

FINAL LAND DEVELOPMENT PLAN - PHASE IIA, IIC, IIE, IIIB AND V

FOR

SUSQUEHANNA UNION GREEN

SUSQUEHANNA TOWNSHIP

DAUPHIN COUNTY, PENNSYLVANIA

JUNE 07, 2019

PREPARED BY:



Nature leads, art follows.

SHEET NUMBER

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EX102
EX103

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RP1
RP2

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**COMMONWEALTH OF PENNSYLVANIA
COUNTY OF DAUPHIN**

ON THIS THE _____ DAY OF _____, 2019 BEFORE ME THE UNDERSIGNED PERSONALLY APPEARED.

OWNER(S) _____

WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

WITNESS MY HAND AND NOTORIAL SEAL THE DAY AND DATE ABOVE WRITTEN.

NOTARY PUBLIC _____ MY COMMISSION EXPIRES _____

OWNER STATEMENT OF DEDICATION

IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT ALL STREETS OR PARTS THEREOF, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY TENDERED FOR DEDICATION TO PUBLIC USE.

OWNER(S) _____

OWNER CERTIFICATION (STORMWATER)

IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT ALL STORMWATER BMPs ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT PRIOR APPROVAL BY SUSQUEHANNA TOWNSHIP.

OWNER(S) _____

ENGINEER CERTIFICATION

I HEREBY CERTIFY THIS PLAN TO BE CORRECT AS SHOWN.

(ENGINEER'S SIGNATURE AND SEAL)

STORMWATER MANAGEMENT CERTIFICATION

I, _____, HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF SUSQUEHANNA TOWNSHIP'S STORMWATER MANAGEMENT ORDINANCE.

WETLAND STATEMENT

I, _____, HEREBY CERTIFY THAT THERE (ARE/ARE NOT) WETLANDS ON THE SUBJECT PROPERTY, THE PROPOSED PROJECT (WILL/WILL NOT) IMPACT OFF-SITE WETLANDS, AND PERMITS (ARE/ARE NOT) REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.

DAUPHIN COUNTY PLANNING COMMISSION REVIEW STATEMENT

THIS PLAN REVIEWED BY THE DAUPHIN COUNTY PLANNING COMMISSION THIS _____ DAY OF _____, 2019

CHAIRMAN _____

SECRETARY _____

SUSQUEHANNA TOWNSHIP ENGINEER REVIEW STATEMENT

THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER THIS _____ DAY OF _____, 2019

TOWNSHIP ENGINEER _____

SUSQUEHANNA TOWNSHIP PLANNING COMMISSION APPROVAL STATEMENT

THIS PLAN RECOMMENDED FOR APPROVAL BY THE SUSQUEHANNA TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF _____, 2019

CHAIRMAN _____

SECRETARY _____

SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS APPROVAL STATEMENT

THIS PLAN APPROVED BY THE SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED ON THIS _____ DAY OF _____, 2019

PRESIDENT _____

SECRETARY _____

RECORDING STATEMENT

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR DAUPHIN COUNTY THIS _____ DAY OF _____, 2019

INSTRUMENT NUMBER _____

MODIFICATIONS GRANTED THROUGH PRELIMINARY PLANNING APPROVAL:

22-507.9.3 REQUIRING SIDEWALKS ON BOTH SIDES OF STREET

22-502.8 REQUIRING CLEAR SIGHT TRIANGLES IN ACCORDANCE WITH SALDO EXHIBIT 6

22-405.2.M REQUIRING A PRELIMINARY GREENWAY/OPEN SPACE LANDS & COMMON FACILITIES OWNERSHIP AND MAINTENANCE PLAN

22-405.1.A.12 REQUIRING THE DESIGNATION OF PARCELS OF LAND INTENDED TO BE DEDICATED OR RESERVED FOR PUBLIC, SEMI-PUBLIC OR COMMUNITY PURPOSES

507.10.4 REQUIRING STREET SECTIONS IN ACCORDANCE WITH DESIGN GUIDELINES

SITE INFORMATION

OWNER:

HAWTHORNE SPE, LLC
3605 VARTAN WAY
SUITE 301
HARRISBURG, PA 17110
MR. H. RALPH VARTAN - PRESIDENT
(717) 657-0100

APPLICANT:

VARTAN GROUP INC.
3605 VARTAN WAY
SUITE 301
HARRISBURG, PA 17110
MR. H. RALPH VARTAN
(717) 657-0100

ZONING

TRADITIONAL NEIGHBORHOOD DEVELOPMENT-1 (TND-1)

TOTAL SITE AREA:

58.07 ACRES

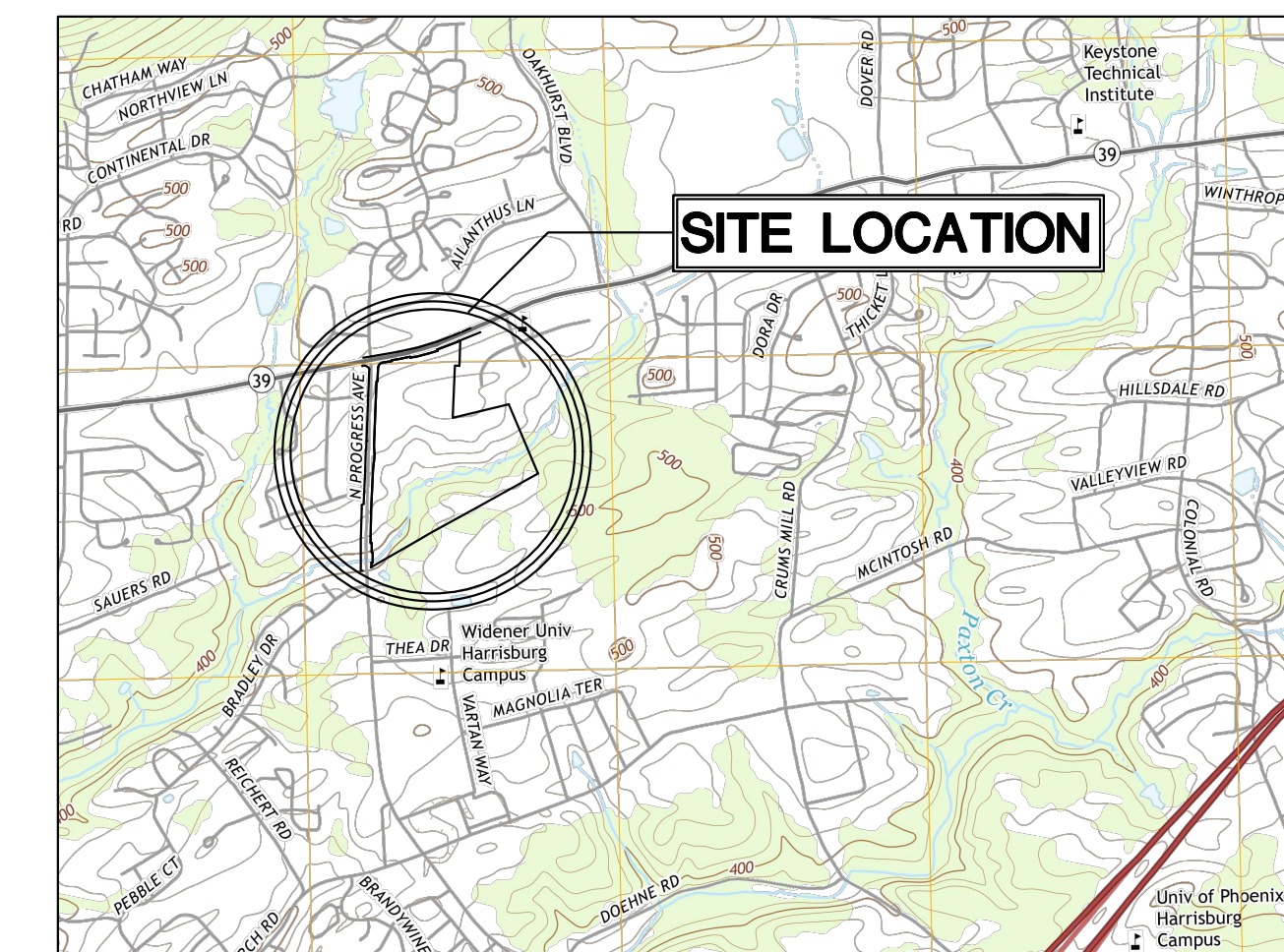
BULK AREA REQUIREMENTS

	PROVIDED	REQUIRED / PERMITTED
MINIMUM TRACT AREA		
MULTIPLE FAMILY:	40,000 S.F.	40,000 S.F.
PRINCIPAL FREE STANDING BUILDING:	10,000 S.F.	10,000 S.F.
MINIMUM LOT AREA FOR IN LINE RETAIL:	1,000 S.F.	1,000 S.F.
ACRES DEVOTED TO RESIDENTIAL USES SINGLE-FAMILY DETACHED	44% X 31.1 AC. = 13.7 AC.	2.9 AC. MIN. (NO MAX.)
MAXIMUM DWELLING UNITS PER GROSS ACRE SINGLE-FAMILY DETACHED	40 UNITS	10.2 AC. X 9 UNITS/AC. = 92 UNITS
BUILD TO LINES:	12' MAXIMUM	12'
MINIMUM SIDE YARD NON-RESIDENTIAL / MULTI-FAMILY:	20'	20'
RESIDENTIAL:	15'	15'
MAXIMUM IMPERVIOUS COVERAGE:	53.9%	55%
MINIMUM GREEN SPACE CENTRAL GREEN: ADDITIONAL GREENS (2)	0.51 AC. 1.40 AC. / 1.00 AC.	0.5 AC. 1 AC. EACH
MINIMUM BUILDING HEIGHT: MAXIMUM PRINCIPAL BUILDING HEIGHT:	20' 55'	20' 55' (4 STORIES)

TAX PARCEL: NO. 62-013-056

DEED INSTRUMENT NO. 20170009139

PLAN INSTRUMENT NO. 20130022125



SITE LOCATION MAP

1000' 500' 0' 1000' 2000'

SCALE: 1" = 1000'



**LaQuatra Bonci
ASSOCIATES
LANDSCAPE ARCHITECTURE**

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Pittsburgh, Pennsylvania 15203
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Nature leads, art follows.



Prepared for:

Vartan Group, Inc.
3605 Vartan Way, Suite 301
Harrisburg, PA 17110

Susquehanna
Union Green

Susquehanna
Township, Dauphin
County, PA

Project Number:

18030:1

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

April 5, 2019

Revisions:

1. 06/07/19 Rev per Twp Comments

Scale:

Sheet Name:

Cover Sheet

Submission:

Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

C000

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GENERAL NOTES:

- THIS PLAN IS IN SUBSTANTIAL COMPLIANCE WITH THE SUSQUEHANNA TOWNSHIP ZONING, SUBDIVISION AND LAND DEVELOPMENT, AND STORMWATER MANAGEMENT ORDINANCES PURSUANT TO SECTION 507 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE (THE "MPC"). ANY DESIGN MODIFICATIONS MUST BE APPROVED BY THE SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS PRIOR TO FINAL PLAN APPROVAL PURSUANT TO SECTION 508(4) OF THE MPC.
- PURSUANT TO 27-1912 OF THE SUSQUEHANNA TOWNSHIP ZONING ORDINANCE, THE BOARD OF COMMISSIONERS HEREBY MAKES THE FOLLOWING FINDINGS:
 - THIS PLAN IS CONSISTENT WITH THE "KEY DESIGN ELEMENTS" OF EXHIBIT A, THE "PRECEDENTS" OF EXHIBIT B, AND THE "REGULATING PLAN" OF EXHIBIT C OF PART 19 OF THE SUSQUEHANNA TOWNSHIP ZONING ORDINANCE.
 - THE MANUAL OF WRITTEN AND GRAPHIC DESIGN GUIDELINES ACCOMPANYING THIS PLAN IS CONSISTENT WITH THE DESIGN GUIDELINES IN 22-507 OF THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.
 - DATE OF FINAL REVIEW BY BOARD OF COMMISSIONERS: _____2019
- THE PROPOSED STREET AND SPEED LIMIT SIGNAGE SHALL BE CONSISTENT WITH THE SPECIFICATIONS OF SUSQUEHANNA TOWNSHIP.
- ALL FIRE HYDRANTS SHALL HAVE SHUT OFF VALVES.
- THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A MINIMUM OF 48 HOURS NOTICE AND TO COORDINATE WITH THE TOWNSHIP/TOWNSHIP ENGINEER IN REGARDS TO ALL MUNICIPAL INSPECTION WORK REQUIRED ON THE PROJECT SITE.
- THE DEVELOPER SHALL PROVIDE TWO (2) SETS OF RECORD DRAWINGS OF ALL STORMWATER MANAGEMENT FACILITIES TO SUSQUEHANNA TOWNSHIP PRIOR TO OCCUPANCY OR THE RELEASE OF FINANCIAL SECURITY.
- THE DEVELOPER SHALL PROVIDE TWO (2) SETS OF RECORD DRAWINGS TO THE SUSQUEHANNA TOWNSHIP AUTHORITY. THESE RECORD DRAWINGS SHALL BE PROVIDED AFTER THE STRUCTURES ARE CONSTRUCTED AND SHALL SHOW THE CONNECTION TO THE SEWER MAIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ANY NON-STANDARD HEADWALLS OR ENDWALLS STRUCTURALLY DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA. THE STRUCTURAL DESIGN CALCULATIONS SHALL BE SUBMITTED TO AND REVIEWED BY THE TOWNSHIP AND THEIR ENGINEER.
- INSTALLATION OF STORM DRAINAGE PIPING THROUGH THE CORNER OF PRE-CAST INLETS (OR "KNOCKOUT CORNERS") IS PROHIBITED. ALL PIPE CONNECTIONS AT INLETS SHALL OCCUR AT THE SIDES OF THE INLET.
- ALL STORMWATER INLET FRAMES, CONCRETE TOPS, AND GRADE ADJUSTMENT RINGS SHALL BE SET IN A FULL BED OF MORTAR.
- ALL STORMWATER CONVEYANCE PIPING SHALL HAVE WATERTIGHT JOINTS.
- ROADWAY AND/OR CURB UNDERDRAIN(S) SHALL BE INSPECTED BY THE MUNICIPAL ENGINEER OR HIS DESIGNATED AGENT AFTER COMPLETION OF ALL WORK, JUST PRIOR TO THE BASE COURSE APPLICATION.
- THE TOWNSHIP STAFF HAS PERMISSION TO ACCESS THE DRAINAGE EASEMENTS FROM THE NEAREST PUBLIC RIGHT-OF-WAY.
- SIDEWALKS SHALL BE INSPECTED BY THE MUNICIPAL ENGINEER OR HIS DESIGNATED AGENT AFTER THE FORMS HAVE BEEN PLACED, JUST PRIOR TO THE POURING OF CONCRETE AND AFTER THE COMPLETION OF ALL WORK.
- ALL STREET ADDRESS NUMBERS SHALL BE DISPLAYED IN ACCORDANCE WITH ORDINANCE SECTION 22-1112 REQUIREMENTS.
- EASEMENTS AND RESERVATIONS OF COMMON AREAS INCLUDING ACCESS DRIVES, PARKING AREAS, AND COMMON OPEN SPACES WILL BE PROVIDED IN CONDOMINIUM DOCUMENTS AT THE TIME OF FINAL DEVELOPMENT.
- AS DEFINED BY FEMA FLOODPLAIN PANEL 42043C0330D, THERE IS NO FEMA DELINEATED FLOODPLAIN LOCATED WITHIN THE SUBJECT SITE.
- IN A LETTER DATED SEPTEMBER 7, 2017, THE TOWNSHIP ACKNOWLEDGES RECEIPT AND APPROVAL OF THE CONCEPT/SKETCH PLAN MEETING THE REQUIREMENTS AS NOTED IN THE TND-1 ZONING ORDINANCE.
- STORMWATER OPERATIONS AND MAINTENANCE (O&M) AGREEMENT IS PART OF THE STORMWATER MANAGEMENT SITE PLAN. OPERATIONS AND MAINTENANCE AGREEMENTS SHALL BE RECORDED WITH THE FINAL LAND DEVELOPMENT STORMWATER MANAGEMENT PLAN.
- ALL STREET LIGHTS AND OUTDOOR LIGHTING SHALL UTILIZE LIGHT EMITTING DIODE (LED) TECHNOLOGY.
- WHERE APPLICABLE, ALL CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATIONS 408 AND 72 STANDARDS, SUSQUEHANNA TOWNSHIP ORDINANCES, AND SUSQUEHANNA TOWNSHIP AUTHORITY MANUAL FOR SEWER EXTENSION CONSTRUCTION.
- BMPs ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PA STORMWATER BMP MANUAL. BMPs SHALL BE SEQUENCED RELATIVE TO PROJECT PHASING PLAN AND PER FINAL PLAN APPROVALS.
- DO NOT SCALE DRAWINGS.

CAUTION NOTICE TO CONTRACTOR:

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. ALL BURIED UTILITIES ARE NOT NECESSARY SHOWN. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY IN ACCORDANCE WITH PA ACT 38 OF 1991 BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL CONFIRM ALL FINAL CONNECTION POINTS TO EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION.

LEGEND

EXISTING	
—100—	CONTOUR LINE
—W—	WATERLINE
—G—	GAS LINE
—SS—	SANITARY SEWER
—ST—	STORM SEWER
—STE—	STEAM LINE
----EU----	UNDERGROUND ELEC TELE CABLE
----TU----	UNDERGROUND TELEPHONE
----CTV----	UNDERGROUND CABLE
—E—	OVERHEAD ELECTRIC
—T—	OVERHEAD TELEPHONE
—CTV—	OVERHEAD CABLE
—OHW—	OVERHEAD WIRES
—C—	CONDUIT
---FO/COM---	FIBER OPTICS / COMMUNICATIONS
☉FH	FIRE HYDRANT
PP○	POWER POLE
▲	SIGN (EXISTING)
PROPOSED	
—100—	CONTOUR LINE
—W—	WATERLINE
—G—	GAS LINE
—SS—	SANITARY SEWER
—ST—	STORM SEWER
—STE—	STEAM LINE
----EU----	UNDERGROUND ELEC TELE CABLE
----TU----	UNDERGROUND TELEPHONE
----CTV----	UNDERGROUND CABLE
---FO/COM---	FIBER OPTICS/COMMUNICATIONS
—E—	OVERHEAD ELECTRIC
—T—	OVERHEAD TELEPHONE
—CTV—	OVERHEAD CABLE
—C—	CONDUIT
☉FH	FIRE HYDRANT
PP●	POWER POLE
SL✕	STREET LIGHT
▲	SIGN
-X-X-X-	FENCE
⓪	NUMBER OF PARKING SPACES

NOTE:

ANY FUTURE LAND DEVELOPMENT, LAND DISTURBANCE ACTIVITY, AND/OR BUILDING OR OCCUPANCY PERMIT APPLICATION WILL REQUIRE AN APPROVED STORMWATER MANAGEMENT PLAN AND VERIFY THAT IT COMPLIES WITH THE APPROVED STORMWATER MANAGEMENT DESIGN PRIOR TO COMMENCEMENT OR APPROVAL

- PROPOSED CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.
- ALL MAPPING AND LOCATION OF EXISTING UTILITIES WERE OBTAINED FROM THE UTILITY COMPANIES LISTED UNDER "UTILITY CONTACTS", ALL DATA CONCERNING THESE EXISTING CONDITIONS WAS ACQUIRED BY THE H.F. LENZ COMPANY FOR USE IN DESIGNING THIS PROJECT. ITS ACCURACY OR COMPLETENESS IS NOT GUARANTEED BY THE H.F. LENZ COMPANY AND IN NO EVENT IS IT TO BE CONSIDERED A PART OF THE CONTRACT DOCUMENTS. CONTRACTORS MUST ASSUME ALL RISKS PERTAINING TO EXISTING SITE CONDITIONS.
- THE CONTRACTOR SHALL EXERCISE CAUTION AND EMPLOY CAREFUL EXCAVATION METHODS DURING INSTALLATION OF THE FACILITIES TO AVOID DAMAGE TO OR CONFLICT WITH EXISTING UTILITIES. THE CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATIONS AS DIRECTED AND/OR REQUIRED BY THE ENGINEER TO ASCERTAIN THE HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES PRIOR TO CONSTRUCTION IN AFFECTED AREAS AND MAKE THE APPROPRIATE ADJUSTMENTS IN THE FIELD IF CONFLICTS OCCUR. NO SEPARATE PAYMENT SHALL BE MADE FOR THE HEREIN DESCRIBED PROVISIONS AND SHALL BE INCLUDED IN THE COST OF THOSE ITEMS FOR WHICH PAYMENT SHALL BE MADE IN THE BID SCHEDULE.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN USE OF ALL UTILITIES WITHIN THE IMMEDIATE WORK AREA DURING CONSTRUCTION WHEN WORK IS IN PROGRESS AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE TO STABILIZE AND MAINTAIN ALL UTILITY POLES WITHIN THE IMMEDIATE WORK AREA THAT MAY BE AFFECTED BY THE CONSTRUCTION OPERATIONS.
- PROVIDE, ERECT AND MAINTAIN BARRICADES, LIGHTING AND GUIDE RAILS AS REQUIRED BY APPLICABLE REGULATORY AGENCIES TO PROTECT THE PUBLIC AND WORKMAN.
- ALL DISTURBED AREAS EXCEEDING THE LIMITS OF WORK SHALL BE RESTORED TO EXISTING CONDITIONS AT THE FULL EXPENSE OF THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER.
- ALL CONCRETE WORK SHALL COMPLY WITH THE SPECIFICATIONS AND THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318-89 OR THE LATEST REVISION THERETO.
- ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT THE END OF 28 DAYS.
- ALL REINFORCEMENT STEEL TO BE GRADE 60 DEFORMED BARS.
- MINIMUM SPLICE FOR REINFORCEMENT STEEL IS 30 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185 SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY TO ESTABLISH LINES, LOCATION, GRADES, DIMENSIONS AND ELEVATIONS OF THE WORK FROM EXISTING FACILITIES.
- THE CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES AS SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED TO THE DEPTHS INDICATED. ALL EXCAVATED MATERIAL NOT REQUIRED OR UNSUITABLE FOR FILL SHALL BE REMOVED AND WASTED OFF SITE.
- UNLESS OTHERWISE INDICATED ON THESE DRAWINGS, REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION. REMOVAL INCLUDES DIGGING OUT STUMPS AND ROOTS.
- DURING EXCAVATION EXTREME CARE SHOULD BE TAKEN BY THE CONTRACTOR TO AVOID UNNECESSARY CUTTING OF ROOTS. WHEN ROOTS ARE CUT THEY SHOULD BE PROPERLY DRESSED SO AS NOT TO KILL THE TREE.
- ALL TRENCH EXCAVATION SIDE WALLS GREATER THAN 5 FEET IN DEPTH SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED BY MEANS OF THE SUFFICIENT STRENGTH TO PROTECT THE WORKMAN WITHIN THEM IN ACCORDANCE WITH APPLICABLE RULES AND REGULATIONS ESTABLISHED FOR CONSTRUCTION BY THE DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND BY LOCAL ORDINANCES. LATERAL TRAVEL DISTANCES TO AN EXIT LADDER OR STEPS SHALL NOT BE GREATER THAN 25 FEET IN TRENCHES 4 FEET OR DEEPER.
- ALL TRAFFIC LINE PAINTING TO BE PADOT TYPE 1, IN ACCORDANCE WITH THE LATEST EDITION OF THE PADOT 408, SECTION 962.
- ALL TRAFFIC SIGNS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PADOT 408, SECTION 1103.
- THE DESIGN REVIEW COMMITTEE MUST REVIEW THE CONSTRUCTION DRAWINGS FOR COMPLIANCE WITH THE DESIGN GUIDELINES PRIOR TO ISSUANCE OF A BUILDING PERMIT.
- CONTRACTOR SHALL NOTIFY SUSQUEHANNA TOWNSHIP AND THEIR ONSITE REPRESENTATIVE A MINIMUM OF 24 HOURS PRIOR TO THE PLACEMENT OF ENGINEERED FILL OVER PREVIOUSLY INSTALLED PIPE TRENCHES.
- ALL ELECTRICAL, TELEPHONE AND CABLE LINES MUST BE PLACED UNDERGROUND.

CONFORMITY WITH DESIGN GUIDELINES:

- PROPOSED WALKING TRAILS SHALL BE IN ACCORDANCE WITH THE DESIGN GUIDELINES
- ALL PLANTERS SHALL BE IN ACCORDANCE WITH SECTION 507 - SITE ELEMENTS OF THE DESIGN GUIDELINES
- HARDSCAPE SHALL BE IN ACCORDANCE WITH SECTION 503- PEDESTRIAN GATHERING AREAS, PEDESTRIAN MEWS & CENTRAL GREEN OF THE DESIGN GUIDELINES
- PARKING SHALL BE SCREENED AND BUFFERED FROM ADJACENT STREETS USE STREET WALL #2 AS PER SECTIONS 505 AND 507 OF THE DESIGN GUIDELINES
- ALL LIGHTING SHALL BE IN ACCORDANCE WITH SECTION 506- SITE LIGHTING OF THE DESIGN GUIDELINES
- STREETS AND SIDEWALKS SHALL BE IN ACCORDANCE WITH SECTION 502 - STREETSCAPE OF THE DESIGN GUIDELINES
- PROPOSED BENCHES SHALL BE IN ACCORDANCE WITH SECTION 507- SITE ELEMENTS OF THE DESIGN GUIDELINES
- ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH SECTION 502 AND 508 OF THE DESIGN GUIDELINES

SYMBOL AND ABBREVIATION SCHEDULE

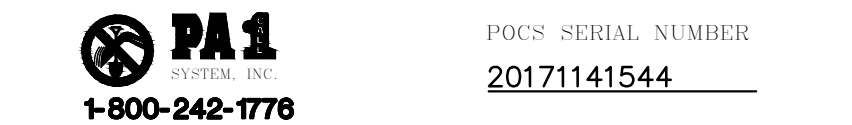
AC	ACRE	EM	ELECTRIC METER	PUB	PUBLICATION
AC	AIR CONDITIONER	EL/ELEV	ELEVATION	PSI	POUNDS PER SQUARE INCH
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS	EQ	EQUAL	PP	POWER POLE
ACI	AMERICAN CONCRETE TRANSPORTATION OFFICIALS	EXP	EXPANSION	PVC	POLYVINYL CHLORIDE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	EX	EXISTING	℞	PROPERTY LINE
⊙	AT	FFE	FINISH FLOOR ELEVATION	R	RADIUS
℞	BASELINE	FH	FIRE HYDRANT	REINF	REINFORCEMENT
BC	BOTTOM OF CURB	GM	GAS METER	RCP	REINFORCED CONCRETE PIPE
BW	BOTTOM OF WALL	GV	GAS VALVE	R/W	RIGHT-OF-WAY
BY/4"	BROKEN YELLOW PAVEMENT LINE/WIDTH	HP	HIGH POINT	SCH	SCHEDULE
BLDG	BUILDING	HORIZ	HORIZONTAL	SEC	SECTION
Ⓞ	CENTERLINE	INC	INCORPORATED	SEG	SEGMENT
CC C/C	CENTER TO CENTER	INV	INVERT	SLCPP	SMOOTH LINED CORRUGATED PLASTIC PIPE
CLR	CLEAR	LP	LIGHT POLE	STA	STATION
CONC	CONCRETE	MH	MANHOLE	SR	STATE ROUTE
CONSTR	CONSTRUCTION	MAX	MAXIMUM	ST	STREET
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	SRL	SKID RESISTANCE LEVEL
CPP	CORRUGATED POLYETHYLENE PIPE	MPH	MILES PER HOUR	S	SOUTH
DIA	DIAMETER	N	NORTH	SF	SQUARE FEET
DI	DUCTILE IRON	NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	SY	SQUARE YARD
EOB	EDGE OF BERM	No/#	NUMBER	TC	TOP OF CURB
EOP	EDGE OF PAVEMENT	PM	PARKING METER	TW	TOP OF WALL
ELEC	ELECTRIC	OC	ON CENTER	XF	TRANSFORMER
EMH	ELECTRIC MANHOLE	PADOT	PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	TYP	TYPICAL
		PERF	PERFORATED	WM	WATER METER
		PE	POLYETHYLENE	WV	WATER VALVE
				WWF	WELDED WIRE FABRIC
				W/4"	WHITE PAVEMENT LINE/WIDTH

LIST OF PUBLIC UTILITIES AND CONTACTS

CTSI LLC 100 CTE DR DALLAS, PA 18612 (888) 278-8783 SUEZ WATER PENNSYLVANIA INC 4211 EAST PARK CIRCLE HARRISBURG, PA 17111 (717) 554-3664 VERIZON PENNSYLVANIA INC 11 FLOOR STRAWBERRY SQUARE HARRISBURG, PA 17101 (800) 821-0088 PA COMMONWEALTH OF OFFICE OF ADMIN GOVERNORS OFFICE OF ADMIN 207 FINANCE BUILDING HARRISBURG, PA 17120 (717) 787-9945 PPL ELECTRIC UTILITIES CORPORATION 1801 BROOKWOOD ST HARRISBURG, PA 171042222 (800) 342-5775	COMCAST CABLE COMMUNICATIONS INC 4601 SMITH ST HARRISBURG, PA 17109 (800) 266-2278 UGI UTILITIES INC 1500 PAXTON ST HARRISBURG, PA 17104 (800) 609-4844 SUSQUEHANNA TWP AUTH/SUSQUEHANNA TWP 1900 LINGLESTOWN RD HARRISBURG, PA 171103301 (717) 545-0116 ZAYO BANDWIDTH FORMERLY PPL TELECOM LLC 7010 SNOWDRIFT ROAD ALLENTOWN, PA 18106 (866) 364-6033
--	--

CALL BEFORE YOU DIG!

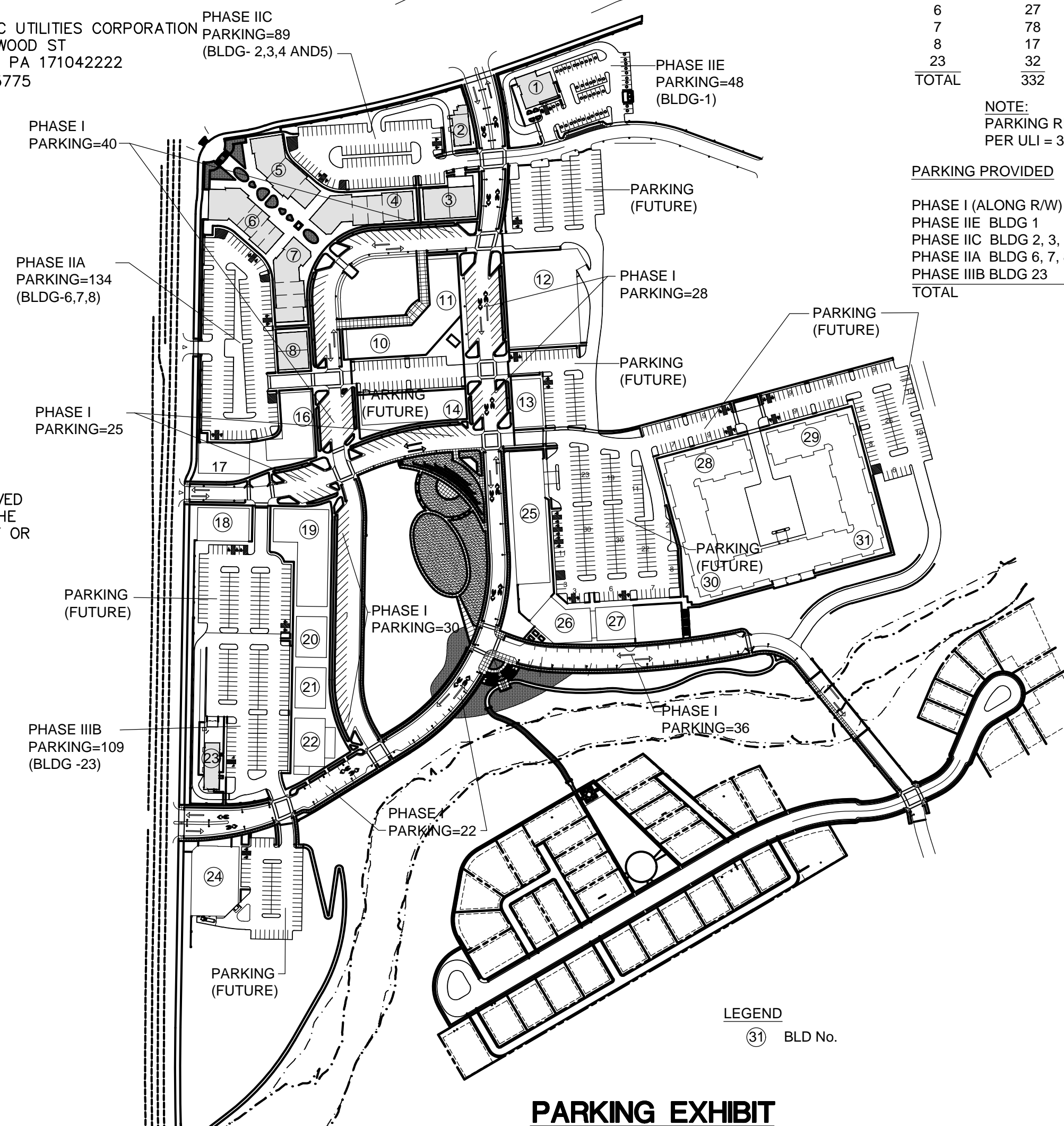
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL



PARKING REQUIRED			
BUILDING	WEEKDAY	WEEKEND	
1	45	42	
2	29	27	
3	17	19	
4	33	37	
5	54	72	
6	27	31	
7	78	88	
8	17	2	
23	32	30	
TOTAL	332	348	

NOTE: PARKING REQUIRED PER ULI = 348

PARKING PROVIDED	
PHASE I (ALONG R/W)	174
PHASE IIE BLDG 1	48
PHASE IIC BLDG 2, 3, 4, AND 5	89
PHASE IIA BLDG 6, 7, 8	134
PHASE IIIB BLDG 23	109
TOTAL	554



PARKING EXHIBIT



LaQuatra Bonci ASSOCIATES LANDSCAPE ARCHITECTURE

95 South Tenth Street
 Pittsburgh, Pennsylvania 15203
 tel 412. 488. 8822
 fax 412. 488.8825

Nature leads, art follows.



Prepared for:
 Varton Group, Inc.
 3605 Varton Way, Suite 301
 Harrisburg, PA 17110

Susquehanna Union Green
 Susquehanna Township, Dauphin County, PA

Project Number:
 18030:1
 Drawn by:
 LBG/REA
 Checked by:
 LBG/B/C
 Date:
 April 5, 2019

Revisions:
 1. 06/07/19 Rev per Twp Comments

Scale:

Sheet Name:

Index Sheet

Submission:
 Final Land Development Plan -
 Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

C001

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RIGHT-OF-WAY NOTES:

THE LEGAL RIGHT-OF-WAY WIDTH OF SR 0039 (FORMERLY KNOWN AS L.R. 22006) LINGLESTOWN ROAD, FROM STATION 113+88.00 TO STATION 138+34.53 IS VARIABLE, AS SHOWN ON DRAWINGS DEPICTING RIGHT-OF-WAY TO BE DEEDED TO THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION UNDER HOP APPLICATION NO 160521 AND 106252 BY CEDAR CLOCK TOWER, LLC FOR STATE ROUTE 0392 SECTION 027 R/W IN DAUPHIN COUNTY, SUSQUEHANNA TOWNSHIP, SIGNED BY THE SECRETARY OF TRANSPORTATION ON AUGUST 26, 2011.

THE LEGAL RIGHT-OF-WAY LOCATION OF SR 0039 IS FIXED ON PA SOUTH ZONE STATE PLANE COORDINATES DEFINED ON DRAWINGS DEPICTING RIGHT-OF-WAY TO BE DEEDED TO THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION UNDER HOP APPLICATION NO 160521 AND 106252 BY CEDAR CLOCK TOWER, LLC FOR STATE ROUTE 0392 SECTION 027 R/W IN DAUPHIN COUNTY, SUSQUEHANNA TOWNSHIP, SIGNED BY THE SECRETARY OF TRANSPORTATION ON AUGUST 26, 2011.

THE LOCATION OF SR 0039 RIGHT-OF-WAY WAS CONFIRMED BY FIELD LOCATION OF LINGLESTOWN ROAD RIGHT-OF-WAY REFERENCE CIRCLE MONUMENTS RECOVERED ALONG THE SOUTH SIDE OF THE ROADWAY AT STATIONS 113+88.00 POT, 124+34.86 PC, AND 130+75.72 PT.

THE LEGAL RIGHT-OF-WAY WIDTH OF SR 3015 (FORMERLY KNOWN AS L.R. 22022) NORTH PROGRESS AVENUE, FROM STATION 151+45.02 TO STATION 184+82.93 IS VARIABLE, AS SHOWN ON A COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWING AUTHORIZING CONDEMNATION OF RIGHT-OF-WAY OF LEGISLATIVE ROUTE 22022 SECTION 2 R/W IN DAUPHIN COUNTY, SUSQUEHANNA TOWNSHIP, SIGNED BY THE GOVERNOR ON APRIL 24, 1969.

THE POINT OF INTERSECTION BETWEEN SR 0039 AND SR 3015 IS LINGLESTOWN ROAD STATION 121+57.00 AT PROGRESS AVENUE STATION 184+82.93 AS SHOWN ON A COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWING AUTHORIZING CONDEMNATION OF RIGHT-OF-WAY OF LEGISLATIVE ROUTE 22022 SECTION 2 R/W IN DAUPHIN COUNTY, SUSQUEHANNA TOWNSHIP, SIGNED BY THE GOVERNOR ON APRIL 24, 1969.

THE DELTA ANGLE BETWEEN SR 0039 AND SR 3015 IS 77° 39' 00" AS SHOWN ON A COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWING FOR CONSTRUCTION AND CONDEMNATION OF RIGHT-OF-WAY FOR ROUTE NO 22006 SECTION NO 1 IN DAUPHIN COUNTY, SUSQUEHANNA TOWNSHIP, SIGNED BY THE GOVERNOR ON MAY 22, 1963.

THIS DELTA ANGLE WAS CONFIRMED BY FIELD LOCATION OF RIGHT-OF-WAY MONUMENTS ALONG THE EAST SIDE OF THE ROADWAY BETWEEN PROGRESS AVENUE STATIONS 162+00 AND 165+00

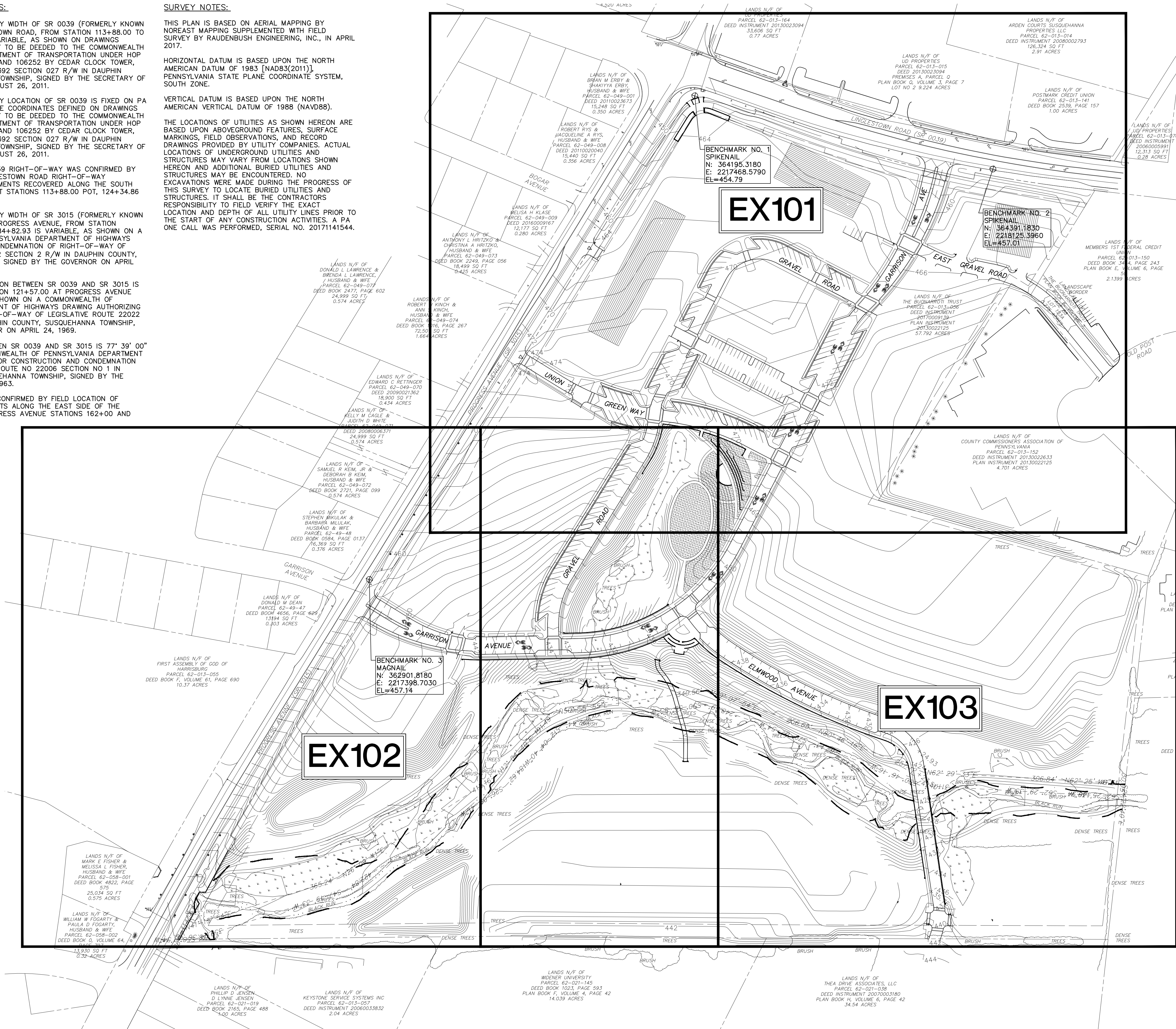
SURVEY NOTES:

THIS PLAN IS BASED ON AERIAL MAPPING BY NOREAST MAPPING SUPPLEMENTED WITH FIELD SURVEY BY RAUDENBUSH ENGINEERING, INC., IN APRIL 2017.

HORIZONTAL DATUM IS BASED UPON THE NORTH AMERICAN DATUM OF 1983 [NAD83(2011)], PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.

VERTICAL DATUM IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

THE LOCATIONS OF UTILITIES AS SHOWN HEREON ARE BASED UPON ABOVEGROUND FEATURES, SURFACE MARKINGS, FIELD OBSERVATIONS, AND RECORD DRAWINGS PROVIDED BY UTILITY COMPANIES. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON AND ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES AND STRUCTURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION AND DEPTH OF ALL UTILITY LINES PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. A PA ONE CALL WAS PERFORMED, SERIAL NO. 20171141544.



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Nature leads, art follows.



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FAX: 814-269-9300



Prepared for:
Varton Group, Inc.
3605 Varton Way, Suite 301
Harrisburg, PA 17110

Susquehanna Union Green

Susquehanna Township, Dauphin County, PA

Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

Scale:
1"=100'



Sheet Name:
OVERALL EXISTING CONDITIONS PLAN
Submission:

Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

EX100

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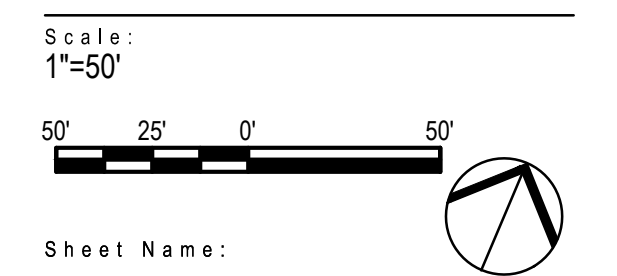
Nature leads, art follows.



Prepared for:
Varton Group, Inc.
3605 Varton Way, Suite 301
Harrisburg, PA 17110

Susquehanna
Union Green
Susquehanna
Township, Dauphin
County, PA

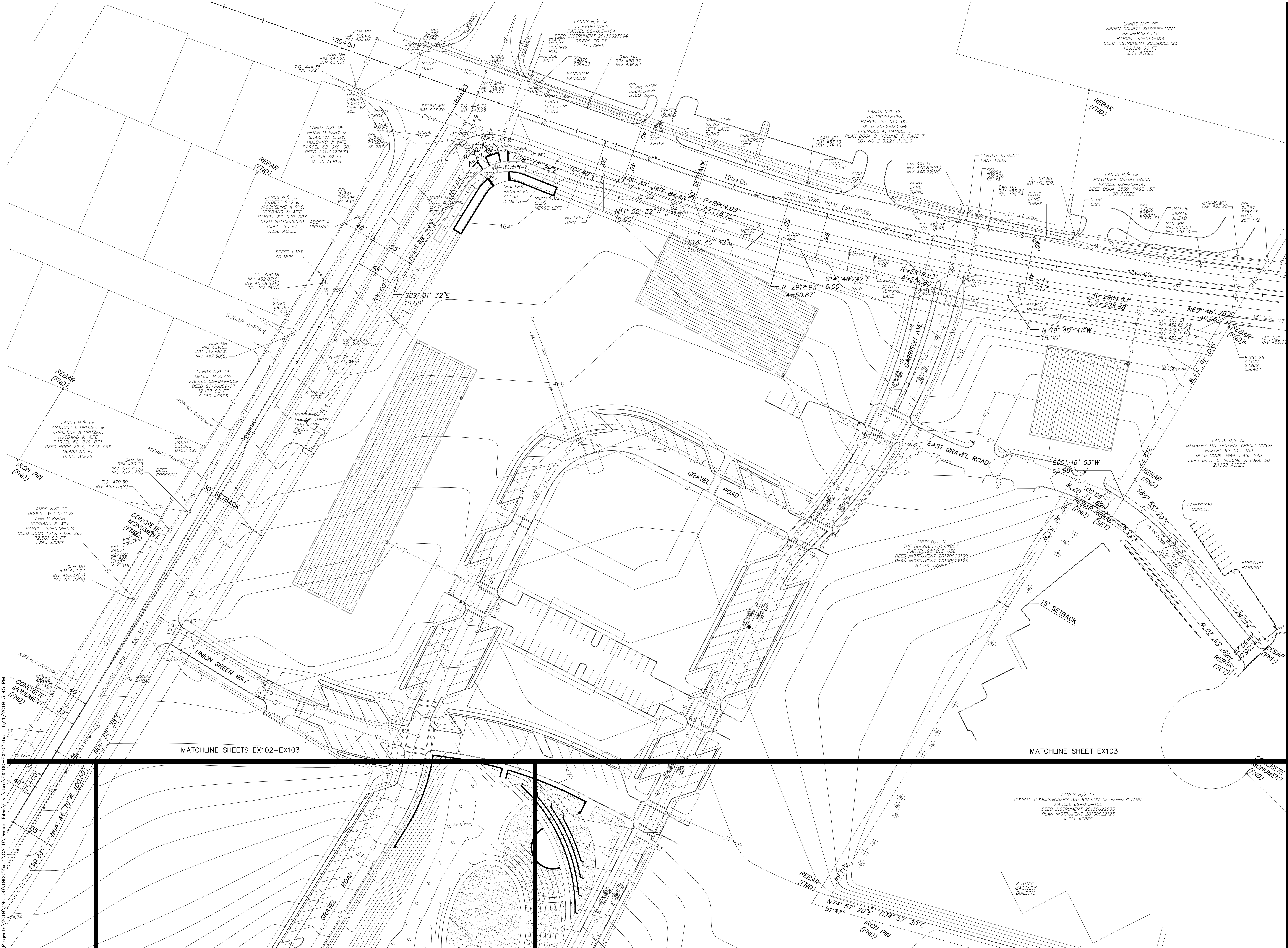
Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019
Revisions:
1. 06/07/19 Rev per Twp Comments



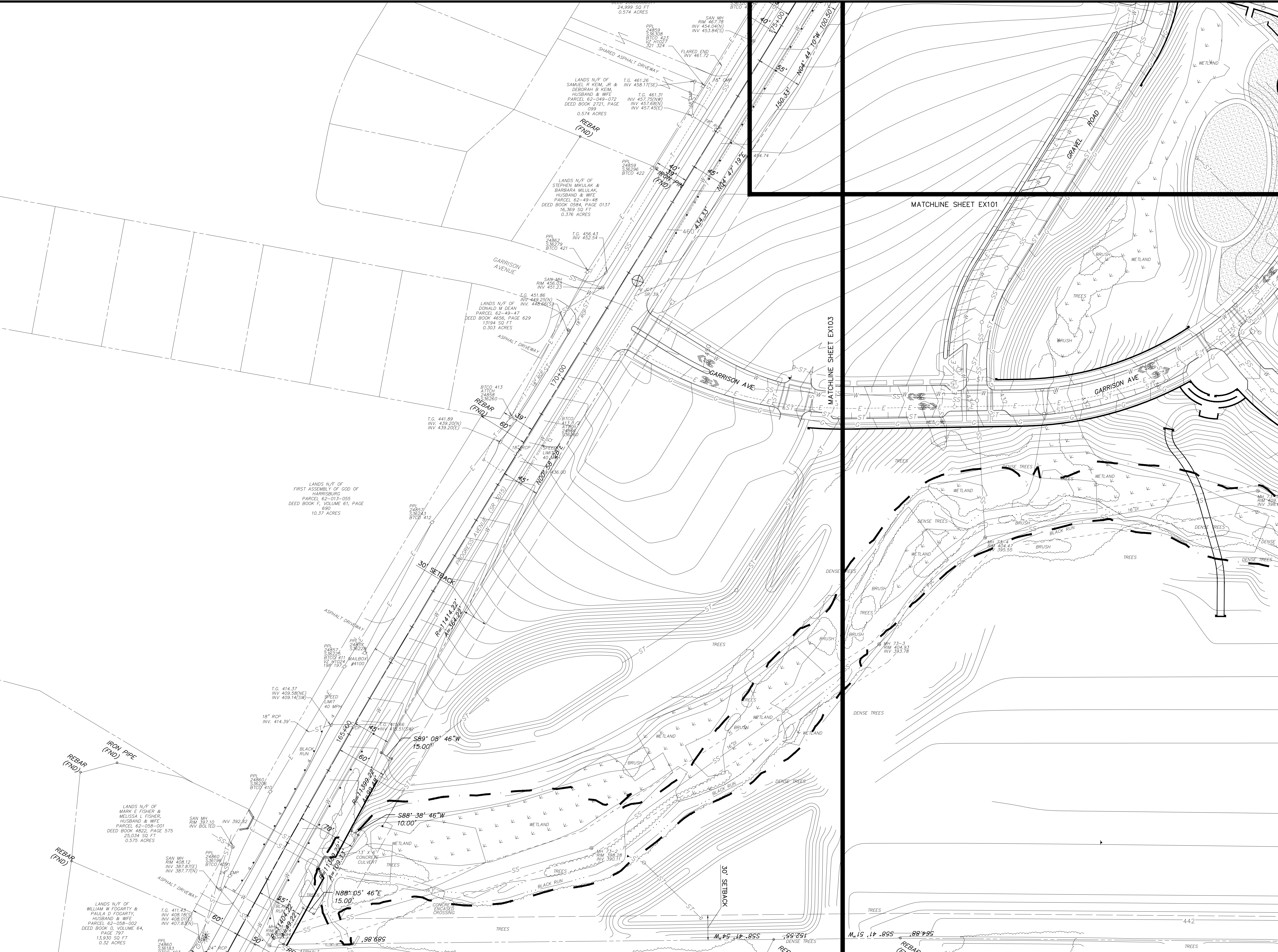
Sheet Name:
**EXISTING
CONDITIONS PLAN**
Submission:
Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V
Sheet Number:

EX101

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Susquehanna
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County, PA

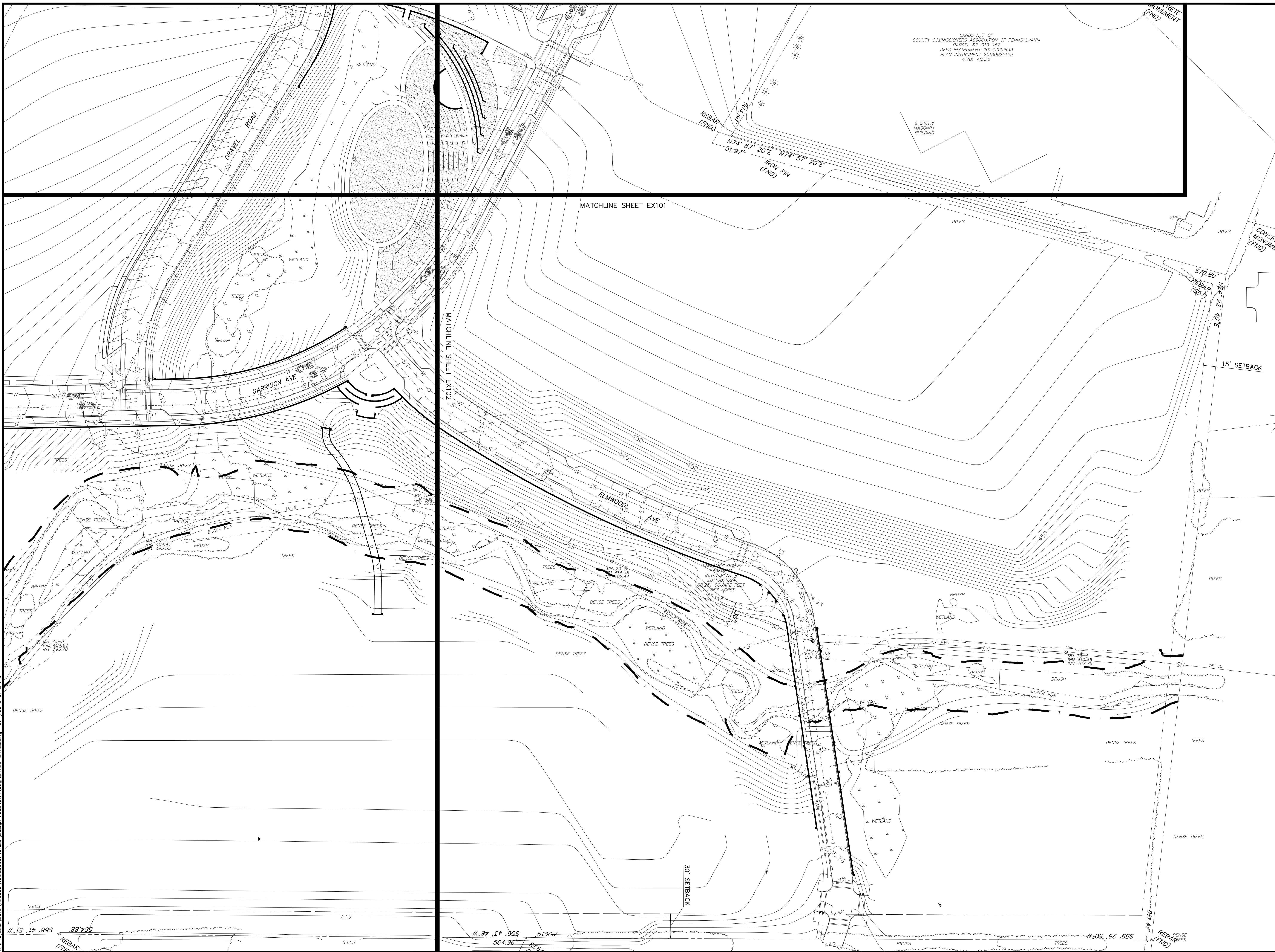
Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019
Revisions:
1. 06/07/19 Rev per Twp Comments

Scale:
1"=50'
0' 25' 50'
Sheet Name:

**EXISTING
CONDITIONS PLAN**
Submission:
Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

Sheet Number:
EX102

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**Susquehanna
Union Green**

Susquehanna
Township, Dauphin
County, PA

Project Number:

18030:1

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

April 5, 2019

Revisions:

1. 06/07/19 Rev per Twp Comments

Scale:

1"=50'



Sheet Name:

**EXISTING
CONDITIONS PLAN**

Submission:

Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

EX103

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www.hflenz.com

Seal:

Seal:

Project Identification:

**CONDOMINIUM PLAT FOR
"SUSQUEHANNA UNION
GREEN MASTER LAND
CONDOMINIUM," LOCATED
IN SUSQUEHANNA
TOWNSHIP, DAUPHIN
COUNTY, PENNSYLVANIA,
PREPARED FOR
HAWTHORNE SPE LLC**

No.: Date: Description:

Sheet Title:
MASTER PLAT

Project No.: 2018-0386.02
Cadd File: 18038602 Master Plat.dwg
Drawn By: C.M.FYOCK
Checked By: B.J.CLEMENT
Date: 06/05/2019
Copyright: © 2019 H.F. LENZ COMPANY

Drawing Number
MP1
Sheet 1 of 3

GENERAL NOTES

- AS OF THE DATE THESE PLATS AND PLANS ARE RECORDED WITH THE DAUPHIN COUNTY RECORDER OF DEEDS OFFICE (THE "RECORDING OFFICE"), THERE ARE NO EXISTING IMPROVEMENTS WITHIN THE "SUSQUEHANNA UNION GREEN MASTER LAND CONDOMINIUM" (THE "CONDOMINIUM").
- THE CONDOMINIUM IS CREATED PURSUANT TO AND GOVERNED BY THE PENNSYLVANIA UNIFORM CONDOMINIUM ACT, 68 PA. C.S. §§ 3101-3414 (THE "ACT") AND THAT CERTAIN DECLARATION OF CONDOMINIUM FOR SUSQUEHANNA GREEN MASTER LAND CONDOMINIUM, RECORDED WITH THE RECORDING OFFICE SIMULTANEOUSLY HEREWITH (THE "DECLARATION").
- THE CONDOMINIUM CONTAINS NO CONVERTIBLE REAL ESTATE OR WITHDRAWABLE REAL ESTATE, AS DEFINED IN THE ACT.
- THE CONDOMINIUM CONTAINS NO LIMITED COMMON ELEMENTS, AS DEFINED IN THE ACT.
- THE UNITS, AS DEFINED IN THE DECLARATION, WITHIN THE CONDOMINIUM ARE LAND UNITS AND CONTAIN NO HORIZONTAL BOUNDARIES.
- ALL IMPROVEMENTS SHOWN ON THE PHASE I PLAN, AS DEFINED IN THE DECLARATION, INCLUDING WITHOUT LIMITATION THE FOLLOWING IMPROVEMENTS, MUST BE BUILT, ALL OTHER IMPROVEMENTS ARE ANTICIPATED IMPROVEMENTS ONLY AND NEED NOT BE BUILT.
 - A. COMMON ELEMENT PURPART 1, INCLUDING ALL SIDEWALKS, TREES, AND LANDSCAPING LOCATED THEREIN;
 - B. ALL STORMWATER FACILITIES, AS DEFINED IN THE DECLARATION; AND
 - C. THE FOLLOWING ROADWAYS (THE "ROADWAYS") AS SHOWN ON THESE PLATS AND PLANS:
 - (1) EAST GRAVEL ROAD;
 - (2) THAT PORTION OF GRAVEL ROAD BETWEEN UNION GREEN WAY AND GARRISON AVENUE;
 - (3) GARRISON AVENUE;
 - (4) UNION GREEN WAY; AND
 - (5) ELMWOOD AVENUE.
- THAT PORTION OF GRAVEL ROAD BETWEEN GARRISON AVENUE AND UNION GREEN WAY IS AN ANTICIPATED IMPROVEMENT ONLY AND NEED NOT BE BUILT.
- ALL ROADWAYS ARE ANTICIPATED TO BE DEDICATED TO SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA. UNLESS AND UNTIL ACCEPTED FOR DEDICATION BY SUSQUEHANNA TOWNSHIP, THE ROADWAYS, INCLUDING THE PARKING FACILITIES LOCATED WITHIN THE RIGHT-OF-WAY OF THE SAME, WILL REMAIN COMMON ELEMENTS OF THE CONDOMINIUM AND SHALL BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION FOR THE CONDOMINIUM, AS SET FORTH IN THE ACT AND THE DECLARATION.

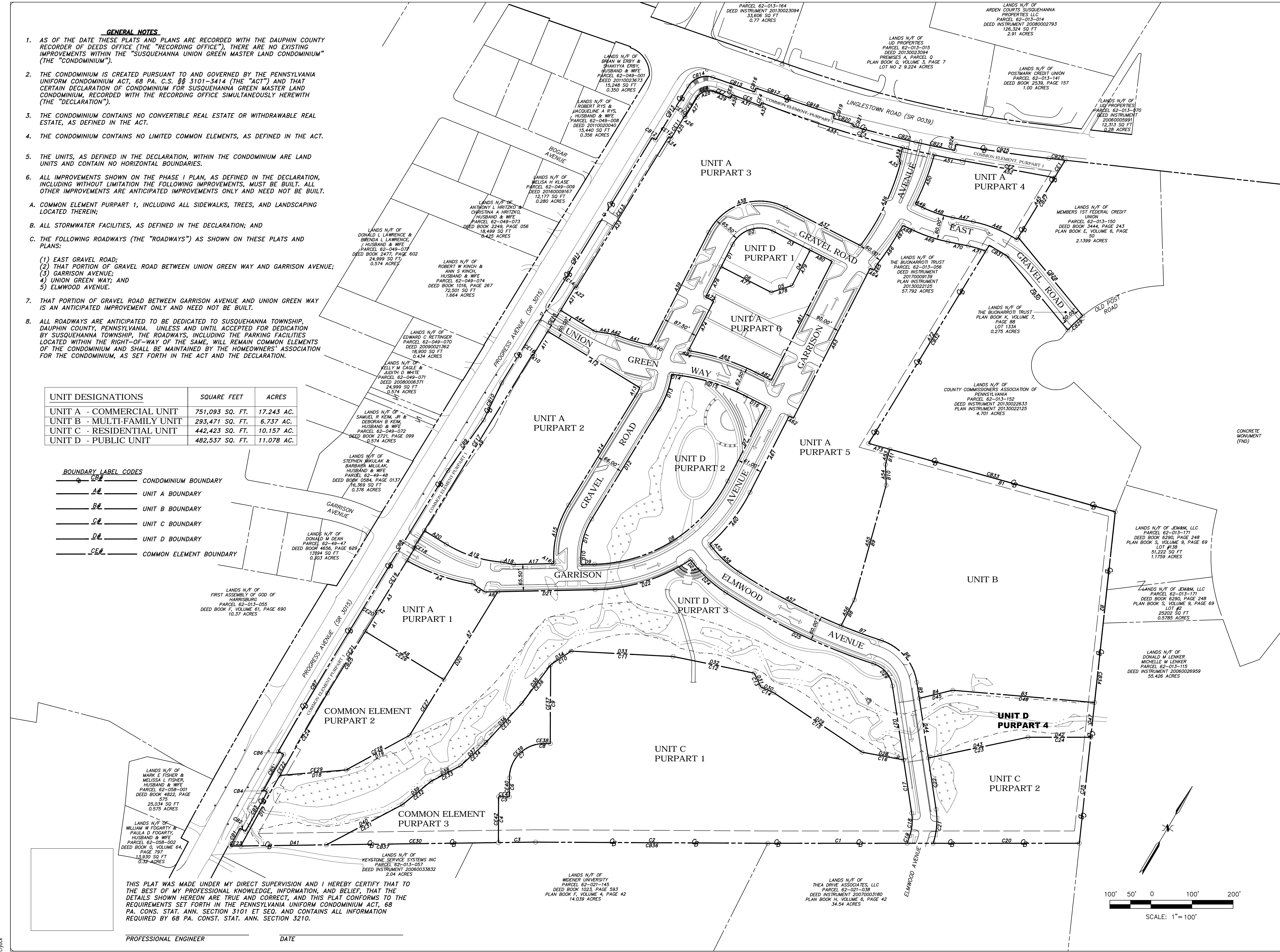
UNIT DESIGNATIONS	SQUARE FEET	ACRES
UNIT A - COMMERCIAL UNIT	751,093 SQ. FT.	17.243 AC.
UNIT B - MULTI-FAMILY UNIT	293,471 SQ. FT.	6.737 AC.
UNIT C - RESIDENTIAL UNIT	442,423 SQ. FT.	10.157 AC.
UNIT D - PUBLIC UNIT	482,537 SQ. FT.	11.078 AC.

- BOUNDARY LABEL CODES**
- CB# CONDOMINIUM BOUNDARY
 - A# UNIT A BOUNDARY
 - B# UNIT B BOUNDARY
 - C# UNIT C BOUNDARY
 - D# UNIT D BOUNDARY
 - CE# COMMON ELEMENT BOUNDARY

THIS PLAT WAS MADE UNDER MY DIRECT SUPERVISION AND I HEREBY CERTIFY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THE DETAILS SHOWN HEREON ARE TRUE AND CORRECT, AND THIS PLAT CONFORMS TO THE REQUIREMENTS SET FORTH IN THE PENNSYLVANIA UNIFORM CONDOMINIUM ACT, 68 PA. CONS. STAT. ANN. SECTION 3101 ET SEQ. AND CONTAINS ALL INFORMATION REQUIRED BY 68 PA. CONST. STAT. ANN. SECTION 3210.

PROFESSIONAL ENGINEER _____ DATE _____

Jun 05, 2019 - 4:12pm
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H.F. LENZ COMPANY

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PA
15904

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Seal:

Seal:

Project Identification:

CONDOMINIUM PLAT FOR
"SUSQUEHANNA UNION
GREEN MASTER LAND
CONDOMINIUM," LOCATED
IN SUSQUEHANNA
TOWNSHIP, DAUPHIN
COUNTY, PENNSYLVANIA,
PREPARED FOR
HAWTHORNE SPE LLC

No.: Date: Description:

Sheet Title:

MASTER PLAT

Project No.: 2018-0386.02

Cadd File: 18038602 Master Plat.dwg

Drawn By: C.M.FYOCK

Checked By: B.J.CLEMENT

Date: 06/05/2019

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Drawing Number

MP2

Sheet 2 of 3

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 1 through UNIT D, PURPART 4, and COMMON ELEMENT, PURPART 3.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT D, PURPART 1 through UNIT D, PURPART 4, and COMMON ELEMENT, PURPART 2.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include COMMON ELEMENT, PURPART 2.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include COMMON ELEMENT, PURPART 3.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT D, PURPART 1 through UNIT D, PURPART 4.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT D, PURPART 3.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT D, PURPART 4.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 5.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 6.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT B.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT C, PURPART 1.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT C, PURPART 2.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include CONDOMINIUM BOUNDARY.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 1.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 2.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 3.

Table with 5 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Rows include UNIT A, PURPART 4.



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Seal:

Seal:

Project Identification:

**CONDOMINIUM PLAT FOR
"SUSQUEHANNA UNION
GREEN MASTER LAND
CONDOMINIUM," LOCATED
IN SUSQUEHANNA
TOWNSHIP, DAUPHIN
COUNTY, PENNSYLVANIA,
PREPARED FOR
HAWTHORNE SPE LLC**

No.: Date: Description:

No.	Date	Description

Sheet Title:

MASTER PLAT

Project No.: 2018-0386.02

Cadd File: 18038602 Easement Plat.dwg

Drawn By: C.M.FYOCK

Checked By: B.J.CLEMENT

Date: 06/05/2019

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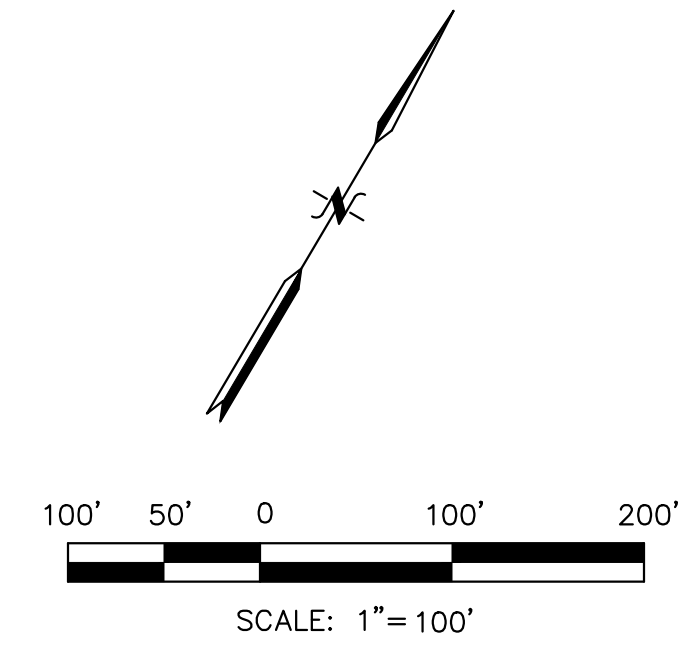
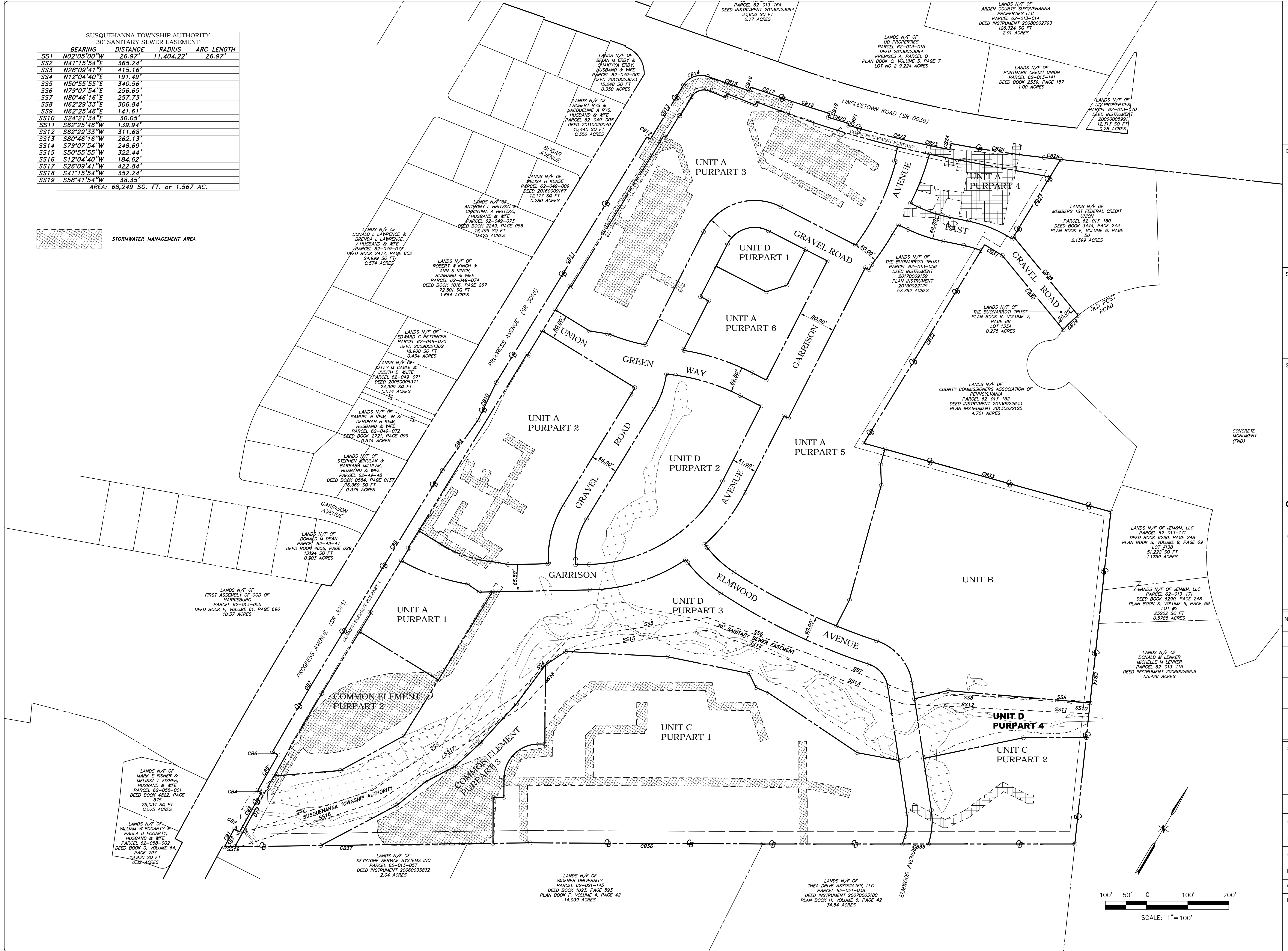
MP3

Sheet 3 of 3

SUSQUEHANNA TOWNSHIP AUTHORITY 30' SANITARY SEWER EASEMENT				
BEARING	DISTANCE	RADIUS	ARC LENGTH	
SS1	N02°05'00"W	26.97'	11,404.22'	26.97'
SS2	N41°15'54"E	365.24'		
SS3	N26°09'41"E	415.16'		
SS4	N12°04'40"E	191.49'		
SS5	N50°55'55"E	340.56'		
SS6	N79°07'54"E	256.63'		
SS7	N80°46'16"E	257.73'		
SS8	N62°29'33"E	306.84'		
SS9	N62°25'46"E	141.61'		
SS10	S24°21'34"E	30.05'		
SS11	S62°25'46"W	139.94'		
SS12	S62°29'33"W	311.68'		
SS13	S80°46'16"W	262.13'		
SS14	S79°07'54"W	248.69'		
SS15	S50°55'55"W	322.44'		
SS16	S12°04'40"W	184.62'		
SS17	S26°09'41"W	422.84'		
SS18	S41°15'54"W	352.24'		
SS19	S58°41'54"W	38.35'		

AREA: 68,249 SQ. FT. or 1.567 AC.

STORMWATER MANAGEMENT AREA



Jun 05, 2019 - 4:11pm
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c:\projects\2018\180300\18038602\18038602 Easement Plat.dwg
cfyock



H.F. LENZ COMPANY

Engineering

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Avenue
Johnstown,
PA,
15904
Phone:
814-269-9300
C/FAX:
814-269-9301
www.hflenz.com

Seal:

Seal:

Project Identification:

CONDOMINIUM PLAT FOR
"SUSQUEHANNA UNION
GREEN RESIDENTIAL LAND
CONDOMINIUM," LOCATED
IN SUSQUEHANNA
TOWNSHIP, DAUPHIN
COUNTY, PENNSYLVANIA,
PREPARED FOR
HAWTHORNE SPE LLC

No.: Date: Description:

Sheet Title:
RESIDENTIAL PLAT

Project No.: 2018-0386.02

Cadd File: 18038602 Residential Plat.dwg

Drawn By: C.M.FYOCK

Checked By: B.J.CLEMENT

Date: 06/05/2019

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Drawing Number

RP1

Sheet 1 of 2



LANDS N/F OF
WIDENER UNIVERSITY
PARCEL 62-021-145
DEED BOOK 1023, PAGE 593
PLAN BOOK F, VOLUME 4, PAGE 42

LANDS N/F OF
THEA DRIVE ASSOCIATES, LLC
PARCEL 62-021-038
DEED INSTRUMENT 20070003180
PLAN BOOK H, VOLUME 6, PAGE 42

LANDS N/F OF
DONALD M LENKER
MICHELLE M LENKER
PARCEL 62-013-115
DEED INSTRUMENT 20060026959

GENERAL NOTES

- AS OF THE DATE THESE PLATS AND PLANS ARE RECORDED WITH THE DAUPHIN COUNTY RECORDER OF DEEDS OFFICE (THE "RECORDING OFFICE"), THERE ARE NO EXISTING IMPROVEMENTS WITHIN THE "SUSQUEHANNA UNION GREEN RESIDENTIAL LAND CONDOMINIUM" (THE "CONDOMINIUM").
- THE CONDOMINIUM IS CREATED PURSUANT TO AND GOVERNED BY THE PENNSYLVANIA UNIFORM CONDOMINIUM ACT, 68 PA. C.S. §§ 3101-3414 (THE "ACT") AND THAT CERTAIN DECLARATION OF CONDOMINIUM FOR SUSQUEHANNA GREEN RESIDENTIAL LAND CONDOMINIUM, RECORDED WITH THE RECORDING OFFICE SIMULTANEOUSLY HERewith (THE "DECLARATION").
- THE CONDOMINIUM CONTAINS NO CONVERTIBLE REAL ESTATE OR WITHDRAWABLE REAL ESTATE, AS DEFINED IN THE ACT.
- THE CONDOMINIUM CONTAINS NO LIMITED COMMON ELEMENTS, AS DEFINED IN THE ACT.
- THE UNITS, AS DEFINED IN THE DECLARATION, WITHIN THE CONDOMINIUM ARE LAND UNITS AND CONTAIN NO HORIZONTAL BOUNDARIES.
- ALL IMPROVEMENTS SHOWN ON THE PHASE I PLAN, AS DEFINED IN THE DECLARATION, MUST BE BUILT. ALL OTHER IMPROVEMENTS ARE ANTICIPATED IMPROVEMENTS ONLY AND NEED NOT BE BUILT.

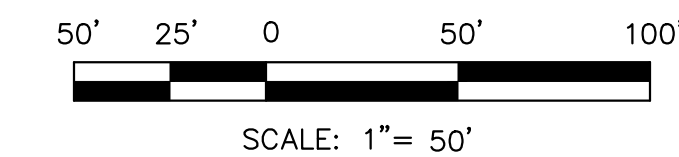
BOUNDARY LABEL CODES

— CONDOMINIUM BOUNDARY

- - - COMMON ELEMENT BOUNDARY

LOT # — LOTS OF THE SUSQUEHANNA UNION GREEN RESIDENTIAL LAND CONDOMINIUM

UNITS OUTSIDE THE SUSQUEHANNA UNION GREEN COMMERCIAL LAND CONDOMINIUM



THIS PLAT WAS MADE UNDER MY DIRECT SUPERVISION AND I HEREBY CERTIFY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THE DETAILS SHOWN HEREON ARE TRUE AND CORRECT, AND THIS PLAT CONFORMS TO THE REQUIREMENTS SET FORTH IN THE PENNSYLVANIA UNIFORM CONDOMINIUM ACT, 68 PA. CONST. STAT. ANN. S 3101 ET SEQ. AND CONTAINS ALL INFORMATION REQUIRED BY 68 PA. CONST. STAT. ANN. S 3210.

PROFESSIONAL ENGINEER

DATE



H.F. LENZ COMPANY

Engineering

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Scalp
Avenue
Johnstown,
PA
15904

Phone:
814-269-9300
814-269-9301
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Seal:

Seal:

Project Identification:

CONDOMINIUM PLAT FOR
"SUSQUEHANNA UNION
GREEN RESIDENTIAL LAND
CONDOMINIUM," LOCATED
IN SUSQUEHANNA
TOWNSHIP, DAUPHIN
COUNTY, PENNSYLVANIA,
PREPARED FOR
HAWTHORNE SPE LLC

No.: Date: Description:

Sheet Title:

RESIDENTIAL PLAT

Project No.: 2018-0386.02

Cadd File: 18038602 Residential Plat.dwg

Drawn By: C.M.FYOCK

Checked By: B.J.CLEMENT

Date: 06/05/2019

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Drawing Number

RP2

Sheet 2 of 2

Table with 3 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Includes lot areas and square feet/acreage.

Table with 3 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Includes lot areas and square feet/acreage.

Table with 3 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Includes lot areas and square feet/acreage.

Table with 3 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. Includes lot areas and square feet/acreage.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. CONDOMINIUM BOUNDARY, PURPART 1.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. CONDOMINIUM BOUNDARY, PURPART 2.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 1.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 2.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 3.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 4.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 5.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 6.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 7.

Table with 4 columns: BEARING, DISTANCE, RADIUS, ARC LENGTH. LOT 8.

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Phasing Plan

Progress & Linglestown: TND

Phase	Disturbance (Ac.)	% of Total Development	Required
Phase I	21.72	37%	Minimum 25%
Phase II	13.24	21%	N/A
Phase III	6.25	11%	N/A
Phase IV	6.8	12%	N/A
Phase V	10.98	19%	N/A



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fax 412.488.8825

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Phone: 814-269-9300
FAX: 814-269-9301



Prepared for:
Vartan Group, Inc.
3605 Vartan Way, Suite 301
Harrisburg, PA 17110

Susquehanna Union Green
Susquehanna Township,
Dauphin County, PA

Project Number:
18030:1
Drawn by:
DM/VT
Checked by:
FB/DM
Date:
June 8, 2019

Revisions:

Scale:
1"=100'
SCALE: 1" = 100'-0"

Sheet Name:
Phasing Plan

Submission:
Final Land Development Plan -
Phases II A, II C, II E, III B & V

Sheet Number:

L100

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Regulating Plan



Progress & Linglestown: TND

Legend

- | | | |
|-------------------------------|----------------------|----------------------------|
| Building - For Approval | Parking | Park Structure |
| Building - Future Development | Stairs | Canopy/Shade Tree |
| Building - Approved | Site Wall | Understory/Ornamental Tree |
| Building Constructed | Sidewalk | Lawn |
| Future Site Work | Shared Lane Markings | Understory Planting |
| Parking Lot Light | Crosswalk | Stormwater Management Area |
| Street Light 1 | Contour - Major | Flood Plain |
| Street Light 2 | Contour - Minor | Wetland |
| Street Light 3 | | |

Mixed-Use Compliance Table

Use	Acreage	% of Site	Required/ Permitted
Commercial Use	(+/-) 27.29	47%	50% Max.
Residential Use	(+/-) 30.77	53%	40% Min.
Total Tract	(+/-) 58.07	100%	
Green Space	(+/-) 17.22	30%	25% Min.
Residential Single Family Detached	(+/-) 10.98 NET	19%	5% Min.
Residential Multi-Family	(+/-) 6.80 NET	12%	5% Min./30% Max.

GENERAL NOTES:

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- Consult Design Guidelines, Section 500 for sidewalk details, scoring patterns, crosswalk dimensions, and trail details.
- Consult Design Guidelines, Section 500 for street wall dimensions and details.
- Consult Design Guidelines, Section 500 for site lighting specifications and details.
- Consult Design Guidelines, Section 500 for street trees, stormwater screening, buffer yards, and landscaping design.
- Dimensions of all thoroughfares are provided on the Layout Plans C4.00A, C4.00B and C4.01-4.04. Consult the Design Guidelines, Section 500 for all thoroughfare pavement materials and design details.
- Single family housing unit footprints are shown for representation only.

Property lines are build-to lines

Public Transportation

Green 0.28 Acres

Green Space 13.84 Acres

Stormwater Management Area

Floodplain

Green Space

Stormwater Management Area



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Susquehanna
Union Green
Susquehanna Township,
Dauphin County, PA

Project Number:
18030:1
Drawn by:
DM/VT
Checked by:
FB/DM
Date:
June 8, 2019

Revisions:

Scale:
1"=100'
SCALE: 1"=100'-0"

Sheet Name:
Regulating Plan

Submission:
Final Land Development Plan -
Phases II A, II C, II E, III B & V

Sheet Number:
L101

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Streetscape Plan

Progress & Linglestown: TND

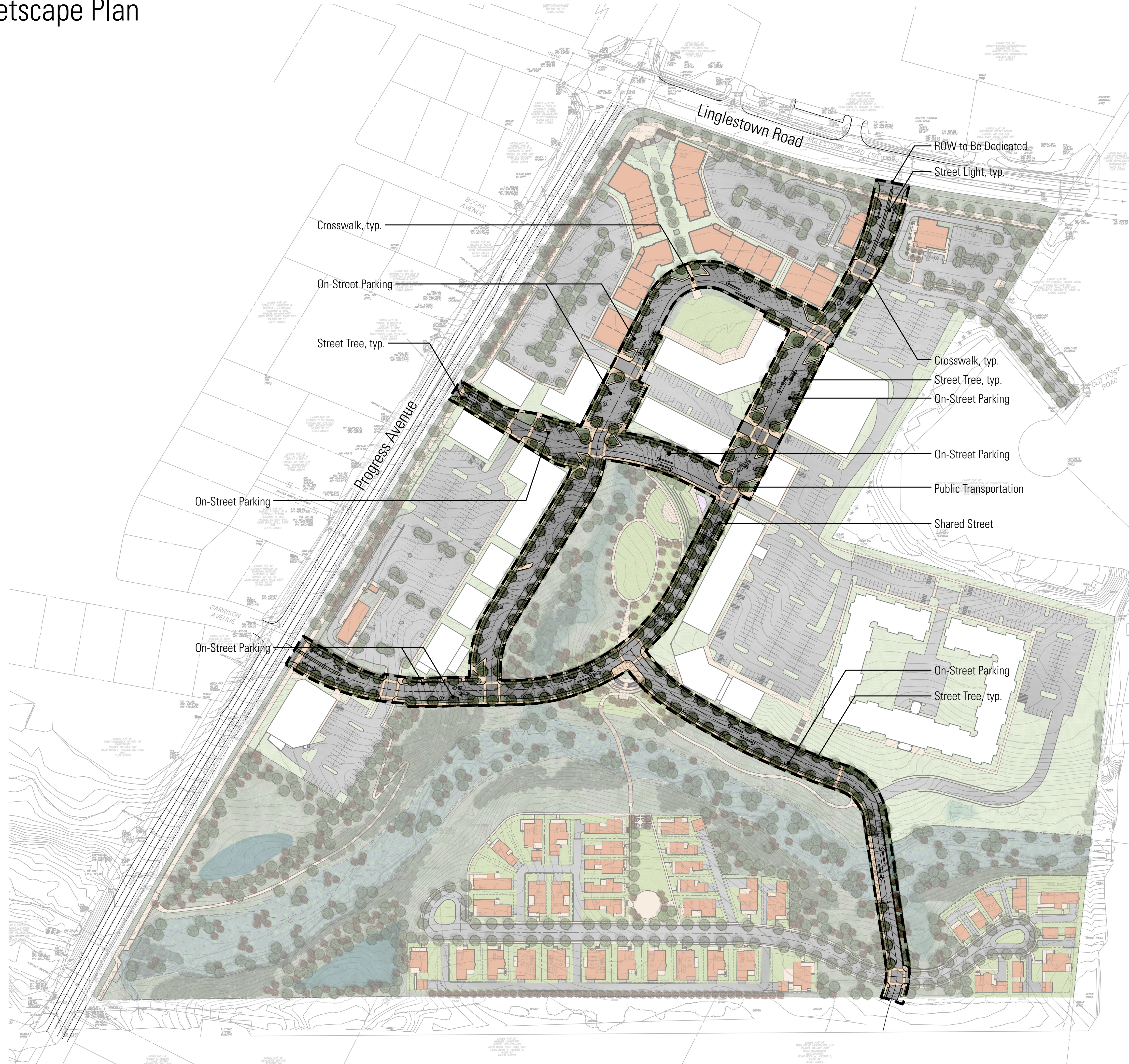
Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
Future Site Work	Shared Lane Markings	Understory Planting
Parking Lot Light	Crosswalk	Stormwater Management Area
Street Light 1	Contour - Major	Flood Plain
Street Light 2	Contour - Minor	Wetland
Street Light 3		



GENERAL NOTES:

1. All property lines are build-to lines with the exception of R-1 (single family detached residences). Consult Design Guidelines for build-to lines for R-1.
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7. Single family housing unit footprints are shown for representation only.



Crosswalk, typ.
On-Street Parking
Street Tree, typ.
On-Street Parking
On-Street Parking
On-Street Parking
On-Street Parking

ROW to Be Dedicated
Street Light, typ.
Crosswalk, typ.
Street Tree, typ.
On-Street Parking
On-Street Parking
Public Transportation
Shared Street
On-Street Parking
Street Tree, typ.



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Susquehanna
Union Green
Susquehanna Township,
Dauphin County, PA

Project Number:
18030.1
Drawn by:
DM/VT
Checked by:
FB/DM
Date:
June 8, 2019

Revisions:

Scale:
1"=100'
SCALE: 1" = 100'-0"

Sheet Name:
Streetscape Plan

Submission:
Final Land Development Plan -
Phases II A, II C, II E, III B & V

Sheet Number:

L102

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Public Realm Plan

Progress & Linglestown: TND

Legend

- Building - For Approval
- Building - Future Development
- Building - Approved
- Building Constructed
- Future Site Work
- Parking Lot Light
- Street Light 1
- Street Light 2
- Street Light 3
- Parking
- Stairs
- Site Wall
- Sidewalk
- Shared Lane Markings
- Crosswalk
- Contour - Major
- Contour - Minor
- Park Structure
- Canopy/Shade Tree
- Understory/Ornamental Tree
- Lawn
- Understory Planting
- Stormwater Management Area
- Flood Plain
- Wetland

Gross Tract Area Requirements

	Provided	Acreage	Required/Permitted
Green Space	30%	17.22	25% min.
Greens	7%	4.26	3% min.

GENERAL NOTES:

1. All property lines are build-to lines with the exception of R-1 (single family detached residences). Consult Design Guidelines for build-to lines for R-1.
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7. Single family housing unit footprints are shown for representation only.



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Susquehanna Township,
Dauphin County, PA

Project Number:
18030:1
Drawn by:
DM/VT
Checked by:
FB/DM
Date:
June 8, 2019

Revisions:

Scale:
1"=100'
SCALE: 1" = 100'-0"

Sheet Name:
Public Realm Plan

Submission:
**Final Land Development Plan -
Phases II A, II C, II E, III B & V**

Sheet Number:

L103

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Site Reference Plan



Progress & Linglestown: TND

Legend

- | | | |
|-------------------------------|----------------------|----------------------------|
| Building - For Approval | Parking | Park Structure |
| Building - Future Development | Stairs | Canopy/Shade Tree |
| Building - Approved | Site Wall | Understory/Ornamental Tree |
| Building Constructed | Sidewalk | Lawn |
| Future Site Work | Shared Lane Markings | Understory Planting |
| Parking Lot Light | Crosswalk | Stormwater Management Area |
| Street Light 1 | Contour - Major | Flood Plain |
| Street Light 2 | Contour - Minor | Wetland |
| Street Light 3 | | |



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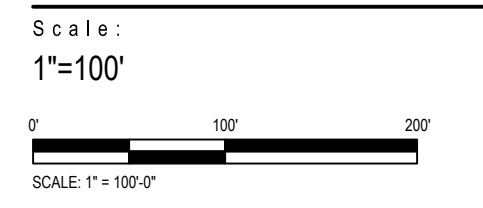
Vartan Group, Inc.
3605 Vartan Way, Suite 301
Harrisburg, PA 17110

Susquehanna
Union Green

Susquehanna Township,
Dauphin County, PA

Project Number:
18030:1
Drawn by:
DM/VT
Checked by:
FB/DM
Date:
June 8, 2019

Revisions:



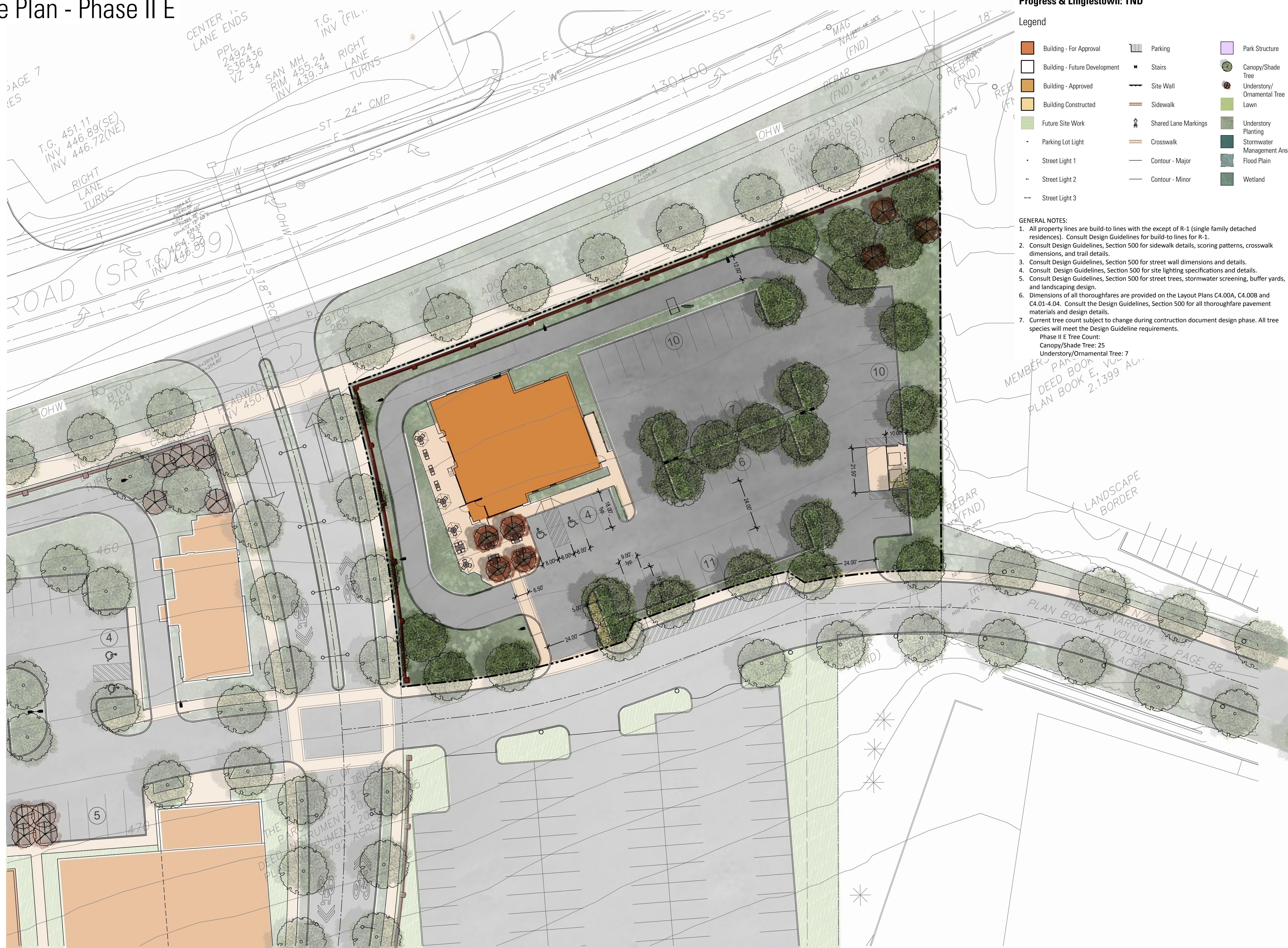
Sheet Name:
Site & Landscape
Reference Plan
Submission
Final Land Development Plan -
Phases II A, II C, II E, III B & V

Sheet Number:

L200

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Site Plan - Phase II E



Progress & Linglestown: TND

Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
Future Site Work	Shared Lane Markings	Understory Planting
Parking Lot Light	Crosswalk	Stormwater Management Area
Street Light 1	Contour - Major	Flood Plain
Street Light 2	Contour - Minor	Wetland
Street Light 3		

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- Dimensions of all thoroughfares are provided on the Layout Plans C4.00A, C4.00B and C4.01-4.04. Consult the Design Guidelines, Section 500 for all thoroughfare pavement materials and design details.
- Current tree count subject to change during construction document design phase. All tree species will meet the Design Guideline requirements.

Phase II E Tree Count:
 Canopy/Shade Tree: 25
 Understory/Ornamental Tree: 7



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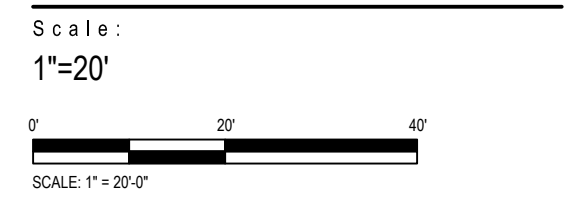


Prepared for:
 Vartan Group, Inc.
 3605 Vartan Way, Suite 301
 Harrisburg, PA 17110

Susquehanna
Union Green
 Susquehanna Township,
 Dauphin County, PA

Project Number:
 18030:1
 Drawn by:
 DM/VT
 Checked by:
 FB/DM
 Date:
 June 8, 2019

Revisions:



Sheet Name:
Enlarged Site & Landscape
Plan - Phase II E
 Submission:
Final Land Development Plan -
Phases II A, II C, II E, III B & V

Sheet Number:

L201

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Site Plan - Phase II A, II C

Progress & Linglestown: TND

Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
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 - Phase II A Tree Count
 - Canopy/Shade Tree: 75
 - Phase II C Tree Count
 - Canopy/Shade Tree: 14
 - Understory/Ornamental Tree: 9



LaQuatra Bonci ASSOCIATES
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Susquehanna Township,
Dauphin County, PA

Project Number:
18030:1

Drawn by:
DM/VT

Checked by:
FB/DM

Date:
June 8, 2019

Revisions:

Scale:
1"=20'

SCALE: 1"=20'-0"

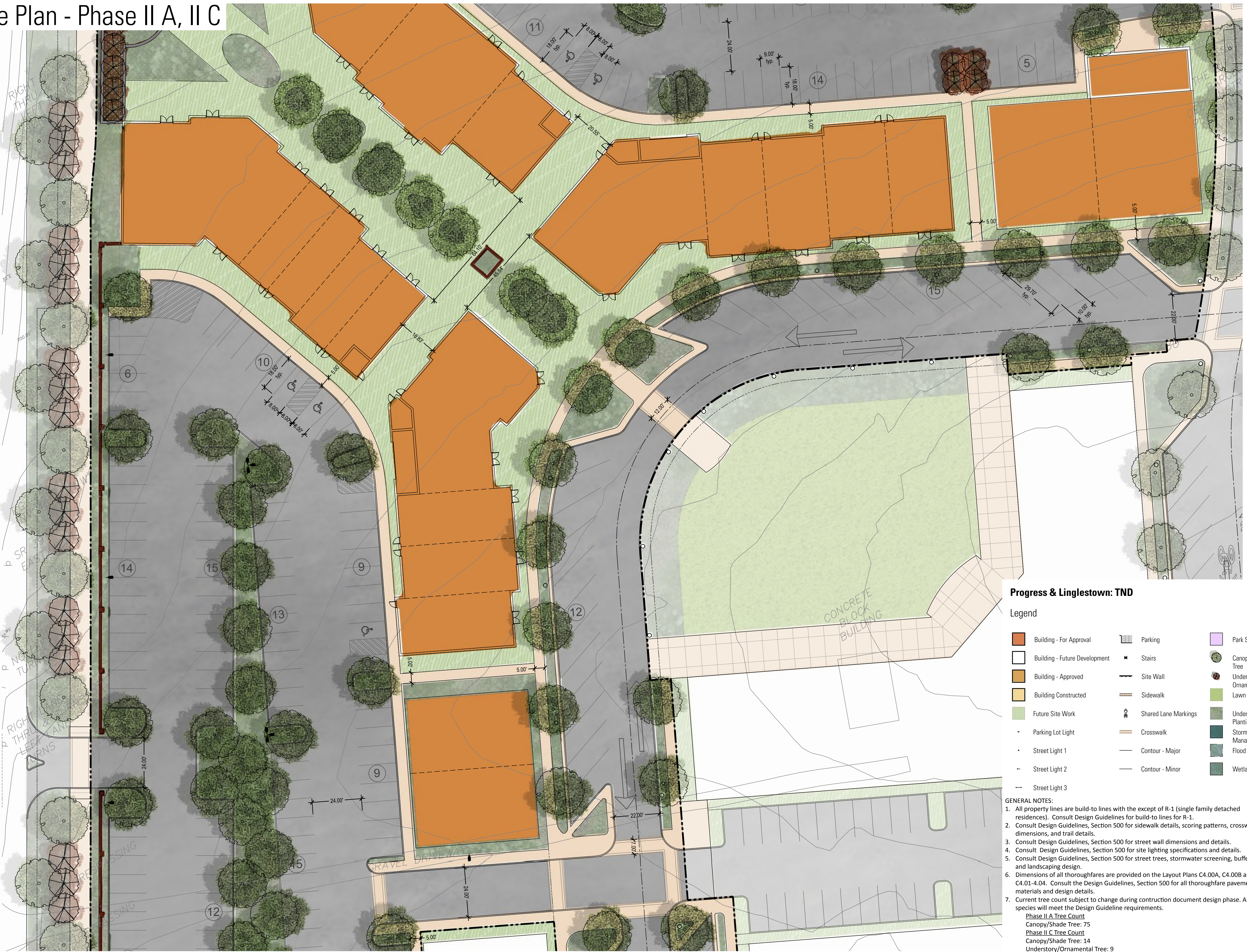
Sheet Name:
Enlarged Site & Landscape Plan - Phase II A & II C
SUBMISSION:
Final Land Development Plan - Phases II A, II C, II E, III B & V

Sheet Number:

L202

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Site Plan - Phase II A, II C



Progress & Linglestown: TND

Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
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 - Phase II C Tree Count
 - Canopy/Shade Tree: 14
 - Understory/Ornamental Tree: 9



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Project Number:
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DM/VT
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Date:
June 8, 2019

Revisions:

Scale:
1"=20'

Sheet Name:
Enlarged Site & Landscape Plan - Phase II A & II C
SUBMISSION:
Final Land Development Plan - Phases II A, II C, II E, III B & V

Sheet Number:

L203

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Site Plan - Phase II A, II C

Progress & Linglestown: TND



Legend

- | | | |
|--|--|---|
| Building - For Approval | | Park Structure |
| Building - Future Development | | |
| Building - Approved | | |
| Building Constructed | | Lawn |
| Future Site Work | | Understory Planting |
| | | Stormwater Management Area |
| | | Flood Plain |
| | | Wetland |
| | | |

GENERAL NOTES:

- All property lines are build-to lines with the exception of R-1 (single family detached residences). Consult Design Guidelines for build-to lines for R-1.
- Consult Design Guidelines, Section 500 for sidewalk details, scoring patterns, crosswalk dimensions, and trail details.
- Consult Design Guidelines, Section 500 for street wall dimensions and details.
- Consult Design Guidelines, Section 500 for site lighting specifications and details.
- Consult Design Guidelines, Section 500 for street trees, stormwater screening, buffer yards, and landscaping design.
- Dimensions of all thoroughfares are provided on the Layout Plans C4.00A, C4.00B and C4.01-4.04. Consult the Design Guidelines, Section 500 for all thoroughfare pavement materials and design details.
- Current tree count subject to change during construction document design phase. All tree species will meet the Design Guideline requirements.

Phase II A Tree Count
 Canopy/Shade Tree: 75
 Phase II C Tree Count
 Canopy/Shade Tree: 14
 Understory/Ornamental Tree: 9



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 tel 412.488.8822
 fax 412.488.8825

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1407 Sculp Avenue
 Johnstown, PA 15904
 Phone: 814-269-9300
 FAX: 814-269-9301



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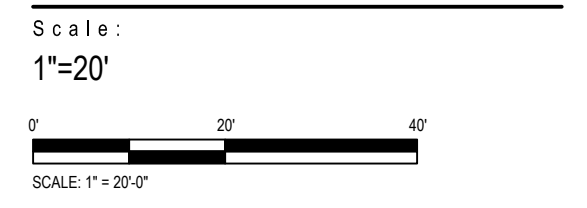
Vartan Group, Inc.
 3605 Vartan Way, Suite 301
 Harrisburg, PA 17110

Susquehanna Union Green

Susquehanna Township,
 Dauphin County, PA

Project Number:
 18030:1
 Drawn by:
 DM/VT
 Checked by:
 FB/DM
 Date:
 June 8, 2019

Revisions:



Sheet Name:
Enlarged Site & Landscape Plan - Phase II A & II C
 Submission:
Final Land Development Plan - Phases II A, II C, II E, III B & V

Sheet Number:

L204

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Site Plan - Phase III B



Progress & Linglestown: TND

Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
Future Site Work	Shared Lane Markings	Understory Planting
Parking Lot Light	Crosswalk	Stormwater Management Area
Street Light 1	Contour - Major	Flood Plain
Street Light 2	Contour - Minor	Wetland
Street Light 3		

GENERAL NOTES:

- All property lines are build-to lines with the exception of R-1 (single family detached residences). Consult Design Guidelines for build-to lines for R-1.
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- Consult Design Guidelines, Section 500 for street wall dimensions and details.
- Consult Design Guidelines, Section 500 for site lighting specifications and details.
- Consult Design Guidelines, Section 500 for street trees, stormwater screening, buffer yards, and landscaping design.
- Dimensions of all thoroughfares are provided on the Layout Plans C4.00A, C4.00B and C4.01-4.04. Consult the Design Guidelines, Section 500 for all thoroughfare pavement materials and design details.
- Current tree count subject to change during construction document design phase. All tree species will meet the Design Guideline requirements.
 Phase II B Tree Count
 Canopy/Shade Tree: 21
 Understory/Ornamental Tree: 14



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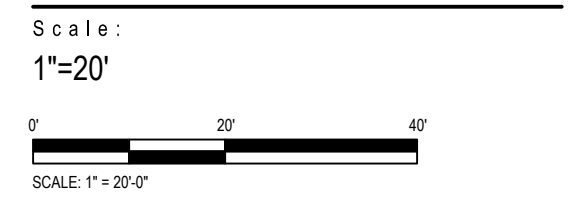


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Susquehanna Union Green
 Susquehanna Township,
 Dauphin County, PA

Project Number:
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 Checked by:
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 Date:
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Revisions:



Sheet Name:
Enlarged Site & Landscape Plan - Phase III B
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L205

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Site Plan - Phase V

Progress & Linglestown: TND

Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
Future Site Work	Shared Lane Markings	Understory Planting
Parking Lot Light	Crosswalk	Stormwater Management Area
Street Light 1	Contour - Major	Flood Plain
Street Light 2	Contour - Minor	Wetland
Street Light 3		

- GENERAL NOTES:**
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 - Consult Design Guidelines, Section 500 for site lighting specifications and details.
 - Consult Design Guidelines, Section 500 for street trees, stormwater screening, buffer yards, and landscaping design.
 - Dimensions of all thoroughfares are provided on the Layout Plans C4.00A, C4.00B and C4.01-4.04. Consult the Design Guidelines, Section 500 for all thoroughfare pavement materials and design details.
 - Single family housing unit footprints are shown for representation only.
 - Current tree count subject to change during construction document design phase. All tree species will meet the Design Guideline requirements.
- Phase V Tree Count**
 Canopy/Shade Tree: 161
 Understory/Ornamental Tree: 118



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 Susquehanna Township,
 Dauphin County, PA

Project Number:
 18030:1
 Drawn by:
 DM/VT
 Checked by:
 FB/DM
 Date:
 June 8, 2019

Revisions:

Scale:
 1"=30'

Sheet Name:
 Enlarged Site & Landscape Plan -
 Phase V
 Submission:
 Final Land Development Plan -
 Phases II A, II C, II E, III B & V

Sheet Number:

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LANDS N/F OF
 WIDENER UNIVERSITY
 PARCELS 62, 621, 145

Site Plan - Phase V



Progress & Linglestown: TND

Legend

Building - For Approval	Parking	Park Structure
Building - Future Development	Stairs	Canopy/Shade Tree
Building - Approved	Site Wall	Understory/Ornamental Tree
Building Constructed	Sidewalk	Lawn
Future Site Work	Shared Lane Markings	Understory Planting
Parking Lot Light	Crosswalk	Stormwater Management Area
Street Light 1	Contour - Major	Flood Plain
Street Light 2	Contour - Minor	Wetland
Street Light 3		

GENERAL NOTES:

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 4. Consult Design Guidelines, Section 500 for site lighting specifications and details.
 5. Consult Design Guidelines, Section 500 for street trees, stormwater screening, buffer yards, and landscaping design.
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 7. Single family housing unit footprints are shown for representation only.
 8. Current tree count subject to change during construction document design phase. All tree species will meet the Design Guideline requirements.
- Phase V Tree Count**
 Canopy/Shade Tree: 161
 Understory/Ornamental Tree: 118



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Susquehanna Union Green
 Susquehanna Township,
 Dauphin County, PA

Project Number:
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 DM/VT
 Checked by:
 FB/DM
 Date:
 June 8, 2019

Revisions:

Scale:
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Sheet Name:
 Enlarged Site & Landscape Plan - Phase V
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 Final Land Development Plan - Phases II A, II C, II E, III B & V
 Sheet Number:

L207
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MATCH TO SHEET C102



NOTE:
COORDINATE NUMBER AND
LOCATION OF RAINWATER
CONDUCTORS EXITING THE BUILDING
WITH PLUMBING PLANS. CONNECT
TO RAINWATER CONDUCTOR AT
FACE OF BUILDING AND EXTEND TO
STORM SEWER AS SHOWN AND/OR
REQUIRED. RAINWATER CONDUCTOR
SHALL BE MINIMUM SLOPE OR
INDICATED OTHERWISE.

**PARKING-PHASE IIA
(134 SPACES)**

18" SLCPP
@ 0.75%

INLET 3-4
PADOT STANDARD INLET
TYPE C FRAME AND GRATE
T/G=465.76.5
INV IN (1)=456.62
INV IN (2)=462.36
INV OUT=456.52

15" SLCPP
@ 1.00%

18" SLCPP
@ 0.50%

INLET 3-5
PADOT STANDARD INLET
TYPE C FRAME AND GRATE
T/G=466.96
INV OUT=462.73

INLET-41 (PHASE-1)
STA 0+00.00
SEE STORM PROFILE-D
STA 0+00.00 TO STA 1+00.49
SHEET C202

MANHOLE 3-3 (PHASE-1)
PADOT TYPE 5 MANHOLE
STA 1+00.49
T/RIM=471.42
INV IN=456.37
INV OUT=456.00

UNDERGROUND DETENTION SYSTEM
TO BE CONSTRUCTED IN PHASE
F.F.E. 470.00
PROPOSED BUILDING No 7
INLET 3-6 (PHASE-1)
PADOT TYPE 4 INLET BOX
TYPE C FRAME AND GRATE
T/G=468.51
INV=456.00
F.F.E. 470.67

U/G ELEC.
TELE.CABLE
SERVICE
GAS SERVICE
LATERAL
PROPOSED BUILDING No 8
F.F.E. 472.00
F.F.E. 472.67

6" PVC-SDR35
SAN LATERAL
@ 1% MIN

STOP SIGN
R1-1



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Harrisburg, PA 17110

**Susquehanna
Union Green**
Susquehanna
Township, Dauphin
County, PA

Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

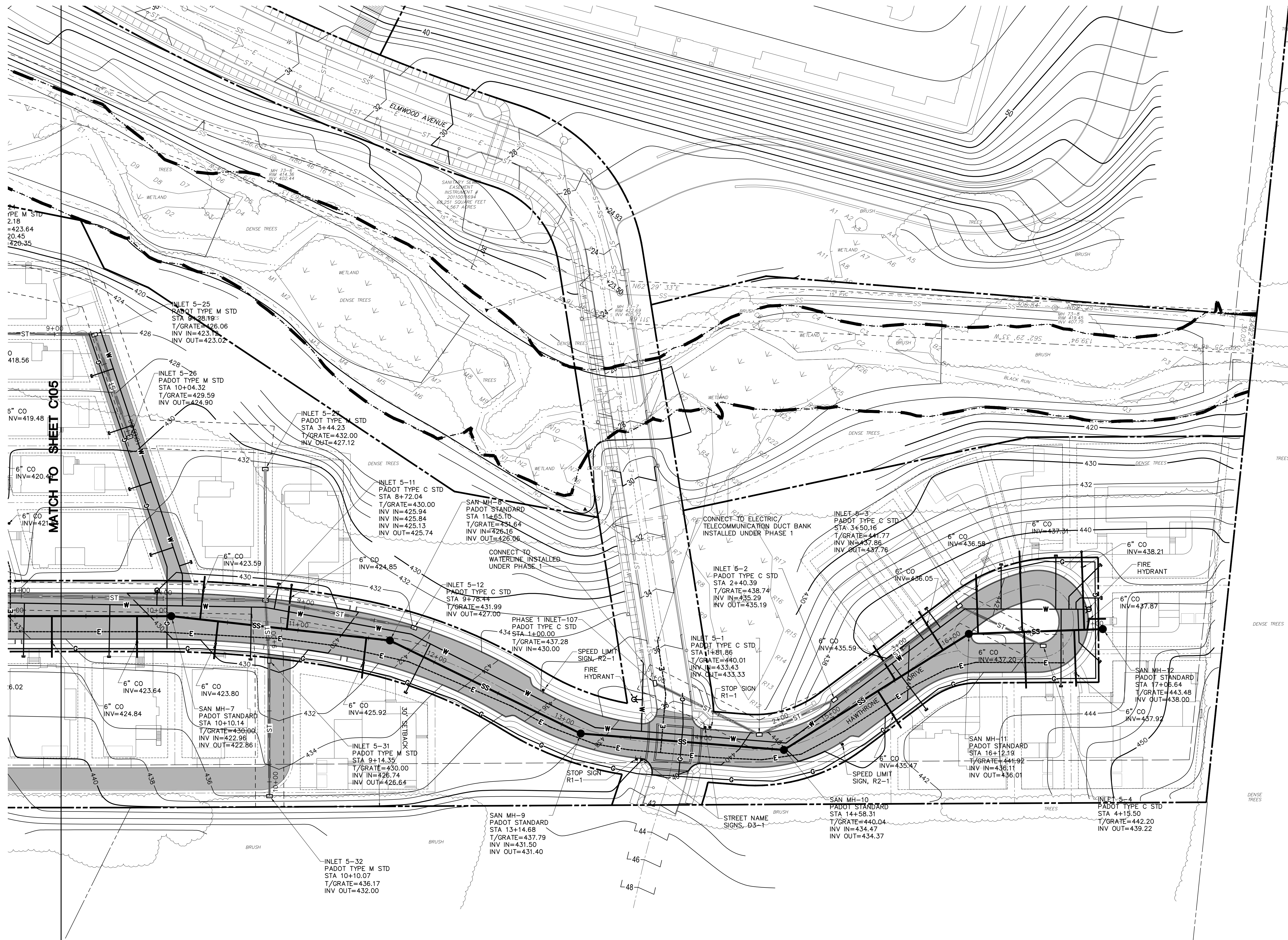
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**Drainage/Utility
Plan - Phase IIA, IIC**
Submission:
Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

Sheet Number:
C103

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**Susquehanna
Union Green**

Susquehanna
Township, Dauphin
County, PA

Project Number:
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Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

Scale:
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Sheet Name:
**Drainage/Utility Plan
Phase V**

Submission:
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Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

C106

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Union Green
Susquehanna
Township, Dauphin
County, PA

Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
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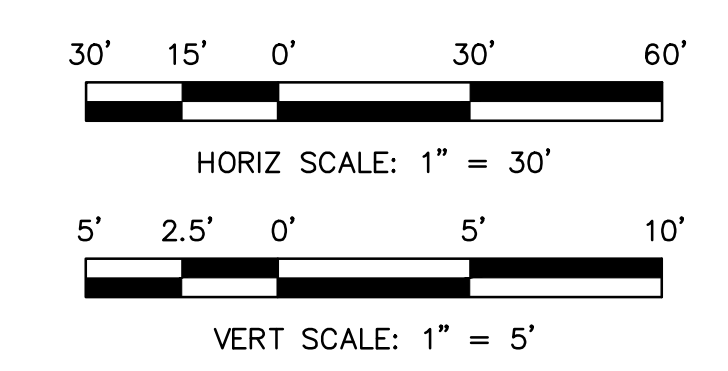
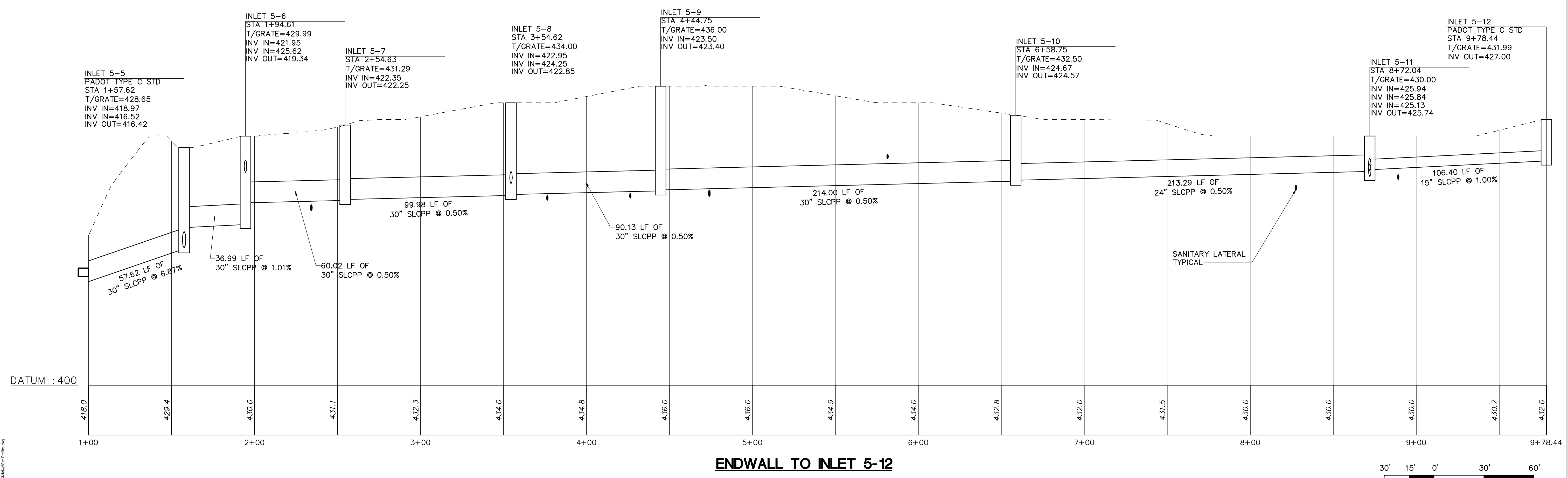
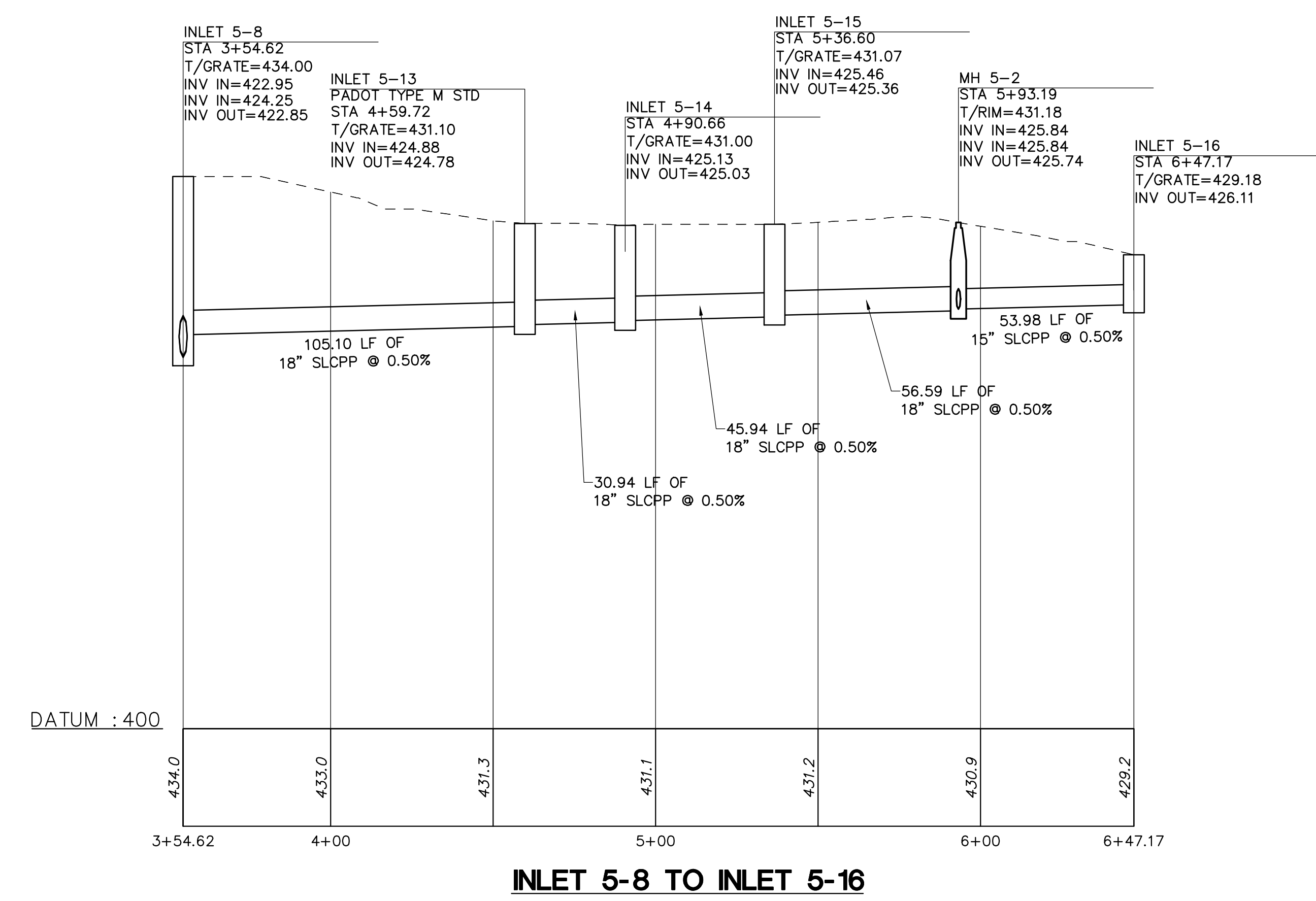
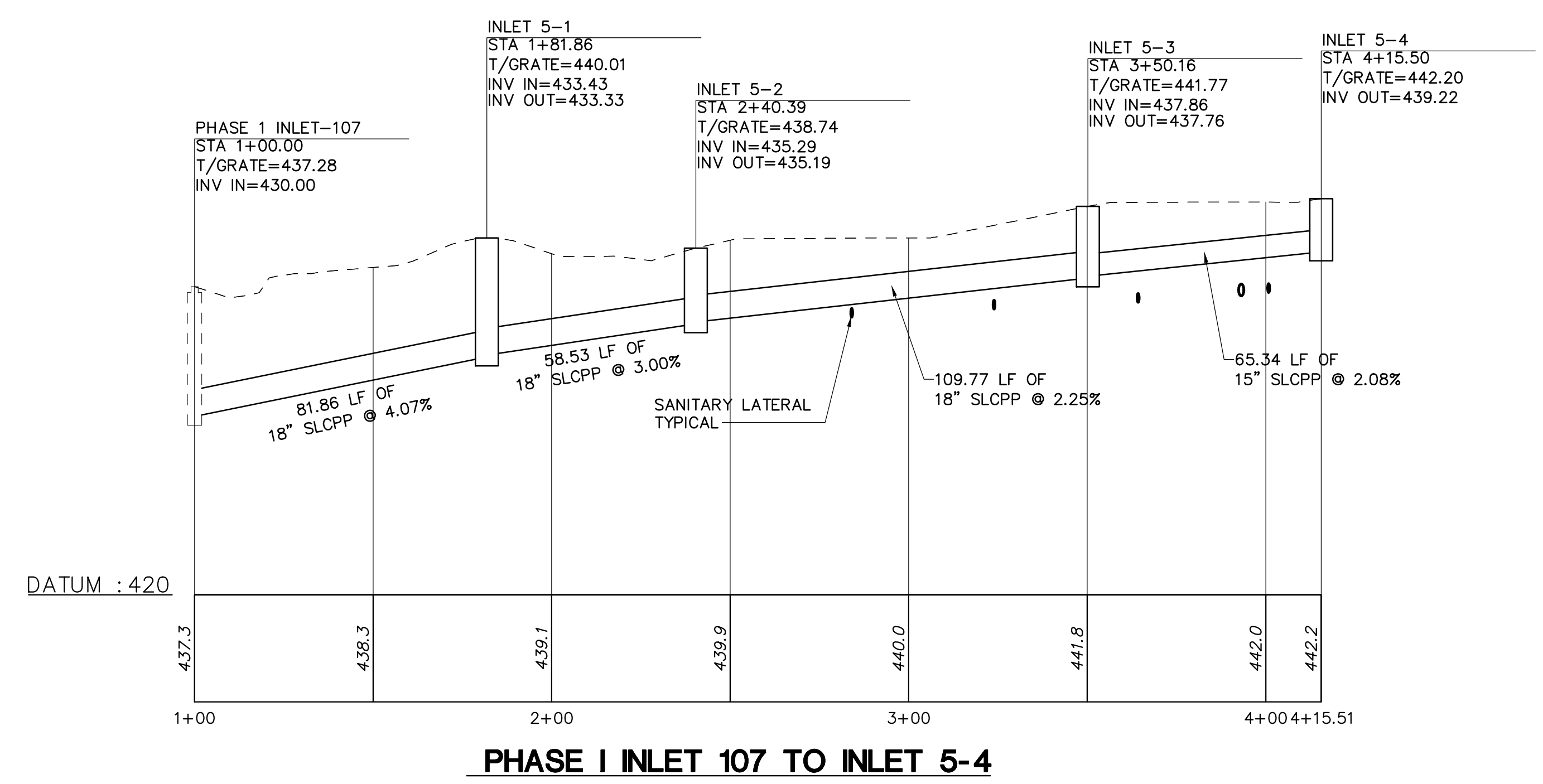
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Storm Profiles
Residential Area
Submission:
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Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

C200

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Susquehanna Union Green
Susquehanna Township, Dauphin County, PA

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18030:1
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LBG/REA
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LBG/BJC
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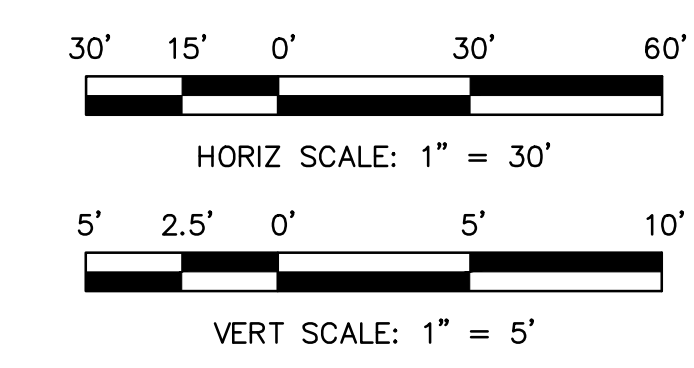
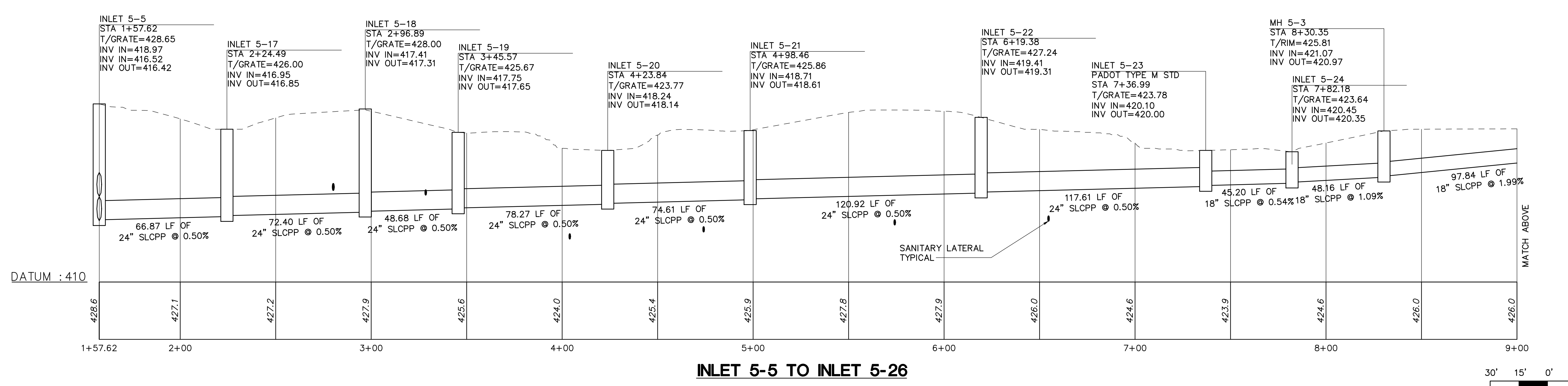
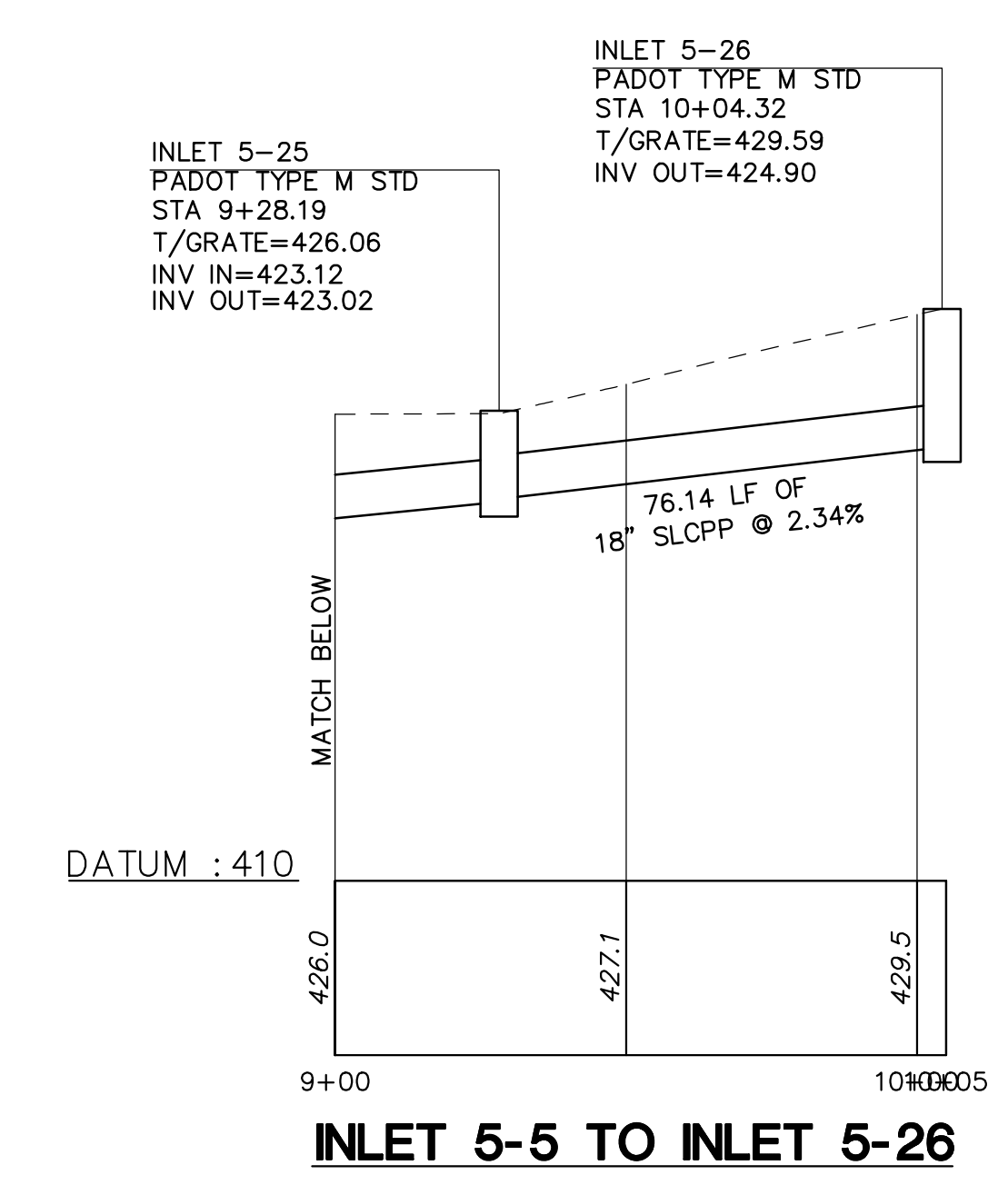
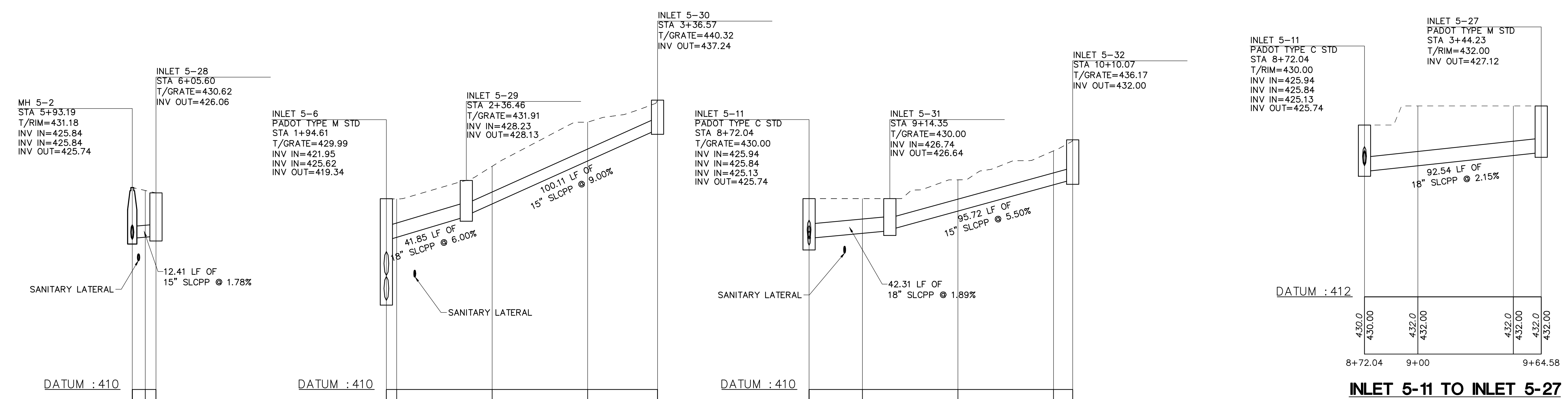
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Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

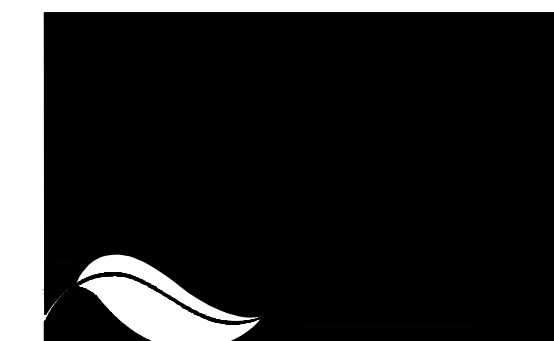
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Union Green

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County, PA

Project Number:

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Checked by:

LBG/BJC

Date:

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Revisions:

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Sheet Name:

Sanitary Sewer
Profiles - Phase V

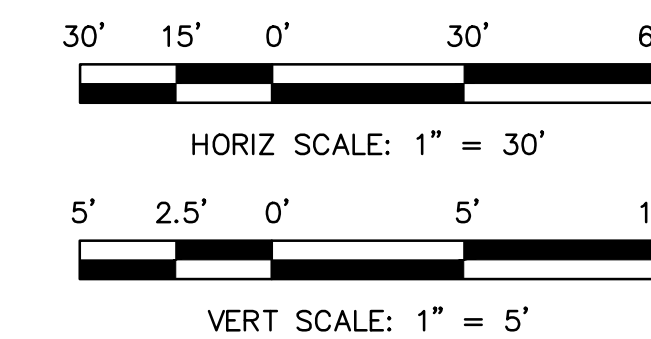
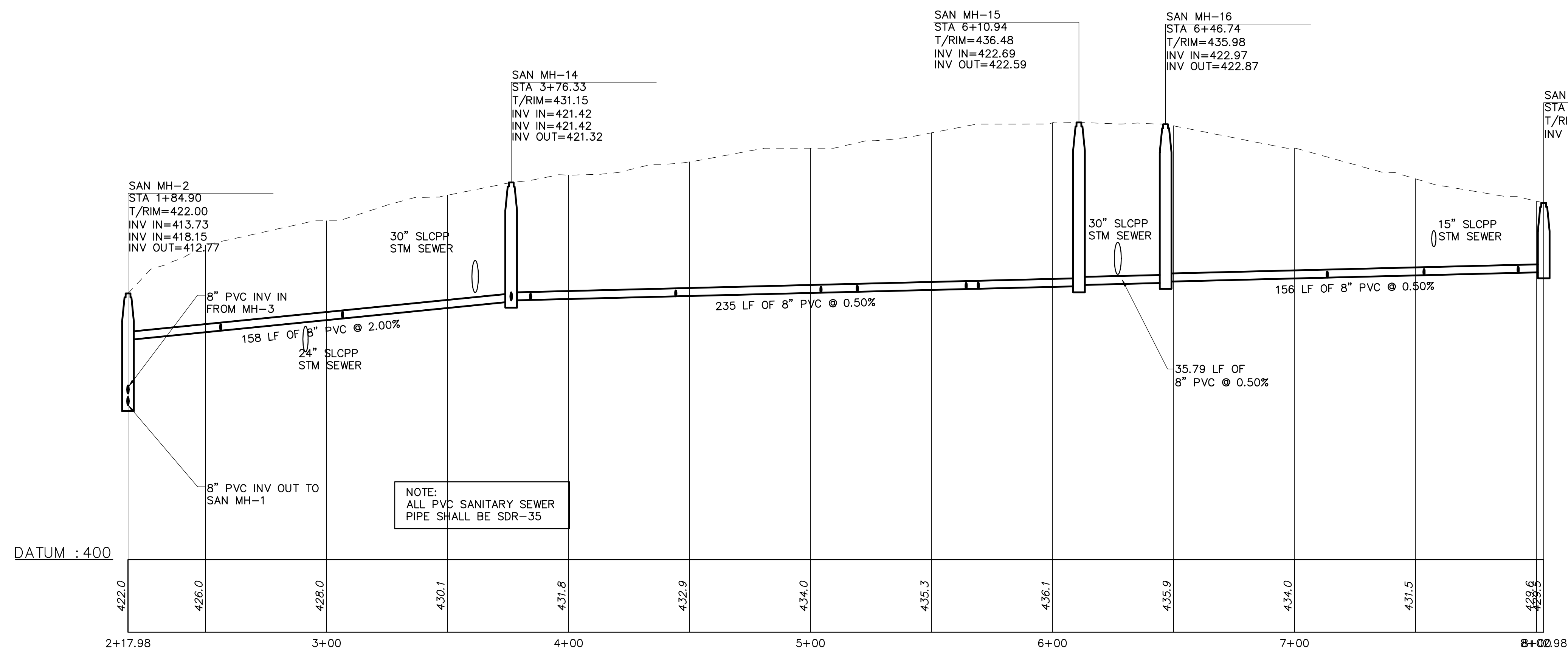
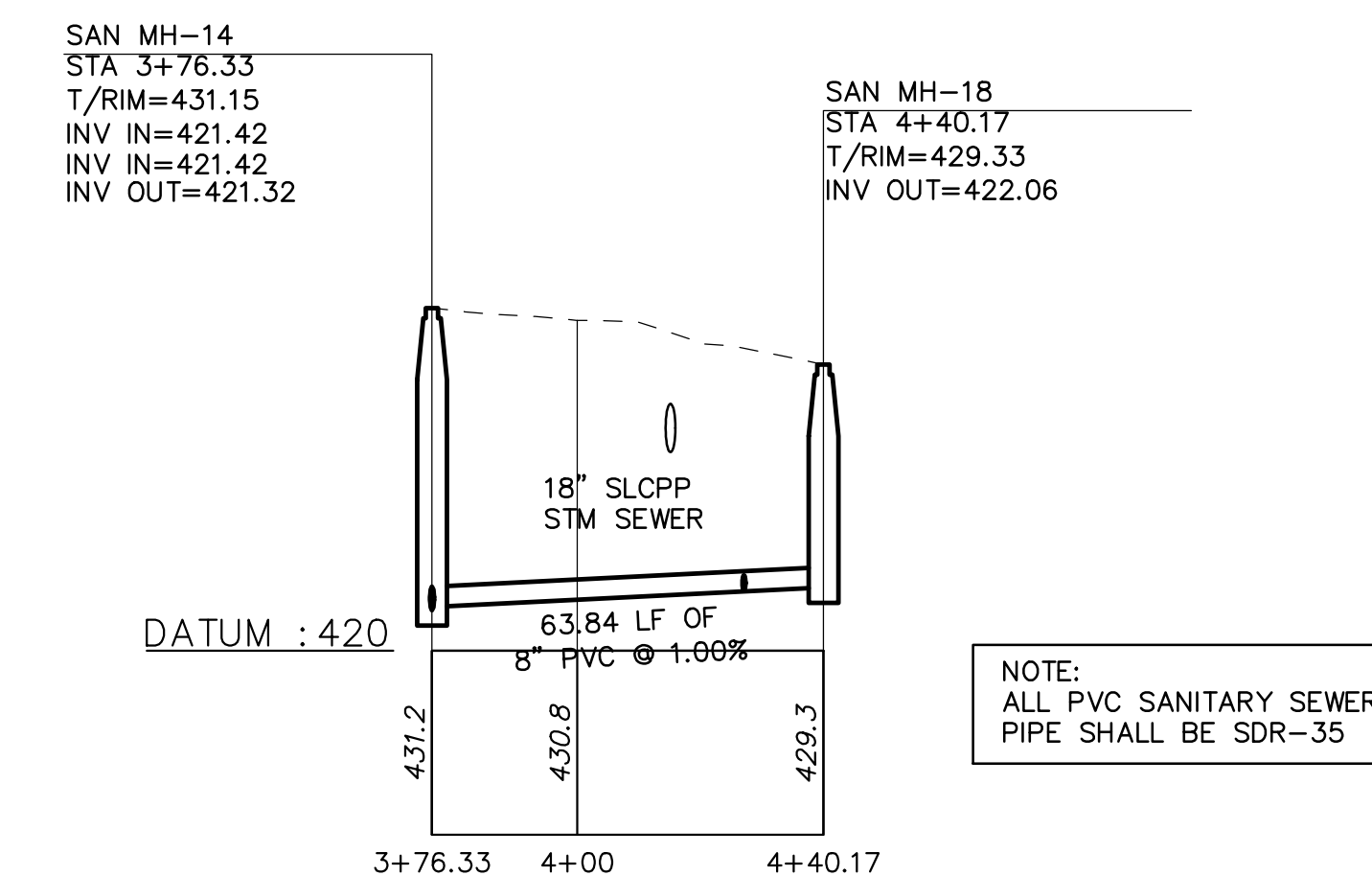
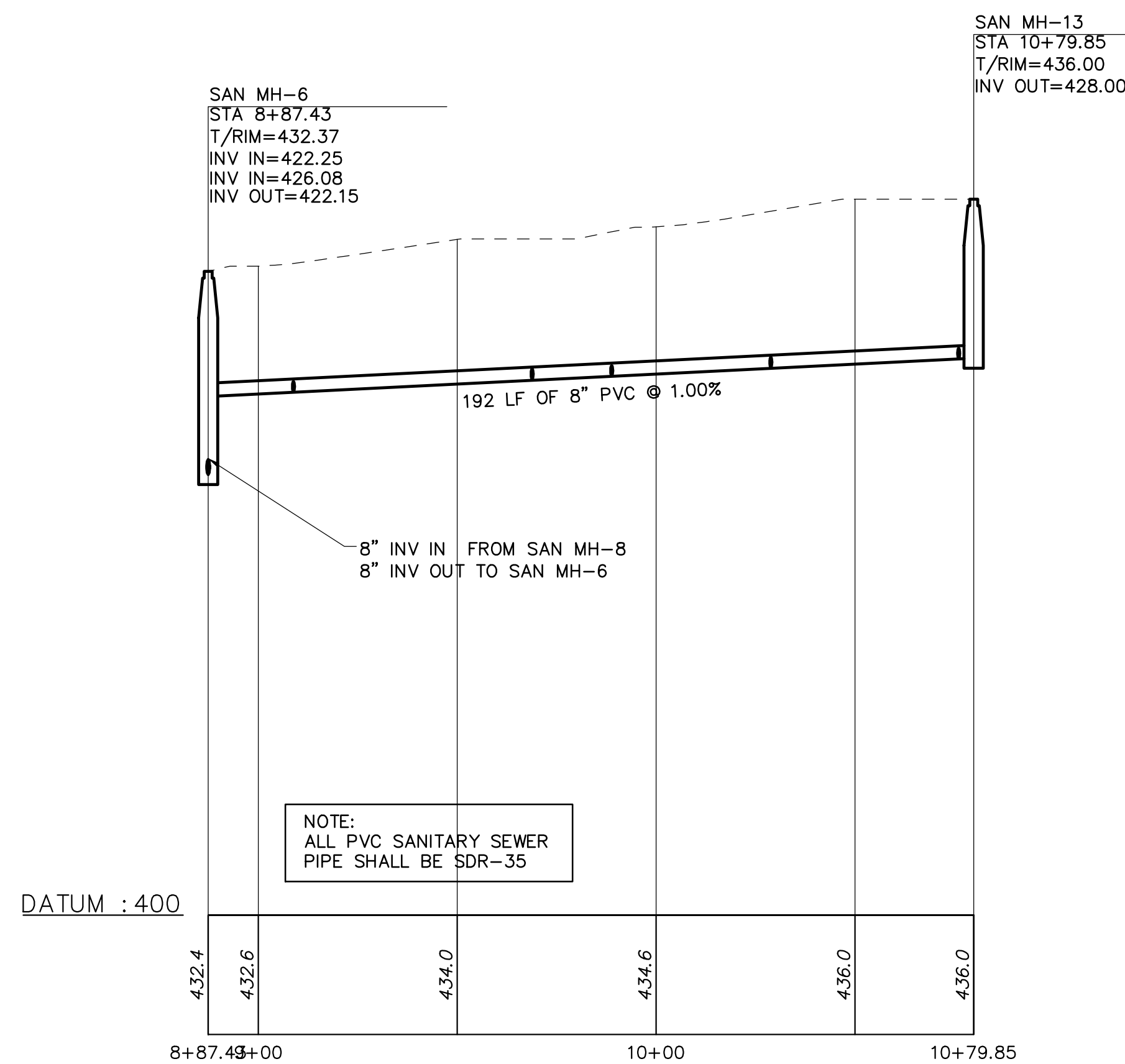
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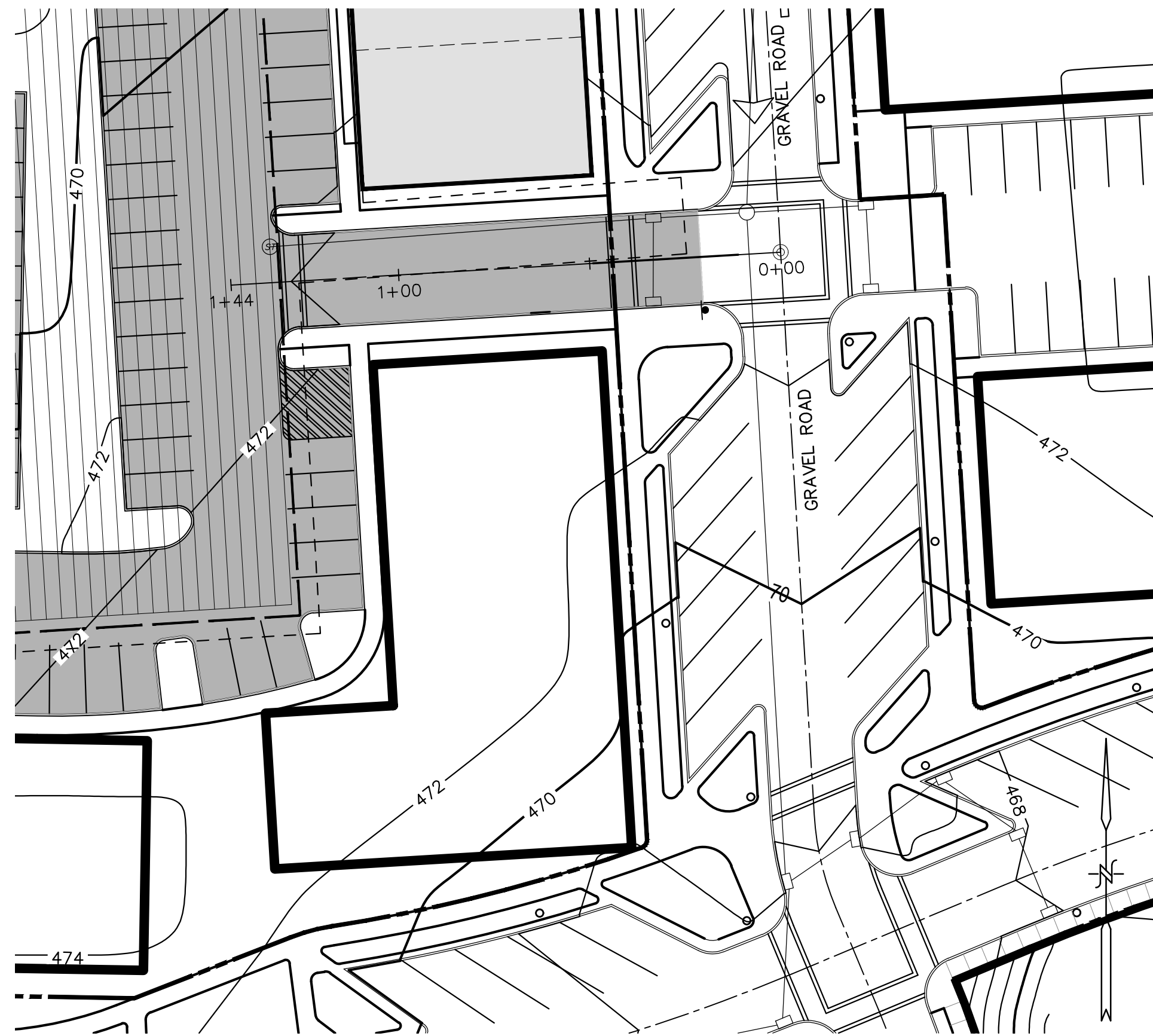
Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

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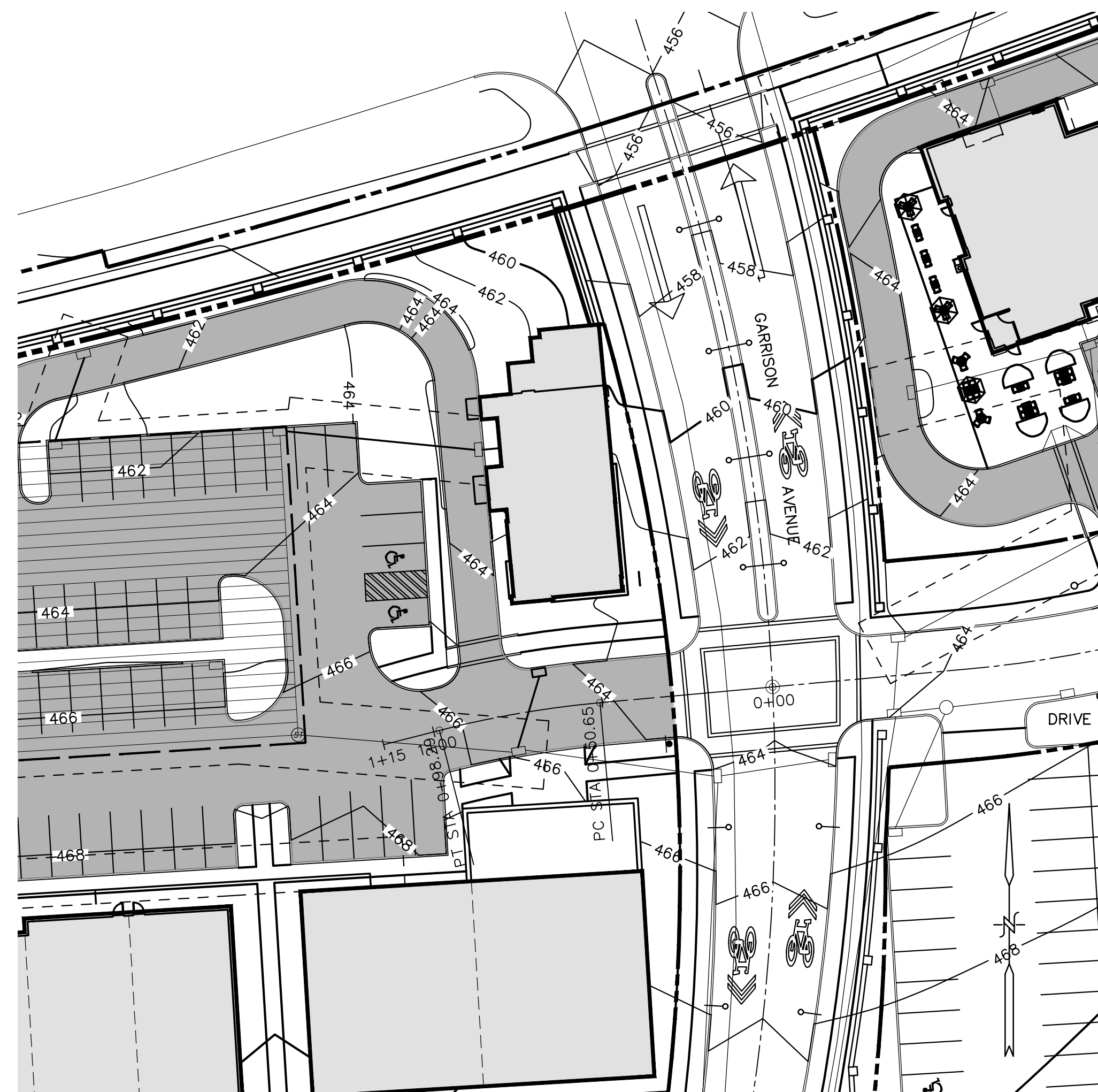
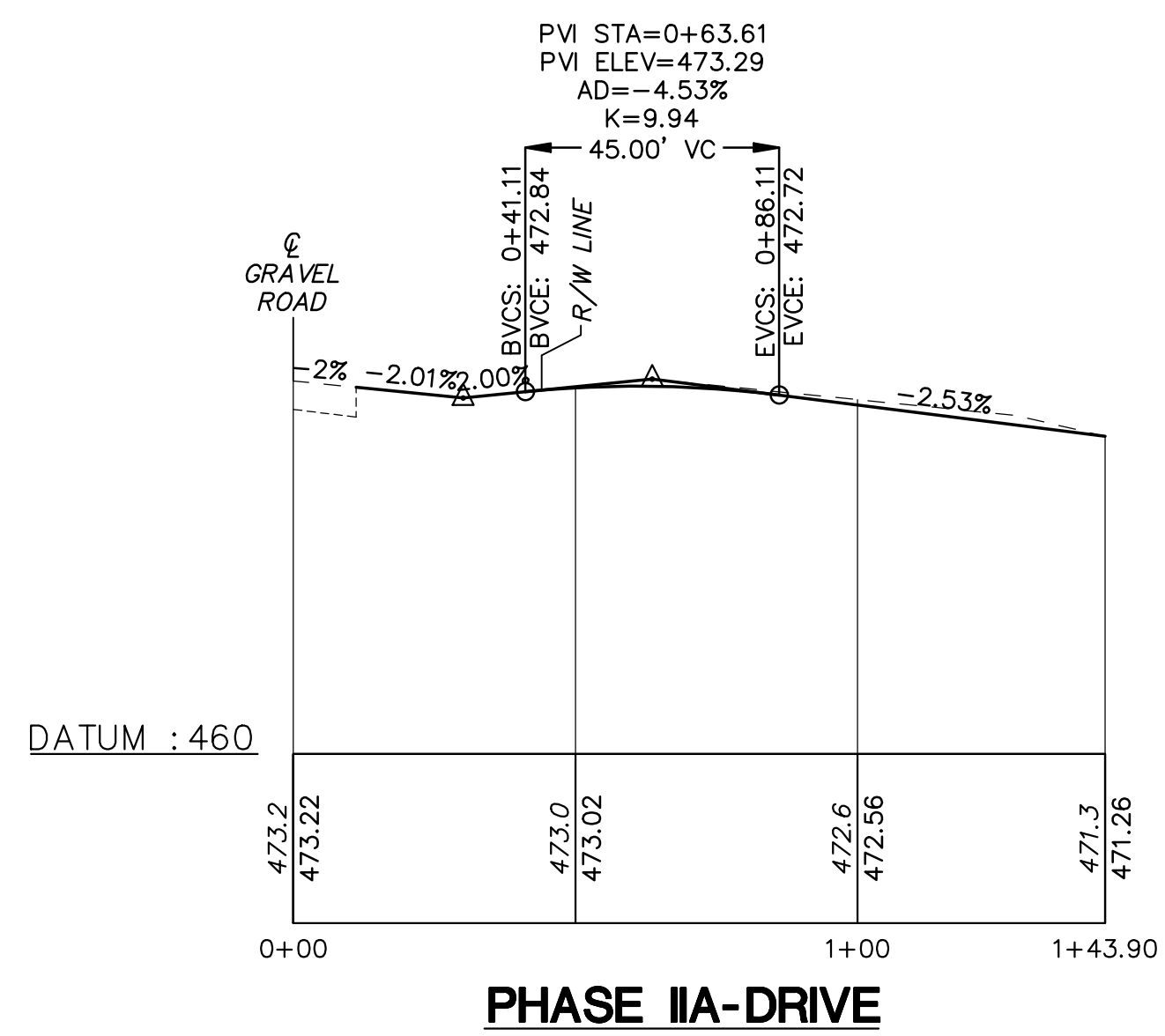
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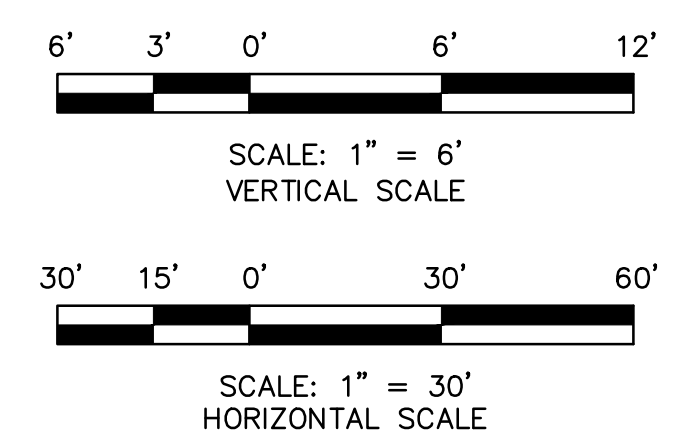
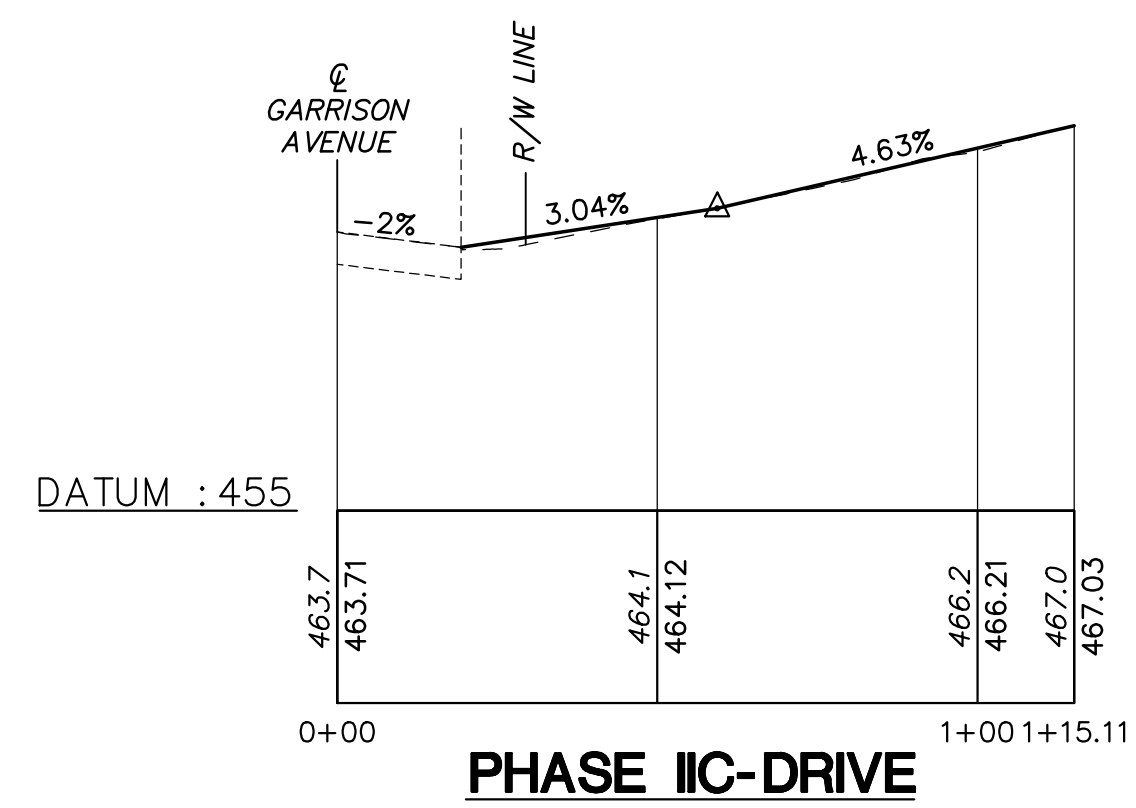




DRIVE - PLAN VIEW (PHASE IIA)



DRIVE - PLAN VIEW (PHASE IIC)



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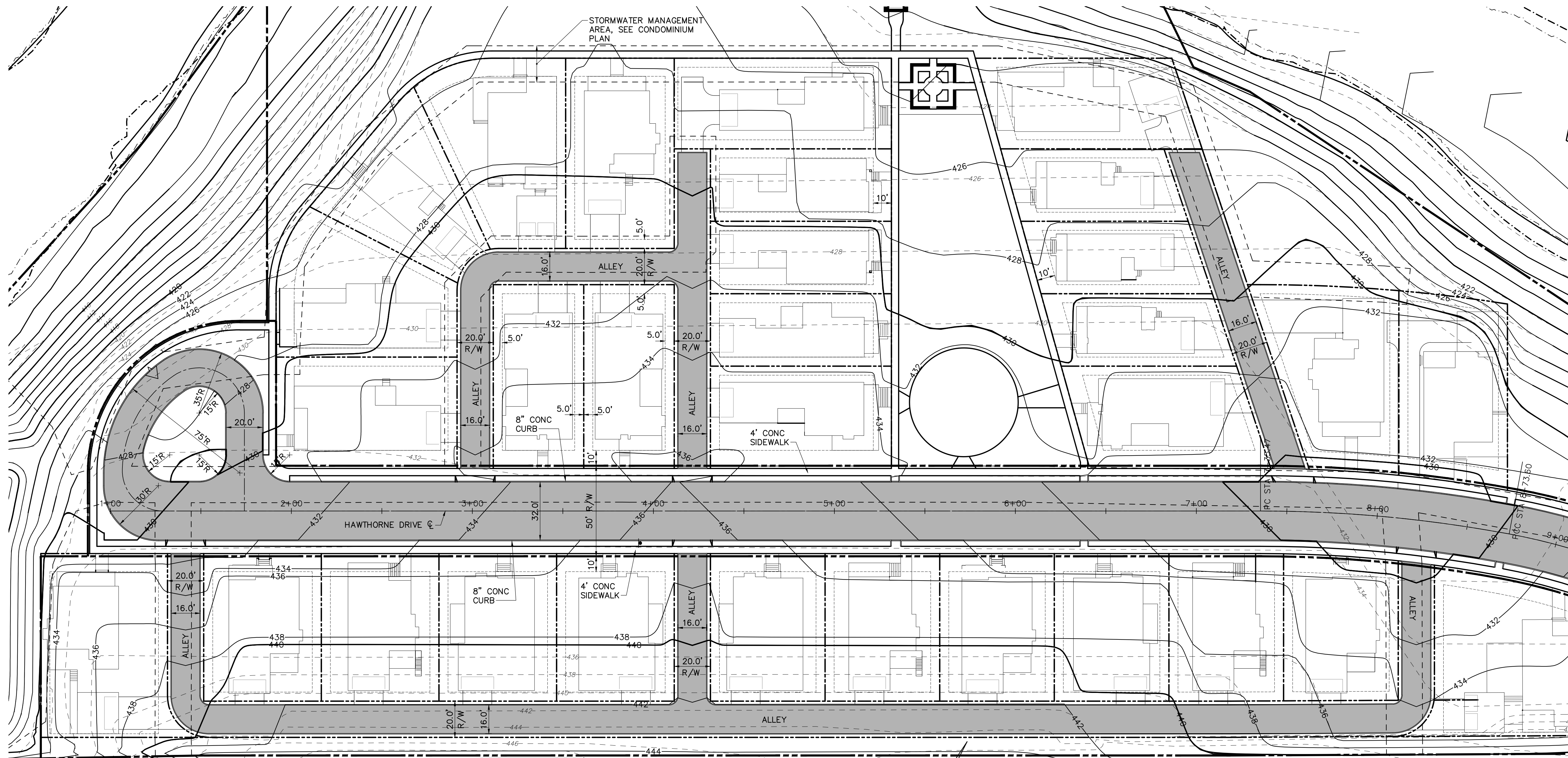
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Drive Plans and Profiles Phase IIA, IIC
 Submission:
 Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

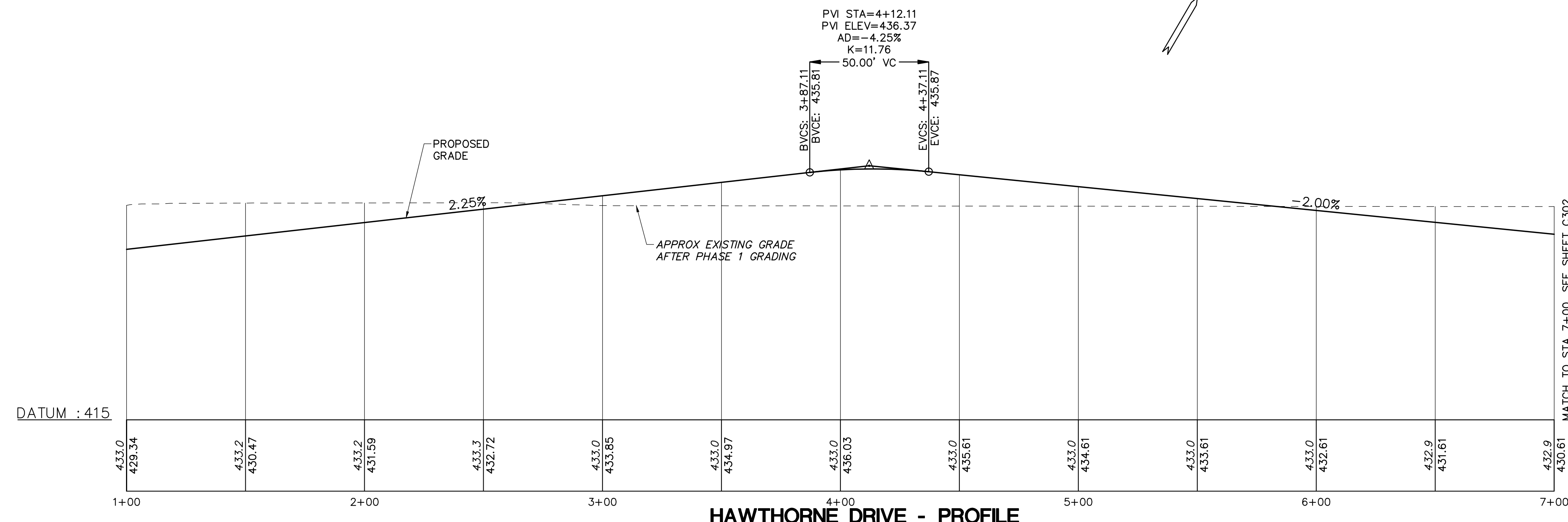
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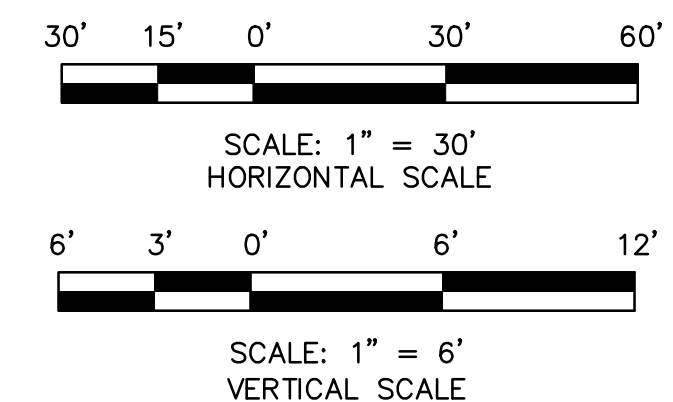
HAWTHORNE DRIVE - PLAN VIEW



HAWTHORNE DRIVE - PROFILE

NOTE:

- REFER TO CONDOMINIUM PLANS FOR LOT NUMBERS AND LEGAL DESCRIPTIONS.



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Susquehanna Township, Dauphin County, PA

Project Number:

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Drawn by:

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Sheet Name:

Hawthorne Drive Plan & Profile Phase V

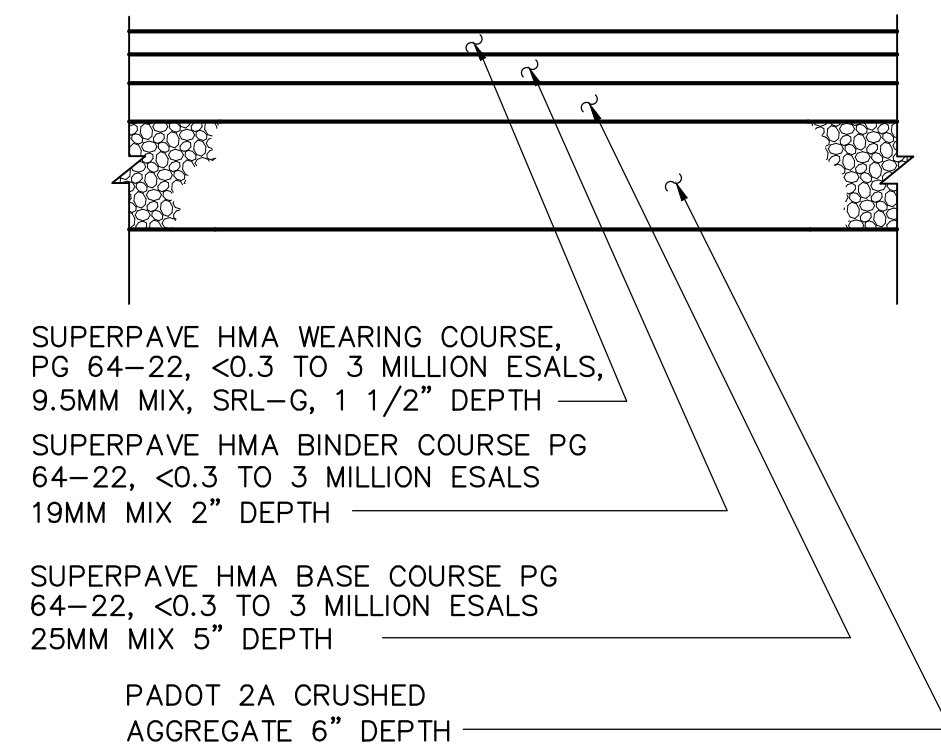
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Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

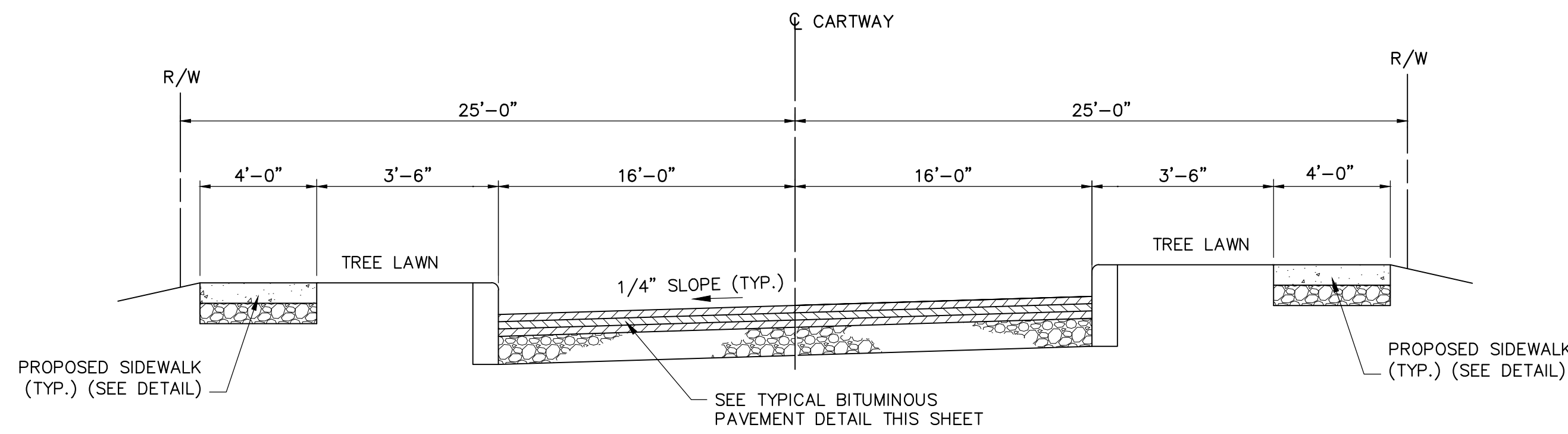
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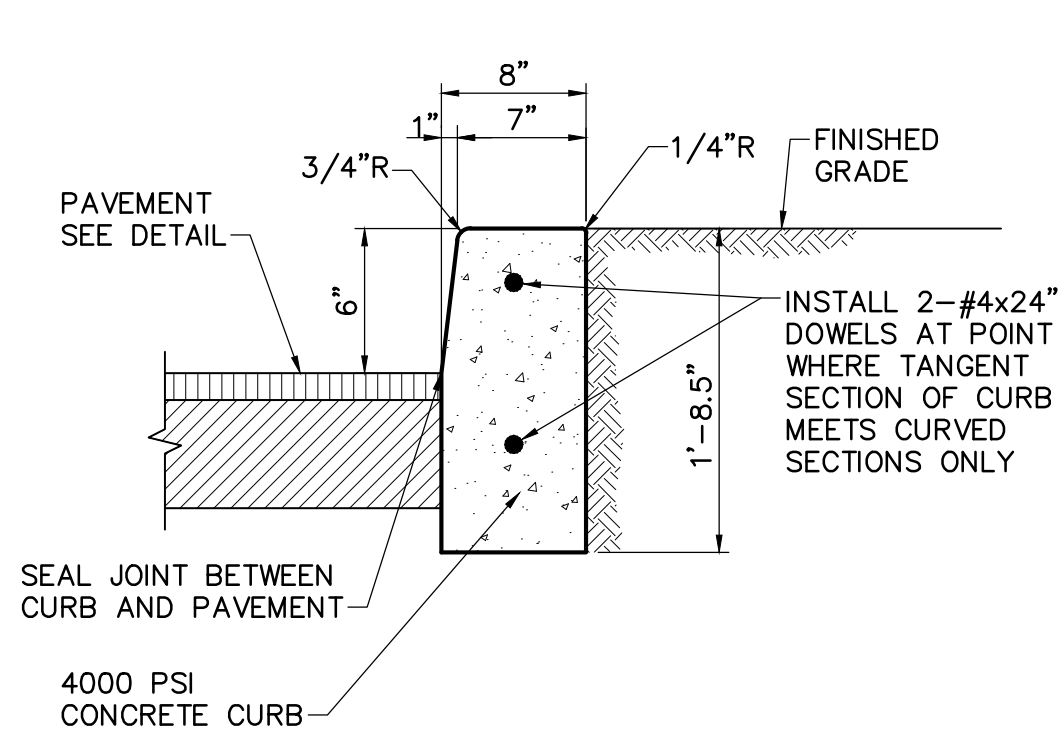
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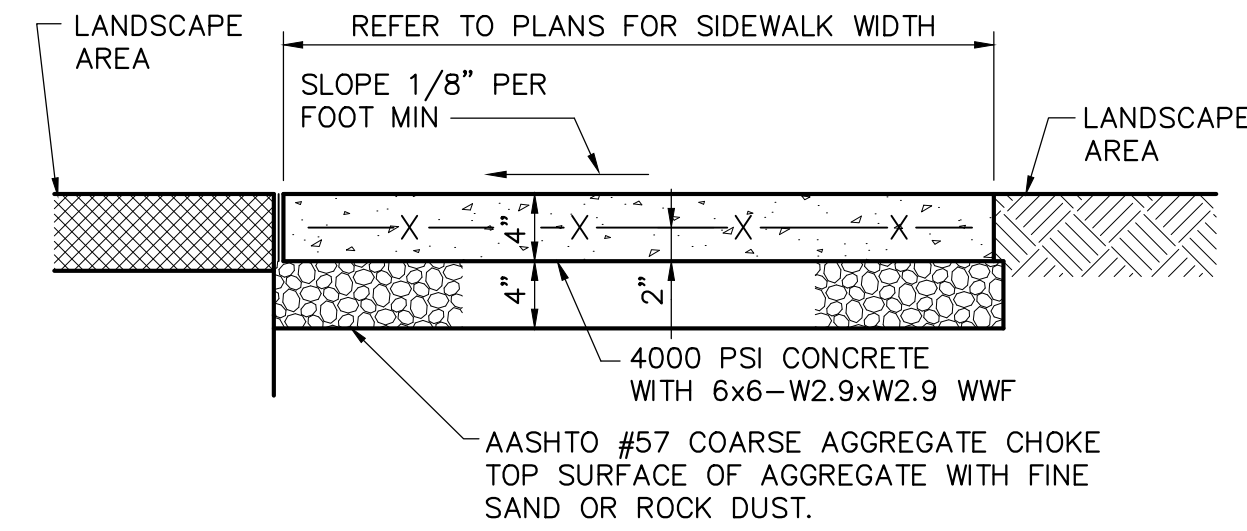
TYPICAL BITUMINOUS PAVEMENT DETAIL
NOT TO SCALE



MINOR STREET TYPICAL ROAD SECTION - PHASE V
NOT TO SCALE

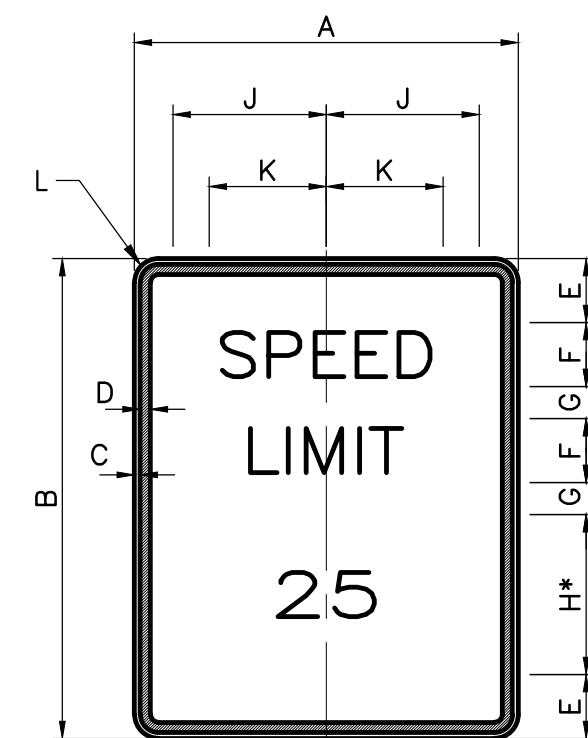


CONCRETE CURB (6\"/>NOT TO SCALE



SIDEWALK SECTION
NOT TO SCALE

- NOTE:
- CROSS WALK LINES SHALL BE SOLID WHITE.
 - EXTEND THE CROSSWALK ACROSS THE ROADWAY FROM FACE OF CURB TO FACE OF CURB OR EDGE OF SHOULDER AS APPLICABLE
 - MINIMUM WIDTH OF CROSSWALK SHALL BE 6'-0"



* OPTICALLY SPACE NUMERALS ABOUT CENTERLINE

COLORS:
LEGEND - BLACK BACKGROUND - WHITE (RETROREFLECTIVE)

SIGN SIZE	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	.375	.625	4	4E	2	10E	9.563	7.313	1.5

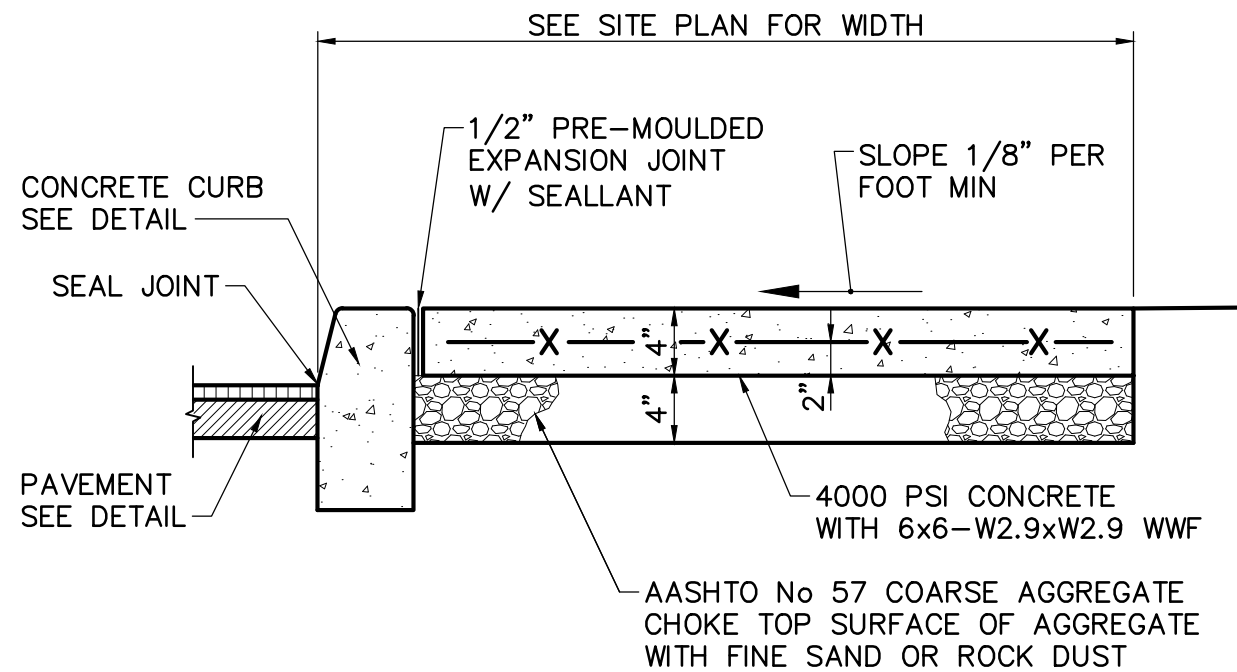
25 MPH SPEED LIMIT SIGN R2-1
NOT TO SCALE



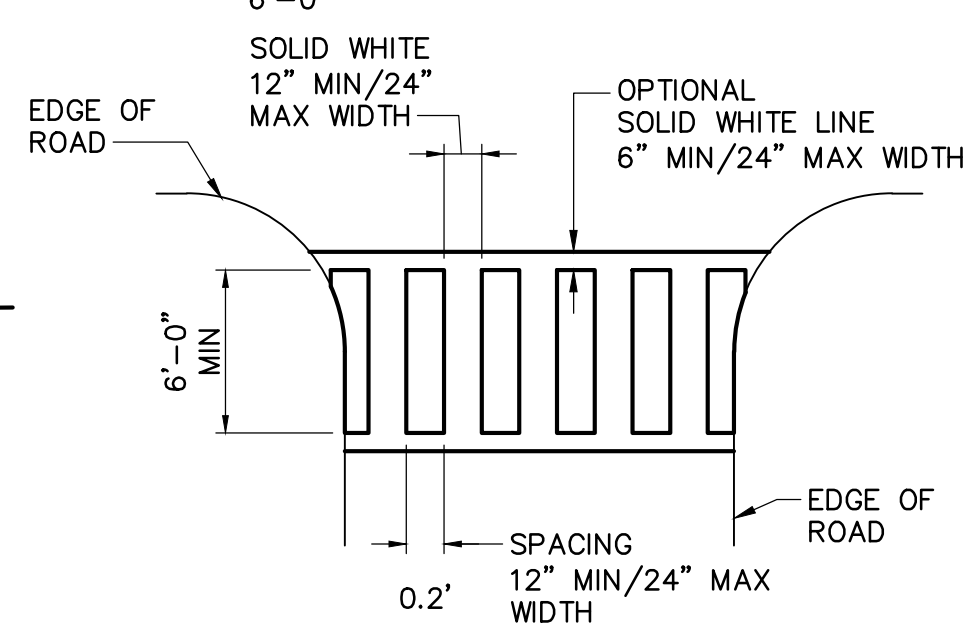
SHOULD BE 2 SINGLE SIDED PER STREET NAME, CONSTRUCTED OF HIGH INTENSITY GRADE MATERIAL.

COLORS:
LETTERING - WHITE (RETROREFLECTIVE)
BACKGROUND - GREEN (RETROREFLECTIVE)

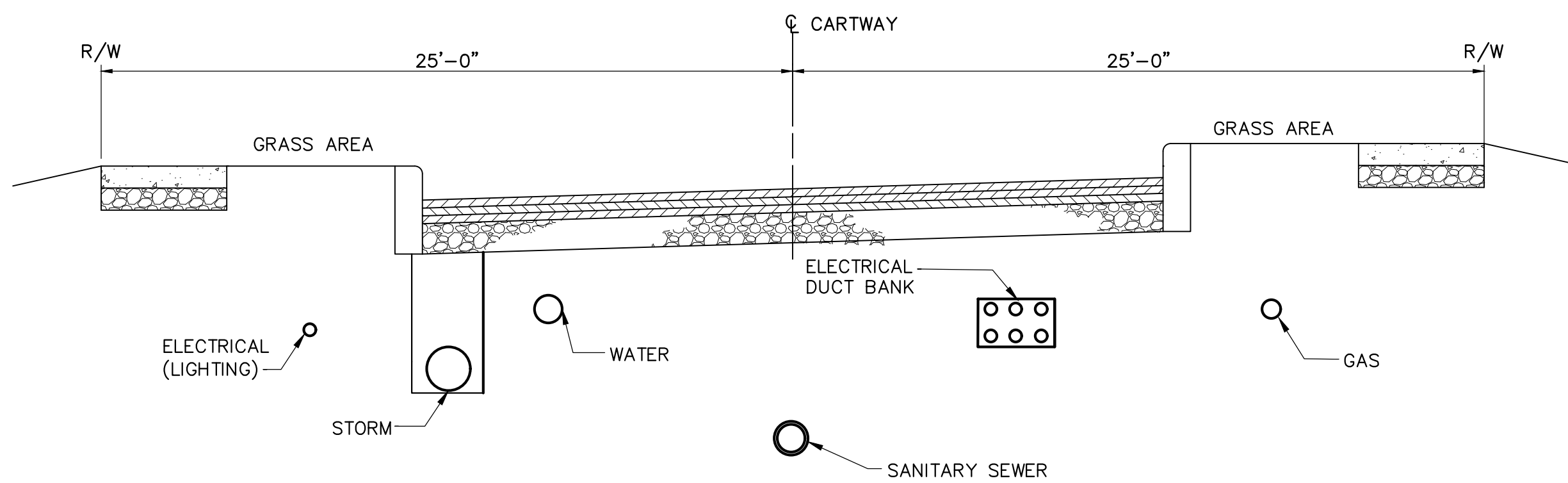
STREET NAME SIGN D3-1
NOT TO SCALE



CURB AND CONCRETE SIDEWALK SECTION
NOT TO SCALE

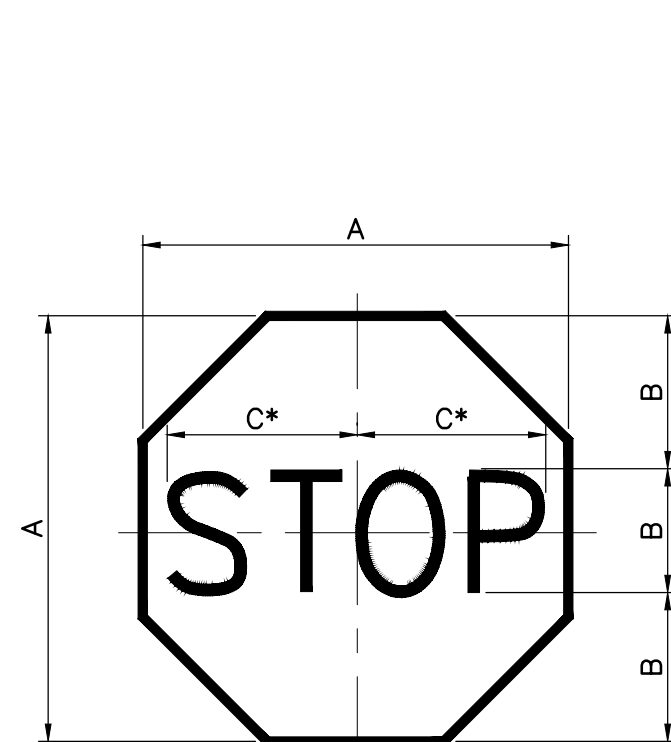


TYPE C - PERPENDICULAR STANDARD CROSSWALK
NOT TO SCALE



NOTE:
1. COORDINATE DEPTHS AND FINAL LOCATIONS WITH RESPECTIVE UTILITY PROVIDER.

TYPICAL UTILITY SECTION
NOT TO SCALE



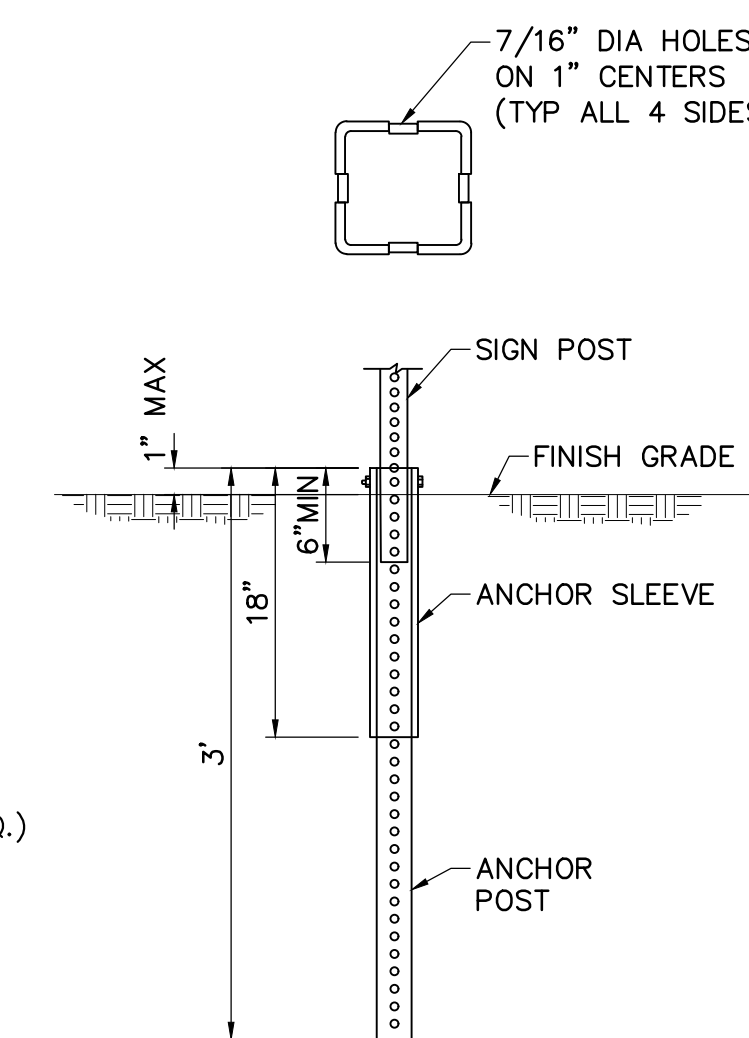
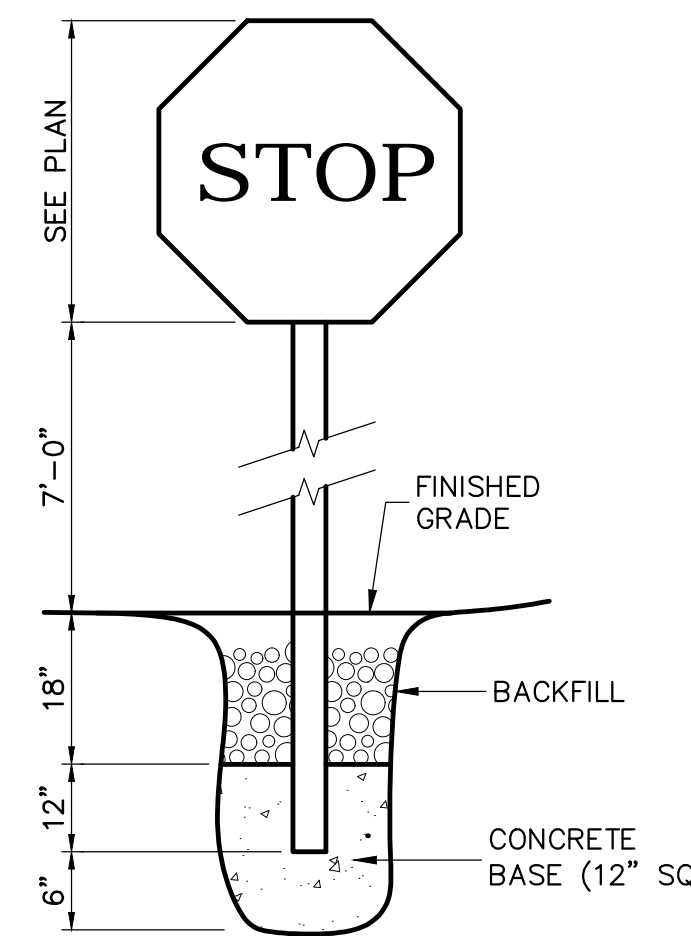
COLOR	WHITE (RETROREFLECTIVE)
LETTERING & BORDER	WHITE (RETROREFLECTIVE)
BACKGROUND	RED (RETROREFLECTIVE)

SIGN SIZE	DIMENSIONS			SERIES	BORDER	BLANK
	A	B	C			
30"x30"	30"	10"	12"	C	3/4"	B1-30

* REDUCE SPACING 40%

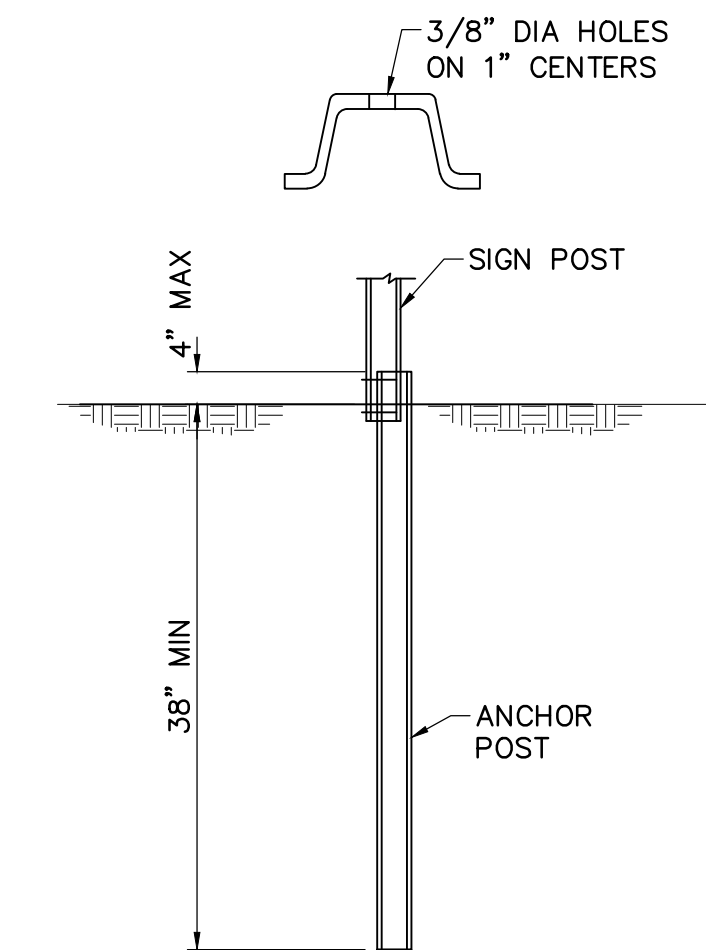
NOTE:
1. CONSTRUCT SIGN IN ACCORDANCE WITH PENNDOT SPECIFICATIONS.

STOP SIGN R1-1
NOT TO SCALE



NOTE:
* MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408.
* REFER TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 111, TC-8702B FOR ADDITIONAL INFORMATION.

SQUARE POSTS SIGN POST INSTALLATION
NOT TO SCALE



NOTE:
* MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408.
* REFER TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 111, TC-8702B FOR ADDITIONAL INFORMATION.

CHANNEL BAR POSTS SIGN POST INSTALLATION
NOT TO SCALE

Nature leads, art follows.



Prepared for:

Varton Group, Inc.
3605 Varton Way, Suite 301
Harrisburg, PA 17110

Susquehanna Union Green

Susquehanna Township, Dauphin County, PA

Project Number:

18030:1

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

April 5, 2019

Revisions:

1. 06/07/19 Rev per Twp Comments

Scale:
Not To Scale

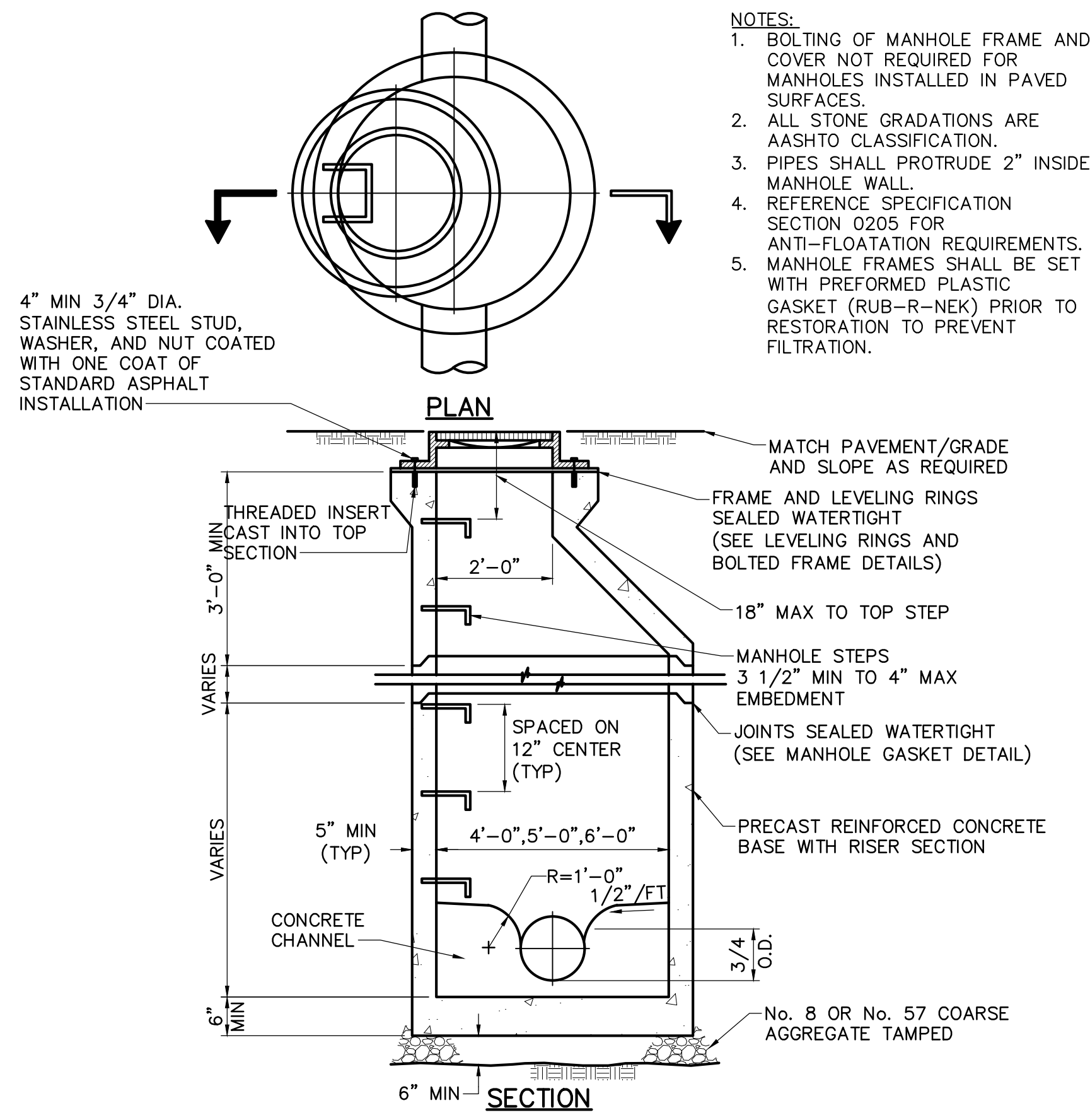
Sheet Name:
Details

Submission:

Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

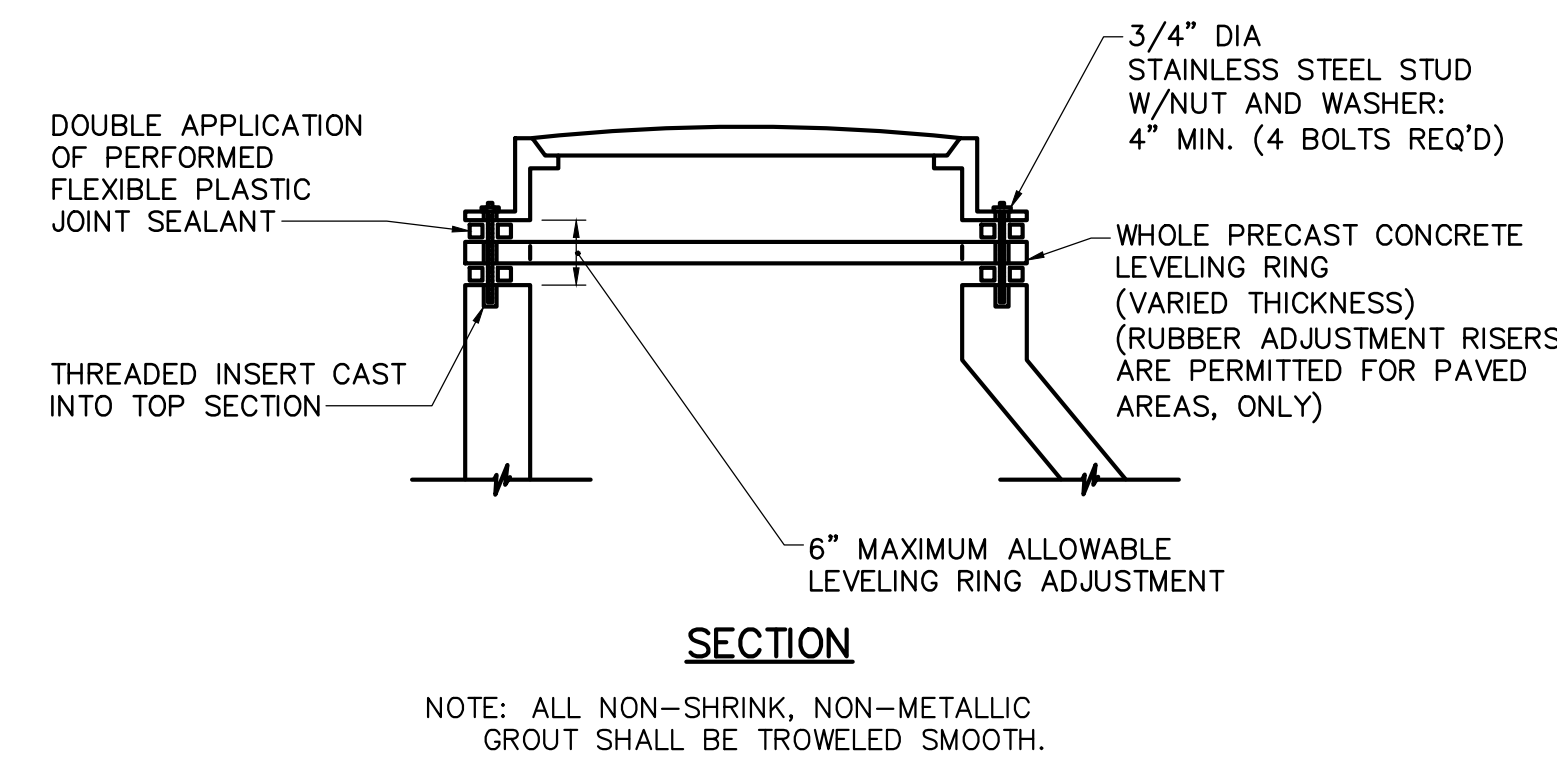
Sheet Number:

C400



- NOTES:**
1. BOLTING OF MANHOLE FRAME AND COVER NOT REQUIRED FOR MANHOLES INSTALLED IN PAVED SURFACES.
 2. ALL STONE GRADATIONS ARE AASHTO CLASSIFICATION.
 3. PIPES SHALL PROTRUDE 2" INSIDE MANHOLE WALL.
 4. REFERENCE SPECIFICATION SECTION 0205 FOR ANTI-FLOATATION REQUIREMENTS.
 5. MANHOLE FRAMES SHALL BE SET WITH PREFORMED PLASTIC GASKET (RUB-R-NEK) PRIOR TO RESTORATION TO PREVENT FILTRATION.

PRECAST CONCRETE MANHOLE WITH PRECAST CONCRETE BASE
NOT TO SCALE



LEVELING RINGS AND BOLTED FRAME DETAILS
NOT TO SCALE

SANITARY SEWER LINE INSTALLATION

NEW SANITARY SEWER PIPE AND FITTINGS SHALL COMPLY WITH ASTM D 3034, RATED SDR 35. PIPE SHALL BE CONTINUALLY MARKED WITH MANUFACTURER'S NAME PIPE SIZE, CELL CLASSIFICATION, SDR RATING, AND ASTM D 3034 CLASSIFICATION.

PIPE JOINTS SHALL BE INTEGRALLY MOLDED BELL ENDS PER ASTM D 3034, TABLE 2, WITH FACTORY SUPPLIED ELASTOMERIC GASKETS AND LUBRICANT.

SANITARY SEWER INSTALLATION (BEDDING AND BACKFILL) TO BE IN ACCORDANCE WITH SUSQUEHANNA TOWNSHIP AUTHORITY REQUIREMENTS.

THE SANITARY SEWER LINE MUST SUCCESSFULLY PASS AIR/VACUUM TESTING TO ENSURE THE LINE IS IN A WATERTIGHT CONDITION.

THE FILL TO BE PLACED ON THE PROPERTY AT THE LOCATION OF THE PROPOSED SEWER INSTALLATION MUST BE COMPACTED IN 4" LIFTS USING AN APPROVED MECHANICAL TAMPER AND BEING ABLE TO OBTAIN A 98% STANDARD PROCTOR. BACKFILL MATERIAL MUST BE FREE OF ASHES, ROCK OR GRAVEL LARGER THAN 4" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, ORGANICS, OR OTHER MATERIAL.

CONTRACTOR TO SUBMIT SHOP DRAWINGS OF THE MATERIALS TO BE USED FOR THE SANITARY SEWER SYSTEM TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

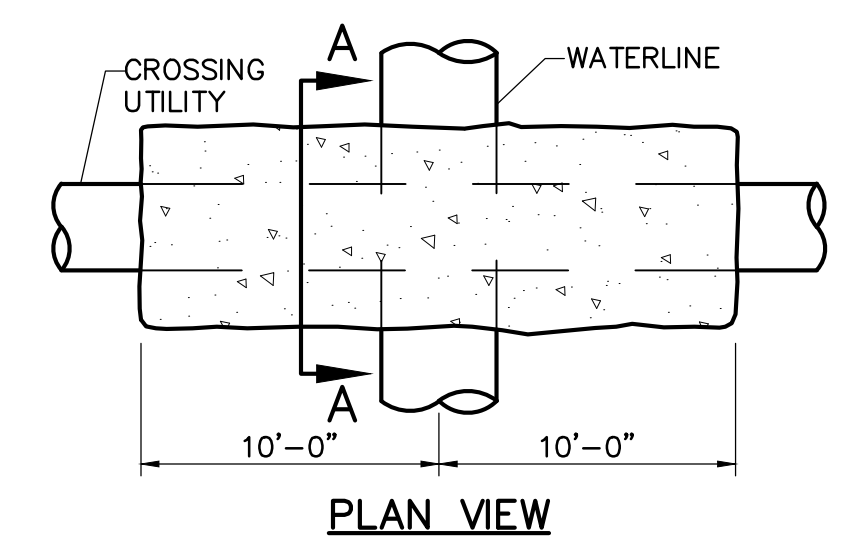
SEWER LINE SHALL BE A MINIMUM OF 10' AWAY (HORIZONTAL SEPARATION FROM ALL WATER LINES)

A MINIMUM OF 18" VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN THE TOP OF THE SEWER AND THE BOTTOM OF THE WATER LINE.

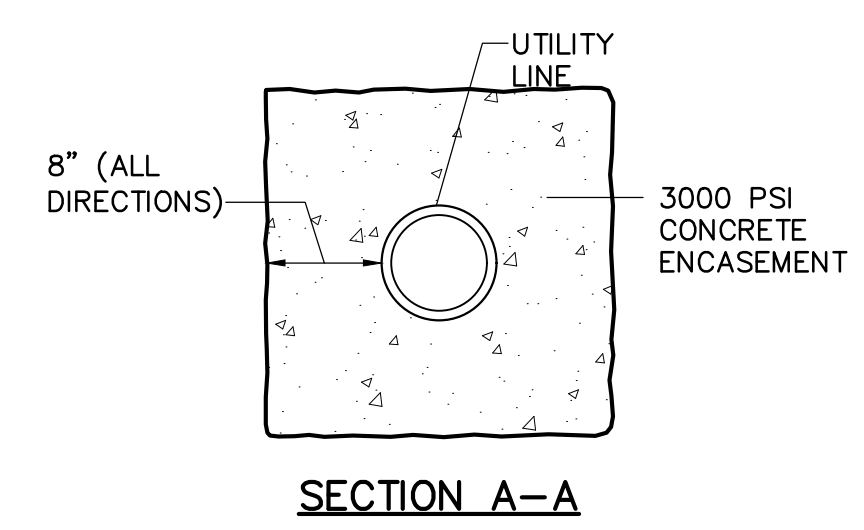
WHERE LESS THAN 18" VERTICAL SEPARATION EXISTS CONTRACTOR SHALL CONCRETE ENCASE SEWER LINE.

CONTRACTOR SHALL MAINTAIN MINIMUM 10' SEPARATION BETWEEN WATER AND SANITARY SEWER LATERALS.

MANHOLE COVERS SHALL BE ALLEGHENY FOUNDRY PATTERN No 125 OR APPROVED EQUAL.

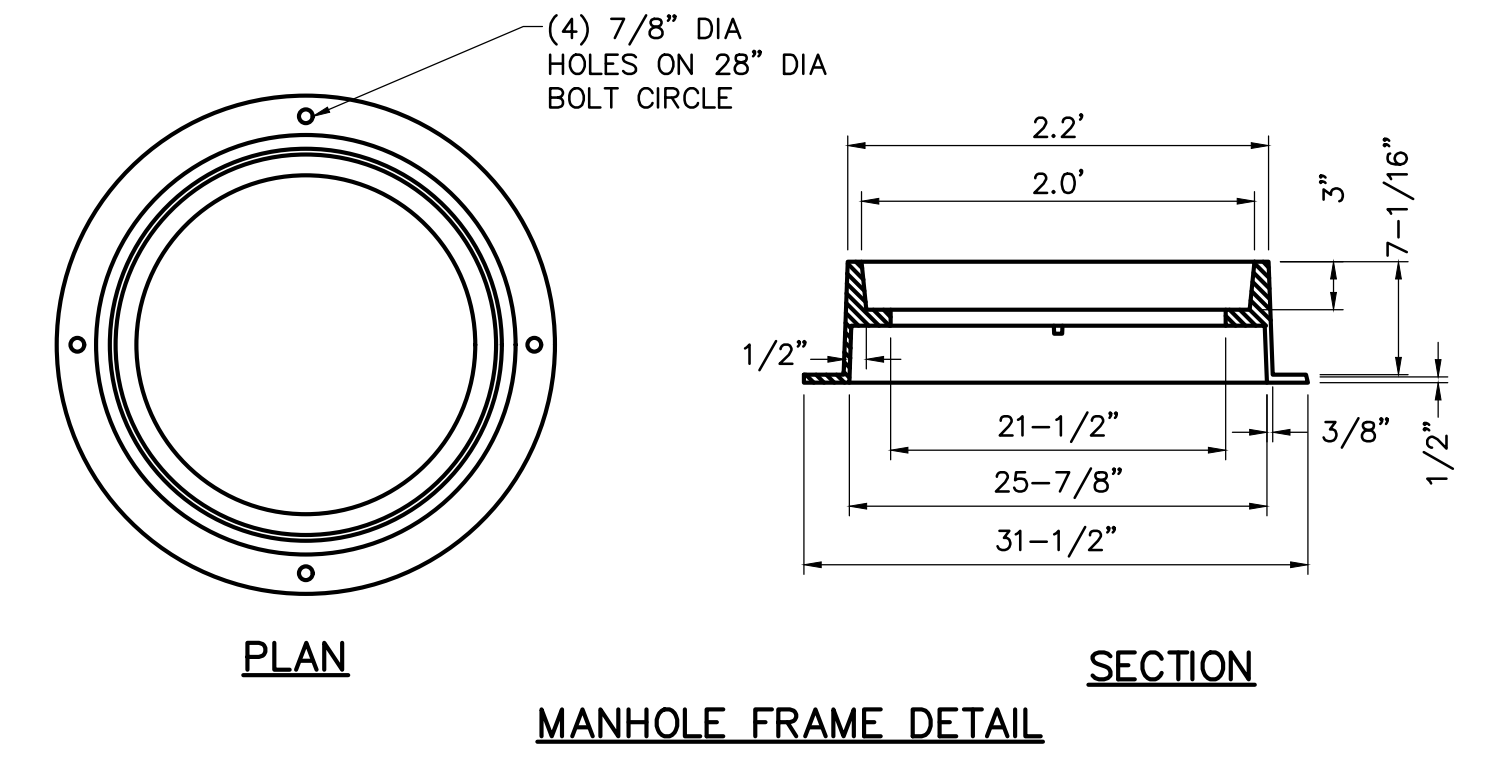


PLAN VIEW

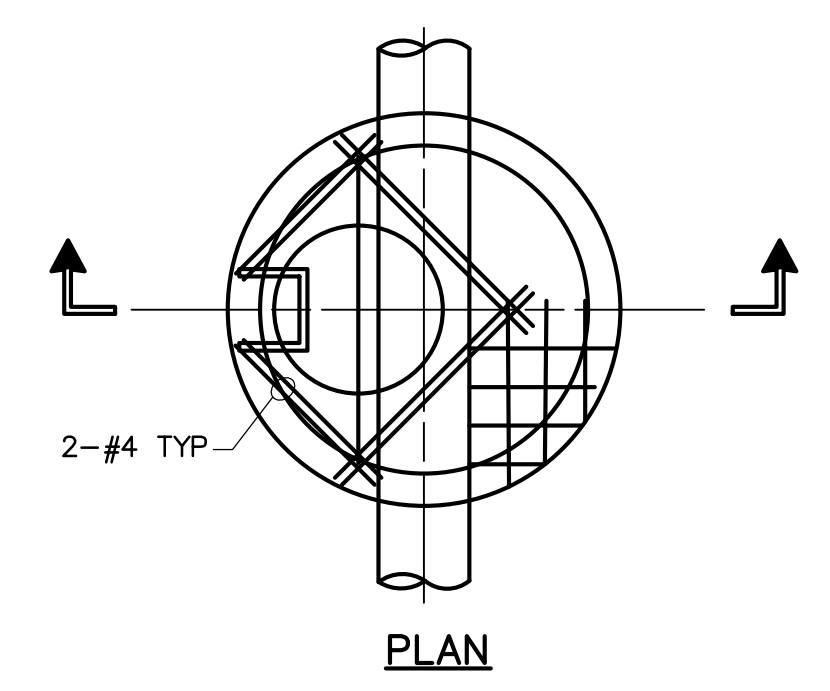


SECTION A-A

CONCRETE ENCASEMENT DETAIL
NOT TO SCALE

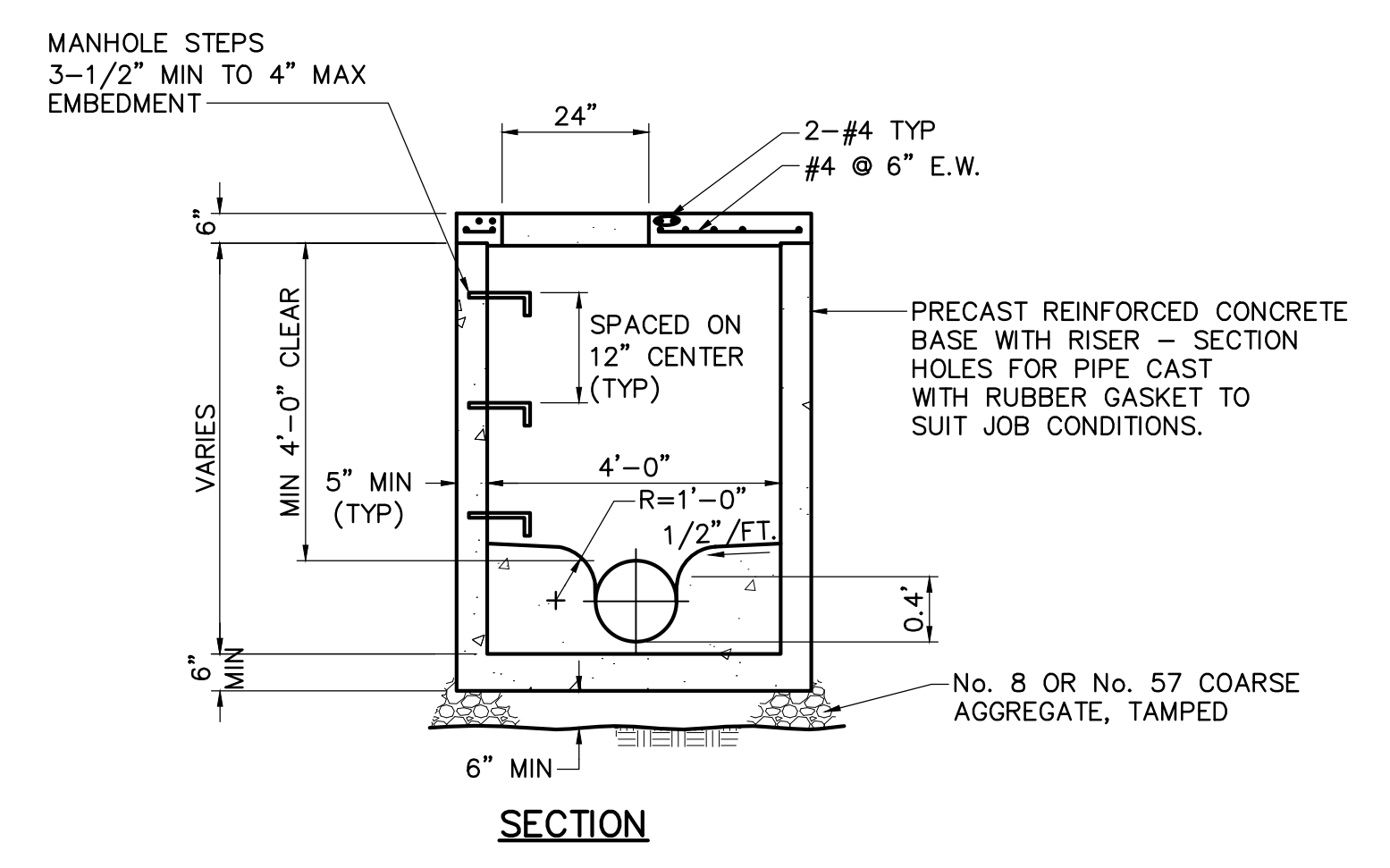


MANHOLE FRAME DETAIL



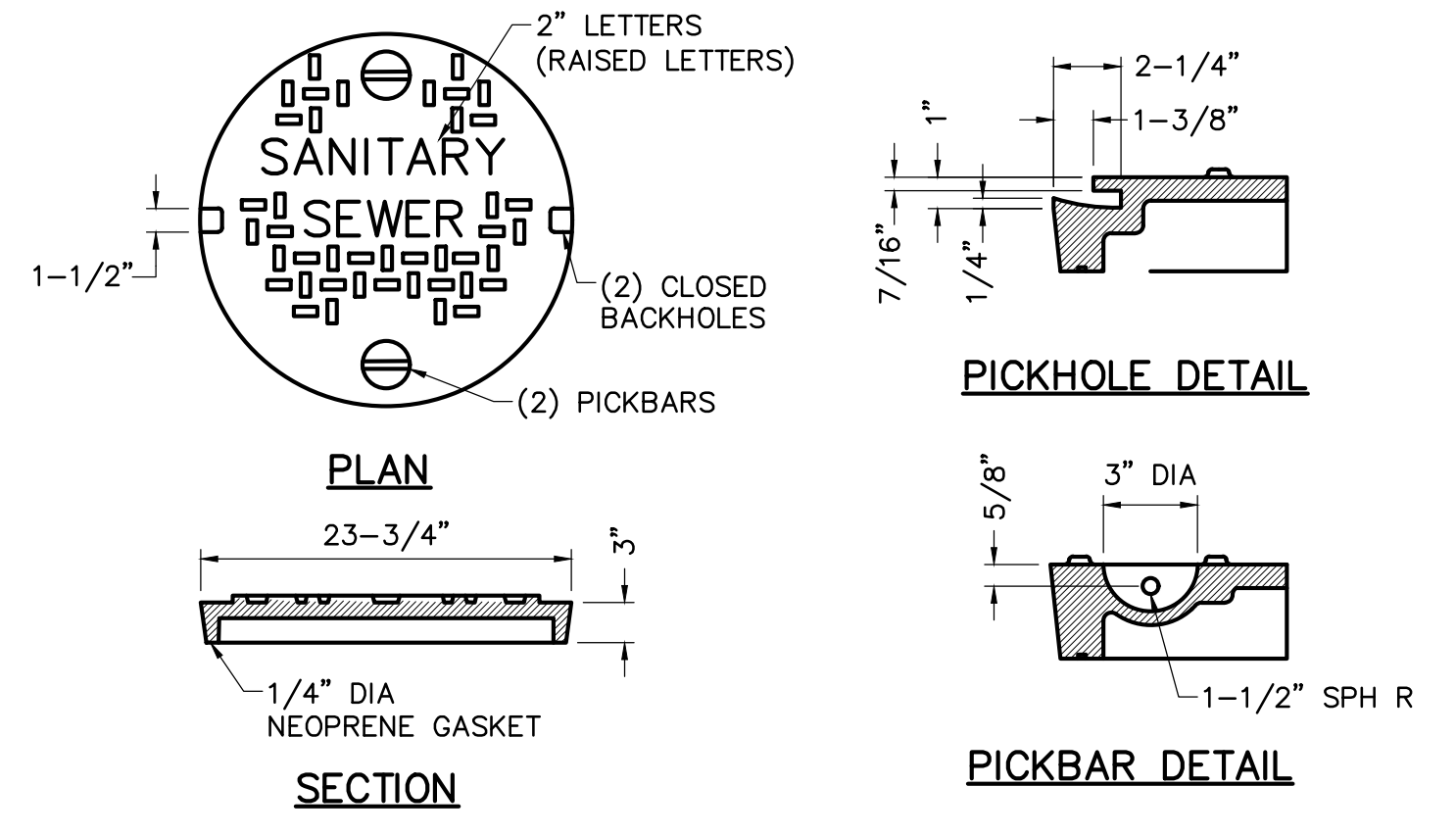
PLAN

- NOTES:**
1. USE FLAT SLAB TOPS ON MANHOLES FOR CONNECTING SEWER LINES HAVING LESS THAN 5'-0" DEPTH OF COVER OVER SHALLOWEST PIPE.
 2. 4 THREADED INSERTS REQUIRED.
 3. REFERENCE SPECIFICATION SECTION 0205 FOR ANTI-FLOATATION REQUIREMENTS.
 4. MANHOLE FRAMES SHALL BE SET WITH PREFORMED PLASTIC GASKET (RUB-R-NEK) PRIOR TO RESTORATION TO PREVENT FILTRATION.



SECTION

PRECAST CONCRETE SHALLOW MANHOLE WITH PRECAST CONCRETE BASE
NOT TO SCALE



HEAVY DUTY WATER TIGHT MANHOLE FRAME AND COVER
NOT TO SCALE



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Nature leads, art follows.



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Susquehanna Union Green

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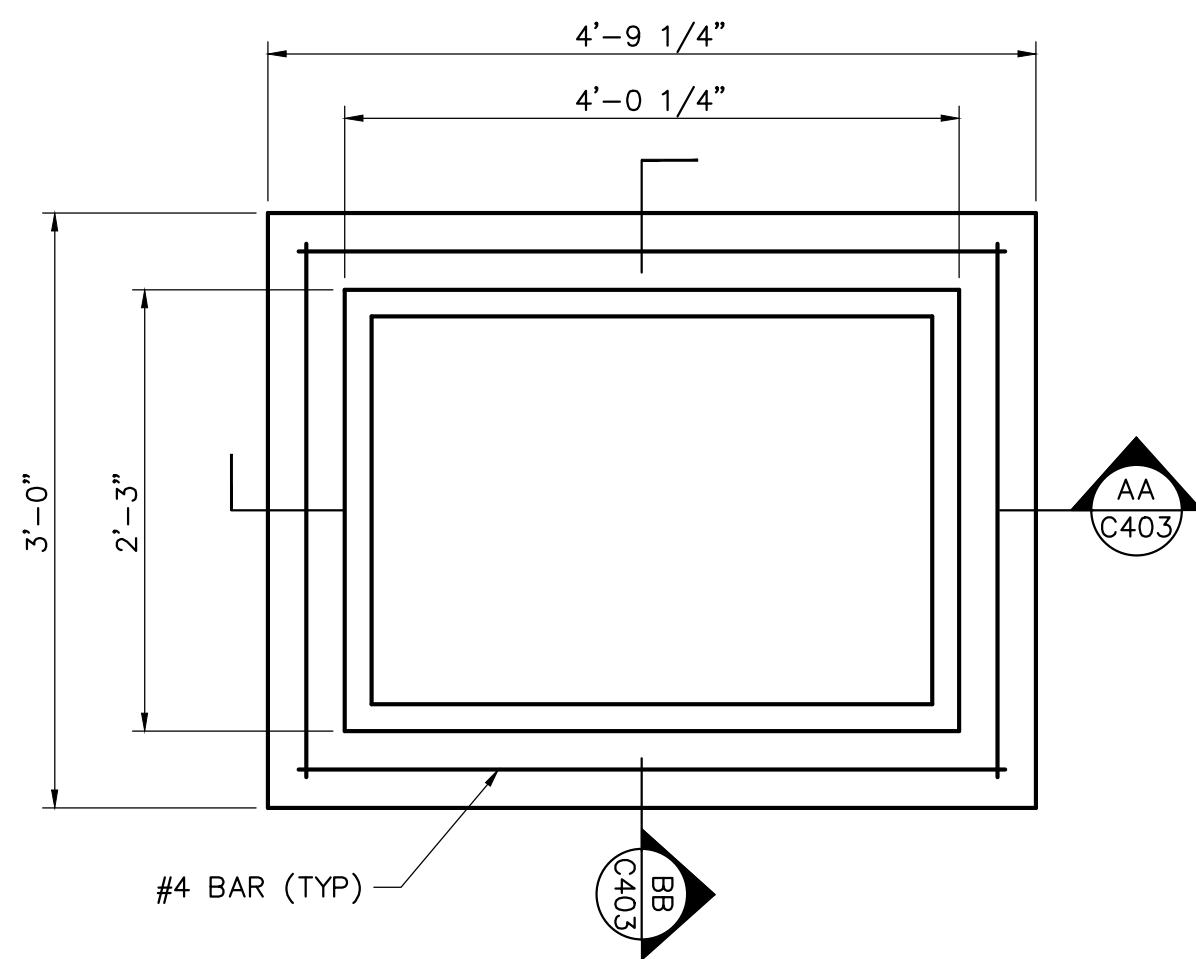
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Details

Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

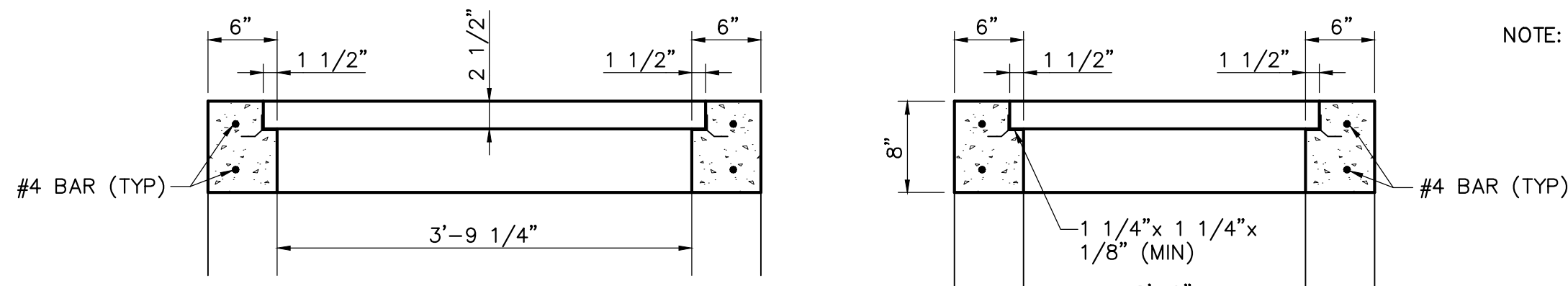
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PLAN VIEW

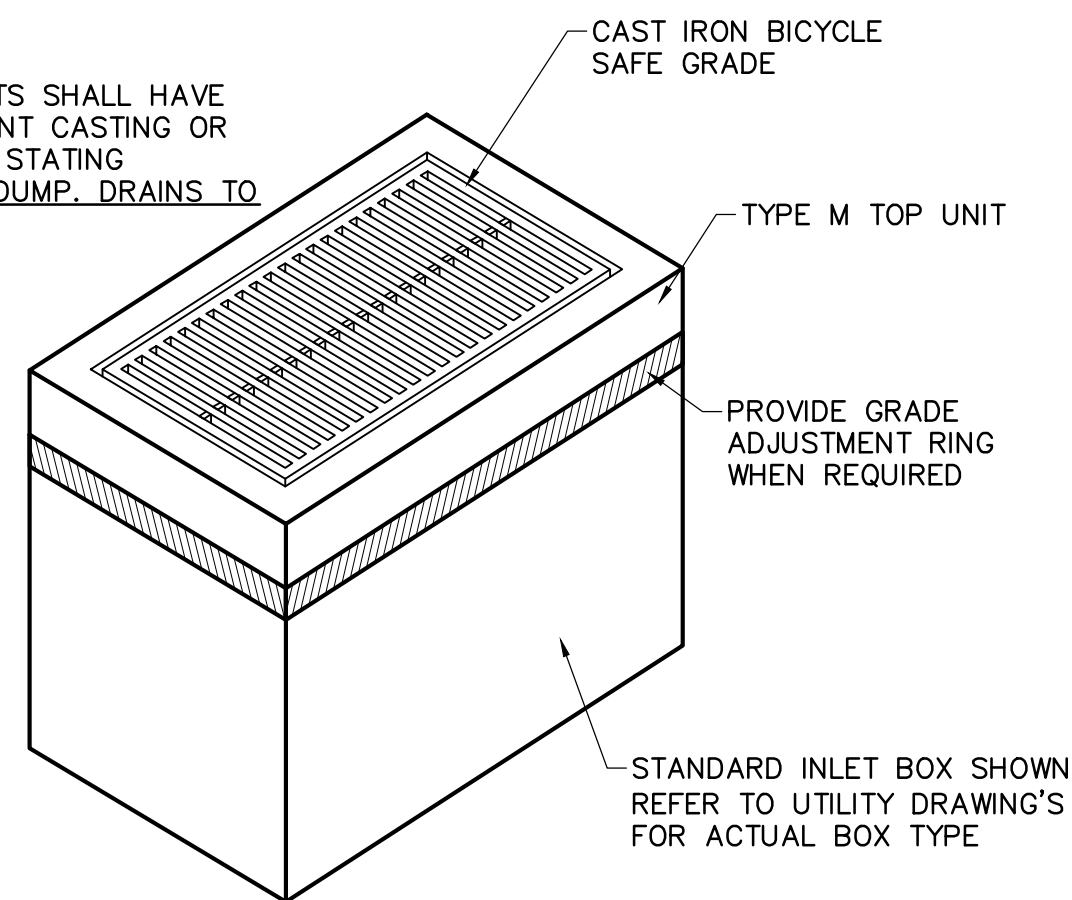


SECTION AA C403

SECTION BB C403

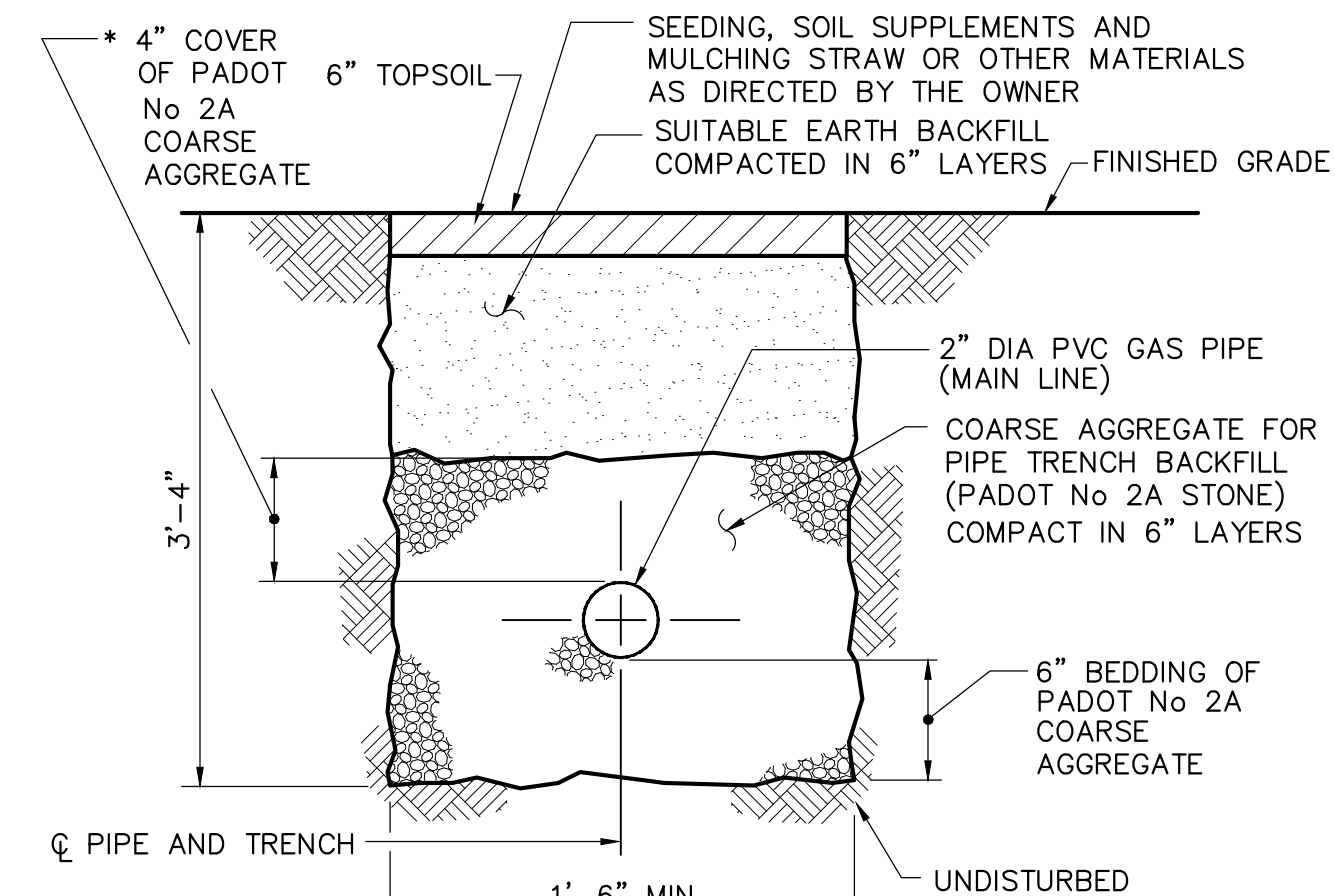
PADOT TYPE M INLET
NOT TO SCALE

NOTE: ALL INLETS SHALL HAVE PERMANENT CASTING OR MARKING STATING DO NOT DUMP. DRAINS TO STREAM.



CONCRETE TOP UNIT
TYPE M INLET
NOT TO SCALE

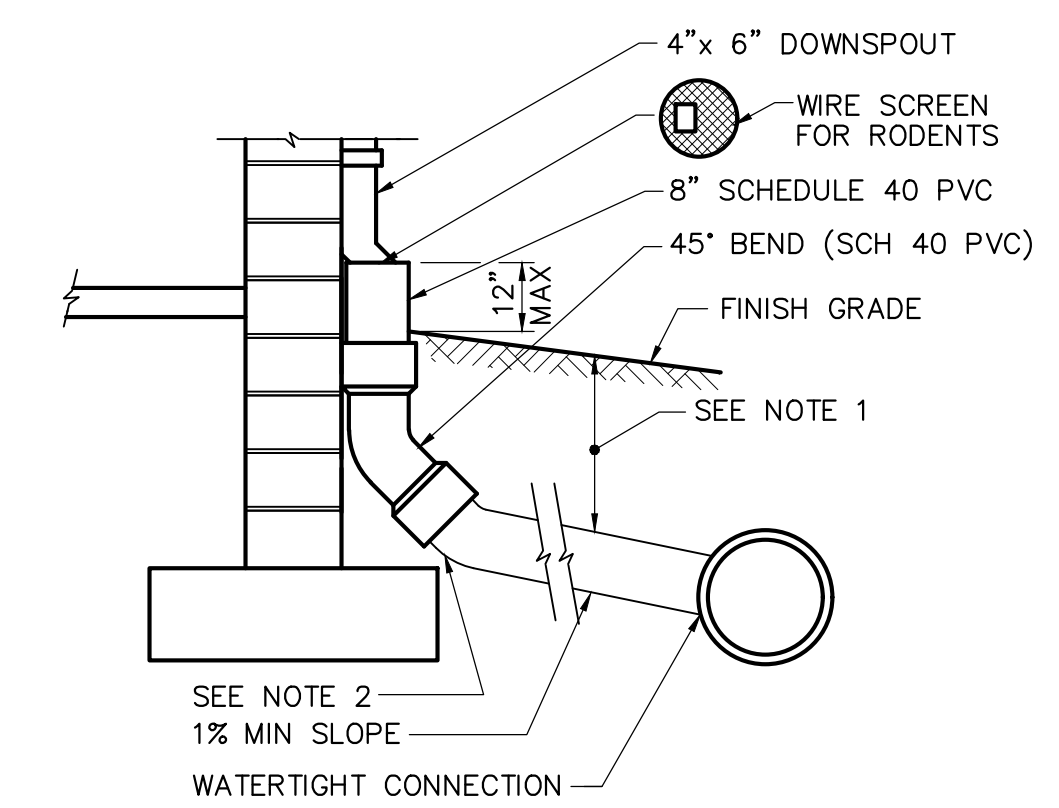
NOTE: ALL INLET BOXES AND TOP UNITS SHALL BE PRECAST IN ACCORDANCE WITH PADOT PUBLICATION 408 SPECIFICATIONS AND PADOT STANDARDS FOR ROADWAY CONSTRUCTION.



NOTES:

- TRENCH WIDTH APPLIES AT AND BELOW TOP OF PIPE.
- WHERE PIPE CROSSES UNDER ROADWAY PLACE COARSE AGGREGATE IN TRENCH TO A DEPTH OF 3' OVER PIPE OR TO ROADWAY SUBGRADE ELEVATION WHICHEVER IS LESS.
- ALL TRENCHING AND BACKFILL FOR GAS LINE TO BE BY THE CONTRACTOR.

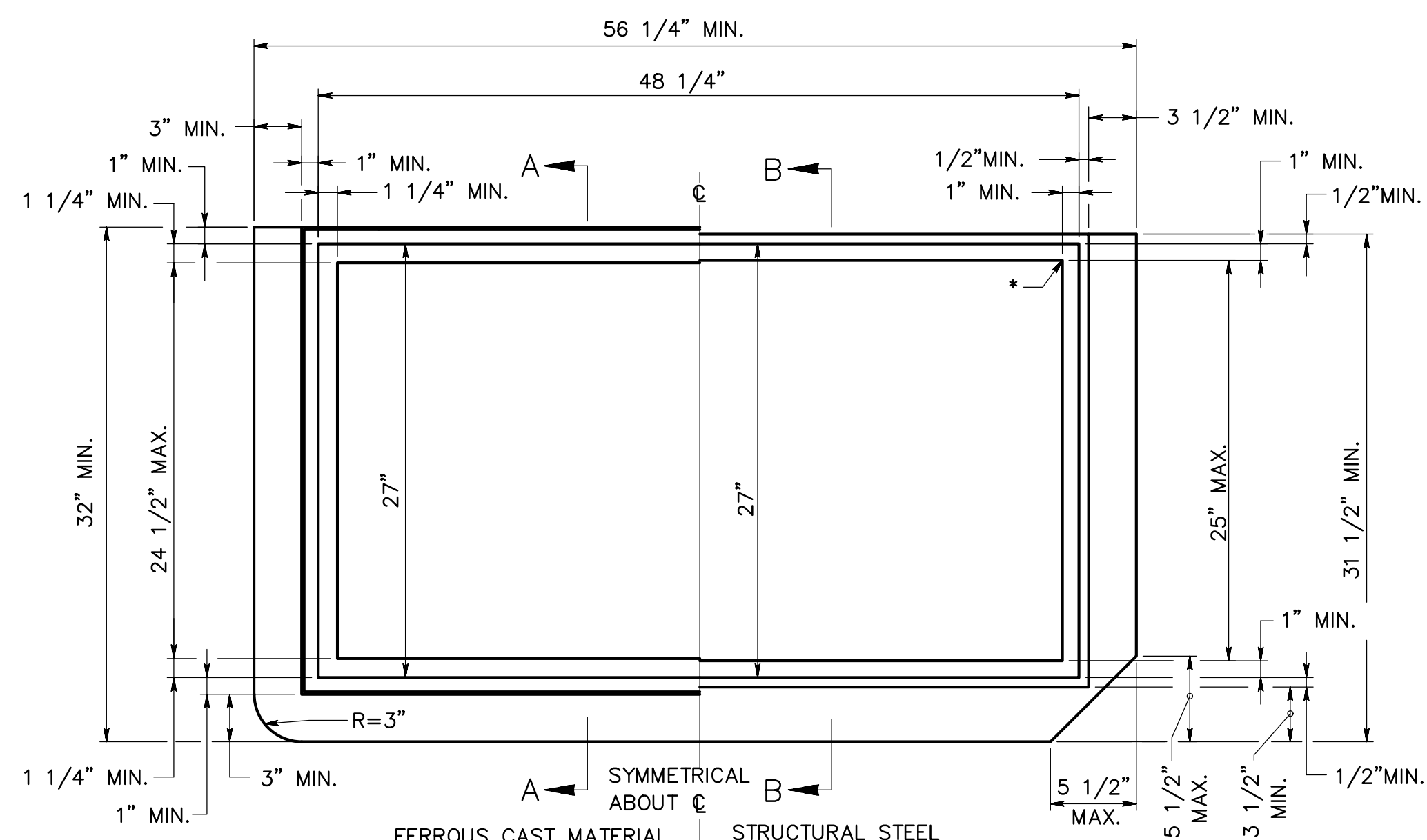
GAS LINE (MAIN)
INSTALLATION DETAIL
NOT TO SCALE



NOTES:

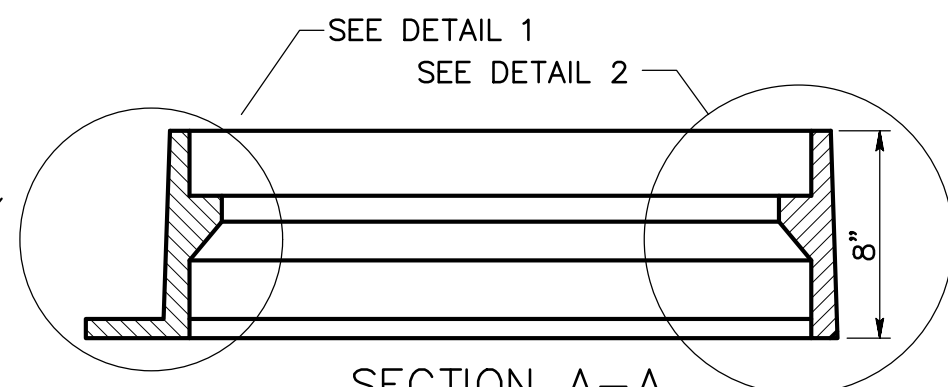
- FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.
- A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.
- THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

DOWNSPOUT COLLECTOR DETAIL
NOT TO SCALE

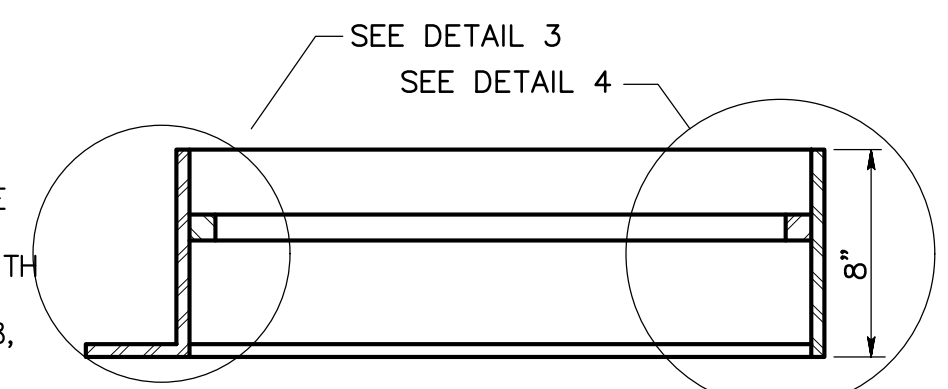


TYPE C FRAME

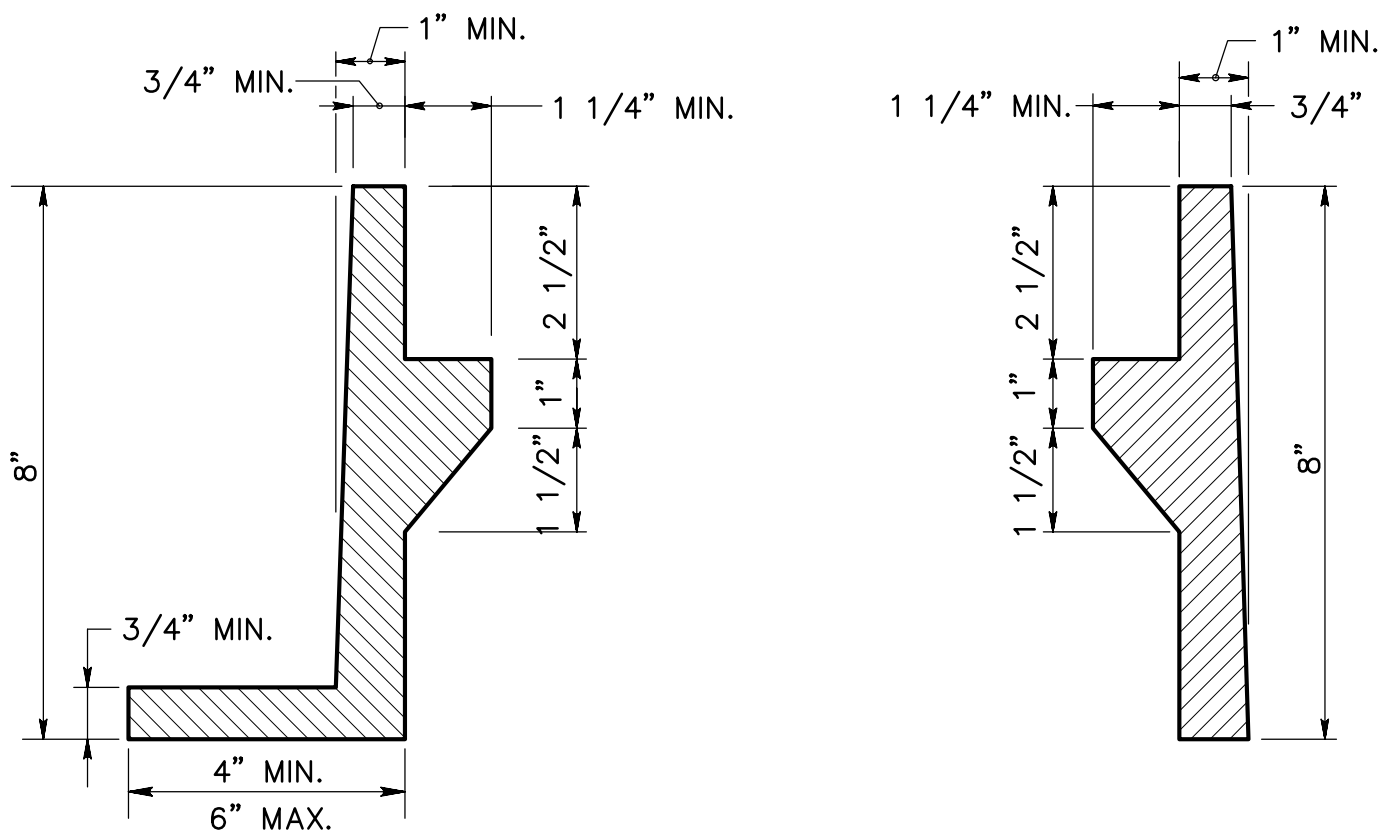
*CORNER CONFIGURATION DETAILS ARE THE FABRICATOR'S RESPONSIBILITY AND ARE APPROVED BY THE INSPECTOR.



SECTION A-A
FERROUS CAST MATERIAL

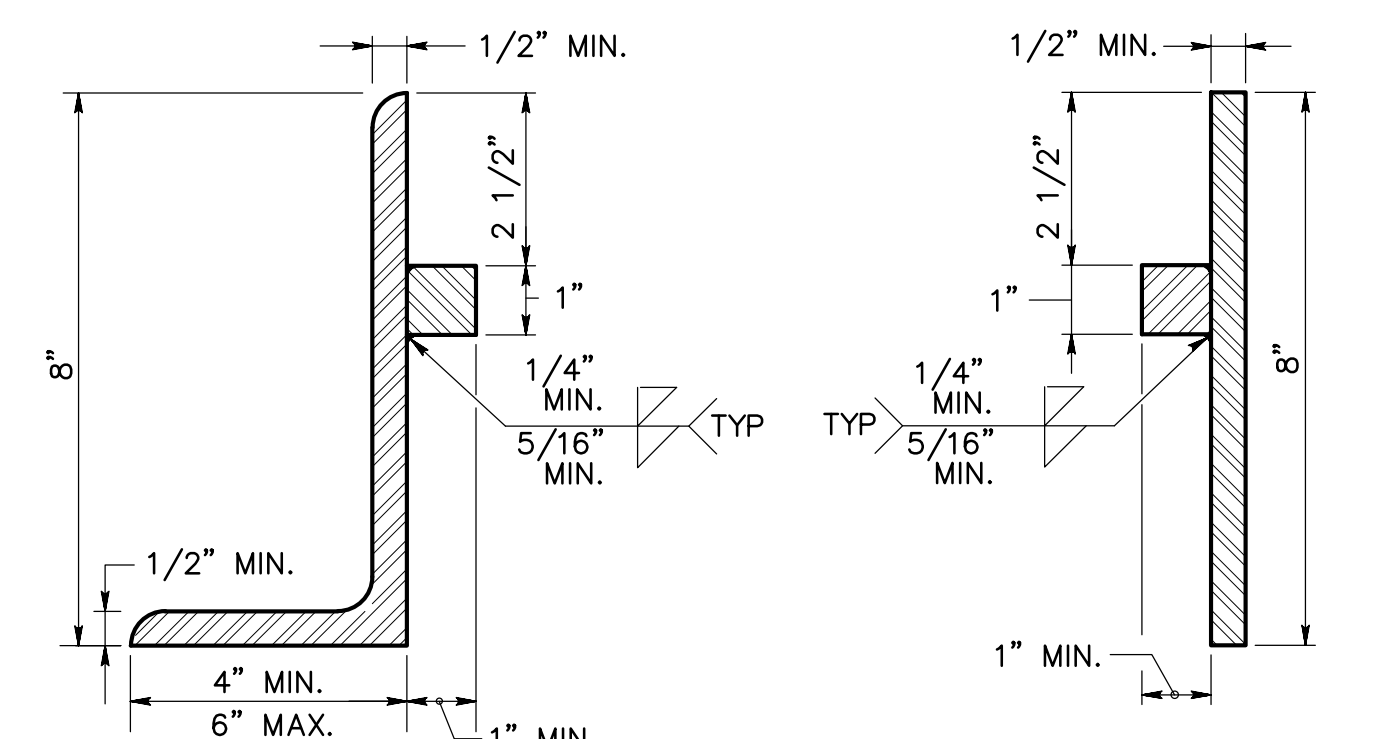


SECTION B-B
STRUCTURAL STEEL



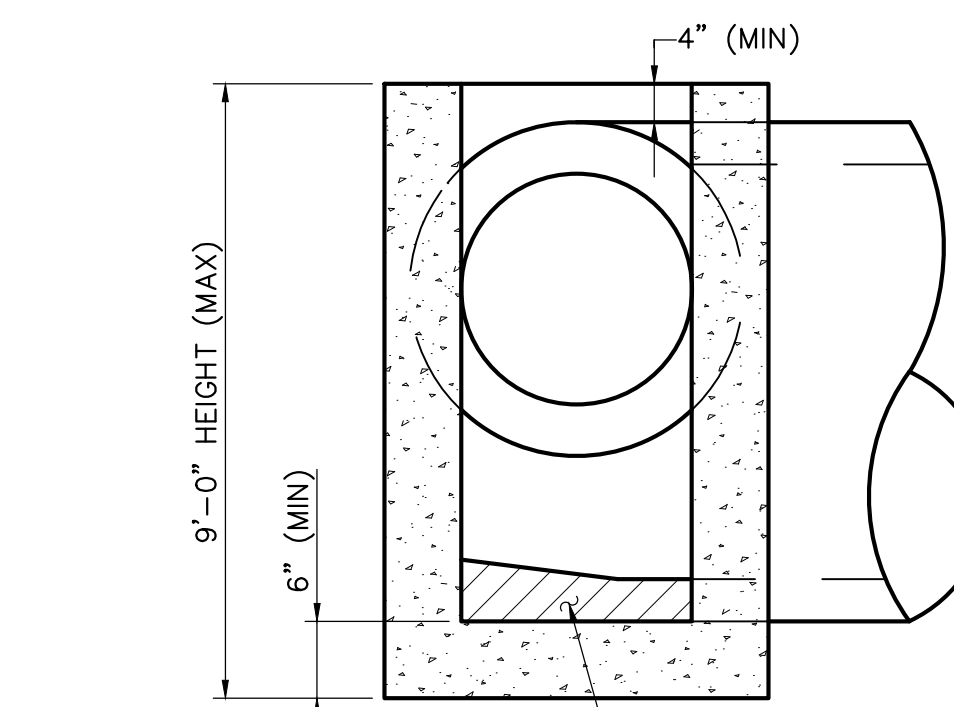
DETAIL 1

DETAIL 2

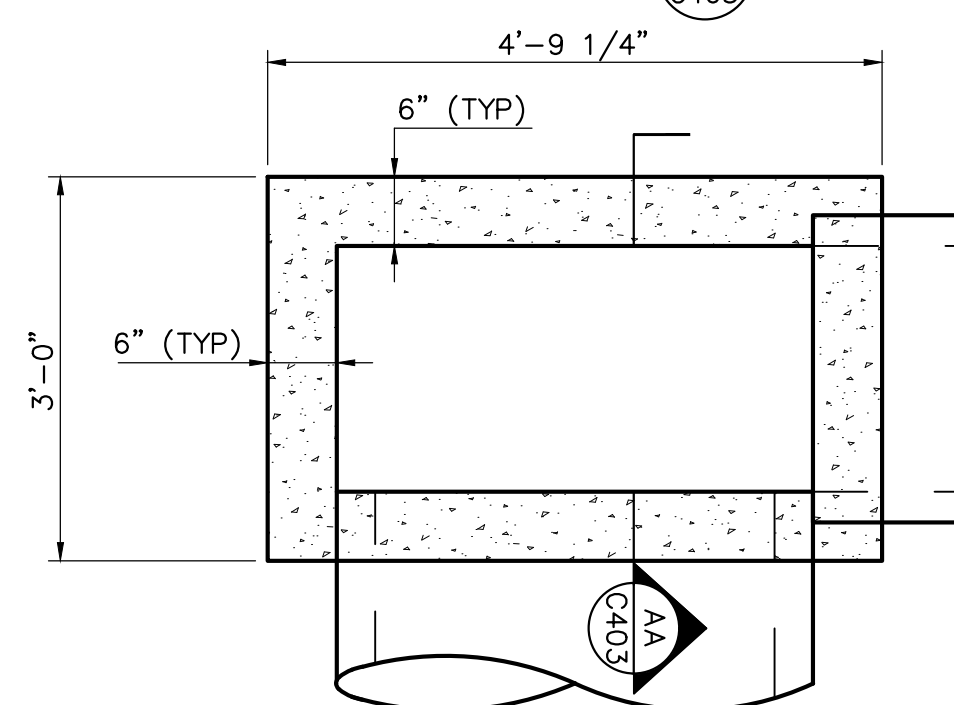


DETAIL 3

DETAIL 4

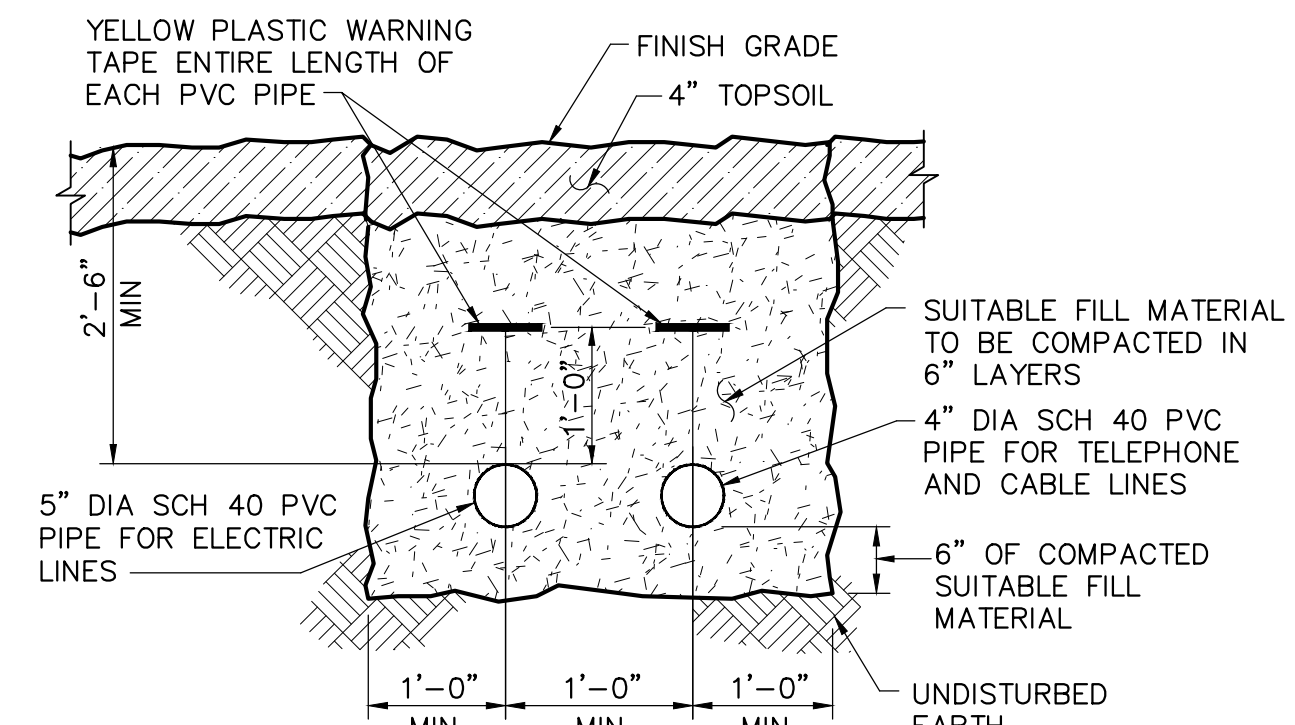


SECTION AA C403



PLAN VIEW

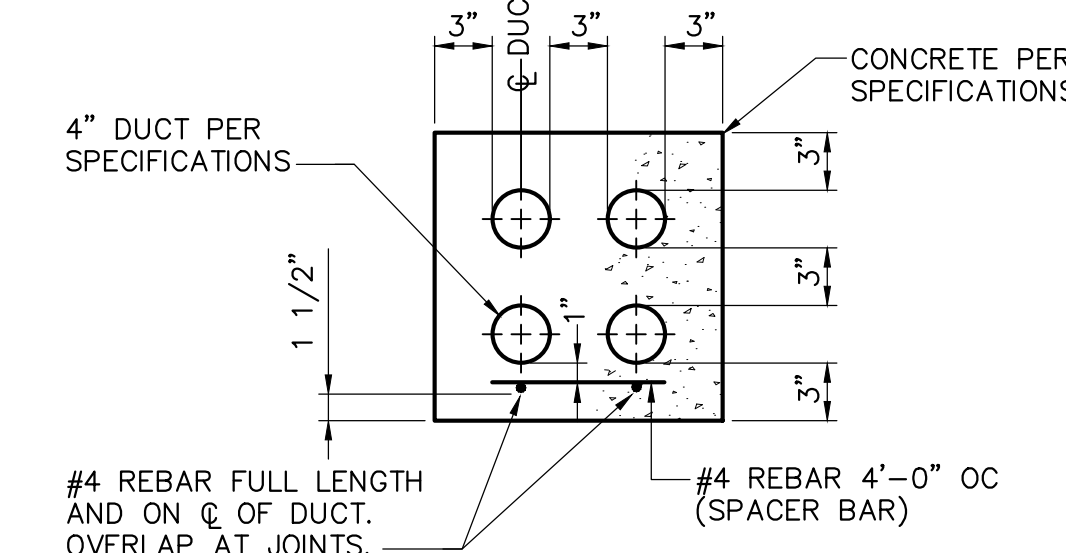
STANDARD INLET BOX
NOT TO SCALE



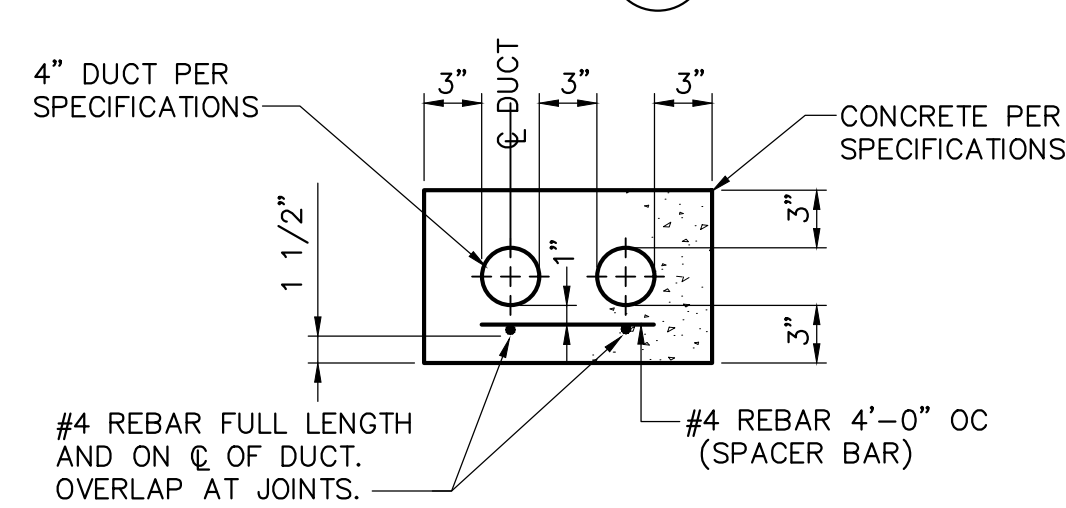
NOTES:

- TRENCH WIDTH APPLIES AT AND BELOW TOP OF DUCTBANK.
- CONTRACTOR TO VERIFY TRENCH DIMENSIONS WITH UTILITY COMPANIES PRIOR TO CONSTRUCTION.

DUCTBANK INSTALLATION DETAIL
NOT TO SCALE



SECTION CC 403



SECTION CC 403

CONCRETE DUCTBANK SECTIONS
NOT TO SCALE

INLET FRAME NOTES:

- SHEETS 14 AND 15 (PADOT PUBLICATION NO 72M, RC-45M) DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. FOR DEVIATIONS OR MODIFICATIONS OF THE STANDARDS, SUBMIT SHOP DRAWINGS TO THE BUREAU OF DESIGN HIGHWAY QUALITY ASSURANCE DIVISION CHIEF FOR REVIEW AND ACCEPTANCE.
- PROVIDE EITHER STRUCTURAL STEEL FRAMES OR CAST IRON FRAMES SUPPLIED BY A MANUFACTURER LISTED IN PADOT BULLETIN 15.
- PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE PADOT PUBLICATION 408, AASHTO/AWS BRIDGE WELDING CODE AND THE CONTRACT SPECIAL PROVISIONS.
- STRUCTURAL STEEL FRAMES:
 - TYPE C FRAMES: PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270M (M270) GRADE 345 (50) [ASTM A709M (A709), GRADE 345 (50)].
 - WELD STRUCTURAL STEEL FRAMES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 1105. WELDING SHOPS ARE NOT REQUIRED TO BE AISC CERTIFIED.
 - COAT FRAMES WITH AN APPROVED BITUMINOUS PAINT, IN ACCORDANCE WITH PUBLICATION 408, SECTION 605.2(f). AS AN ALTERNATE TO BITUMINOUS PAINT, GALVANIZE FRAMES IN ACCORDANCE WITH PADOT PUBLICATION 408, SECTION 1105.02(s).
- CAST IRON FRAMES:
 - PROVIDE EITHER GRAY IRON CASTINGS CONFORMING TO AASHTO M105 (ASTM A48/A48M), CLASS 225B (35B) AND AASHTO M306, MALLEABLE IRON CASTINGS CONFORMING TO ASTM A47/A47M, GRADE 22010 (32510), OR DUCTILE IRON CASTINGS CONFORMING TO ASTM A536, GRADE -40-18.



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Sheet Number:

C403

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WATER LINE INSTALLATION

WATER LINE INSTALLATION (BEDDING AND BACKFILL) TO BE IN ACCORDANCE WITH THE MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY. ALL LAYING, JOINING, AND TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE WATER COMPANY OR AS REQUIRED BY THE AUTHORITY AND SHALL BE SUBJECT TO ITS APPROVAL BEFORE ACCEPTANCE. WATERLINE MUST BE INSPECTED AND APPROVED BY THE WATER AUTHORITY PRIOR TO BACKFILLING. THE CONTRACTOR MUST NOTIFY THE WATER COMPANY THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION SO THEY CAN SCHEDULE AN INSPECTOR TO OVERSEE CONSTRUCTION. ALL COSTS ASSOCIATED WITH THE REQUIRED INSPECTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL WATER LINES MUST SUCCESSFULLY PASS A PRESSURE TEST AND BACTERIA TEST IN THE PRESENCE OF THE AUTHORITY INSPECTOR PRIOR TO THE LINES BEING PLACED INTO SERVICE.

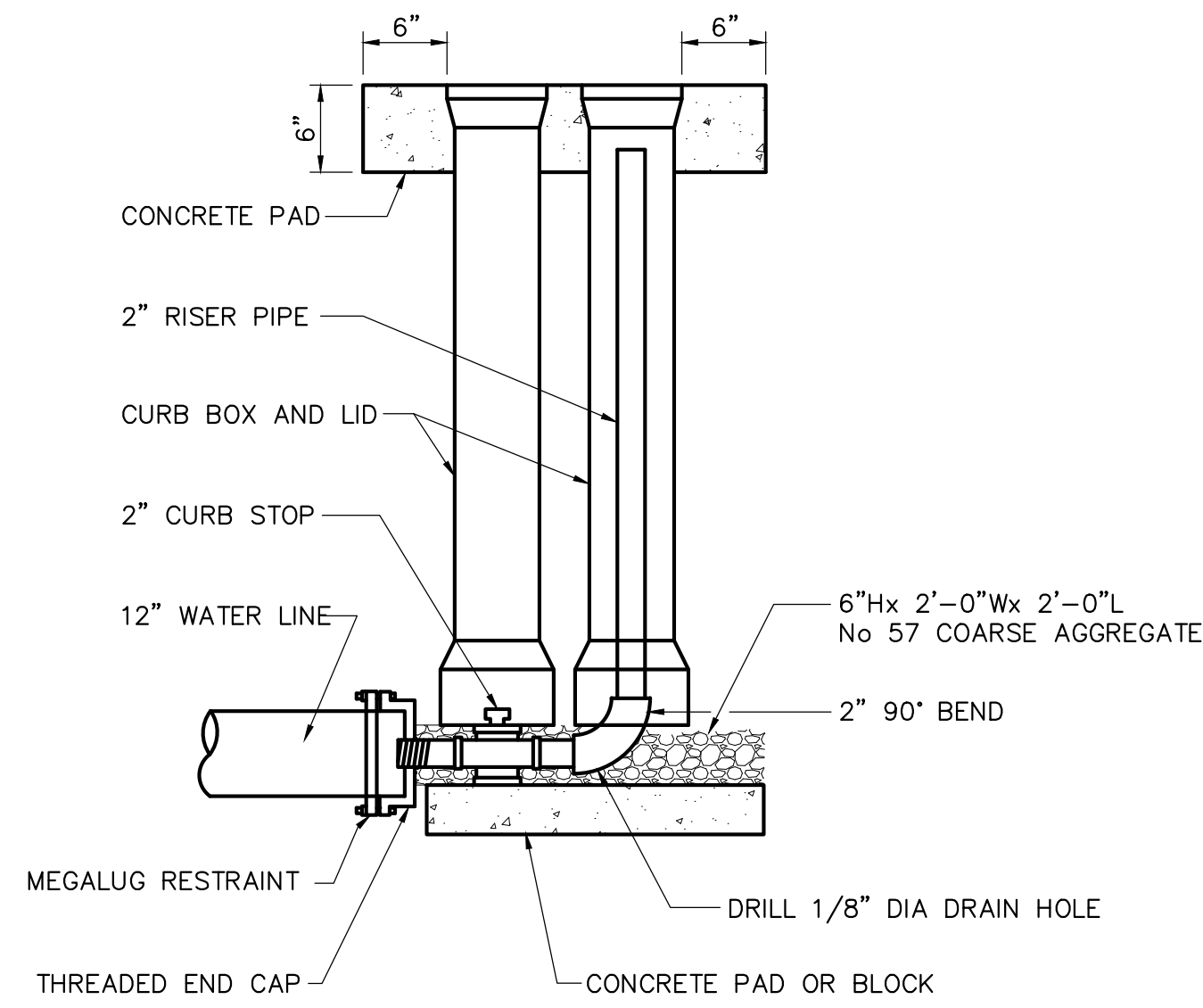
EXISTING WATER MAINS ARE SHOWN FOR GENERAL INFORMATION ONLY, BASED ON LIMITED DATA. NO GUARANTEE IS MADE CONCERNING HORIZONTAL OR VERTICAL ALIGNMENT, PIPE SIZE, OR PIPE TYPE. CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATIONS AT ALL POINTS OF CONNECTION.

CONTRACTOR SHALL DETERMINE PIPE SIZES, TYPES AND HORIZONTAL AND VERTICAL ALIGNMENT PRIOR TO ORDERING ANY COUPLINGS, FITTINGS, ETC. CONTRACTOR SHALL COORDINATE ANY REQUIRED WATER SHUTDOWNS AND TAP TO EXISTING SYSTEM WITH THE WATER COMPANY.

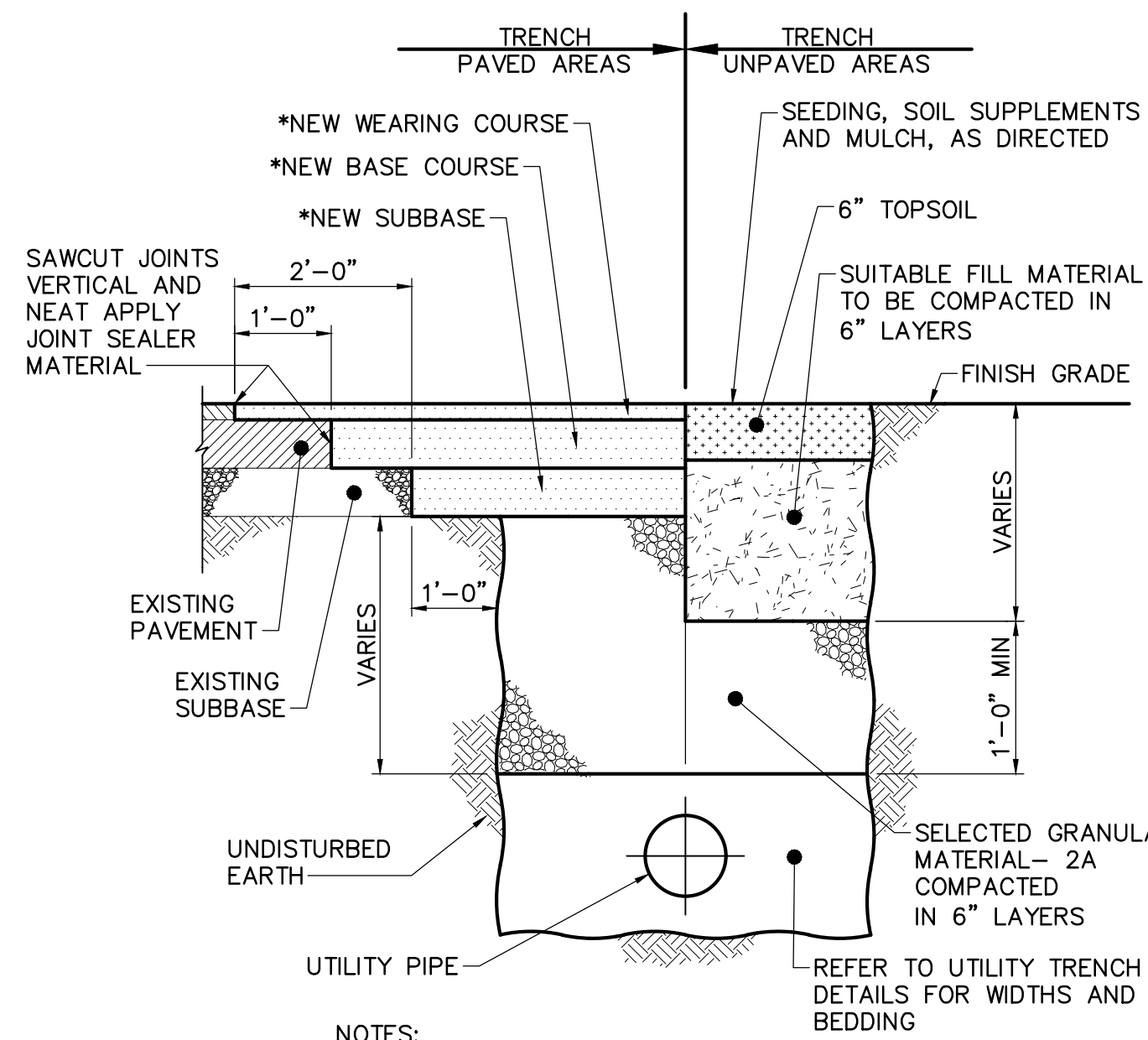
MAINTAIN A MINIMUM DEPTH OF 5'-0" FROM INVERT OF NEW WATER LINE TO FINISHED GRADE.

CONTRACTOR TO SUBMIT SHOP DRAWINGS OF THE MATERIALS TO BE USED FOR THE WATER SYSTEM TO WATER COMPANY AND SUSQUEHANNA TOWNSHIP OR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

MEGA LUG RETAINER GLAND SETS MUST BE USED ON ALL FITTINGS.

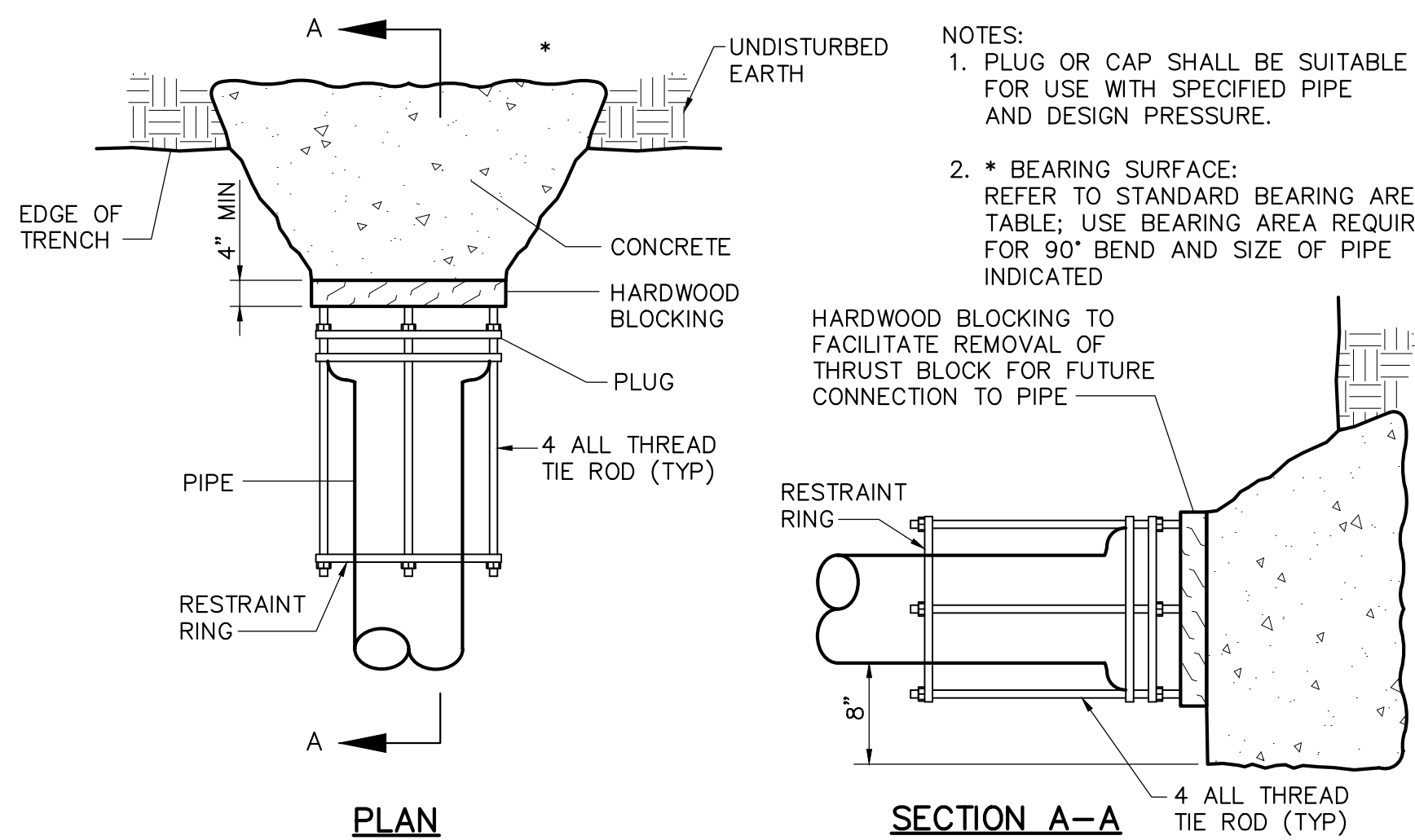


BLOW-OFF DETAIL
NOT TO SCALE

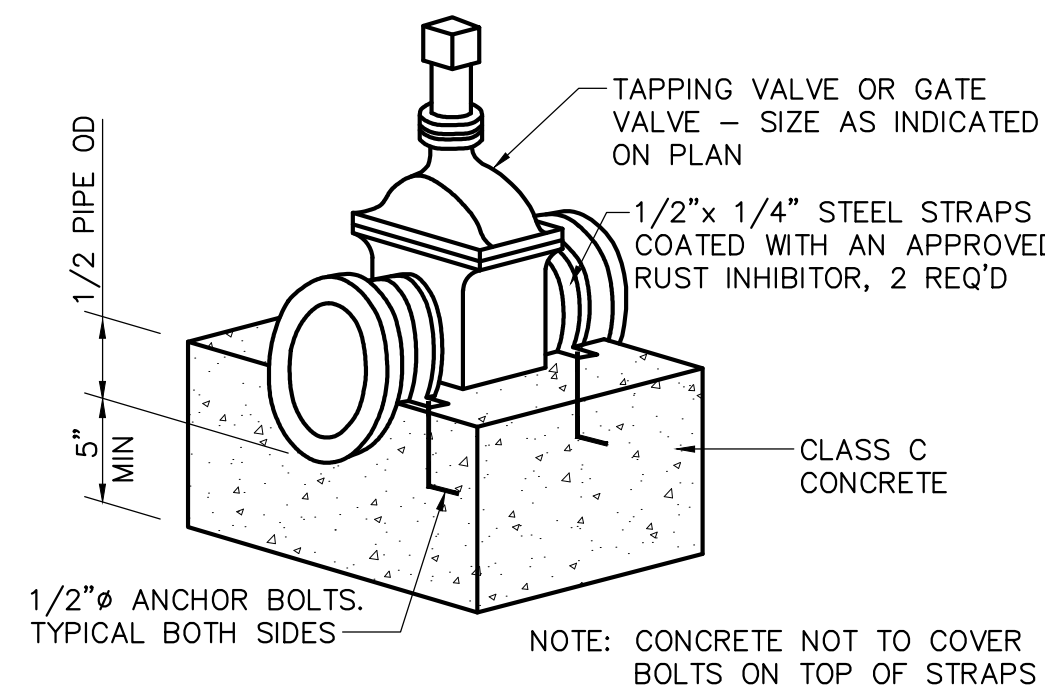


- NOTES:
- PLACE TACK COAT ON EXISTING SAWCUT BITUMINOUS SURFACES AND EXISTING SUBBASE.
 - NEW PAVEMENT AND SUBBASE THICKNESS SHALL MATCH EXISTING UNLESS STATED OTHERWISE.

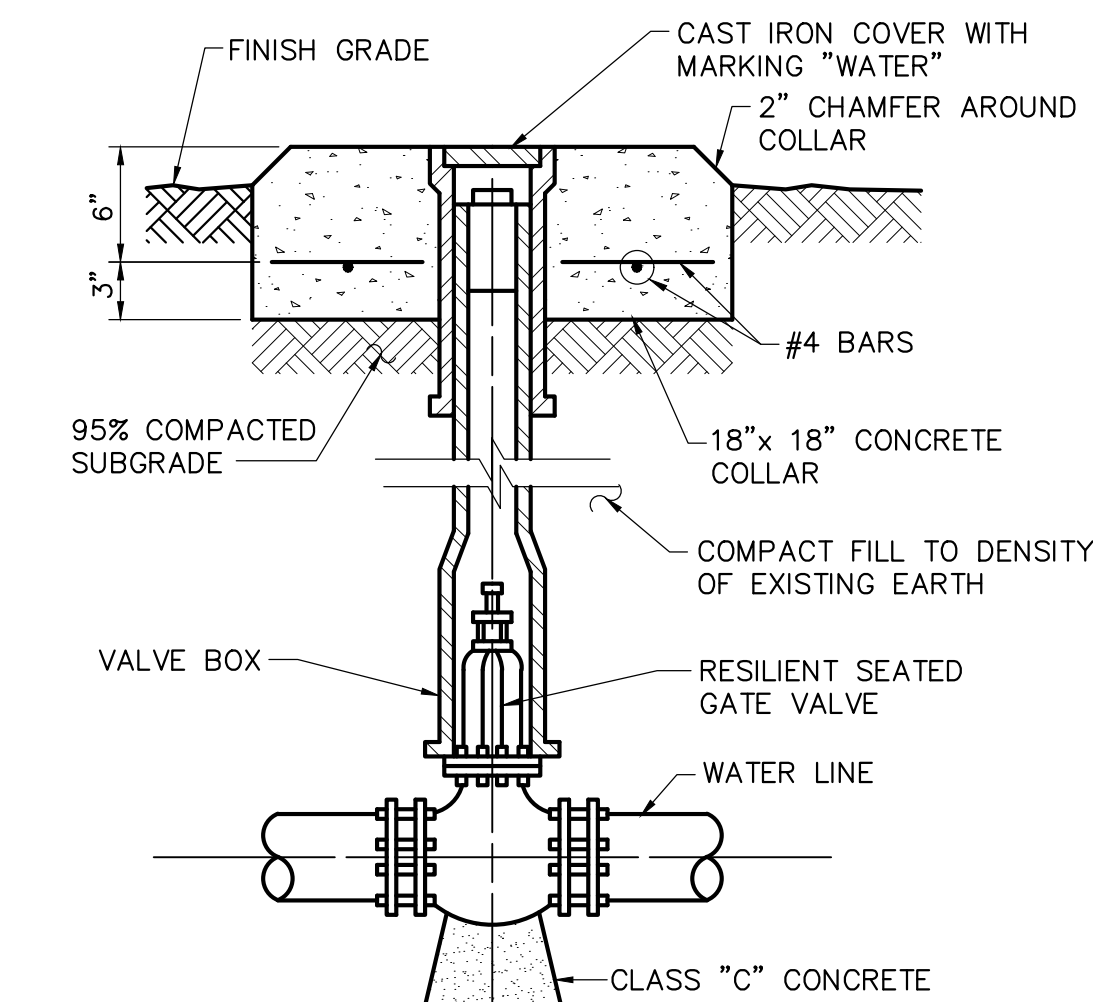
TRENCH RESTORATION DETAIL
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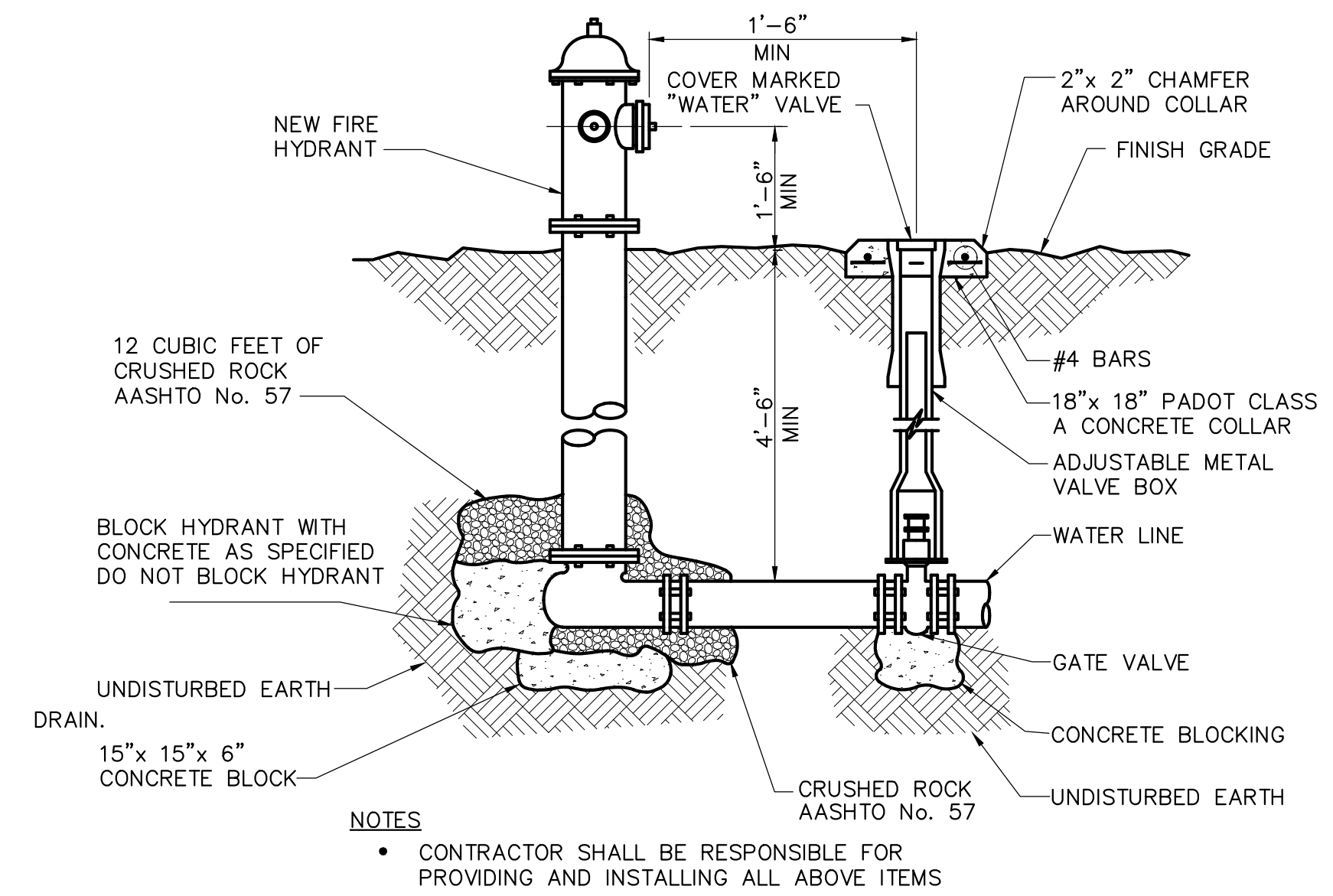
END CAP DETAIL
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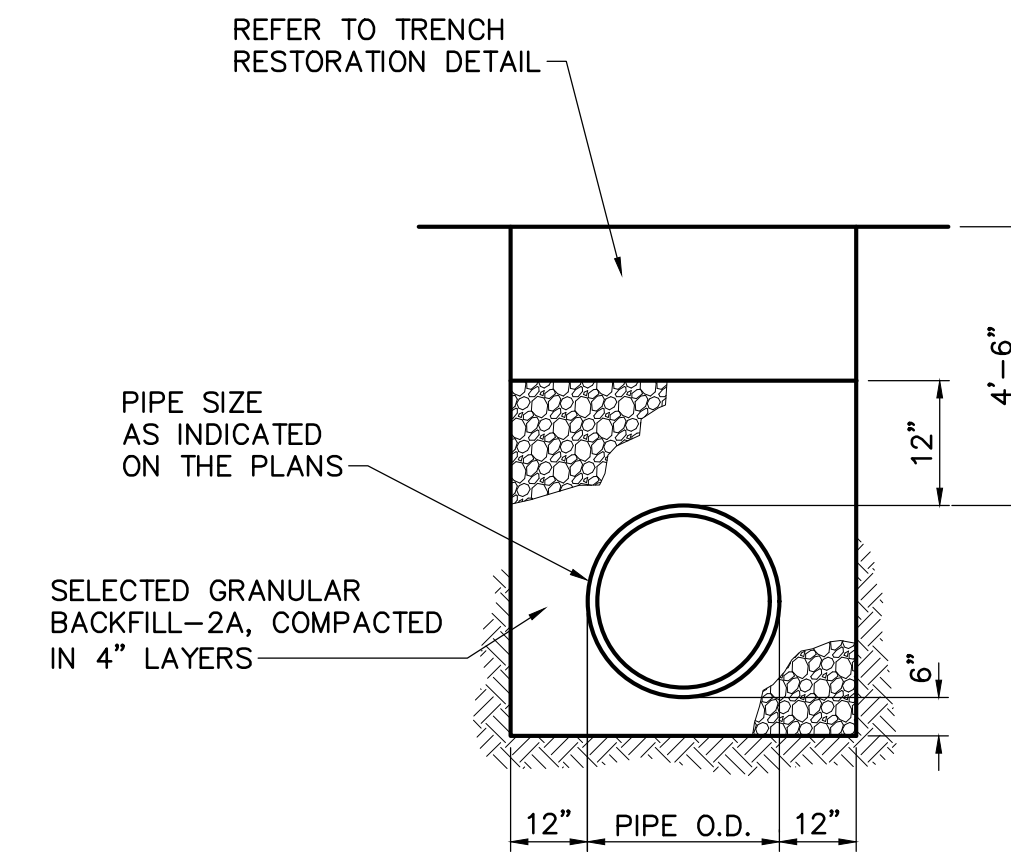
VALVE BLOCKING DETAIL
NOT TO SCALE



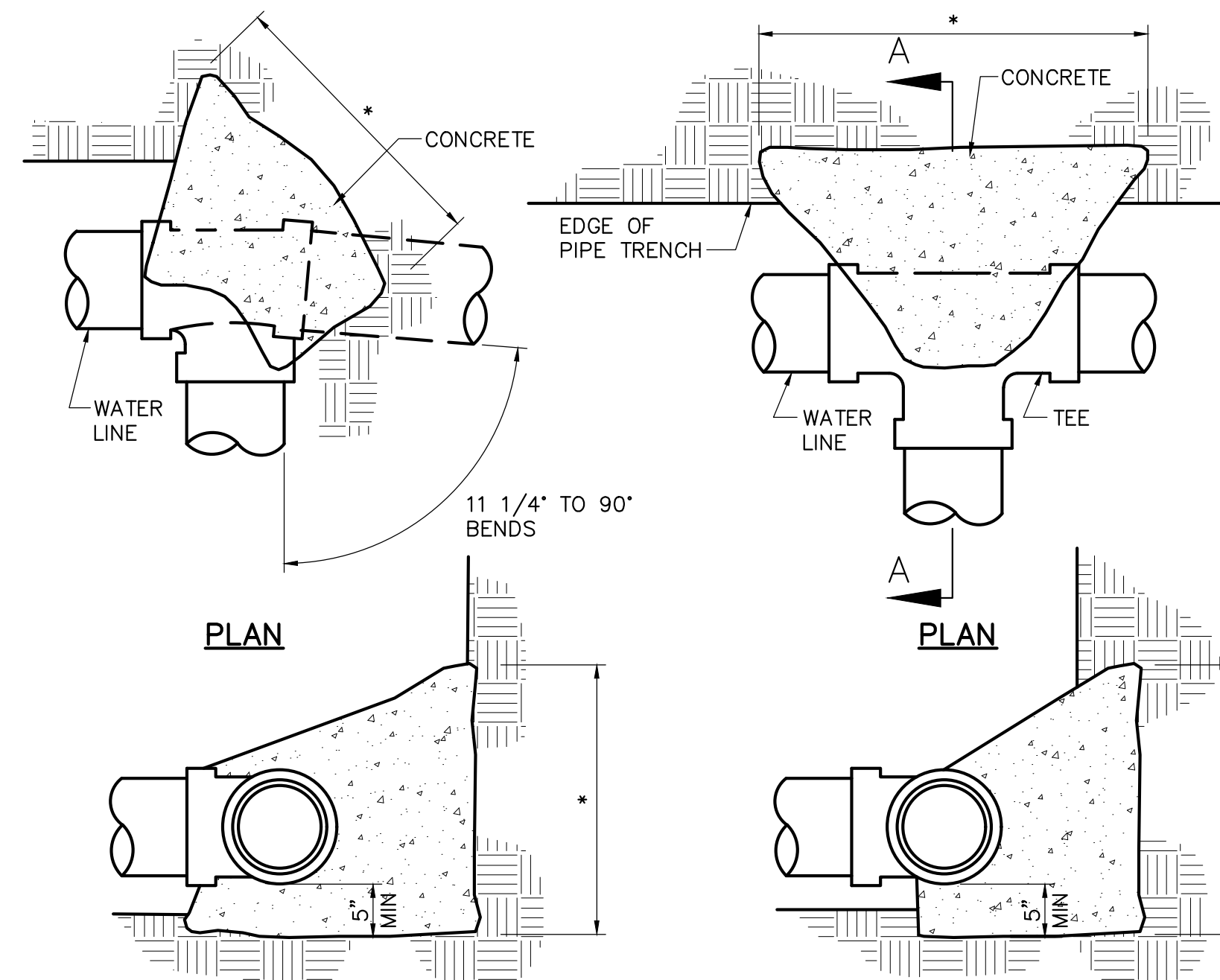
VALVE BOX DETAIL
NOT TO SCALE



FIRE HYDRANT DETAIL
NOT TO SCALE



WATERLINE TRENCH
NOT TO SCALE



TEE OR TAPPING SLEEVE
11 1/4, 22 1/2, 45, & 90 BENDS

THRUST BLOCK BEARING AREA					
THRUST BLOCKING AT 100 PSI WORKING PRESSURE					
PIPE SIZE INCHES	MIN. BEARING SURFACE REQUIRED - S.F.				
	1 1/4' BEND	2 1/2' BEND	45' BEND	90' BEND	TEES & PLUGS
4	1.0	1.0	1.0	1.0	1.0
6	1.0	1.0	1.5	2.5	2.0
8	1.0	1.5	2.5	4.0	3.0
10	1.0	2.0	3.5	6.5	5.0
12	1.5	2.5	5.0	9.0	7.0

THRUST BLOCKING AT 150 PSI WORKING PRESSURE					
PIPE SIZE INCHES	MIN. BEARING SURFACE REQUIRED - S.F.				
	1 1/4' BEND	2 1/2' BEND	45' BEND	90' BEND	TEES & PLUGS
4	1.5	1.5	1.5	1.5	1.5
6	1.5	1.5	2.0	4.0	3.0
8	1.5	2.0	4.0	7.0	5.0
10	1.5	3.0	5.5	10.5	7.5
12	2.0	4.0	8.0	14.5	10.5

THRUST BLOCKING AT 200 PSI WORKING PRESSURE					
PIPE SIZE INCHES	MIN. BEARING SURFACE REQUIRED - S.F.				
	1 1/4' BEND	2 1/2' BEND	45' BEND	90' BEND	TEES & PLUGS
4	2.0	2.0	2.0	2.0	2.0
6	2.0	2.0	3.0	5.5	4.0
8	2.0	2.5	5.0	9.0	6.5
10	2.0	4.0	7.5	14.0	10.0
12	3.0	5.5	10.5	19.5	14.0

* THRUST BLOCK BEARING SURFACE REFER TO MINIMUM BEARING SURFACE TABLE
THRUST BLOCKS
NOT TO SCALE



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Susquehanna Union Green

Susquehanna Township, Dauphin County, PA

Project Number:

18030:1

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

April 5, 2019

Revisions:

1. 06/07/19 Rev per Twp Comments

Scale:

Not To Scale

Sheet Name:

Details

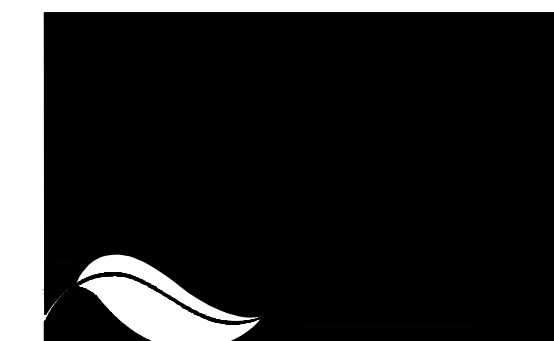
Submission:

Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

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C404

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Union Green

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Project Number:

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LBG/REA

Checked by:

LBG/BJC

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Scale:
1"=50'



Sheet Name:

**PHOTOMETRIC
PLAN**

Submission:

Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

PH101

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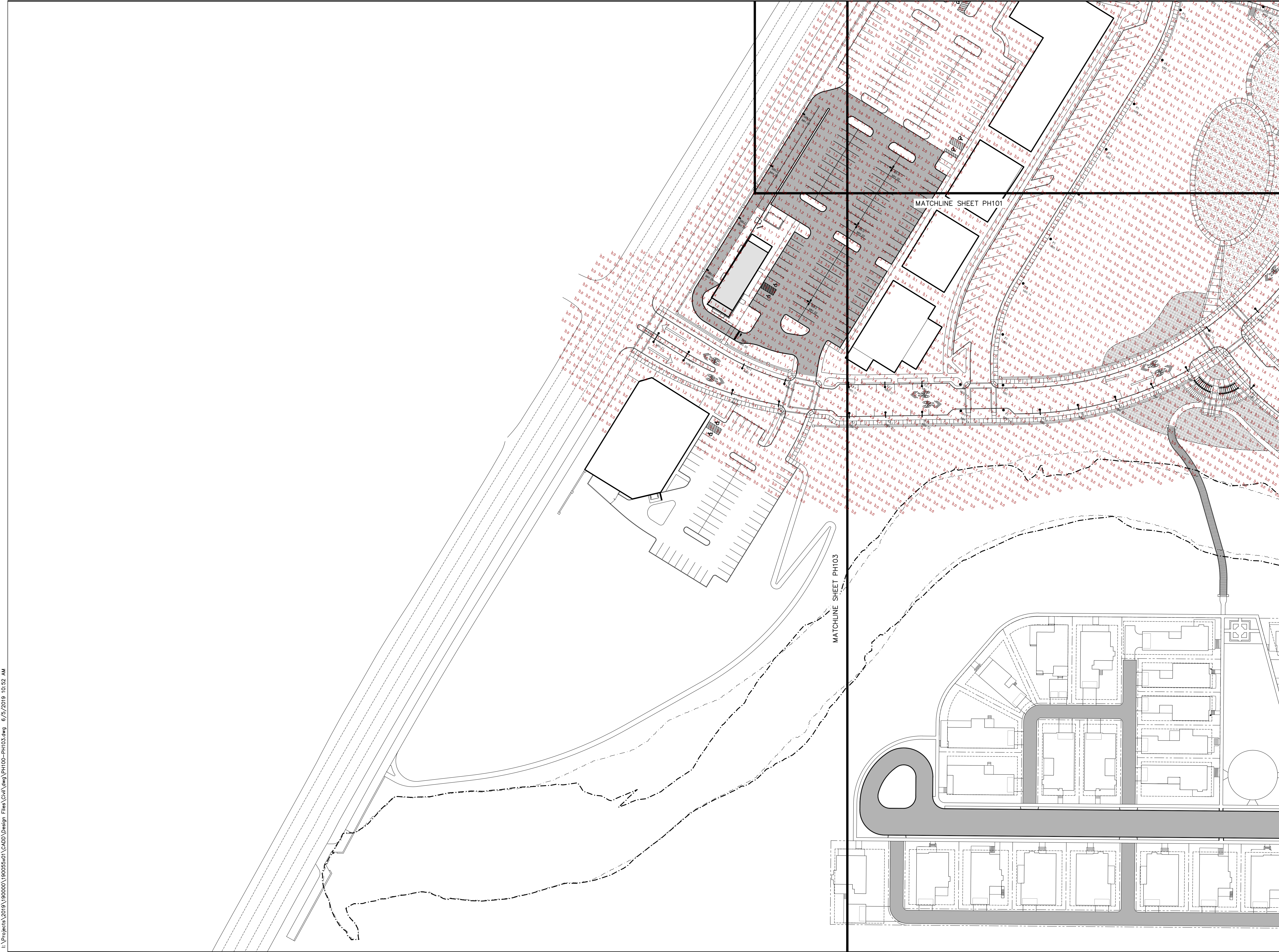
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MATCHLINE SHEETS PH102-PH103

MATCHLINE SHEET PH103

LINGLESTOWN ROAD (SR 0039)

PROGRESS AVENUE (SP 3015)



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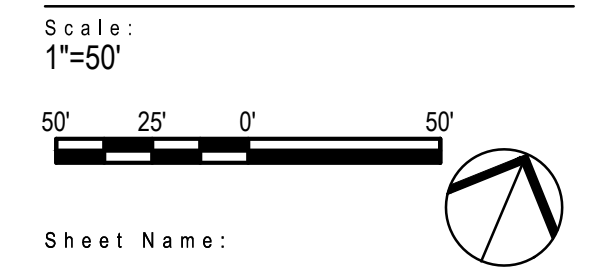


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18030:1
Drawn by:
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Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
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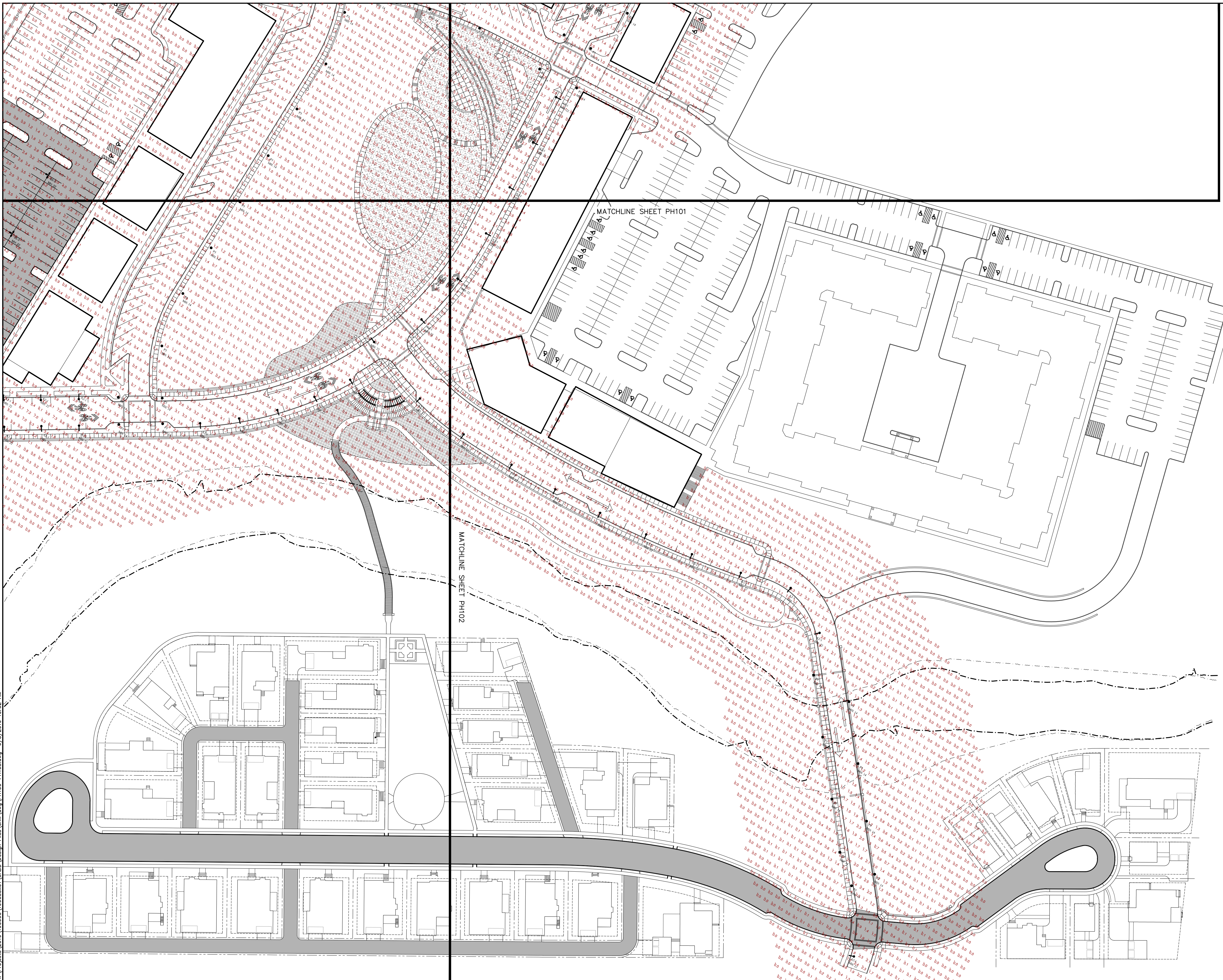


Sheet Name:
**PHOTMETRIC
PLAN**
Submission:
Final Land Development Plan -
Phase IIA, IIC, IIE, IIIB & V

Sheet Number:
PH102

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18030:1

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LBG/BJC

Date:

April 5, 2019

Revisions:

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Scale:

1"=50'



Sheet Name:

PHOTMETRIC
PLAN

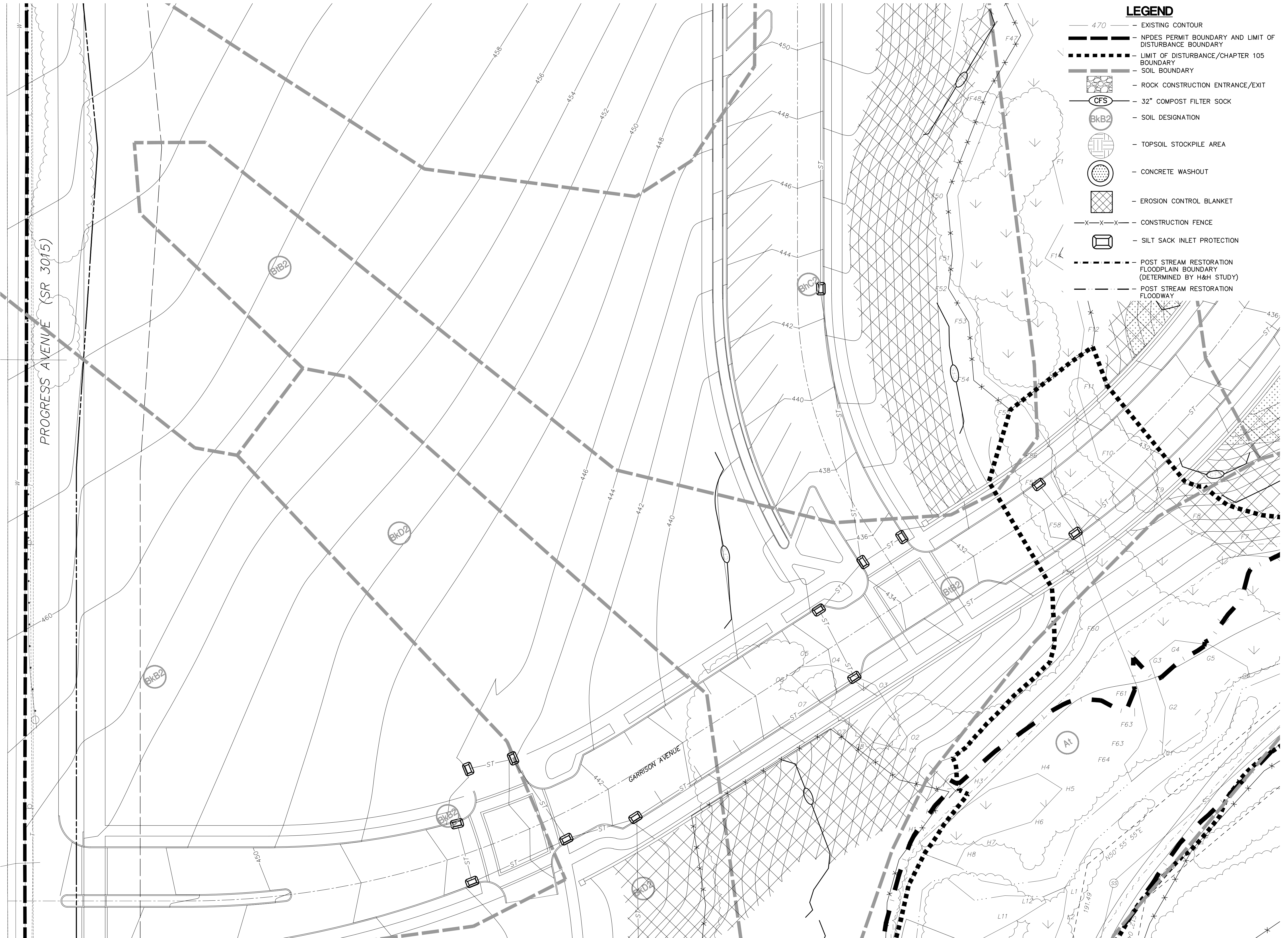
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Sheet Number:

PH103

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LEGEND

- 470 - EXISTING CONTOUR
- NPDES PERMIT BOUNDARY AND LIMIT OF DISTURBANCE BOUNDARY
- LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
- SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- 32" COMPOST FILTER SOCK
- SOIL DESIGNATION
- TOPSOIL STOCKPILE AREA
- CONCRETE WASHOUT
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- SILT SACK INLET PROTECTION
- POST STREAM RESTORATION FLOODPLAIN BOUNDARY (DETERMINED BY H&H STUDY)
- POST STREAM RESTORATION FLOODWAY



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Susquehanna Township, Dauphin County, PA

Project Number:
18030:1

Drawn by:
LBG/REA

Checked by:
LBG/BJC

Date:
April 5, 2019

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1"=20'

Sheet Name:
Erosion & Sedimentation Control Stage 1

Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

ES104

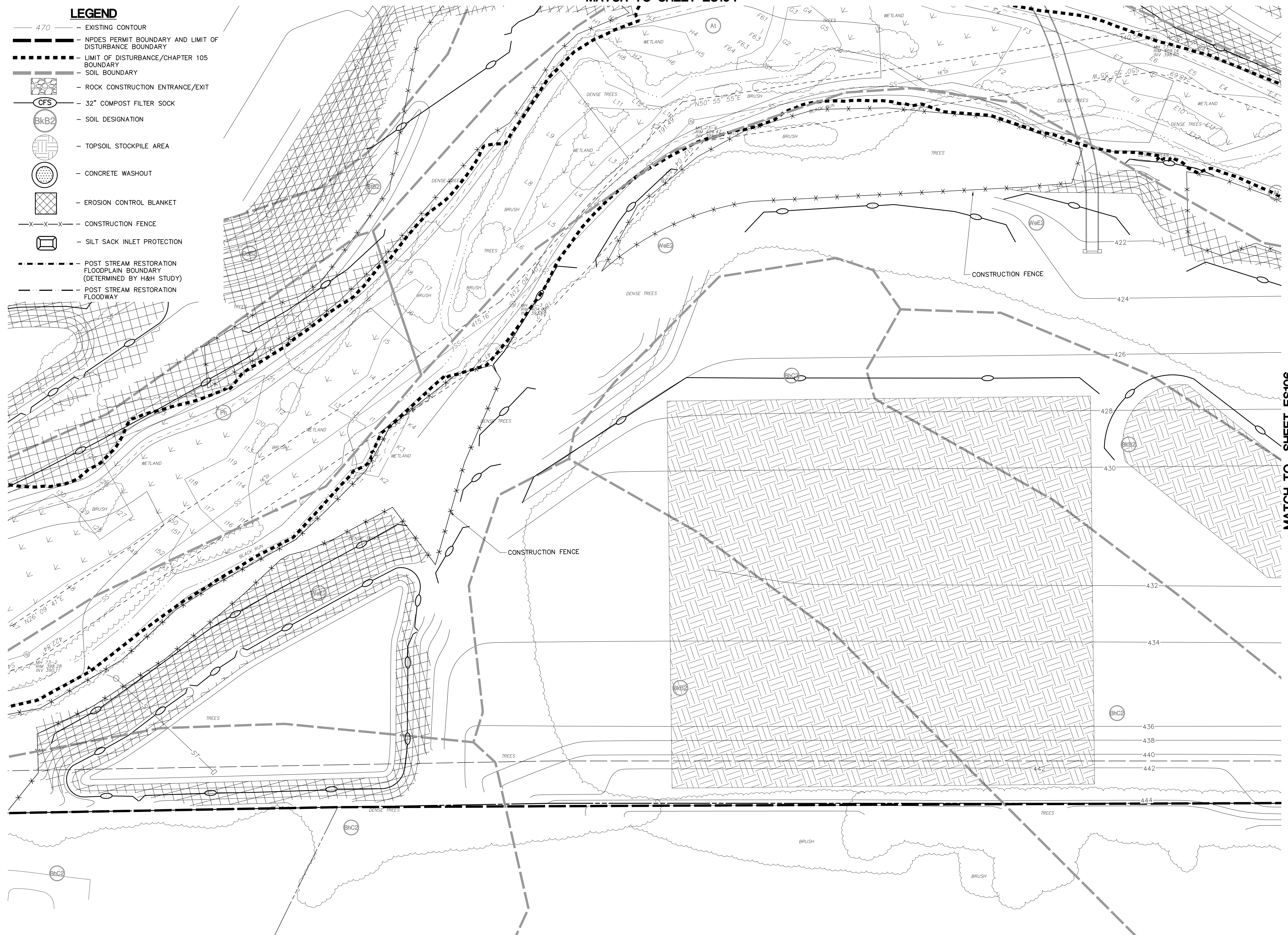
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MATCH TO SHEET ES105

MATCH TO SHEET ES104

LEGEND

- 470 — EXISTING CONTOUR
- NPDES PERMIT BOUNDARY AND LIMIT OF DISTURBANCE BOUNDARY
- LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
- SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- CFS — 32" COMPOST FILTER SOCK
- BkB2 — SOIL DESIGNATION
- TOPSOIL STOCKPILE AREA
- CONCRETE WASHOUT
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- SILT SACK INLET PROTECTION
- POST STREAM RESTORATION FLOODPLAIN BOUNDARY (DETERMINED BY H&H STUDY)
- POST STREAM RESTORATION FLOODWAY



MATCH TO SHEET ES106



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Project Number:
18030:1
Drawn by:
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Checked by:
LBG/BJC
Date:
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Scale:
1"=30'
30' 15' 0' 30'

Sheet Name:
Erosion & Sedimentation Control Stage 1
Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

ES105

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Susquehanna Union Green

Susquehanna Township, Dauphin County, PA

Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

Scale:
1"=100'
100' 50' 0' 100'

Erosion & Sedimentation Control Stage 2-Overall

Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

ES200

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LEGEND

- 470 — EXISTING CONTOUR
- NPDES PERMIT BOUNDARY AND LIMIT OF DISTURBANCE BOUNDARY
- LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
- SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- (CFS) — 32" COMPOST FILTER SOCK
- (BkB2) — SOIL DESIGNATION
- (Topsoil Stockpile Area Symbol) — TOPSOIL STOCKPILE AREA
- (Concrete Washout Symbol) — CONCRETE WASHOUT
- (Erosion Control Blanket Symbol) — EROSION CONTROL BLANKET
- (Construction Fence Symbol) — CONSTRUCTION FENCE
- (Silt Sack Inlet Protection Symbol) — SILT SACK INLET PROTECTION
- (Post Stream Restoration Floodplain Boundary Symbol) — POST STREAM RESTORATION FLOODPLAIN BOUNDARY (DETERMINED BY H&H STUDY)
- (Post Stream Restoration Floodway Symbol) — POST STREAM RESTORATION FLOODWAY

NOTE:
NPDES PERMIT BOUNDARY = 60.47 AC
LIMIT OF DISTURBANCE = 55.48 AC

SOIL TYPES SUMMARY

LABEL	DESCRIPTION	SLOPE
At	ATKINS SILT LOAM	0 TO 3
BkB2	BERKS SHALY SILT LOAM	3 TO 8
BhC2	BERKS CHANNERY SILT LOAM	8 TO 15
BkD2	BERKS CHANNERY SILT LOAM	15 TO 25
BiB2	BRINKERTON & ARMAGH SILT LOAMS	3 TO 8
CoB2	COMLY SILT LOAM	2 TO 8
Ph	PHILO SILT LOAM	0 TO 2
WeE2	WEIKERT SHALY SILT LOAM	25 TO 50

NOTES:

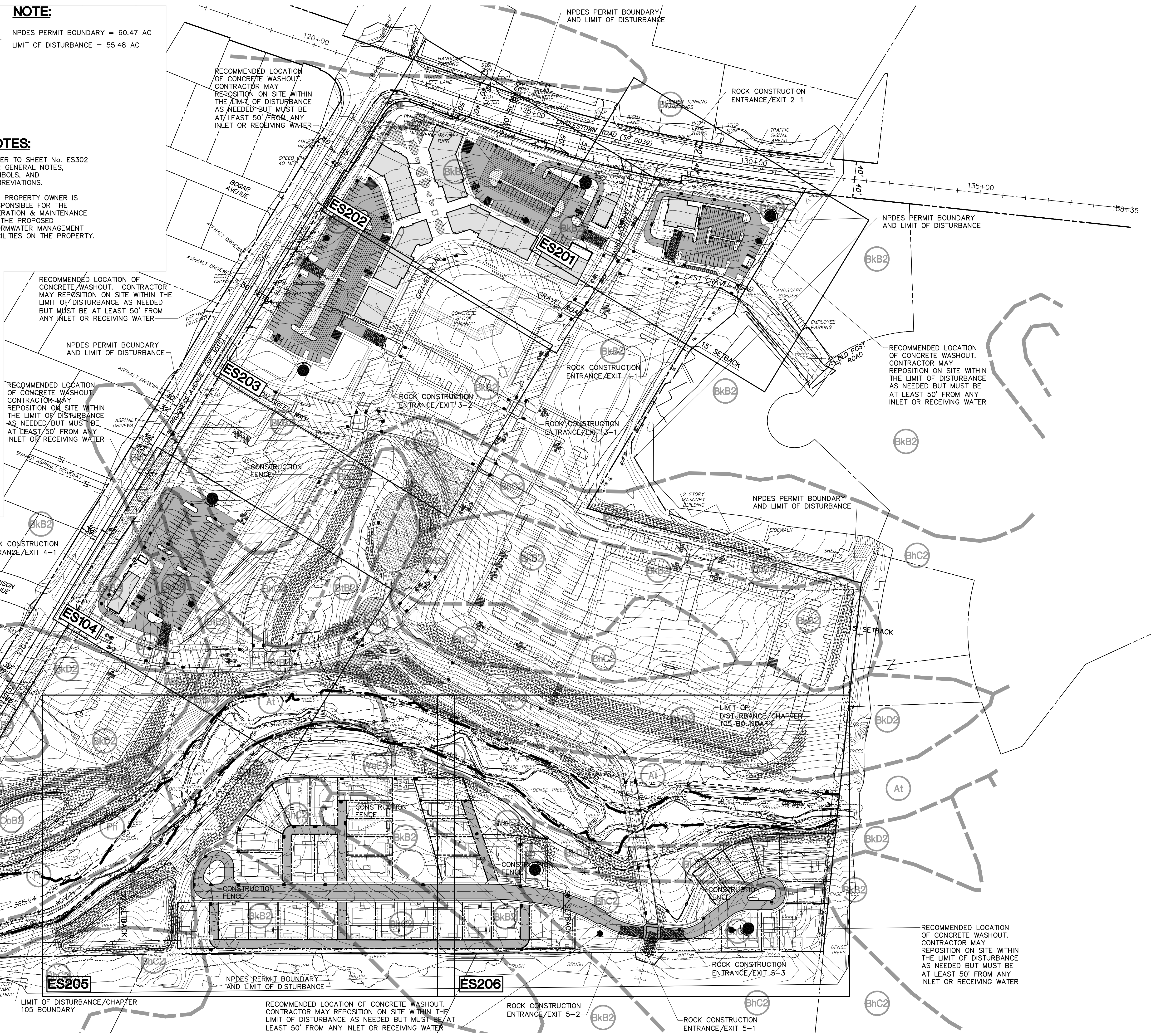
- REFER TO SHEET No. ES302 FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS.
- THE PROPERTY OWNER IS RESPONSIBLE FOR THE OPERATION & MAINTENANCE OF THE PROPOSED STORMWATER MANAGEMENT FACILITIES ON THE PROPERTY.

NOTE:

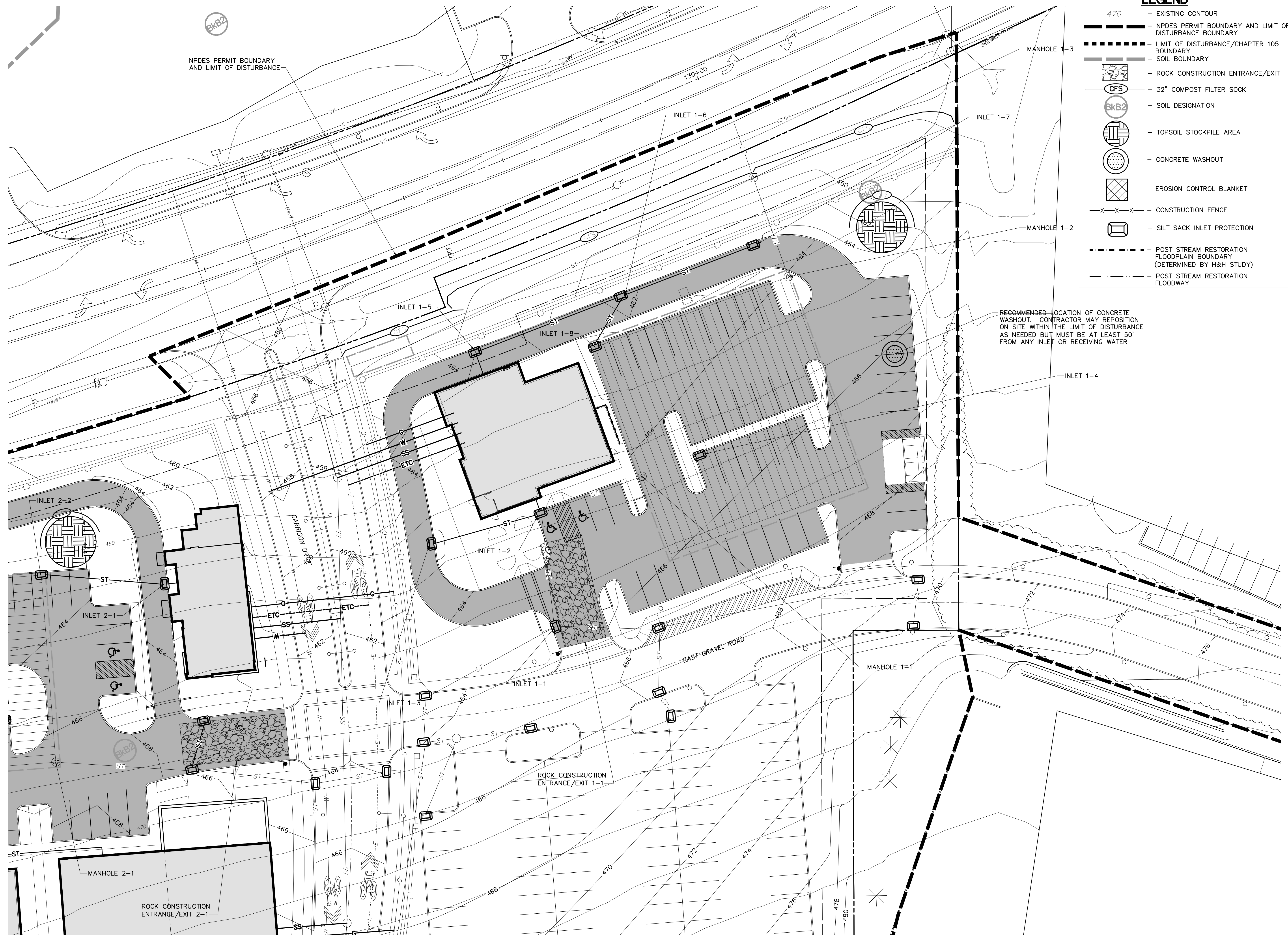
- CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD, DIRT AND DEBRIS CARRIED ONTO PUBLIC ROADWAYS FROM THE JOB SITE ON A DAILY BASIS OR AS DIRECTED BY SUSQUEHANNA TOWNSHIP REPRESENTATIVES.
- THE OWNER IS RESPONSIBLE FOR FORWARDING COPIES OF ALL COUNTY CONSERVATION DISTRICT INSPECTION REPORTS AND NOTICES ISSUED FOR THIS PROJECT TO SUSQUEHANNA TOWNSHIP.

NOTE:

- REFER TO SHEET No. ES303 & ES304 FOR ALL EROSION AND SEDIMENTATION CONTROL DETAILS.



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LEGEND

- 470 — EXISTING CONTOUR
- NPDES PERMIT BOUNDARY AND LIMIT OF DISTURBANCE BOUNDARY
- LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
- SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- 32" COMPOST FILTER SOCK
- SOIL DESIGNATION
- TOPSOIL STOCKPILE AREA
- CONCRETE WASHOUT
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- SILT SACK INLET PROTECTION
- POST STREAM RESTORATION FLOODPLAIN BOUNDARY (DETERMINED BY H&H STUDY)
- POST STREAM RESTORATION FLOODWAY

RECOMMENDED LOCATION OF CONCRETE WASHOUT. CONTRACTOR MAY REPOSITION ON SITE WITHIN THE LIMIT OF DISTURBANCE AS NEEDED BUT MUST BE AT LEAST 50' FROM ANY INLET OR RECEIVING WATER



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Susquehanna Township, Dauphin County, PA

Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

Scale:
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20' 10' 0' 20'

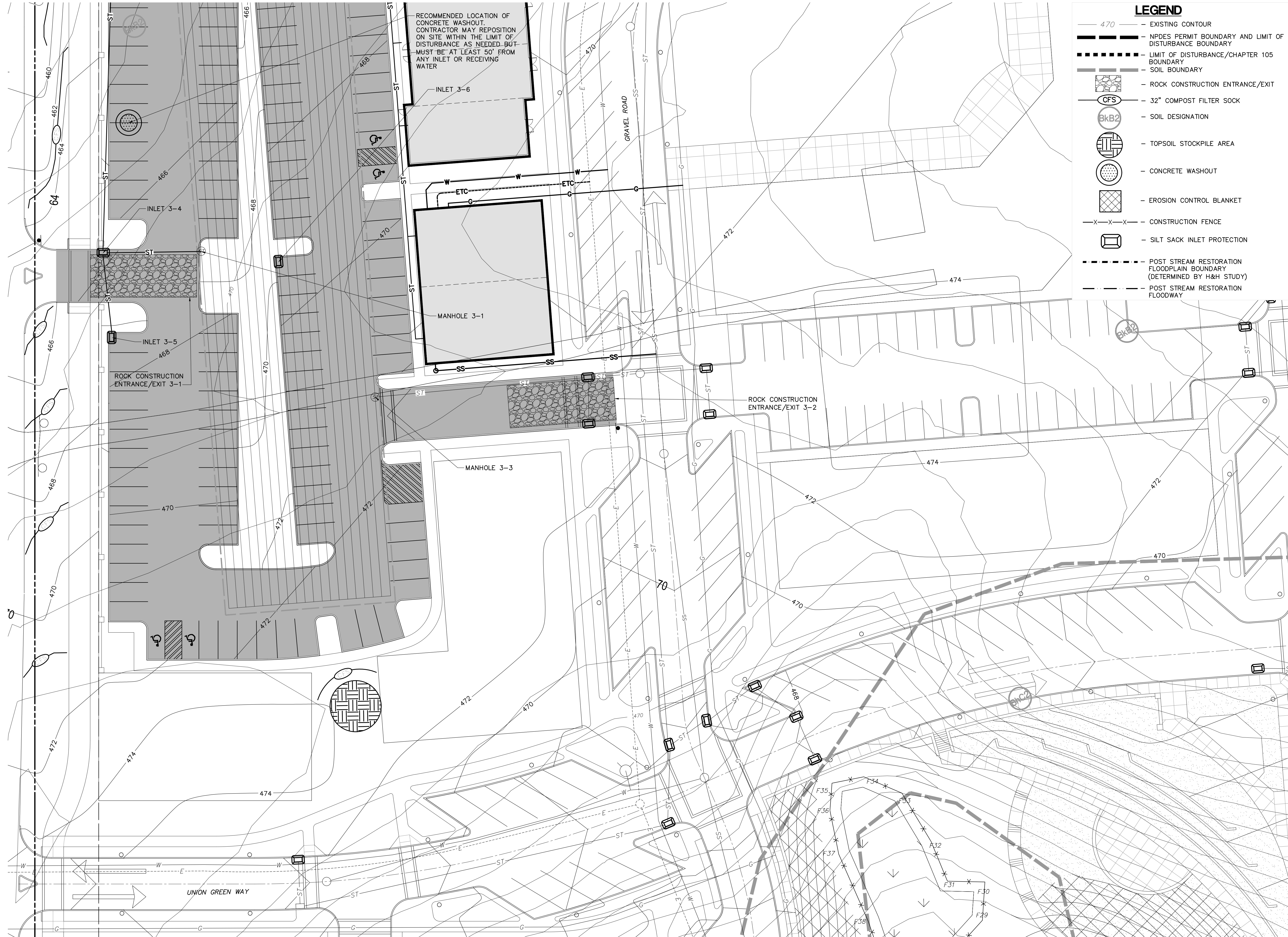
Sheet Name:
Erosion & Sedimentation Control Stage 2
Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V
Sheet Number:

ES201

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MATCH TO SHEET ES202



LEGEND

- 470 — — EXISTING CONTOUR
- — — — — NPDES PERMIT BOUNDARY AND LIMIT OF DISTURBANCE BOUNDARY
- — — — — LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
- — — — — SOIL BOUNDARY
- [Rock Pattern] — ROCK CONSTRUCTION ENTRANCE/EXIT
- [CFS Symbol] — 32" COMPOST FILTER SOCK
- [Bk/B2 Symbol] — SOIL DESIGNATION
- [Topsoil Pattern] — TOPSOIL STOCKPILE AREA
- [Concrete Washout Symbol] — CONCRETE WASHOUT
- [Erosion Blanket Pattern] — EROSION CONTROL BLANKET
- X — X — — CONSTRUCTION FENCE
- [Silt Sack Symbol] — SILT SACK INLET PROTECTION
- - - - - POST STREAM RESTORATION FLOODPLAIN BOUNDARY (DETERMINED BY H&H STUDY)
- - - - - POST STREAM RESTORATION FLOODWAY



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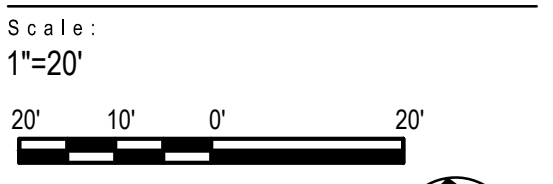
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Susquehanna Township, Dauphin County, PA

Project Number:
18030:1
Drawn by:
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Checked by:
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Date:
April 5, 2019
Revisions:
1. 06/07/19 Rev per Twp Comments

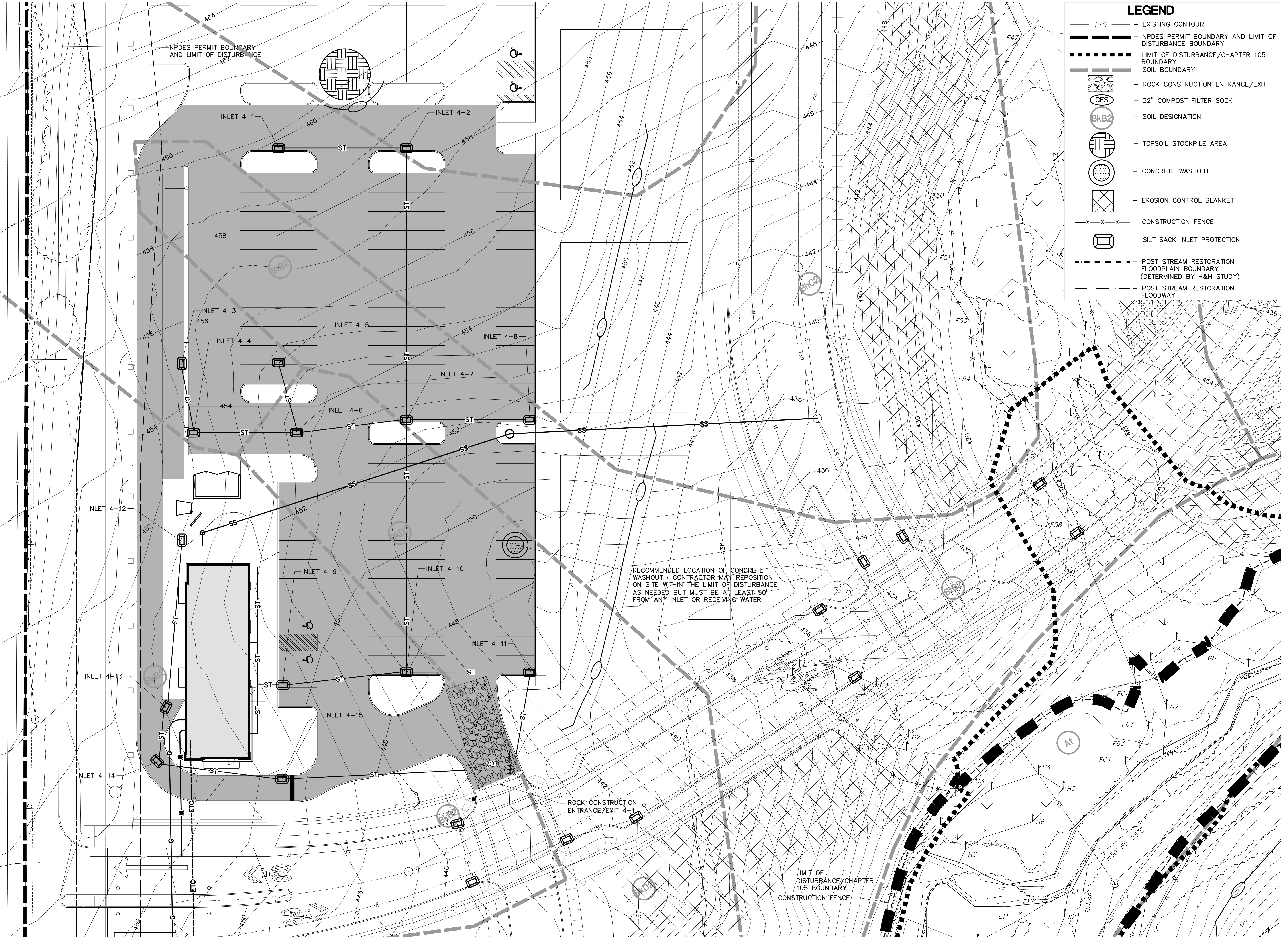


Sheet Name:
Erosion & Sedimentation Control Stage 2
Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V
Sheet Number:

ES203

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LEGEND

- 470 — EXISTING CONTOUR
- - - NPDES PERMIT BOUNDARY AND LIMIT OF DISTURBANCE BOUNDARY
- LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
- SOIL BOUNDARY
- [Rock Pattern] ROCK CONSTRUCTION ENTRANCE/EXIT
- (CFS) 32" COMPOST FILTER SOCK
- (Bk/B2) SOIL DESIGNATION
- [Grid Pattern] TOPSOIL STOCKPILE AREA
- [Dotted Circle] CONCRETE WASHOUT
- [Cross-hatch] EROSION CONTROL BLANKET
- x-x-x- CONSTRUCTION FENCE
- [Rectangular Box] SILT SACK INLET PROTECTION
- - - POST STREAM RESTORATION FLOODPLAIN BOUNDARY (DETERMINED BY H&H STUDY)
- - - POST STREAM RESTORATION FLOODWAY

RECOMMENDED LOCATION OF CONCRETE WASHOUT. CONTRACTOR MAY REPOSITION ON SITE WITHIN THE LIMIT OF DISTURBANCE AS NEEDED BUT MUST BE AT LEAST 50' FROM ANY INLET OR RECEIVING WATER

ROCK CONSTRUCTION ENTRANCE/EXIT 4-1

LIMIT OF DISTURBANCE/CHAPTER 105 BOUNDARY
CONSTRUCTION FENCE

MATCH TO SHEET ES205



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Project Number:
18030:1
Drawn by:
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Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

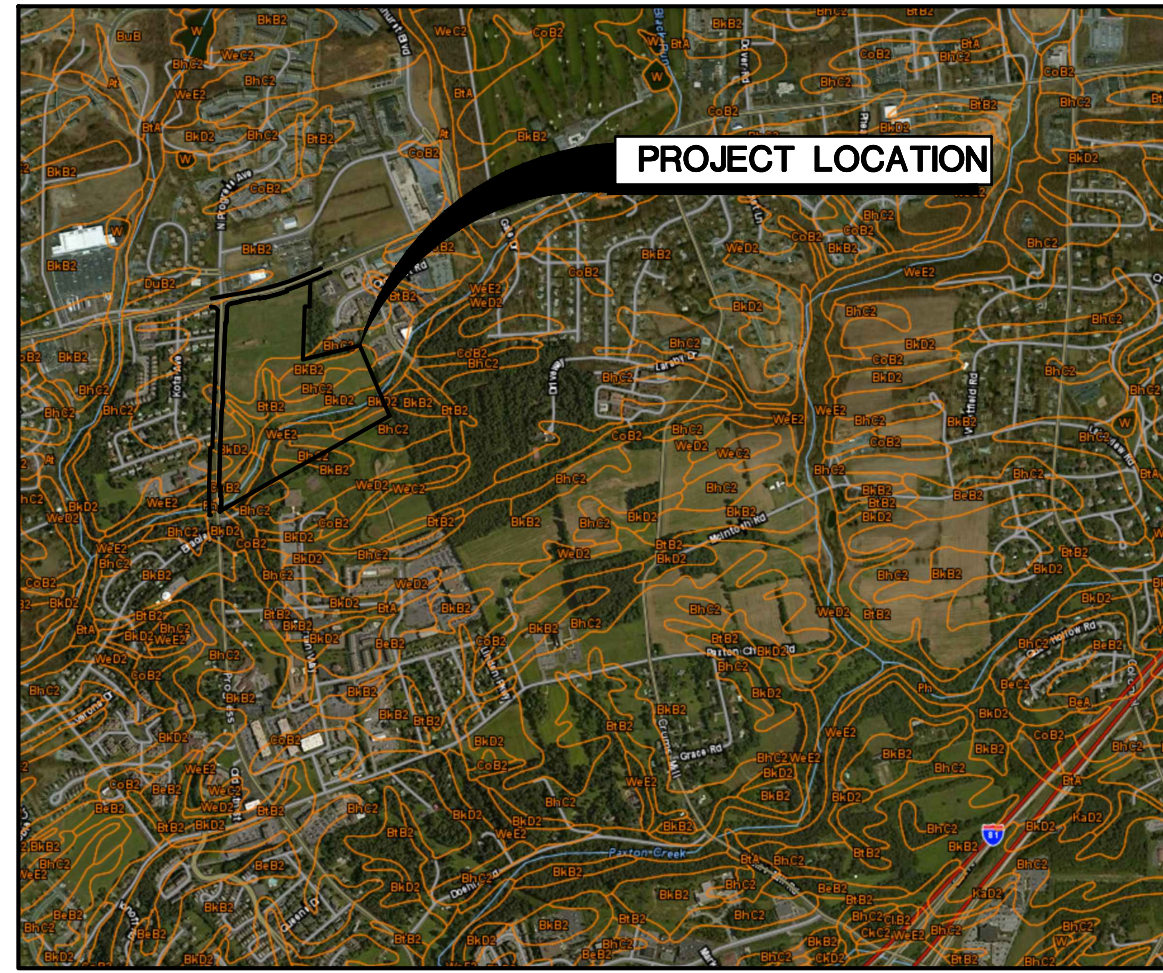
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Sheet Name:
Erosion & Sedimentation Control Stage 2
Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

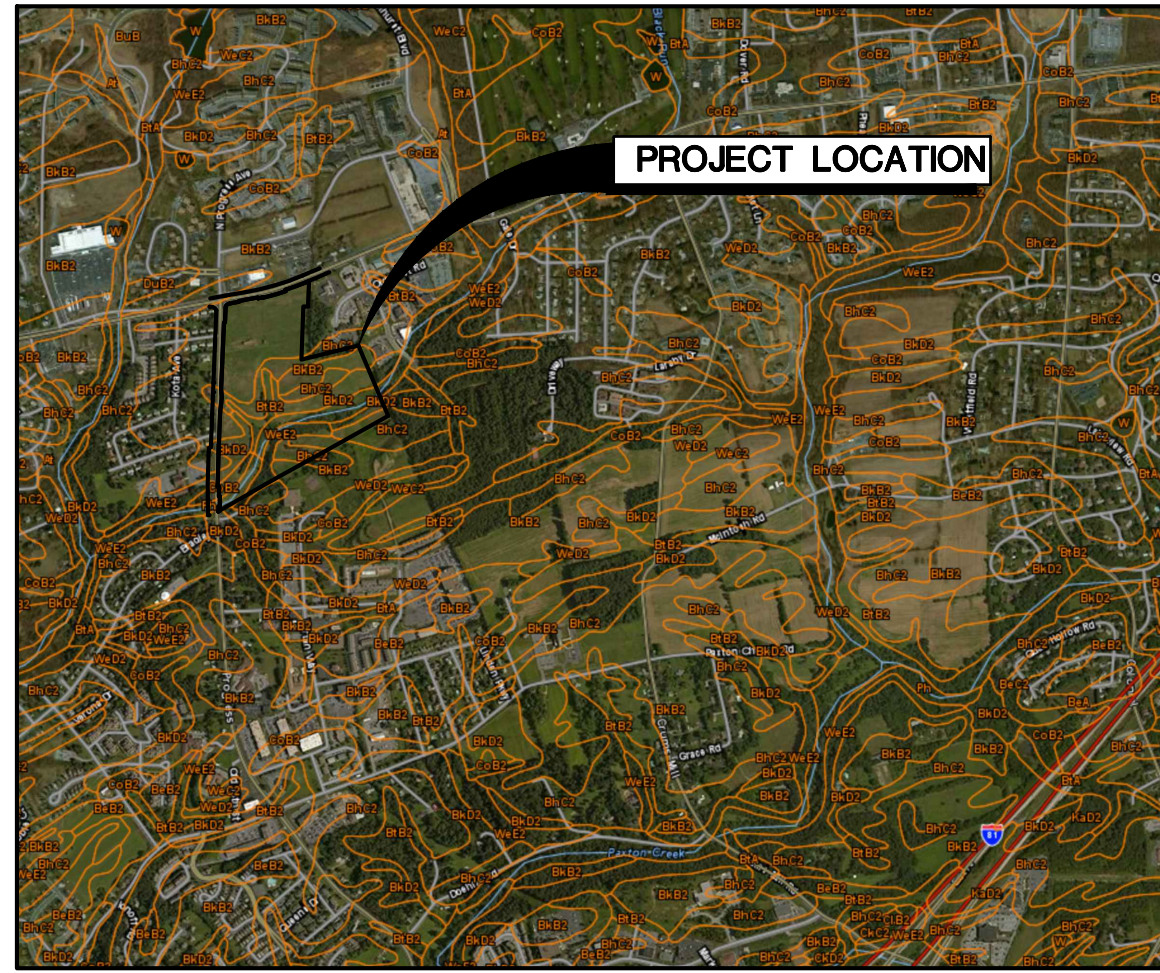
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ES204

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LOCATION MAP
SCALE: 1"=2000'



SOILS MAP
SCALE: 1" = 500'

A SEQUENCE OF BMP INSTALLATION AND REMOVAL IN RELATION TO THE SCHEDULING OF EARTH DISTURBANCE ACTIVITIES PRIOR TO, DURING, AND AFTER EARTH DISTURBANCE ACTIVITIES

ANTICIPATED CONSTRUCTION BEGIN DATE: FALL 2019

STAGE 1

1. CONTRACTOR AND/OR DEVELOPER SHALL NOTIFY THE DAUPHIN COUNTY CONSERVATION DISTRICT 7 TO 10 DAYS PRIOR TO THE START OF CONSTRUCTION.
2. INSTALL ROCK CONSTRUCTION ENTRANCES AT LOCATIONS INDICATED ON THE PLANS.
3. CESSATION OF CONSTRUCTION ACTIVITY FOR FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION.
4. INSTALL CONSTRUCTION FENCE AROUND WETLANDS AT LOCATIONS INDICATED ON THE PLANS.
5. INSTALL COMPOST FILTER SOCKS DOWNSLOPE OF THE PROPOSED WORK AREA. REFER TO THE PLANS FOR THE LOCATION OF THE COMPOST FILTER SOCKS. NO EARTHMOVING OPERATIONS SHALL BEGIN UNTIL ALL COMPOST FILTER SOCKS HAVE BEEN PROPERLY INSTALLED. NO COMPOST FILTER SOCKS SHALL BE REMOVED UNTIL THE CONTRIBUTORY AREA DRAINING TO A SECTION OF COMPOST FILTER SOCK IS STABILIZED. THE AREA SHALL BE CONSIDERED STABILIZED AS OUTLINED BELOW.
6. CLEAR AND GRUB PROJECT AREA. STRIP ALL THE TOPSOIL AND PLACE IN DESIGNATED TOPSOIL STOCKPILE AREAS. COMPOST FILTER SOCK SHALL BE PLACED ON THE DOWNSLOPE SIDE OF THE TOPSOIL STOCKPILE AS SHOWN ON THE PLAN. TEMPORARY SEEDING SHALL BE PLACED ON THE TOPSOIL STOCKPILE (REFER TO TEMPORARY SEEDING SPECIFICATIONS). MINIMIZE MOVING AND REPLACING COMPOST FILTER SOCK TO LIMIT DAMAGE TO THE SOCK.

STAGE 2

7. RELOCATE EXISTING COMPOST FILTER SOCK FROM STAGE 1 AND ADD NEW COMPOST FILTER SOCKS DOWNSLOPE OF THE PROPOSED WORK AREA. REFER TO THE PLANS FOR THE LOCATION OF THE COMPOST FILTER SOCKS. NO EARTHMOVING OPERATIONS SHALL BEGIN UNTIL ALL COMPOST FILTER SOCKS AND INLET PROTECTION HAVE BEEN PROPERLY INSTALLED. NO COMPOST FILTER SOCKS SHALL BE REMOVED UNTIL THE CONTRIBUTORY AREA DRAINING TO A SECTION OF COMPOST FILTER SOCK IS STABILIZED. THE AREA SHALL BE CONSIDERED STABILIZED AS OUTLINED BELOW.
 8. PERFORM DEMOLITION OF EXISTING BUILDING FEATURES AND SITE FEATURES.
 9. THE CONCRETE WASHOUT SHALL BE INSTALLED.
 10. BEGIN EARTHWORK FOR THE PAD DEVELOPMENT, INFILTRATION BASINS, UNDERGROUND DETENTION SYSTEMS, PERVIOUS PAVEMENT/INFILTRATION TRENCHES, ROADWAY AND SIDEWALK AREAS.
 11. INSTALL COMPOST FILTER SOCK AROUND THE INFILTRATION BASINS AT LOCATIONS INDICATED ON THE PLANS.
 12. REMOVE CONSTRUCTION FENCE FROM WETLANDS THAT WILL BE DISTURBED AS PART OF THE DEVELOPMENT OF THIS PROJECT.
 13. PERFORM GRADING TO BRING THE SITE TO FINAL GRADE ELEVATIONS.
 14. INSTALL NEW STORM SEWER AS INDICATED ON THE PLANS. ANY NEWLY INSTALLED INLET SHALL RECEIVE SILT SACK INLET PROTECTION WITHIN 8 HOURS OF THE INLET BEING PLACED. NO INLET PROTECTION SHALL BE REMOVED UNTIL THE CONTRIBUTORY AREA DRAINING TO A SECTION OF INLET PROTECTION IS STABILIZED. THE AREA SHALL BE CONSIDERED STABILIZED AS OUTLINED BELOW.
 15. INSTALL ALL UTILITIES ON SITE.
 16. BEGIN CONSTRUCTION OF THE BITUMINOUS AREA AFTER ALL UTILITIES HAVE BEEN INSTALLED. AS SOON AS PRACTICAL, AFTER AREAS TO BE PAVED HAVE REACHED SUBGRADE ELEVATION, PLACE STONE SUBBASE. THESE AREAS SHALL BE CONSIDERED STABILIZED ONCE THE SUBBASE HAS BEEN INSTALLED.
 17. COMPLETE THE INFILTRATION BASINS, UNDERGROUND DETENTION SYSTEMS, AND PERVIOUS PAVEMENT/INFILTRATION TRENCHES WHEN THE AREA UPSLOPE IS CONSIDERED STABILIZED.
 18. COMPLETE CONSTRUCTION ACTIVITIES FOR PHASE 1 OF THE PROJECT.
 19. SPREAD TOPSOIL OVER ALL DISTURBED AREAS NOT TO BE PAVED. SEED IN ACCORDANCE TO PERMANENT SEEDING SPECIFICATIONS.
 20. REMOVE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT MEASURES ARE ESTABLISHED. PERMANENT CONTROL IS CONSIDERED ACHIEVED WHEN ROADWAYS ARE PAVED AND A 70% UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED ON ALL SEEDED AREAS. ALL TEMPORARY EROSION AND SEDIMENTATION PLAN CONTROLS ARE TO BE ASSESSED/INSPECTED BY THE DAUPHIN COUNTY CONSERVATION DISTRICT/PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERSONNEL TO VERIFY THAT SUFFICIENT VEGETAL COVER HAS BEEN ATTAINED PRIOR TO THE REMOVAL OR CONVERSION OF EROSION AND SEDIMENTATION PLAN CONTROLS. ANY AREAS DISTURBED DURING THE REMOVAL OF THE TEMPORARY CONTROLS SHALL BE REPAIRED WITHIN 8 HOURS.
 21. FINAL CLEANUP OF PROJECT SITE – THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL OFF SITE IN A LAWFUL MANNER.
- ANTICIPATED CONSTRUCTION COMPLETION DATE: WINTER 2022

SPECIFIC BMP MAINTENANCE INSTRUCTIONS

TEMPORARY VEGETATIVE COVER

- A. SOW ANNUAL RYE GRASS AT THE RATE OF 43 POUNDS PER ACRE, ONE POUND PER 1000 SQFT. BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION; PLUS A STRAW MULCH ANCHORED TO PREVENT LOSS.
- B. COVER GRASS SEED WITH 1/4" (6MM) OF SOIL USING SUITABLE EQUIPMENT FOR THAT PURPOSE. ADD LIME AND FERTILIZER (LIME=1 TON/AC, FERTILIZER = 5:5:5 MIX).
- C. MULCHING, WITHOUT SEEDING, IS TO BE USED AS AN INTERIM STABILIZATION CONTROL DURING NON-GROWING SEASONS OF THE YEAR

ROCK CONSTRUCTION ENTRANCE

- A. ROCK CONSTRUCTION ENTRANCE WILL BE PLACED AT THE LOCATION SHOWN ON THE PLAN AND CONSTRUCTED TO THE MINIMUM DIMENSIONS AS SHOWN ON THE DETAIL.
- B. THE ROCK CONSTRUCTION ENTRANCE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON SITE FOR THIS PURPOSE.
- C. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC AND PRIVATE ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAYS IS NOT PERMITTED.

COMPOST FILTER SOCKS

- A. COMPOST FILTER SOCKS WILL BE PLACED AS SHOWN ON THE PLAN TO INTERCEPT THE STORM WATER, AND FILTER THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE.
- B. COMPOST FILTER SOCKS ARE NOT PERMITTED IN ANY AREA OF CONCENTRATED FLOW SUCH AS DITCHES, SWALES, OR CHANNELS.
- C. ADD SECTION OF COMPOST FILTER SOCK FROM POST TO POST WHEN UNDERCUTTING OF COMPOST FILTER SOCK OCCURS.
- D. INSTALL COMPOST FILTER SOCKS IN ACCORDANCE WITH DETAILS AS SHOWN ON THE DRAWINGS.
- E. INSPECT COMPOST FILTER SOCKS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
- F. ACCUMULATED SEDIMENT WILL BE REMOVED AS REQUIRED TO KEEP THE COMPOST FILTER SOCKS FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
- G. THE REMOVED SEDIMENT IS TO BE USED FOR ON SITE GRADING, SEEDED, AND MULCHED.
- H. ANY COMPOST FILTER SOCK SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A NEW COMPOST FILTER SOCK.
- I. ADHERE TO MANUFACTURERS RECOMMENDATIONS FOR REPLACING COMPOST FILTER SOCKS DUE TO WEATHERING.
- J. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, REMOVE ALL COMPOST FILTER SOCKS AND UNSTABLE SEDIMENT DEPOSITS. BRING THE DISTURBED AREA TO GRADE AND STABILIZE.

INLET PROTECTION

- A. INLET PROTECTION WILL BE PLACED IN EXISTING AND NEW INLETS AS DEPICTED ON THE PLANS.
- B. INSTALL INLET PROTECTION IN ACCORDANCE WITH THE DETAIL ON THE DRAWING.
- C. INSPECT INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS OR REPLACE IMMEDIATELY.
- D. IN ALL CASES, REMOVE DEPOSITS AFTER EACH RAINFALL EVENT.
- E. THE REMOVED SEDIMENT IS TO BE USED FOR ON SITE GRADING, SEEDED, AND MULCH.
- F. ADHERE TO MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF INLET PROTECTION.

RIPRAP APRONS

- A. RIPRAP APRONS WILL BE PLACED IN INFILTRATION AREAS WHERE CONCENTRATED FLOW IS PRESENT AS DEPICTED ON THE PLANS.
- B. INSTALL RIPRAP APRON IN ACCORDANCE WITH THE DETAIL ON THE DRAWING.
- C. INSPECT RIPRAP APRON AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS OR REPLACE IMMEDIATELY.
- D. IN ALL CASES, REMOVE DEPOSITS AFTER EACH RAINFALL EVENT.
- E. THE REMOVED SEDIMENT IS TO BE USED FOR ON SITE GRADING, SEEDED, AND MULCH.
- F. IF NEEDED, ADD ROCK TO BRING THE RIPRAP APRON TO SPECIFIED DIMENSIONS.
- G. ADD ROCK AND EXTEND THE RIP RAP APRON TO AVOID RUNOFF FROM ESCAPING AROUND THE RIPRAP APRON.

GENERAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENTATION CONTROL

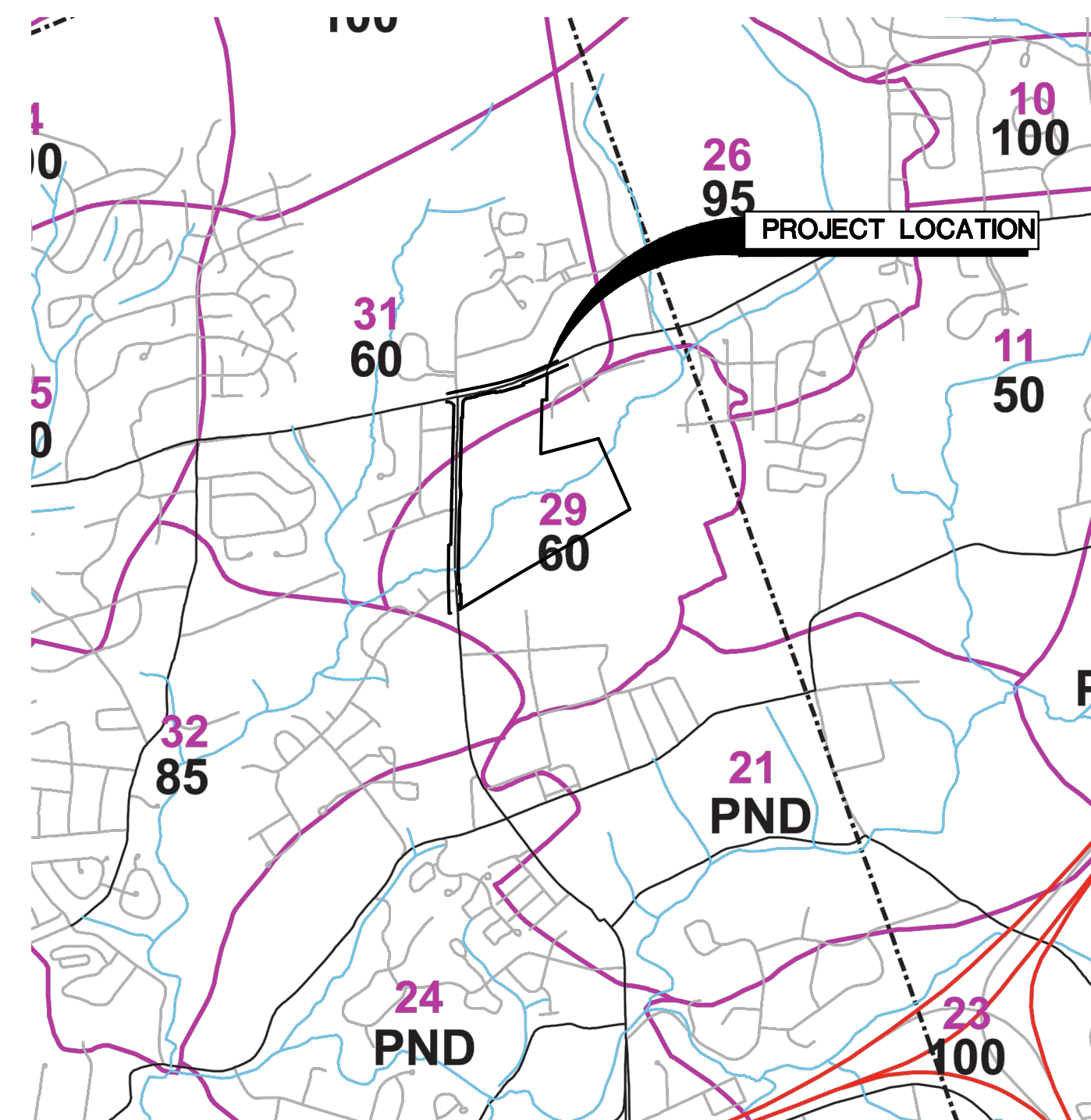
- SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IMPLEMENTED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. COMPOST FILTER SOCK SHALL BE INSTALLED TO A MINIMUM AS SHOWN ON THESE DRAWINGS.
- EARTH MOVING OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE ACCELERATED SOIL EROSION, IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL", AND AS SHOWN ON THESE DRAWINGS.
- COMPOST FILTER SOCK SHALL BE INSTALLED DOWNSTREAM OF CONSTRUCTION AND STOCKPILE AREAS TO CONFINE SEDIMENT THAT MAY BE WASHED FROM NEW FILL OR CUT SLOPES.
- COMPOST FILTER SOCK MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST EXTEND AT LEAST 10 FEET UPSLOPE AT 45° TO THE MAIN SOCK ALIGNMENT.
- COMPOST FILTER SOCK SHALL BE INSPECTED ONCE A WEEK AND AFTER EACH RUNOFF EVENT. DAMAGE SHALL BE REPAIRED IMMEDIATELY. SEDIMENT ACCUMULATIONS SHALL BE REMOVED AND PLACED IN THE TOPSOIL STOCKPILE.
- COMPOST FILTER SOCK SHALL BE MAINTAINED UNTIL FINAL PROTECTIVE VEGETATION HAS BEEN ESTABLISHED, OR OTHER GROUND COVER MATERIALS HAVE BEEN PLACED.
- THE CONTRACTOR SHALL PLACE SEEDING, SOIL SUPPLEMENTS, AND MULCHING IN ALL DISTURBED AREAS IN ACCORDANCE WITH PADOT PUB. 408, LATEST EDITION.
- FILTER FABRIC MATERIAL SHALL BE PADOT CLASS 3 GEOTEXTILE IN ACCORDANCE WITH SECTION 735 OF THE PADOT PA. 408, LATEST EDITION.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.
- A STAMPED AND SIGNED SET OF APPROVED EROSION AND SEDIMENTATION CONTROL PLANS AND NARRATIVE SHALL REMAIN ON SITE FOR THE DURATION OF THE PROJECT.

GENERAL EROSION AND SEDIMENT CONTROL REQUIREMENTS FOR PIPELINE AND UTILITY INSTALLATION

- LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
- WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING, AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. NO MORE THAN 50 LINEAR FEET OF OPEN TRENCH SHALL EXIST WHEN PIPELINE/UTILITY LINE INSTALLATION CEASES AT THE END OF THE WORK DAY.
- WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. PUMPED WATER WILL BE DISCHARGED THROUGH A COMMERCIALY AVAILABLE FILTER BAG (SEE DETAIL).
- ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, AND APPROPRIATE PERMANENT/TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE COMPLETED WITHIN SEVEN DAYS AFTER THE PIPELINE/UTILITY LINE IS INSTALLED.

CONSTRUCTION SEQUENCE FOR INFILTRATION BED AND RAIN GARDEN INSTALLATION

1. INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION
2. THE EXISTING SUBGRADE UNDER THE INFILTRATION BED SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE BED PLACEMENT. THESE AREAS ARE TO BE PROTECTED FROM THE CONSTRUCTION TRAFFIC WITH THE USE OF COMPOST FILTER SOCKS.
3. WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE OR EQUIVALENT AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE.
4. GEOTEXTILE AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILES SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHOULD OVERLAP A MINIMUM OF 16 INCHES. IT SHOULD ALSO BE SECURED AT LEAST 4 FEET OUTSIDE OF BED IN ORDER TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE ALONG BED EDGES CAN BE CUT BACK TO THE EDGE OF THE BED.
5. ONCE STABILIZED, INSTALL PROPOSED STORMWATER CONVEYANCE SYSTEM AS INDICATED IN THE PLANS AND PER THE PROVIDED DETAILS.



RELEASE RATE MAP
NOT TO SCALE



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Nature leads, art follows.



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INTERIM STABILIZATION

INTERIM STABILIZATION MUST BE IMPLEMENTED IMMEDIATELY TO ANY DISTURBED AREA ON WHICH EARTH MOVING ACTIVITIES HAVE CEASED. INTERIM STABILIZATION IN THE EVENT OF PLANNED OR UNPLANNED PROJECT SUSPENSION WILL CONSIST OF MULCHING OF DISTURBED AREAS DURING WINTER OR NONGROWING SEASONS. GROWING SEASONS STABILIZATION WILL CONSIST OF TEMPORARY SEEDING ACCORDING TO PROVIDED SPECIFICATIONS, AND MULCHING OF THE DISTURBED AREAS. FALL CUTOFF FOR SEEDING WILL BE APPROXIMATELY THE END OF OCTOBER, DEPENDING UPON LOCAL WEATHER CONDITIONS. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

TEMPORARY SEEDING SPECIFICATIONS

MULCH – CLEAN OAT OR WHEAT STRAW SHALL BE FREE FROM MANURE, SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS AS DEFINED BY THE PENNSYLVANIA SEED ACT 1947. APPLY AT A RATE OF 3 BALES PER 1000 SQUARE FEET (3 TONS PER ACRE). PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL THE VEGETATIVE COVER IS ESTABLISHED. STRAW SHALL BE SUITABLE FOR SPREADING WITH THE STANDARD MULCH BLOWER EQUIPMENT.

SEED MIXTURE – SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE VARIETIES FOLLOWING AND MIXED IN THE PROPORTIONS SPECIFIED.

TEMPORARY SEED MIXTURE	% BY WEIGHT	MINIMUM PURITY	% GERMINATION	MAXIMUM WEED SEED	SEEDING RATE LBS. PER 1000 SY
PADOT FORMULA E ANNUAL RYEGRASS	100	95	90	0.10	

- (Lolium multiflorum)

TEMPORARY SEEDING APPLICATION SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF PADOT PUB. 408 AND ALL SUPPLEMENTS THEREO.

ALL AREAS TO BE SEEDED SHALL BE LOOSENEED TO A DEPTH OF AT LEAST TWO INCHES BY MECHANICAL MEANS.

- MULCH SEEDED AREAS IMMEDIATELY AFTER SEEDING.
- FERTILIZER – USE DRY FORMULATIONS OF 10–10–10 ANALYSIS FOR SEEDED AREAS AND APPLY AT A RATE OF 100 LB PER 1000 SQ. YD. (500 LB PER ACRE).

PERMANENT SEEDING SPECIFICATIONS

SEED – UNLESS OTHERWISE SPECIFIED ON DRAWINGS, CONTRACTOR SHALL PROVIDE MODIFIED PADOT FORMULA "B" FOR ALL LAWN AREAS WITH SLOPES LESS THAN 3:1, AND FORMULA "L" FOR ALL SLOPE AREAS EQUAL TO OR STEEPER THAN 3:1. SEEDING QUALITY REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 804, TABLE A OF THE PADOT FORM 408, MOST CURRENT EDITION.

- MULCH – ALL MULCH SHALL BE AIR-DRIED AND REASONABLY FREE OF NOXIOUS WEEDS AND SEEDS, USE PEAT PROCESSED PINE OR HEMLOCK BARK, WELL ROTTED AND SEASONED, AS APPROVED. STRAW SHALL BE STALKS OF RYE, OATS OR WHEAT. STRAW SHALL BE SUITABLE FOR SPREADING WITH STANDARD MULCH BLOWER EQUIPMENT. APPLY AT A RATE OF 1200 POUNDS PER 1000 SQUARE YARDS. MULCH TO CONFORM TO REQUIREMENTS OF PADOT FORM 408, SECTION 805, MOST CURRENT EDITION.

- SEED MIXTURE – SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE VARIETIES FOLLOWING AND MIXED IN THE PROPORTIONS SPECIFIED.

- TOPSOIL MUST BE PLACED A MINIMUM OF 2" ON FILL OUTSLOPES AND A 4" MINIMUM ON ALL AREAS TO RECEIVE VEGETATIVE STABILIZATION IN ORDER TO ENSURE PROPER GROWTH.

PERMANENT SEED MIXTURE	% BY WEIGHT	MINIMUM PURITY	% GERMINATION	MAXIMUM WEED SEED	SEEDING RATE LBS./1000 SY
PADOT FORMULA B					42.0 TOTAL
PERENNIAL RYEGRASS MIXTURE (Lolium perenne)	20	97	90	0.10	8.5
CREEPIING RED FESCUE OR CHEWINGS FESCUE (Festuca rubra OR Festuca rubra spp commutata)	30	97	85	0.10	12.5
KENTUCKY BLUEGRASS MIXTURE (Poa pratensis)	50	97	80	0.15	21.0
PADOT FORMULA L (SLOPES STEEPER THAN 3:1)					48.0 TOTAL
HARD FESCUE MIXTURE (Festuca longifolia)	55	97	85	0.10	26.4
CREEPIING RED FESCUE (Festuca rubra)	35	97	85	0.10	16.8
ANNUAL RYEGRASS (Lolium Multiflorum)	10	95	90	0.10	4.8

- SOIL SUPPLEMENTS (PULVERIZED AGRICULTURAL LIMESTONE) SHALL BE APPLIED AT A RATE OF 800 POUNDS PER 1000 SQUARE YARDS OVER ALL SEEDED AREAS.

- ALL AREAS TO BE SEEDED SHALL BE LOOSENEED TO A DEPTH OF AT LEAST THREE INCHES BY MECHANICAL MEANS.

- MULCH AND LIME SEEDED AREAS IMMEDIATELY AFTER SEEDING.

- FERTILIZER – USE DRY FORMULATIONS OF 10–20–20 ANALYSIS, COMMERCIAL FERTILIZER SHALL BE APPLIED AT A RATE OF 140 LB/1000 SY FOR SEEDED AND SODDED AREAS. FERTILIZER TO CONFORM TO REQUIREMENTS OF PADOT FORM 408, SECTION 804, MOST CURRENT EDITION.

DOCUMENTATION OF BMP INSPECTION, REPAIR & REPLACEMENT

THE CONTRACTOR SHALL KEEP WRITTEN RECORDS DOCUMENTING THE INSPECTION, REPAIR AND REPLACEMENT OF ALL BMP'S AND SHALL PROVIDE COPIES TO THE OWNER AND DAUPHIN COUNTY CONSERVATION DISTRICT UPON REQUEST.

RECYCLING AND/OR DISPOSAL OF PROJECT WASTE

PROJECT CONSTRUCTION WASTES SHALL CONSIST OF UNSUITABLE MATERIAL FOR USE AS A FILL OR BACKFILL MATERIAL. SUCH MATERIAL SHALL CONSIST OF CLAY, ROCK, EXCESS MATERIAL, TRASH AND DEBRIS. ALL WASTE MATERIAL SHALL BE STOCKPILED AND PROPERLY STABILIZED UNTIL THE WASTE CAN BE PROPERLY RECYCLED OR DISPOSED OF OFF SITE AT A WASTE DISPOSAL SITE THAT HAS BEEN APPROVED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. OTHER WASTE ITEMS SUCH AS GLASS, PLASTIC, OR METALS MUST BE DISPOSED OF IN ACCORDANCE WITH ANY LOCAL RECYCLING PROGRAM. A CONCRETE WASHOUT FACILITY SHALL BE PROVIDED FOR THE CLEANING OF CHUTES, MIXERS AND HOPPERS OF DELIVERY TRUCKS.

RECEIVING WATERS OF THE COMMONWEALTH

WATERS OF THE COMMONWEALTH WHICH MAY RECEIVE RUNOFF FROM THE PROJECT INCLUDE BLACK RUN WHICH IS LISTED BY CHAPTER 93 AS WARM WATER FISHES (WWF).

PROJECT STORM WATER RUNOFF

- RECEIVING WATER – BLACK RUN
- WARM WATER FISHES – WWF

OFFSITE WASTE AND BORROW AREAS

OFFSITE WASTE AND BORROW AREAS SHALL REQUIRE AN INDIVIDUAL EROSION AND SEDIMENTATION CONTROL PLAN, AND SHALL BE APPROVED BY THE DAUPHIN COUNTY CONSERVATION DISTRICT.

CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE

THE NPDES PERMIT, WHERE THE EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN IS PART OF, COVERS THE "MOVING, DEPOSITING, STOCKPILING, OR STORING OF SOIL, ROCK OR EARTH MATERIALS". IF THIS PROJECT WILL NEED FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE CONTRACTOR. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, 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 OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL". CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREGGED 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.) 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 OF ENVIRONMENTAL PROTECTION'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. AS ALL CUT AND FILL MATERIALS FOR THIS PROJECT WILL BE USED ON SITE, A CLEAN FILL DETERMINATION IS NOT REQUIRED BY THE CONTRACTOR UNLESS THERE IS A BELIEF THAT A SPILL OR RELEASE OF A REGULATED SUBSTANCE HAS OCCURRED.

MAINTENANCE/OWNER'S RESPONSIBILITIES

- MAINTENANCE OF ALL PERMANENT STORM WATER AND EROSION AND SEDIMENTATION CONTROL FACILITIES BECOMES THE RESPONSIBILITY OF THE OWNER IN PERPETUITY UPON COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY OWNER, SUBJECT TO THE TERMS OF THE WARRANTY PERIOD SPECIFIED IN THE CONTRACT DOCUMENTS.

MEASURES PROVIDED TO AVOID/MINIMIZE/MITIGATE POTENTIAL THERMAL IMPACTS

RUNOFF FROM THE PROJECT SITE AREA WILL BE DIRECTED TOWARD PREDEVELOPMENT DISCHARGE LOCATIONS. THIS WILL MINIMIZE/MITIGATE THERMAL IMPACTS TO RECEIVING OFF SITE SURFACE WATERS. TREES AND SHRUBS ON SITE PROMOTE EVAPOTRANSPIRATION, WHICH HELPS FURTHER MITIGATE THERMAL IMPACTS.

WATER WILL BE STORED IN AN UNDERGROUND DETENTION/INFILTRATION SYSTEM, ALSO HELPING TO MINIMIZE THERMAL IMPACTS TO RECEIVING OFF SITE SURFACE WATERS.

GENERAL EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN

- MINIMIZE EXTENT AND DURATION OF EARTH DISTURBANCE
- MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
- MINIMIZE SOIL COMPACTION
- UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF

GEOLOGIC ASSESSMENT & FORMATIONS/SOIL CONDITIONS POTENTIAL TO CAUSE POLLUTION

THE SITE DOES NOT CONTAIN ANY GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT HAVE THE POTENTIAL TO CAUSE POLLUTION. IF DURING CONSTRUCTION AN AREA IS LOCATED AND/OR UNCOVERED THAT MAY CAUSE POLLUTION TO THE SITE THE MATERIAL WILL BE REMOVED, DISPOSED OR TREATED ACCORDING TO ALL STATE AND FEDERAL REGULATIONS. THE PROPOSED DETENTION FACILITY IS NOT UNDERLAIN BY CARBONATE GEOLOGY.

CRITICAL STAGES OF BMP INSTALLATION

THE CRITICAL STAGE OF THE PLAN WHERE A LICENSED PROFESSIONAL SHALL BE ON-SITE FOR INSPECTIONS IS THE INSTALLATION OF THE UNDERGROUND DETENTION/INFILTRATION SYSTEMS, INFILTRATION TRENCHES, AND THE INFILTRATION BASINS.

MAINTENANCE

- CONTRACTOR SHALL IMPLEMENT THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN IN ACCORDANCE WITH THE DRAWINGS.
- ALL EROSION AND SEDIMENTATION CONTROL BMP'S SHALL BE INSPECTED ON A WEEKLY BASIS AND FOLLOWING PRECIPITATION EVENTS. ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
 - ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED. ANY PERMANENTLY SEEDED AREAS THAT BECOME ERODED WILL HAVE THE TOPSOIL REPLACED, THE EROSION CONTROL MATTING REPLACED (IF APPLICABLE), THE GRASS RESOWN, AND MULCH REAPPLIED.
 - COMPOST FILTER SOCKS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE COMPOST FILTER SOCKS WHEN IT REACHES ONE-HALF THE HEIGHT OF THE COMPOST FILTER SOCKS.
 - THE ROCK CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCE AS CONDITIONS DEMAND.
 - THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AND STORAGE AREA AS CONDITIONS DEMAND.
 - ALL NECESSARY REPAIRS AND/OR REPLACEMENT TO EROSION AND SEDIMENTATION CONTROL BMP'S SHALL BE MADE IMMEDIATELY AFTER THE INSPECTION WHICH IDENTIFIED THE DEFICIENCY. IN NO INSTANCE SHALL THE REPAIR AND/OR REPLACEMENT OF A BMP EXTEND BEYOND 24 HOURS FROM THE TIME OF THE INSPECTION WHICH IDENTIFIED THE DEFICIENCY.
- AT NO TIME WILL SEDIMENT BE ALLOWED TO LEAVE THE SITE AND ENTER COMMONWEALTH WATERS.
- A COPY OF THIS PLAN MUST BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE TERM OF THE PROJECT.
- THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF CHAPTER 102 OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (AS AUTHORIZED UNDER THE CLEAN STREAMS LAW). IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS, PLUS ADDITIONAL PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT WILL FURTHER BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION AND SEDIMENT CONTROL FACILITIES SO THAT THEY PERFORM AS REQUIRED BY APPLICABLE LAW.
- FINES AND RELATED COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO PROVIDE ADEQUATE PROTECTION AGAINST SOIL EROSION AND FOR ANY VIOLATIONS OF THE CLEAN STREAMS LAW AND THE RULES AND REGULATIONS PROMULGATED THEREUNDER SHALL BE BORNE BY THE CONTRACTOR.

EROSION AND SEDIMENTATION CONTROL MAINTENANCE SCHEDULE

CONTROL MEASURE	INSPECT	PROBLEMS TO LOOK FOR	POSSIBLE REMEDIES
VEGETATION	ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	SEDIMENT AT TOE OF SLOPE	CHECK FOR TOP-OF-SLOPE DIVERSION AND INSTALL IF NEEDED
		RILLS AND GULLIES FORMING	FILL RILLS AND REGRADE GULLIED SLOPES
		BARE SOIL PATCHES	RESEED, FERTILIZE AND MULCH BARE AREAS
ROCK CONSTRUCTION ENTRANCE/EXIT	DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	SINK HOLES OR RUTS	ADD ROCK TO BRING TO SPECIFIED DIMENSIONS
		SEDIMENT ON PUBLIC AND PRIVATE ROADWAYS	SWEEP MATERIAL BACK TO PROJECT SITE. DO NOT WASH ROADWAY WITH WATER.
SILT SACK INLET PROTECTION	ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	SEDIMENT ACCUMULATION	REMOVE SEDIMENT AND DISPOSE ON SITE
		RUNOFF ESCAPING AROUND INLET	REMOVE SEDIMENT AND DISPOSE ON SITE
		RUNOFF ESCAPING THROUGH OPEN THROAT OF PADOT TYPE "C" TOP	PLACE ADDITIONAL SAND BAGS, WEIGHTED SEDIMENT FILTER TUBE, OR SEDIMENT LOGS TO DIRECT RUNOFF INTO THE OPEN GRATE
COMPOST FILTER SOCK	ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	UNDERCUTTING OF SOCK	ADD SECTION OF SOCK
		SOCK COLLAPSING	REPLACE WITH PYRAMID OF SOCKS
		TORN SOCK	REPLACE WITH CONTINUOUS NEW SOCK FROM POST TO POST. SECURELY ANCHOR WITH PROPER STAPLES
		RUNOFF ESCAPING AROUND INLET	EXTEND SOCK
		SEDIMENT LEVEL NEAR TOP OF SOCK	REMOVE SEDIMENT WHEN LEVEL REACHES HALF OF ITS HEIGHT
EROSION CONTROL BLANKET	ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	TORN OR COMPROMISED BLANKET	REPLACE WITH A NEW PIECE OF EROSION CONTROL BLANKET AND RESEED AND MULCH IF NEEDED
		RILLS AND GULLIES FORMING UNDER BLANKET	FILL RILLS AND REGRADE GULLIED SLOPES. REPLACE EROSION CONTROL BLANKET AFTER CORRECTION
PUMPED WATER FILTER BAG	DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	FILTER BAG FULL OF SEDIMENT	REPLACE FILTER BAG WITH A NEW PUMPED WATER FILTER BAG. A REPLACEMENT FILTER BAG SHOULD BE AVAILABLE ON SITE AT ALL TIMES
		TORN OR DAMAGED FILTER BAG	REPLACE FILTER BAG WITH A NEW PUMPED WATER FILTER BAG. A REPLACEMENT FILTER BAG SHOULD BE AVAILABLE ON SITE AT ALL TIMES
		RUNOFF FROM FILTER BAG CREATING EROSION	PLACE FILTER BAG IN A STABILIZED AREA TO PREVENT ADDITIONAL EROSION FORMING FROM DISCHARGE LOCATION
CONCRETE WASHOUT	DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	DAMAGED OR LEAKING WASHOUTS	CONCRETE WASHOUT SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY
		CONCRETE WASHOUT FULL OF MATERIAL	MATERIALS INSIDE CONCRETE WASHOUT SHALL BE REMOVED WHEN 75% OF CAPACITY IS REACHED
		PLASTIC LINER TORN	PLASTIC LINERS SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY
RIPRAP APRONS	ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	SINK HOLES OR RUTS	ADD ROCK TO BRING TO SPECIFIED DIMENSIONS
		RIPRAP MOVING FROM ORIGINAL LOCATION	
		RUNOFF ESCAPING AROUND RIPRAP	ADD ROCK AND EXTEND TO AVOID RUNOFF ESCAPING AROUND RIPRAP

NOTE: INSPECTIONS BY CONTRACTOR MUST BE LOGGED ONTO DEP FORM 3800-FM-BCW0271d DATED 5/2018 AND KEPT ON SITE AT ALL TIMES



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THE TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS

SOIL TYPES

THE SOILS ON THE SITE AS DETERMINED BY THE USDA-SCS SOIL SURVEY OF DAUPHIN COUNTY, PENNSYLVANIA, CONSIST OF THE FOLLOWING TYPES. REFER TO THE ATTACHED SOILS INFORMATION IN APPENDIX B.

SOIL TYPE SOIL DESCRIPTION

At ATKINS SILT LOAM, 0 TO 3 PERCENT SLOPES. THE SOIL IS ON FLOOD PLAINS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY LOW. DEPTH TO ROOT RESTRICTIVE LAYER, BEDROCK, OR LITHIC IS 60 TO 99 INCHES. THIS SOIL HAS A SLIGHT HAZARD OF EROSION AND SURFACE RUNOFF VERY HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS MODERATE. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS FREQUENTLY FLOODED. IT IS NOT PONDED. SEASONAL WATER SATURATION IS AT A DEPTH OF 6 INCHES FROM NOVEMBER THROUGH JUNE. THIS SOIL BELONGS TO HYDROLOGIC GROUP B/D. THIS SOIL DOES MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE AND STEEL, FLOODING, HIGH SEASONAL WATER TABLE, HYDRIC INCLUSIONS, SLOW PERCOLATION RATES, LANDSLIDE PRONE, SOIL PIPING, FROST POTENTIAL, AND POOR SOURCE OF TOPSOIL, AND SOIL WETNESS.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

Bk82 BERKS SHALY LOAM, 3 TO 8 PERCENT SLOPES. THIS SOIL IS ON SHALE HILLSLOPES. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. DEPTH TO ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC IS 20 TO 40 INCHES. THIS SOIL HAS A SLIGHT HAZARD OF EROSION AND SURFACE RUNOFF IS LOW. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS VERY LOW. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED OR PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. THIS SOIL BELONGS TO HYDROLOGIC GROUP B. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE, DROUGHTY, EASILY ERODIBLE, HYDRIC INCLUSIONS, SLOW PERCOLATION, SOIL PIPING, AND A POOR SOURCE OF TOPSOIL.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

BhC2 BERKS CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES. THIS SOIL IS ON RIDGES ON HILLS AND MOUNTAIN SLOPES ON MOUNTAINS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY LOW. DEPTH TO ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC IS 20 TO 40 INCHES. THIS SOIL HAS A SLIGHT HAZARD OF EROSION AND SURFACE RUNOFF IS MEDIUM. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS VERY LOW. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED OR PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. THIS SOIL BELONGS TO HYDROLOGIC GROUP B. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE, DROUGHTY, EASILY ERODIBLE, HYDRIC INCLUSIONS, SLOW PERCOLATION, SOIL PIPING, AND A POOR SOURCE OF TOPSOIL.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

BkD2 BERKS CHANNERY LOAM, 15 TO 25 PERCENT SLOPES. THIS SOIL IS ON RIDGES ON HILLS AND MOUNTAIN SLOPES ON MOUNTAINS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY LOW. DEPTH TO ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC IS 20 TO 40 INCHES. THIS SOIL HAS A MODERATE HAZARD OF EROSION AND SURFACE RUNOFF IS MEDIUM. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS VERY LOW. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED OR PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. THIS SOIL BELONGS TO HYDROLOGIC GROUP B. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE, DROUGHTY, EASILY ERODIBLE, HYDRIC INCLUSIONS, SLOW PERCOLATION, SOIL PIPING, AND A POOR SOURCE OF TOPSOIL.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

SOIL TYPE SOIL DESCRIPTION

BH2 BRINKERTON AND ARMAGH SILT LOAMS, 3 TO 8 PERCENT SLOPES. THE SOIL IS ON DEPRESSIONS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY LOW. DEPTH TO ROOT RESTRICTIVE LAYER, FRAGIPAN, BEDROCK, LITHIC IS 11 TO 72 INCHES. THIS SOIL HAS A SLIGHT HAZARD OF EROSION AND SURFACE RUNOFF VERY HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS MODERATE. SHRINK SWELL POTENTIAL IS MODERATE. THIS SOIL IS NOT FLOODED OR PONDED. SEASONAL WATER SATURATION IS AT A DEPTH OF 3 INCHES FROM OCTOBER THROUGH JUNE. THIS SOIL BELONGS TO HYDROLOGIC GROUP C/D. THIS SOIL DOES MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE AND STEEL, DROUGHTY, EASILY ERODIBLE, HIGH SEASONAL WATER TABLE, HYDRIC INCLUSIONS, SLOW PERCOLATION RATES, LANDSLIDE PRONE, SOIL PIPING, FROST POTENTIAL, SHRINK-SWELL POTENTIAL, POOR SOURCE OF TOPSOIL, AND SOIL WETNESS.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

CoB2 COMLY SILT LOAM, 2 TO 8 PERCENT SLOPES. THIS SOIL IS ON HILLS AND VALLEYS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. DEPTH TO ROOT RESTRICTIVE LAYER, FRAGIPAN IS 20 TO 35 INCHES. THIS SOIL HAS A SLIGHT HAZARD OF EROSION AND SURFACE RUNOFF IS MEDIUM. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS LOW. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED OR PONDED. A SEASONAL ZONE OF WATER SATURATION IS 24 INCHES FROM NOVEMBER THROUGH MARCH. THIS SOIL BELONGS TO HYDROLOGIC GROUP C. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE AND STEEL, DROUGHTY, EASILY ERODIBLE, HIGH WATER TABLE, HYDRIC INCLUSIONS, SOIL PIPING, FROST POTENTIAL, AND A POOR SOURCE OF TOPSOIL.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

Ph PHILO SILT LOAM, 0 TO 2 PERCENT SLOPES. THIS SOIL IS ON FLOOD PLAINS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. DEPTH TO ROOT RESTRICTIVE LAYER IS GREATER THAN 60 INCHES. THIS SOIL HAS A SLIGHT HAZARD OF EROSION AND SURFACE RUNOFF IS MEDIUM. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS MODERATE. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS OCCASIONALLY FLOODED. IT IS NOT PONDED. A SEASONAL ZONE OF WATER SATURATION IS 21 INCHES FROM DECEMBER THROUGH APRIL. THIS SOIL BELONGS TO HYDROLOGIC GROUP B/D. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE AND STEEL, EASILY ERODIBLE, FLOODING, HIGH WATER TABLE, HYDRIC INCLUSIONS, LANDSLIDE PRONE, SLOW PERCOLATION, SOIL PIPING, FROST POTENTIAL, POOR SOURCE OF TOPSOIL, AND SOIL WETNESS.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

WeE2 WEIKERT SHALY SILT LOAM, 25 TO 50 PERCENT SLOPES. THIS SOIL IS ON HILLS. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS HIGH. DEPTH TO ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC IS 10 TO 20 INCHES. THIS SOIL HAS A SEVERE HAZARD OF EROSION AND SURFACE RUNOFF IS MEDIUM. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS HIGH. SHRINK SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED OR PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. THIS SOIL BELONGS TO HYDROLOGIC GROUP D. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

LIMITATIONS INCLUDE THE POTENTIAL OF CAVE-IN OF CUTBANKS, CORROSIVE TO CONCRETE AND STEEL, DROUGHTY, LANDSLIDE PRONE, HYDRIC INCLUSIONS, SLOW PERCOLATION, SOIL PIPING, FROST POTENTIAL, AND A POOR SOURCE OF TOPSOIL.

CONSTRUCTION TECHNIQUES INCLUDE THE USE OF LADDERS IN EXCAVATION, TRENCH BOXES, AND EXCAVATIONS WITH SLOPES NOT CONDUICIVE TO CAVE-INS. PROTECTION SHALL BE USED AROUND CONCRETE TO PREVENT CORROSION. CARE SHOULD BE TAKEN TO STABILIZE SOILS AND PROVIDE SUFFICIENT EROSION AND SEDIMENTATION MEASURE SINCE THE SOILS ARE LANDSLIDE PRONE. SLOW PERCOLATION RATES MAY CAUSE WET SATURATED SOILS AND SOIL PIPING, USE CAUTION WHILE MOVING EQUIPMENT AROUND IN SATURATED SOILS. SOIL SHALL BE PROTECTED FROM THE ELEMENTS TO PREVENT FROST ACTION POTENTIAL. TOPSOIL SHOULD BE IMPORTED INTO THE SITE. CARE SHOULD BE TAKEN TO ENSURE SOIL IS AT PROPER MOISTURE CONTENT FOR COMPACTION.

SYMBOL AND ABBREVIATION SCHEDULE

AC ACRE	EX EXISTING	REINF REINFORCEMENT
AC AIR CONDITIONER	FD FLOOR DRAIN	RCP REINFORCED CONCRETE PIPE
AASHTO AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS	FFE FINISH FLOOR ELEVATION	R/W RIGHT-OF-WAY
ACI AMERICAN CONCRETE TRANSPORTATION OFFICIALS	FM FIRE METER	SCH SCHEDULE
ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS	GM GAS METER	SEC SECTION
◎ AT	GV GAS VALVE	SEG SEGMENT
ℓ BASELINE	HP HIGH POINT	SCLPPP SMOOTH LINED CORRUGATED PLASTIC PIPE
BC BOTTOM OF CURB	HORIZ HORIZONTAL	STA STATION
BW BOTTOM OF WALL	INC INCORPORATED	SR STATE ROUTE
BY/4" BROKEN YELLOW PAVEMENT LINE/WIDTH	INV INVERT	ST STREET
BLDG BUILDING	LP LIGHT POLE	SRL SKID RESISTANCE LEVEL
℄ CENTERLINE	MH MANHOLE	S SOUTH
CC C/C CENTER TO CENTER	MAX MAXIMUM	SF SQUARE FEET
CLR CLEAR	MIN MINIMUM	SY SQUARE YARD
CONC CONCRETE	MPH MILES PER HOUR	TC TOP OF CURB
CONSTR CONSTRUCTION	N NORTH	TW TOP OF WALL
CMP CORRUGATED METAL PIPE	NPDES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	XF TRANSFORMER
CPP CORRUGATED POLYETHYLENE PIPE	No/# NUMBER	TYP TYPICAL
DIA DIAMETER	PM PARKING METER	WM WATER METER
DI DUCTILE IRON	OC ON CENTER	WV WATER VALVE
EOB EDGE OF BERM	PADOT PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	WWF WELDED WIRE FABRIC
EOP EDGE OF PAVEMENT	PERF PERFORATED	W/4" WHITE PAVEMENT LINE/WIDTH
ELEC ELECTRIC	PE POLYETHYLENE	
EMH ELECTRIC MANHOLE	PUB PUBLICATION	
EM ELECTRIC METER	PSI POUNDS PER SQUARE INCH	
EL/ELEV ELEVATION	PP POWER POLE	
EQ EQUAL	PVC POLYVINYL CHLORIDE	
	℔ PROPERTY LINE	
	R RADIUS	

LEGEND

	<u>EXISTING</u>		<u>PROPOSED</u>
—W—	WATERLINE	—W—	WATERLINE
—G—	GAS LINE	—G—	GAS LINE
—SS—	SANITARY SEWER	—SS—	SANITARY SEWER
—ST—	STORM SEWER	—ST—	STORM SEWER
—STE—	STEAM LINE	—STE—	STEAM LINE
-----EU-----	UNDERGROUND ELEC TELE CABLE	-----EU-----	UNDERGROUND ELEC TELE CABLE
-----TU-----	UNDERGROUND TELEPHONE	-----TU-----	UNDERGROUND TELEPHONE
---CTV---	UNDERGROUND CABLE	---CTV---	UNDERGROUND CABLE
—E—	OVERHEAD ELECTRIC	---FO/COM---	FIBER OPTICS/COMMUNICATIONS
—T—	OVERHEAD TELEPHONE	—E—	OVERHEAD ELECTRIC
—CTV—	OVERHEAD CABLE	—T—	OVERHEAD TELEPHONE
—OHW—	OVERHEAD WIRES	—CTV—	OVERHEAD CABLE
—C—	CONDUIT	—C—	CONDUIT
---FO/COM---	FIBER OPTICS / COMMUNICATIONS	●FH	FIRE HYDRANT
☉FH	FIRE HYDRANT	PP●	POWER POLE
PP○	POWER POLE	SL ✖	STREET LIGHT
⊖	SIGN (EXISTING)	▲	SIGN
		—X—X—X—	FENCE
		(OO)	NUMBER OF PARKING SPACES
		●DS	NEW CAST IRON DOWNSPOUT BOOT
		⊙	AREA DRAIN
		⊗	CONNECT TO EXISTING



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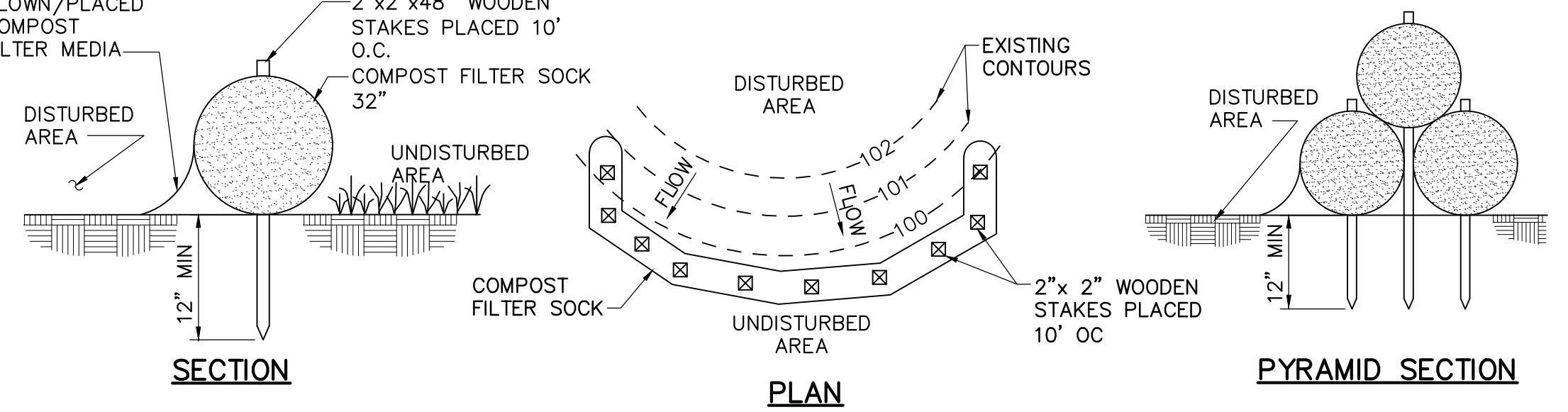
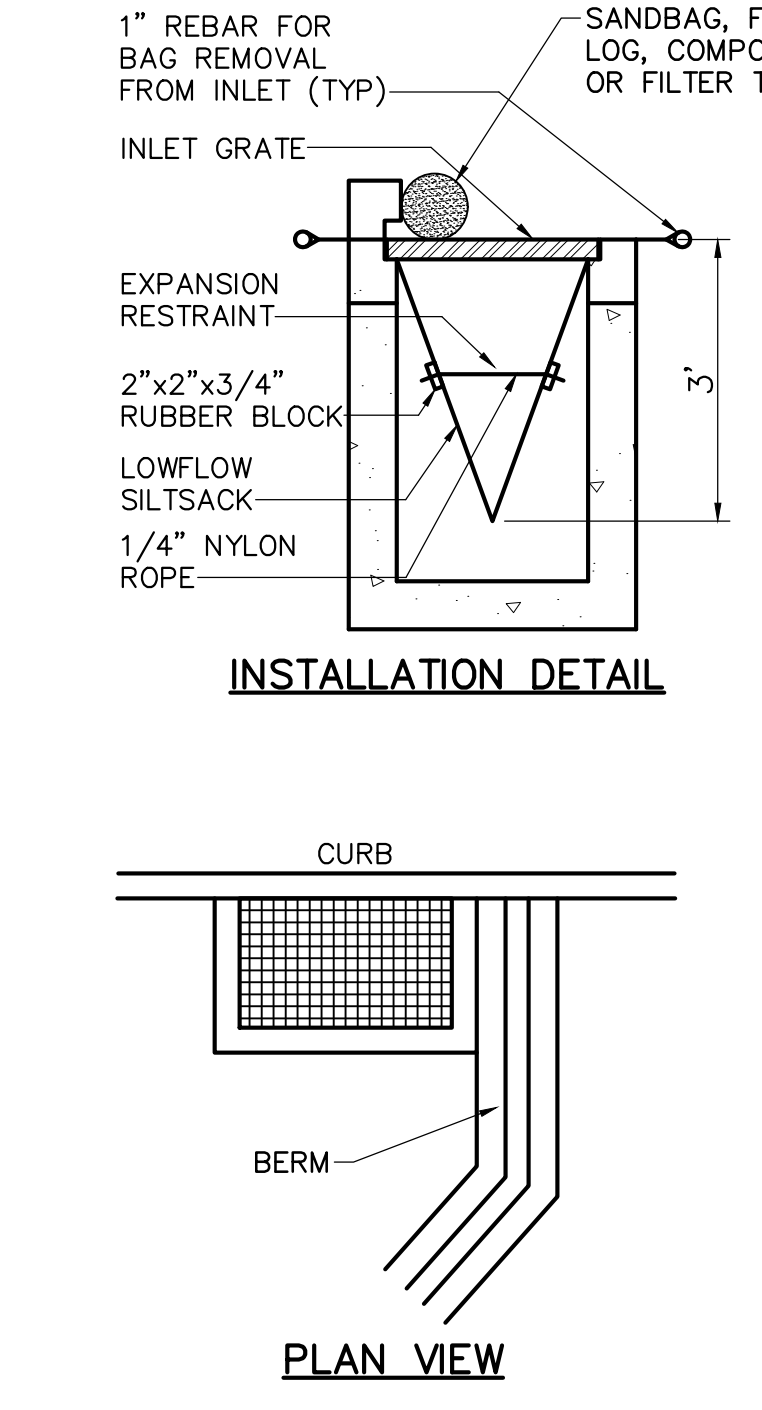
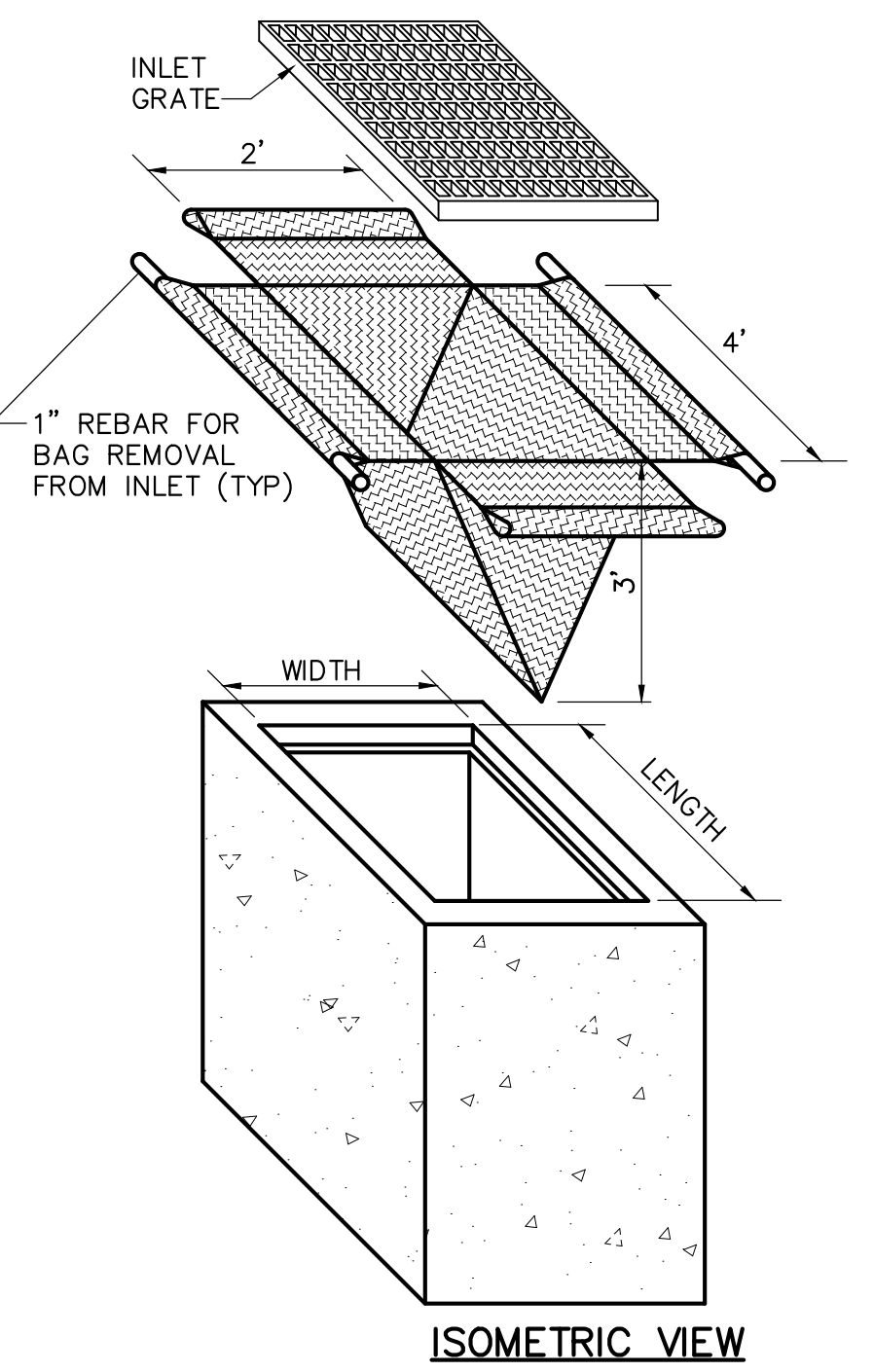
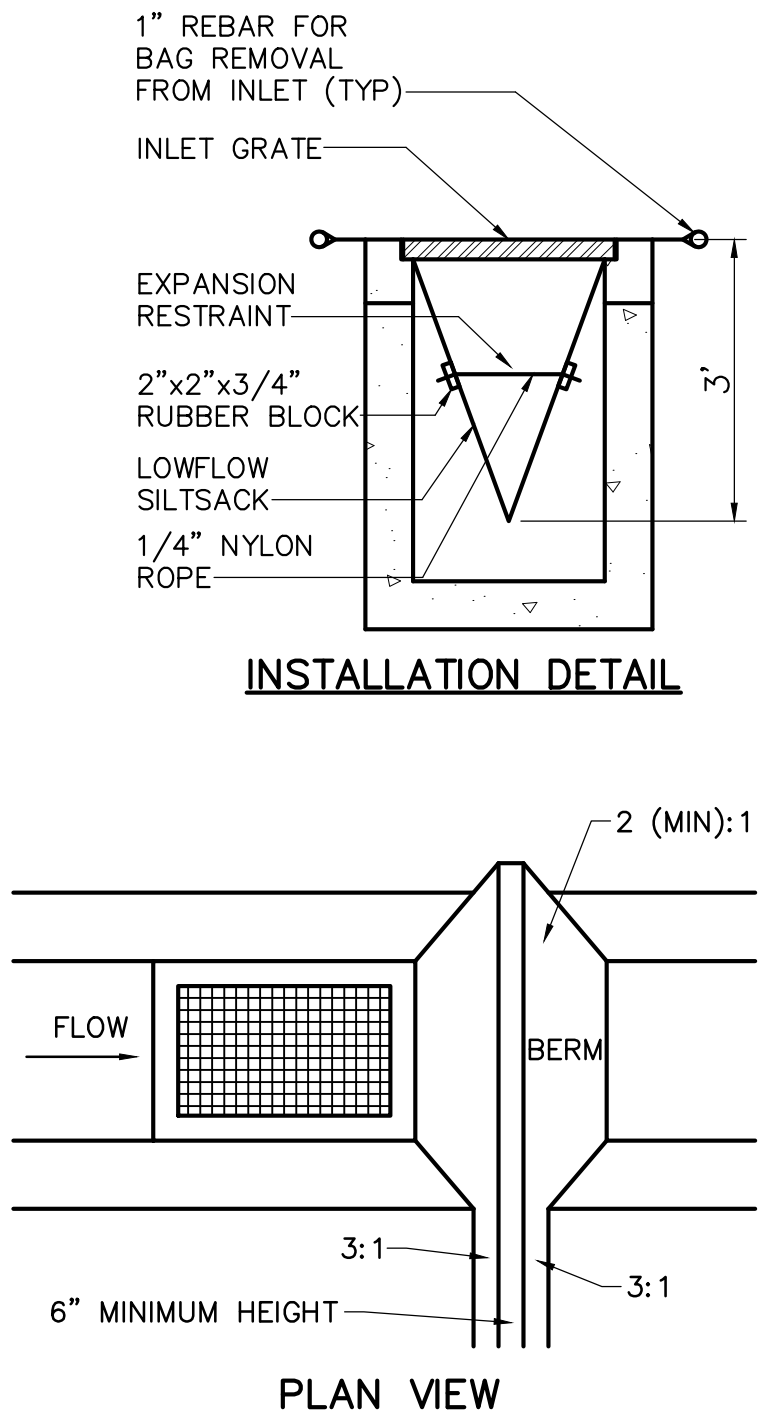
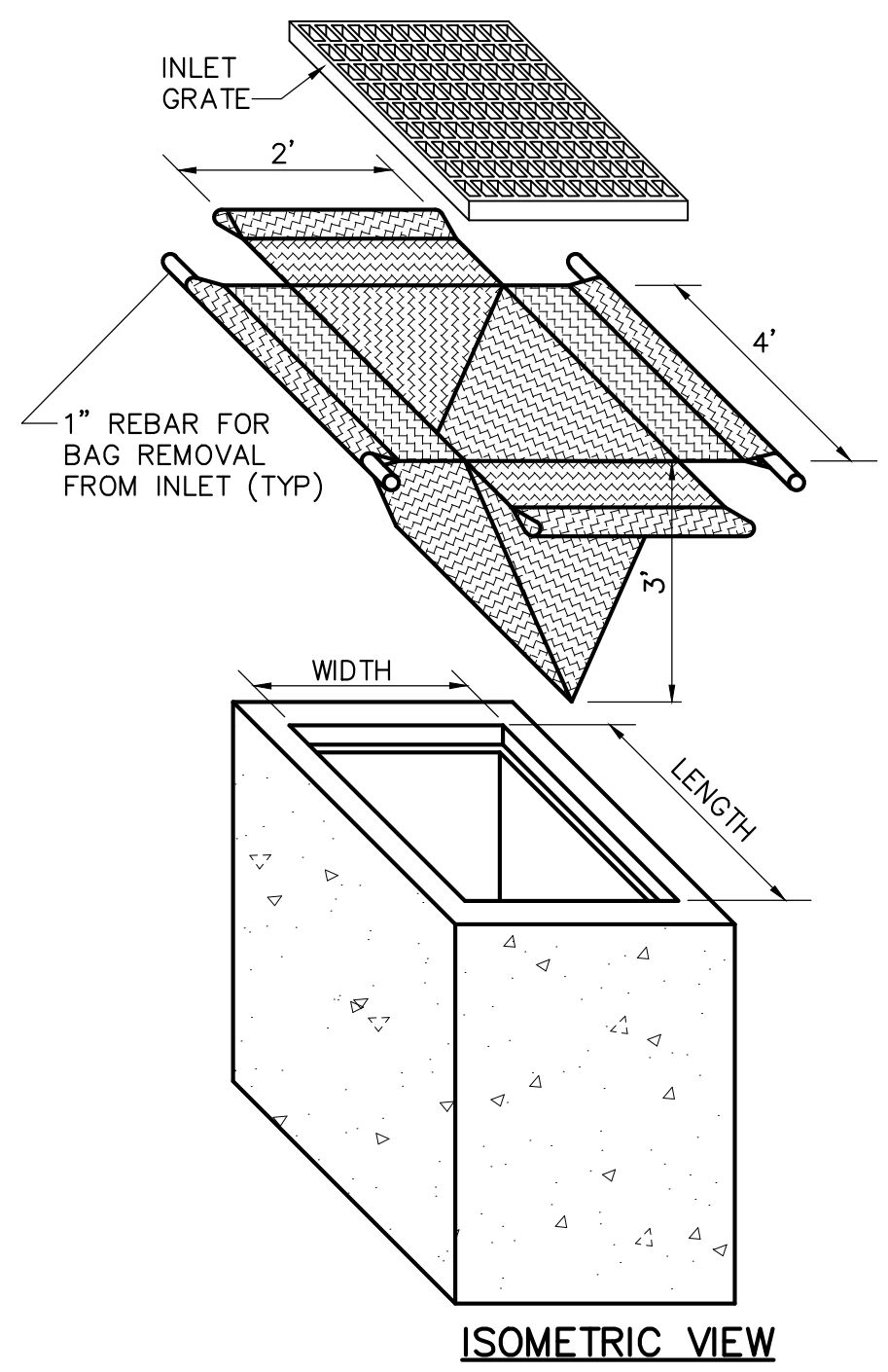
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Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

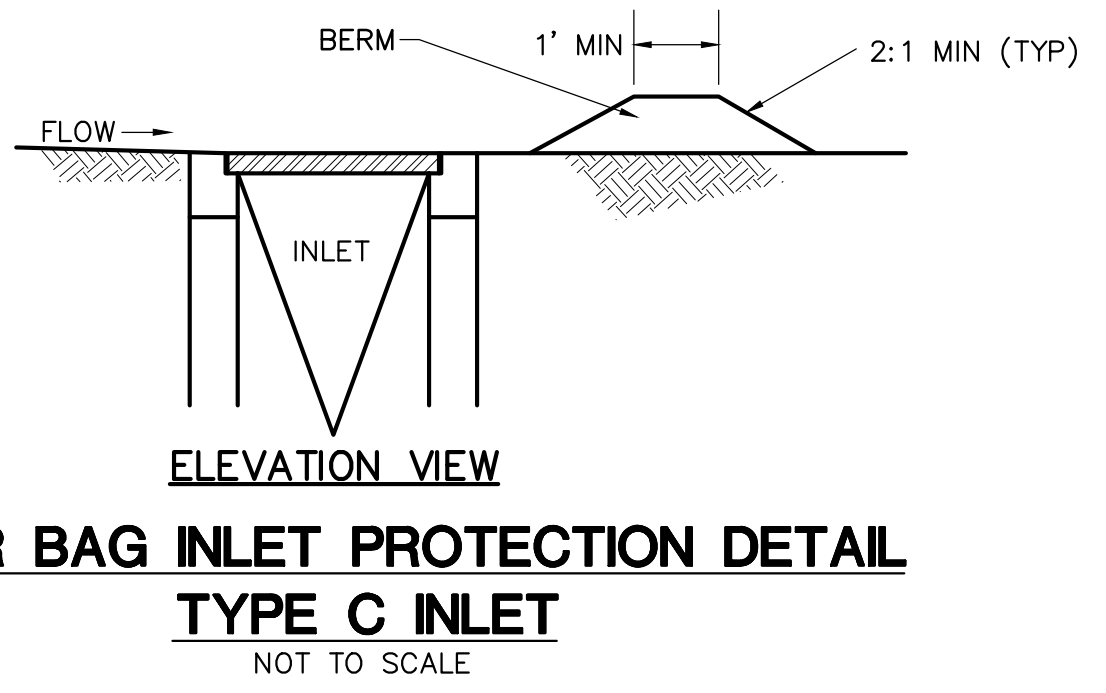
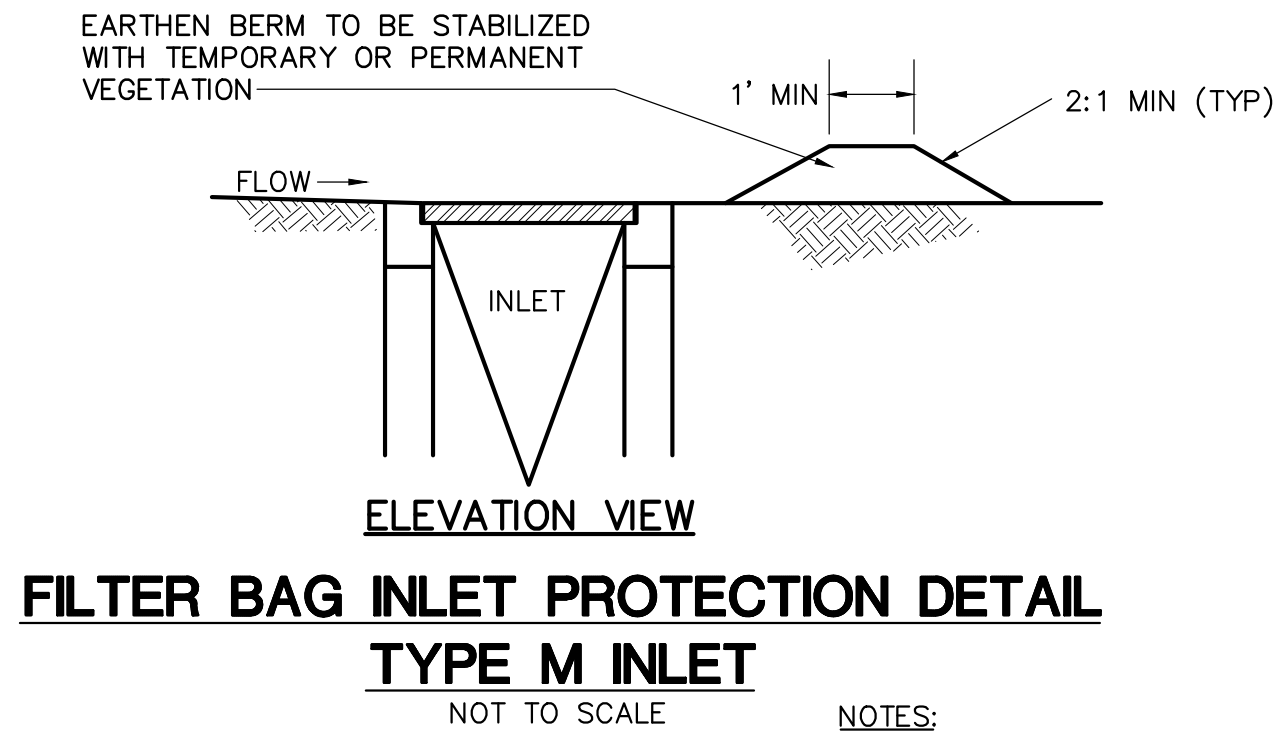
ES302

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- NOTES:**
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
 - COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF FILTER SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
 - TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN
 - 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 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 AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
 - STAKES SPACED AT 10' MAXIMUM. USE 2"x 2" WOOD OR EQUIVALENT STEEL STAKES.

COMPOST FILTER SOCK
NOT TO SCALE



- 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 ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
 - 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.

TABLE 4.1
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HOPE	5 mil HOPE	5 mil HOPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-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

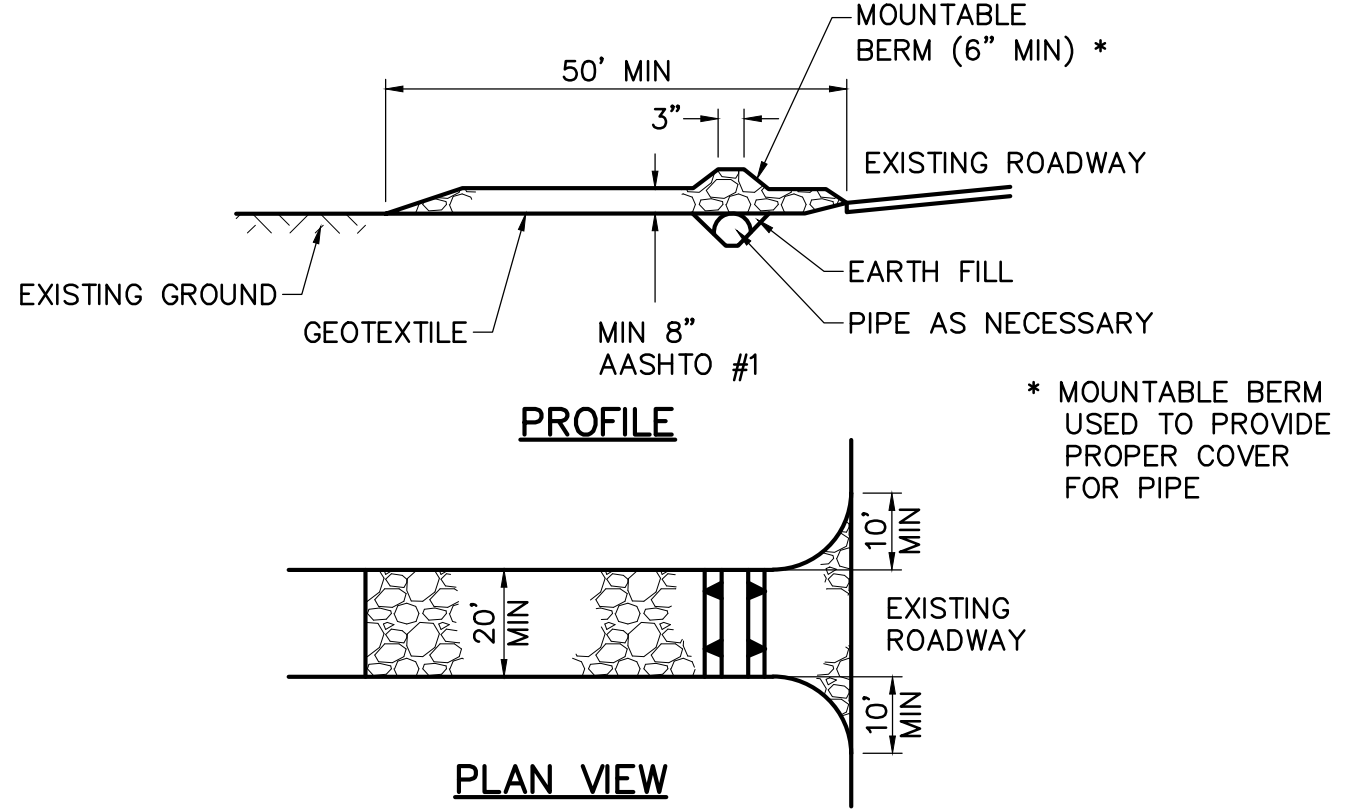
TWO-PLY SYSTEMS

INNER CONTAINMENT NETTING	HOPE BIAXIAL NET CONTINUOUSLY WOUND FUSION-WELDED JUNCTURES 3/4" X 3/4" MAX. APERTURE SIZE
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE

SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.

TABLE 4.2
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



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 WHERE 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 ROADWAY 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



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Nature leads, art follows.



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Susquehanna Township, Dauphin County, PA

Project Number:
18030:1
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
April 5, 2019

Revisions:
1. 06/07/19 Rev per Twp Comments

Scale:
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Sheet Name:

Erosion & Sedimentation Control Details

Submission:
Final Land Development Plan - Phase IIA, IIC, IIE, IIIB & V

Sheet Number:

ES303

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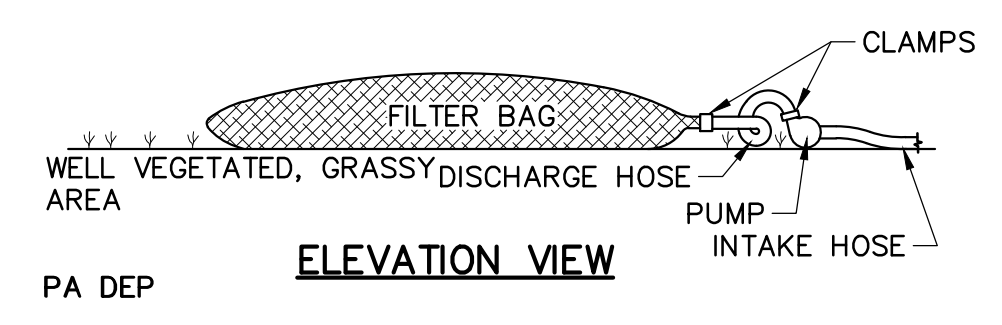
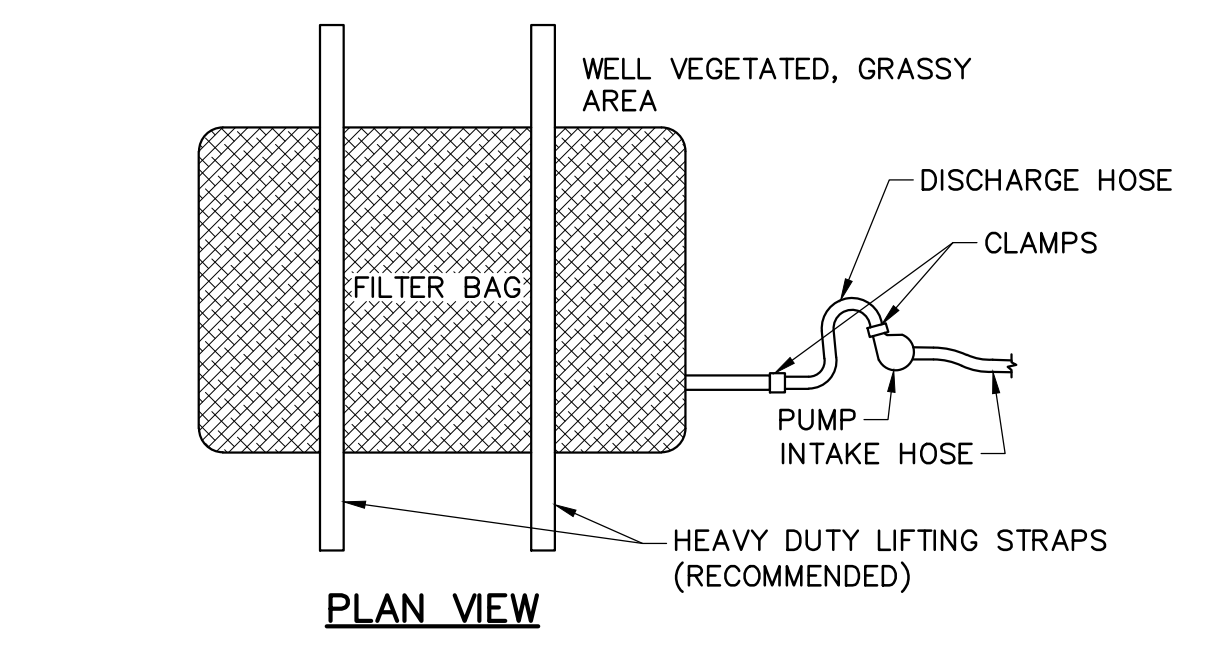
Erosion & Sedimentation Control Details

Submission:
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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-4833	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 1/3 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.

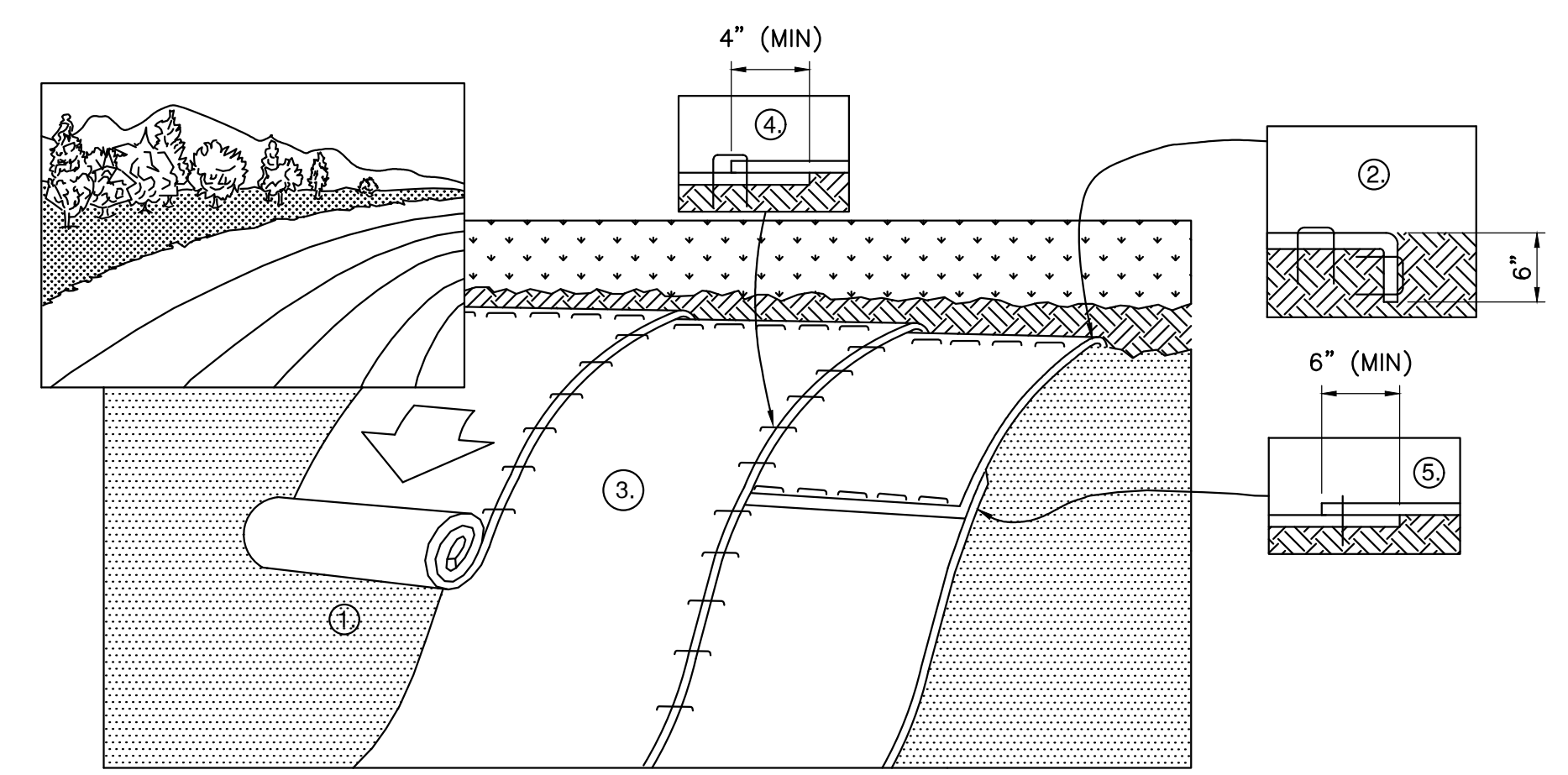
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

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 1/3 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.

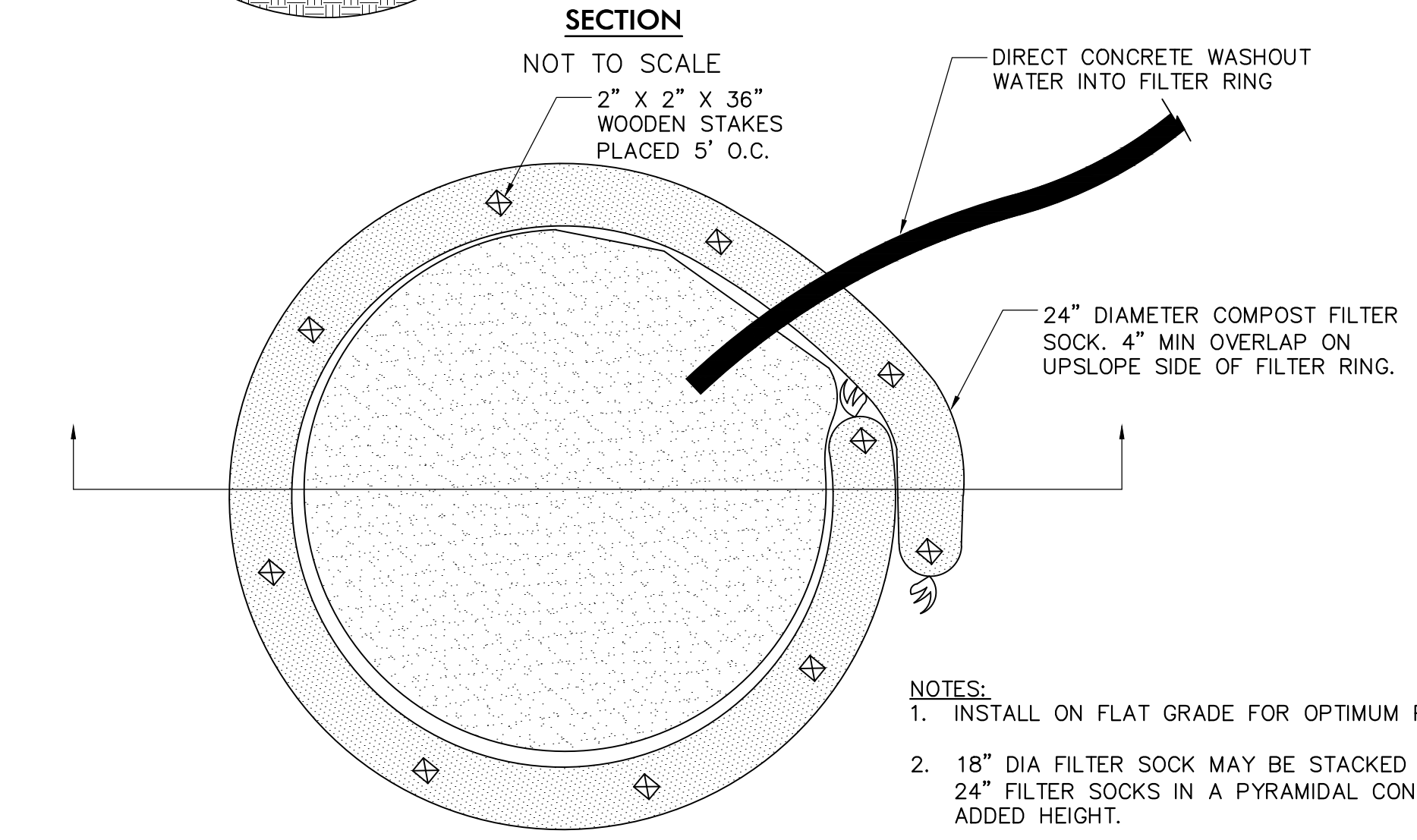
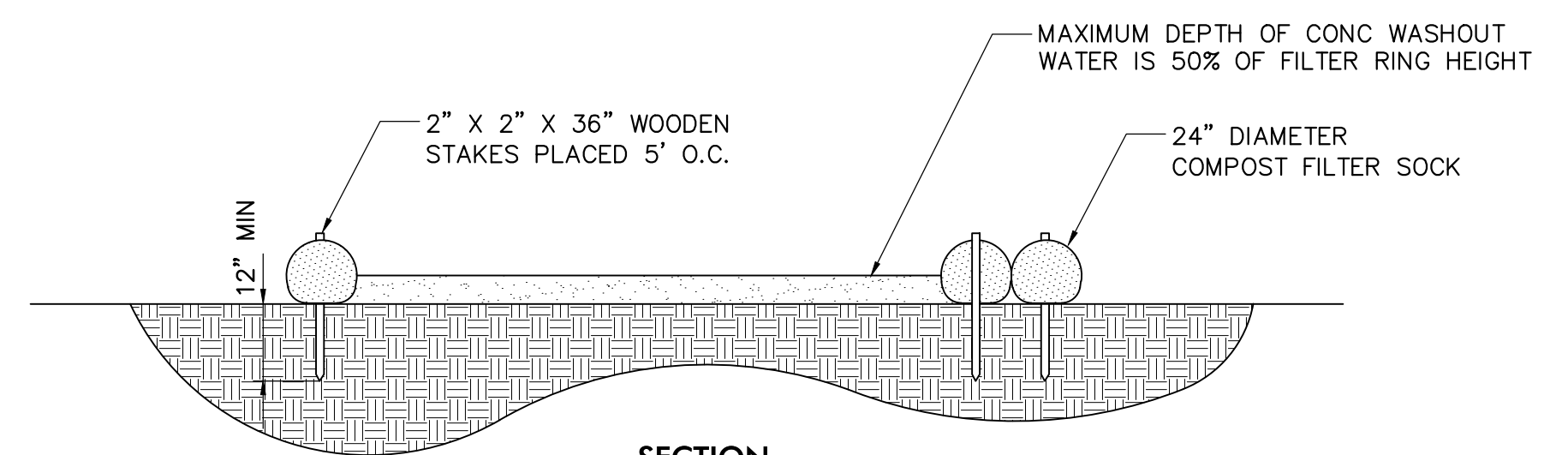
FILTER BAG DETAIL FOR PUMPED WATER
NOT TO SCALE



1. PREPARE SOIL (SEED BED) BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF SLOPE. ROLL BLANKETS IN DIRECTION OF WATER FLOW. INSTALL BEGINNING OF ROLL IN 6"x6" ANCHOR TRENCH, STAPLE, BACKFILL, AND COMPACT SOIL.
3. ROLL THE BLANKETS DOWN THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURER'S RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 4" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN MINIMUM 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, REFER TO MANUFACTURER RECOMMENDATION FOR STAPLE PATTERN ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE LENGTH OF SLOPE AND STEEPNESS BEING BLANKETED. THE BLANKET SHOULD NOT BE STRETCHED; IT MUST MAINTAIN GOOD SOIL CONTACT.

- NOTES:**
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
 2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION
 3. SEED FILL SLOPES IN 15 FOOT INCREMENTS AS EMBANKMENT HEIGHT INCREASES.
 4. EROSION CONTROL BLANKETS SHOULD BE USED ON ALL CUT AND FILL SLOPES 3:1 OR GREATER.
 5. THE EROSION CONTROL BLANKET SHALL BE S75 AS MANUFACTURES BY NORTH AMERICAN GREEN OR APPROVED EQUAL.
 6. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKETS.
 7. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
 8. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
 9. 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.
 10. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 11. 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.

EROSION CONTROL BLANKET DETAIL (SLOPE INSTALLATION)
NOT TO SCALE



- NOTES:**
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
 2. 18" DIA FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" FILTER SOCKS IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
 3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF WASHOUT PRIOR TO INSTALLING THE FILTER SOCKS.

TYPICAL COMPOST SOCK WASHOUT INSTALLATION
NOT TO SCALE