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# TOWNSHIP OF FERGUSON

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[www.twp.ferguson.pa.us](http://www.twp.ferguson.pa.us)

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## Tree Commission Hybrid Meeting Agenda

<https://us02web.zoom.us/j/84324261360>

September 19, 2022

5:15 pm

**I. CALL TO ORDER**

**II. CITIZEN'S INPUT**

**III. APPROVAL OF MINUTES**

1. August 18, 2022

**IV. SPECIAL REPORTS**

None.

**V. UNFINISHED BUSINESS**

**1. EDUCATION & OUTREACH**

**10 minutes**

**Narrative**

The subcommittee will provide an update on the education article for Commission review. Board member requested tree commission subcommittee consider writing an educational article Japanese stilt grass.

*Recommended motion: That the Tree Commission approve the monthly article topics.*

**2. TREE CANOPY SURVEY UPDATE**

**Narrative**

Community Coordinator Kristina Basset is present to provide the Tree Commission with an update on the tree canopy survey.

*Recommended motion: That the Tree Commission provide comment on the update.*

**VI. NEW BUSINESS**

**1. CONSENT AGENDA**

- a. Salvation Baptist Church
- b. MP Machinery and Testing

**2. TREE REMOVAL DISCUSSION**

**15 minutes**

**Narrative**

The Commission take a vote on the tree removal's that were viewed on the tree tour

*Recommended action: That the Tree Commission provide their recommendation to the Public Works Director on the tree removals.*

**3. OAK WILT – BEAVER BRANCH ROAD**

**Narrative**

A case of oak wilt was identified on Beaver Branch Road. Arborist Larry Maginnis will provide the Commission and update and plan.

*Recommended motion: That the Tree Commission their recommendation to the Arborist.*

**VII. STAFF AND COMMITTEE REPORTS**

**15 minutes**

1. Arborist Report
2. Public Works Director Report

**VIII. COMMUNICATIONS TO THE BOARD**

**IX. CALENDAR ITEMS**

- a. Tree removal hearings will be held at the October 17th at 5:15pm

**X. ADJOURNMENT**

**FERGUSON TOWNSHIP TREE COMMISSION  
MEETING MINUTES  
Monday, August 15, 2022  
5:15 PM**

**I. ATTENDANCE**

The Tree Commission held its regular meeting on Monday, August 15, 2022. In attendance were:

**COMMISSION:**

Scott Pflumm  
Marc McDill  
Allyson Muth  
Josh Potter  
Mike Jacobson-Absent

**STAFF:**

David Modricker, Public Works Director  
Summer Brown, Recording Secretary  
Larry Maginnis, Township Arborist-Absent  
Jenna Wargo, Planning & Zoning Director

Others in Attendance: Darryl Slimak, Township Resident.

**II. CALL TO ORDER**

Dr. Marc McDill called the Monday, August 15, 2022 Ferguson Township Tree Commission (FTTC) meeting to order at 5:17 pm.

**III. CITIZEN'S INPUT**

None.

**IV. APPROVAL OF MINUTES**

**Mr. Joshua Potter made a motion to approve both June 21st and July 15th Tree Commission minutes, Mr. Scott Pflumm seconded the motion, and the motion passed unanimously.**

**V. SPECIAL REPORTS**

None.

**VI. UNFINISHED BUSINESS**

**1. EDUCATION & OUTREACH**

Mr. Potter stated that the September article will be in regards to street tree care/street tree rules. Mr. Maginnis stated that in regards to circulation only 1000 people receive the eNewsletter. Mr. Maginnis explained that the Township provides a paper newsletter in April and October and over 6000 Township residents receive this newsletter. Mr. Maginnis stated that the Commission should use the paper newsletter to print the more important articles as it reaches more residents.

**2. PUBLIC AWARENESS CAMPAIGN FOR TREE OF HEAVEN**

Ms. Jenna Wargo stated that she is the main staff member for the Pine Grove Mills Small Area Plan Committee better known as PineSAP. Ms. Wargo stated that one of the Committee's objectives has been to identify

and increase protection of natural resources in and around Pine Grove Mills area. The PineSAP Committee has requested that the Tree Commission create public awareness for Trees of Heaven as they are a natural habitat for Spotted Lantern Fly which pose a risk to the agricultural and forested areas of Pine Grove Mills. The Commission discussed the issues associated with the sudden removal of trees of heaven and the secondary effects. Dr. McDill suggested using this as a topic of education and outreach.

**VII. NEW BUSINESS**

**1. Consent Agenda**

- None.

**2. SLIMAK HERITAGE TREE NOMINATION**

Mr. Darryl Slimak heritage tree nominator and tree owner is present and gave some overview on the trees he is nominating to the Commission. Mr. Larry Maginnis stated that he has examined the tree and the trees are in good condition. Some pruning has been done in the past and it was done correctly. The Commission discussed the nomination. **Dr. McDill called for a motion to accept both of Mr. Slimak's heritage tree nomination, the motion passed unanimously.**

**VIII. STAFF AND COMMITTEE REPORTS**

1. Mr. Maginnis stated that he has been fielding calls and emails. Recently, the Township rented a lift for maintenance and pruning around the Township.

**IX. COMMUNICATIONS TO THE TREE COMMISSION**

None.

**X. ADJOURNMENT**

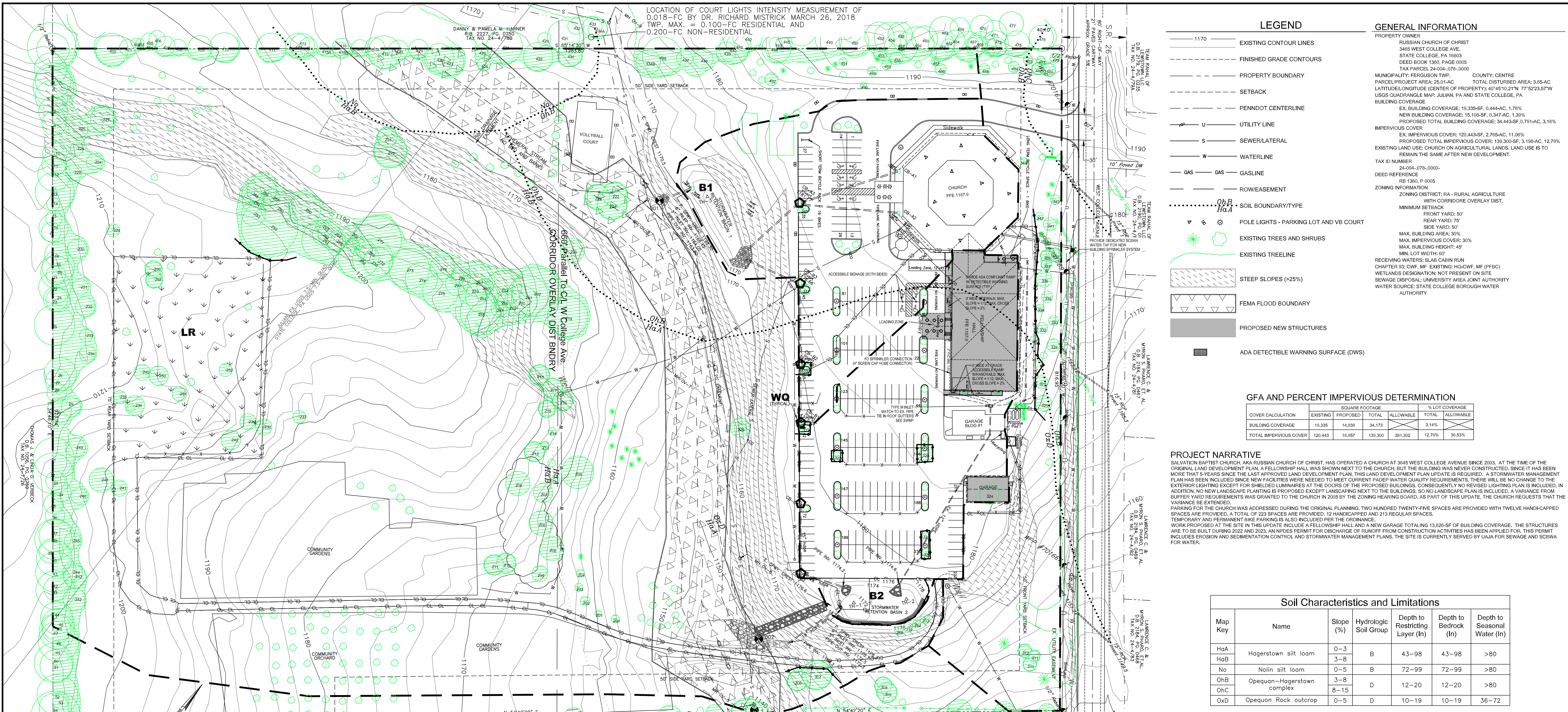
The August 15, 2022 Tree Commission meeting ended at 6:45 pm.

RESPECTFULLY SUBMITTED,

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David J. Modricker, Secretary  
For the Tree Commission





LOCATION OF COURT LIGHTS INTENSITY MEASUREMENT OF 0.018-FC BY DR. RICHARD MISTRICK MARCH 26, 2018  
 TWP. MAX. = 0.100-FC RESIDENTIAL AND 0.200-FC NON-RESIDENTIAL

**LEGEND**

- 1170 EXISTING CONTOUR LINES
- FINISHED GRADE CONTOURS
- PROPERTY BOUNDARY
- SETBACK
- PENNDOT CENTERLINE
- U UTILITY LINE
- S SEWER/LATERAL
- W WATERLINE
- GAS GAS GASLINE
- ROW/EASEMENT
- SOIL BOUNDARY TYPE
- POLE LIGHTS - PARKING LOT AND VB COURT
- EXISTING TREES AND SHRUBS
- EXISTING TREELINE
- STEEP SLOPES (>25%)
- FEMA FLOOD BOUNDARY
- PROPOSED NEW STRUCTURES
- ADA DETECTIBLE WARNING SURFACE (DWS)

**GENERAL INFORMATION**

PROPERTY OWNER: RUSSIAN CHURCH OF CHRIST  
 3645 WEST COLLEGE AVE.  
 STATE COLLEGE, PA 16803  
 DEED BOOK 1360, PAGE 0005  
 TAX PARCEL 24-004-078-0000  
 COUNTY: CENTRE  
 PARCEL PROJECT AREA: 25.01 AC  
 TOTAL DISTURBED AREA: 3.65-AC  
 LATITUDE/LONGITUDE (CENTER OF PROPERTY): 40°49'02.17"N 77°52'23.57"W  
 USGS QUADRANGLE MAP: JULIAN, PA AND STATE COLLEGE, PA  
 BUILDING COVERAGE:  
 EX. BUILDING COVERAGE: 19,335-SF, 0.444-AC, 1.78%  
 NEW BUILDING COVERAGE: 19,109-SF, 0.347-AC, 1.39%  
 PROPOSED TOTAL BUILDING COVERAGE: 38,443-SF, 0.791-AC, 3.16%  
 IMPERVIOUS COVER:  
 EX. IMPERVIOUS COVER: 120,443-SF, 2.765-AC, 11.06%  
 PROPOSED TOTAL IMPERVIOUS COVER: 139,300-SF, 3.198-AC, 12.79%  
 EXISTING LAND USE: CHURCH ON AGRICULTURAL LANDS. LAND USE IS TO REMAIN THE SAME AFTER NEW DEVELOPMENT.  
 TAX ID NUMBER: 24-004-078-0000  
 DEED REFERENCE: RB 1360, P 0005  
 ZONING INFORMATION:  
 ZONING DISTRICT: RA - RURAL AGRICULTURE  
 WITH CORRIDOR OVERLAY DIST.  
 MINIMUM SETBACK:  
 FRONT YARD: 50'  
 REAR YARD: 75'  
 SIDE YARD: 50'  
 MAX. BUILDING AREA: 30%  
 MAX. IMPERVIOUS COVER: 30%  
 MAX. BUILDING HEIGHT: 40'  
 MIN. LOT WIDTH: 60'  
 RECEIVING WATERS: SLAB CABIN RUN  
 CHAPTER 931 CWP. MF. EXISTING HO-CWF, MF (PFC)  
 WETLANDS DESIGNATION: NOT PRESENT ON SITE  
 SEWAGE DISPOSAL: UNIVERSITY AREA JOINT AUTHORITY  
 WATER SOURCE: STATE COLLEGE BOROUGH WATER AUTHORITY

**GFA AND PERCENT IMPERVIOUS DETERMINATION**

COVER CALCULATION	SQUARE FOOTAGE		PERCENT	
	EXISTING	PROPOSED	TOTAL	ALLOWABLE
BUILDING COVERAGE	19,335	14,859	34,173	3.14%
TOTAL IMPERVIOUS COVER	120,443	18,857	139,300	31.32%
				36.53%

**PROJECT NARRATIVE**

SALVATION BAPTIST CHURCH, AKA RUSSIAN CHURCH OF CHRIST, HAS OPERATED A CHURCH AT 3645 WEST COLLEGE AVENUE SINCE 2003. AT THE TIME OF THE ORIGINAL LAND DEVELOPMENT PLAN, A FELLOWSHIP HALL WAS SHOWN NEXT TO THE CHURCH. THIS BUILDING WAS NEVER CONSTRUCTED. SINCE IT HAS BEEN MORE THAN 5 YEARS SINCE THE LAST APPROVED LAND DEVELOPMENT PLAN, THIS LAND DEVELOPMENT PLAN UPDATE IS REQUIRED. A STORMWATER MANAGEMENT PLAN HAS BEEN INCLUDED SINCE NEW FACILITIES WERE NEEDED TO MEET CURRENT FLOODING WATER QUALITY REQUIREMENTS. THERE WILL BE NO CHANGE TO THE EXISTING LIGHTING EXCEPT FOR SHIELDED LUMINAIRES AT THE DOORS OF THE PROPOSED BUILDINGS. CONSEQUENTLY NO REVISED LIGHTING PLAN IS INCLUDED. IN ADDITION, NO NEW LANDSCAPE PLANTING IS PROPOSED EXCEPT LANDSCAPING NEXT TO THE BUILDINGS. SO NO LANDSCAPE PLAN IS INCLUDED. A VARIANCE FROM BUFFER YARD REQUIREMENTS WAS GRANTED TO THE CHURCH IN 2005 BY THE ZONING HEARING BOARD. AS PART OF THIS UPDATE, THE CHURCH REQUESTS THAT THE VARIANCE BE EXTENDED.  
 SPACING FOR THE CHURCH WAS ADDRESSED DURING THE ORIGINAL PLANNING. TWO HUNDRED TWENTY-FIVE SPACES ARE PROVIDED WITH TWELVE HANDICAPPED SPACES ARE PROVIDED. A TOTAL OF 223 SPACES ARE PROVIDED. 12 HANDICAPPED AND 213 REGULAR SPACES.  
 TEMPORARY AND PERMANENT BIKE PARKING IS ALSO INCLUDED PER THE ORDINANCE.  
 WORK PROPOSED AT THE SITE IN THIS UPDATE INCLUDES A FELLOWSHIP HALL AND A NEW GARAGE BUILDING. A TOTAL OF 13,929-SF OF BUILDING COVERAGE. THE STRUCTURES ARE TO BE BUILT DURING 2022 AND 2023. AN NPDES PERMIT FOR DISCHARGE OF RUNOFF FROM CONSTRUCTION ACTIVITIES HAS BEEN APPLIED FOR. THIS PERMIT INCLUDES EROSION AND SEDIMENTATION CONTROL AND STORMWATER MANAGEMENT PLANS. THE SITE IS CURRENTLY SERVED BY UAJA FOR SEWAGE AND SCWVA FOR WATER.

**Soil Characteristics and Limitations**

Map Key	Name	Slope (%)	Hydrologic Soil Group	Depth to Restricting Layer (In)	Depth to Bedrock (In)	Depth to Seasonal Water (In)
HoA	Hagerstown silt loam	0-3	B	43-98	43-98	>80
HoB	Hagerstown silt loam	3-8	B	43-98	43-98	>80
No	Nolin silt loam	0-5	B	72-99	72-99	>80
OhB	Opequan-Hagerstown complex	3-8	D	12-20	12-20	>80
OhC	Opequan-Hagerstown complex	8-15	D	12-20	12-20	>80
OxD	Opequan Rock outcrop	0-5	D	10-19	10-19	36-72

**NOTES:**

- EXISTING CONDITIONS PROVIDED ON THIS PLAN ARE BASED ON A SURVEY BY GREGORY A. SHUFMAN, PLS DATED 2005. TOPOGRAPHY IS BASED ON PA UDAR DATA DATED 2008. THE SEWER LINE BUILT ACROSS THE PROPERTY TO THE HARNER PROPERTY LOCATION WAS PROVIDED BY UNIT-TECH, INC. BASED ON AS-BUILT DRAWINGS.
- THE FOLLOWING FEATURES ARE NOT PRESENT IN THE IMMEDIATE VICINITY OF THE PROPOSED DISTURBED AREAS: SINKHOLES AND RAILROADS.
- ALL PROPOSED DEVELOPMENT IS TO REMAIN PRIVATE PROPERTY.
- THE FOLLOWING ITEMS REQUIRED FOR PRELIMINARY AND FINAL PLANS ARE NOT APPLICABLE TO THIS PROJECT: WALKWAYS BETWEEN LOTS, STREET LIGHTS, PUBLIC USE LANDS AND INSTALLED MONUMENTS.
- THE LANDSCAPE PLAN DOES NOT CHANGE WITH THIS UPDATE AND A LANDSCAPE PLAN IS NOT INCLUDED IN THIS SUBMISSION.
- THE LIGHTING PLAN DOES NOT CHANGE WITH THIS UPDATE AND A LIGHTING PLAN IS NOT INCLUDED IN THIS SUBMISSION. THE LIGHT INTENSITY FOR THE VOLLEYBALL COURT LIGHTS WAS MEASURED AT THE NEARBY PROPERTY BOUNDARY IN 2018 AND FOUND TO BE MUCH BELOW THE LEVEL REQUIRED BY THE TOWNSHIP.
- NO TREES OR SHRUBS SHALL BE PLANTED IN THE STORMWATER MANAGEMENT AREAS UNLESS APPROVED BY THE TOWNSHIP. TREES AND SHRUBS WHICH VOLUNTEER IN THESE AREAS SHALL BE REMOVED AS QUICKLY AS POSSIBLE.
- THE CAPACITY OF THE SANCTUARY (80 SEATS) FOR THIS CALCULATION IS BASED ON THE FELLOWSHIP HALL SHALL PROVIDE FIRE SUPPRESSION BY SPRINKLER SYSTEM SIMILAR TO THE SYSTEM PROVIDED IN THE EXISTING CHURCH. THE FELLOWSHIP HALL SHALL PROVIDE A SEPARATE SCWVA WATER TAP FOR THE FIRE SUPPRESSION. A STAND PIPE CONNECTION SHALL BE PROVIDED FOR FIRE DEPARTMENT CONNECTION TO THE SPRINKLER SYSTEM.
- ON AUGUST 18, 2008, THE FERGUSON TOWNSHIP ZONING HEARING BOARD APPROVED A VARIANCE FROM THE BUFFER YARD REQUIREMENT IN THE CORRIDOR OVERLAY DISTRICT AND BUFFER YARD ORDINANCES, AS PART OF THIS SUBMISSION, SALVATION BAPTIST CHURCH REQUESTS AN EXTENSION OF THAT VARIANCE.
- THERE ARE NO ACTIVE SINKHOLES ON THE PROPERTY.
- THE DRAINAGEWAY THAT SUBJECTS THE PROPERTY NORTH TO SOUTH IS SHOWN BY THE FEMA FLOODPLAIN AND EXISTING CONTOUR LINES AND IS IN CLOSE PROXIMITY TO THE UAJA SEWER MAIN. IT IS NOT SHOWN BY A STREAM SYMBOL BECAUSE IT IS AN EPHEMERAL STREAM. ONLY FLOWING DURING EXTREME PRECIPITATION EVENTS.
- TREES WITH GREATER THAN 4 IN. CALIPER ARE NUMBERED ON THE PLAN. EACH OF THOSE TREES IS IDENTIFIED ON THE TREE SURVEY AND PROTECTION PLAN (TP-1). THERE ARE NO TREES WITHIN THE STREET RIGHT-OF-WAY.
- ADA IDENTIFIED FACILITIES SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT AND THE MOST RECENT PUBLISHED STANDARDS.
- ALL PARKING AND LOADING AREAS ARE SURFACED WITH ASPHALT OR CONCRETE WITH NO SLP SURFACE. NO NEW PAVEMENT IS PROPOSED FOR THIS UPDATE.
- ON SEPTEMBER 26, 2017, THE FERGUSON TOWNSHIP ZONING HEARING BOARD APPROVED A VARIANCE FROM THE FLOODPLAIN REGULATIONS AND 50 FOOT RIPARIAN BUFFER IN ORDER TO ESTABLISH A DRIVEWAY WITH CULVERTS THAT CROSS THE FLOODPLAIN TO THE BACK HALF OF THE PROPERTY AND TO ESTABLISH A VOLLEYBALL COURT WITH LIGHT STANDARDS WITHIN THE FLOODPLAIN, WITHIN THE FLOODPLAIN.
- A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 420), KNOWN AS THE "STATE HIGHWAY LAW", BEFORE DRIVEWAY ACCESS TO THE STATE HIGHWAY IS PERMITTED.
- THE FLOODPLAIN LIMITS SHOWN ON THIS PLAN WERE DETERMINED BASED ON ELEVATIONS ESTABLISHED BY A DETAILED STUDY CONDUCTED IN 2017 DURING THE ZONING HEARING BOARD REVIEW FOR DEVELOPMENT WITHIN THE FLOODPLAIN. (SEE ITEM 15).

**BUILDING ADDRESSES:**

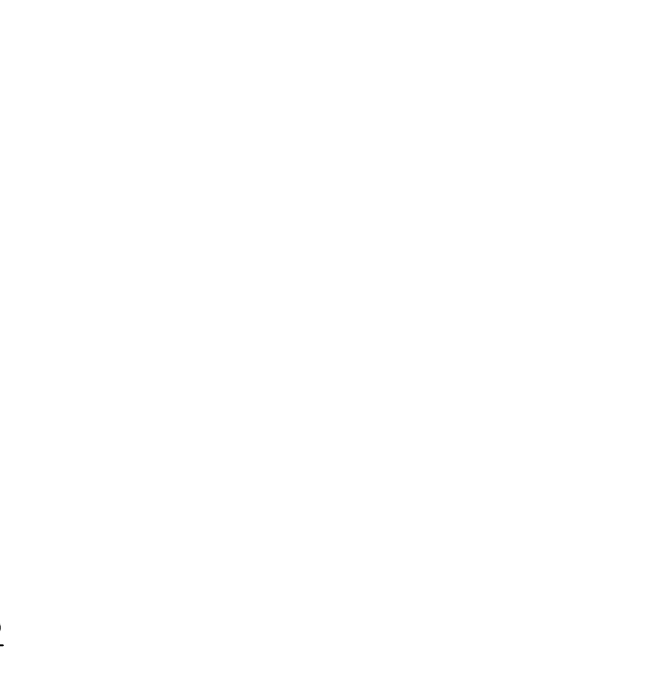
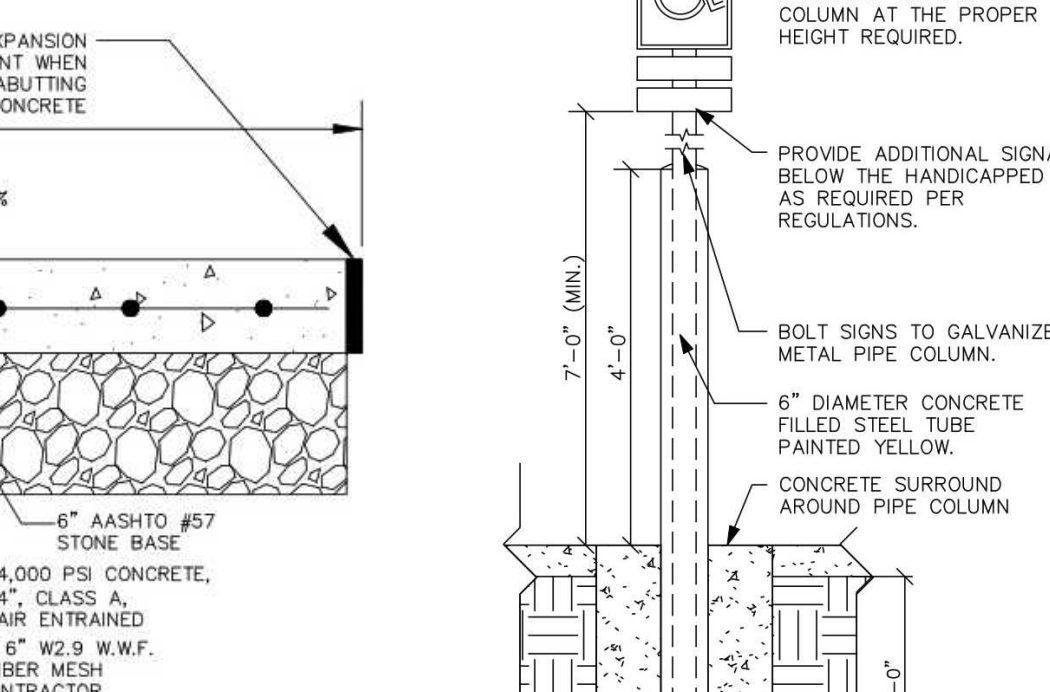
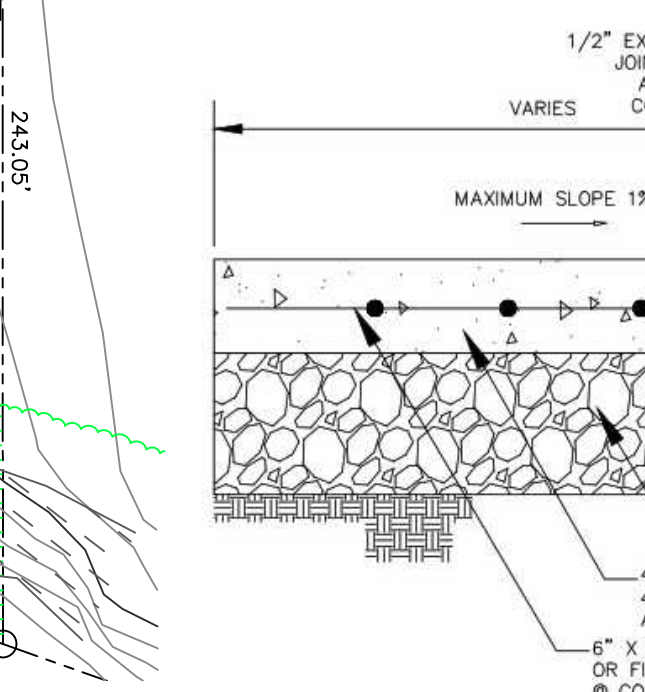
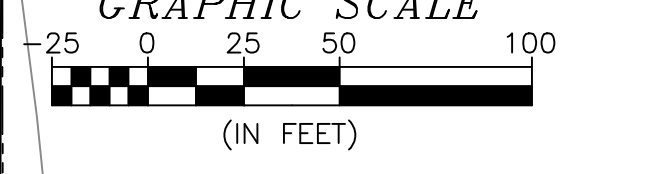
STREET ADDRESS 3645 WEST COLLEGE AVENUE  
 BUILDING IDENTIFIERS:  
 A - CHURCH  
 B - FELLOWSHIP HALL  
 C - GARAGE BUILDING #1  
 D - GARAGE BUILDING #2

**PARKING SPACE CALCULATIONS**

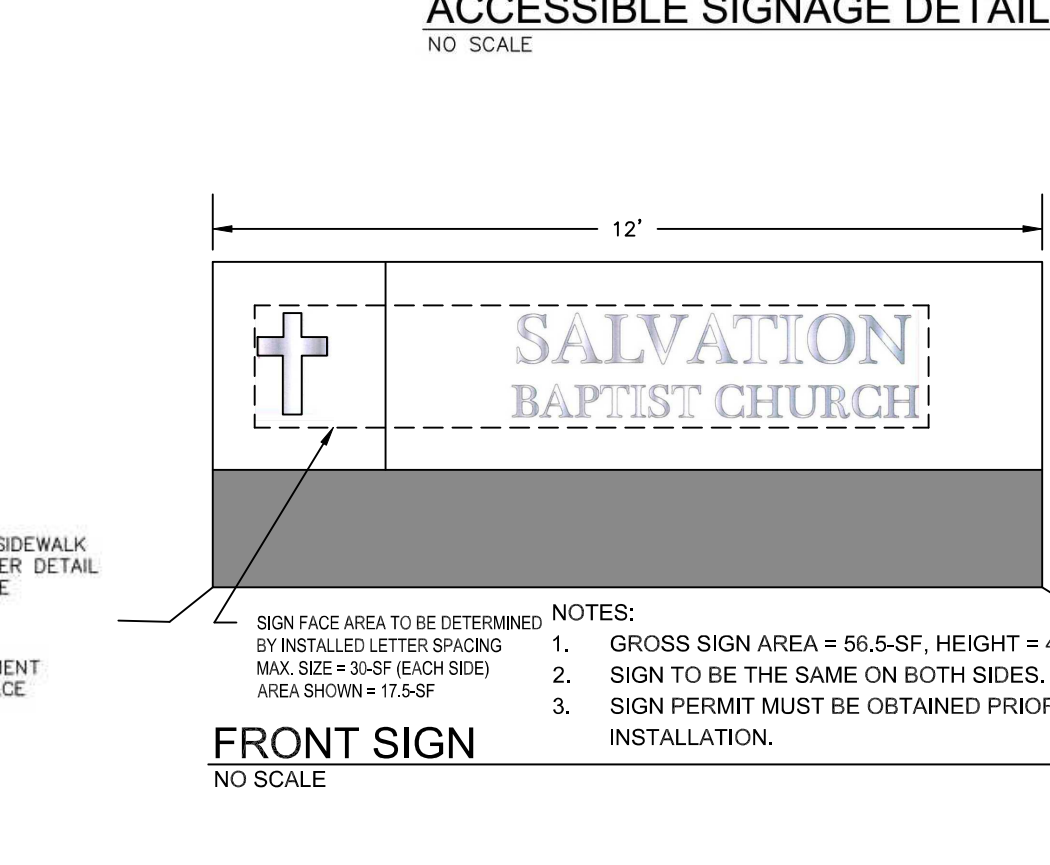
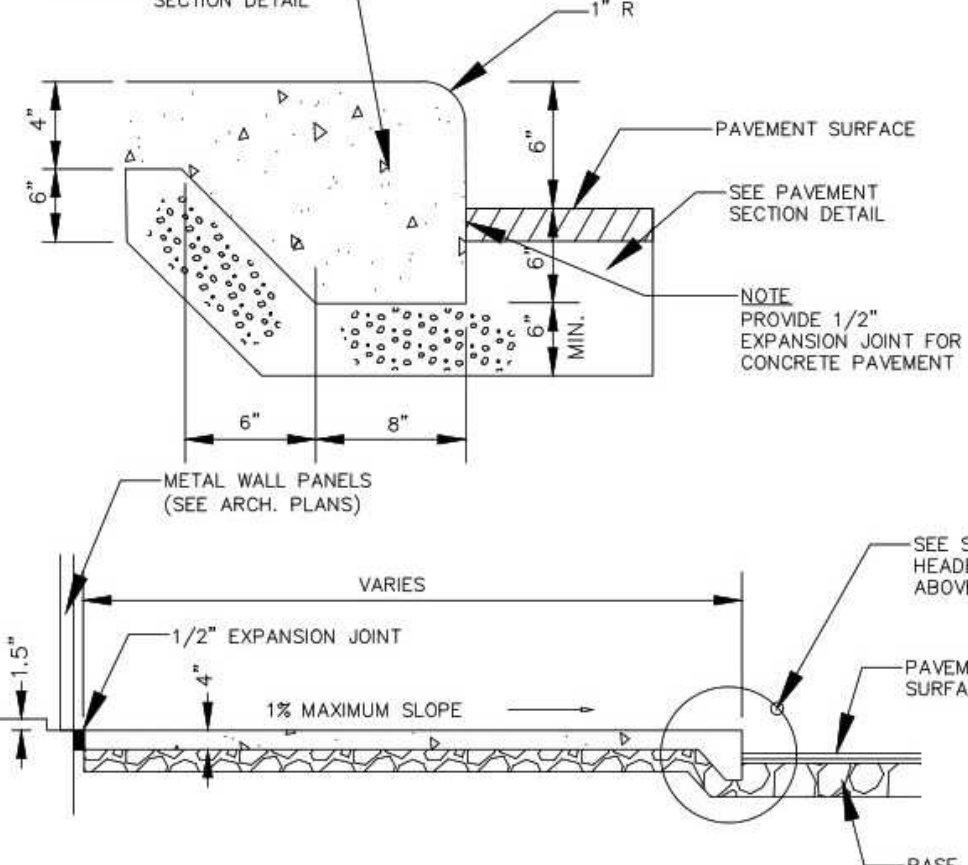
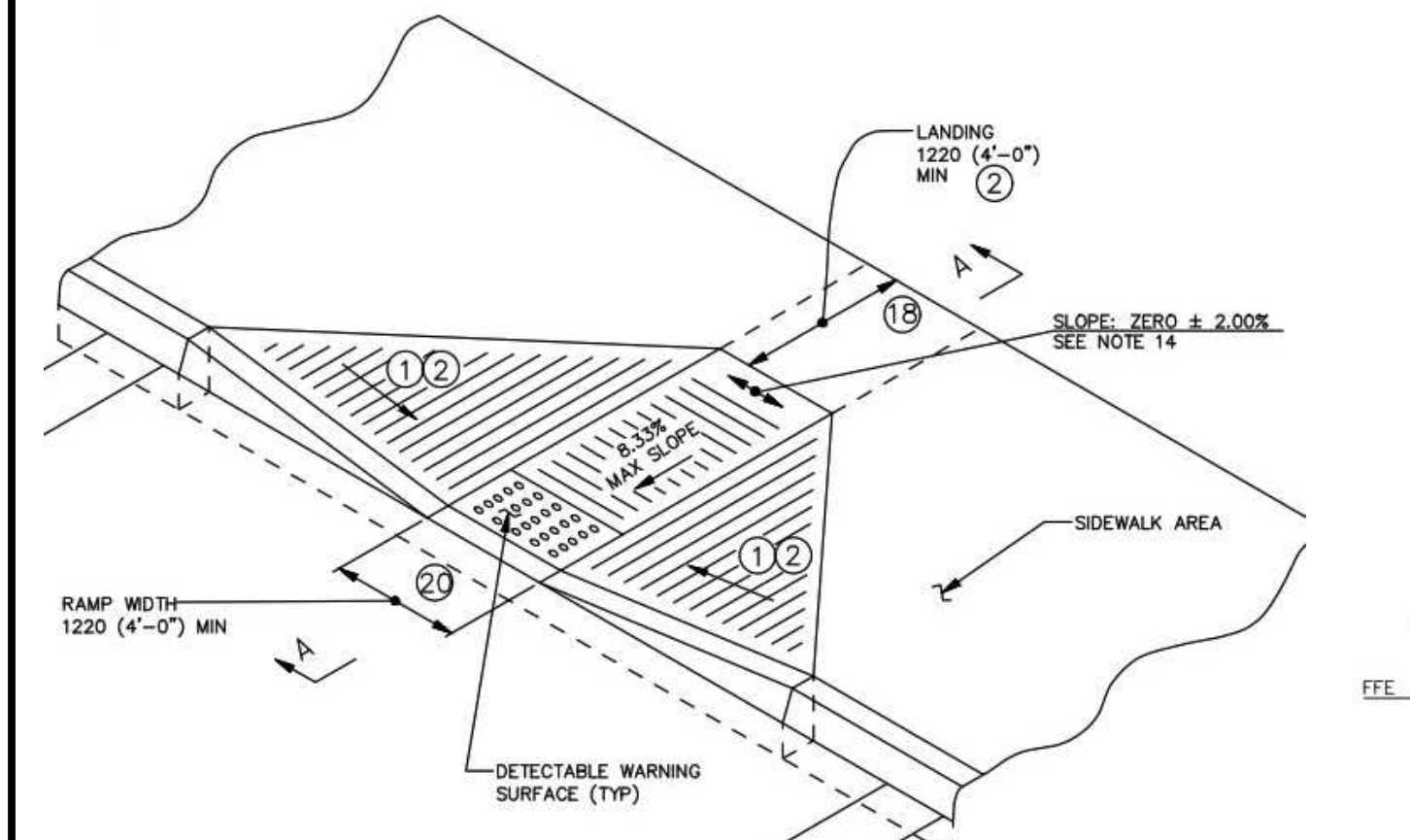
SECTION 22-5071.8.4.D - 3 SPACES SEATS X 50 SEATS = 150 SPACES  
 HANDICAPPED SPACES: 1 PER 20 SPACES + 8 SPACES  
 REQUIRED SPACES: 176 REGULAR PLUS 8 HANDICAPPED = 184 TOTAL SPACES  
 NUMBER PROVIDED: 211 REGULAR PLUS 12 HANDICAPPED = 223 TOTAL SPACES  
 SECTION 22-5071.8.4.D - 3 SPACES SEATS X 50 SEATS = 150 SPACES  
 HANDICAPPED SPACES: 1 PER 20 SPACES + 8 SPACES  
 REQUIRED SPACES: 176 REGULAR PLUS 8 HANDICAPPED = 184 TOTAL SPACES  
 NUMBER PROVIDED: 211 REGULAR PLUS 12 HANDICAPPED = 223 TOTAL SPACES

**BICYCLE SPACE CALCULATIONS**

SECTION 22-5072: TEMPORARY SPACES 2X X 50 SEATS = 11 SPACES  
 PERMANENT SPACES: 1 PER 20 EMPLOYEES, NEED 1 SPACE  
 REQUIRED SPACES: 11 TEMPORARY PLUS 1 PERMANENT = 12 TOTAL SPACES  
 NUMBER PROVIDED: 1 TEMPORARY PLUS 1 PERMANENT = 2 TOTAL SPACES  
 ONE 16-BIKE RACK WILL BE PROVIDED IN THE PARKING LOT, ELIMINATING TWO PRIOR AUTO PARKING SPACES. THE EMPLOYEE PERMANENT PARKING SPACE WILL BE PROVIDED ON THE BACK COVERED PORCH AREA OF THE FELLOWSHIP HALL.  
 THE CAPACITY OF THE SANCTUARY (80 SEATS) FOR THIS CALCULATION IS BASED ON THE VALUE ESTABLISHED BY CENTRE REGION CODE ENFORCEMENT IN A LETTER FROM ROB WAGNER TO JEFF RESSLER DATED SEPTEMBER 2, 2003.



**Historical Property Land Use**  
 All lands on the property as well as the adjacent surrounding properties, have been historically utilized for agricultural purposes. This property has been used as a church property since the existing church was constructed in 2003. Historic and new residences dot the adjacent properties in the rural agricultural zoning.



**LICHTY ENGINEERING**  
 16803 State College, PA 16803  
 (717) 238-1141  
 Licthy.Engineering@comcast.net

PROFESSIONAL ENGINEER  
 JOSEPH EDWARD LICHTY  
 ENGINEER #00214

DRAWN BY: JEL  
 02/08/2022

REVISIONS  
 08/09/2022  
 09/02/2022

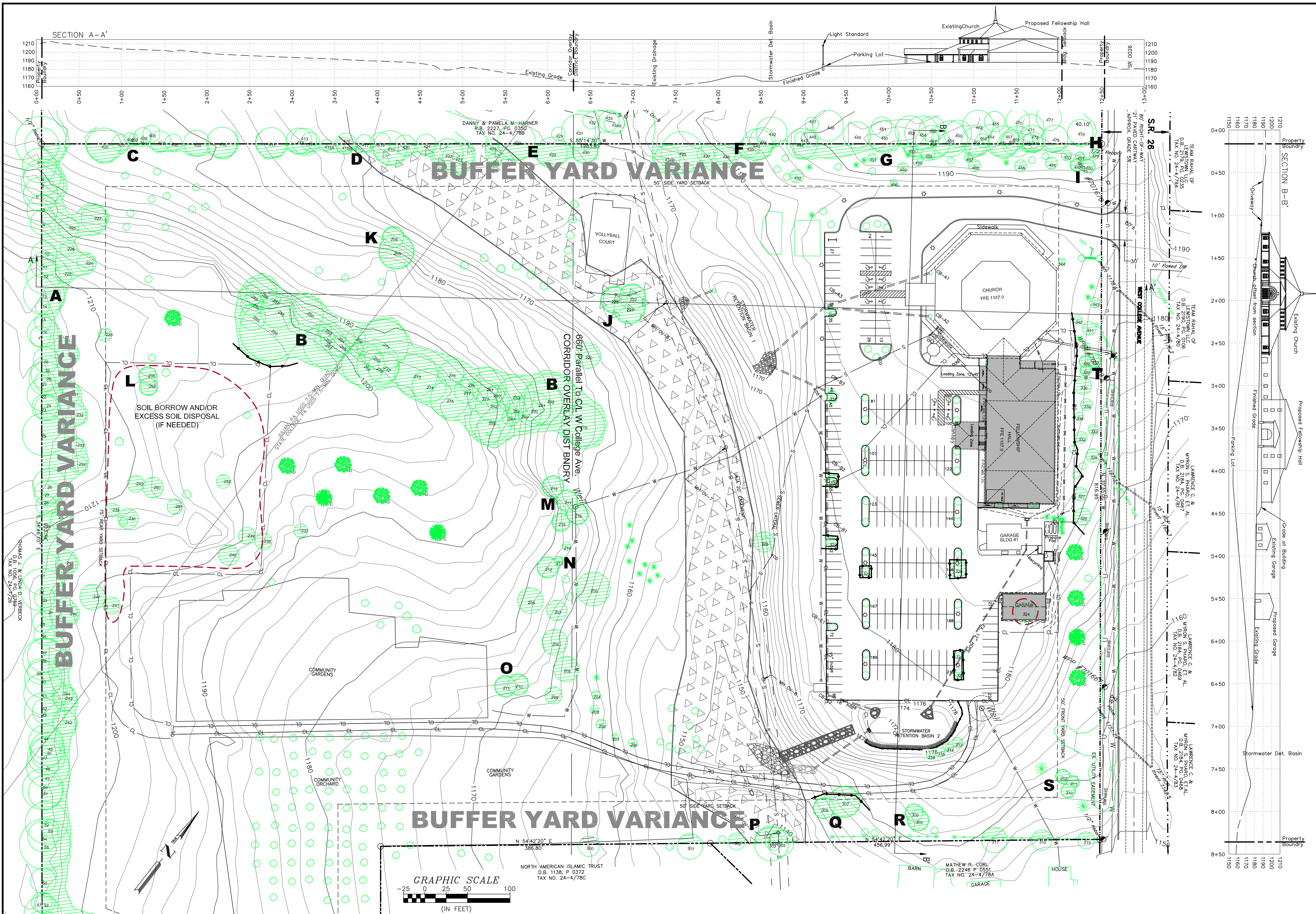
ORIGINAL DATE OF ZONING PERMIT APPLICATION  
 02/09/2022

SCALE: 1"=50'

SOURCE: Survey

Salvation Baptist Church  
 3645 West College Ave - Ferguson Twp - Centre Co - PA  
 LAND DEVELOPMENT PLAN UPDATE  
 LAND DEVELOPMENT PLAN





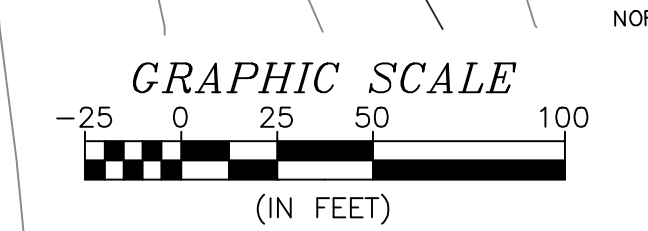
### LEGEND

- 1170 EXISTING CONTOURS
- 1184 FINISHED CONTOURS
- CL CL CL CONSTRUCTION WORK LIMIT
- EX. TREE W/ 6" OR GREATER CALIPER
- INDIVIDUAL CANOPY CALCULATION TREE
- TREE GROUP CANOPY LIMITS
- EX. TREE W/ <6" CALIPER
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCE
- TREES TO BE PLANTED
- FEMA FLOOD BOUNDARY
- SEWER AND EASEMENTS
- WATER LINE
- UTILITY LINE/POLL
- PROPERTY BOUNDARY
- RIGHT OF WAY
- SETBACK LINE
- PROPOSED NEW CONSTRUCTION

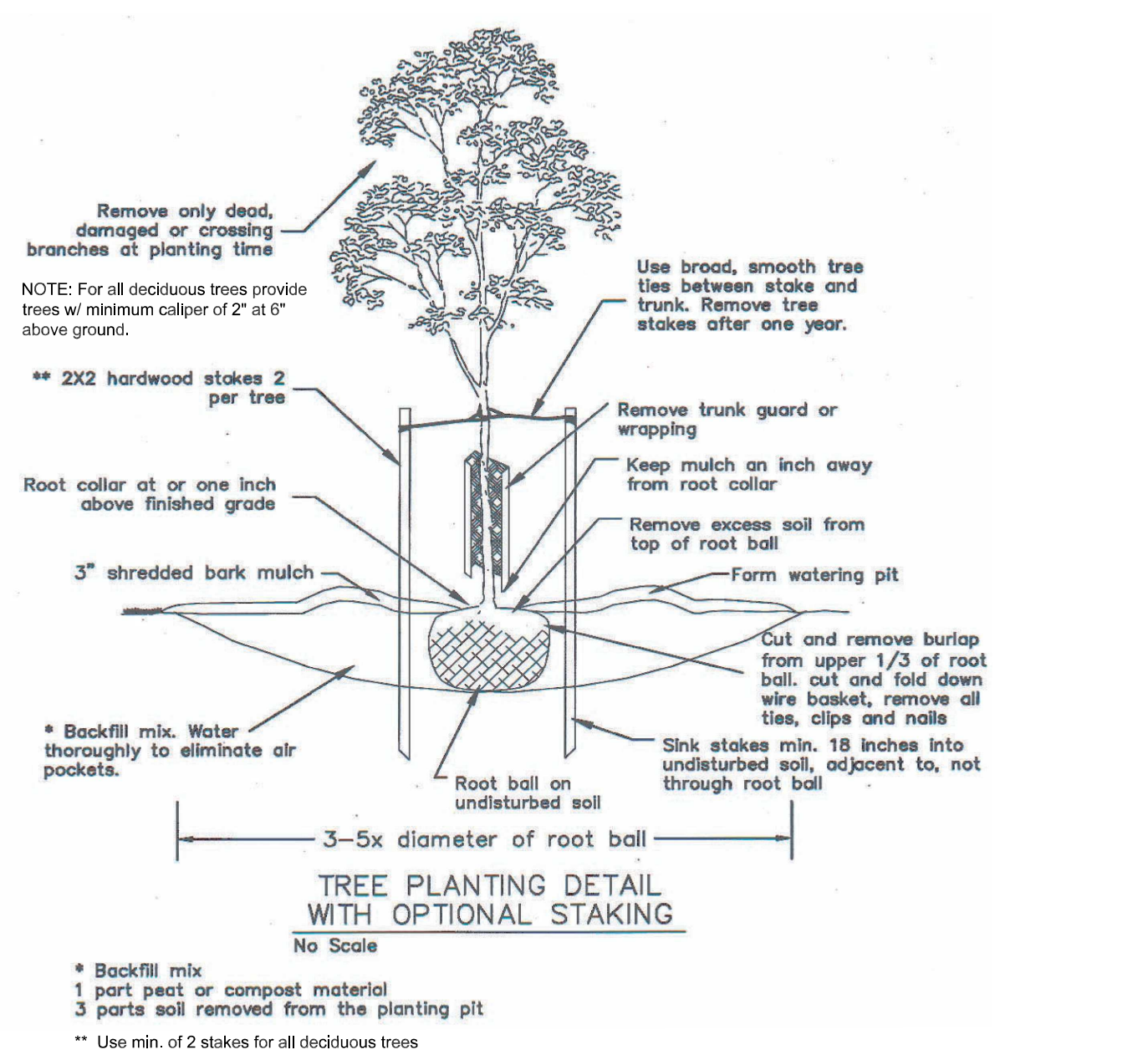
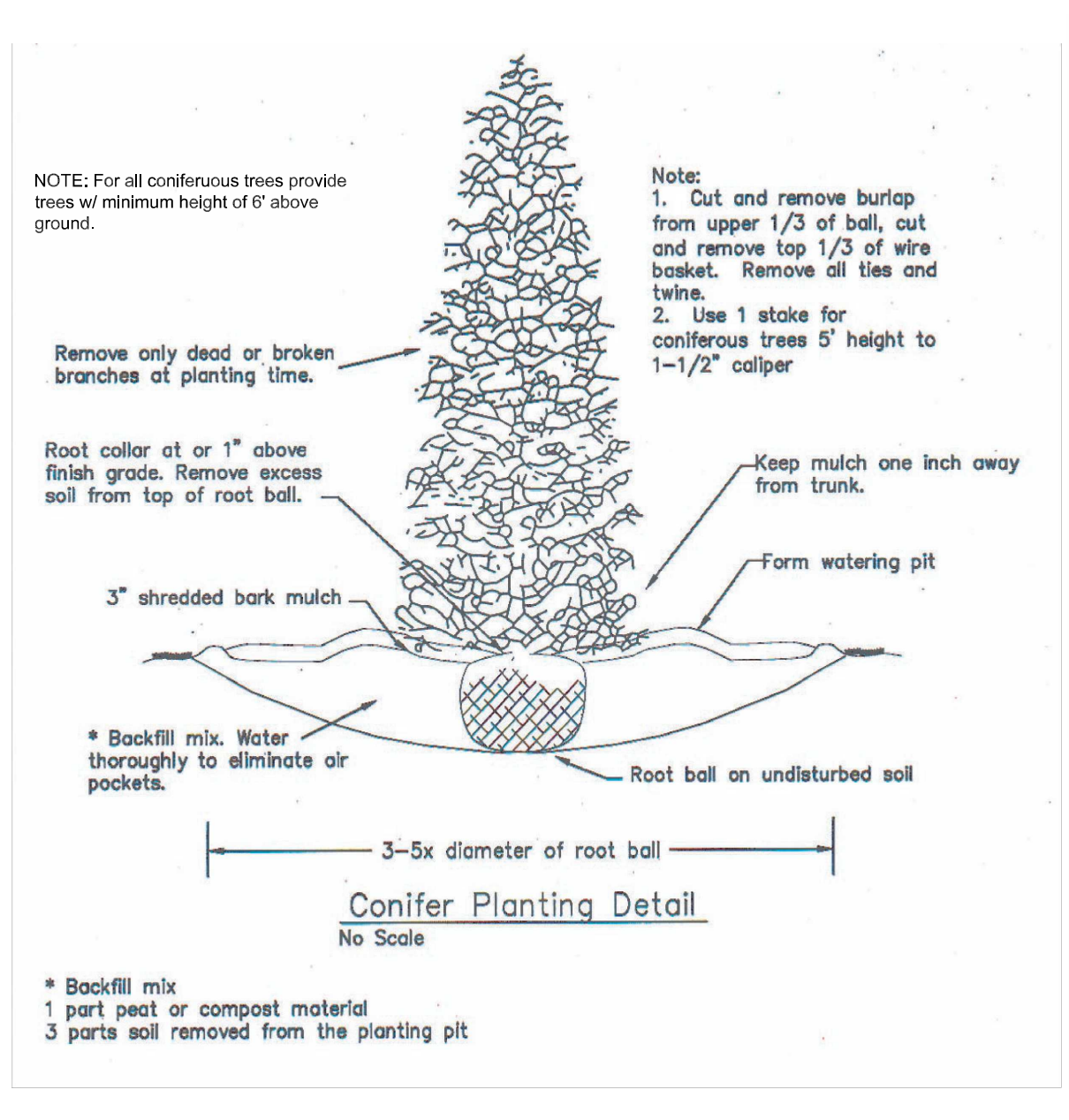
### TREE PLANTING LIST

DECIDUOUS (D)	CONIFER (C)
Acer platanoides - Japanese Maple	Abies fraseri - Fraser Fir
Acer rubrum - Red Maple	Picea abies - Norway Spruce
Quercus alba - White Oak	Picea pungens var. glauca - Blue Colorado Spruce
Quercus rubra - Red Oak	Pinus strobus - Eastern White Pine

Select species for planting from this list for trees to be planted as identified on the plan. Any deviation from this list must be reviewed and approved by the Ferguson Township arborist.



**TREE SURVEY SUMMARY**



**GENERAL NOTES:**

- TREE SURVEY CONDUCTED IN APRIL AND MAY 2022 BY LICHTY ENGINEERING WITH SPECIES IDENTIFICATION BY DR. ERIC BURKHART.
- 2-FOOT TOPOGRAPHIC CONTOURS FROM PENNSYLVANIA LIDAR 2008 WITH MODIFICATIONS AT DETENTION BASINS BY GREGORY SHUPFRAN, PLS DATED 2017 TO SHOW AS-BUILT CONDITIONS.
- ALL TREES NOT SHOWN AS REMOVED SHALL BE CONSIDERED PROTECTED FOR THE PURPOSE OF THIS PLAN.
- THE TRELINER LOCATED ALONG THE COMMON BOUNDARY WITH JENNIFER C. MCCAULEY AND PART OF TREE GROUP A IS SURROUNDED BY DENSE SHRUBBERY AND WAS NOT SURVEYED BY DIRECT MEASUREMENT. THE TREES IN THE AREA WERE SURVEYED BY PHOTOGRAPHIC METHODS APPROVED BY THE FERGUSON TOWNSHIP ARBORIST. IT WAS ESTIMATED THAT 62 TREES ARE LOCATED IN THE AREA WITH CHEST NUT CALIPER GREATER THAN 4 INCHES. THE BULCRUST ESTIMATED THAT THE SPECIES INCLUDED 60% JUGLANS NIGRA, 60% CARYA CORDFORMIS, 2% PRUNUS SEROTINA AND 2% CARYA OVATA.
- DURING THE ORIGINAL CHURCH LAND DEVELOPMENT IN 2003 AND AGAIN WHEN PHASE 2 WAS ORIGINALLY APPROVED, THE CHURCH WAS GRANTED A VARIANCE FROM THE BUFFER YARD REQUIREMENT BECAUSE THE LAND DEVELOPMENT WAS LIMITED TO A SMALL PORTION OF THE 25-ACRE LOT ALONG WEST COLLEGE AVENUE AND THE EXISTING PROPERTY BOUNDARIES ARE DENSELY COVERED WITH TREES. WITH THE NEWLY PROPOSED DEVELOPMENT, THE AREA TO BE DEVELOPED REMAINS IN THE AREA ALONG WEST COLLEGE AVENUE AND THE PROPERTY BOUNDARIES REMAIN DENSELY VEGETATED. AN ANALYSIS OF TREES LOCATED ON THE PROPERTY WITHIN 30 FEET OF THE PROPERTY BOUNDARY, INDICATES A TREE CREDIT OF APPROXIMATELY 442 TREES IN ACCORDANCE WITH 22-513.3(D)(4)(i). THE CHURCH IS REQUESTING EXTENSION OF THE VARIANCE.

- LESS THAN 4% OF THE TREE CANOPY ON THE SITE WILL BE IMPACTED BY THE PROPOSED CONSTRUCTION AND EARTH BORROW AND DISPOSAL SITE. A TOTAL OF THIRTEEN TREES, THREE PRESERVATION PLAN PROPOSES PLANTING THIRTEEN NEW TREES TO BALANCE THE LOSS. THE LOCATION OF THE NEW TREES IS SHOWN ON THE PLAN AND INCLUDES TEN DECIDUOUS TREES AND THREE CONIFEROUS TREES. THE TREES PLANTED TREES MUST BE ON THE CURRENT OFFICIAL FERGUSON TOWNSHIP TREE LIST.
- THE WASTE STORAGE AREA WILL REMAIN ENCLOSED WITHIN A FENCE, THE CHURCH CONTINUES TO MAINTAIN THE FENCE WHICH SHIELDS THE WASTE AREA FROM VIEW.
- ALL PLANTING SHALL BE IN ACCORDANCE WITH "GUIDE TO PLANTING IN FERGUSON TOWNSHIP" AND DETAILS ON THIS PLAN.
- NO SUBSTITUTIONS SHALL BE ALLOWED FOR THE SPECIFIED PLANT LIST UNLESS REVIEWED AND APPROVED BY FERGUSON TOWNSHIP.
- NO TREES OR SHRUBS SHALL BE PLANTED IN THE STORMWATER MANAGEMENT AREAS UNLESS APPROVED BY THE TOWNSHIP.
- LANDSCAPE PLANTINGS WITHIN 10-FEET OF A STRUCTURE SHALL BE AT THE DISCRETION OF THE OWNER.
- NO TREES ARE WITHIN THE WEST COLLEGE AVENUE RIGHT-OF-WAY.

NOTE: FOR INDIVIDUAL TREE IDENTIFICATION, SEE TREE SURVEY AND PROTECTION PLAN.

### ABUTTING PROPERTY OWNERS

NAME	ADDRESS
Matthew R. Curt	3745 West College Ave., State College, PA 16801
North American Islamic Trust	PO Box, 10185, State College, PA 16805
Jennifer C. McCauley	3705 Shingletown Road, State College, PA 16801
Thomas J. & Linda D. Verbeck	2390 Old Gatesburg Rd., State College, PA 16801
Danny R. & Pamela M. Harner	2191 West Whitehall Road, State College, PA 16801

**Required Buffer Yard Plantings**

BY ACTION OF THE FERGUSON TOWNSHIP BOARD OF SUPERVISORS ON THIS SITE IS EXEMPT FROM MEETING THE BUFFER YARD REQUIREMENTS SET FORTH IN THE CORRIDOR OVERLAY DISTRICT AND BUFFER YARD ORDINANCES. THE FOLLOWING CONDITIONS ARE ATTACHED TO THIS EXEMPTION:

- EXISTING TREES ALONG THE MCCAULEY, GRASSLYN AND HARNER PROPERTY BOUNDARIES SHALL NOT BE DISTURBED WITHOUT TOWNSHIP APPROVAL.
- EXISTING OR FUTURE OCCURRENCE OF RUSSIAN OLIVE OR MULTIFLORA ROSE AT ANY LOCATION ON THE PROPERTY MAY BE REMOVED AND ARE ENCOURAGED TO BE REMOVED BY THE TOWNSHIP BECAUSE THEY ARE INVASIVE FOREIGN SPECIES WHICH ARE NOT A RECOGNIZED TOWNSHIP PLANT MATERIAL.

Salvation Baptist Church  
3645 West College Ave - Ferguson Twp - Centre Co - PA  
LAND DEVELOPMENT PLAN UPDATE  
LANDSCAPE PLAN

DRAWN BY: JEL  
02/26/2022

REVISIONS  
08/09/2022  
08/09/2022

ORIGINAL DATE OF ZONING PERMIT APPLICATION  
02/09/2022

SCALE: 1"=50'

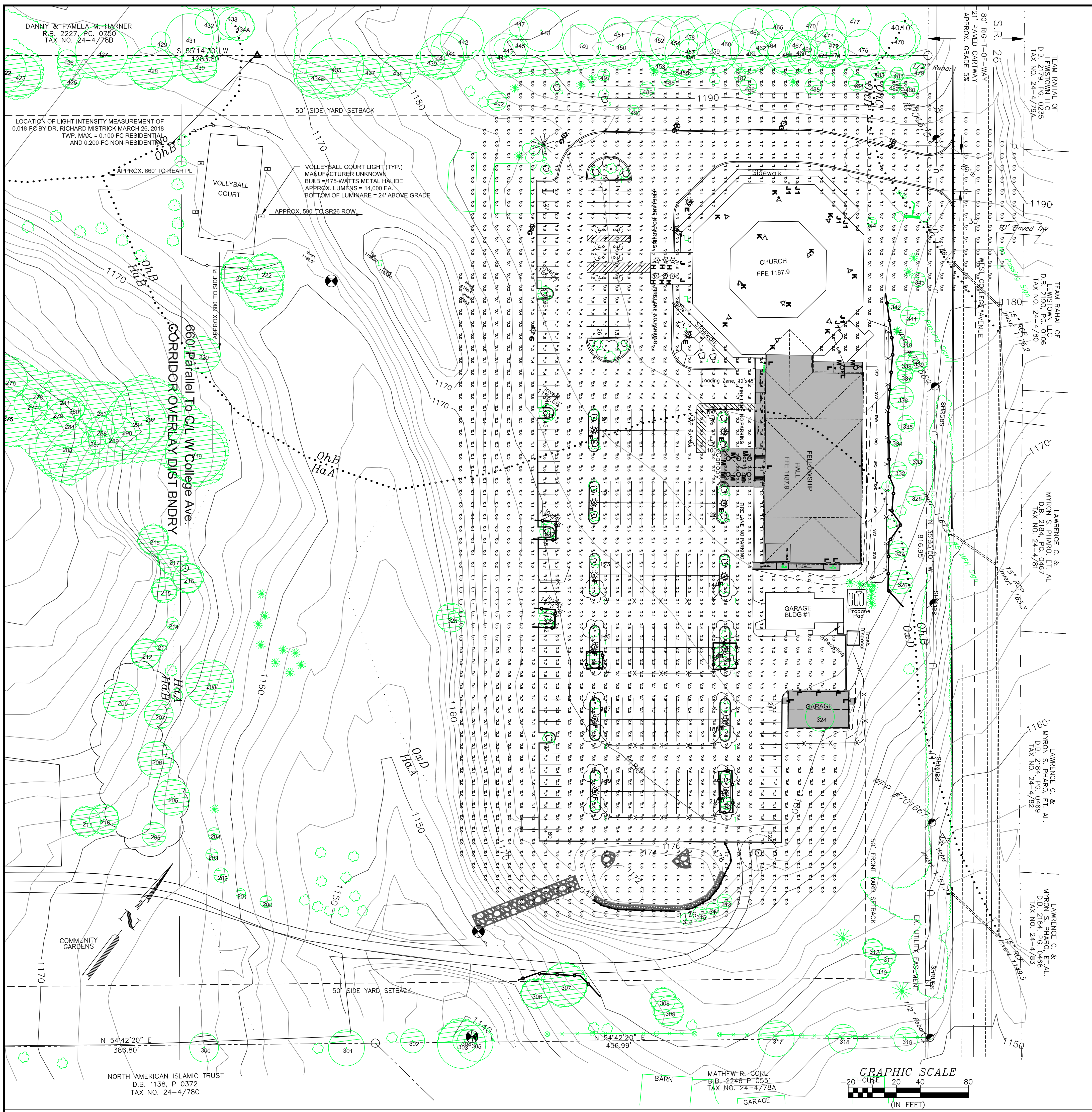
SOURCE: Survey

LS-1

4

11





**VOLLEYBALL LIGHTS MONITORING REPORT**  
 Richard Mistrick, PhD, PE 358 McBeth St. State College, PA 16801

Joe Lichty  
 Lichty Engineering  
 687 Berkshire Dr.  
 State College, PA 16803

Dear Joe,

This letter contains a summary of illuminance measurements taken at the neighboring property line along the lighted volleyball court at the Russian Baptist Church, which is located at 3645 W. College Avenue in Ferguson Township. A point on the property line that is closest to the court, and which had a direct view to the four installed luminaires was measured. The horizontal illuminance at this point on the ground at the property line was 0.038 fc, which is well below the Ferguson Twp exterior lighting ordinance limit of 0.1 fc for neighboring residential properties and 0.2 fc for non-residential properties.

The Metal Halide luminaires that are installed are designed to emit no light above the horizontal, but in this application they are tilted slightly above the horizontal as they are currently mounted on the poles. This slight tilt directs light primarily parallel to the property line and within the church's property, with a small amount above the horizontal plane. Even at the current mounting positions, they may still meet the IES cutoff distribution criteria, but this condition cannot be evaluated without knowledge of the luminaire manufacturer and catalog number. The fact that the terrain slopes upward behind the lighting equipment on both sides of the court further aids in keeping the emitted light in close proximity to the court.

Given the location of the volleyball court, and the low measured illuminance at the property line, it does not appear that these luminaires should be objectionable to any current or future neighbors and I recommend that Ferguson Township permit the installation to proceed as installed.

Respectfully submitted,  
 Richard Mistrick, PhD, PE, FIES  
 Lighting Consultant

**VOLLEYBALL LIGHTING NOTES**

- VOLLEYBALL LIGHTS ARE EXISTING AT TIME OF PERMITTING.
- LIGHTS WERE INSTALLED AFTER DEMOLITION AT ANOTHER SITE.
- MANUFACTURER OF LUMINAIRES IS UNKNOWN.
- EACH LUMINARY INCLUDES A 175-W METAL HALIDE BULB WITH A POWER RATING OF APPROXIMATELY 14000-LUMENS.
- THE LIGHT STANDARDS ARE APPROXIMATELY 24-FT ABOVE GRADE OR EL. 1150-FM.L.S.
- LIGHT IS DIRECTED TOWARD THE VOLLEYBALL PLAYING SURFACE.
- IN SITU MEASUREMENT OF LIGHT POWER WAS USED IN LUI OF MODELING SINCE THE MANUFACTURER'S DATA IS UNAVAILABLE AND THE LIGHT ARE ALREADY IN PLACE.
- MEASUREMENT WAS TAKEN MARCH 26, 2018 BY DR. RICHARD MISTRICK AT THE NEAREST PROPERTY BOUNDARY (APPROXIMATELY 30-FT FROM THE NEAREST LUMINARY).
- HORIZONTAL LUMINANCE MEASURED AT THE PROPERTY BOUNDARY AFTER FULL WARMUP OF THE LIGHTS WAS 0.018-FC. FERUGSON TOWNSHIP ORDINANCE CHAPTER 4 SECTION F. OUTDOOR SPORTS AND RECREATIONAL LIGHTING REQUIRES THAT LUMINANCE BE LIMITED TO 0.100-FC FOR ADJACENT RESIDENTIAL USES AND 0.200-FC FOR ADJACENT NON-RESIDENTIAL USES.
- THE LIGHTS AS INSTALLED MEET THIS REQUIREMENT BY A FACTOR OF 5.6 FOR THE MOST STRINGENT RESIDENTIAL STANDARD.

**LEGEND**

- 1180 EXISTING CONTOUR LINES
- FINISHED GRADE CONTOURS
- PROPERTY BOUNDARY
- SETBACK
- PENNDOT CENTERLINE
- ROW/SEASIDE
- POLE LIGHTS - PARKING LOT AND VOLLEYBALL COURT
- EXISTING TREES AND SHRUBS
- EXISTING TREELINE
- PROPOSED NEW STRUCTURES

**2022 NOTES**

- NO NEW EXTERIOR AREA LIGHTING IS PROPOSED IN ADDITION TO APPROVED PHASE 2 LIGHTING. INFORMATION FOR THESE LIGHTS ARE INCLUDED IN THIS SUBMISSION.
- ANY NEW EXTERIOR LIGHTS MOUNTED ON BUILDINGS SHALL BE SHIELDED AND SHINE DOWN TO ILLUMINATE THE IMMEDIATE AREA NEXT TO LIGHT. NO SPOT OR FLOOD LIGHTS OR OTHER LIGHTS SHALL BE INSTALLED WHICH SHINE TOWARDS STREETS OR NEIGHBORING LOTS.
- VOLLEYBALL COURT LIGHTS WERE PERMITTED IN 2018 USING MONITORING OF ACTUAL LIGHT INTENSITY AT THE PROPERTY BOUNDARY. NO NEW LIGHTS ARE PROPOSED IN THIS AREA. ONLY EXTERIOR LUMINAIRES ON THE EXTERIOR OF THE TWO NEW BUILDINGS ARE TYPE L EMERGENCY LIGHTS AND TYPE M DOWN MOUNT LED CAN LIGHTS. THE ONLY IMPACT TO THE LIGHTING PLAN IS THE SURFACE DIRECTLY UNDER THE RECESSED LED CANS. SPECIFICATIONS FOR THE TYPE M LIGHTS ARE PROVIDED BELOW.

**DESIGN NOTES**

- ALL POLES ARE 22'. FIXTURE IS 17" HIGH.
- ALL CALCULATIONS ARE TO GRADE.
- LIGHT LEVELS ARE BASED ON MAINTAINED LIGHT OUTPUT.

**LUMINAIRE SCHEDULE**

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF
E	5	LITHONIA KV6 400M ASYFL TB SPF20 / KW6 SSPZ2-5.0-17-2	SQUARE AREA LIGHT, ASYMMETRIC DISTRIBUTION, FLAT LENS, MOUNTED ON 22' POLE PLUS BASE.	ONE 400-WATT CLEAR E7-37 METAL HALIDE, VERTICAL BASE UP POS.	LI04433.ies	36000	0.72	
F	3	LITHONIA KV6 400M SYMFL TB SPF20 / KW6 SSPZ2-5.0-17-2	SQUARE AREA LIGHT, SYMMETRIC DISTRIBUTION, FLAT LENS MOUNTED ON 22' POLE PLUS BASE.	ONE 400-WATT CLEAR E7-37 METAL HALIDE, VERTICAL BASE UP POS.	LI04432.ies	36000	0.72	
G	8	LITHONIA KV6 100M ASYFL EHS TB SPF20 / KW6 SSPZ2-5.0-17-2	SQUARE AREA LIGHT, ASYMMETRIC DISTRIBUTION, FLAT LENS, HOUSE SHIELD, MOUNTED ON 22' POLE PLUS BASE, SHIELD.	ONE 400-WATT CLEAR E7-37 METAL HALIDE, VERTICAL BASE UP POS.	LI04434.ies	36000	0.72	
H	2	LITHONIA 6B3 /6LFS	RECESSED DOWNLIGHT IN CANOPY MOUNTED AT 14' ABOVE GRADE	100PAR/HR/FL40°	100PAR30_HI_R_FL40.ies	2070	1.00	
J	2	HINKLEY 2336	WALL MOUNT INCAND. AREA LIGHT AT 7'-4" ABOVE GRADE	(4) 40W/CANDLE	*	1220	*	
J1	8	HINKLEY 2335	WALL MOUNT INCAND. AREA LIGHT AT 7'-4" ABOVE GRADE	(3) 40W/CANDLE	*	990	*	
K	11	RAD LIGHTING QF200	SURFACE MOUNT BLDG. ILLUMINATING SPOT MTD. ON ROOF SURFACE	ONE 200-WATT HALOGEN	*	3600	*	
L	12	LITHONIA ELACDSH0606	SURFACE MOUNT BLDG. EMERGENCY LIGHTING MTD. ON WALL SURFACE	ONE 8-WATT HALOGEN	*	NOT RATED	*	
M	8	RAD LIGHTING WFL LL LED 50K 90CRI MM MM	RECESSED DOWNLIGHT ILLUMINATING SPOT MTD. ON CEILING SURFACE	ONE 210-WATT LED	*	1150	*	

\* NOT AVAILABLE - SEE GENERAL NOTE NO. 2

**STATISTICS**

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
GRID @ GRADE	+	1.0 fc	11.0 fc	0.0 fc	N/A	N/A
ROADWAY	X	1.7 fc	2.6 fc	0.2 fc	13.0:1	8.7:1
PARKING LOT	X	2.0 fc	6.3 fc	0.9 fc	7.0:1	2.3:1

**GENERAL NOTES**

- LIGHTING DESIGN AND LIGHT INTENSITY ANALYSIS BY ZANE LEEPER OF LAFACE & MCGOVERN ASSOCIATES, PHONE 412-854-3200 AT THE DIRECTION OF LIGHT ENGINEERING DURING ORIGINAL PHASE 2 PLANNING.
- EXTERIOR WALL MOUNT FIXTURES FROM HINKLEY LIGHTING DO NOT HAVE AVAILABLE LIGHT INTENSITY FILE AND WERE NOT INCLUDED IN THE ANALYSIS. THE LOW WATTAGE INCANDESCENT FIXTURES WOULD PROVIDE INSIGNIFICANT CHANGES IN THE MODEL EXCEPT IN A SHORT RADIUS FROM THE FIXTURE. THE FIXTURES PROVIDE AREA ILLUMINATION IMMEDIATELY ADJACENT TO DOORS AND BUILDING WALL ILLUMINATION ABOVE DOORS.
- RAD LIGHTING SURFACE MOUNT SPOTS ARE MOUNTED ON ROOF AND SHINE ONTO BUILDING AND STEEPLE FOR BUILDING ILLUMINATION IN ACCORDANCE WITH SECTION 4.H.4-145 OF THE FERUGSON TOWNSHIP LIGHTING ORDINANCE. BECAUSE OF THEIR MOUNTING LOCATION ON THE ROOF AND ATTITUDE (ONTO THE BUILDING) THE LIGHTS ARE NOT INCLUDED IN THE MODELING ANALYSIS.

**SPECIFICATIONS FOR NEW TYPE M EXTERIOR LED CAN LIGHTS**

**LITHONIA LIGHTING**

**FEATURES & SPECIFICATIONS**

**WF4/WF6/WF8 4", 6" and 8" LED Wafer Module**

**4" 6" and 8" LED Wafer Module**

**Color Temperature**

**PHOTOMETRICS**

**ENERGY DATA**

**ENERGY DATA**

**LIGHT ENGINEERING**  
 687 Berkshire Drive, State College, PA 16803  
 (814) 235-1141  
 Lichty.Engineering@comcast.net

**PROFESSIONAL ENGINEER**  
 JOSEPH EDWARD LICHTY  
 LICENSE NO. 28827-E

DRAWN BY: JEL  
 02/20/2022

REVISIONS  
 08/03/2022

ORIGINAL DATE OF ZONING PERMIT APPLICATION  
 02/09/2022

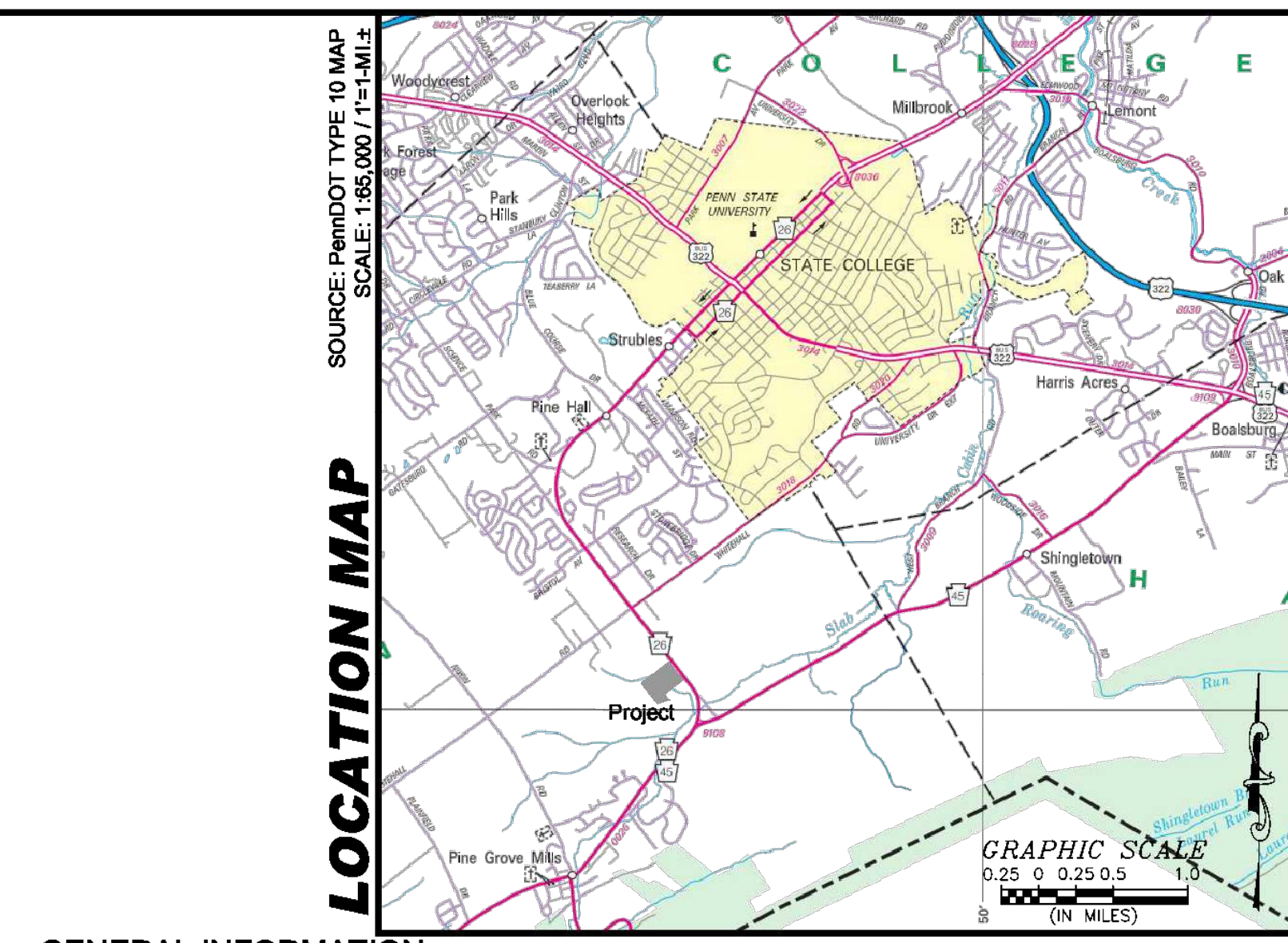
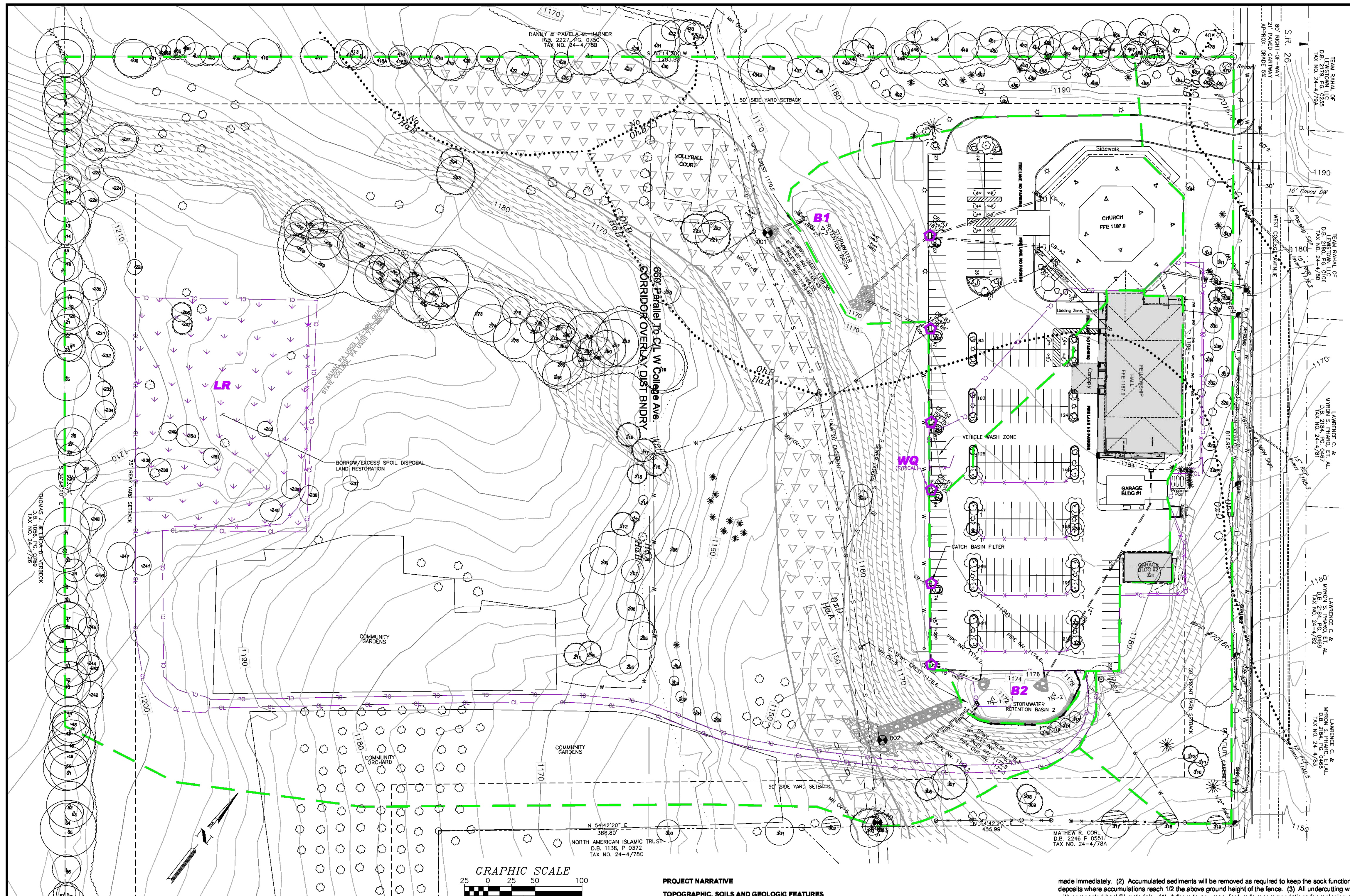
SOURCE  
 Survey

SCALE: 1"=40'

Salvation Baptist Church  
 3645 West College Ave - Ferguson Twp - Centre Co - PA

**LAND DEVELOPMENT PLAN UPDATE**  
**LIGHTING PLAN**

5 11



**GENERAL INFORMATION**

**PROPERTY OWNER**  
 RUSSIAN CHURCH OF CHRIST  
 3465 WEST COLLEGE AVE  
 STATE COLLEGE, PA 16803  
 DEED BOOK 1360, PAGE 00006  
 TAX PARCEL: 24-004-078-0000

**MUNICIPALITY: FERGUSON TWP** COUNTY: CENTRE  
 PARCEL/PROJECT AREA: 26.01-AC TOTAL DISTURBED AREA: 3.86-AC  
 LATITUDE/LONGITUDE (CENTER OF PROPERTY): 40°45'10.21"N 77°52'23.57"W  
 USGS QUADRANGLE MAP: JULIAN, PA AND STATE COLLEGE, PA

**BUILDING COVERAGE**  
 EX. BUILDING COVERAGE: 19,336-SF, 0.444-AC, 1.78%  
 NEW BUILDING COVERAGE: 16,106-SF, 0.347-AC, 1.39%  
 PROPOSED TOTAL BUILDING COVERAGE: 34,443-SF, 0.791-AC, 3.16%

**IMPERVIOUS COVER**  
 EX. IMPERVIOUS COVER: 120,443-SF, 2.766-AC, 11.00%  
 PROPOSED TOTAL IMPERVIOUS COVER: 130,300-SF, 3.108-AC, 12.79%  
 EXISTING LAND USE: CHURCH ON AGRICULTURAL LANDS. LAND USE IS TO REMAIN THE SAME AFTER NEW DEVELOPMENT.

**TAX ID NUMBER**  
 24-004-078-0000

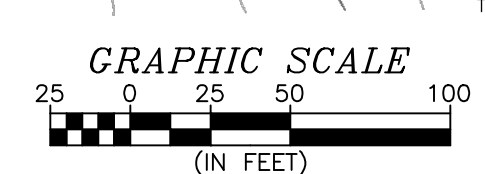
**DEED REFERENCE**  
 RB 1360, P 0005

**ZONING INFORMATION**  
 ZONING DISTRICT: RA - RURAL AGRICULTURE WITH CORRIDOR OVERLAY DIST.  
 MINIMUM SETBACK  
 FRONT YARD: 60'  
 REAR YARD: 75'  
 SIDE YARD: 50'  
 MAX. BUILDING AREA: 30%  
 MAX. IMPERVIOUS COVER: 30%  
 MAX. BUILDING HEIGHT: 45'  
 MIN. LOT WIDTH: 60'

**RECEIVING WATERS: STAB CABIN RUN**  
 CHAPTER 63 CWF, MF. EXISTING HQ-CWF, MF (PFC)  
 WETLANDS DESIGNATION: NOT PRESENT ON SITE  
 SEWAGE DISPOSAL: UNIVERSITY AREA JOINT AUTHORITY  
 WATER SOURCE: STATE COLLEGE BOROUG WATER AUTHORITY

**LEGEND**

--- 1180 ---	EXISTING CONTOUR LINES	---	CL	CONSTRUCTION LIMIT
---	FINISHED GRADE CONTOURS	---	10'-1	SOIL TEST HOLE
---	PROPERTY BOUNDARY	---	⊙	DISCHARGE POINT
---	SETBACK	---	⊕	CATCH BASIN WATER QUALITY FILTER
---	SOIL GROUP BOUNDARY	---	⊕	STEEP SLOPES (>25%)
---	UTILITY LINE	---	⊕	AREA DRAINING TO RAIN GARDEN
---	SEWER/LATERAL	---	⊕	LAND RESTORATION
---	WATERLINE	---	⊕	PROPOSED BUILDING 2021
---	GAS	---	---	---
---	ROW/EASEMENT	---	---	---
---	DRAINAGE BOUNDARY	---	---	---
---	EXISTING TREES AND SHRUBS	---	---	---
---	EXISTING TREELINE	---	---	---
---	FEMA FLOOD BOUNDARY	---	---	---



**PROJECT NARRATIVE**  
**TOPOGRAPHIC, SOILS AND GEOLOGIC FEATURES**

**Site Description:**  
 The site is located within the Ridge and Valley Physiographic Province in Pennsylvania. It is located in the broad Nittany Valley with Tussey Ridge to the south and Bald Eagle Ridge to the north. An unnamed tributary to Stab Cabin Run bisects the property from northwest to southeast. The UHT discharges to Stab Cabin Run where it flows under PA Route 98 near the intersection with PA Route 46. The UHT watershed has a drainage area of 1.06-SQ. MI. and is underlain by Karst geology. The watershed has many depressions and sinkholes upstream of the property. As a result, the drainage area is predominantly and only flows during extreme precipitation events. The channel, which has no bed and banks, remains dry during the rest of the year. No wetlands have been identified on the property.

The site currently includes the Salvation Baptist Church and one out building (a garage/workshop) along with a parking area. A volleyball court and a community garden are also located on the property. Proposed changes include a fellowship hall and a second garage. The fellowship hall was previously approved by Ferguson Township, but never constructed. Total new impervious cover is 16,106-SF (0.35-AC). The disturbed area for the new construction is 3.86-AC.

**Soils Information:**  
 Project soils were identified by using the USDA NRCS Web Soil Survey. The soil boundaries are delineated on the attached PCSM and E&S Control Plans. The soils are identified in the table entitled Soil Characteristics and Limitations. A copy of the web soil survey is included in the accompanying documents.

**Geologic Conditions:**  
 The project is underlain by the Nittany and Axeman formations. The contact between the formations is nearly perpendicular to West College Avenue and bisects the property between the existing church and garage. Both of these formations are Karst by nature (they consist of limestone which is susceptible to sinkhole development). Upon review of the geologic maps available from the PaDEP, no sinkholes or depressions which may develop into sinkholes have been identified on or immediately adjacent to the site property. Many of these conditions are located across West College Avenue to the northeast and to the northwest across Whitehall Road. The Karst conditions allow for a high degree of depressional storage and infiltration so that the unnamed tributary which crosses the property is ephemeral, only flowing during extreme precipitation events. As a result, the unnamed stream is neither perennial nor intermittent and does not have a stream bed and banks or riparian characteristics.

**EROSION AND SEDIMENTATION CONTROL PLAN**

**Description of Control Methodology:**  
 An erosion and sedimentation control plan has been devised to minimize site erosion and resulting sedimentation. Since the project is located within a watershed which the PaDEP has identified as having an existing use designated by PFBC as HQ-CWF (Stab Cabin Run), ABACT compliant BMPs are proposed. Some BMPs must be installed prior to disturbing the earth that drains to them. These are identified in the following discussion. Temporary BMPs shall remain in place until the disturbed area is regraded and vegetated.

**Summary of Erosion and Sediment Control BMPs Including Construction and Maintenance**

**Compost Filter Sock:** An ABACT compliant compost filter sock will be installed where and to the specs shown on the plans. All single sock placement shall be 18" sock unless otherwise noted on the plan. The sock may be filled with compost or wood chips. Installation: (1) Compost socks are to be placed on level grades across slope to intercept runoff flowing down the slope the sock shall be laid flush with the ground. The bottom of the sock shall be placed on a level grade. When it is necessary to cross small depressions, the sock top may deviate slightly from the level grade. Grades in such sections will not exceed one percent (1%), nor will the elevation extend for more than 25 feet. (2) Support stakes will be driven to the required depth below the existing ground surface, and disposed in a trench at the level grade. Stakes are installed on pavement, aggregate shall be placed on the downstream side in place of stakes to keep the sock in place. (3) The sock shall be fully filled with compost or wood chips, but one should be taken not to cause tears by over filling.

Maintenance: (1) The sock installation will be inspected after every precipitation event. Any necessary repairs will be made immediately. (2) Accumulated sediments will be removed as required to keep the sock functional. In all cases, remove deposits where accumulations reach 1/2 the above ground height of the fence. (3) All undercutting will be repaired immediately with compacted backfill materials. (4) Adhere to any manufacturer's recommendations for replacing compost sock due to weathering.

**Water Quality Filter:** Each existing catch basin shall be filled with a water quality filter to provide pollutant removal during runoff events. The BMP will be installed prior to initiation of construction and will remain in place after construction. As such, this BMP qualifies as both an ESC and a PCSM BMP. During construction the TX filters will be used to primarily contain sediment. During the post construction stormwater period, the POCPC filters will be used to reduce oils and greases from the parking lot. See the details sheet for additional information.

**Maintenance:** The filters shall be checked for excess material at least monthly. When the filter collects sediment and debris, the filter shall be removed and cleaned. The material that is removed shall be disposed of in a suitable manner which will minimize pollution. When cleaning the filters, the filters shall be inspected and the damaged filters shall be replaced. The cut sheet on the Details Sheet (ESC-2) provides additional maintenance information.

**Retention Basin:** All retention basins already exist on the property and do not need modified. However, during the construction phase, an aggregate filter shall be placed in front of the lowest outlet orifice on the principal spillway to minimize sediment discharge. This filter shall be removed when all areas draining to the basin are vegetated or cleaned for paved surfaces.

**Maintenance:** The basins must be inspected periodically for signs of sediment, erosion and gully vegetation. This includes the interior of the basin, embankments, inlets and outlets. Issues must be corrected immediately or as soon as possible for vegetation.

**Vehicle Wash Zone:** A vehicle wash zone has been shown on the plan. If vehicles, in particular the lines, become covered with mud on the site, this area shall be used to wash the mud off prior to the vehicles leaving the site on West College Avenue.

**Maintenance:** The wash zone is designed to maximize trapping mud and sediment within the area. When it becomes filled with sediment, the area shall be cleaned and the material shall be transported to a soil stockpile on site which is protected by a BMP. After construction when the wash zone is removed, the area shall be thoroughly cleaned to remove all mud and sediment.

**Temporary Vegetative Surface Stabilization:** Whenever disturbed areas or stockpiles will remain in place for more than 7-days, the area will be stabilized by using the temporary cover specified in the PLANTING SPECIFICATIONS table. If the area will be permanently stabilized within a short period after the 7-day limit or if seed will not germinate due to weather, the area may be temporarily stabilized with mulch only. If temporarily stabilized with mulch, the mulch should be removed and the area seeded and re-mulched during the first available growing season.

**Maintenance:** Temporary vegetation or mulch shall be inspected after each precipitation event to ensure that no areas of erosion are present. If present, the areas should be re-stabilized immediately.

**Vegetative Surface Stabilization:** Permanent vegetative stabilization will be provided on all disturbed areas (including channels) not covered by gravel or pavement at the end of all work. The vegetation will meet the requirements of Planting Specifications table. Note that the rain garden and the land restoration area have specific vegetation specifications outlined in the details.

**Maintenance:** Permanent vegetative areas will be inspected after each precipitation event until greater than 70% cover is maintained for a period of one year. After this time, the locations will be inspected quarterly. Any areas with less than 70% cover or with active erosion will be corrected immediately.

**Disposal of Accumulated Sediment:** All sediment accumulated within BMPs on this site shall be disposed of in one of two ways: (1) mixing with topsoil and/or subsoil and placing on the site in a fill or final grade operation or (2) trucking from the site and disposing in an approved and permitted off-site fill area. Any disposal off-site must be done with the Centre County Conservation District prior to removal from the site.

**Construction Sequence**

1. Hold a pre-construction meeting to go over ESC and PCSM Plans including all BMPs. Identify critical stages in place of construction.
2. Clearly field mark the limits of disturbed areas and the locations of all BMPs. These marks shall remain in place throughout construction and shall be inspected periodically and replaced if removed or destroyed.
3. Install vehicle wash zone for washing muddy vehicles prior to leaving the site.
4. Install compost sock where shown prior to working in the area draining to the sock. No earth disturbance shall be conducted without first installing compost sock or other ESC BMPs which control runoff from the area to be disturbed. Install AASHTO aggregate filters at retention basin principal spillways.

6. Remove and stockpile soil from the areas to be disturbed. Provide temporary seeding of topsoil piles.  
 7. Place topsoil on all disturbed areas which are not paved or built upon. Spread remaining topsoil at the storage site to match existing grades. Seed topsoil with permanent cover as specified in the Planting Specifications. Be sure to utilize reseedow mix when seeding the land reclamation area.  
 8. Maintain all BMPs in place while any area has disturbed earth. Remove temporary controls when areas tributary to them have permanent stabilization. When areas tributary to the stormwater basins have been stabilized, remove the aggregate filters from the principal spillways.

**Operation, Inspection and Maintenance Plan**  
 During construction, the owner and their designated contractors shall be responsible for operation and maintenance of all BMPs. During this period, all facilities shall be inspected at least weekly and after significant precipitation events. Reporting shall use the inspection report provided in the supporting documents, or a reasonable similar document. The reports shall be maintained in a log at the site. Once construction is complete and the vegetation is established such that the contractor responsibility is released, the owner shall become solely responsible for maintenance. If at any time, the maintenance is not performed, Ferguson Township has the right to enter the property to perform the work and invoice the responsible parties for assessable expenses. After construction, inspectors should continue at least twice per year. When issues are encountered, the corrective measures should be completed as soon as conditions allow. Monitoring reports shall provide the date and time of inspection, any issues encountered and the date and time of the completion of corrective measures.

**Recycling and Disposal Methods**  
 During construction, all contractors shall make every effort to recycle materials and supplies, when possible. When recycling is not possible, disposable items shall be transported to a certified land fill or disposal area sanctioned by the Commonwealth. In no case shall anything other than native soil and rock be disposed of on the property. If the contractor decides to store fuel, grease or other potentially polluting items on-site, they must develop and maintain a PPC Plan in accordance with PaDER and USEPA criteria. Safe and secure storage facilities for such items must be maintained.

**Thermal Impact Analysis**  
 Thermal impacts are minimized on the site by minimizing the extent of impervious surfaces such as rooftops and pavement. Only 13% of the site is proposed to be impervious. In addition, all impervious areas are discharged to vegetated areas, either lawn, waste areas, detention basins or rain gardens.

**Antidegradation**  
 The project is located in the Stab Cabin Run watershed which has an existing use designated by PFBC as HQ-CWF. As a result, antidegradation must be incorporated into the design. ABACT compliant BMPs have been incorporated into the ESC Plan including compost sock and a vegetated swale with check dam. PCSM BMPs have been shown to provide acceptable water quality protection for the watershed (see Stormwater Calculations of PCSM narrative).

**Riparian Buffer Management**  
 As discussed previously, the low lying stream area only flows during extreme runoff events and does not exhibit the characteristics of a perennial stream. Consequently, stream buffers are not present and would not benefit the stream.

**Soil Characteristics and Limitations**

Map Key	Name	Slope (%)	Hydrologic Soil Group	Depth to Restraining Layer (in)	Depth to Bedrock (in)	Depth to Seasonal Water (in)
HsA	Hagerstown silt loam	0-3	B	43-98	43-98	>80
HsB	Nolin silt loam	3-8	B	72-99	72-99	>80
No	Nolin gill loam	0-5	B	72-99	72-99	>80
OhB	Opequon-Hagerstown complex	3-8	D	12-20	12-20	>80
OhC	Opequon	8-15	D	12-20	12-20	>80
OhD	Opequon Rock outcrop	0-5	D	10-19	10-19	56-72

**Pre- and Post Development Peak Runoff Estimates**

Return Period (Years)	Pre-Development* (CFS)	Post Development Undeveloped (CFS)	Post Development Detained (CFS)	Post Development No Pervious+ (CFS)
1	3.0	10.7	3.1	7.0
2	7.1	15.0	6.5	1.6
10	23.4	31.5	21.3	2.7
50	48.4	56.1	46.1	5.7
100	61.9	69.1	59.8	8.7
100	Clogged Principal Spwy.	50.8	-	-

**Historical Property Land Use**  
 All lands on the property as well as the adjacent surrounding properties, have been historically utilized for agricultural purposes. This property has been used as a church property since the existing church was constructed in 2003. Historic and new residences dot the adjacent properties in the rural agricultural zoning.

\* For the purpose of peak runoff analysis, pre-developed is based on conditions prior to the existing buildings and pavement. This is because the existing detention was originally designed to handle the currently proposed development. No new detention is proposed.  
 +These values reflect a mode that assumes that only the impervious areas are present. The time of concentration is also reduced by 20% to reflect this assumption.

NOTE: PLEASE REFERENCE THE STORMWATER MANAGEMENT PLAN AND REPORT AS WELL AS THE NPDES POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN FOR ADDITIONAL INFORMATION.

NPDES PERMIT 140085 ISSUED JULY 8, 2022

**LICHTY ENGINEERING**  
 687 Berkshire Drive  
 State College, PA 16803  
 LicHy\_Engneering@comcast.net

DRAWN BY: JEL 12/20/2021

REVISIONS  
 06/30/2022  
 09/02/2022

SCALE: AS SHOWN

SOURCE: Survey

**ESC-1**

**1**

**Russian Church of Christ**  
**3645 West College Ave - Ferguson Twp - Centre Co - PA**  
**NPDES ESC PLAN - PLAN SHEET**  
**FOR WEST COLLEGE AVENUE CHURCH IMPROVEMENTS**

**LICHTY ENGINEERING**  
 687 Berkshire Drive  
 State College, PA 16803  
 LicHy\_Engneering@comcast.net

**PROFESSIONAL ENGINEER**  
 JOSEPH EDWARD LICHTY  
 LICENSE NO. 100-231-1778

DRAWN BY: JEL 02/09/2022

REVISIONS  
 06/30/2022  
 09/02/2022

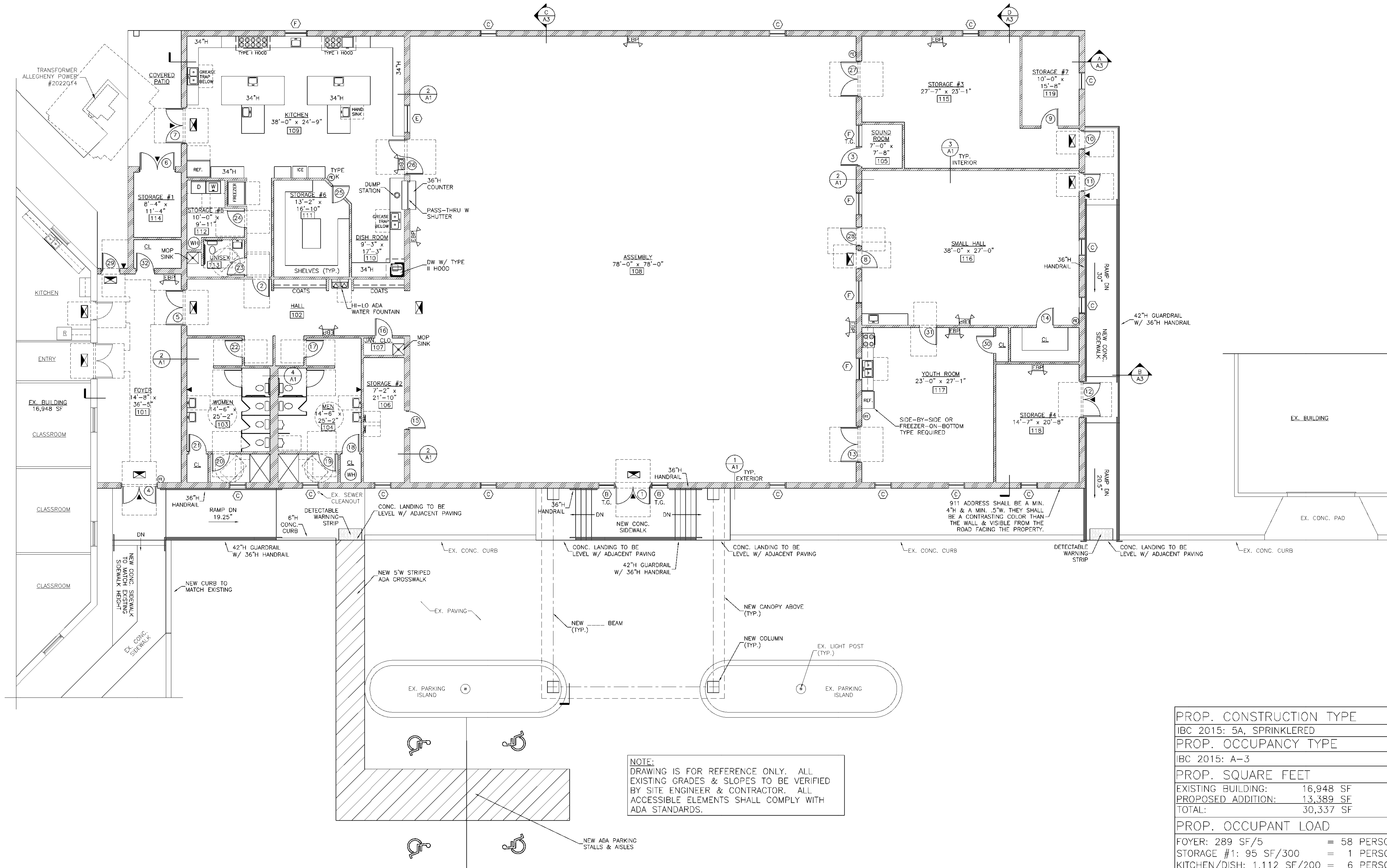
SCALE: AS SHOWN

**SALVATION BAPTIST CHURCH**  
**3645 West College Ave - Ferguson Twp - Centre Co - PA**  
**LAND DEVELOPMENT PLAN UPDATE**  
**NPDES EROSION & SEDIMENTATION CONTROL PLAN**  
**PLAN AND NARRATIVE**

**6**

**11**





**PROPOSED FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

NOTE:  
DRAWING IS FOR REFERENCE ONLY. ALL  
EXISTING GRADES & SLOPES TO BE VERIFIED  
BY SITE ENGINEER & CONTRACTOR. ALL  
ACCESSIBLE ELEMENTS SHALL COMPLY WITH  
ADA STANDARDS.

**LEGEND**

- NEW WALL
- EXIT SIGN
- EMERGENCY LIGHT BATTERY PACK
- REMOTE HEAD
- FIRE EXTINGUISHER

<b>PROP. CONSTRUCTION TYPE</b>	
IBC 2015: 5A, SPRINKLERED	
<b>PROP. OCCUPANCY TYPE</b>	
IBC 2015: A-3	
<b>PROP. SQUARE FEET</b>	
EXISTING BUILDING:	16,948 SF
PROPOSED ADDITION:	13,389 SF
TOTAL:	30,337 SF
<b>PROP. OCCUPANT LOAD</b>	
FOYER: 289 SF/5	= 58 PERSONS
STORAGE #1: 95 SF/300	= 1 PERSON
KITCHEN/DISH: 1,112 SF/200	= 6 PERSONS
STORAGE #5: 89 SF/300	= 1 PERSON
STORAGE #6: 213 SF/300	= 1 PERSON
SOUND: 54 SF/100	= 1 PERSON
STORAGE #2: 157 SF/300	= 1 PERSON
ASSEMBLY: 6,084 SF/15	= 406 PERSONS
STORAGE #3: 650 SF/300	= 3 PERSONS
SMALL HALL: 1,026 SF/15	= 69 PERSONS
YOUTH ROOM: 623 SF/15	= 42 PERSONS
STORAGE #4: 302 SF/300	= 2 PERSONS
STORAGE #7: 157 SF/300	= 1 PERSON
TOTAL:	=592 PERSONS



**ALBERT A. DROBKA ARCHITECT**  
P.O. BOX 256  
1352 S. ATHERTON ST.  
STATE COLLEGE, PA.  
(814) 238-0710

**PROJECT**  
RUSSIAN BAPTIST CHURCH ADDITION  
3645 W. COLLEGE AVE.  
STATE COLLEGE, PA 16801

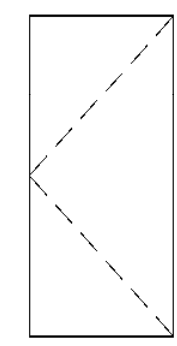
<b>REVISION DATE</b>	
<b>SHEET TITLE</b>	PROP. FLOOR PLAN W/ RAMPS & STAIRS
<b>DATE</b>	07/12/21
<b>SCALE</b>	AS NOTED
<b>DRAWN BY:</b>	MTM
<b>CHECKED BY:</b>	AAD
<b>SHEET NO.</b>	A1
<b>PROJECT #</b>	020-141

<b>DRAWN BY:</b> JEL	07/20/21
<b>REVISIONS</b>	08/10/2022
<b>ORIGINAL DATE OF ZONING PERMIT APPLICATION</b>	12/09/2022
<b>SCALE:</b> AS SHOWN	
<b>SOURCE:</b> Albert A. Drobka, Architect	



#	TYPE	MATL	WIDTH	HEIGHT	THICK	FINISH	HDW	GRP	FRAME	FINISH	LITE	REMARKS
1	B	INSULATED METAL	12'-0"	14'-0"	1 3/4"	PAINT	2		PAINT			OVERHEAD GARAGE DOOR
2	B	INSULATED METAL	12'-0"	14'-0"	1 3/4"	PAINT	2		PAINT			OVERHEAD GARAGE DOOR
3	B	INSULATED METAL	12'-0"	14'-0"	1 3/4"	PAINT	2		PAINT			OVERHEAD GARAGE DOOR
4	A	INSULATED METAL	3'-0"	6'-8"	1 3/4"	PAINT	1		PAINT			
5	A	INSULATED METAL	3'-0"	6'-8"	1 3/4"	PAINT	1		PAINT			

DOOR TYPES



DOOR TYPE A  
3/0x6/8x1 3/4  
INSULATED METAL  
U-VALUE OF .77  
OR BETTER

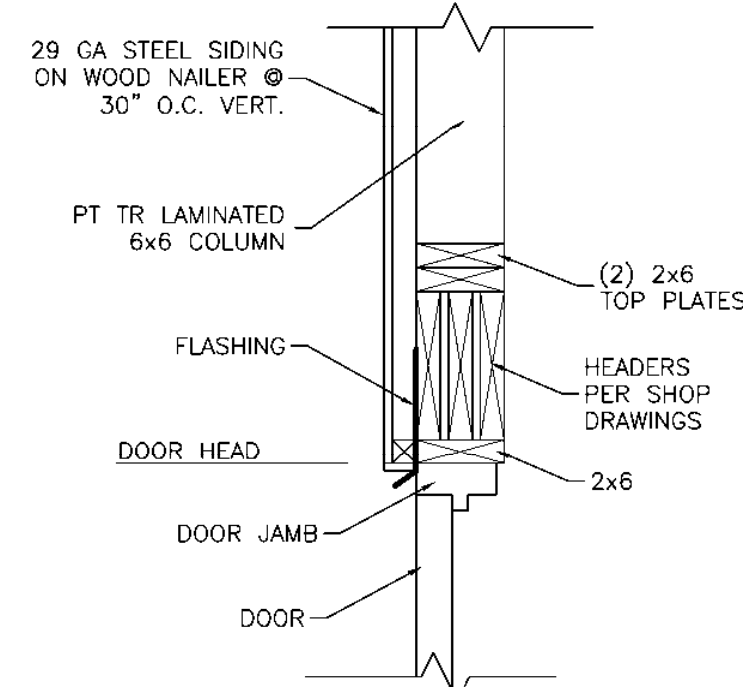


DOOR TYPE B  
12/0x14/0x1 3/4  
HOLLOW METAL  
OVERHEAD DOOR  
U-VALUE OF .77  
OR BETTER

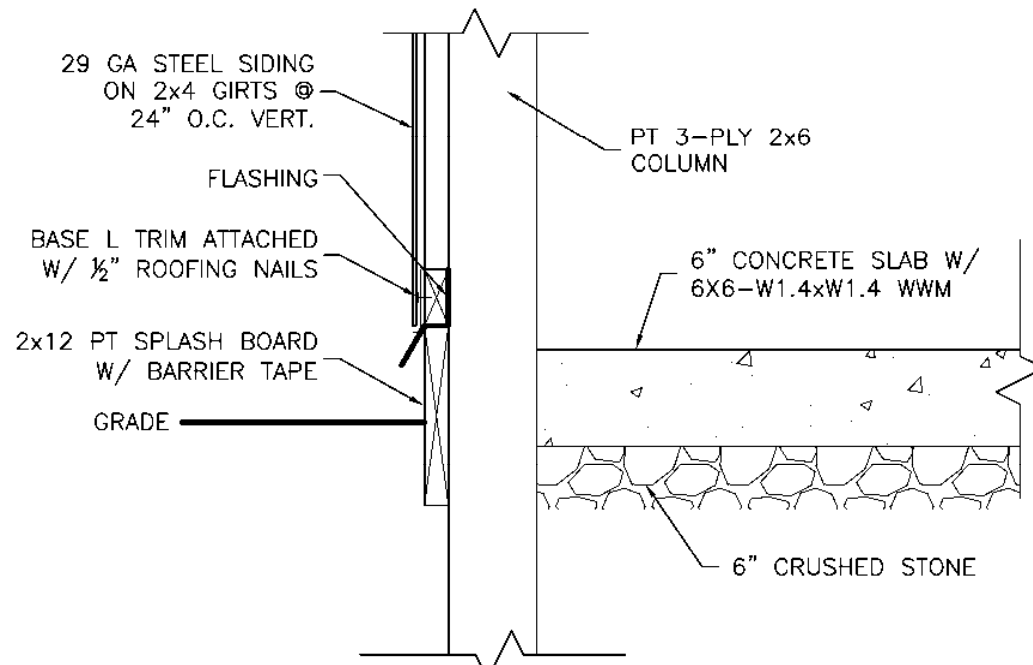
HARDWARE TYPES

HARDWARE SET #1  
3 EA. RINGES  
THRESHOLD  
WEATHER STRIPPING  
CLOSER  
LEVER HANDLES  
DEADBOLT

HARDWARE SET #2  
STANDARD HARDWARE  
FROM DOOR MANUFACT.



DOOR FLASHING DETAIL  
SCALE: 1" = 1'-0"

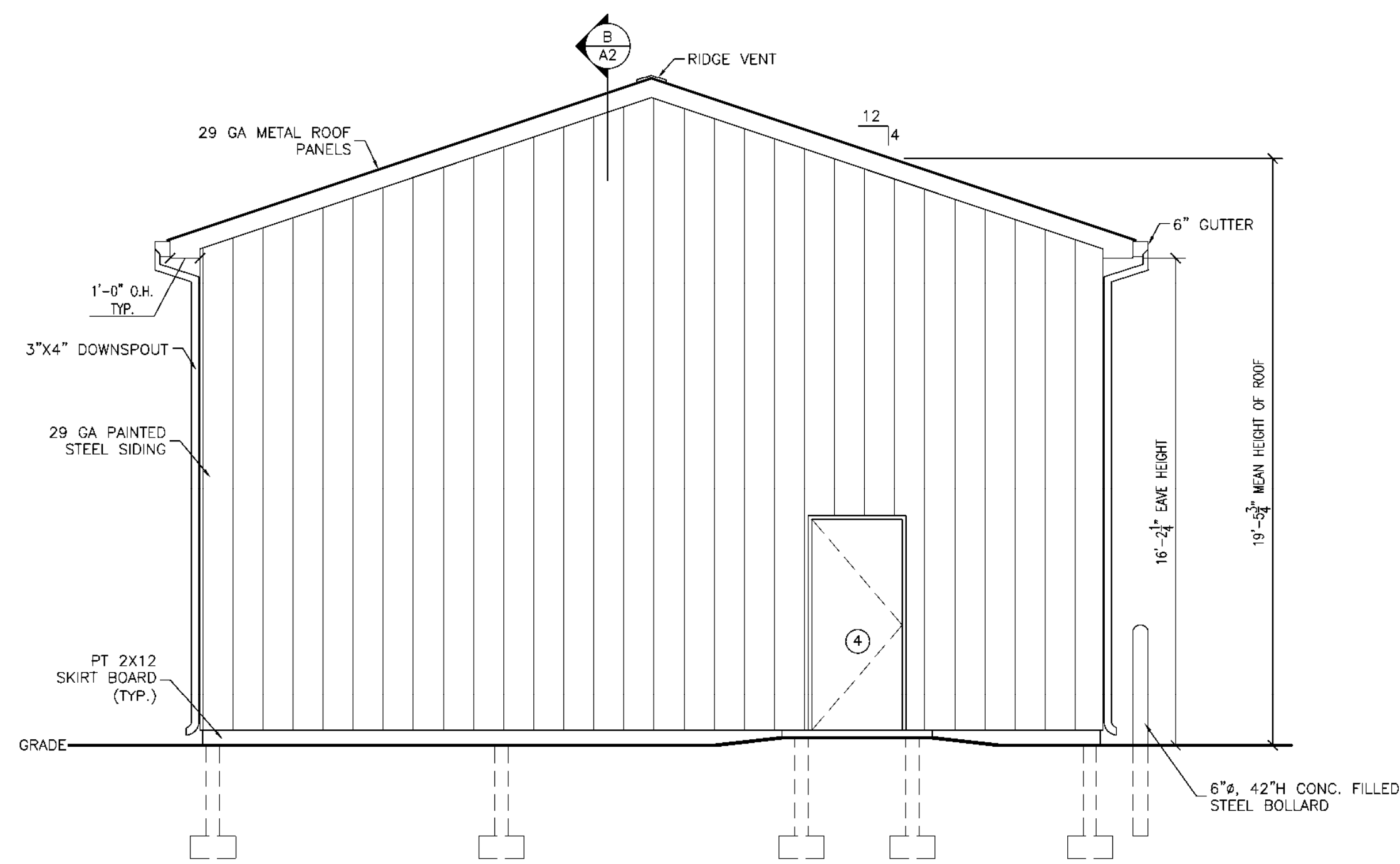


FLOOR FLASHING DETAIL  
SCALE: 1" = 1'-0"

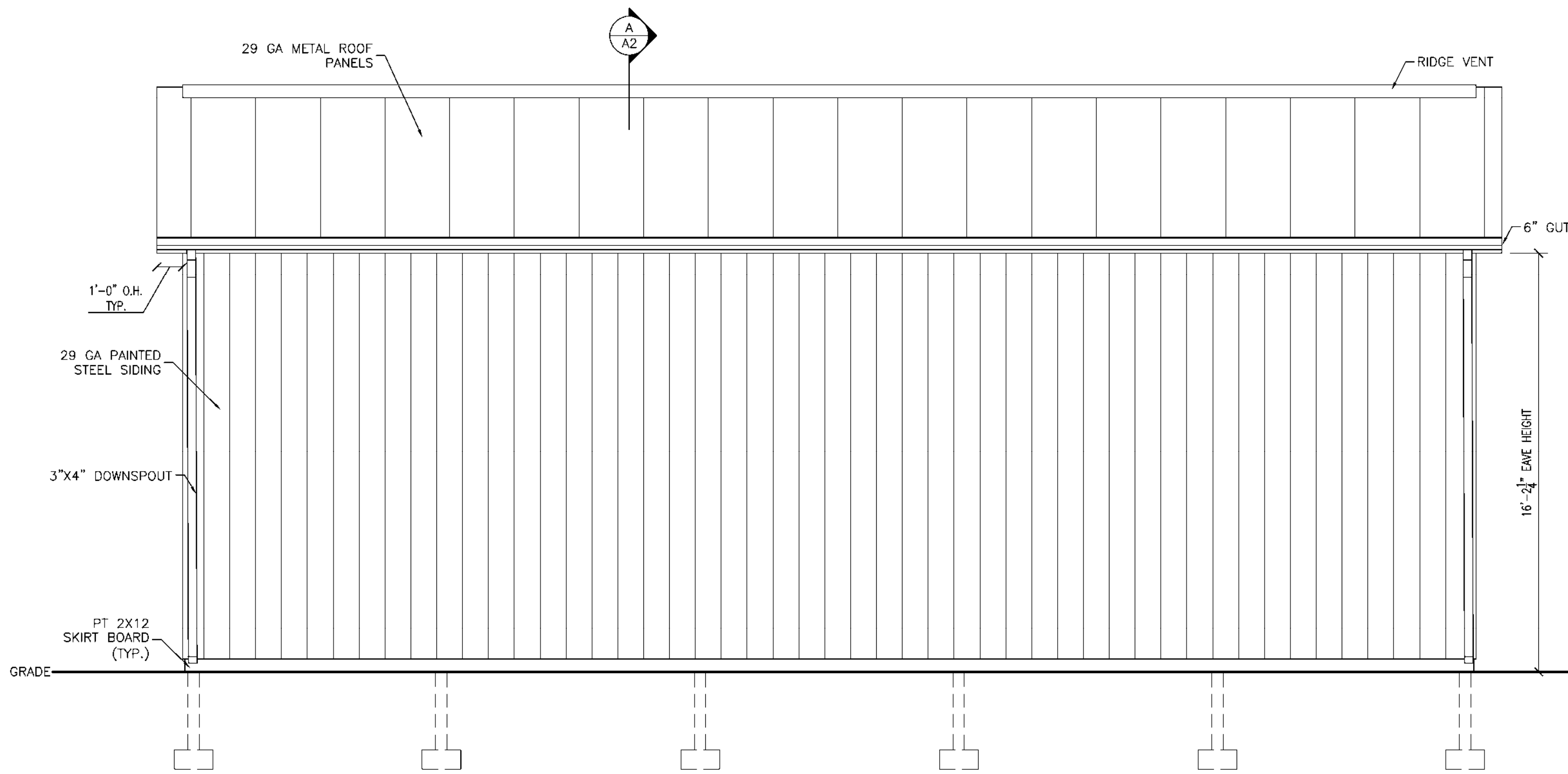
FINISH SCHEDULE										REMARKS
ROOM	AREA	FLOOR	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING			
100	GARAGE	CO	EXP	EXP	EXP	EXP	EXP	16'-0"		

ABBREVIATIONS  
CO = CONCRETE  
EXP = EXPOSED

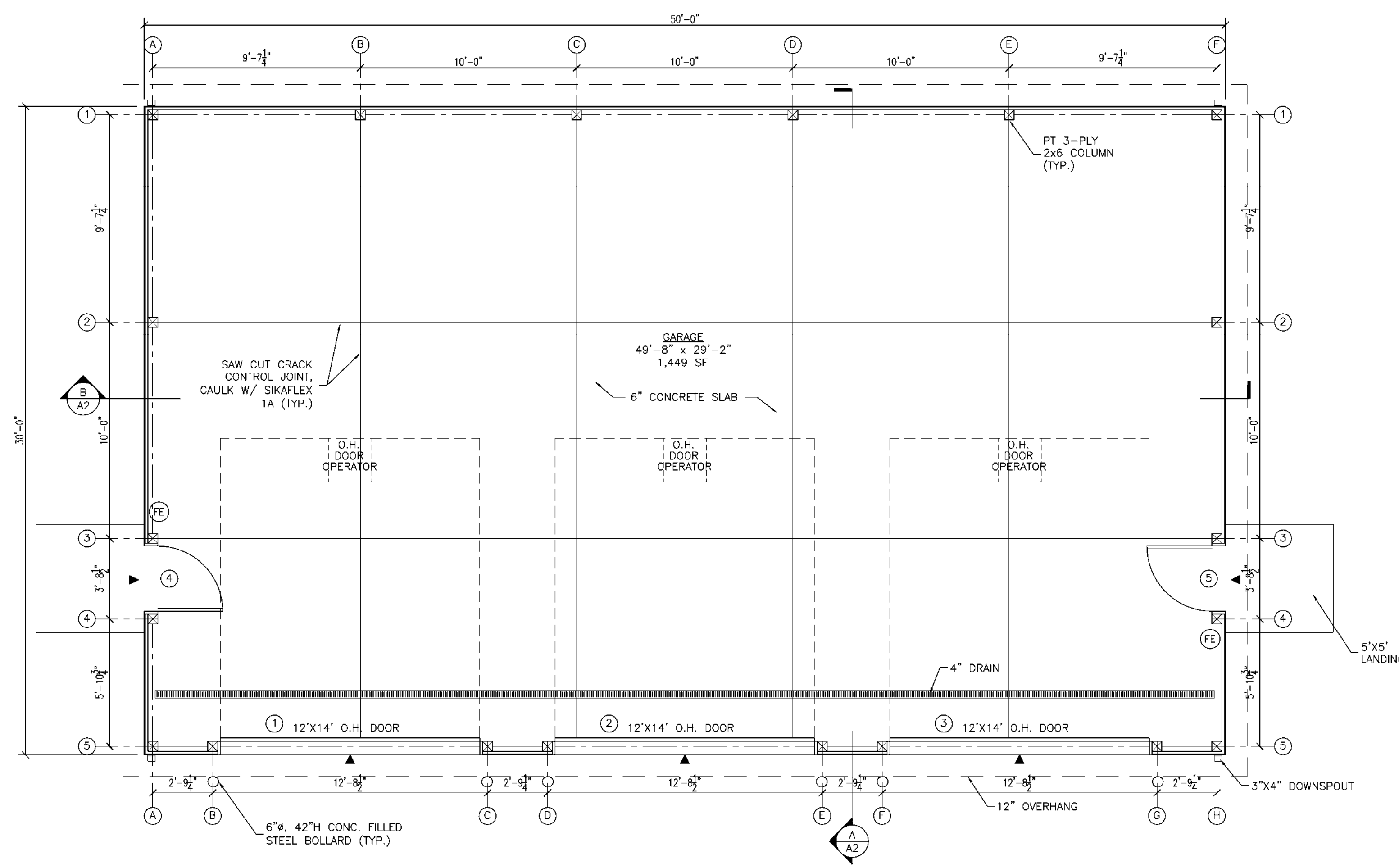
NOTES:  
1. ALL INTERIOR FINISHES SHALL HAVE A FLAME SPREAD OF 200 OR LESS.  
2. OWNER TO SELECT ALL COLORS & FINISHES, UNLESS OTHERWISE NOTED.



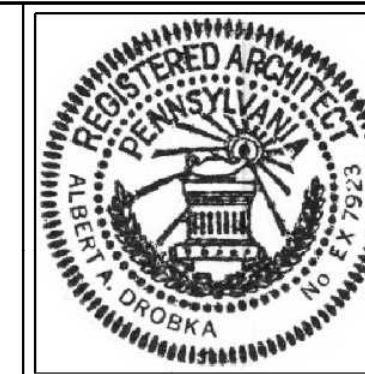
PROPOSED NORTH ELEVATION  
SCALE: 1/4" = 1'-0"



PROPOSED EAST ELEVATION  
SCALE: 1/4" = 1'-0"



PROPOSED FLOOR PLAN  
SCALE: 1/4" = 1'-0"



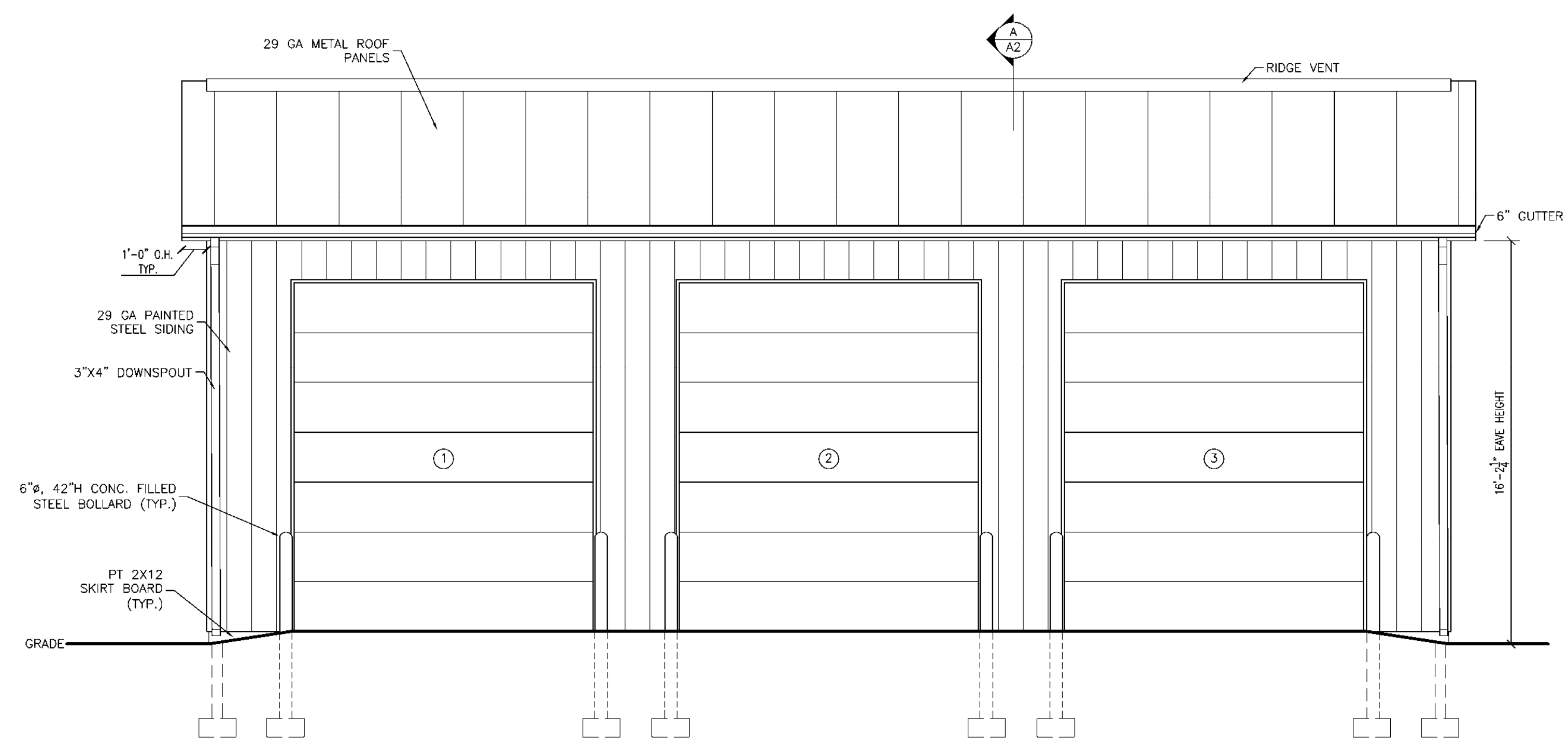
ALBERT A. DROBKA ARCHITECT  
P.O. BOX 256  
1352 S. ATHERTON ST.  
STATE COLLEGE, PA.  
(814) 238-0710

PROJECT  
RBC POLE BARN  
3645 W. COLLEGE AVE.  
STATE COLLEGE, PA 16801

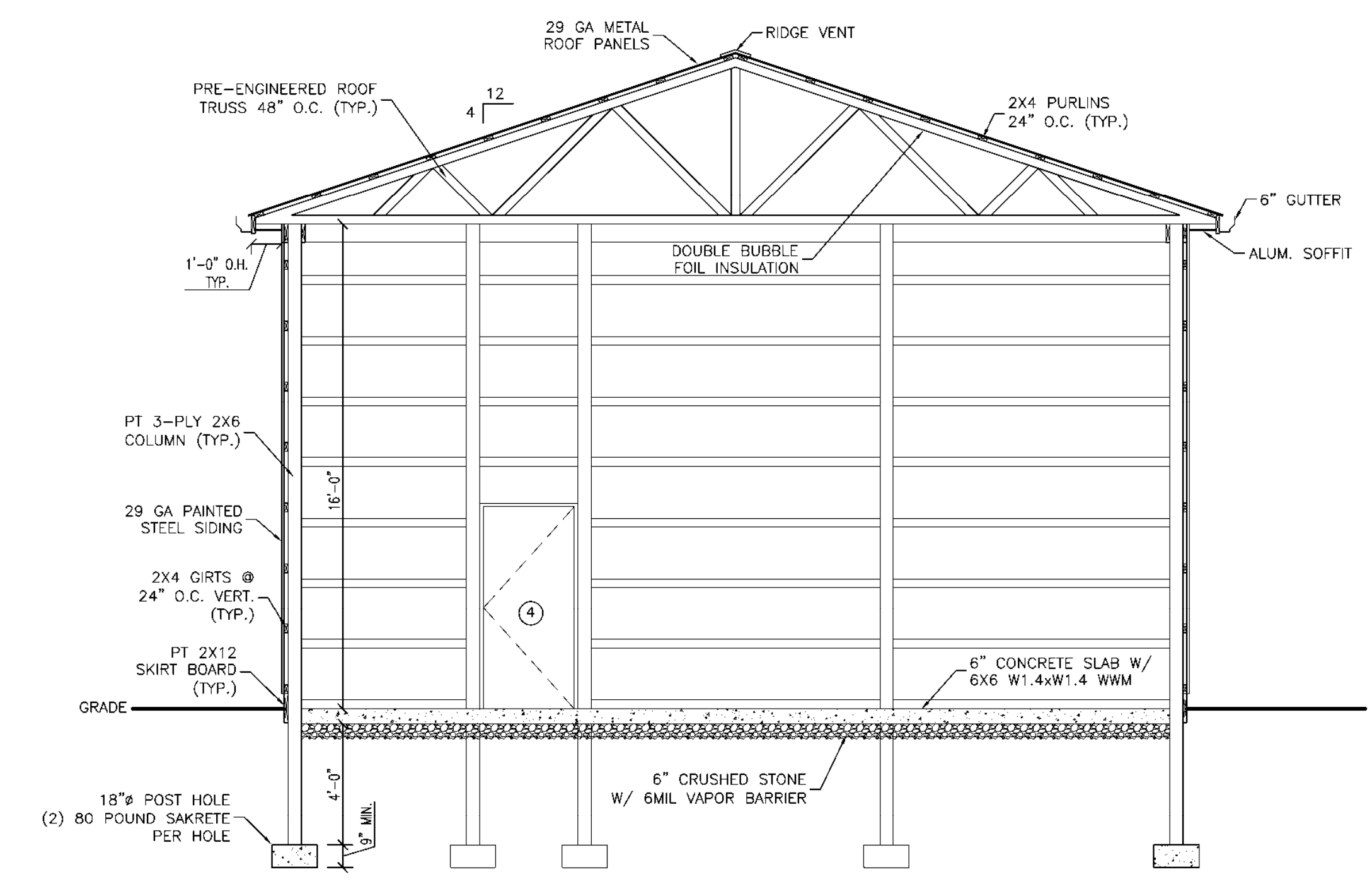
REVISION DATE

SHEET TITLE  
PROPOSED  
FLOOR PLAN &  
ELEVATIONS

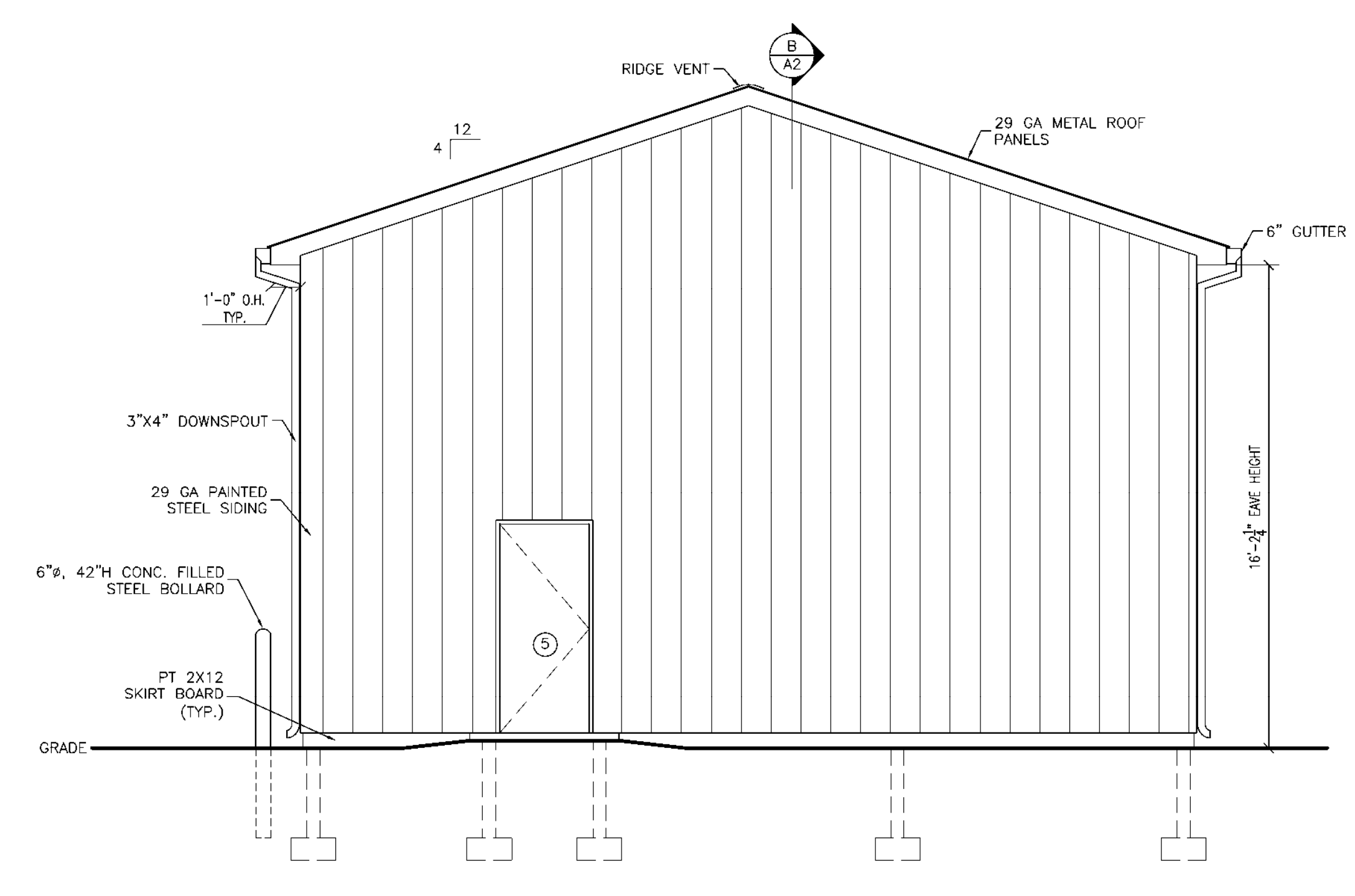
LEGEND		DATE	
(FE)	FIRE EXTINGUISHER	01/19/21	
(RH)	REMOTE HEAD	SCALE	AS NOTED
	CONSTRUCTION TYPE	DRAWN BY:	SN
IBC 2015: 5B	OCCUPANCY TYPE	CHECKED BY:	AAD
IBC 2015: U	SQUARE FOOTAGE	SHEET NO.	A1
1,449 SF	OCCUPANT LOAD	PROJECT #	021-05
NO OCCUPANCY			



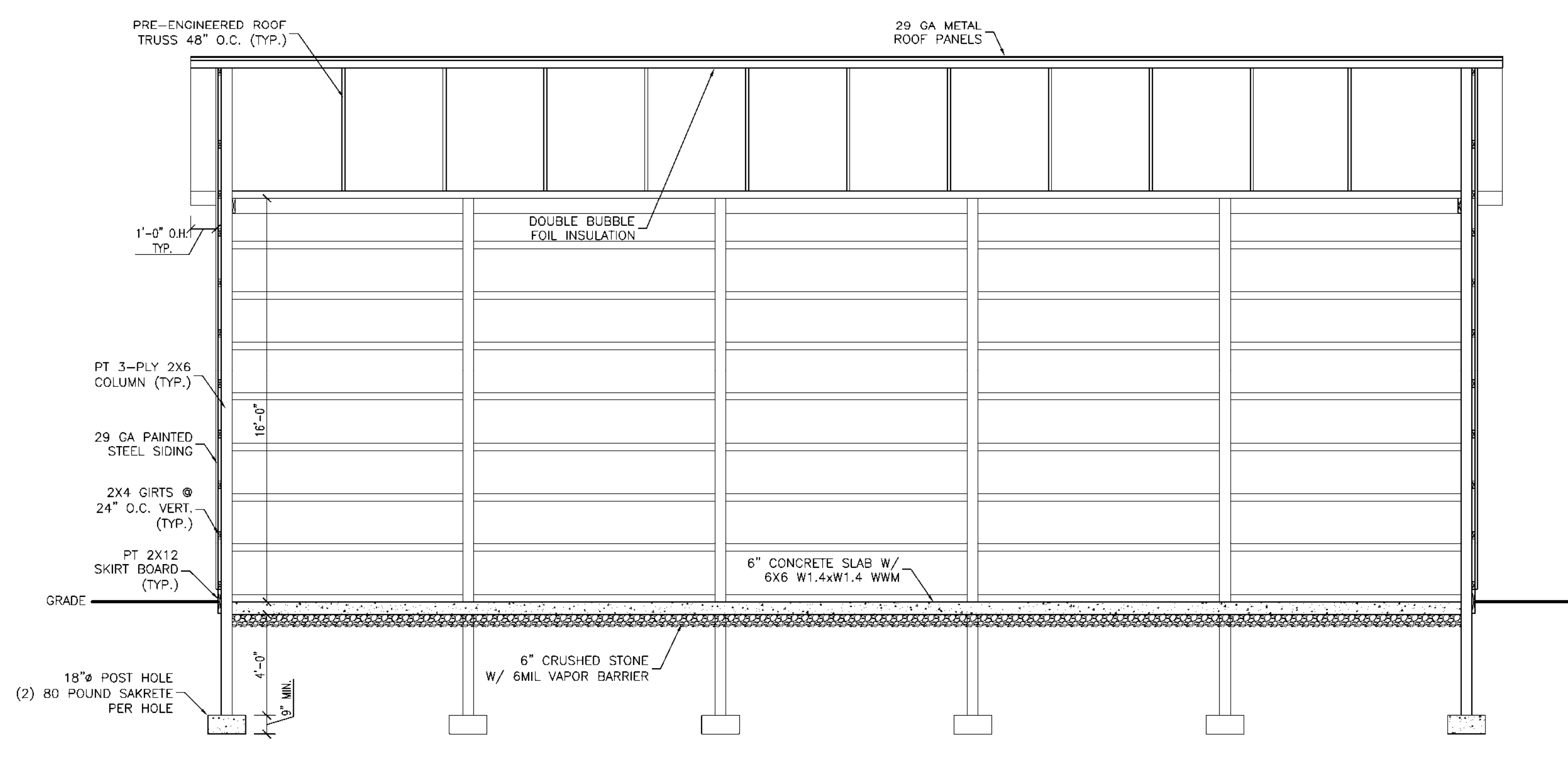
PROPOSED WEST ELEVATION  
SCALE: 1/4" = 1'-0"



A  
A2 PROPOSED SECTION  
SCALE: 1/4" = 1'-0"



PROPOSED SOUTH ELEVATION  
SCALE: 1/4" = 1'-0"



B  
A2 PROPOSED CROSS SECTION  
SCALE: 1/4" = 1'-0"



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P.O. BOX 256  
1352 S. ATHERTON ST.  
STATE COLLEGE, PA.  
(814) 238-0710

PROJECT  
RBC POLE BARN  
3645 W. COLLEGE AVE.  
STATE COLLEGE, PA 16801

REVISION DATE

SHEET TITLE  
PROPOSED SECTIONS & ELEVATIONS

DATE  
01/19/21

SCALE  
AS NOTED

DRAWN BY:  
SN

CHECKED BY:  
AAD

SHEET NO.  
A2

PROJECT #  
021-05

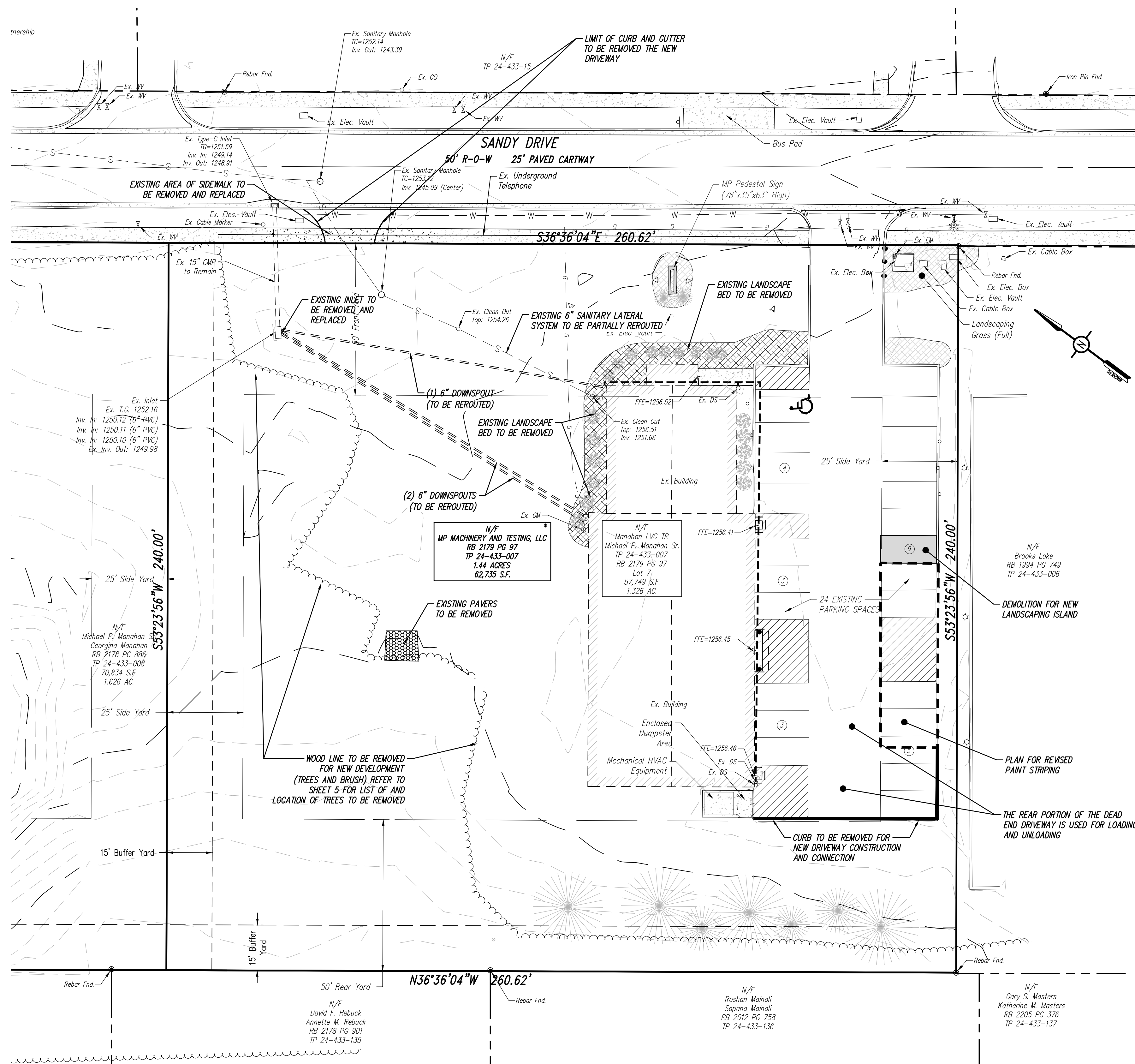




**GENERAL SITE DEMOLITION NOTES**

- The Contractor is responsible for obtaining all local and state permits required for demolition work unless other arrangements are coordinated with the owner.
- The Contractor shall indemnify and hold harmless the Owner and/or architect and engineer for any and all injuries and/or damages to personnel, equipment and/or existing facilities in the demolition and construction described in the plans and specifications.
- Existing conditions as depicted on these plans are general and illustrative in nature and do not include mechanical, electrical and miscellaneous structures. It is the responsibility of the Contractor to examine the site and be familiar with existing conditions prior to bidding on the demolition work for this project. If conditions encountered during examination are significantly different than those shown, the Contractor shall notify the architect and engineer immediately. All existing utilities not to be removed or abandoned are to remain operational at all times. Appropriate existing utilities shall remain in service until replacement/relocated utilities are operational.
- Existing above and below ground structures within the limits of new construction noted to be removed shall be razed unless noted otherwise in this construction set, architectural plans and/or project specifications. This includes foundation slabs, walls, and footings.
- Before excavation, all underground utilities shall be located in the field by the proper authorities. The Contractor shall notify Pa One Call 1-800-242-1776. The location of all utilities and underground structures are approximate and may not all be shown. It is the responsibility of the Contractor to determine the existence and exact location of all utilities and underground structures.
- All demolition waste and construction debris shall be removed by the Contractor and disposed of in a state approved waste site and in accordance to all local and state codes and permit requirements.
- All utility removal, relocation, cutting, capping and/or abandonment shall be coordinated with the appropriate utility company.
- The burning of cleared material and debris shall not be allowed without approval from owner and appropriate governing agency.
- Erosion and sedimentation control measures around areas of demolition shall be installed prior to initiation of demolition activities. Refer to plan and details for site specific information including tree protection details, if necessary.
- Asbestos or hazardous materials, if found on site, shall be removed by a licensed hazardous materials Contractor. Contractor shall notify Owner immediately if hazardous materials are encountered.
- Contractor shall protect all corner pins, monuments, property corners, and benchmarks during demolition activities. If disturbed, Contractor shall have disturbed items reset by a licensed surveyor at no additional cost to the Owner.
- Contractor shall adhere to all local, state, federal, and OSHA regulations operating demolition equipment around utilities.
- Contractor shall provide and maintain traffic control measures in accordance with the PennDOT standards, and as required by local agencies working in and/or along streets, roads, highways, etc. It shall be the Contractor's responsibility to obtain approval and coordinate with local and/or state agencies regarding the need, extent, and limitations associated with installing and maintaining traffic control measures.
- Contractor shall protect at all times adjacent structures and items from damage due to demolition activities.
- Contractor shall coordinate existing facilities utility disconnects with the Owner prior to anticipated demolition of structures.
- Contractor shall refer to Construction Plans for other pertinent information where applicable.
- Contractor shall replace or repair to Owner's satisfaction all curb, utilities, sidewalks, landscaping, etc. damaged during construction that are not indicated to be removed.
- Contractor shall be responsible for all costs and work required to adjust existing and proposed utilities and appurtenances to finish grades within the limit of work.
- All paving to be removed shall be sawcut to provide a sharp clean edge. All sidewalks to be removed shall be sawcut at the nearest joint. Existing pavement shall be removed as required for new curb, walkway, or utility construction.
- Contractor shall verify the location of manholes, inlets valves, etc. Contractor shall test pit existing utilities as deemed necessary within the limits of construction to determine the exact location and depth as required. Report any discrepancies from that indicated on the plan to the architect and engineer. All existing utilities shall be retained unless marked otherwise, and appurtenances shall be adjusted to final grade. Damage to existing conditions and utilities to remain shall be repaired as required to the Owner's satisfaction at the expense of the Contractor.
- Contractor shall coordinate with utilities companies on installation, relocation or replacement of electrical, phone, gas and cable services.
- The Contractor shall contact PA One Call system @ 1-800-242-1776 at least three (3) days before construction activities.

**STORMWATER DOWNSPOUT NOTE:**  
LOCATION OF THREE (3) 6" DIA. PLASTIC DOWNSPOUTS/ROOF DRAINS INTERPOLATED FROM 1997 'PROPOSED SITE PLAN' AND FIELD SURVEY CONDITIONS.

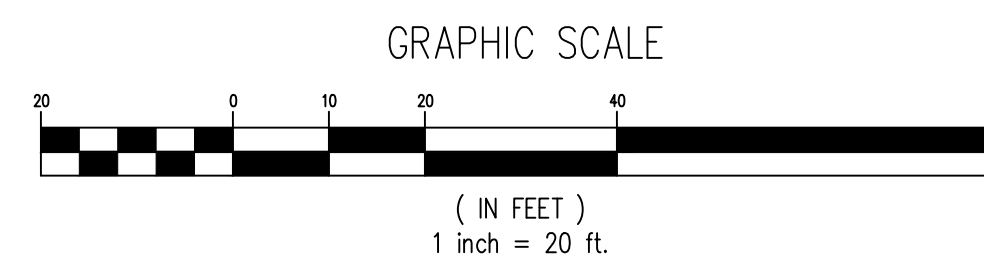


**EXISTING FEATURES LEGEND**

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Landscaped Areas
- Existing Retaining Wall
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Fire Hydrant
- Existing Manhole
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Main Valve
- Existing Utility Lateral Valve
- Existing Utility Meter
- Existing Ballard
- Existing Clean-Out
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Sign
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

**SURVEY FEATURES LEGEND**

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Roadway Center Line
- Property Corner Found
- Property Corner To Be Set



**\*NOTE:**  
LOT 24-433-007 DEPICTED AND IDENTIFIED AS A PLANNED SUBDIVISION LOT TO ADD 4,800 S.F. FROM TP 24-433-008; A SUBDIVISION CURRENTLY UNDER REVIEW.

**PennTerra ENGINEERING INC.**  
CENTRAL PENNSYLVANIA REGION OFFICE:  
3075 ENTERPRISE DRIVE  
SUITE 100  
STATE COLLEGE, PA 16801  
PH: 814-231-8285  
Fax: 814-237-2308

LANCASTER REGION OFFICE:  
3904 B ABEL DRIVE  
COLUMBIA, PA 17512  
PH: 717-522-5031  
Fax: 717-522-5046

WWW.PENNTERRA.COM

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Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg. XXX
File	21316 - 2 - EX COND
Layout	EXISTING CONDITIONS

Date	Description
8-15-22	REVISED PER COMMENTS
7-28-22	REVISED PER COMMENTS + NEW LOT MAILING EXTENSION

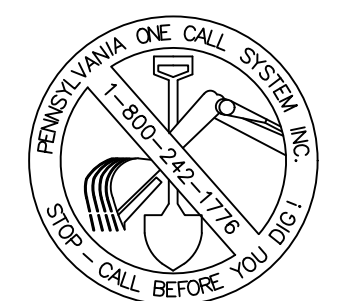
**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

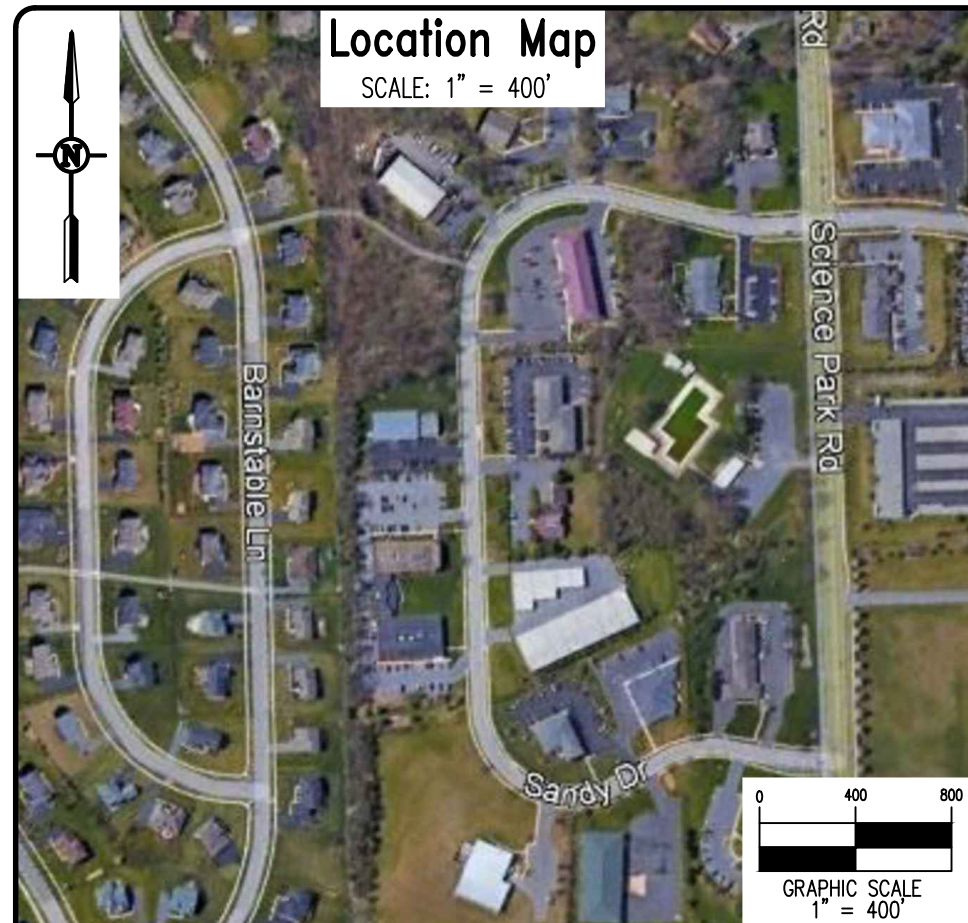
PRELIMINARY LAND DEVELOPMENT PLANS

**EXISTING CONDITIONS AND DEMOLITION PLAN**

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	1" = 20'
SHEET NO.	2



BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776 NON-MEMBERS MUST BE CONTACTED DIRECTLY



**Owner's Certification**

State of \_\_\_\_\_  
 County of \_\_\_\_\_

On this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

personally appeared before me and certified that they were the owners of the properties shown on this plan and acknowledge the same to be their act and plan and designs, the same to be recorded as such, according to the law.

witness my hand and seal, this date \_\_\_\_\_

Notary Public \_\_\_\_\_ Commission Expires \_\_\_\_\_

**Township Planning Commission**

Ferguson Township Planning Commission Approved

Chair \_\_\_\_\_ Date \_\_\_\_\_

Secretary \_\_\_\_\_ Date \_\_\_\_\_

**Township Supervisors**

Ferguson Township Supervisors Approved

Chair \_\_\_\_\_ Date \_\_\_\_\_

Secretary \_\_\_\_\_ Date \_\_\_\_\_

**Township Engineer Certification**

I, \_\_\_\_\_ have reviewed and hereby certify that the plan meets all engineering design standards and criteria of the Ferguson Township Code of Ordinances.

**Design Engineer Certification**

I, \_\_\_\_\_ hereby certify that this land development meets all design requirements of the Subdivision and Land Development Ordinance, Zoning Ordinance and all other applicable Chapters of Ferguson Township Code.

**Professional Land Surveyor Certification**

I, Nevin L. Grove, a Professional Land Surveyor in the Commonwealth of Pennsylvania, do hereby certify that this plan correctly represents the tracts of lands as shown.

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Fire Chief Certification**

I have reviewed and hereby certify that the location of Fire Lanes and Fire Hydrants shown on this plan are adequate.

Fire Chief \_\_\_\_\_ Date \_\_\_\_\_

**Recorder's Stamp Here**

**PROJECT NOTES**

- GENERAL SITE INFORMATION
  - Tax Parcel: 24-433-007-0000
  - Address: 2161 Sandy Drive, State College, Ferguson Township, Pennsylvania
  - Owner/Developer: MP Machinery & Testing, LLC  
 Dr. M. P. Manahan, Sr. - Executive Chairman  
 Phone: 814-234-8860 (121)  
 Fax: 814-234-0248  
 Email: MPManahan@MPMachineryandTesting.com  
 Record Book 2179, Page 97
  - Deed:
- AREA & BULK ZONING DATA
  - ZONING DISTRICT: Light Industrial, Research and Development (RD)
  - USE: Existing & Proposed- Research, Development, Engineering and/or Testing Laboratory
- Area & Bulk Category 2
- MINIMUM LOT SIZE: \*20,000 square feet  
 ACTUAL LOT AREAS: 62,735 SF = 1.44 ACRES
- LOT WIDTH MINIMUM: 100'  
 260.62' ACTUAL WIDTH
- MINIMUM LOT WIDTH AT STREET: 100'  
 240.62' ACTUAL WIDTH AT STREET
- YARD SETBACKS (AREA & BULK CATEGORY 2)  
 FRONT- 50'  
 SIDE (EACH)- 25'  
 REAR- 50'  
 BUFFER YARD- 15' (per Ferguson Township Zoning Officer) - REAR & WEST PROPERTY LINES
- HEIGHT = 45' MAXIMUM
- COVERAGE  
 Development Site Total Area (Tax Parcel 24-433-007-0000-) = 62,735 square feet  
 60% Allowable Impervious Coverage = 37,641 square feet  
 Impervious Coverage Total = 34,698 square feet (55.3%)
- PARKING  
 On April 5, 2022, the Board of Supervisors of Ferguson Township reviewed the parking analysis/study submitted to the Township on February 18, 2022, and approved of three (3) additional parking spaces to be required on site for the 8,088 SF addition. This will result in 27 spaces being included on the land development plan as submitted.
- Required Loading Zone Spaces: 1
- Provided Loading Zone Spaces: Multiple/ entire rear driveway shall be considered LOADING SPACE.
- GENERAL UTILITY & ACT 287 INFORMATION:  
 PA Once Call Serial No.: 20220041395
  - Sewage: University Area Joint Authority (UAJA)  
 1578 Spring Valley Road State College, PA 16801, 814-238-5361
  - Water: State College Borough Water Authority (SCBWA),  
 1201 West Branch Road, State College, PA 16801, 814-238-6766
  - Gas: Columbia Gas of Pennsylvania,  
 2550 Carleton Industrial Drive, State College, PA 16801, 814-278-5840
  - Electric: West Penn Power,  
 2800 East College Avenue, State College, PA 16801, 814-231-5355
  - Telephone: Verizon,  
 224 South Allen Street, State College, PA 16801, 814-231-6511
  - Cable TV: Comcast,  
 1155 Benner Pike, State College, PA 16801, 814-238-5050
  - Township Roads and Public Stormwater: Ferguson Township  
 3147 Research Drive, State College, PA 16801, 814-238-4651
- Contours shown are taken from survey data collected in the field.
- This site is comprised of the following soil type: HuB - Hubersburg Silt Loam, 3-8% Slopes
- Stormwater will be conveyed to an existing regional stormwater basin known as Tax Parcel 24-433-24.
- For additional information, refer to:
  - "Stormwater Management Plan" prepared by PennTerra Engineering, Inc., dated March 22, 1996.
  - "Soil Erosion and Sedimentation Control Plan", prepared by PennTerra Engineering, Inc., dated April \*\*, 2022
  - "The Greenleaf Manor PRD - Master Plan", dated March 7, 1995, last revised Feb. 5, 1996, and on record at the Ferguson Township Municipal Building.
  - "Greenleaf Manor P.R.D., Findings of Fact and Terms and Conditions" dated December 13, 2004
  - Hydrogeologic Assessment of Sinkholes" dated January 29, 1996, prepared by Meiser & Earl Hydrogeologists
  - "Phase 1 Final P.R.D. Plans" dated March 22, 1996, prepared by PennTerra Engineering, Inc.
  - Preliminary and Final Subdivision Plan for G. Edwards Company and the Site Plan for MPM Research and Consulting, PB 54 PG 7, recorded June 25, 1997.
  - The MP Machinery and Testing Land Development Plans and the Stormwater Management Plans currently under review.
- As-Built drawings of the stormwater facilities will be prepared in accordance with the Ferguson Township Stormwater Management Ordinance, upon completion of project construction as required.
- All utilities are approximate. Contractor to contact PA One Call and servicing utility company prior to any construction operations.
- Contractor to verify building dimensions and all utility entry/exit locations; including downspouts on Architectural drawings prior to any construction operations.
- Stormwater pipes and sumps, etc. running through the lot are the responsibility of the Owner/Developer- MP Machinery & Testing, LLC.
- Roof Leaders/Drains on the proposed building SHALL flow into the appropriate Stormwater Collection/Conveyance Facility as specifically detailed.
- LANDSCAPING BED NOTE: The Owner shall install Landscaping Beds as shown for the purpose of installing grasses and shrubs.
- The Trees at the property SHALL BE PRESERVED to the limits as shown.
- All Trees and Shrubs shall be planted in accordance with the "Guide to Planting in Ferguson Township".
- The application for a Zoning Permit was made to Ferguson Township on May 3, 2022.
- There are NO sinkholes, depressions, water courses and/or floodplains on the Land Development Tract; Tax Parcel 24-433-007-0000-.
- A copy of the approved Stormwater Management Site Plan must be on site at all times during construction.
- A Driveway Permit is required prior to issuance of a Zoning Permit.
- A Pre-Job Meeting is required with Ferguson prior to work starting.

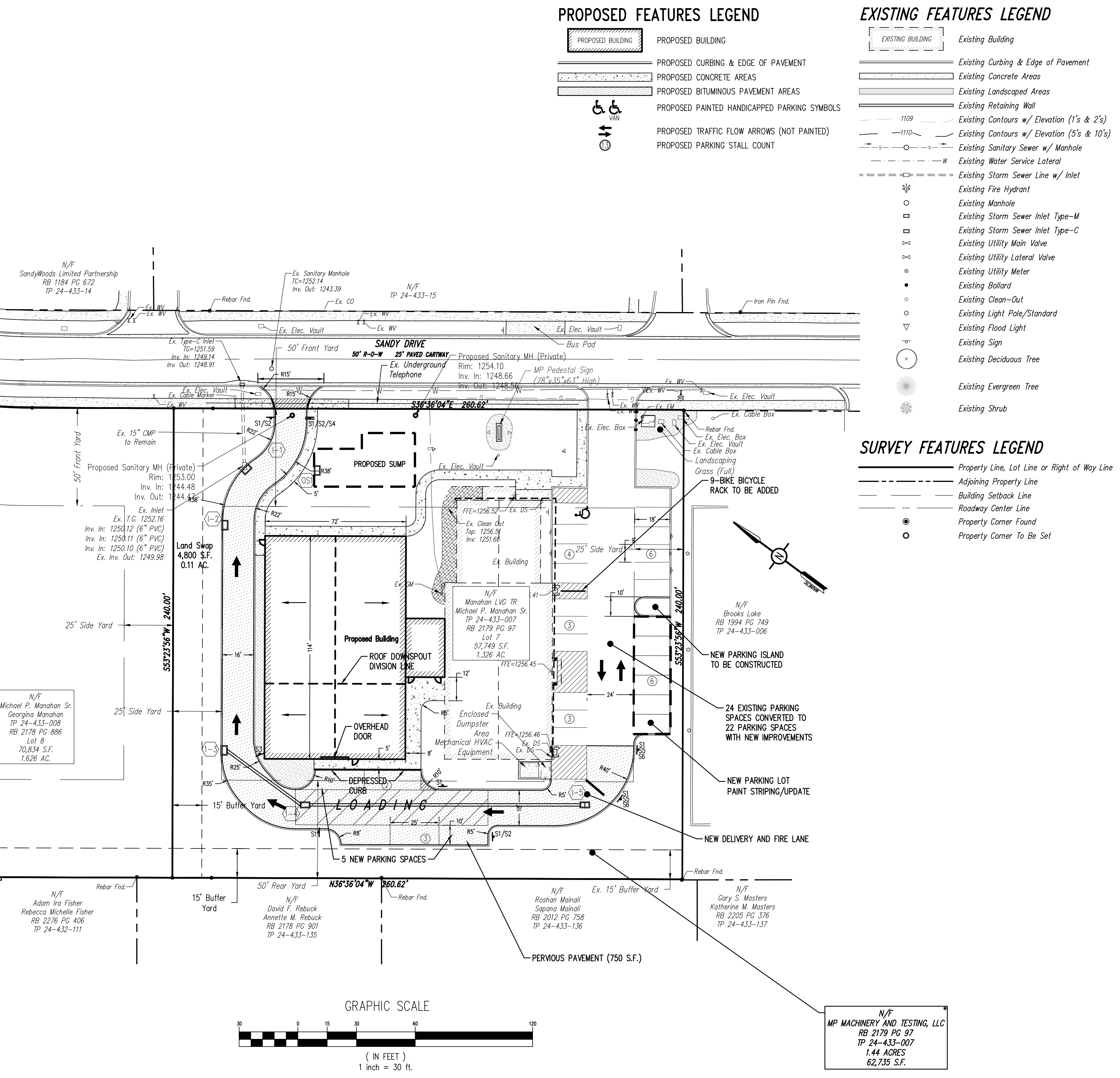
**PROJECT DEVELOPMENT NARRATIVE:**  
 MP Machinery and Testing, located at Tax Parcel 24-433-007-000- and at 2161 Sandy Drive, State College, Ferguson Township, Centre County, Pennsylvania, is planning to add on to its existing building to provide additional material storage (for testing operations) and testing areas with an 8,088 square feet addition to the existing building.

MP Machinery was developed in 1997 per the recorded Plan- PB 54, Page 7. The Building included Office Space and Laboratory Space, as exists today.

- The following data describes MP Machinery and Testing and the current and planned use of the existing building and the new building addition:
- Briefly explain/classify the need for the Building Addition. Is it just additional Laboratory or storage/material space? It is for both lab and for storage. We will initially need about 70% for storage and 30% for lab.
  - Will the Building addition result in additional employees? No.
  - Explain the Breezeway connecting the buildings? That 20 feet Breezeway is critical for access and delivery as well as to meet Fire Wall requirements.
  - MP Machinery & Testing is a business where you really do not have too many visitors? MP has had one or two visitors per year over the past 25 years, as customers do not come to this location. Rather, MP travels from this location to its customers.
  - How many employees does MP Machinery & Testing have currently? MP Machinery and Testing has six employees, and has never had more than five over the past 25 years. Due to plans for the intended Building Expansion, MP Machinery has hired their maximum number of employees, ever to be eight.
  - Work Hours: Are 7:30 am to 4:40 pm.

Dr. Manahan has supplied some additional data to consider as the development of the planned Building Addition and site improvements are designed. That data follows:

- Safety for the sake of convenience, MP proposes a few additional parking spaces by the new addition.
- MP needs a driveway in the back of the building for 18 wheelers to drive through. There is a high bay door in the rear of the new building, and they need to take deliveries there.



**PROPOSED FEATURES LEGEND**

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE AREAS
- PROPOSED BITUMINOUS PAVEMENT AREAS
- PROPOSED PAINTED HANDICAPPED PARKING SYMBOLS
- PROPOSED TRAFFIC FLOW ARROWS (NOT PAINTED)
- PROPOSED PARKING STALL COUNT

**EXISTING FEATURES LEGEND**

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Landscaped Areas
- Existing Retaining Wall
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Fire Hydrant
- Existing Manhole
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Main Valve
- Existing Utility Lateral Valve
- Existing Utility Meter
- Existing Bollard
- Existing Clean-Out
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Sign
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

**SURVEY FEATURES LEGEND**

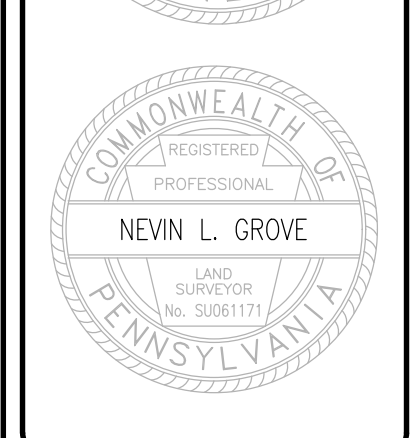
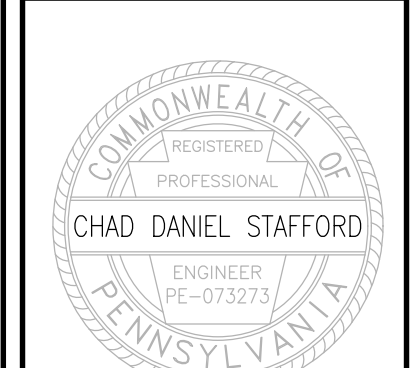
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Roadway Center Line
- Property Corner Found
- Property Corner To Be Set

**PennTerra ENGINEERING INC.**  
 CENTRAL PENNSYLVANIA REGION OFFICE:  
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Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	XXX
Book	XXX Pg. XXX
File	2136 - 3 - RECORD
Layout	RECORD

Date	Description	REVISIONS
6-15-22	REVISED PER COMMENTS	WJA
7-28-22	REVISED PER COMMENTS + NEW LOT MAILING EXTENSION	

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
 CENTRE COUNTY  
 PENNSYLVANIA

**PRELIMINARY LAND DEVELOPMENT PLANS**

**RECORD PLAN**

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	1" = 30'
SHEET NO.	3

\*NOTE:  
 LOT 24-433-007 DEPICTED AND IDENTIFIED AS A PLANNED SUBDIVISION LOT TO ADD 4,800 S.F. FROM TP 24-433-008; A SUBDIVISION CURRENTLY UNDER REVIEW.

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA 1 CALL 1-800-242-1776 NON-MEMBERS MUST BE CONTACTED DIRECTLY



**STORMWATER MANAGEMENT NOTES**

- All site work shall be done in accordance with the plans prepared by PennTerra Engineering, Inc., the current requirements of the governing municipality, and all other pertinent federal and state laws.
- The Contractor shall comply at all times with applicable federal, state and local laws, provisions, and policies governing safety and health, including the federal construction safety act, as amended.
- The Contractor shall be responsible for examining the areas and conditions under which the project is to be constructed prior to the submission of a bid. Submission of a bid to be constructed to mean the Contractor has reviewed the site and is familiar with conditions and constraints of the site.
- Before excavation, all underground utilities shall be located in the field by the proper authorities. The Contractor shall notify pa one call 1-800-242-1776. The location of all utilities and underground structures are approximate and may not all be shown. It is the responsibility of the Contractor to determine the existence and exact location of all utilities and underground structures.
- An as-built drawing of new utility services, including the new stormwater sump, shall be prepared by the Contractor and submitted to the Owner upon completion of the project.
- Contractor shall refer to other plans within this construction set for other pertinent information.
- Contractor shall have a licensed professional submit as-built drawings/documentation of the stormwater management facilities prepared in accordance with Chapter 26 of the governing municipality's code of ordinances and submitted to the governing municipality at the completion of construction as a prerequisite of issuance of occupancy permit or release of the surety bond. A narrative and photographic documentation for critical stages of construction must also be submitted to the governing municipality.

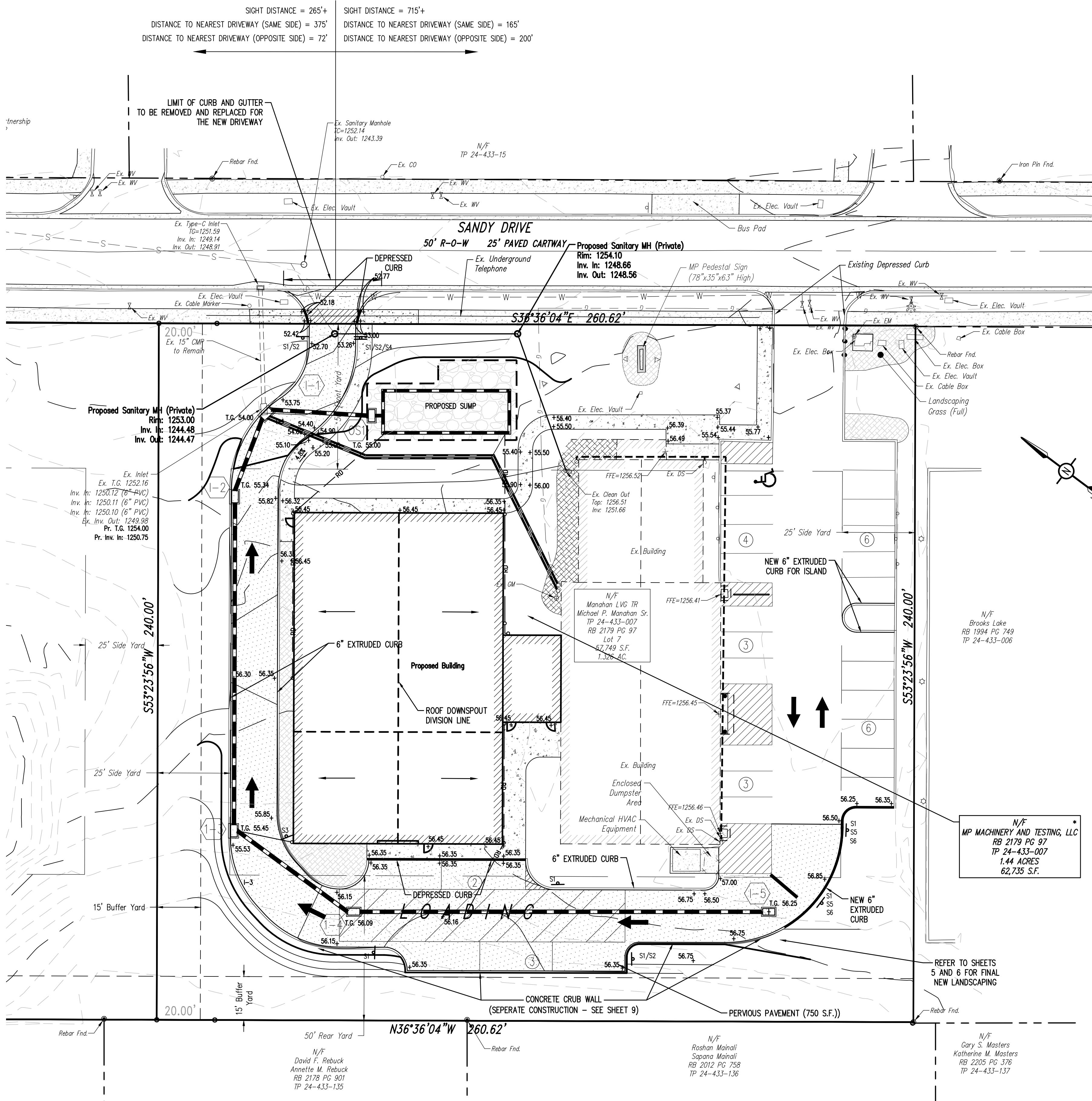
**AS-BUILT NOTES:**

- Certification of the stormwater as-built plan by a licensed professional of the stormwater facilities specified under the section labeled "Critical Stages of Construction" is required.
- The licensed professional responsible for certifying the stormwater as-built plan shall be selected prior to starting earth disturbance activities on the project.
- A pre-construction meeting between the contractor, owner and licensed professional responsible for certifying the stormwater as-built plan is required to ensure all "Critical Stages of Construction" are reviewed, acknowledged and milestones established to ensure the licensed professional is present onsite during the "Critical Stages of Construction."

**CRITICAL STAGES OF CONSTRUCTION:**

Critical Stages of Construction are parts of the construction sequence of the Land Development Plan which require certification and construction oversight of stormwater facilities by the licensed professional responsible for certification of the certified stormwater as-built plan.

At least two weeks in advance of construction, the contractor shall schedule a coordination meeting with the licensed professional and township representative to review the critical stages and establish a schedule for inspections/verifications of all critical stages. At the discretion of the licensed professional, the contractor may provide photo documentation of the installation of certain items in lieu of the licensed professional being present.



**EXISTING FEATURES LEGEND**

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Landscaped Areas
- Existing Retaining Wall
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
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- Existing Deciduous Tree
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**SURVEY FEATURES LEGEND**

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Roadway Center Line
- Property Corner Found
- Property Corner To Be Set

**PROPOSED FEATURES LEGEND**

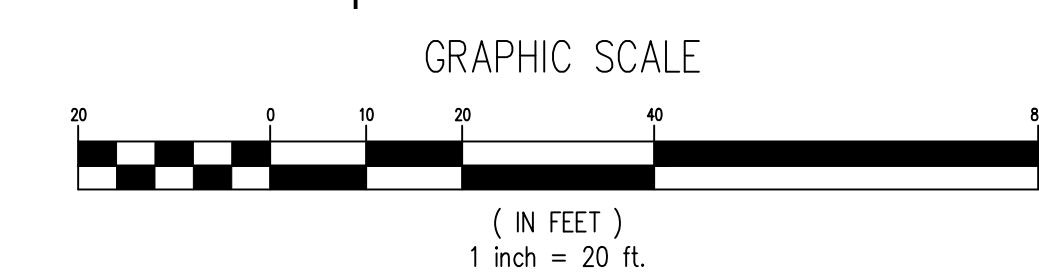
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- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED SPOT ELEVATION
- PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED PAINTED HANDICAPPED PARKING SYMBOLS
- PROPOSED TRAFFIC FLOW ARROWS (NOT PAINTED)
- PROPOSED SIGN W/ LABEL

**NOTE:** LOT 24-433-007 DEPICTED AND IDENTIFIED AS A PLANNED SUBDIVISION LOT TO ADD 4,800 S.F. FROM TP 24-433-008; A SUBDIVISION CURRENTLY UNDER REVIEW.

**NOTE:** REFER TO SHEET 3 FOR ADDITIONAL CONSTRUCTION DIMENSIONS

N/F  
MP MACHINERY AND TESTING, LLC  
RB 2179 PG 97  
TP 24-433-007  
1.44 ACRES  
62,735 S.F.

REFER TO SHEETS 5 AND 6 FOR FINAL NEW LANDSCAPING

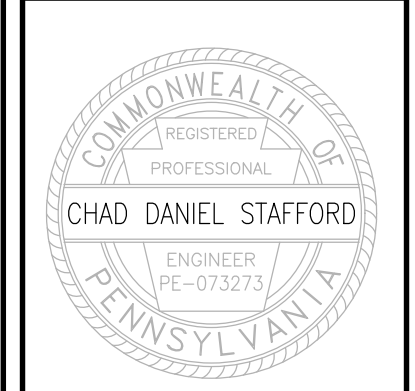


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Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg. XXX
File	21316 - 4 - GRADING
Layout	GRADING

Date	Description	REVISIONS
6-15-22	REVISED PER COMMENTS	
7-28-22	REVISED PER COMMENTS + NEW LOT MAINTEN. EXTENSION	

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERCUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLANS

GRADING & DEVELOPMENT PLAN

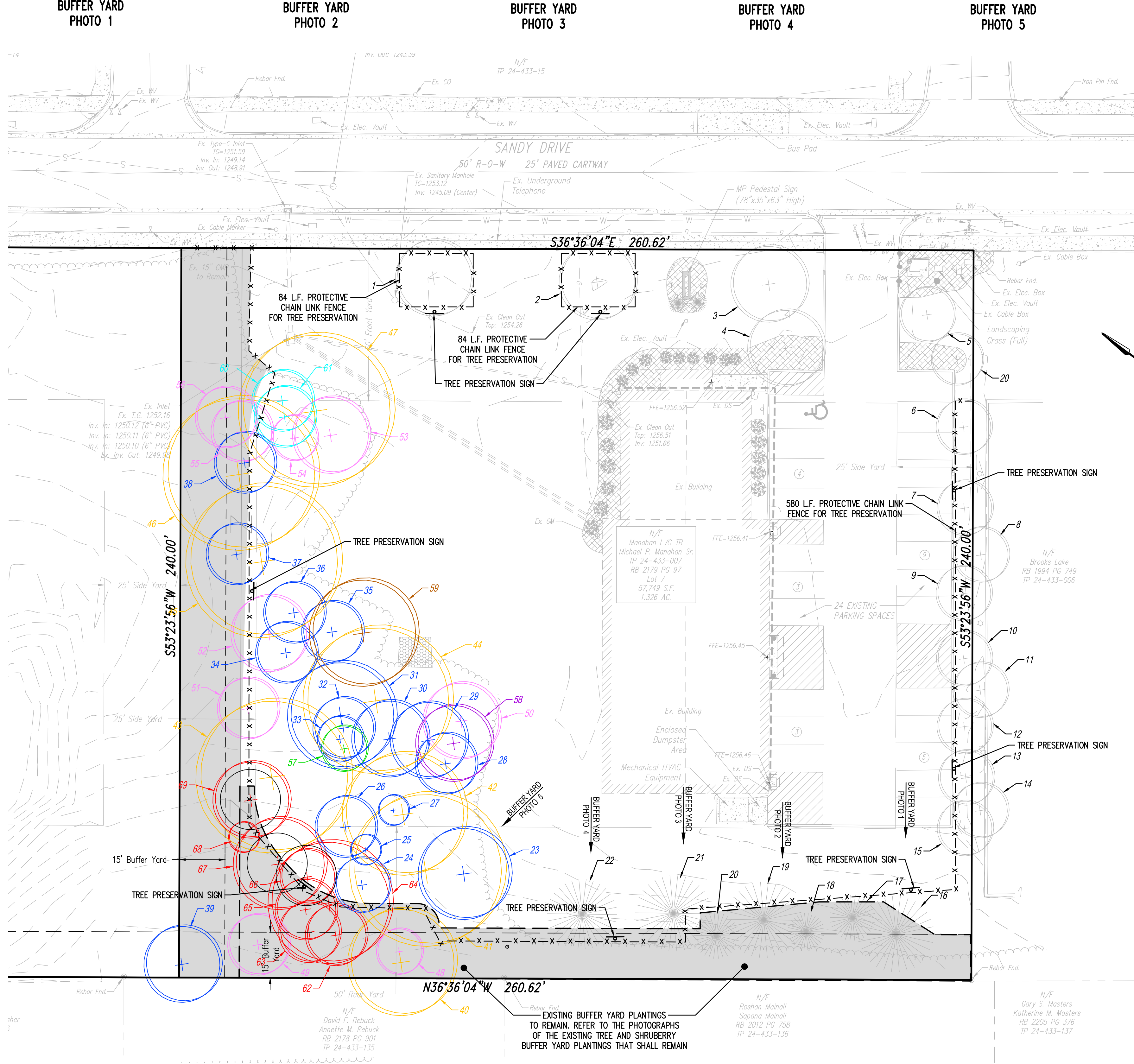
PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	1" = 20'
SHEET NO.	4

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA I CALL 1-800-242-1776. NON-MEMBERS MUST BE CONTACTED DIRECTLY.

NO.	COMMON NAME	BOTANICAL NAME	CALIPER
1	RED OAK	QUERCUS RUBRA	12"
2	RED MAPLE	ACER RUBRUM	12"
3	RED MAPLE	ACER RUBRUM	12"
4	RED MAPLE	ACER RUBRUM	12"
5	EAST ASIAN CHERRY	PRUNUS SERRULATA	10"
6	RED MAPLE	ACER RUBRUM	9"
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19	WHITE PINE	PINUS STROBUS	14"
20	EAST ASIAN CHERRY	PRUNUS SERRULATA	
21	WHITE PINE	PINUS STROBUS	12"
22	BLACK CHERRY	PRUNUS SEROTINA	14"
23	BLACK CHERRY	PRUNUS SEROTINA	9"
24	BLACK CHERRY	PRUNUS SEROTINA	8"
25	BLACK CHERRY	PRUNUS SEROTINA	8"
26	BLACK CHERRY	PRUNUS SEROTINA	7"
27	BLACK CHERRY	PRUNUS SEROTINA	6"
28	BLACK CHERRY	PRUNUS SEROTINA	7"
29	BLACK CHERRY	PRUNUS SEROTINA	14"
30	BLACK CHERRY	PRUNUS SEROTINA	14"
31	BLACK CHERRY	PRUNUS SEROTINA	8"
32	BLACK CHERRY	PRUNUS SEROTINA	7"
33	BLACK CHERRY	PRUNUS SEROTINA	9"
34	BLACK CHERRY	PRUNUS SEROTINA	11"
35	BLACK CHERRY	PRUNUS SEROTINA	8"
36	BLACK CHERRY	PRUNUS SEROTINA	7"
37	BLACK CHERRY	PRUNUS SEROTINA	8"
38	BLACK CHERRY	PRUNUS SEROTINA	7"
39	BLACK CHERRY	PRUNUS SEROTINA	10"
40	RED OAK	QUERCUS RUBRA	15"
41	RED OAK	QUERCUS RUBRA	20"
42	RED OAK	QUERCUS RUBRA	17"
43	RED OAK	QUERCUS RUBRA	27"
44	RED OAK	QUERCUS RUBRA	24"
45	RED OAK	QUERCUS RUBRA	22"
46	RED OAK	QUERCUS RUBRA	22"
47	RED OAK	QUERCUS RUBRA	27"
48	SUGAR MAPLE	ACER SACCHARUM	8"
49	RED MAPLE	ACER RUBRUM	7"
50	RED MAPLE	ACER RUBRUM	7"
51	RED MAPLE	ACER RUBRUM	7"
52	RED MAPLE	ACER RUBRUM	7"
53	RED MAPLE	ACER RUBRUM	7"
54	RED MAPLE	ACER RUBRUM	7"
55	RED MAPLE	ACER RUBRUM	7"
56	RED MAPLE	ACER RUBRUM	7"
57	WHITE OAK	QUERCUS ALBA	7"
58	BEECH	FAGUS	8"
59	BLACK WALNUT	JUGLANS NIGRA	12"
60	ASH	FRAXINUS	7"
61	ASH	FRAXINUS	7"
62	ASPEN	POPULUS TREMULOIDES	10"
63	ASPEN	POPULUS TREMULOIDES	12"
64	ASPEN	POPULUS TREMULOIDES	15"
65	ASPEN	POPULUS TREMULOIDES	6"
66	ASPEN	POPULUS TREMULOIDES	7"
67	ASPEN	POPULUS TREMULOIDES	16"
68	ASPEN	POPULUS TREMULOIDES	6"
69	ASPEN	POPULUS TREMULOIDES	7"

**NOTE:**  
THE HIGHLIGHTED TREES (GREY BOXES) IN THE ABOVE TABLE SHALL BE REMOVED IN ORDER TO DEVELOP THE MP MACHINERY & TESTING LAND DEVELOPMENT AS DESIGNED. 39 OF THE 69 TREES WITH 6" CALIPER AND LARGER WILL BE REMOVED.

**TREE PRESERVATION NOTE:**  
THE DEVELOPER SHALL REMOVE 39 OF THE 69 TREES WITH 6" CALIPER AND LARGER, AS IDENTIFIED IN THE EXISTING TREE LIST (TABLE). 39 OF 69 TREES IS 56% OF THE TREES REMOVED. 44% OF THE TREES WILL REMAIN. THIS INCLUDES THE BUFFER YARD TO THE RESIDENTIAL NEIGHBORHOOD TO THE REAR. REFER TO THE NOTE AND PHOTOGRAPHS OF THE EXISTING BUFFER YARD. ALSO, THE ENTIRE TWENTY FEET OF TREES ALONG THE WESTERN PROPERTY LINE SHALL REMAIN; THAT AREA ALONG 240 LINEAR FEET IS 4,800 SQUARE FEET.



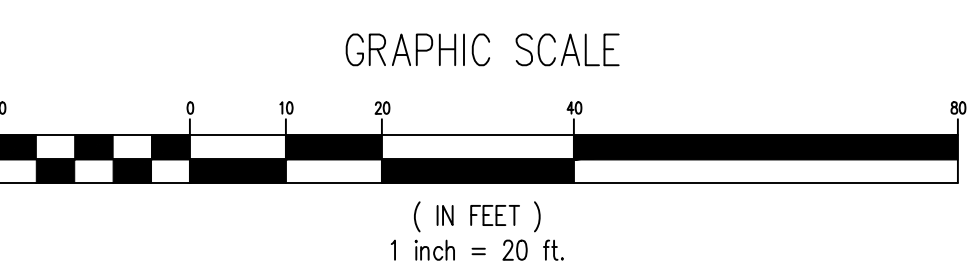
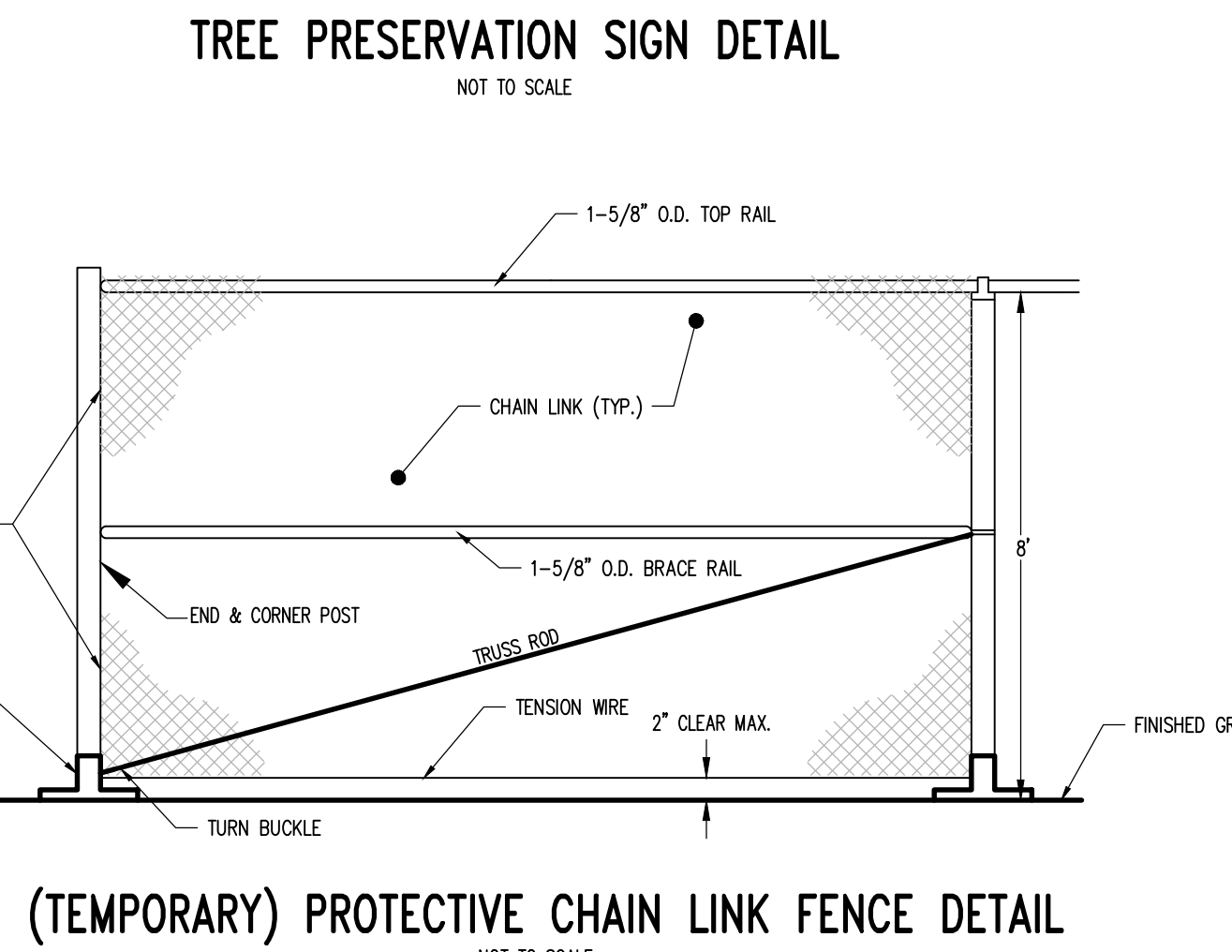
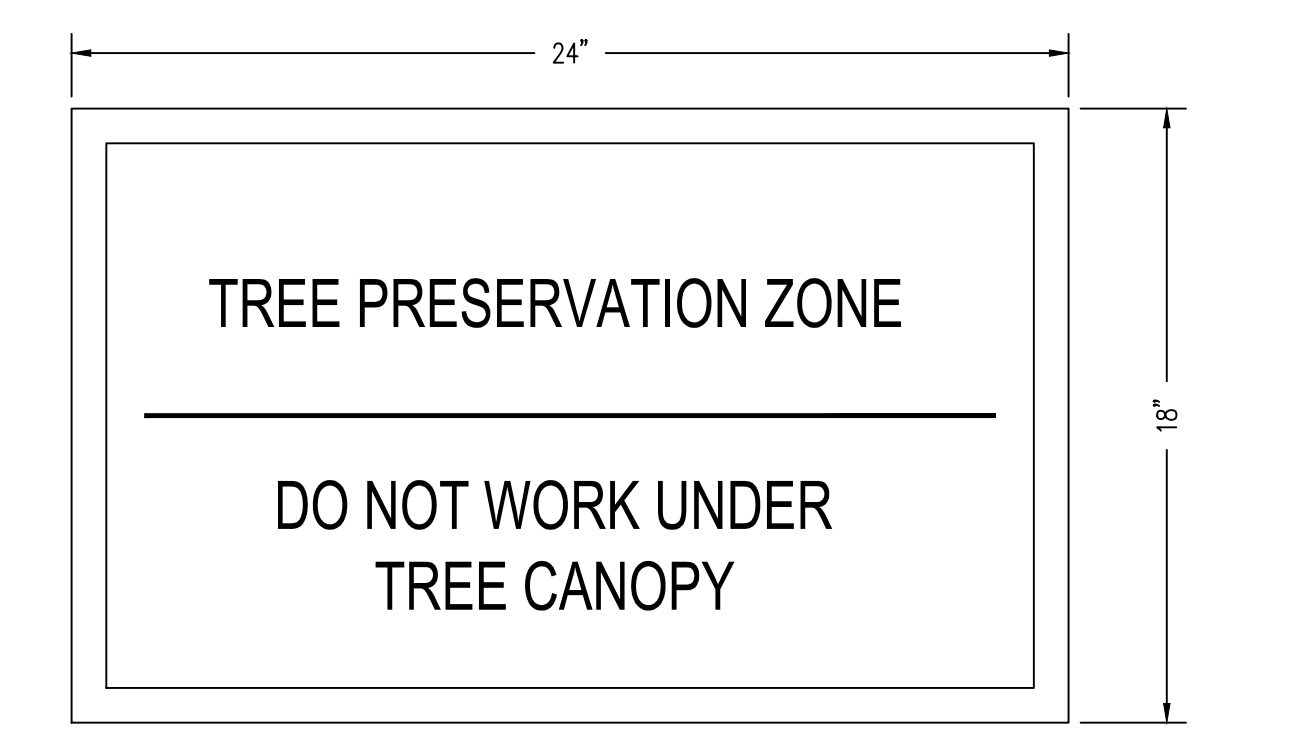
**LANDSCAPE NOTE:**  
ALL TREES AND SHRUBS SHALL BE PLANTED IN ACCORDANCE WITH THE 'GUIDE TO PLANTING IN FERGUSON TOWNSHIP'.

**PROTECTIVE TREE NOTES:**

- PROPOSED 8' PROTECTIVE CHAINLINK FENCES SHALL BE INSTALLED PRIOR TO ANY AND ALL EARTH DISTURBANCE. THE FENCE MAY BE REMOVED ONLY AFTER CONSTRUCTION IS COMPLETED AND THE TOWNSHIP ARBORIST HAS PROVIDED WRITTEN ACKNOWLEDGEMENT THAT THE FENCE CAN BE REMOVED.
- THE TREES AT THE PROPERTY SHALL BE PRESERVED AS SHOWN
- UPON APPROVAL OF ANY PERMIT SUBJECT TO THIS ORDINANCE, AND PRIOR TO ANY CONSTRUCTION, OR EARTH DISTURBANCE ON THE SITE, A PRECONSTRUCTION CONFERENCE SHALL BE HELD ON THE SITE BETWEEN THE TOWNSHIP ARBORIST AND THE APPLICANT.
- THE CONTRACTOR SHALL HIRE AN ARBORIST TO OVERSEE THE PROTECTION, PRESERVATION AND RAISING AND LIFTING CANOPIES BEFORE CONSTRUCTION ACTIVITIES BEGIN. THE HIRED ARBORIST SHALL COORDINATE ALL ACTIVITIES WITH THE TOWNSHIP AUTHORITIES.

- EXISTING FEATURES LEGEND**
- Existing Building
  - Existing Curbing & Edge of Pavement
  - Existing Concrete Areas
  - Existing Landscaped Areas
  - Existing Retaining Wall
  - Existing Contours w/ Elevation (1's & 2's)
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  - Existing Deciduous Tree
  - Existing Evergreen Tree
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- SURVEY FEATURES LEGEND**
- Property Line, Lot Line or Right of Way Line
  - Adjoining Property Line
  - Building Setback Line
  - Roadway Center Line
  - Property Corner Found
  - Property Corner To Be Set
  - TREE PRESERVATION SIGN



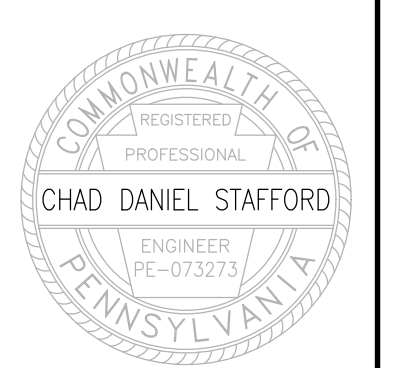
**PennTerra ENGINEERING INC.**  
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Designer: MJA  
Draftsman: MJA  
Proj Manager: CDS  
Surveyor: XXXX  
Perimeter Ck: XXXX  
Book: XXX Pg: XXX  
File: 21316 - 5 - TREE PLAN  
Layout: TREE PLAN

Date	Description	Revisions
6-15-22	REVISED PER COMMENTS	
7-28-22	REVISED PER COMMENTS + NEW LOT MAILING EXTENSION	

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLANS

EXISTING TREE PLAN AND TREE PRESERVATION PLAN

PROJECT NO.  
21316  
DATE  
MAY 3, 2022  
SCALE  
1" = 20'  
SHEET NO.  
5



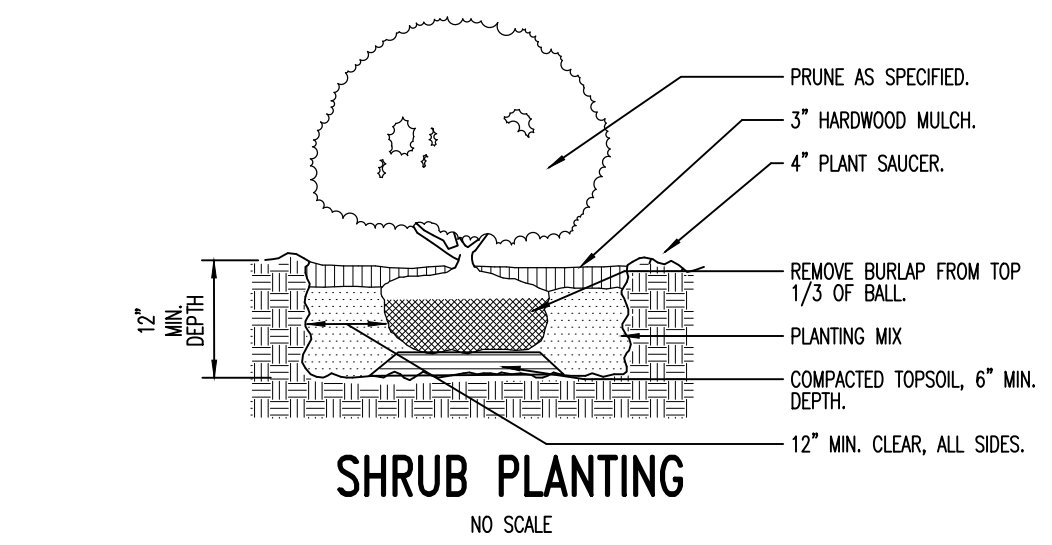
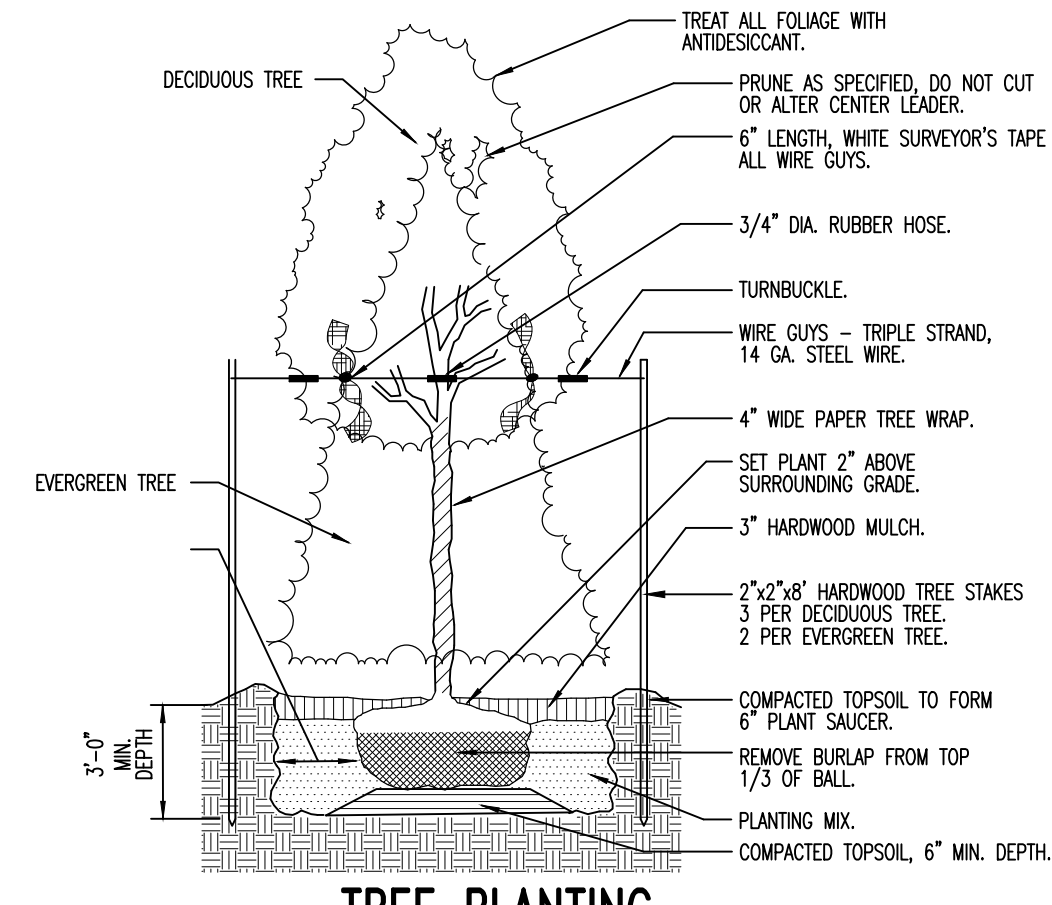
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA 1 CALL 1-800-242-1776 NON-MEMBERS MUST BE CONTACTED DIRECTLY

**LANDSCAPING NOTES:**

- ALL PLANTS SHALL BE MULCHED WITH 3-4" OF SHREDDED HARDWOOD BARK MULCH, WELL-AGED AND DARK BLACK IN COLOR.
- INDIVIDUAL TREES NOT INCLUDED IN A CONTINUOUS BED ARE TO BE MULCHED AT THEIR BASE OVER A 4" DIAMETER CIRCLE.
- ALL GROUP SHRUB PLANTINGS SHALL BE MULCHED IN CONTINUOUS BEDS ENCOMPASSING ALL OF THE PLANTS.
- QUANTITIES OF PLANT MATERIALS NOTED ON THE PLANTING SCHEDULE ARE TO BE VERIFIED WITH QUANTITIES SHOWN ON THE PLAN WHICH WILL HAVE PRIORITY.
- SUBSTITUTIONS OF ANY PLANT MATERIAL SHALL BE APPROVED BY FERGUSON TOWNSHIP AND THE OWNER PRIOR TO PLANTING.
- ALL UNPAVED AREAS ON THE SITE NOT PLANTED WITH TREES AND/OR SHRUBS ARE TO BE PERMANENTLY SEEDED WITH A HARDY PERENNIAL GRASS SEED MIXTURE AFTER FINE GRADING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS UNLESS OTHERWISE NOTED.
- THE LANDSCAPE CONTRACTOR MUST PROVIDE A ONE-YEAR GUARANTEE ON ALL PLANT MATERIAL TO INCLUDE THE REPLACEMENT OF THE PLANTS AND INSTALLATION OF THOSE PLANTS WHICH DO NOT SURVIVE THE YEAR FOLLOWING ACCEPTANCE OF LANDSCAPING BY THE OWNER.
- THE LANDSCAPE CONTRACTOR SHALL KEEP ALL NEW PLANTINGS WATERED OVER THE COURSE OF THE PROJECT & GUARANTEE PERIOD. THE OWNER SHALL PROVIDE A WATERING SOURCE ON SITE FOR THIS PURPOSE. THE LAWN AREAS SHALL BE WATERED BY THE CONTRACTOR UPON INSTALLATION.
- ALL DISTRIBUTED AREAS NOT PROPOSED FOR PAVING SHALL HAVE 6" OF TOPSOIL SPREAD UNIFORMLY TO THE PROPOSED FINISH GRADE.

PLANTING SCHEDULE					
SYMBOL	KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE
<b>CANOPY TREES</b>					
	S-1	14	RED MAPLE	ACER RUBRUM	2 1/2" CAL.
<b>UNDERSTORY / EVERGREEN TREES</b>					
	E-1	8	EASTERN WHITE PINE	PINE STROBUS	6' HT.

**NOTE:**  
ALL TREES AND SHRUBS SHALL BE PLANTED IN ACCORDANCE WITH THE 'GUIDE TO PLANTING IN FERGUSON TOWNSHIP'.



**EXISTING FEATURES LEGEND**

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**SURVEY FEATURES LEGEND**

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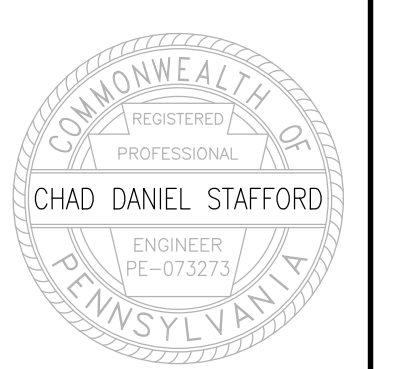
EXISTING TREES TO REMAIN LIST			
NO.	COMMON NAME	BOTANICAL NAME	CALIPER
1	RED OAK	QUERCUS RUBRA	12"
2	RED MAPLE	ACER RUBRUM	12"
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49	RED MAPLE	ACER RUBRUM	7"
56	RED MAPLE	ACER RUBRUM	7"
62	ASPEN	POPULUS TREMULOIDES	10"
63	ASPEN	POPULUS TREMULOIDES	12"
65	ASPEN	POPULUS TREMULOIDES	6"
68	ASPEN	POPULUS TREMULOIDES	6"

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Designer: MJA  
Draftsman: MJA  
Proj Manager: CDS  
Surveyor: XXXX  
Perimeter Ck: XXXX  
Book: XXX Pg: XXX  
File: 21316 - 6 - LANDSCAPE  
Layout: LANDSCAPE

8-15-22 REVISION PER COMMENTS  
MJA  
7-28-22 REVISION PER COMMENTS + NEW LOT MAILING EXTENSION  
Date Description  
REVISIONS

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

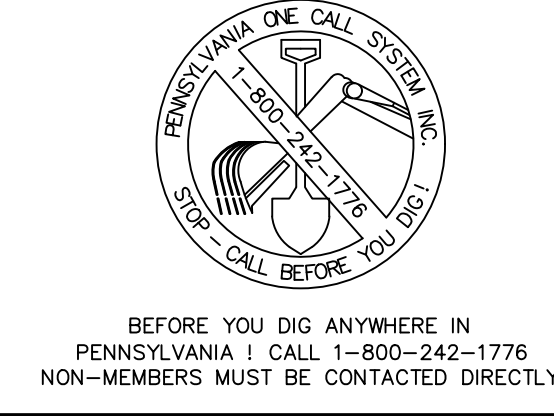
**PRELIMINARY LAND DEVELOPMENT PLANS**

**LANDSCAPE PLAN**

PROJECT NO.  
**21316**

DATE  
**MAY 3, 2022**

SCALE SHEET NO.  
**1" = 20' 6**



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P:\ddp\proj\2021\21316\Design\plot files\landscaping\plans\21316 - 6 - LANDSCAPE.dwg, 8/01/2022, 2:58:48 PM, 1:1

LIGHTING FIXTURE SCHEDULE

TAG	MANUFACTURER & SERIES	DESCRIPTION	PERFORMANCE				MOUNTING		COMMENTS
			LIGHT SOURCE	VOLTAGE (V)	LUMINAIRE WATTS (W)	DELIVERED LUMENS (LM)	COLOR TEMP (K)	TYPE	
LF-E	LITHONIA : WDGE1-P1-40K-80CRI-VW-MVOLT	9"W x 8"H x 5.5"D ARCHITECTURAL EXTERIOR WALL PACK (SMALL) WITH BLACK FINISH, P1 PACKAGE WITH VISUAL COMFORT WIDE DISTRIBUTION.	LED	MVOLT	10.0W	1,229	4,000	9'-0" AFF	5 PROPOSED
LF-F	LITHONIA: WDGE3-P1-40K-70CRI-R2-MVOLT	18"W x 9"H x 8"D ARCHITECTURAL EXTERIOR WALL PACK (LARGE) WITH BLACK FINISH, P1 PACKAGE WITH R2 (TYPE 2) DISTRIBUTION.	LED	MVOLT	52.0W	7,649	4,000	15'-0" AFF	3 PROPOSED
LF-R	LUMARK - MHWL250MT	EXISTING WALL PACK	M.H.	120V	250W	16,400	4,000	EXISTING BUILDING 15'-0" AFF	2 EXISTING
LF-S	GE - SBF017MA	EXISTING BUILDING FLOOD	M.H.	120V	175W	10,350	4,000	EXISTING GROUND	
LF-T	LUMARK - YM70	EXISTING SIGN FLOOD	M.H.	120V	70W	3,400	4,000	EXISTING GROUND	2 EXISTING

NOTES:

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Landscaped Areas
- Existing Retaining Wall
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Fire Hydrant
- Existing Manhole
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C


- Existing Utility Main Valve
- Existing Utility Lateral Valve
- Existing Utility Meter
- Existing Ballast
- Existing Clean-Out
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Sign
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

SURVEY FEATURES LEGEND

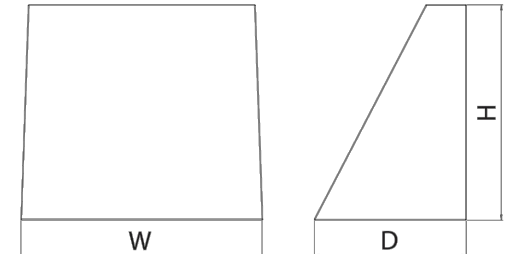
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Roadway Center Line
- Property Corner Found
- Property Corner To Be Set

NOTE:  
ALL SIGHT LIGHTING EXISTING AND PROPOSED SHALL BE PRIMARILY BUILDING WALL PACKS; MOUNTED AT DIMENSION "AFF" (ABOVE FINISH FLOOR)


**WDGE1 LED**  
Architectural Wall Sconce



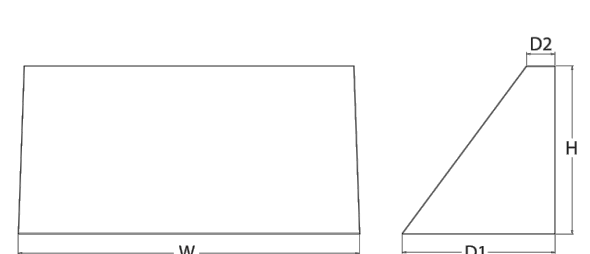
**Specifications**  
Depth: 5.5"  
Height: 8"  
Width: 9"  
Weight: 9 lbs (without options)




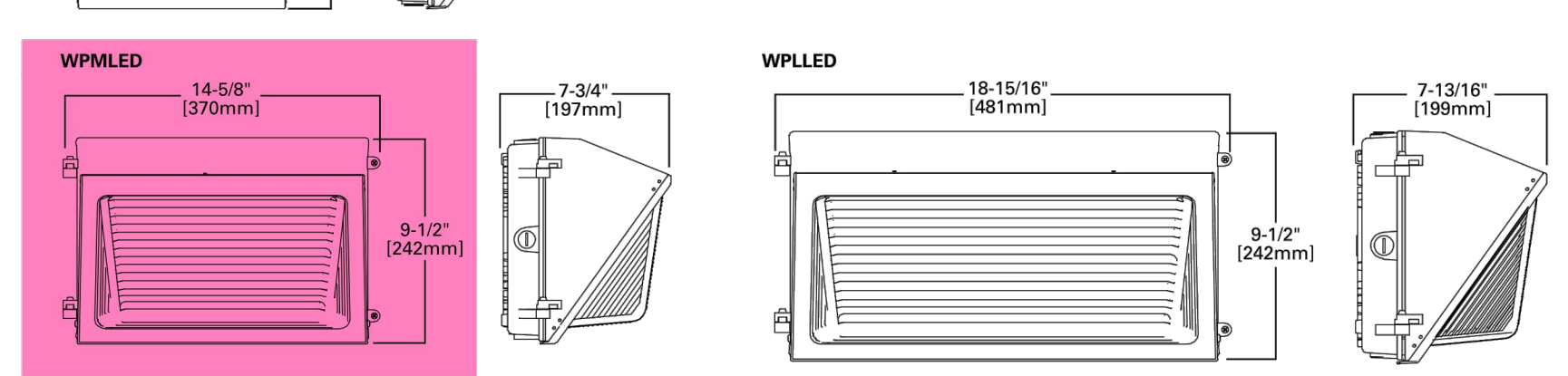
**WDGE3 LED**  
Architectural Wall Sconce



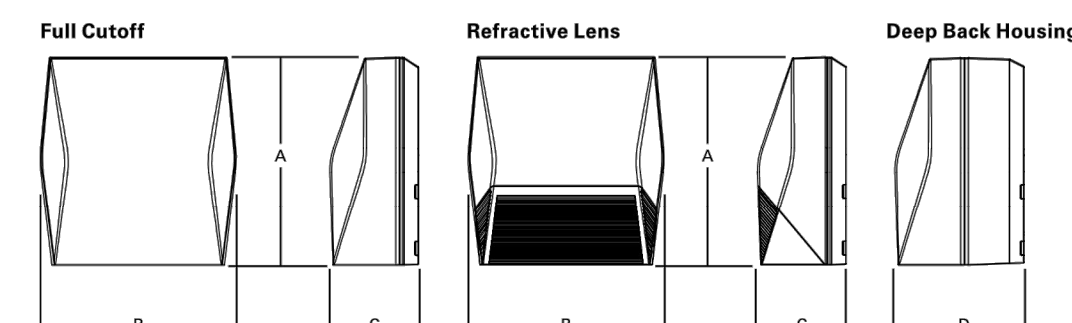

**Specifications**  
Depth (D1): 8"  
Depth (D2): 1.5"  
Height: 9"  
Width: 18"  
Weight: 19.5 lbs (without options)



PROPOSED WALL PACK LIGHTS

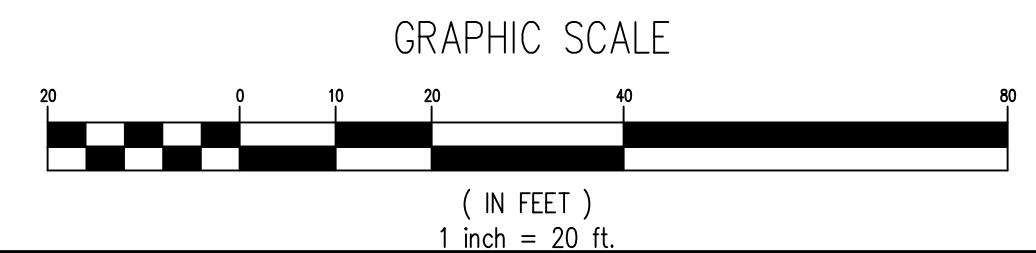
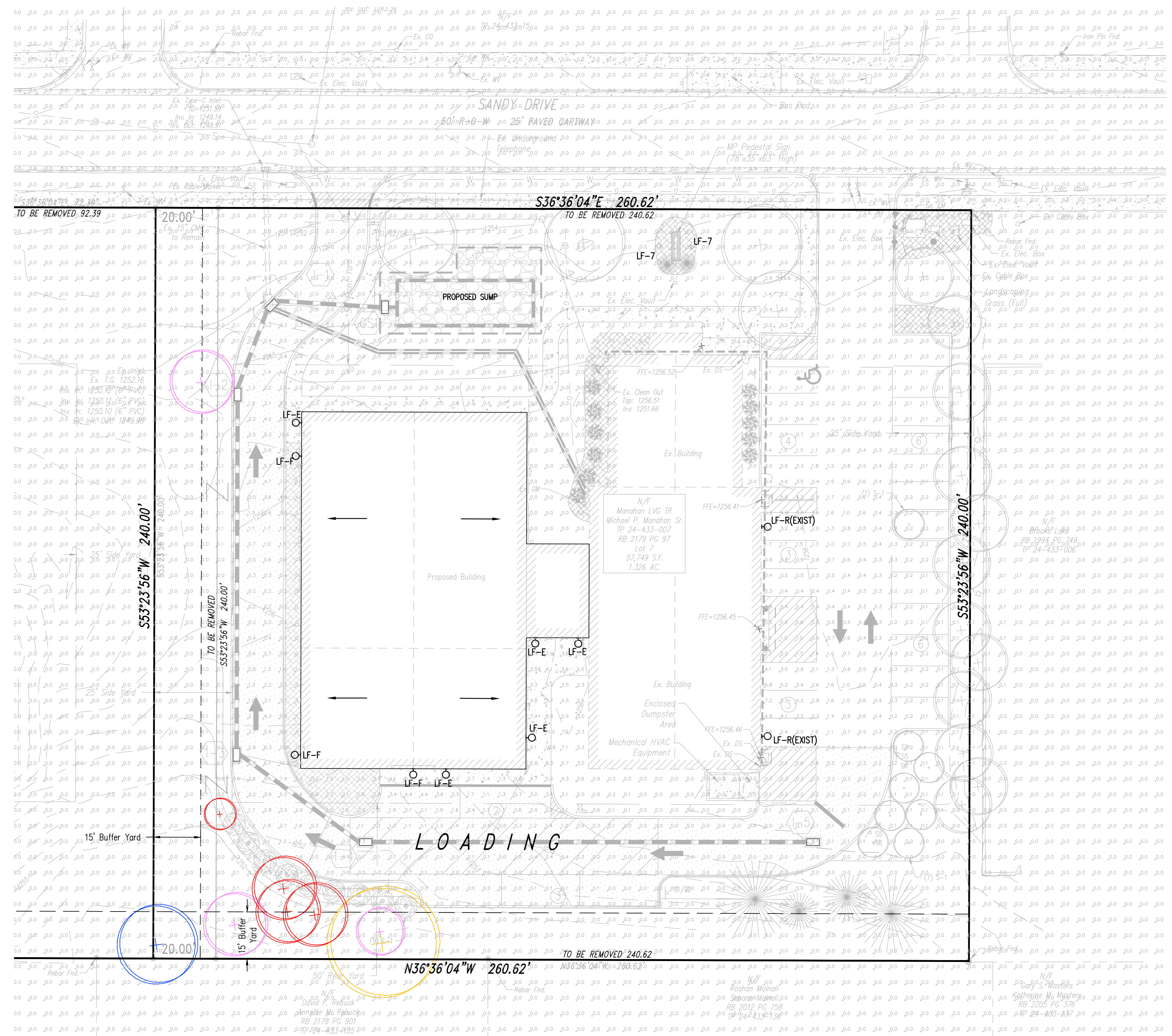



EXISTING WALL PACK LIGHTS

Dimensional Data	AXCS Small	AXCL Large
A	8" [202mm]	11-1/2" [292mm]
B	7-1/2" [190mm]	10-3/4" [273mm]
C	3-5/8" [94mm]	4-7/8" [124mm]
D	6-1/8" [155mm]	7-1/8" [181mm]

EXISTING WALL PACK LIGHTS

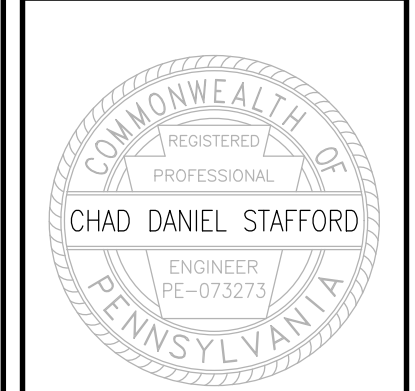


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Surveyor	XXXX
Perimeter Ck.	
Book	XXX Pg XXX
File	2136 - 7 - LIGHTING
Layout	LIGHTING

Date	Description
6-15-22	REVISED PER COMMENTS
7-28-22	REVISED PER COMMENTS + NEW LOT MAILING EXTENSION

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERCUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLANS

LIGHTING PLAN

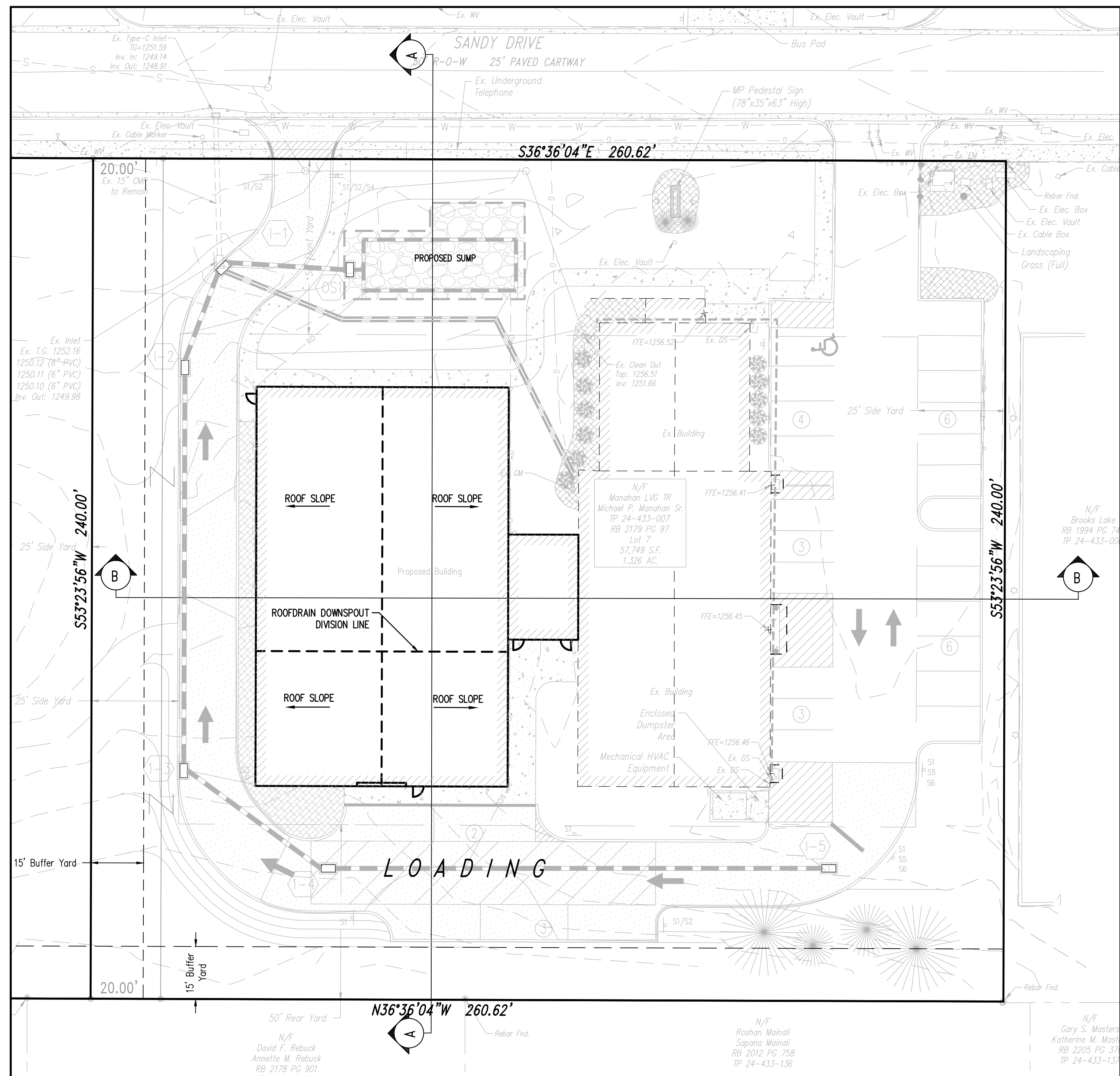
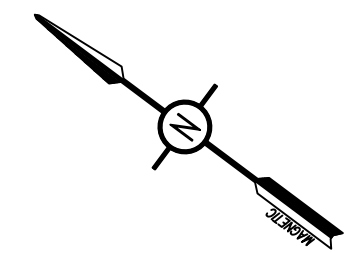
PROJECT NO.  
**21316**

DATE  
**MAY 3, 2022**

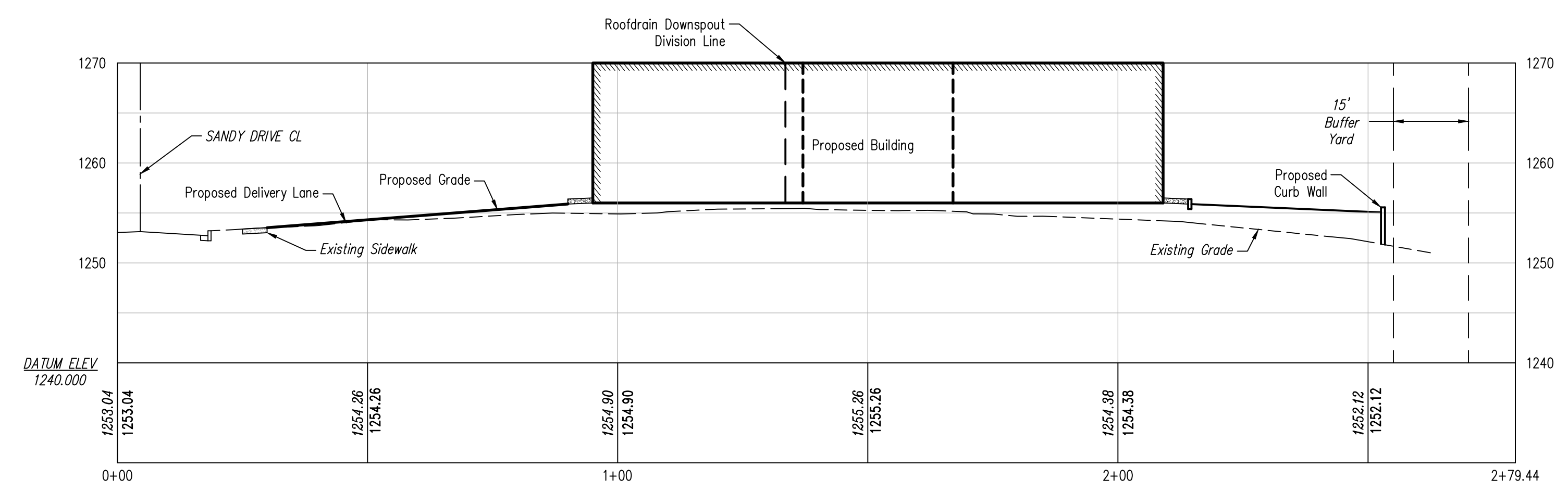
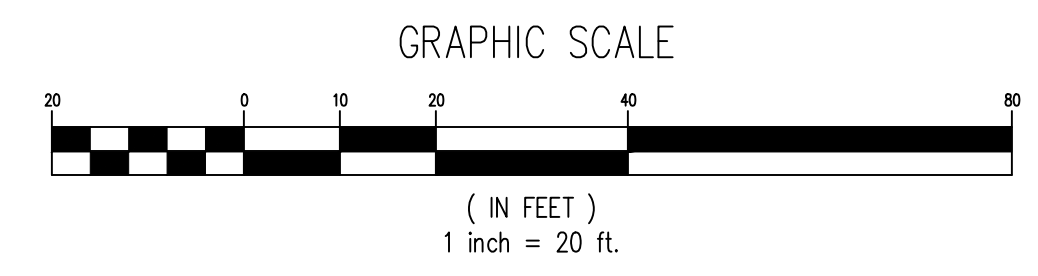
SCALE  
**1" = 20'**

SHEET NO.  
**7**

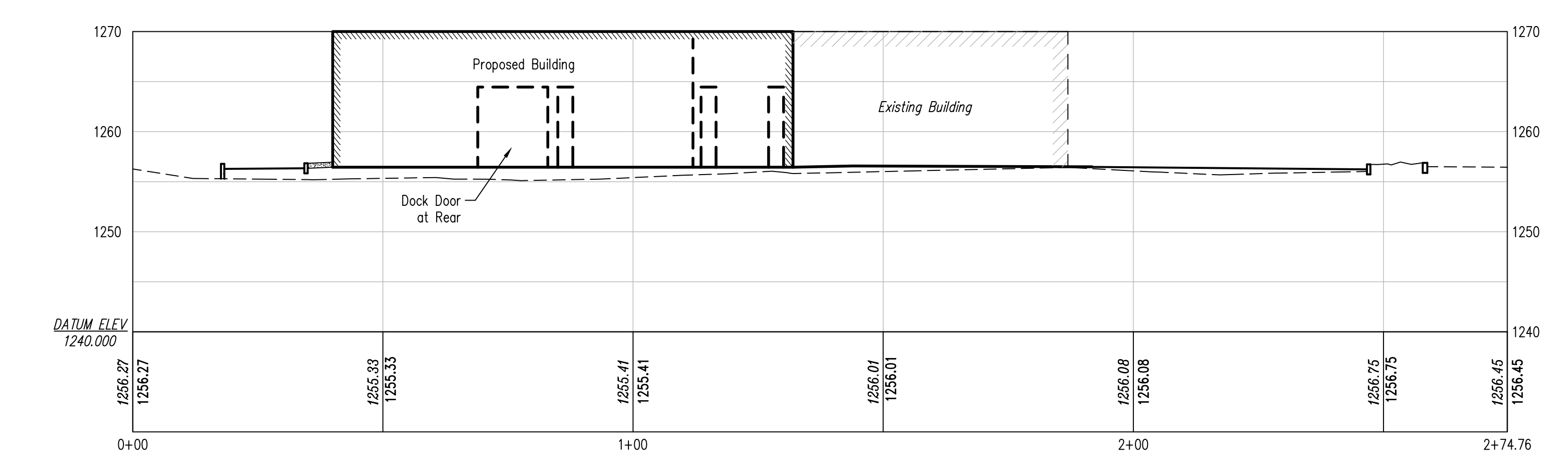
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**BUILDING SITE PLAN**  
SCALE: 1" = 20'



**CROSS SECTION A-A**  
HORIZ: 1"=20'  
VERT: 1"=5'



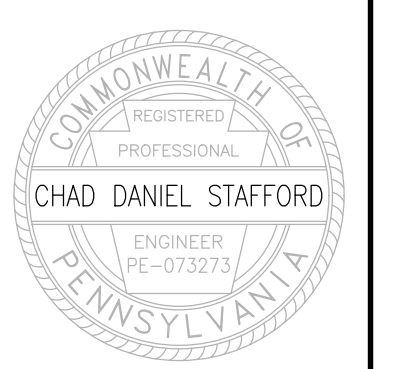
**CROSS SECTION B-B**  
HORIZ: 1"=20'  
VERT: 1"=5'

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Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg XXX
File	2136 - 8 - SITE CROSS SECTIONS
Layout	SITE CROSS SECTIONS

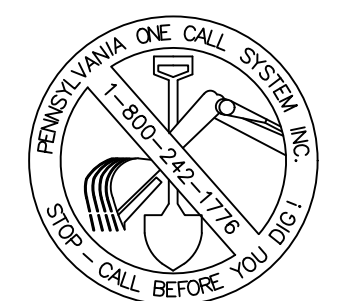
Date	Description
6-15-22	REVISED PER COMMENTS MJA
7-28-22	REVISED PER COMMENTS + NEW LOT MATHS. EXTENSION

**MP MACHINERY AND  
TESTING AT 2161 SANDY  
DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

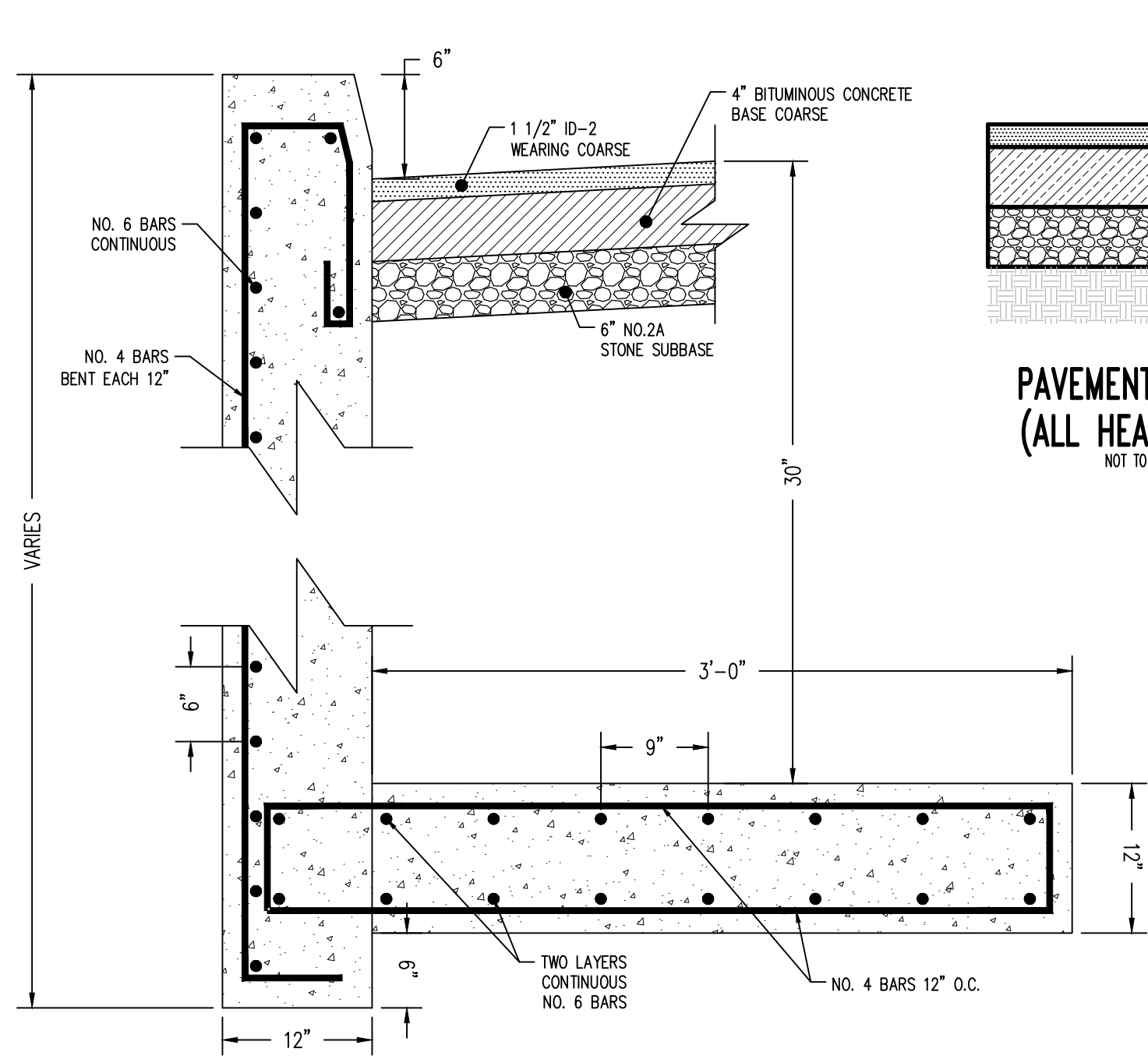
**PRELIMINARY LAND  
DEVELOPMENT PLANS**

**SITE CROSS  
SECTIONS PLAN**

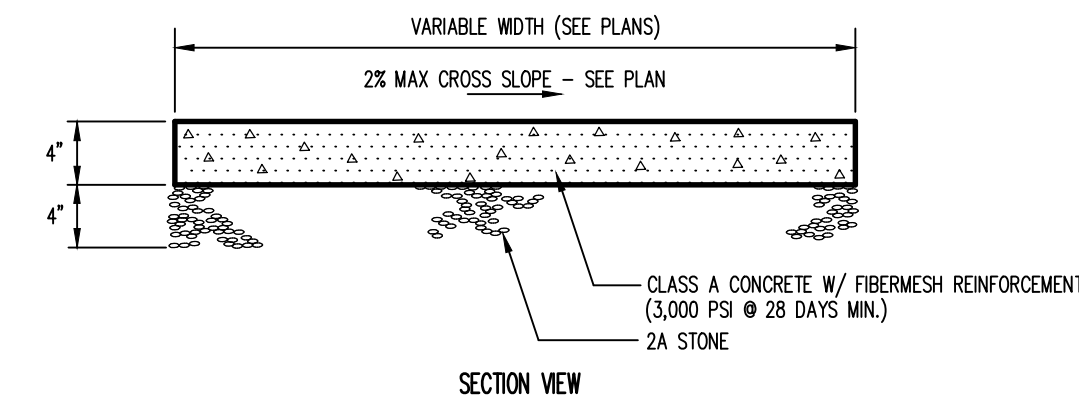


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PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	AS SHOWN
SHEET NO.	8

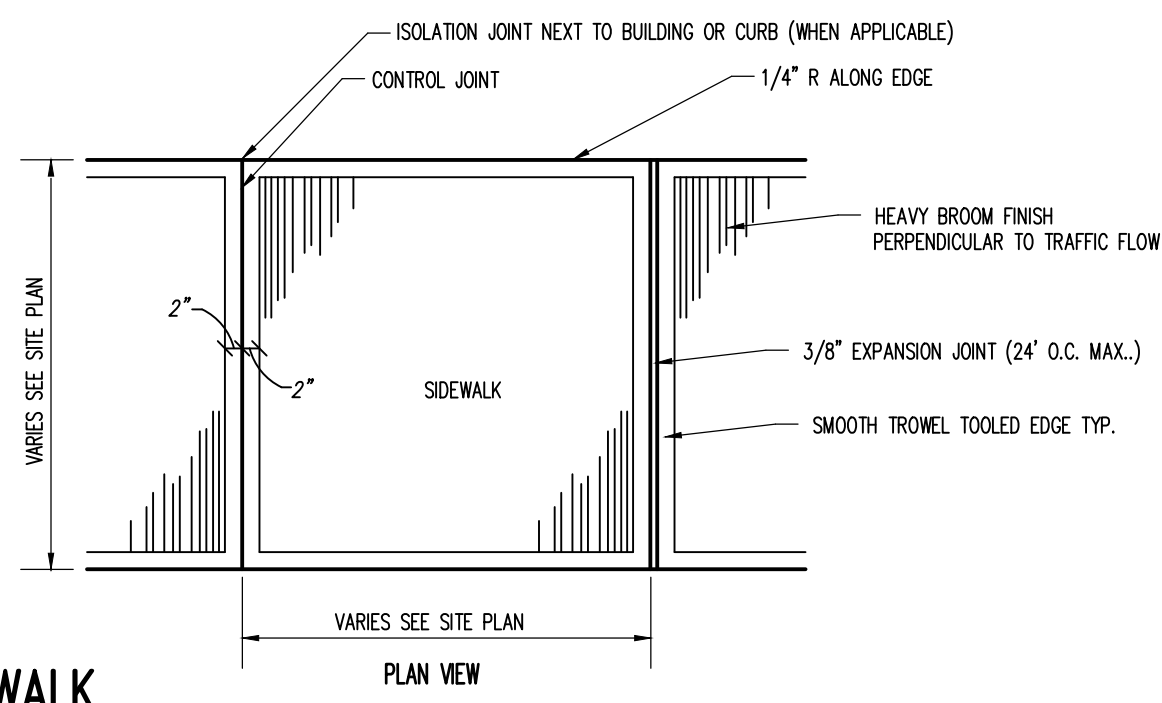


**CONCRETE CURB WALL**  
NOT TO SCALE

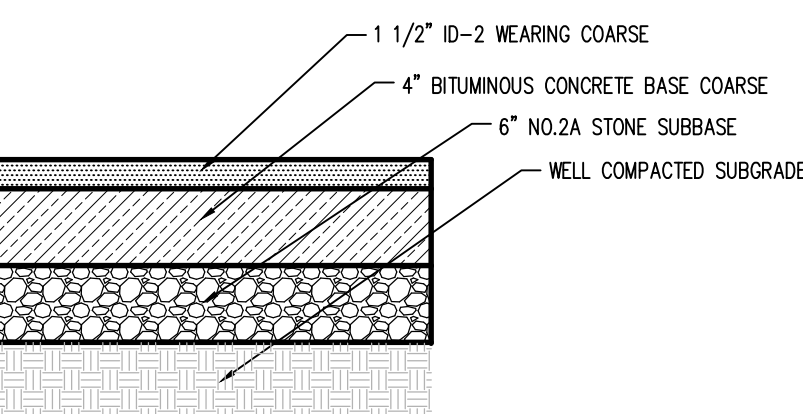


**CEMENT CONCRETE SIDEWALK**  
NOT TO SCALE

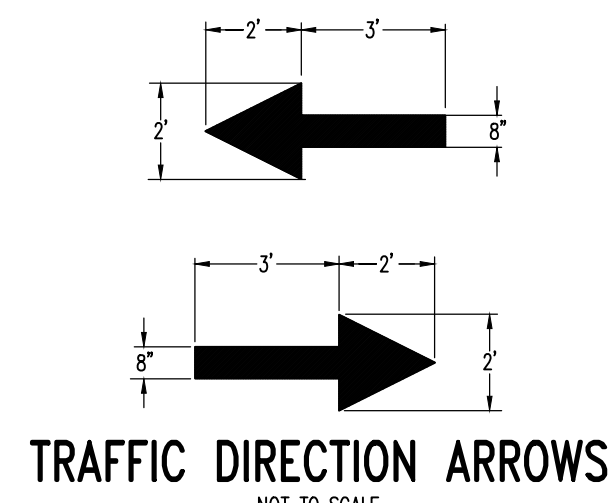
NOTE:  
1. CONTROL JOINTS 5' MAX. SPACING, FULL DEPTH EXPANSION JOINTS AT SOLID STRUCTURES, CURB AND BEGINNING AND END OF WORKING DAY.



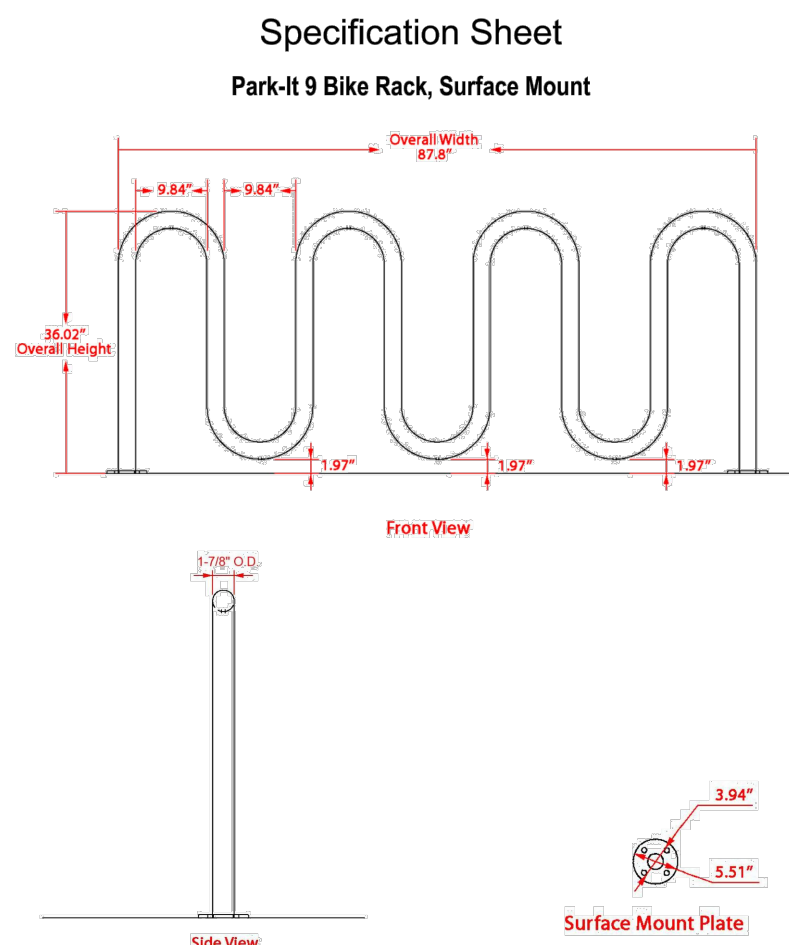
**CEMENT CONCRETE SIDEWALK**  
NOT TO SCALE



**PAVEMENT SECTION (ALL HEAVY DUTY)**  
NOT TO SCALE

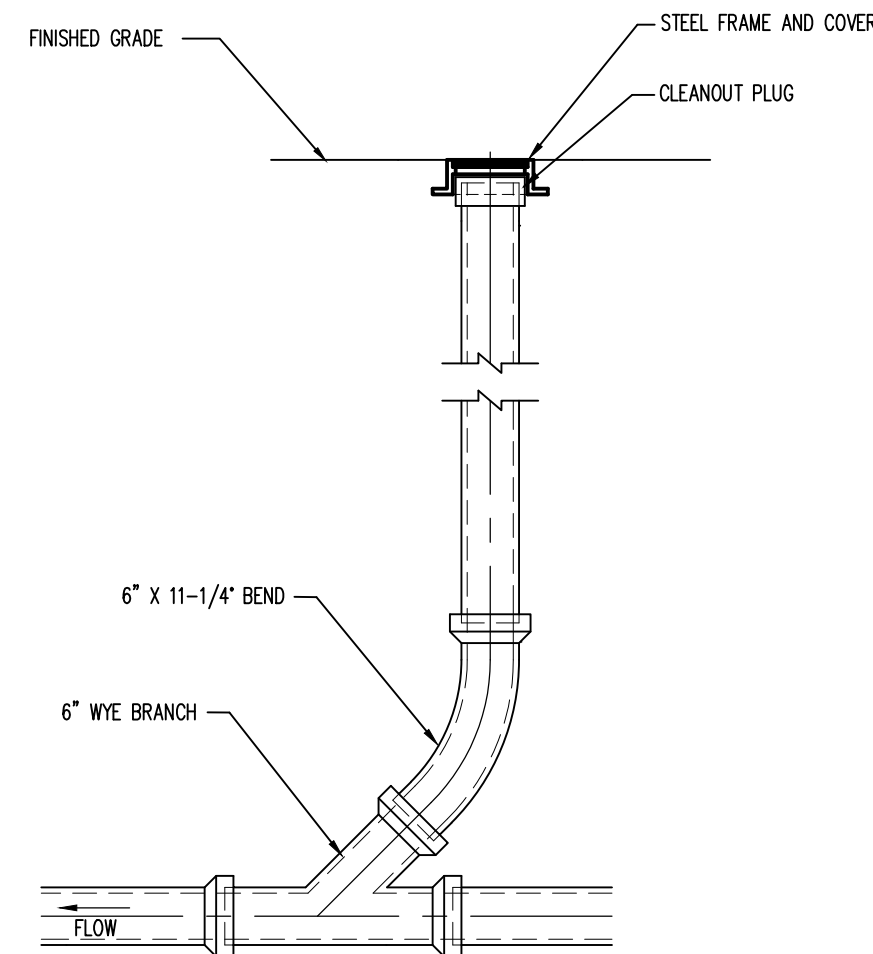


**TRAFFIC DIRECTION ARROWS**  
NOT TO SCALE

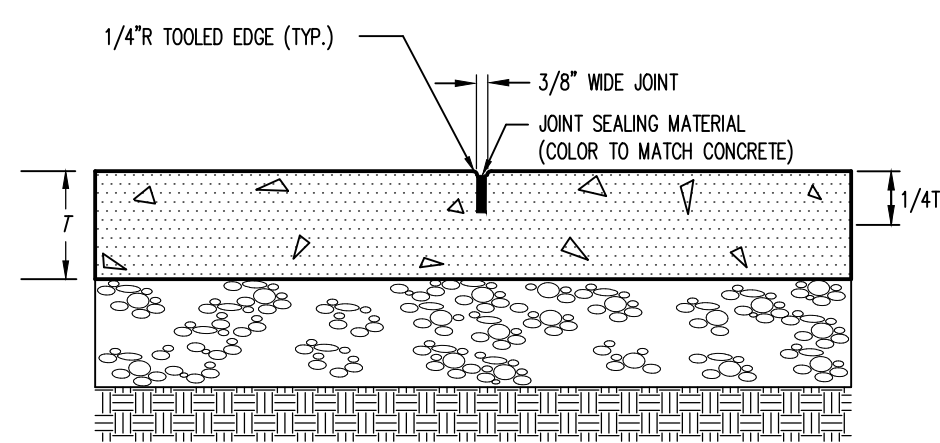


Material	Finish	Dimensions	Weight
Steel tubing	Galvanized PLUS clear coat finish	87.8" w x 36.02" h Footprint: 90.84" w x 36.02" h	70 lbs.
Type of Mount:	Surface mount		
Size of Tubing:	1-7/8" O.D. x 11-gauge		

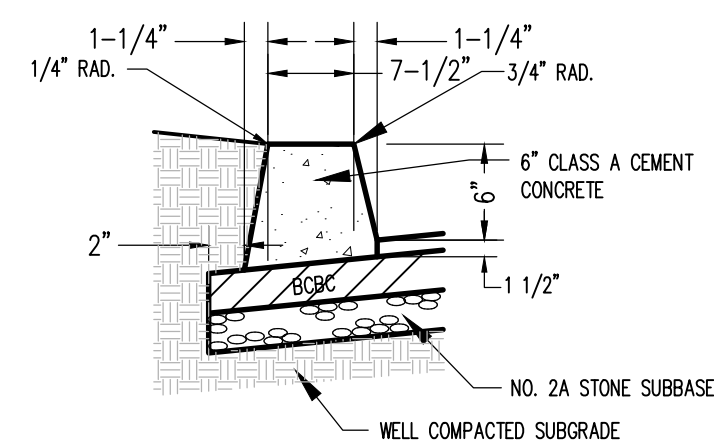
**BIKE RACK DETAIL**  
NOT TO SCALE



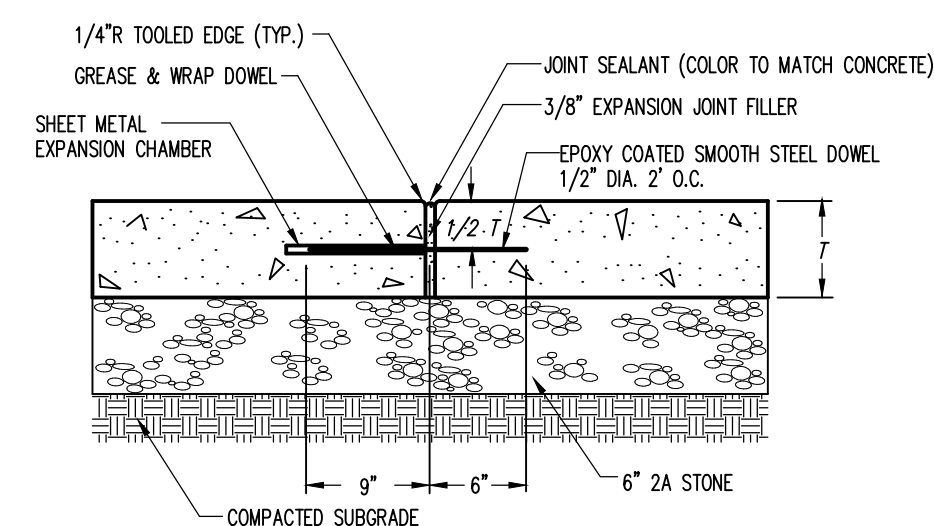
**6" SANITARY SEWER CLEAN-OUT DETAIL**  
NOT TO SCALE



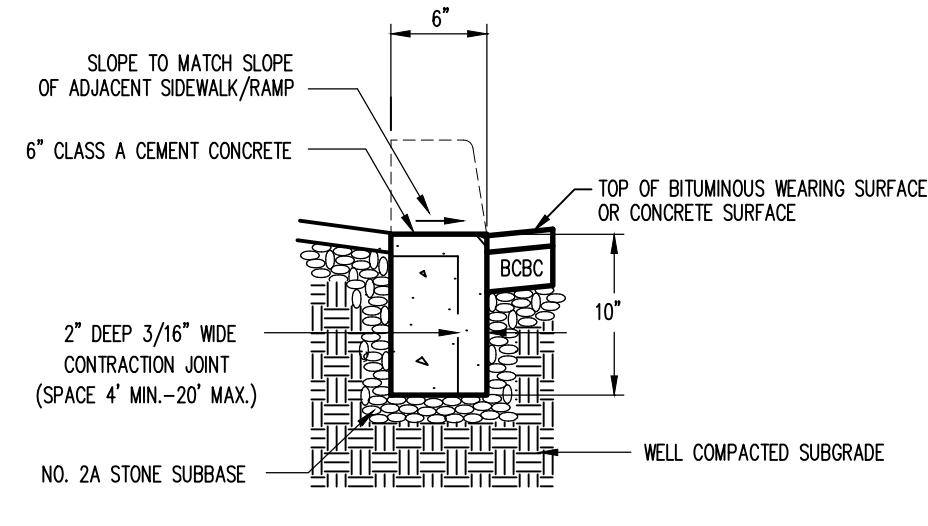
**CONCRETE CONTROL JOINT**  
NOT TO SCALE



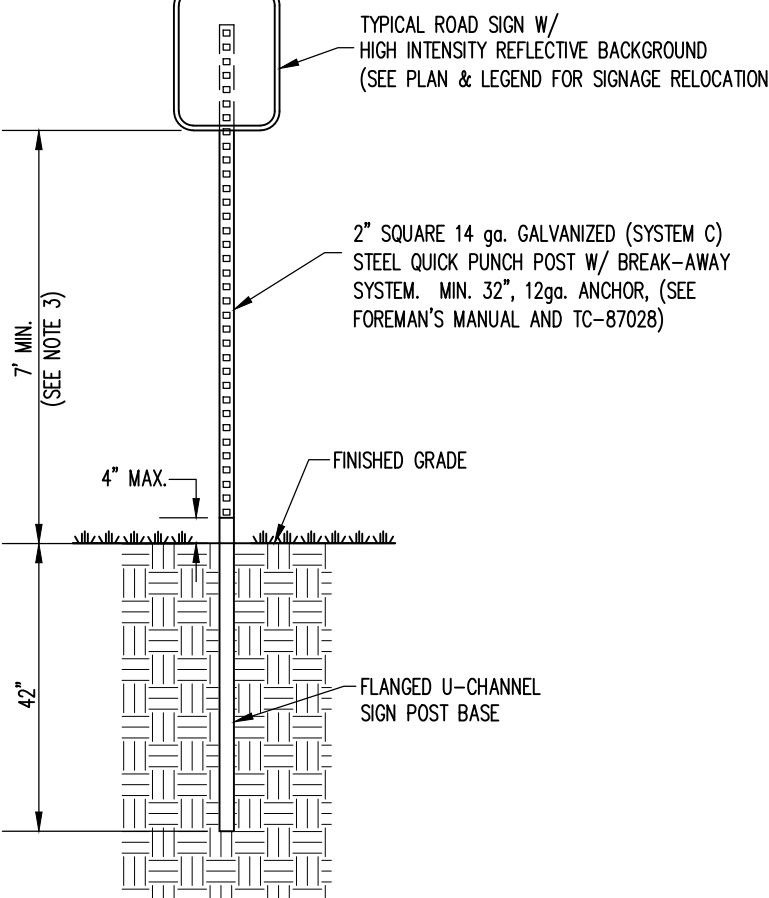
**6" EXTRUDED CONCRETE CURB**  
NOT TO SCALE



**CONCRETE EXPANSION JOINT DETAIL**  
NOT TO SCALE



**DEPRESSED CONCRETE CURB**  
NOT TO SCALE



**SIGN POST DETAIL**  
NOT TO SCALE



S-1



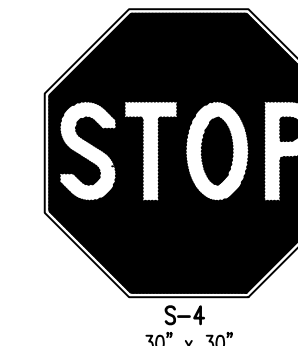
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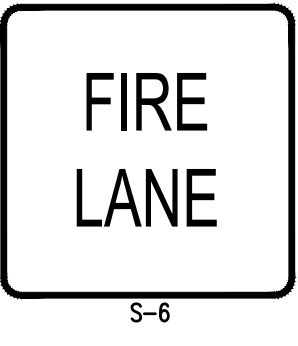
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S-5

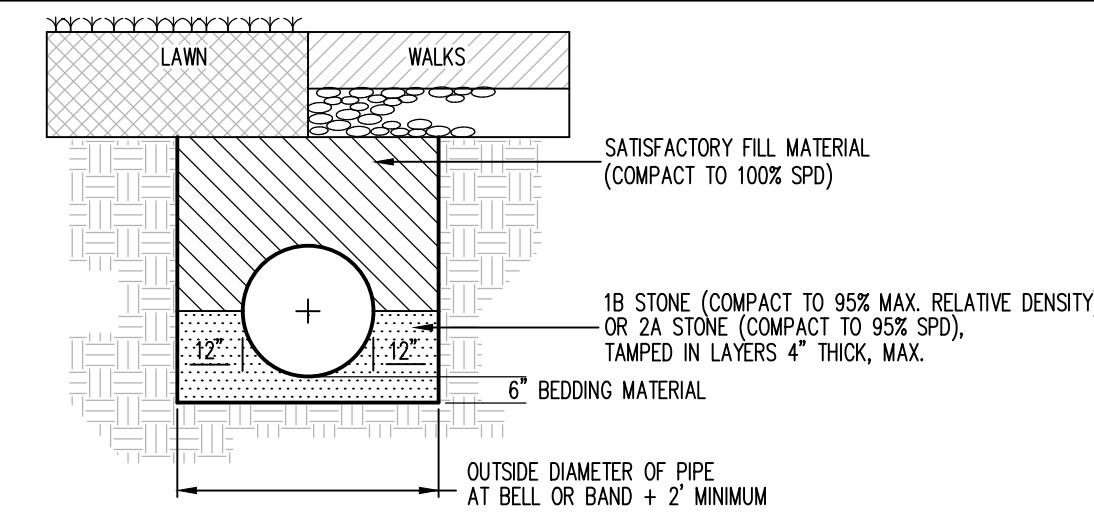


S-4  
30" x 30"



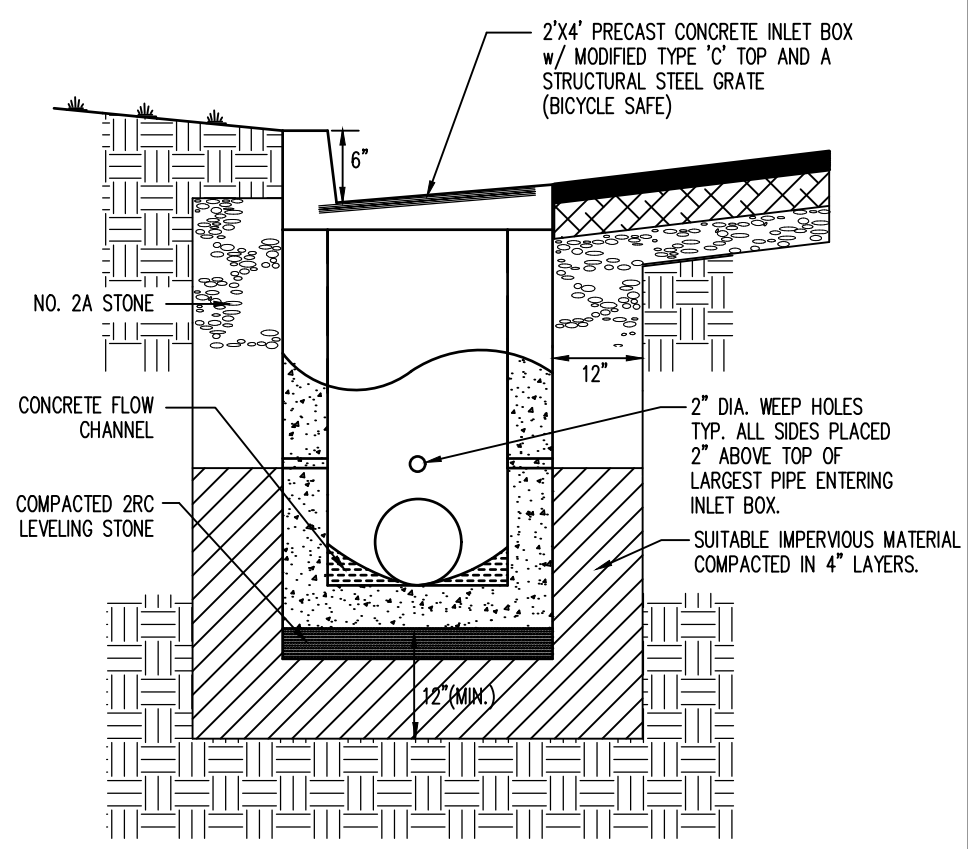
S-6

**SIGN DETAILS**  
NOT TO SCALE

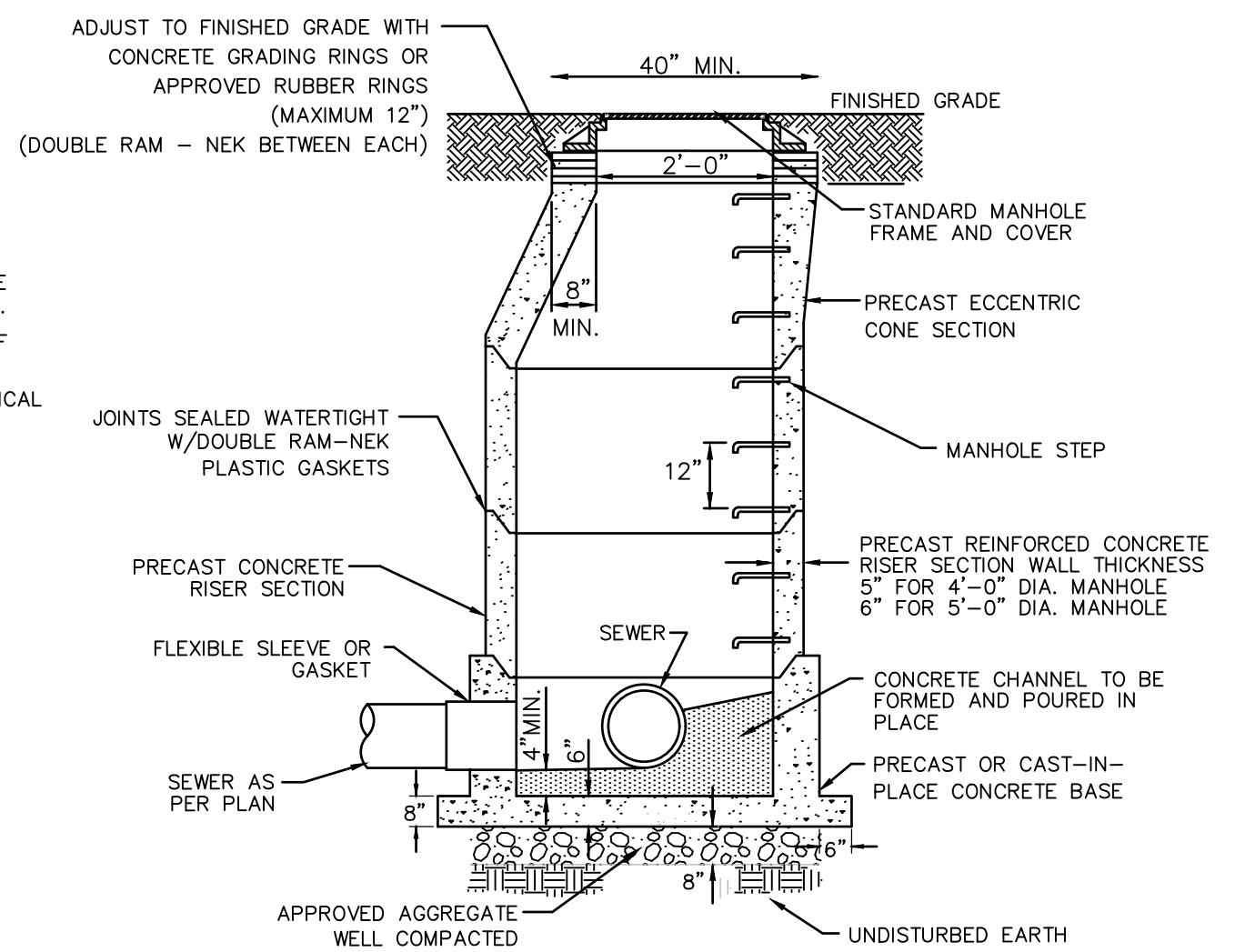


- NOTES:
1. EXCAVATE THE TRENCH TO THE WIDTH OF THE OUTSIDE DIAMETER OF THE PIPE + 2" AND CREATE AN APPROPRIATE BEDDING 6" DEEP.
  2. AT UNPAVED AREAS SUITABLE MATERIAL MAY BE UTILIZED THE ENTIRE DEPTH OF TRENCH (LESS 6" TOPSOIL). PLACEMENT AND COMPACTION TO BE AS NOTED FOR PAVED AREAS.
  3. ALL STORM SEWER PIPE IS TO BE HIGH-DENSITY POLYETHYLENE (HDPE) AND HAVE A SMOOTH LINED INTERIOR WITH WATER-TIGHT JOINTS.
  4. SATISFACTORY FILL MATERIAL: SOILS MEETING ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GC, GM, SW, SC, SM, AND CL WITH LIQUID LIMIT NOT GREATER THAN 35, OR A COMBINATION OF THESE GROUPS FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER; WITHIN 3% OF OPTIMUM MOISTURE CONTENT. (INCLUDES 2A)
  5. PLACE SATISFACTORY FILL MATERIAL IN LAYERS 6" THICK MAX. COMPACT TO 100% SPD.
  6. OWNER WILL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY ASSURANCE TESTING. NOTIFY TESTING AGENCY AT LEAST 48 HOURS PRIOR TO FILL PLACEMENT ACTIVITIES. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.

**STORMSEWER (HDPE) INSTALLATION**  
NOT TO SCALE

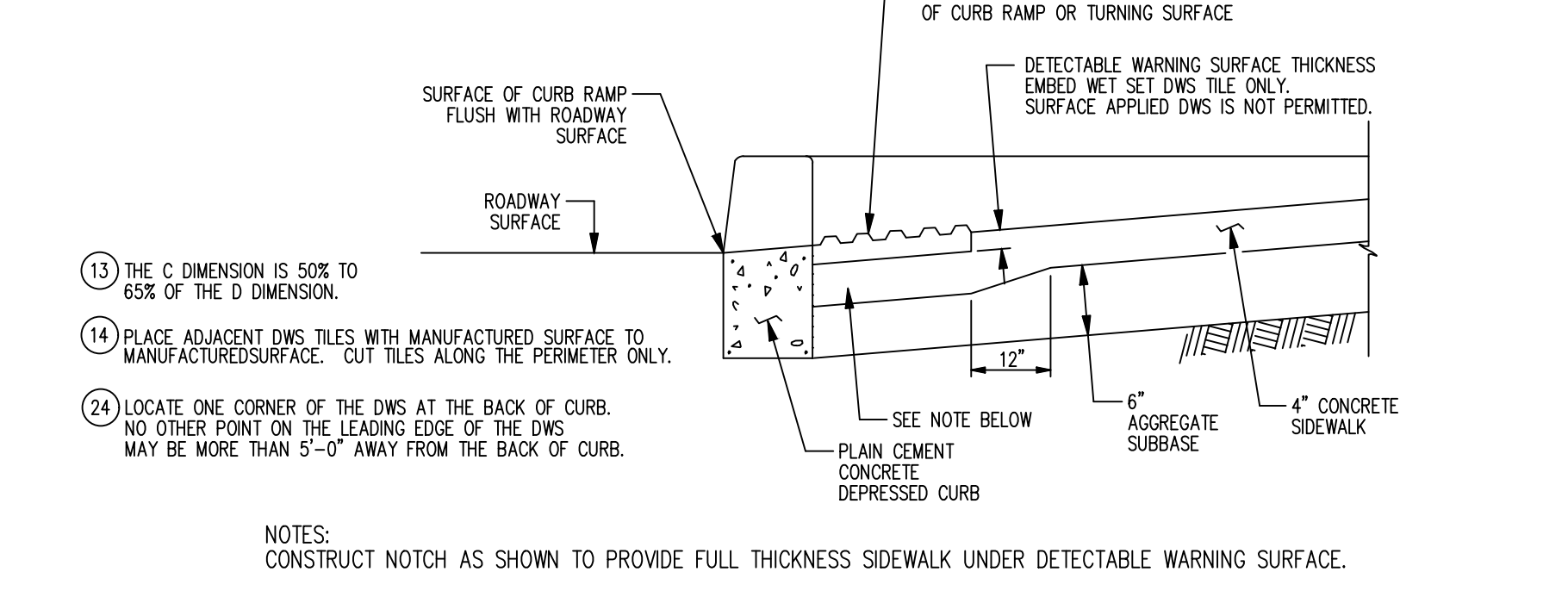
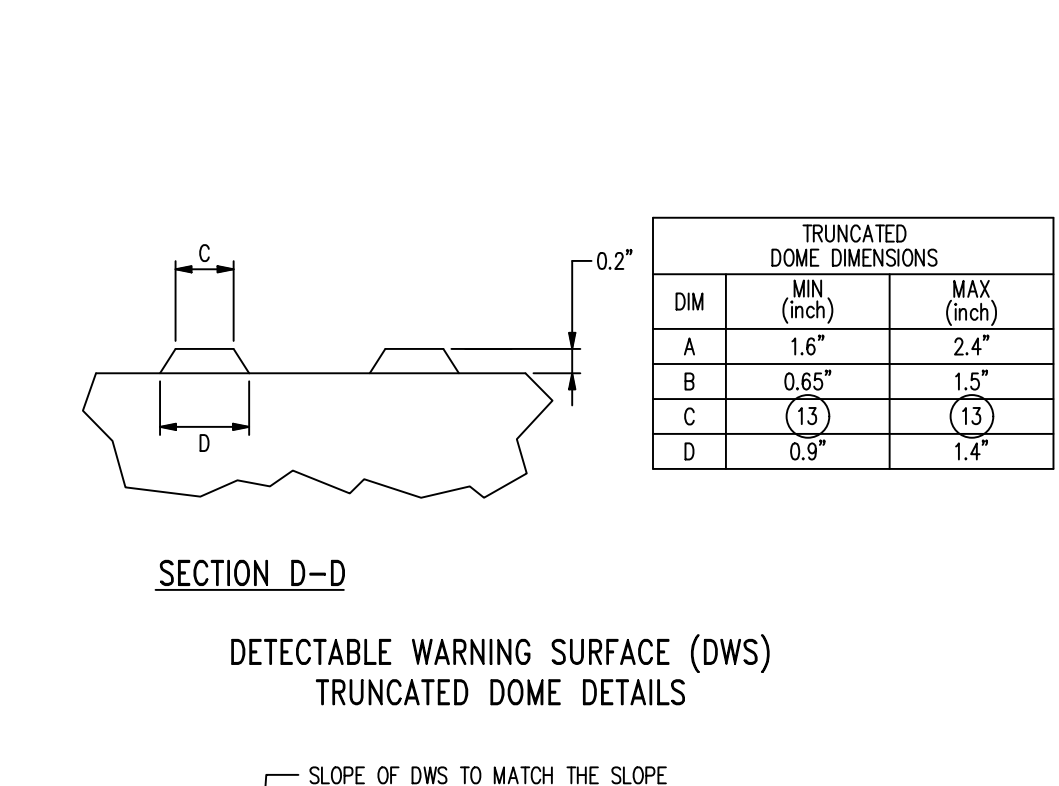
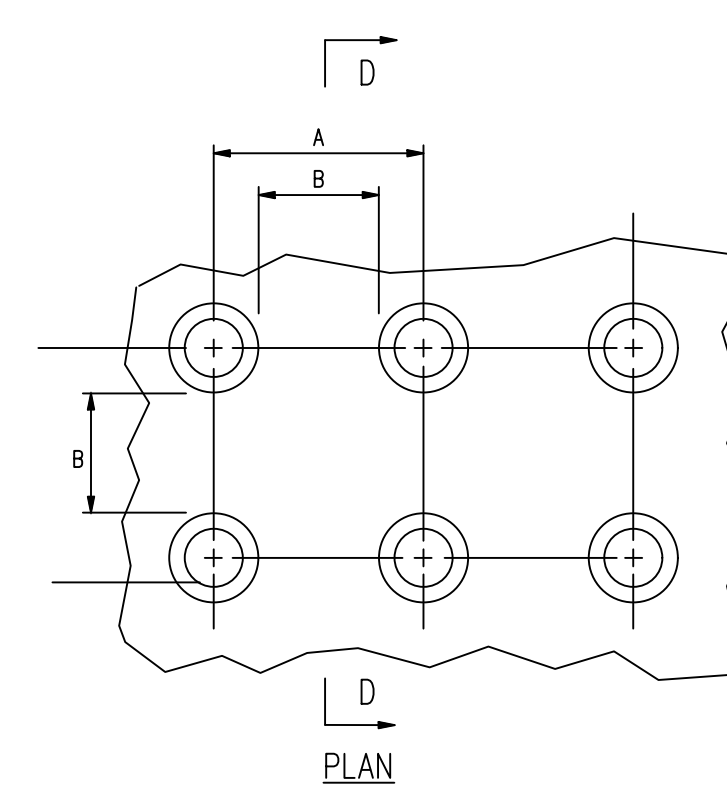


**MODIFIED TYPE 'C' PRECAST CONCRETE INLET**  
NOT TO SCALE



**SANITARY SEWER MANHOLE**  
NOT TO SCALE

- NOTES:
1. MANHOLES SHALL CONFORM TO ASTM C-478.
  2. THE ENTIRE OUTER SURFACE OF THE MANHOLE SHALL BE COATED WITH 2 COATS BITUMASTIC.
  3. WATERTIGHT COVERS SHALL BE THE TYPICAL OF THE STANDARD OF THE AUTHORITY.
  4. MANHOLE SECTION HEIGHTS SHALL BE THE TYPICAL OF THE STANDARD OF THE AUTHORITY.



**DETECTABLE WARNING SURFACE EMBEDDING DETAIL**  
NOT TO SCALE

- NOTES:
13. THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.
  14. PLACE ADJACENT DWS TILES WITH MANUFACTURED SURFACE TO MANUFACTURED SURFACE. CUT TILES ALONG THE PERIMETER ONLY.
  24. LOCATE ONE CORNER OF THE DWS AT THE BACK OF CURB. NO OTHER POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 5'-0" AWAY FROM THE BACK OF CURB.
- OPTIONAL:  
CONSTRUCT 2" MAX CONCRETE BORDER AROUND DWS TO PROVIDE PROPER INSTALLATION.

**DETECTABLE WARNING SURFACE EMBEDDING DETAIL**  
NOT TO SCALE



Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg. XXX
File	2136 - 9 - GENERAL CONSTRUCTION DETAILS
Layout	DETAILS

8-15-22	REVISED PER COMMENTS
MJA	
7-28-22	REVISED PER COMMENTS + NEW LOT
MJA	
Date	Description
	REVISIONS

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

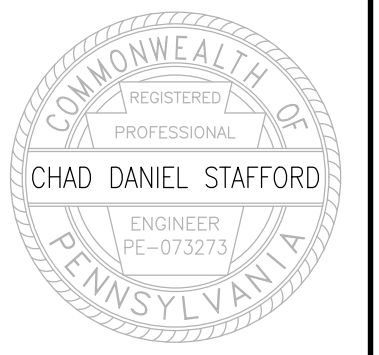
FERGUSON TOWNSHIP CENTRE COUNTY PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLANS

SITE CONSTRUCTION DETAILS

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	N.T.S.
SHEET NO.	9





Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg. XXX
File	2136 - 10 - FLOOR PLAN
Layout	FLOOR PLAN

Date	Description
6-15-22	REVISED PER COMMENTS
7-28-22	REVISED PER COMMENTS + NEW LOT
	MEASUREMENT
	EXTENSION

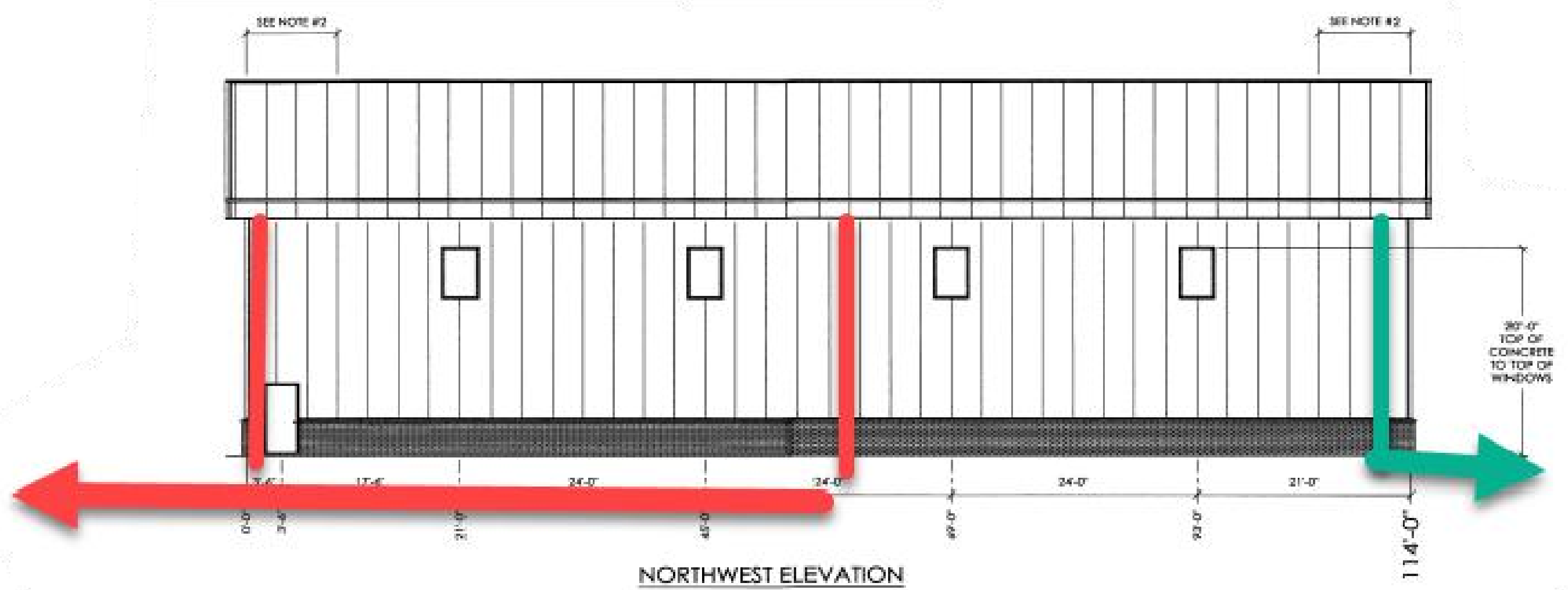
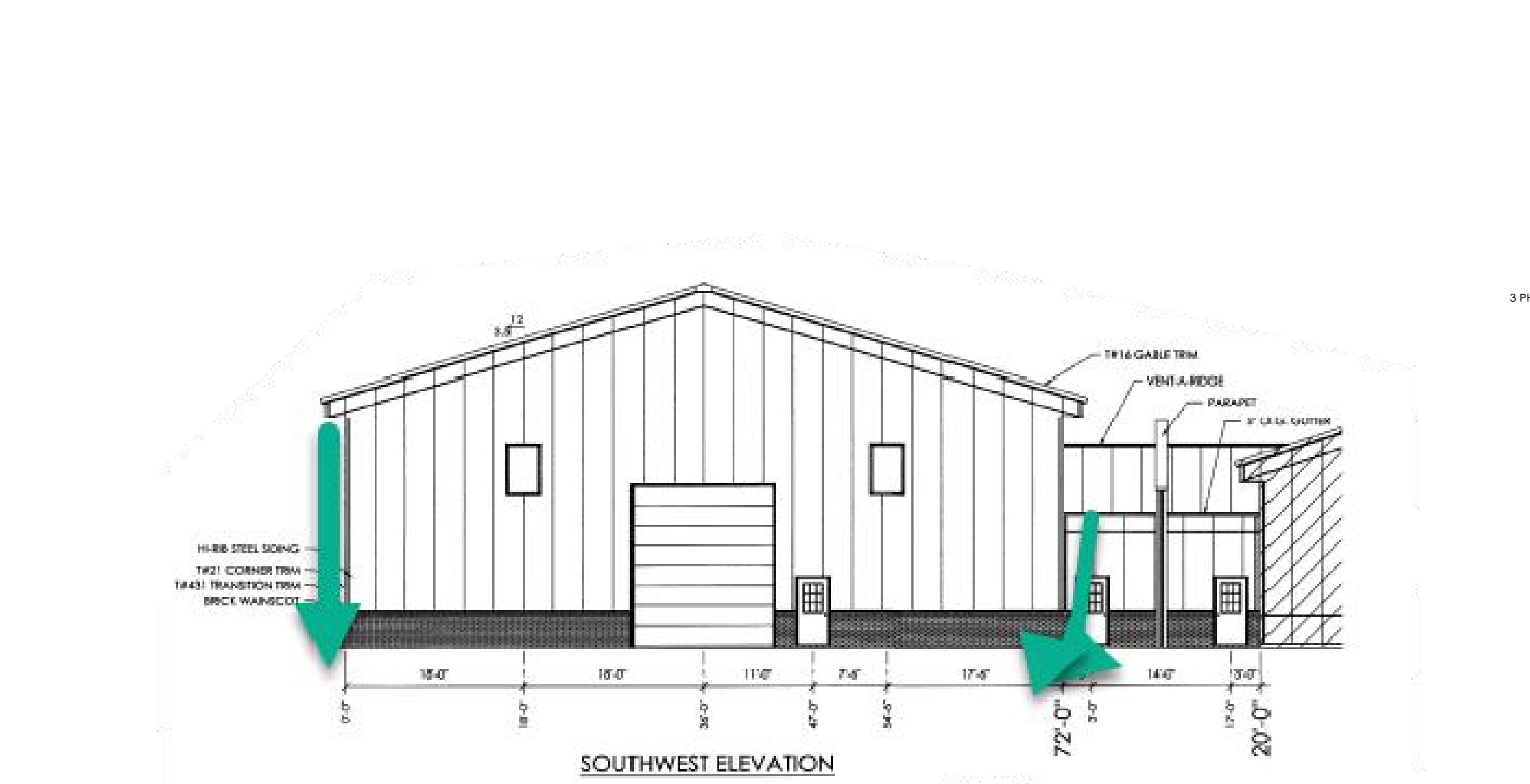
**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
 CENTRE COUNTY  
 PENNSYLVANIA

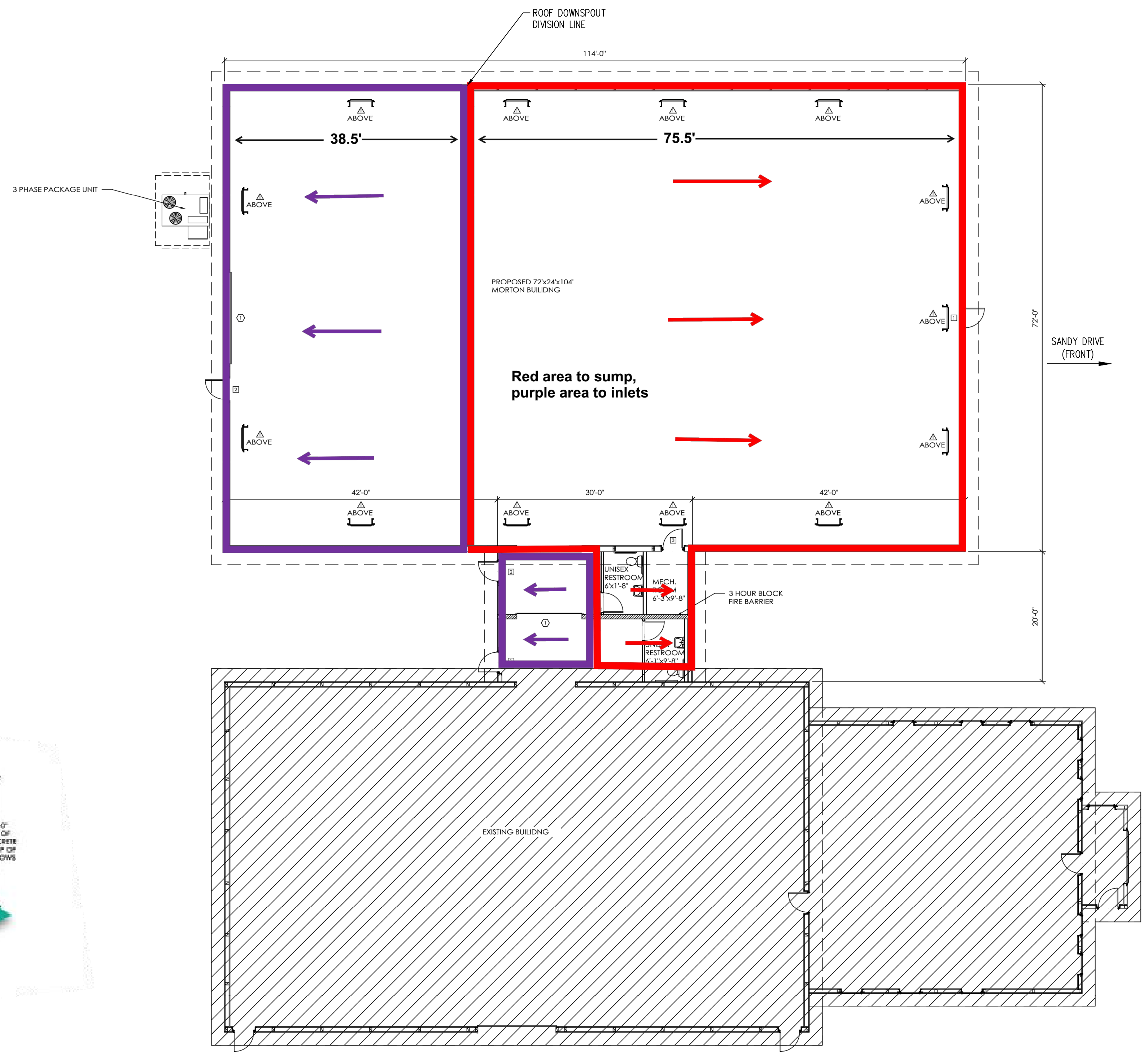
PRELIMINARY LAND DEVELOPMENT PLANS

BUILDING FLOOR PLAN AND ELEVATIONS

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	N.T.S.
SHEET NO.	10



**BUILDING ADDITION ELEVATIONS**  
 NOT TO SCALE



**EXISTING FLOOR PLAN AND BUILDING ADDITION**  
 NOT TO SCALE

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**STORMWATER MANAGEMENT NOTES**

- All site work shall be done in accordance with the plans prepared by PennTerra Engineering, Inc., the current requirements of the governing municipality, the applicable sections of the PennDOT standard specifications for roadway construction, and all other pertinent federal and state laws.
- The Contractor shall comply at all times with applicable federal, state and local laws, provisions, and policies governing safety and health, including the federal construction safety act, as amended.
- The Contractor shall be responsible for examining the areas and conditions under which the project is to be constructed prior to the submission of a bid. Submission of a bid to be constructed means the Contractor has reviewed the site and is familiar with conditions and constraints of the site.
- Before excavation, all underground utilities shall be located in the field by the proper authorities. The Contractor shall notify pa one call 1-800-242-1776. The location of all utilities and underground structures are approximate and may not all be shown. It is the responsibility of the Contractor to determine the existence and exact location of all utilities and underground structures.
- An as-built drawing of new utility services shall be prepared by the Contractor and submitted to the Owner upon completion of the project.
- All storm pipe shall be as noted. All joints shall be watertight.
- Contractor shall refer to other plans within this construction set for other pertinent information.
- Contractor shall have a licensed professional submit as-built drawings/documentation (including verification of infiltration testing) of the stormwater management facilities prepared in accordance with chapter 26 of the governing municipality's code of ordinances. A Record Set (As-Built) Package, including all supporting documentation as required in accordance 26-402.3.D(4), shall be provided at the completion of the project. A narrative and photographic documentation for critical stages of construction and for the infiltration surface prior to placement of filter fabric/stone must also be submitted to the governing municipality.

**AS-BUILT NOTES:**

- Certification of the stormwater as-built plan by a licensed professional of the stormwater facilities specified under the section labeled "Critical Stages of Construction" is required.
- The licensed professional responsible for certifying the stormwater as-built plan shall be selected prior to starting earth disturbance activities on the project.
- The licensed professional responsible for certifying the stormwater as-built plan shall be present for all "Critical Stages of Construction."
- A pre-construction meeting between the contractor, township, owner, and licensed professional responsible for certifying the stormwater as-built plan is required to ensure all "Critical Stages of Construction" are reviewed, acknowledged and milestones established to ensure the licensed professional is present onsite during the "Critical Stages of Construction." The location of infiltration test locations shall be documented on the as-built plans. Any modifications to the approved plan must be submitted to the Township for review prior to construction. The developer must provide the township with the as-built package for all stormwater facilities prior to occupancy or the release of the surety bond.

**CRITICAL STAGES OF CONSTRUCTION:**

Critical Stages of Construction are parts of the construction sequence of the Land Development Plan which require certification and construction oversight of stormwater facilities by the licensed professional responsible for certification of the certified stormwater as-built plan. At least two weeks in advance of construction, the contractor shall schedule a coordination meeting with the licensed professional to review the critical stages and establish a schedule for inspections/verifications of all critical stages. At the discretion of the licensed professional, the contractor may provide photo documentation of the installation of certain items in lieu of the licensed professional being present. The critical stages for each Post Construction Stormwater Best Management Practice are as follows:

**UNDERGROUND INFILTRATION SUMP**

- In order to protect the underground infiltration sump bottom from compaction, equipment shall not be permitted to operate within the sump when the floor is less than 36" from subgrade elevation. A typical infiltration facility bottom excavation detail has been provided on the plans for construction. Alternatively, the contractor may develop their own plan and methods for bottom excavation. The contractor must review the proposed plan/methods with the licensed professional during the coordination meeting.
- A typical rock over excavation detail has been provided on the plans. Once subgrade of the infiltration sump has been reached, the contractor shall request the licensed professional review the subgrade to determine if rock over excavation is needed.
- As-built surveys are required prior to any backfill within the underground infiltration sump. The contractor must notify the licensed professional prior to backfilling in order verify elevations and geometry.
- The contractor must notify the licensed professional of the installation of the outlet structure, outfall pipe and anti-seep collars prior to backfill to ensure installation has been completed in accordance with the approved plan.

**GRATE INLET SKIMMER BOXES**

- Verification that the Grate Inlet Skimmer Boxes have been installed in the locations shown on the plan is required (1-1, 1-2, 1-3, 1-4, 1-5).

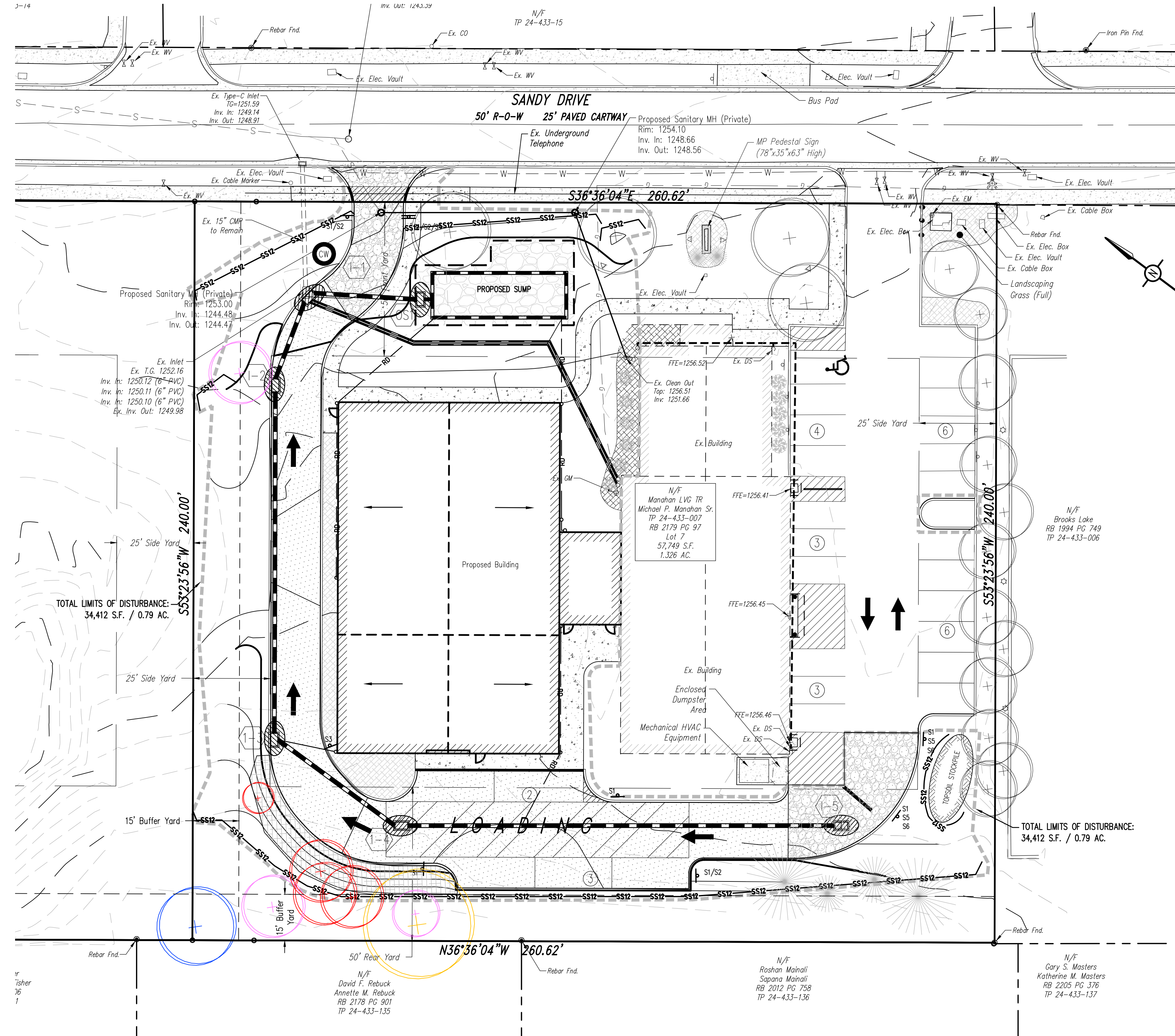
**NATURALLY OCCURRING GEOLOGIC FORMATIONS/SOIL CONDITIONS:**

There are no known naturally occurring geologic formations or soil conditions that pose the potential for pollution during construction. If a sinkhole is encountered due to karst topography, the sinkhole shall be repaired as specified on the sinkhole repair detail and/or a geotechnical engineer must be contacted for proper repair procedures.

**PERMANENT SEEDING**

Permanent Seeding shall consist of the following:

Item	Rate
1. Seed Mixture Consists of:	102 lbs. / acre
50% Poa pratensis (Kentucky Bluegrass)	
30% Festuca rubra (Creeping Red Fescue)	
20% Lolium perenne L. (Perennial Rye)	
2. Mulch	3 tons / acre



**EXISTING FEATURES LEGEND**

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Landscaped Areas
- Existing Retaining Wall
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Fire Hydrant
- Existing Manhole
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Main Valve
- Existing Utility Lateral Valve
- Existing Utility Meter
- Existing Ballard
- Existing Clean-Out
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Sign
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

**SURVEY FEATURES LEGEND**

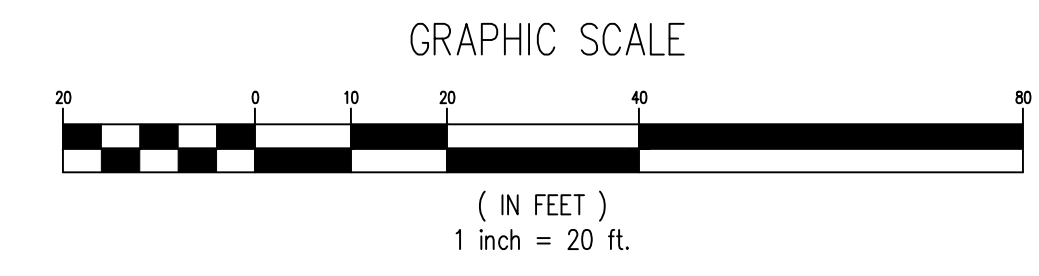
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Roadway Center Line
- Property Corner Found
- Property Corner To Be Set

**EROSION & SEDIMENTATION CONTROL LEGEND**

- LIMIT OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- INLET PROTECTION
- TOPSOIL STOCKPILE
- 12" SILT SOCK
- CONCRETE WASHOUT AREA
- EROSION CONTROL LINING (CURLLEX I OR APPROVED EQUAL)

**SOILS LEGEND**

Soil cover on the site consists of:  
HuB - Hubersburg silt loam, 3%-8% Slopes

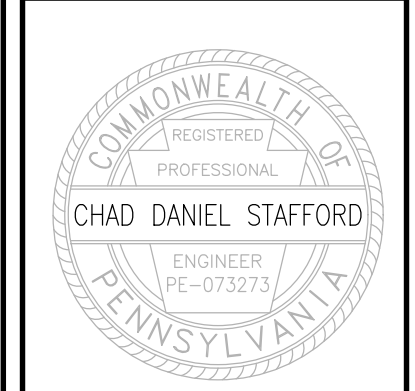


**PennTerra ENGINEERING INC.**  
CENTRAL PENNSYLVANIA REGION OFFICE:  
3075 ENTERPRISE DRIVE SUITE 100  
STATE COLLEGE, PA 16801  
PH: 814-231-8285  
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Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg. XXX
File	21316 - ES-1
Layout	ES-1

Date	Description	REVISIONS
6-15-22	REVISED PER COMMENTS	
7-28-22	REVISED PER COMMENTS + NEW LOT MAILING EXTENSION	

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERCUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

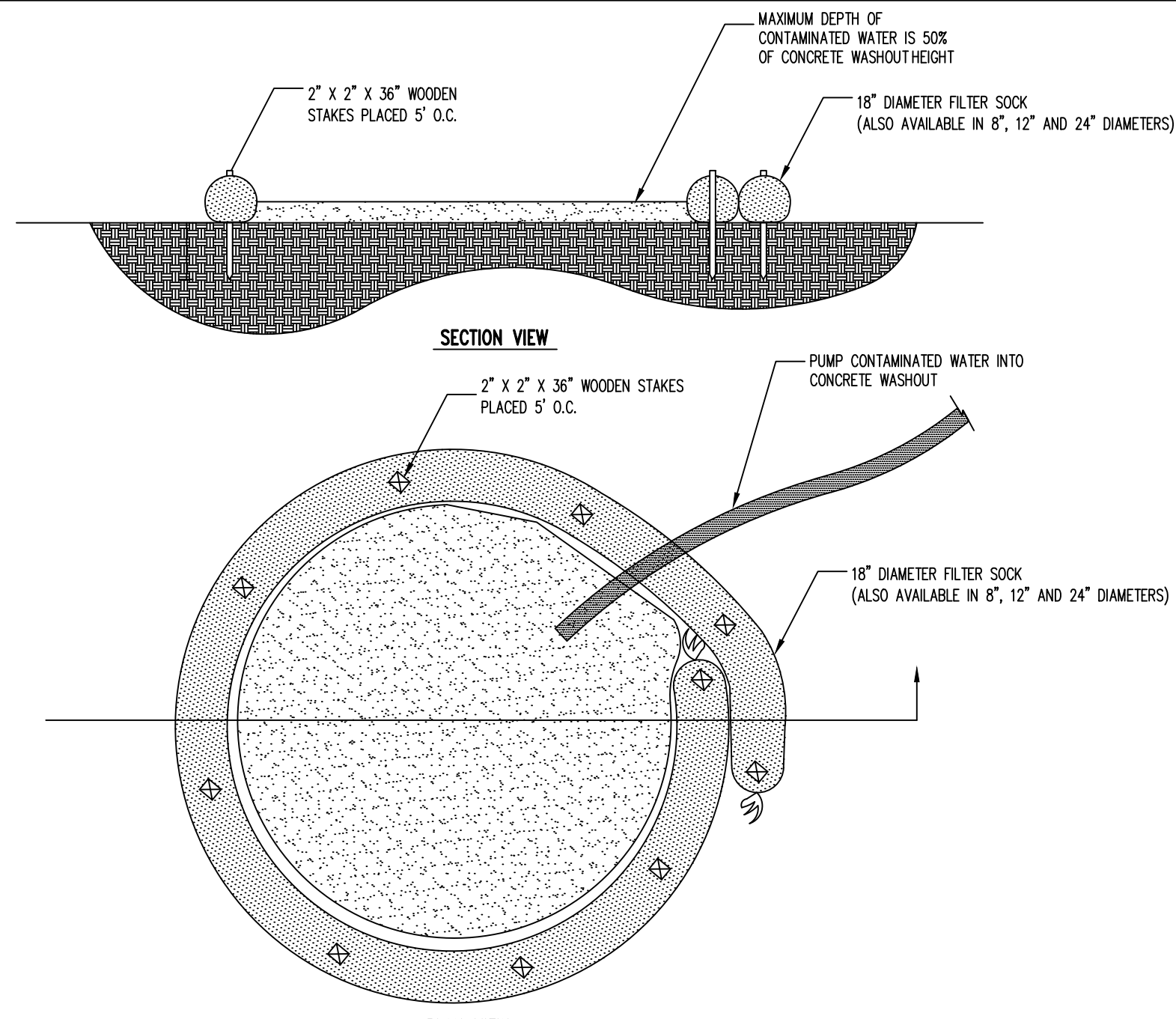
PRELIMINARY/FINAL  
LAND DEVELOPMENT  
PANS

EROSION AND  
SEDIMENTATION  
CONTROL PLAN

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	1" = 20'
SHEET NO.	ES1

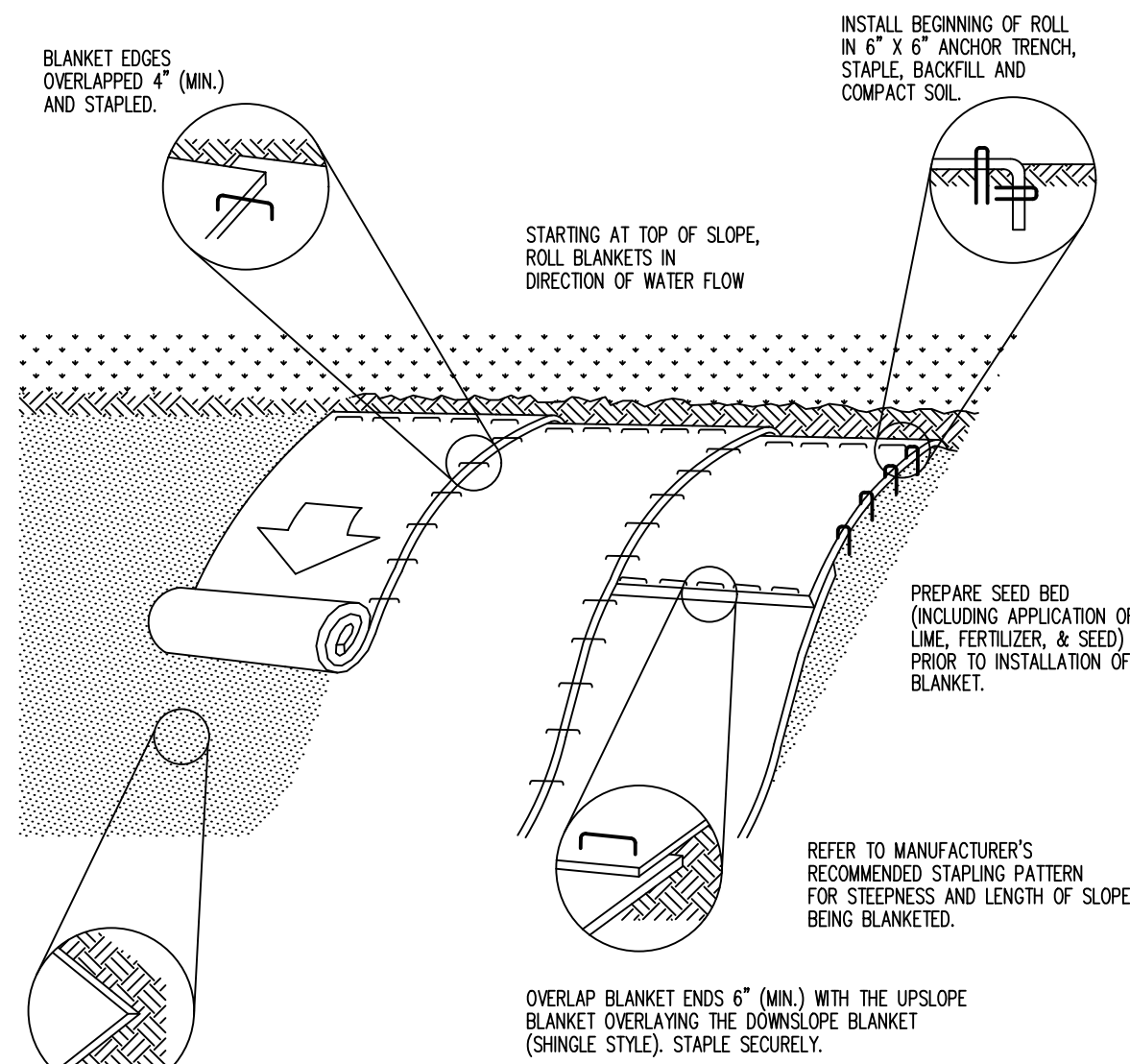
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA I CALL 1-800-242-1776. NON-MEMBERS MUST BE CONTACTED DIRECTLY.





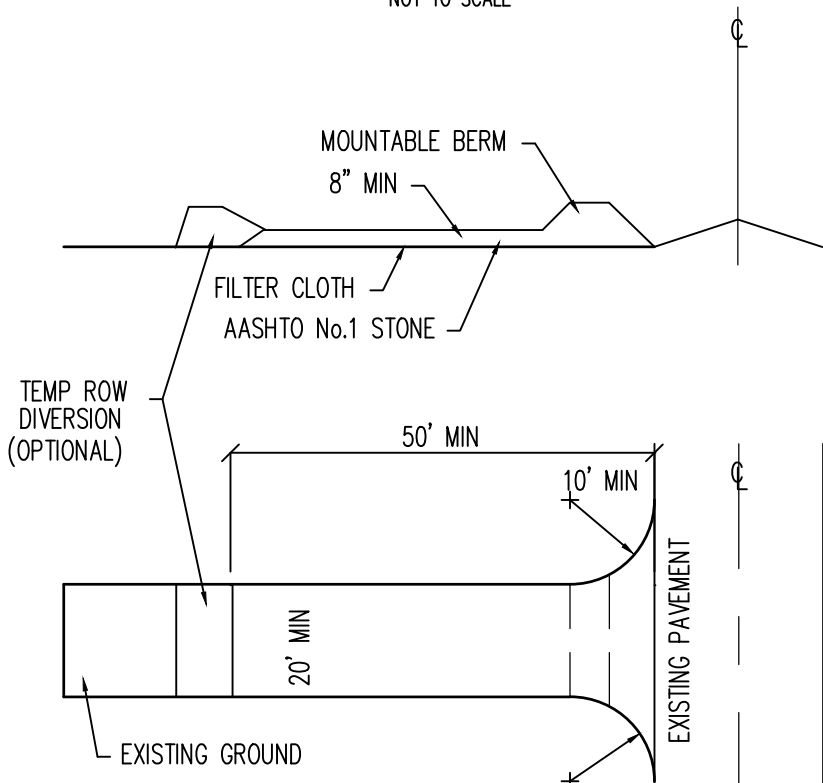
- NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
  2. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
  3. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
  4. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE FILTER SOCKS.

**CONCRETE WASHOUT AREA**  
NOT TO SCALE

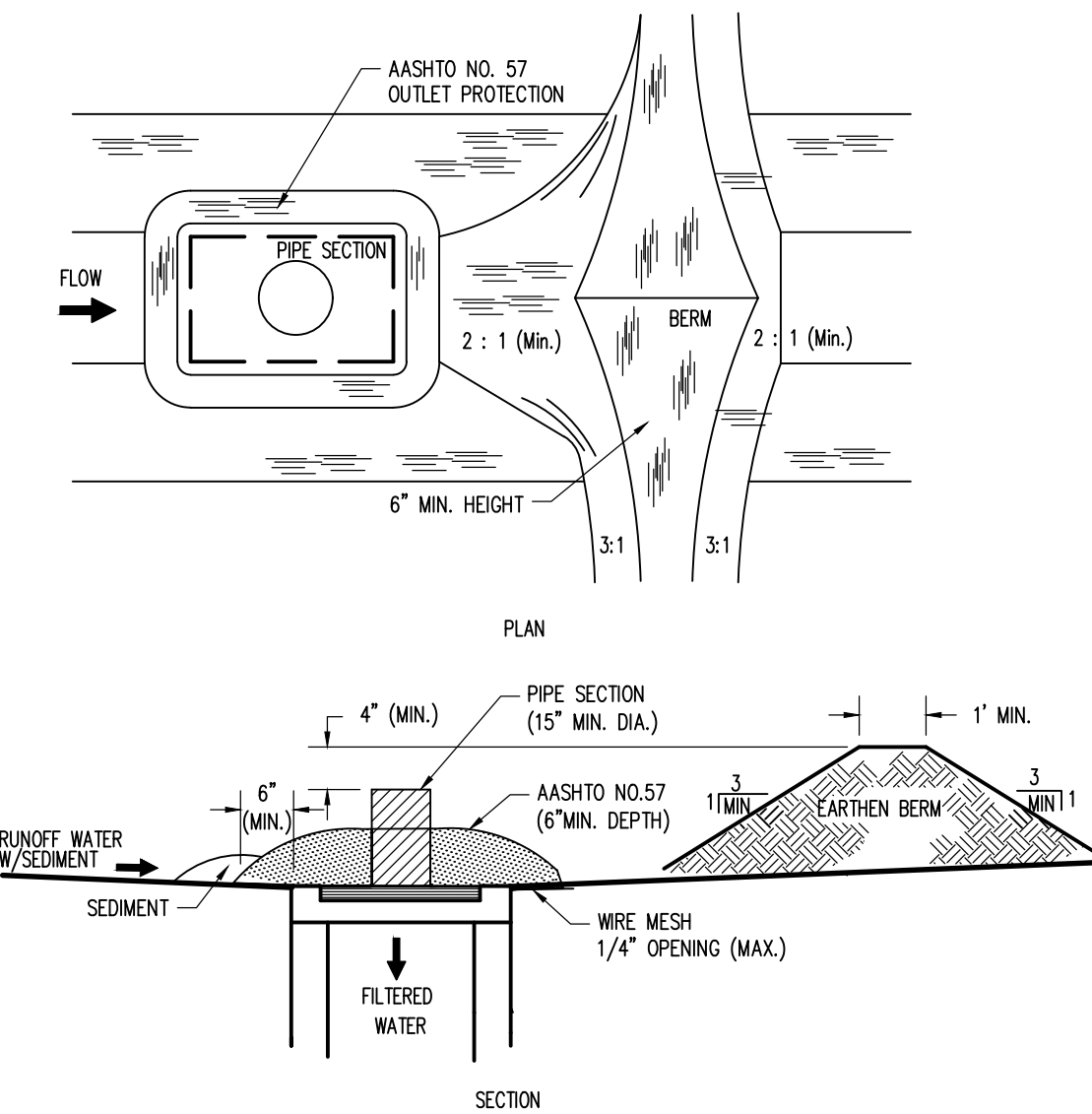


- NOTES:
1. Seed and soil amendments shall be applied according to the rates in the plan drawings prior to installing the blanket.
  2. Provide anchor trench at toe of slope in similar fashion as at top of slope.
  3. Slope surface shall be free of rocks, clods, sticks, and grass.
  4. Blanket shall 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.
  5. The blanket shall be stapled in accordance with the manufacturer's recommendations.
  6. 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.

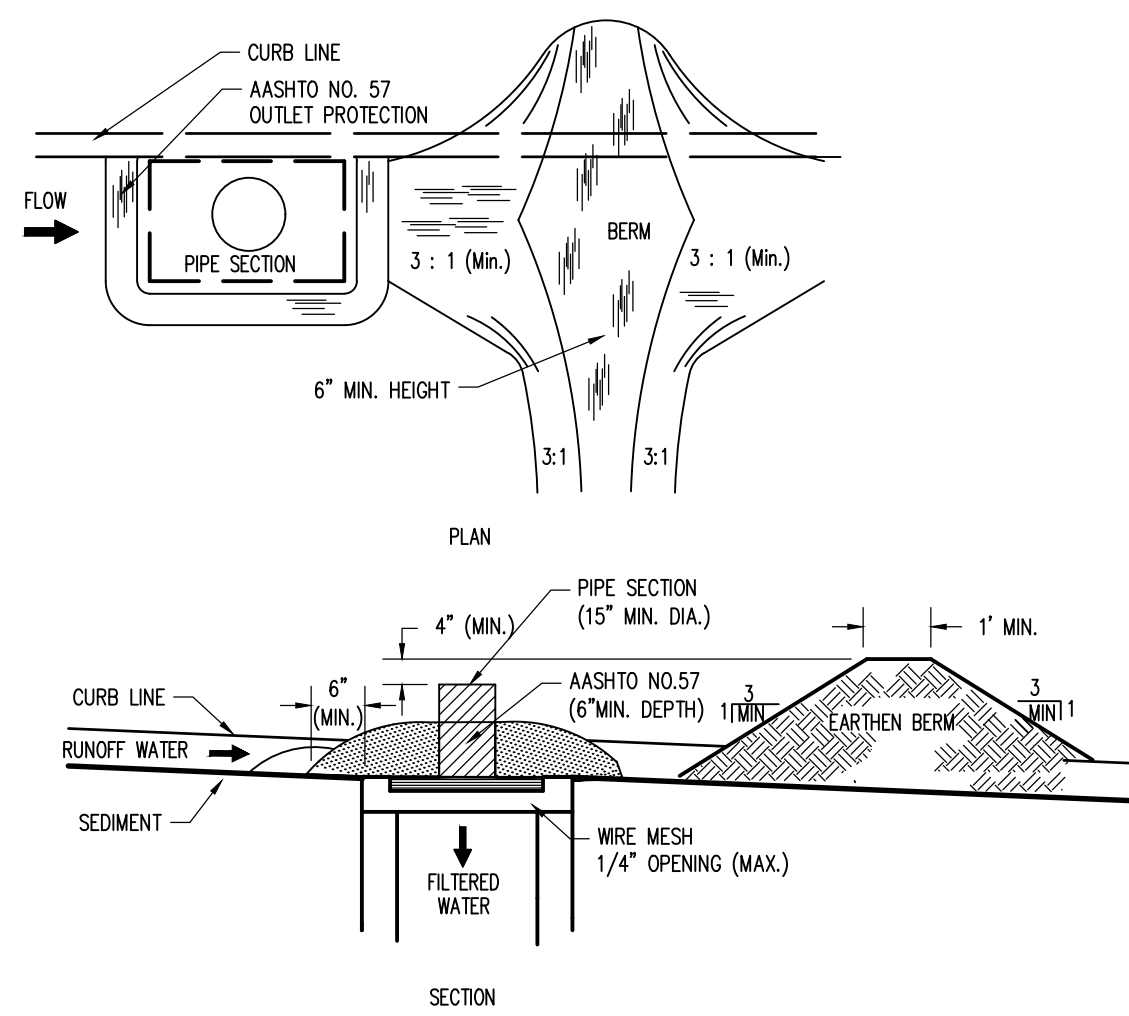
**EROSION CONTROL BLANKET INSTALLATION**  
NOT TO SCALE



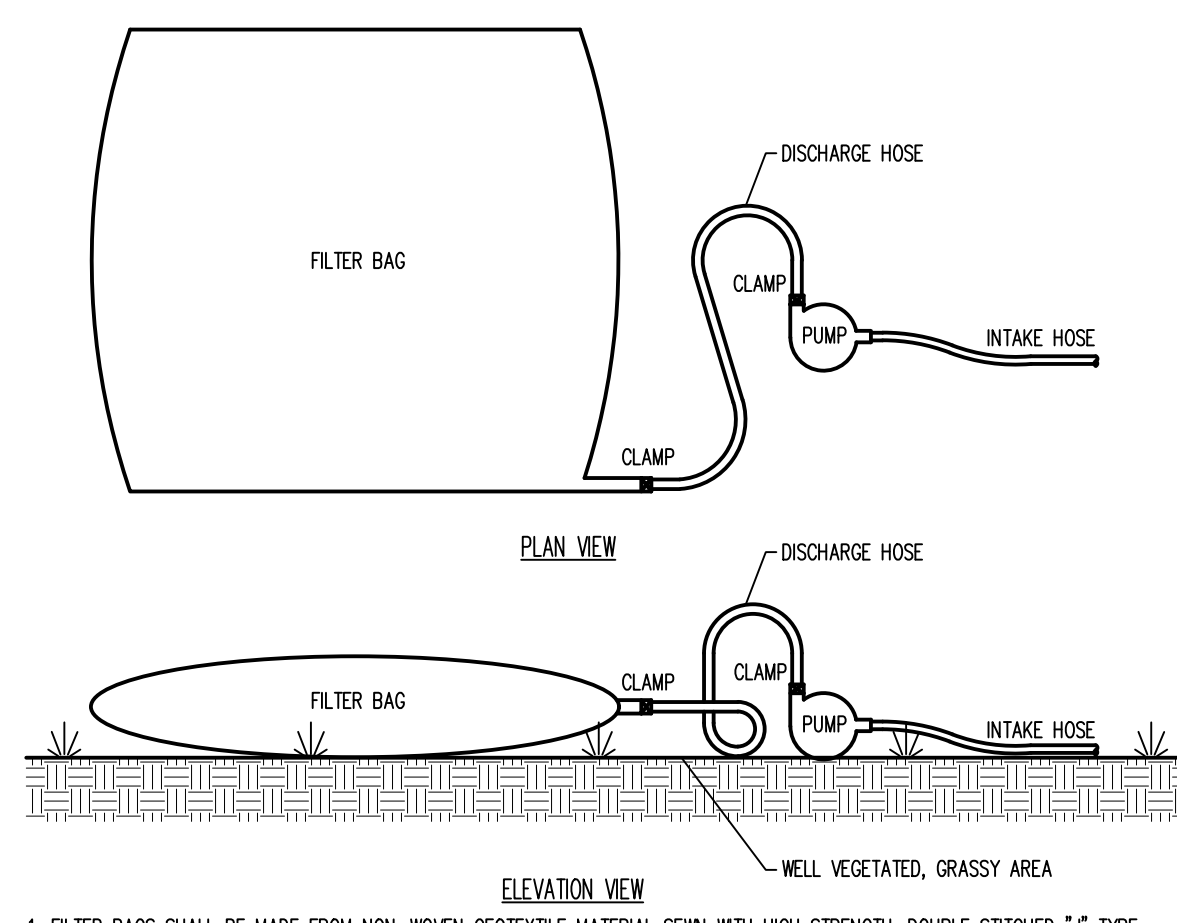
**CONSTRUCTION ENTRANCE**  
NOT TO SCALE



**DROP INLET FILTER W/ EARTHEN BERM (TYPE M)**  
NOT TO SCALE

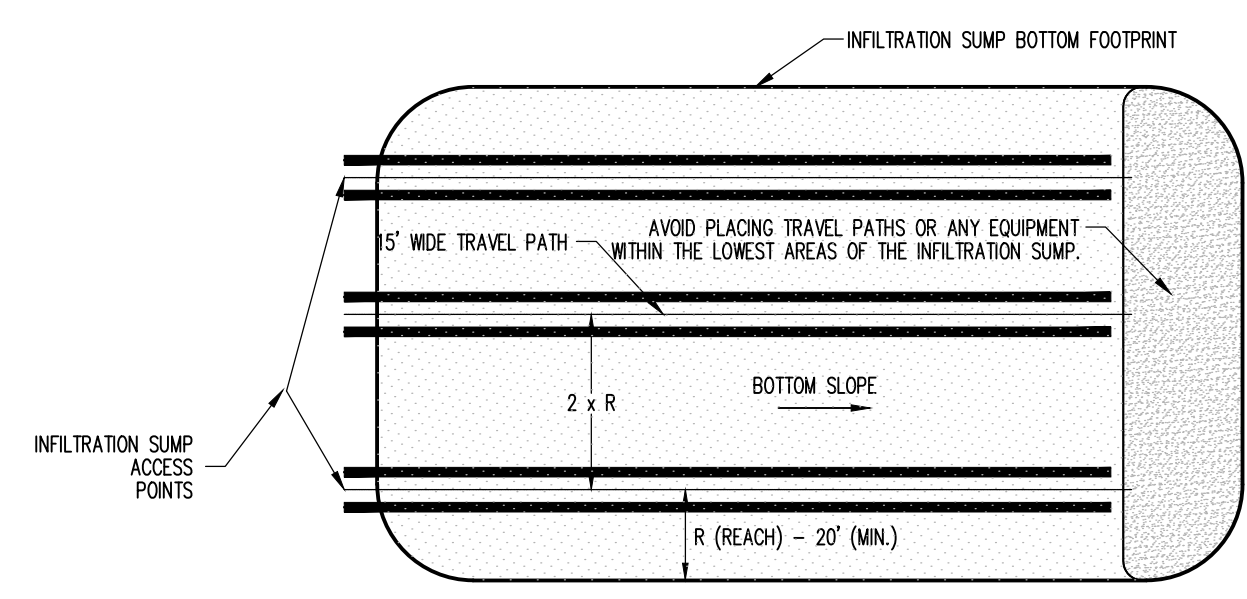


**DROP INLET FILTER W/ EARTHEN BERM (TYPE C)**  
NOT TO SCALE



**PUMPED WATER FILTER BAG DETAIL**  
NOTE: THIS DETAIL SHALL BE USED FOR PUMPING OF WATER FROM THE SITE  
NOT TO SCALE

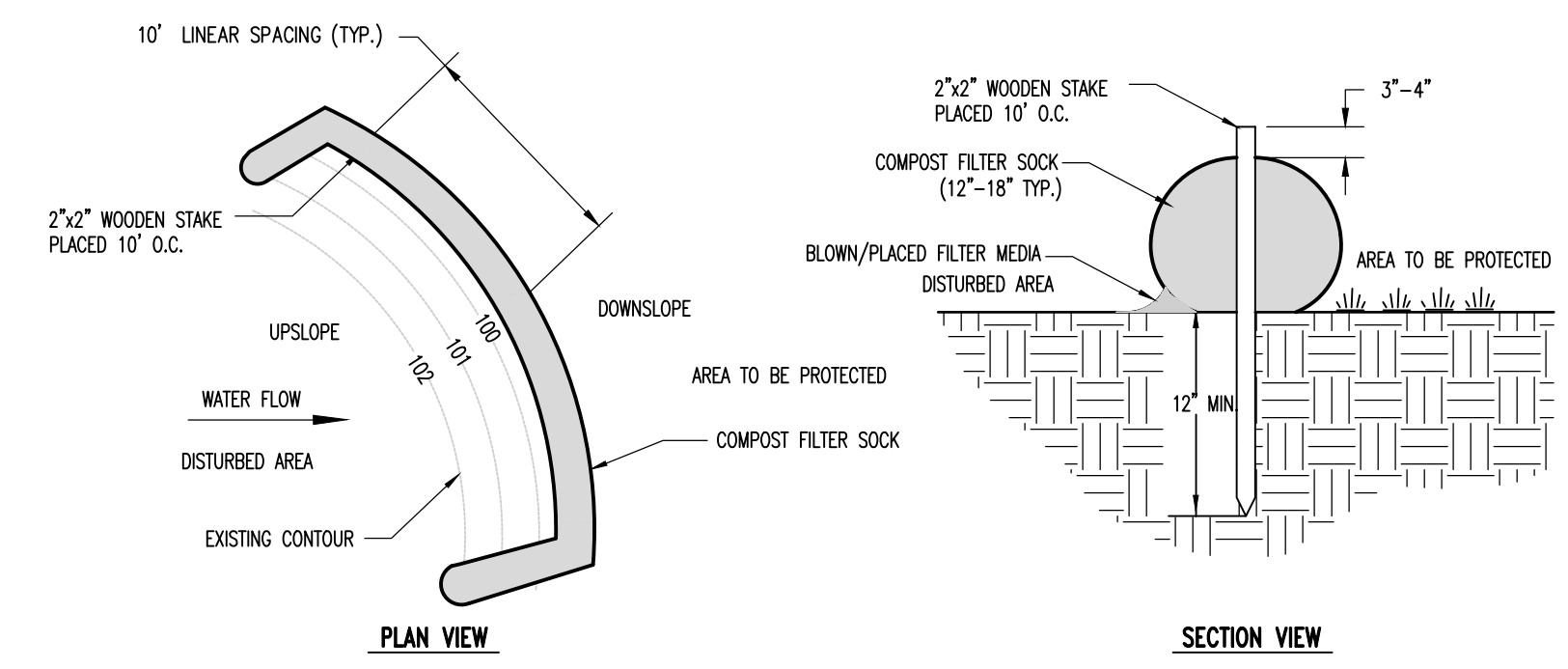
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER, AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.



THIS DETAIL REPRESENTS A TYPICAL INFILTRATION SUMP BOTTOM EXCAVATION TECHNIQUE. EACH INFILTRATION SUMP VARIES WITH GEOMETRY AND OTHER VARIOUS PHYSICAL FEATURES. THE CONTRACTOR MUST DEVELOP AN INFILTRATION SUMP BOTTOM EXCAVATION PLAN AND CONSULT WITH THE SITE ENGINEER PRIOR TO COMMENCING THE INFILTRATION SUMP BOTTOM EXCAVATION.

- NOTES:
1. ALL EQUIPMENT MOBILIZATION AND MANEUVERS MUST BE LIMITED TO THE TRAVEL PATH LOCATIONS. THE CONTRACTOR SHALL LOCATE AND CLEARLY POST ALL TRAVEL PATHS IN THE FIELD.
  2. TRAVEL PATH LOCATIONS SHALL BE SELECTED BASED UPON EQUIPMENT REACH CAPABILITY AND INFILTRATION SUMP GEOMETRY. TRAVEL PATH LOCATIONS SHOULD BE SELECTED SUCH THAT THEY PARALLEL THE LONGEST SIDE OF THE INFILTRATION SUMP.
  3. TRAVEL PATH SPACING SHALL VARY WITH EQUIPMENT REACH CAPABILITY. REACH CAPABILITY SHOULD BE A MINIMUM OF 20 FEET.
  4. MATERIAL SHALL BE REMOVED FROM THE TRAVEL PATH LOCATIONS WORKING TOWARD THE INFILTRATION SUMP ACCESS POINTS. ONCE MATERIAL IS REMOVED FROM EACH TRAVEL PATH LOCATION AND FINAL GRADE IS ACHIEVED, ALL EQUIPMENT SHALL BE PROHIBITED FROM THESE LOCATIONS.

**TYPICAL INFILTRATION SUMP BOTTOM EXCAVATION**  
NOT TO SCALE



- NOTES:
1. ALL MATERIAL TO MEET EPA COMPOST FILTER SOCK SPECIFICATIONS.
  2. SILT SOCK COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
  3. SILT SOCKS DEPICTED ARE FOR USE ON MINIMAL SLOPES. GREATER SLOPES MAY REQUIRE LARGER SILT SOCKS PER THE ENGINEER.
  4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

**COMPOST FILTER SOCK DETAIL**  
NOT TO SCALE

TABLE 4.1  
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	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	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.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Two-Ply Systems

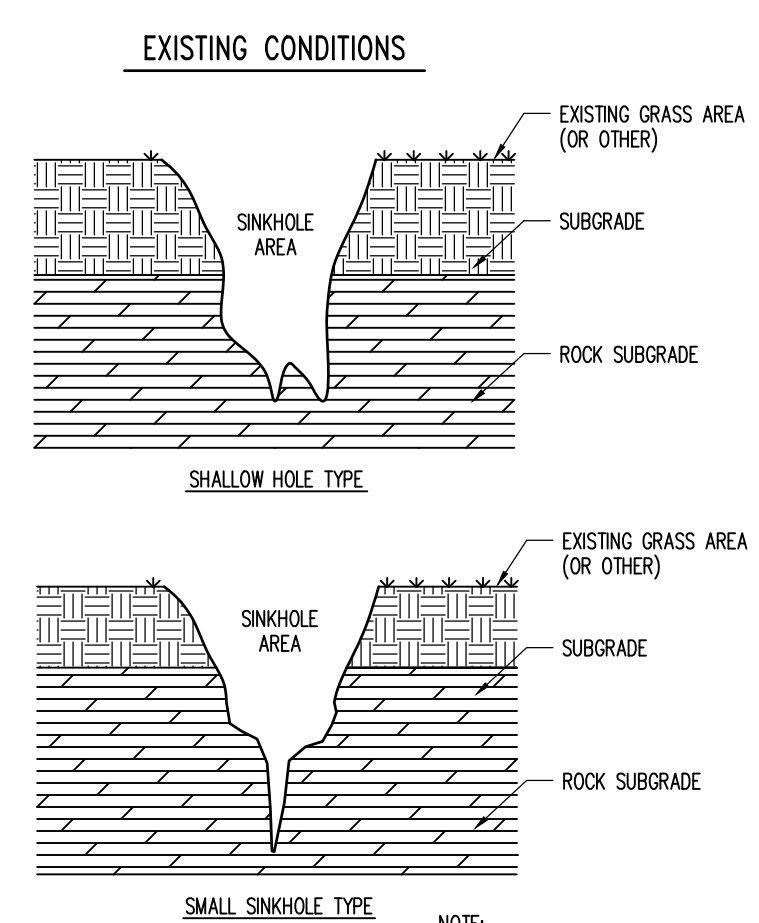
System	Material	Characteristics
Inner Containment Netting	HDPE biaxial net	Continuously wound
	Fusion-welded junctures	3/4"x3/4" Max. aperture size
Outer Filtration Mesh	Composite Polypropylene Fabric	(Woven layer and non-woven fleeces mechanically fused via needle punch)
		3/16" Max. aperture size

Sock fabrics composed of burlap may be used on projects lasting 6 months or less.

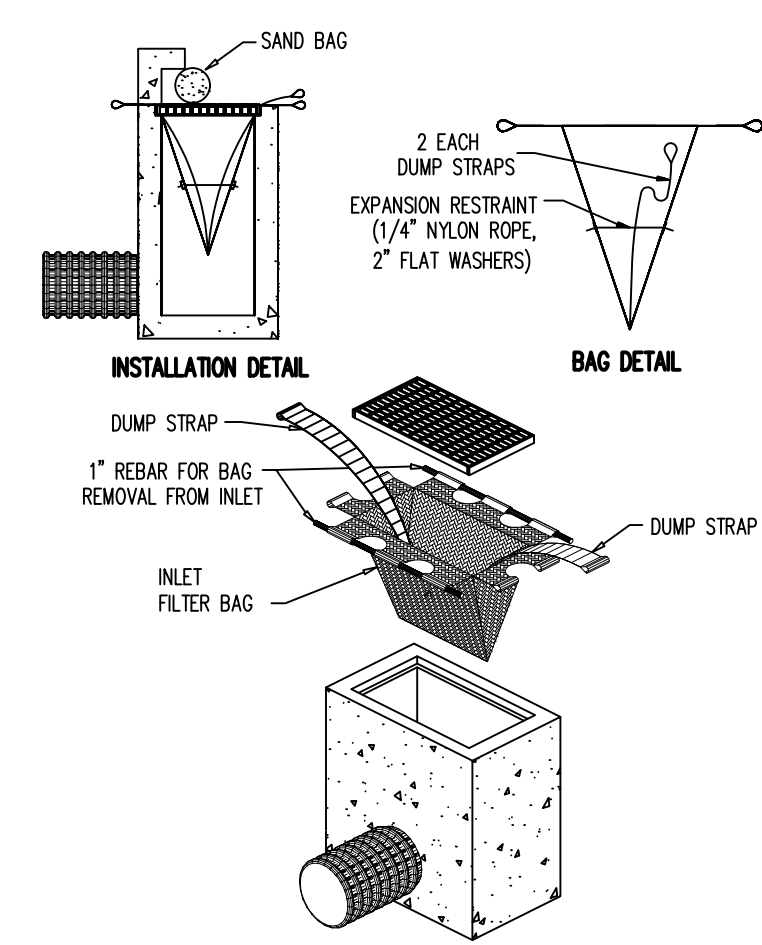
TABLE 4.2  
Compost Standards

Parameter	Standard
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

**COMPOST FILTER SOCK TABLE**  
NOT TO SCALE

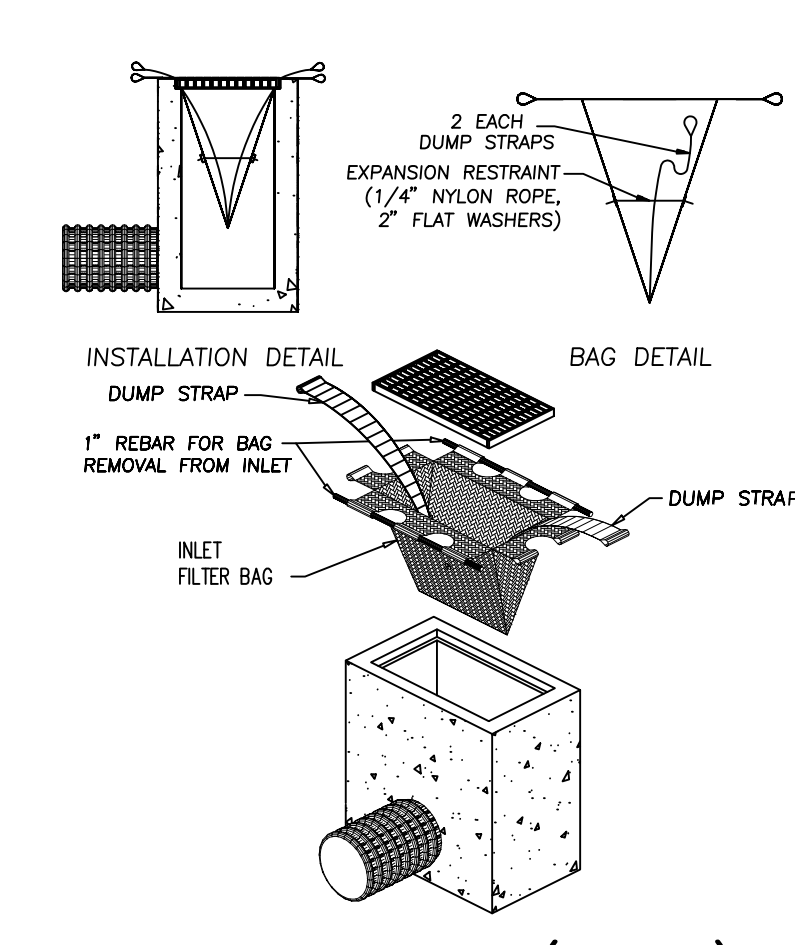


- NOTE:
- THESE DETAILS REPRESENT TYPICAL SINKHOLE SHAPES AND REPAIR TECHNIQUES. SINKHOLES VARY IN SIZE AND TYPE. THEREFORE, THE OWNER'S GEOTECHNICAL ENGINEER SHALL BE CONTACTED PRIOR TO FIELD REPAIR OF ANY SINKHOLE. (NOT INCLUDED IN UTILITY/EARTHWORK BASE BID)
- SINKHOLE REPAIR**  
NOT TO SCALE



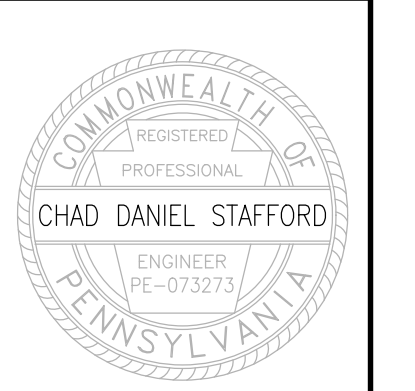
**INLET FILTER BAG (TYPE C)**  
NOT TO SCALE

- INLET FILTER BAG NOTES:
- FILTER BAG SHOULD TRAP PARTICLES LARGER THAN 150 MICRONS. WHEREVER FILTER BAGS ARE USED THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
- INLET FILTER BAGS SHOULD BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
- FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED WHEN BAG IS 1/2 FULL. DAMAGED FILTER BAGS SHOULD BE REPLACED.
- NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.



**INLET FILTER BAG (TYPE M)**  
NOT TO SCALE

- INLET FILTER BAG NOTES:
- FILTER BAG SHOULD TRAP PARTICLES LARGER THAN 150 MICRONS. WHEREVER FILTER BAGS ARE USED THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
- INLET FILTER BAGS SHOULD BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
- FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED WHEN BAG IS 1/2 FULL. DAMAGED FILTER BAGS SHOULD BE REPLACED.
- NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.



Designer	MJA
Draftsman	MJA
Proj/Manager	CDS
Surveyor	XXX
Perimeter Ck.	XXX
Book	XXX Pg. XXX
File	2026 - ES-2
Layout	ES-2

Date	Description	REVISIONS
6-15-22	REVISED PER COMMENTS	
7-28-22	REVISED PER COMMENTS + NEW LOT	

**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERCUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

**PRELIMINARY/FINAL LAND DEVELOPMENT PANS**

**EROSION AND SEDIMENTATION CONTROL DETAILS**

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	N.T.S.
SHEET NO.	ES2

**Standard Erosion and Sedimentation Control Plan Notes:**

- All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the Centre County Conservation District) must be available at the project site at all times. The Centre County Conservation District shall be notified of any changes to the approved plan prior to implementation of those changes. The Centre County Conservation District may require a written submittal of those changes for review and approval at its discretion.
- At least 7 days prior to starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from the Centre County Conservation District to an on-site preconstruction meeting.
- At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the Centre County Conservation District or by the Department prior to implementation.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
- Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the BMP sequence for that stage or phase have been installed and are functioning as described in this E&S plan.
- At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan maps(s) in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution and notify the Centre County Conservation District and/or the regional office of the Department.
- All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1, and 287.1 et. seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharge at the site.
- All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated.
- The contractor is responsible for ensuring that any material brought on site is clean fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance by qualifying as clean fill due to analytical testing.
- All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
- Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, re mulching and re setting must be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
- A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
- All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
- Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches – 6 to 12 inches on compacted soils – prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
- All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
- Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.
- Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
- Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
- E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Centre County Conservation District or the Department.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Centre County Conservation District for an inspection prior to removal of the E&S BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed. Areas disturbed during removal of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Centre County Conservation District to schedule a final inspection.
- Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.
- Concrete wash water shall be handled in the manner described on the plan drawings. In no case shall it be allowed to enter any surface waters or groundwater systems.

**General Construction Notes:**

- All water pumped from the site must be pumped through a pumped water filter bag as specified on the Erosion and Sedimentation Control Details Sheet.
- All temporary seeding shall be done within 72 hours of the completion of disturbances for all areas requiring vegetative cover.
- Prior to exiting the site, all construction vehicles leaving the site must drive over the rock construction entrance.
- All utility installation shall be done at a rate of which all trenching excavated shall be backfilled within the same day. All utility installation shall begin at the very downslope and proceed upslope.
- The removal of temporary Erosion and Sedimentation Controls shall be coordinated with the Centre County Conservation District and the site Civil Engineer. Prior to removal of these controls the Centre County Conservation District and the sites Civil Engineer shall be notified.
- Silt Socks must be placed and maintained downslope of all topsoil stockpiles. Topsoil stockpiles must also be seeded with the temporary seeding mixture.
- In order to avoid compaction of the proposed infiltration sump bottom, special procedures shall be implemented for equipment operations during the excavation of the infiltration sump bottom. The excavation shall be completed utilizing equipment located outside the infiltration sump bottom (if excavation cannot fully be completed from outside the bottom, refer to the typical infiltration sump bottom excavation detail.)
- The Concrete Washout is required to be utilized for all concrete washout water. The Concrete washout is to be installed at the location shown on the plan.

**Staging of Earthmoving Activities Construction Sequence**

All earth disturbance activities shall proceed in accordance with the following staging of earthmoving activities. Each stage shall be completed before a subsequent stage is initiated.

- Field mark/locate the limits of disturbance as shown on the Erosion and Sedimentation Control Plan (E&SCP).
- Install both of the rock construction entrances for the site, as shown on the E&SCP.
- Install all silt sock as shown on the E&SCP. Install inlet protection on existing inlets as shown on the E&SCP.
- Strip the topsoil from the site construction area and place the topsoil at the location shown on the E&SCP. Seed the stockpile with the temporary seeding mixture after installing silt sock on the downslope side of the topsoil stockpile.
- Install 1-1 and relocate existing roof drains per plan, plugging existing roof drain piping during at time sediment laden water could enter.
- Begin rough grading the site.
- The underground infiltration sump can be installed at this time in accordance with Note 7 above to ensure the basin bottom is not compacted. Over excavate the bottom so there is 30 inches of vertical distance between the bottom of the sump and bedrock as per the detail on Sheet PCS. Installation shall include interior conveyance pipes, and stone backfill as shown on the stormwater details sheet, outlet structure, and outlet pipe connecting to the existing storm sewer.
- Building construction can occur at this time.
- Continue with site grading and stabilize all parking and roadway areas with stone, and install all site sidewalks.
- Begin installing all remaining utilities in accordance with General Construction Note 4 above, working from the very downslope of each line and proceeding upslope. The amount of utility installation shall coincide with the amount of trenching that can be excavated and backfilled daily. Install inlet protection on all newly installed inlets as shown on the E&SCP.
- Once all utilities are installed and all entrance ways are brought to sub grade, paving operations can begin, thus removing the rock construction entrance. Curbing installation can occur at this time. Install earthen berms as inlet protection for the period curbs are installed but the site/road is not stabilized. All proposed lawn areas shall be topsoiled and seeded with the permanent seeding mixture. Erosion control lining shall be installed in the locations shown on the E&SCP.
- Once permanent stabilization has been achieved, all temporary erosion and sediment controls may be removed (see General Construction Note 5). Remove any plugs on roof drains. These controls include silt socks, topsoil stockpiles and inlet protection. Stabilize any areas disturbed by the removal of these controls immediately with the permanent seeding mixture as specified in the "Permanent Seeding Mixtures" section. Install grate inlet skimmer boxes on inlets.

**Temporary Control Measures**

Temporary control measures will be implemented to ensure that erosion is minimized and that sediment is retained during construction. The rock construction entrance will be provided at the site entrance to prevent tracking of sediment from the site. Silt sock will be placed at the locations shown on the Erosion and Sedimentation Control Plan to provide proper filtration of the site runoff. Pumped water filter bags will be used when water is encountered within sumped areas within the construction site to filter all sediment out of the water being pumped off site. Inlet protection will be used to help prevent sedimentation of the storm sewer system. A topsoil stockpile will be provided to provide a convenient place to store the sites topsoil.

Temporary seeding on all disturbed areas shall be done immediately after grading is finished and shall consist of the following:

Item	Rate
1. Agricultural grade limestone	1 ton / acre
2. Fertilizer 10-10-10	500 lbs. / acre
3. Annual ryegrass	40 lbs. / acre
4. Mulch (straw)	3 tons / acre

**Permanent Control Measures**

Permanent control measures include the infiltration sump, grate inlet skimmer boxes, and seeding / landscaping. Seeding specifications are for graded or cleared areas where permanent vegetative cover is needed.

Soil Enhancements: It is recommended that site specific soil testing be performed. Lieu of soil test recommendations, use the following schedule:

- Acceptable – Apply 6 tons per acre Dolomitic Limestone (240 lbs./ 1000 s.f.) and 1000 lbs/acre 10-20-20 (25 lbs./ 1000 s.f.) before seeding. Harrow or disc into upper three inches of soil.
- Topsoil Placement – Topsoil shall be placed at a minimum 4" in depth over disturbed vegetated areas.

Permanent Seeding shall consist of the following:

Item	Rate
1. Seed Mixture Consisting of 50% Poa pratensis (Kentucky Bluegrass) 30% Festuca rubra (Creeping Red Fescue) 20% Lolium perenne L. (Perennial Rye)	102 lbs./acre
2. *Mulch (straw)	3 tons/ acre

\*Mulching: Apply mulch immediately after seeding and anchor properly with an anchoring tool or following one of the methods listed below.

- Tracking: The process of cutting mulch into the soil via equipment that runs on tracks, is employed primarily on slopes 3:1 or steeper.
- Mulch Nettings: Staple lightweight biodegradable paper, plastic or cotton netting over the mulch according to the manufacturer's recommendations.
- Synthetic Binders: Synthetic binders such as acrylic DLR (AGRI-TAC), DCA-70, Petroset or Terracot may be used at rates recommended by the manufacturer to anchor mulch material.
- Wood Cellulose Fiber: The fiber binder shall be applied at a net dry weight of 750 lb/acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs of wood cellulose fiber per 100 gallons.
- Peg & Twine: Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to surface by stretching twine between pegs in a criss-cross within a square pattern. Secure twine around each peg with two or more turns.

**Maintenance Program**

During construction, the contractor will be responsible for maintenance and repair of all erosion and sedimentation control facilities. These facilities should be inspected daily and after every runoff event greater than 0.25". Any erosion control disturbed during construction, installation of utilities or found to be inadequate upon inspection shall be repaired or replaced within 24 hours after the disturbance or the discrepancy is discovered. The maintenance of the erosion control facilities will include the following:

Construction Entrance:

- The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measure used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately. Sediment removed from the structure shall be spread over an existing stockpile with controls already in place and be seeded with the temporary seeding mixture.

Topsoil Stockpile:

- The topsoil stockpile shall be seeded with the temporary seeding mixture to ensure proper stabilization. Any additional topsoil spread at these locations shall also be seeded with the temporary seeding mixture.

Permanent Seeding:

- If the vegetative cover is not established uniformly by the third mowing, the contractor shall reapply topsoil if necessary and seed and mulch as needed to provide adequate cover.

Inlet Protection:

- Inlet filter bags should be inspected on a weekly basis and after each runoff event. Needed repairs should be initiated immediately after the inspection.
- Filter bags should be cleaned and/or replaced when the bag is 1/2 full. Damaged bags should be replaced.

Silt socks:

- The Contractor shall maintain the socks in a functional condition at all times and it shall be routinely inspected.
- Where the sock requires repair, it will be routinely repaired.
- The contractor shall remove sediment collected at the base of the sock when they reach 1/2 of the exposed height of the sock, or as directed by the Engineer. Alternatively, rather than create a soil disturbing activity, the engineer may call for additional sock to be added at areas of high sedimentation, placed immediately on top of the existing sediment laden sock. The sock will be dispersed on site when no longer required, as determined by the Engineer.

Pumped Water Filter Bag:

- The contractor shall maintain the filter bag in a functional condition at all times and routinely inspect and repair as required.
- Filter bags shall be replaced when they become 1/2 full and spare bags shall be kept available for replacement of failed or filled filter bags.
- The pumping rate shall be observed and be no greater than 750 GPM or 1/2 the maximum specified by the manufacturer, whichever is less.

**Recycling and Disposal of Materials**

The operator shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes.

Wastes generated during the construction of this project shall be recycled if at all possible. Any materials that cannot be recycled or reused shall be disposed of at a Pennsylvania Department of Environmental Protection approved landfill. If soil and/or rock disposal areas are required, erosion and sedimentation controls shall be implemented at these areas. Any excess soil waste may only be disposed of at an approved E&S/NPDES permitted site.

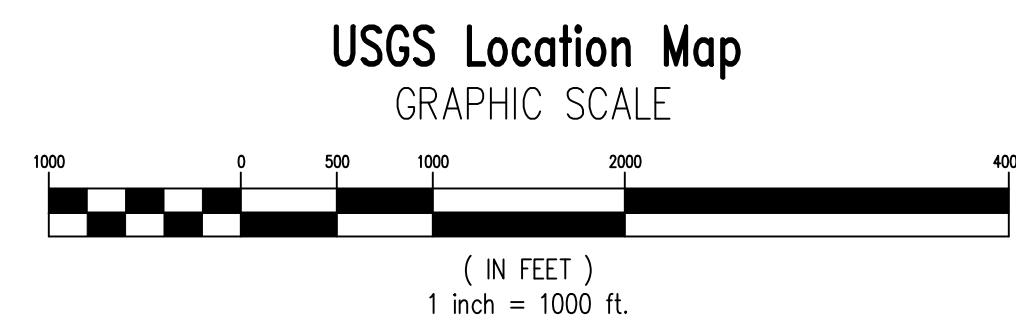
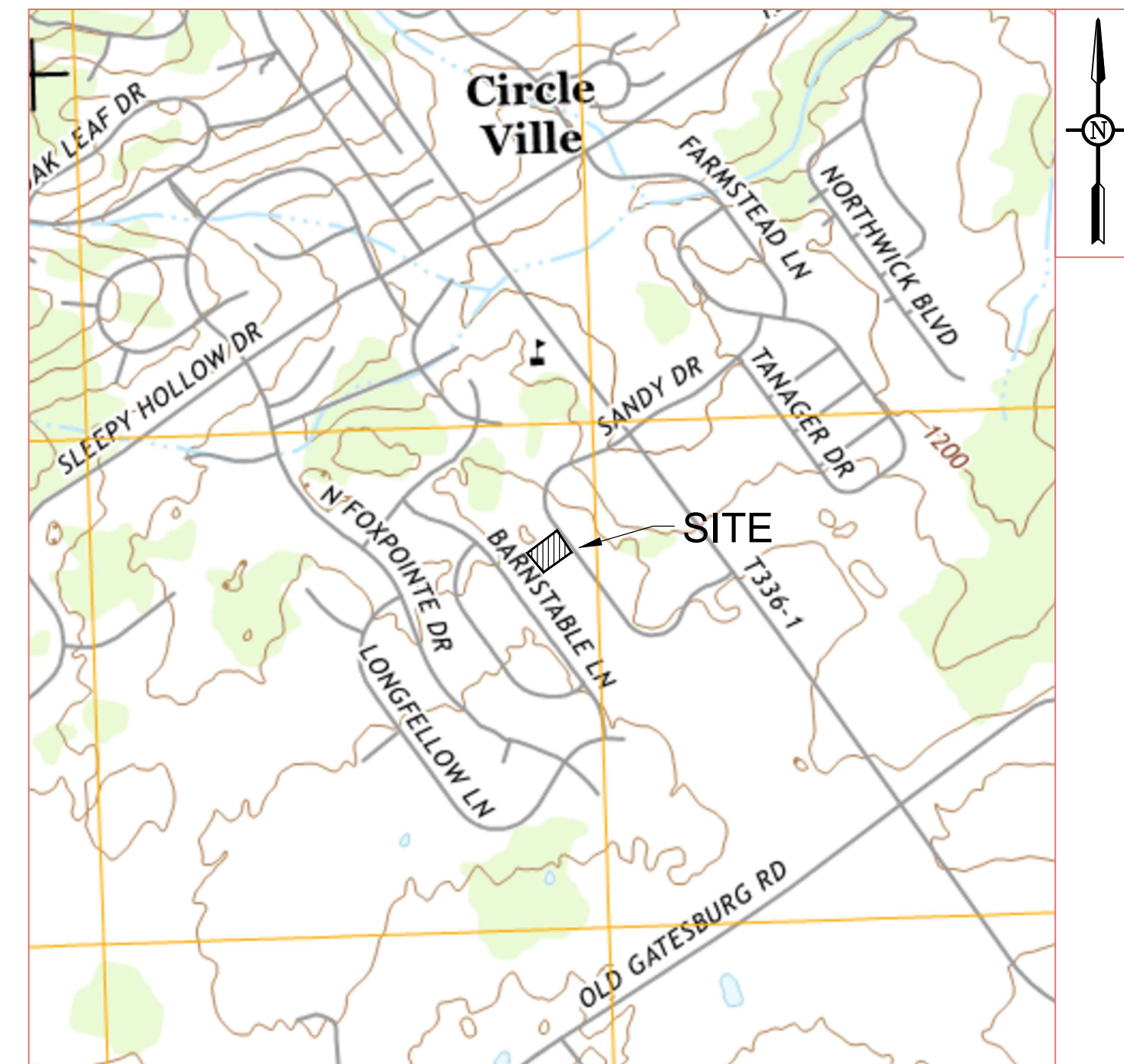
**Responsibilities for Fill Materials**

The contractor is responsible to use environmental due diligence to ensure any fill material required to be imported to or exported from the site qualifies as Clean 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.)

Environmental due diligence: 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's policy "Management of Fill".

Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste management or 271 Municipal Waste Management, whichever is applicable.



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Designer	MJA
Draftsman	MJA
Proj Manager	CDS
Surveyor	XXX
Perimeter Ck.	
Book	XXX Pg. XXX
File	21316 - ES-3
Layout	ES-3

Date	Description
6-15-22	REVISED PER COMMENTS
7-28-22	REVISED PER COMMENTS + NEW LOT MAILING
	DATE
	DESCRIPTION
	REVISIONS

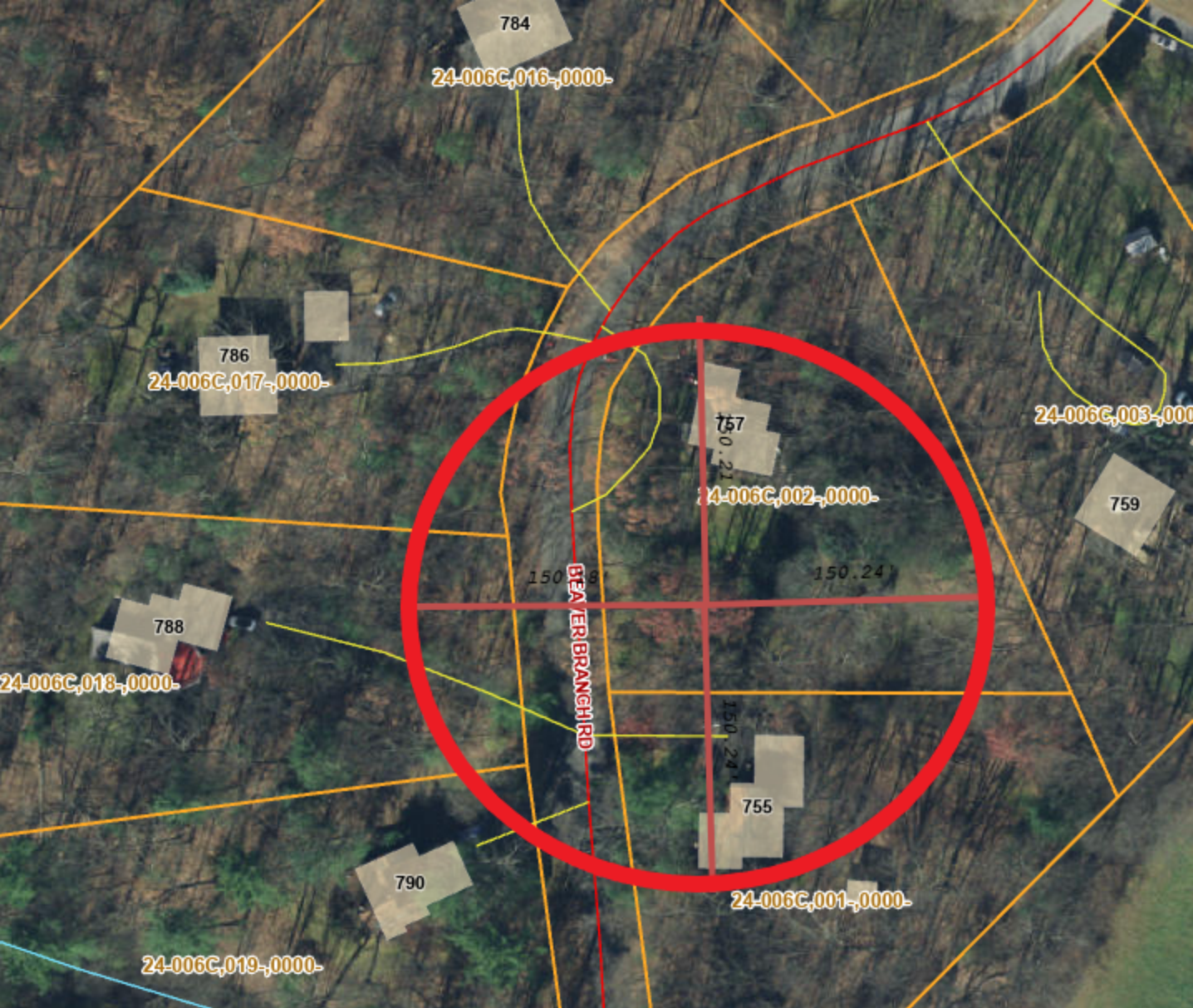
**MP MACHINERY AND TESTING AT 2161 SANDY DRIVE, STATE COLLEGE**

FERGUSON TOWNSHIP  
CENTRE COUNTY  
PENNSYLVANIA

**PRELIMINARY/FINAL LAND DEVELOPMENT PANS**

**EROSION AND SEDIMENTATION CONTROL NARRATIVE**

PROJECT NO.	21316
DATE	MAY 3, 2022
SCALE	SHEET NO.
N.T.S.	<b>ES3</b>



757 Beaver Branch - Proposed Oak Wilt Treatment Area