

FINAL LAND DEVELOPMENT PLANS

FOR

PHASE IIIC - BUILDING 24

SUSQUEHANNA UNION GREEN

SUSQUEHANNA TOWNSHIP
 DAUPHIN COUNTY, PENNSYLVANIA
 JULY 11, 2022

PREPARED BY:



| 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 | Lo QUATRA BONCI ASSOCIATES |
| L101 | REGULATING PLAN | Lo QUATRA BONCI ASSOCIATES |
| L102 | STREETScape PLAN | Lo QUATRA BONCI ASSOCIATES |
| L103 | PUBLIC REALM PLAN | Lo QUATRA BONCI ASSOCIATES |
| L200 | SITE IMPROVEMENTS PLAN | Lo QUATRA BONCI ASSOCIATES |
| L600 | SITE PLANTING PLAN, PLANT LIST, & DETAILS | H.F. LENZ COMPANY |
| C300 | SITE PLAN | H.F. LENZ COMPANY |
| C400 | GRADING, DRAINAGE AND UTILITY PLAN | H.F. LENZ COMPANY |
| C401 | STORM SEWER PLAN AND PROFILES | H.F. LENZ COMPANY |
| C500-C503 | SITE DETAILS | H.F. LENZ COMPANY |
| LP100 | PHOTOMETRIC PLAN | BY OTHERS |
| ES100 | EROSION AND SEDIMENTATION CONTROL PLAN | H.F. LENZ COMPANY |
| ES201 | EROSION AND SEDIMENTATION NOTES | H.F. LENZ COMPANY |
| ES202 | EROSION AND SEDIMENTATION NOTES | H.F. LENZ COMPANY |
| ES203 | EROSION AND SEDIMENTATION DETAILS | H.F. LENZ COMPANY |
| ES204 | EROSION AND SEDIMENTATION DETAILS | H.F. LENZ COMPANY |

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF DAUPHIN

ON THIS THE _____ DAY OF _____, 2022 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) _____

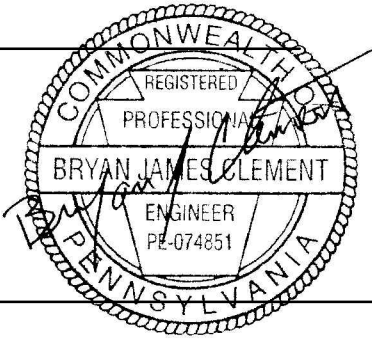
OWNER CERTIFICATION (STORMWATER)

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 _____, 2022

CHAIRMAN _____

SECRETARY _____

SUSQUEHANNA TOWNSHIP ENGINEER REVIEW STATEMENT

THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER THIS _____ DAY OF _____, 2022

TOWNSHIP ENGINEER _____

SUSQUEHANNA TOWNSHIP PLANNING COMMISSION APPROVAL STATEMENT

THIS PLAN RECOMMENDED FOR APPROVAL BY THE SUSQUEHANNA TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF _____, 2022

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 _____, 2022

PRESIDENT _____

SECRETARY _____

RECORDING STATEMENT

THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR DAUPHIN COUNTY THIS _____ DAY OF _____, 2022

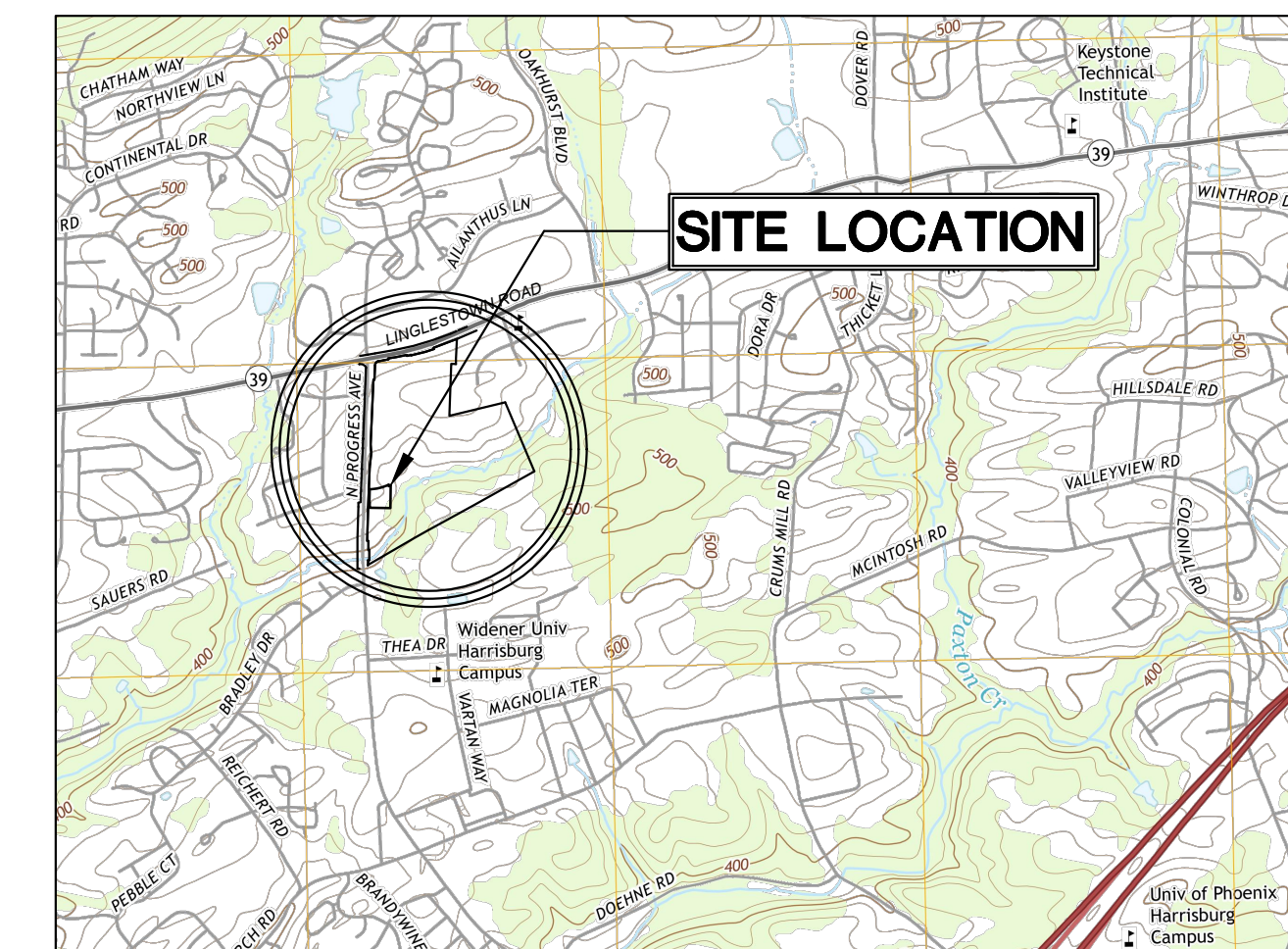
INSTRUMENT NUMBER _____

MODIFICATIONS GRANTED THROUGH PRELIMINARY PLANNING APPROVAL:

- 22-507.9.3 REQUIRING SIDEWALKS ON BOTH SIDES OF STREET
- 22-502.8 REQUIRING CLEAR SIGHT TRIANGLES IN ACCORDANCE WITH SALDO EXHIBIT 6
- 22-405.2.M REQUIRING A PRELIMINARY GREENWAY/OPEN SPACE LANDS & COMMON FACILITIES OWNERSHIP AND MAINTENANCE PLAN
- 22-405.1.A.12 REQUIRING THE DESIGNATION OF PARCELS OF LAND INTENDED TO BE DEDICATED OR RESERVED FOR PUBLIC, SEMI-PUBLIC OR COMMUNITY PURPOSES
- 507.10.4 REQUIRING STREET SECTIONS IN ACCORDANCE WITH DESIGN GUIDELINES

SITE INFORMATION

| | | |
|---|--|-----------------------------------|
| OWNER: | HAWTHORNE SPE LLC 3605 VARTAN WAY SUITE 301 HARRISBURG, PA 17110 MR. H. RALPH VARTAN - PRESIDENT (717) 657-0100 | |
| APPLICANT: | VARTAN GROUP INC. 3605 VARTAN WAY SUITE 301 HARRISBURG, PA 17110 MR. H. RALPH VARTAN (717) 657-0100 | |
| MUNICIPALITY: | SUSQUEHANNA TOWNSHIP DAUPHIN COUNTY, PENNSYLVANIA | |
| ZONING | TRADITIONAL NEIGHBORHOOD DEVELOPMENT-1 (TND-1) | |
| TOTAL SITE AREA: | 58.07 ACRES | |
| BULK AREA REQUIREMENTS | PROVIDED | REQUIRED / PERMITTED |
| MINIMUM TRACT AREA | | |
| MULTIPLE FAMILY: | 40,000 S.F. | 40,000 S.F. |
| PRINCIPAL FREE STANDING BUILDING: | 10,000 S.F. | 10,000 S.F. |
| MINIMUM LOT AREA FOR IN LINE RETAIL: | 1,000 S.F. | 1,000 S.F. |
| ACRES DEVOTED TO RESIDENTIAL USES SINGLE-FAMILY DETACHED | 44% X 31.1 AC. = 13.7 AC. | 2.9 AC. MIN. (NO MAX.) |
| MAXIMUM DWELLING UNITS PER GROSS ACRE SINGLE-FAMILY DETACHED | 40 UNITS | 10.2 AC. X 9 UNITS/AC. = 92 UNITS |
| BUILD TO LINES: | 12' MAXIMUM | 12' |
| MINIMUM SIDE YARD NON-RESIDENTIAL / MULTI-FAMILY: RESIDENTIAL: | 20' 15' | 20' 15' |
| MAXIMUM IMPERVIOUS COVERAGE: | 53.9% | 55% |
| MINIMUM GREEN SPACE CENTRAL GREEN: ADDITIONAL GREENS (2) | 0.51 AC. 1.40 AC. / | 0.5 AC. 1 AC. EACH |
| MINIMUM PRINCIPAL BUILDING HEIGHT: MAXIMUM PRINCIPAL BUILDING HEIGHT: | 20' 55' | 20' 55' (4 STORIES) |
| TAX PARCEL: | NO. 62-013-056 | |
| DEED INSTRUMENT NO. | 20170009139 | |
| PLAN INSTRUMENT NO. | 20130022125 | |



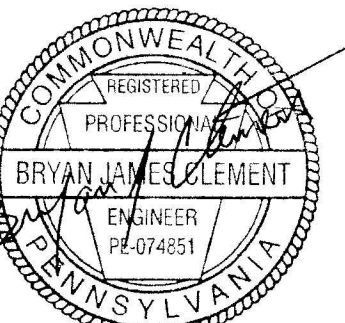
Landscape Architecture

95 South Tenth Street
 Pittsburgh, Pennsylvania 15203
 www.lbausa.com
 412.488.8822



H.F. LENZ COMPANY
 1407 Scalp Avenue
 Johnstown, PA 15901
 Phone: 814-269-9300
 FAX: 814-269-9301

Susquehanna Union
 Green - Kiddie Academy
 Susquehanna Township, Dauphin County, PA



Project Number:
22014:1
 Drawn by:
DM
 Checked by:
FB/DM
 Date:
June 30, 2022

Revisions:
1 07/08/22 REV PER TWP COMMENTS

Scale:

Sheet Name:
Cover Sheet

Submission:
Final Land Development Plan
Phase IIIC

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 NECESSARILY 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, SHETED, 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 | ℙ | PROPERTY LINE |
| ℙ | 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 | GV | GAS VALVE | R/W | RIGHT-OF-WAY |
| BLDG | BUILDING | HP | HIGH POINT | SCH | SCHEDULE |
| ℄ | CENTERLINE | HORIZ | HORIZONTAL | SEC | SECTION |
| CC C/C | CENTER TO CENTER | INC | INCORPORATED | SEG | SEGMENT |
| CLR | CLEAR | INV | INVERT | SLOPP | SMOOTH LINED CORRUGATED PLASTIC PIPE |
| CONC | CONCRETE | LP | LIGHT POLE | STA | STATION |
| CONSTR | CONSTRUCTION | MH | MANHOLE | SR | STATE ROUTE |
| CMP | CORRUGATED METAL PIPE | MAX | MAXIMUM | ST | STREET |
| CPP | CORRUGATED POLYETHYLENE PIPE | MIN | MINIMUM | SRL | SKID RESISTANCE LEVEL |
| DIA | DIAMETER | MPH | MILES PER HOUR | S | SOUTH |
| DI | DUCTILE IRON | N | NORTH | SF | SQUARE FEET |
| DS | DOWN SPOUT | NPDES | NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM | SY | SQUARE YARD |
| EOB | EDGE OF BERM | No/# | NUMBER | TC | TOP OF CURB |
| EOP | EDGE OF PAVEMENT | PM | PARKING METER | TW | TOP OF WALL |
| ELEC | ELECTRIC | OC | ON CENTER | XF | TRANSFORMER |
| | | 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 LINGLESTOWN 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



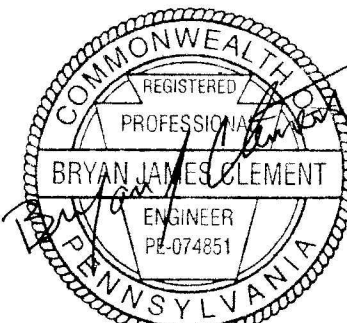
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412.488.8822



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Johnstown, PA 15091
Phone: 814-269-9300
FAX: 814-269-9301

Susquehanna Union
Green - Kiddie Academy
Susquehanna Township, Dauphin County, PA



Project Number:
220141
Drawn by:
DM
Checked by:
FB/DM
Date:
June 30, 2022

Revisions:

Scale:
0 20' 40'
SCALE 1"=20'



Sheet Name:
General Information Sheet
Submission:
Final Land Development Plan
Phase IIIC

Sheet Number:

C100

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LEGEND

- ST — EXISTING STORM SEWER
- SS — EXISTING SANITARY SEWER
- W — EXISTING WATERLINE
- G — EXISTING GAS LINE
- 442 — EXISTING MINOR CONTOUR
- 440 — EXISTING MAJOR CONTOUR
- — EXISTING UTILITY POLE



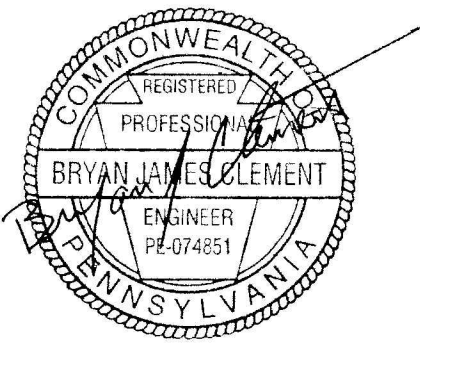
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**Susquehanna Union
Green - Kiddie Academy**
Susquehanna Township, Dauphin County, PA



Project Number:
22014:1
Drawn by:
DM
Checked by:
FB/DM
Date:
June 30, 2022

Revisions:

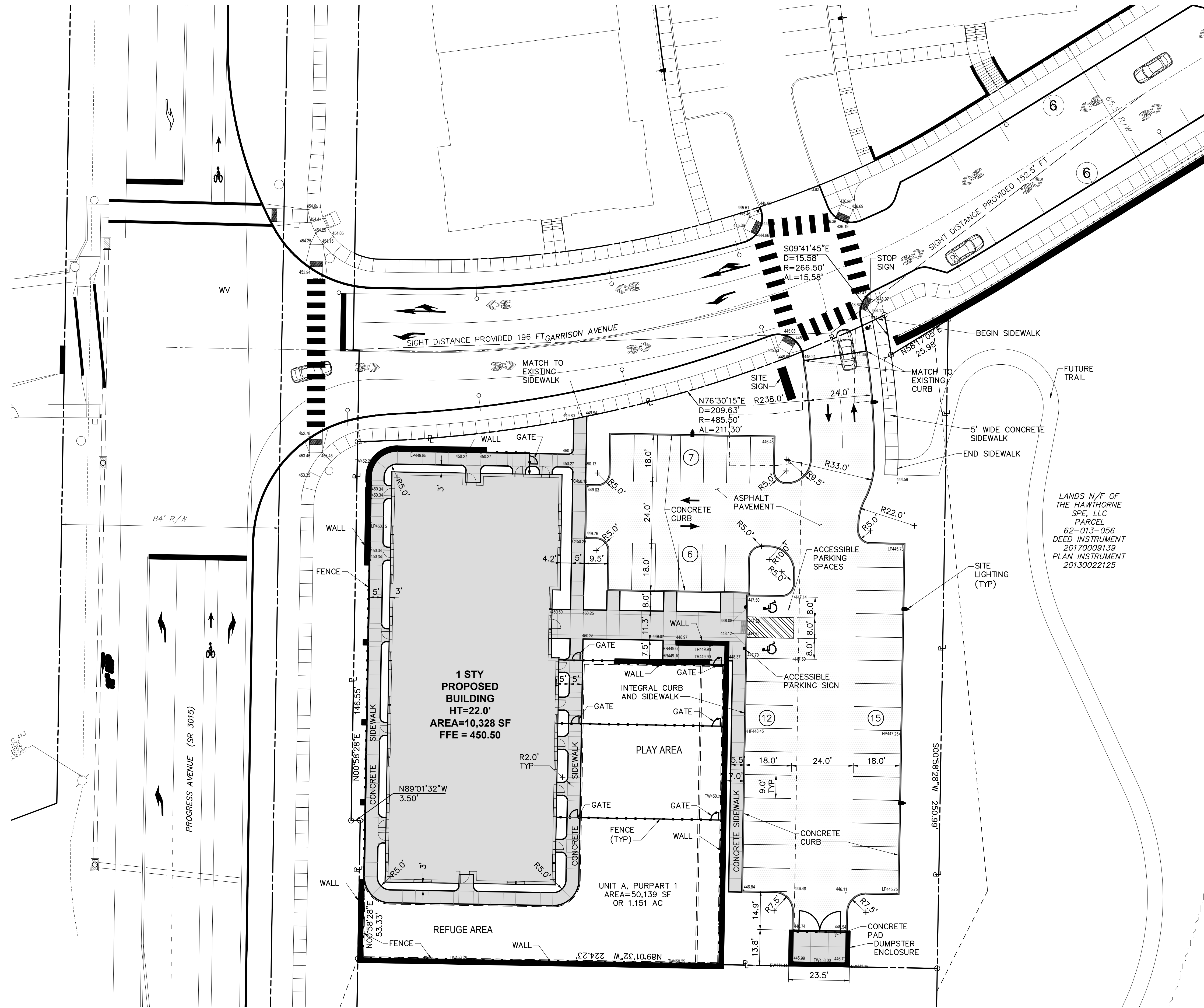


Sheet Name:
**Existing Conditions
Plan**

Submission:
Final Land Development Plan
Phase IIIC

Sheet Number:
C200

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LEGEND

- ST— EXISTING STORM SEWER
- SS— EXISTING SANITARY SEWER
- W— EXISTING WATERLINE
- G— EXISTING GAS LINE
- 442— EXISTING MINOR CONTOUR
- 440— EXISTING MAJOR CONTOUR
- EXISTING UTILITY POLE
- ST— PROPOSED STORM SEWER
- ST— PROPOSED STORM UNDERDRAIN
- SS— PROPOSED SANITARY LATERAL
- W— PROPOSED WATER SERVICE LINE
- G— PROPOSED GAS SERVICE LINE
- ETC— PROPOSED OVERHEAD ELEC, TELE AND CABLE
- ETC— PROPOSED UNDERGROUND ELEC, TELE AND CABLE
- 442— PROPOSED MINOR CONTOUR
- 440— PROPOSED MAJOR CONTOUR
- PROPOSED FENCE
- ☀ PROPOSED LIGHT
- ☀ PROPOSED LIGHT
- ☀ PROPOSED SIGN
- ☒ PROPOSED TRANSFORMER
- ➔ PROPOSED TRAFFIC FLOW ARROW
- PROPOSED UTILITY POLE

LANDS N/F OF THE HAWTHORNE SPE, LLC PARCEL 62-013-056 DEED INSTRUMENT 20170009139 PLAN INSTRUMENT 20130022125

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

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

ZONING DISTRICT: (TND-1) TRADITIONAL NEIGHBORHOOD DEVELOPMENT-1

MUNICIPALITY: SUSQUEHANNA TOWNSHIP
DAUPHIN COUNTY, PENNSYLVANIA

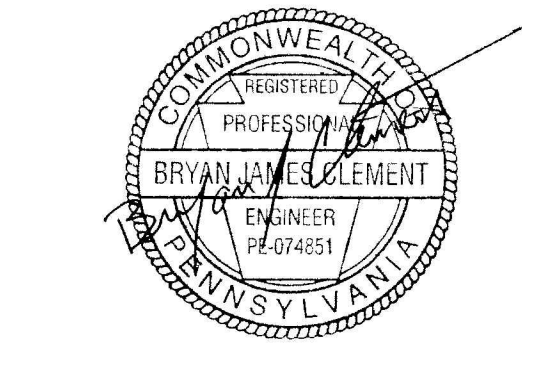


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Susquehanna Union Green - Kiddie Academy
Susquehanna Township, Dauphin County, PA



Project Number: 22014:1
Drawn by: DM
Checked by: FB/DM
Date: June 30, 2022

Revisions:

Scale:
0' 20' 40'
SCALE 1"=20'0"

Sheet Name:
Site Plan

Submission:
Final Land Development Plan
Phase IIIC

Sheet Number:
C300

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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 Susquehanna Township, Dauphin County, PA



Project Number:
22014:1
 Drawn by:
DM
 Checked by:
FB/DM
 Date:
May 12, 2022

Revisions:
7/8/2022 - Revised Per TWP Comments

Scale:
1"=100'

 SCALE: 1" = 100'-0"

Sheet Name:
Phasing Plan

Submission:
Final Land Development Plan
Phase IIIC

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 | Acres | % 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 site 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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Susquehanna Township, Dauphin County, PA



Project Number:
22014:1
Drawn by:
DM
Checked by:
FB/DM
Date:
May 12, 2022

Revisions:
7/8/2022 - Revised Per TWP Comments

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

Sheet Name:
Regulating Plan

Submission:
Final Land Development Plan
Phase IIIC





Sheet Number:
L101

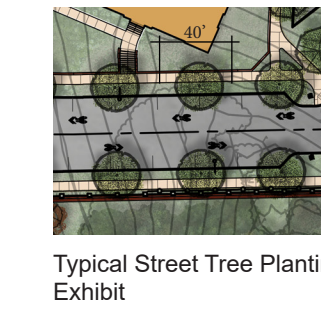
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Streetscape Plan

Progress & Linglestown: TND

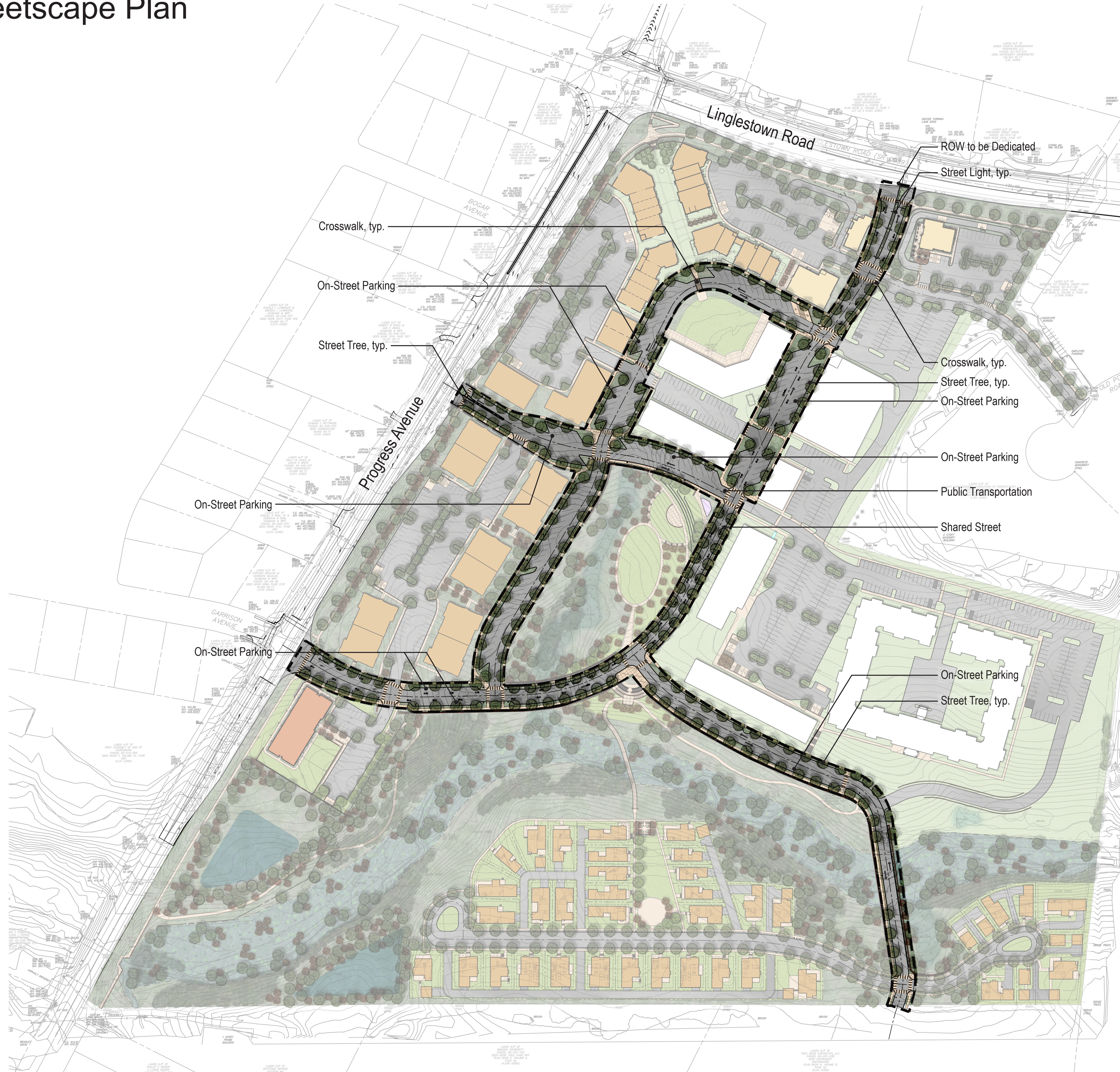
Legend

| | | |
|---|--|--|
|  Building - For Approval |  Parking |  Park Structure |
|  Building - Future Development |  Stairs |  Canopy/Shade Tree |
|  Building - Approved |  Site Wall |  Understory/Ornamental Tree |
|  Building - Constructed |  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.
2. Consult Design Guidelines, Section 500 for sidewalk details, scoring patterns, crosswalk dimensions, and trail details.
3. Consult Design Guidelines, Section 500 for street wall dimensions and details.
4. Consult Design Guidelines, Section 500 for site lighting specifications and details.
5. Consult Design Guidelines, Section 500 for street trees, stormwater screening, buffer yards, and landscaping design.
6. 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.
7. Single family housing unit footprints are shown for representation only.



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Project Number:
22014:1
 Drawn by:
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 Date:
May 12, 2022

Revisions:
7/8/2022 - Revised Per TWP Comments

Scale:
1"=100'

 SCALE: 1" = 100'-0"

Sheet Name:
Streetscape Plan

Submission:
Final Land Development Plan
Phase IIIC

Sheet Number:
L102

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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:

- 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.



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Date:
May 12, 2022
Revisions:
7/8/2022 - Revised Per TWP Comments

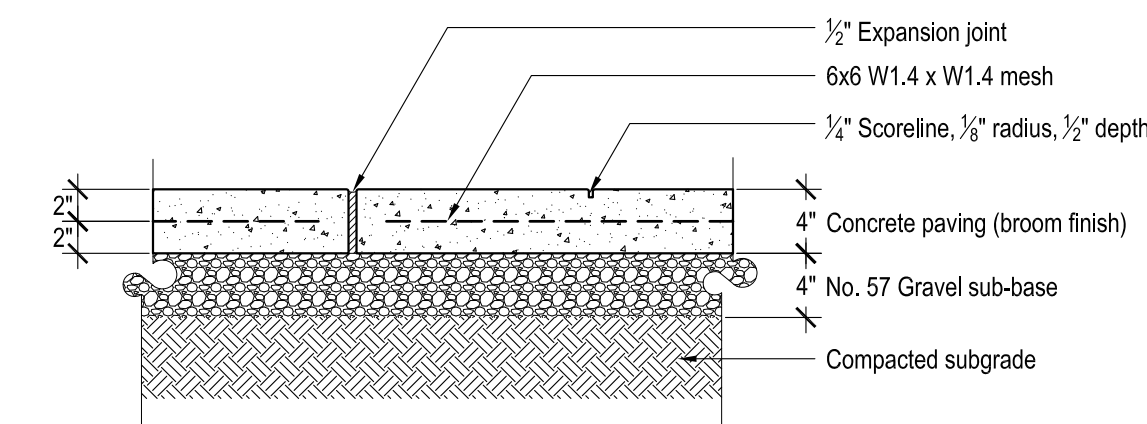
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Sheet Name:
Public Realm Plan

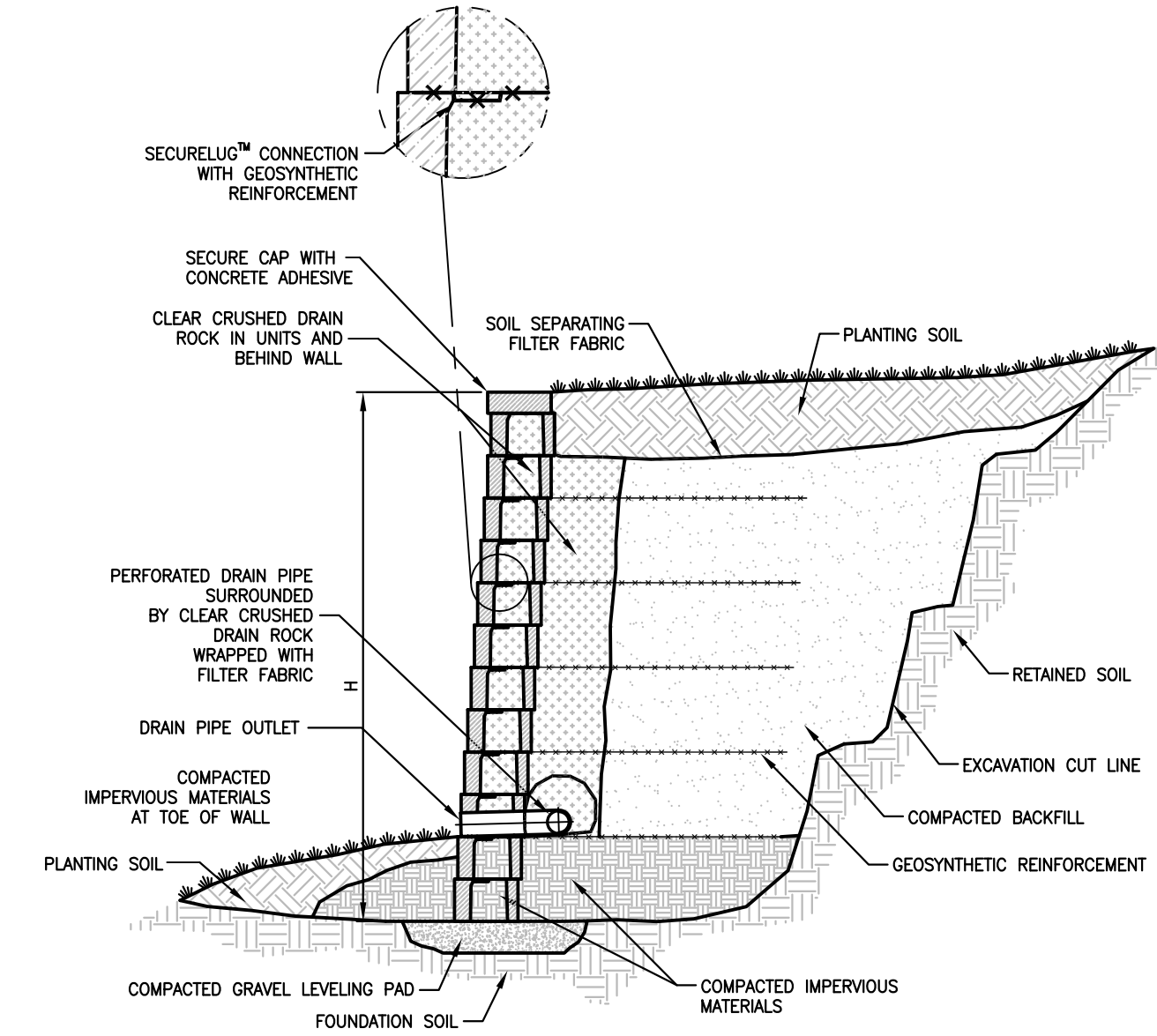
Submission:
Final Land Development Plan
Phase IIIC

Sheet Number:
L104

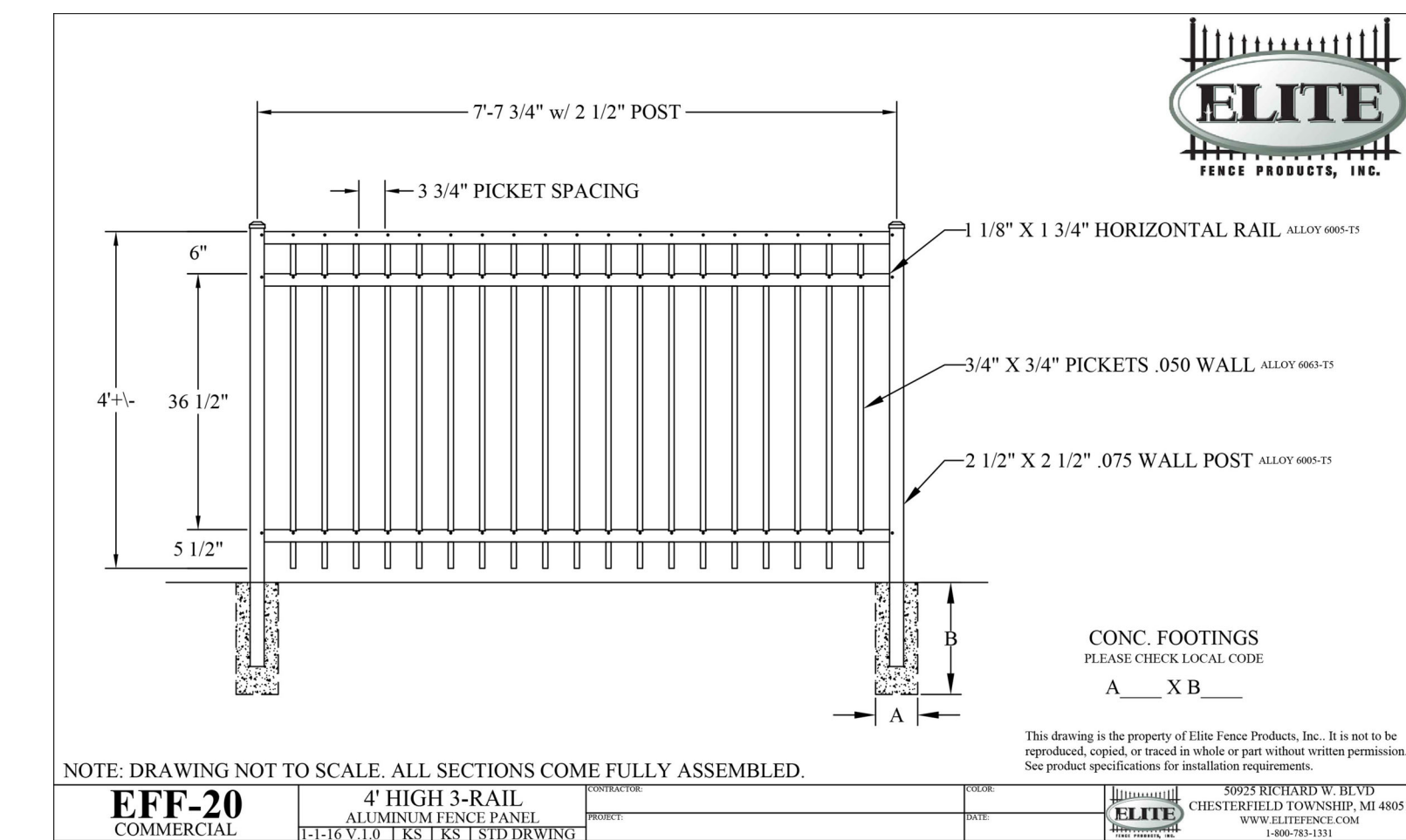
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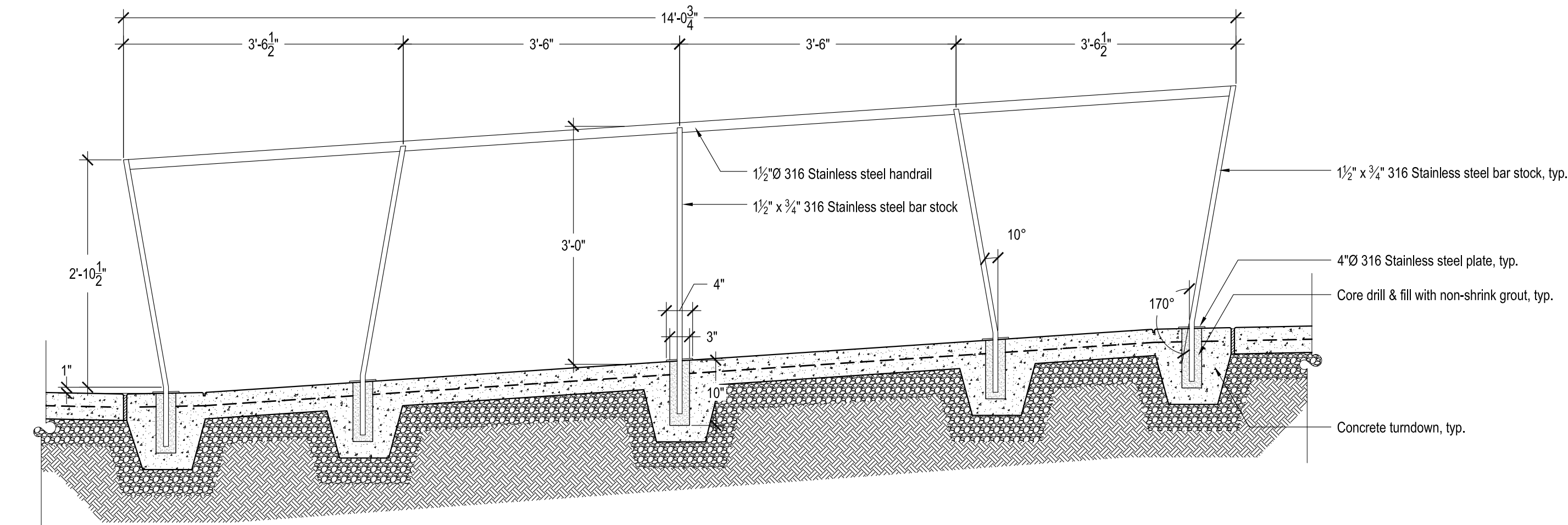
1 Concrete Paving Detail
Scale: 1"=1'-0"



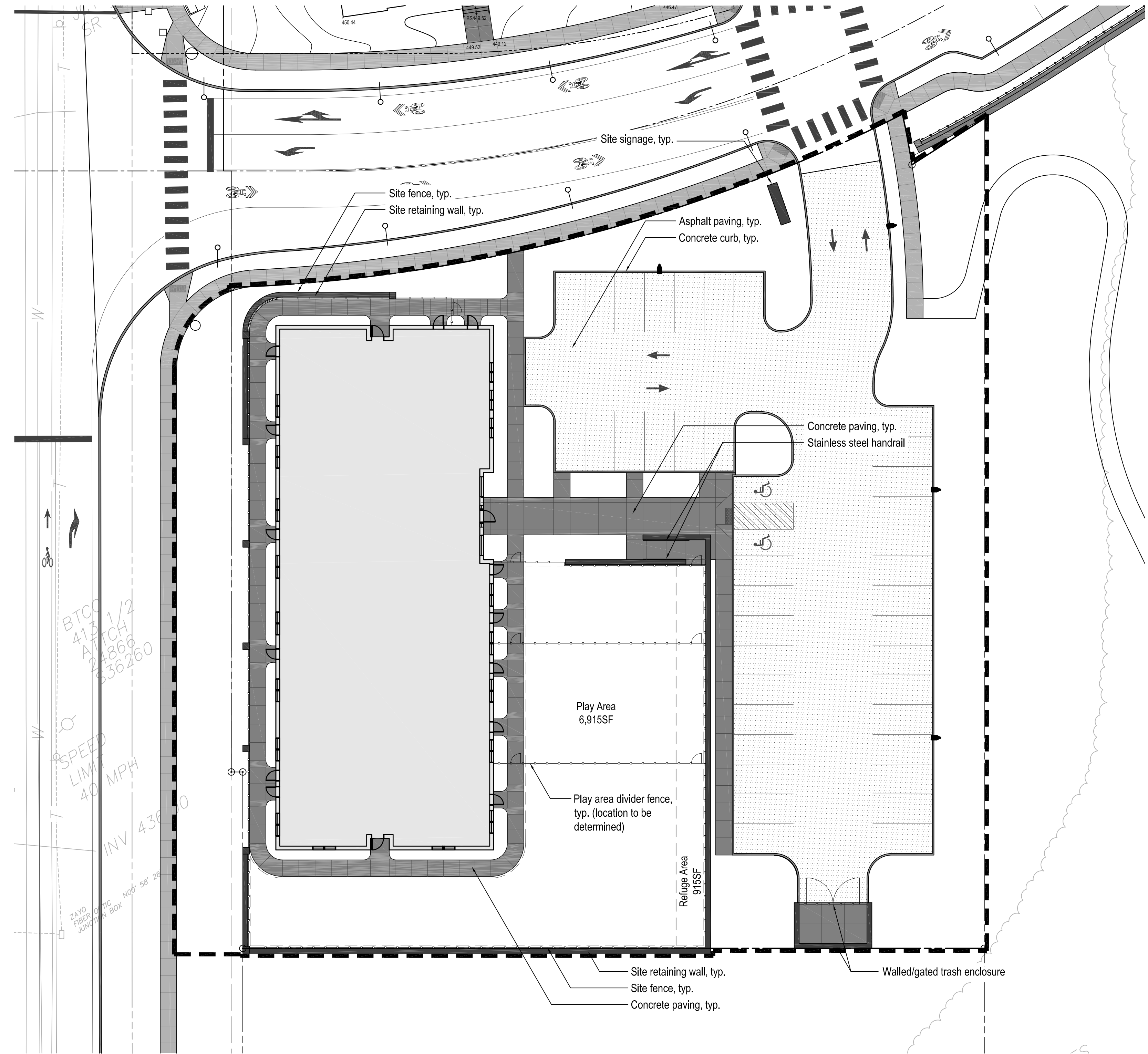
2 Site Retaining Wall Detail
Scale: 3/8"=1'-0"

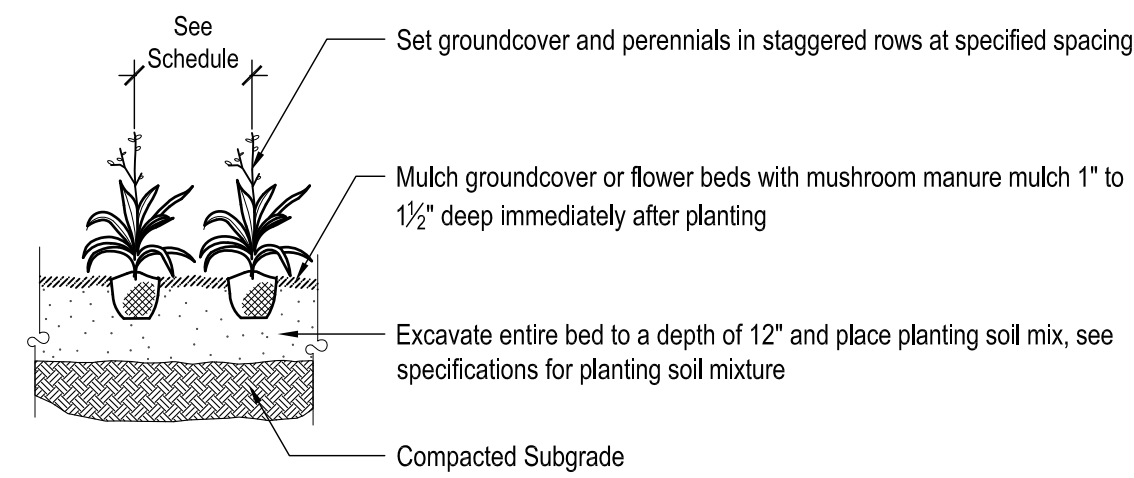


3 Site Fence Detail
Scale: 1/2"=1'-0"



4 Stainless Steel Handrail Detail
Scale: 3/4"=1'-0"

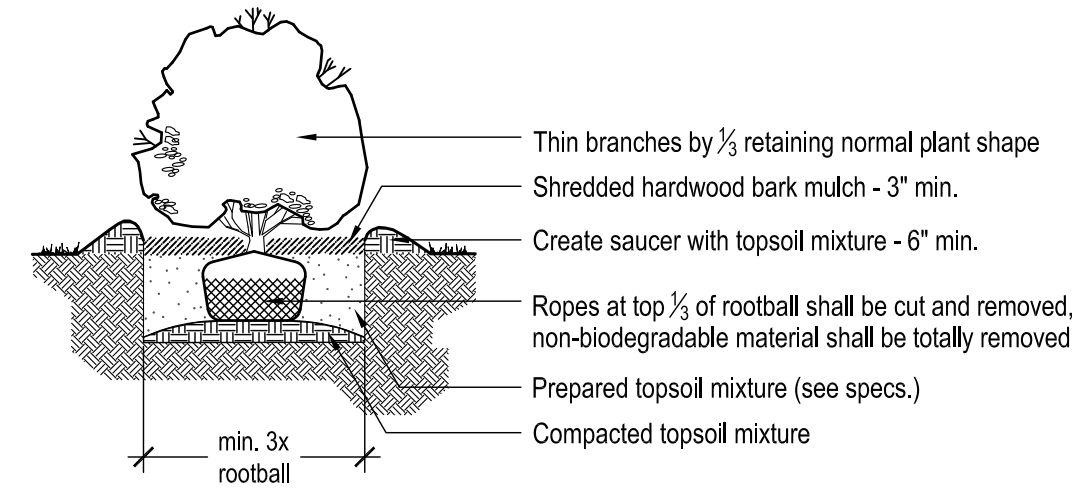




Note:
 1. All container grown groundcover and perennial plants shall be healthy, vigorous, well rooted and established in the container in which they are growing. A container grown groundcover and perennial plant shall have a well-established root system reaching the sides of the container to maintain 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.

1 Perennial & Groundcover Planting Detail

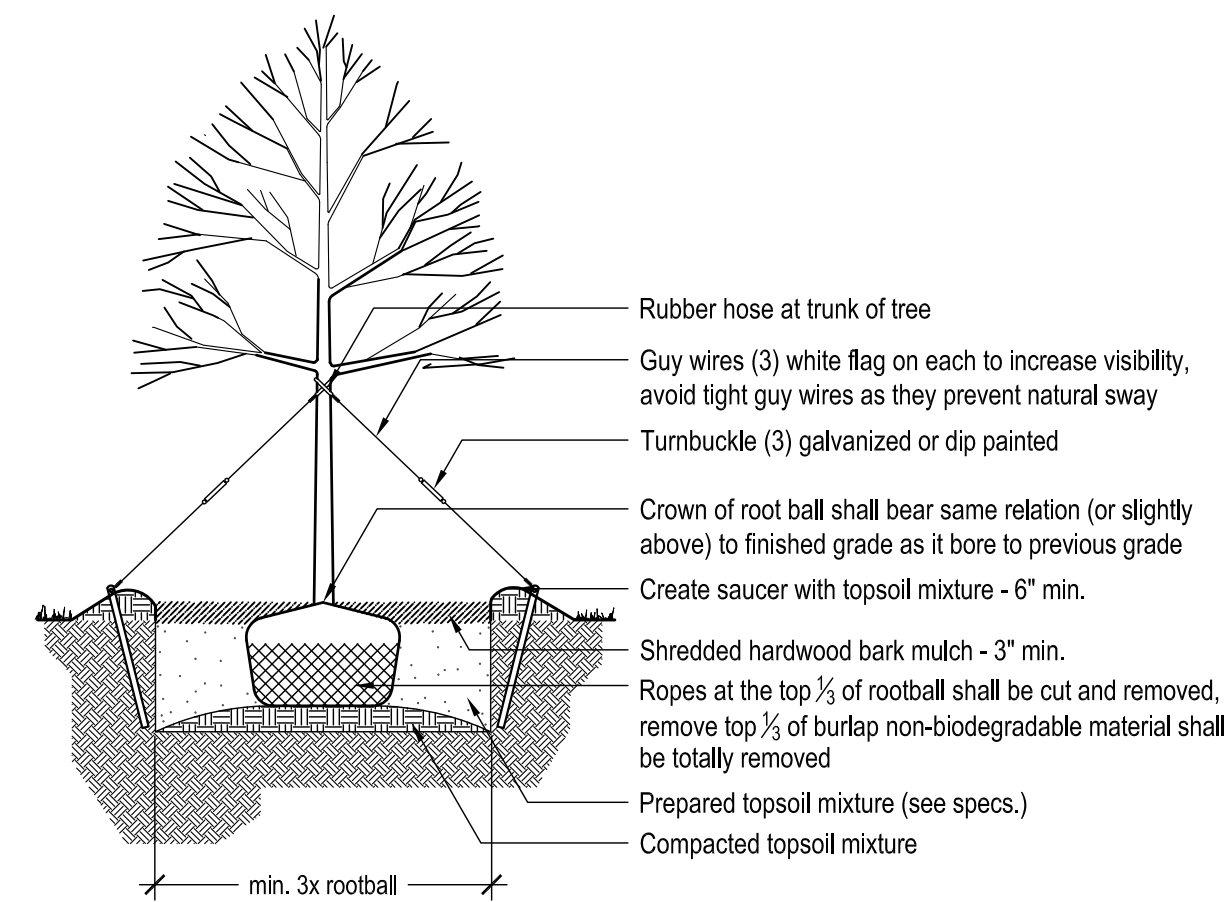
Scale: NTS



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

Scale: NTS



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.

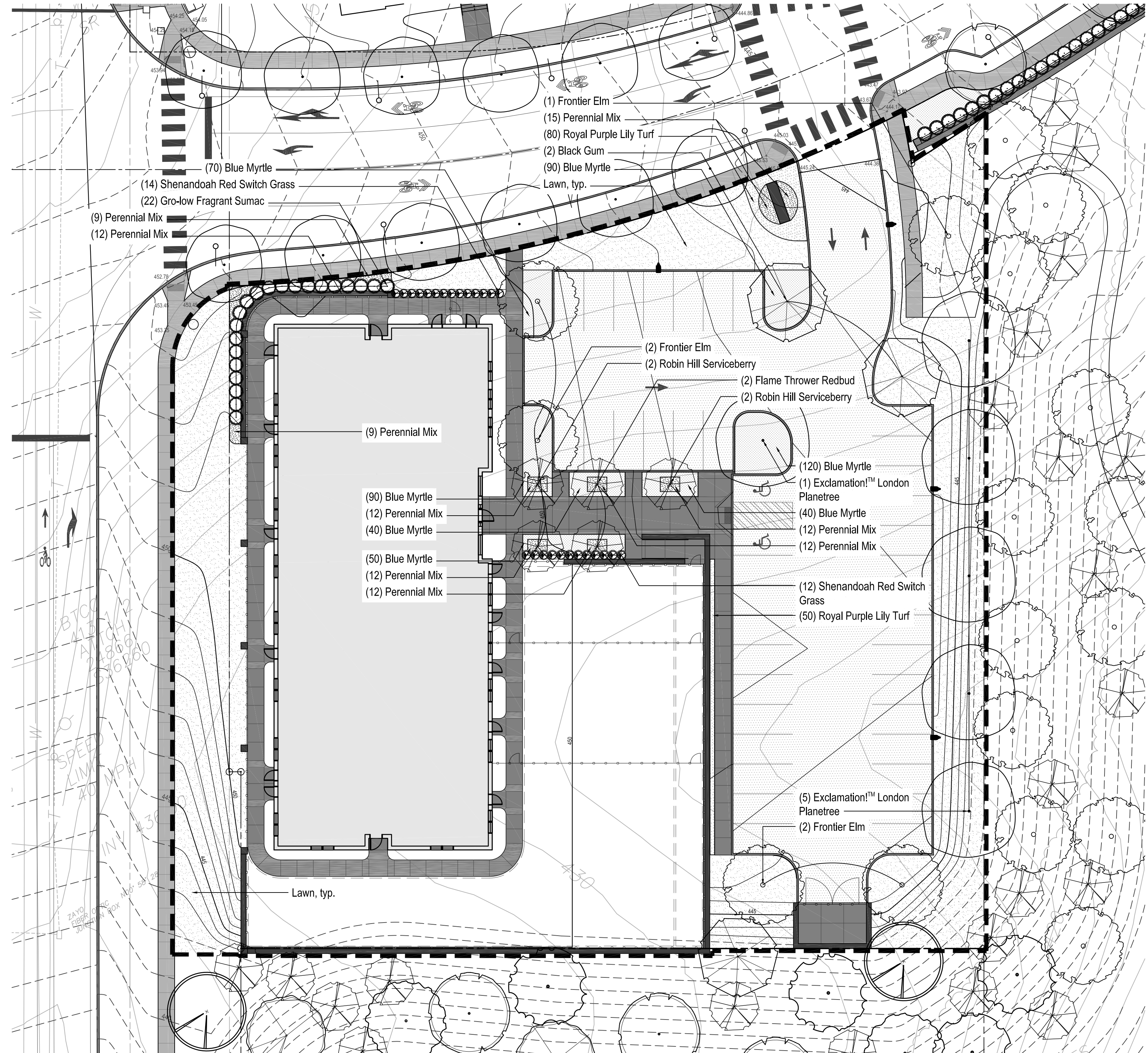
3 Tree Planting Detail

Scale: NTS

PLANT LIST

| QTY | BOTANICAL NAME | COMMON NAME | SIZE |
|---------------------------------|---|-------------------------------|---------------------------|
| CANOPY TREES | | | |
| 2 | <i>Nyssa sylvatica</i> | Black Gum | 2" - 2 1/2" cal. B&B |
| 6 | <i>Platanus x acerifolia</i> Exclamation! | Exclamation! London Planetree | 2" - 2 1/2" cal. B&B |
| 5 | <i>Ulmus x 'Frontier'</i> | Frontier Elm | 2" - 2 1/2" cal. B&B |
| UNDERSTORY TREES | | | |
| 4 | <i>Amelanchier x grandiflora</i> 'Robin Hill' | Robin Hill Serviceberry | 1 3/4" - 2" cal. B&B |
| 2 | <i>Cercis canadensis</i> 'Flame Thrower' | Flame Thrower Redbud | 5" - 6" ht. #5 Cont. |
| SHRUBS | | | |
| 22 | <i>Rhus aromatica</i> 'Gro-Low' | Gro-low Fragrant Sumac | 18"-24" #3 Cont. |
| GRASSES AND GROUNDCOVERS | | | |
| 130 | <i>Liriope muscari</i> 'Royal Purple' | Royal Purple Lily Turf | Clump #1 Cont. (18" o.c.) |
| 26 | <i>Panicum virgatum</i> 'Shenandoah' | Shenandoah Red Switch Grass | Clump #2 Cont. |
| 500 | <i>Vinca minor</i> | Blue Myrtle | 6" #1 Cont. (18" o.c.) |
| PERENNIAL MIX | | | |
| 35 | <i>Echinacea purpurea</i> 'Magnus' | Purple Coneflower | Clump #2 Cont. (18" o.c.) |
| 35 | <i>Echinacea purpurea</i> 'White Swan' | White Swan Coneflower | Clump #2 Cont. (18" o.c.) |
| 35 | <i>Lobelia cardinalis</i> | Red Cardinal Flower | Clump #2 Cont. (18" o.c.) |

*Note: Perennial Mix beds will contain equal quantities of Purple Coneflower, White Swan Coneflower, and Red Cardinal Flower are to be installed in a random pattern mix to create a more natural feel. These plants should be evenly spaced at a 18" on center spacing.



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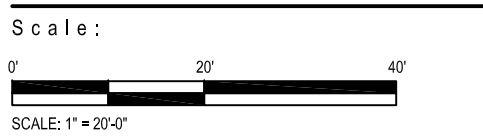
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Drawn by:
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Date:
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Revisions:
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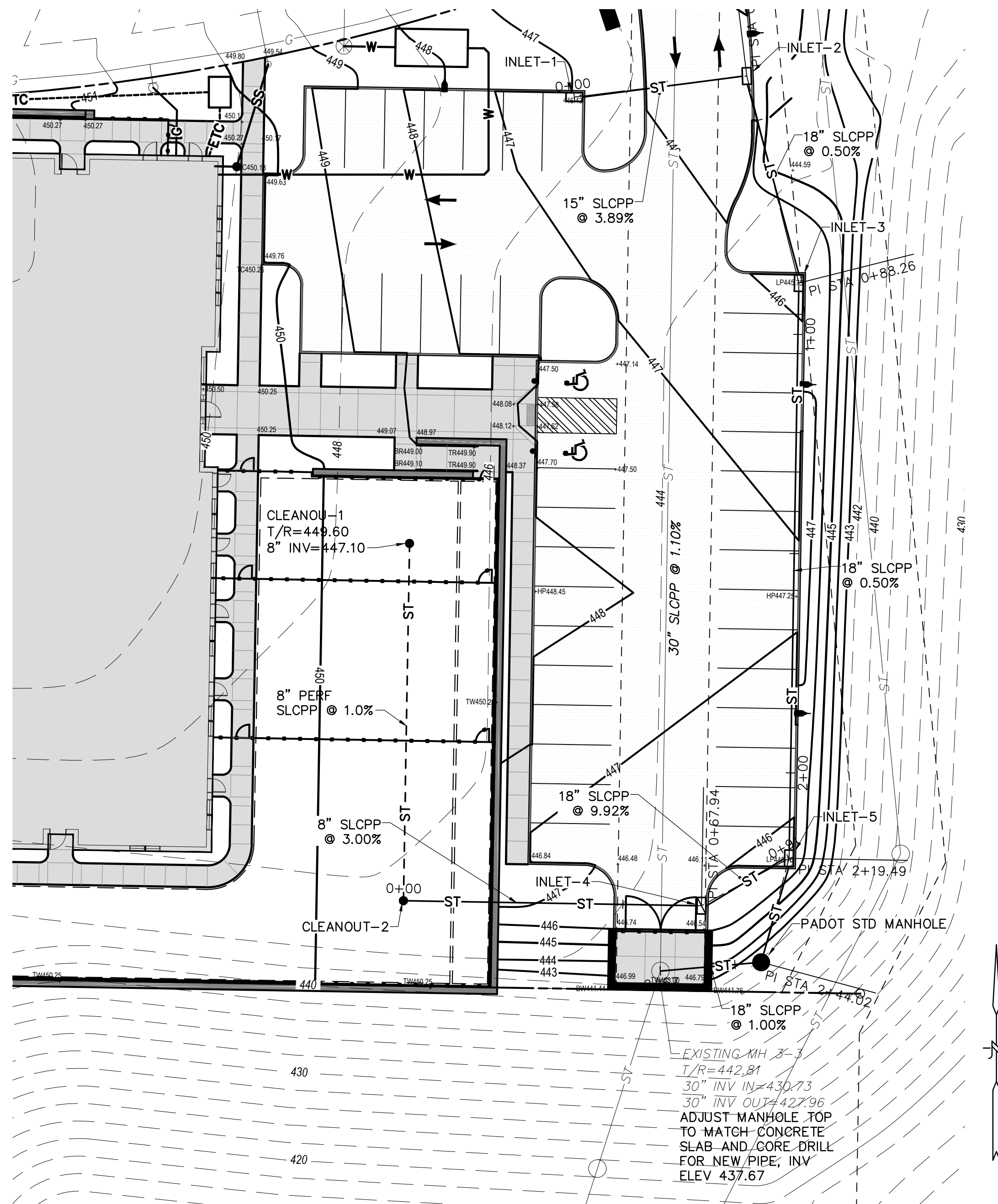


Sheet Name:
**Site Planting Plan,
 Plant List, & Details**
 Submission:
 Final Land Development Plan
 Phase IIIC

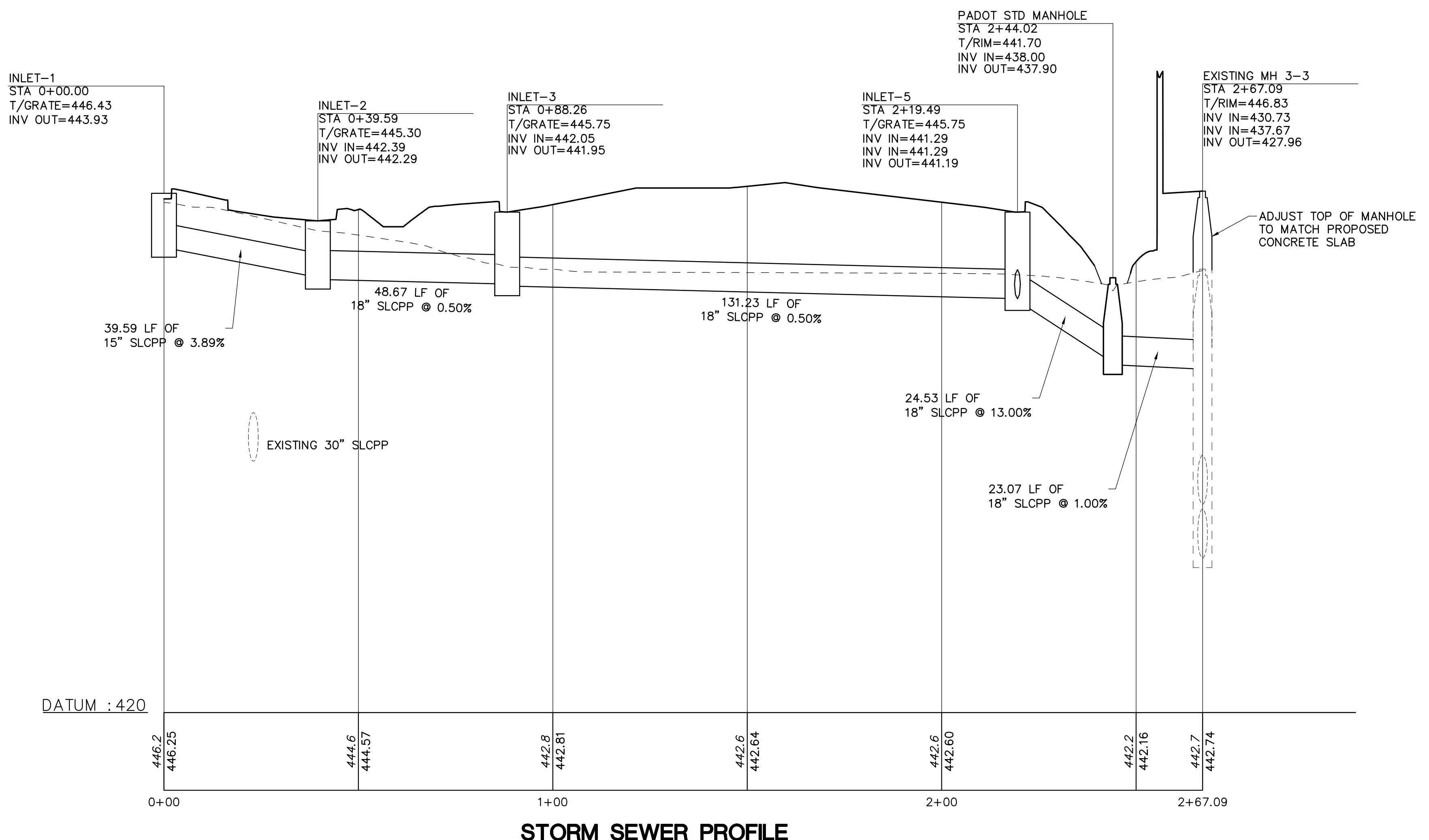
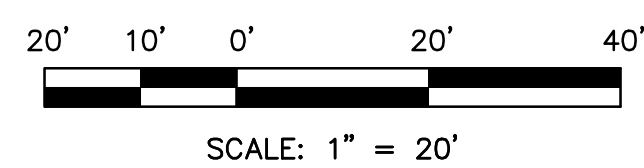
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L600

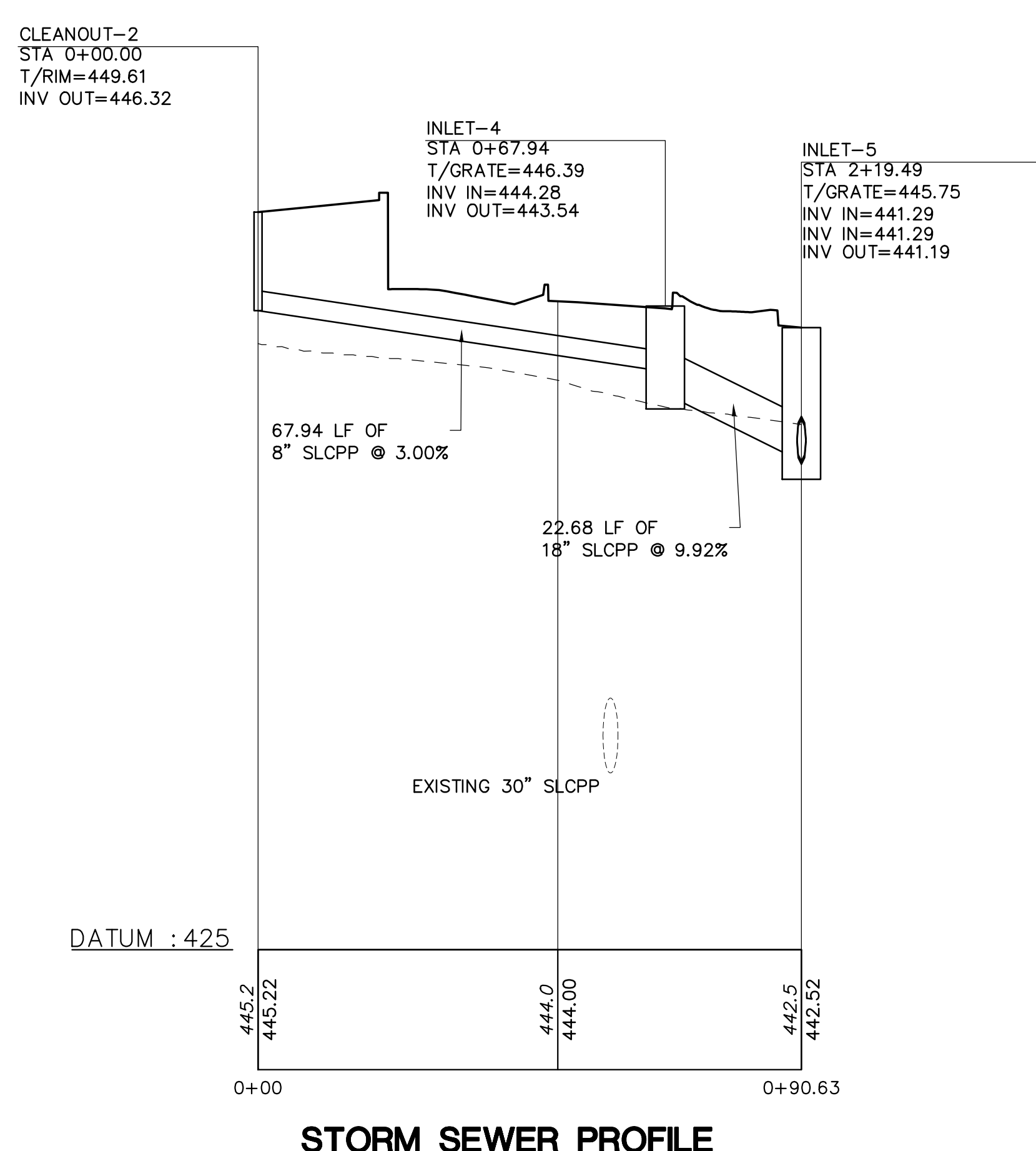
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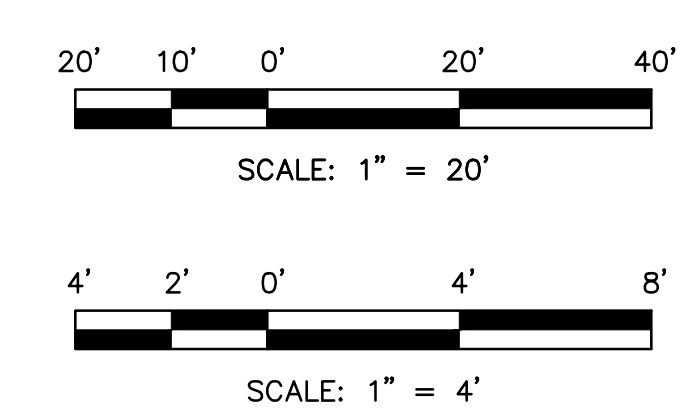
SITE PLAN



STORM SEWER PROFILE



STORM SEWER PROFILE



PROFILES

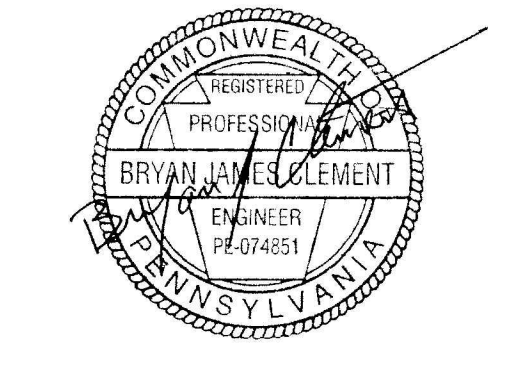


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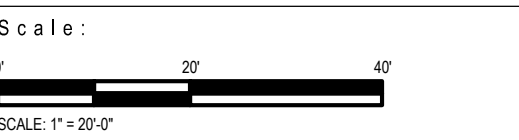
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Project Number:
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 Date:
 June 30, 2022

Revisions:

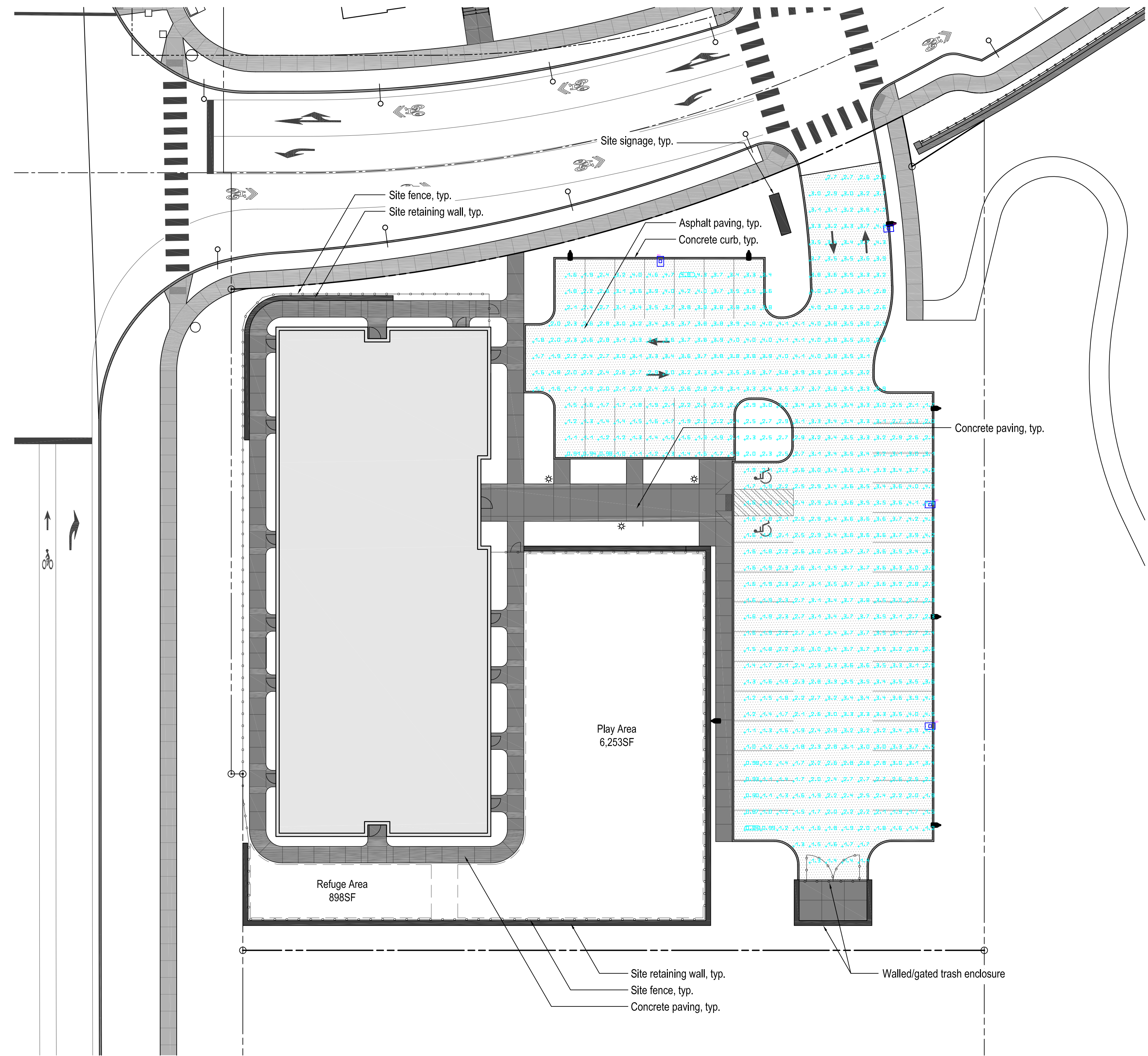


Sheet Name:
**Storm Sewer Plan
 & Profiles**
 Submission:
 Final Land Development Plan
 Phase IIIC

Sheet Number:

C401

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| LIGHT FIXTURE SCHEDULE | | | |
|------------------------|------|-------|--|
| QTY | TYPE | MANUF | PART |
| 4 | S1 | LSI | MRM LED 18L SIL FT UNV DIM 30 70 CRI BRZ |
| 4 | S1 | LSI | 4SQ-B3-S11G-25-S-BRZ |
| 4 | S1 | LSI | ABKIT 4SQ STL PL 3/4X30 11BC |
| 4 | S1 | LSI | KIT BCVR 4BC BRZ |



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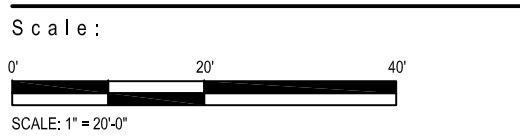
Project Number:
22014:1

Drawn by:
DM

Checked by:
FB/DM

Date:
May 12, 2022

Revisions:



Sheet Name:
Photometric Plan

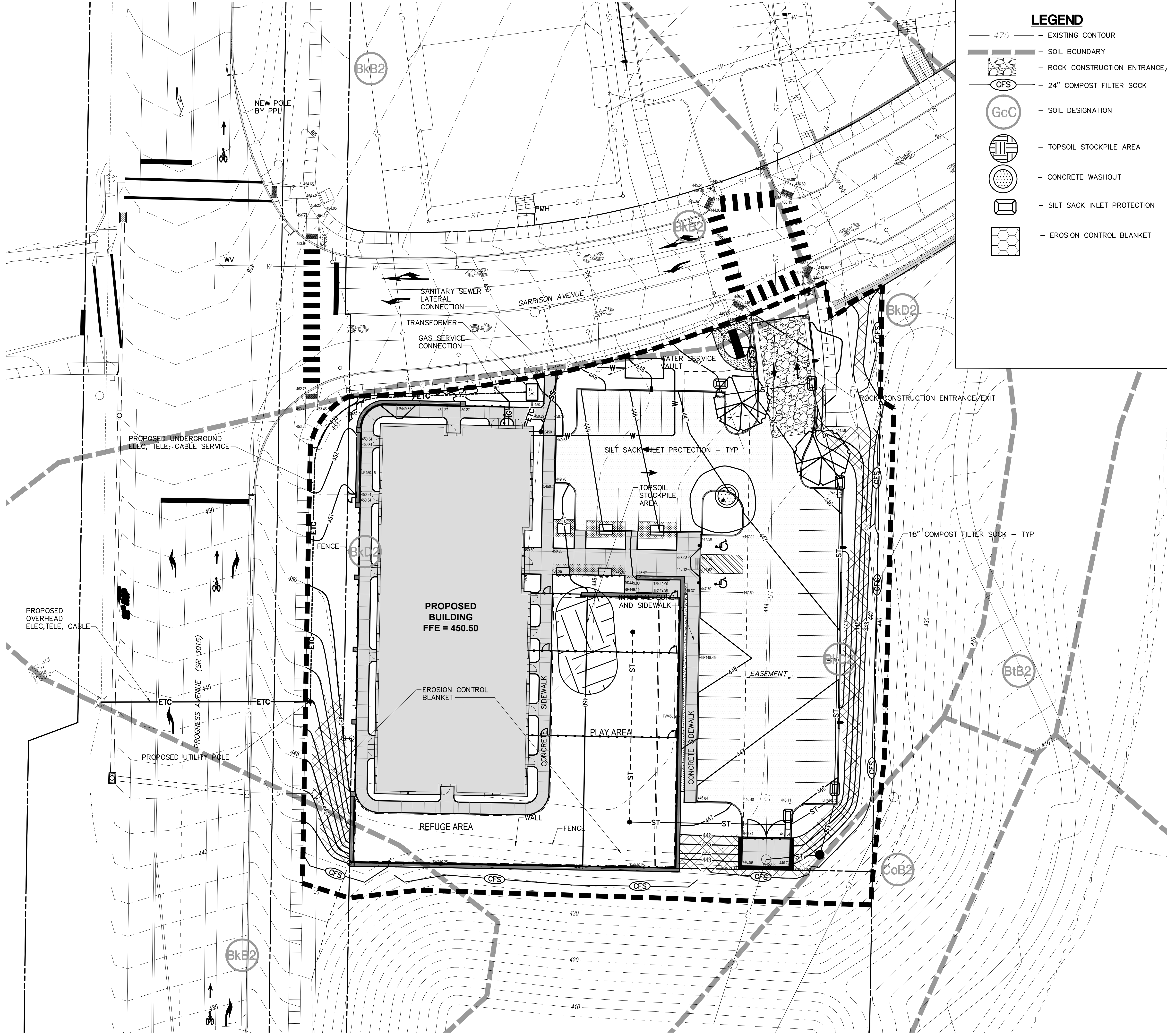
Final Land Development Plan
Phase IIIC

Sheet Number:

LP100

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LEGEND

- 470 — EXISTING CONTOUR
- SOIL BOUNDARY
- ROCK CONSTRUCTION ENTRANCE/EXIT
- (CFS) — 24" COMPOST FILTER SOCK
- (GcC) — SOIL DESIGNATION
- (TSS) — TOPSOIL STOCKPILE AREA
- (CW) — CONCRETE WASHOUT
- (SIP) — SILT SACK INLET PROTECTION
- (ECB) — 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.

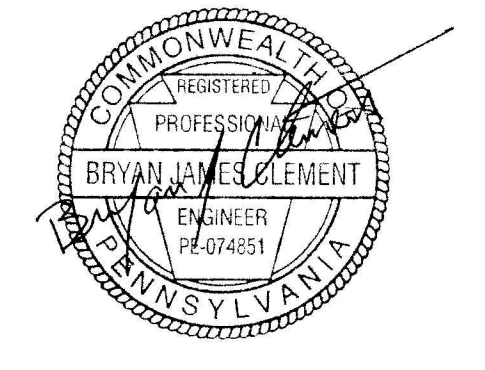
NOTE

- REFER TO SHEET No. ES200, ES201, ES202, ES203 & ES204 FOR ALL EROSION AND SEDIMENTATION CONTROL DETAILS.

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Phase IIIC

Sheet Number:
ES100

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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 (Lolium multiflorum) | 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 (Lolium perenne) | 20 | 97 | 90 | 0.10 | 8.5 |
| CREeping RED FESCUE OR CHEWINGS FESCUE (Festuca rubra OR Festuca rubra spp commutata) | 30 | 97 | 85 | 0.10 | 12.5 |
| KENTUCKY BLUEGRASS MIXTURE (Poa pratensis) | 45 | 97 | 80 | 0.15 | 21.0 |
| ANNUAL RYEGRASS (Lolium Multiflorum) | 5 | 95 | 90 | 0.10 | 2.0 |
| PADOT FORMULA L (SLOPES STEEPER THAN 3:1) | | | | | 48.0 TOTAL |
| HARD FESCUE MIXTURE (Festuca longifolia) | 55 | 97 | 85 | 0.10 | 26.4 |
| CREeping RED FESCUE (Festuca rubra) | 35 | 97 | 85 | 0.10 | 16.8 |
| ANNUAL RYEGRASS (Lolium Multiflorum) | 10 | 95 | 90 | 0.10 | 4.8 |

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

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

- MULCH AND LIME SEEDED AREAS IMMEDIATELY AFTER SEEDING.

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

DOCUMENTATION OF BMP INSPECTION,

REPAIR & REPLACEMENT

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

RECYCLING AND/OR DISPOSAL OF PROJECT WASTE

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

RECEIVING WATERS OF THE COMMONWEALTH

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

PROJECT STORM WATER RUNOFF

RECEIVING WATER – BLACK RUN
 • WARM WATER FISHES – WWF

OFFSITE WASTE AND BORROW AREAS

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

CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE

THE NPDES PERMIT, WHERE THE EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN IS PART OF, COVERS THE "MOVING, DEPOSITING, STOCKPILING, OR STORING OF SOIL, ROCK OR EARTH MATERIALS". IF THIS PROJECT WILL NEED FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE CONTRACTOR. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL". CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.) 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 SEDIMENTATION 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 | CHECK FOR TOP-OF-SLOPE DIVERSION AND INSTALL IF NEEDED FILL RILLS AND REGRADE GULLIED SLOPES |
| | | BARE SOIL PATCHES | RESEED, FERTILIZE AND MULCH BARE AREAS |
| ROCK CONSTRUCTION ENTRANCE/EXIT | DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT | SINK HOLES OR RUTS | ADD ROCK TO BRING TO SPECIFIED DIMENSIONS |
| | | SEDIMENT ON PUBLIC AND PRIVATE ROADWAYS | SWEEP MATERIAL BACK TO PROJECT SITE. DO NOT WASH ROADWAY WITH WATER. |
| SILT SACK INLET PROTECTION | ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT | SEDIMENT ACCUMULATION 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 | ADD SECTION OF SOCK REPLACE WITH PYRAMID OF SOCKS |
| | | TORN SOCK | REPLACE WITH CONTINUOUS NEW SOCK FROM POST TO POST. SECURELY ANCHOR WITH PROPER STAPLES |
| | | RUNOFF ESCAPING AROUND INLET | EXTEND SOCK |
| | | SEDIMENT LEVEL NEAR TOP OF SOCK | REMOVE SEDIMENT WHEN LEVEL REACHES HALF OF ITS HEIGHT |
| EROSION CONTROL BLANKET | ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT | TORN OR COMPROMISED BLANKET | REPLACE WITH A NEW PIECE OF EROSION CONTROL BLANKET AND RESEED AND MULCH IF NEEDED |
| | | RILLS AND GULLIES FORMING UNDER BLANKET | FILL RILLS AND REGRADE GULLIED SLOPES. REPLACE EROSION CONTROL BLANKET AFTER CORRECTION |
| PUMPED WATER FILTER BAG | DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT | FILTER BAG FULL OF SEDIMENT | REPLACE FILTER BAG WITH A NEW PUMPED WATER FILTER BAG. A REPLACEMENT FILTER BAG SHOULD BE AVAILABLE ON SITE AT ALL TIMES |
| | | TORN OR DAMAGED FILTER BAG | REPLACE FILTER BAG WITH A NEW PUMPED WATER FILTER BAG. A REPLACEMENT FILTER BAG SHOULD BE AVAILABLE ON SITE AT ALL TIMES |
| | | RUNOFF FROM FILTER BAG CREATING EROSION | PLACE FILTER BAG IN A STABILIZED AREA TO PREVENT ADDITIONAL EROSION FORMING FROM DISCHARGE LOCATION |
| CONCRETE WASHOUT | DAILY AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT | DAMAGED OR LEAKING WASHOUTS | CONCRETE WASHOUT SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY |
| | | CONCRETE WASHOUT FULL OF MATERIAL | MATERIALS INSIDE CONCRETE WASHOUT SHALL BE REMOVED WHEN 75% OF CAPACITY IS REACHED |
| | | PLASTIC LINER TORN | PLASTIC LINERS SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY |
| RIPRAP APRONS | ONCE A WEEK AND AFTER EVERY STORM/SNOW MELT RUNOFF EVENT | SINK HOLES OR RUTS RIPRAP MOVING FROM ORIGINAL LOCATION | ADD ROCK TO BRING TO SPECIFIED DIMENSIONS |
| | | RUNOFF ESCAPING AROUND RIPRAP | ADD ROCK AND EXTEND TO AVOID RUNOFF ESCAPING AROUND RIPRAP |

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



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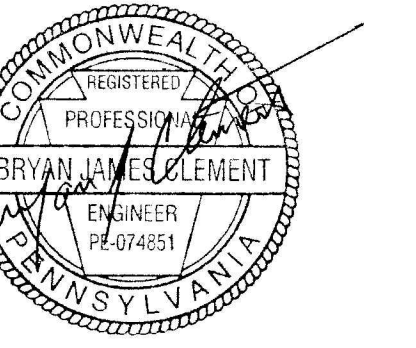
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Project Number:
22014:1
Drawn by:
DM
Checked by:
FB/DM
Date:
June 30, 2022

Revisions:

Scale:
0' 20' 40'
SCALE: 1" = 20'0"

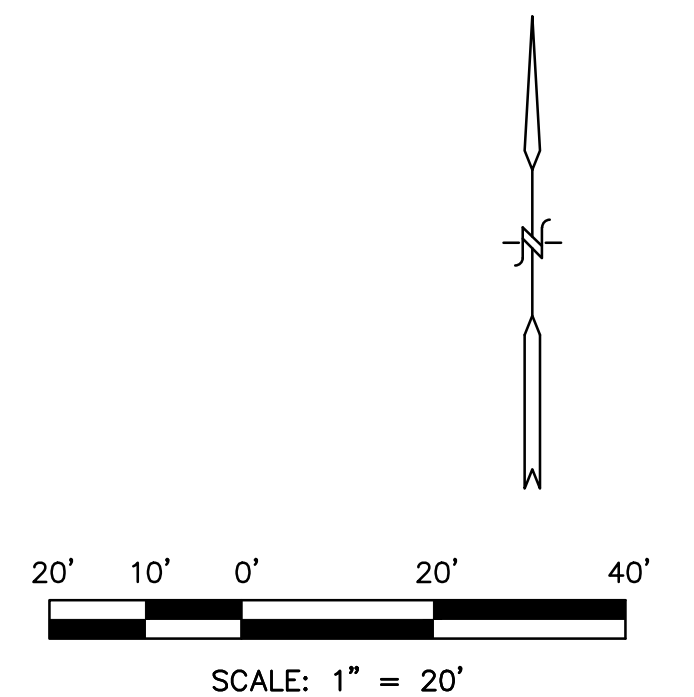
Sheet Name:
Erosion & Sedimentation
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Submission:
Final Land Development Plan
Phase IIIC

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 CONDUCTIVE 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 CONDUCTIVE 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 CONDUCTIVE 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 CONDUCTIVE 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 CONDUCTIVE 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 CONDUCTIVE 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 CONDUCTIVE 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.

W6e2 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 CONDUCTIVE 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 | REIN | 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 | GV | GAS VALVE | SEG | SEGMENT |
| ℄ | BASELINE | HP | HIGH POINT | SLOPP | SMOOTH LINED CORRUGATED PLASTIC PIPE |
| BC | BOTTOM OF CURB | HORIZ | HORIZONTAL | STA | STATION |
| BW | BOTTOM OF WALL | INC | INCORPORATED | SR | STATE ROUTE |
| BY/4" | BROKEN YELLOW PAVEMENT LINE/WIDTH | INV | INVERT | ST | STREET |
| BLDG | BUILDING | LP | LIGHT POLE | SRL | SKID RESISTANCE LEVEL |
| ℄ | CENTERLINE | MH | MANHOLE | S | SOUTH |
| CC C/C | CENTER TO CENTER | MAX | MAXIMUM | SF | SQUARE FEET |
| CLR | CLEAR | MIN | MINIMUM | SY | SQUARE YARD |
| CONC | CONCRETE | MPH | MILES PER HOUR | TC | TOP OF CURB |
| CONSTR | CONSTRUCTION | N | NORTH | TW | TOP OF WALL |
| CMP | CORRUGATED METAL PIPE | NPDES | NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM | XF | TRANSFORMER |
| CPP | CORRUGATED POLYETHYLENE PIPE | No/# | NUMBER | TYP | TYPICAL |
| DIA | DIAMETER | PM | PARKING METER | WM | WATER METER |
| DI | DUCTILE IRON | OC | ON CENTER | WV | WATER VALVE |
| EOB | EDGE OF BERM | PADOT | PENNSYLVANIA DEPARTMENT OF TRANSPORTATION | WWF | WELDED WIRE FABRIC |
| EOP | EDGE OF PAVEMENT | PERF | PERFORATED | W/4" | WHITE PAVEMENT LINE/WIDTH |
| ELEC | ELECTRIC | PE | POLYETHYLENE | | |
| EMH | ELECTRIC MANHOLE | PUB | PUBLICATION | | |
| EM | ELECTRIC METER | PSI | POUNDS PER SQUARE INCH | | |
| EL/ELEV | ELEVATION | PP | POWER POLE | | |
| EQ | EQUAL | PVC | POLYVINYL CHLORIDE | | |
| | | ℄ | PROPERTY LINE | | |
| | | R | RADIUS | | |

LEGEND

| 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 | OVERHEAD ELECTRIC |
| OVERHEAD TELEPHONE | OVERHEAD TELEPHONE |
| OVERHEAD CABLE | OVERHEAD CABLE |
| OVERHEAD WIRES | OVERHEAD CABLE |
| CONDUIT | CONDUIT |
| FIBER OPTICS / COMMUNICATIONS | FIBER OPTICS/COMMUNICATIONS |
| FIRE HYDRANT | FIRE HYDRANT |
| POWER POLE | POWER POLE |
| STREET LIGHT | STREET LIGHT |
| SIGN (EXISTING) | SIGN |
| | FENCE |
| | NUMBER OF PARKING SPACES |
| | NEW CAST IRON DOWNSPOUT BOOT |
| | AREA DRAIN |
| | CONNECT TO EXISTING |



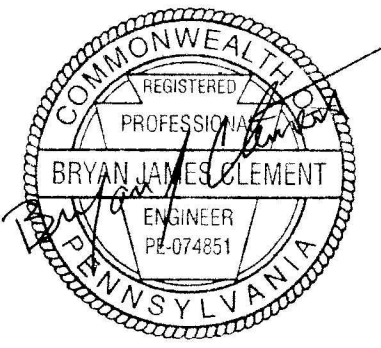
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Project Number:
22014:1
Drawn by:
DM
Checked by:
FB/DM
Date:
June 30, 2022

Revisions:

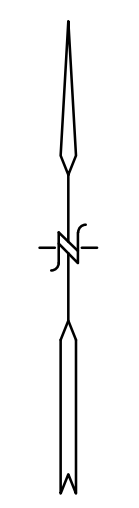
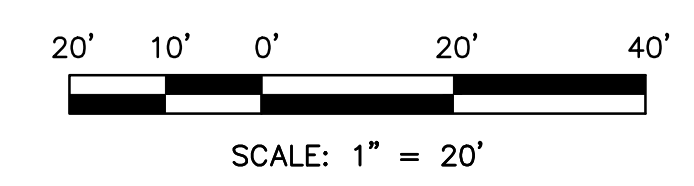
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Sheet Name:
Erosion & Sedimentation Control Plan - Notes
Submission:
Final Land Development Plan Phase IIIC

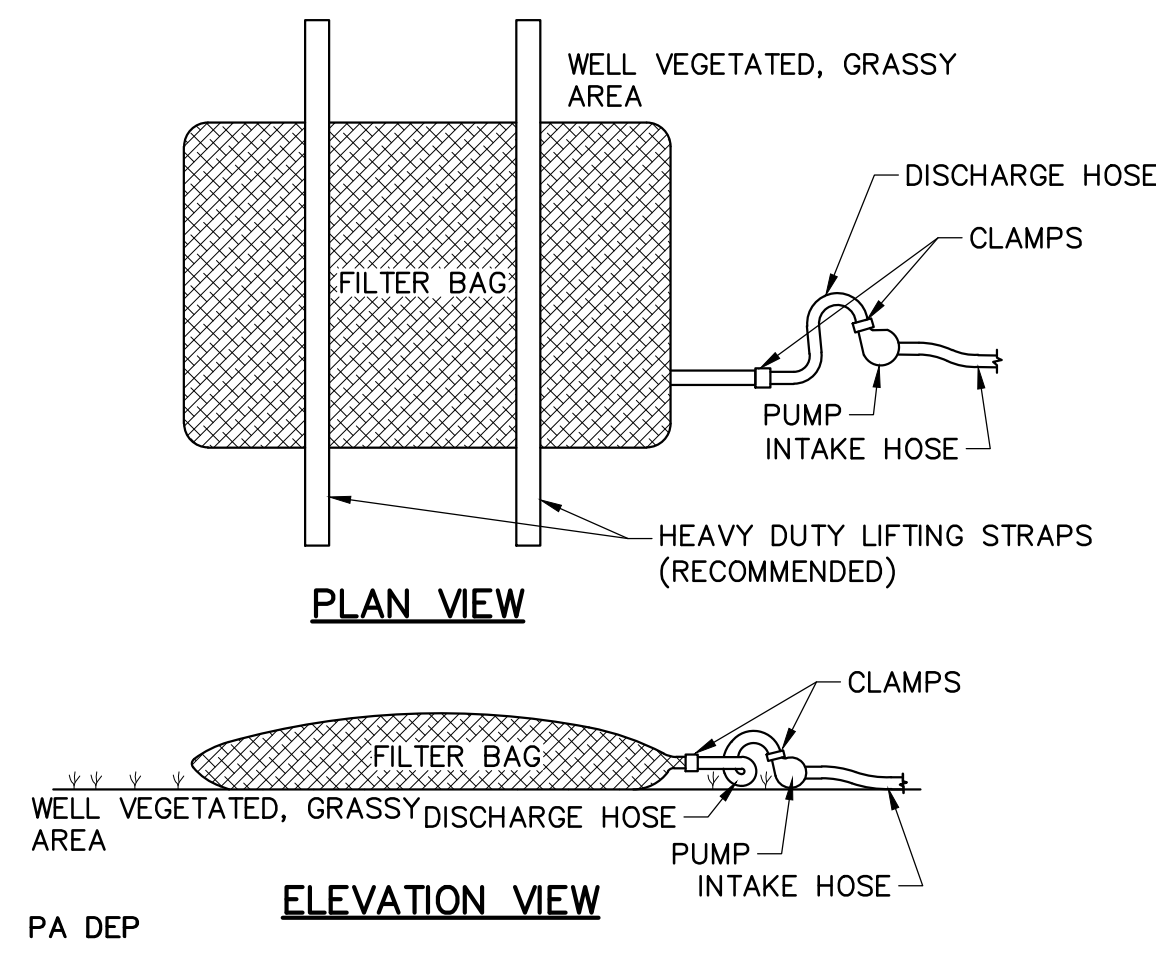
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ES202

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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.

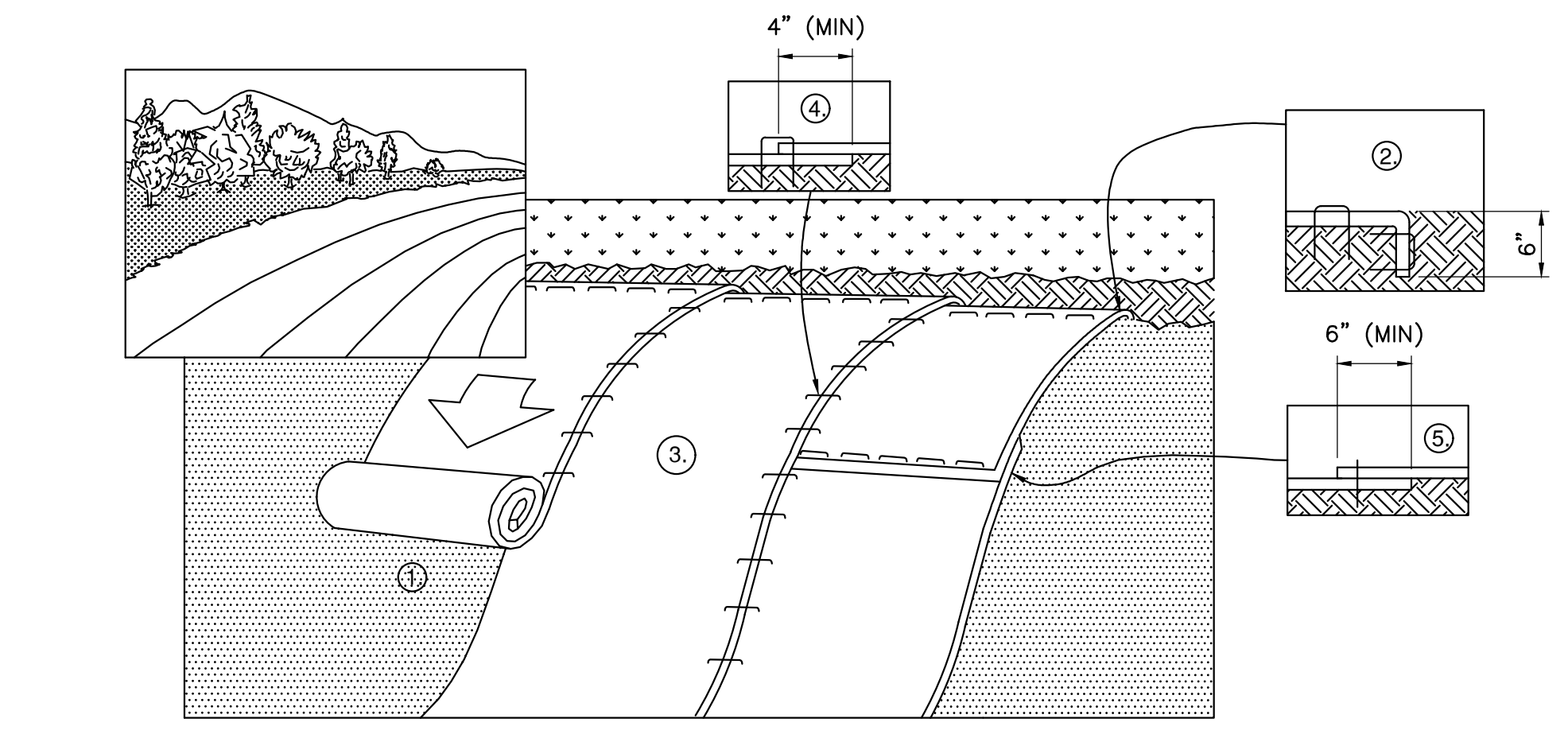
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

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.

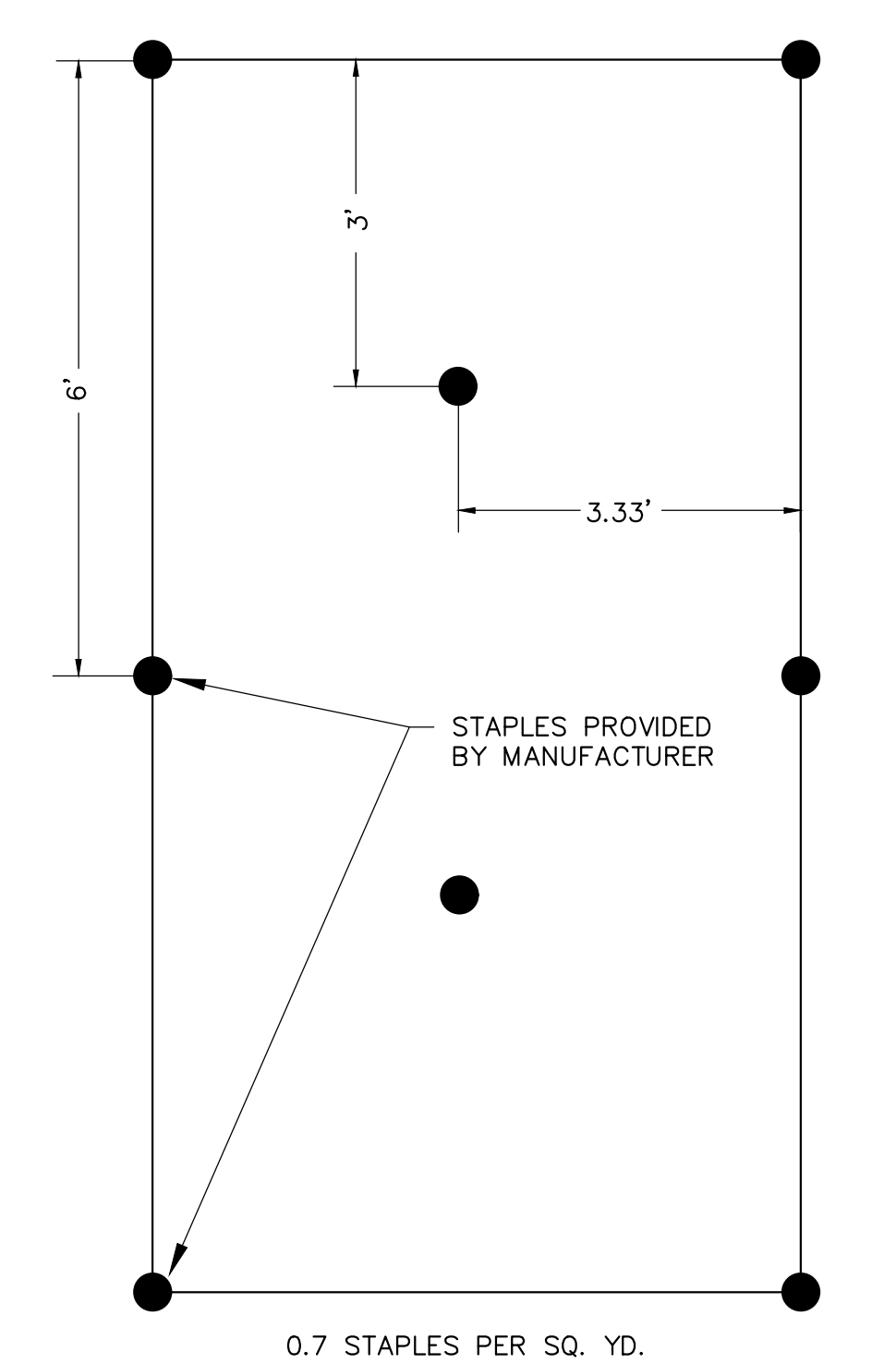
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

FILTER BAG DETAIL FOR PUMPED WATER
NOT TO SCALE



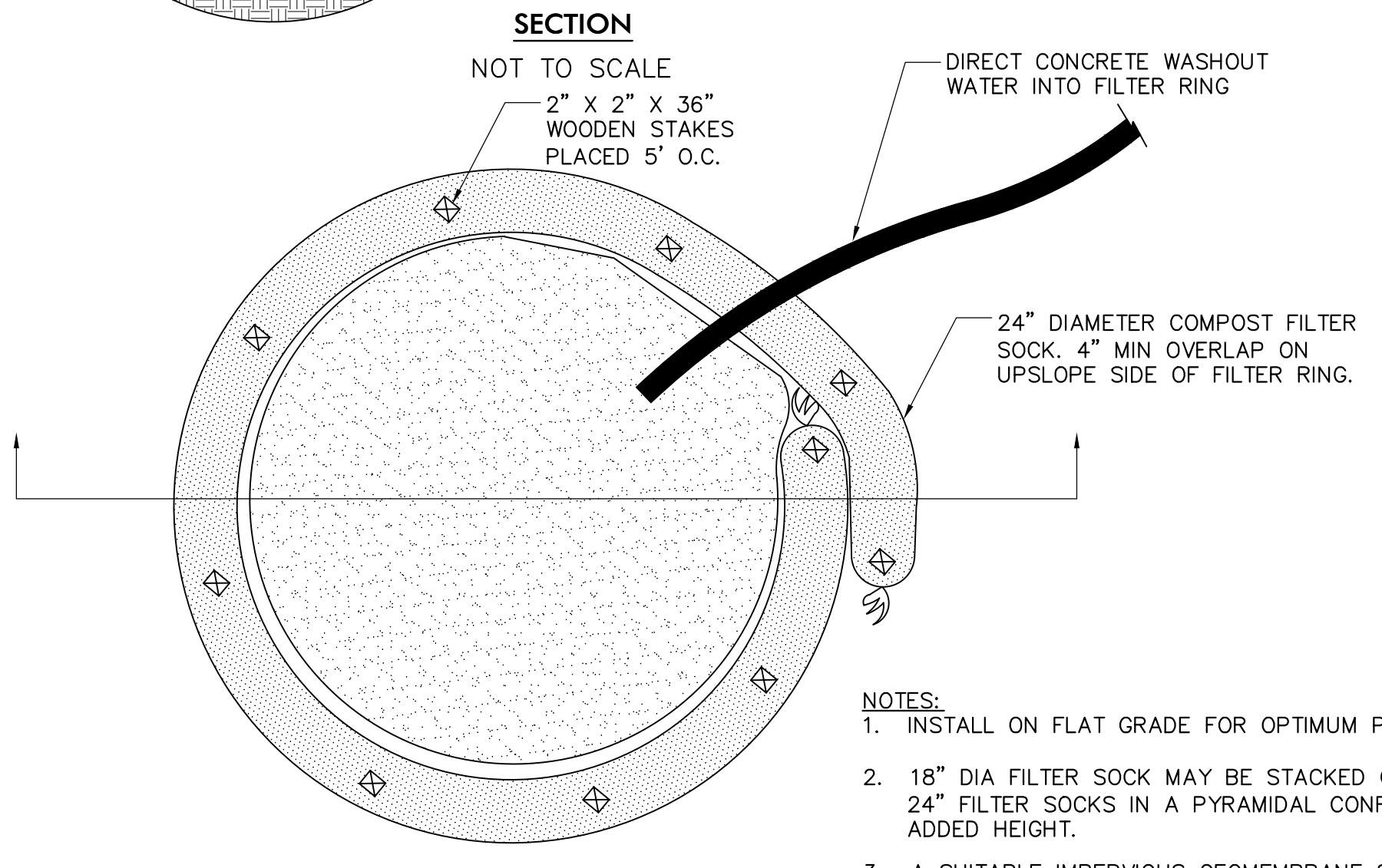
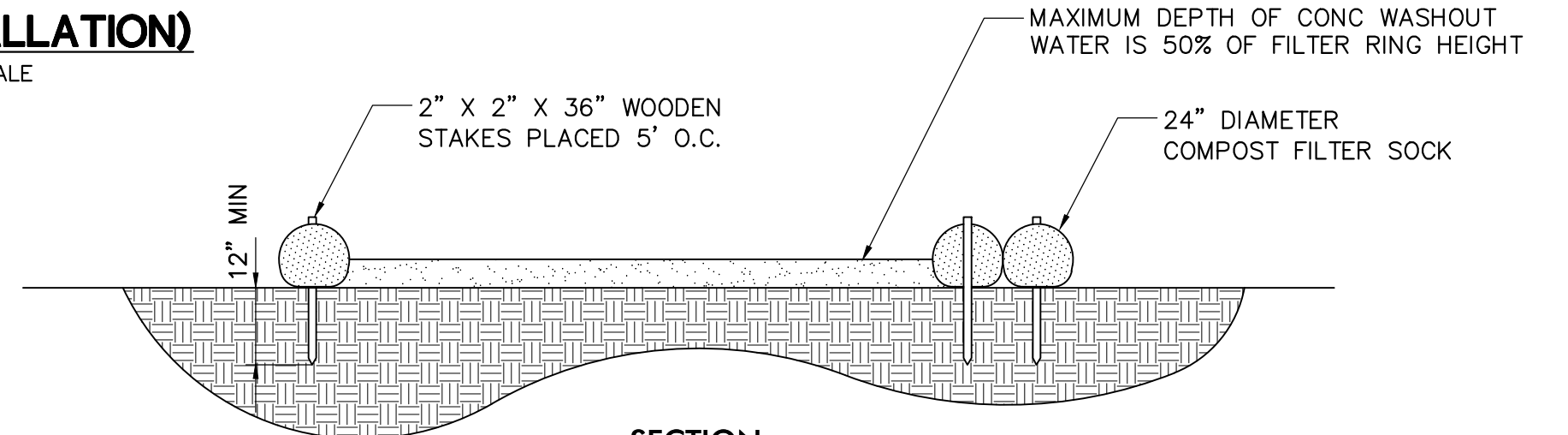
1. PREPARE SOIL (SEED BED) BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF SLOPE. ROLL BLANKETS IN DIRECTION OF WATER FLOW. INSTALL BEGINNING OF ROLL IN 6"x6" ANCHOR TRENCH, STAPLE, BACKFILL, AND COMPACT SOIL.
3. ROLL THE BLANKETS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

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



EROSION CONTROL BLANKET STAPLE PATTERN
NOT TO SCALE

EROSION CONTROL BLANKET DETAIL (SLOPE INSTALLATION)
NOT TO SCALE

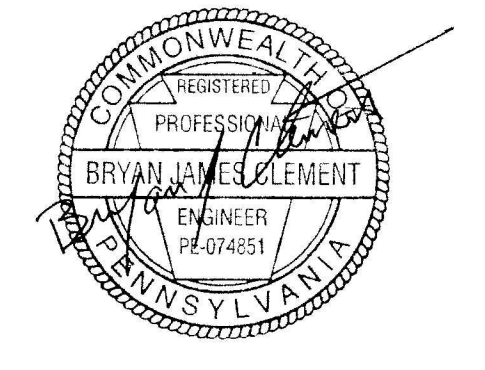


- NOTES:**
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
 2. 18" DIA FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" FILTER SOCKS IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
 3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF WASHOUT PRIOR TO INSTALLING THE FILTER SOCKS.

TYPICAL COMPOST SOCK WASHOUT INSTALLATION
NOT TO SCALE

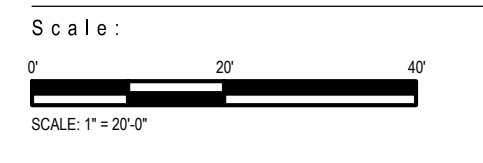


Susquehanna Union
Green - Kiddie Academy
Susquehanna Township, Dauphin County, PA



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