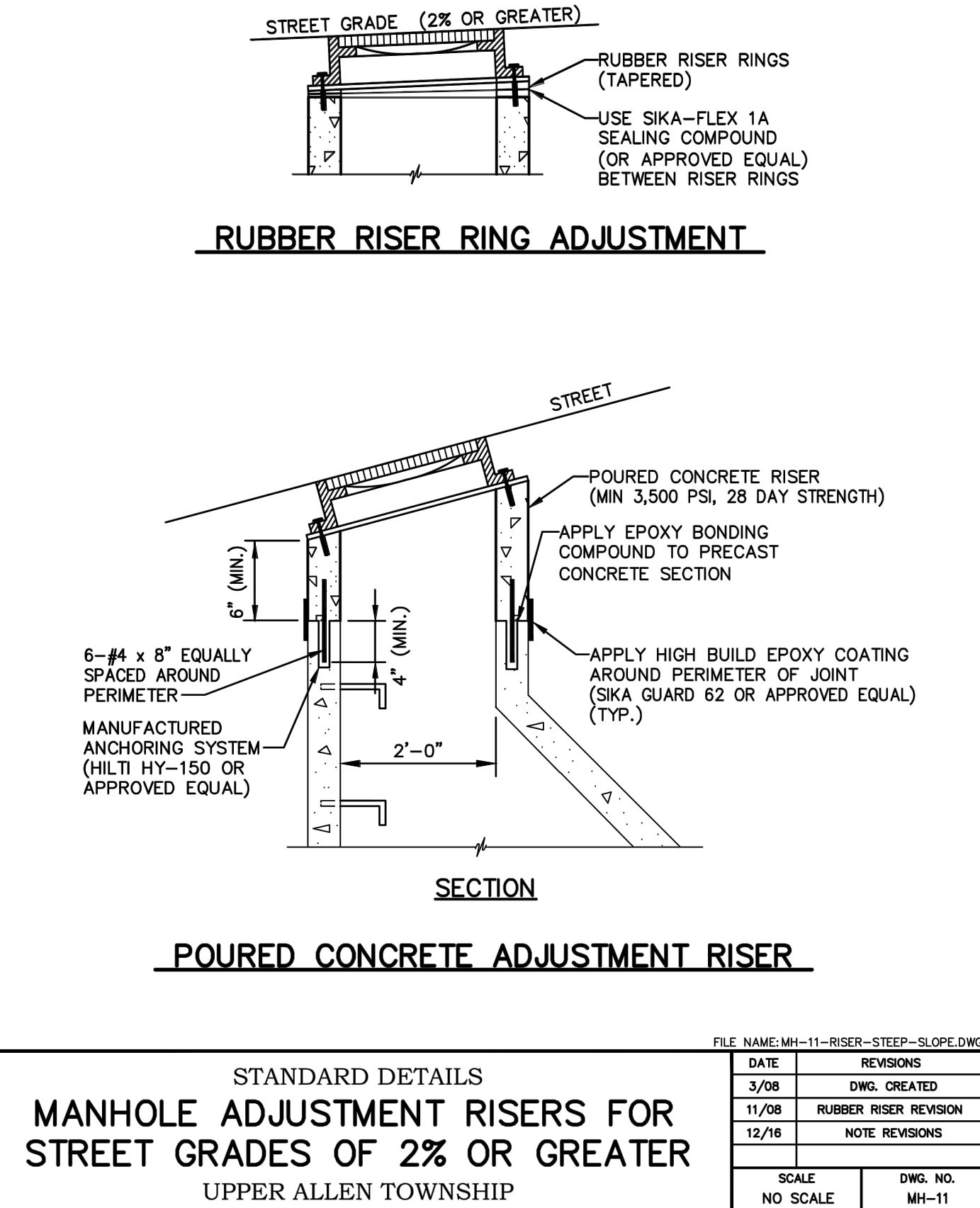
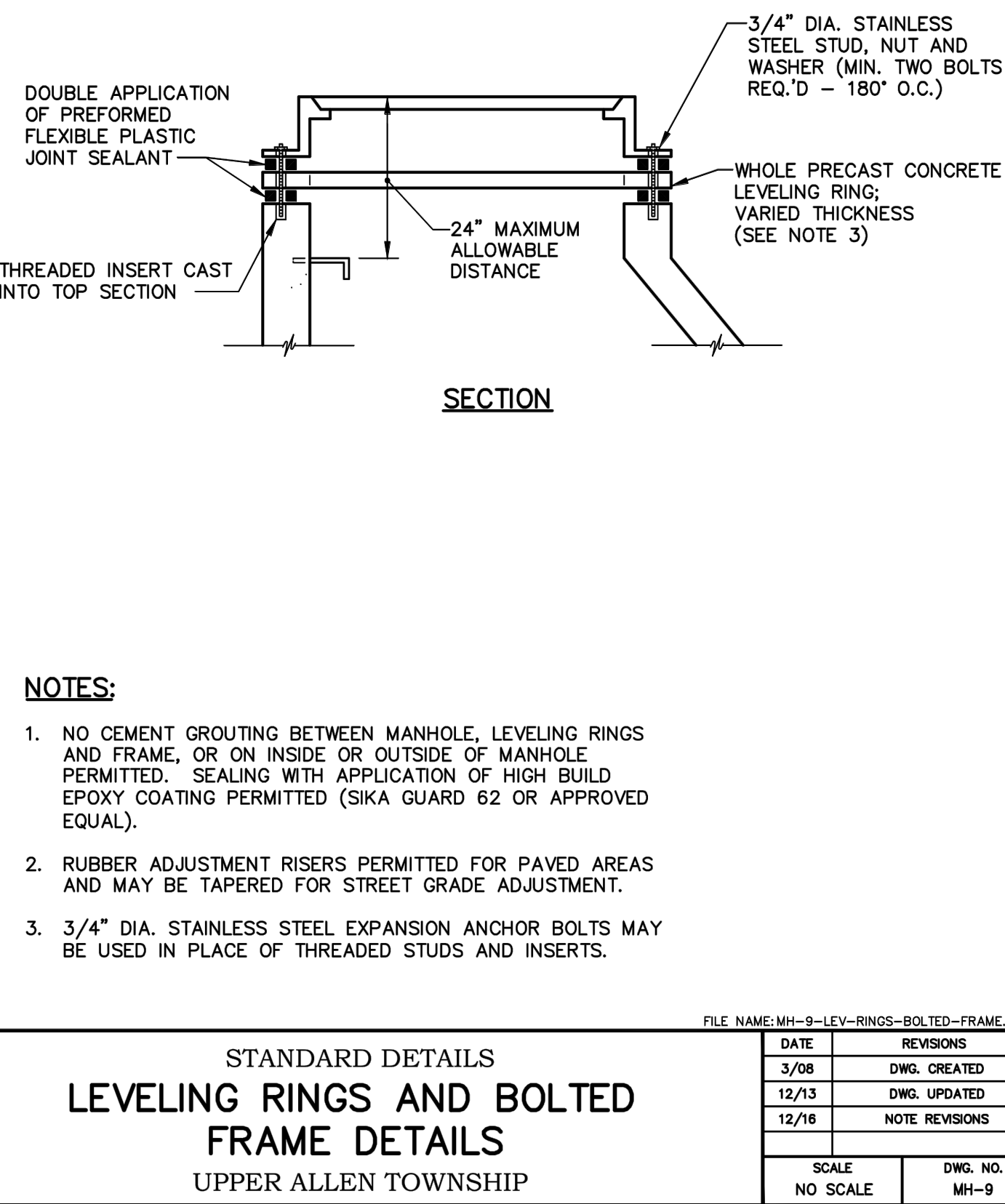
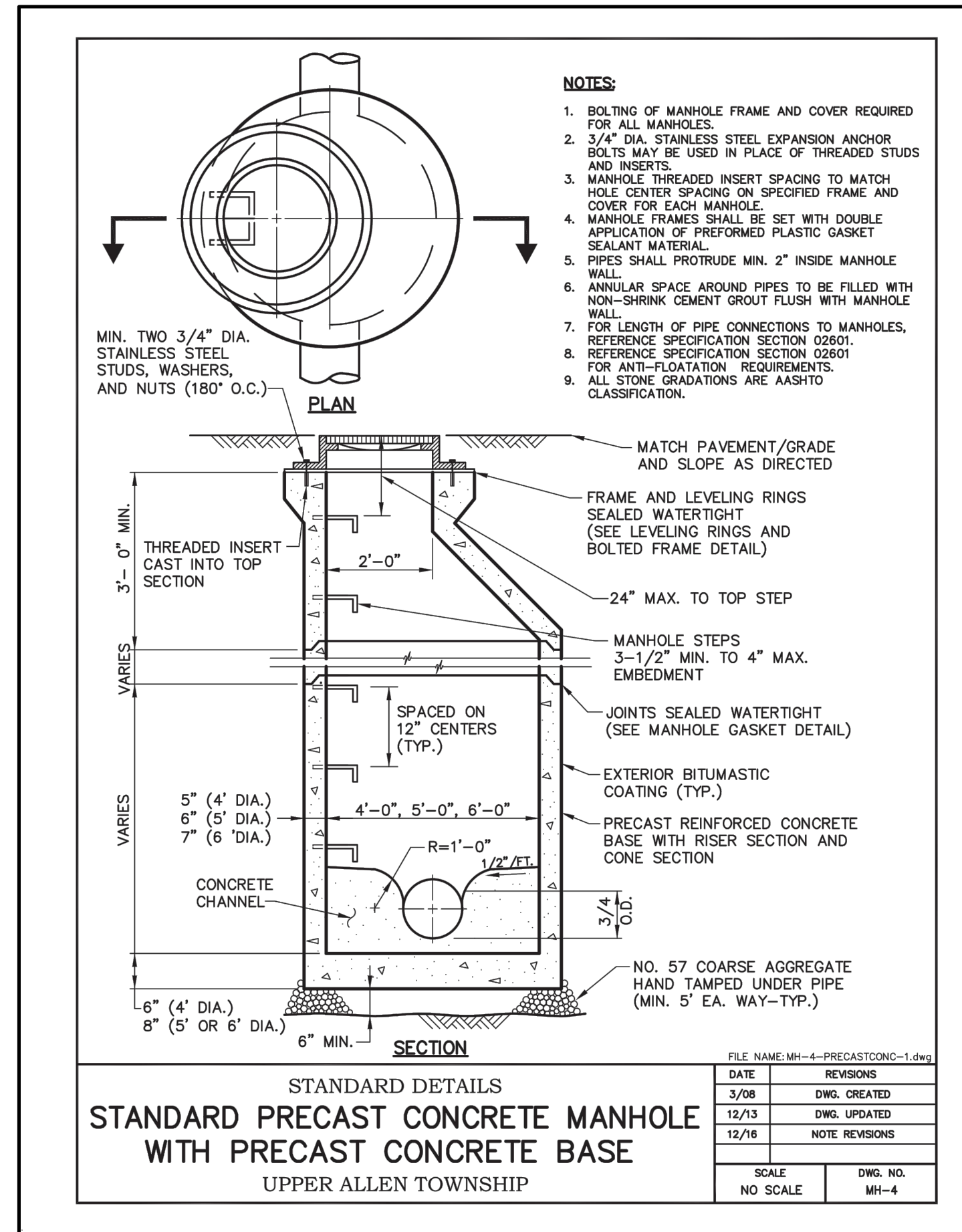
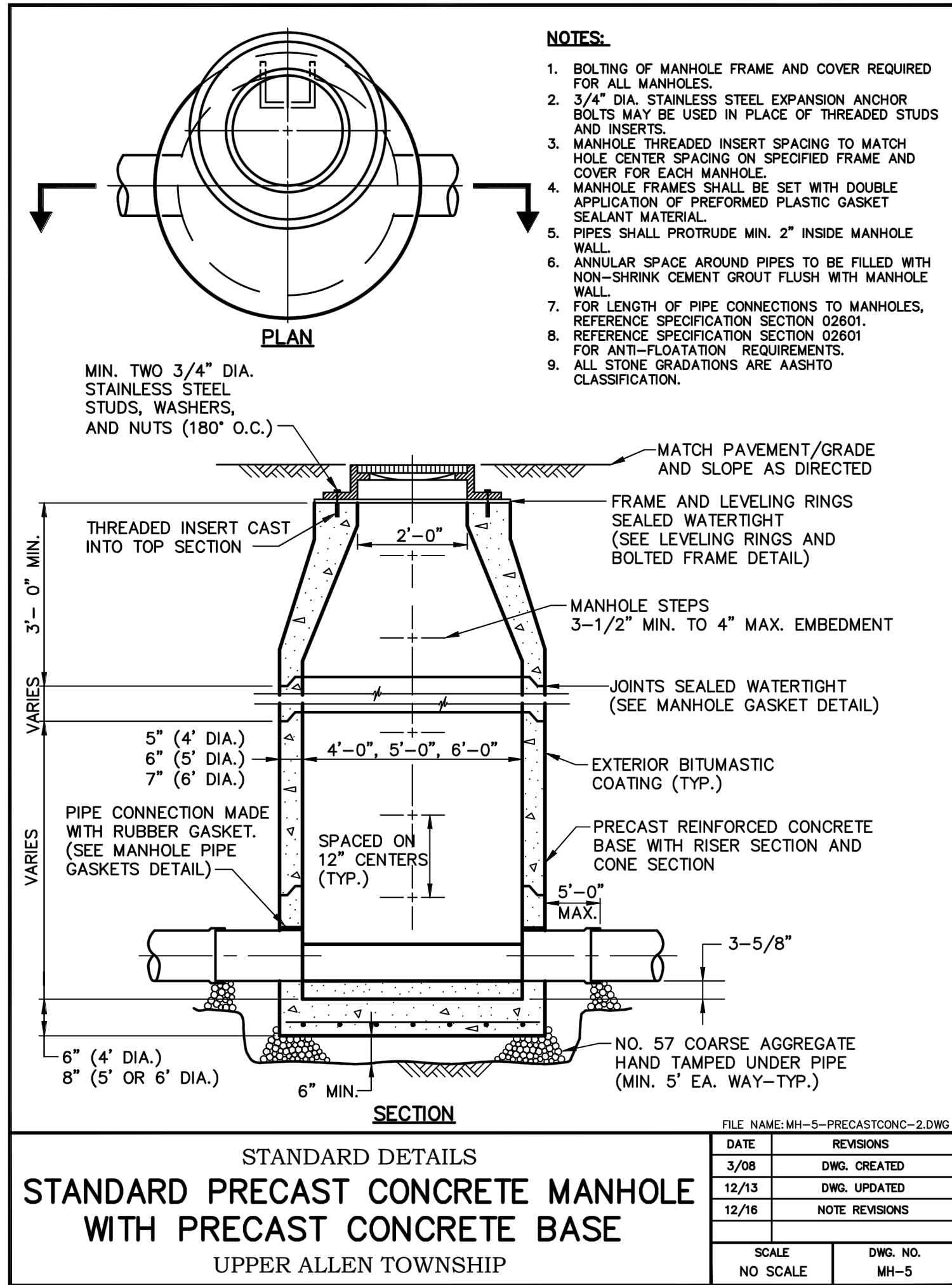
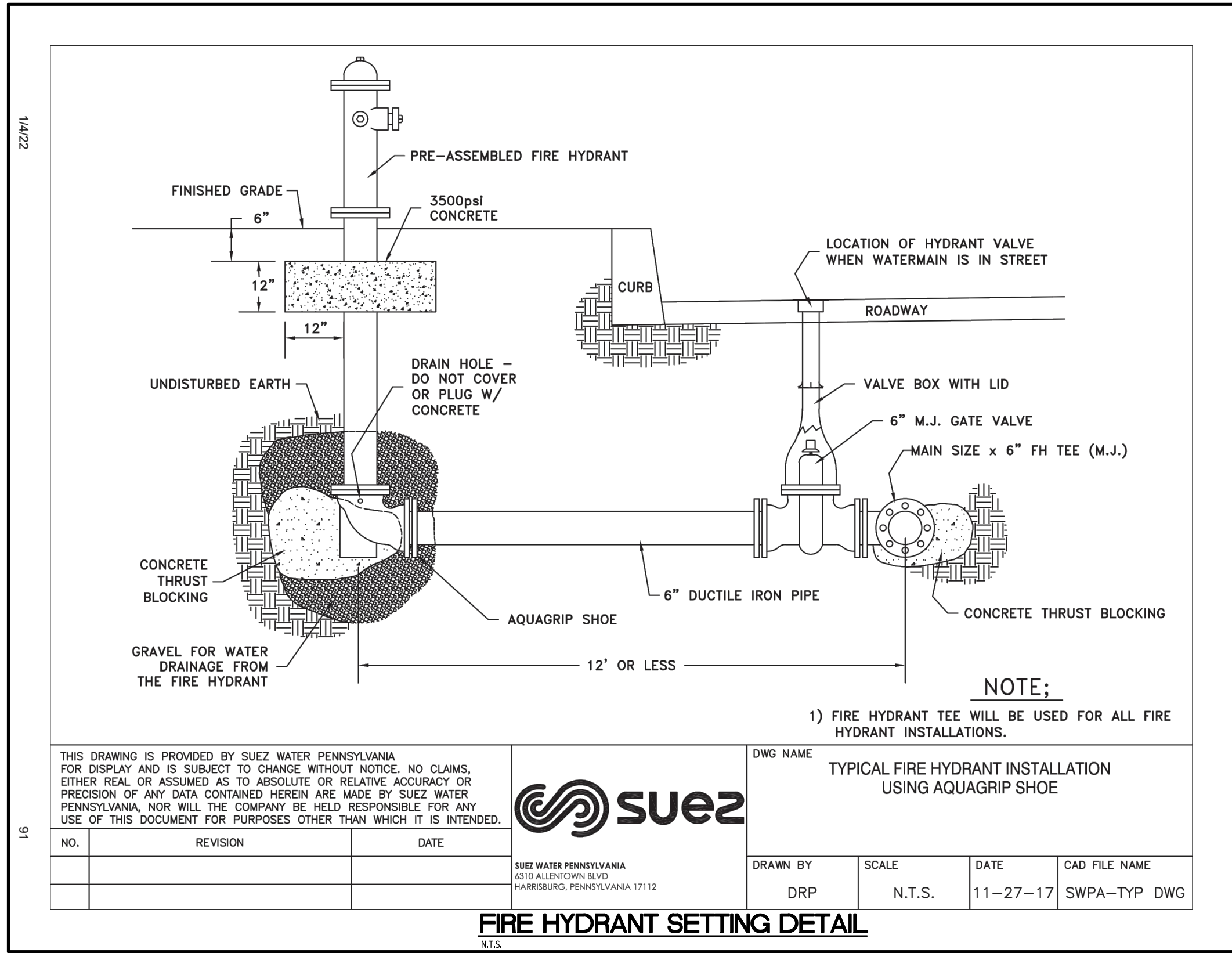
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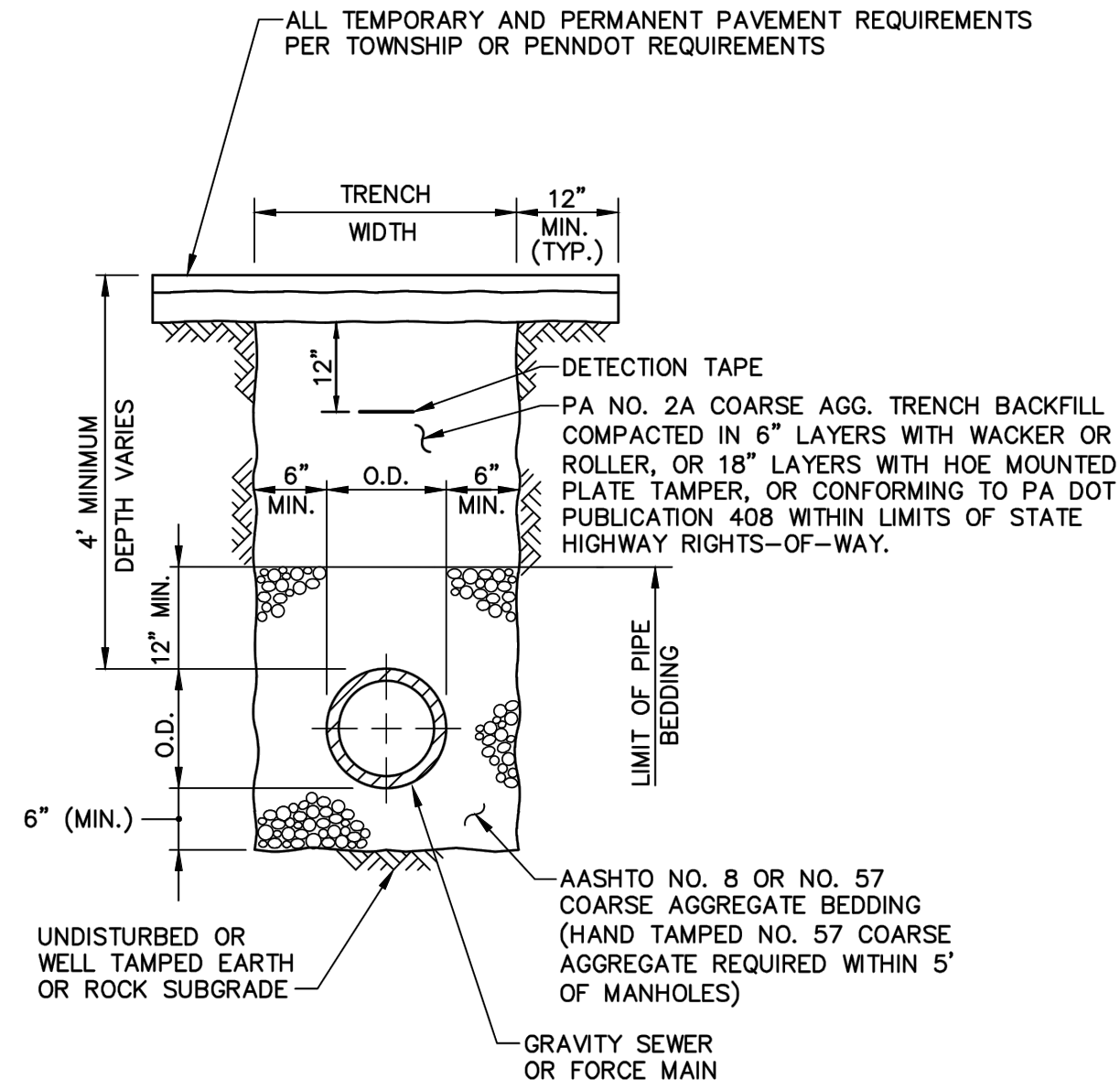


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UTILITY DETAILS
FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID:
221013-3-LD
PROJECT: 221013
DATE: 04/25/2022
SHEET:
15 OF 21



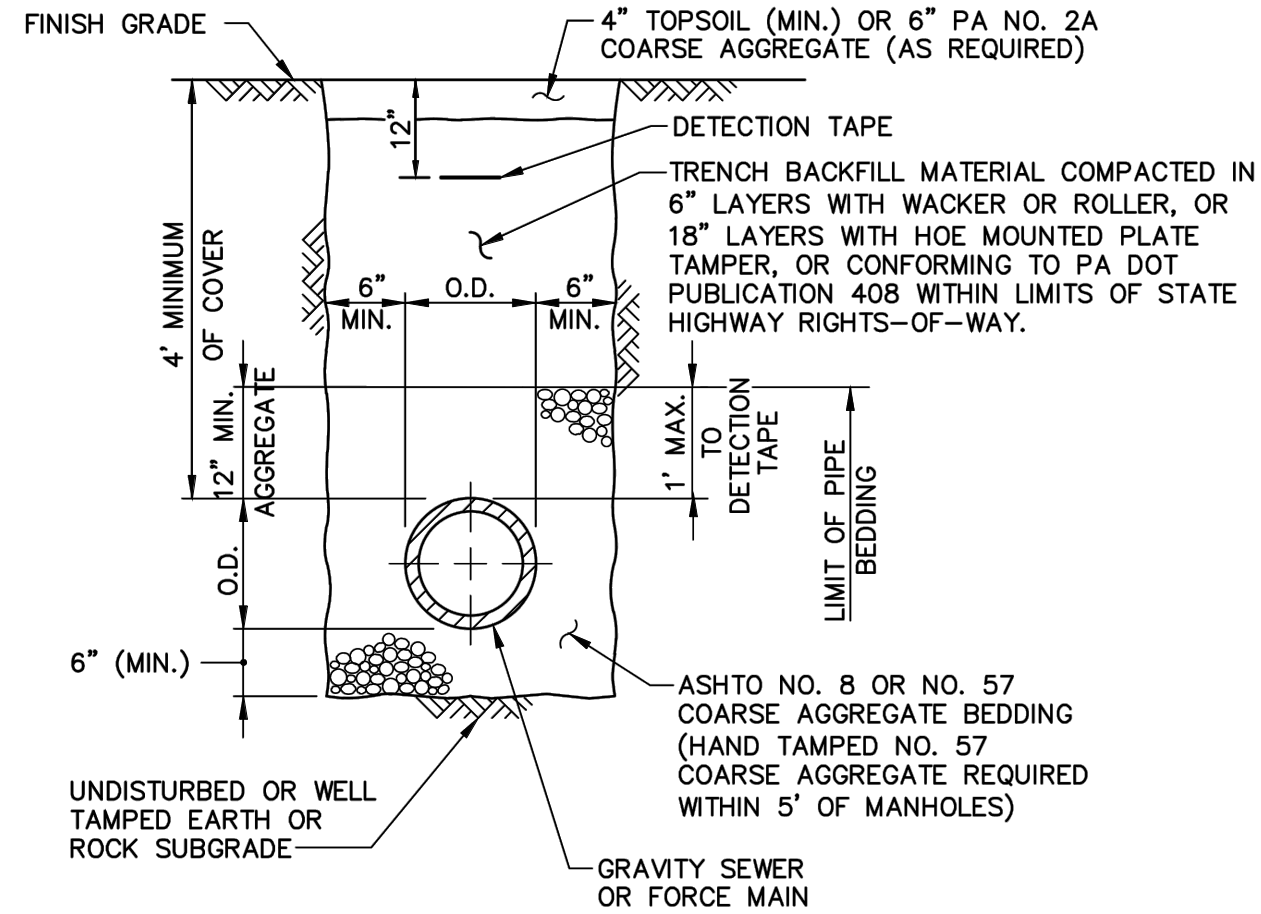
NOTE:

- BACKFILL AND COMPACTION REQUIREMENT APPLIES TO PAVED ROADWAYS AND SHOULDERS OF PROPOSED AND EXISTING STREETS (OTHER THAN STATE HIGHWAYS), PAVED DRIVEWAYS, AND SIDEWALKS.

STANDARD DETAILS TRENCH BACKFILL DETAIL IN PAVED AREAS UPPER ALLEN TOWNSHIP

DATE	REVISIONS
3/08	DWG. CREATED
12/13	DWG. UPDATED
1/17	NOTE REVISIONS

SCALE	DWG. NO.
NO SCALE	TR-1



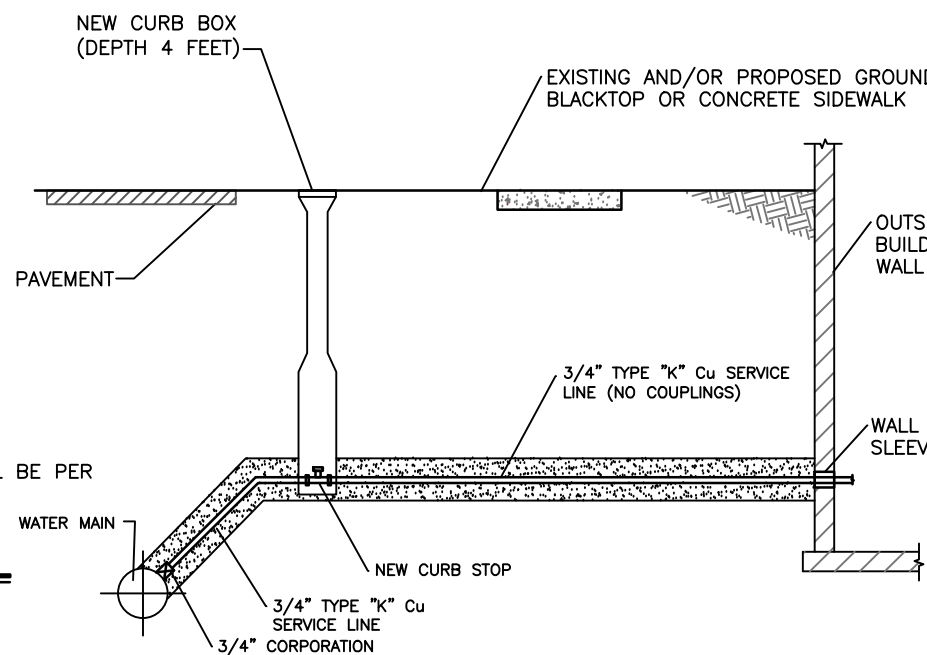
BACKFILLING REQUIREMENTS:

- UNPAVED AREAS OUTSIDE ROADWAYS - SUITABLE ON-SITE BACKFILL COMPACTED AS INDICATED ABOVE TO BOTTOM OF TOPSOIL. REPLACE TOPSOIL TO APPROXIMATE DEPTH OF EXISTING OR MIN. 4".
- UNPAVED AREAS WITHIN R/W LIMITS OF STATE HIGHWAYS - CONFORMING TO REQUIREMENTS OF PA DOT PUBLICATION 408.
- UNPAVED SHOULDERS OF PROPOSED AND EXISTING STREETS OTHER THAN STATE HIGHWAYS - AGGREGATE BACKFILL COMPACTED AS INDICATED ABOVE.
- STONE DRIVEWAYS AND PARKING AREAS - PA NO. 2A COARSE AGGREGATE BACKFILL COMPACTED AS INDICATED ABOVE.
- UNIMPROVED STREETS - AGGREGATE BACKFILL COMPACTED AS INDICATED ABOVE.

STANDARD DETAILS TRENCH BACKFILL DETAIL IN UNPAVED AREAS UPPER ALLEN TOWNSHIP

DATE	REVISIONS
3/08	DWG. CREATED
12/13	DWG. UPDATED
1/17	NOTE REVISIONS

SCALE	DWG. NO.
NO SCALE	TR-2

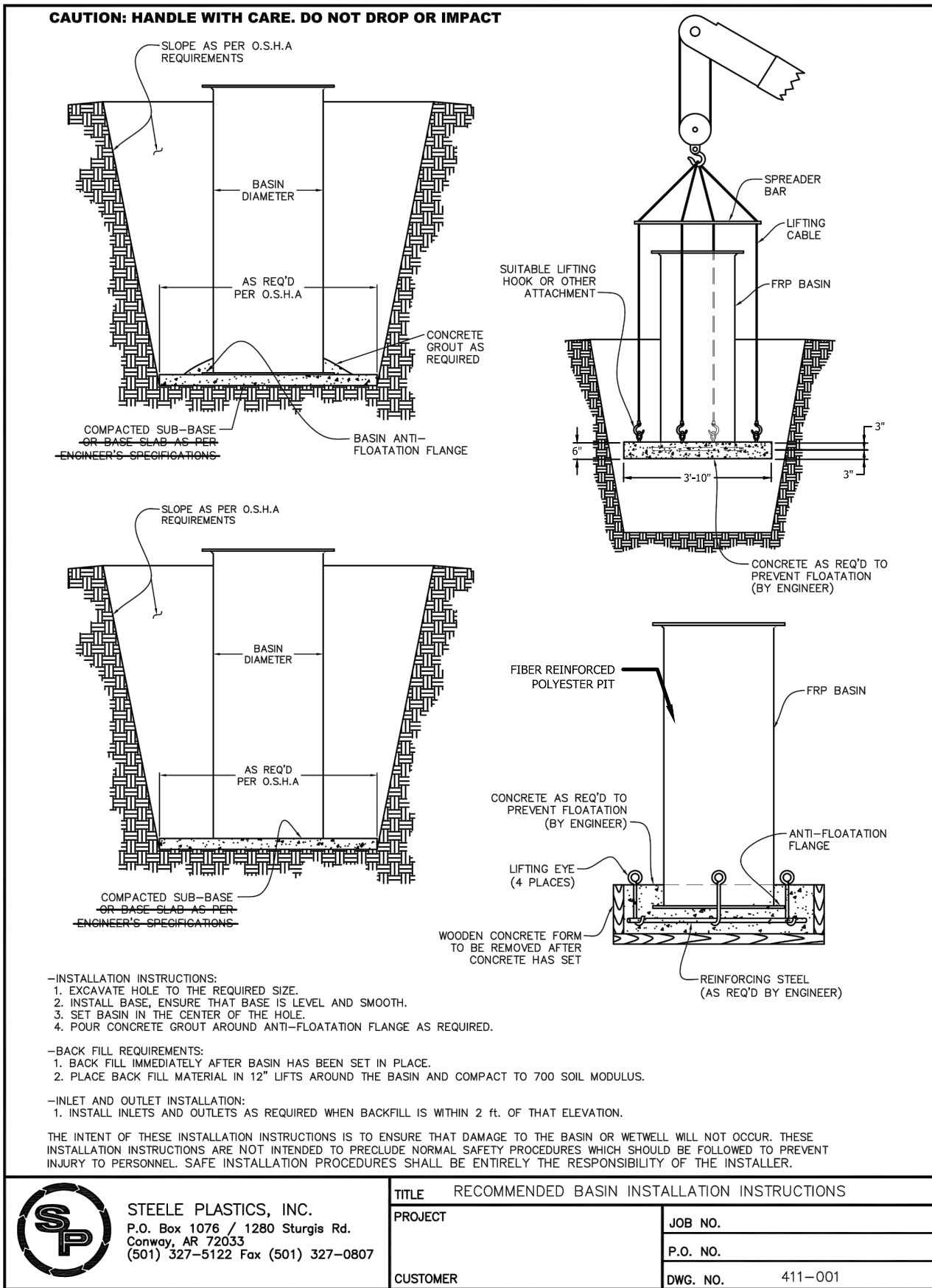


NOTES:

- DESIGN AND REQUIREMENTS SHALL BE PER THE WATER SUPPLY COMPANY.

WATER SERVICE DETAIL

N.T.S.



- INSTALLATION INSTRUCTIONS—
- EXCAVATE HOLE TO THE REQUIRED SIZE.
 - INSTALL BASE. ENSURE THAT BASE IS LEVEL AND SMOOTH.
 - SET BASIN IN THE CENTER OF THE HOLE.
 - POUR CONCRETE GROUT AROUND ANTI-FLOATATION FLANGE AS REQUIRED.

- BACK FILL REQUIREMENTS—
- BACK FILL IMMEDIATELY AFTER BASIN HAS BEEN SET IN PLACE.
 - PLACE BACK FILL MATERIAL IN 12" LAYERS AROUND THE BASIN AND COMPACT TO 700 SOIL MOULDS.

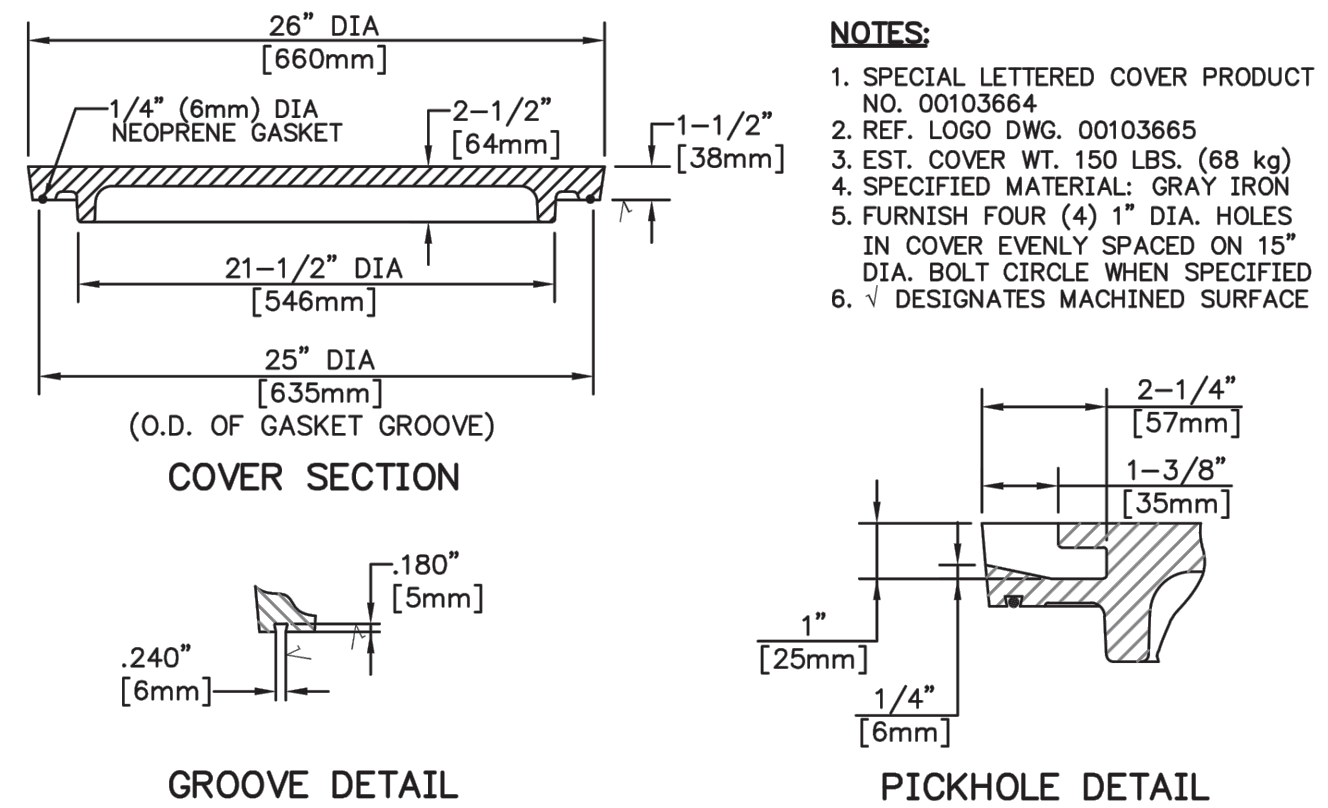
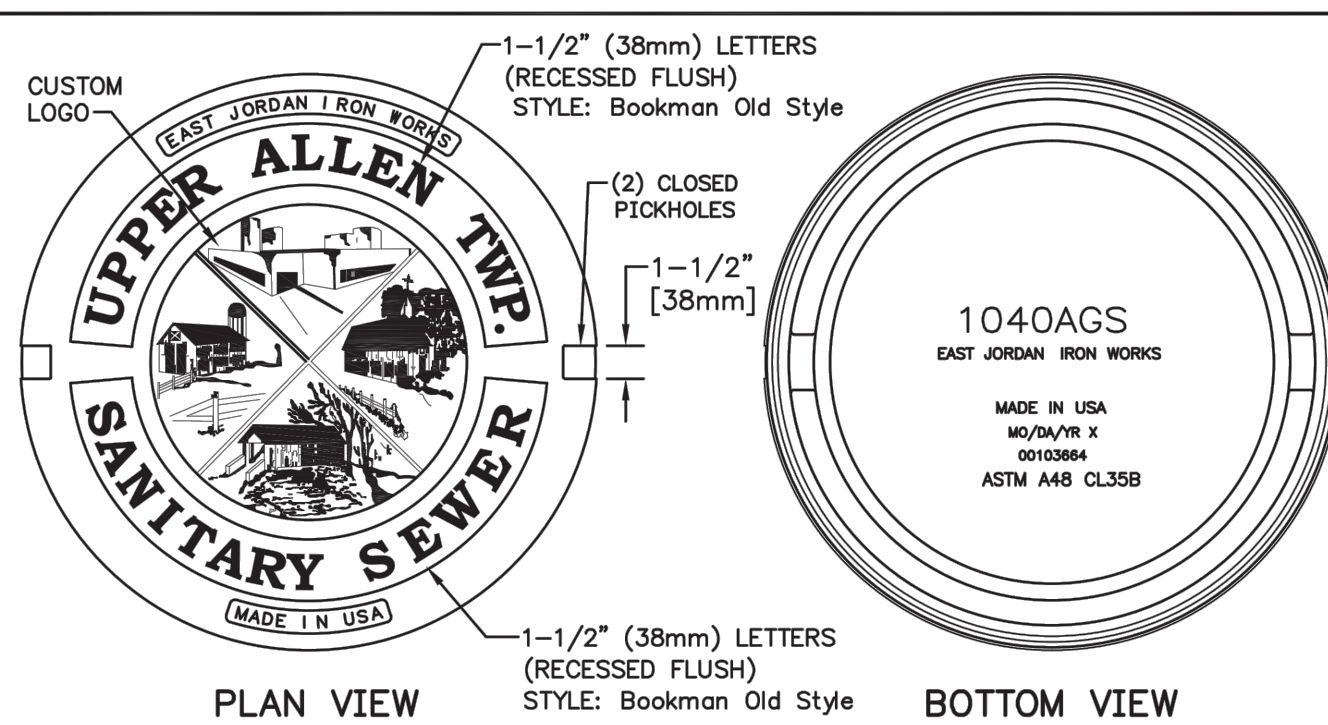
- INLET AND OUTLET INSTALLATION—
- INSTALL INLETS AND OUTLETS AS REQUIRED WHEN BACKFILL IS WITHIN 2' OF THAT ELEVATION.

THE INTENT OF THESE INSTALLATION INSTRUCTIONS IS TO ENSURE THAT DAMAGE TO THE BASIN OR METWELL WILL NOT OCCUR. THESE INSTALLATION INSTRUCTIONS ARE NOT INTENDED TO PRECLUDE NORMAL SAFETY PROCEDURES WHICH SHOULD BE FOLLOWED TO PREVENT INJURY TO PERSONNEL. SAFE INSTALLATION PROCEDURES SHALL BE ENTIRELY THE RESPONSIBILITY OF THE INSTALLER.



STEELE PLASTICS, INC.
P.O. Box 1078 / 1880 Shingle Rd.
Conway, AR 72033
(501) 327-5122 Fax (501) 327-0807

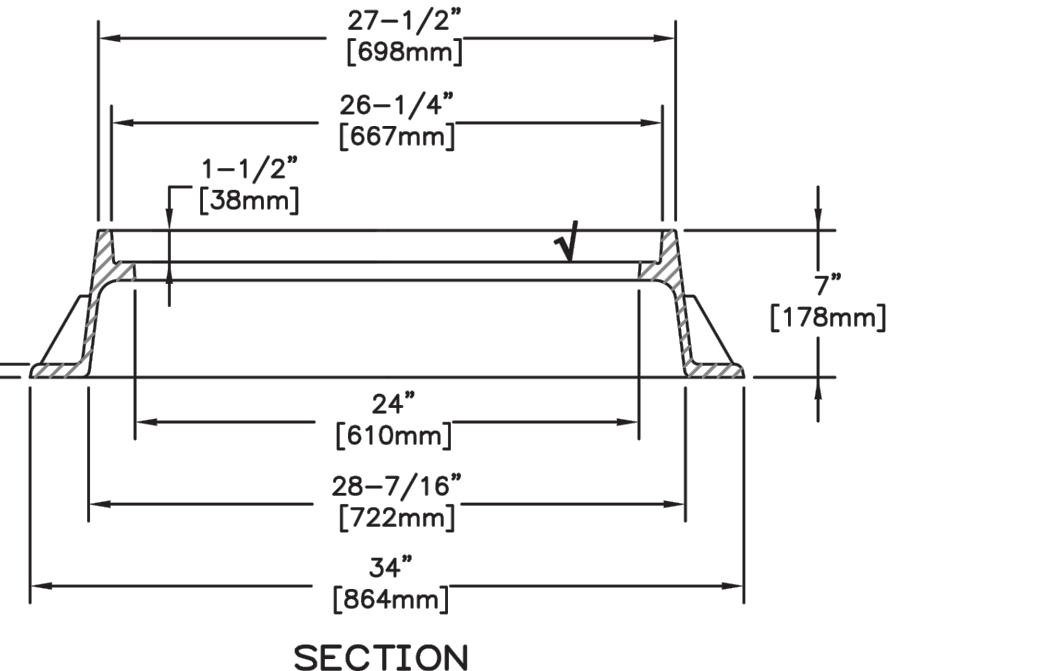
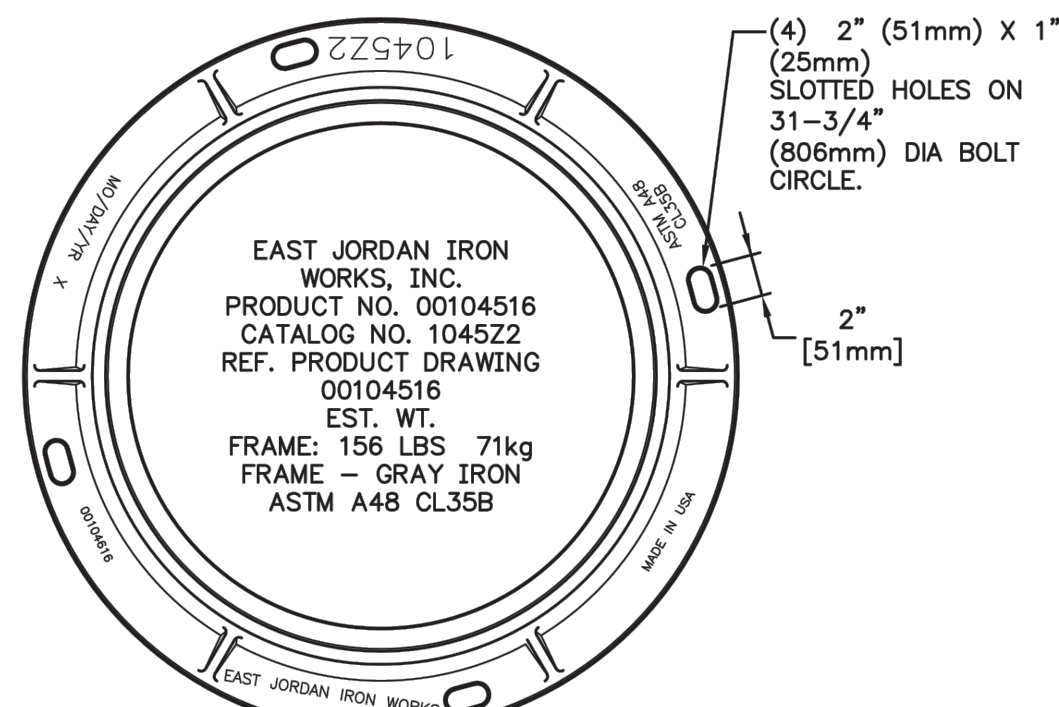
TITLE	PROJECT	JOB NO.
RECOMMENDED BASIN INSTALLATION INSTRUCTIONS		
CUSTOMER	P.O. NO.	DWG. NO.
		411-001



STANDARD DETAILS HEAVY DUTY MANHOLE SELF-SEALING COVER UPPER ALLEN TOWNSHIP

DATE	REVISIONS
3/08	DWG. CREATED
12/14	DWG. UPDATED

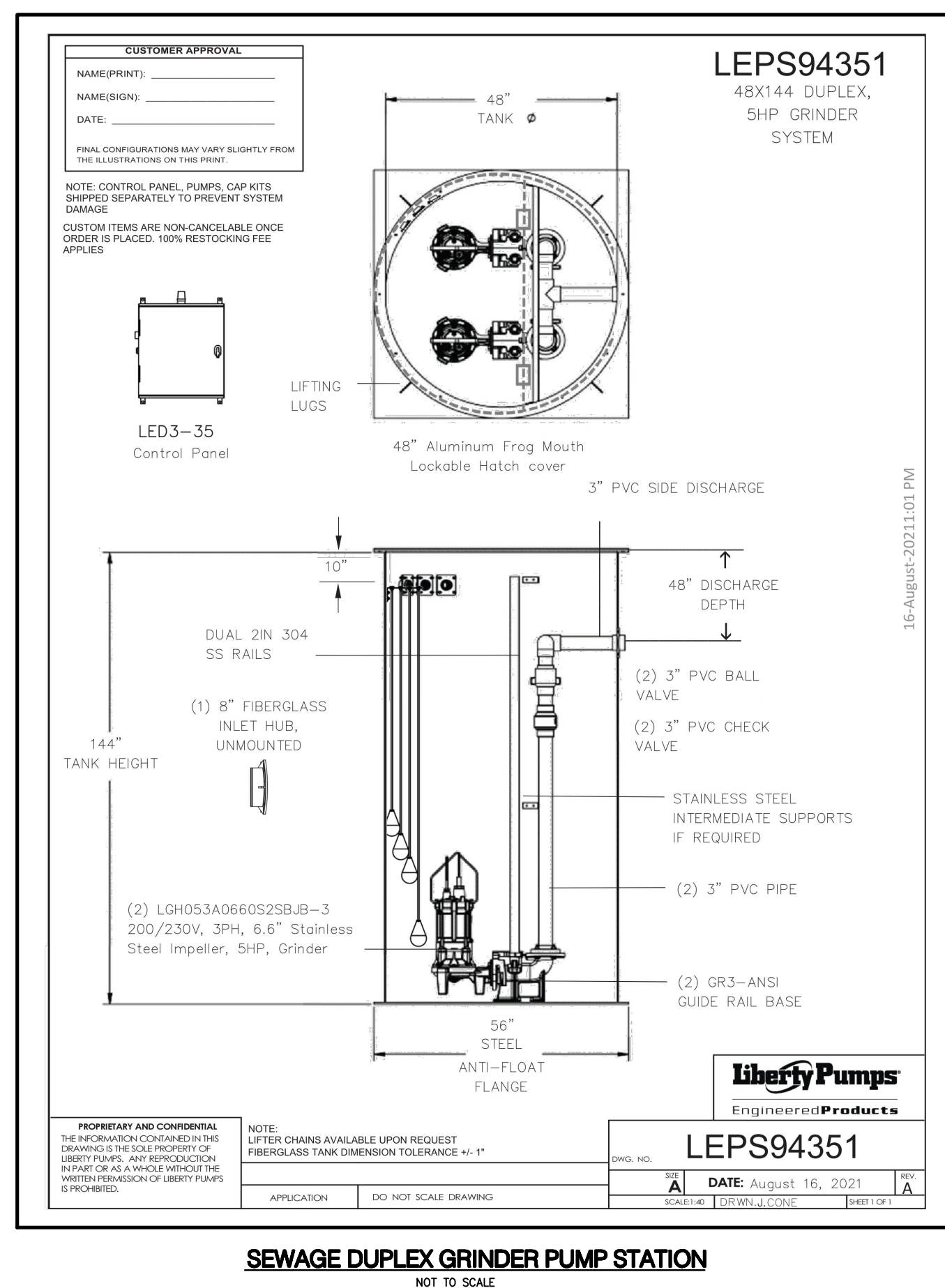
SCALE	DWG. NO.
NO SCALE	MH-1



STANDARD DETAILS HEAVY DUTY MANHOLE FRAME (H-25) UPPER ALLEN TOWNSHIP

DATE	REVISIONS
3/08	DWG. CREATED

SCALE	DWG. NO.
NO SCALE	MH-2



SEWAGE DUPLEX GRINDER PUMP STATION

NOT TO SCALE

Liberty Pumps

Engineered Products

LES-Series Simplex Controls LED-Series Duplex Controls Control Panels

Available in fiberglass or stainless steel enclosures
Wide array of options and custom builds available

- Hand-Off-Auto switches
- Pump run lights
- Inner panel door
- Elapsed time meters
- Auxiliary contacts
- Seal test and fail indicators
- Lockable door
- Adjustable motor overloads
- Thermal overloads
- Alarm beacon
- NEMA 4X enclosure
- Intrinsically safe panels available

Proudly engineered and built in the USA

3 Phase

Fiberglass Enclosure				Stainless Steel Enclosure			
Voltage	Overload	Breaker	Simplex I.S.	Duplex I.S.	Duplex I.S.	Duplex I.S.	Simplex I.S.
45-18	20	LEDK3-20	LEDK3-20	LEDK3-20	LEDK3-20	LEDK3-20	LEDK3-20
8-32	35	LEDK3-35	LEDK3-35	LEDK3-35	LEDK3-35	LEDK3-35	LEDK3-35
30-40	40	LEDK3-40	LEDK3-40	LEDK3-40	LEDK3-40	LEDK3-40	LEDK3-40
37-50	50	LEDK3-50	LEDK3-50	LEDK3-50	LEDK3-50	LEDK3-50	LEDK3-50
48-65	65	LEDK3-65	LEDK3-65	LEDK3-65	LEDK3-65	LEDK3-65	LEDK3-65

UTILITY DETAILS

FOR
2509 MILL ROAD TOWNHOMES
LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

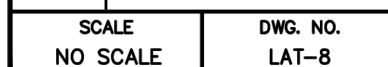
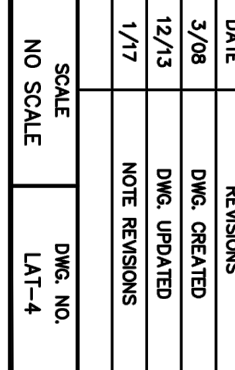
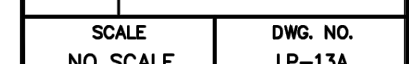
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PROJECT:
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DATE:
04/25/2022
SHEET:
16 OF 21

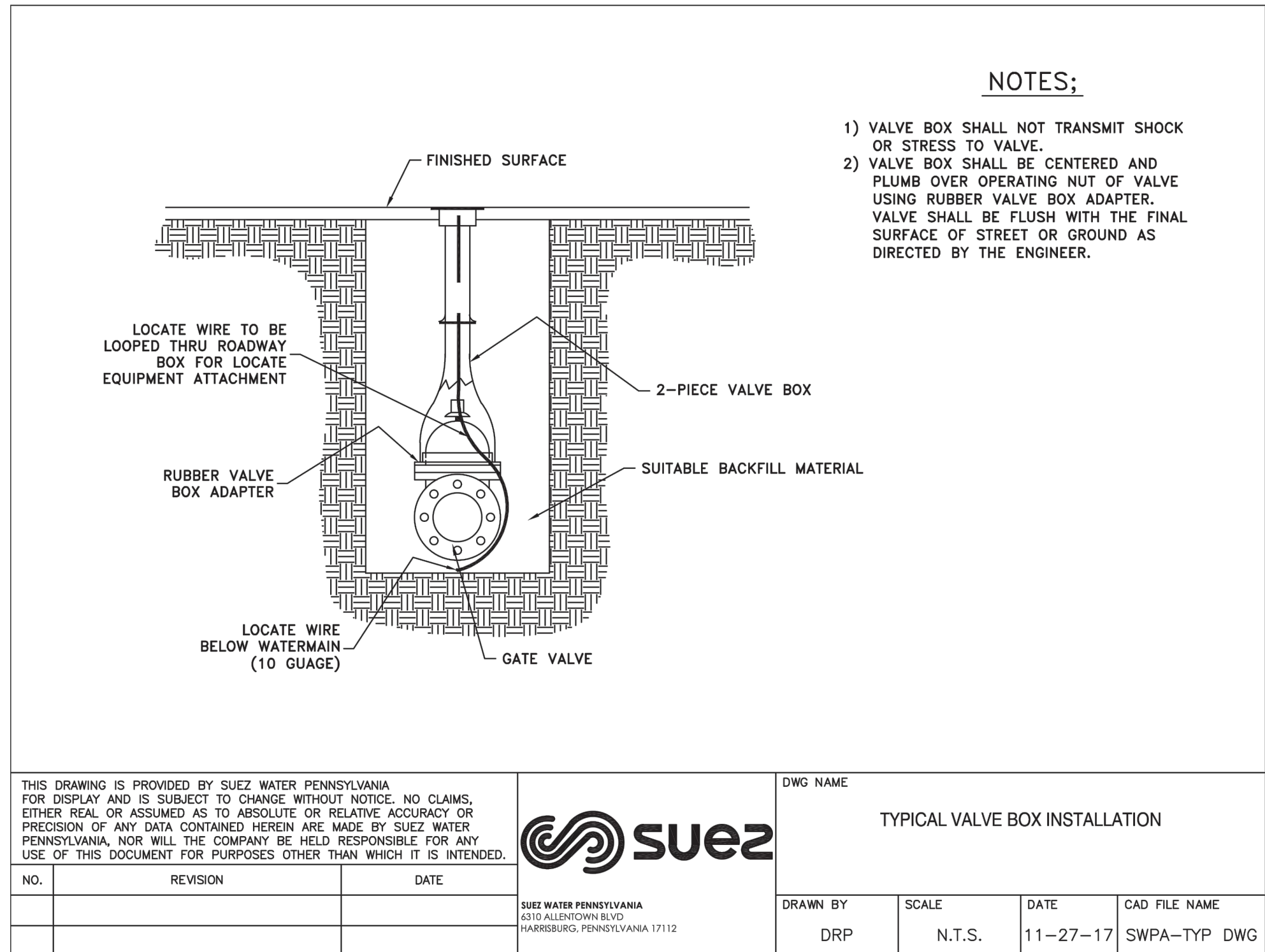
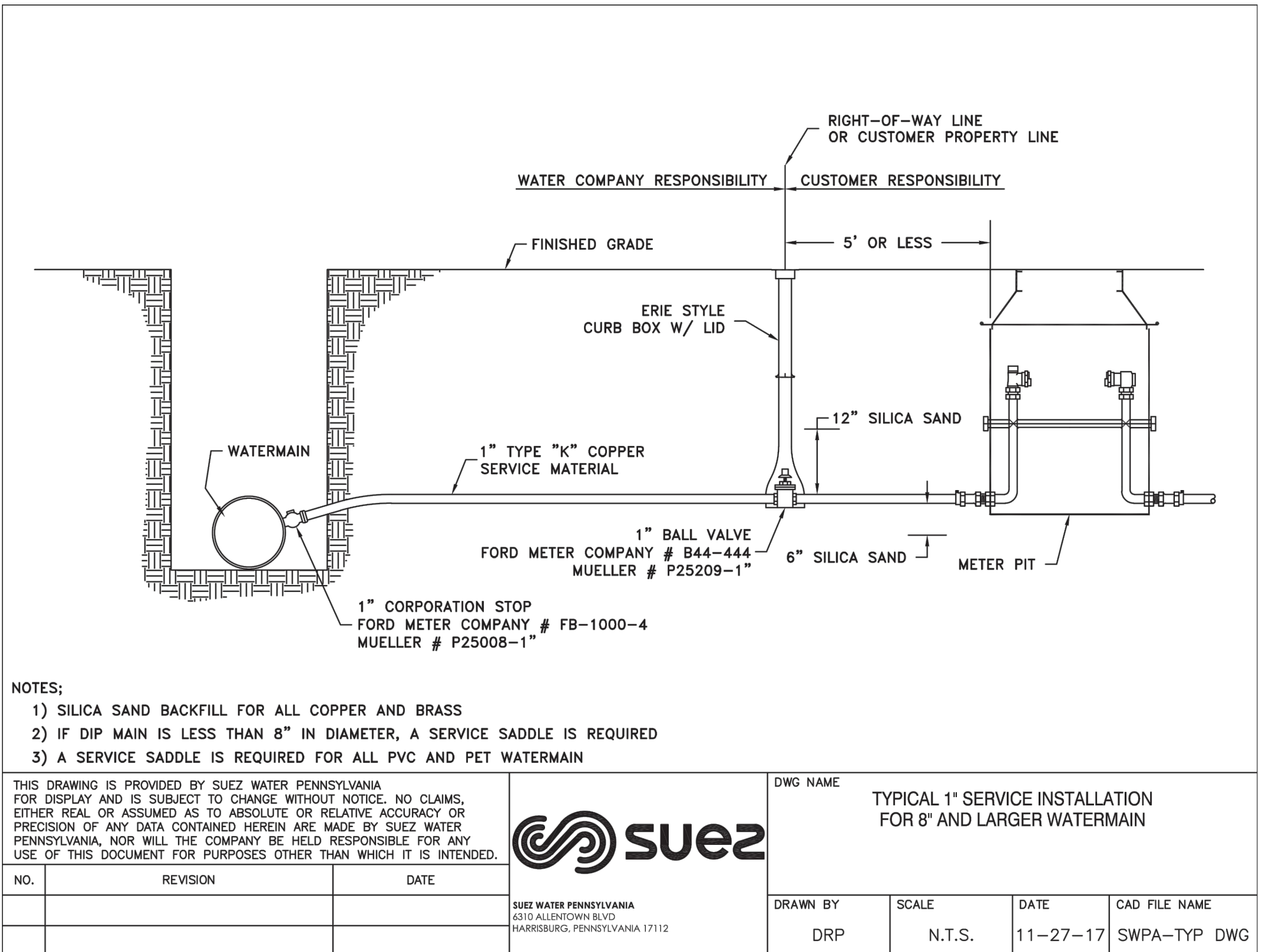
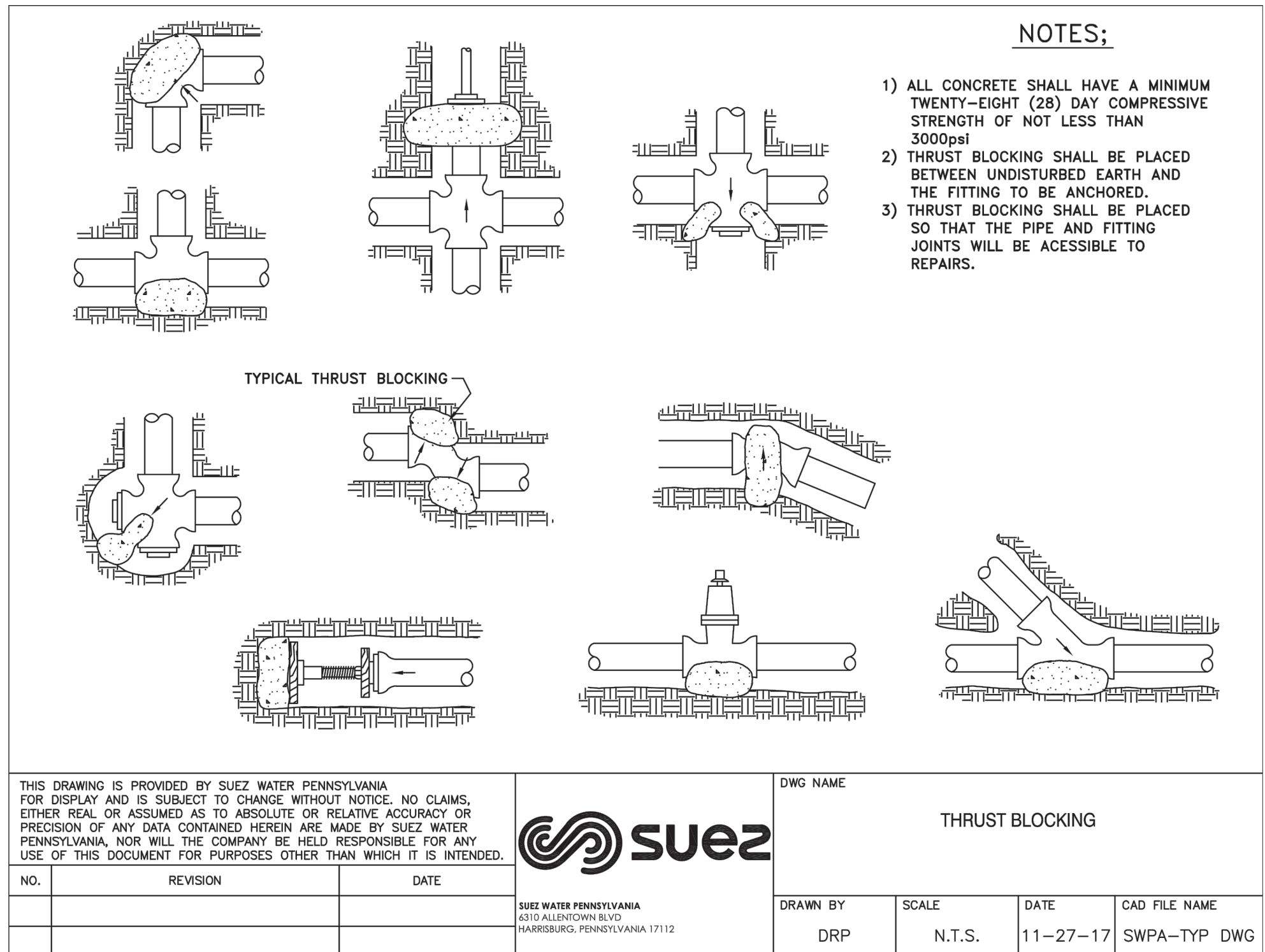
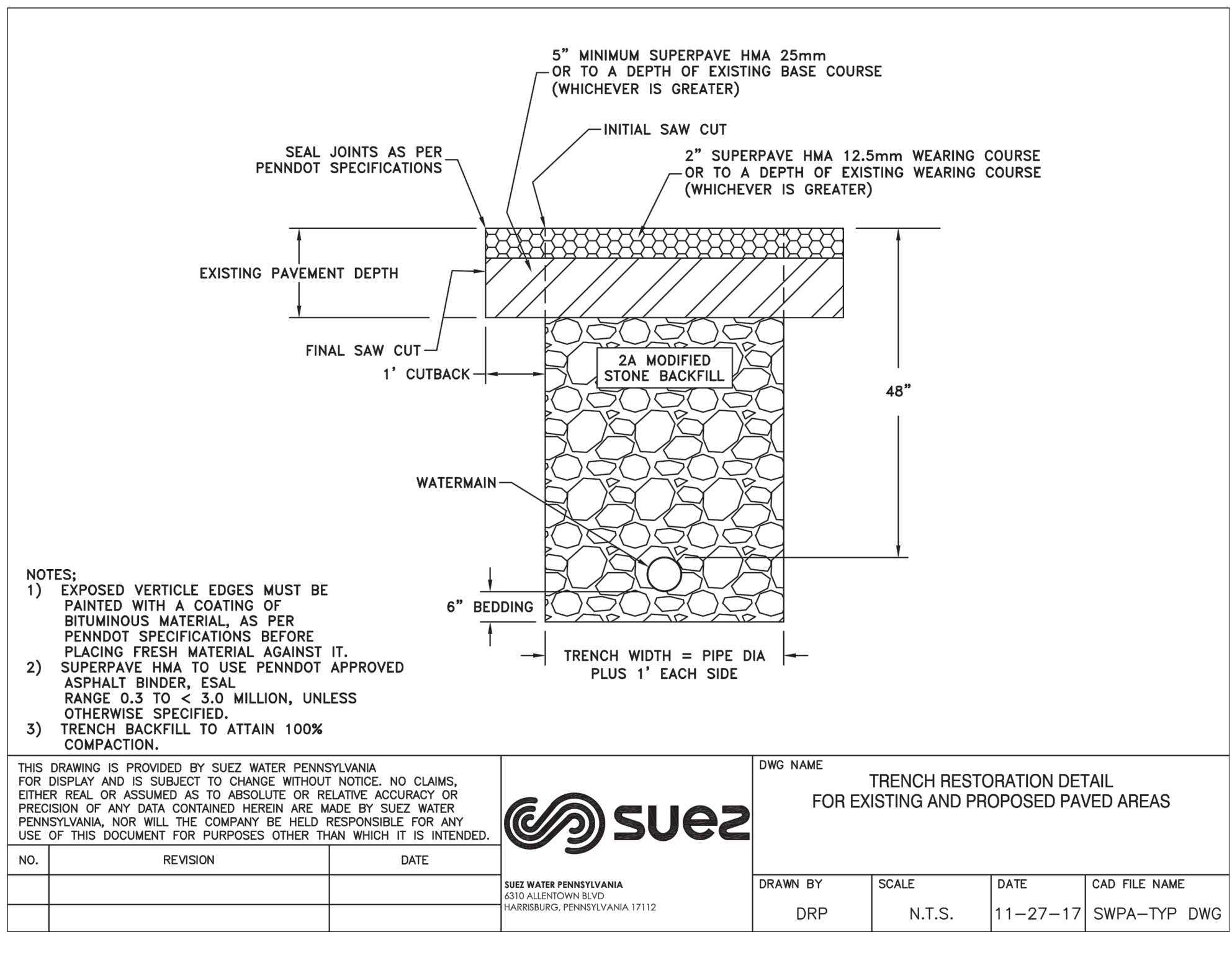
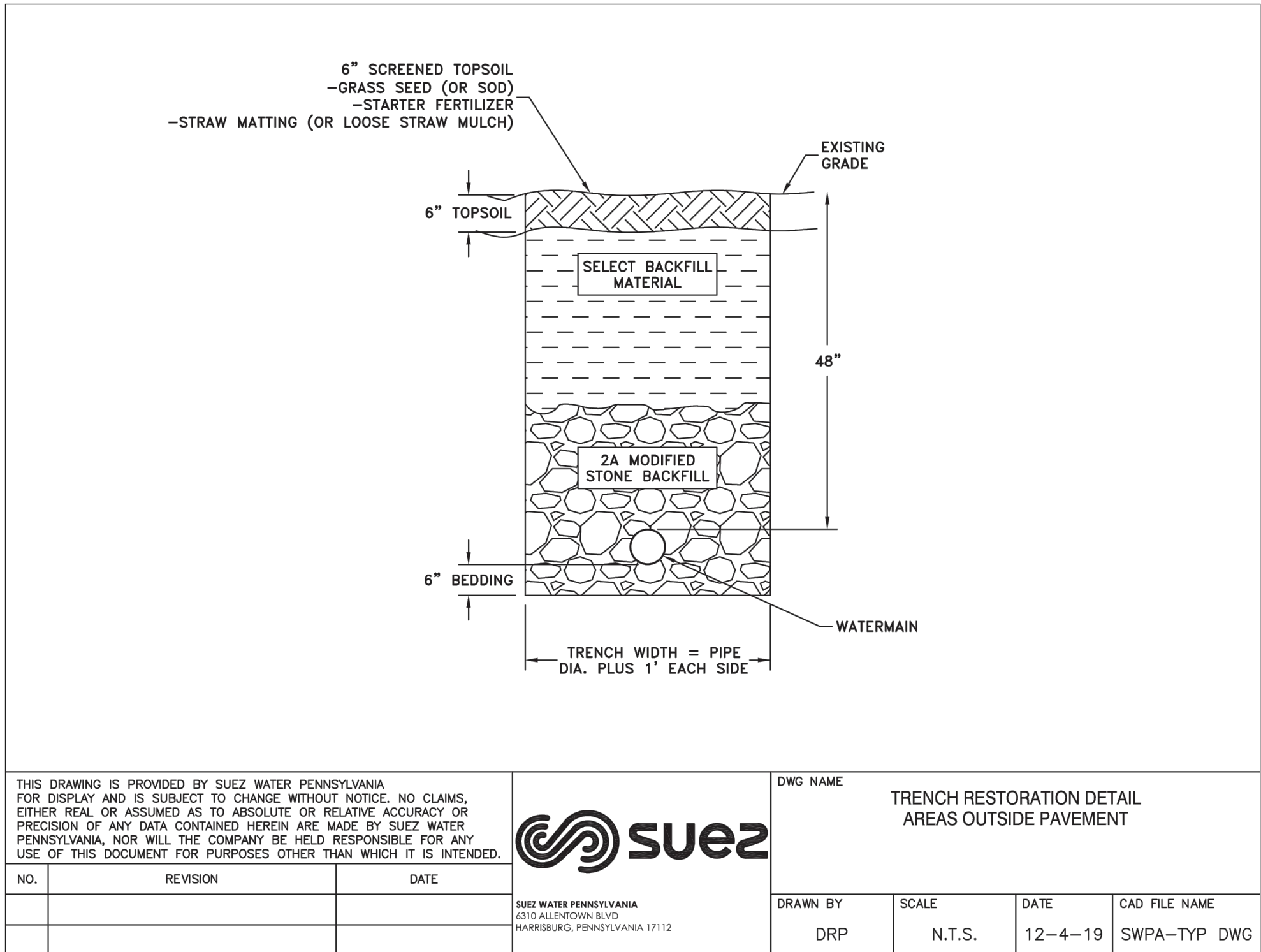
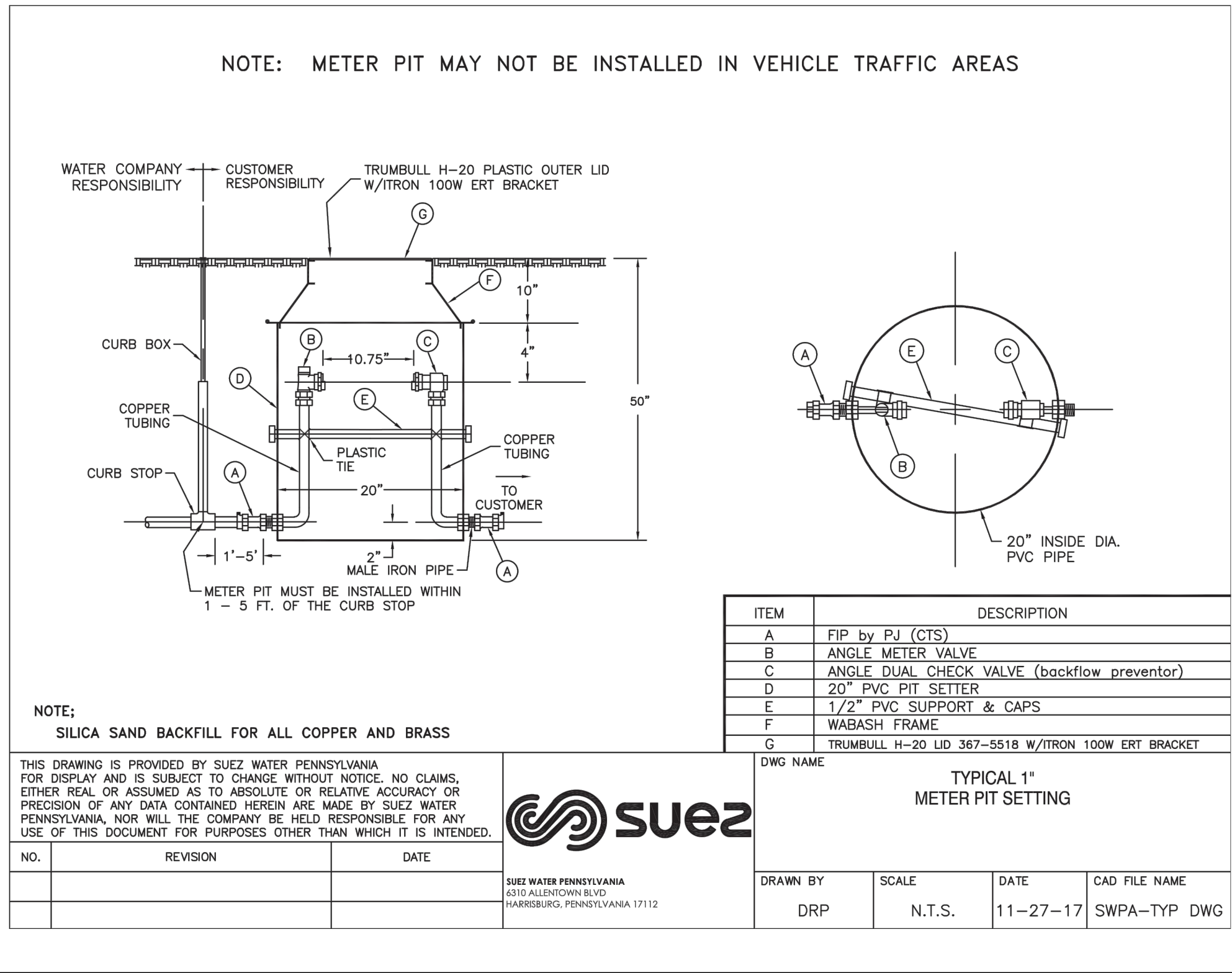
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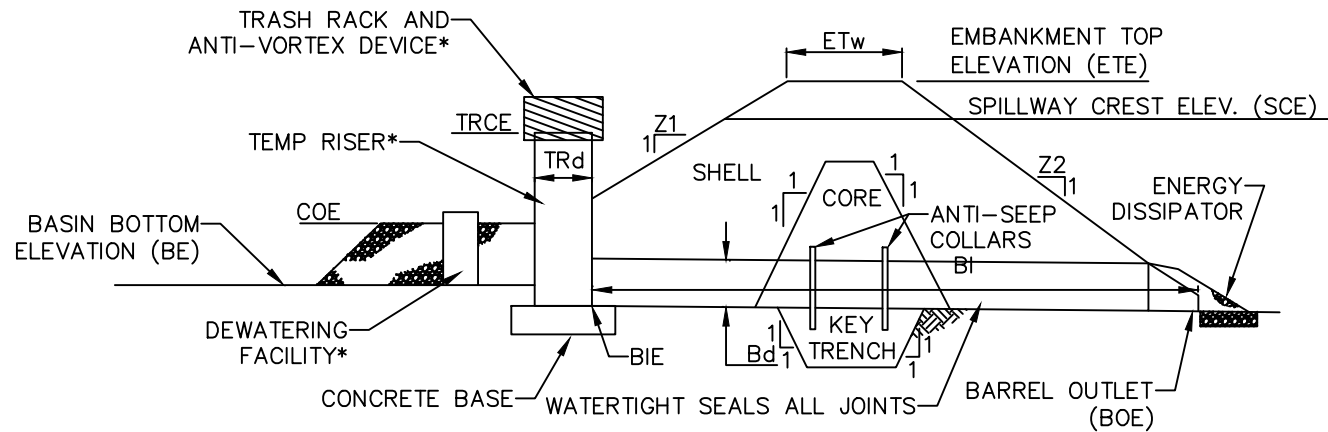


NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDC COMMENTS	7/22/2022
3		
4		
5		

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* ALSO REFER TO SEDIMENT BASIN TEMPORARY RISER, EMERGENCY SPILLWAY, ENERGY DISSIPATOR, TRASH RACK AND ANTI-VORTEX DEVICE, AND SEDIMENT STORAGE DEWATERING FACILITY DETAILS.

BASIN NO.	Z1 (FT)	Z2 (FT)	TEMPORARY RISER			BARREL				
			DIA TRD (IN)	CREST ELEV TRCE (FT)	MAT'L	DIA Bd (IN)	INLET ELEV BIE (FT)	MAT'L	LENGTH (FT)	OUTLET ELEV BOE (FT)
1	3	3	30	505.70	CMP	18	501.50	RCP	40	500.00

EMBANKMENT						CLEANOUT* ELEV BE (FT)	BOTTOM ELEV BE (FT)
TOP ELEV ETE (FT)	SPILLWAY CREST ELEV (SCE)	SPILLWAY WIDTH (FT)	TOP WIDTH ETW (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)		
507.10	506.00	20'	5	2	4	502.2	500.00

*- BOTTOM OF RED MARK ON CLEANOUT STAKE

NOTES:

SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON THE E&S PLAN DRAWINGS.

AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO FEET PRIOR TO ANY PLACEMENT AND COMPACTION OF EARTHEN FILL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS. UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.

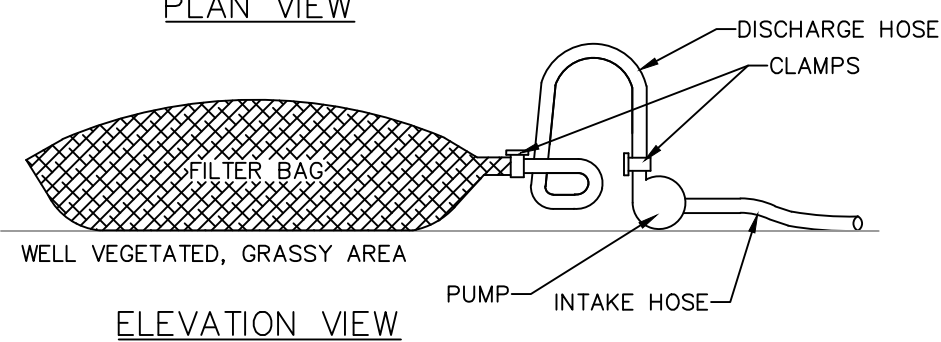
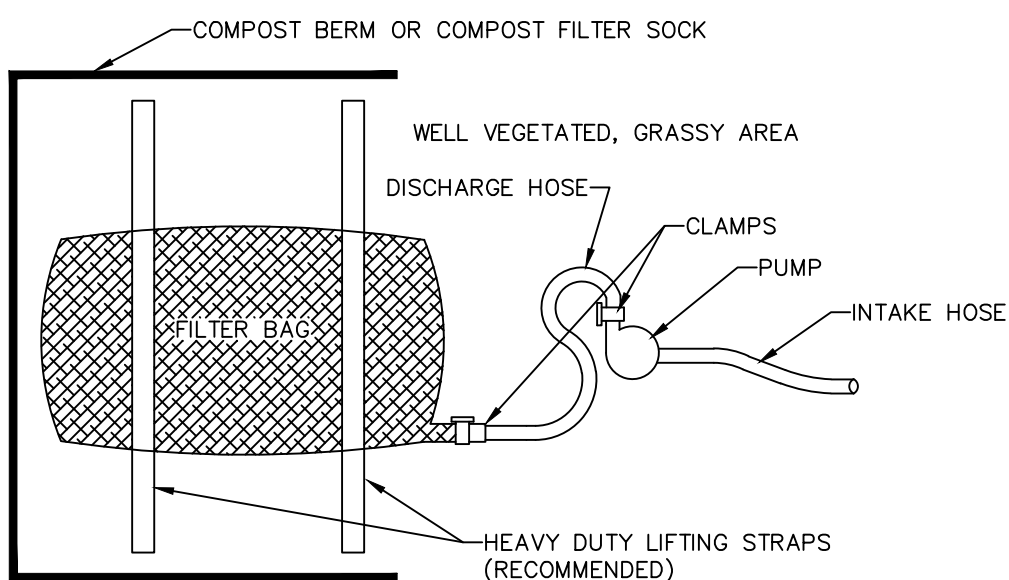
ACCESS SHALL BE PROVIDED FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN.

INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. CHECK BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED INSIDE THE BASIN BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 MAY BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

STANDARD CONSTRUCTION DETAIL #7-6 SEDIMENT TRAP EMBANKMENT AND SPILLWAY DETAILS PERFORATED RISER

NOT TO SCALE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4633	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS DUE TO THE FACT THAT THIS BMP NEEDS TO BE ABACT DUE TO IMPAIRED WATER SOURCE.

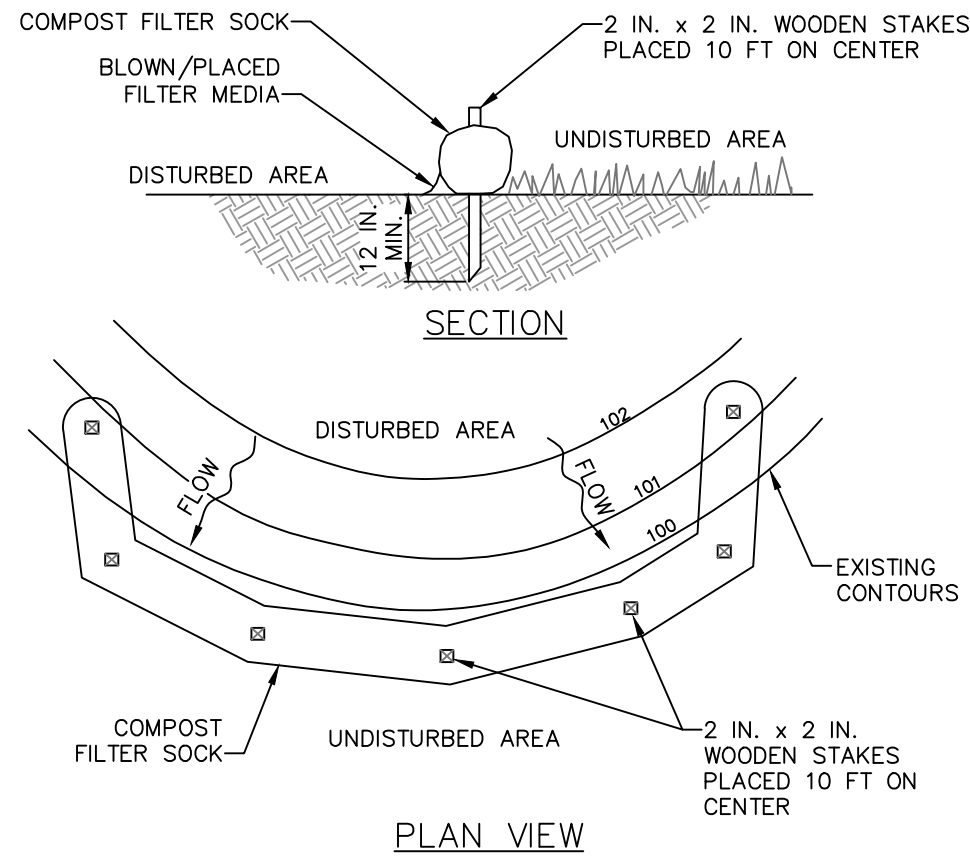
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG

N.T.S.

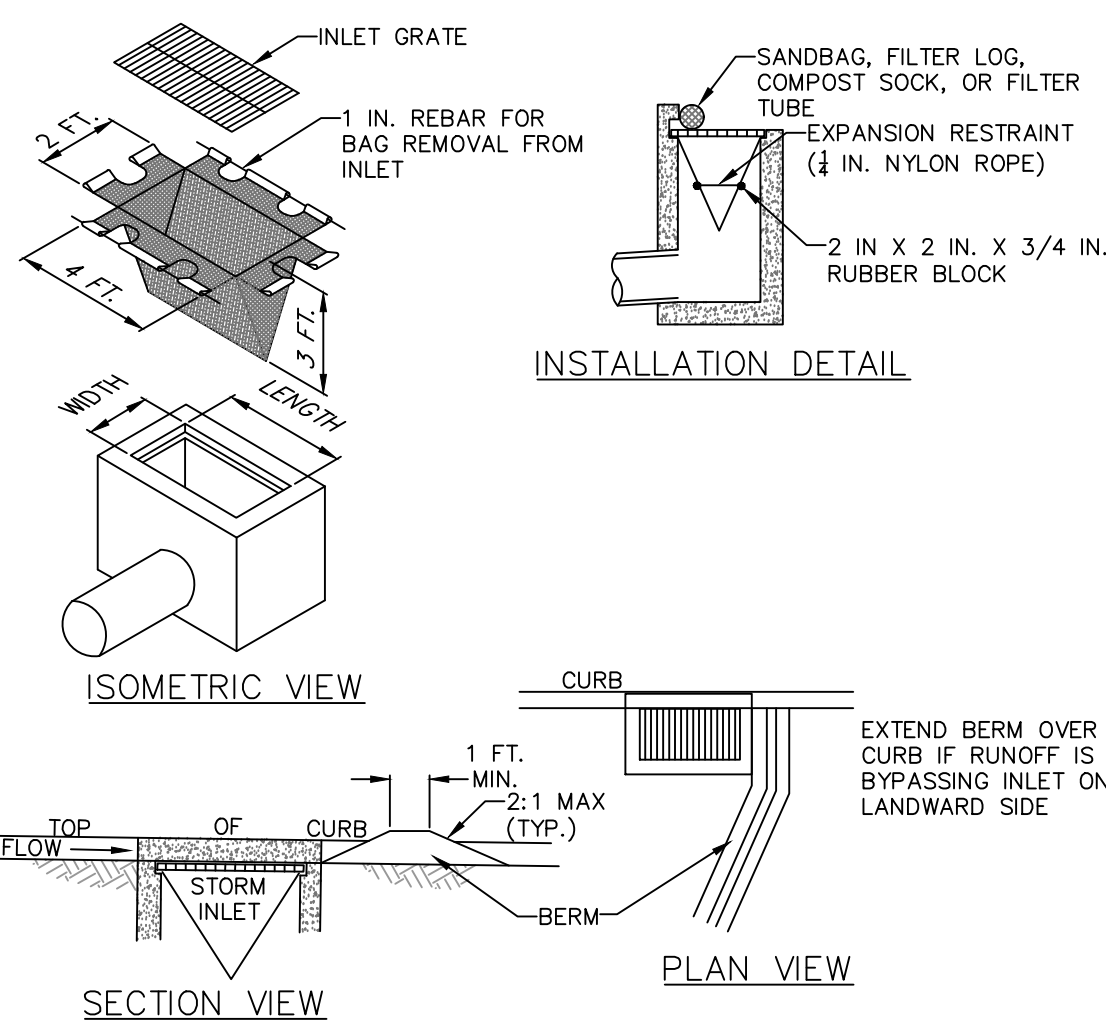


COMPOST FILTER SOCK

NOT TO SCALE

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Photo-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Filterexx 8 JMD



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

FILTER BAG INLET PROTECTION - TYPE C INLET

N.T.S.

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

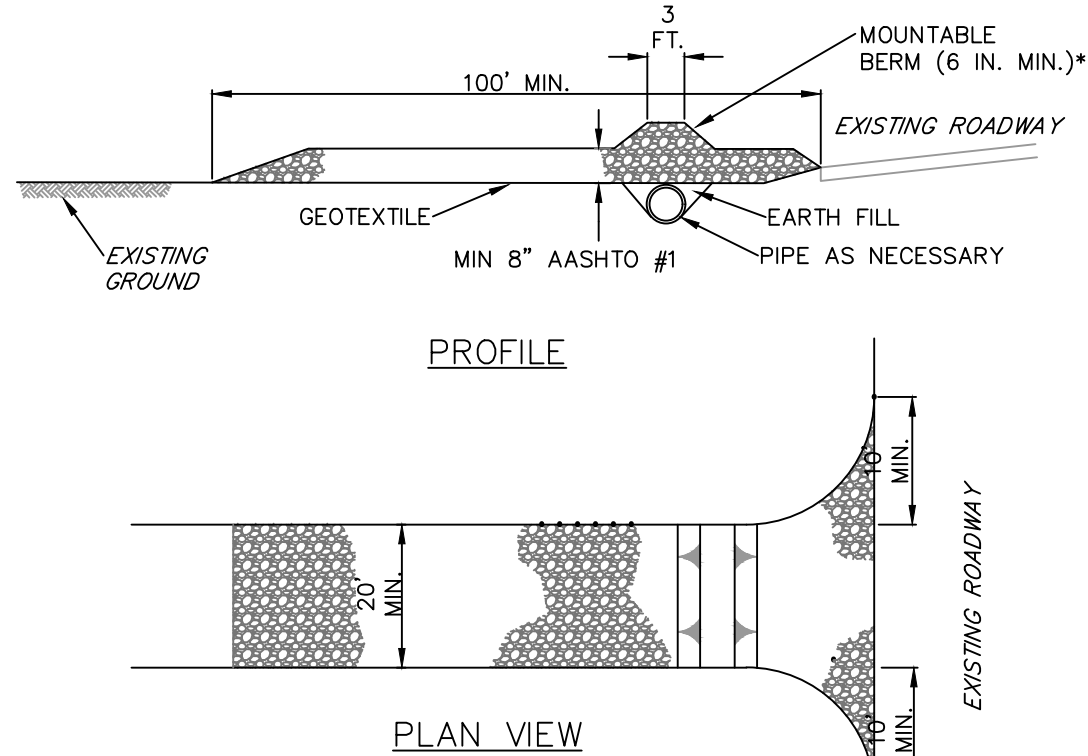
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK TABLE				
SOCK NO.	DIA. (IN)	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1	32	SEE PLAN		593
2	32	SEE PLAN	7	593
3	12	SEE PLAN	varies, stockpile	varies, stockpile

COMPOST STANDARDS	
Organic Matter Content	25%-100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5-8.5
Moisture Content	30%-60%
Particle Size	30%-50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

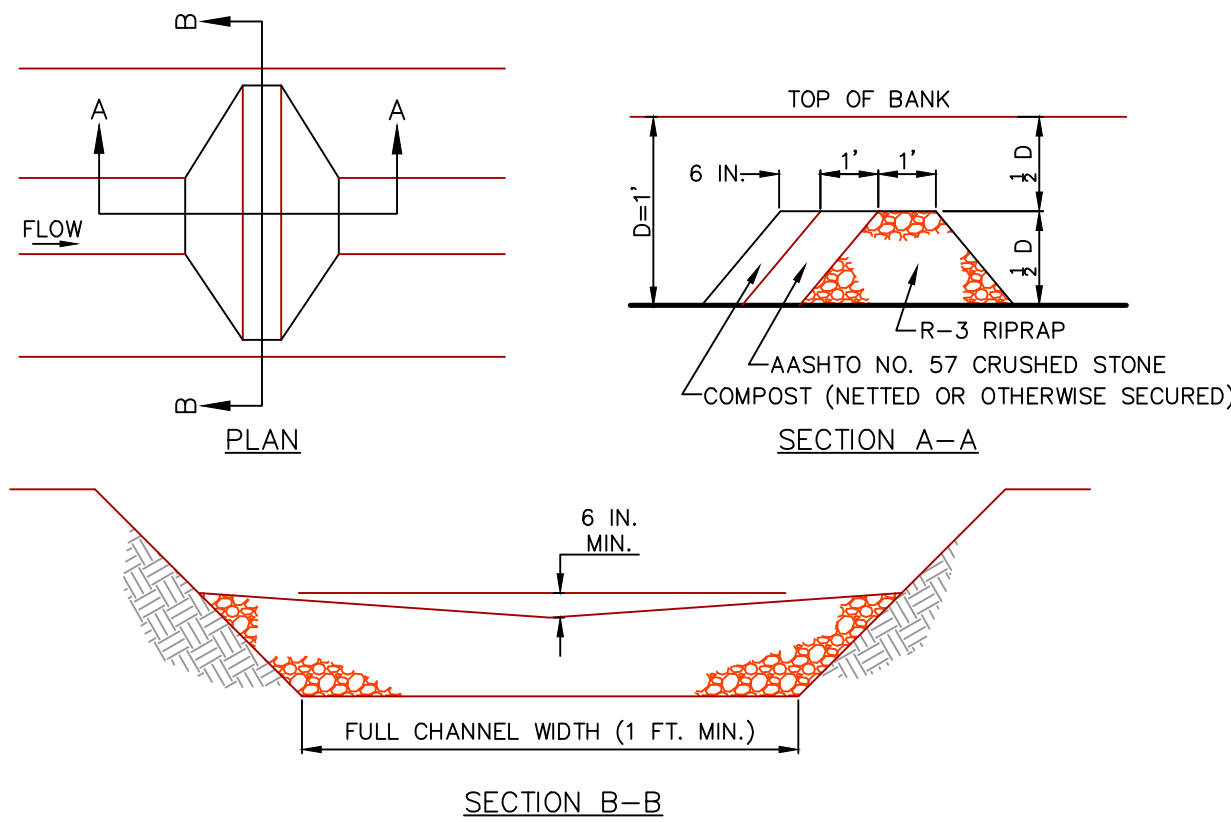
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



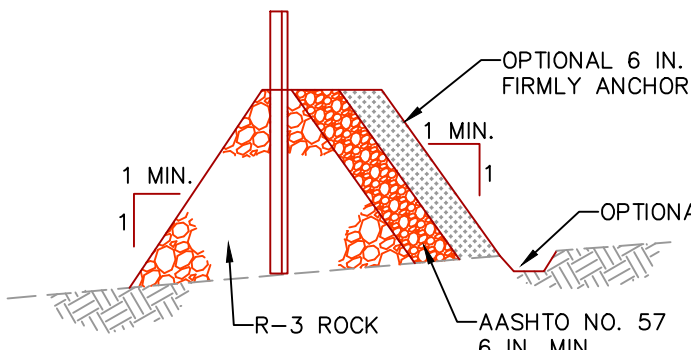
NOTES:

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.

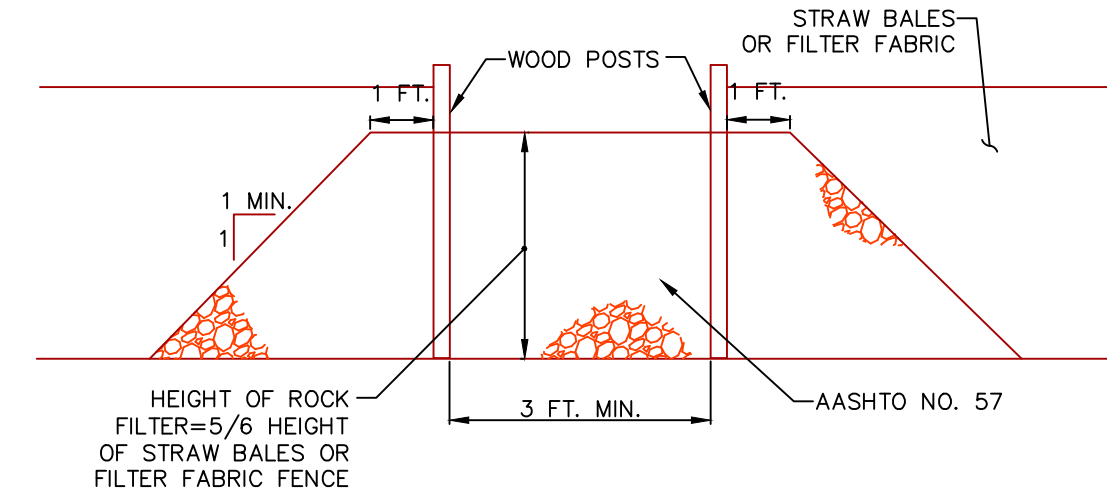
IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

ROCK FILTER

NOT TO SCALE



OUTLET CROSS-SECTION



UP-SLOPE FACE

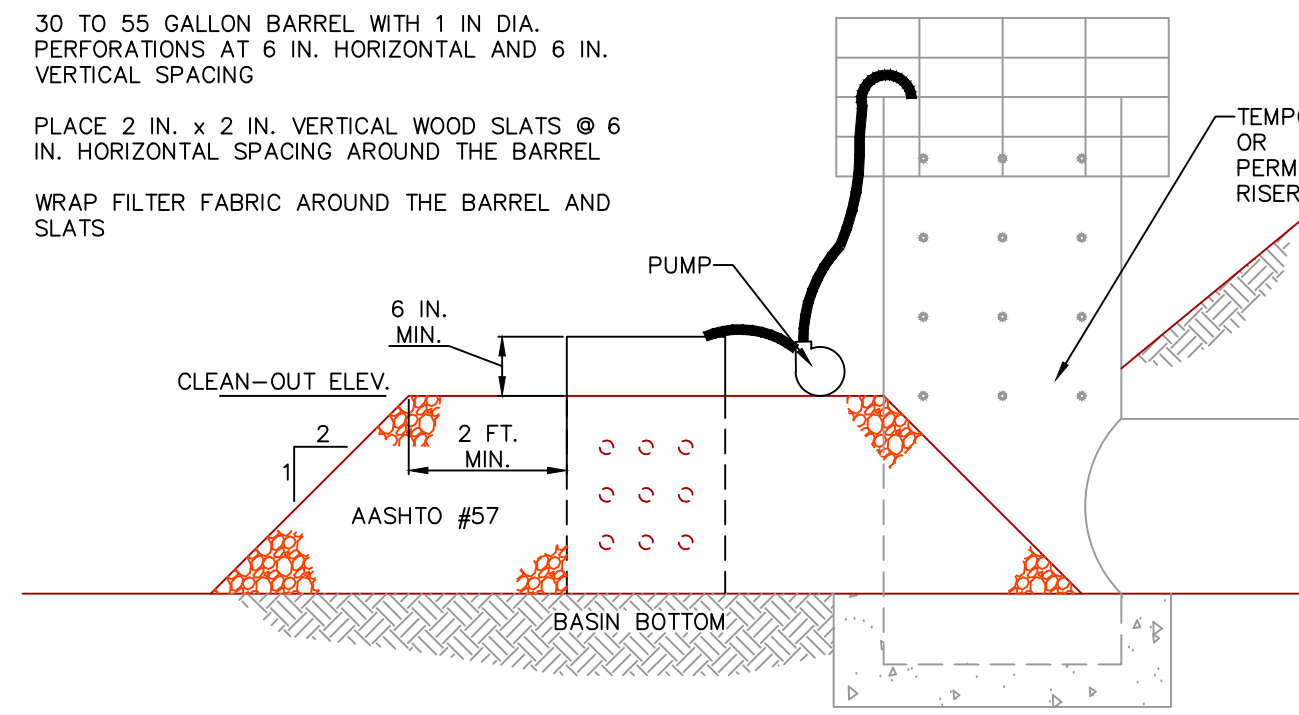
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6 ROCK FILTER OUTLET

NOT TO SCALE



NOTES:

DEWATERING FACILITY SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF BASIN/TRAP.

PRIOR TO INITIATING OPERATION OF DEWATERING FACILITY, ALL ACCUMULATED SEDIMENT SHALL BE CLEANED FROM THE INSIDE OF THE BARREL.

DEWATERING FACILITY SHALL BE CONTINUOUSLY MONITORED DURING OPERATION. IF FOR ANY REASON THE DEWATERING FACILITY CEASES TO FUNCTION PROPERLY, IT SHALL BE IMMEDIATELY SHUT DOWN AND NOT RESTARTED UNTIL THE PROBLEM HAS BEEN CORRECTED.

STANDARD CONSTRUCTION DETAIL #7-18 SEDIMENT BASIN OR SEDIMENT TRAP SEDIMENT STORAGE DEWATERING FACILITY

NOT TO SCALE

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E&S CONTROL DETAILS

FOR

2509 MILL ROAD TOWNHOMES

LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID:
221013-3-LD

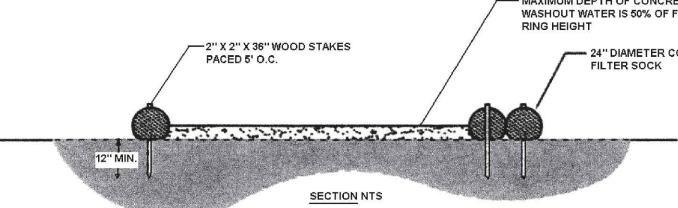
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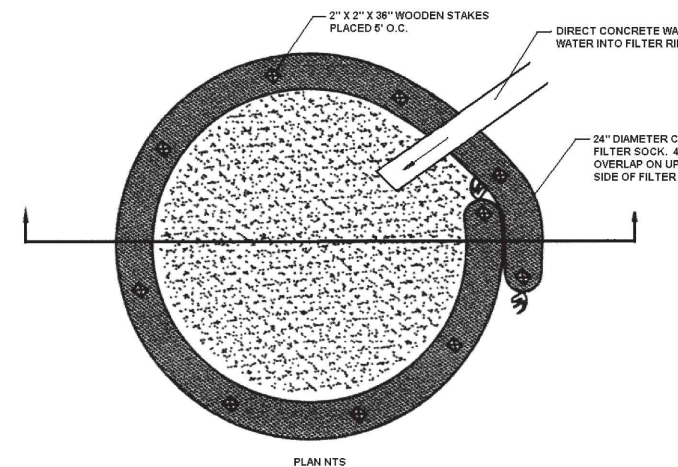
SHEET:
19 OF 21



FIGURE 3.18
Typical Compost Sock Washout Installation

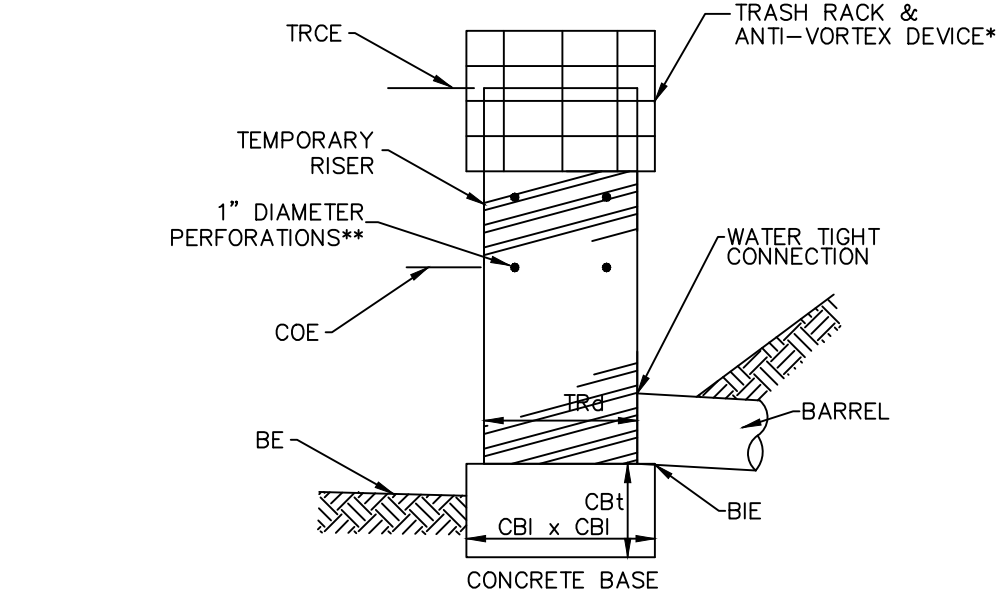


NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" CONCRETE FILTER SOCK MAY BE SUBSTITUTED WITH
DOUBLE 24" COMPOST SOCKS IN PARALLEL
CONFIGURATION FOR THE SAME HEIGHT.



A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.
Adapted from Filtraxx

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* SEE STANDARD CONSTRUCTION DETAIL #7-5, TRASH RACK AND ANTI-VORTEX DEVICE
** LOWEST ROW OF HOLES AT SEDIMENT CLEAN-OUT ELEVATION

	TEMPORARY RISER			PERFORATIONS			CONCRETE BASE		BARREL	
TRAP NO.	DIA TRD (IN)	CREST ELEV TRCE (FT)	MAT'L	LOWEST ROW OF HOLES ELEV (FT)	NO. ROWS**	NO. HOLES PER ROW	VERT. SPACING OF ROWS (FT)	LENGTH AND WIDTH CBI (IN)	THICKNESS CBI (IN)	INLET ELEV BIE (FT)
1	30	505.70	CMP	502.2	4	1	1	48 X 48	12	501.50

NOTES:

A MINIMUM OF 2-#8 REBAR SHALL BE PLACED AT RIGHT ANGLES AND PROJECTING THROUGH SIDES OF RISER TO ANCHOR IT TO CONCRETE BASE. REBAR SHALL PROJECT A MINIMUM OF 1/4 RISER DIAMETER BEYOND OUTSIDE OF RISER.

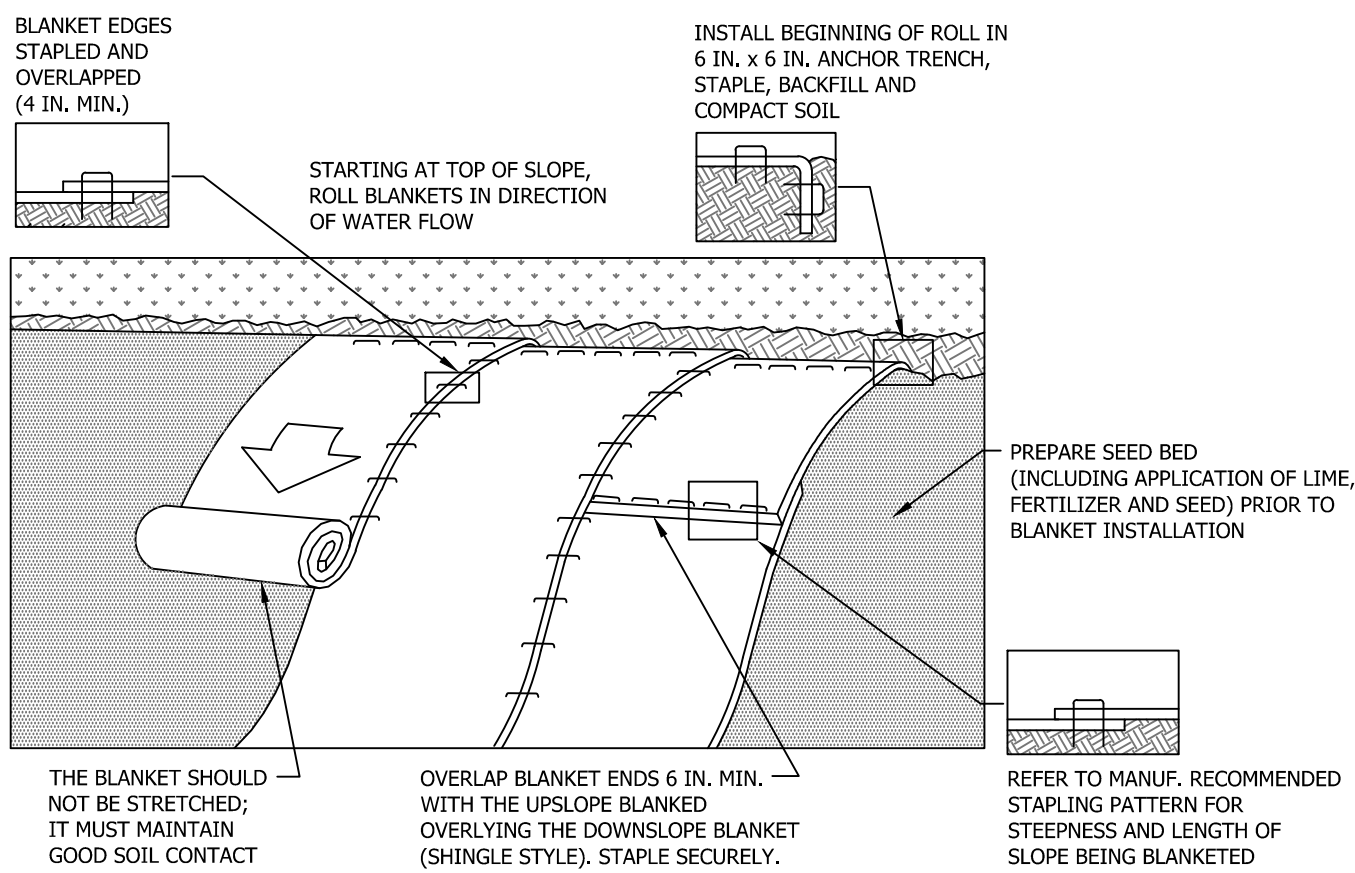
CONCRETE BASE SHALL BE POURED IN SUCH A MANNER SO AS TO INSURE THAT CONCRETE FILLS BOTTOM OF RISER TO INVERT OF THE OUTLET PIPE TO PREVENT RISER FROM BREAKING AWAY FROM THE BASE. MINIMUM BASE WIDTH EQUALS 2 TIMES RISER DIAMETER.

EMBEDDED SECTION OF ALUMINUM OR ALUMINIZED PIPE SHALL BE PAINTED WITH ZINC CHROMATE OR EQUIVALENT.

CLOGGED OR DAMAGED SPILLWAYS SHALL BE REPAIRED IMMEDIATELY. TRASH AND OTHER DEBRIS SHALL BE REMOVED FROM THE BASIN AND RISER.

STANDARD CONSTRUCTION DETAIL #7-7 SEDIMENT BASIN TEMPORARY RISER

NOT TO SCALE



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

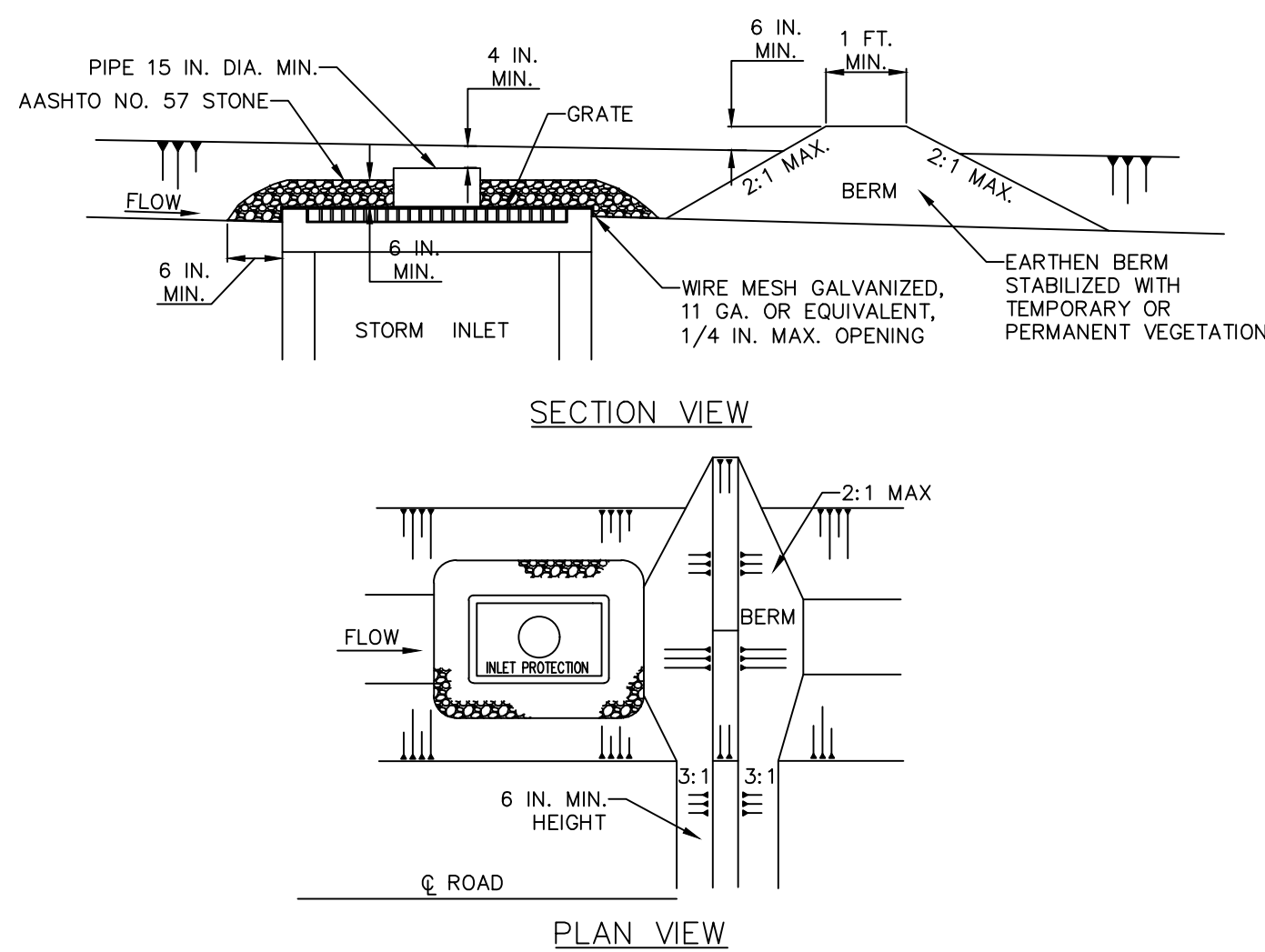
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



NOTES:

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.

STONE INLET PROTECTION AND BERM FOR A TYPE M INLET CAN BE USED IN ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD. A PERFORATED PLATE WELDED TO A METAL RISER MAY NOT BE SUBSTITUTED FOR THE WIRE MESH. A SLOTTED PLATE WELDED TO THE RISER MAY BE USED IN CONJUNCTION WITH THE WIRE MESH IF CALCULATIONS ARE PROVIDED TO SHOW SUFFICIENT CAPACITY OF THE INLET TO ACCEPT THE PEAK RUNOFF FOR A 2-YEAR STORM EVENT FROM THE TRIBUTARY DRAINAGE AREA. TOP OF PIPE SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADWAY IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC. EARTHEN BERM SHALL BE ROLLED.

SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 IN. THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-20 STONE INLET PROTECTION AND BERM - TYPE M INLET

NOT TO SCALE

E&S CONTROL DETAILS

FOR

2509 MILL ROAD TOWNHOMES

LOCATED IN
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA

DRAWING ID:
221013-3-LD

PROJECT: 221013

DATE: 04/25/2022

SHEET:
20 OF 21

R. J. FISHER & ASSOCIATES, INC.

SITE PLANNING ■ CIVIL ENGINEERING ■ LAND SURVEYS

1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070

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NO.	REVISION	DATE
1	PER TWP PC REPORT 5/17/22	6/21/22
2	PER CCDD COMMENTS	7/22/2022
3	—	—
4	—	—
5	—	—

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GENERAL NOTES

1. The site contractor and their designees shall familiarize themselves with this Erosion Control Plan. The site contractor shall be responsible for implementation of this Erosion Control Plan.
2. The site contractor shall not disturb more area than is necessary for the task to be done, so that potential for erosion is minimized.
3. The site contractor shall ensure that earth disturbance activities are planned and implemented to the extent practicable in accordance with the following:
- a. Minimize the extent and duration of the earth disturbance.
 - b. Maximize protection of existing drainage features and vegetation.
 - c. Minimize soil compaction.
 - d. Utilize other measures or controls that prevent or minimize the generation of increased stormwater runoff.
4. Erosion and sedimentation controls must be constructed, stabilized, and functional before site disturbance within the tributary areas to the controls.
5. A copy of the approved Erosion and Sediment Control Plan / Drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times.
6. At least 7 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the owner and/or operator shall invite all contractors involved in those activities, the landowner, appropriate municipal officials, the erosion control plan preparer, the post construction plan preparer, and a representative of the County Conservation District to an on-site pre-construction meeting.
7. At least 3 days before starting any earth disturbance activities, or expanding into an area previously unmarked, all contractors involved in those activities shall notify the Pennsylvania One Call System incorporated at 1-800-242-1776 for the location of existing underground utilities.
8. All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the County Conservation District prior to implementation.
9. Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E & S BMPs specified by the Construction Sequence for that stage or phase have been installed and are functioning as described in this document.
10. At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operation begin.
11. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.
12. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices (BMPs) to minimize the potential for erosion and sediment pollution, and notify the local Conservation District and/or the regional office of PA DEP.
13. Solids, trash and other pollutants shall be disposed in accordance with federal and state regulations in order to prevent any pollutant in such materials from adversely affecting the environment. All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department of Environmental Protection's Solid Waste Management regulations at 25 Pa. Code 260, 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
14. All off-site waste and borrow areas must have an E & S Plan approved by the Conservation District or DEP, and fully implemented prior to being activated.
15. The contractor is responsible for ensuring that any material brought onto the site is Clean Fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as Clean Fill due to analytical testing.
16. All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
17. Areas which are to be topsoiled shall be scarified to a minimum depth of 4 inches prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
18. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures, conduits, etc. shall be compacted in accordance with local requirements or codes. All fills shall be placed in compacted layers not to exceed 9 inches in thickness. Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills. Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills. Fill shall not be placed on saturated or frozen surfaces.
19. Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
20. All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated.
21. Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
22. Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
23. All E & S BMPs must remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Conservation District or PA DEP.
24. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and / or operator shall contact the Conservation District for an inspection prior to removal / conversion of the E & S BMPs.
25. After final site stabilization has been achieved, temporary E & S BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs must be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal / conversions should be done only during the germinating season.
26. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and / or operator shall contact the Conservation District to schedule a final inspection.
27. Failure to correctly install E & S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E & S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Pennsylvania Department of Environmental Protection as defined in Section 602 of the Pennsylvania Clean Streams law. The Clean Streams law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.
28. Only limited disturbance will be permitted to initially access and acquire borrow to construct control facilities, before general site alteration begins.
29. If fuel or other dangerous chemicals are stored on site, then a Preparedness, Prevention and Contingency (PPC) Plan must be developed and kept on site.
30. During dry and windy conditions Dust Control Measures shall be implemented to suppress air-borne dust and may include sprinkling/irrigation, vegetative cover establishment, mulching, matting, tillage, stone, and spray-on chemical treatments. Refer to the PADEP Erosion & Sediment Control Manual, Appendix H, Dust Control for further information.
31. An erosion control blanket must be installed on all disturbed slopes steeper than 3:1 in all areas with concentrated flows as noted on the drawings.

31. Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross-section and protective lining. Any base flow within the channel shall be conveyed past the work in the manner described in this plan until such restoration is complete.
32. Fill Materials:
- a. The NPDES Permit covers the "moving, depositing, stockpiling, or storing of soil, rock, or earth materials." If the site will need to have fill imported from an off site location, the responsibility for performing environmental due diligence and the determination of clean fill will in most cases reside with the Operator. If the site will have excess fill that will need to be exported to an off site location, the responsibility of clean fill determination and the environmental due diligence rests on the applicant. If all cut and fill materials will be used on the site, a clean fill determination is not required by the operator unless there is a belief that a spill or release of a regulated substance occurred on site. The contractor is responsible for ensuring that any material brought onto the site is Clean Fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as Clean Fill due to analytical testing.
 - b. Applicants and/or operators must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the Department's policy "Management of Fill", document number 258-2162-773. A copy of this policy is available online at www.depweb.state.pa.us. Under the heading Quick Access on the left side of the screen, click on "Forms and Publications." On the left side of the screen click on "Technical Guidance Documents- Final." Then type the document number 258-2162-773 into the search window and conduct the search. Click on "Management of Fill."
 - c. Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)
 - d. Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill."
 - e. Environmental due diligence: Investigative techniques, including, but not limited to, visual property inspection, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill."
 - f. Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.

TEMPORARY SEEDING SCHEDULE

The contractor shall immediately temporarily stabilize any rough graded area, topsoil stockpile, or unused excavated area with seed and straw mulch. The excavated fill material that will be left idle for less than 1 year. The grass will provide interim protection against the impact of precipitation, running water and wind. Permanently seed any area that will be idle for more than 1 year.

Temporary seeding schedule is as follows:

Species:	annual rye grass
% Live Seed:	98%
Application rate:	10 lbs./1,000 sq. yds.
Fertilizer type:	general purpose granular, 10-20-20
Fertilizer application rate:	11 lbs./1,000 sq. yds.
Liming rate:	per soil test; minimum of 4 tons per acre.
Straw/mulch rate:	1,200 lbs./1,000 sq. yds.
Seeding dates:	no seeding between 11/1 and 3/15
Mulch anchoring:	Asphalt, either emulsified or cut-back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

When seeding is not possible due to the time of year or other limitations, disturbed area shall be mulched with strawbales at the rate above. An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75' or approved equal.

PERMANENT SEEDING SCHEDULE--

All disturbed soil not to be covered with impervious surfaces, riprap or landscaping mulch shall be permanently seeded to provide protection against the impact of precipitation, running water and wind. Permanent seeding schedule for the general project area is as follows:

Species:	45% Kentucky bluegrass (50/50 variety mix) 45% Penninnia Creeping 20% Noreia Perennial ryegrass 5% annual ryegrass
% Pure live seed:	98%
Application rate:	6 lbs./1000 sq. ft.
Fertilizer type:	general purpose granular, 10-20-20
Fertilizer application rate:	11 lbs./1000 sq. yds.
Liming rate:	per soil test; minimum of 6 tons per acre
Seeding dates:	between 3/15-6/1 and 8/1-10/15

Apply all permanent seed at rates equivalent with above broadcast rates in accordance with PENNDOT 408 Sec. 805.3 in a potable water-based slurry with a Bonded Fiber Matrix hydromulch material. Care shall be taken to not spray areas unintended for seeding.

An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75' or approved equal.

A minimum of 6" of topsoil shall be placed prior to seeding.

MAINTENANCE OF TEMPORARY EROSION & SEDIMENT CONTROL FACILITIES

1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Responsibility for implementing and maintaining erosion and sedimentation control measures shall be designated to a minimum of one individual who will be present at the project site each working day. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis, to ensure that they are in place, stable, and functioning properly. All preventative and remedial maintenance work, including clean out, repair, replacement, re-grading, reseeded, re-mulching, and re-netting must be performed immediately, to restore the control measure to the original design. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
2. A log showing dates that E & S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
3. Any sediment removed from BMPs during construction will be returned to upland areas within the project area, and incorporated into the site grading, or in the manner described on the plan drawings.
4. See the construction details and seeding specifications for maintenance procedures for the various control measures.
5. Mud must be removed from vehicle tires before they exit the site. Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer or surface water.

STAGING OF EARTH MOVING ACTIVITIES

General Notes:

1. A licensed professional or a designee shall be present on site during construction of the following critical stages of implementation of the approved PCSM plan:
- A. Storm Basin #1 Soil Amendments
2. At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call system Incorporated at 1-800-242-1776 for the location of existing underground utilities.
3. All earth disturbance activities shall proceed in accordance with the following specific sequencing. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Any deviation from the following sequence must be approved in writing from the Cumberland County Conservation District.
4. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate the potential for accelerated erosion and/or sediment pollution.
5. At least 7 days before starting any earth disturbance activities, the owner and/or operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, and a representative of the Cumberland County Conservation District to an on-site pre-construction meeting.
6. Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary seeding vegetative stabilization specifications. Disturbed areas which are not at final grade or which will not be re-disturbed within 1 year must be stabilized in accordance with the permanent seeding vegetative stabilization specifications.
7. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.
8. Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.

Specific Staging of Earthmoving Activities.

1. Field mark the limits of disturbance.
2. Bring site to final sub-grade elevation in the area of the Stabilized Construction Entrance and install Stabilized Construction Entrance.
3. Install Silt Barriers #1 and #2.
4. Bring site to subgrade, constructing Sediment Basin as first priority. Use lightest equipment as practical during the construction of the Sediment Trap as this will be used as an infiltration / managed release basin during the Post Construction Stormwater Management state. Permanent slopes of 3:1 or greater require temporary N.A.G. S75 matting or equivalent. Permanently seed and mulch slopes as soon as they are to final grade. Delay Amended Soils and basin sub-drain until rest of site is complete and stabilize and ready for final PCSM conversion.
5. Install Temporary Baffle and cleanout marker stake in Sediment Basin.
6. Install Sediment Barrier #3.
7. Install basin discharge pipe, rock apron, and level spreader. Delay permanent Stormwater Basin Discharge Structure until site is stabilized and ready for conversion to final PCSM condition.
8. Install Temporary Riser for Sediment Trap and associated dewatering facility and trash rack.
9. Install stormwater structures, rock aprons, storm sewers, and associated inlet protection.
10. Begin Building Construction.
11. Install water service. Install sanitary sewer pump station lateral, & force main.
12. Install curb
13. Install stone base at parking lot, access drive, walkways concrete pads..
14. Complete construction of buildings, and concrete/ asphalt paving.
15. Permanently seed and mulch remaining lawn areas.
16. Install proposed landscaping.

Conversion to PCSM

- *- Item requires on-site observation by designated professional during installation.

1. Temporary control measures can only be removed when the watershed draining to the measure is permanently stabilized and removal is authorized by the Cumberland County Conservation District. Permanently stabilized is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density capable to resist accelerated surface erosion, and subsurface characteristics sufficient to resist sliding and other movements. The location of the control measure must be immediately permanently stabilized upon its removal. All areas to be permanently seeded shall have a minimum depth of 6" of topsoil before seeding.
2. *Install Amended Soils
3. Convert Discharge structure to permanent condition.
4. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Cumberland County Conservation District for an inspection prior to the removal/conversion of the E&S BMP's.
5. Upon approval from the Cumberland County Conservation District, Sediment Basin 1 shall be converted to the permanent condition as indicated on the PCSM plan. Sediment Basin shall be dewatered and any baffles and cleanout stakes shall be removed. The permanent emergency spillway associated with Storm Basin 1 shall be modified and outlet structure converted to permanent condition. All sediment deposited within storm sewers shall be removed prior to converting the sediment basin. Remove an additional 24" below the proposed basin bottom, replace with a 2:1 soil to compost mix and till up to 20". Install underdrain as shown on PCSM Plan and Profile. Permanently seed and mulch as required.
6. Upon approval from the Cumberland County Conservation District, all silt barriers shall be properly removed.
7. Upon completion of all earth disturbance activities, removal of all temporary BMPs, installation of all permanent PCSM BMPs, and permanent stabilization of all disturbed areas, the owner and/operators shall contact the Cumberland County Conservation District for a final inspection.

SPECIALTY SEEDING SCHEDULES:

NATIVE STEEP SLOPE MIX W/ANNUAL RYEGRASS

(APPLY TO ALL 3:1 OR STEEPER SLOPES)

Mix Composition
31.1% Sorghastrum nutans, New England 2 Ecotype (Indiangrass, New England 2 Ecotype)
20.0% Lolium multiflorum (Annual Ryegrass)
14.0% Andropogon gerardii, 'Niagara' (Big Bluestem, 'Niagara')
10.0% Elymus virginicus, 'Madison' (Virginia Wildrye, 'Madison')
7.0% Elymus canadensis (Canada Wildrye)
4.0% Agrostis perennans, Albany Pine Bush-NY Ecotype (Autumn Bentgrass, Albany Pine Bush-NY Ecotype)
4.0% Panicum virgatum, 'Carthage', NC Ecotype (Switchgrass, 'Carthage', NC Ecotype)
3.0% Panicum clandestinum, Tioga (Deertongue, Tioga)
1.5% Echinacea purpurea (Purple Coneflower)
1.3% Chamaeneris fasciculata, PA Ecotype (Partridge Pea, PA Ecotype)
1.2% Helopsis helianthoides, PA Ecotype (Oxeye Sunflower, PA Ecotype)
1.0% Coreopsis lanceolata (Lanceleaf Coreopsis)
1.0% Rudbeckia hirta (Blackeyed Susan)
0.3% Monarda fistulosa, Fort Indiantown Gap-PA Ecotype (Wild Bergamot, Fort Indiantown Gap-PA Ecotype)
0.2% Achillea syriaca (Common Milkweed)
0.2% Solidago rugosa, PA Ecotype (Wrinkleleaf Goldenrod, PA Ecotype)
0.1% Aster lateriflorus (Calico Aster)
0.1% Aster pilosus, PA Ecotype (Heath Aster, PA Ecotype)

Item Number: ERNMX-181

Height: 1.0 – 6.3 Ft

Seeding Rate: 60 lb per acre, or 1.5 lb per 1,000 sq ft

RETENTION BASIN FLOOR MIX – LOW MAINTENANCE

(APPLY TO BOTTOM OF STORMWATER BASIN)

Mix Composition
20.0% Panicum clandestinum, Tioga (Deertongue, Tioga)
20.0% Puccinellia distans, Fults (Alkaligrass, Fults)
18.0% Elymus virginicus, 'Madison' (Virginia Wildrye, 'Madison')
15.0% Agrostis stolonifera (Creeping Bentgrass)
15.0% Poa palustris (Fowl Bluegrass)
10.0% Carex vulpinoidea, PA Ecotype (Fox Sedge, PA Ecotype)
1.0% Carex scoparia, PA Ecotype (Blunt Broom Sedge, PA Ecotype)
1.0% Juncus effusus (Soft Rush)

Item Number: ERNMX-126

Seeding Rate: 20-40 lbs per acre, or 0.5-1 lb/1,000 sq ft with a cover crop. For a cover crop use one of the following: grain rye (1 Sep to 30 Apr; 30 lbs/acre), Japanese millet (1 May to 31 Aug; 10 lbs/acre), or barnyard grass (1 May to 31 Aug; 10 lbs/acre).

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E&S CONTROL DETAILS

FOR

2509 MILL ROAD TOWNHOMES

LOCATED IN
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