

PHASE III FINAL LAND DEVELOPMENT PLANS

FOR SUSQUEHANNA UNION GREEN

SUSQUEHANNA TOWNSHIP DAUPHIN COUNTY, PENNSYLVANIA

JULY 9, 2021

PREPARED BY:

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF DAUPHIN

ON THIS THE _____ DAY OF _____, 2020 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)

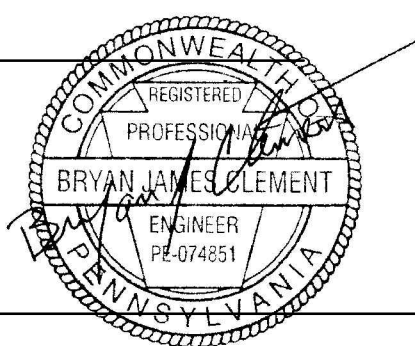
IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT
ALL STORMWATER BMPs ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT PRIOR APPROVAL BY
SUSQUEHANNA TOWNSHIP.

OWNER(S) _____

ENGINEER CERTIFICATION

I HEREBY CERTIFY THIS PLAN TO BE CORRECT AS SHOWN.

(ENGINEER'S SIGNATURE AND SEAL)



SURVEYOR CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, THE SURVEY AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE
AND CORRECT TO THE ACCURACY REQUIRED BY THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT
ORDINANCE.

(SURVEYOR'S SIGNATURE AND SEAL)

STORMWATER MANAGEMENT CERTIFICATION

I, BRYAN CLEMENT, 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 _____, 2021

CHAIRMAN _____

SECRETARY _____

SUSQUEHANNA TOWNSHIP ENGINEER REVIEW STATEMENT

THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER
THIS _____ DAY OF _____, 2021

TOWNSHIP ENGINEER _____

SUSQUEHANNA TOWNSHIP PLANNING COMMISSION APPROVAL STATEMENT

THIS PLAN RECOMMENDED FOR APPROVAL BY THE SUSQUEHANNA
TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF _____, 2021

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 _____, 2021

PRESIDENT _____

SECRETARY _____

RECORDING STATEMENT

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR DAUPHIN COUNTY
THIS _____ DAY OF _____, 2021

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



95 South Tenth Street
Pittsburgh, Pennsylvania 15203
tel 412.488.8822
fax 412.488.8825

Nature leads, art follows.

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	37.8% X 36.24 AC. = 13.70 AC.	2.9 AC. MIN. (NO MAX.)
MULTI-FAMILY	62.2% X 36.24 AC. = 22.54 AC.	

MAXIMUM DWELLING UNITS PER GROSS ACRE		
SINGLE-FAMILY DETACHED	24% OF SITE OR 40 UNITS	5% MINIMUM / 10.2 AC. X 9 UNITS/AC. = 92 UNITS
MULTI-FAMILY	35% OF SITE	5% MINIMUM / 40% MAXIMUM
PHASE III MULTI-FAMILY	120 UNITS	
PHASE IV MULTI-FAMILY	240 UNITS (FUTURE)	

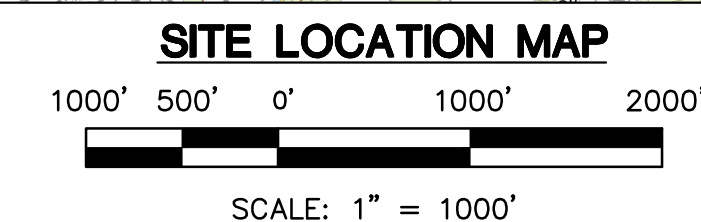
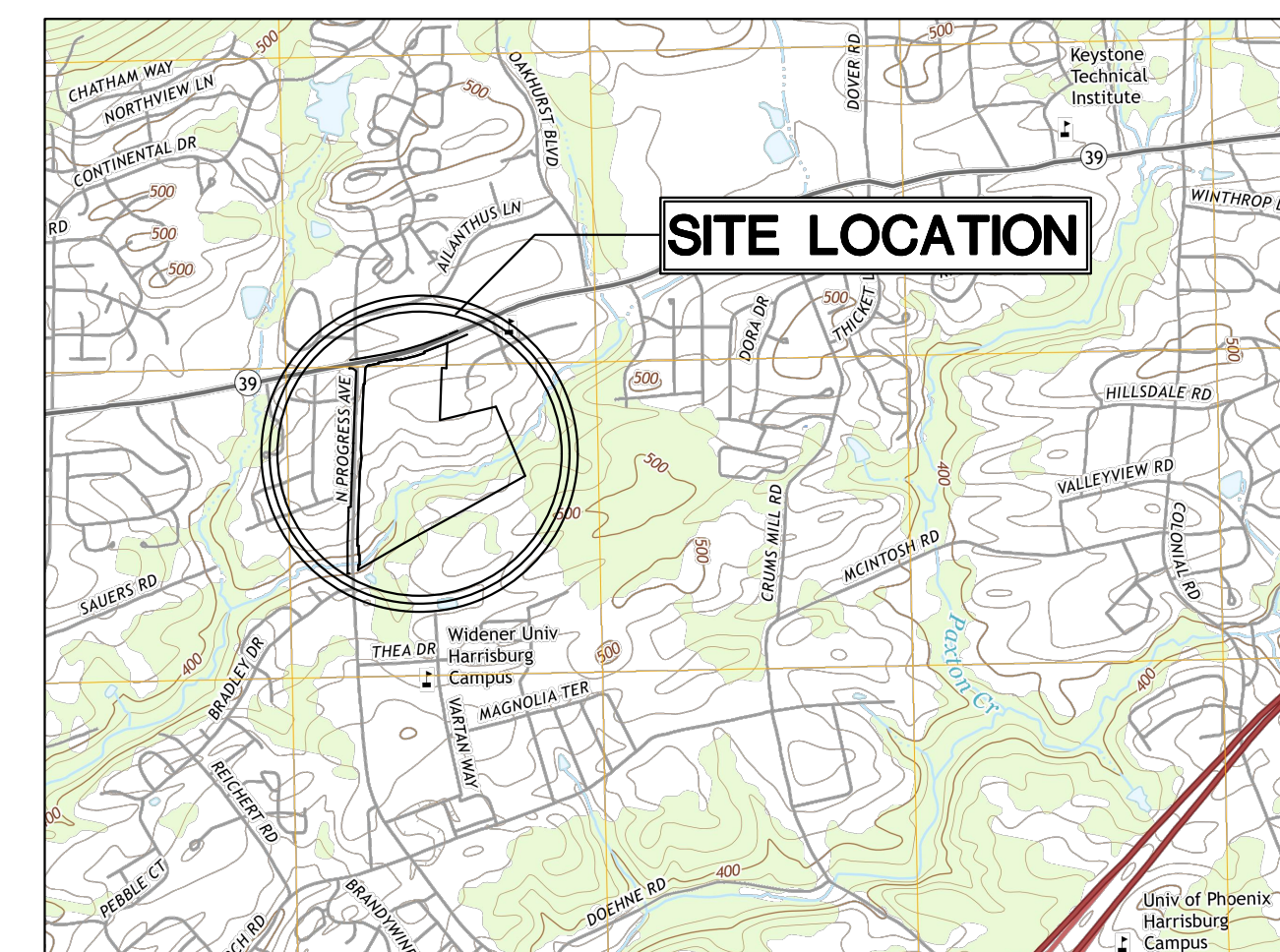
BUILD TO LINES:	12' MAXIMUM	12'
MINIMUM SIDE YARD		
NON-RESIDENTIAL / MULTI-FAMILY:	20'	20'
RESIDENTIAL:	15'	15'
MAXIMUM IMPERVIOUS COVERAGE:	53.9%	55%
MINIMUM GREEN SPACE		
CENTRAL GREEN:	0.56 AC.	0.5 AC.
ADDITIONAL GREENS:	3.70 AC.	3 AC. EACH
GREEN SPACE (TOTAL):	30% OF SITE	25% OF SITE
MINIMUM PRINCIPAL BUILDING HEIGHT:	20'	20'
MAXIMUM PRINCIPAL BUILDING HEIGHT:	55'	55' (4 STORIES)

TAX PARCEL: NO. 62-013-056

DEED INSTRUMENT NO. 20170009139

PLAN INSTRUMENT NO. 20130022125

SHEET NUMBER	SHEET TITLE	AUTHOR
C000	COVER SHEET	H.F. LENZ COMPANY
C100	GENERAL INFORMATION SHEET	H.F. LENZ COMPANY
C200	EXISTING CONDITIONS PLAN	H.F. LENZ COMPANY
L100	PHASING PLAN	La QUATRA BONCI ASSOCIATES
L101	REGULATING PLAN	La QUATRA BONCI ASSOCIATES
L102	STREETSCAPE PLAN	La QUATRA BONCI ASSOCIATES
L103	PUBLIC REALM PLAN	La QUATRA BONCI ASSOCIATES
L200	SITE & LANDSCAPE REFERNECE PLAN	La QUATRA BONCI ASSOCIATES
L201	ENLARGED SITE & LANDSCAPE PLAN-PHASE IIIA	La QUATRA BONCI ASSOCIATES
L202	ENLARGED SITE & LANDSCAPE PLAN-PHASE IIIR	La QUATRA BONCI ASSOCIATES
L500 TO L501	SITE PLANTING PLAN	La QUATRA BONCI ASSOCIATES
L502	PLANTING DETAILS AND PLANT LIST	La QUATRA BONCI ASSOCIATES
C300	SITE PLAN	H.F. LENZ COMPANY
C400-C401	GRADING AND DRAINAGE PLAN	H.F. LENZ COMPANY
C402	STORM SEWER PROFILES	H.F. LENZ COMPANY
C500	UTILITY PLAN	H.F. LENZ COMPANY
C600 TO C601	SITE DETAILS	H.F. LENZ COMPANY
C602 TO C605	UTILITY DETAILS	H.F. LENZ COMPANY
C606	TRASH DUMPSTER DETAILS	H.F. LENZ COMPANY
ES100 TO ES101	EROSION AND SEDIMENTATION CONTROL PLAN	H.F. LENZ COMPANY
ES200 TO ES202	EROSION AND SEDIMENTATION CONTROL PLAN NOTES	H.F. LENZ COMPANY
ES203 TO ES204	EROSION AND SEDIMENTATION CONTROL PLAN DETAILS	H.F. LENZ COMPANY
PH100	PHOTOMETRIC PLAN	BY OTHERS
A101 TO A103	FLOOR PLANS BUILDING A AND C	LANDMARK HOMES
A200	ELEVATION VIEW BUILDING A AND C	LANDMARK HOMES
A100 TO A104	FLOOR PLANS BUILDING B, D AND E	LANDMARK HOMES
A200 TO A202	ELEVATION VIEW BUILDING B, D AND E	LANDMARK HOMES



LaQuatra Bonci
ASSOCIATES
LANDSCAPE ARCHITECTURE

95 South Tenth Street
Pittsburgh, Pennsylvania 15203
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fax 412.488.8825

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:

210191.01

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

July 9, 2021

Revisions:

8/6/21 Revised per Twp Comments

Scale:

Sheet Name:

Cover Sheet

Submission:

Phase III Final Land Development
Plans

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:
 _____, 2021
- 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.

- 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

LEGEND

	EXISTING
	CONTOUR LINE
	WATERLINE
	GAS LINE
	SANITARY SEWER
	STORM SEWER
	STEAM LINE
	UNDERGROUND ELEC TELE CABLE
	UNDERGROUND TELEPHONE
	UNDERGROUND CABLE
	OVERHEAD ELECTRIC
	OVERHEAD TELEPHONE
	OVERHEAD CABLE
	OVERHEAD WIRES
	CONDUIT
	FIBER OPTICS / COMMUNICATIONS
	FIRE HYDRANT
	POWER POLE
	SIGN (EXISTING)
	PROPOSED
	CONTOUR LINE
	WATERLINE
	GAS LINE
	SANITARY SEWER
	STORM SEWER
	DOWNSPOUT COLLECTOR PIPE
	STEAM LINE
	UNDERGROUND ELEC TELE CABLE
	UNDERGROUND TELEPHONE
	UNDERGROUND CABLE
	FIBER OPTICS/COMMUNICATIONS
	OVERHEAD ELECTRIC
	OVERHEAD TELEPHONE
	OVERHEAD CABLE
	CONDUIT
	FIRE HYDRANT
	POWER POLE
	STREET LIGHT
	SIGN
	FENCE
	NUMBER OF PARKING SPACES

SYMBOL AND ABBREVIATION SCHEDULE

AC	ACRE	EMH	ELECTRIC MANHOLE	PE	POLYETHYLENE
AC	AIR CONDITIONER	EM	ELECTRIC METER	PUB	PUBLICATION
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS	EL/ELEV	ELEVATION	PSI	POUNDS PER SQUARE INCH
ACI	AMERICAN CONCRETE TRANSPORTATION OFFICIALS	EQ	EQUAL	PP	POWER POLE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	EXP	EXPANSION	PVC	POLYVINYL CHLORIDE
⊙	AT	EX	EXISTING	ℓ	PROPERTY LINE
⊕	BASELINE	FFE	FINISH FLOOR ELEVATION	R	RADIUS
BC	BOTTOM OF CURB	FH	FIRE HYDRANT	REINF	REINFORCEMENT
BW	BOTTOM OF WALL	GM	GAS METER	RCP	REINFORCED CONCRETE PIPE
BY/4"	BROKEN YELLOW PAVEMENT LINE/WIDTH BUILDING	GV	GAS VALVE	R/W	RIGHT-OF-WAY
⊕	CENTERLINE	HP	HIGH POINT	SCH	SCHEDULE
CC C/C	CENTER TO CENTER	HORIZ	HORIZONTAL	SEC	SECTION
CLR	CLEAR	INC	INCORPORATED	SEG	SEGMENT
CONC	CONCRETE	INV	INVERT	SLOPP	SMOOTH LINED CORRUGATED PLASTIC PIPE
CONSTR	CONSTRUCTION	LP	LIGHT POLE	STA	STATION
CMP	CORRUGATED METAL PIPE	MH	MANHOLE	SR	STATE ROUTE
CPP	CORRUGATED POLYETHYLENE PIPE	MAX	MAXIMUM	ST	STREET
DIA	DIAMETER	MIN	MINIMUM	SRL	SKID RESISTANCE LEVEL
DI	DUCTILE IRON	MPH	MILES PER HOUR	S	SOUTH
DS	DOWN SPOUT	N	NORTH	SF	SQUARE FEET
EOB	EDGE OF BERM	NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	SY	SQUARE YARD
EOP	EDGE OF PAVEMENT	No/#	NUMBER	TC	TOP OF CURB
ELEC	ELECTRIC	PM	PARKING METER	TW	TOP OF WALL
		OC	ON CENTER	XF	TRANSFORMER
		PADOT	PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	TYP	TYPICAL
		PERF	PERFORATED	WM	WATER METER
				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	COMCAST CABLE COMMUNICATIONS INC 4601 SMITH ST HARRISBURG, PA 17109 (800) 266-2278
SUEZ WATER PENNSYLVANIA INC 4211 EAST PARK CIRCLE HARRISBURG, PA 17111 (717) 554-3664	UGI UTILITIES INC 1500 PAXTON ST HARRISBURG, PA 17104 (800) 609-4844
VERIZON PENNSYLVANIA INC 11 FLOOR STRAWBERRY SQUARE HARRISBURG, PA 17101 (800) 821-0088	SUSQUEHANNA TWP AUTH/SUSQUEHANNA TWP 1900 LINGLETOWN RD HARRISBURG, PA 171103301 (717) 545-0116
PA COMMONWEALTH OF OFFICE OF ADMIN GOVERNORS OFFICE OF ADMIN 207 FINANCE BUILDING HARRISBURG, PA 17120 (717) 787-9945	ZAYO BANDWIDTH FORMERLY PPL TELECOM LLC 7010 SNOWDRIFT ROAD ALLENTOWN, PA 18106 (866) 364-6033
PPL ELECTRIC UTILITIES CORPORATION 1801 BROOKWOOD ST HARRISBURG, PA 171042222 (800) 342-5775	

CALL BEFORE YOU DIG!

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



POCS SERIAL NUMBER
 20171141544



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 LANDSCAPE ARCHITECTURE

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 Pittsburgh, Pennsylvania 15203
 tel 412.488.8822
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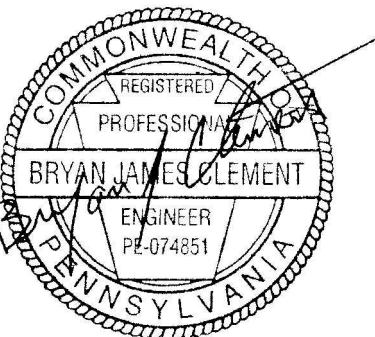


Prepared for:

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

Susquehanna Union Green

Susquehanna Township, Dauphin County, PA



Project Number:
 210191.01
 Drawn by:
 LBG/REA
 Checked by:
 LBG/BJC
 Date:
 July 9, 2021

Revisions:

Scale:



Sheet Name:

General Information Sheet

Submission:
 Phase III Final Land Development Plans

Sheet Number:

C100

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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: 814-269-9301



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Union Green
Susquehanna Township,
Dauphin County, PA



Project Number:
21023:1
Drawn by:
DM
Checked by:
FB/DM
Date:
July 9, 2021

Revisions:
▲ 8/9/21 Revised per Twp Comments

Scale:
1"=100'
0 100 200
SCALE: 1"=100'

Sheet Name:
Phasing Plan

Submission:
Phase III Final Land Development
Plans

Sheet Number:

L100

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Regulating 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
- Street Wall
- Sidewalk
- Shared Lane Markings
- Crosswalk
- Contour - Major
- Contour - Minor
- Park Structure
- Canopy/Shade Tree
- Understory/Ornamental Tree
- Lawn
- Understory Planting
- Stormwater Management Area
- Floodplain
- Wetland
- Site Furnishings

Mixed-Use Compliance Table

Use	Acreage	% of Site	Required/ Permitted
Commercial Use	(+/-) 21.04	36%	50% Max.
Residential Use	(+/-) 36.24	62%	40% Min.
Total Tract	(+/-) 58.07	100%	
Green Space	(+/-) 17.22	30%	25% Min.
Residential Single Family Detached	(+/-) 13.70 GROSS	24%	5% Min.
Residential Multi-Family	(+/-) 22.54 GROSS	39%	5% Min./40% Max.

Multi-Family Residential Unit Count

Phase	Unit Count
Phase III	120
Phase IV	240 (Future)

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.
- Single family housing unit footprints are shown for representation only.

Property lines are build-to lines

Public Transportation

Walking Trails

Stormwater Management Area

Floodplain

Green Space

Stormwater Management Area



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Drawn by:
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Scale:
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SCALE: 1"=100'

Sheet Name:
Regulating Plan

Submission:
Phase III Final Land Development Plans

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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	Street Wall	Lawn
Future Site Work	Sidewalk	Understory Planting
Parking Lot Light	Shared Lane Markings	Floodplain
Street Light 1	Crosswalk	Wetland
Street Light 2	Contour - Major	Site Furnishings
Street Light 3	Contour - Minor	



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
Union Green

Susquehanna Township,
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Scale:
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Sheet Name:
Streetscape Plan

Submission:
Phase III Final Land Development
Plans

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Public Realm 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	Street Wall	Lawn
Future Site Work	Sidewalk	Understory Planting
Parking Lot Light	Shared Lane Markings	Floodplain
Street Light 1	Crosswalk	Wetland
Street Light 2	Contour - Major	Site Furnishings
Street Light 3	Contour - Minor	

Gross Tract Area Requirements

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

GENERAL NOTES:

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- Single family housing unit footprints are shown for representation only.



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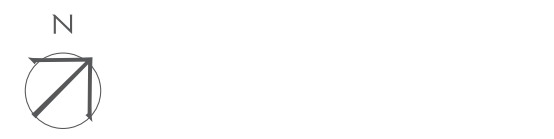
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Susquehanna Township,
Dauphin County, PA



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Sheet Name:
Public Realm Plan

Submission:
Phase III Final Land Development Plans

Sheet Number:
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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 | Street Wall | Lawn |
| Future Site Work | Sidewalk | Understory Planting |
| Parking Lot Light | Shared Lane Markings | Floodplain |
| Street Light 1 | Crosswalk | Wetland |
| Street Light 2 | Contour - Major | Site Furnishings |
| Street Light 3 | Contour - Minor | |



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Susquehanna Township,
Dauphin County, PA



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Date:
July 9, 2021

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Scale:
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Sheet Name:
Site & Landscape Reference Plan
Submission:
Phase III Final Land Development Plans

Sheet Number:
L200

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Site Plan - Phase III A



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	Street Wall	Lawn
Future Site Work	Sidewalk	Understory Planting
Parking Lot Light	Shared Lane Markings	Floodplain
Street Light 1	Crosswalk	Wetland
Street Light 2	Contour - Major	Site Furnishings
Street Light 3	Contour - Minor	

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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 III A/B Tree Count:
Canopy/Shade Tree: 34
Understory/Ornamental Tree: 24



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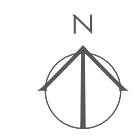


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Revisions:
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Sheet Name:
Enlarged Site & Landscape
Plan - Phase III A
Submission:
Phase III Final Land Development
Plans

Sheet Number:
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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	Street Wall	Lawn
Future Site Work	Sidewalk	Understory Planting
Parking Lot Light	Shared Lane Markings	Floodplain
Street Light 1	Crosswalk	Wetland
Street Light 2	Contour - Major	Site Furnishings
Street Light 3	Contour - Minor	

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.
- Current tree count subject to change during construction document design phase. All tree species will meet the Design Guideline requirements.
Phase III A/B Tree Count:
Canopy/Shade Tree: 34
Understory/Ornamental Tree: 24



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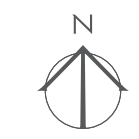


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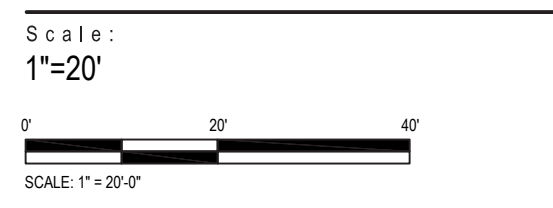
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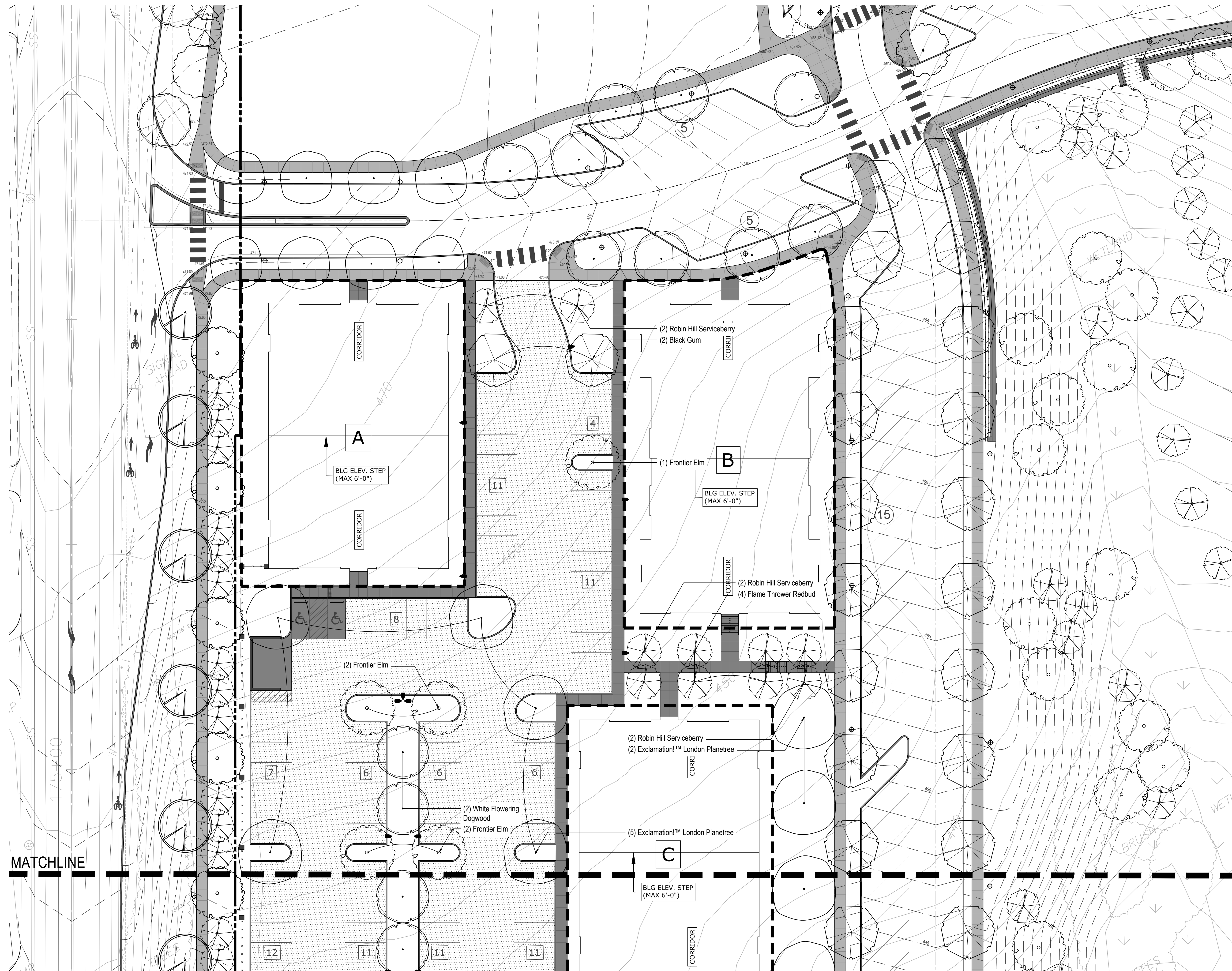
Sheet Name:
Enlarged Site & Landscape
Plan - Phase III B

Submission:
Phase III Final Land Development
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Sheet Number:

L202

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FAX: 614-269-9301

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3605 Vartan Way, Suite 301
Harrisburg, PA 17110

Susquehanna Union Green

Susquehanna Township,
Dauphin County, PA

Project Number:
21023:1
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July 9, 2021

Revisions:
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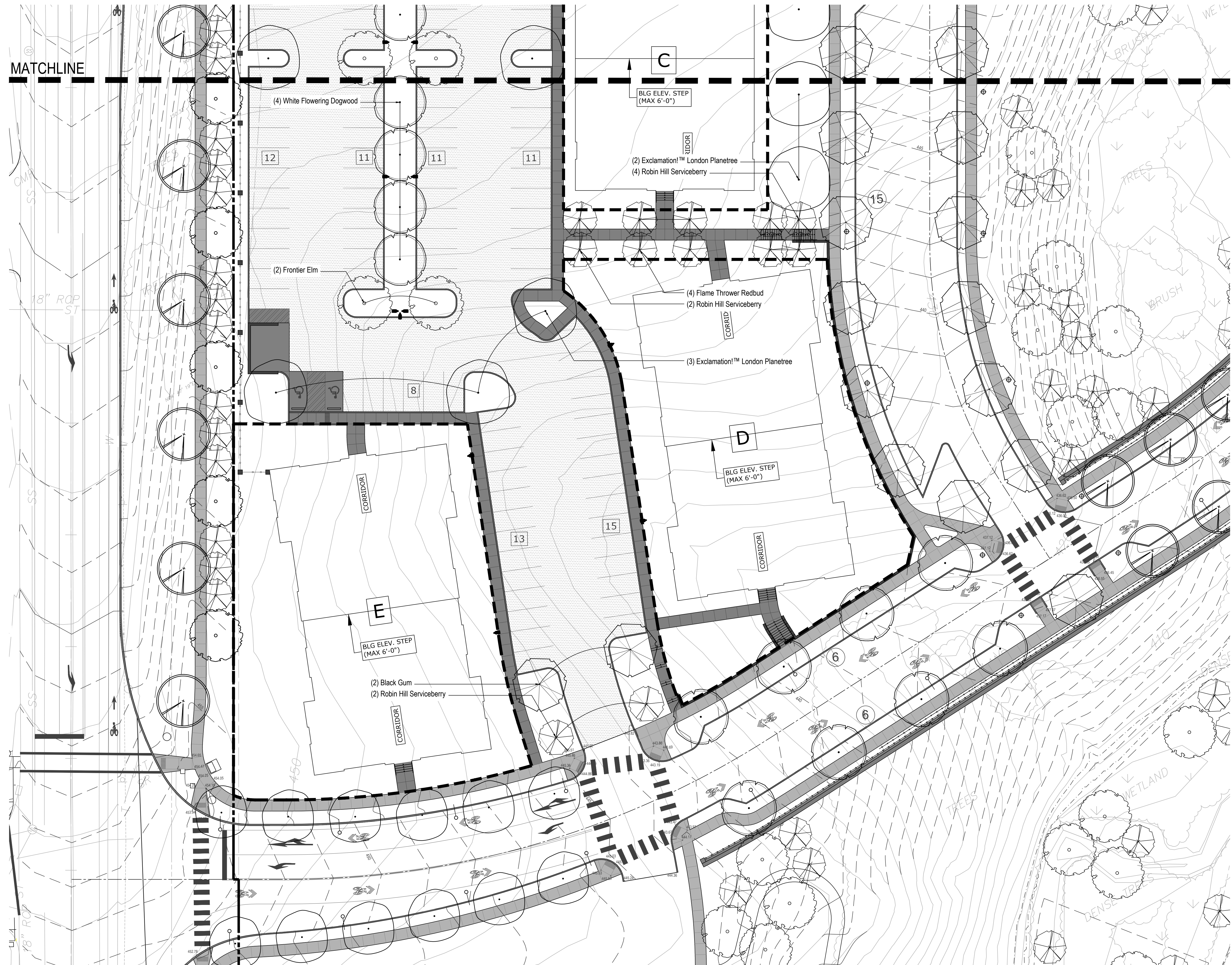
Sheet Name:
Site Planting Plan

Submission:
Phase III Final Land Development Plans

Sheet Number:

L500

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H.F. LENZ
COMPANY
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FAX: 614-269-9391

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

**Susquehanna Union
Green**

Susquehanna Township,
Dauphin County, PA

Project Number:
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Date:
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Revisions:
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Scale:
SCALE: 1" = 20'-0"

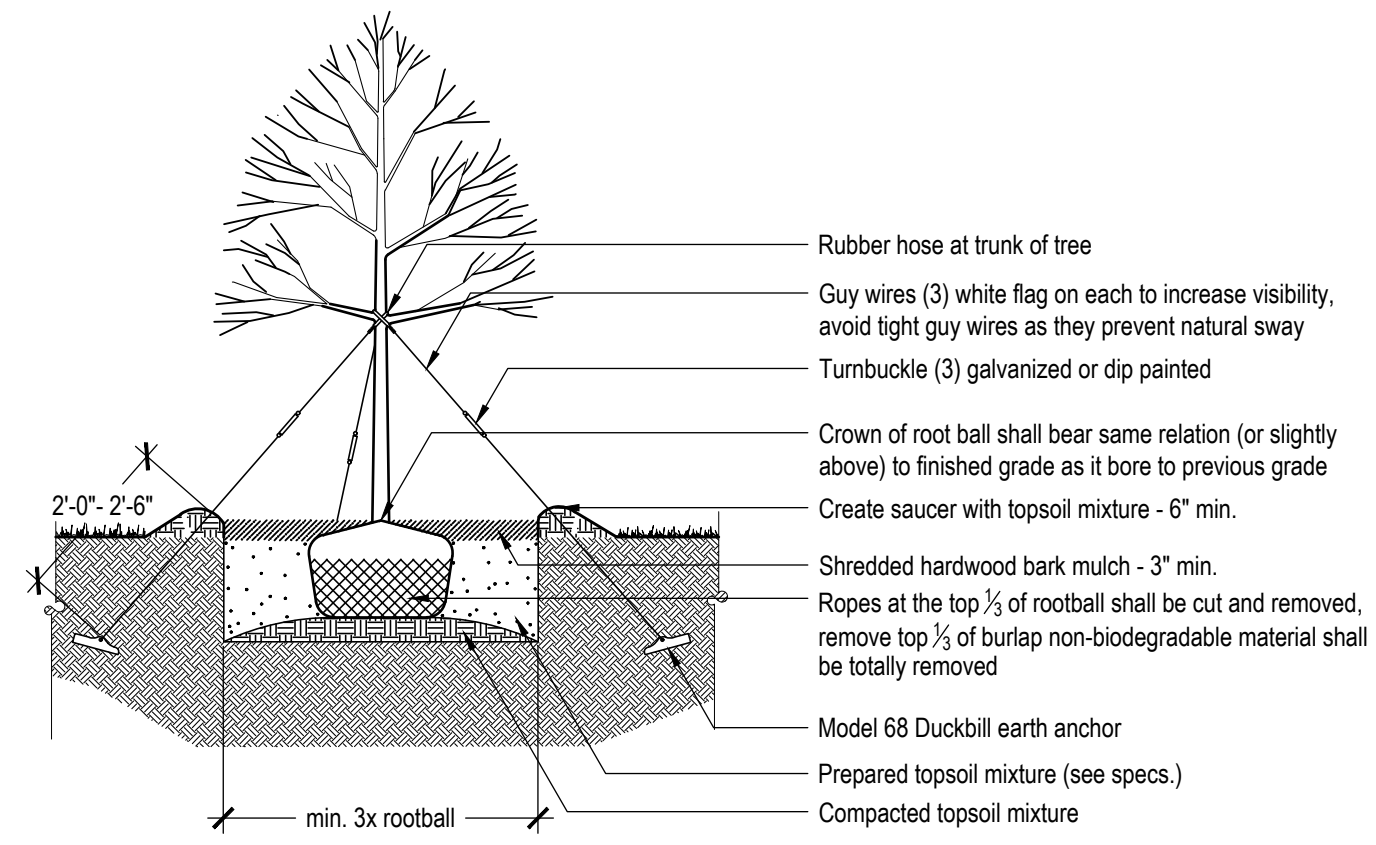
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Site Planting Plan

Submission:
Phase III Final Land Development
Plans

Sheet Number:

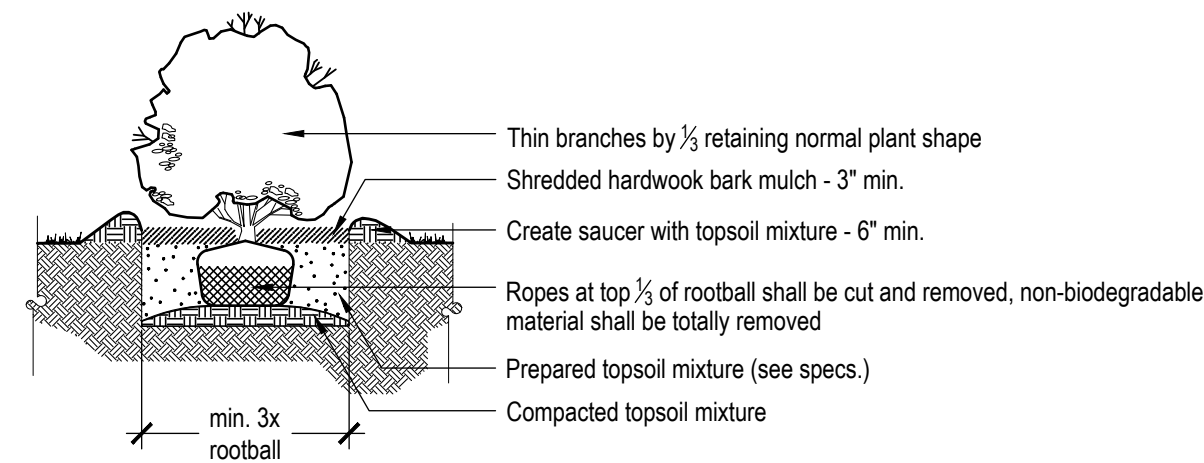
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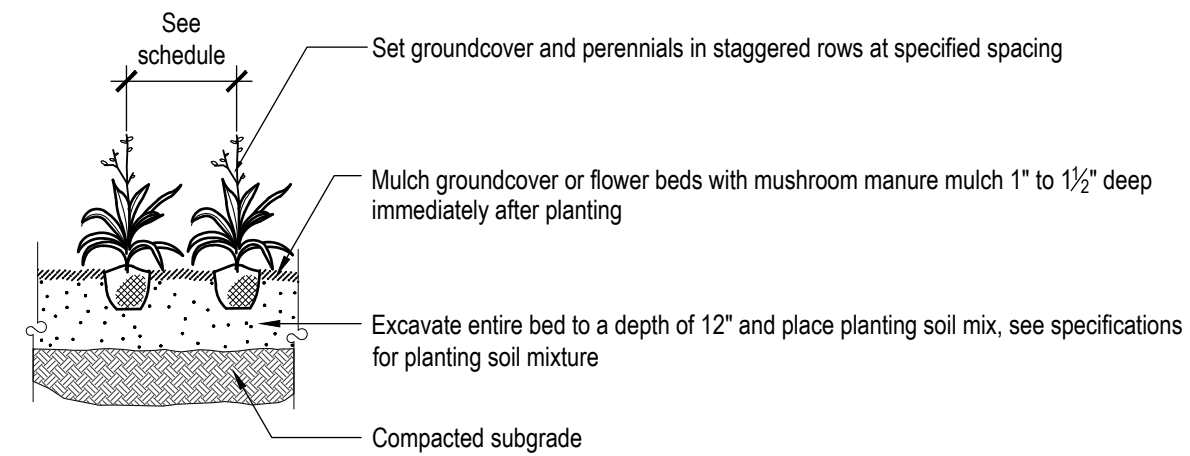
Note:
 1. Plants dug with firm, natural balls of earth in which they are grown, with ball size not less than the diameter and depth recommended by ANSI Z60.1-1996 for type and size of tree or shrub required; wrapped, tied, rigidly supported, and drum-laced as recommended by ANSI Z60.1-1996.

1 Tree Planting Detail
 L502 Scale: NTS



Note:
 1. Balled and burlapped plants dug with firm, natural balls of earth in which they are grown, with ball size not less than the diameter and depth recommended by ANSI Z60.1-1996 for type and size of tree or shrub required; wrapped, tied, rigidly supported, and drum-laced as recommended by ANSI Z60.1-1996.
 2. All container grown plants shall be healthy, vigorous, well rooted, and established in the container in which they are growing. A container grown plant shall have a well-established root system reaching the sides of the container to maintain a firm root ball. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1-1996 for kind, type, and size of plant required.

2 Shrub Planting Detail
 L502 Scale: NTS



Note:
 1. All container grown groundcover and perennial plants shall be healthy, vigorous, well rooted and established in the container in which they are growing. A container grown groundcover and perennial plant shall have a well-established root system reaching the sides of the container to maintain a firm rootball. Container shall be rigid enough to hold ball shape and protect root mass during shipping and sized according to ANSI Z60.1-1996 for kind, type and size of plant required.

3 Groundcover/Perennial Planting Detail
 L502 Scale: NTS

PLANT LIST			
QTY	BOTANICAL NAME	COMMON NAME	SIZE
CANOPY TREES			
4	<i>Nyssa sylvatica</i>	Black Gum	2" - 2 1/2" cal. B&B
12	<i>Platanus x acerifolia</i> Exclamation!	Exclamation! London Planetree	2" - 2 1/2" cal. B&B
7	<i>Ulmus x 'Frontier'</i>	Frontier Elm	2" - 2 1/2" cal. B&B
UNDERSTORY TREES			
16	<i>Amelanchier x grandiflora</i> 'Robin Hill'	Robin Hill Serviceberry	1 3/4" - 2" cal. B&B
8	<i>Cercis canadensis</i> 'Flame Thrower'	Flame Thrower Redbud	5' - 6' ht. #5 Cont.
29	<i>Cornus florida</i>	Flowering Dogwood	1 3/4" - 2" cal. B&B



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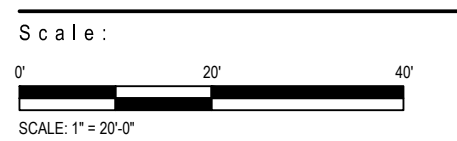
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Susquehanna Union Green

Susquehanna Township,
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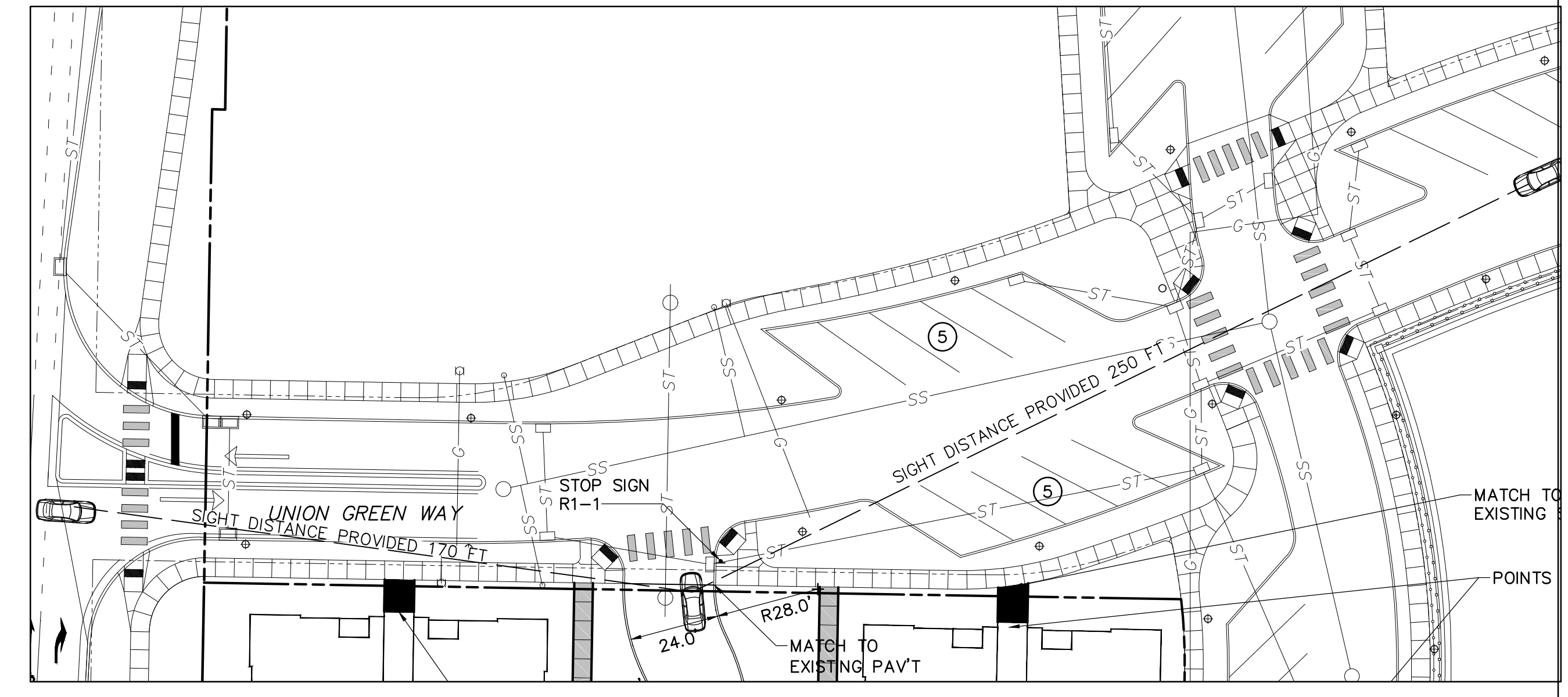
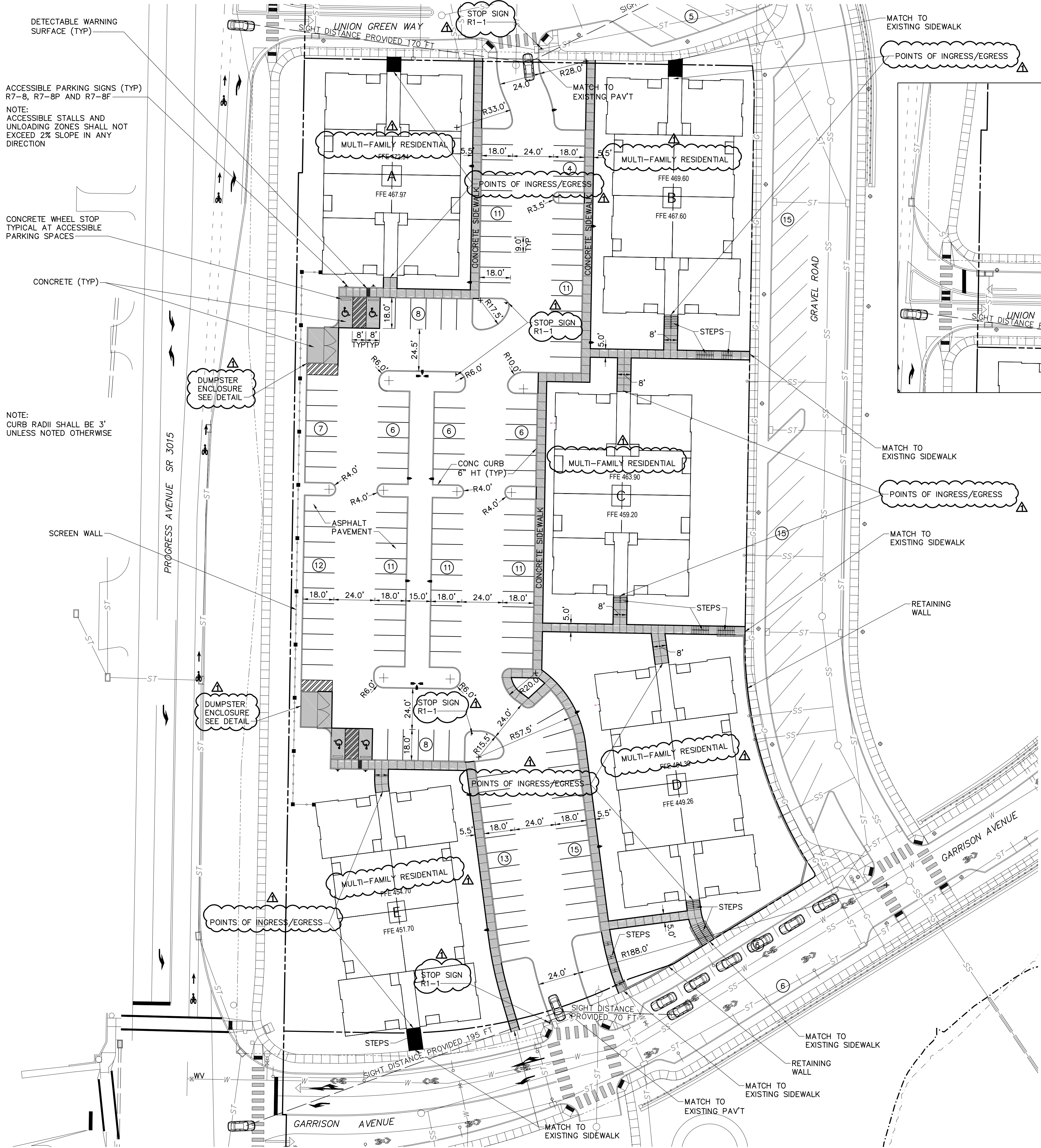
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Planting Details & Plant List
 Submission:
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Sheet Number:

L502

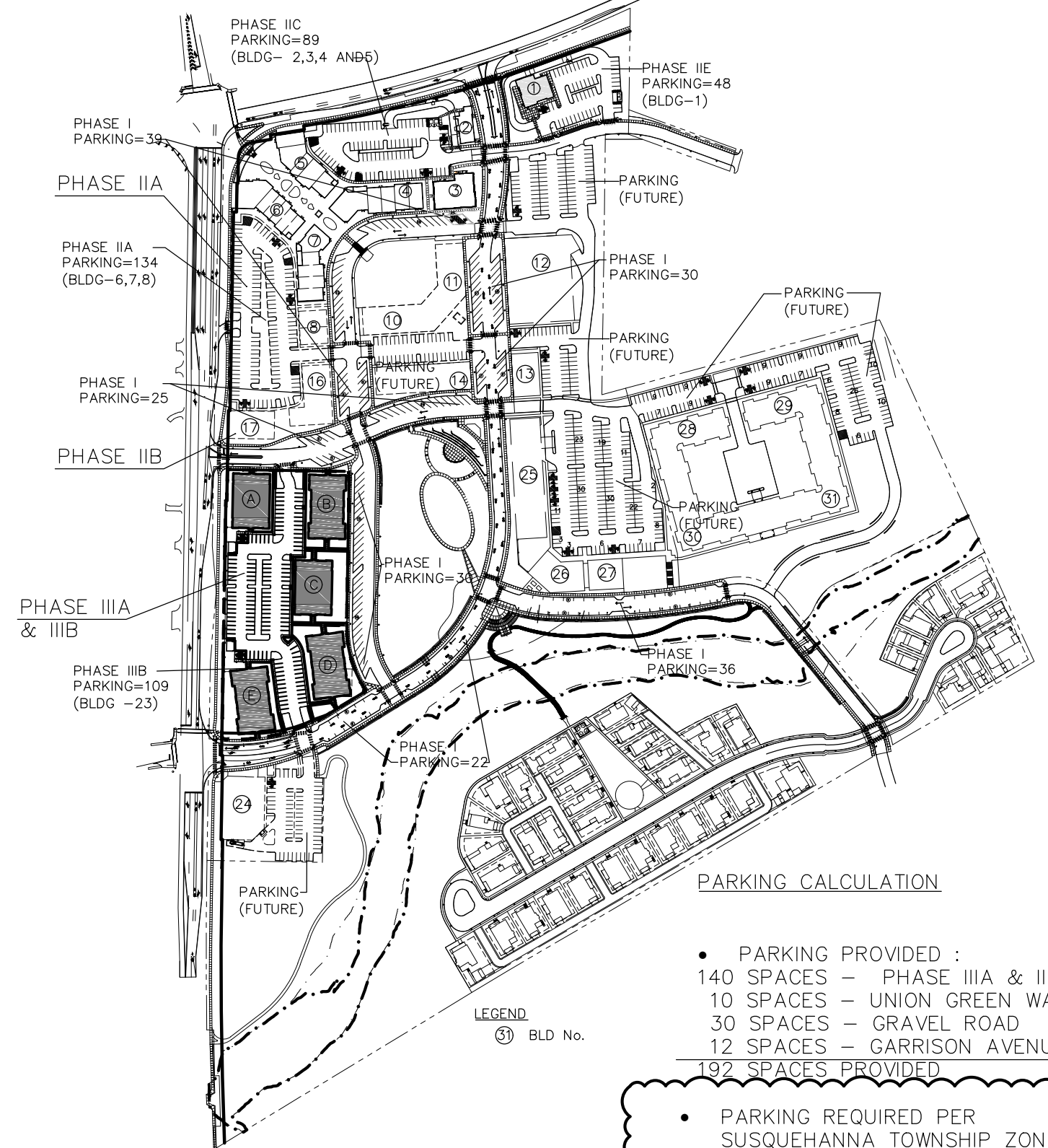
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SEE INSERT A



INSERT A

NOTE:
ALL CURB RADII ARE 5' UNLESS NOTED OTHERWISE



PARKING PROVIDED:
140 SPACES - PHASE IIIA & IIIB
10 SPACES - UNION GREEN WAY
30 SPACES - GRAVEL ROAD
12 SPACES - GARRISON AVENUE
192 SPACES PROVIDED

PARKING REQUIRED PER SUSQUEHANNA TOWNSHIP ZONING:
SINGLE & MULTI-FAMILY DWELLINGS:
SPACES PER DWELLING UNIT, IN THE CASE OF NEW CONSTRUCTION OF RESIDENTIAL BUILDINGS FOR SENIORS AGED 62 AND OLDER WITH MORE THAN 50 UNITS, 1.1 SPACES PER UNIT.

120 UNITS X 1.1 SPACES/UNIT = 132 REQUIRED PARKING SPACES



LaQuatra Bonci ASSOCIATES LANDSCAPE ARCHITECTURE

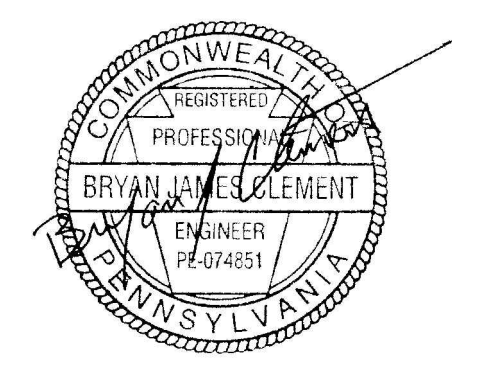
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3605 Vartan Way, Suite 301
Harrisburg, PA 17110

Susquehanna Union Green
Susquehanna Township, Dauphin County, PA



Project Number:
210191.01
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
July 9, 2021

Revisions:
8/6/21 Revised per Twp Comments

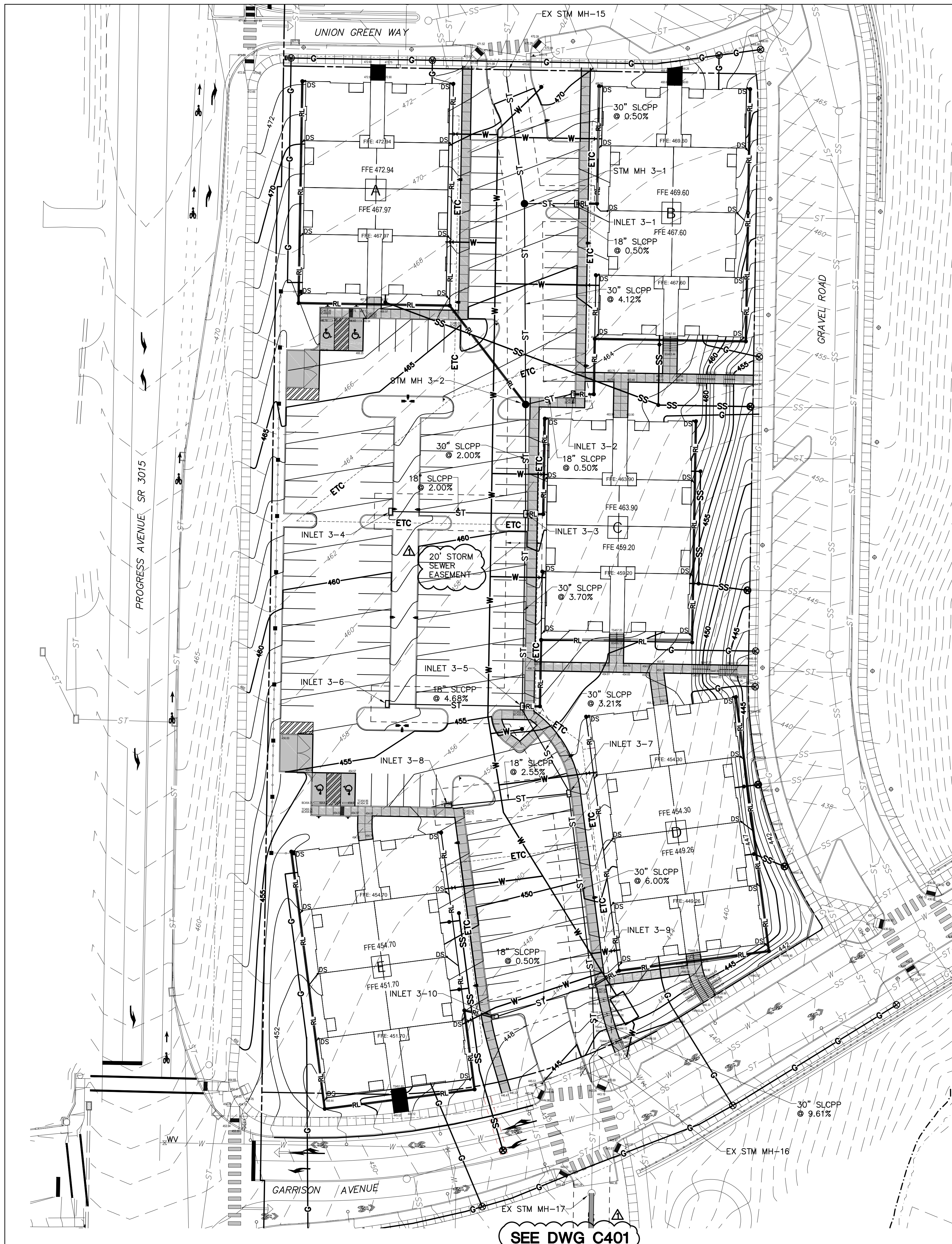
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Sheet Name:
Site Plan

Submission:
Phase III Final Land Development Plans

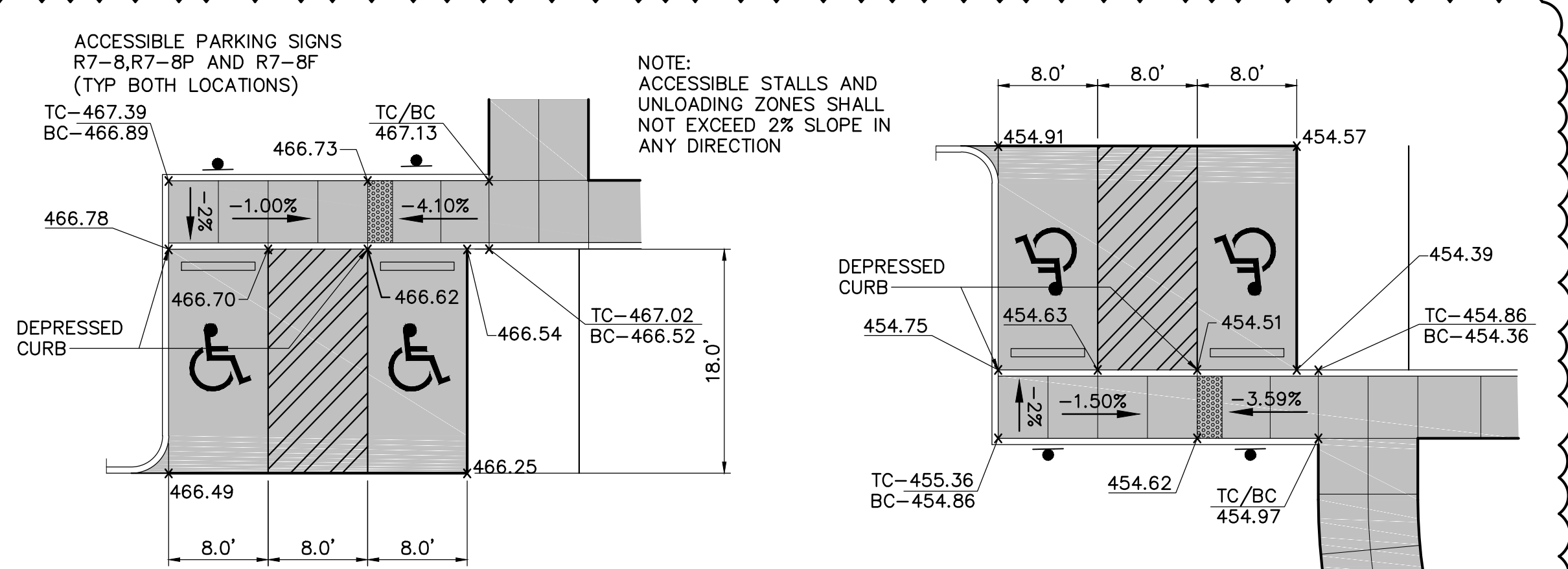
Sheet Number:
C300

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Structure Table		
Structure Name	Structure Details	Pipe Direction
END SECTION END SECTION	T/RIM = 410.66 INV IN (30") = 408.00	
EX STM MH-15	T/RIM = 470.68 INV IN (30") = 457.64 INV OUT (30") = 457.64	TO STM MH 3-1
EX STM MH-16	T/RIM = 444.15 INV IN (30") = 434.50 INV OUT (30") = 434.50	FROM INLET 3-9 TO EX STM MH-17
EX STM MH-17 5' DIAMETER	T/RIM = 444.98 INV IN (30") = 433.22 INV OUT (30") = 433.22	FROM EX STM MH-16 TO STM MH 3-3
INLET 3-1 PADOT TYPE C STD BOX	T/RIM = 466.62 INV IN (12") = 461.20 INV OUT (18") = 461.00	FROM RL BLDG B TO MH3-1
INLET 3-2 PADOT TYPE C STD BOX	T/RIM = 462.97 INV IN (12") = 452.80 INV OUT (18") = 452.60	FROM RL BLDG B TO MH3-2
INLET 3-3 PADOT TYPE C TYPE 4 BOX	T/RIM = 460.40 INV IN (30") = 451.05 INV IN (18") = 453.17 INV IN (12") = 456.40 INV OUT (30") = 450.85	FROM MH3-2 FROM MH3-4 FROM RL BLDG C TO INLET 3-5
INLET 3-4 PADOT TYPE C STD BOX	T/RIM = 461.67 INV OUT (18") = 454.67	TO INLET 3-3
INLET 3-5 PADOT TYPE C TYPE 4 BOX	T/RIM = 455.14 INV IN (30") = 446.89 INV IN (12") = 446.89 INV IN (18") = 446.89 INV OUT (30") = 446.69	FROM INLET 3-2 FROM INLET 3-6 FROM RL BLDG C TO INLET 3-7
INLET 3-6 PADOT TYPE C STD BOX	T/RIM = 456.40 INV OUT (18") = 450.40	TO INLET 3-5
INLET 3-7 PADOT TYPE C TYPE 4 BOX	T/RIM = 452.44 INV IN (30") = 444.92 INV IN (18") = 445.14 INV OUT (30") = 444.72	FROM INLET 3-5 FROM INLET 3-8 TO INLET 3-9
INLET 3-8 PADOT TYPE C STD BOX	T/RIM = 453.40 INV OUT (18") = 446.86	TO INLET 3-7
INLET 3-9 PADOT TYPE C TYPE 4 BOX	T/RIM = 447.17 INV IN (30") = 438.25 INV IN (12") = 438.25 INV IN (18") = 442.11 INV OUT (30") = 438.05	FROM INLET 3-7 FROM RL BLDG D FROM INLET 3-10 TO EX MH-16
INLET 3-10 PADOT TYPE C STD BOX	T/RIM = 446.94 INV IN (12") = 442.40 INV OUT (18") = 442.40	FROM RL BLDG-E TO INLET 3-9
STM MH 3-1 5' DIAMETER	T/RIM = 467.10 INV IN (30") = 457.27 INV IN (18") = 460.86 INV OUT (30") = 457.07	FROM EX MH-15 FROM INLET 3-1 TO STM MH 3-2
STM MH 3-2 5' DIAMETER	T/RIM = 463.71 INV IN (30") = 452.47 INV IN (12") = 459.01 INV IN (18") = 452.47 INV OUT (30") = 452.27	FROM STM MH 3-1 FROM RL BLDG A FROM INLET 3-2 TO INLET 3-3
STM MH 3-3 5' DIAMETER	T/RIM = 442.81 INV IN (30") = 430.73 INV OUT (30") = 427.96	FROM EX STM MH-17 TO STM MH 3-4
STM MH 3-4 5' DIAMETER	T/RIM = 420.97 INV IN (30") = 413.77 INV OUT (30") = 408.54	FROM MH 3-3 TO BASIN END SECTION

• ALL DOWNSPOUT COLLECTOR PIPES (RL) ARE 12" SLCPP @ 0.5% MIN



ACCESSIBLE PARKING SPACE DETAILS
NOT TO SCALE



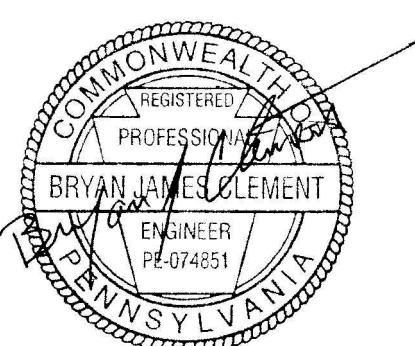
95 South Tenth Street
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Nature leads, art follows.



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

Susquehanna
Union Green
Susquehanna
Township, Dauphin
County, PA



Project Number:
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8/6/21 Revised per Twp Comments

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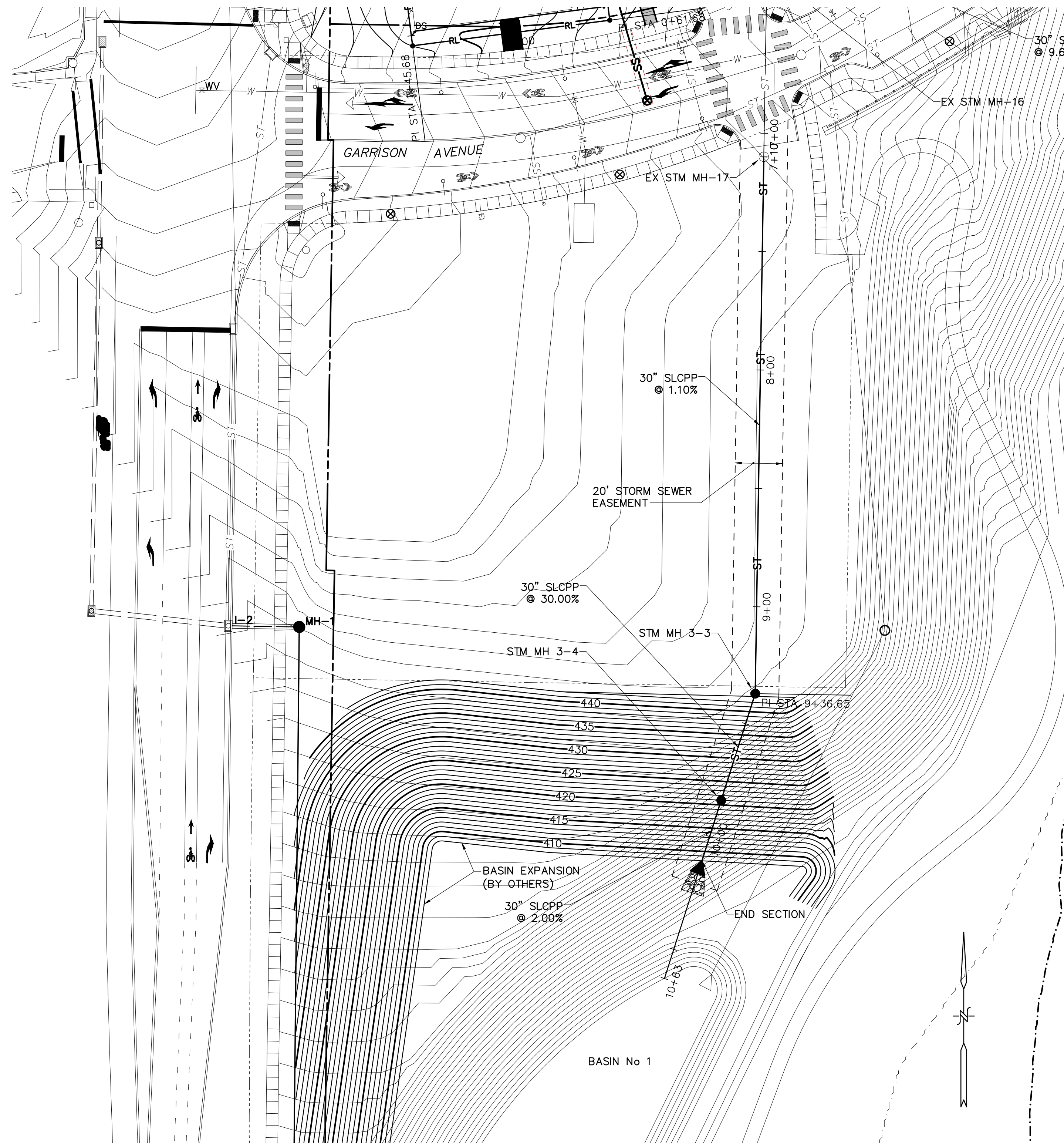
Sheet Name:
Grading and
Drainage Plan
Submission:
Phase III Final Land Development
Plans

Sheet Number:

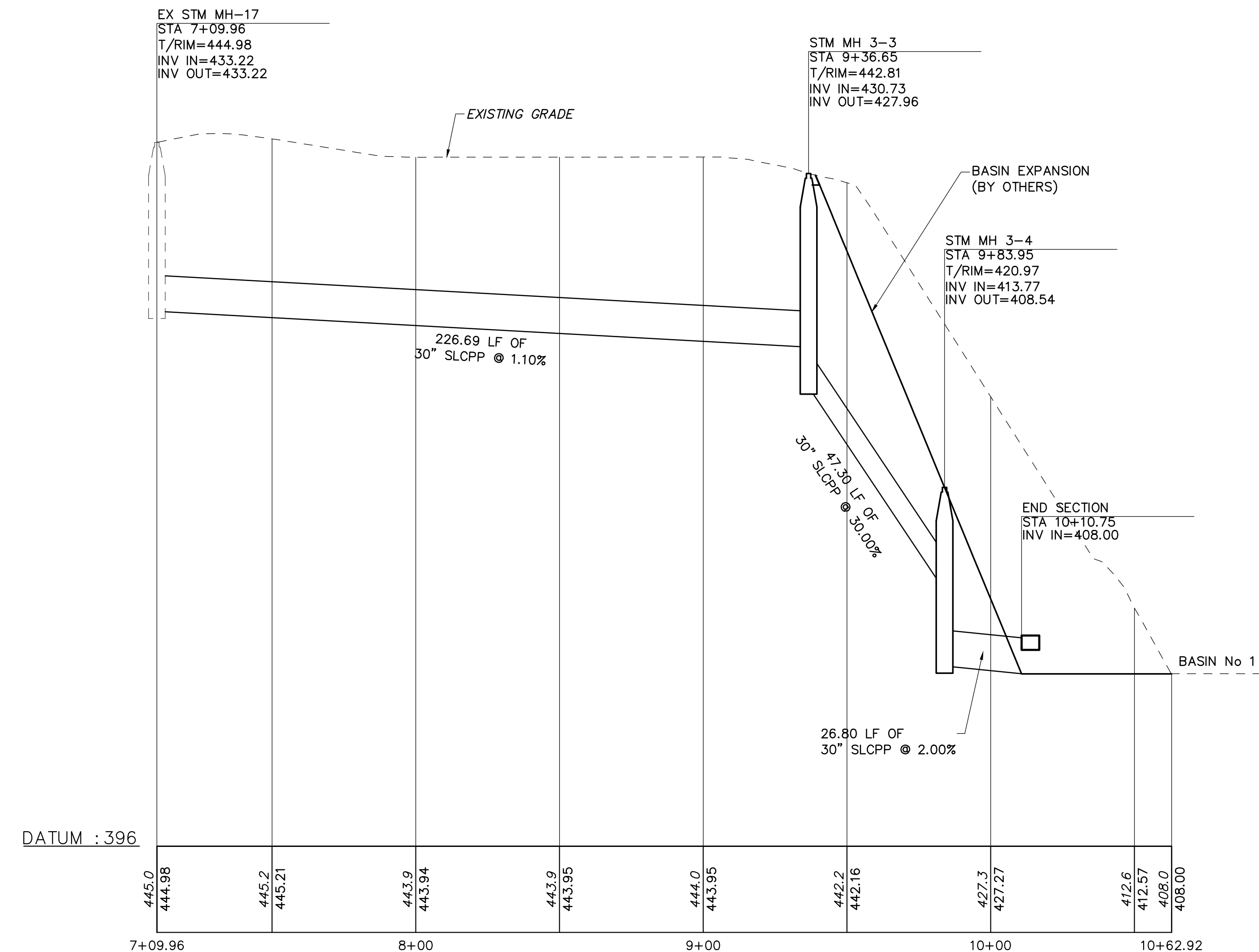
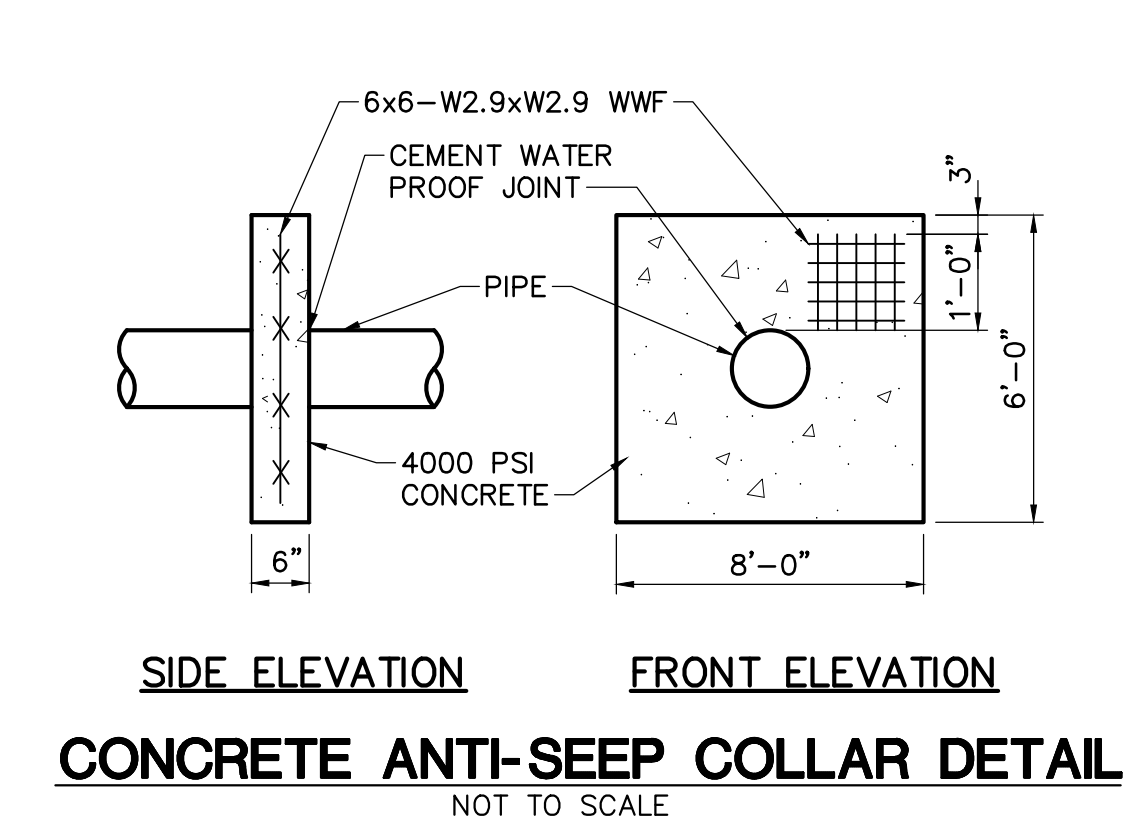
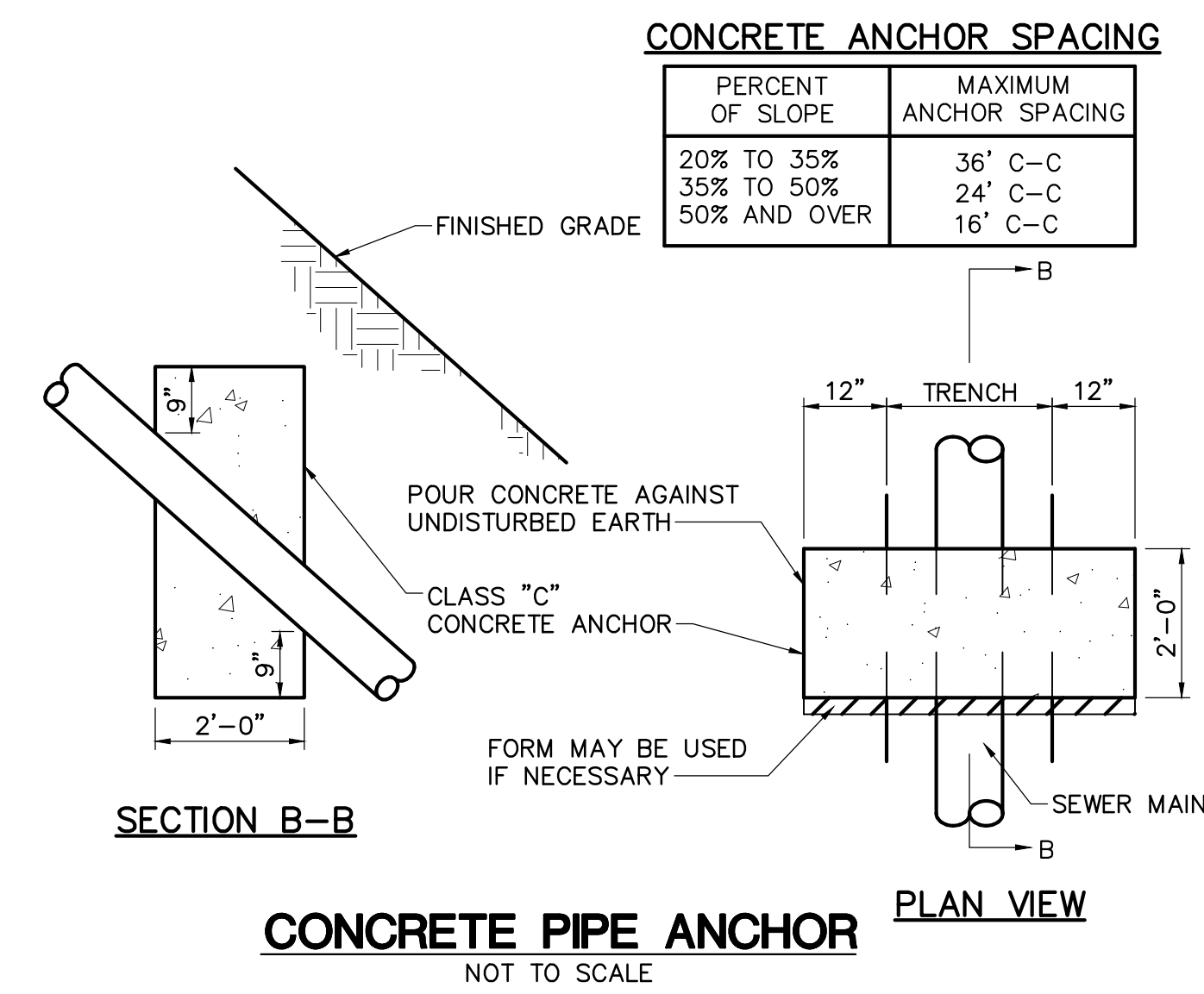
C400

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SEE DWG C401



PLAN VIEW
 30' 15' 0' 30' 60'
 SCALE: 1" = 30'



30' 15' 0' 30' 60' 6' 3' 0' 6' 12'
 SCALE: 1" = 30' HORIZONTAL
 SCALE: 1" = 6' VERTICAL



LaQuatra Bonci ASSOCIATES
 LANDSCAPE ARCHITECTURE

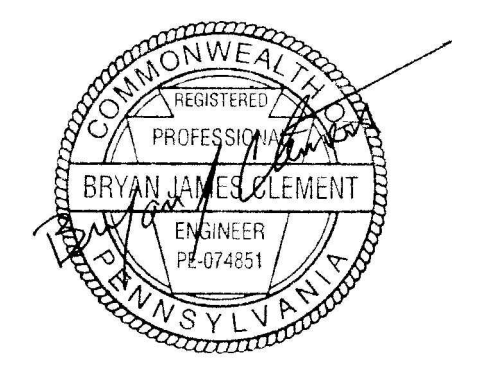
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Susquehanna Union Green
 Susquehanna Township, Dauphin County, PA



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 210191.01
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 Date:
 July 9, 2021

Revisions:
 A 8/6/21 Revised per Twp Comments

Scale:
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 30' 15' 0' 30'

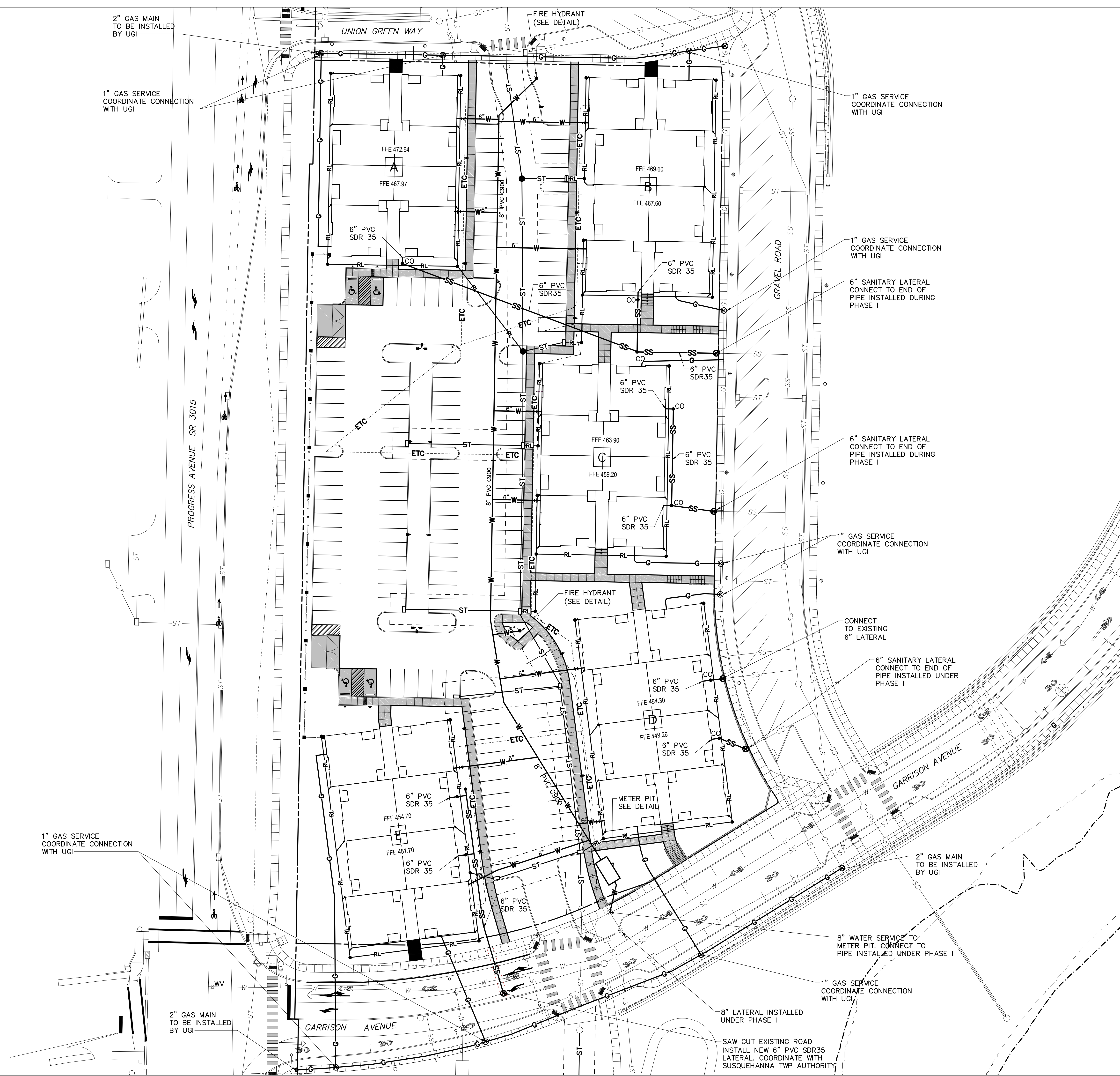
Sheet Name:
Grading and Drainage Plan
 Submission:
 Phase III Final Land Development Plans

Sheet Number:

C401

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LANDSCAPE ARCHITECTURE

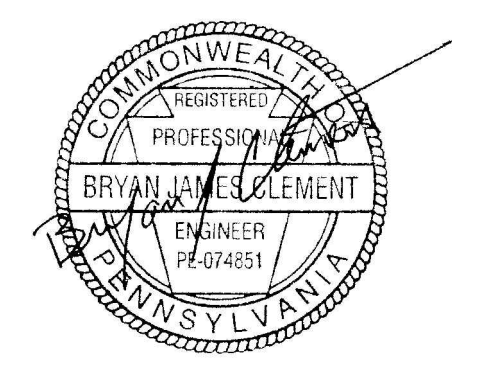
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Susquehanna Union Green
Susquehanna Township, Dauphin County, PA



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LBG/BJC
Date:
July 9, 2021

Revisions:

Scale:
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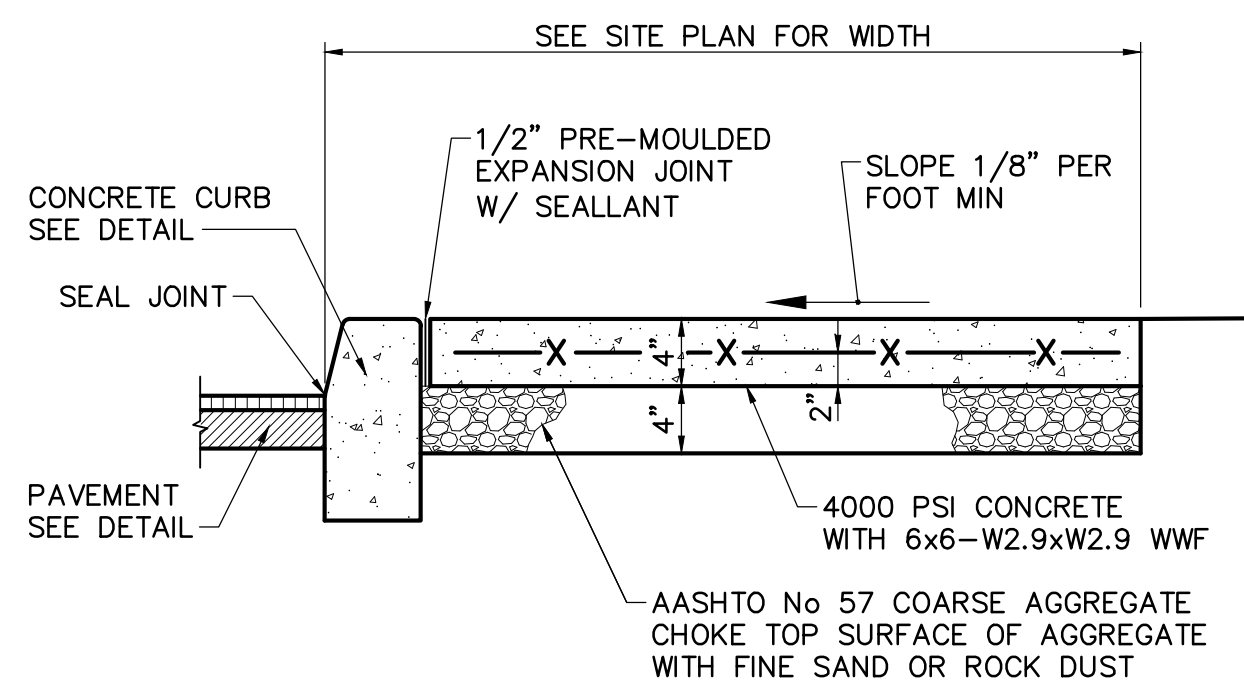
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Utility Plan

Submission:
Phase III Final Land Development Plans

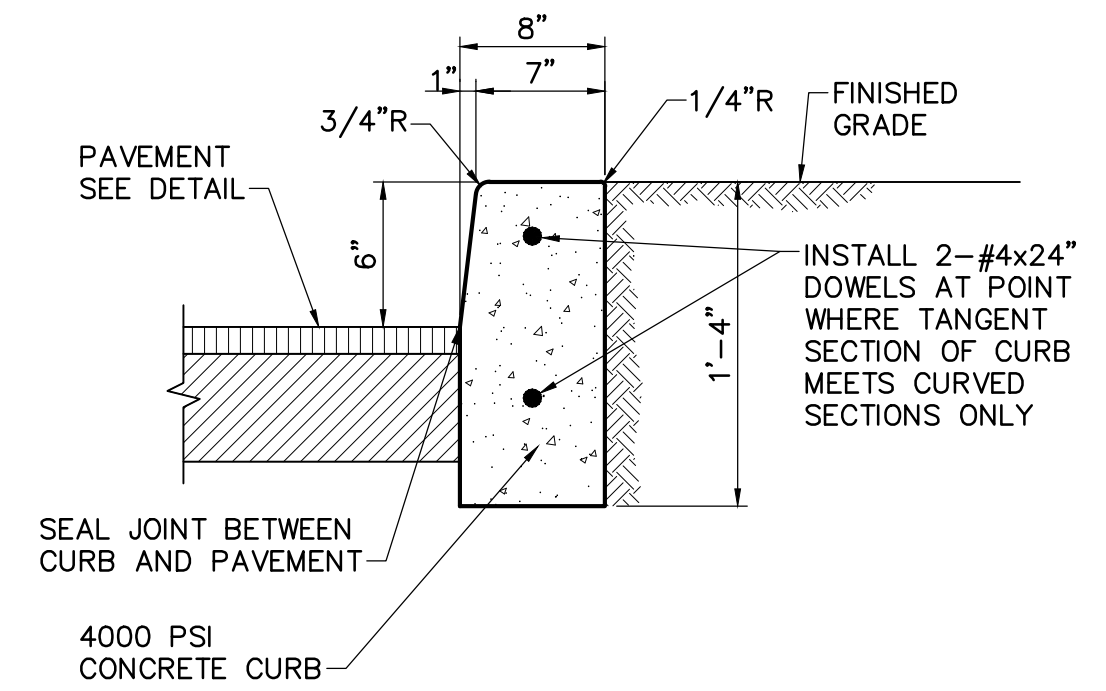
Sheet Number:
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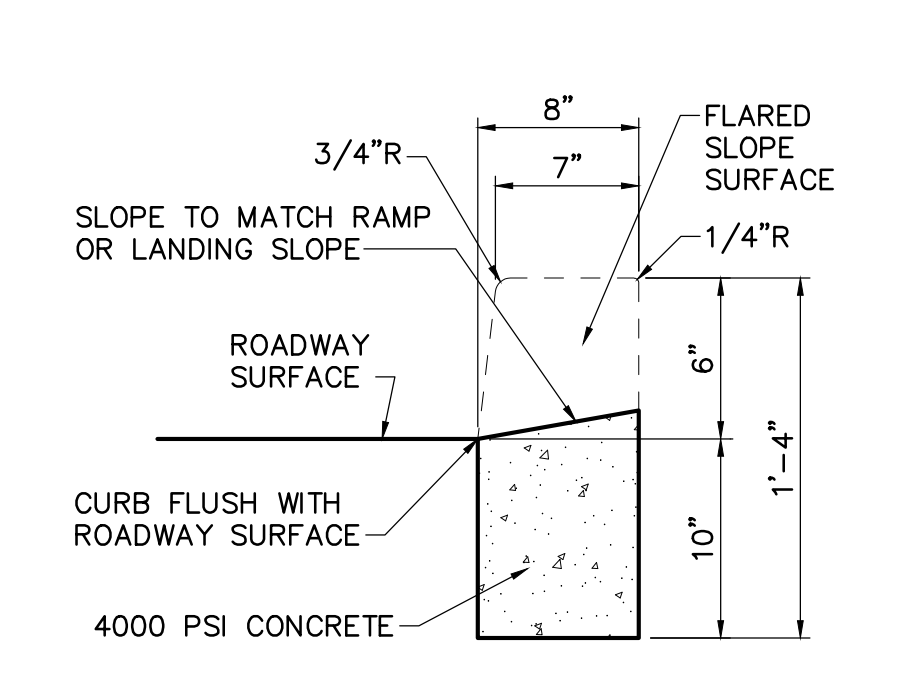
I:\Projects\2021\101002191\101002191_C500.dwg



CURB AND CONCRETE SIDEWALK SECTION
NOT TO SCALE



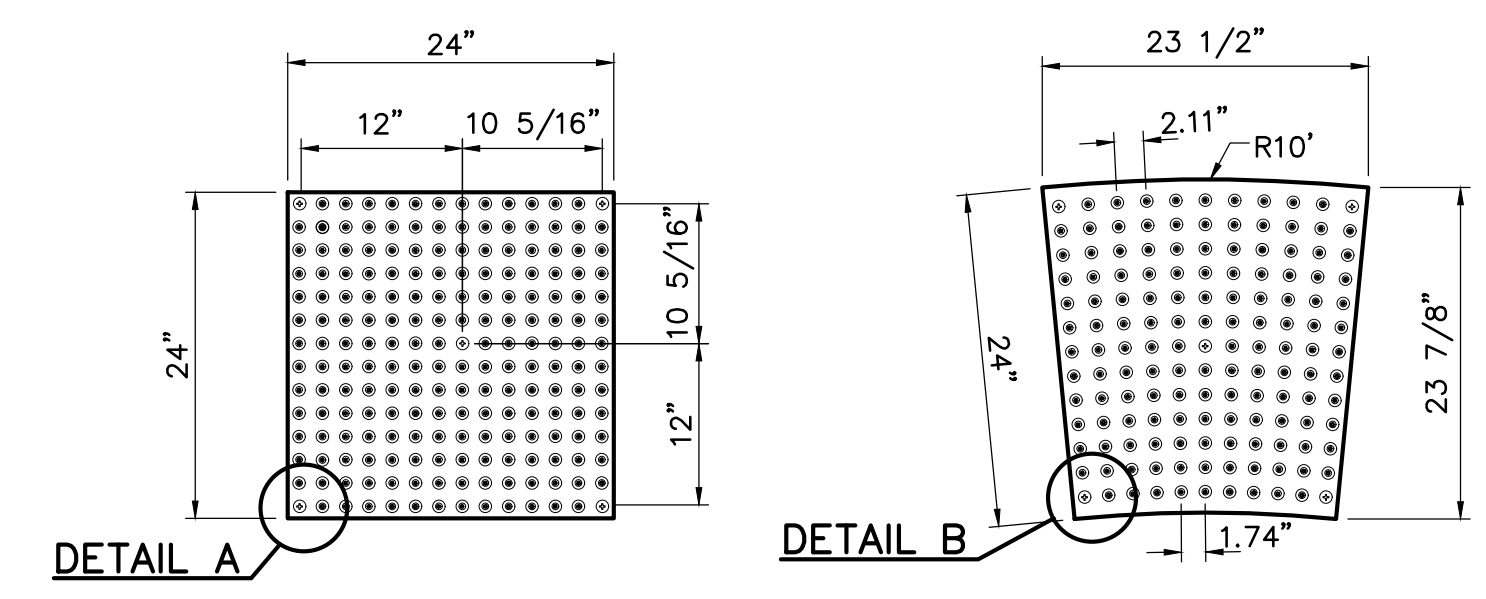
CONCRETE CURB (6" REVEAL) DETAIL
NOT TO SCALE



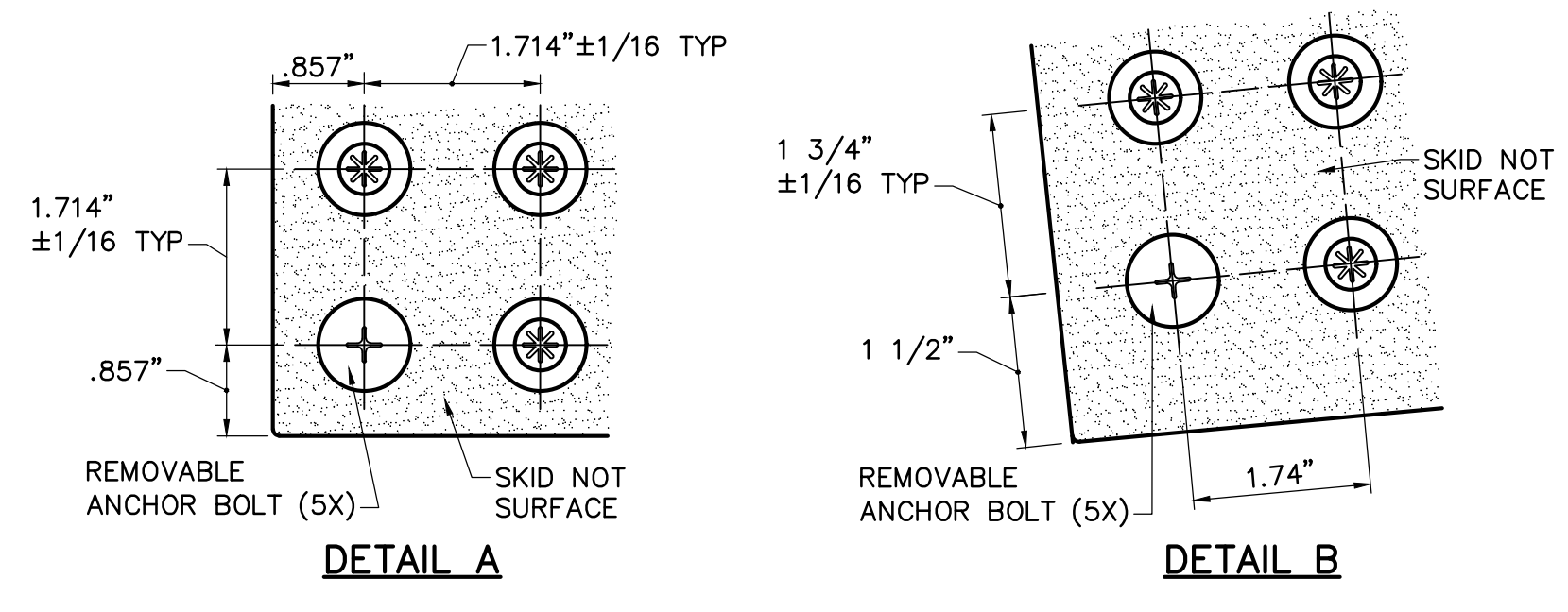
DEPRESSED CURB FOR CURB RAMPS
NOT TO SCALE

DETECTABLE WARNING PANEL NOTES:

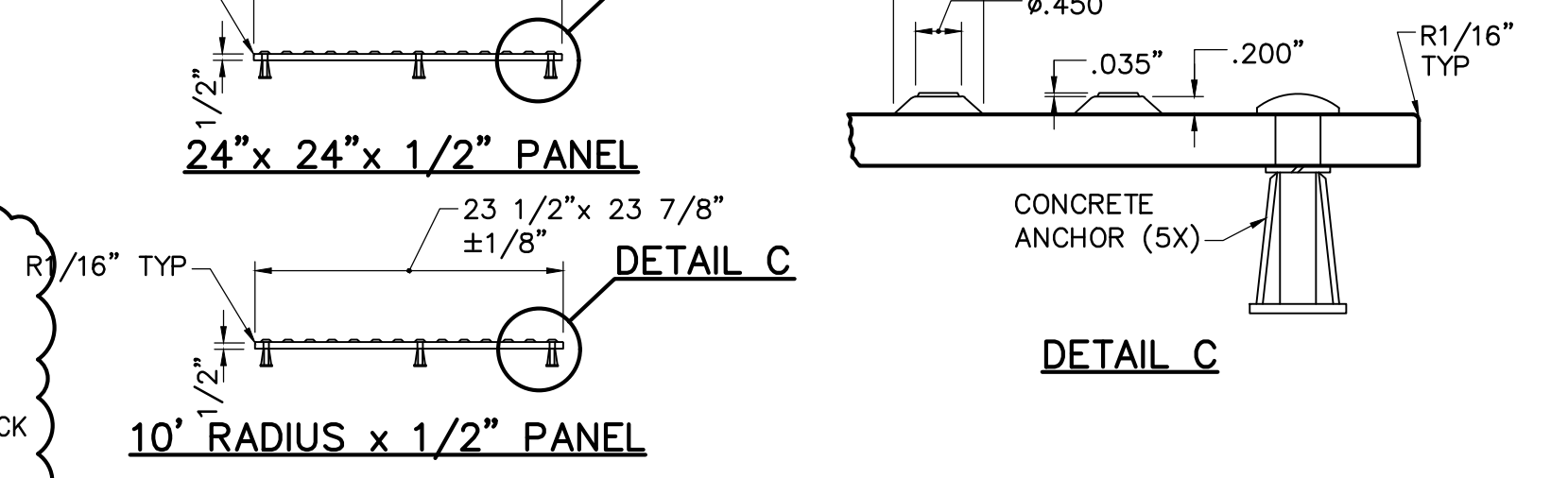
- CONTRACTOR SHALL USE WET SET REPLACEABLE DETECTABLE WARNING PANELS MANUFACTURED BY ADA SOLUTIONS, INC., OR AN APPROVED EQUAL.
- PANELS SHALL CONSIST OF 2x2, 2x3, 2x4 STRAIGHT PIECES AND RADIUS PIECES AS REQUIRED TO SUIT FIELD CONDITIONS.
- PANELS SHALL HAVE A CONTRAST COLOR WHICH WILL BE COORDINATED WITH THE OWNER.



24" x 24" x 1/2" PANEL **10' RADIUS x 1/2" PANEL**

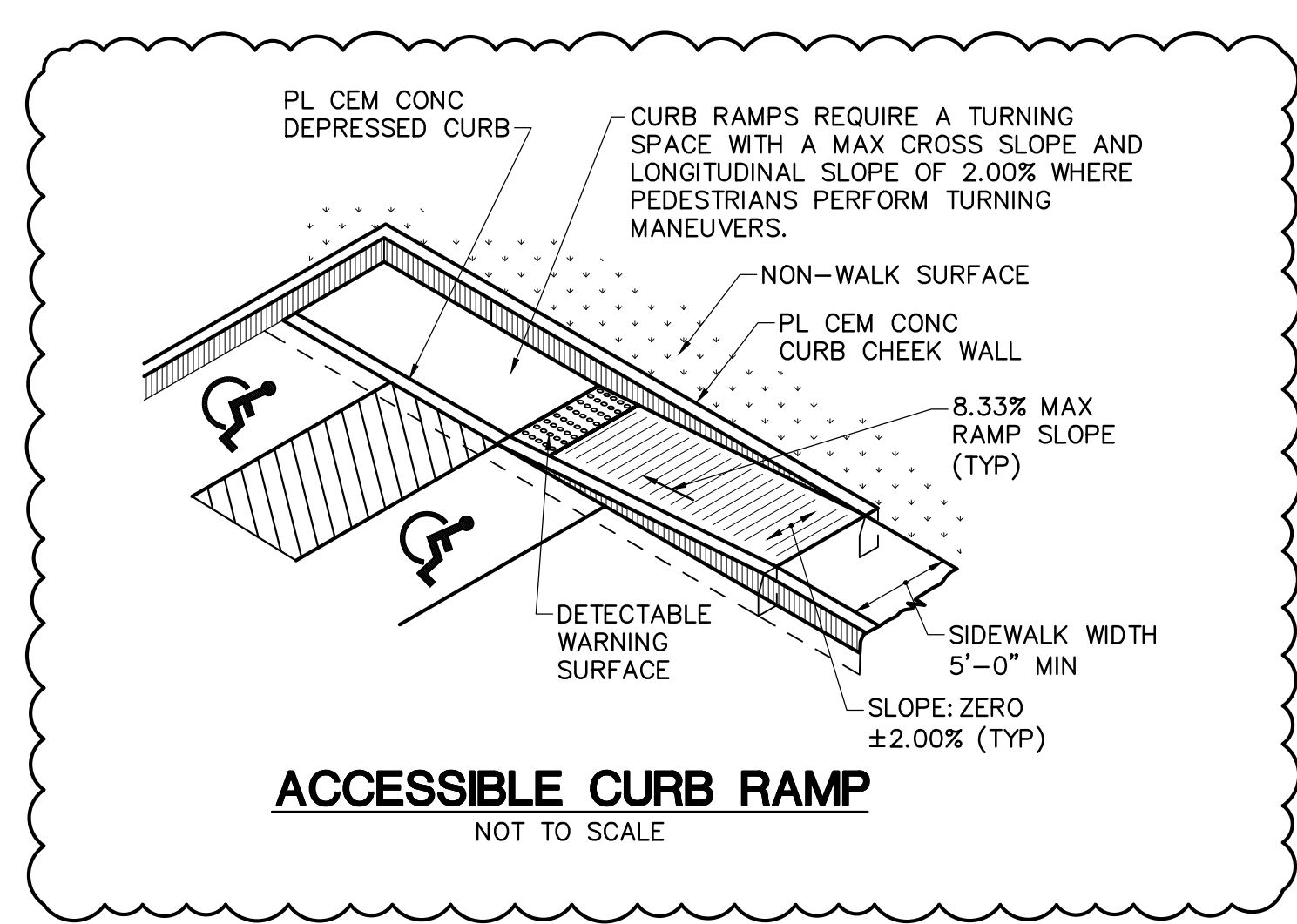


24" x 24" x 1/2" PANEL **10' RADIUS x 1/2" PANEL**

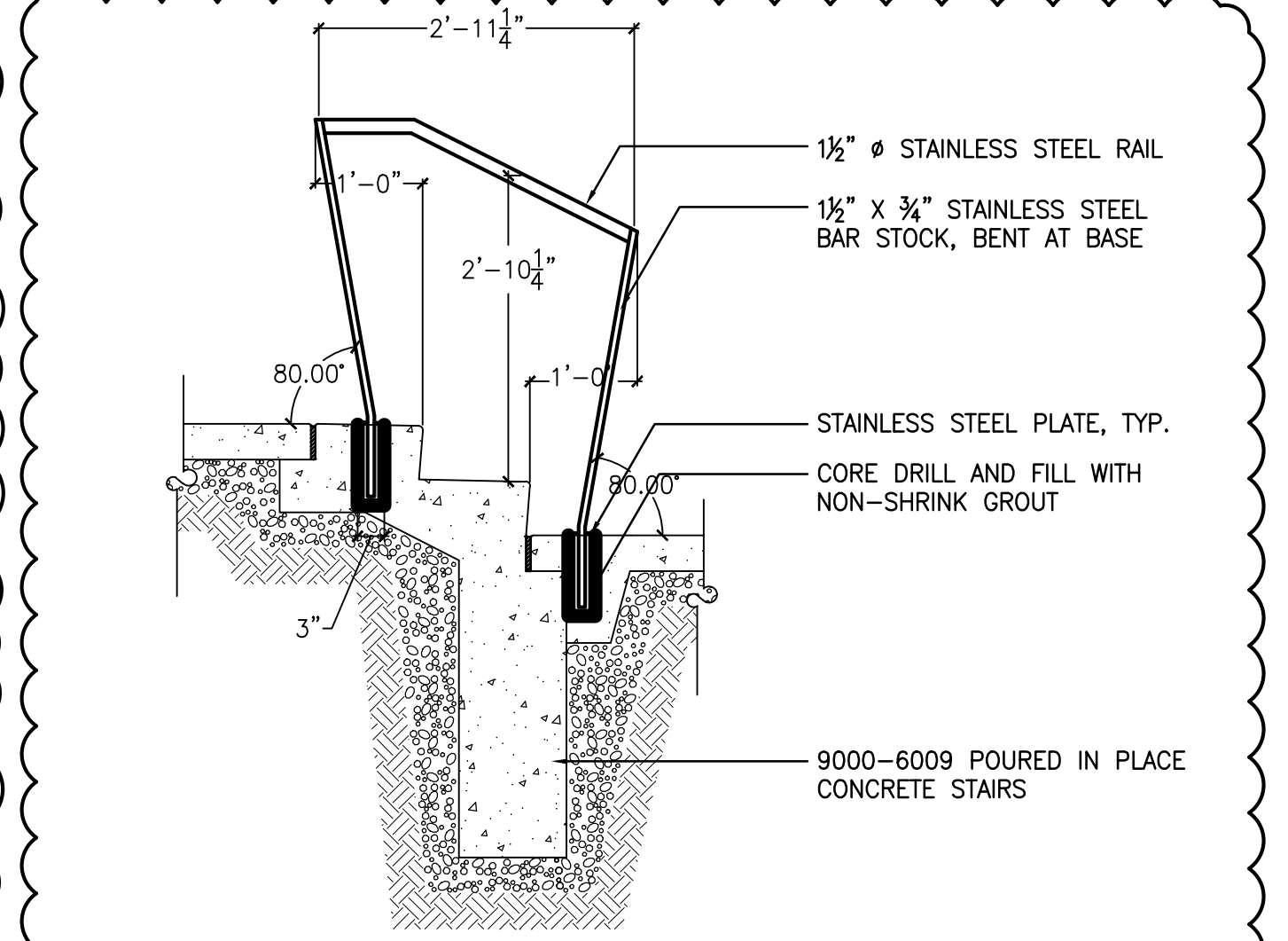


24" x 24" x 1/2" PANEL **10' RADIUS x 1/2" PANEL**

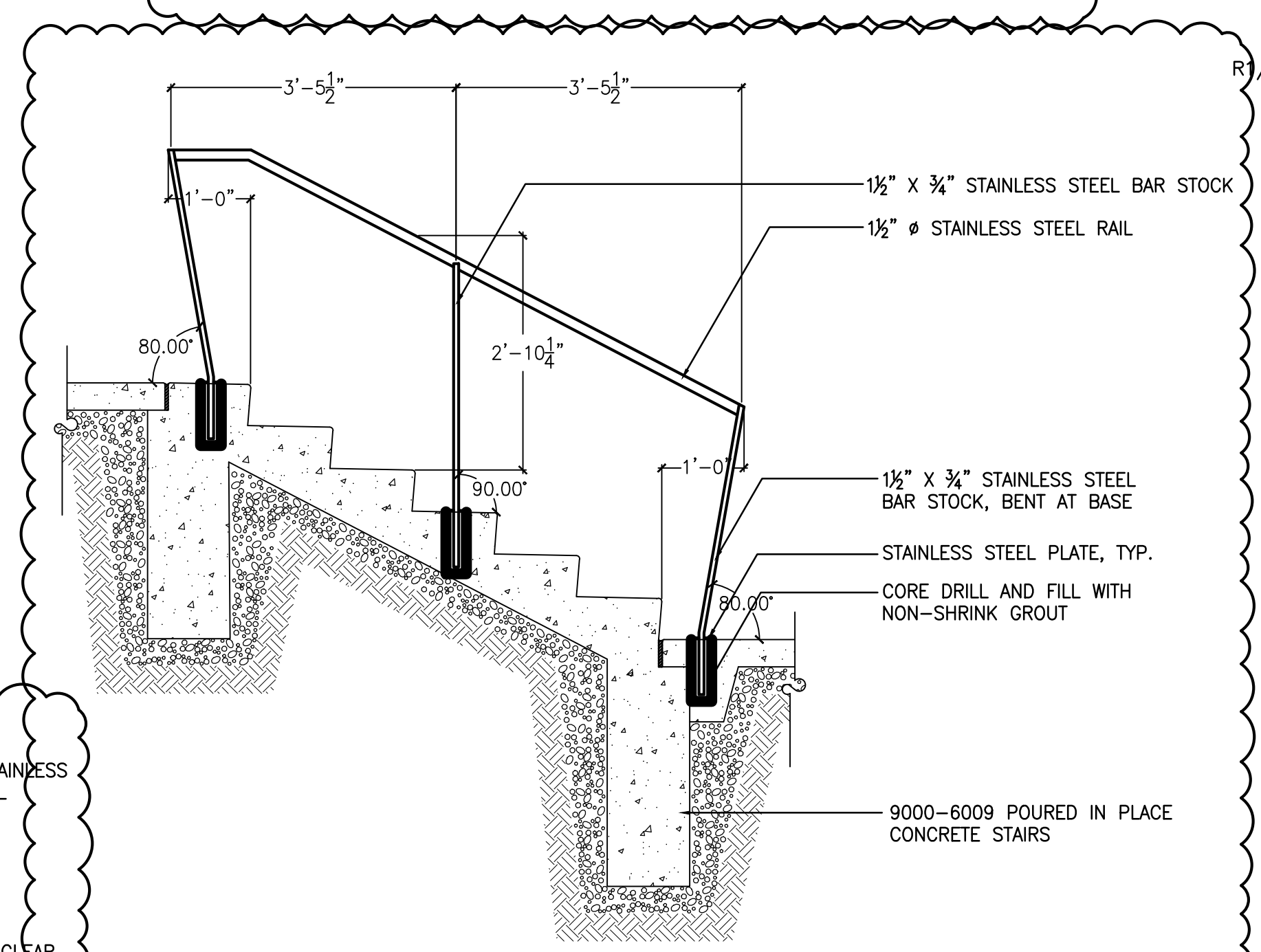
REPLACEABLE DETECTABLE WARNING PANELS
NOT TO SCALE



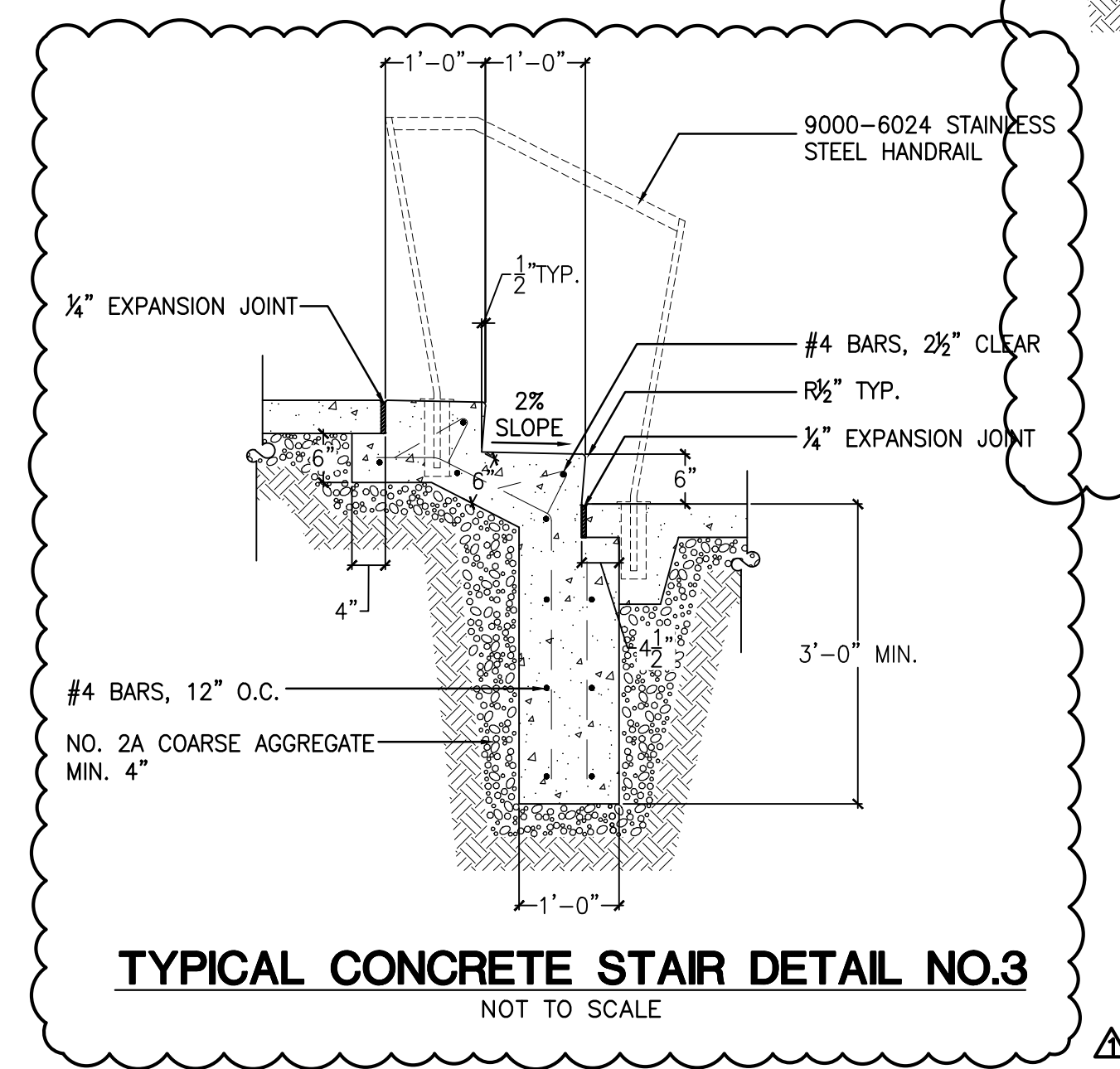
ACCESSIBLE CURB RAMP
NOT TO SCALE



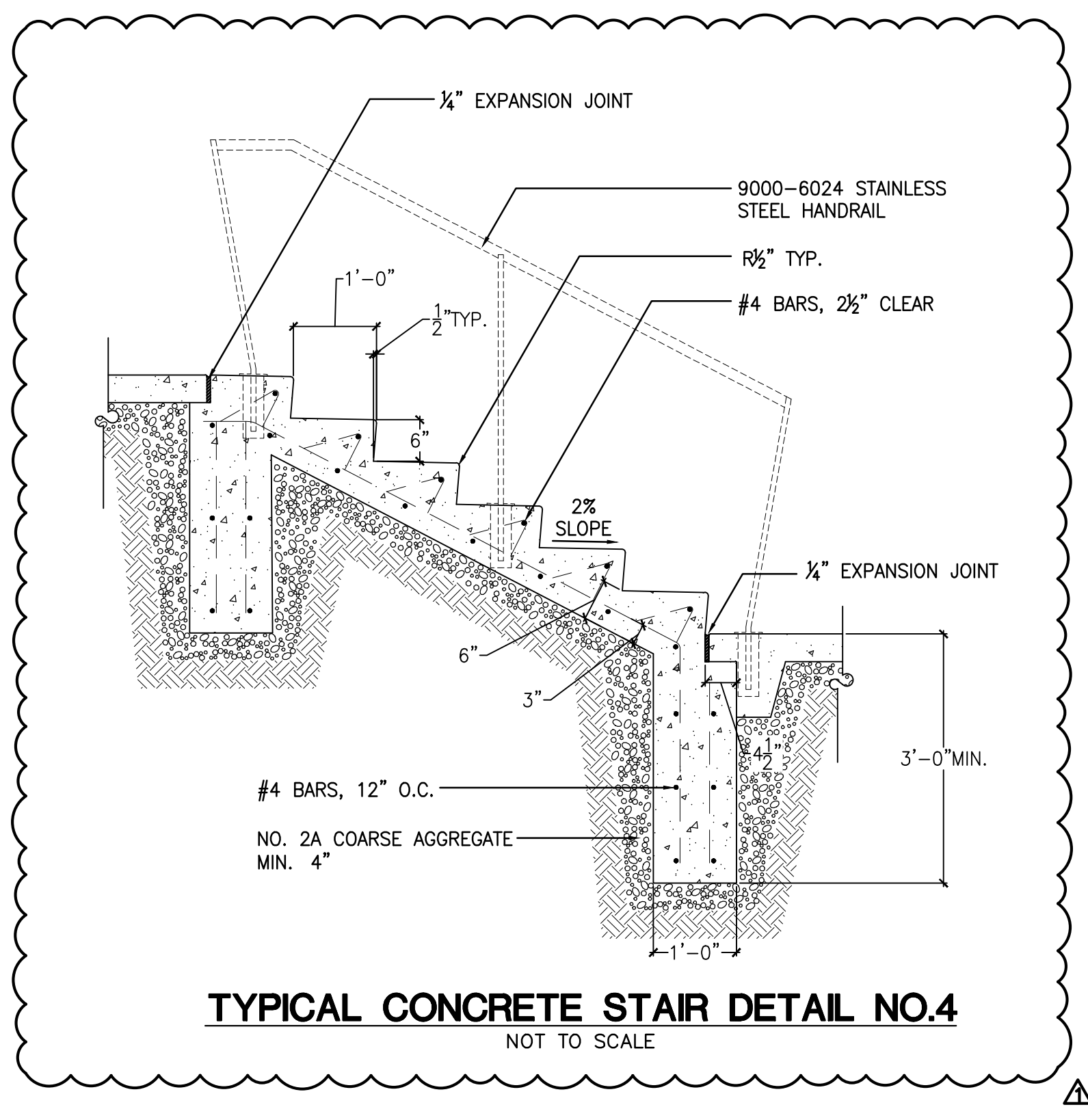
TYPICAL CONCRETE STAIR DETAIL NO.1
NOT TO SCALE



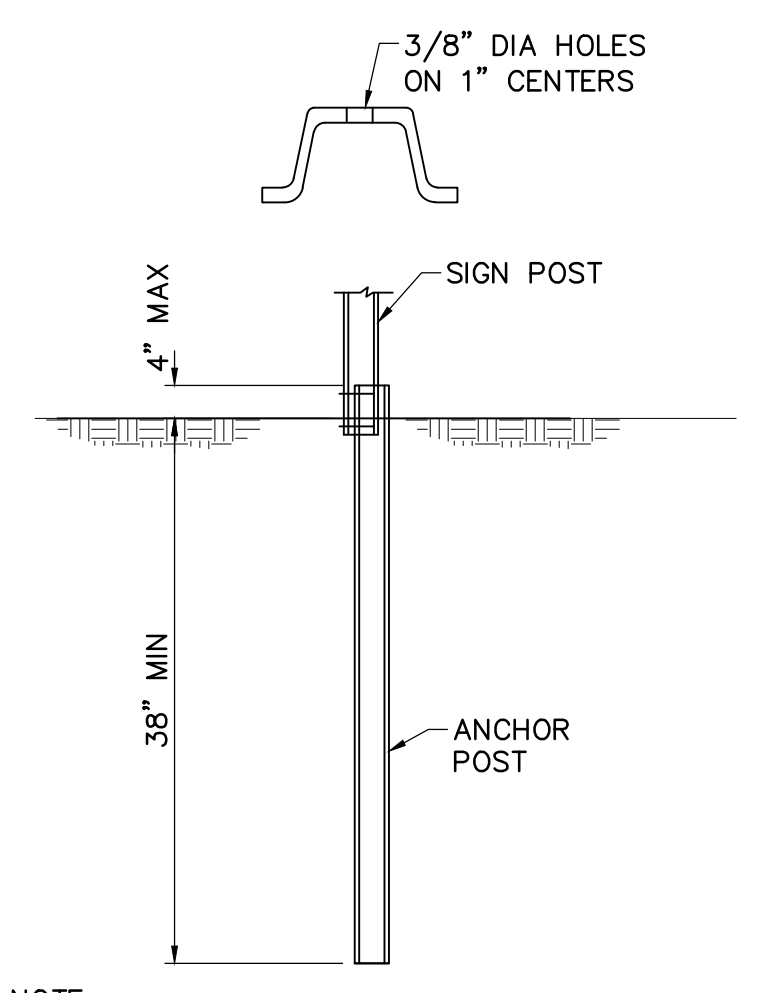
TYPICAL CONCRETE STAIR DETAIL NO.2
NOT TO SCALE



TYPICAL CONCRETE STAIR DETAIL NO.3
NOT TO SCALE



TYPICAL CONCRETE STAIR DETAIL NO.4
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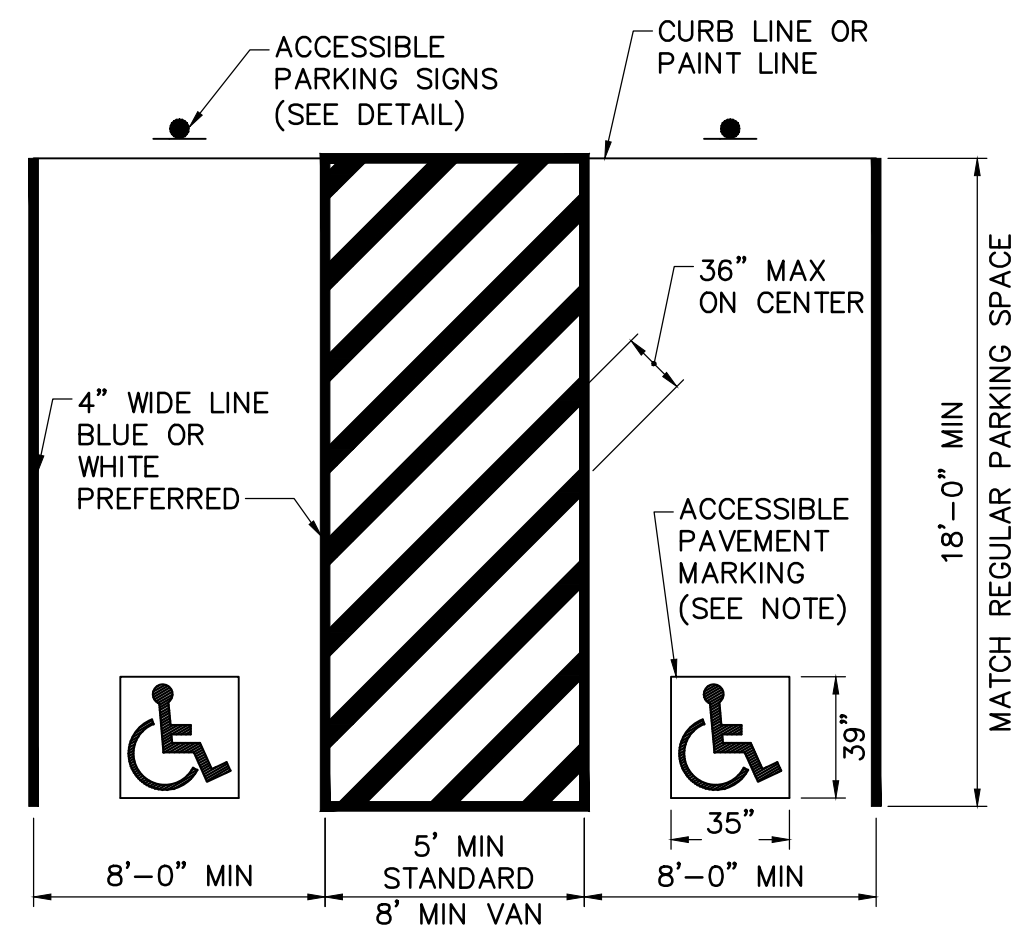


NOTE:

- 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

TRAFFIC SIGN SCHEDULE				
SIGN No	SIZE	DESCRIPTION	HEIGHT TO BOTTOM OF SIGN	REMARKS
R1-1	30"x30"	STOP SIGN	7'-0"	--
R7-8	12"x 18"	RESERVE PARKING	VARIABLES	--
R7-8P	12"x 6"	VAN ACCESSIBLE	8'-6"	--
R7-8F	12"x 18"	RESERVE PARKING PENALTIES SIGN	7'-0"	--



NOTES:

- HANDICAP SYMBOL SHALL BE WHITE, IT MAY BE INSTALLED ALONG WITH A BLUE BACKGROUND WHICH EXTENDS 3" BEYOND THE HANDICAP SYMBOL.
- SEE SITE PLAN FOR PARKING SPACE DIMENSIONS.

ACCESSIBLE PARKING SPACES
NOT TO SCALE



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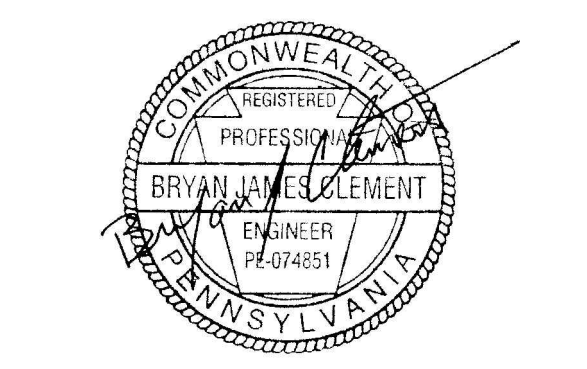
Nature leads, art follows.



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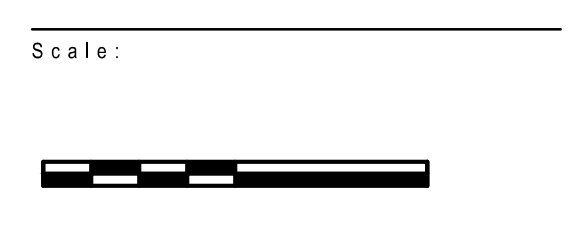
Susquehanna Union Green

Susquehanna Township, Dauphin County, PA



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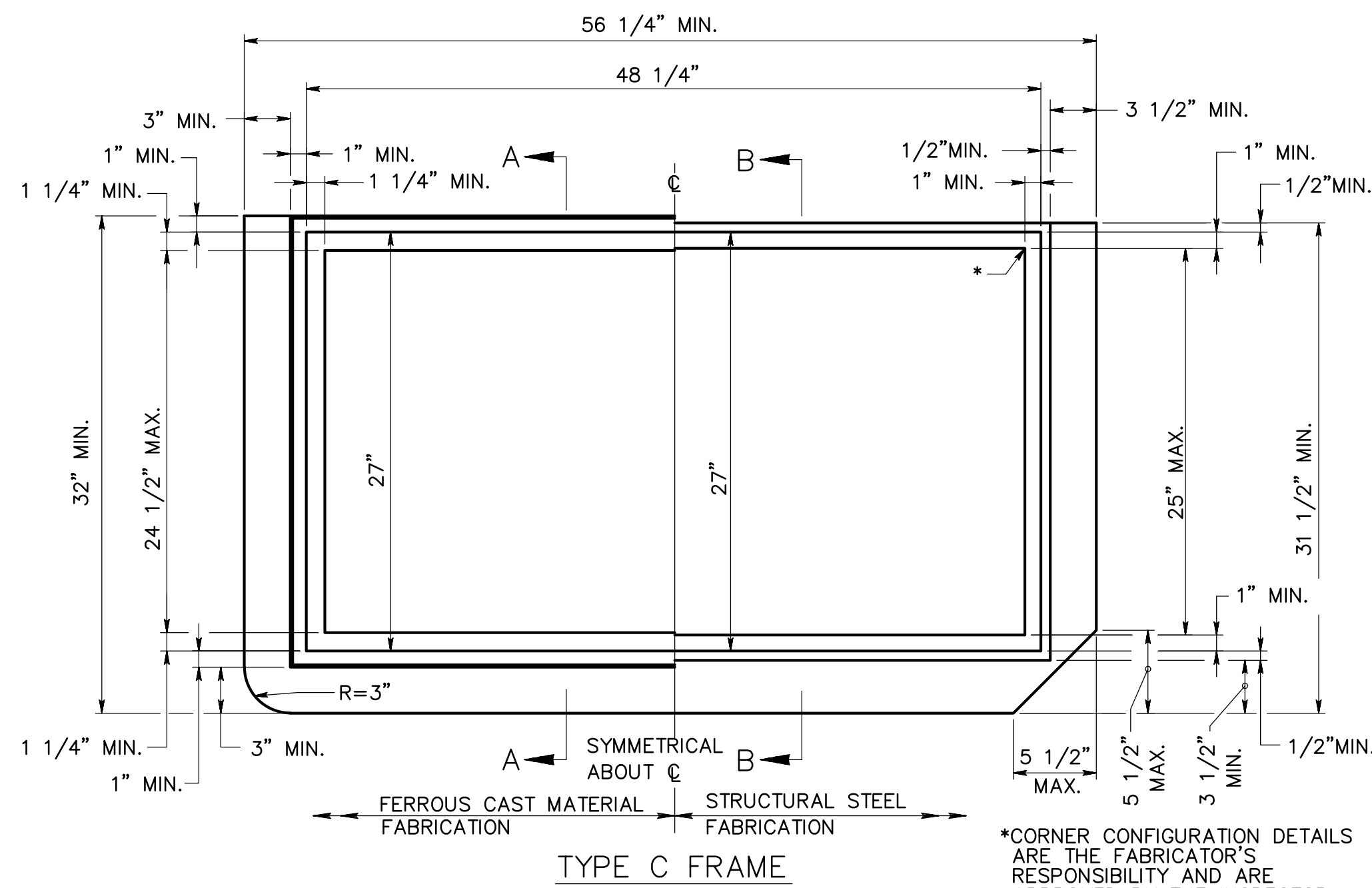
Sheet Name:
Site Details

Submission:
Phase III Final Land Development Plans

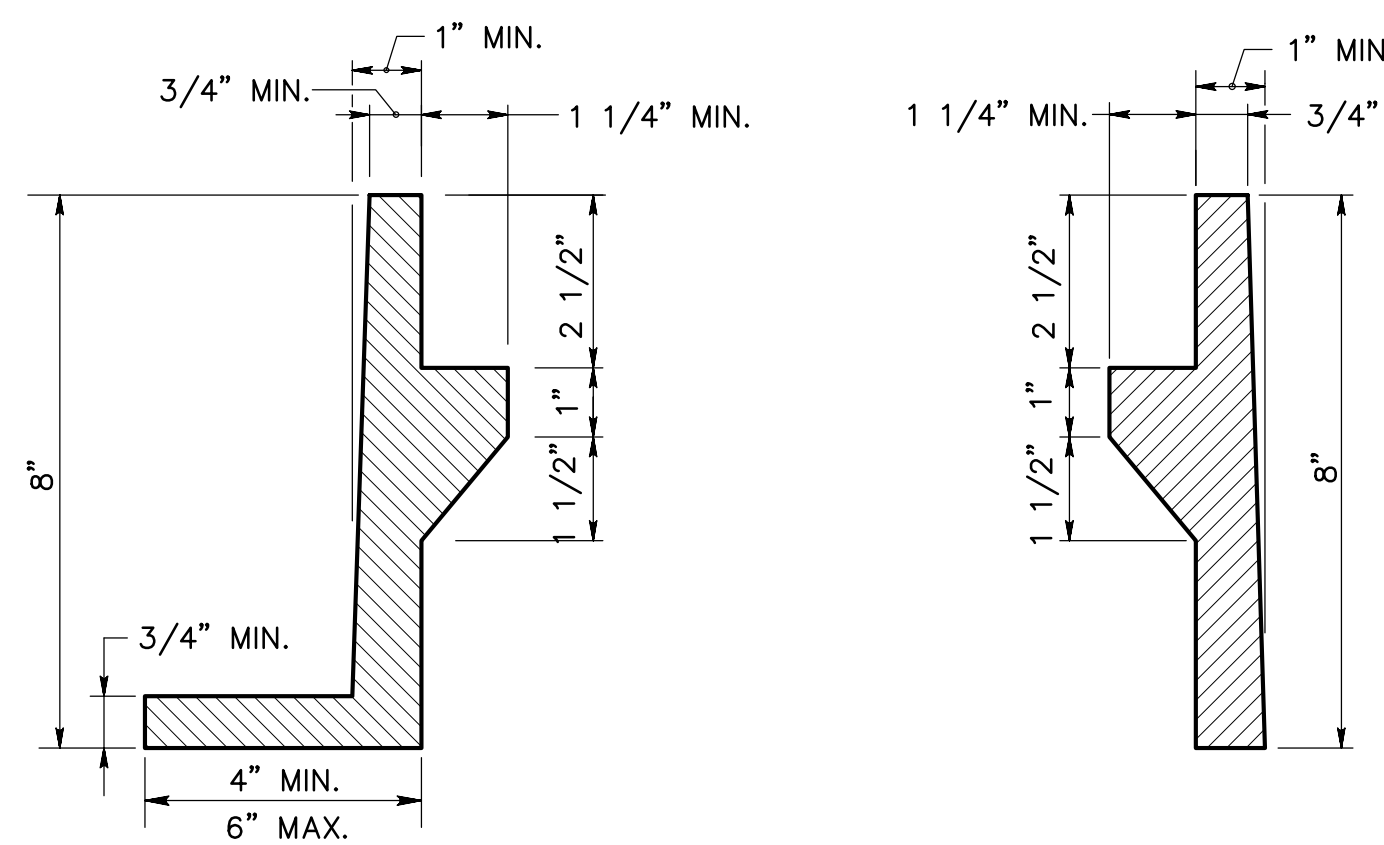
Sheet Number:

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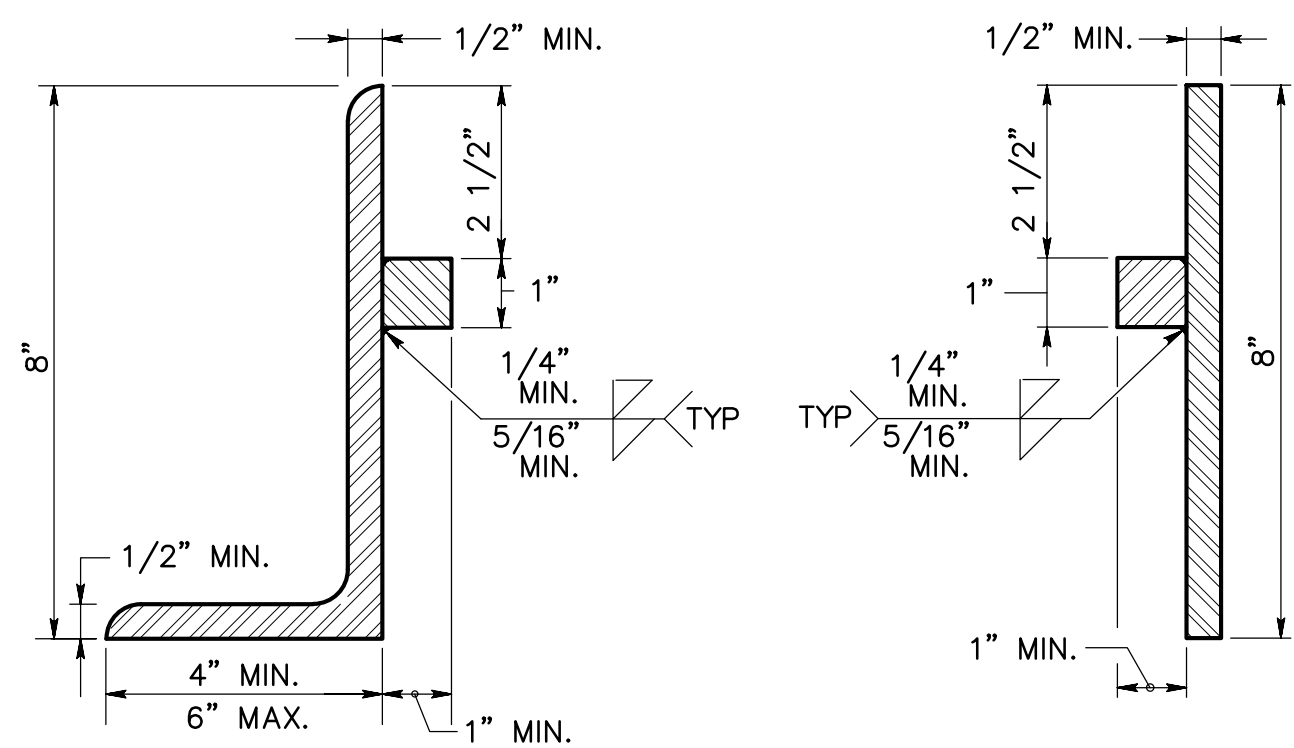


*CORNER CONFIGURATION DETAILS ARE THE FABRICATOR'S RESPONSIBILITY AND ARE APPROVED BY THE INSPECTOR.



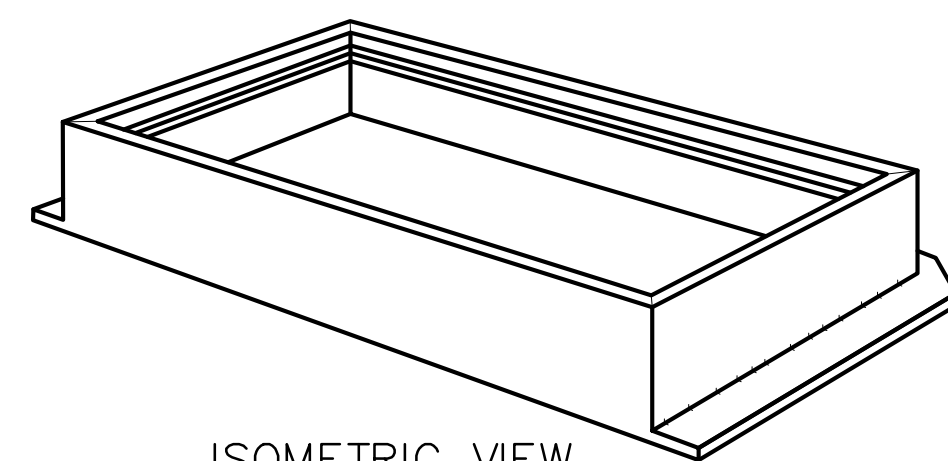
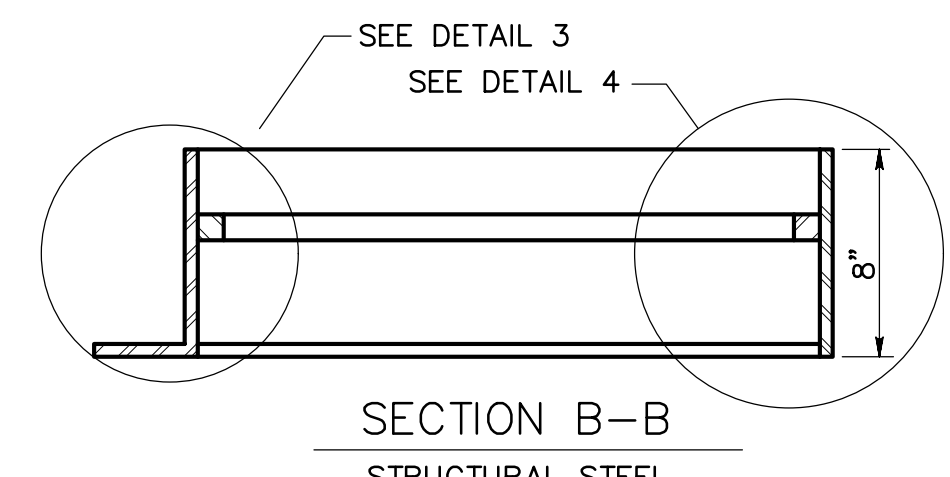
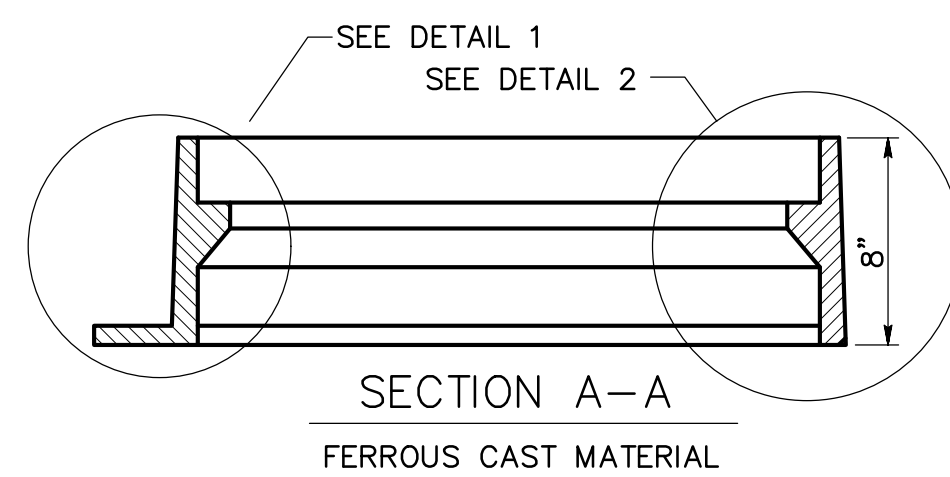
DETAIL 1

DETAIL 2



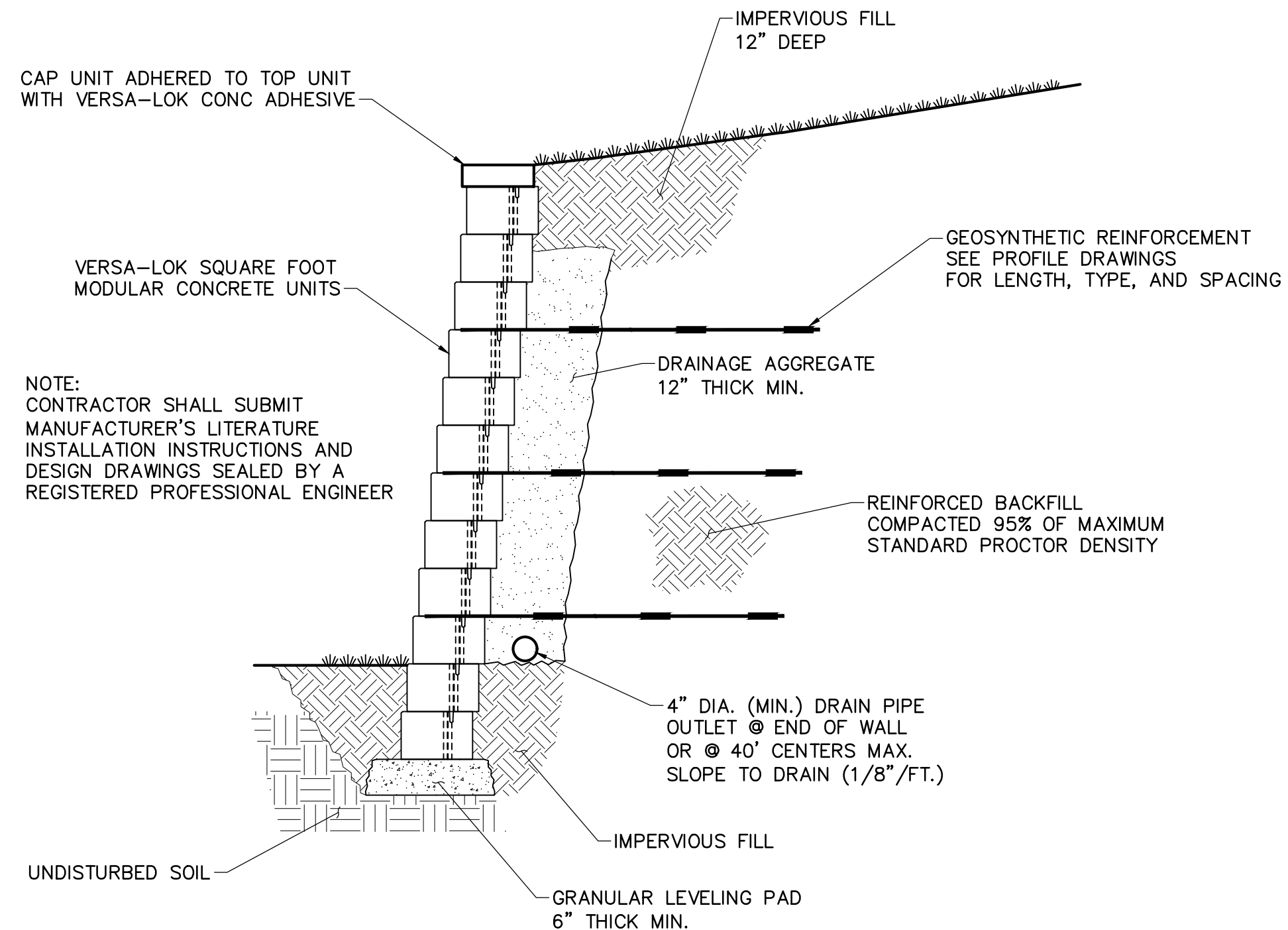
DETAIL 3

DETAIL 4



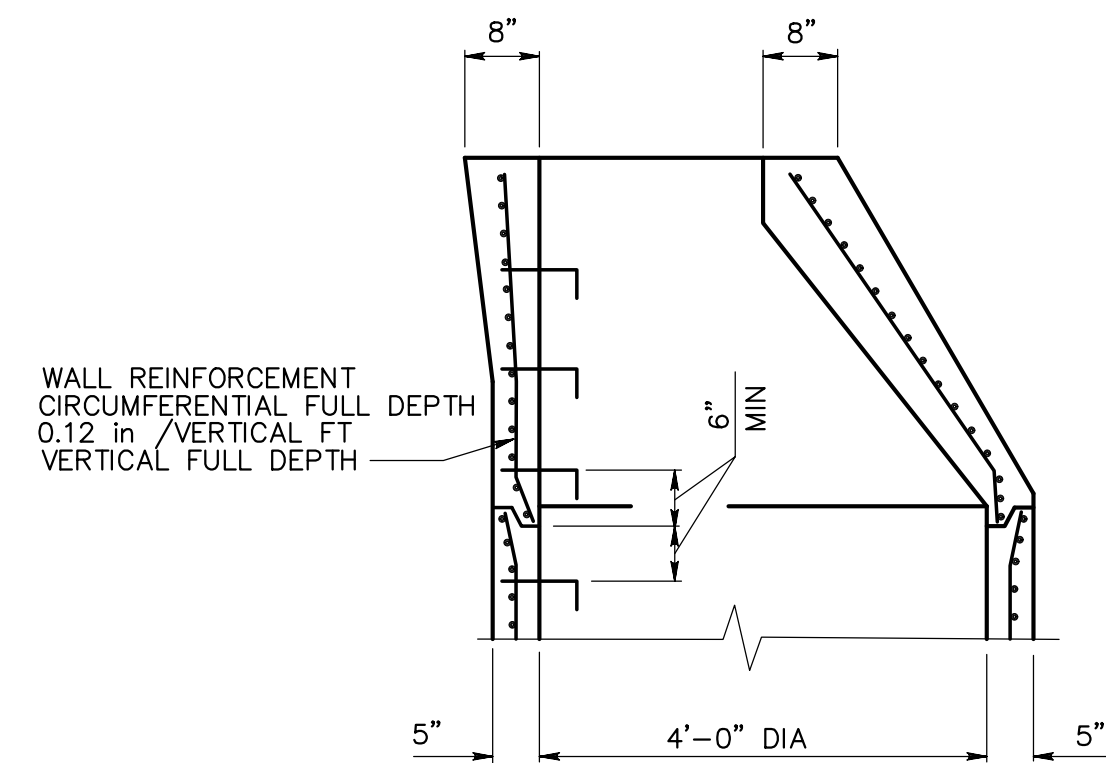
PADOT STANDARD TYPE C INLET FRAME

NOT TO SCALE
NOT TO SCALE



TYPICAL SECTION-REINFORCED RETAINING WALL

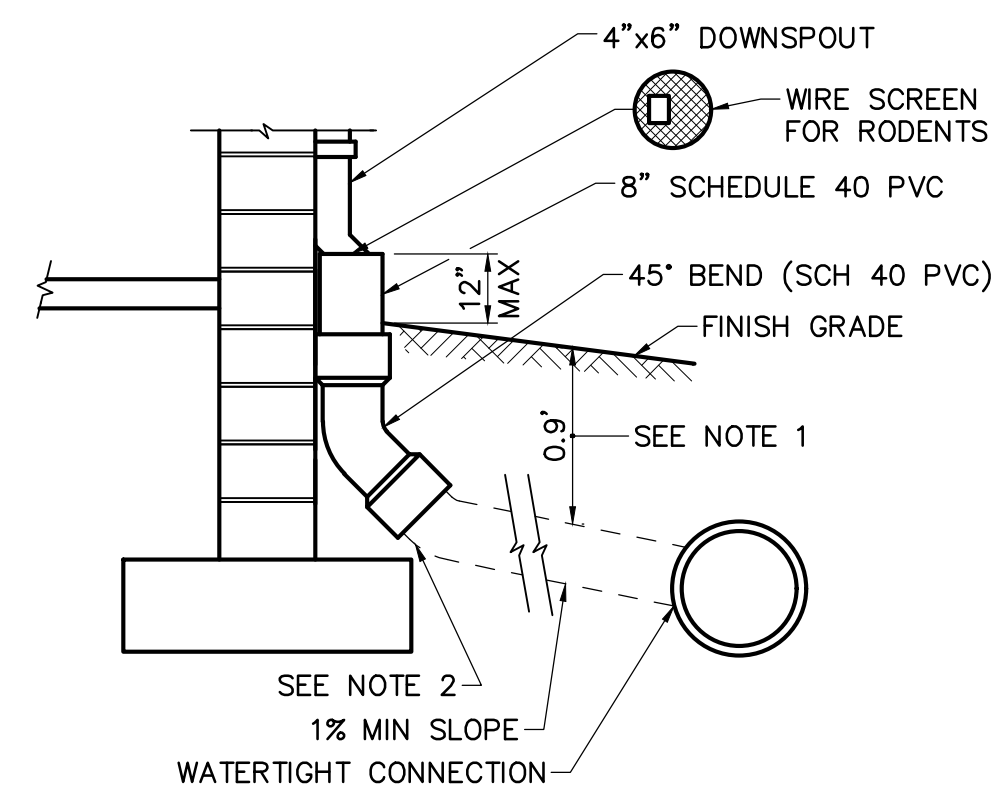
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SECTION B-B

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.

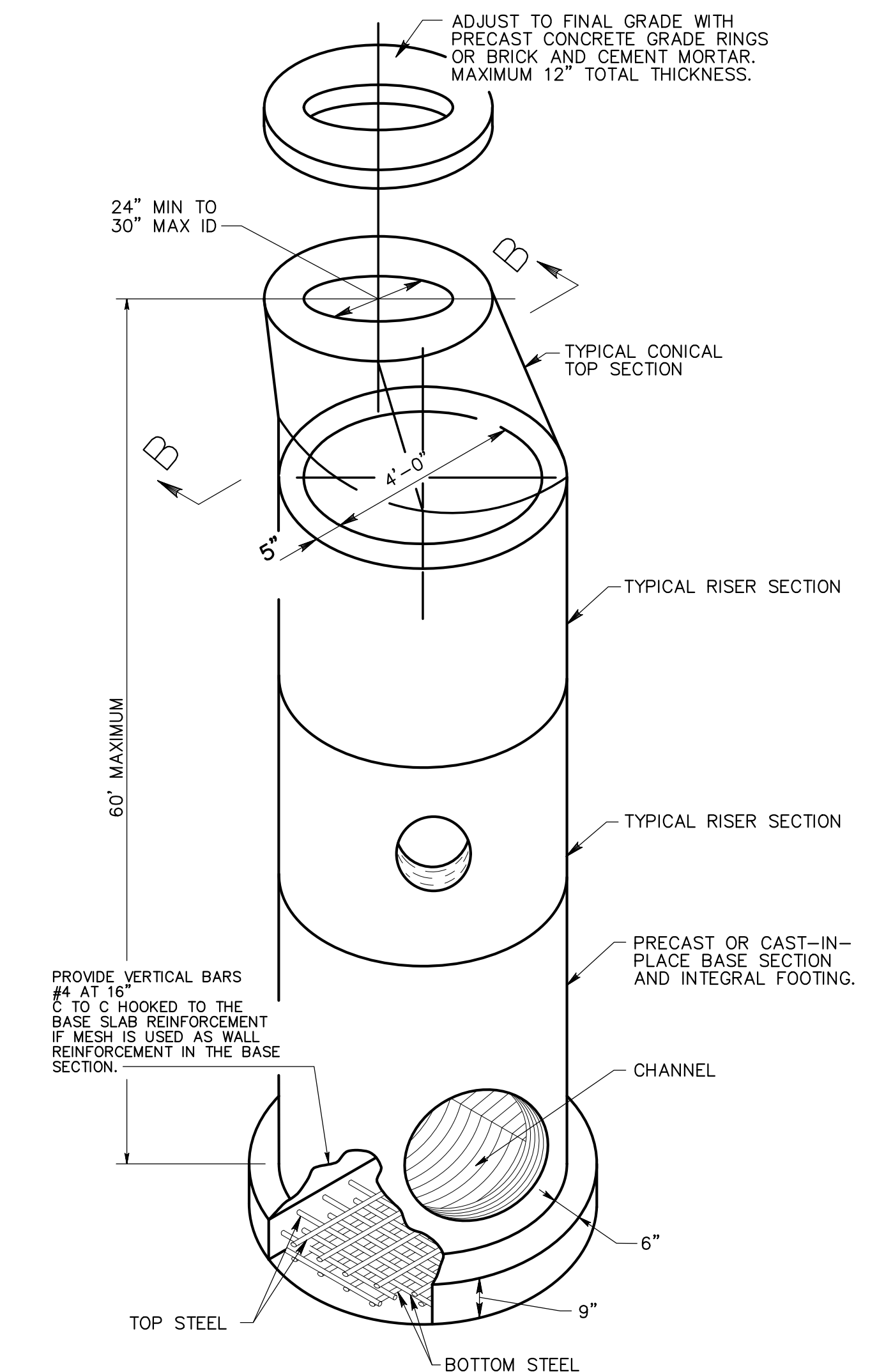


NOTES:

- 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 2. 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. SITEWORK 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



PRECAST MANHOLE DETAIL

NOT TO SCALE



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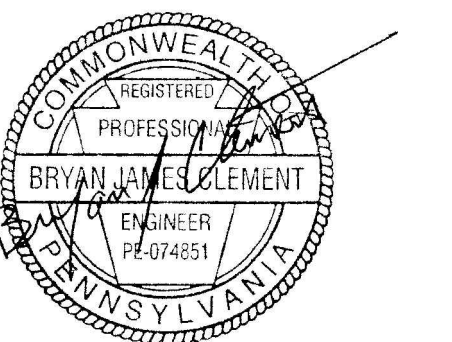


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Revisions:

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Sheet Name:

Site Details

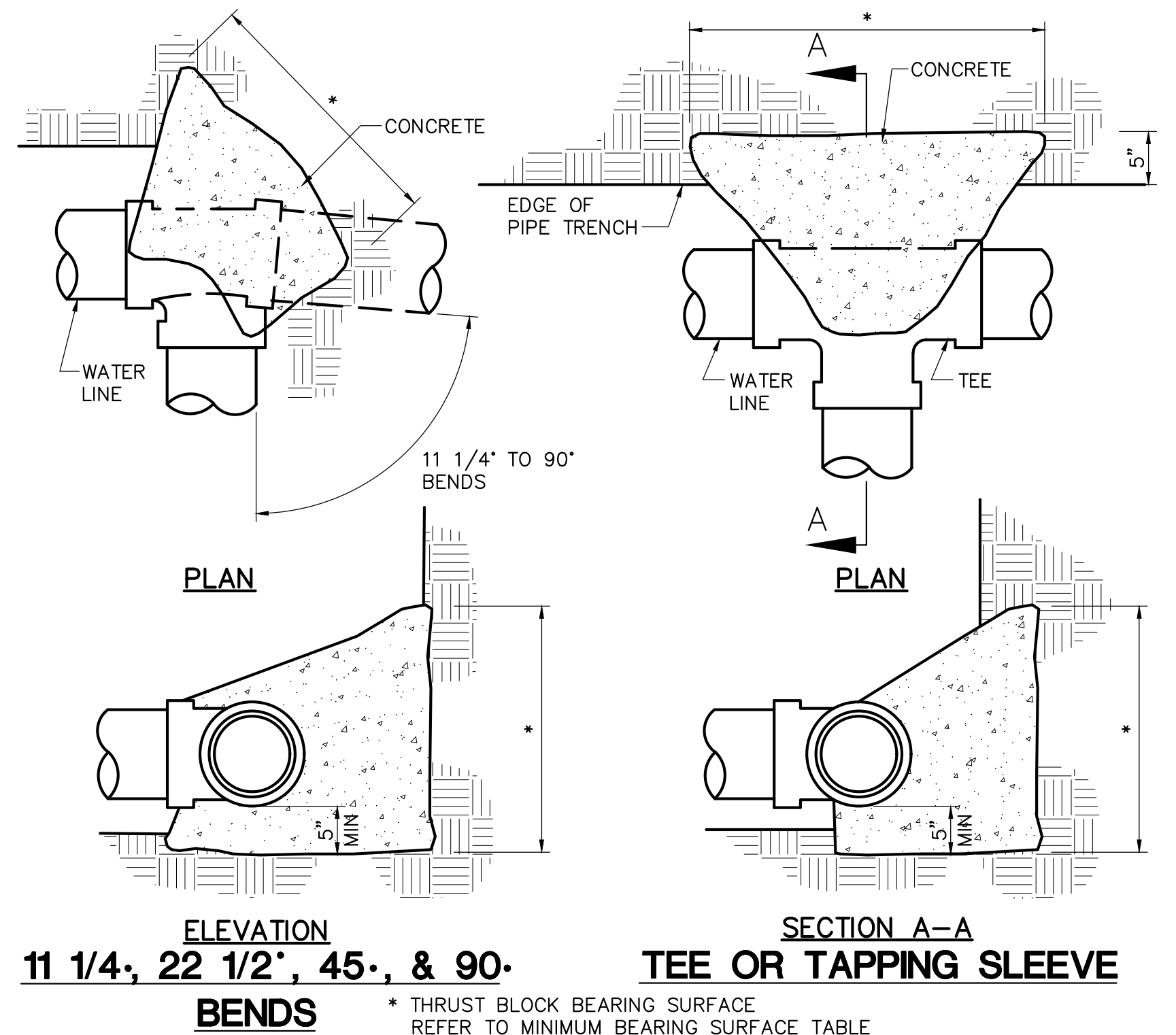
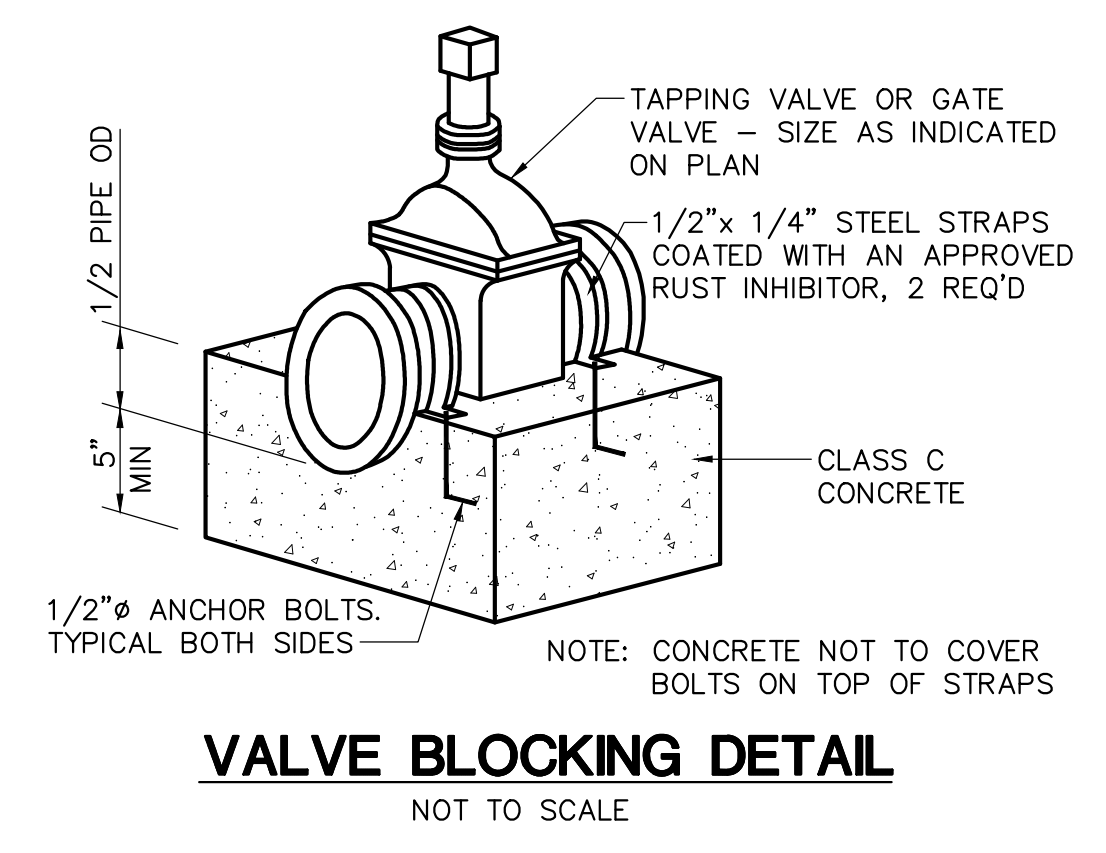
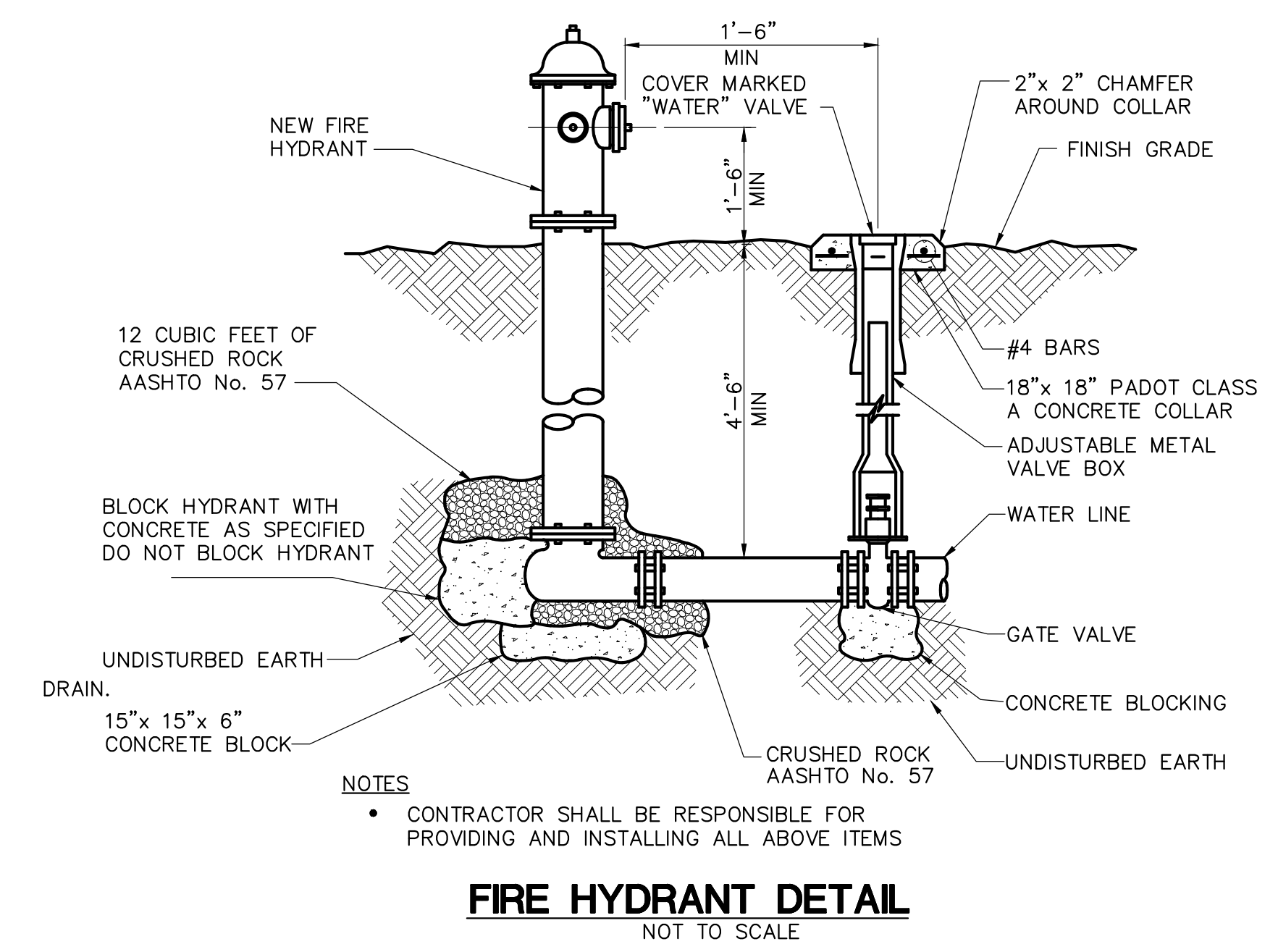
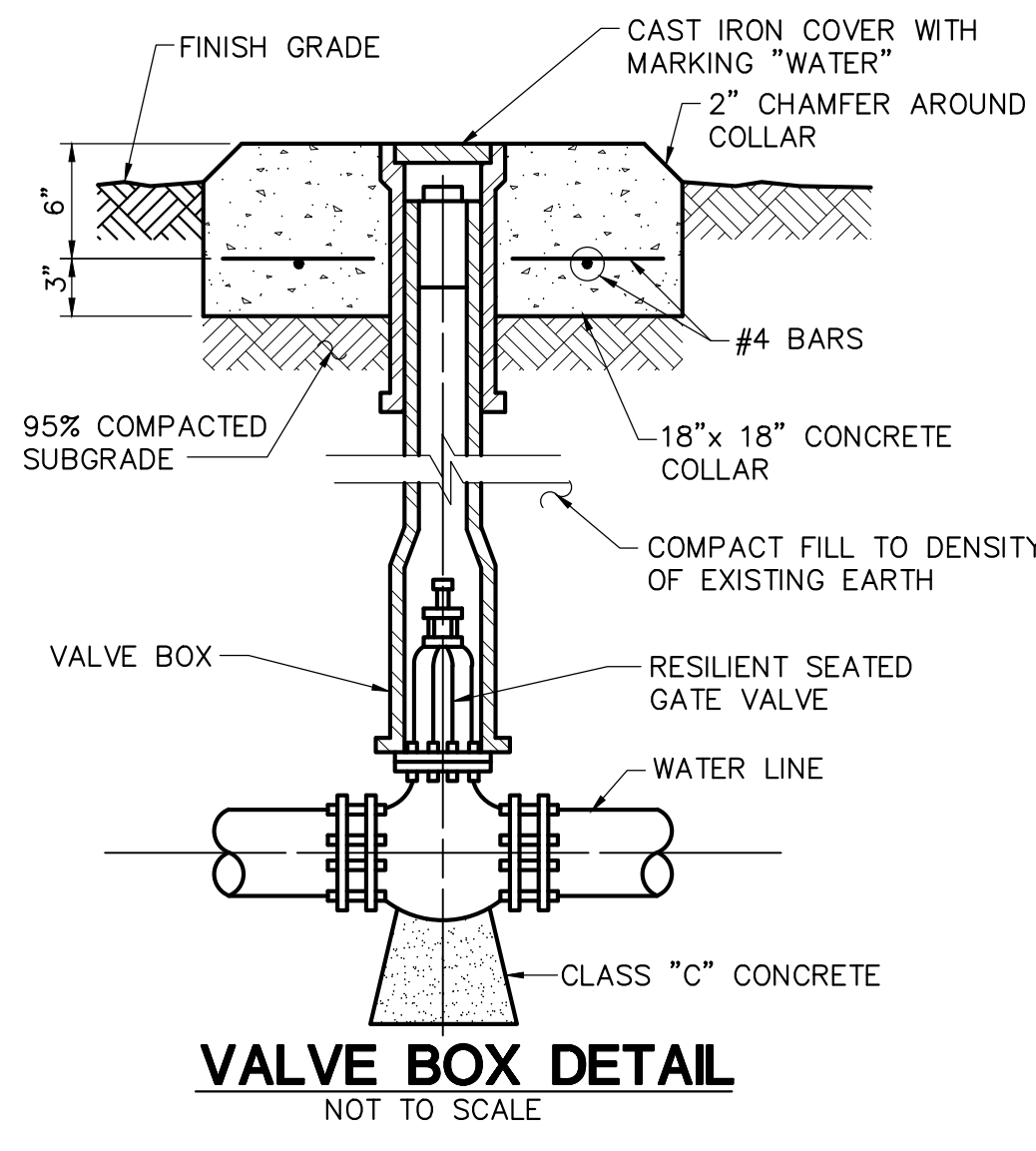
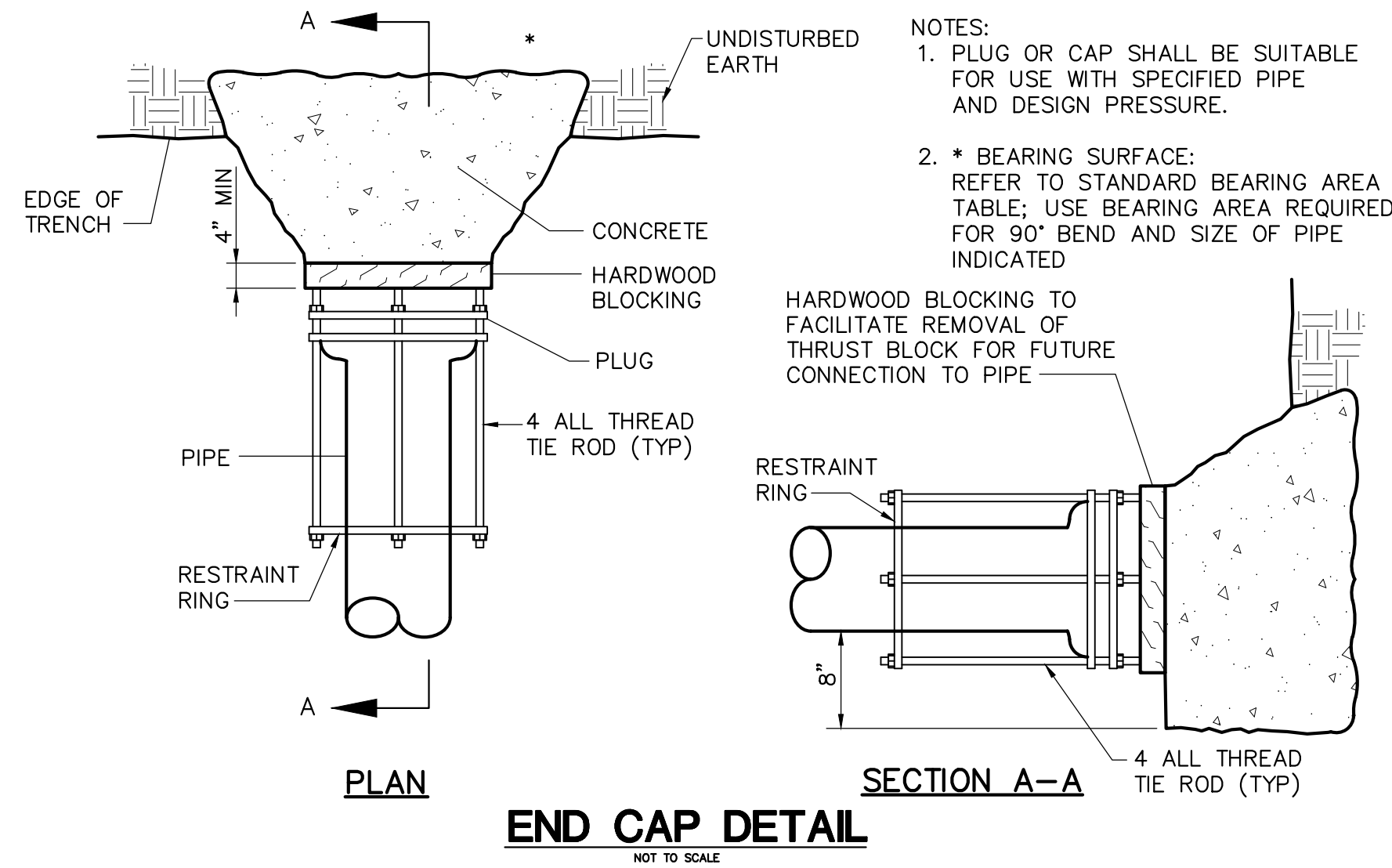
Submission:

Phase III Final Land Development Plans

Sheet Number:

C601

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THRUST BLOCK BEARING AREA
THRUST BLOCKING AT 100 PSI WORKING PRESSURE

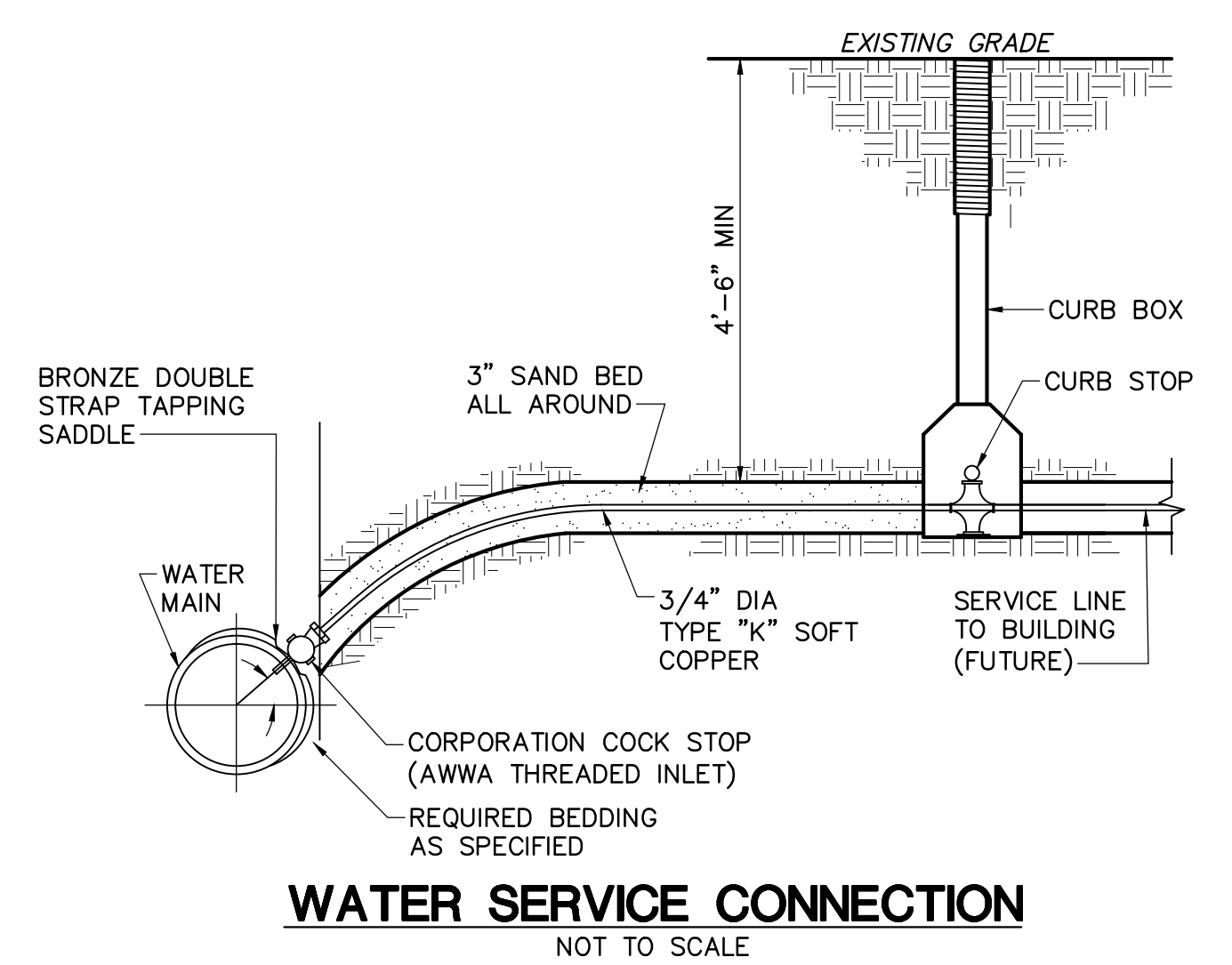
PIPE SIZE INCHES	MIN. BEARING SURFACE REQUIRED - S.F.				
	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND	TEES & PLUGS
4	1.0	1.0	1.0	1.0	1.0
6	1.0	1.0	1.5	2.5	2.0
8	1.0	1.5	2.5	4.0	3.0
10	1.0	2.0	3.5	6.5	5.0
12	1.5	2.5	5.0	9.0	7.0

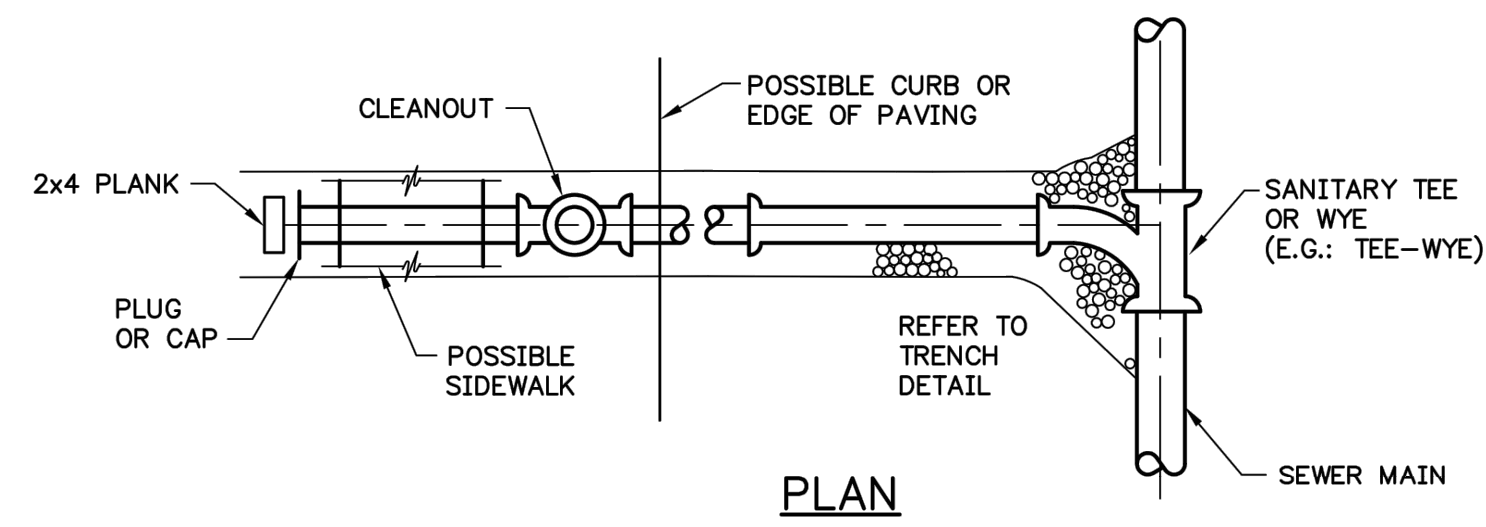
THRUST BLOCKING AT 150 PSI WORKING PRESSURE

PIPE SIZE INCHES	MIN. BEARING SURFACE REQUIRED - S.F.				
	11 1/4° BEND	22 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

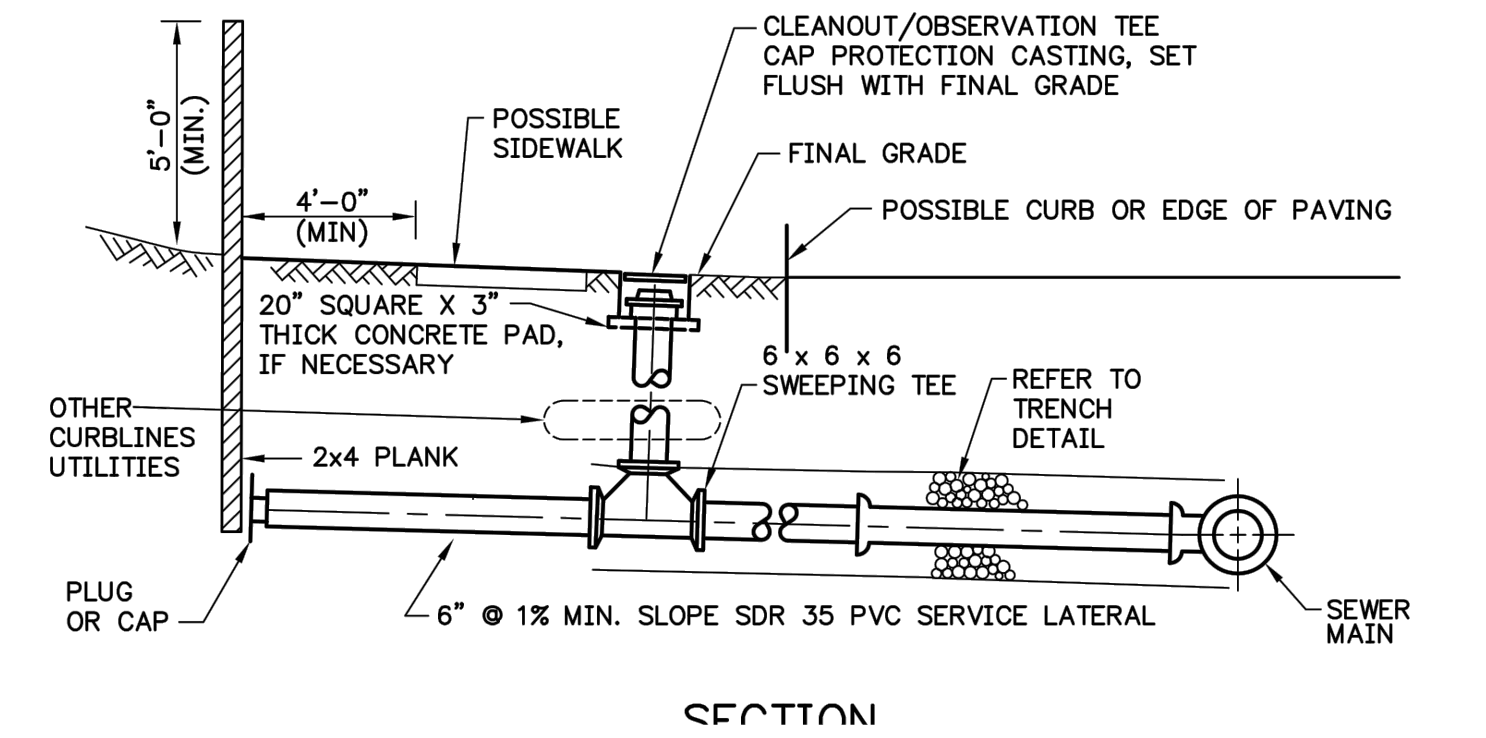
THRUST BLOCKING AT 200 PSI WORKING PRESSURE

PIPE SIZE INCHES	MIN. BEARING SURFACE REQUIRED - S.F.				
	11 1/4° BEND	22 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





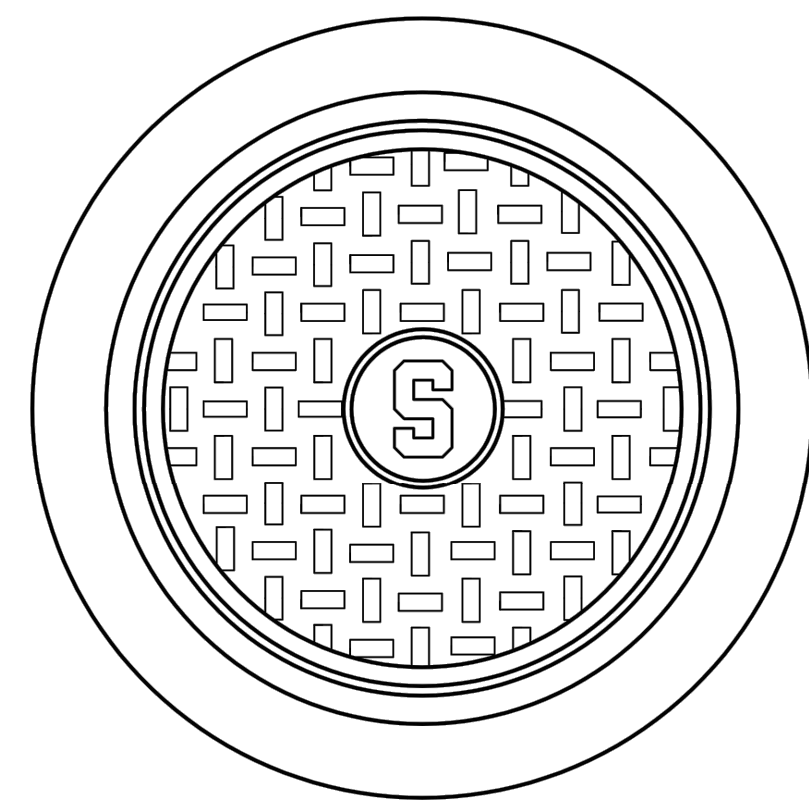
PLAN



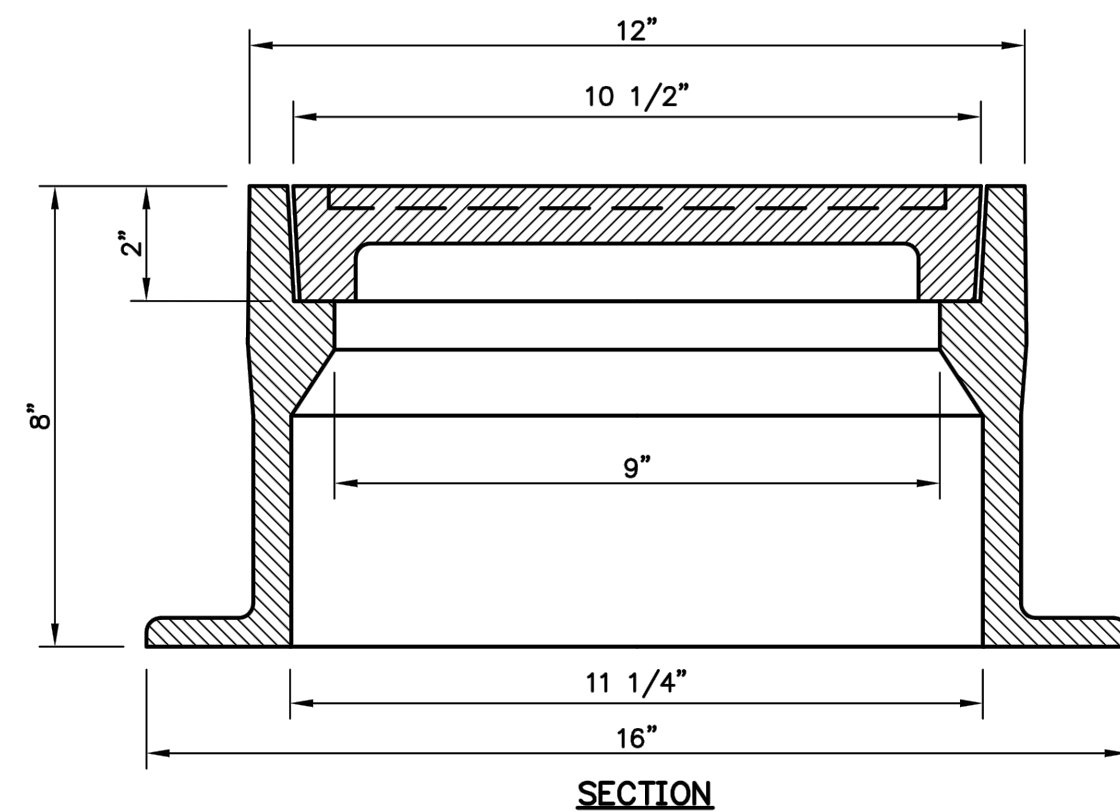
SECTION

NOTE:
CURB CLEANOUT NOT TO BE LOCATED IN SIDEWALK OR BENEATH OTHER CURBLINE UTILITIES

**SERVICE LATERAL DETAIL
NORMAL DEPTH**
NOT TO SCALE

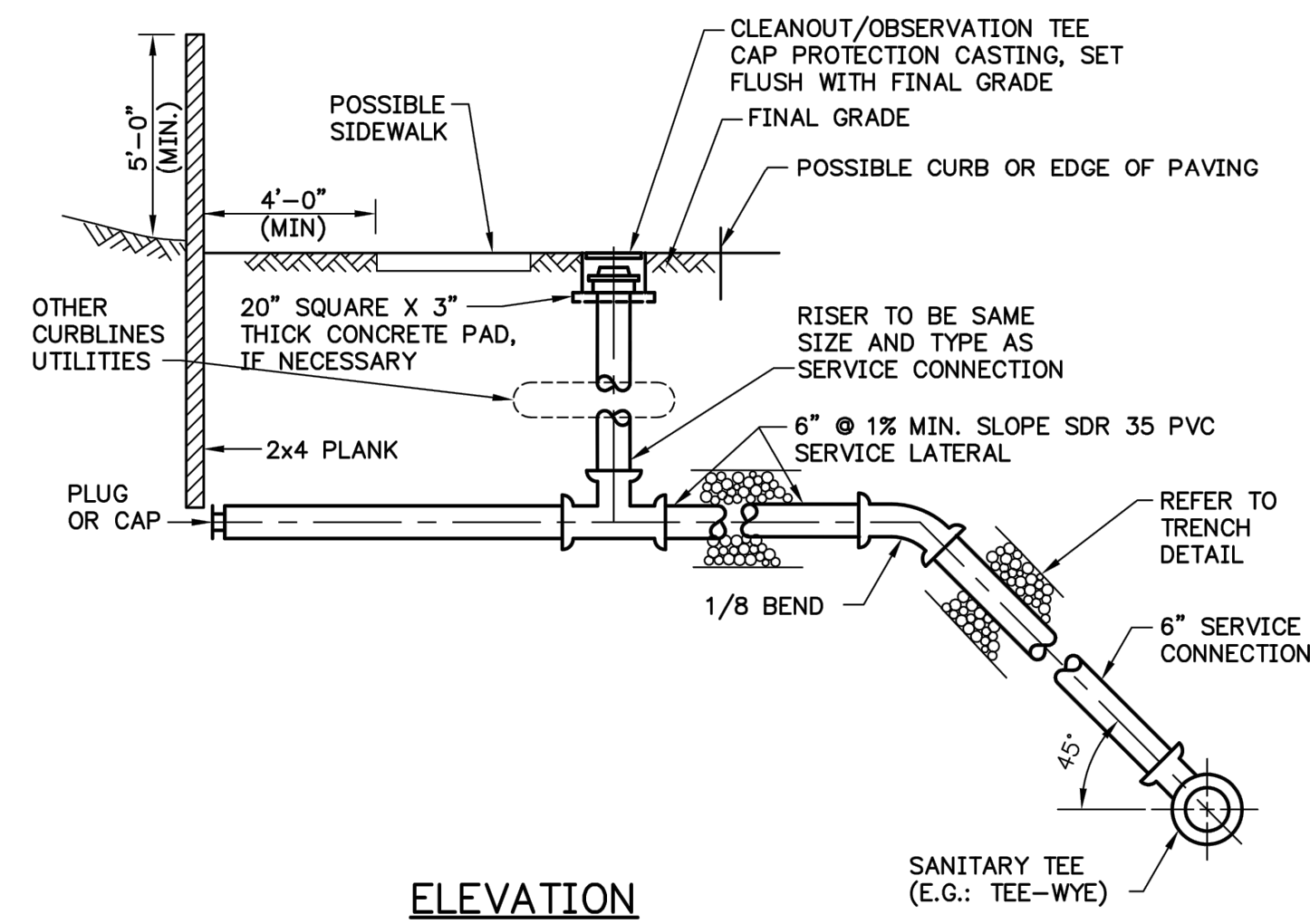


PLAN



SECTION

**CLEANOUT/TEST TEE
CAP PROTECTION CASTING**
NOT TO SCALE



ELEVATION

NOTE:
CURB CLEANOUT NOT TO BE LOCATED IN SIDEWALK OR BENEATH OTHER CURBLINE UTILITIES

**SERVICE LATERAL DETAIL
DEEP SEWER**
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)

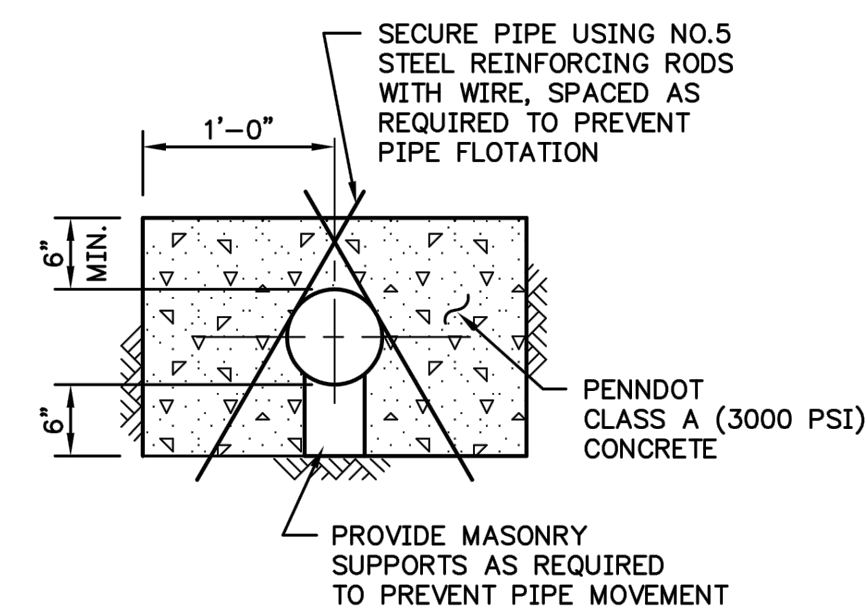
A MINIMUM OF 18" VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN THE TOP OF THE SEWER AND THE BOTTOM OF THE WATER LINE.

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

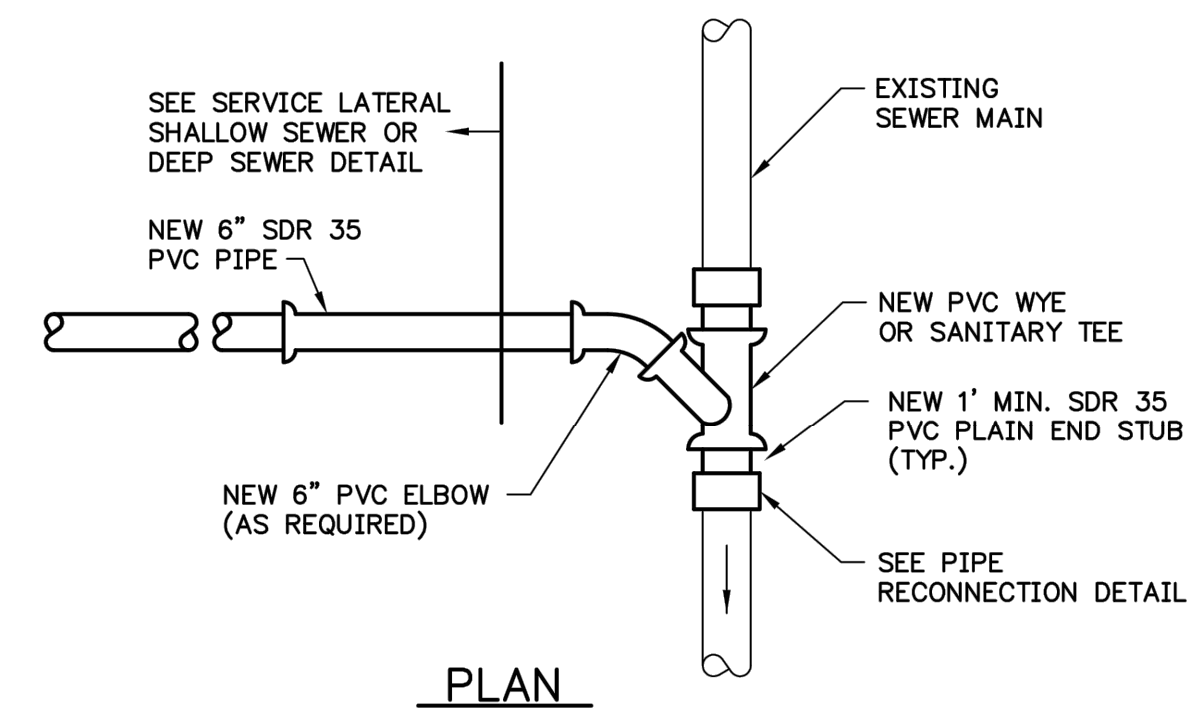
CONTRACTOR SHALL MAINTAIN MINIMUM 10' SEPARATION BETWEEN WATER AND SANITARY SEWER LATERALS.

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

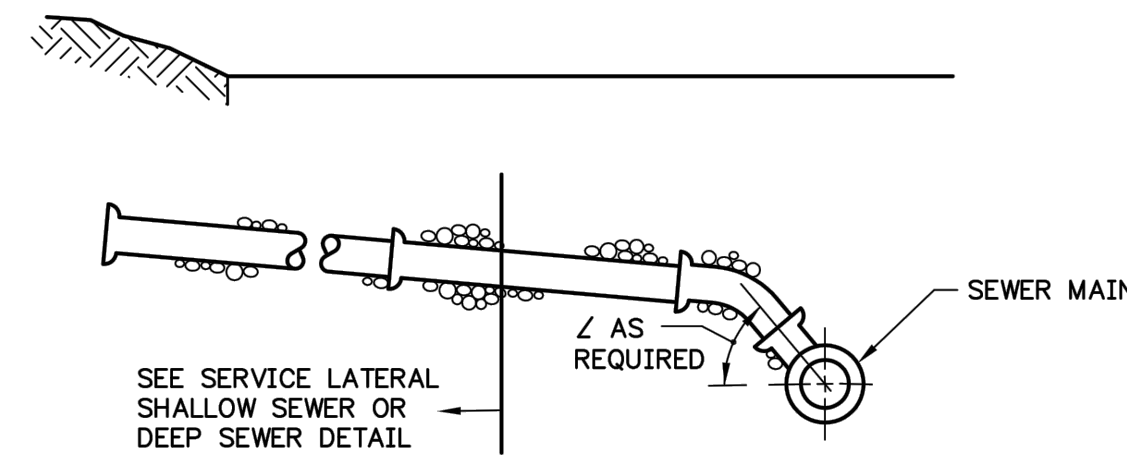
LATERALS LOCATED IN AREAS CONSTRUCTED ON DUCTILE IRON PIPE SHALL BE DUCTILE IRON TO THE RIGHT-OF-WAY LINE WHERE THEY ARE TRANSITIONED TO PVC USING ROMAC TRANSITION GASKET.



CONCRETE ENCASEMENT DETAIL
NOT TO SCALE



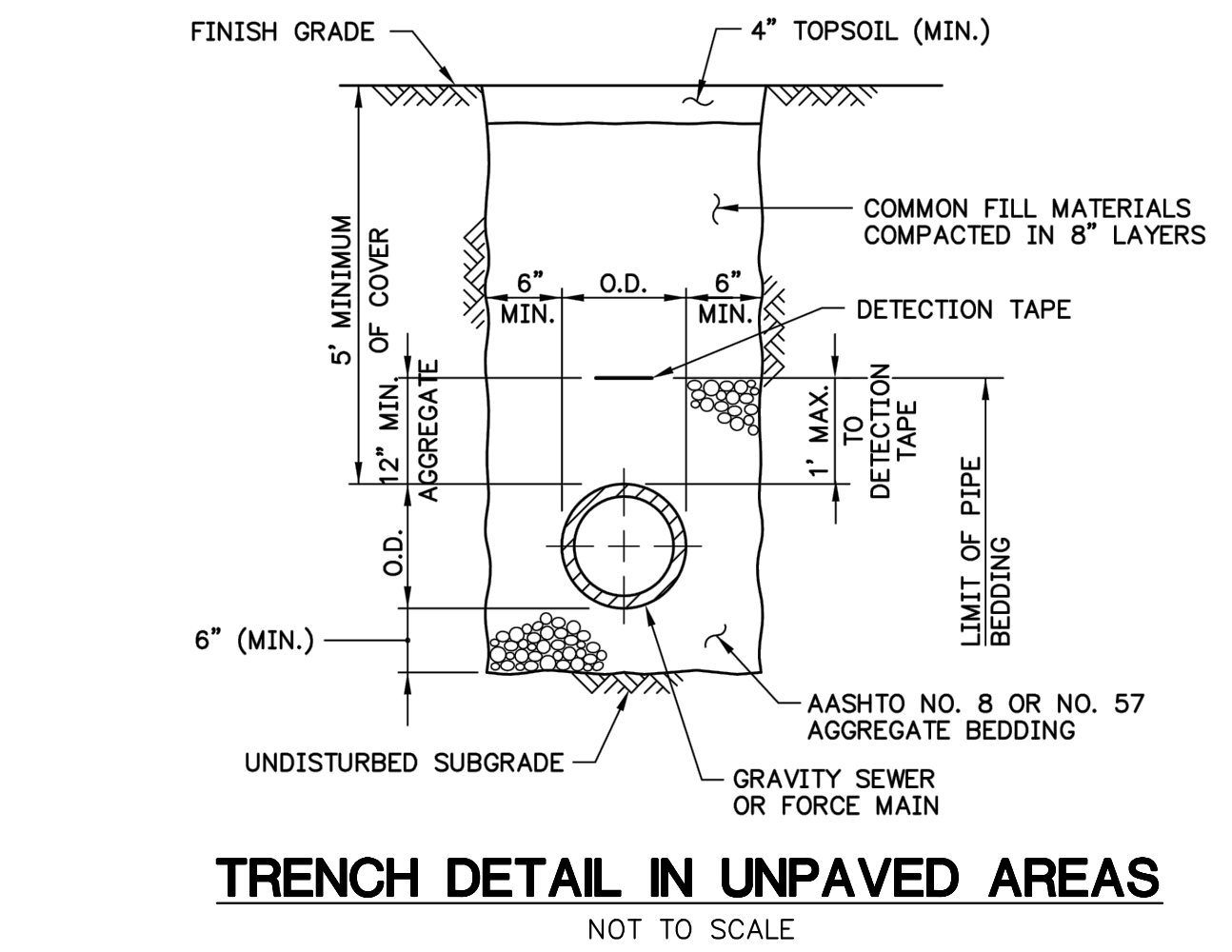
PLAN



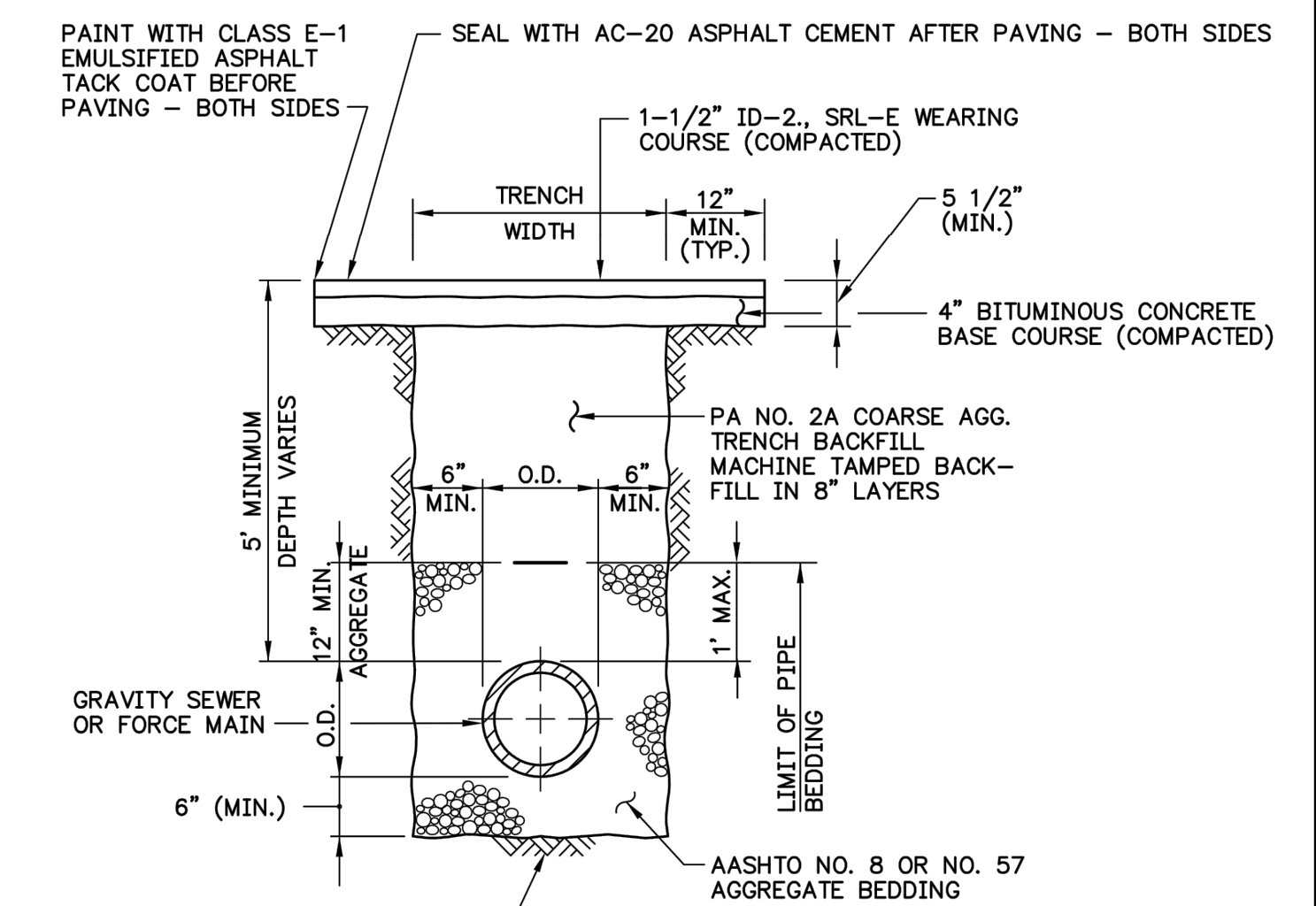
ELEVATION

NOTE:
EXISTING MAIN SEWER TO BE SAW CUT

**SERVICE LATERAL CONNECTION TO
EXISTING SEWER MAIN**
NOT TO SCALE



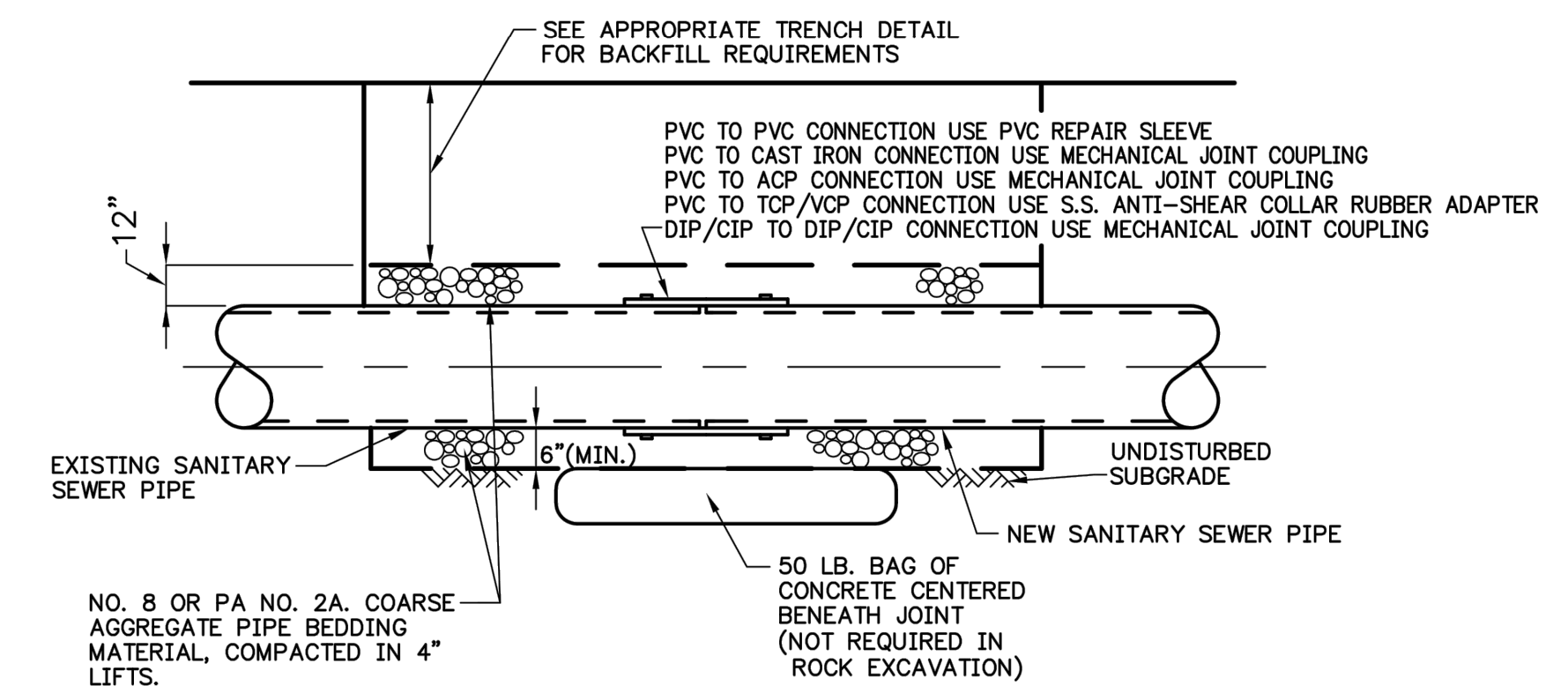
TRENCH DETAIL IN UNPAVED AREAS
NOT TO SCALE



TOWNSHIP ROADS

NOTE:
WHEN IN PAVED AREAS SUCH AS DRIVEWAYS OR PARKING LOTS, PAVING RESTORATION SHALL BE IN ACCORDANCE WITH CONTRACT DOCUMENTS

TRENCH DETAIL IN PAVED AREAS
NOT TO SCALE



PIPE RECONNECTION DETAIL
NOT TO SCALE



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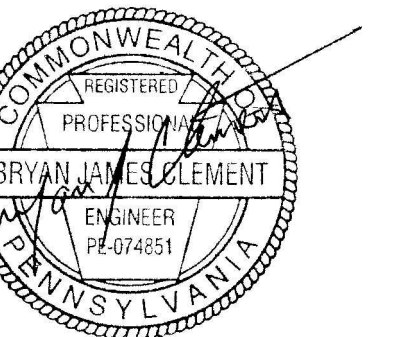


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Harrisburg, PA 17110

**Susquehanna
Union Green**

Susquehanna
Township, Dauphin
County, PA



Project Number:
210191.01

Drawn by:
LBG/REA

Checked by:
LBG/BJC

Date:
July 9, 2021

Revisions:

Scale:



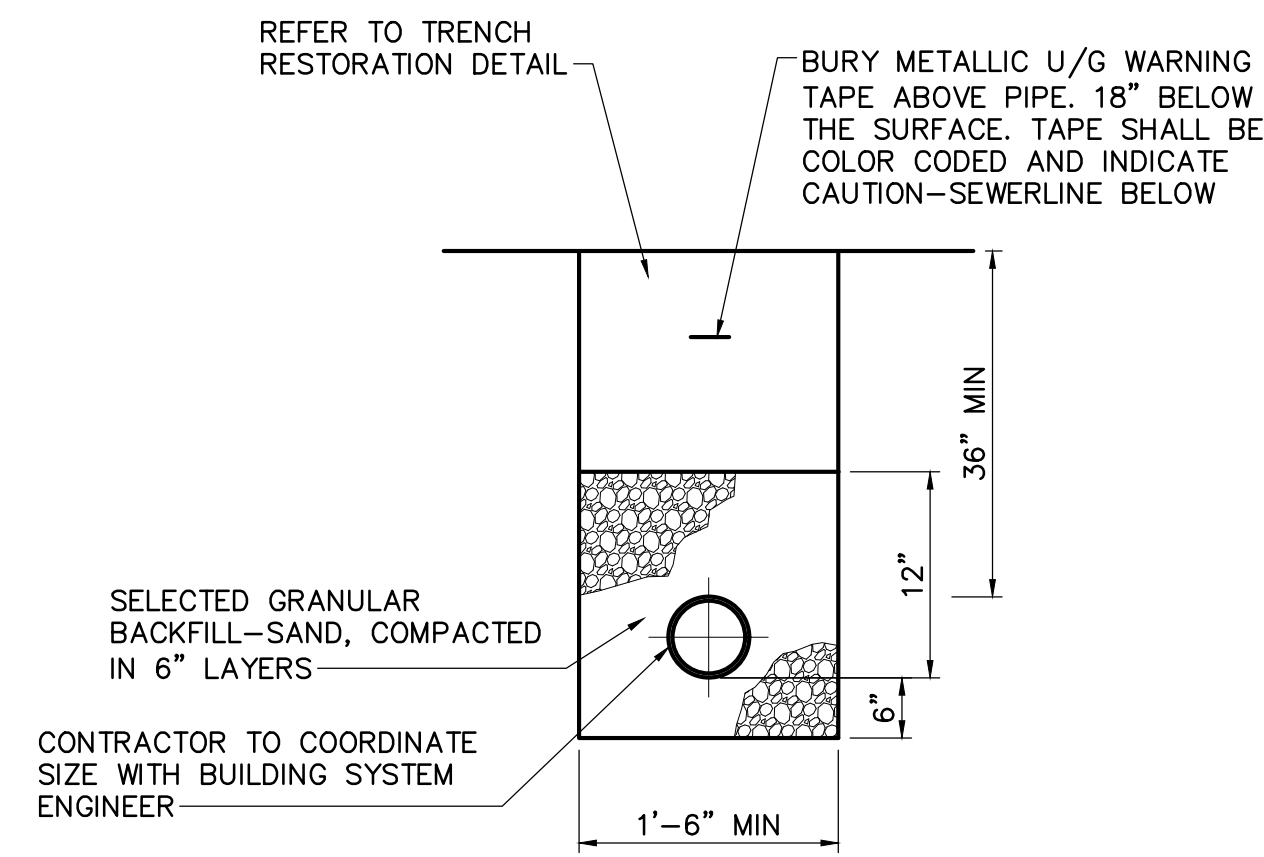
Sheet Name:
Site Utility Details

Submission:
Phase III Final Land Development
Plans

Sheet Number:

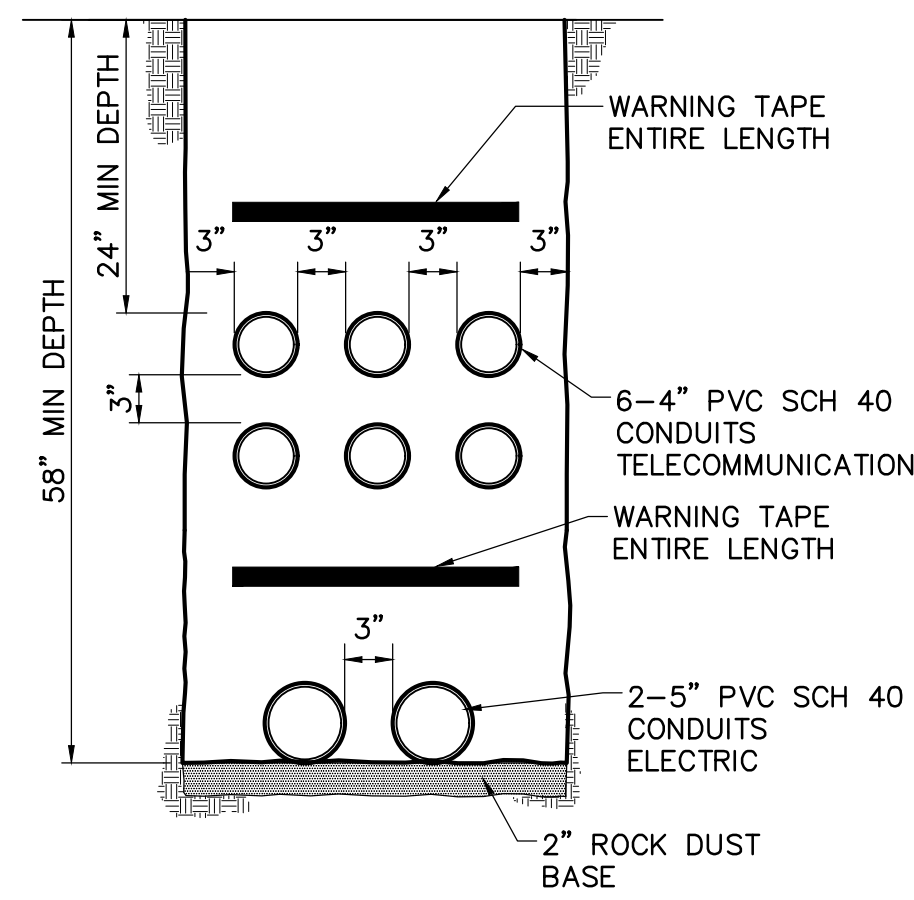
C604

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NOTE:
ALL TRENCHING AND BACKFILL BY CONTRACTOR.
GAS COMPANY IS RESPONSIBLE FOR SUPPLYING PIPE
AND INSTALLATION, CONTRACTOR TO COORDINATE.

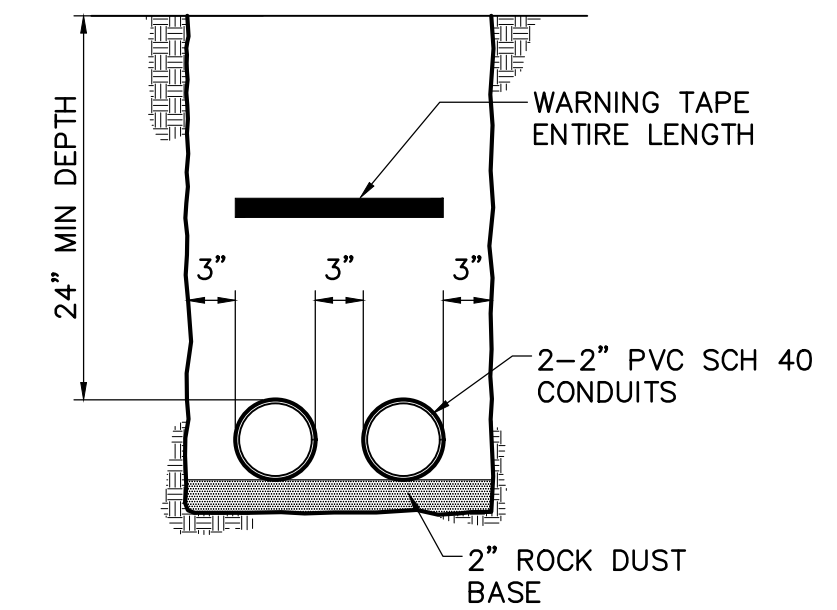
**GAS LINE TRENCH
(MAINLINE)**
NOT TO SCALE



**SITE ELECTRIC, TELECOMMUNICATION
DUCT BANK**

DUCTBANK NOTES:

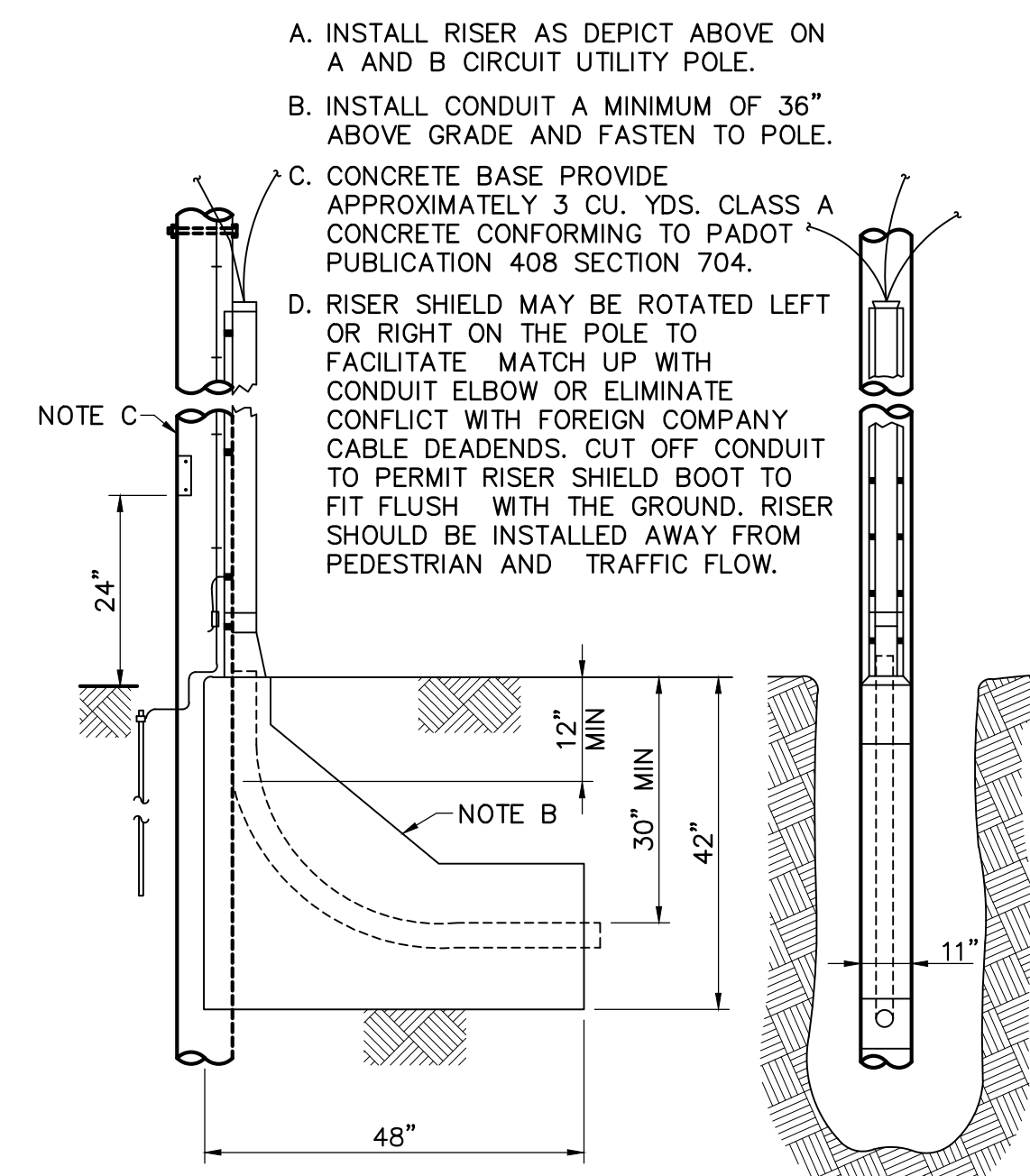
- BACKFILL EACH BANK OF CONDUITS WITH A MIN OF 7" ROCK DUST. BACKFILL REMAINING PORTION OF THE TRENCH WITH EARTHEN FILL FREE FROM STONES GREATER THAN 1 INCH AND ORGANIC MATTER EXCEPT UNDER EXISTING OR PROPOSED PAVEMENT. IN THIS CASE BACKFILL REMAINING PORTION OF THE TRENCH WITH COARSE AGGREGATE (PADOT 2A) TO ROADWAY SUBGRADE ELEVATION.
- BACKFILL TO BE TAMPED TO AVOID SETTLING.
- WARNING TAPE SHALL BE SUPPLIED BY THE UTILITY COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT AND ARRANGING FOR PICKUP OF TAPE. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY NO LESS THAN TWO WEEKS PRIOR TO TRENCHING TO OBTAIN WARNING TAPE.
- CONTRACTOR TO VERIFY TRENCH DIMENSIONS, SIZE AND NUMBER OF CONDUITS WITH UTILITY COMPANIES PRIOR TO INSTALLATION.



SITE LIGHTING DUCTBANK

GENERAL NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIES 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 THE PLANS.
- CONTRACTOR SHALL PROVIDE UTILITY LATERALS TO EACH LOT. SIZE AND TYPE OF LATERAL AS INDICATED. EXTEND LATERAL TO RIGHT-OF-WAY/EASEMENT LINE, CAP AND MARK END.
- CONTRACTOR SHALL COORDINATE ALL WORK AND INSPECTION WITH THE UTILITY PROVIDER HAVING JURISDICTION.



RISER DETAILS
NOT TO SCALE



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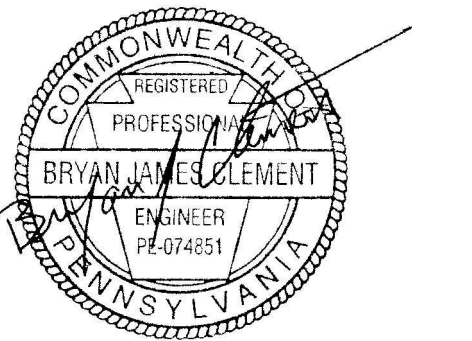


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**Susquehanna
Union Green**

Susquehanna
Township, Dauphin
County, PA



Project Number:

210191.01

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

July 9, 2021

Revisions:

Scale:



Sheet Name:

Site Utility Details

Submission:

Phase III Final Land Development
Plans

Sheet Number:

C605

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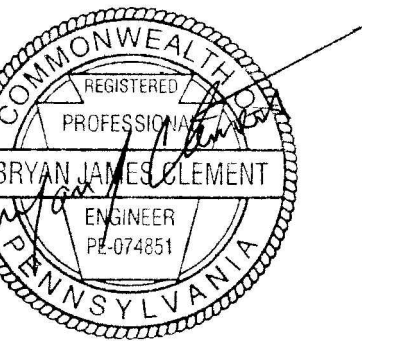


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July 9, 2021

Revisions:
8/6/21 Revised per Twp Comments

Scale:

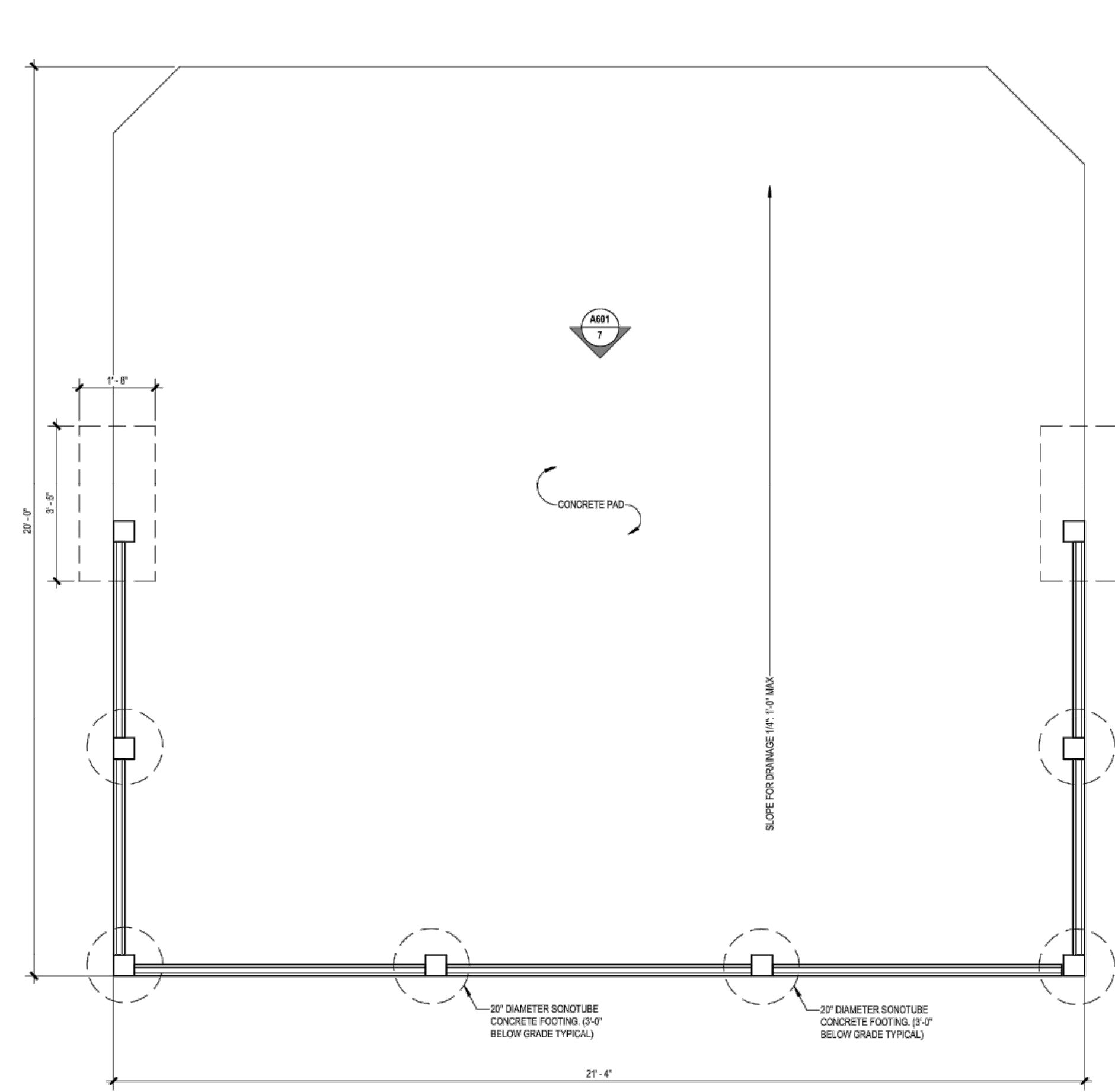
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**Trash Dumpster
Details**

Submission:
Phase III Final Land Development
Plans

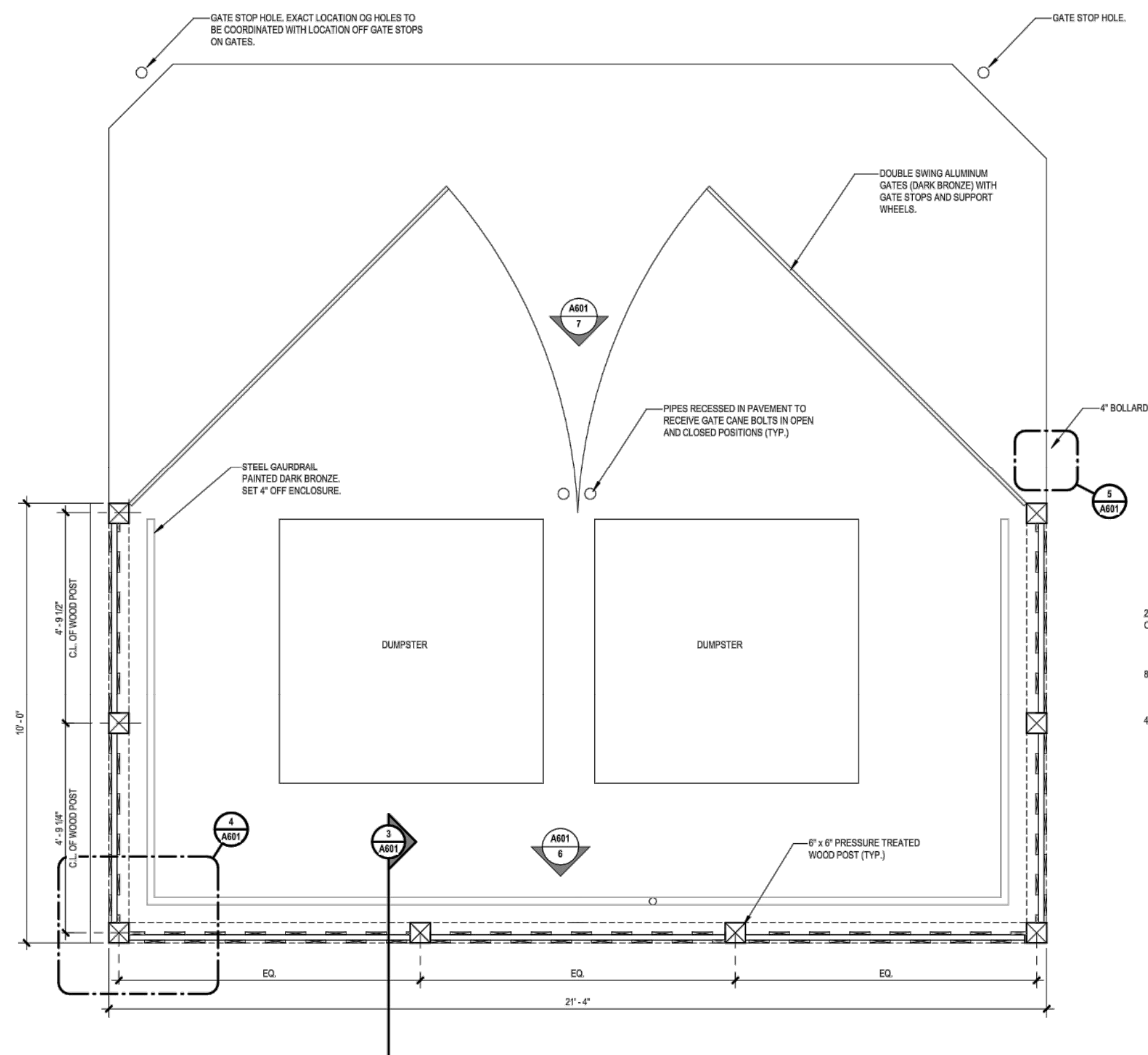
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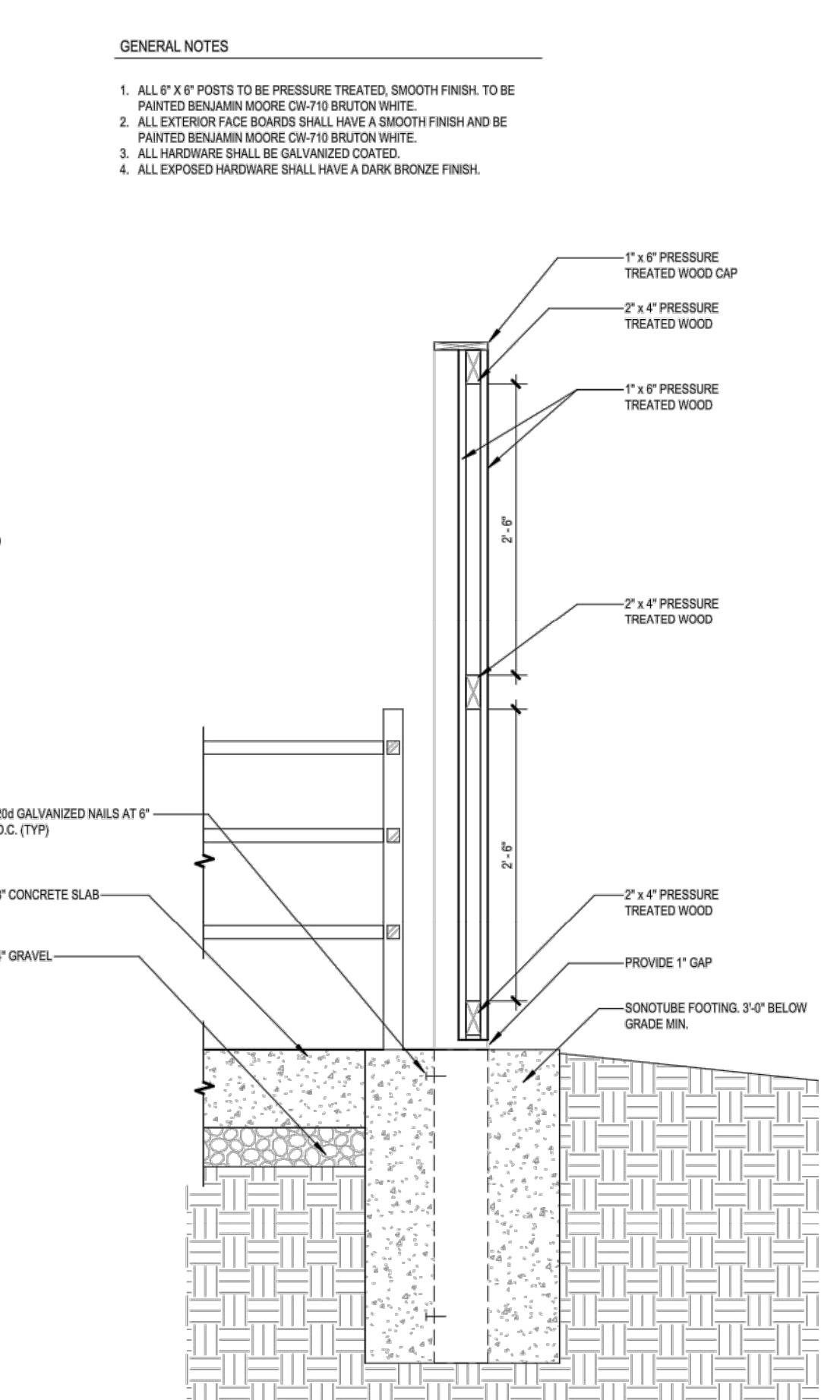
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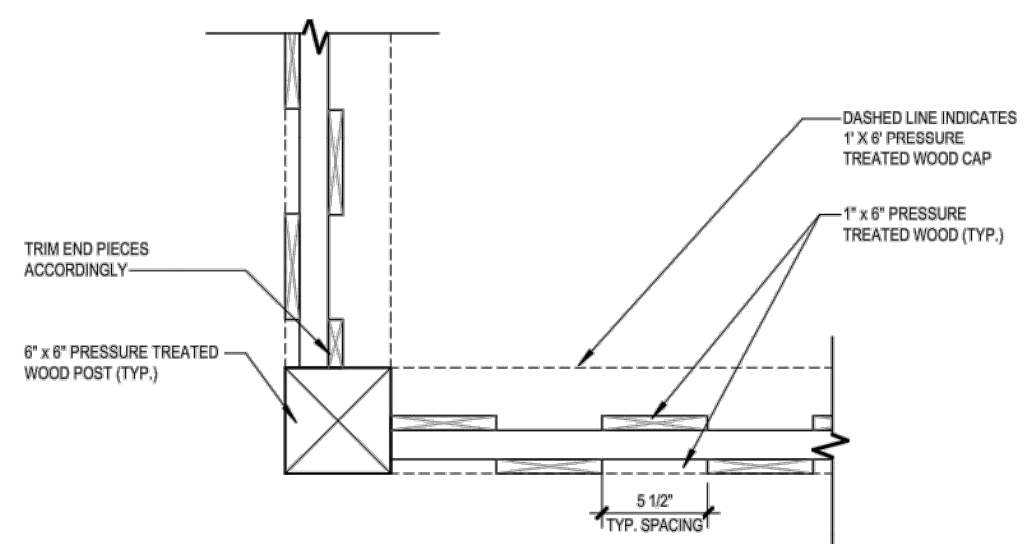
1 FOUNDATION PLAN
1/2" = 1'-0"



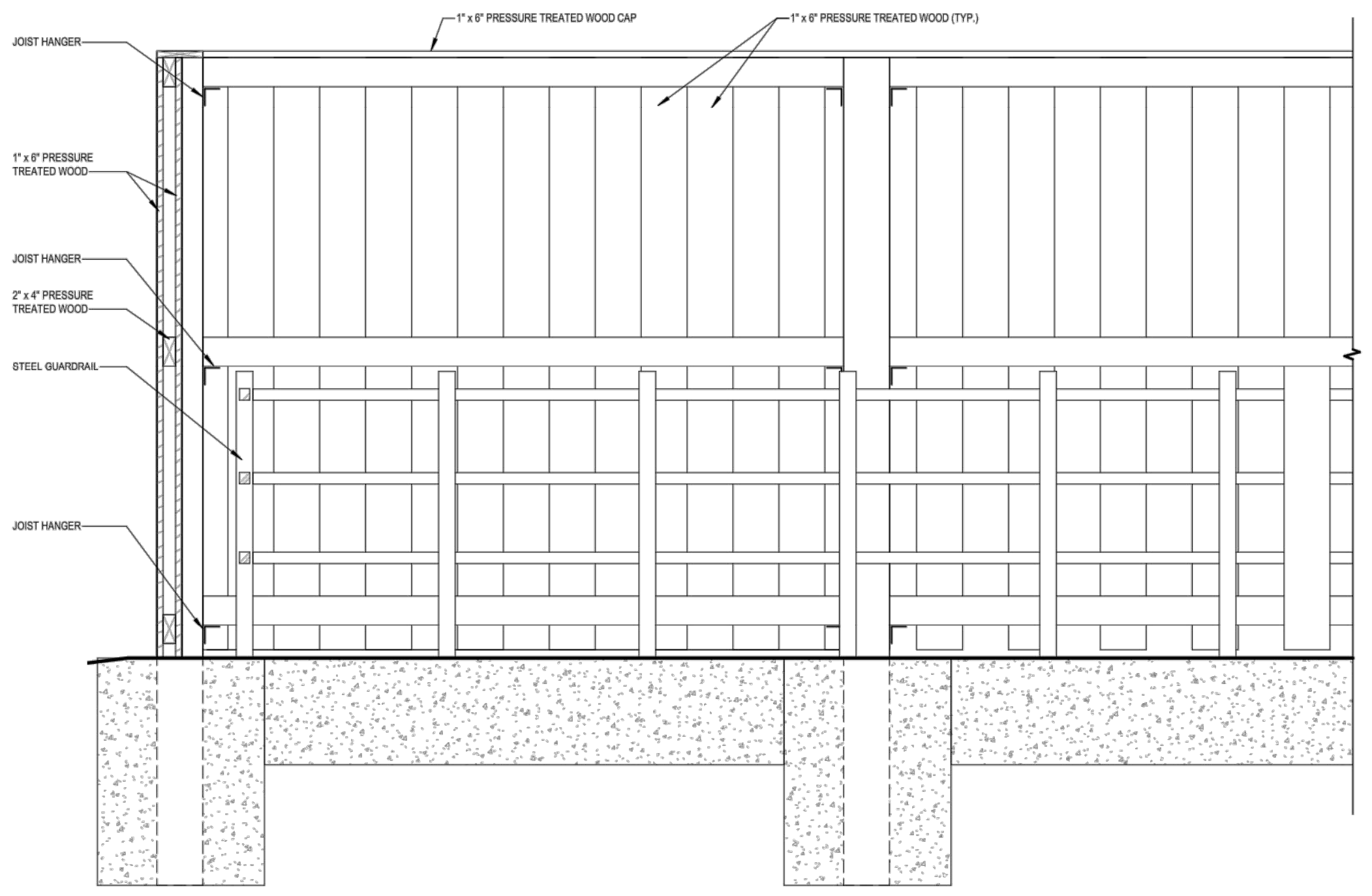
2 FLOOR PLAN
1/2" = 1'-0"



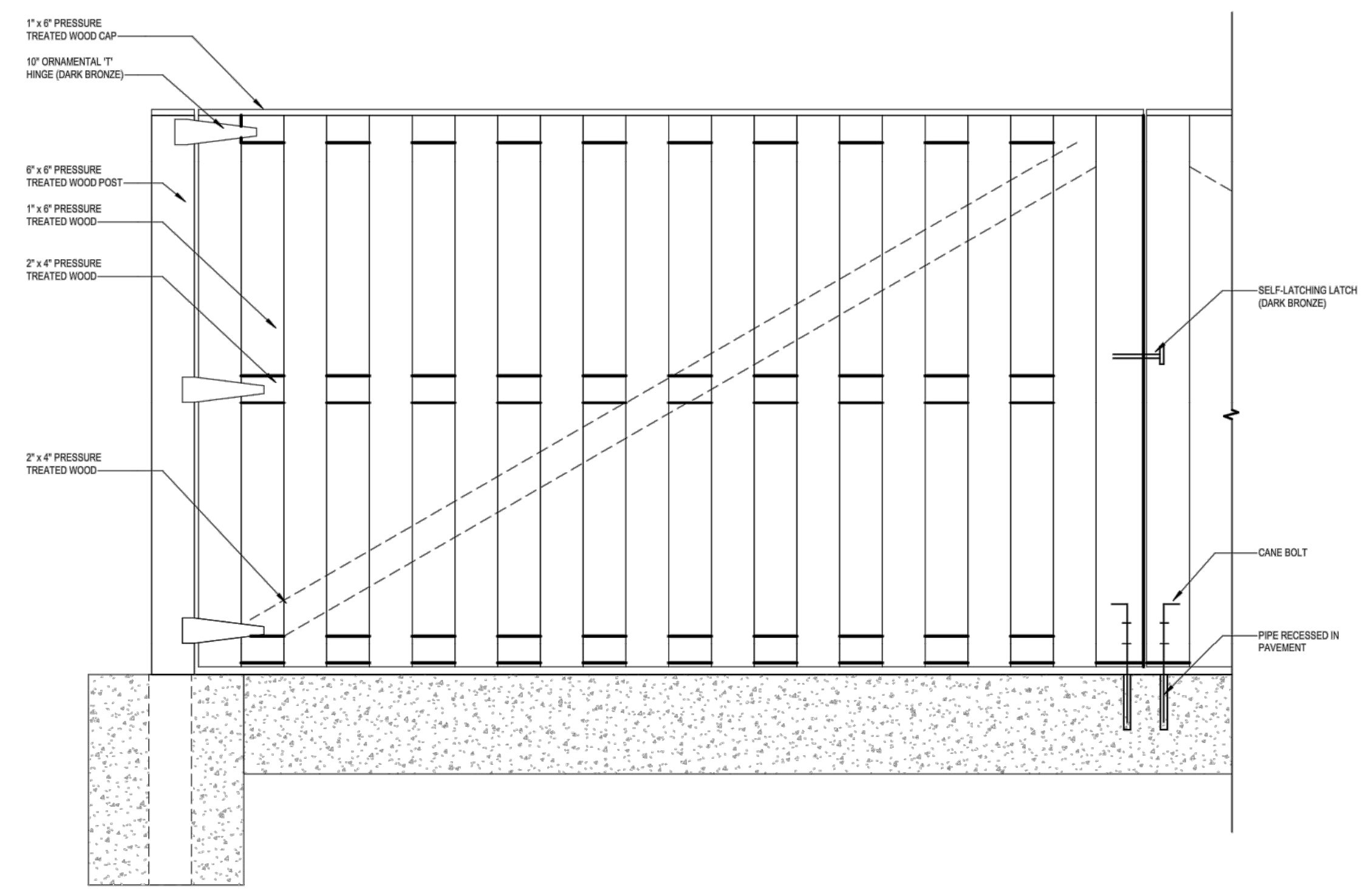
3 ENCLOSURE SECTION
1" = 1'-0"



4 ENLARGED PLAN DETAIL
1 1/2" = 1'-0"

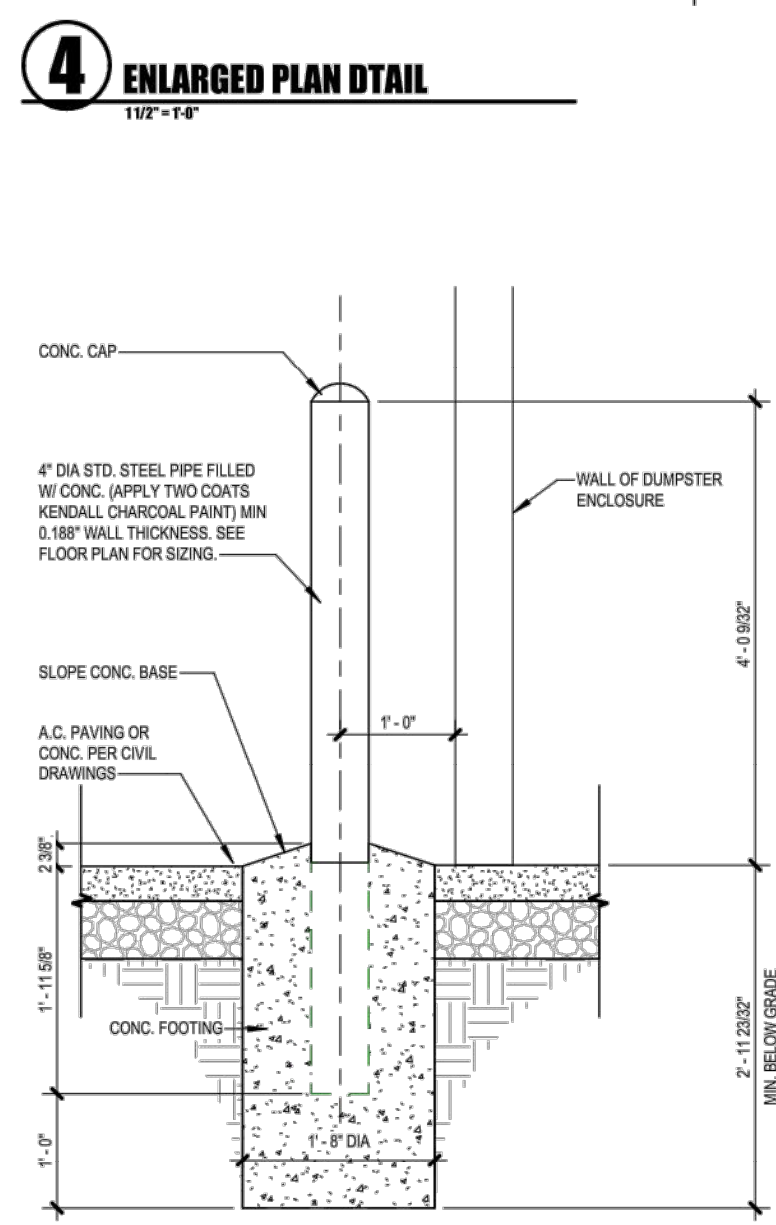


6 FENCE ELEVATION
1" = 1'-0"



7 GATE ELEVATION
1" = 1'-0"

NOTE:
DO NOT SCALE DETAILS



5 BOLLARD DETAIL
3/4" = 1'-0"

P:\Projects\2021\101002191\19101002191.dwg (LQ) (C) (A) (S) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) (AA) (AB) (AC) (AD) (AE) (AF) (AG) (AH) (AI) (AJ) (AK) (AL) (AM) (AN) (AO) (AP) (AQ) (AR) (AS) (AT) (AU) (AV) (AW) (AX) (AY) (AZ) (BA) (BB) (BC) (BD) (BE) (BF) (BG) (BH) (BI) (BJ) (BK) (BL) (BM) (BN) (BO) (BP) (BQ) (BR) (BS) (BT) (BU) (BV) (BW) (BX) (BY) (BZ) (CA) (CB) (CC) (CD) (CE) (CF) (CG) (CH) (CI) (CJ) (CK) (CL) (CM) (CN) (CO) (CP) (CQ) (CR) (CS) (CT) (CU) (CV) (CW) (CX) (CY) (CZ) (DA) (DB) (DC) (DD) (DE) (DF) (DG) (DH) (DI) (DJ) (DK) (DL) (DM) (DN) (DO) (DP) (DQ) (DR) (DS) (DT) (DU) (DV) (DW) (DX) (DY) (DZ) (EA) (EB) (EC) (ED) (EE) (EF) (EG) (EH) (EI) (EJ) (EK) (EL) (EM) (EN) (EO) (EP) (EQ) (ER) (ES) (ET) (EU) (EV) (EW) (EX) (EY) (EZ) (FA) (FB) (FC) (FD) (FE) (FF) (FG) (FH) (FI) (FJ) (FK) (FL) (FM) (FN) (FO) (FP) (FQ) (FR) (FS) (FT) (FU) (FV) (FW) (FX) (FY) (FZ) (GA) (GB) (GC) (GD) (GE) (GF) (GG) (GH) (GI) (GJ) (GK) (GL) (GM) (GN) (GO) (GP) (GQ) (GR) (GS) (GT) (GU) (GV) (GW) (GX) (GY) (GZ) (HA) (HB) (HC) (HD) (HE) (HF) (HG) (HH) (HI) (HJ) (HK) (HL) (HM) (HN) (HO) (HP) (HQ) (HR) (HS) (HT) (HU) (HV) (HW) (HX) (HY) (HZ) (IA) (IB) (IC) (ID) (IE) (IF) (IG) (IH) (II) (IJ) (IK) (IL) (IM) (IN) (IO) (IP) (IQ) (IR) (IS) (IT) (IU) (IV) (IW) (IX) (IY) (IZ) (JA) (JB) (JC) (JD) (JE) (JF) (JG) (JH) (JI) (JJ) (JK) (JL) (JM) (JN) (JO) (JP) (JQ) (JR) (JS) (JT) (JU) (JV) (JW) (JX) (JY) (JZ) (KA) (KB) (KC) (KD) (KE) (KF) (KG) (KH) (KI) (KJ) (KK) (KL) (KM) (KN) (KO) (KP) (KQ) (KR) (KS) (KT) (KU) (KV) (KW) (KX) (KY) (KZ) (LA) (LB) (LC) (LD) (LE) (LF) (LG) (LH) (LI) (LJ) (LK) (LL) (LM) (LN) (LO) (LP) (LQ) (LR) (LS) (LT) (LU) (LV) (LW) (LX) (LY) (LZ) (MA) (MB) (MC) (MD) (ME) (MF) (MG) (MH) (MI) (MJ) (MK) (ML) (MM) (MN) (MO) (MP) (MQ) (MR) (MS) (MT) (MU) (MV) (MW) (MX) (MY) (MZ) (NA) (NB) (NC) (ND) (NE) (NF) (NG) (NH) (NI) (NJ) (NK) (NL) (NM) (NN) (NO) (NP) (NQ) (NR) (NS) (NT) (NU) (NV) (NW) (NX) (NY) (NZ) (OA) (OB) (OC) (OD) (OE) (OF) (OG) (OH) (OI) (OJ) (OK) (OL) (OM) (ON) (OO) (OP) (OQ) (OR) (OS) (OT) (OU) (OV) (OW) (OX) (OY) (OZ) (PA) (PB) (PC) (PD) (PE) (PF) (PG) (PH) (PI) (PJ) (PK) (PL) (PM) (PN) (PO) (PP) (PQ) (PR) (PS) (PT) (PU) (PV) (PW) (PX) (PY) (PZ) (QA) (QB) (QC) (QD) (QE) (QF) (QG) (QH) (QI) (QJ) (QK) (QL) (QM) (QN) (QO) (QP) (QQ) (QR) (QS) (QT) (QU) (QV) (QW) (QX) (QY) (QZ) (RA) (RB) (RC) (RD) (RE) (RF) (RG) (RH) (RI) (RJ) (RK) (RL) (RM) (RN) (RO) (RP) (RQ) (RR) (RS) (RT) (RU) (RV) (RW) (RX) (RY) (RZ) (SA) (SB) (SC) (SD) (SE) (SF) (SG) (SH) (SI) (SJ) (SK) (SL) (SM) (SN) (SO) (SP) (SQ) (SR) (SS) (ST) (SU) (SV) (SW) (SX) (SY) (SZ) (TA) (TB) (TC) (TD) (TE) (TF) (TG) (TH) (TI) (TJ) (TK) (TL) (TM) (TN) (TO) (TP) (TQ) (TR) (TS) (TT) (TU) (TV) (TW) (TX) (TY) (TZ) (UA) (UB) (UC) (UD) (UE) (UF) (UG) (UH) (UI) (UJ) (UK) (UL) (UM) (UN) (UO) (UP) (UQ) (UR) (US) (UT) (UU) (UV) (UW) (UX) (UY) (UZ) (VA) (VB) (VC) (VD) (VE) (VF) (VG) (VH) (VI) (VJ) (VK) (VL) (VM) (VN) (VO) (VP) (VQ) (VR) (VS) (VT) (VU) (VV) (VW) (VX) (VY) (VZ) (WA) (WB) (WC) (WD) (WE) (WF) (WG) (WH) (WI) (WJ) (WK) (WL) (WM) (WN) (WO) (WP) (WQ) (WR) (WS) (WT) (WU) (WV) (WW) (WX) (WY) (WZ) (XA) (XB) (XC) (XD) (XE) (XF) (XG) (XH) (XI) (XJ) (XK) (XL) (XM) (XN) (XO) (XP) (XQ) (XR) (XS) (XT) (XU) (XV) (XW) (XX) (XY) (XZ) (YA) (YB) (YC) (YD) (YE) (YF) (YG) (YH) (YI) (YJ) (YK) (YL) (YM) (YN) (YO) (YP) (YQ) (YR) (YS) (YT) (YU) (YV) (YW) (YX) (YZ) (ZA) (ZB) (ZC) (ZD) (ZE) (ZF) (ZG) (ZH) (ZI) (ZJ) (ZK) (ZL) (ZM) (ZN) (ZO) (ZP) (ZQ) (ZR) (ZS) (ZT) (ZU) (ZV) (ZW) (ZX) (ZY) (ZZ)



LEGEND

- 470 — — EXISTING CONTOUR
- — SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- 24" COMPOST FILTER SOCK
- SOIL DESIGNATION
- TOPSOIL STOCKPILE AREA
- CONCRETE WASHOUT
- SILT SACK INLET PROTECTION
- ANALYSIS POINT DESIGNATION
- EROSION CONTROL BLANKET

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
BtB2	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

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. ES200, ES201, ES202, ES203 & ES204 FOR ALL EROSION AND SEDIMENTATION CONTROL DETAILS.



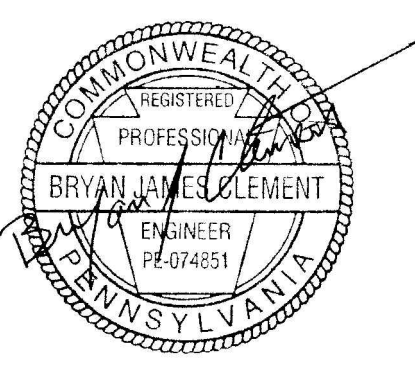
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△ 8/6/21 Revised per Twp Comments

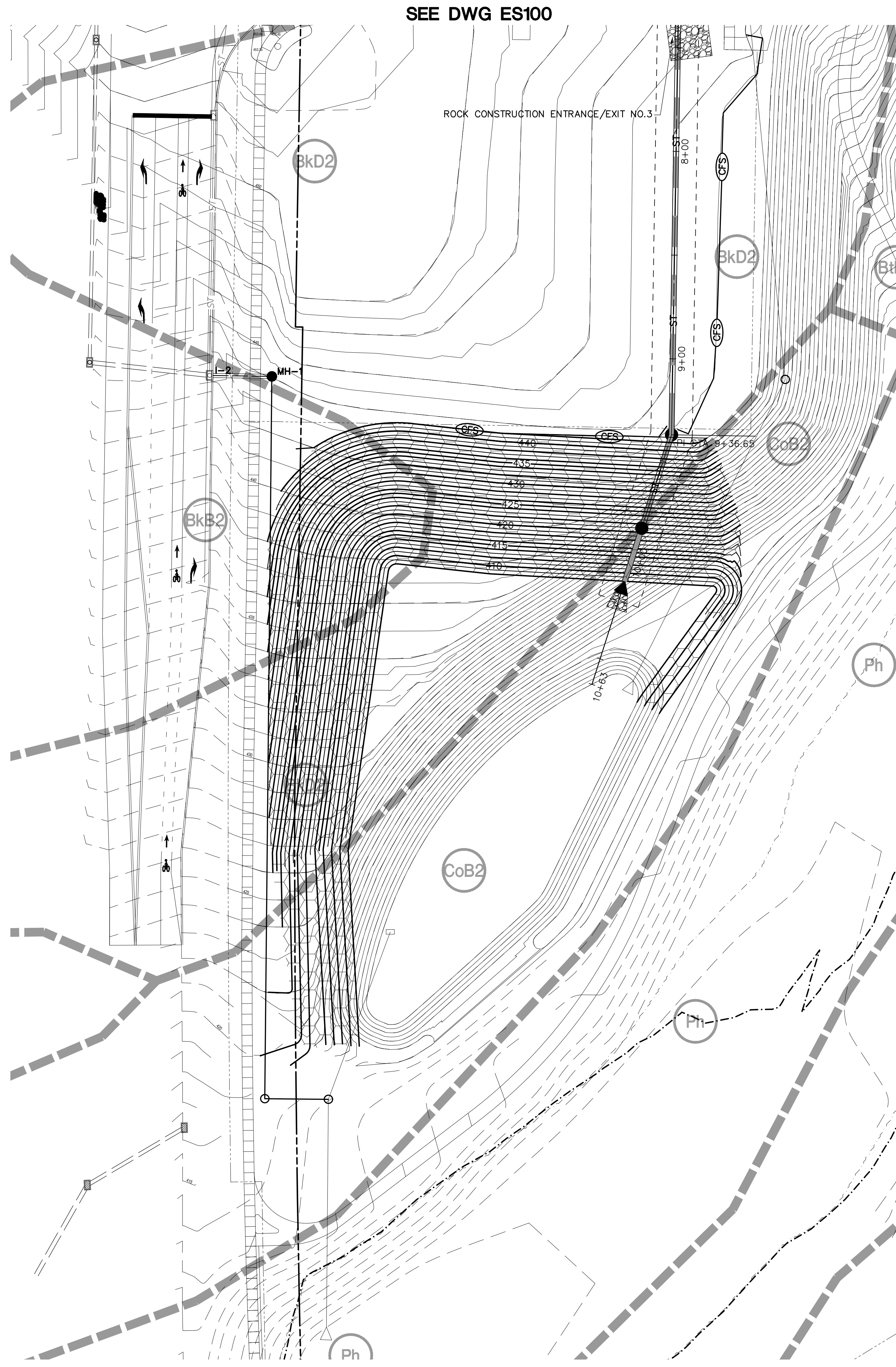
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Sheet Name:
Erosion & Sedimentation Control Plan
Submission:
Phase III Final Land Development Plans

Sheet Number:
ES100

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SEE DWG ES101



SEE DWG ES100

ROCK CONSTRUCTION ENTRANCE/EXIT NO.3

LEGEND

- 470 - EXISTING CONTOUR
- SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- 24" COMPOST FILTER SOCK
- SOIL DESIGNATION
- TOPSOIL STOCKPILE AREA
- CONCRETE WASHOUT
- SILT SACK INLET PROTECTION
- ANALYSIS POINT DESIGNATION
- EROSION CONTROL BLANKET

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
BtB2	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

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. ES200, ES201, ES202, ES203 & ES204 FOR ALL EROSION AND SEDIMENTATION CONTROL DETAILS.



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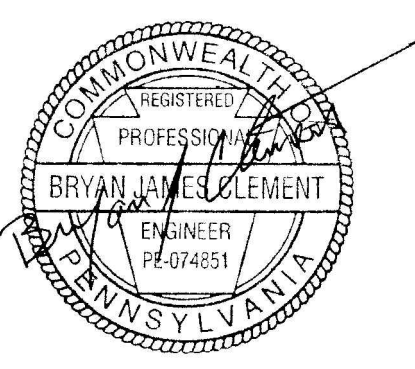


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County, PA



Project Number:
210191.01

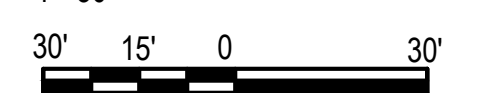
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1"=30'



Sheet Name:
**Erosion &
Sedimentation
Control Plan**
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Phase III Final Land Development
Plans

Sheet Number:

ES101

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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 1,000 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	MINIMUM % GERMINATION	MAXIMUM % WEED SEED	SEEDING RATE LBS. PER 1000 SY
PADOT FORMULA E ANNUAL RYEGRASS (<i>Lolium multiflorum</i>)	100	95	90	0.10	

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

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	MINIMUM % GERMINATION	MAXIMUM % WEED SEED	SEEDING RATE LBS./1000 SY
PADOT FORMULA B					44.0 TOTAL
PERENNIAL RYEGRASS MIXTURE (<i>Lolium perenne</i>)	20	97	90	0.10	8.5
CREeping RED FESCUE OR CHEWINGS FESCUE (<i>Festuca rubra</i> OR <i>Festuca rubra</i> spp commutata)	30	97	85	0.10	12.5
KENTUCKY BLUEGRASS MIXTURE (<i>Poa pratensis</i>)	45	97	80	0.15	21.0
ANNUAL RYEGRASS (<i>Lolium Multiflorum</i>)	5	95	90	0.10	2.0
PADOT FORMULA L (SLOPES STEEPER THAN 3:1)					48.0 TOTAL
HARD FESCUE MIXTURE (<i>Festuca longifolia</i>)	55	97	85	0.10	26.4
CREeping RED FESCUE (<i>Festuca rubra</i>)	35	97	85	0.10	16.8
ANNUAL RYEGRASS (<i>Lolium Multiflorum</i>)	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 ALSO BE DIRECTED TO AN INFILTRATION BASIN, HELPING TO FURTHER 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

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 RILLS AND GULLIES FORMING BARE SOIL PATCHES	CHECK FOR TOP-OF-SLOPE DIVERSION AND INSTALL IF NEEDED FILL RILLS AND REGRADE GULLIED SLOPES RESEED, FERTILIZE AND MULCH BARE AREAS
ROCK CONSTRUCTION ENTRANCE/EXIT	DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT	SINK HOLES OR RUTS SEDIMENT ON PUBLIC AND PRIVATE ROADWAYS	ADD ROCK TO BRING TO SPECIFIED DIMENSIONS 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 RUNOFF ESCAPING AROUND INLET	REMOVE SEDIMENT AND DISPOSE ON SITE 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 SOCK COLLAPSING TORN SOCK	ADD SECTION OF SOCK REPLACE WITH PYRAMID OF SOCKS 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 RILLS AND GULLIES FORMING UNDER BLANKET	REPLACE WITH A NEW PIECE OF EROSION CONTROL BLANKET AND RESEED AND MULCH IF NEEDED 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 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 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 FULL OF MATERIAL PLASTIC LINER TORN	CONCRETE WASHOUT SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY MATERIALS INSIDE CONCRETE WASHOUT SHALL BE REMOVED WHEN 75% OF CAPACITY IS REACHED 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 RIPRAP MOVING FROM ORIGINAL LOCATION RUNOFF ESCAPING AROUND RIPRAP	ADD ROCK TO BRING TO SPECIFIED DIMENSIONS ADD ROCK AND EXTEND TO AVOID RUNOFF ESCAPING AROUND RIPRAP

NOTE: INSPECTIONS BY CONTRACTOR MUST BE LOGGED ONTO DEP FORM 3800-FM-BCW0271d DATED 12/2019 AND KEPT ON SITE AT ALL TIMES



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Nature leads, art follows.

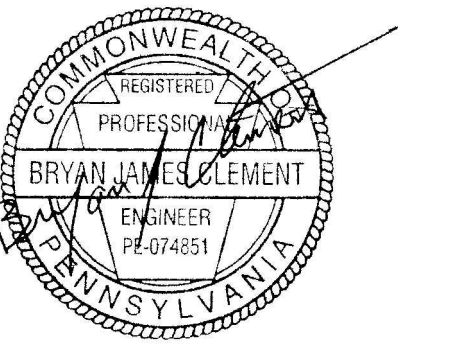


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Susquehanna Union Green

Susquehanna Township, Dauphin County, PA



Project Number:

210191.01

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

July 9, 2021

Revisions:

△ 8/6/21 Revised per Twp Comments

Scale:

1"=30'



Sheet Name: **Erosion & Sedimentation**

Control Plan Notes

Submission:

Phase III Final Land Development Plans

Sheet Number:

ES200

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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 CONDUVIVE 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.

BkB2 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 CONDUVIVE 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 CONDUVIVE 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 CONDUVIVE 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

BtB2 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 CONDUVIVE 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 CONDUVIVE 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 CONDUVIVE 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 CONDUVIVE 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	FH	FIRE HYDRANT	SCH	SCHEDULE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	GM	GAS METER	SEC	SECTION
⊕	AT	CV	GAS VALVE	SEG	SEGMENT
ℓ	BASELINE	HP	HIGH POINT	SLCPP	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		
		ℓ	PROPERTY LINE		
		R	RADIUS		

LEGEND

EXISTING	PROPOSED
WATERLINE	WATERLINE
GAS LINE	GAS LINE
SANITARY SEWER	SANITARY SEWER
STORM SEWER	STORM SEWER
STEAM LINE	STEAM LINE
UNDERGROUND ELEC TELE CABLE	UNDERGROUND ELEC TELE CABLE
UNDERGROUND TELEPHONE	UNDERGROUND TELEPHONE
UNDERGROUND CABLE	UNDERGROUND CABLE
OVERHEAD ELECTRIC	FIBER OPTICS/COMMUNICATIONS
OVERHEAD TELEPHONE	OVERHEAD ELECTRIC
OVERHEAD CABLE	OVERHEAD TELEPHONE
OVERHEAD WIRES	OVERHEAD CABLE
CONDUIT	CONDUIT
FIBER OPTICS / COMMUNICATIONS	FIRE HYDRANT
FIRE HYDRANT	POWER POLE
POWER POLE	STREET LIGHT
SIGN (EXISTING)	SIGN
FENCE	FENCE
NUMBER OF PARKING SPACES	NUMBER OF PARKING SPACES
NEW CAST IRON DOWNSPOUT BOOT	NEW CAST IRON DOWNSPOUT BOOT
AREA DRAIN	AREA DRAIN
CONNECT TO EXISTING	CONNECT TO EXISTING



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Nature leads, art follows.

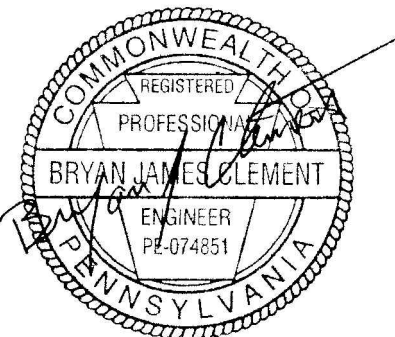


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1"=30'



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Sedimentation

Control Plan Notes

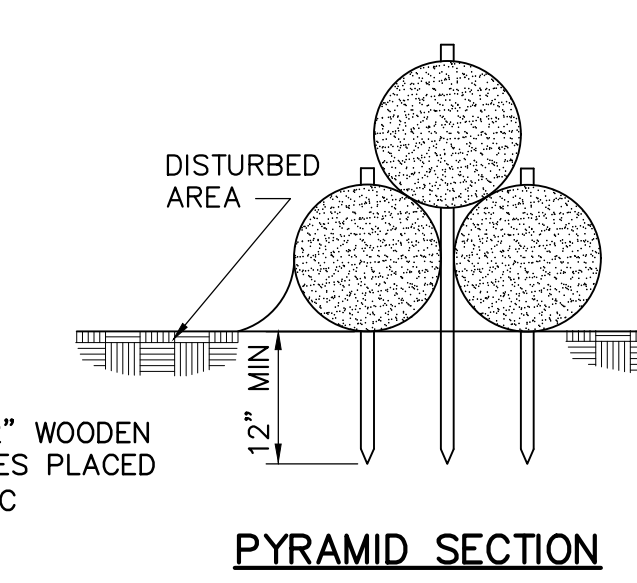
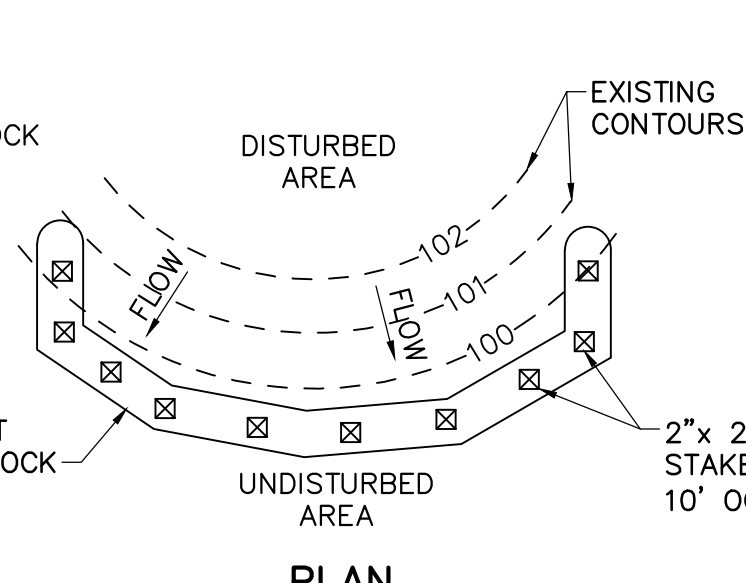
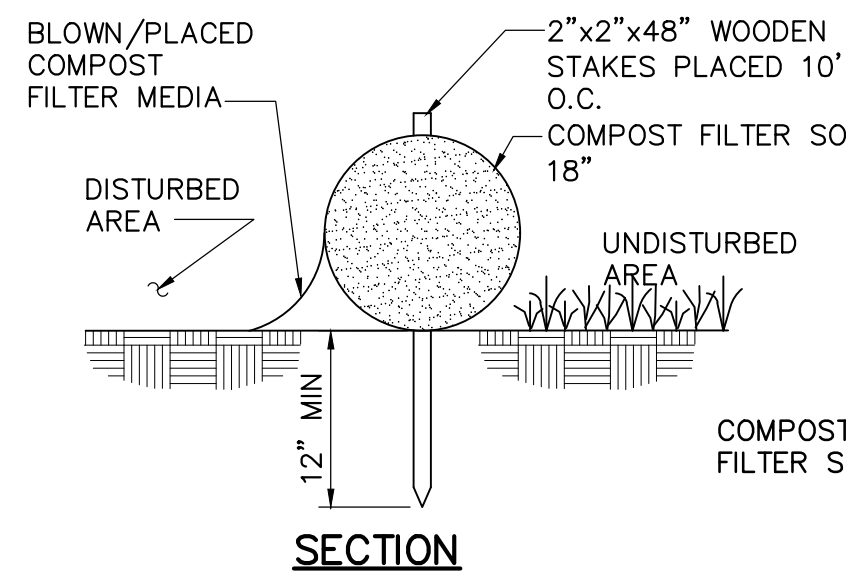
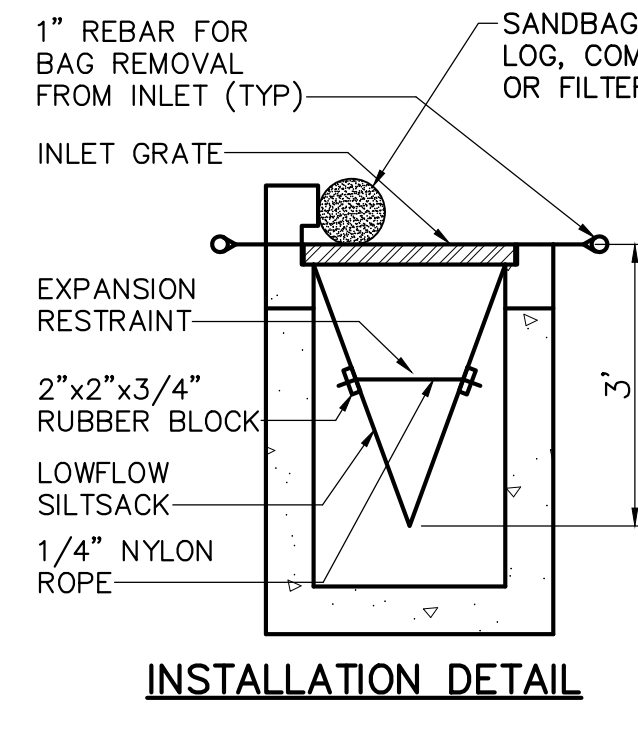
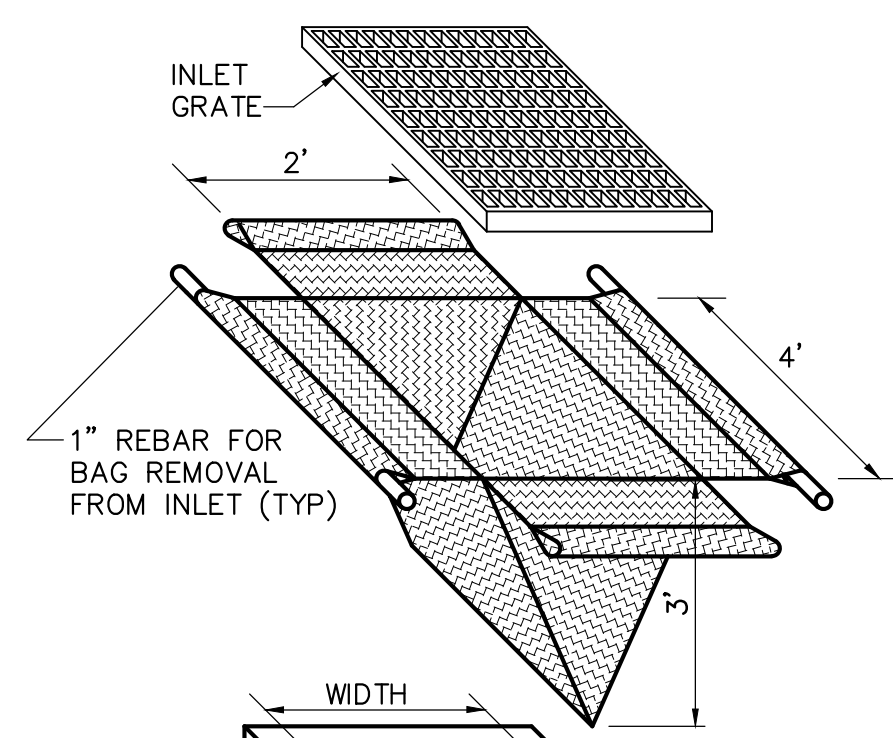
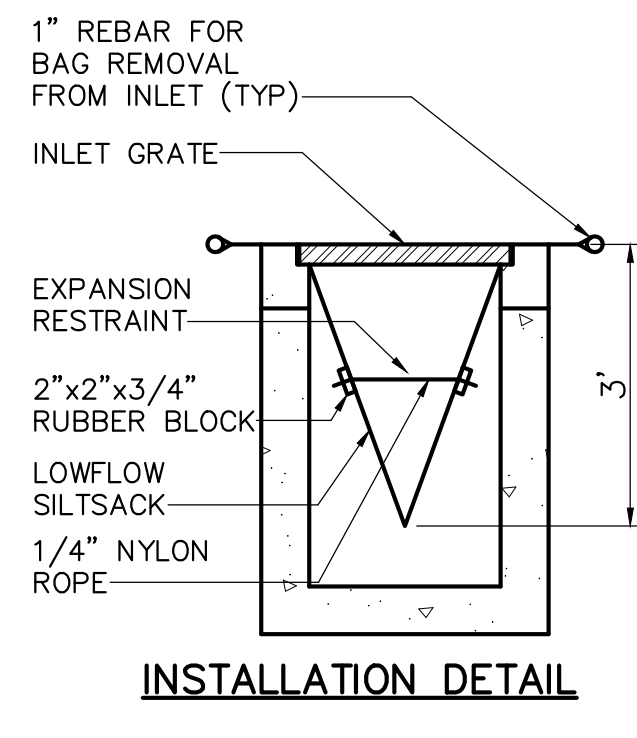
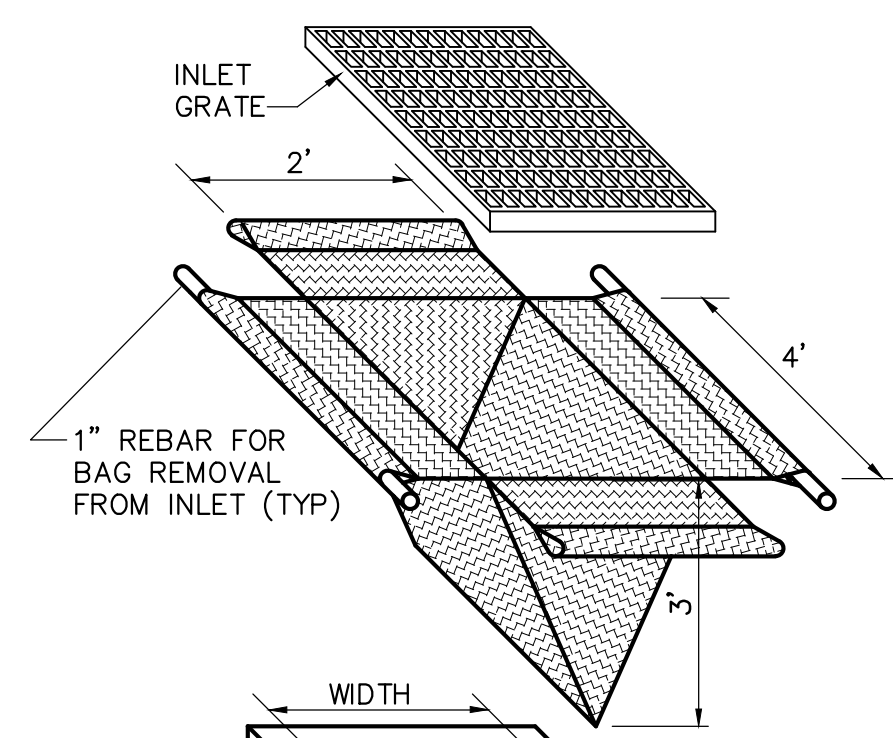
Submission:

Phase III Final Land Development Plans

Sheet Number:

ES202

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NOTES:

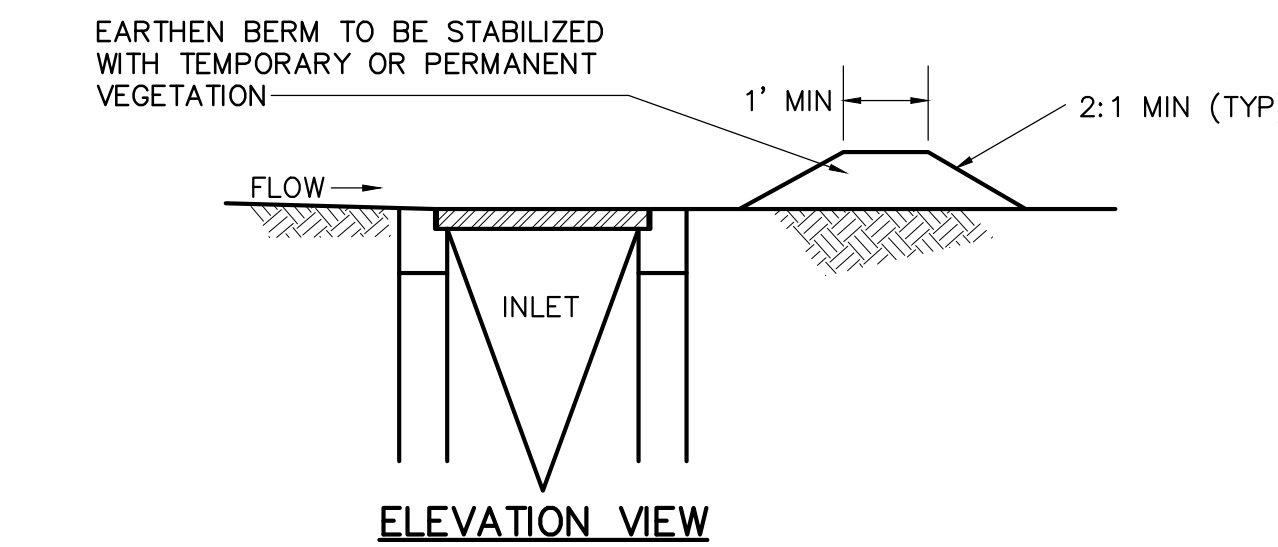
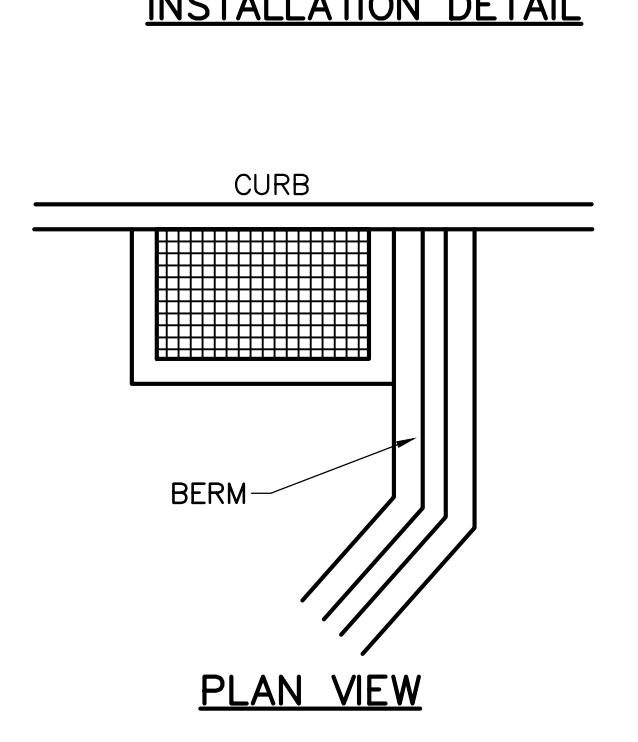
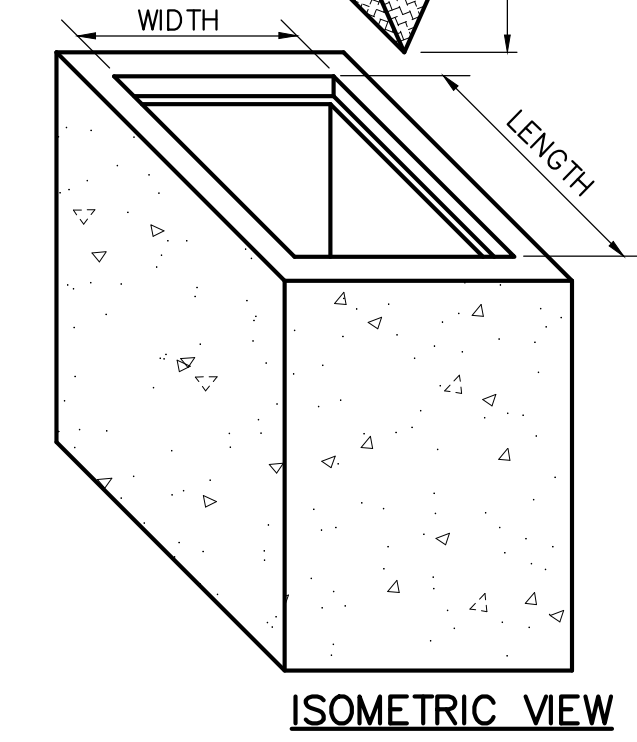
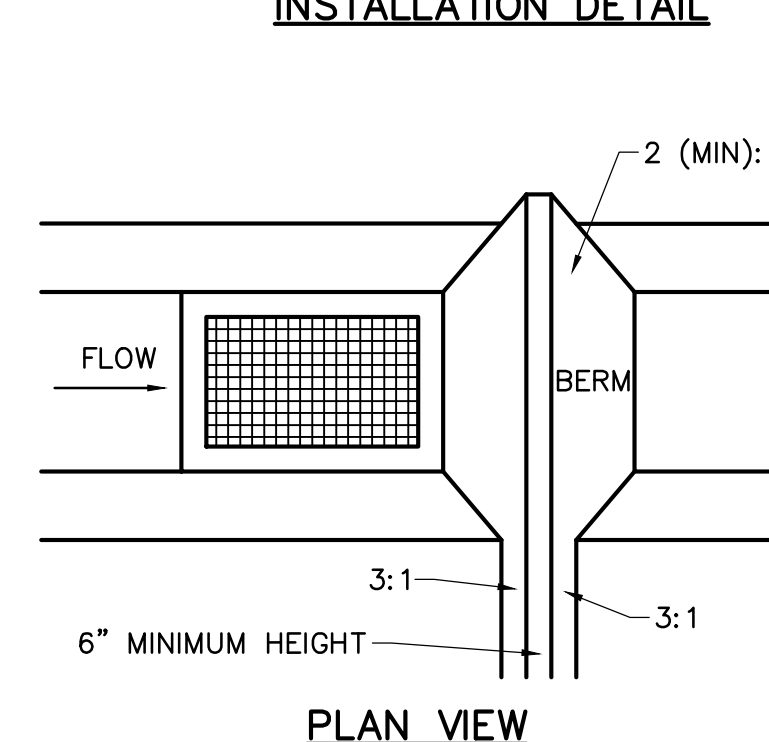
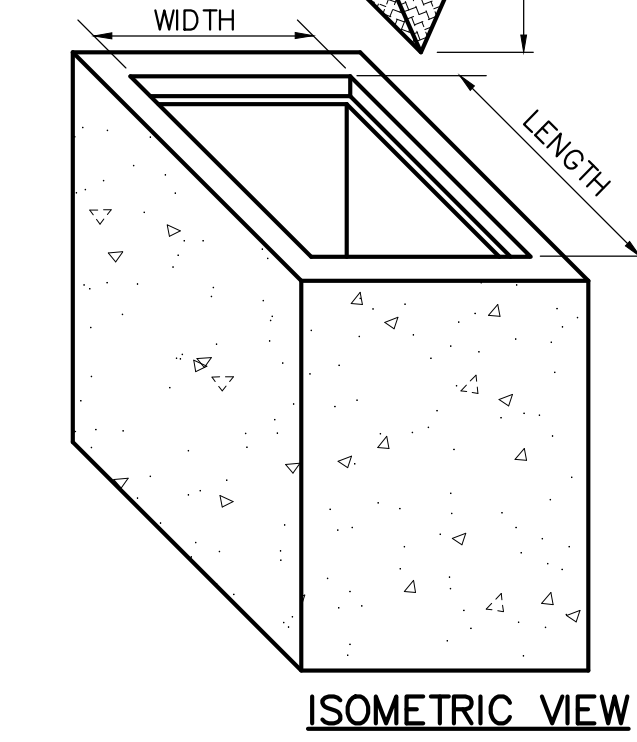
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF FILTER SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY 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

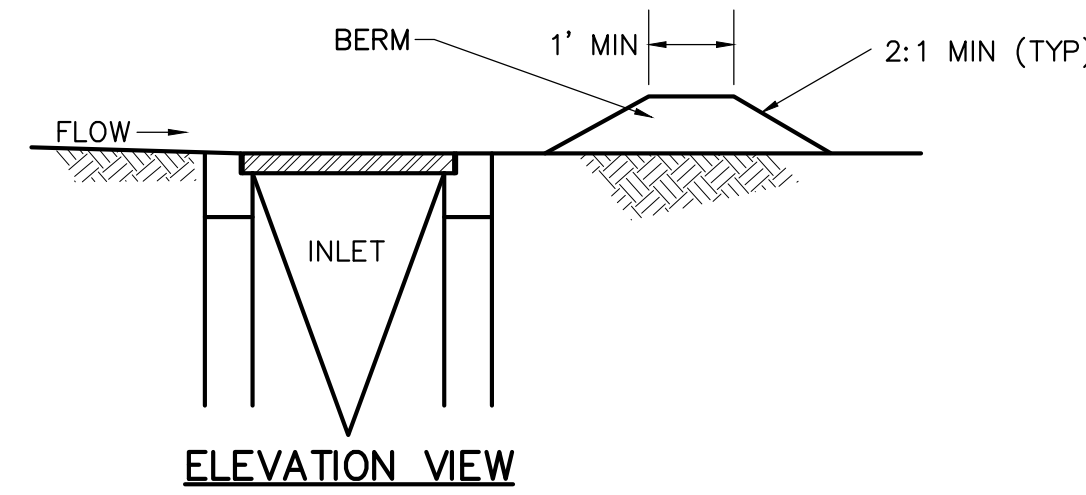
NOT TO SCALE

TABLE 4.1 COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
MATERIAL TYPE	3 mil HOPE	5 mil HOPE	5 mil HOPE	MULTI-FILAMENT POLYPROPYLENE (MFPF)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPF)
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



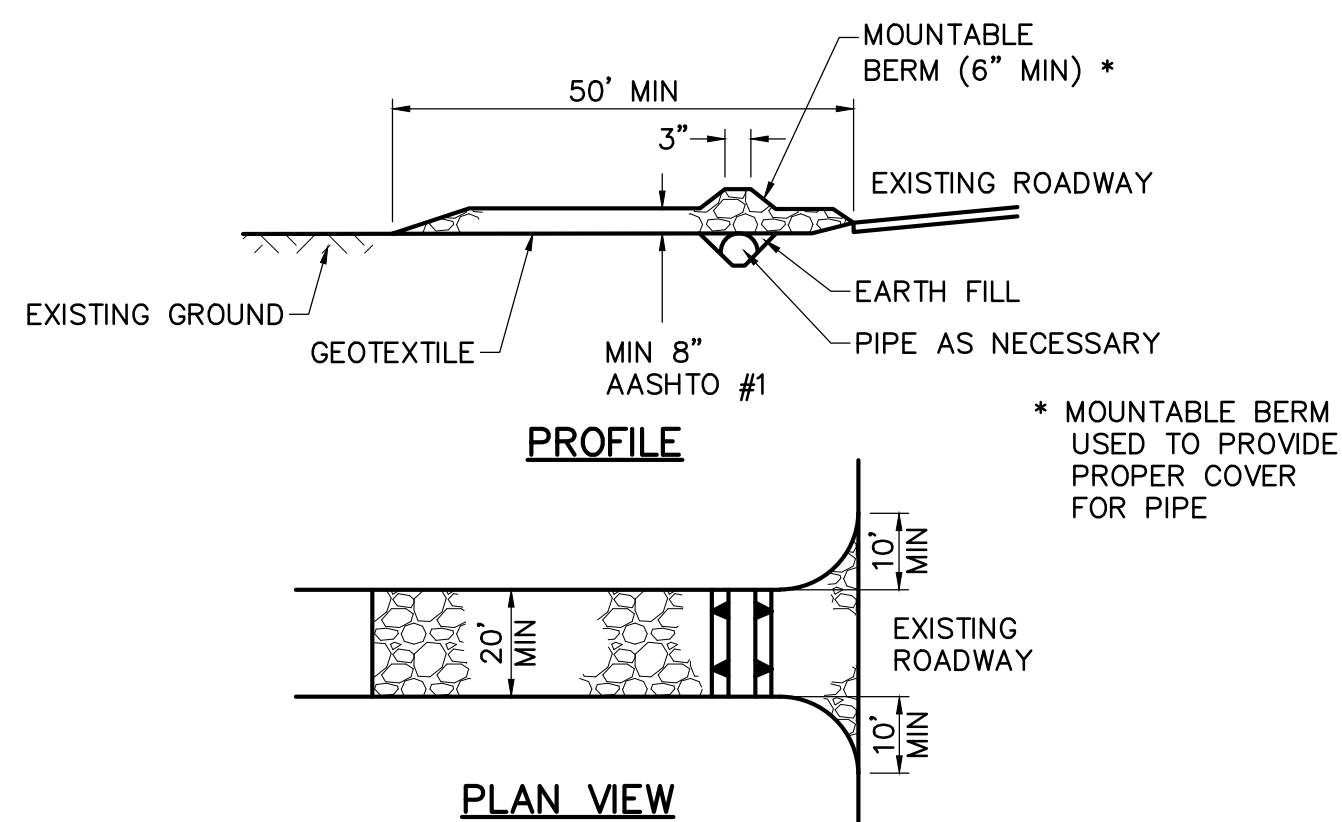
**FILTER BAG INLET PROTECTION DETAIL
TYPE M INLET**
NOT TO SCALE



**FILTER BAG INLET PROTECTION DETAIL
TYPE C INLET**
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.



**ROCK CONSTRUCTION
ENTRANCE**
NOT TO SCALE

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.



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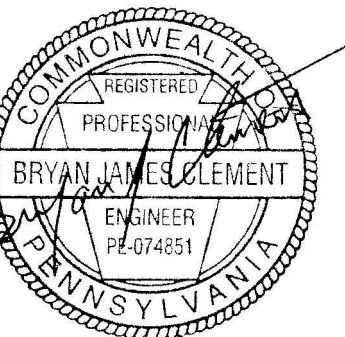


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**Susquehanna
Union Green**

Susquehanna
Township, Dauphin
County, PA



Project Number:

210191.01

Drawn by:

LBG/REA

Checked by:

LBG/BJC

Date:

July 9, 2021

Revisions:

Scale:



Sheet Name:

Erosion &

Sedimentation

Control Plan Details

Submission:

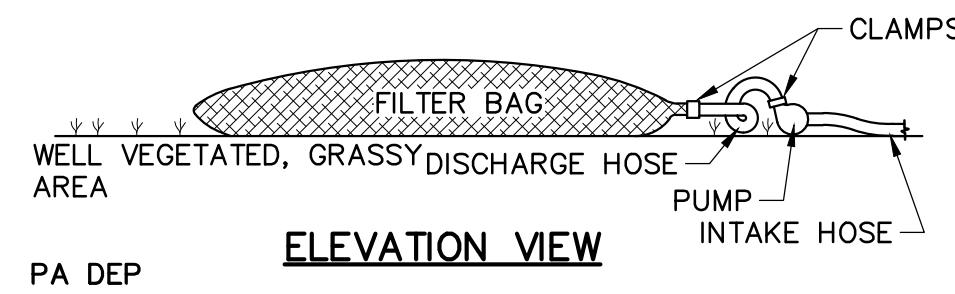
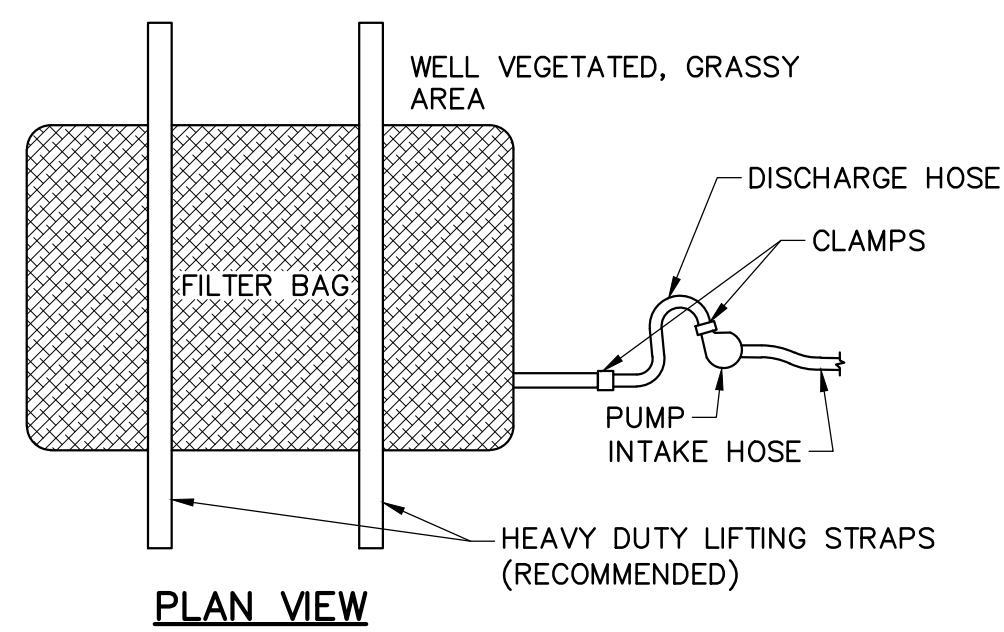
Phase III Final Land Development

Plans

Sheet Number:

ES203

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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 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

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

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.

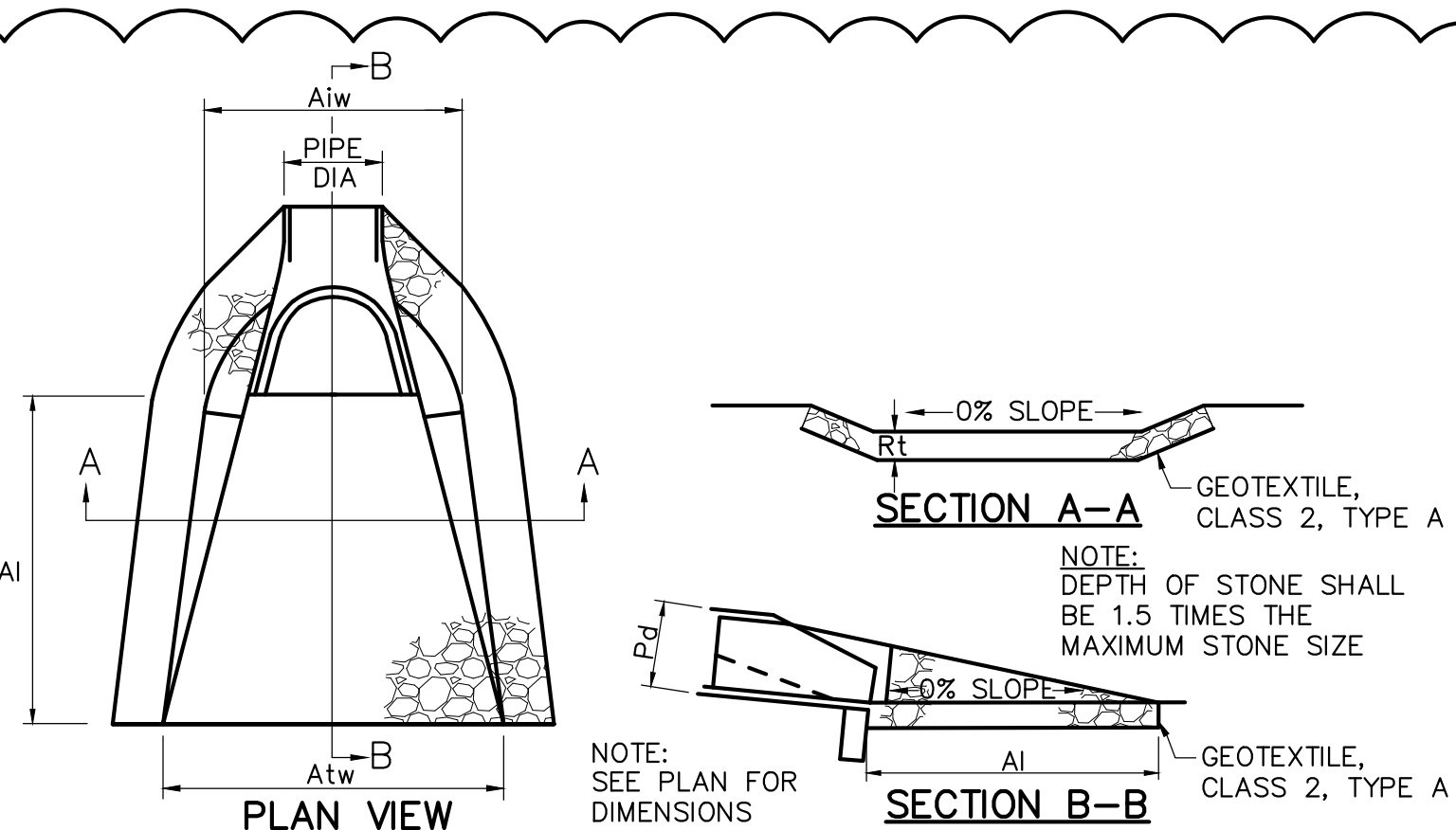
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

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

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

FILTER BAG DETAIL FOR PUMPED WATER

NOT TO SCALE



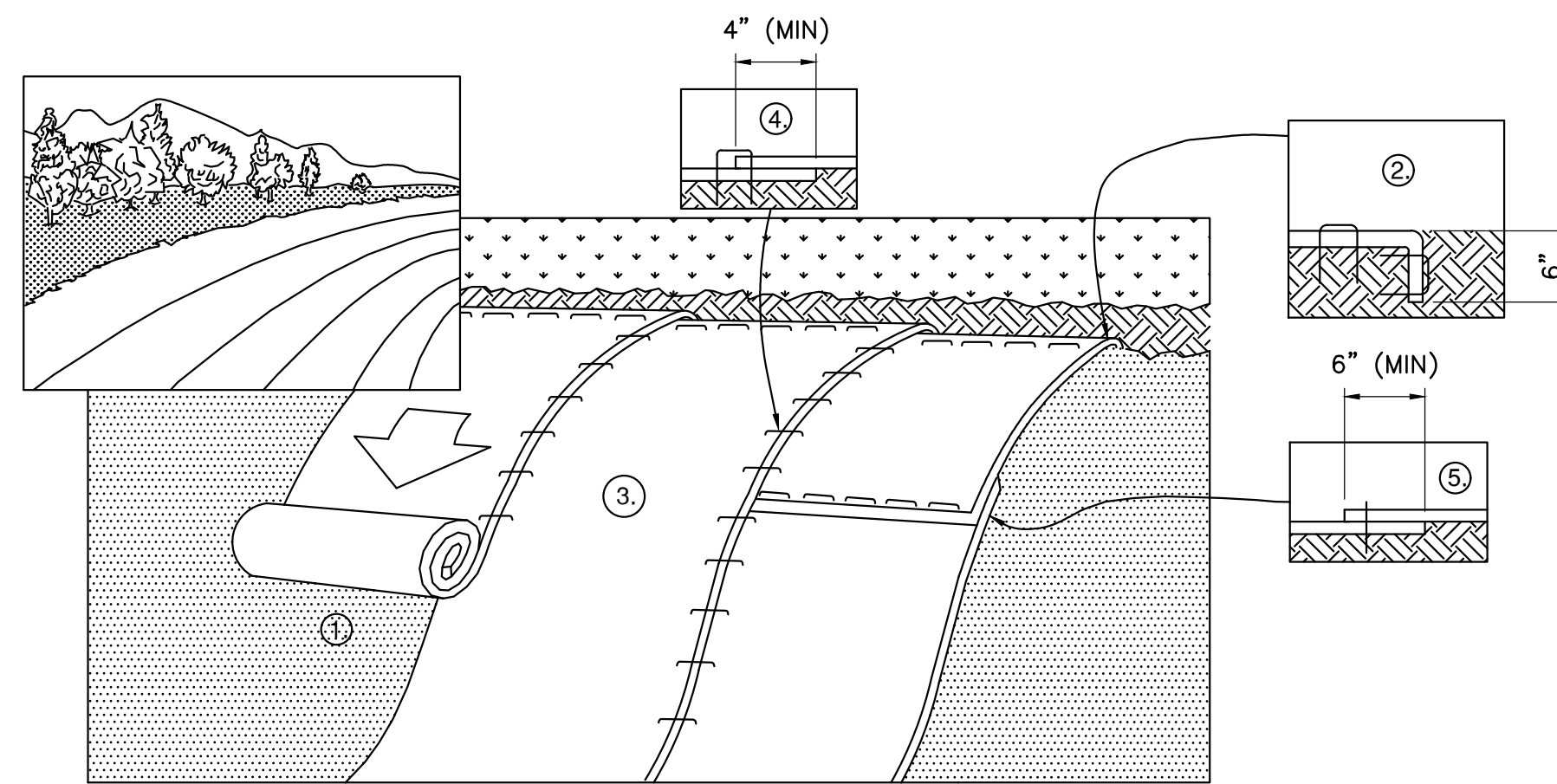
OUTLET No.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE (R=)	THICK RT (IN)	LENGTH A1 (FT)	INITIAL WIDTH A1w (FT)	TERMINAL WIDTH A2w (FT)
1	30	R-6	36	12	8	13

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

ROCK APRON DETAIL

NOT TO SCALE



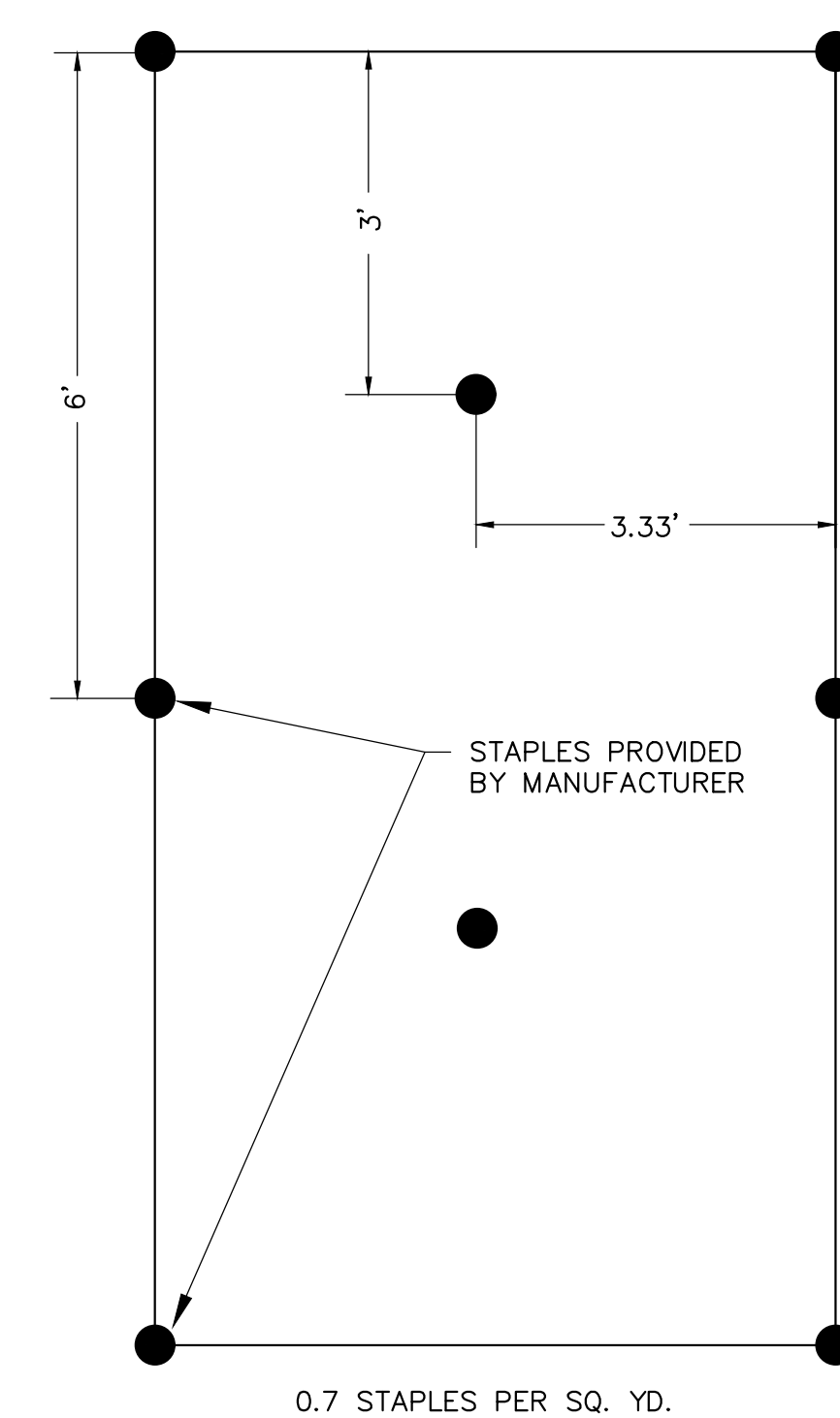
- PREPARE SOIL (SEED BED) BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF SLOPE. ROLL BLANKETS IN DIRECTION OF WATER FLOW. INSTALL BEGINNING OF ROLL IN 6"x6" ANCHOR TRENCH, STAPLE, BACKFILL, AND COMPACT SOIL.
- ROLL THE BLANKETS DOWN 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.
- 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.
- CONSECUTIVE BLANKETS SPLICED 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.
- 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:

- IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION
- SEED FILL SLOPES IN 15 FOOT INCREMENTS AS EMBANKMENT HEIGHT INCREASES.
- EROSION CONTROL BLANKETS SHOULD BE USED ON ALL CUT AND FILL SLOPES 3:1 OR GREATER.
- THE EROSION CONTROL BLANKET SHALL BE S75 AS MANUFACTURES BY NORTH AMERICAN GREEN OR APPROVED EQUAL.
- SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKETS.
- PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
- BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
- THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

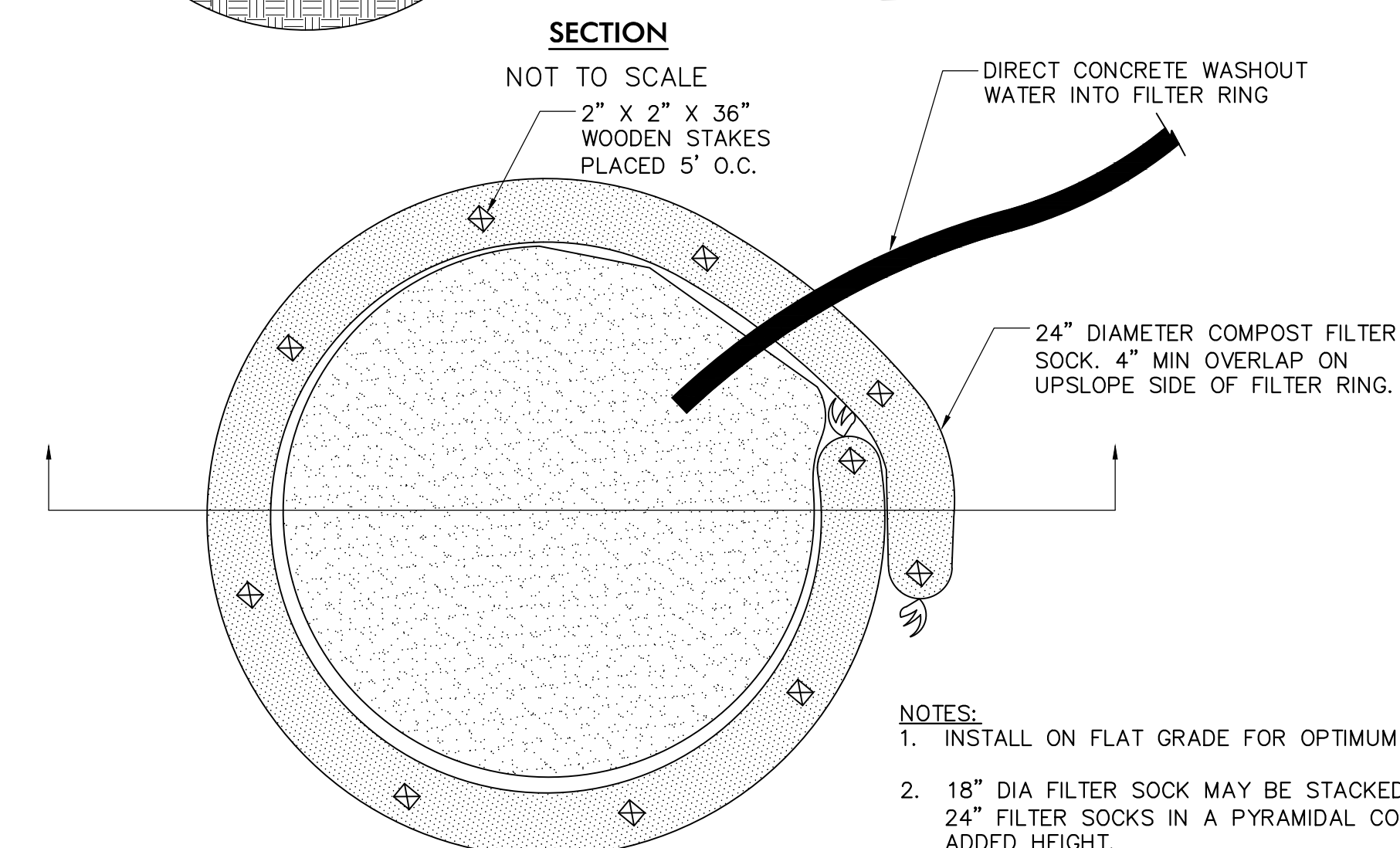
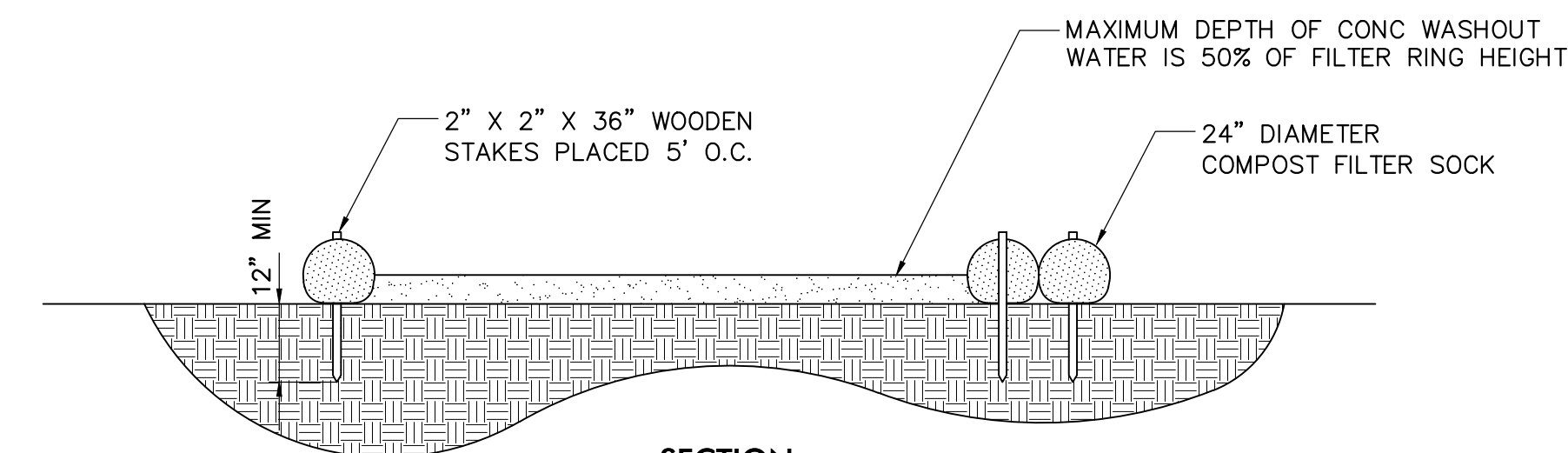
EROSION CONTROL BLANKET DETAIL (SLOPE INSTALLATION)

NOT TO SCALE



EROSION CONTROL BLANKET STAPLE PATTERN

NOT TO SCALE



- NOTES:
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
 - 18" DIA FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" FILTER SOCKS IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
 - 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



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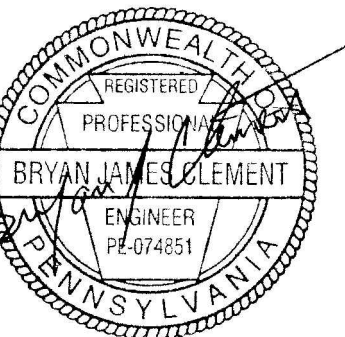


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Susquehanna
Union Green

Susquehanna
Township, Dauphin
County, PA



Project Number:
210191.01
Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
July 9, 2021

Revisions:
8/6/21 Revised per Twp Comments

Scale:
1"=30'
30' 15' 0 30'

Sheet Name:
Erosion & Sedimentation
Control Plan Details
Submission:
Phase III Final Land Development Plans

Sheet Number:

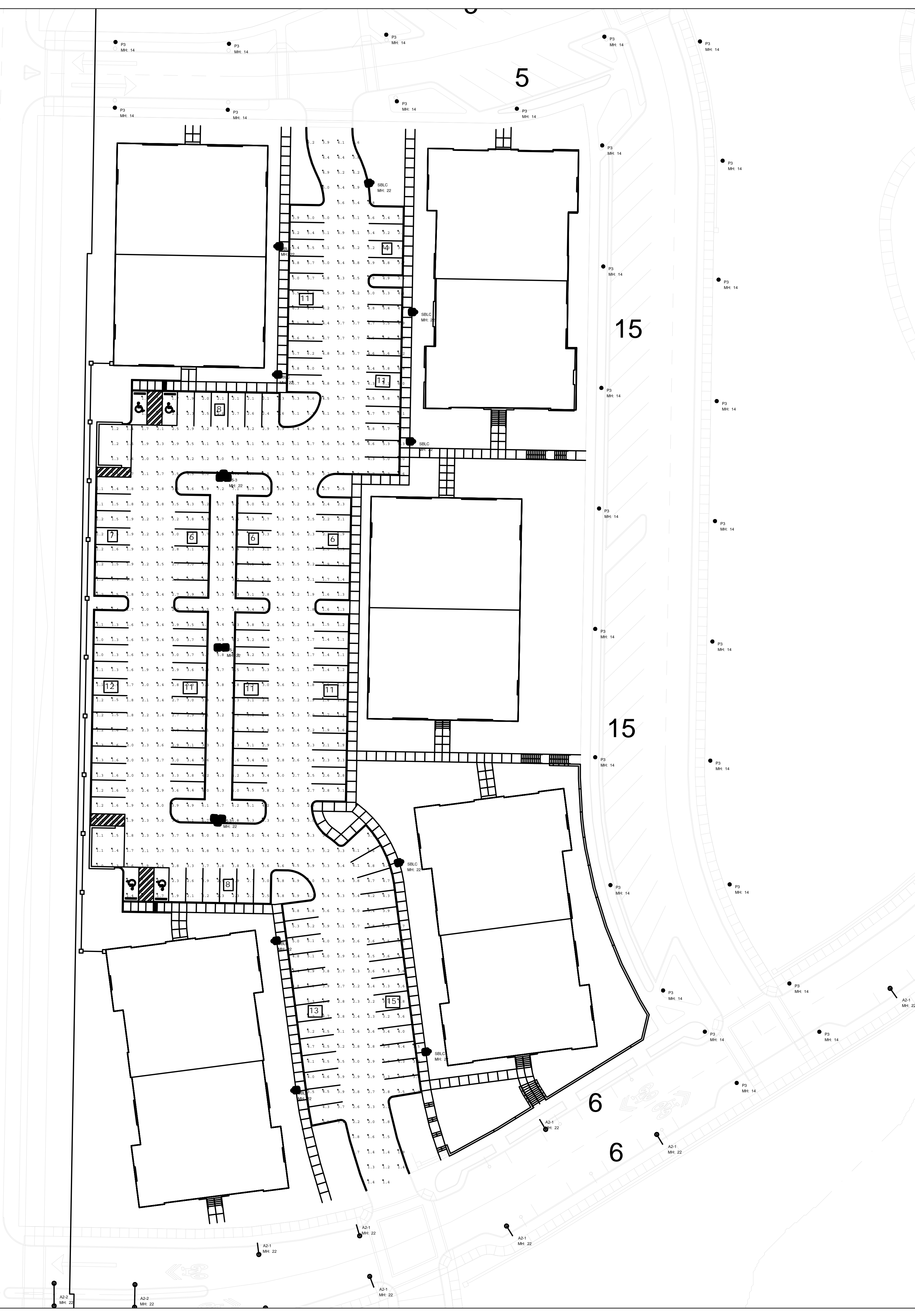
ES204

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Luminaire Schedule							
Project: NEW LOT ADDED 7-22-21							
Label	Symbol	Arrangement	Qty	LLF	Manufacturer	Description	Arr. Watts
SS-2		BACK-BACK	1	0.850	U.S. ARCHITECTURAL LIGHTING	RZR-PLED-VSQ-W-80LED-525mA-NW	258.8
SS-3		3 @ 90 DEGREES	2	0.850	U.S. ARCHITECTURAL LIGHTING	RZR-PLED-VSQ-W-80LED-525mA-NW	388.2
SBLC		SINGLE	9	0.850	U.S. ARCHITECTURAL LIGHTING	RZR-PLED-II-80LED-525mA-NW-HS	129.4 000

Calculation Summary						
Project: NEW LOT ADDED 7-22-21						
Label	Avg	Max	Min	Avg/Min	Max/Min	
LOT SURFACE	3.31	8.1	1.0	3.31	8.10	

- NOTES:
- All light levels are at grade
 - Lumen output is based on anticipated lumen output at half of the rated life of the LEDs.
 - Mounting height shown per location is from grade to fixture aperture
 - Light levels are calculated based on direct fixture contribution only
 - Results are based on information provided to L & M. Changes to location, fixture, wattage will affect final results



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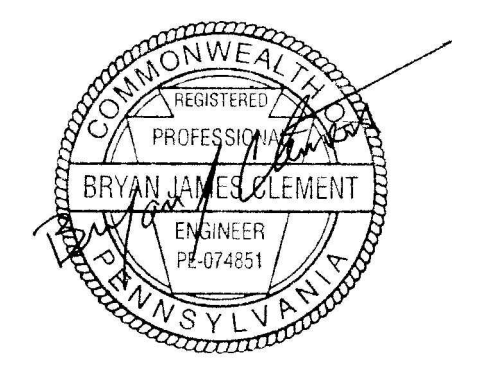
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Susquehanna Township, Dauphin County, PA



Project Number:
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Drawn by:
LBG/REA
Checked by:
LBG/BJC
Date:
July 9, 2021

Revisions:
A 8/6/21 Revised per Twp Comments

Scale:

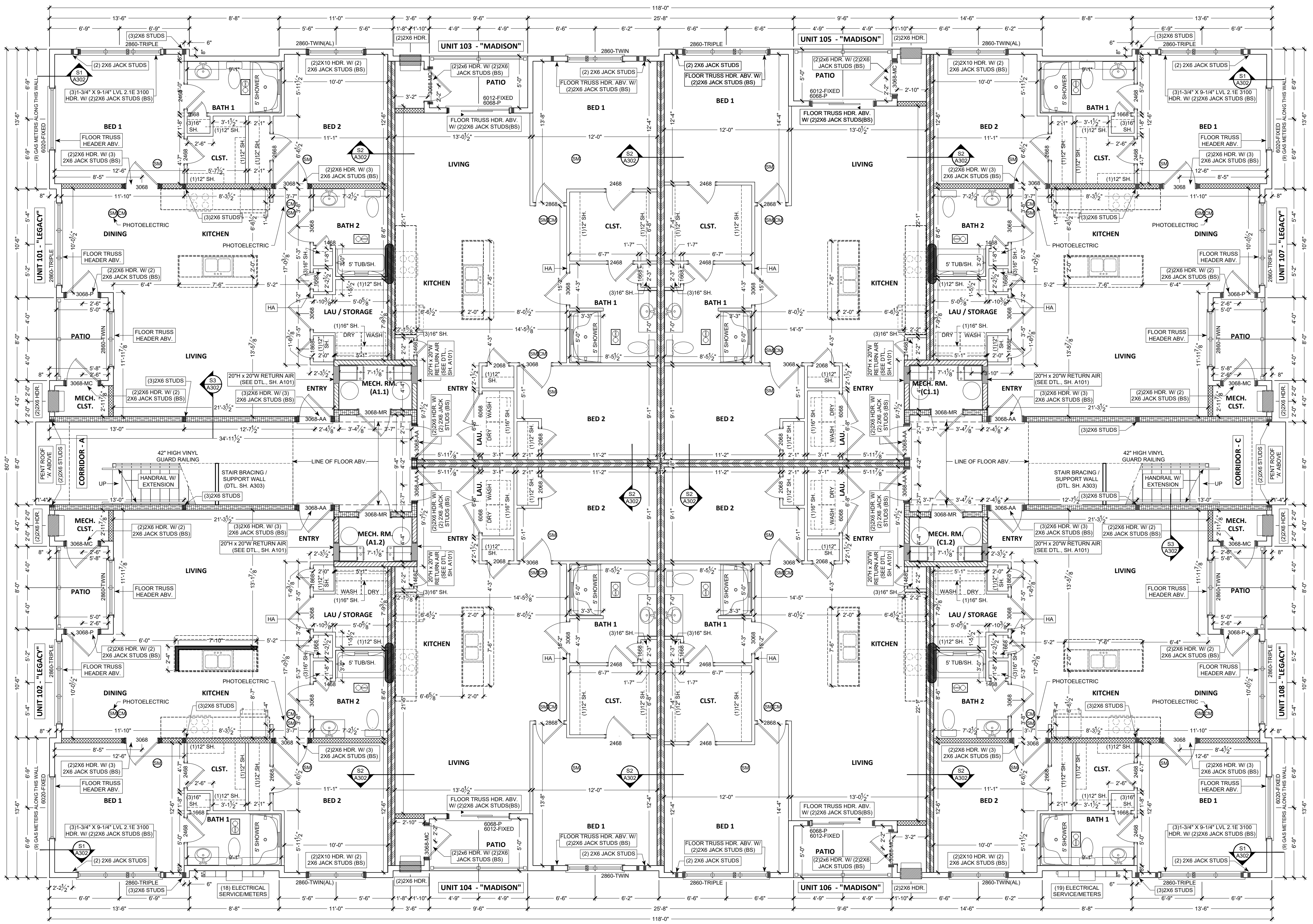
Sheet Name:
Photometric Plan

Submission:
Phase III Final Land Development Plans

Sheet Number:
PH100

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FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"

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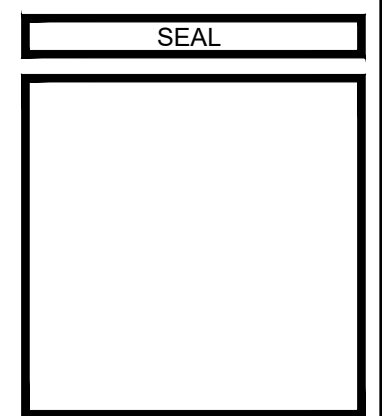
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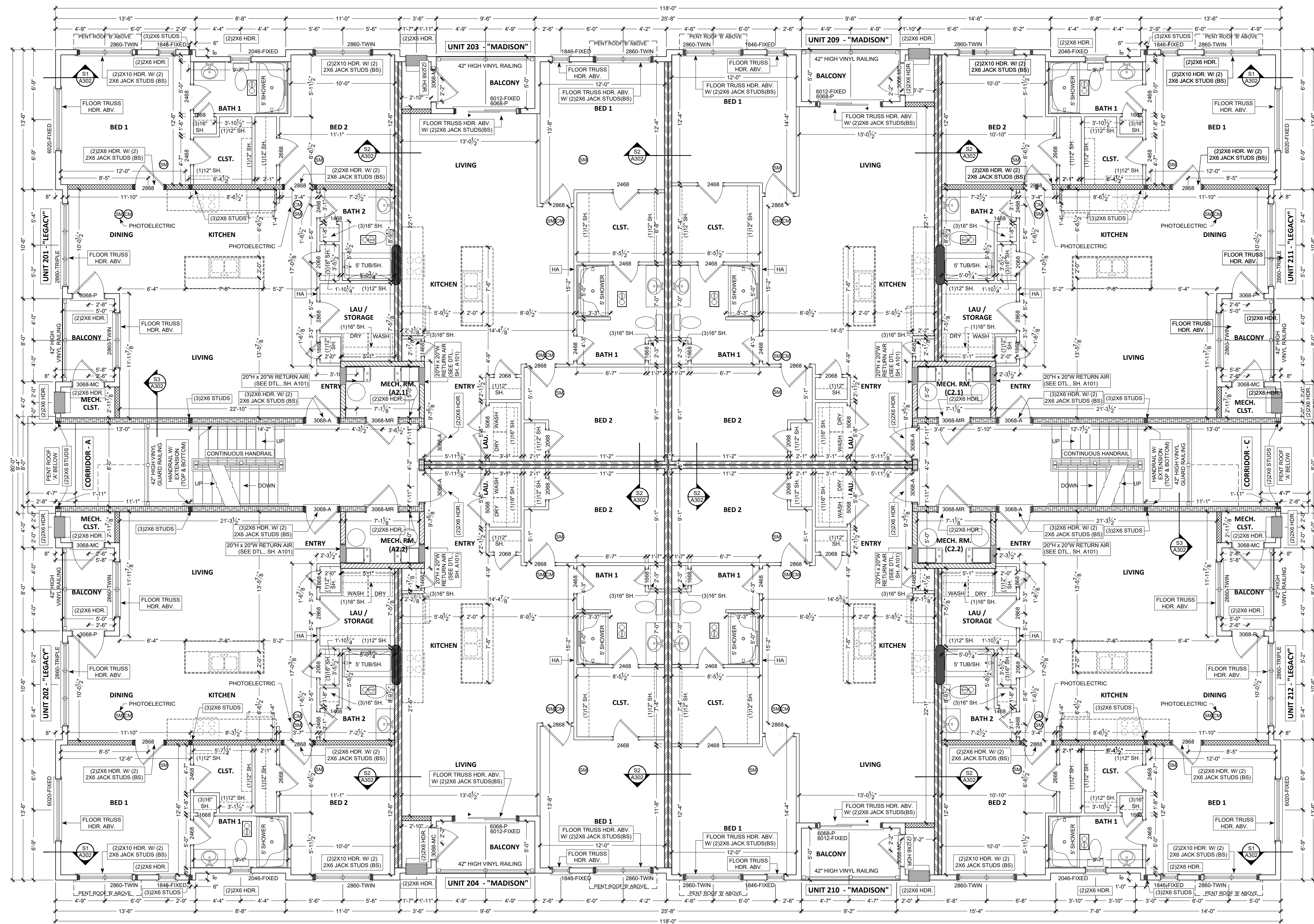
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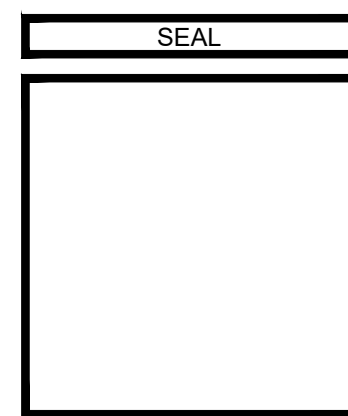
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SECOND FLOOR PLAN
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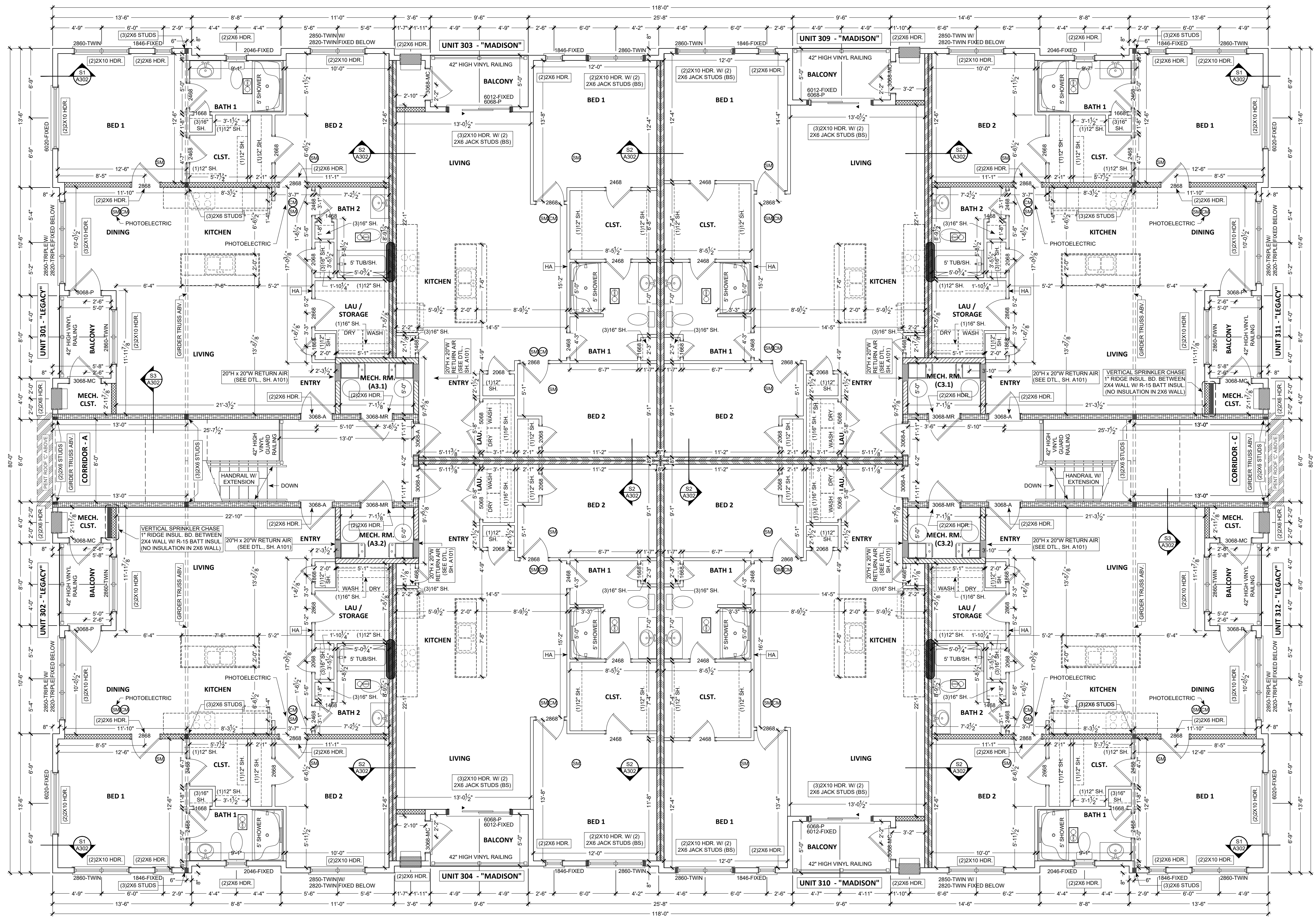
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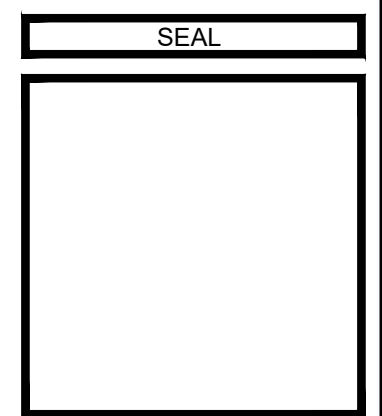
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THIRD FLOOR PLAN
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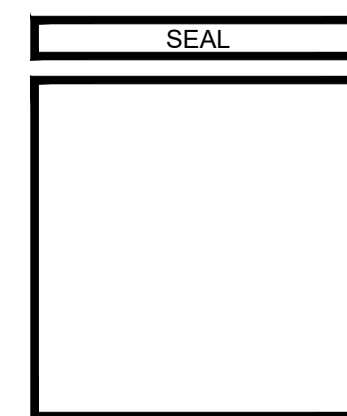


E1.1 - FRONT ELEVATION
SCALE: 3/16" = 1'-0"

ELEVATION LEGEND			
MATERIALS			



E1.4 - SIDE ELEVATION
SCALE: 3/16" = 1'-0"



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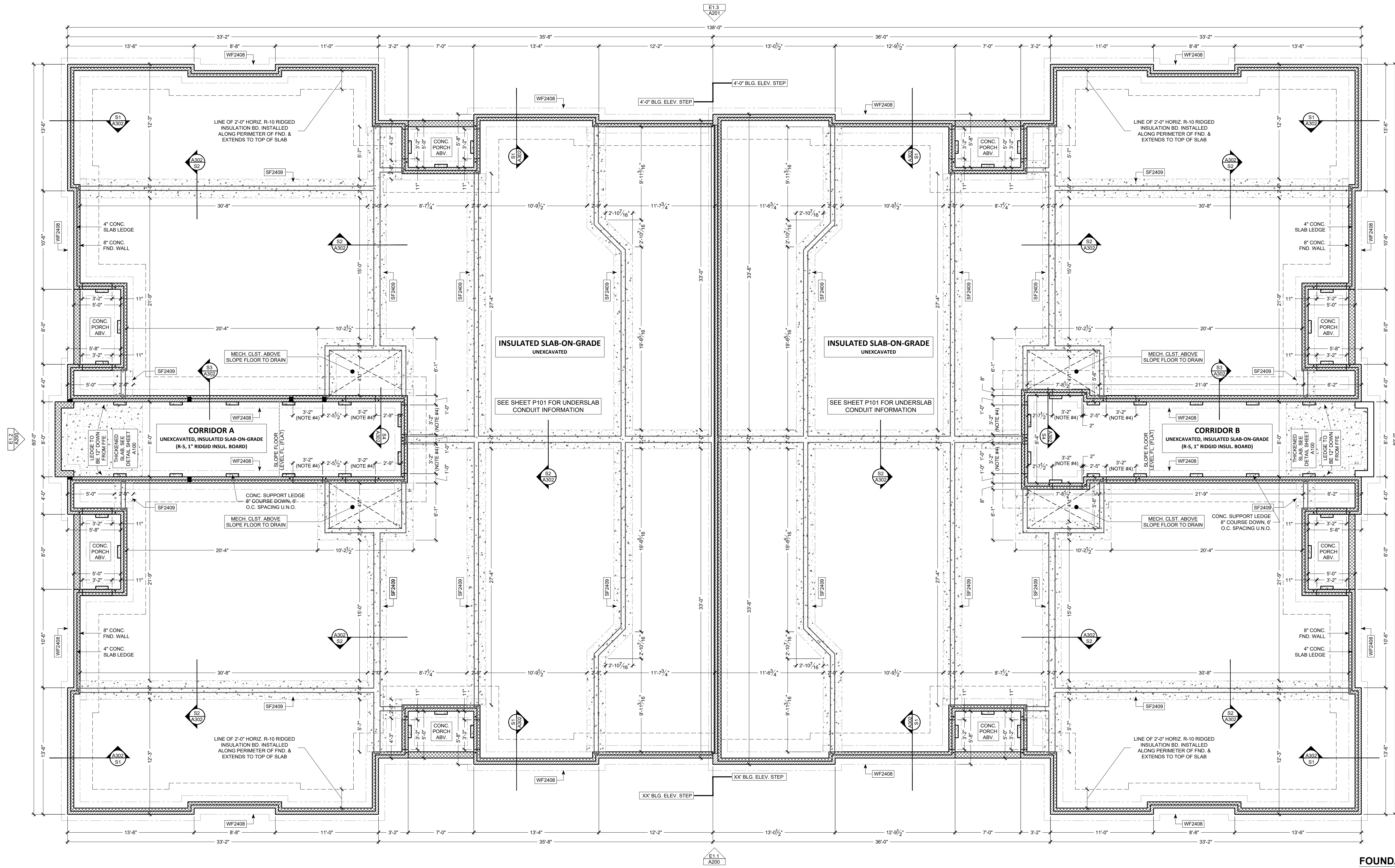
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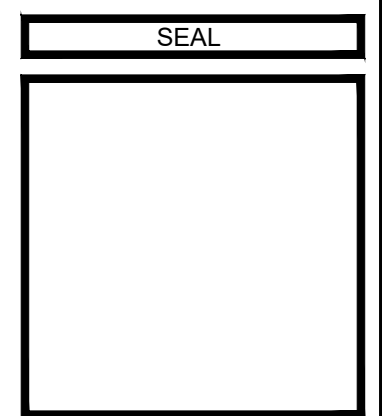
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FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

FOOTING SCHEDULE		
TYPE	WIDTH	THICKNESS
SF2409	2'-0"	8"
WF2408	2'-0"	8"



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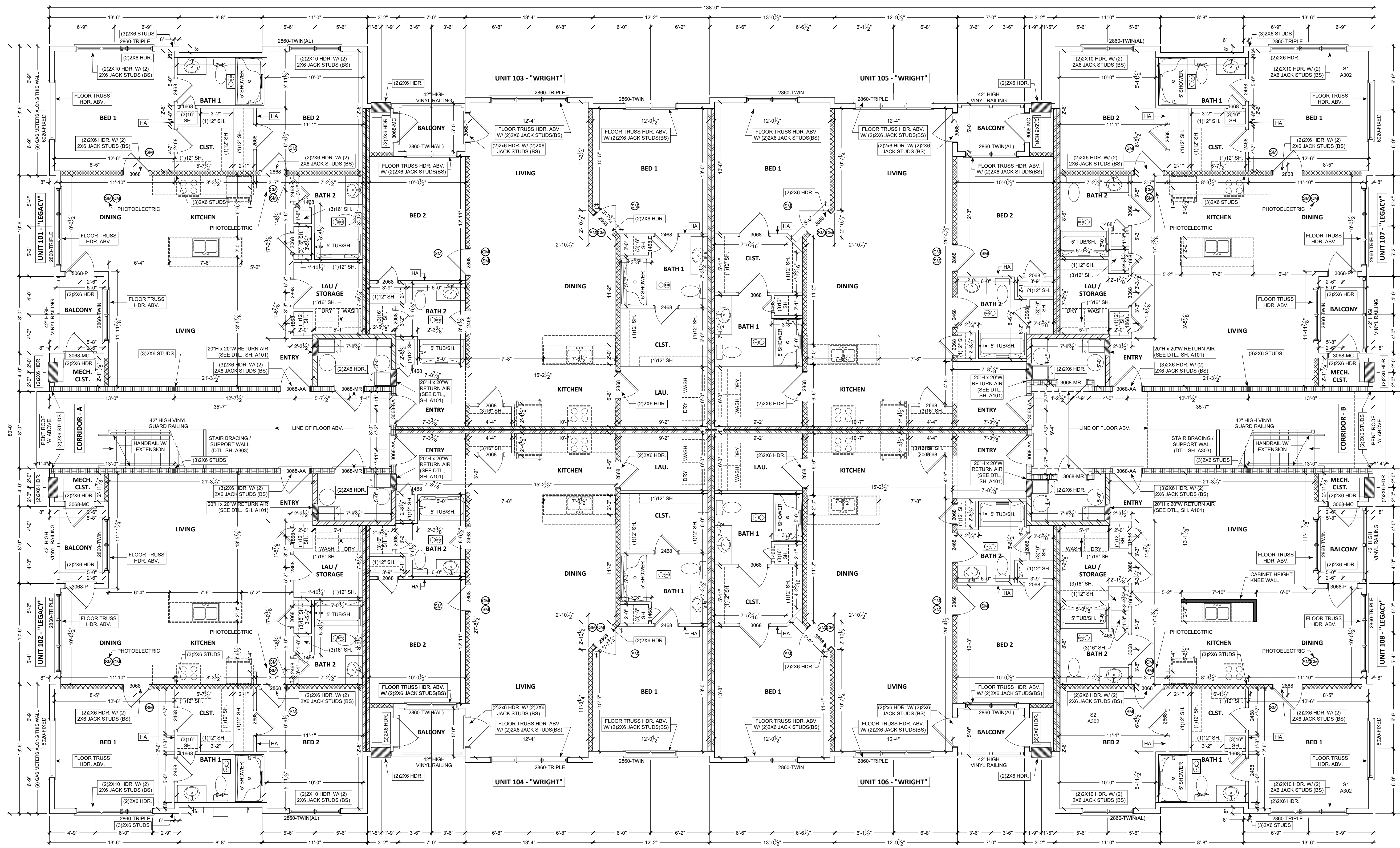
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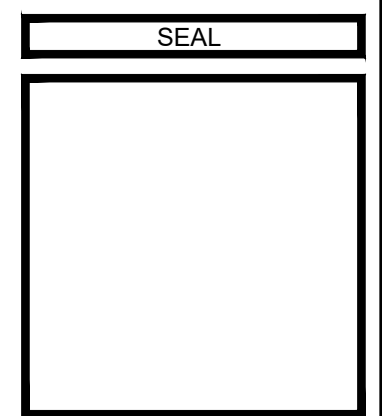
SUSQUEHANNA UNION GREEN
APARTMENTS

FOUNDATION PLAN
****BLG B, D & E CONCEPT PLAN****
 ADDRESS: TBD

SHEET DESCRIPTION:
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 DATE: 07/10/2021
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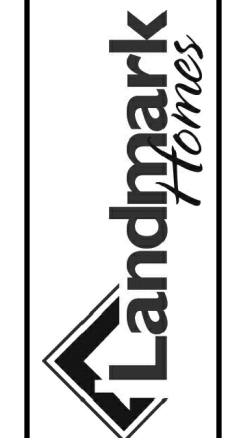


FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"



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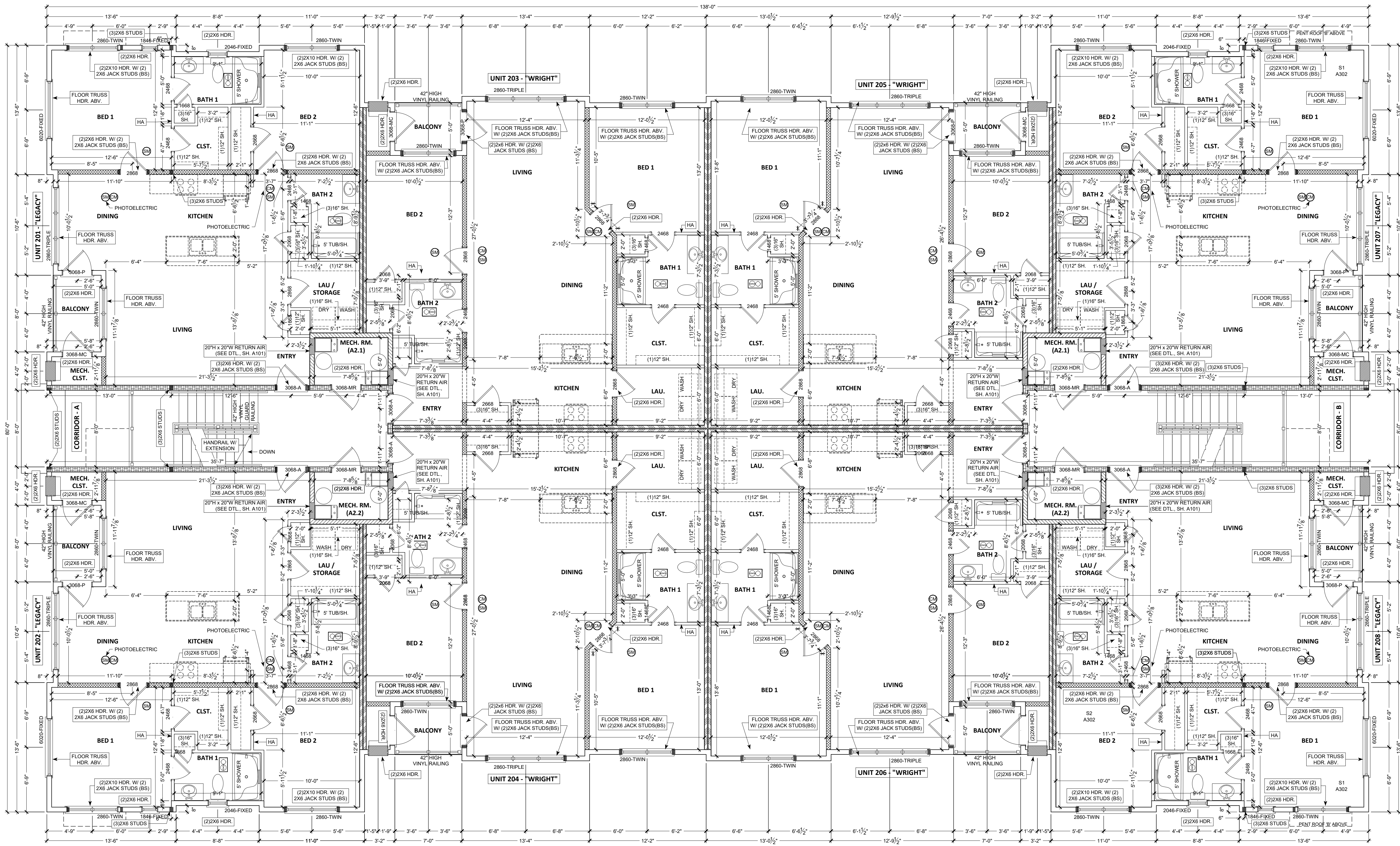
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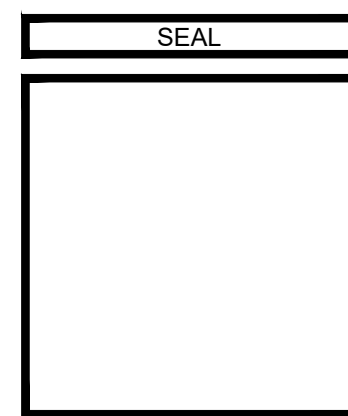
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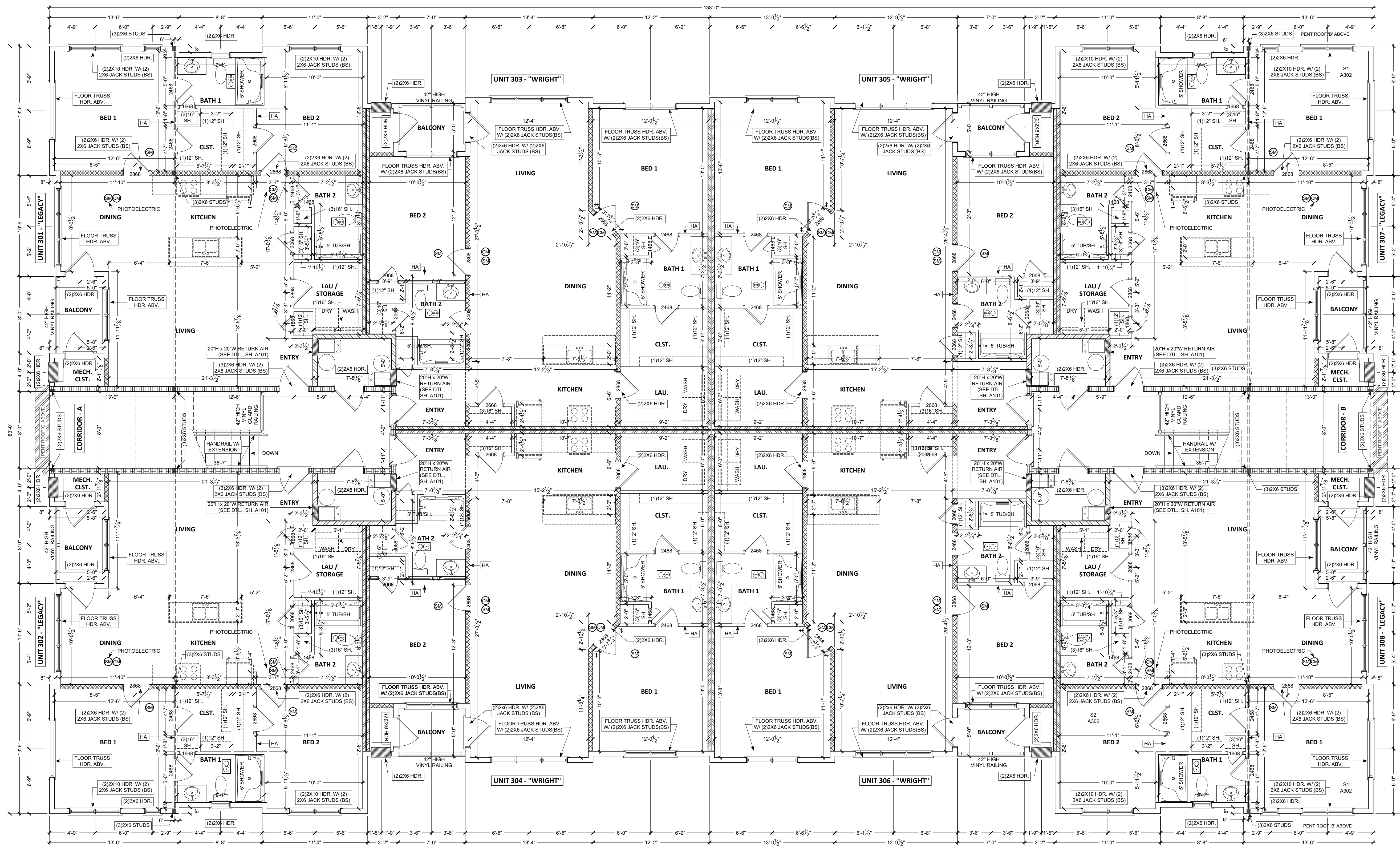
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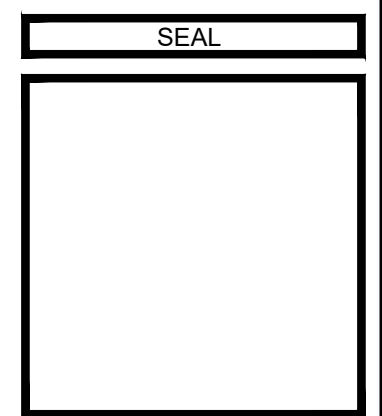
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THIRD FLOOR PLAN
 SCALE: 3/16" = 1'-0"



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**SUSQUEHANNA UNION GREEN
 APARTMENTS**

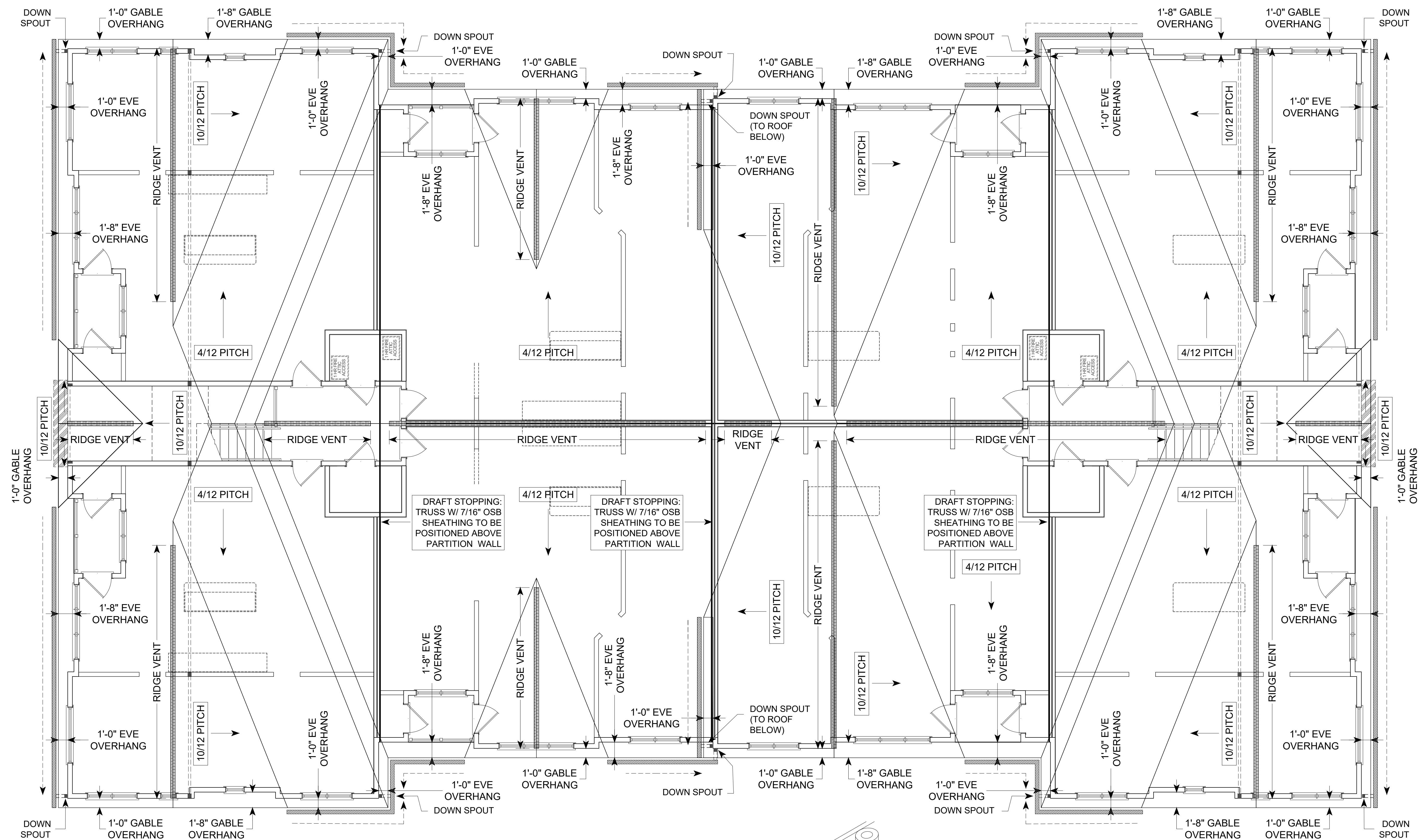
THIRD FLOOR PLAN
 JOB NUMBER: **BLG B,D&E CONCEPT PLAN**
 ADDRESS: TBD

DATE: 07/16/2021
 DATE DRAWN: 000000000
 DATE UPDATED:

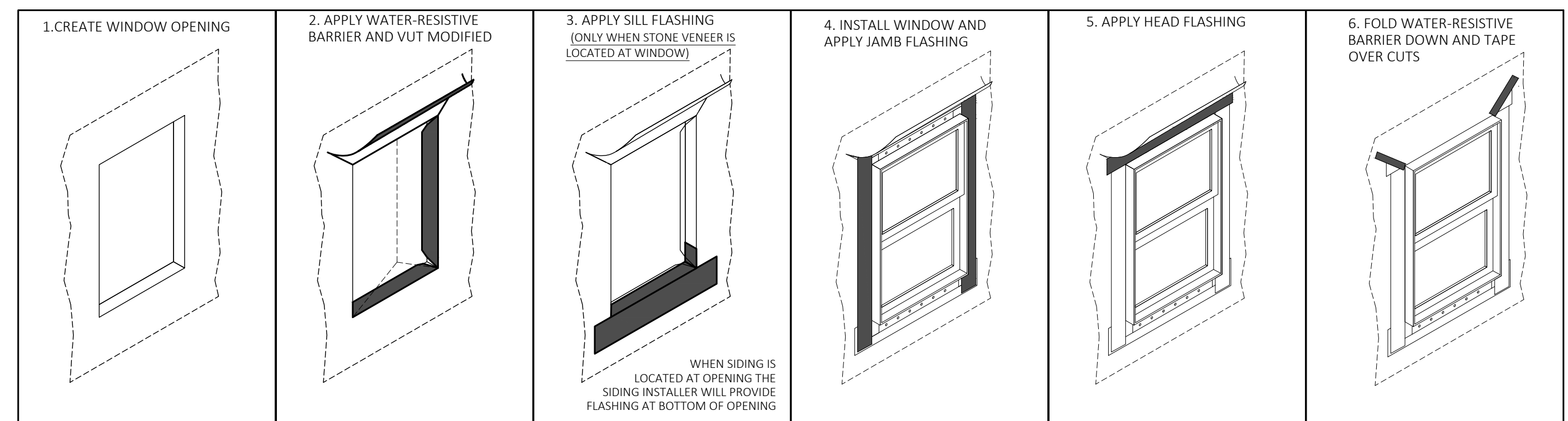
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 AS NOTED
 SCALE:

SHEET NUMBER

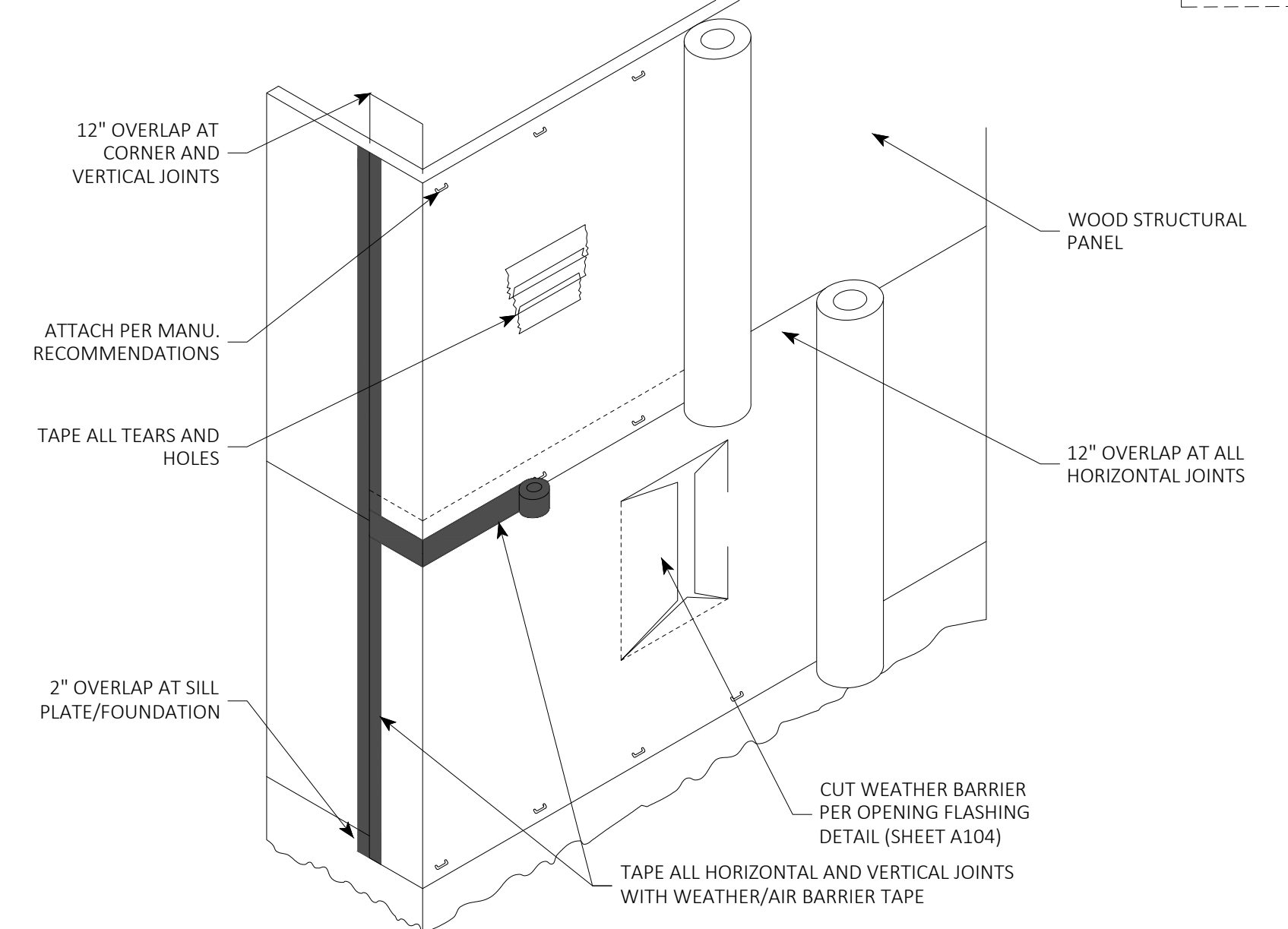
A103
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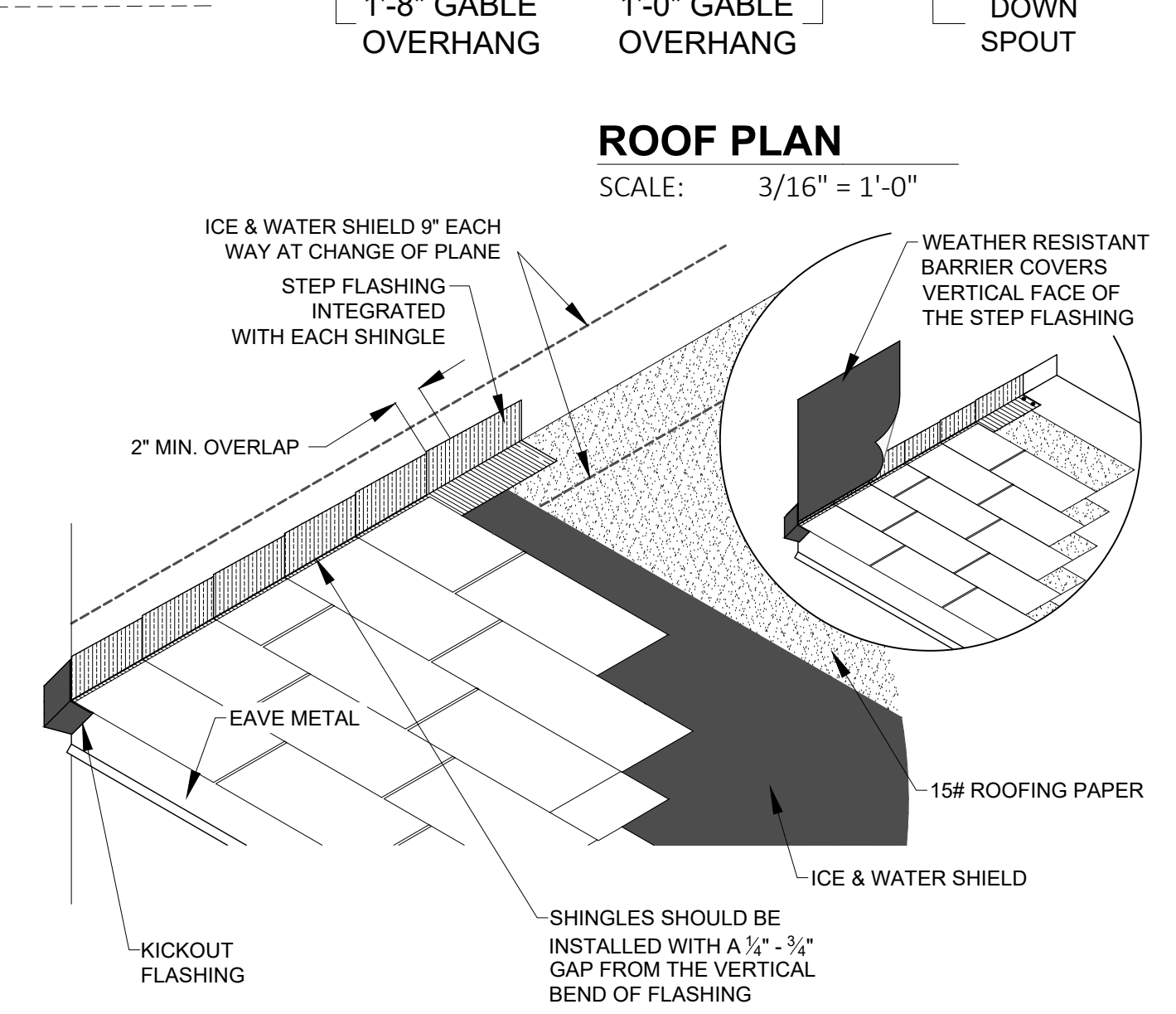
ROOF NOTES:
 1. DOWN SPOUTS NEED TO BE CROSS REFERENCED WITH ANY REQUIRED UNDERGROUND CONNECTIONS
 2. ALL GUTTER TO BE 6K TYPE AND SIZE
 3. ALL DOWN SPOUTS TO BE 3X4 CORRUGATE AND SHALL BE CONNECTED TO UNDERGROUND ROOF LEADERS



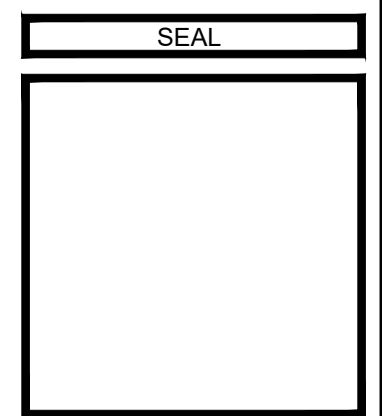
WINDOW & HVAC OPENING FLASHING
 SCALE: 3/4" = 1'-0"



WEATHER BARRIER DETAIL
 SCALE: 1/4" = 1'-0"



STEP AND KICK-OUT FLASHING DETAIL
 SCALE: 3/8" = 1'-0"



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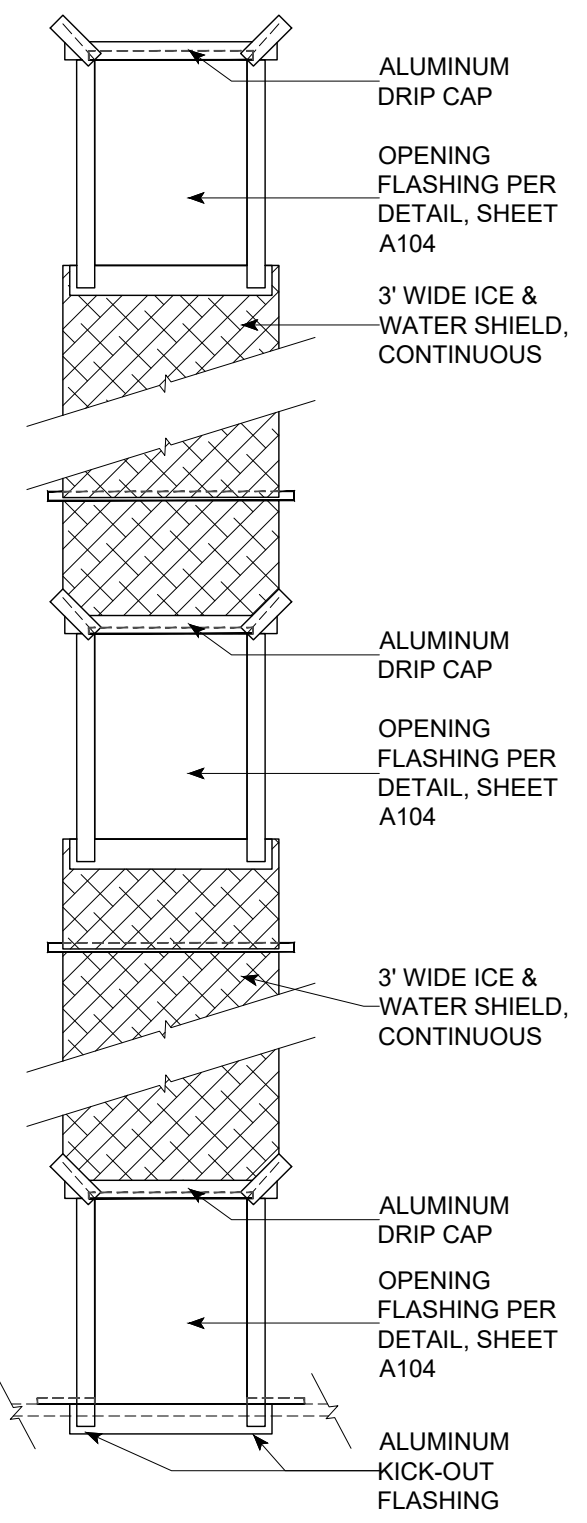
SUSQUEHANNA UNION GREEN
 APARTMENTS

ROOF PLAN
 JOB NUMBER: **BLG B,D&E CONCEPT PLAN**
 ADDRESS: TBD

DATE DRAWN: 07/16/2021
 DATE REVISION: 00000000
 AS NOTED
 SCALE: AS NOTED
 SHEET NUMBER: A104
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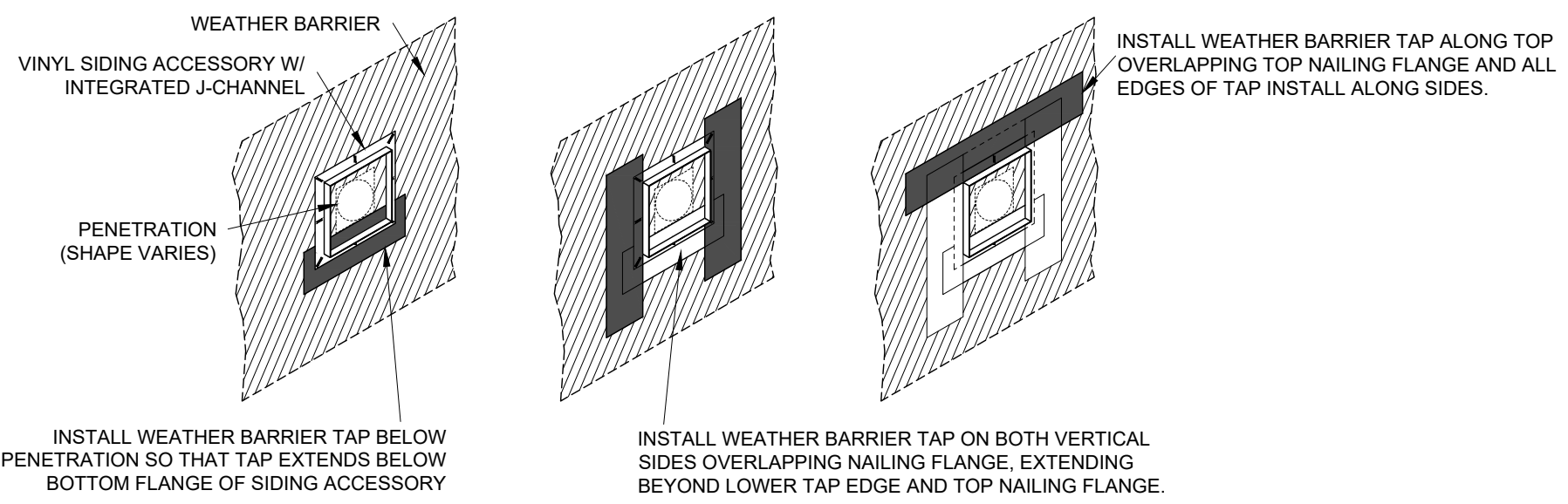


E1.1 - EAST ELEVATION (GRAVEL ROAD)
SCALE: 3/16" = 1'-0"



ELEVATION LEGEND		LABELS	
BOARD & BATTEN	HORIZONTAL		
			KOF KICK OUT FLASHING
			DS DOWNSPOUT
			BVH BATHROOM VENT HOOD
			BVS BATHROOM VENT SOFFIT
			BVL BATHROOM VENT LOUVERED
			DVH DRYER VENT HOOD
			DVS DRYER VENT SOFFIT
			DVL DRYER VENT LOUVERED
SIDING ACCESSORIES			

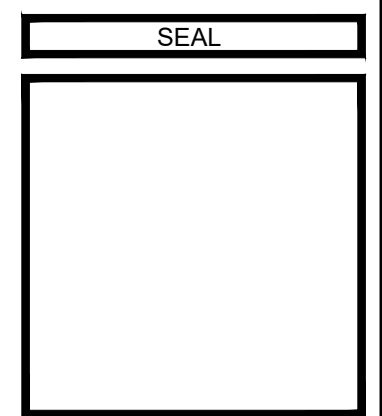
STACKED HVAC FLASHING DTL.
SCALE: 3/8" = 1'-0"



FLASHING VINYL SIDING ACCESSORIES W/ INTEGRATED J-CHANNEL
SCALE: 3/8" = 1'-0"



E1.4 - SOUTH ELEVATION (GARRISON AVE)
SCALE: 3/16" = 1'-0"



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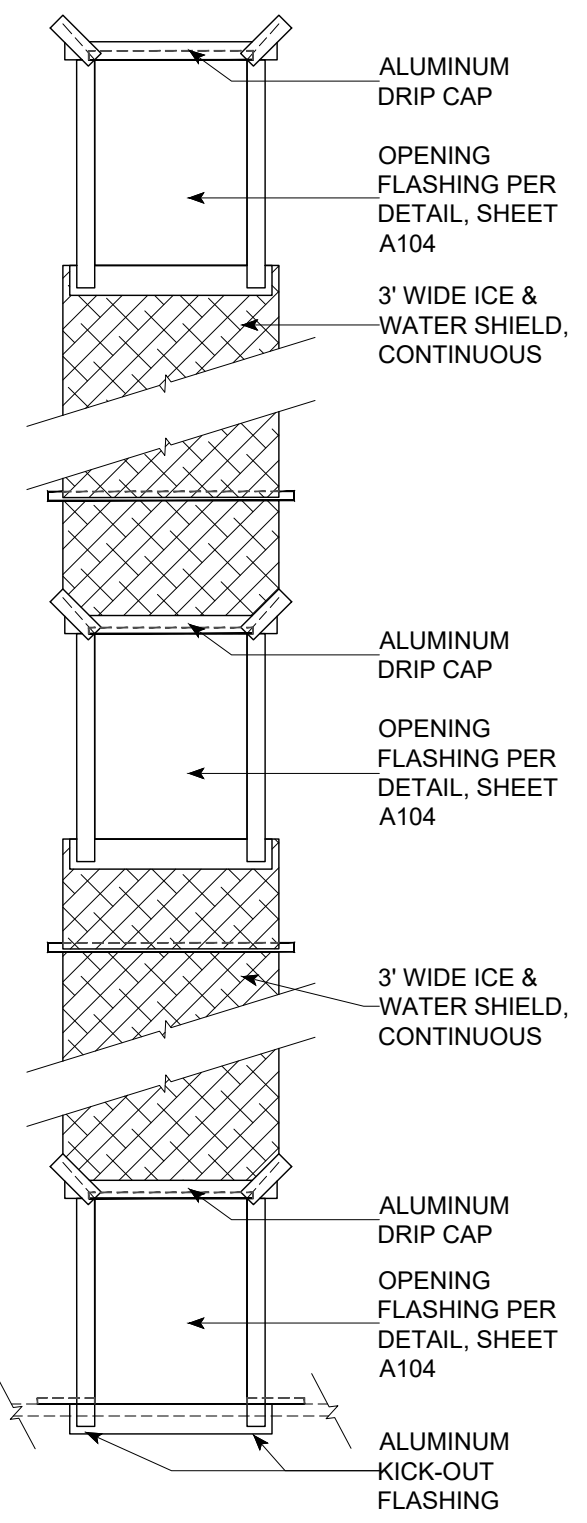
SHEET DESCRIPTION: SOUTH AND EAST ELEVATIONS
 JOB NUMBER: **BLG B.D&E CONCEPT PLAN**
 ADDRESS: TBD

07/16/2021
 DATE DRAWN: 00000000
 NIS
 DRAWN BY: AS NOTED
 SCALE:

SHEET NUMBER
A200
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E1.3 - WEST ELEVATION (PARKING LOT)
SCALE: 3/16" = 1'-0"

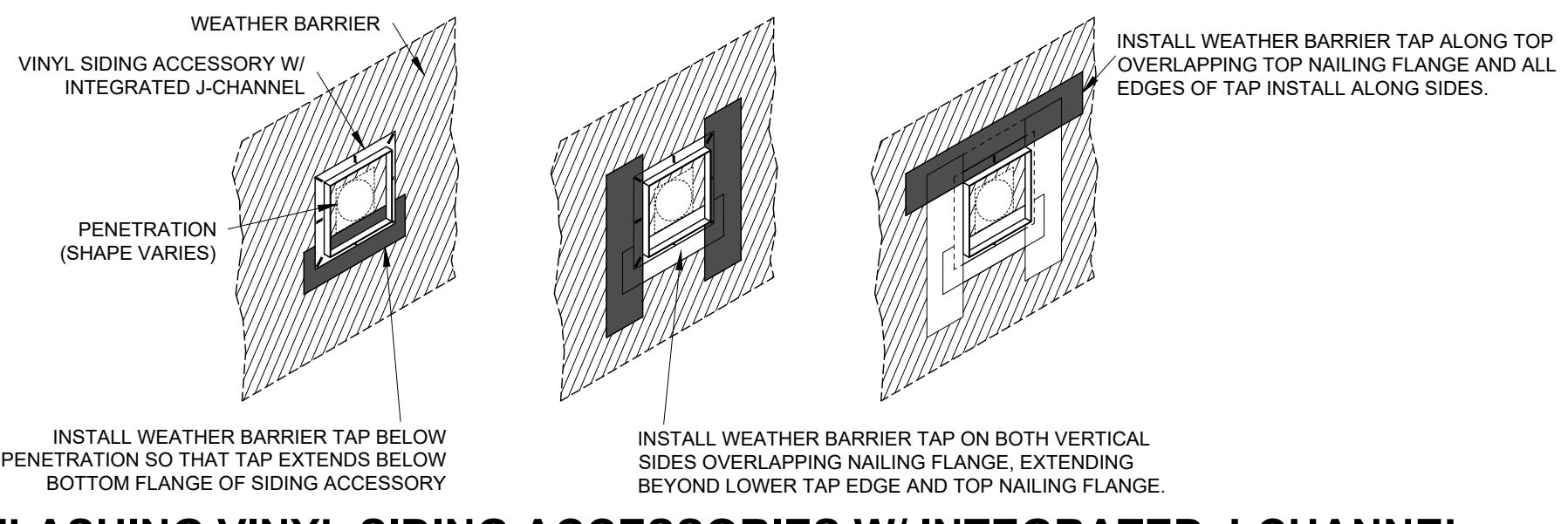


STACKED HVAC FLASHING DTL.
SCALE: 3/8" = 1'-0"

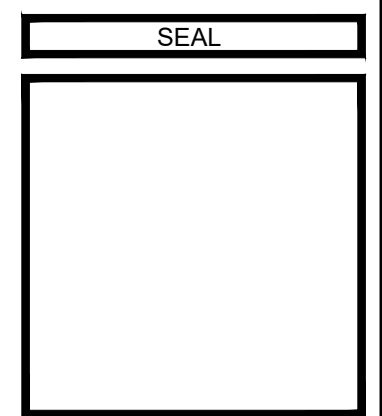
ELEVATION LEGEND		LABELS	
	BOARD & BATTEN		KOF KICK OUT FLASHING
	DRYSTACK STONE VENEER		DS DOWNSPOUT
	STANDING SEAM METAL ROOFING		BVH BATHROOM VENT HOOD
	ASPHALT SHINGLE ROOFING		BVS BATHROOM VENT SOFFIT
	VINYL SIDING (WHITE)		BVL BATHROOM VENT LOUVERED
	VINYL SIDING (GREEN)		DVH DRYER VENT HOOD
	VINYL SIDING (DARK BROWN)		DVS DRYER VENT SOFFIT
	VINYL MOUNTING BLOCK - METERLG		DVL DRYER VENT LOUVERED
	VINYL MOUNTING BLOCK - UNIBLOCK		
	VENT EXHAUST SYSTEM - DRYERHOOD		
	FURNACE FLUSH EXHAUST INTAKE W/ JMBLOCK MOUNTING BLOCK		
	VINYL MOUNTING BLOCK - JMBLOCK		



E1.2 - NORTH ELEVATION (UNION GREEN WAY)
SCALE: 3/16" = 1'-0"



FLASHING VINYL SIDING ACCESSORIES W/ INTEGRATED J-CHANNEL
SCALE: 3/8" = 1'-0"



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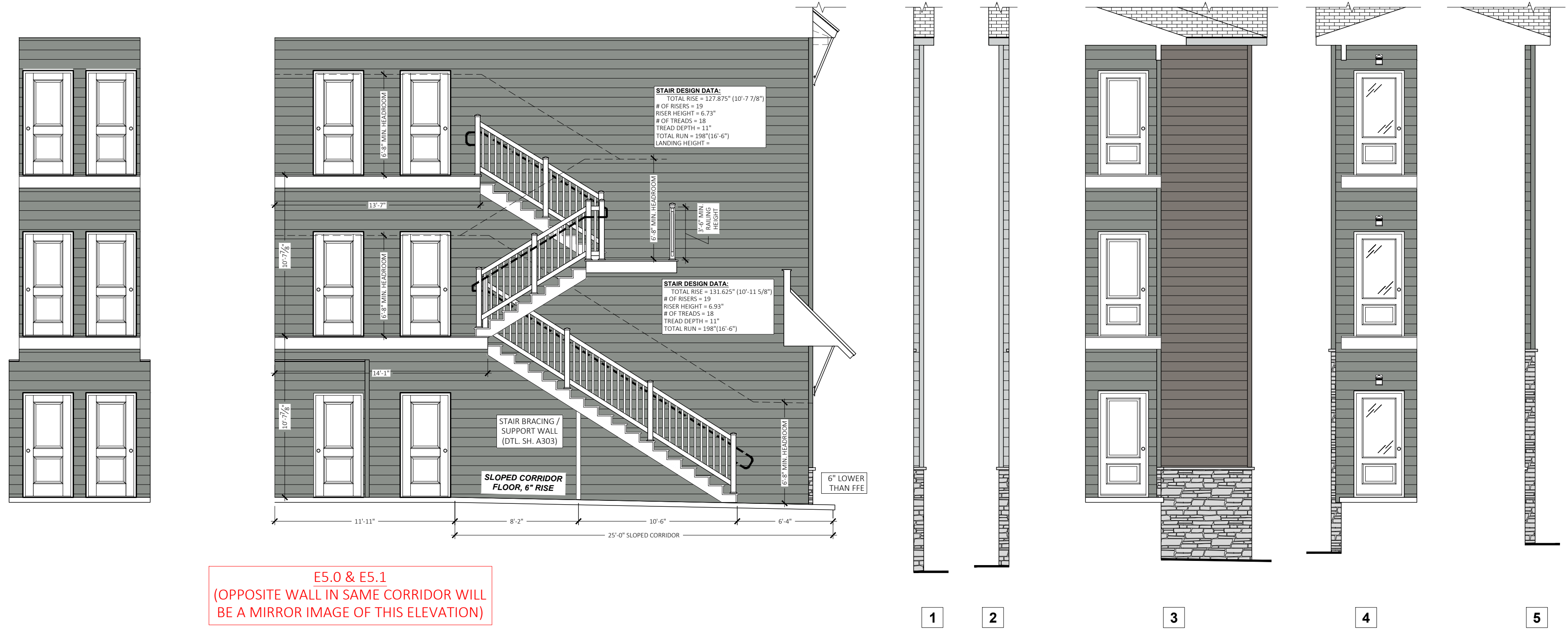
SUSQUEHANNA UNION GREEN APARTMENTS

NORTH AND WEST ELEVATIONS
 BLG B, D & E CONCEPT PLAN
 ADDRESS: TBD

SHEET DESCRIPTION
 07/16/2021
 DATE DRAWN: 00000000
 AS NOTED
 SCALE: UPDATED

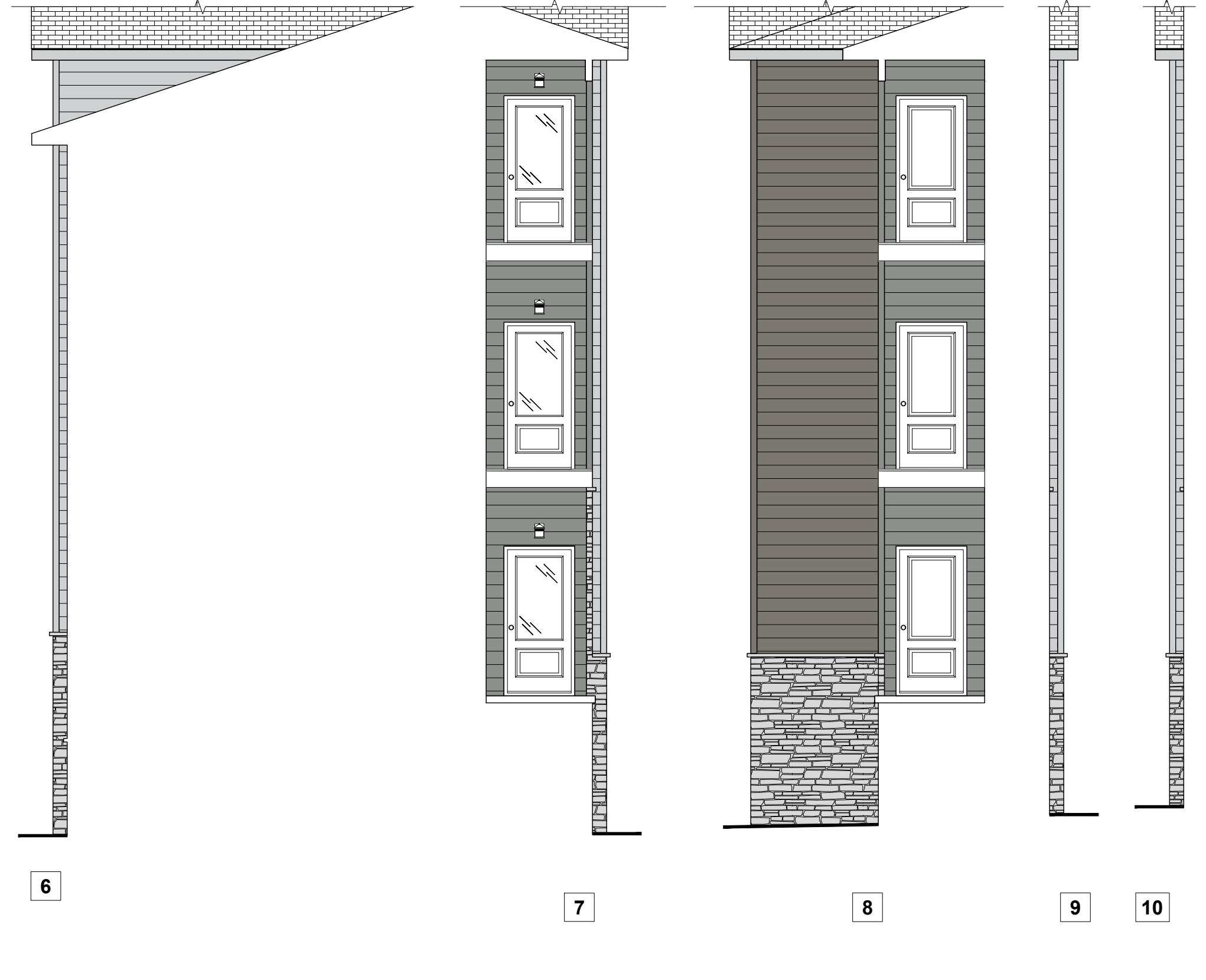
NUS
 DRAWN BY:
 AS NOTED
 SCALE:

SHEET NUMBER
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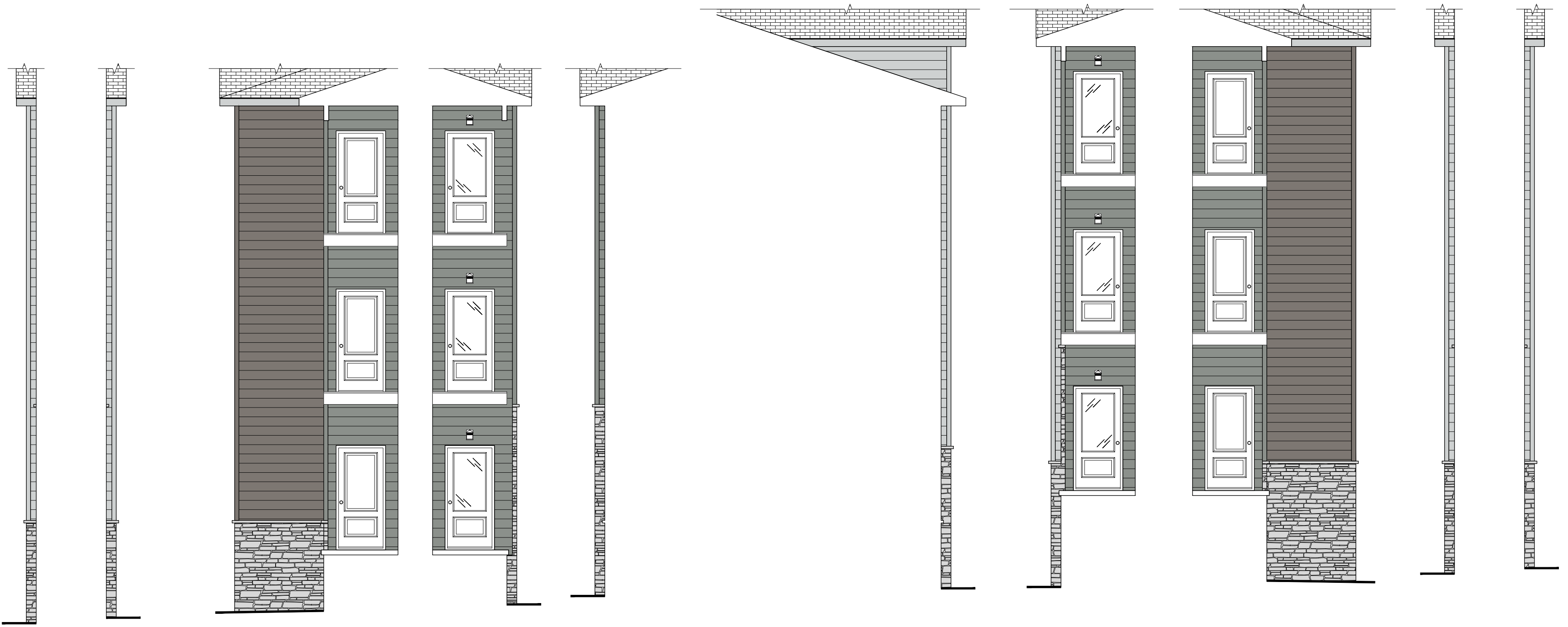


E5.0 & E5.1
(OPPOSITE WALL IN SAME CORRIDOR WILL
BE A MIRROR IMAGE OF THIS ELEVATION)

HIDDEN ELEVATIONS - SOUTH
SCALE: 3/16" = 1'-0"



HIDDEN ELEVATIONS - WEST
SCALE: 3/16" = 1'-0"



HIDDEN ELEVATIONS - EAST
SCALE: 3/16" = 1'-0"



E5.0 & E5.1
(OPPOSITE WALL IN SAME CORRIDOR WILL
BE A MIRROR IMAGE OF THIS ELEVATION)

HIDDEN ELEVATIONS - NORTH
SCALE: 3/16" = 1'-0"

ELEVATION LEGEND			
MATERIALS		LABELS	
BOARD & BATTEN	HORIZONTAL	KOF	KICK OUT FLASHING
DRystack STONE VENER	VINYL SIDING (WHITE)	DS	DOWNSPOUT
STANDING SEAM METAL ROOFING	VINYL SIDING (GREY)	BVH	BATHROOM VENT HOOD
ASPHALT SHINGLE ROOFING	VINYL SIDING (DARK BROWN)	BVS	BATHROOM VENT SOFFIT
SIDING ACCESSORIES		BVL	BATHROOM VENT LOUVERED
VINYL METER BASE - METERLG	VENT EXHAUST SYSTEM - DRYERHOOD	DVH	DRYER VENT HOOD
VINYL MOUNTING BLOCK - UNIBLOCK	VINYL MOUNTING BLOCK - IMBLOCK	DVS	DRYER VENT SOFFIT
	FURNACE FLUSH EXHAUST / INTAKE W/ IMBLOCK MOUNTING BLOCK	DVL	DRYER VENT LOUVERED

