

TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801
Telephone: 814-238-4651 • Fax: 814-238-3454
www.twp.ferguson.pa.us

FERGUSON TOWNSHIP PLANNING COMMISSION REGULAR MEETING AGENDA Monday, February 8, 2021 6:00 PM

Via Zoom Meeting

<https://us02web.zoom.us/j/89904014437>

Meeting ID: 899 0401 4437

- I. Call To Order
- I. Approval of Regular Meeting Minutes—January 11, 2021
- II. Citizen Input
- III. Land Development

A. West College Avenue Student Housing

PennTerra Engineering, Inc. has submitted a Land Development Plan and Lot Consolidation Plan on behalf of their client, Aspen Heights Partners LLC/York Acquisitions. The parcels are located at the intersection of West College Ave and Buckhout Street. Tax Parcels 24-002A,015, 24-002A,016, 24-002A,017, 24-002A,018, and 36-010-006 are to be consolidated to form a 1.136 acre parcel. The parcels are located in the Terraced Streetscape District (TSD) in Ferguson Township and Parcel 36-010-006 is located partially in The Borough of State College's CP-2 Planned Commercial District.

The land development plan proposes a 6-story multi-family residential apartment building with commercial/retail space on the first floor. The applicant is utilizing height incentives found in §27-304.3.B.(2) and has provided additional parking in the parking structure to share for use by others. The applicant is eligible for an additional 20 feet to be added to the permitted maximum height (55 feet).

The building will consist of two subsurface floors of underground parking, one floor containing commercial space and 5 floors of multi-family residential apartments. There are 96 residential units with 268 beds and 5,976 square feet of non-residential spaces proposed. Ground floor area is 29,571 square feet with 28,483 in Ferguson Township and 1,088 square feet in the Borough of State College.

The plan calls for 159 parking spaces, 151 of which will be located in the parking structure. A variance was granted by the Ferguson Township Supervisors on February 25, 2020 to allow parking on first floor of the building. There are 14 short-term bicycle parking spaces proposed.

Staff Recommendation: Planning Commission recommend to the Board of Supervisors to approve the Preliminary West College Avenue Student Housing Land Development Plan pending outstanding review comments.

B. Modification/Waiver for West College Ave Student Housing

PennTerra Engineering, Inc. (PTE) has submitted an Application for Consideration of a Modification as part of the West College Avenue Student housing LDP. The modification/waiver is requesting relief from Section 22.502.5.1.3.b. This section of the code states that all entrance drives serving more than four dwelling units and all other used in this category shall be laid out to conform to the design, service and access standards established in this chapter for the classification of street based on expected ADT. The proposed entrances to the building are designed to meet Township parking lot design criteria. PTE states that this design provides safe access to the building.

Staff Recommendation: Planning Commission recommend to the Board of Supervisors to approve the Application for Consideration of Modification/Waiver.

IV. Community Planning

A. Tree Preservation Ordinance

The Public Works and Planning & Zoning Department have drafted an amendment to Chapter 22, Subdivision and Land Development to establish a new part, Tree Preservation. The intent of this chapter is to encourage the protection of trees through sound land use and tree management practices. This chapter will preserve, protect and maintain existing trees in Ferguson Township, as well as, increase the overall tree canopy and understory with native species. It will aid in improving tree and ecosystem health on both public and private lands.

The Board authorized staff and the Ferguson Township Tree Commission in September of 2018 to draft a Tree Preservation Ordinance. Staff has received comments from Planning Commissioners and has included with the agenda an updated draft based on those comments received at the January 11th Regular Meeting.

Staff Recommendation: Planning Commission recommend to the Board of Supervisors to approve the Tree Preservation Ordinance and authorize staff to advertise a public hearing.

V. Official Reports and Correspondences

- A. Board of Supervisors
- B. CRPC Report
- C. Land Development Plans
- D. Staff Updates

VI. Adjournment

**FERGUSON TOWNSHIP PLANNING COMMISSION
REGULAR MEETING MINUTES
MONDAY, JANUARY 11, 2021
6:00 PM**

ATTENDANCE

The Planning Commission held its first meeting of the month on Monday, January 11, 2021, as a virtual meeting. In attendance:

Commission:

Jeremie Thompson – Chair
Jerry Binney – Vice Chair
Rob Crassweller - Secretary
Shannon Holiday
Bill Keough
Lisa Rittenhouse
Dr. Ellen Taricani
Ralph Wheland

Staff:

Jenna Wargo, Planning & Zoning Director
Kristina Aneckstein, Community Planner
Dave Modricker, Director of Public Works
Lance King, Township Arborist
Jeff Ressler, Zoning Administrator

Others in attendance: Rhonda Demchak, Recording Secretary

I. CALL TO ORDER

Mr. Thompson called the Ferguson Township Planning Commission’s regular meeting to order on Tuesday, January 11, 2021 at 6:35 p.m.

II. APPROVAL OF REGULAR MEETING MINUTES DECEMBER 1, 2020

Mr. Thompson called for a motion to approve the minutes from December 1, 2020. Mr. Keough made a motion to approve the minutes. Ms. Holiday seconded the motion. The motion passed unanimously

III. CITIZEN INPUT

None

IV. COMMUNITY PLANNING

A. Tree Preservation

Ms. Wargo introduced the draft ordinance that was included in the packet. The Public Works and Planning & Zoning Department drafted an amendment to Chapter 22, Subdivision and Land Development to establish a new part, Tree Preservation. The intent of this chapter is to encourage the protection of trees through sound land use and tree management practices. This chapter will preserve, protect and maintain existing trees in Ferguson Township, as well as, increase the overall tree canopy and understory with native species. It will aid in improving tree and ecosystem health on both public and private lands. The Board authorized staff and the Ferguson Township Tree Commission in September of 2018 to draft a Tree Preservation Ordinance.

Mr. Binney requested to include and clarify Condo Associations within the ordinance. Ms. Wargo will review with the Township Arborist. Ms. Wargo noted that existing Condo’s will not be affected by the ordinance.

Mr. Keough reviewed his questions that included concerns with the language under

Definitions with the use of “legal activity”. Ms. Wargo will have the Township Solicitor review and prepare a response. Mr. Keough expressed concerns with the definition of Farm-Based Business and would prefer using the Clean and Green definition. Mr. Keough thanked the staff for changing the definition of Hedgerow. Mr. Keough suggested including a definition for minor alterations. Ms. Wargo will add the definition. Mr. Keough proposed including language referencing the Arborist to take into consideration of slopes and flood plains under the section of Tree Preservation and Protection. Mr. King stated that he would rather have the certified Flood Plain Manager make the determination. Mr. Ressler noted that language can be added. Mr. Keough inquired about Protecting Fencing with regards to the minimum of 8 feet and constructed of chain link or other material approved by the Township Arborist. Mr. King state that each situation would be carefully considered on what would be approved material. Mr. Keough felt that a \$1,000 fine is excessive and requested adding “paying a fine up to \$1,000”. Mr. Ressler reviewed the Violations and Penalties. Mr. Ressler and Ms. Wargo will review and rework the language to include Violations and Penalties under item G.vi-1, Protect Fencing. Mr. Keough noted that referencing perpetuity would not be good legislation and suggested changing the language.

Due to the suggestions and changes, Ms. Wargo and Mr. Ressler will make the edits and bring back the ordinance to the Planning Commission for final review at the January 25, 2021.

V. PERSONAL DELIVERY DEVICE (PDDs)

Ms. Wargo reviewed the PDDs. The Pennsylvania Senate approved [Bill 1199](#) that assist businesses, health systems, and consumers in deploying innovative technological tools and resources to more effectively cope with the impact of the COVID-19 pandemic. PDDs are autonomous robots designed to deliver packages to consumers and from business to business, within a small radius of approximately 3 miles. PennDOT is requesting feedback that could be included in the policy that would take effect on January 30, 2021. Ms. Wargo noted that First Responders will receive information on all PDDs operating in the Township and how to stop or disable if need be. PDDs are classified as pedestrians and must yield to other pedestrians and cyclists. Educational campaigns are required for all PDDs operating in the Township.

Mr. Keough suggested having a local discussion on hours of operations, zoning designations, handicap residents, etc. Ms. Wargo stated that PDDs can operate at 25 mph and are equipped with brakes, lights, and audible warning sounds. Ms. Holiday expressed concerns that 25 mph is too fast on a sidewalk. Ms. Aneckstein noted that the PDDs for Pennsylvania have a maximum of 4 mph on sidewalks. Mr. Thompson expressed concerns with the ability to steal items from a PDD. Ms. Aneckstein provided examples of PDDs via screen share to display the size of PDD's.

VI. OFFICIAL REPORTS AND CORRESPONDENCES

A. Board of Supervisors

Ms. Wargo noted the Board met on January 4, 2021 and a new Chair and Vice Chair were elected. Laura Dininni was nominated as the Chair and Lisa Strickland as the Vice Chair. Also, Betsy Dupuis was nominated as the new Township Solicitor. The Workforce Housing Ordinance was adopted. The Board will be meeting on January

18th regarding PDDs and the Tree Preservation Ordinance. There will be a Work Session regarding Stormwater Fee on January 12 at 6:00 p.m. via zoom.

B. CRPC Report

No report.

C. Land Development Plans

Ms. Aneckstein noted that they are still reviewing the West College Student Housing and received the third submission. Final comments from the reviewer are due back mid-week of next week. Also, two small subdivision plans were submitted and hoping to introduce them at the next Planning Commission meeting.

D. Staff Updates

Ms. Wargo noted that an email was sent to the Planning Commission regarding the upcoming Winter/Spring 2021 Land Use Decision-making webinar series sponsored by Penn State Extension. They will be recorded in the event a person missed it live.

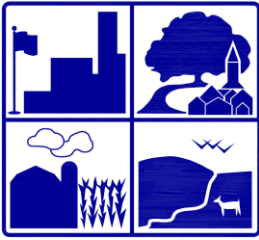
Mr. Thompson noted that the first [Coffee & Conversation](#) will be held on January 16th at 8:00 a.m. via zoom.

VII. ADJOURNMENT

Mr. Crassweller made a motion to adjourn the January 11, 2021 Planning Commission meeting at 8:25 p.m. Mr. Binney seconded the motion. The motion passed unanimously.

Respectfully Submitted,

Rob Crassweller, Secretary
For the Planning Commission



TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801
Telephone: 814-238-4651 • Fax: 814-238-3454
www.twp.ferguson.pa.us

TO: Planning Commission

FROM: Kristina Aneckstein, Community Planner

DATE: February 8, 2021

SUBJECT: West College Avenue Student Housing Land Development Plan

The land development plan proposes a 6-story multi-family residential apartment building with commercial/retail space on the first floor. The applicant is utilizing height incentives found in §27-304.3.B.(2) and has provided additional parking in the parking structure to share for use by others. The applicant is eligible for an additional 20 feet to be added to the permitted maximum height (55 feet).

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The plan calls for 159 parking spaces, 151 of which will be located in the parking structure. A variance was granted by the Ferguson Township Supervisors on February 25, 2020 to allow parking on first floor of the building. There are 14 short-term bicycle parking spaces proposed. The outstanding reviewer's comments are included in the agenda packet.

Staff Recommendation: The Planning Commission make a recommendation to the Board of Supervisors to approve the West College Avenue Student housing LDP, dated August 14, 2020 and last revised on January 27, 2021 condition upon all outstanding items being completed.

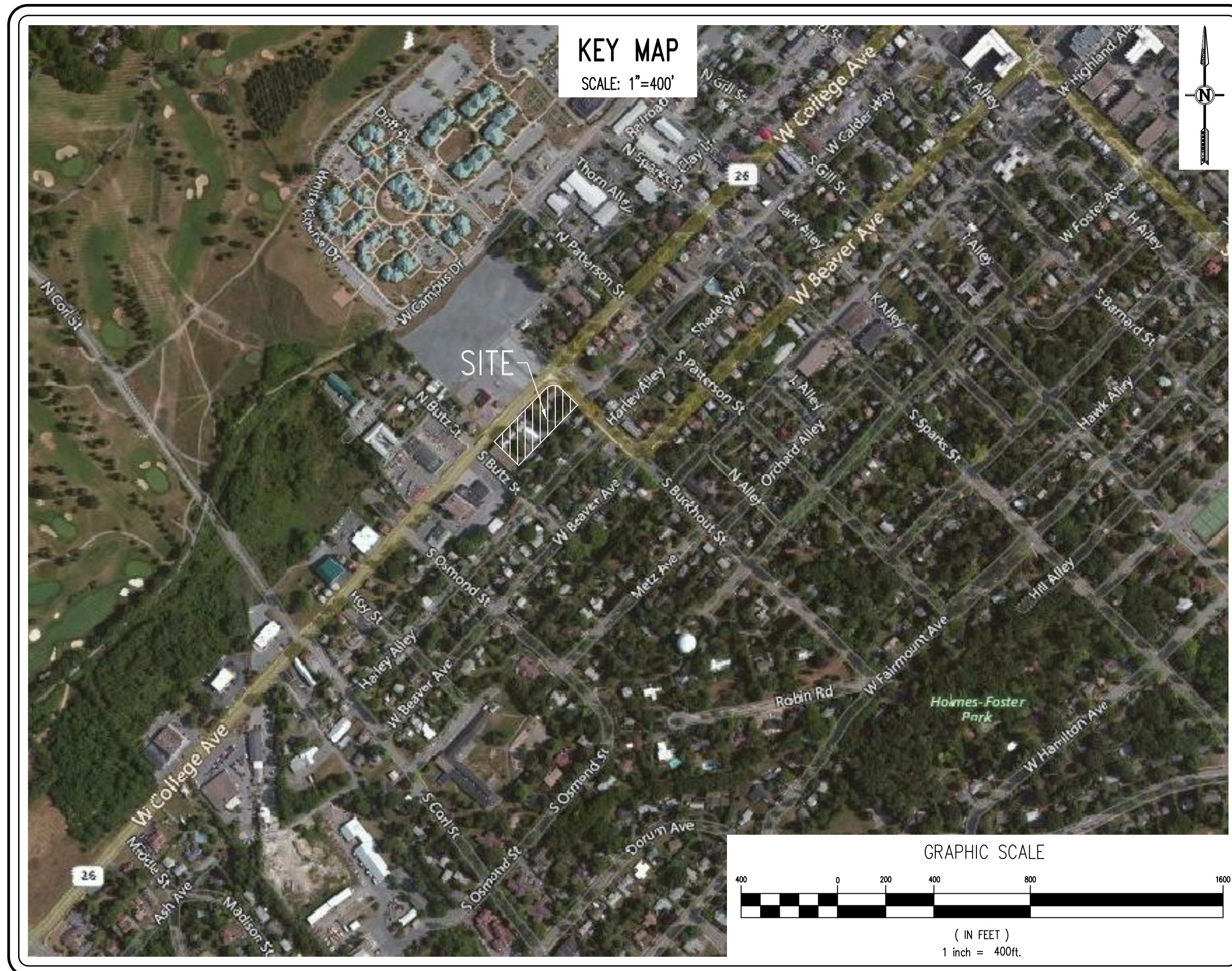
WEST COLLEGE STUDENT HOUSING

PRELIMINARY LAND DEVELOPMENT PLAN

FERGUSON TOWNSHIP * CENTRE COUNTY * PENNSYLVANIA

AUGUST 14, 2020

LAST REVISED: JANUARY 27, 2021



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
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WWW.PENNTERRA.COM

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TABLE OF CONTENTS	
SHEET	DESCRIPTION
1	COVER PAGE
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	RECORD PLAN
4	SIGNATURE & NOTES PAGE
5	GEOMETRY PLAN
6	GRADING PLAN
7	GRADING PLAN - ENLARGEMENT
8	GRADING PLAN - ENLARGEMENT
9	GRADING PLAN - ENLARGEMENT
10	GRADING PLAN - ENLARGEMENT
11	UTILITY PLAN
12	GENERAL CONSTRUCTION DETAILS
13	GENERAL CONSTRUCTION DETAILS
14	GENERAL CONSTRUCTION DETAILS
15	LANDSCAPING PLAN
16	LIGHTING PLAN
17	SITE CROSS SECTIONS
PC1	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
PC2	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
PC3	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
PC4	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
PC5	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
ES1	EROSION & SEDIMENTATION CONTROL PLAN
ES2	EROSION & SEDIMENTATION CONTROL DETAILS
ES3	EROSION & SEDIMENTATION CONTROL NARRATIVE

ELECTRICAL DESIGN PLANS (PREPARED BY VRETOS PAPPAS CONSULTING ENGINEERS, P.A.)	
SHEET	DESCRIPTION
ES1	SITE LIGHTING PLAN
ES2	LIGHTING DISTRIBUTION PANEL DETAILS

ACT 287 UTILITY INFORMATION
(SERIAL NUMBER: 20200352497)
(SERIAL NUMBER: 20200352498)

SANITARY SEWER TREATMENT
UNIVERSITY AREA JOINT AUTHORITY
1576 SPRING VALLEY ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-9662

SANITARY SEWER COLLECTION & CONVEYANCE
UNIVERSITY AREA JOINT AUTHORITY
1576 SPRING VALLEY ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-9662

SANITARY SEWER COLLECTION & CONVEYANCE
STATE COLLEGE BOROUGH SEWER AUTHORITY
243 SOUTH ALLEN STREET
STATE COLLEGE, PA 16801
PHONE: (814) 234-7135

PUBLIC WATER
STATE COLLEGE BOROUGH WATER AUTHORITY
1201 WEST BRANCH ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-6766

NATURAL GAS
COLUMBIA GAS OF PENNSYLVANIA
2550 CAROLEAN INDUSTRIAL DRIVE
STATE COLLEGE, PA 16801
PHONE: (814) 238-6775

ELECTRIC
WEST PENN POWER COMPANY
2800 EAST COLLEGE AVENUE
STATE COLLEGE, PA 16801
PHONE: (814) 237-5721

TELEPHONE
VERIZON
224 SOUTH ALLEN STREET
STATE COLLEGE, PA 16801
PHONE: (814) 231-6511

CABLE TELEVISION
COMCAST
250 REESE ROAD
STATE COLLEGE, PA 16801
PHONE: (800) 992-3515

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

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Municipal Boundary
- Zoning Boundary
- Property Corner Found
- Property Corner To Be Set
- Project Benchmark

SOILS LEGEND

Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

DEMOLITION & CLEARING NOTES:

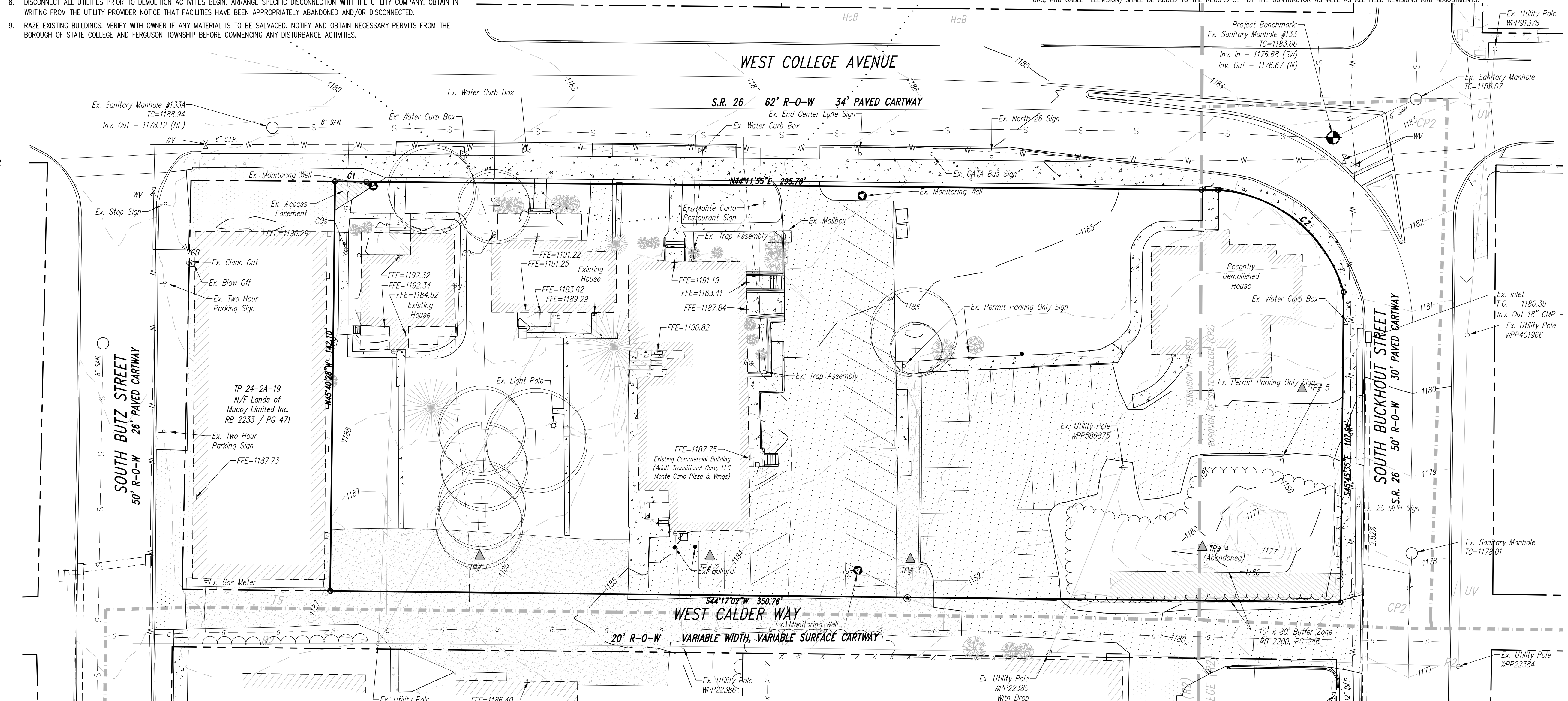
*BEFORE DIGGING IN PENNSYLVANIA, CALL 1-800-242-1776

FOR THE PURPOSES OF THE SITE DEMOLITION ACTIVITIES, CONSIDER THE DEMOLITION AREA TO BE 2' OUTSIDE OF THE FACE-OF-CURB AT WEST COLLEGE AVENUE SO THAT THE CURB CAN BE REPLACED AS SHOWN, 2' OUTSIDE OF THE FACE-OF-CURB AT SOUTH BUCKHOUT STREET SO THAT THE CURB CAN BE REPLACED AS SHOWN, 2' OUTSIDE OF THE EDGE OF PAVEMENT/GRAVEL ALONG WEST CALDER WAY SO THAT THE PAVEMENT/GRAVEL CAN BE MILLED/REMOVED AS SHOWN, AND ALONG THE WESTERN PROPERTY LINE SO THAT DEMOLITION ACTIVITIES CAN BE PERFORMED AS SHOWN. ALL STREET SIGNAGE TO BE REMOVED WITH CARE AND SET ASIDE TO BE REINSTALLED AT PROPOSED LOCATIONS AS SHOWN.

1. INSTALL CONSTRUCTION FENCE AROUND THE ENTIRE PERIMETER OF THE SITE.
2. PLACE "SIDEWALK CLOSED" SIGNS AROUND THE PERIMETER OF THE SITE ALONG EACH ROADWAY.
3. PLACE "SIDEWALK CLOSED" SIGNS AT ALL SIDEWALKS AROUND THE PERIMETER OF THE SITE.
4. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE PENNDOT STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL. CONTRACTOR SHALL CONTACT FERGUSON TOWNSHIP/BOROUGH OF STATE COLLEGE FOR CONSTRUCTION ON PUBLIC STREETS.
5. INSTALL INITIAL EROSION & SEDIMENTATION CONTROLS (SILT SOX AND CONSTRUCTION ENTRANCE OFF OF WEST CALDER WAY). REFER TO THE EROSION & SEDIMENTATION CONTROL PLAN, NARRATIVES & DETAILS.
6. 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. ALL EXISTING UTILITIES SHALL BE RETAINED UNLESS MARKED OTHERWISE, AND APPURTENANCES SHALL BE ADJUSTED TO FINAL GRADE. DAMAGE TO EXISTING CONDITIONS AND UTILITIES SHALL BE REPAIRED AS REQUIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
7. 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.
8. DISCONNECT ALL UTILITIES PRIOR TO DEMOLITION ACTIVITIES BEGIN. ARRANGE SPECIFIC DISCONNECTION WITH THE UTILITY COMPANY. OBTAIN IN WRITING FROM THE UTILITY PROVIDER NOTICE THAT FACILITIES HAVE BEEN APPROPRIATELY ABANDONED AND/OR DISCONNECTED.
9. RAZE EXISTING BUILDINGS. VERIFY WITH OWNER IF ANY MATERIAL IS TO BE SALVAGED. NOTIFY AND OBTAIN NECESSARY PERMITS FROM THE BOROUGH OF STATE COLLEGE AND FERGUSON TOWNSHIP BEFORE COMMENCING ANY DISTURBANCE ACTIVITIES.

10. VERIFY IF PA DEP AIR QUALITY DEPARTMENT REQUIRES ANY TESTING BEFORE DEMOLITION ACTIVITIES COMMENCING. OBTAIN IN WRITING THIS PROOF. SUPPLY TO THE OWNER.
 BUILDING DEMOLITION MINIMUM REQUIREMENTS:
 DEMOLITION CONTRACTOR SHALL PROVIDE PENNSYLVANIA CERTIFICATION LICENSES AND NAMES OF PERSONNEL THAT WILL PERFORM WORK AND SHALL PROVIDE A LIST OF THE WASTE DISPOSAL SITES AND DEP PERMIT NUMBERS WHERE ACMS WILL BE TAKEN AND DISPOSED OF.
 DEP FORM 2700-FM-A00021- ASBESTOS ABATEMENT AND DEMOLITION/RENOVATION NOTIFICATION FORM FOR PROCESSING AND SUBMISSION TO THE PA DEP AIR QUALITY COMPLIANCE PROGRAM AT LEAST TWO WEEKS PRIOR TO START OF DEMOLITION ACTIVITIES. PROOF OF MAIL RECEIPT (ORIGINAL) MUST BE PROVIDED TO OWNER.
 PROVIDE A DEMOLITION SURVEY, ACCORDING TO 29CFR 1926.850(A), FOR RECORD OF THE OWNER.
 PROVIDE IN ACCORDANCE WITH CONTRACT DOCUMENTS:
11. PERFORM DEMOLITION WORK IN ACCORDANCE WITH 29 CFR 1926, WITH PARTICULAR ATTENTION TO REQUIREMENTS SET FORTH IN SUBPART T, "DEMOLITION".
12. PERFORM WORK IN SAFE AND SYSTEMATIC MANNER.
13. DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO EXTENT REQUIRED, AND AS INDICATED IN CONTRACT DOCUMENTS.
14. WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT AT ALL TIMES.
15. USE WATER AS NECESSARY TO LAY DUST WHEN CHIPPING, CORING, OR SAWING CONCRETE, MASONRY OR SIMILAR MATERIALS.
16. COMPLETELY BACKFILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM UTILITY REMOVAL AND OTHER DEMOLITION WORK.
 IF ITEMS ARE DETERMINED TO BE HAZARDOUS, REFER TO DEP FORM 2700-FM-A00021- ASBESTOS ABATEMENT AND DEMOLITION/RENOVATION NOTIFICATION FORM, FOR DISPOSAL OF HAZARDOUS WASTES (ACMS).

17. ALL FILL MATERIAL BROUGHT ON TO THE SITE BY THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE D.E.P. REGULATIONS REGARDING CLEAN FILL.
18. REMOVE TREES, ROOTS COMPLETE AND ALL VEGETATION WITHIN THE LIMITS OF THE DEVELOPMENT SITE. ALL STREET TREE REMOVAL MUST BE COORDINATED WITH STATE COLLEGE BOROUGH PUBLIC WORKS DEPARTMENT, FERGUSON TOWNSHIP, AND THEIR RESPECTIVE ARBORISTS.
19. REMOVE ALL FACILITIES, BUILDINGS AND COMPONENTS LOCATED WITHIN THE DEMOLITION AREA; INCLUDING BUT NOT LIMITED TO:
 - BUILDINGS - PAVEMENT - CURBS - CONCRETE - VEGETATION - INLETS
 - UNDERGROUND UTILITIES INCLUDING BUT NOT LIMITED TO WATER, SANITARY SEWAGE, GAS, STORMWATER, ETC.
 - UTILITY LATERALS TO CURB STOPS, VALVES OR SIMILAR.
 - SELECT OVERHEAD UTILITY POLES. REFER TO THE DEMO PLAN FOR OVERHEAD UTILITY POLES TO BE REMOVED.
20. IN ALL CASES, THE DEMOLITION CONTRACTOR SHALL NEATLY SAW CUT AND REMOVE/DISCONNECT EXISTING IMPROVEMENTS, IF DEMOLITION WORK IS TO BE PERFORMED IN THE RIGHT-OF-WAY OF THE BOROUGH AND/OR FERGUSON TOWNSHIP AND/OR THE COMMONWEALTH OF PENNSYLVANIA; THEN IN ALL CASES NOTIFY THE APPROPRIATE PARTY AND FOLLOW THEIR RULES AND PROCEDURES FOR DEMOLITION ACTIVITIES. THIS IS SOLELY THE RESPONSIBILITY OF THE DEMOLITION CONTRACTOR.
21. RE-ESTABLISH EROSION & SEDIMENTATION CONTROLS. BEGIN SITE DEVELOPMENT CONSTRUCTION WORK.
22. ALL AREAS DISTURBED DURING CONSTRUCTION, NOT DESIGNATED TO RECEIVE PAVING OR MULCH SHALL BE FINE GRADED, TOPSOILED, AND SEEDED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS, OR INSTRUCTED BY THE OWNER.
23. CONTRACTOR SHALL REPAIR OR REPLACE ALL CURB, PAVEMENT, UTILITIES, SIDEWALKS, LANDSCAPING, ETC. WITHIN THE SITE DAMAGED DURING CONSTRUCTION THAT ARE NOT INDICATED TO BE REMOVED.
24. CONTRACTOR SHALL MAINTAIN ONE SET OF CONTRACT DOCUMENTS ON SITE TO BE UTILIZED FOR RECORD DOCUMENTS. FIELD RECORDS OF THE DEPTH AND LOCATIONS OF ALL UNDERGROUND SERVICE UTILITIES (WATER, SANITARY SEWER, STORM DRAINS, PRIMARY AND SECONDARY ELECTRIC, GAS, AND CABLE TELEVISION) SHALL BE ADDED TO THE RECORD SET BY THE CONTRACTOR AS WELL AS ALL FIELD REVISIONS AND ADJUSTMENTS.



PROJECT NOTES:

1. **Property Owner Information:**
 Scott L. & Glenda C. Youm
 PO Box 57
 Boalsburg, PA 16827
Developer Information:
 Aspen Heights Partners
 8008 Corporate Center Drive, Suite 100
 Charlotte, NC 28226
2. **General Site Information:**
 a. Tax Parcel No.: 24-002A-015
 b. Site Address: West College Ave, State College, PA 16801
 c. Municipality: Ferguson Township, Borough of State College
 d. Zoning: Terraced Streetscape (TS) District - Ferguson Township, Planned Commercial (CP-2) District - Borough of State College
 e. Deed Information: Record Book _____, Page _____
 f. Existing Site/Lot Size: 49,489 S.F. (1.136 Acres)
3. **Natural Site Features & Survey Information:**
 a. Soil limits and descriptions have been taken from the Natural Resources Conservation Service Web Soil Survey dated June 2020.
 b. There are no portions of this property located within a Zone 'A' 100-year Flood Plain according to the Federal Emergency Management Agency (FEMA) Map Number 42027C0636F for the Borough of State College, effective date May 4, 2009.
 c. There are no wetlands on the property according to the National Wetlands Inventory (U.S. Fish & Wildlife Service) for State College, PA, last updated June 2020.
 d. Horizontal Datum is Pennsylvania North Zone State Plane Coordinates, North American Vertical Datum of 1983 (PA NAD83) U.S. Feet
 e. Elevation Datum is the North American Vertical Datum of 1988 (NAVD 88)
 f. The Project Benchmark is the top of casting of the sanitary sewer manhole in the median island at the intersection of West College Avenue and South Buckhout Street, as shown on the plan. Elevation = 1183.66'

4. **Act 287 Information:**
 Serial No. 20200352498 (Borough of State College)
 Serial No. 20200352497 (Ferguson Township)
 All utility locations should be verified prior to any construction, utility information and locations should be considered approximate. Contractor shall notify PA One Call prior to any excavation.
5. **Project References:**
 Final Plan Lot Consolidation Of Tax Parcels 24-002A-015 & 24-002A-016 & 24-002A-017 & 24-002A-018 & 36-010-006, prepared by PennTerra Engineering, Inc., and dated August 14, 2020.

FIRE FLOW INFORMATION:

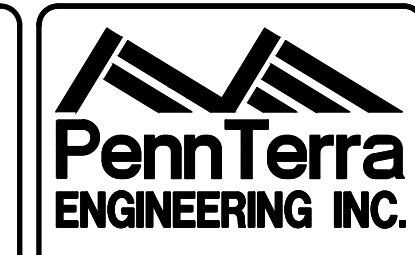
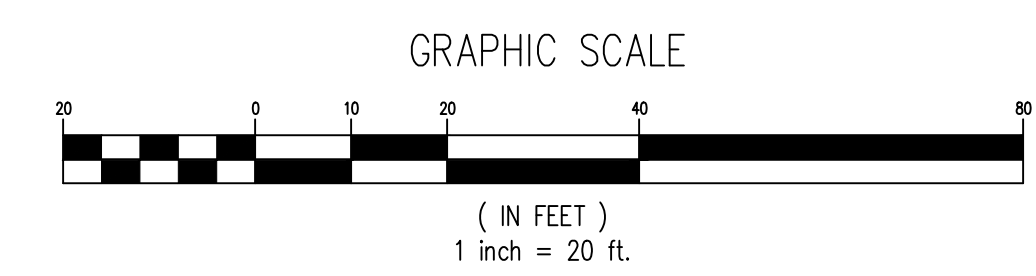
Fire Hydrant #30228
 Location: North Butz Street @ Cross Alley
 Flow Information
 Test Date: 07/17/2019
 Pressure: Static: 37 psi
 Residual: 15 psi
 Flow: 850 gpm

Fire Hydrant #30212
 Location: West College Avenue @ North Buckhout Street
 Flow Information
 Test Date: 07/17/2019
 Pressure: Static: 46 psi
 Residual: 38 psi
 Flow: 1,325 gpm

Fire Hydrant #30208
 Location: West Beaver Ave @ South Buckhout Street
 Flow Information
 Test Date: 07/12/2019
 Pressure: Static: 50 psi
 Residual: 40 psi
 Flow: 1,300 gpm

EXISTING CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD DIRECTION	CHORD	DELTA
C1	10.87'	11428.19'	5.44'	N 44° 10' 17" E	10.87'	0° 03' 16"
C2	59.79'	49.17'	34.22'	N 82° 42' 59" E	56.17'	69° 40' 23"

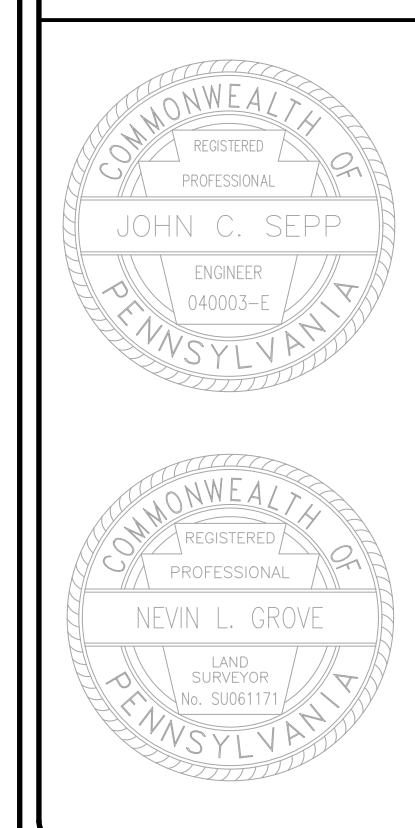


CENTRAL PENNSYLVANIA REGION OFFICE:
 3075 ENTERPRISE DRIVE
 SUITE 100
 STATE COLLEGE, PA 16801
 PH: 814-231-8285
 FX: 814-237-2308

LANCASTER REGION OFFICE:
 3904 B ADEL DRIVE
 COLUMBIA, PA 17512
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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	S42, Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-EX
Layout	EX

Date	Description	REVISIONS
01/21/21	REVISION FOR FERGUSON TOWNSHIP COMMENTS	
12/16/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS	
11/26/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS	

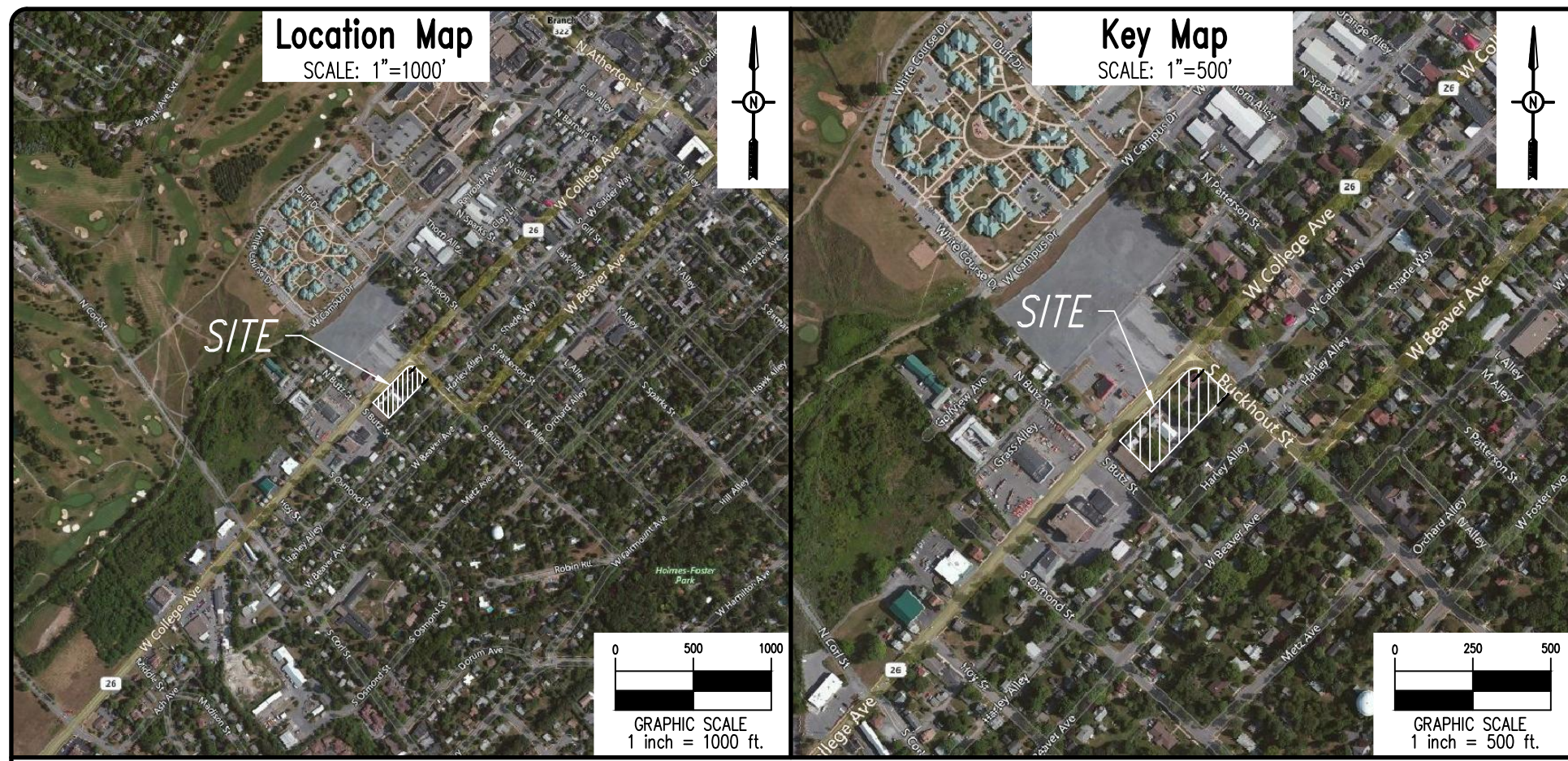
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	2



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- - - Adjoining Property Line
- - - Building Setback Line
- - - Easement Line
- - - Municipal Boundary
- - - Zoning Boundary
- Property Corner Found
- Property Corner To Be Set
- ⊕ Project Benchmark

SOILS LEGEND

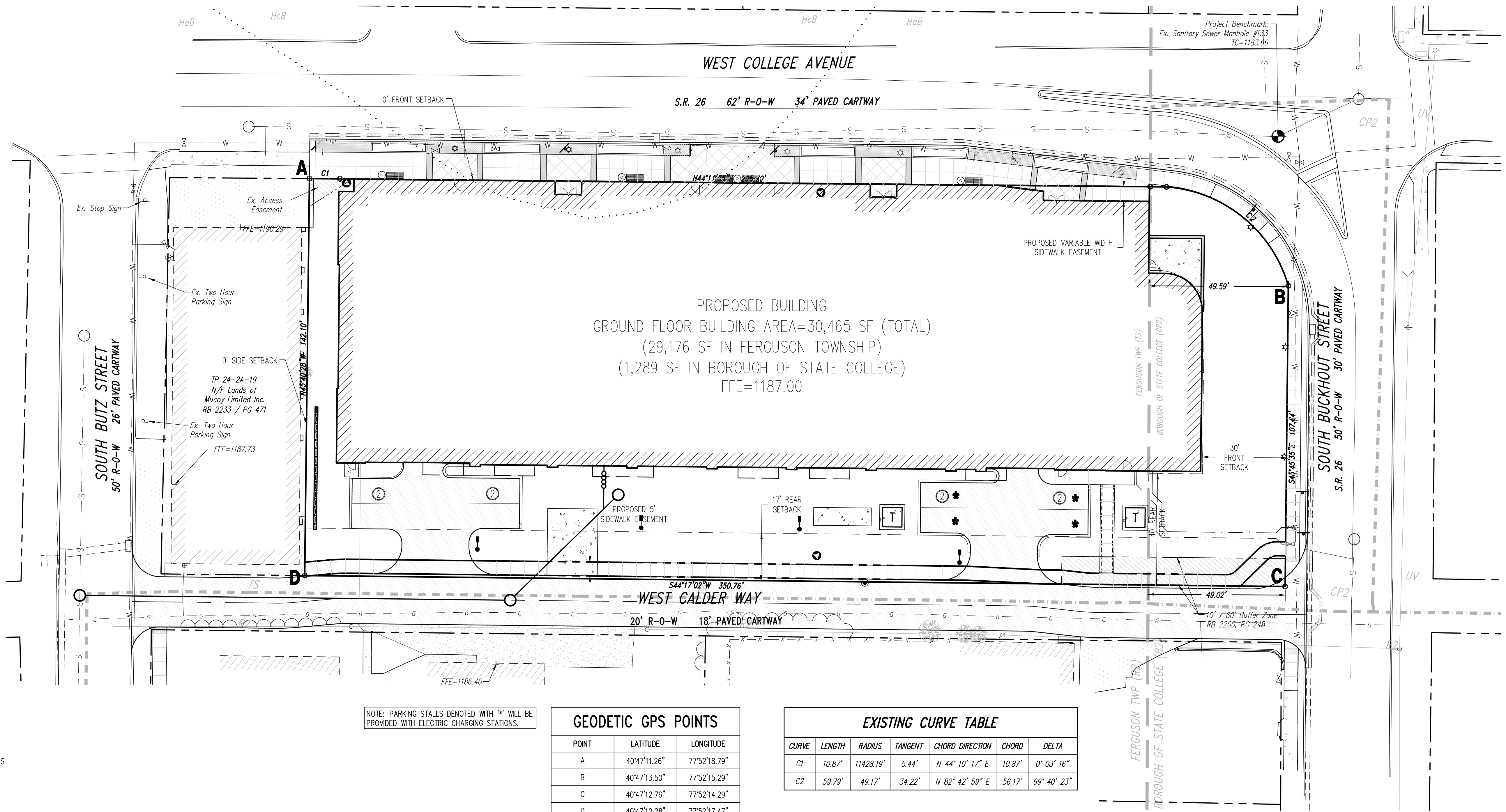
Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Monitoring Well
- Existing Sign
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- Proposed Building
- Proposed Curbing & Edge of Pavement
- Proposed Concrete Sidewalk
- Proposed Concrete Areas
- Proposed Full-Depth Bituminous Pavement Areas
- Proposed Overlay Bituminous Pavement Areas
- Proposed Light Fixture (Decorative)
- Proposed Light Pole (Single Fixture)
- Proposed Traffic Flow Arrows (Not Painted)
- Proposed Parking Stall Count
- Proposed Sign w/ Label
- Proposed Depressed Curb w/ Curb Transition
- Proposed Handicapped Ramp
- Proposed Retaining Wall
- Proposed Retaining Wall Fence



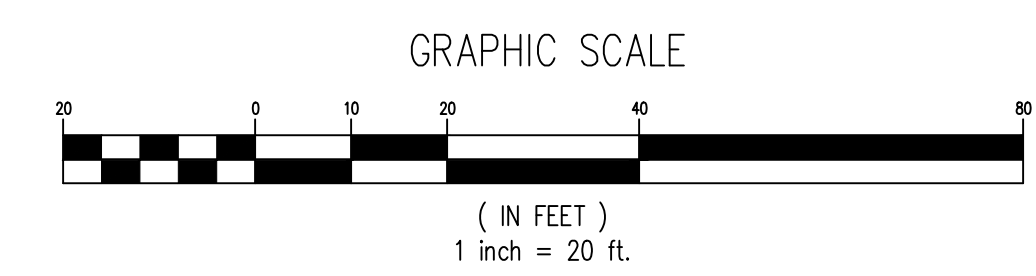
NOTE: PARKING STALLS DENOTED WITH "*" WILL BE PROVIDED WITH ELECTRIC CHARGING STATIONS.

GEODETIC GPS POINTS

POINT	LATITUDE	LONGITUDE
A	40°47'11.26"	77°52'18.79"
B	40°47'13.50"	77°52'15.29"
C	40°47'12.76"	77°52'14.29"
D	40°47'10.28"	77°52'17.47"

EXISTING CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD DIRECTION	CHORD	DELTA
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Designer: EAH
 Draftsman: EAH
 Proj. Manager: JCS
 Surveyor: BRK
 Perimeter Ok.
 Book: 542, Pg: 42
 Acad: 19052-FERGUSON-PRELIMINARY-LD-RP
 Layout: RP

Date	Description	REVISIONS
01/21/21	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS

WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

RECORD PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	3

Owners Certification Tax Parcel _____

Commonwealth of Pennsylvania
County of Centre

On this _____ 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 _____

Storm Water Facilities Acknowledgement

I/We, _____ the landowner(s), my/our heirs and assigns, acknowledge the Stormwater Management System to be a permanent facility which can be altered or removed only after approval of a revised plan by the Ferguson Township Board of Supervisors. The stormwater management system is to be maintained in accordance with the approved ownership and maintenance program.

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.

Municipal Storm Water Certification

I, _____, 20____, have reviewed the Stormwater Management Plan in accordance with the design standards and criteria of the Ferguson Township Stormwater Management Ordinance.

Township Planning Commission
Ferguson Township Planning Commission Approved

Chairman Date _____

Secretary Date _____

Township Supervisors
Ferguson Township Supervisors Approved

Chairman _____

Secretary _____

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 _____

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 _____

Storm Water Certification

I, _____, hereby certify that the Stormwater Management Plan meets all design standards and criteria of the Ferguson Township Stormwater Management Ordinance.

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.

- PROJECT NOTES:**
- Property Owner Information:** Scott L. & Glenda C. Yocum PO Box 57 Boalsburg, PA 16827
Developer Information: Aspen Heights Partners 8008 Corporate Center Drive Charlotte, NC 28226
 - General Site Information:**
a. Tax Parcel No.: _____
b. Site Address: _____ West College Ave State College, PA 16801 Borough of State College
c. Municipality: Ferguson Township
d. Zoning: Planned Commercial (CP-2) District Terraced Streetscape (TS) District
e. Deed Information: Record Book _____ Page _____
f. Existing Site/Lot Size: 49,489 S.F. (1.136 Acres)
 - Zoning Information:** (Note: All Zoning Information pertains to the Ferguson Township portion of the project.)
a. Proposed Site Use: Multi-Family Residential Apartment Building with Commerical/Retail Space on the First Floor.
b. Front Yard Setbacks: 12' From the back edge of the curb on College Avenue
c. Side Yard Setbacks: 0'-Side yard adjacent to lot that Fronts on West College Avenue
d. Rear Yard Setbacks: 17'-Abutting on Alley which coincides with a district boundary
e. Maximum Building Height: 55' (Additional height up to 75' for lots of at least one acre may be obtained through the use of incentives. See §27-703.3 for more information.)
f. Proposed Building Height: 74.8'
g. Proposed Building Coverage: 59.75% (29,571 S.F.)
h. Maximum Impervious Coverage: 75.00% (37,117 S.F.)
i. Existing Impervious Coverage: 50.76% (25,119 S.F.)
j. Proposed Impervious Coverage: 74.64% (36,938 S.F.)
k. A Variance was granted by the Ferguson Township Zoning Hearing Board on February 25, 2020 allowing parking on the first floor of the building.
l. Building Area Information:
Residential (TS District): 145,880 SF
Non-Residential (TS District): 7,488 SF
Professional Office (CP-2, Borough of State College): 1,208 SF
 - Unit and Bed Calculations:**

Unit Type	Number of Units	Number of Beds
2 Bedroom (B1)	9	18
2 Bedroom (B1 Type A)	1	2
2 Bedroom (B2)	10	20
2 Bedroom (B3)	20	60
3 Bedroom (C1)	55	165
3 Bedroom (C1 Type A)	1	3
Totals:	96	268 (All Within Ferguson Township)
 - Automobile Parking Calculations:**
Required Parking (Ferguson Township):
Residential (TS District): Residential parking within the TS District shall be provided at the rate of 1.5 spaces for each unit that is two bedrooms or larger.
96 Units * 1.5 Spaces = 144 Spaces Required
Non-Residential (TS District): Parking for non-residential uses within the TS District shall be provided at the rate of 1/500 square feet.
7,488 SF * 1 Space per 500 SF = 15 Spaces Required
Required Parking (Borough of State College):
Professional Office: 1 Space per 300 square feet of gross floor area
1,208 SF * 1 Space per 300 SF = 4 Spaces Required
Total Required Parking:
Ferguson Township Total: 159 Spaces
Borough of State College Total: 4 Spaces
Total Parking Required: 163 Spaces
Total Parking Provided: 167 Spaces (159 In the Parking Structure and 8 Exterior)
 - Bicycle Parking Calculations:**
Short-Term: 268 Beds * 0.05 Spaces per Bedroom = 13.4
14 Short-Term Bicycle Parking Spaces Required
Long-Term: There are no Long-Term Bicycle Parking Spaces required for this project since multi-family dwelling units with private garages are proposed. See §22-502C.A.1.
 - Natural Site Features & Survey Information:**
a. Soil limits and descriptions have been taken from the Natural Resources Conservation Service Web Soil Survey dated June 2020.
b. There are no portions of this property located within a Zone 'A' 100-year Flood Plain according to the Federal Emergency Management Agency (FEMA) Map Number 42027C0636F for the Borough of State College, effective date May 4, 2009.
c. There are no wetlands on the property according to the National Wetlands Inventory (U.S. Fish & Wildlife Service) for State College, PA, last updated June 2020.
d. Horizontal Datum is Pennsylvania North Zone State Plane Coordinates, North American Vertical Datum of 1983 (PA NAD83) U.S. Feet
e. Elevation Datum is the North American Vertical Datum of 1988 (NAVD 88)
f. The Project Benchmark is the top of casting of the sanitary sewer manhole in the median island at the intersection of West College Avenue and South Buckhout Street, as shown on the plan. Elevation = 1183.66'.
g. Field monumentation of the Municipal Boundary Line could not be located. Plans of Record, field survey data, and PennDOT mapping was used to determine the location as shown on the plan.
 - Act 287 Information:**
Serial No. 20200352498 (Borough of State College)
Serial No. 20200352497 (Ferguson Township)
All utility locations should be verified prior to any construction, utility information and locations should be considered approximate. Contractor shall notify PA One Call prior to any excavation.
a. **Electric:** West Penn Power Company, 2800 E. College Ave, State College, PA 16801 - Phone: (800) 686-0021
b. **Telephone:** Verizon, Facility Management Center, 224 S. Allen Street, State College, PA 16801 - Phone: (814) 231-6511
c. **TV Cable:** Comcast, 250 Reese Road, State College, PA 16801 - Phone: (888) 266-2278
d. **Gas:** Columbia Gas of Pennsylvania, 2550 Carolean Drive, State College, PA 16801 - Phone: (814) 238-6775
e. **Sanitary Sewer Treatment:** University Area Joint Authority (UAJA), 1576 Spring Valley Road, State College, PA 16801 - Phone: (814) 238-5361
f. **Sanitary Sewer Collection & Conveyance:** State College Borough Sewer Authority, 243 S. Allen Street, State College, PA 16801 - Phone: (814) 234-7135
University Area Joint Authority (UAJA), 1576 Spring Valley Road, State College, PA 16801 - Phone: (814) 238-5361
g. **Water:** State College Borough Water Authority (SCBWA), 1201 West Branch Road, State College, PA 16801 - Phone: (814) 238-6766
 - Project References:**
a. "Final Plan Lot Consolidation of Tax Parcels 24-002A-015 & 24-002A-016 & 24-002A-017 & 24-002A-018 & 36-010-006", prepared by PennTerra Engineering, Inc. and dated August 14, 2020.
b. "Post Construction Stormwater Management Plan Narrative", prepared by PennTerra Engineering, Inc., last revised November 6, 2020.
c. "Erosion & Sedimentation Control Plan Narrative", prepared by PennTerra Engineering, Inc., last revised November 6, 2020.
d. "Traffic Impact Study For The Proposed Aspen Heights Partners Development", prepared by David E. Wooster & Associates, inc., dated August 19, 2020, and last revised November 2020.
 - As-built drawings/documentation of the stormwater management facilities must be prepared in accordance with Chapter 26 §26-402D.4 and submitted to Ferguson Township at the completion of construction as a prerequisite of issuance of Occupancy Permit. As-built drawings/documentation of the stormwater management facilities must also be submitted to the Borough of State College in accordance with §14-224.h of the Stormwater Management Ordinance.
 - Face area and height for all signs shall conform to the Ferguson Township Sign Ordinance and will be included with the Final Plan.
 - Plan Purpose:**
The purpose of this plan is to construct a one story mixed-use building within the Planned Commercial District (CP-2) in the Borough of State College, and a six story mixed-use building within the Terraced Streetscape District (TS) in Ferguson Township. The building will consist of two subsurface floors of underground parking, one floor containing commercial space, and five floors of multi-family residential apartments located in Ferguson Township. Refer to the Architectural Plans prepared by BSB Design, Inc. for additional building information.
 - Additional Planning Information:**
a. The proposed building will be fully sprinklered with automatic wet-pipe & dry-pipe sprinkler systems. Standpipes with fire hose valves will be provided in the stairs. An internal fire pump will support the sprinkler and standpipe systems. All fire protection systems in the building will be designed and installed in accordance with NFPA 13, NFPA 14, NFPA 20, and local building and fire codes. An integral Siemese Fire Department Connection will also be provided as coordinated between the Developer, Architect, and the Centre Regional Council of Governments Regional Fire Protection Program Fire Director.
b. Highway Occupancy Permits are required from the Pennsylvania Department of Transportation for all construction activities located within the state Right-Of-Way along West College Avenue.
c. All "Refuse and Recycling" collection bins/dumpsters/compactors will be typically located inside the building's refuse and recycling area. On refuse/recycling collection days, all collection bins/dumpsters/compactors will be moved outside the building along West Calder Way.

- This Record Plan conforms with the plan receiving final approval by the Ferguson Township Board of Supervisors on _____, All improvements are or will be installed in accordance with such Plan in a manner and time so specified therein.
- The date of application for a Zoning Permit is August 17, 2020.
- Pre-construction meetings are required prior to starting work to discuss stormwater and public improvements. Please contact the Municipal Engineer to schedule the meeting.
- A Township Pave Cut Permit must be obtained for the sewer connection at Butz Street prior to issuing a Zoning Permit for this development.
- The Developer will maintain in good repair Calder Way along the project. Access to Calder Way will not be restricted.
- A Fee-in-Lieu of Parkland will be offered for the 96 Residential Units in this project based on the following Ferguson Township Fee Schedule.
96 Units X 2.54 persons per unit X \$1,225.00 per person = \$298,704 Fee-In-Lieu of Parkland
- The project will provide full-time on-site management.
- An as-built drawing of the sinkhole repair shall be submitted to the township as part of the stormwater as-builts drawings.
- A Sidewalk Easement Agreement has been recorded in RB _____, PG _____ for the concrete sidewalk located along West Calder Way and a section of sidewalk located along West College Ave (SR0026).

FIRE FLOW INFORMATION:
Fire Hydrant # 30228
Location: North Butz Street @ Cross Alley
Flow Information
Test Date: 07/17/2019
Pressure: Static: 37 psi
Residual: 15 psi
Flow: 850 gpm

Fire Hydrant # 30212
Location: West College Avenue @ North Buckhout Street
Flow Information
Test Date: 07/17/2019
Pressure: Static: 46 psi
Residual: 38 psi
Flow: 1,325 gpm

Fire Hydrant # 30208
Location: West Beaver Ave @ South Buckhout Street
Flow Information
Test Date: 07/17/2019
Pressure: Static: 50 psi
Residual: 40 psi
Flow: 1,300 gpm

PennTerra ENGINEERING INC.
CENTRAL PENNSYLVANIA REGION OFFICE:
3075 ENTERPRISE DRIVE SUITE 100 STATE COLLEGE, PA 16801
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JOHN G. SEPP ENGINEER 040003-E

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER NEVIN L. GROVE LAND SURVEYOR No. 50001171

Designer	EAH
Draftsman	EAH
Proj/Manager	JCS
Surveyor	BRK
Perimeter Ok	
Book	542, Pg 42
Acad	19052-FERGUSON-PRELIMINARY-LD-SIG
Layout	SIG-NOTES

01/21/21	EAH	REVISION FOR FERGUSON TOWNSHIP COMMENTS
12/18/20	EAH	REVISION FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	EAH	REVISION FOR FERGUSON TOWNSHIP COMMENTS
Date	Description	REVISIONS

WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP CENTRE COUNTY PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

SIGNATURE & NOTES PAGE

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	N.T.S.
SHEET NO.	4

SURVEY FEATURES LEGEND

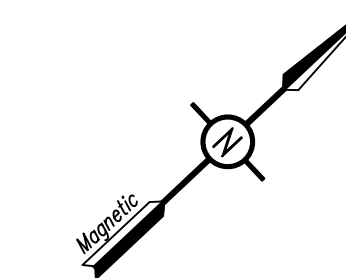
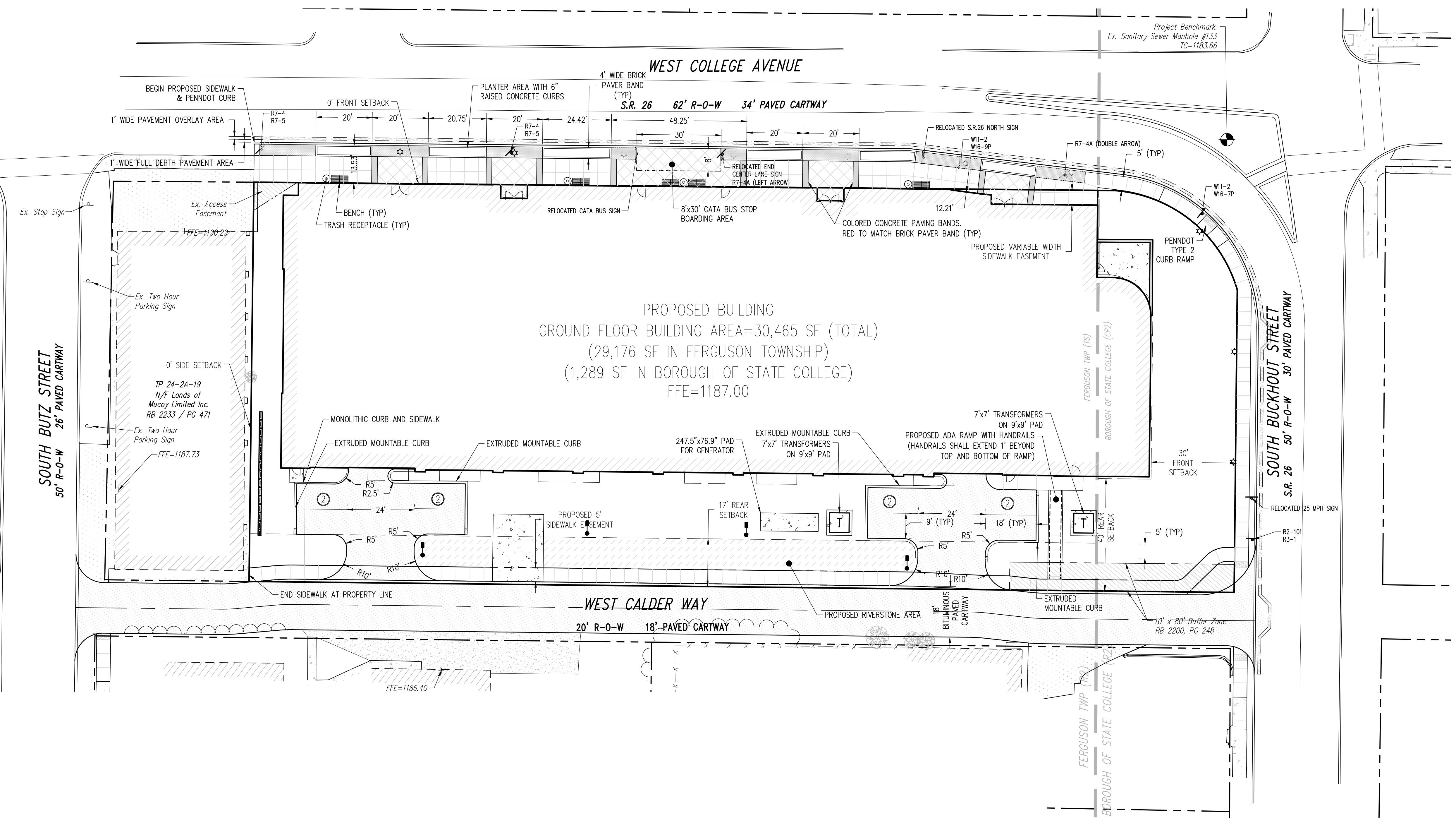
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- - - Building Setback Line
- - - Easement Line
- ⊕ Project Benchmark
- - - Municipal Boundary

EXISTING FEATURES LEGEND

- EXISTING BUILDING Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- x - x - x - x - Existing Fence / Type
- Existing Sign
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED PARKING STALL COUNT
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- x - x - x - x - PROPOSED RETAINING WALL FENCE
- PROPOSED RIVERSTONE AREAS

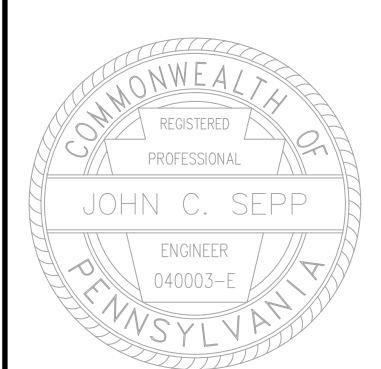


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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
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Book	542, Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-Geo
Layout	Geo

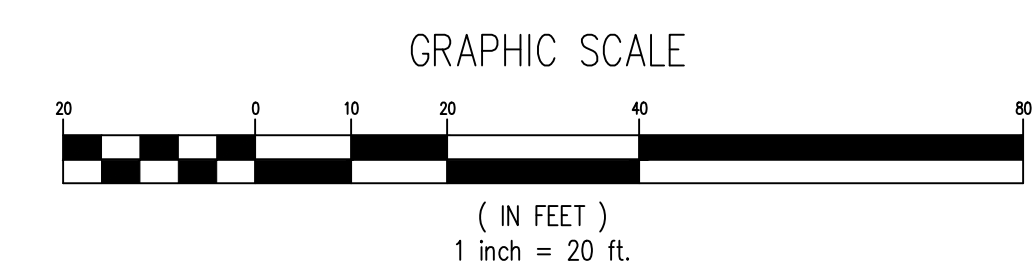
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WEST COLLEGE STUDENT HOUSING
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

GEOMETRY PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	5



All "Refuse and Recycling" collection bins/dumpsters/compactors will be typically located inside the building's refuse and recycling area. On refuse/recycling collection days, all collection bins/dumpsters/compactors will be moved outside the building for collection.

GRADING NOTES

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA, THE CURRENT REQUIREMENTS OF THE FERGUSON TOWNSHIP, THE CURRENT REQUIREMENTS OF THE BOROUGH OF STATE COLLEGE, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. 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 (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVI, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
3. 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.
4. MAXIMUM SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) EXCEPT WHERE SPECIFICALLY NOTED.
5. ALL AREAS NOT PAVED SHALL BE TOPSOILED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.
6. THE MAXIMUM SLOPE FOR ALL ON-SITE SIDEWALKS SHALL BE 4.90% WITH A MAXIMUM CROSS SLOPE OF 2.00% AND CURB RAMPS SHALL HAVE A MAXIMUM SLOPE OF 8.30%.
7. CONTOURS SHOWN ON THIS PLAN ARE GENERATED FROM A FIELD SURVEY BY PENNTERRA ENGINEERING, INC. THE PROJECT BENCHMARK IS THE TOP OF CASTING OF THE SANITARY SEWER MANHOLE IN THE MEDIAN ISLAND AT THE INTERSECTION OF WEST COLLEGE AVENUE AND SOUTH BUCKHOUT STREET, AS SHOWN ON THE PLAN. ELEVATION = 1183.66'.

SURVEY FEATURES LEGEND

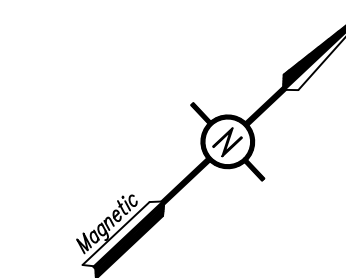
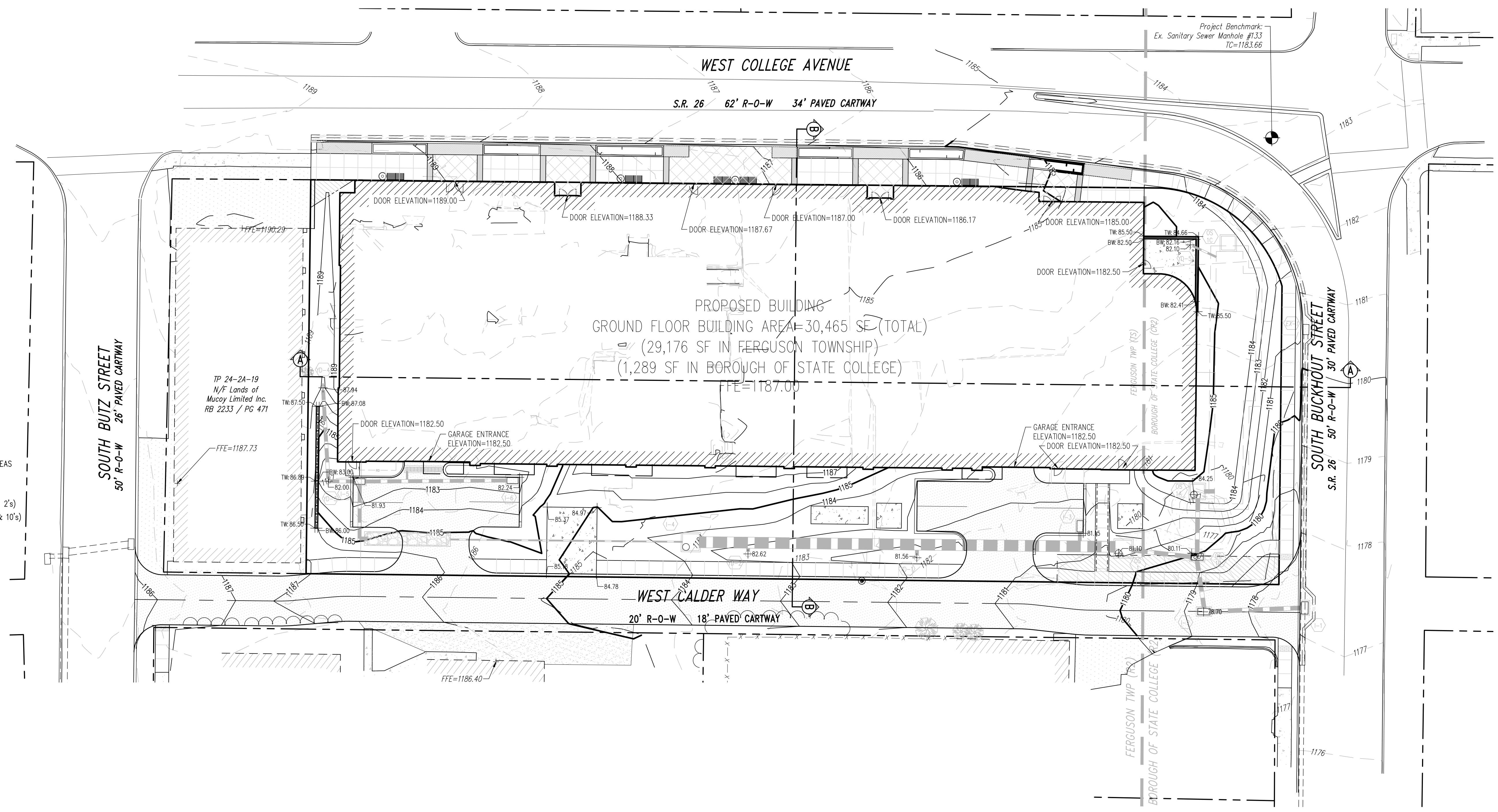
- Property Line, Lot Line or Right of Way Line
- - - - - Adjoining Property Line
- - - - - Building Setback Line
- - - - - Easement Line
- ⊕ Project Benchmark
- - - - - Municipal Boundary

EXISTING FEATURES LEGEND

- ▭ EXISTING BUILDING
- ▭ Existing Building
- ▭ Existing Curbing & Edge of Pavement
- ▭ Existing Concrete Areas
- ▭ Existing Bituminous Areas
- ▭ Existing Gravel Areas
- ▭ Existing Retaining Wall
- x - x - x - Existing Fence / Type
- - - - - Existing Contours w/ Elevation (1's & 2's)
- - - - - Existing Contours w/ Elevation (5's & 10's)
- - - - - Existing Storm Sewer Line w/ Inlet
- ⊕ Existing Tree Row
- ⊕ 25% Slopes Or Greater
- ⊕ Existing Deciduous Tree
- ⊕ Existing Evergreen Tree
- ⊕ Existing Shrub

PROPOSED FEATURES LEGEND

- ▭ PROPOSED BUILDING
- ▭ PROPOSED BUILDING
- ▭ PROPOSED CURBING & EDGE OF PAVEMENT
- ▭ PROPOSED CONCRETE SIDEWALK
- ▭ PROPOSED CONCRETE AREAS
- ▭ PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- ▭ PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- ▭ PROPOSED RETAINING WALL
- - - - - PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- - - - - PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- + 69.87 PROPOSED SPOT ELEVATION
- 2.0% PROPOSED GRADE SLOPE
- - - - - PROPOSED STORM SEWER W/ TYPE C INLET
- - - - - PROPOSED STORM SEWER ROOF DRAIN
- - - - - PROPOSED STORM SEWER TRENCH DRAIN
- ▭ PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- ▭ PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- ▭ PROPOSED HANDICAPPED RAMP
- x - x - x - PROPOSED RETAINING WALL FENCE

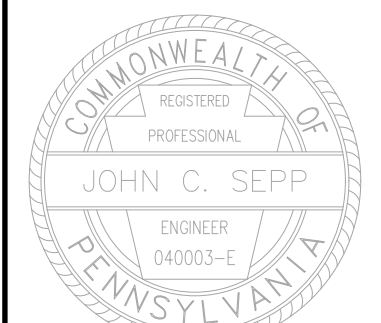


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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542 Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-GP
Layout	GP

Date	Description	REVISIONS
01/21/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS	
12/18/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS	
11/26/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS	

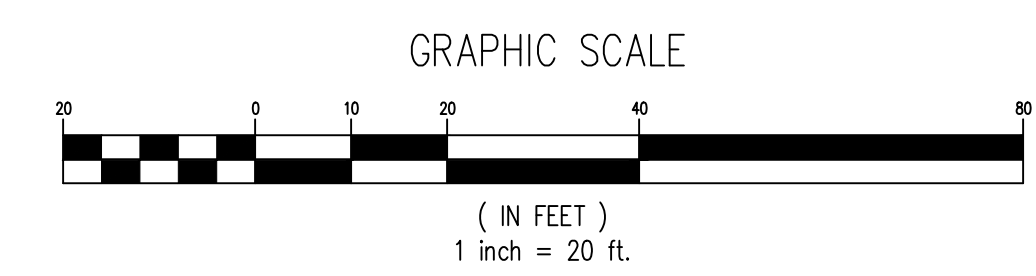
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

GRADING PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	6



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SURVEY FEATURES LEGEND

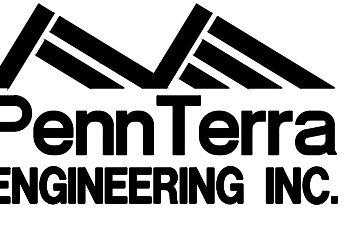
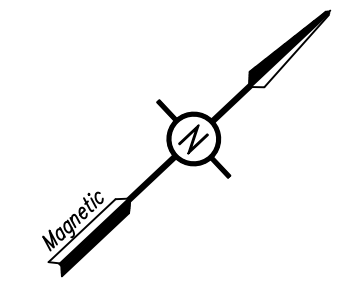
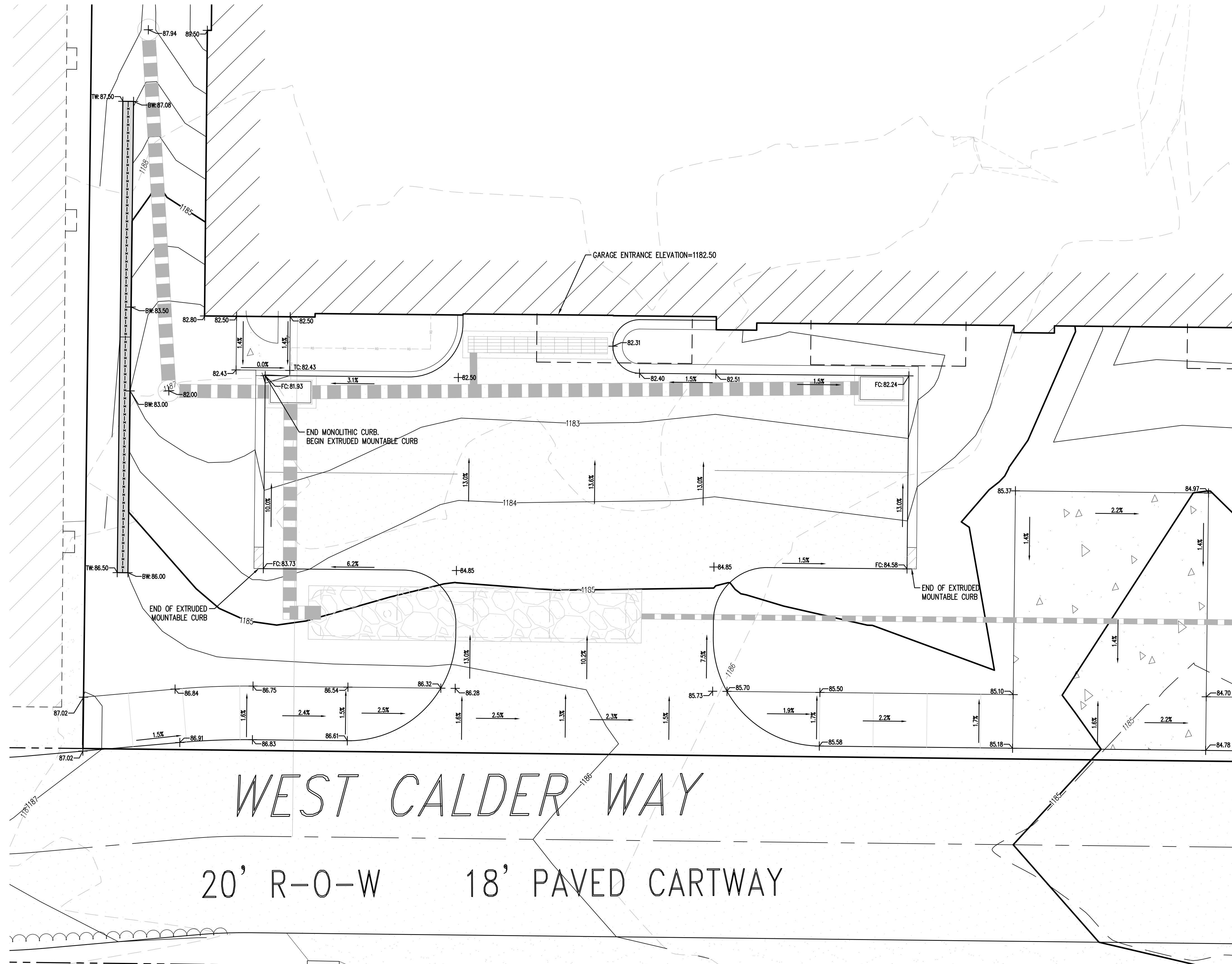
- Property Line, Lot Line or Right of Way Line
- - - - - Adjoining Property Line
- Building Setback Line
- - - - - Easement Line
- ⊕ Project Benchmark
- - - - - Municipal Boundary

EXISTING FEATURES LEGEND

- EXISTING BUILDING Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- x - x - x - x - x - x - x - Existing Fence / Type
- 1109 Existing Contours w/ Elevation (1's & 2's)
- 1110 Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
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- 2.0% PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- RD PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- x - x - x - x - x - x - PROPOSED RETAINING WALL FENCE

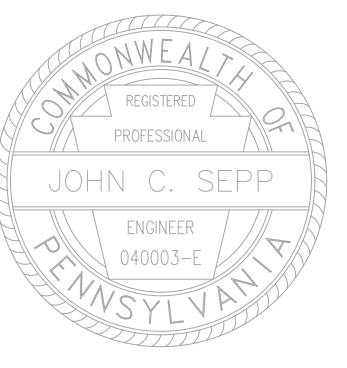


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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542 Pg. 42
Acad#	19052-FERGUSON-PRELIMINARY-LD-SPENT
Layout	GP-EN1

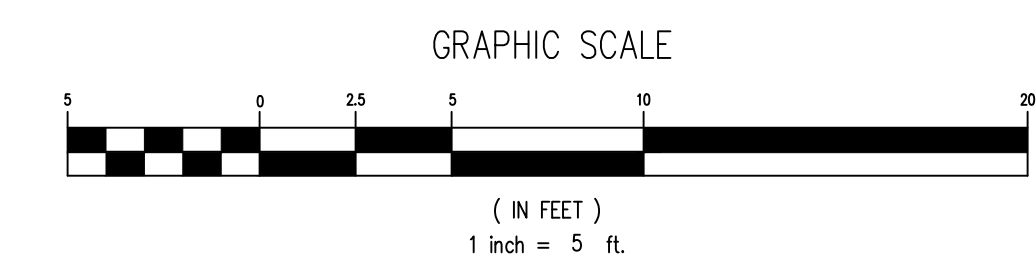
Date	Description
01/27/21	REVISION FOR FERGUSON TOWNSHIP COMMENTS
12/18/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS

WEST COLLEGE STUDENT HOUSING
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

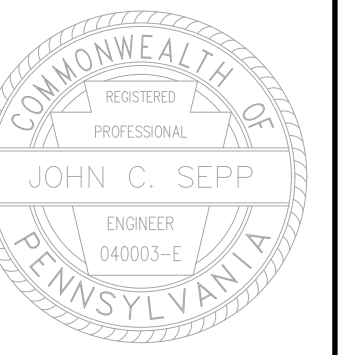
PRELIMINARY LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=5'
SHEET NO.	7



P:\dtp\2019\19052\Design\p\19052-FERGUSON-PRELIMINARY-LD-SPENT.dwg, 1/27/2021 4:10:31 PM, 1:1



Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ck.	
Book	542, Pg 42
Acad	502-FERGUSON-PRELIMINARY-LD-SPENZ
Layout	CP-EN2

Date	Description
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12/18/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS

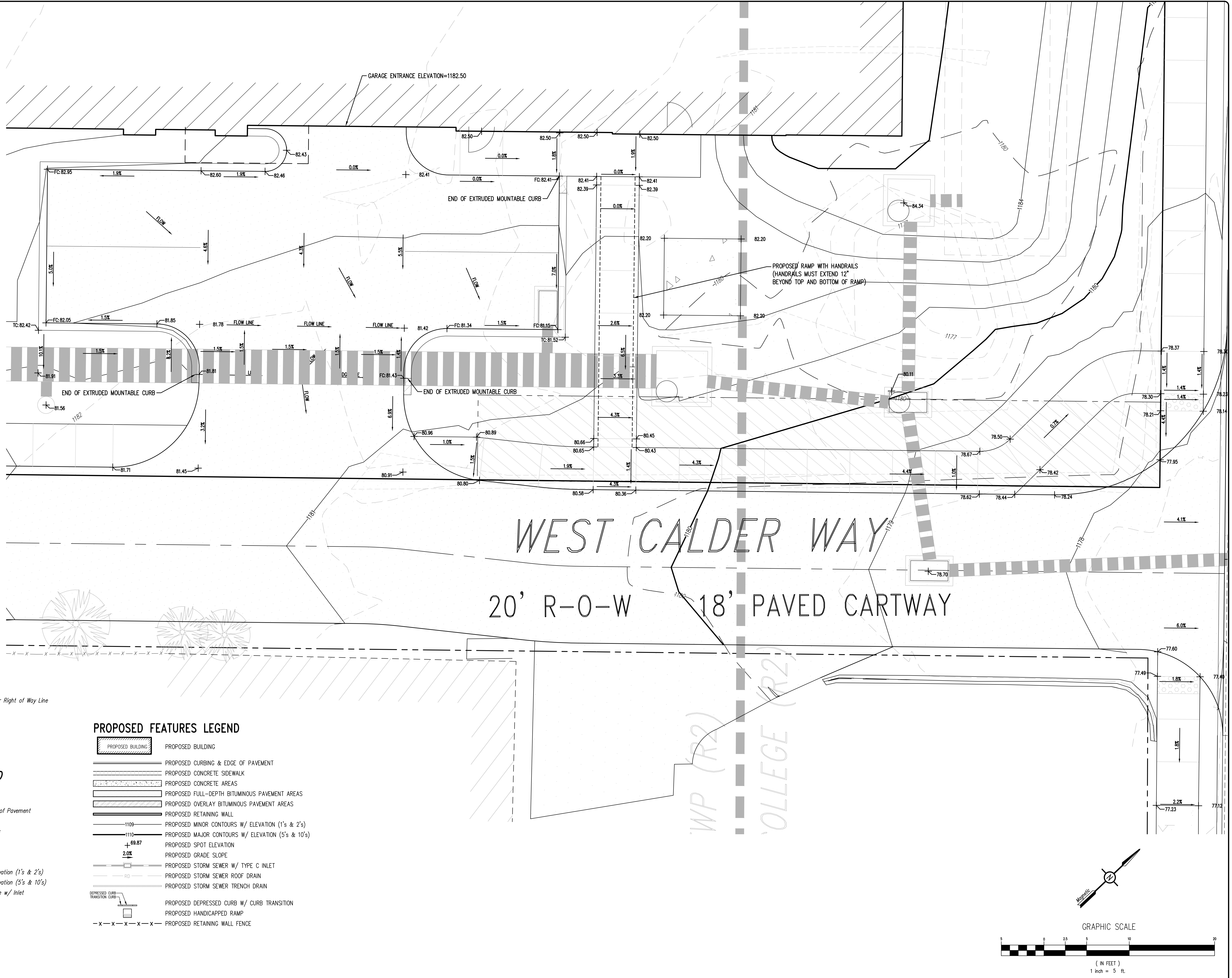
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=5'
SHEET NO.	8



SURVEY FEATURES LEGEND

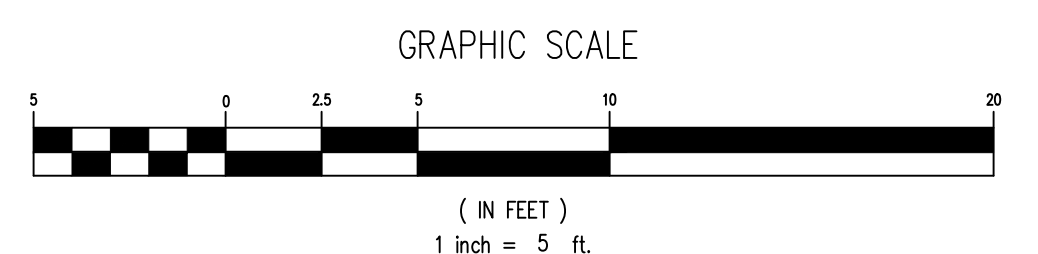
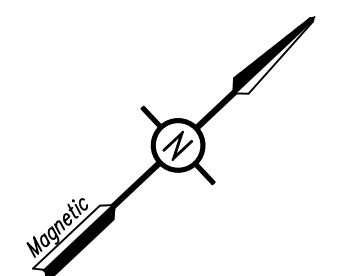
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
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- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL FENCE



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SURVEY FEATURES LEGEND

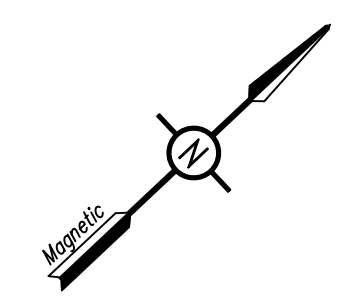
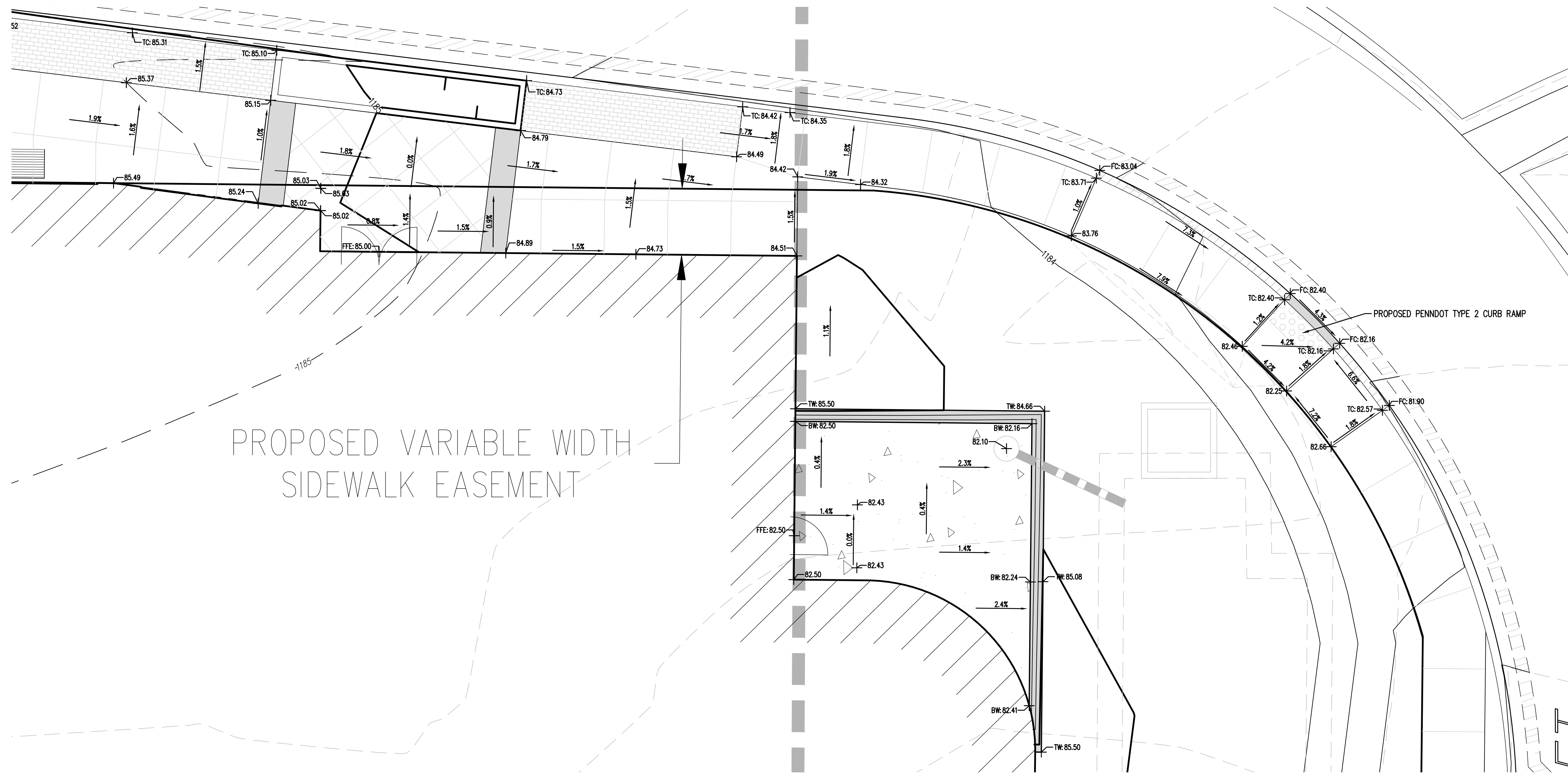
- Property Line, Lot Line or Right of Way Line
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- x - x - x - x - x - x - x - Existing Fence / Type
- - - - - 1109 Existing Contours w/ Elevation (1's & 2's)
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PROPOSED FEATURES LEGEND

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- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- x - x - x - x - x - x - x - PROPOSED RETAINING WALL FENCE

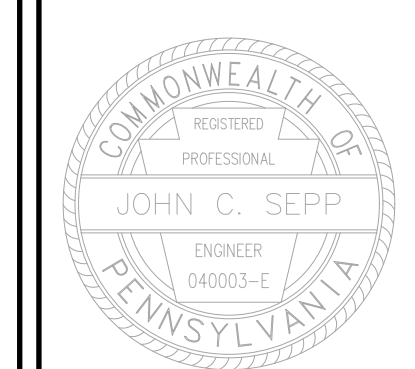


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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	02-FERGUSON-PRELIMINARY-LD-SPENS
Layout	CP-EN3

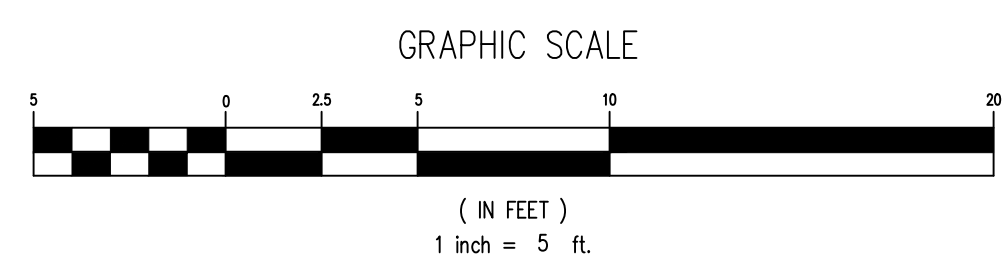
Date	Description
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12/18/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS

WEST COLLEGE STUDENT HOUSING
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

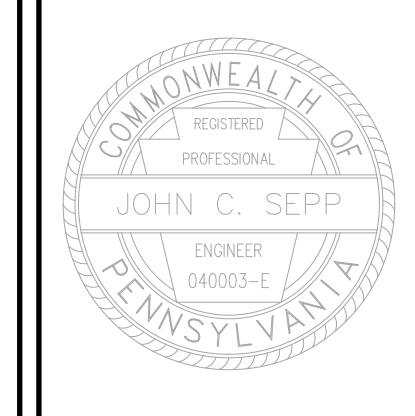
PRELIMINARY LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=5'
SHEET NO.	9



P:\ddp\2019\19052\Design\p\19052-FERGUSON-PRELIMINARY-LD-SPENS.dwg, 1/27/2021 4:10:38 PM, 1:1



Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRX
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-SPEN4
Layout	GP-EN4

Date	Description
01/21/21	REVISION FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	REVISION FOR FERGUSON TOWNSHIP COMMENTS
	REVISIONS

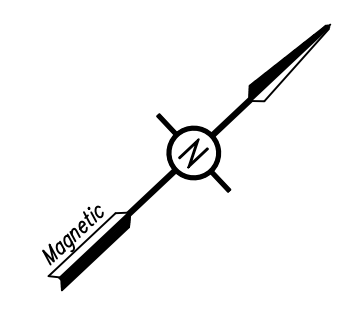
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=5'
SHEET NO.	10



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- - - Adjoining Property Line
- - - Building Setback Line
- - - Easement Line
- ⊕ Project Benchmark
- - - Municipal Boundary

EXISTING FEATURES LEGEND

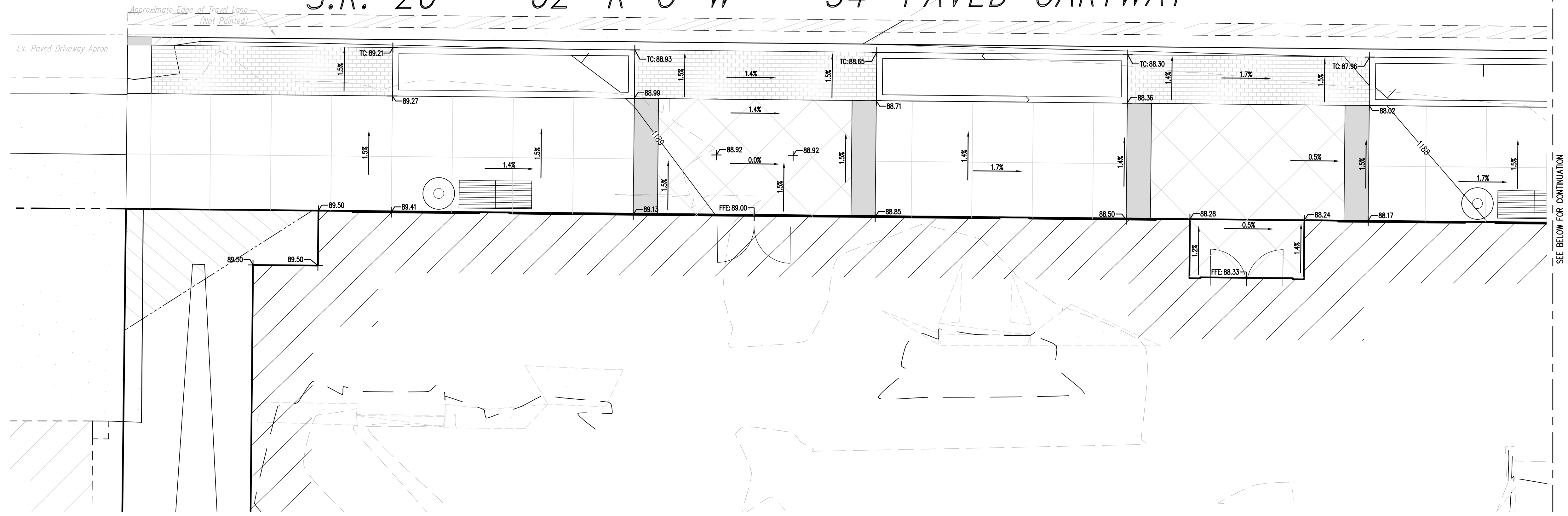
- EXISTING BUILDING Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- x - x - x - x - Existing Fence / Type
- 1109 Existing Contours w/ Elevation (1's & 2's)
- 1110 Existing Contours w/ Elevation (5's & 10's)
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- Existing Tree Row
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PROPOSED FEATURES LEGEND

- PROPOSED BUILDING PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
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- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- x - x - x - x - PROPOSED RETAINING WALL FENCE

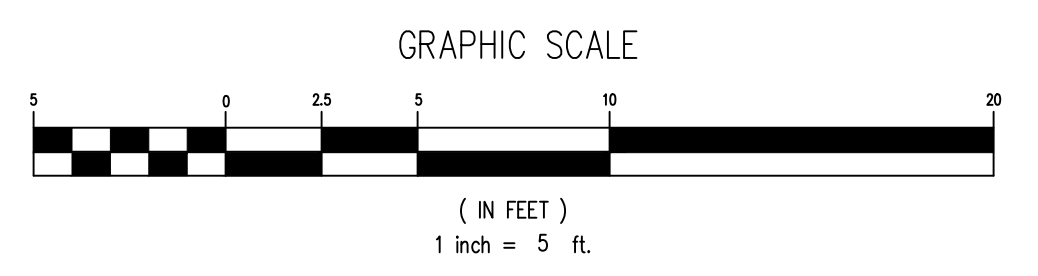
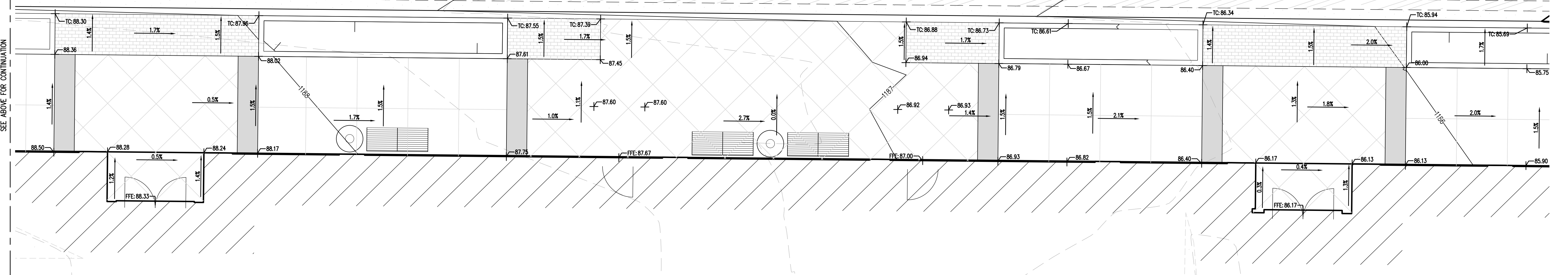
WEST COLLEGE AVENUE

S.R. 26 62' R-O-W 34' PAVED CARTWAY



WEST COLLEGE AVENUE

S.R. 26 62' R-O-W 34' PAVED CARTWAY



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UTILITY NOTES

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA ENGINEERING INC., THE CURRENT REQUIREMENTS OF THE FERGUSON TOWNSHIP, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. 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 (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVI, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
3. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL AT 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.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTION.
5. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY OR REGULATORY AUTHORITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.
6. ALL SANITARY SEWER & WATER LINES SHALL HAVE 4' MINIMUM COVERAGE.
7. ALL WATER SERVICE LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE STATE COLLEGE BOROUGH WATER AUTHORITY'S STANDARDS AND SPECIFICATIONS FOR PRIVATE SERVICE LATERALS.
8. ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE IN ACCORDANCE WITH THE UNIVERSITY AREA JOINT AUTHORITY'S STANDARDS AND SPECIFICATIONS.
9. ALL ROOF DRAIN LINES LEAVING THE BUILDING SHALL BE CONNECTED TO AN FG-DS10 FLOGARD DOWNSPOUT FILTER. THESE FILTERS MUST BE INSTALLED ON A VERTICAL RISER PIPE WITHIN THE BUILDING, AND MUST BE ACCESSIBLE FOR MAINTENANCE. COORDINATE EXACT INSTALLATION LOCATIONS WITH THE ARCHITECT & MEP CONSULTANT. SEE SHEET PC4 FOR MORE INFORMATION.

SURVEY FEATURES LEGEND

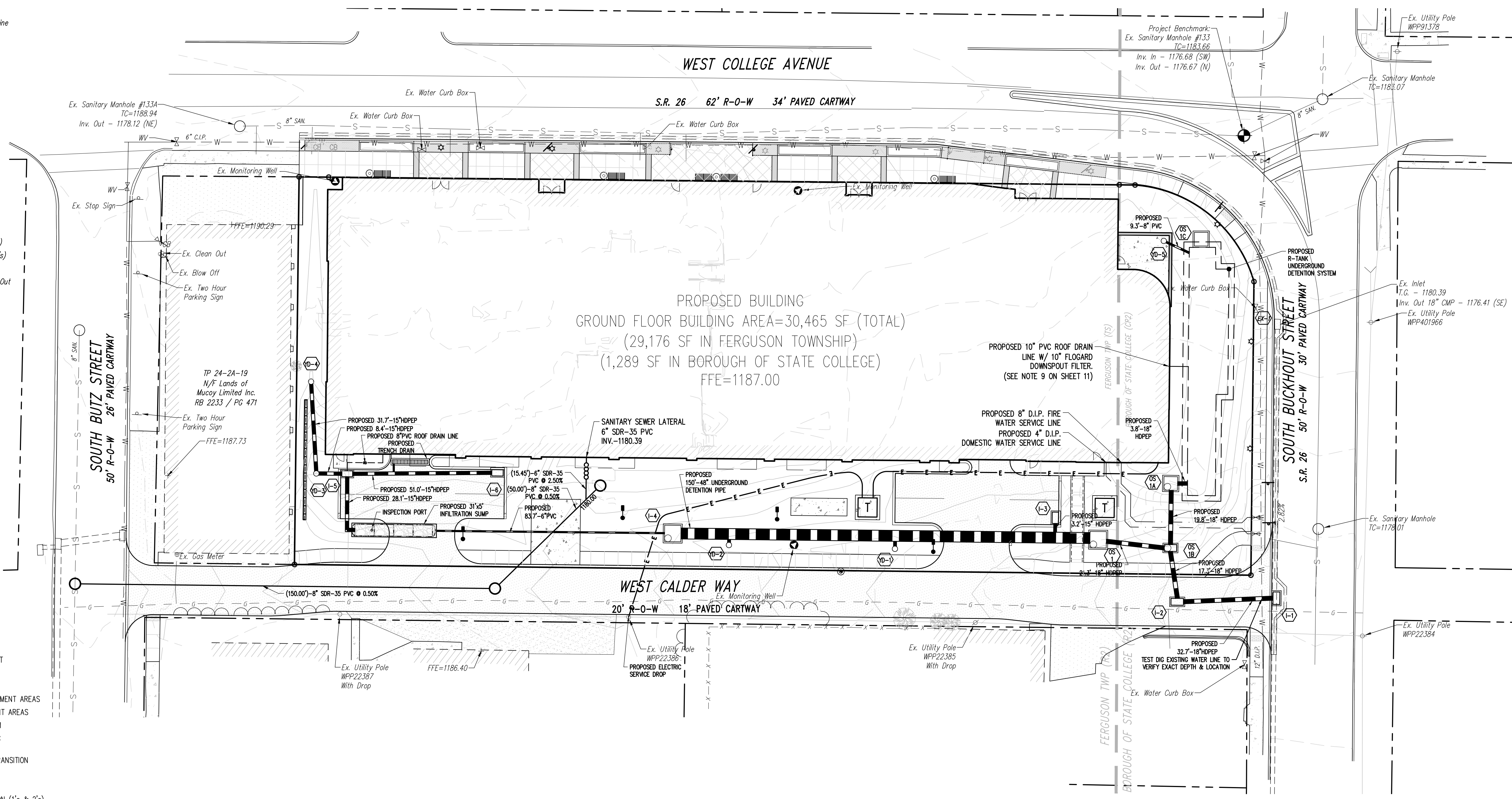
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- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

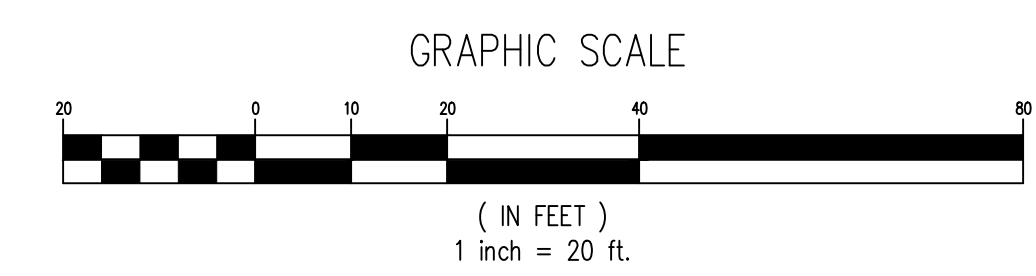
- EXISTING BUILDING
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED SIGN
- PROPOSED RETAINING WALL FENCE



PROPOSED BUILDING
GROUND FLOOR BUILDING AREA=30,465 SF (TOTAL)
(29,176 SF IN FERGUSON TOWNSHIP)
(1,289 SF IN BOROUGH OF STATE COLLEGE)
FFE=1187.00

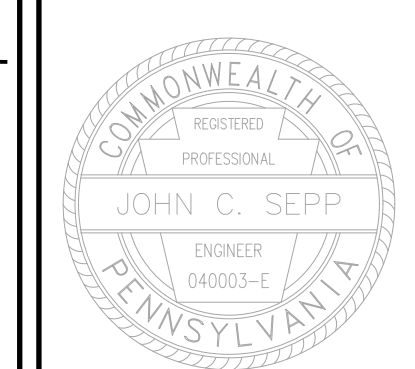


PennTerra ENGINEERING INC.
CENTRAL PENNSYLVANIA REGION OFFICE:
3075 ENTERPRISE DRIVE
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STATE COLLEGE, PA 16801
PH: 814-231-8285
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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Clk.	
Book	542 Pg 42
Acad	19052-FERGUSON-PRELIMINARY-LD-LP
Layout	UP

Date	Description	REVISIONS
01/21/21	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS

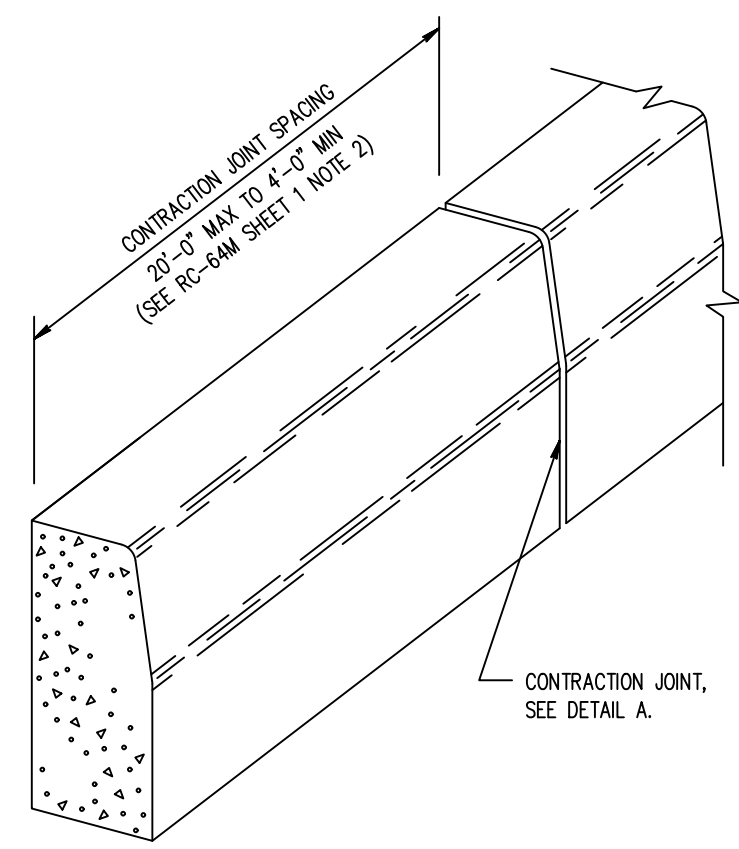
WEST COLLEGE STUDENT HOUSING
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

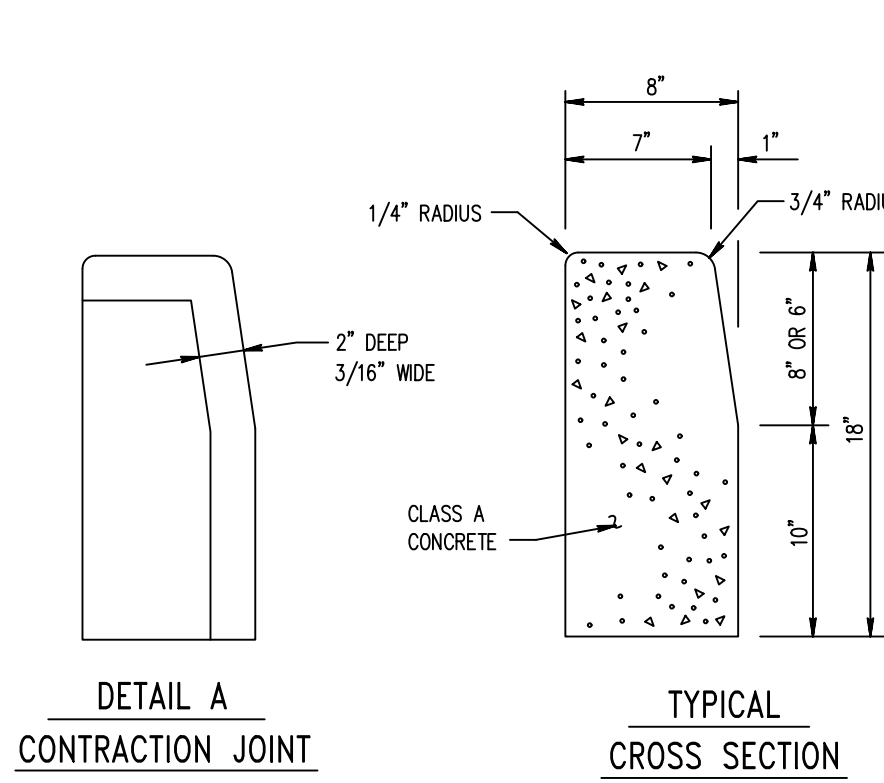
UTILITY PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	11

P:\ddp\2019\19052\Design\p\19052-FERGUSON-PRELIMINARY-LD-LP.dwg, 1/27/2021, 4:10:46 PM, 1:1

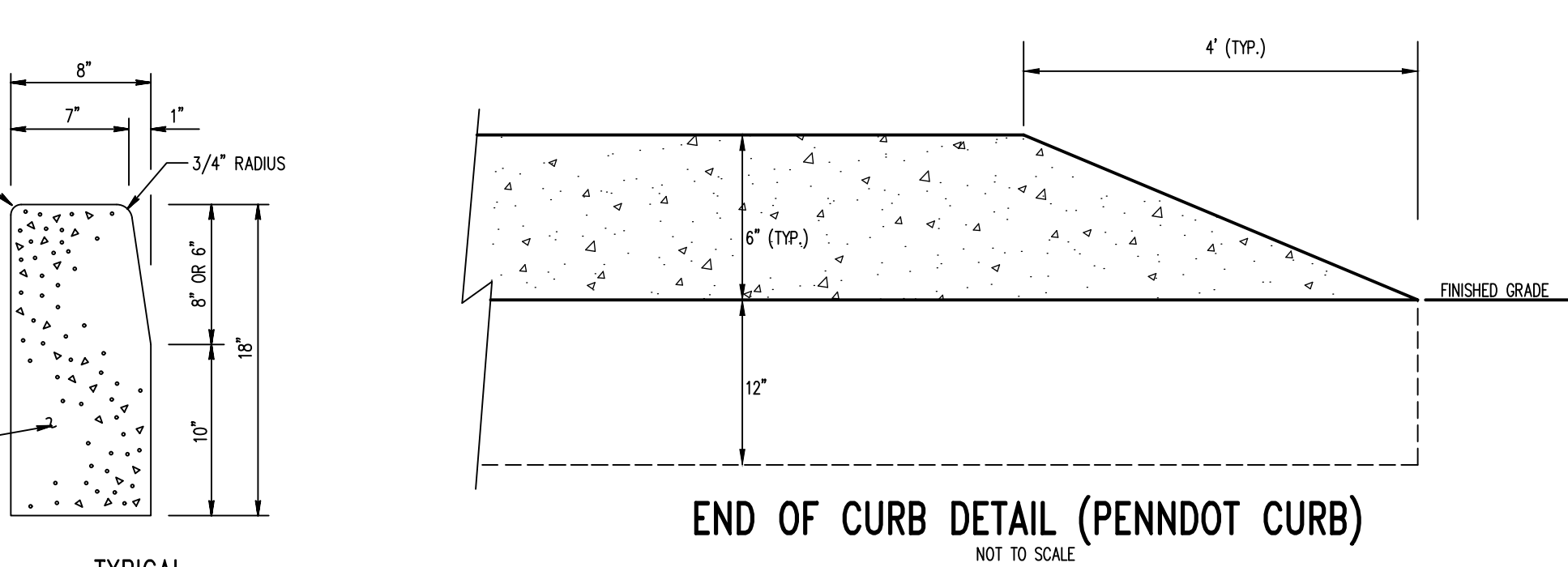


PLAIN CEMENT CONCRETE CURB



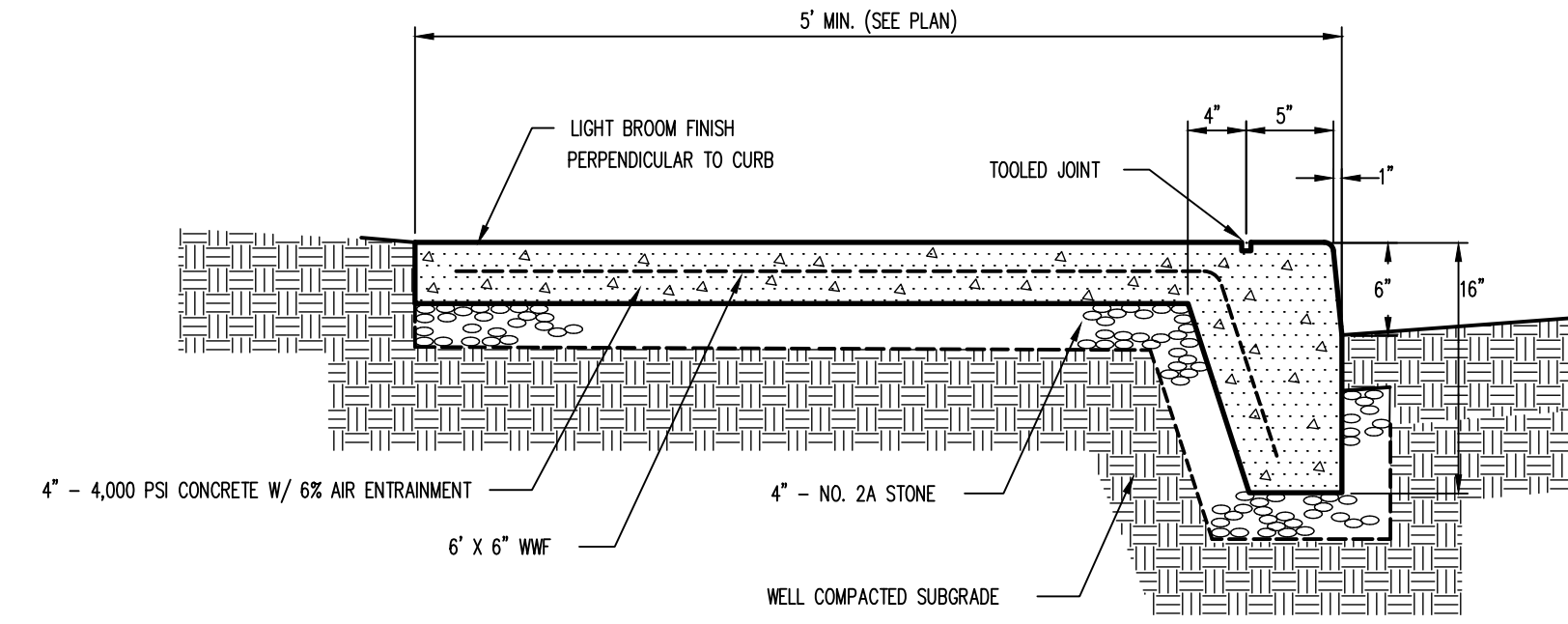
PENNDOT CURB

NOT TO SCALE



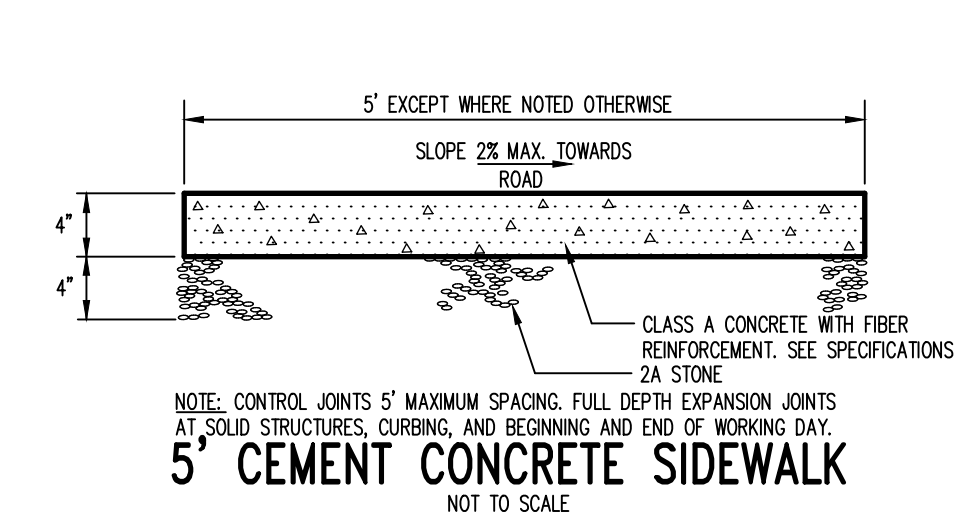
END OF CURB DETAIL (PENNDOT CURB)

NOT TO SCALE



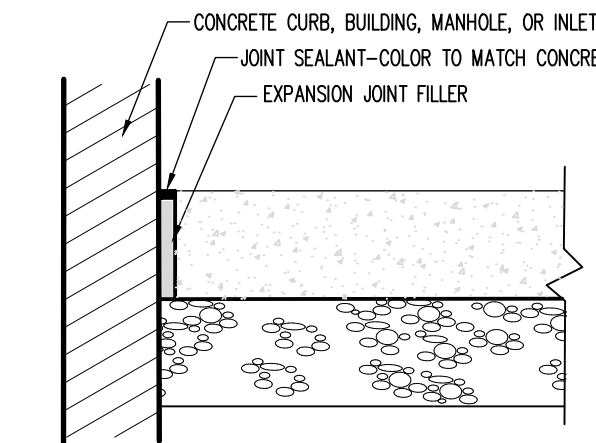
MONOLITHIC SIDEWALK & CURB 5' WIDE

NOT TO SCALE



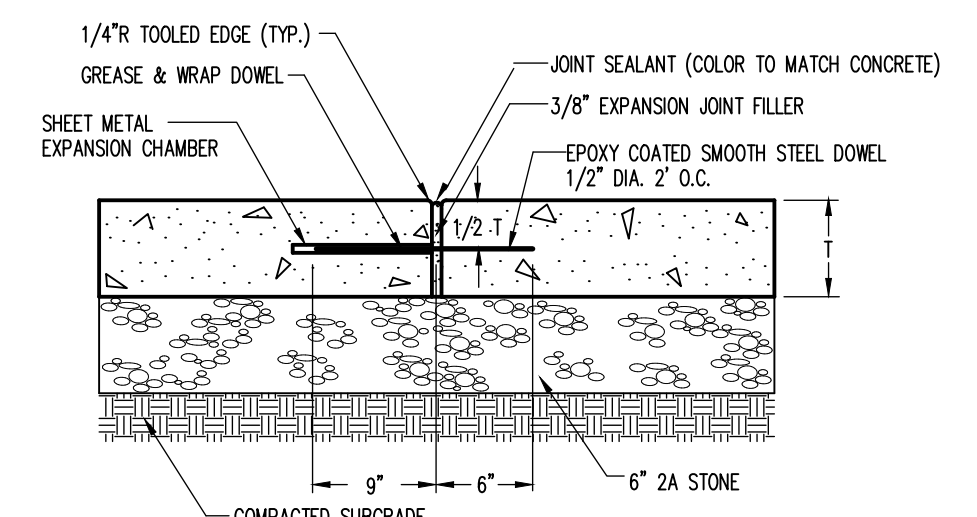
5' CEMENT CONCRETE SIDEWALK

NOT TO SCALE



CONCRETE ISOLATION JOINT

NOT TO SCALE



TYPICAL SECTION BRICK PAVER ACCENT BAND

NOT TO SCALE

CONCRETE EXPANSION JOINT DETAIL

NOT TO SCALE

RC-67M SHEET 1 NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694 AND 695.
2. PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE.
16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00% FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%. CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
26. A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
27. INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
29. DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.

PENNDOT CURB

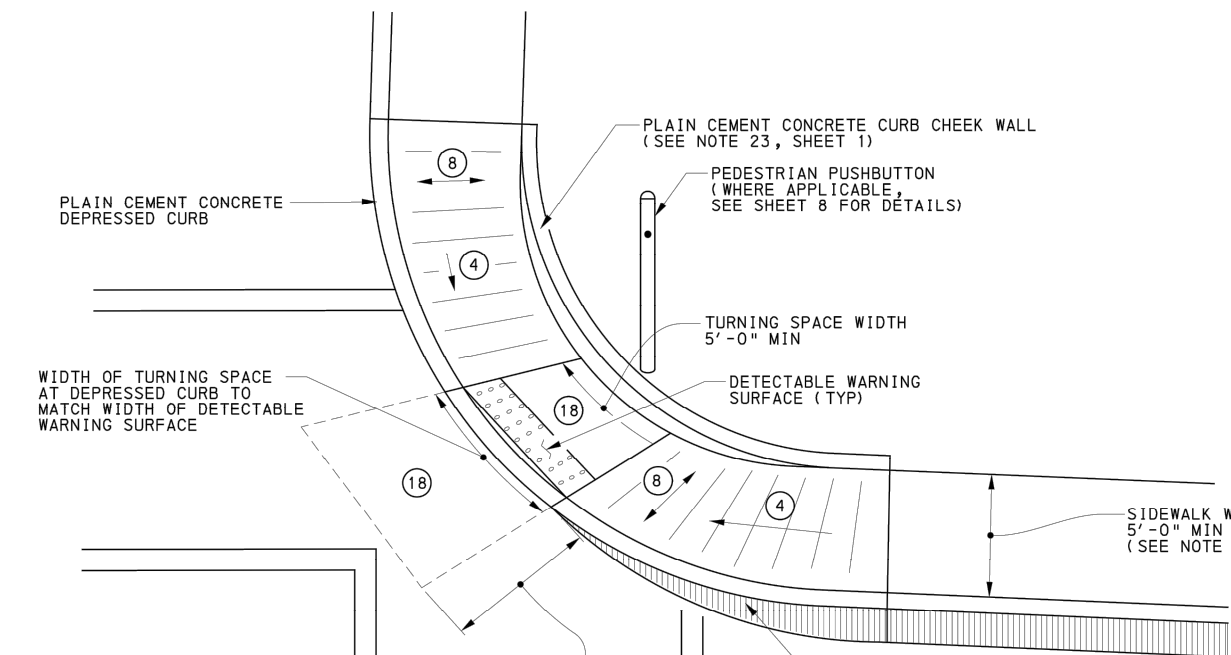
NOT TO SCALE

RC-64M SHEET 1 NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE CUTTER AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB CUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" THICK PREMOLED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
5. WHERE CURBS ARE INSTALLED ADJACENT TO PARKING LANES A 6" HIGH CURB CAN BE UTILIZED WITH APPROVAL FROM THE LOCAL MUNICIPALITY.

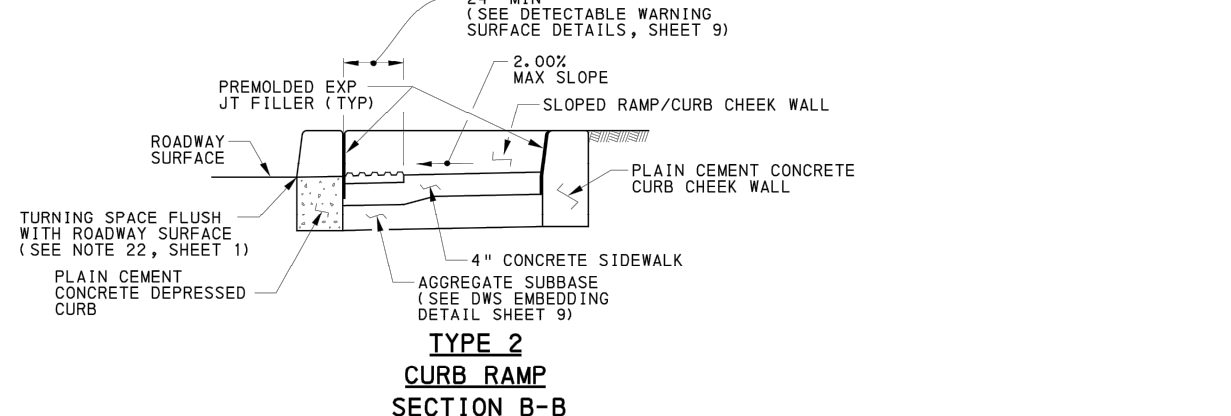
CONTRACTOR NOTES:

- PER RC-64M SHEET 1 NOTE #5, WHERE CURBS ARE INSTALLED ADJACENT TO PARKING LANES A 6" HIGH CURB CAN BE UTILIZED WITH APPROVAL FROM LOCAL MUNICIPALITY
- PER RC-67M SHEET 1 NOTE #6, CONTRACTOR TO MODIFY TYPICAL CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
- CONTRACTOR TO MATCH ALL EXISTING CURBS HEIGHTS ALONG WEST COLLEGE AVENUE.



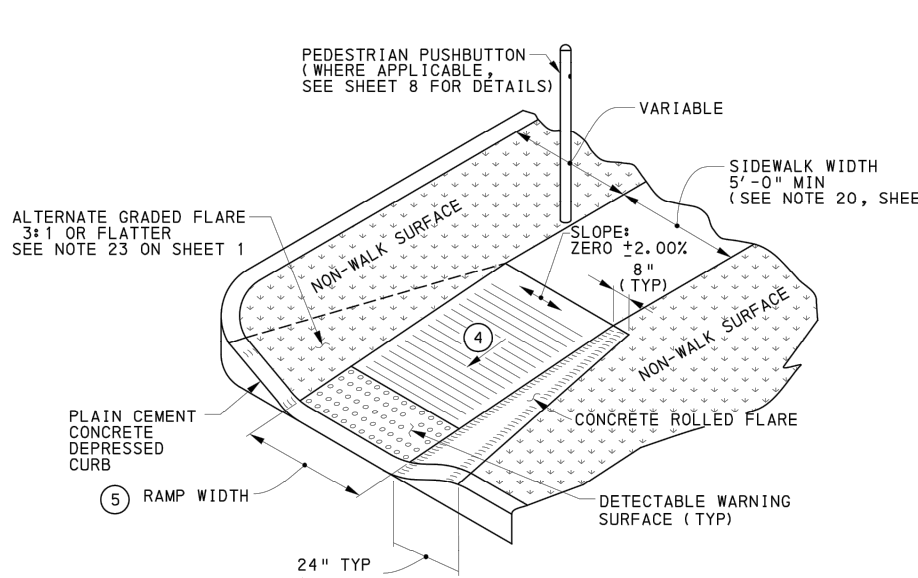
TYPE 2 CURB RAMP

ASSISTANT DISTRICT EXECUTIVE APPROVAL REQUIRED IF TURNING SPACE IS NOT ENTIRELY ON SIDEWALK



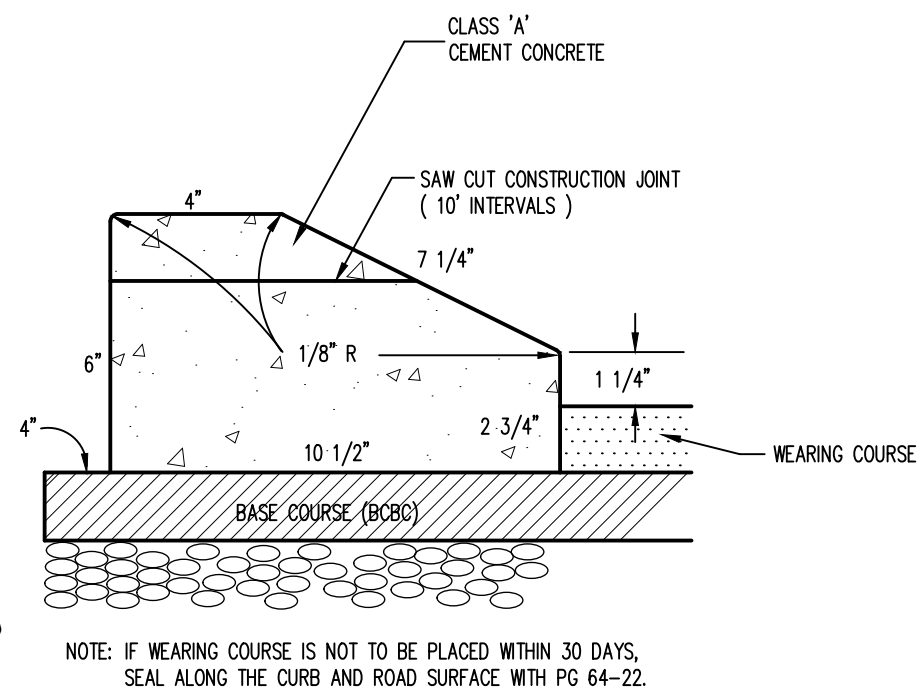
PENNDOT TYPE 2 CURB RAMP (PARALLEL)

NOT TO SCALE



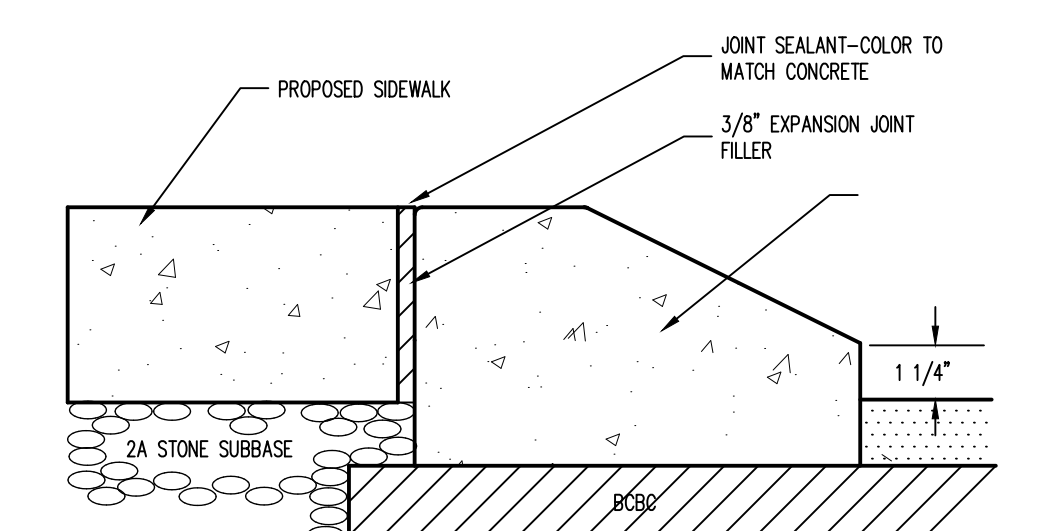
ALTERNATE TYPE 4A CURB RAMP (PARALLEL)

NOT TO SCALE



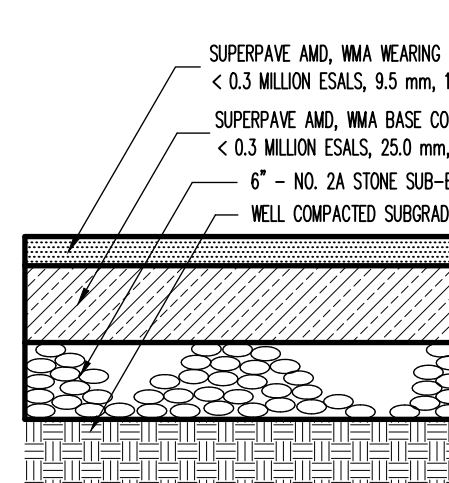
EXTRUDED CONCRETE CURB DETAIL

NOT TO SCALE



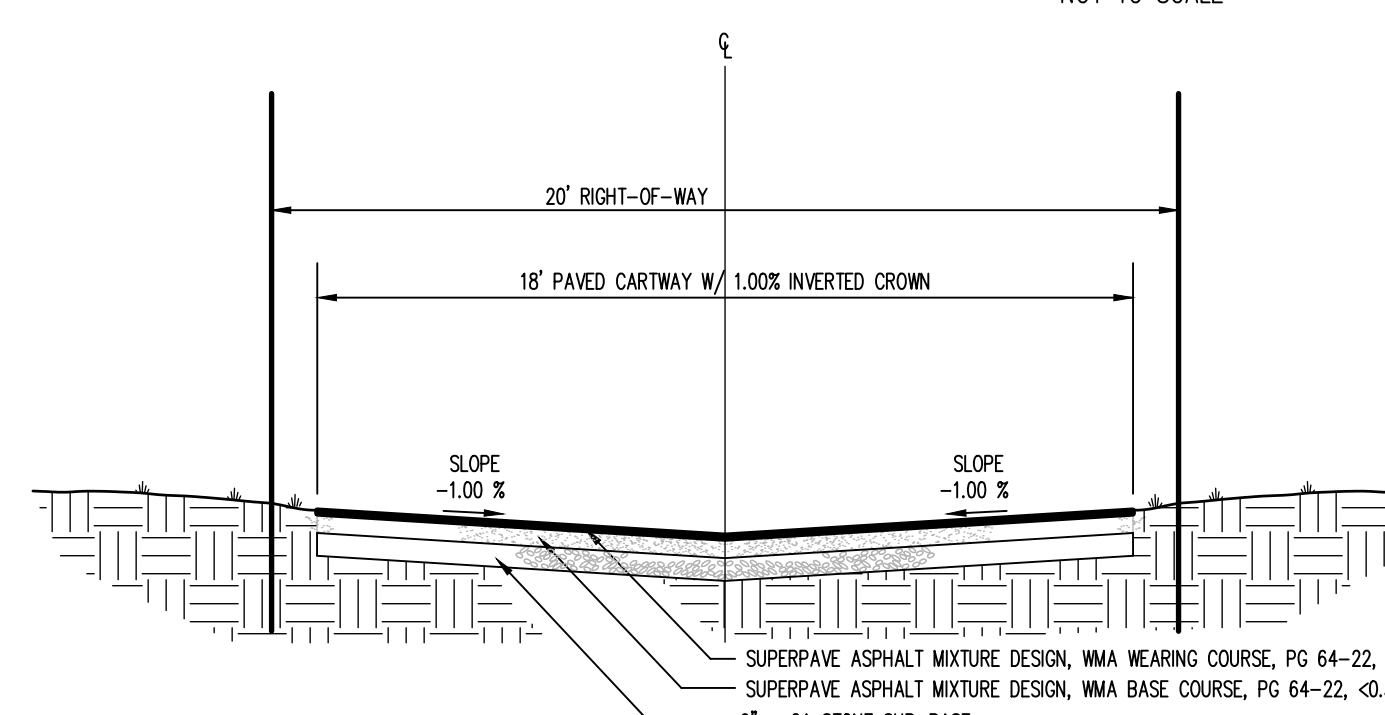
EXTRUDED CONCRETE CURB W/CONC. WALK DETAIL

NOT TO SCALE



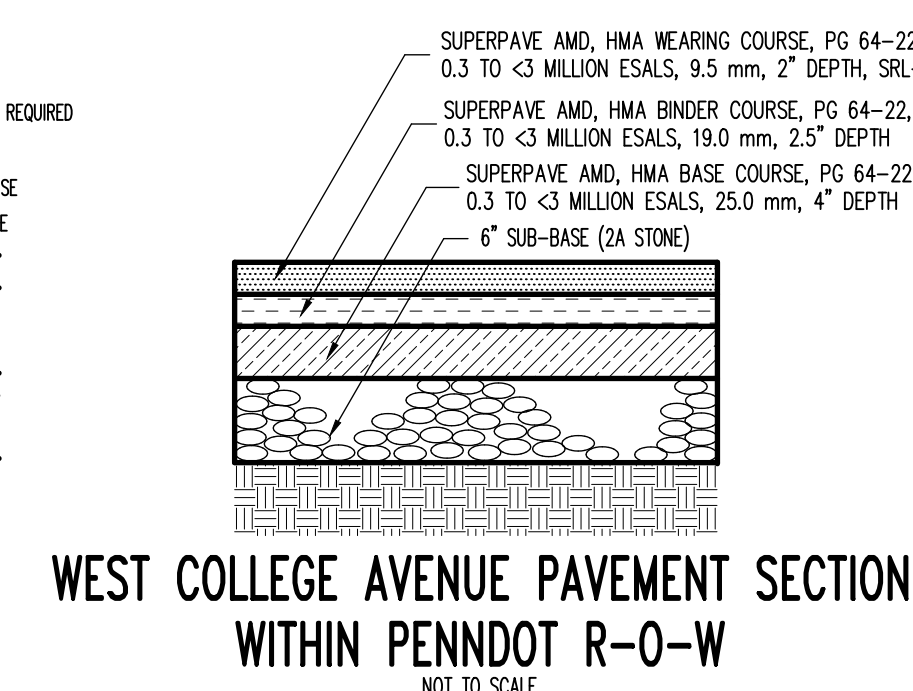
WEST CALDER WAY PAVEMENT SECTION

NOT TO SCALE



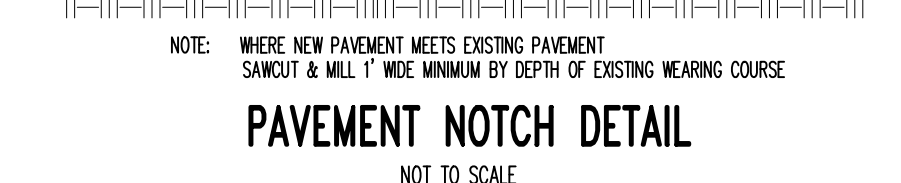
CROSS SECTION: 20' R-O-W W/ 18' CARTWAY WEST CALDER WAY

NOT TO SCALE



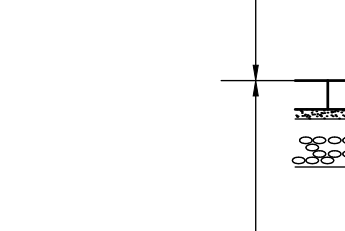
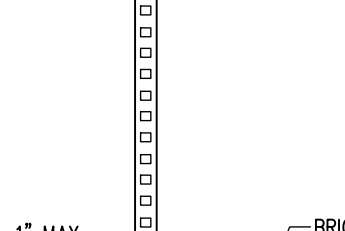
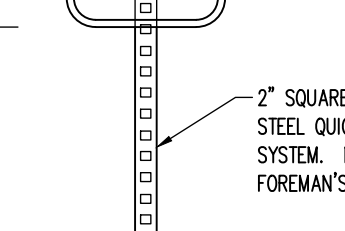
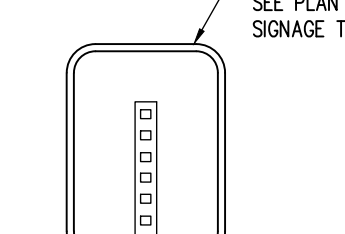
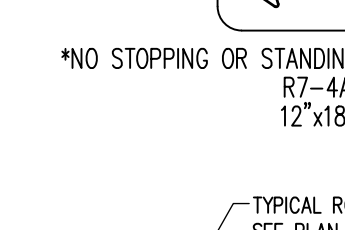
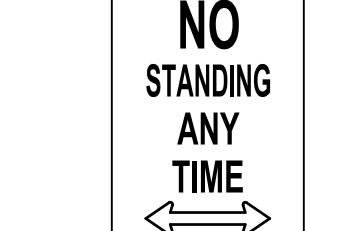
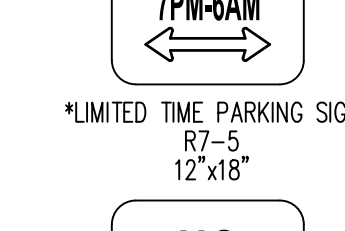
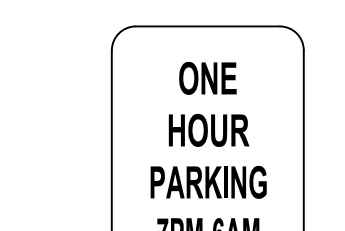
WEST COLLEGE AVENUE PAVEMENT SECTION WITHIN PENNDOT R-O-W

NOT TO SCALE



PAVEMENT NOTCH DETAIL

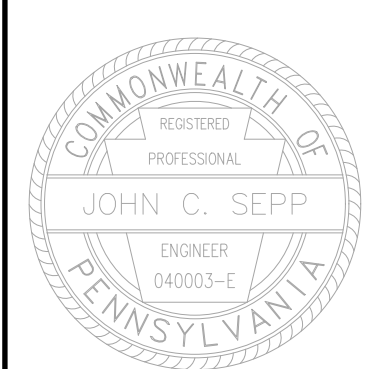
NOT TO SCALE



SIGN POST DETAIL (LOCATED IN PAVER ACCENT BAND)

NOT TO SCALE

- NOTES:
1. MOUNT SIGN AT RIGHT ANGLE TO DIRECTION OF TRAFFIC FLOW UNLESS DENOTED BY "X".
 2. SIGNS DENOTED BY "X" ARE TO BE MOUNTED AT AN ANGLE OF 30°-45° WITH A LINE PARALLEL TO THE FLOW OF TRAFFIC.
 3. PROVIDE A MINIMUM CLEARANCE OF TWO FEET FROM FACE OF CURB.



DATE	REVISIONS
01/21/21	REVISION FOR FERGIUSON TOWNSHIP COMMENTS
12/18/20	REVISION FOR FERGIUSON TOWNSHIP COMMENTS
11/26/20	REVISION FOR FERGIUSON TOWNSHIP COMMENTS

Designer	E.A.H.
Draftsman	E.A.H.
Proj. Manager	J.C.S.
Surveyor	BRX
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-D11
Layout	D.T.I.

01/21/21	REVISION FOR FERGIUSON TOWNSHIP COMMENTS
12/18/20	REVISION FOR FERGIUSON TOWNSHIP COMMENTS
11/26/20	REVISION FOR FERGIUSON TOWNSHIP COMMENTS
Date	Description
	REVISIONS

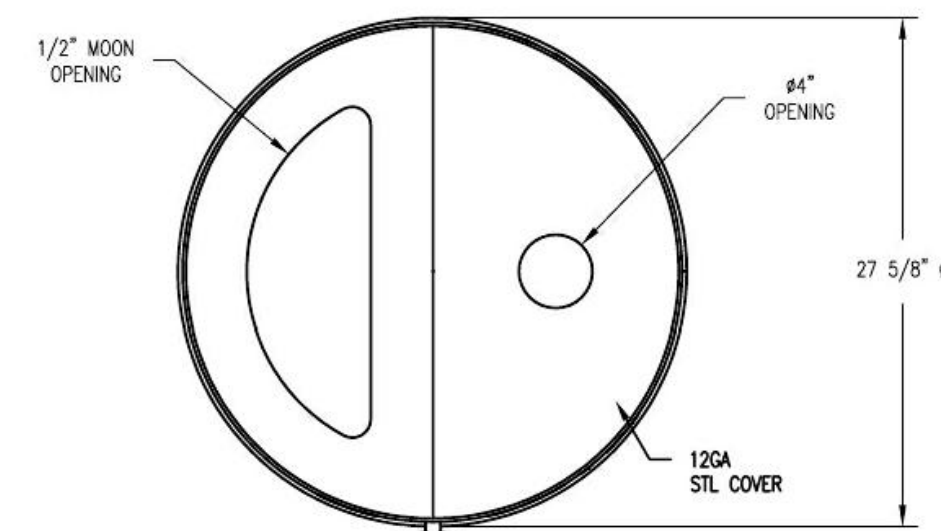
WEST COLLEGE STUDENT HOUSING

FERGIUSON TOWNSHIP CENTRE COUNTY PENNSYLVANIA

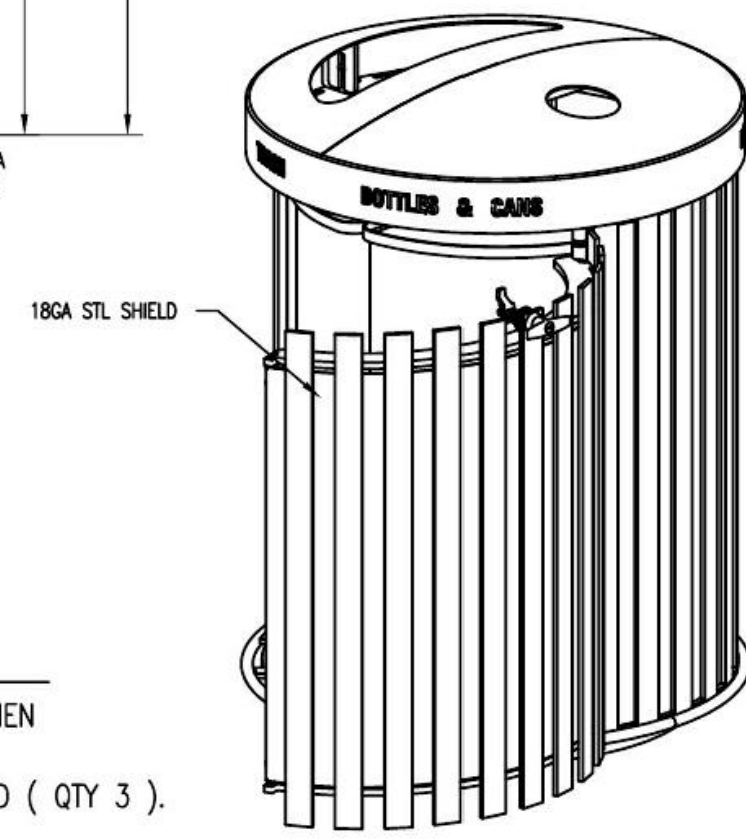
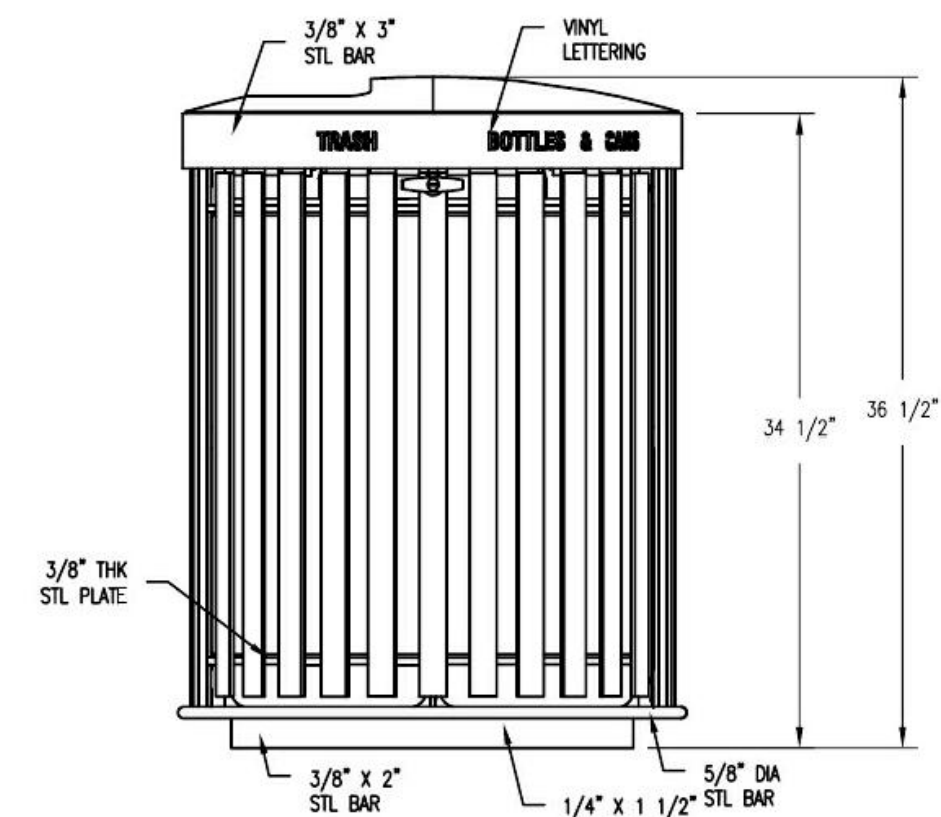
PRELIMINARY LAND DEVELOPMENT PLAN

GENERAL CONSTRUCTION DETAILS

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	N.T.S.
SHEET NO.	12



LETTERING LAYOUT
TRASH (20 GAL)
BOTTLES & CANS (20 GAL)



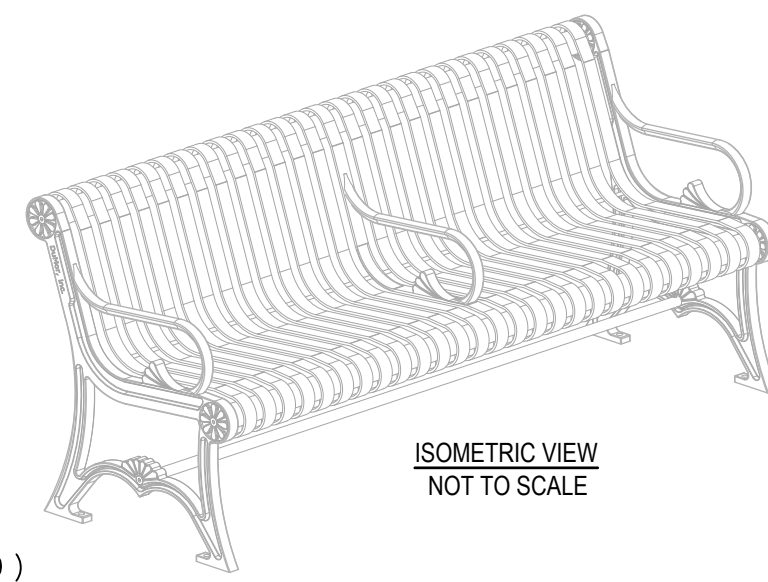
COVER NUMBERS
0-434-EC-13 (1/2 MOON OPENING)
0-434-EC-10 (4" OPENING)

NOTES

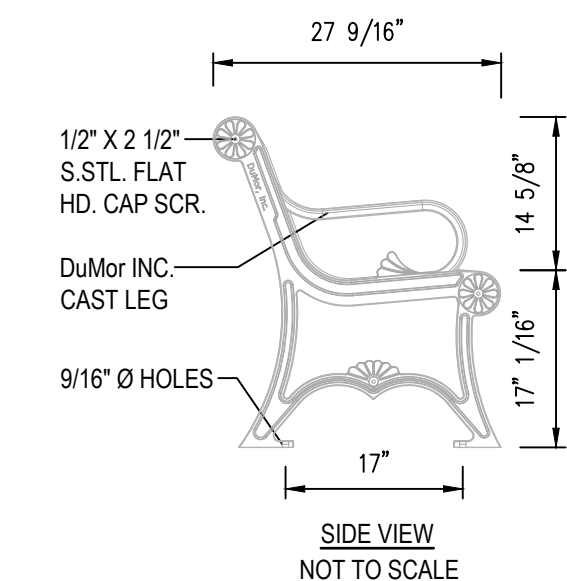
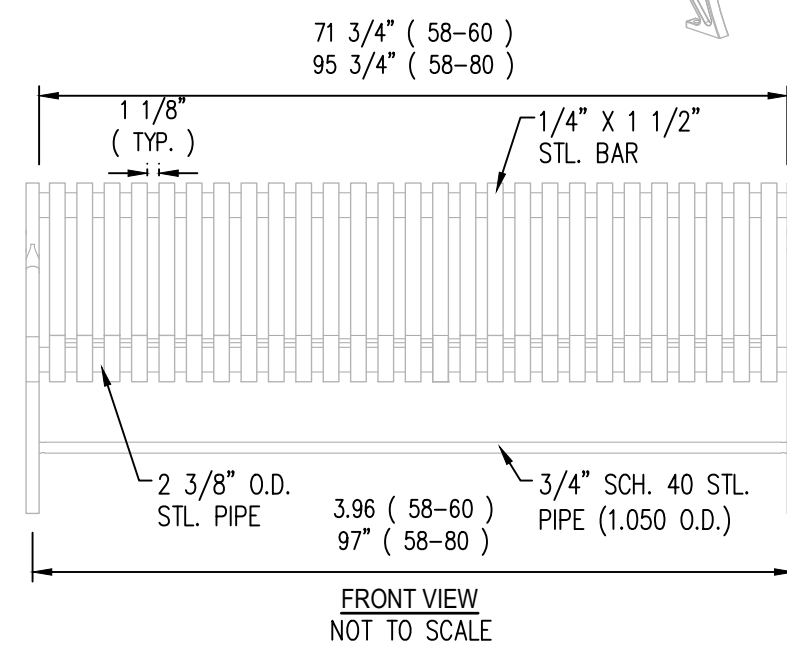
- 1.) ALL STL MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED (QTY 3).
- 3.) RECYCLING UNIT HINGE FOR REMOVAL OF LINERS.
- 4.) COLOR: BLACK

DUMOR INC. TRASH/RECYCLING RECEPTACLE

MODEL 436-40SH
NOT TO SCALE



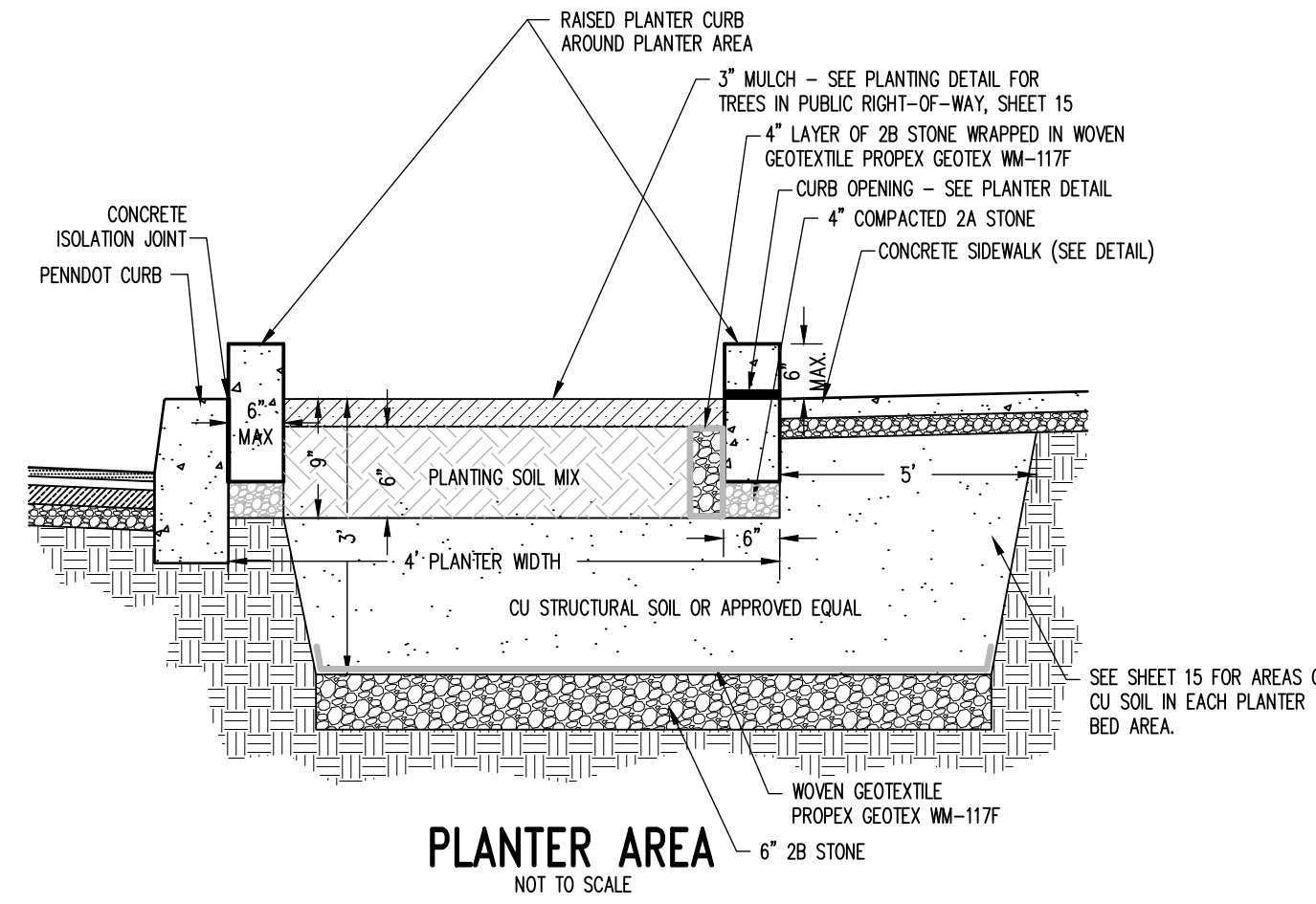
ISOMETRIC VIEW
NOT TO SCALE



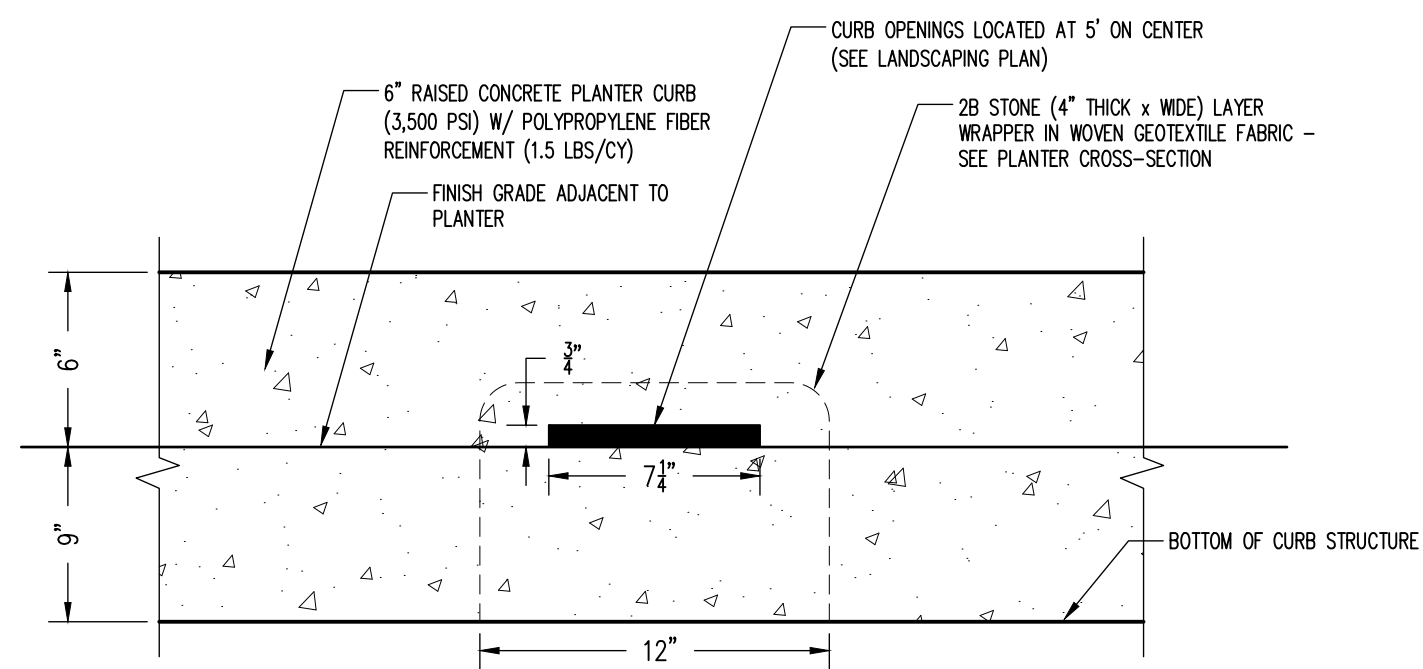
- FRONT VIEW NOT TO SCALE
- SIDE VIEW NOT TO SCALE
- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWINGS.
 3. ALL STL MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 4. 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
 5. CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANEL (37 TOTAL SPACES).
 6. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 017-302.
 7. COLOR: BLACK

DUMOR INC. 58 SERIES STEEL BENCH

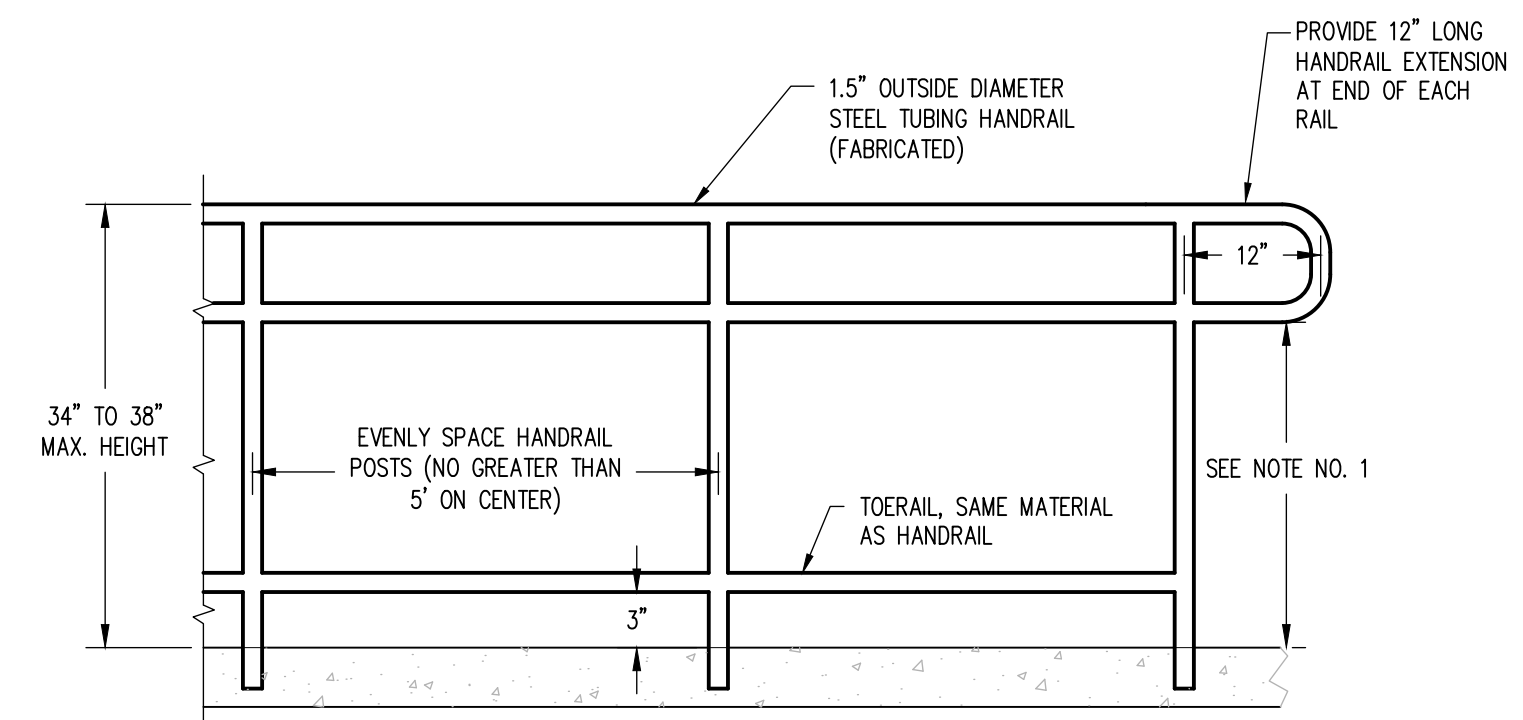
NOT TO SCALE



PLANTER AREA
NOT TO SCALE

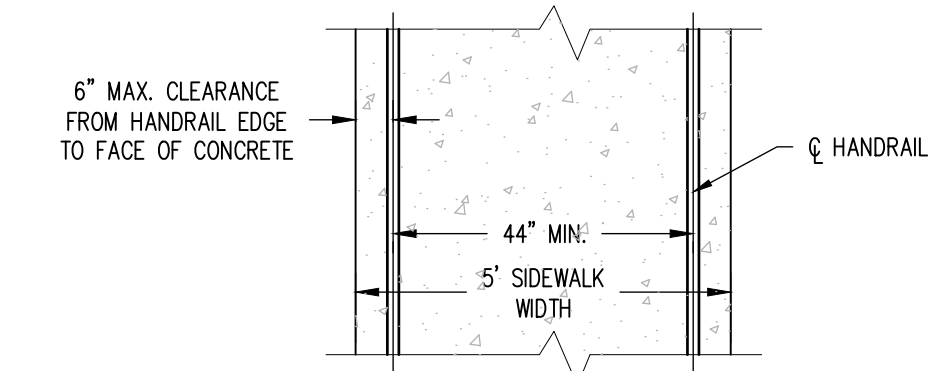


PLANTER CURB ELEVATION DETAIL
NOT TO SCALE

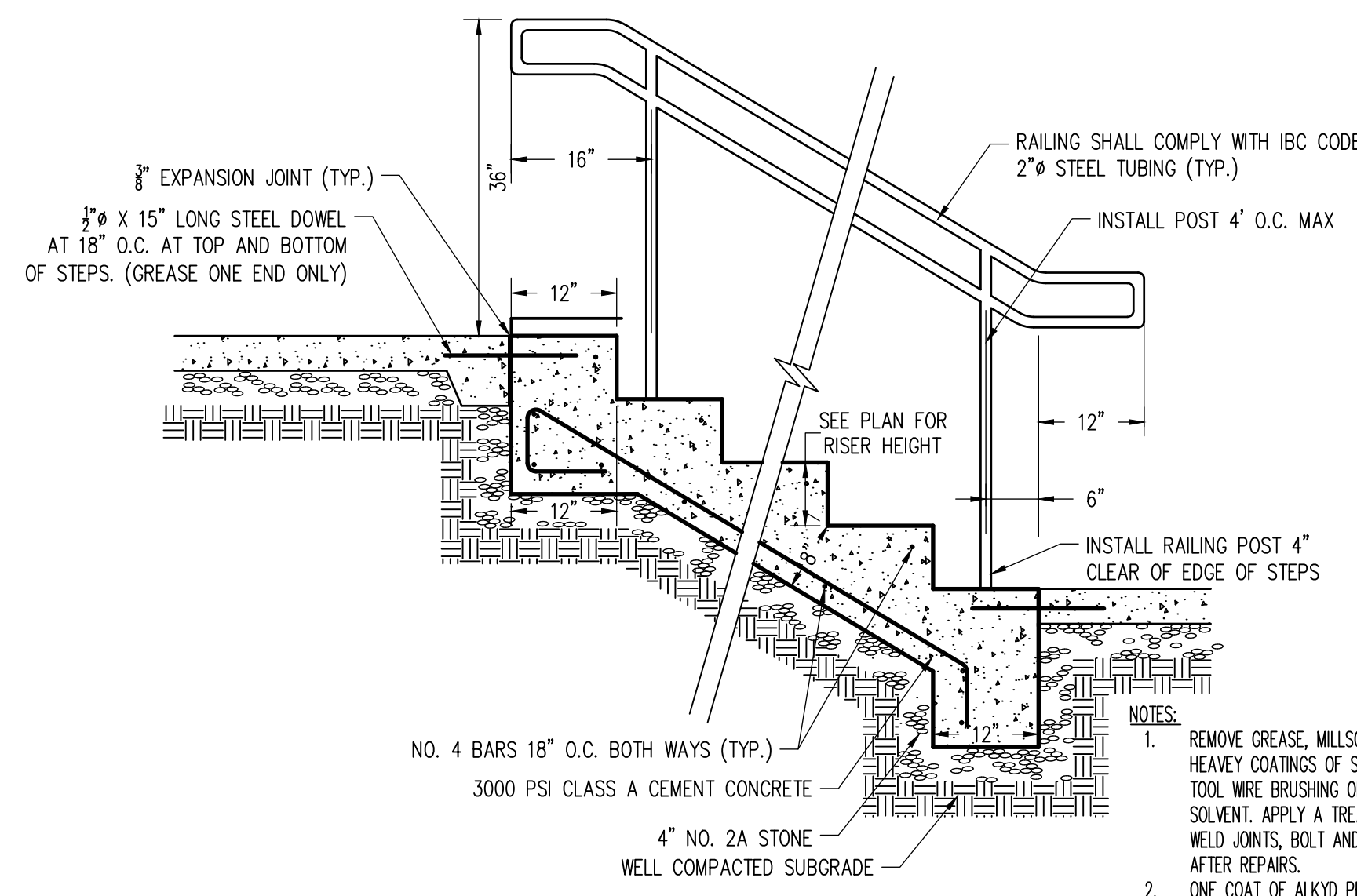


RAMP HANDRAIL DETAIL
NOT TO SCALE

NOTES: ALL HANDRAILS, HANDRAIL TERMINATIONS, & HORIZONTAL/VERTICAL CLEARANCES SHALL COMPLY WITH THE PROVISIONS OF THE GOVERNING EDITIONS OF THE INTERNATIONAL BUILDING CODE AND WITH ICC/ANSI 117.1. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING HANDRAIL COMPLIANT WITH THE GOVERNING CODES. CORE DRILL OR SURFACE MOUNT ANCHORING METHODS ARE ACCEPTABLE EXCEPT AS OTHERWISE PROVIDED BY APPROPRIATE LAWS OR STATUTES.

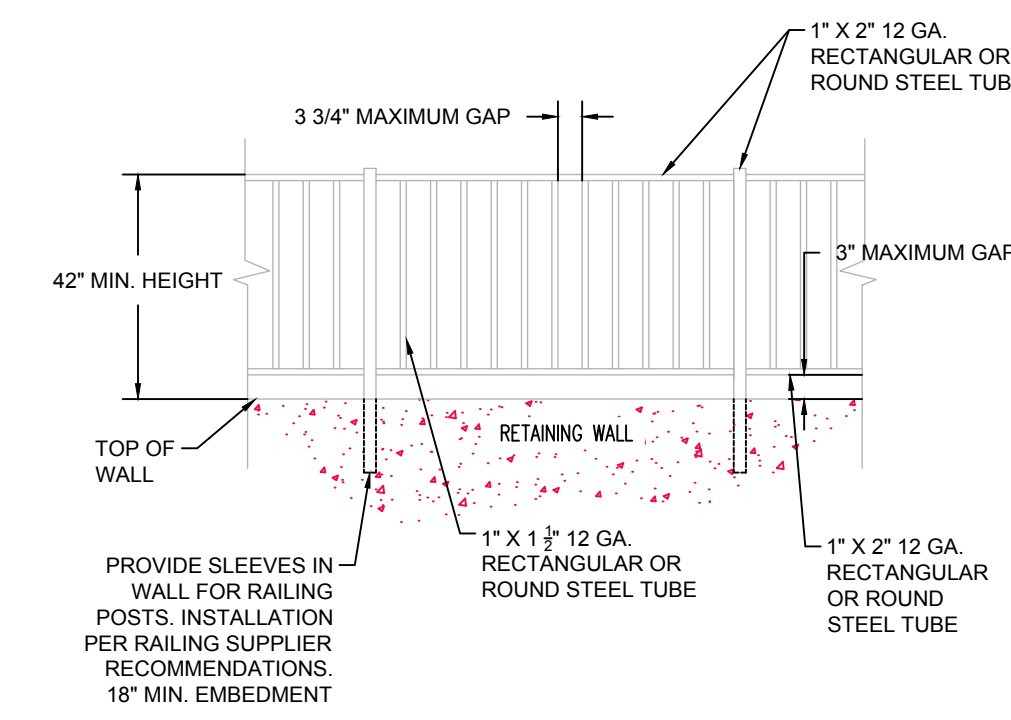


PLAN VIEW - RAMP HANDRAIL DETAIL
NOT TO SCALE



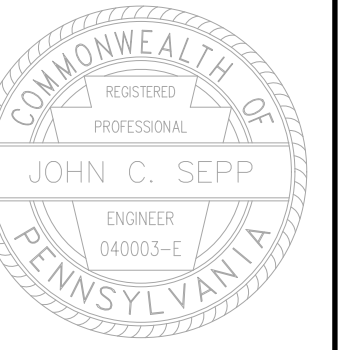
CONCRETE STAIRWAYS W/ CHEEKWALL DETAIL
NOT TO SCALE

- NOTES:
1. REMOVE GREASE, MILLSCALE, WELD SPATTER, DIRT AND RUST. WHERE HEAVY COATINGS OF SCALE ARE EVIDENT, REMOVE BY HAND, POWER TOOL WIRE BRUSHING OR SANDBLASTING. CLEAN BY WASHING WITH SOLVENT. APPLY A TREATMENT OF PHOSPHORIC ACID SOLUTION, ENSURING WELD JOINTS, BOLT AND NUTS ARE SIMILARLY CLEANED. SPOT PRIME PAINT AFTER REPAIRS.
 2. ONE COAT OF ALKYL PRIMER AND TWO COATS OF ALKYL ENAMEL, SEMI-GLOSS, COLOR TO BE SELECTED BY ARCHITECT.
 3. ALL HANDRAILS, HANDRAIL TERMINATIONS, AND HORIZONTAL AND VERTICAL CLEARANCES SHALL COMPLY WITH THE PROVISIONS OF THE GOVERNING EDITIONS OF THE INTERNATIONAL BUILDING CODE, AND WITH ICC/ANSI 117.1. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING HANDRAIL COMPLIANT WITH THE GOVERNING CODES.
 4. CORE DRILL OR SURFACE MOUNT ANCHORING METHODS ARE ACCEPTABLE. SUBJECT TO NOTE #4 ABOVE.
 5. CMU CHEEKWALLS ON FOOTERS MAY BE USED IN PLACE OF CEMENT CONCRETE CHEEKWALLS AT THE OWNER'S DISCRETION. REGARDLESS OF CHEEKWALL CONSTRUCTION, STAIRWAYS SHALL UTILIZE COMPARABLE STRUCTURAL REINFORCEMENT TO THAT WHICH IS SHOWN ABOVE.



ELEVATION VIEW
RETAINING WALL FENCE DETAIL
NOT TO SCALE

- NOTES:
1. SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED FOR APPROVAL SHOWING MATERIALS, COLOR, AND DIMENSION OF HEIGHT.
 2. CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.
 3. SLEEVES SHALL BE SCHEDULE 40 PVC AND HAVE AN INSIDE DIAMETER 2 INCHES LARGER THAN THE POST OUTSIDE DIAMETER. IF RAILING IS TO BE INSTALLED IN EXISTING SIDEWALK, HOLES SHALL BE CORE DRILLED 2 INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE POST, AND NO LESS THAN 6" FROM THE EDGE OF CONCRETE.



Designer	EAH
Draftsman	EAH
Proj/Manager	JCS
Surveyor	BRX
Perimeter Ok	
Book	542 Pg 42
Acad	19052-FERGUSON-PRELIMINARY-LD-012
Layout	DT2

Date	Description	REVISIONS
01/21/21	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/18/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS

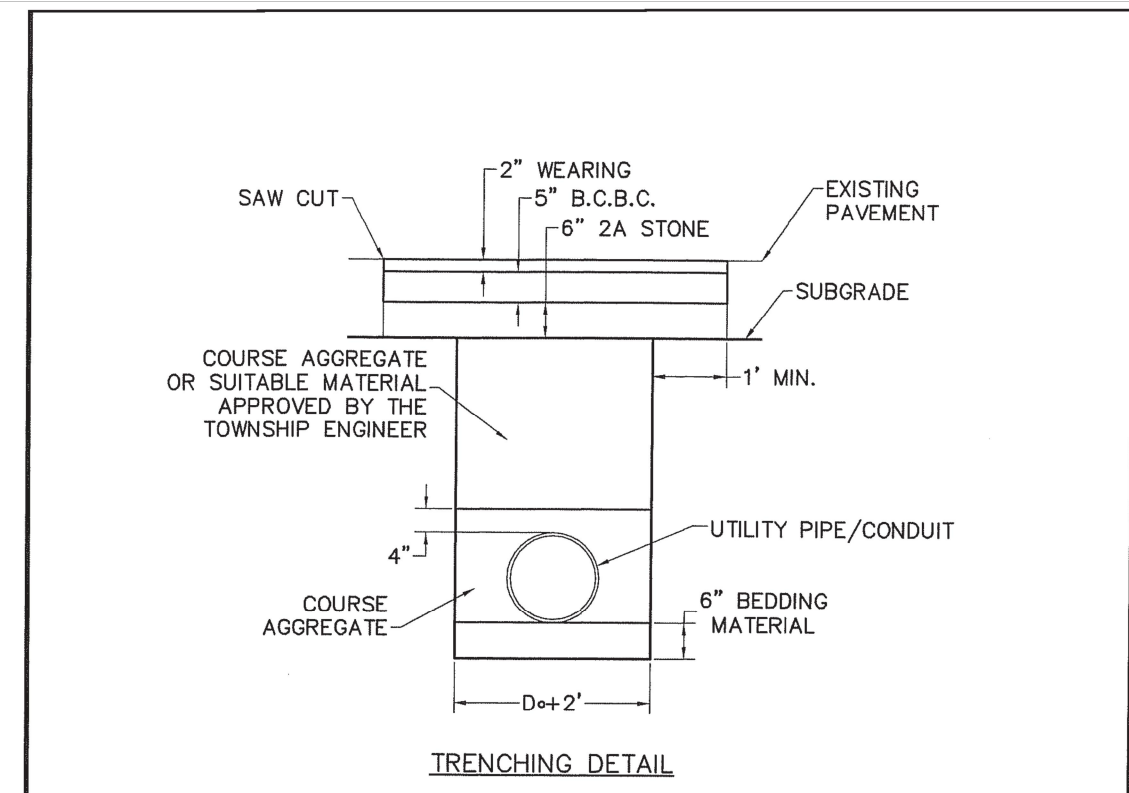
WEST COLLEGE
STUDENT
HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND
DEVELOPMENT PLAN

GENERAL
CONSTRUCTION
DETAILS

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	N.T.S.
SHEET NO.	13



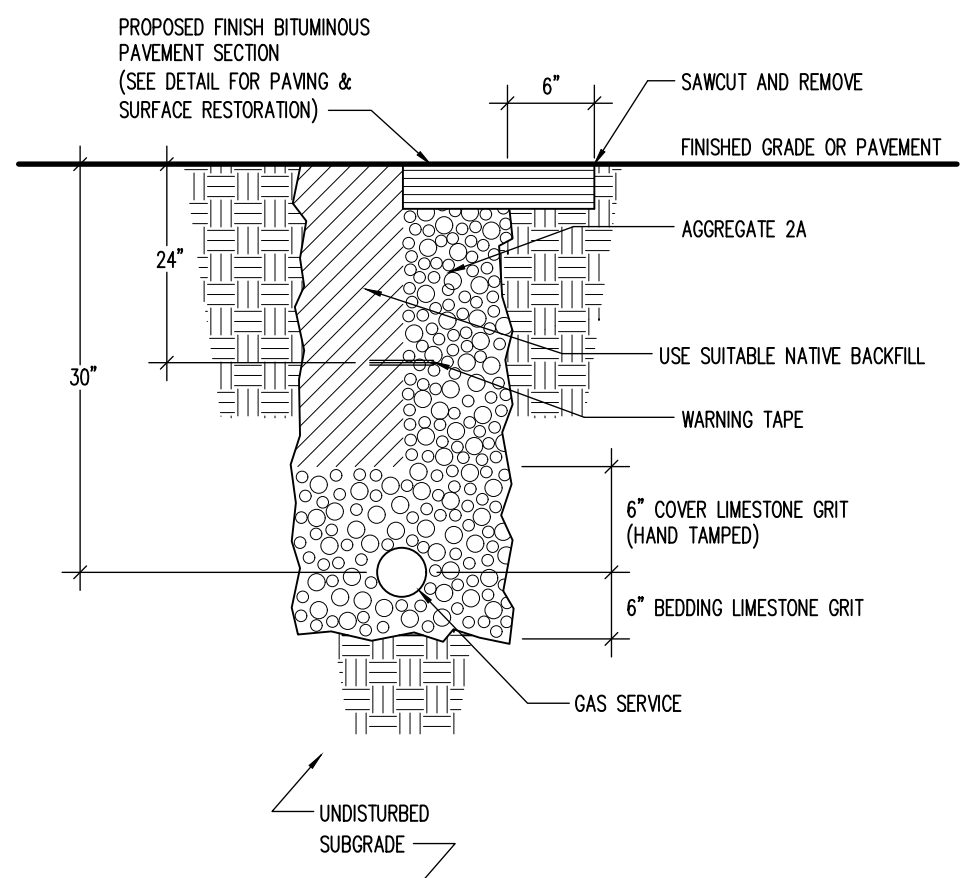
CONSTRUCTION PROCEDURE:

- EXCAVATE THE TRENCH TO THE WIDTH OF THE OUTSIDE DIAMETER OF THE PIPE (D) PLUS 2 FEET AND CREATE AN APPROPRIATE BEDDING 6 INCHES DEEP.
- PLACE 2B COARSE AGGREGATE MATERIAL (IN 8" LIFTS)
- ALL MATERIAL TO BE COMPACTED TO 100% OF THE DRY WEIGHT DENSITY.
- 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.
- SEAL EDGES OF PAVEMENT REPAIR WITH AC-20 OR APPROVED SEALANT

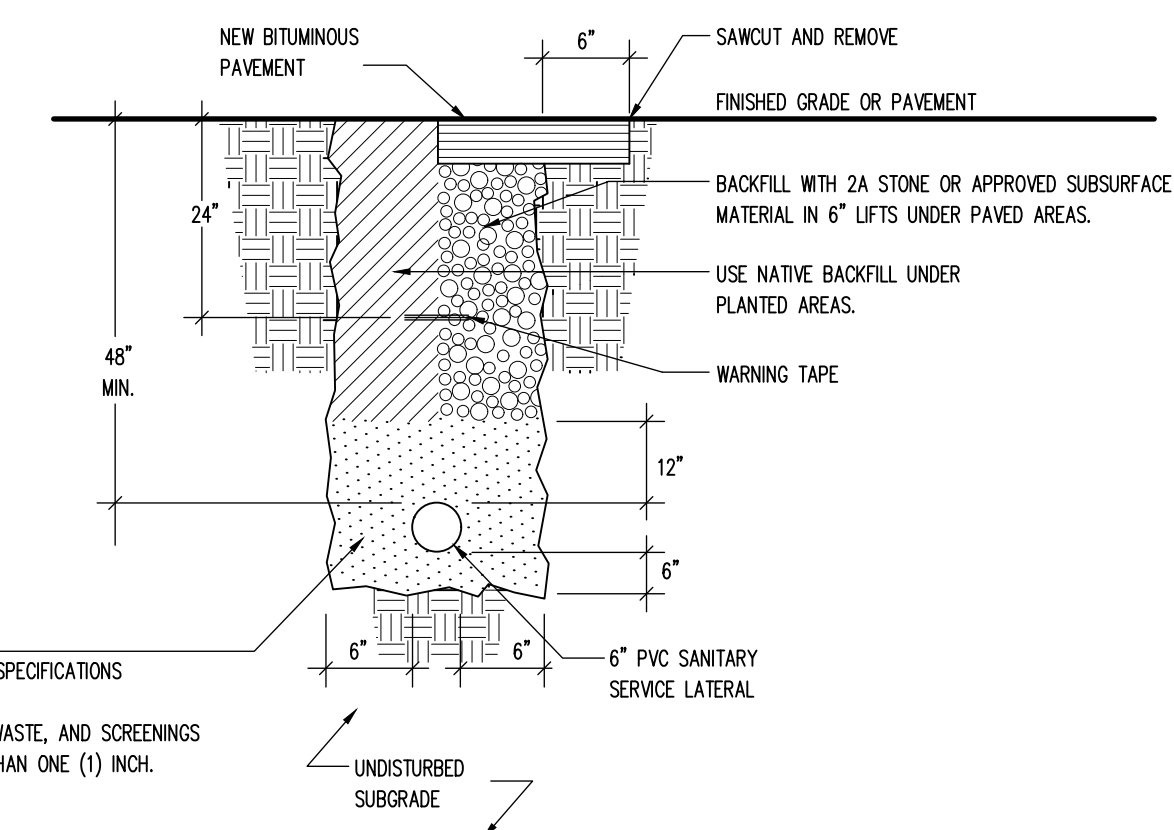
REV.	DATE	DESCRIPTION	BY	SCALE
1				N.T.S.
2				
3				
4				

TOWNSHIP OF FERGUSON
 DEPARTMENT OF PUBLIC WORKS / ENGINEERING
 2147 Research Drive, State College, Pennsylvania 16801
 Telephone: 814-231-6411 Fax: 814-231-3444
 FEBRUARY 20, 2023

PROJECT: STANDARD TRENCH DETAIL
 FERGUSON TOWNSHIP STANDARDS DRAWINGS

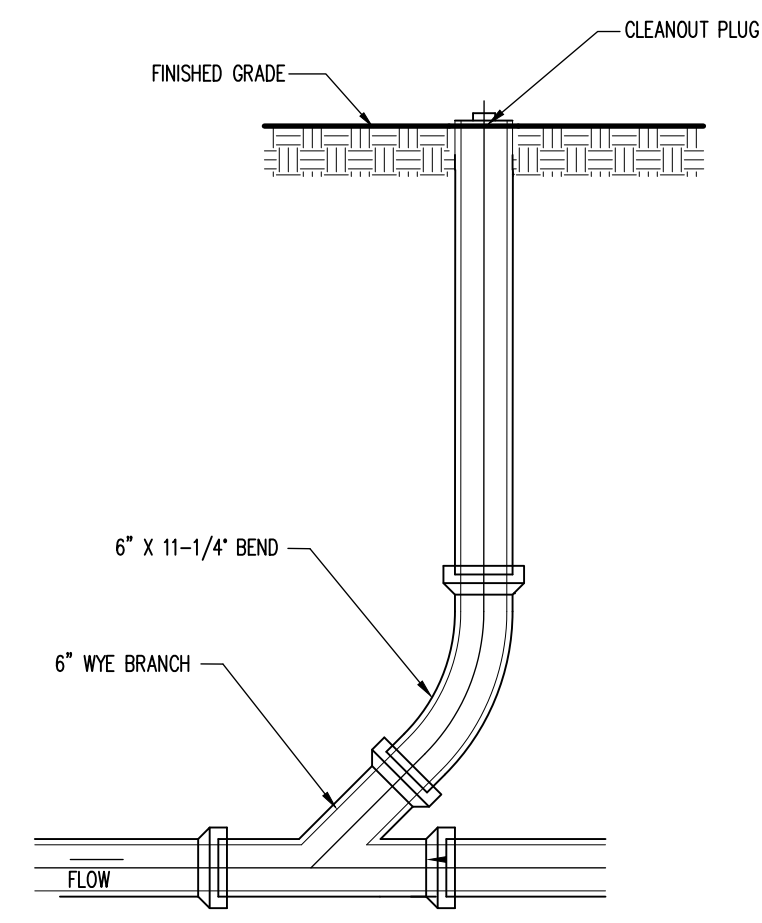


NATURAL GAS SERVICE TRENCH DETAIL
NOT TO SCALE

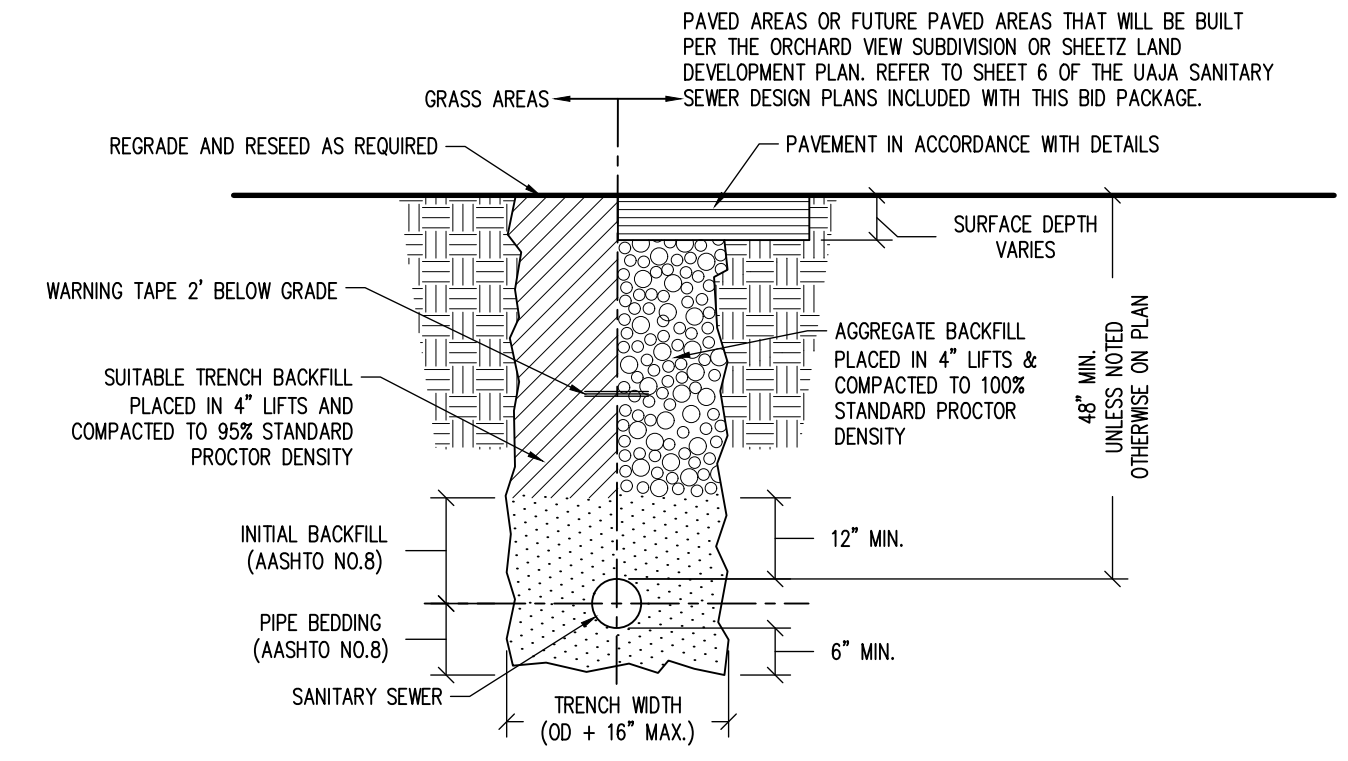


BEDDING MATERIALS:
 TYPE I: GRANULAR MATERIALS MEETING THE SPECIFICATIONS OF PDOT PUB 408, SECTION 703.3
 TYPE II: MATERIAL SUCH AS SAND, QUARRY WASTE, AND SCREENINGS ALL WITH NO GRADATIONS LARGER THAN ONE (1) INCH.

SANITARY LATERAL TRENCH DETAIL
NOT TO SCALE



6" SANITARY SEWER CLEAN-OUT DETAIL (LAWN AREAS)
NOT TO SCALE



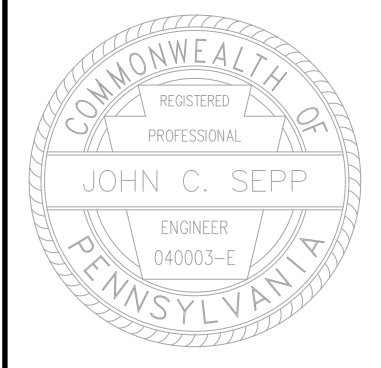
SANITARY SEWER MAIN TRENCH DETAIL
NOT TO SCALE



PennTerra ENGINEERING INC.
 CENTRAL PENNSYLVANIA REGION OFFICE:
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Designer	EAH
Draftsman	EAH
Proj Manager	JCS
Surveyor	BRK
Perimeter Ok	
Book	542 Pg 42
Acad	19052-FERGUSON-PRELIMINARY-LD-013
Layout	DT3

DATE	REVISIONS
01/21/21	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/18/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS
Date	Description

WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

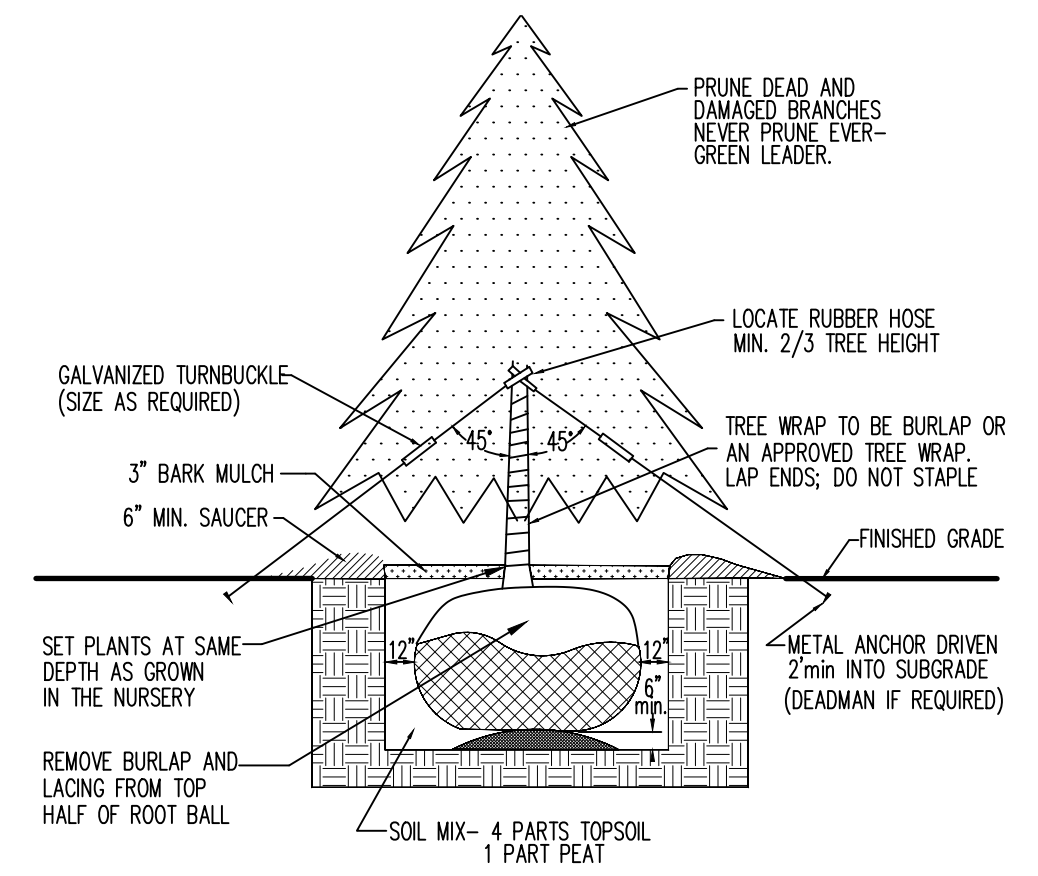
PRELIMINARY LAND DEVELOPMENT PLAN

GENERAL CONSTRUCTION DETAILS

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	N.T.S.
SHEET NO.	14

PLANTING SCHEDULE							
SYMBOL	KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE	HEIGHT	SPREAD
CANOPY TREES							
	HB	6	Hackberry (1 in Borough of State College)	Celtis occidentalis	2.5" Cal.	50'	50'
	RT	7	Hardy Rubber Tree (1 in Borough of State College)	Eucommia ulmoides	2.5" Cal.	50'	30'
	LP	3	London Plane (2 in Borough of State College)	Platanus hispanica	2.5" Cal.	60'	50'
SHRUBS							
	VPT	49	Shasta Doublefile Viburnum (13 in Borough of State College)	Vinurnum plicatum tomentosum 'Shasta'	24"-36"	8'	10'
	AGH	36	Girard's Hot Shot Azalea (0 in Borough of State College)	Azalea 'Girard Hot Shot'	18"-24"	2'	3'
	IV	70	Henry's Garnet Virginia Sweetspire (10 in Borough of State College)	Itea Virginia 'Henry's Garnet'	18"-24"	4'	5'
	VON	96	Dwarf European Cranberrybush (5 in Borough of State College)	Viburnum opulus 'Nanum'	12"-18"	2'	3'
GRASSES & PERENNIALS							
	PLB	78	Little Bunny Dwarf Fountain Grass (0 in Borough of State College)	Pennisetum alopecuroides 'Little Bunny'	#1 cont.	---	---
	AJR	210	Ajuga bugleweed (0 in Borough of State College)	Ajuga reptans	2" pots	---	---

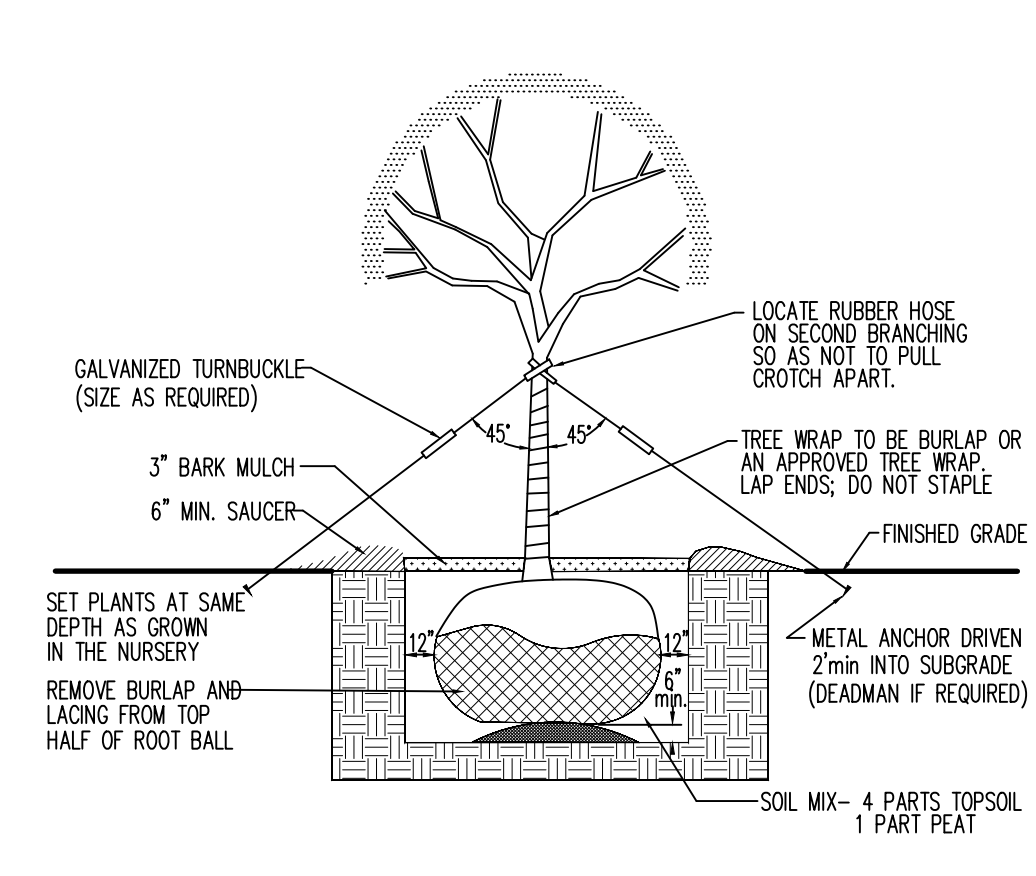
- NOTES:**
- ALL TREES AND SHRUBS SHALL BE PLANTED IN ACCORDANCE WITH THE "GUIDE TO ARBOR WORK IN FERGUSON TOWNSHIP".
 - 3" OF CU STRUCTURAL SOIL SHALL BE INSTALLED IN THE STREETSIDE PLANTERS. REFER TO DETAIL ON SHEET 8.
 - TREES ARE TO BE MULCHED INDIVIDUALLY IN A 4" DIAMETER CIRCLE.
 - THE MULCH IS TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH, WELL AGED AND DARK IN COLOR. APPLY THE MULCH 4" THICK.
 - PLANT MATERIAL SUBSTITUTIONS MAY ONLY BE PERMITTED AT THE APPROVAL OF THE OWNER, TOWNSHIP AND ENGINEER OR LANDSCAPE ARCHITECT.
 - ANY PLANTINGS WHICH DO NOT SURVIVE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
 - ALL NEW PLANT MATERIAL IS TO BE KEPT WATERED BY THE LANDSCAPE CONTRACTOR WHEN WORKING ON SITE UNTIL COMPLETION OF THE LANDSCAPE OR SEASON'S END (THEN RESUME NEXT SEASON UNTIL PROJECT IS COMPLETED). THE OWNER WILL BE RESPONSIBLE FOR WATERING THEREAFTER.
 - ALL DISTURBED AREAS NOT BEING PLANTED IN TREES OR SHRUBS ARE TO BE FINE GRADED AND SEEDED WITH A HARDY PERENNIAL GRASS SEED MIXTURE AND MULCHED WITH STRAW.
 - ALL CALIPER MEASUREMENTS FOR LANDSCAPING SHALL BE MEASURED AT 6" ABOVE THE ROOT BALL.



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

NOTES:

- IN PAVED AREAS- STONE SAUCER IN A SQUARE
- IN GRASS AREAS- MULCH SAUCER IN A CIRCLE
- AFTER PLANTING- THE SAUCER SHOULD BE FLOODED WITH WATER TWICE IN THE FIRST 24 HRS.
- BARK MULCH MUST NOT COVER THE ROOT CROWN OF THE TREE



TYPICAL DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

NOTES:

- IN PAVED AREAS- STONE SAUCER IN A SQUARE
- IN GRASS AREAS- MULCH SAUCER IN A CIRCLE
- AFTER PLANTING- THE SAUCER SHOULD BE FLOODED WITH WATER TWICE IN THE FIRST 24 HRS.
- BARK MULCH MUST NOT COVER THE ROOT CROWN OF THE TREE

PROPOSED LANDSCAPE BUFFER REQUIREMENTS:

BUFFER/PAVED ONE - A LANDSCAPE BUFFER IS REQUIRED ALONG THE SOUTHERN PROPERTY LINE BETWEEN THE PROPOSED BUILDING AND WEST CALDER WAY. PER THE TERRACED STREETSCAPE (TS) DISTRICT SECTION OF THE ZONING ORDINANCE (§27-304.C.4), THIS BUFFER IS REQUIRED TO BE 12' WIDE. THE CALCULATION REQUIREMENTS FOR THIS LANDSCAPE BUFFER ARE AS FOLLOWS: 1 CANOPY OR EVERGREEN TREE; 15 SHRUBS PER 35 SF OF THE LOT LINE (301.74').

THE CALCULATIONS FOR THE LANDSCAPE BUFFER ARE AS FOLLOWS:

CANOPY/EVERGREEN TREES 301.74/35 x 1 = 8.62 OR 9 CANOPY/EVERGREEN TREES REQUIRED; 2 RED HACKBERRY, 3 HARDY RUBBER TREE, AND 1 LONDON PLANE. (*6 TOTAL PROVIDED)

SHRUBS 301.74/35 x 15 = 129.32 OR 129 SHRUBS REQUIRED; 36 SHASTA DOUBLEFILE VIBURNUM, 60 HENRY'S GARNET VIRGINIA SWEETSPIRE, AND 48 DWARF EUROPEAN CRANBERRY BUSH ARE PROVIDED. (*144 TOTAL PROVIDED)

NOTE: BOTH MALE AND FEMALE PLANTS MUST BE SPACED APPROPRIATELY FOR THE SPECIES TO FRUIT/FLOWER. DUE TO UNDERGROUND UTILITIES, 15 SHRUBS ARE BEING PROVIDED IN PLACE OF 3 EVERGREEN TREES AS ALLOWED BY §27-707.7.F.(3). THESE SHRUBS ARE INCLUDED IN THE SHRUB QUANTITIES ABOVE.

SURVEY FEATURES LEGEND

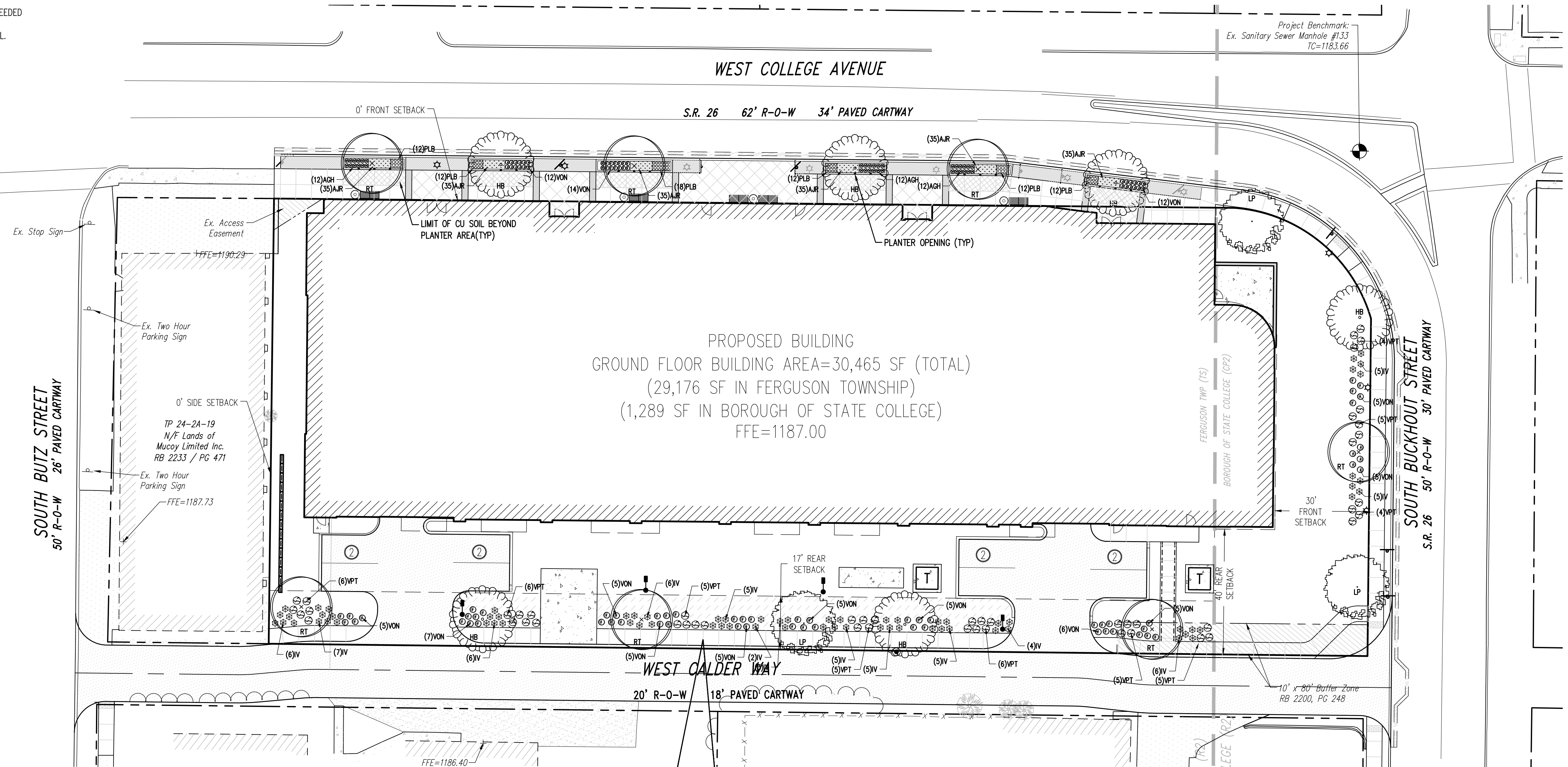
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

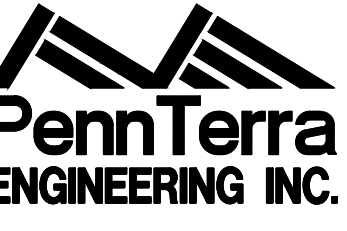
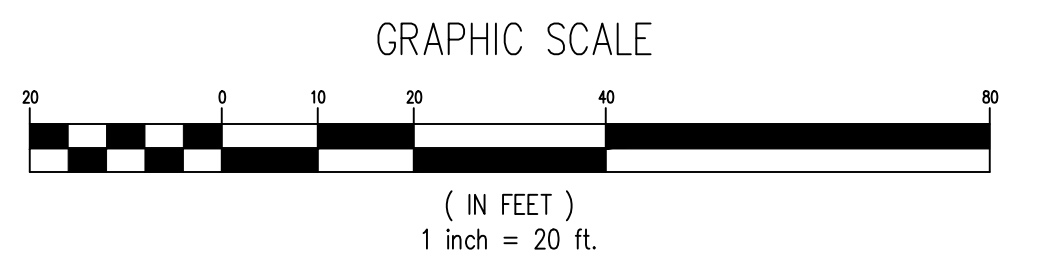
- EXISTING BUILDING
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Sign
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED PARKING STALL COUNT
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED RETAINING WALL FENCE
- PROPOSED RIVERSTONE AREAS



PROPOSED LANDSCAPE BUFFER (TERRACED STREETSCAPE DISTRICT REQUIREMENT) 301.74' @ 12' WIDTH	
REQUIRED:	PROPOSED:
9 CANOPY/EVERGREEN TREES	2-HB (Hackberry)
	3-RT (Hardy Rubber Tree)
	1-LP (London Plane)
	DUE TO UNDERGROUND UTILITIES, 15 SHRUBS ARE BEING PROVIDED IN PLACE OF 3 EVERGREEN TREES AS ALLOWED BY §27-707.7.F.(3). THESE SHRUBS ARE INCLUDED IN THE SHRUB QUANTITIES BELOW.
129 SHRUBS	36-VPT (Shasta Doublefile Viburnum)
	60-IV (Henry's Garnet Virginia Sweetspire)
	48-VON (Dwarf European Cranberry Bush)



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Designer	EAH
Draftsman	EAH
Proj/Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542 Pg 42
Acad 1929- FERGOUSON- PRELIMINARY- LD- LSP	
Layout	LSP

01/21/21	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
Date	Description	REVISIONS

WEST COLLEGE STUDENT HOUSING
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

LANDSCAPING PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	15

P:\dtd\p\2019\19052\Design\p\19052-FERGUSON-PRELIMINARY-LD-LSP.dwg, 1/27/2021 4:11:22 PM, 1:1

SURVEY FEATURES LEGEND

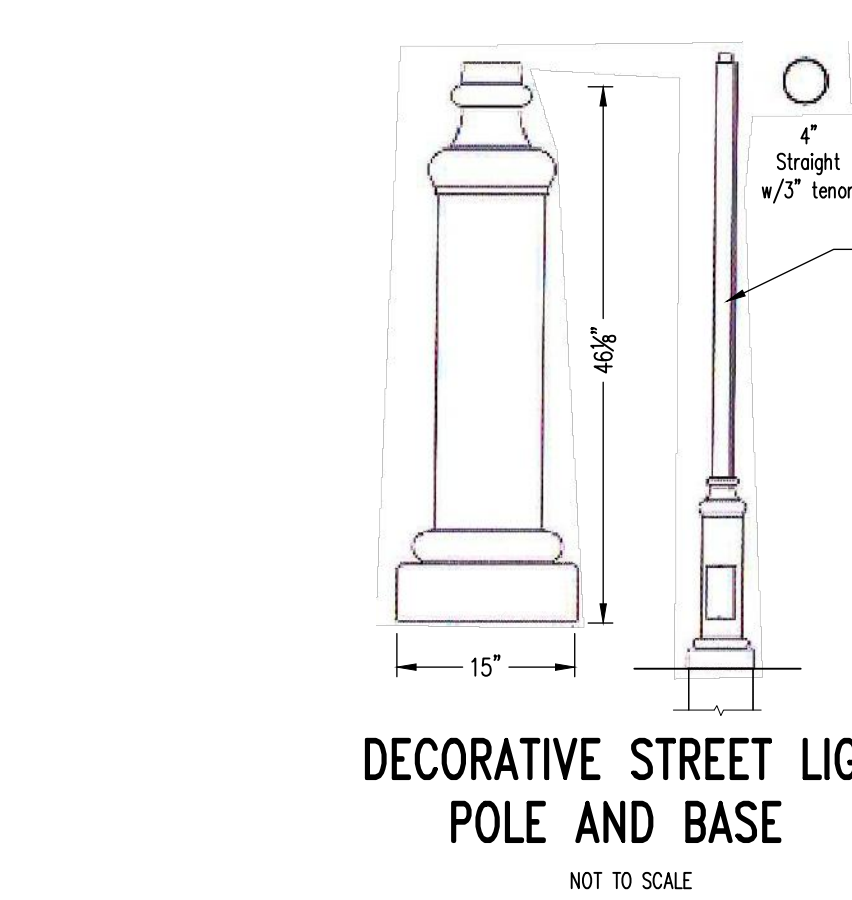
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

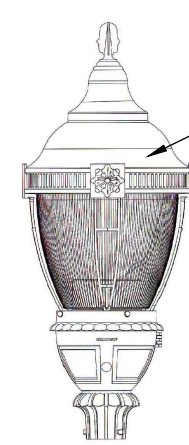
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

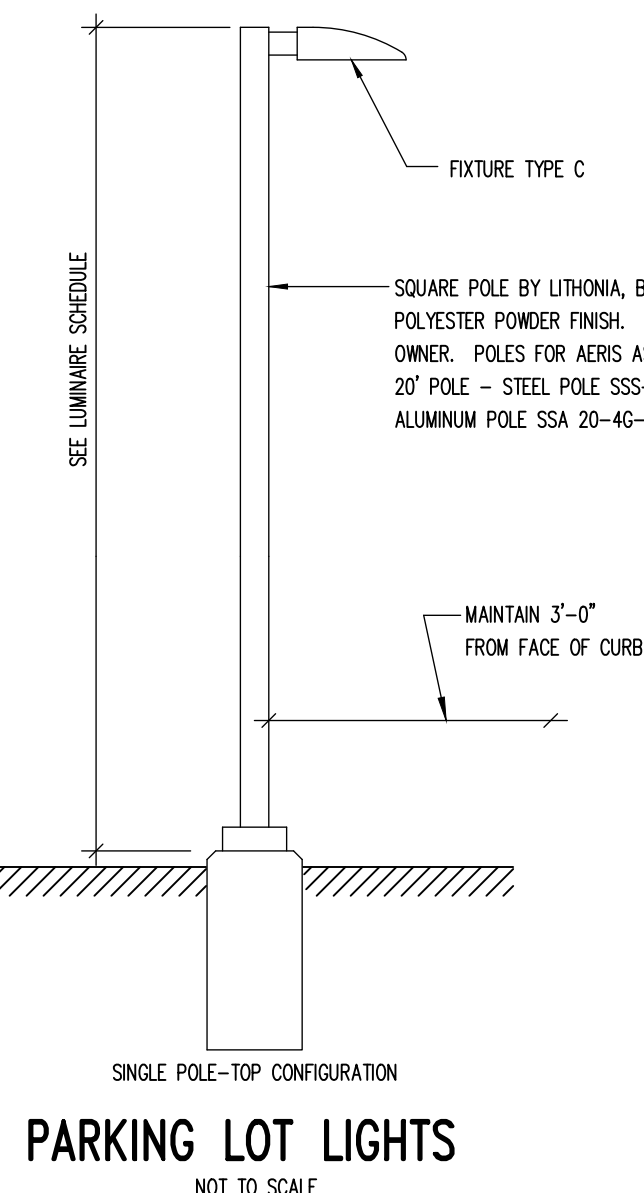
- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED SIGN
- PROPOSED RETAINING WALL FENCE



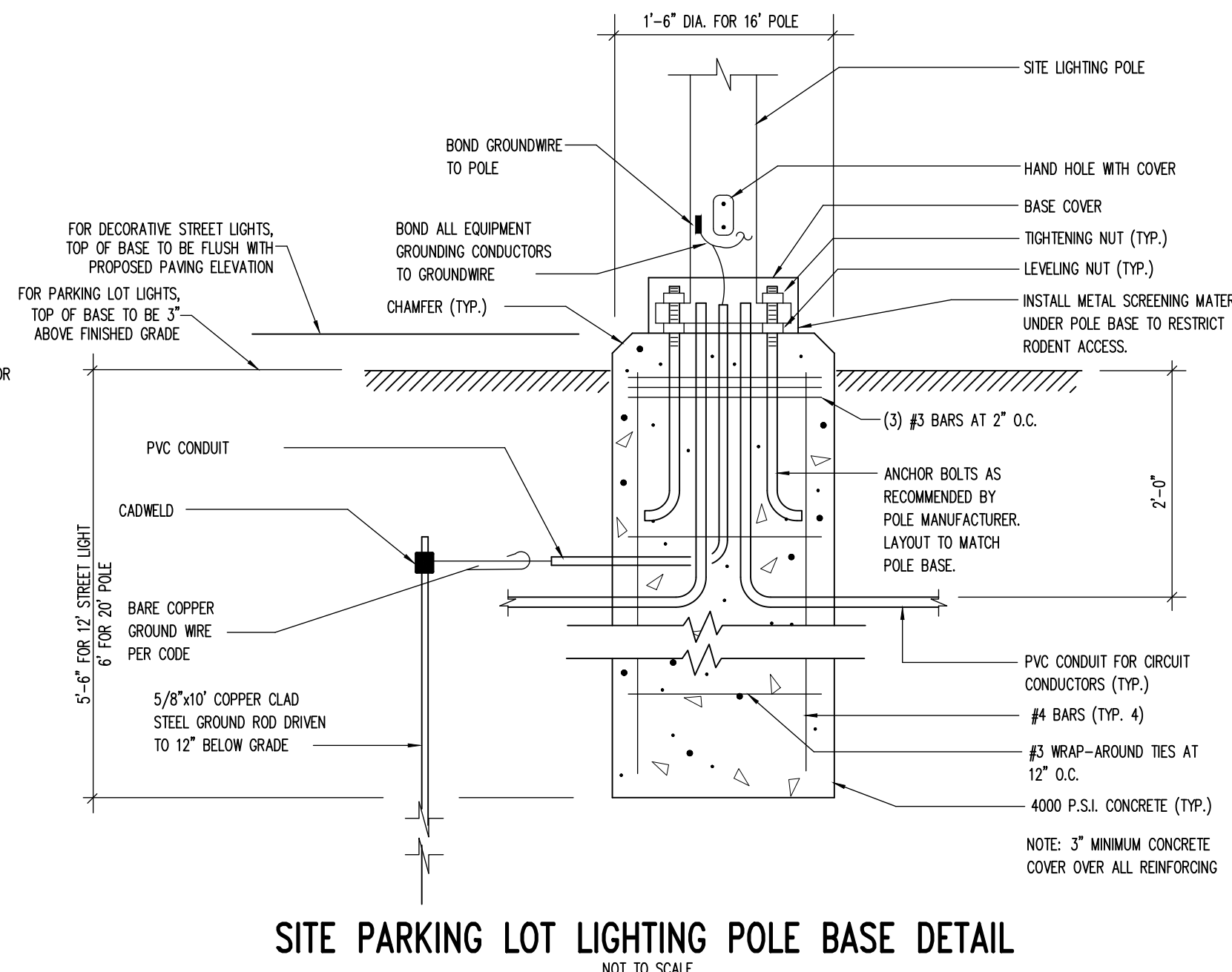
DECORATIVE STREET LIGHTS TOP
NOT TO SCALE



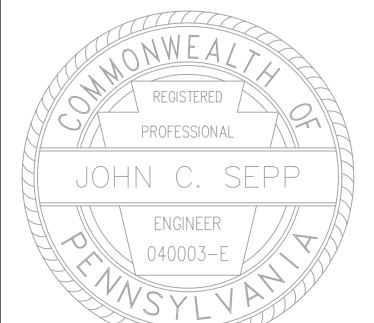
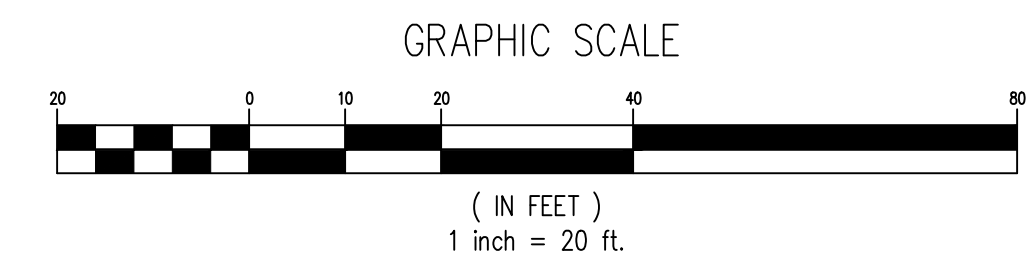
FIXTURE TYPE A
HADCO HAGERSTOWN LEDGNE POST TOP (TX03), 80 LED'S, WITH ROUND FITER W/ SCALLOPED PETALS, TYPE A FINAL, HEX HEAD FASTENERS, BLACK FINISH, TYPE III OPTICS, NO PHOTO CONTROL, 4000K COLOR TEMPERATURE, VOLTAGE A, NO DIMMING CONTROL, AND STANDARD SURGE PROTECTION



SITE PARKING LOT LIGHTING POLE BASE DETAIL
NOT TO SCALE



Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Lumens per Lamp	LLF	Wattage
⬆	A	10	PHILIPS-HADCO LIGHTING	TX0332BA1A3NANS	TX0332BA1A3NANS - 32 LED, LUXEON R BOARD, TYPE III OPTICS, VERTICAL RIBBED GLOBE MOUNTING HEIGHT: 12'	32 LED BOARD	2979	1	35.8
⬆	B	11	RAB LIGHTING, INC.	ENTRA12N	CAST FINNED BROWN PAINTED METAL HOUSING, FORMED WHITE PAINTED METAL REAR REFLECTOR, MOLDED PLASTIC UPPER REFLECTOR WITH SPECULAR FINISH, 1 WHITE CIRCUIT BOARD WITH ONE 3X3 LED ARRAY, MOLDED CLEAR PLASTIC FRONT COVER WITH HOLOGRAPHIC LENSED SECTION AND BROWN PAINTED INTERIOR TOP, SIDE, AND LOWER SECTIONS. SIDE AND UPPER FRONT EXTERIOR SECTIONS ARE TEXTURED.	NINE WHITE LIGHT EMITTING DIODES (LEDS) WITH 1 CLEAR SEMI-HEMISPHERICAL INTEGRAL PLASTIC LENS, VERTICAL BASE-UP POSITION.	109	1	13.9
⬆	C	4	LITHONIA LIGHTING	DSXO LED P1 40K T4M MVOLT HS	DSXO LED P1 40K T4M MVOLT with houseshield	LED	3579	1	38



Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FERGUSON-FREELIMINARY-LD-LT
Layout	LT

01/21/21	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/18/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
Date	Description	REVISIONS

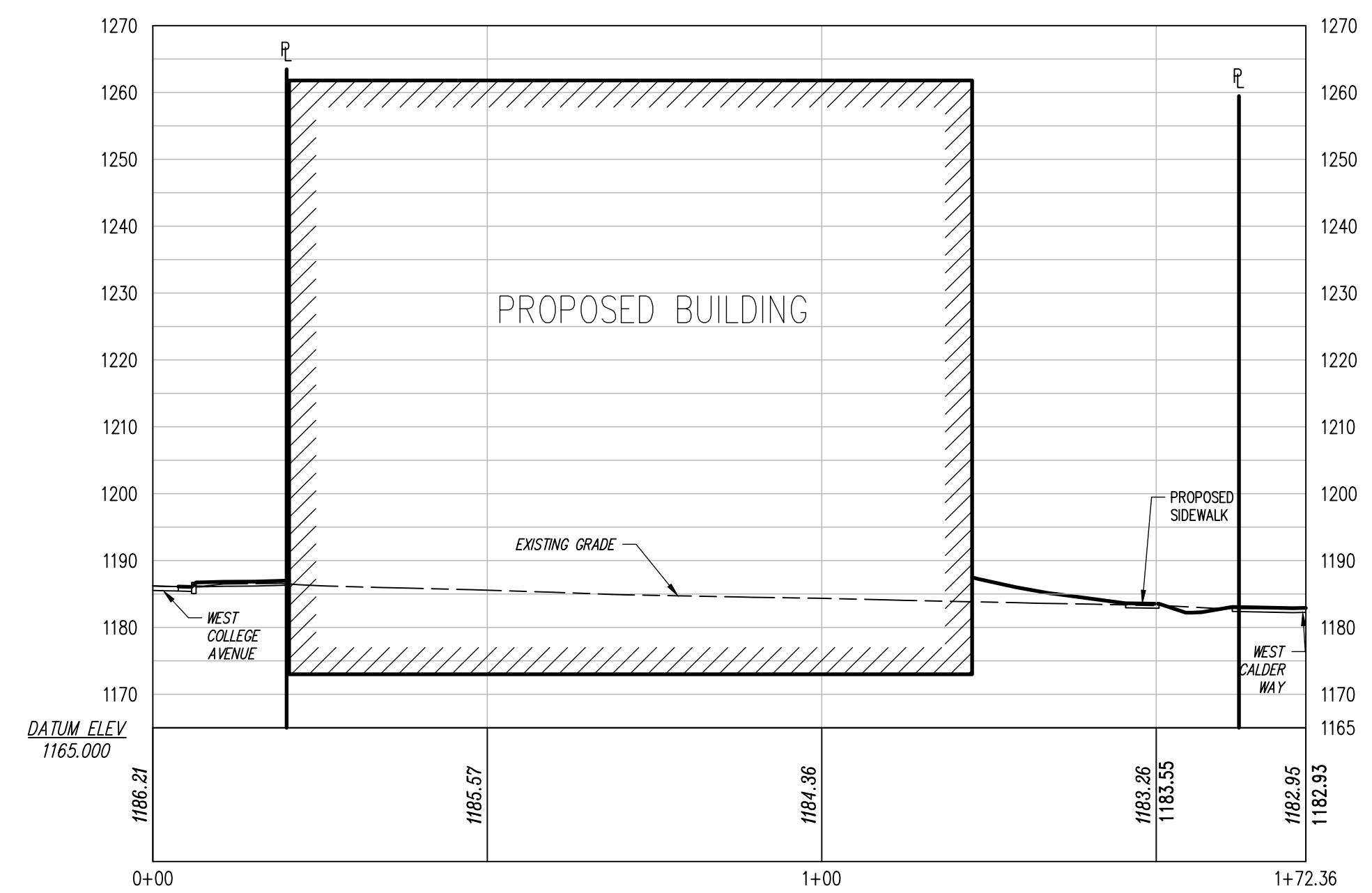
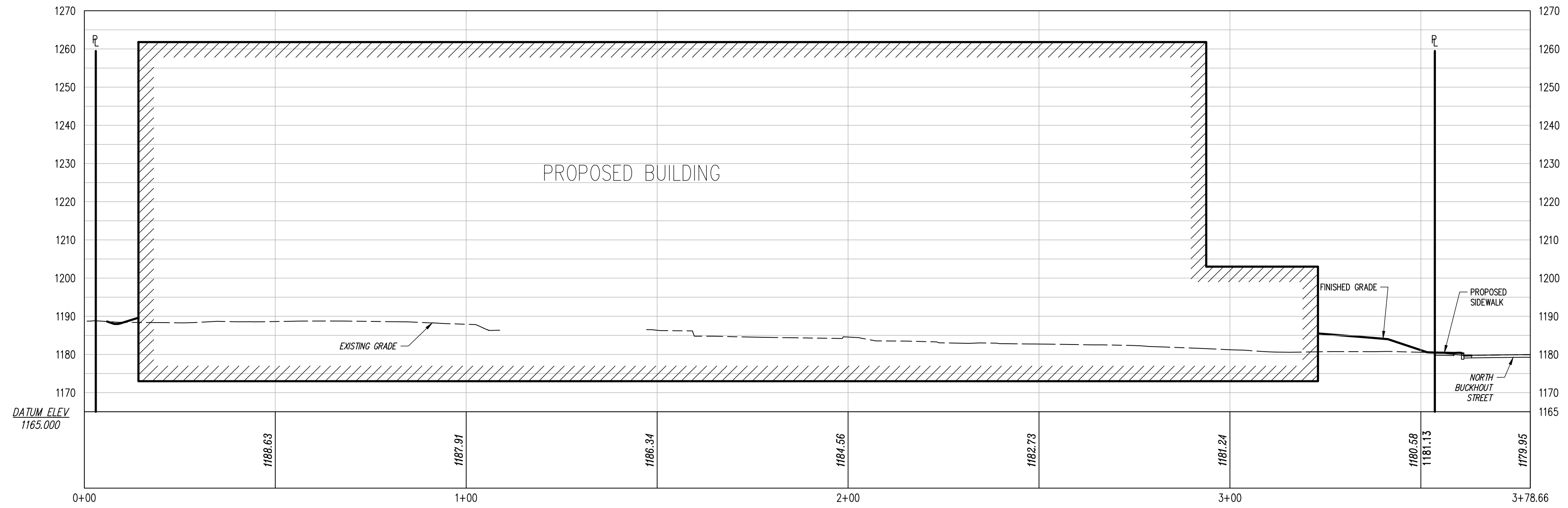
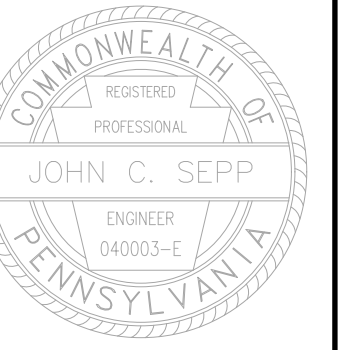
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

LIGHTING PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	16



Designer	EAH
Draftsman	EAH
Proj Manager	JCS
Surveyor	BRK
Perimeter Ok	
Book	542 Pg 42
Acad	19052-FERGUSON-PRELIMINARY-LD-SEC
Layout	SEC

Date	Description
01/21/21	RELEASED FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	RELEASED FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	RELEASED FOR FERGUSON TOWNSHIP COMMENTS

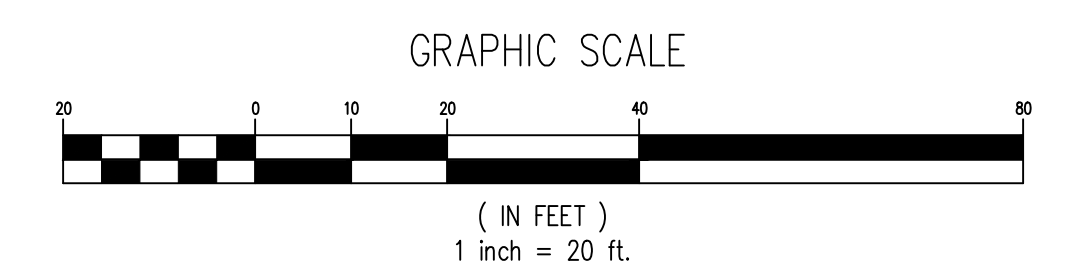
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

SITE CROSS SECTIONS

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	17



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- - - - - Adjoining Property Line
- Easement Line
- Project Benchmark
- - - - - Municipal Boundary

SOILS LEGEND

Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Utility Pole
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Monitoring Well
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub
- Infiltration Test Pit Location

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED RIVERSTONE AREAS W/ AMENDED SOILS

POST CONSTRUCTION STORMWATER MANAGEMENT LEGEND

- NPDES BOUNDARY LINE
- LIMIT OF DISTURBANCE
- PROPOSED AMENDED SOIL AREAS

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 260.1et 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.

CRITICAL STAGES OF CONSTRUCTION

THE SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER TO ENSURE THAT A REGISTERED PROFESSIONAL SHALL BE ONSITE FOR THE CONSTRUCTION OF THE FOLLOWING FACILITIES:

1. REPAIR & DESIGN OF THE PERMANENT SINKHOLE FIX SHALL BE OVERSEEN BY A QUALIFIED GEOTECHNICAL ENGINEER OR HIS DESIGNEE.
2. EXCAVATION AND INSTALLATION OF THE UNDERGROUND INFILTRATION SLIMP.
3. EXCAVATION AND INSTALLATION OF THE UNDERGROUND EXTENDED DETENTION BASIN 1 AND 1A.
4. PLACEMENT OF SOIL AMENDMENTS.
5. FINAL SITE GRADING.

Permanent Seeding Mixtures

Permanent Seeding shall consist of the following:

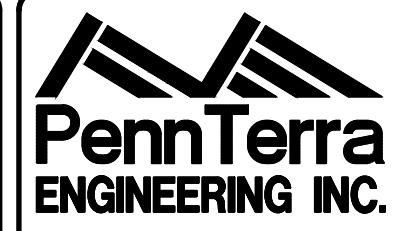
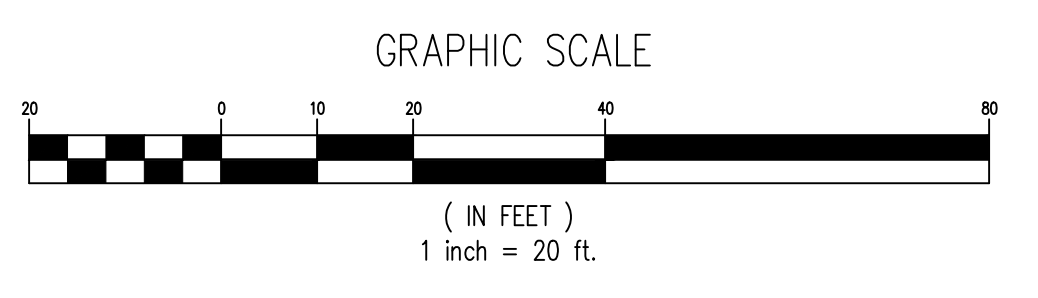
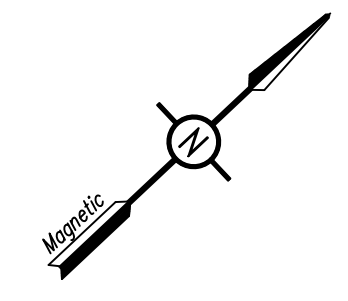
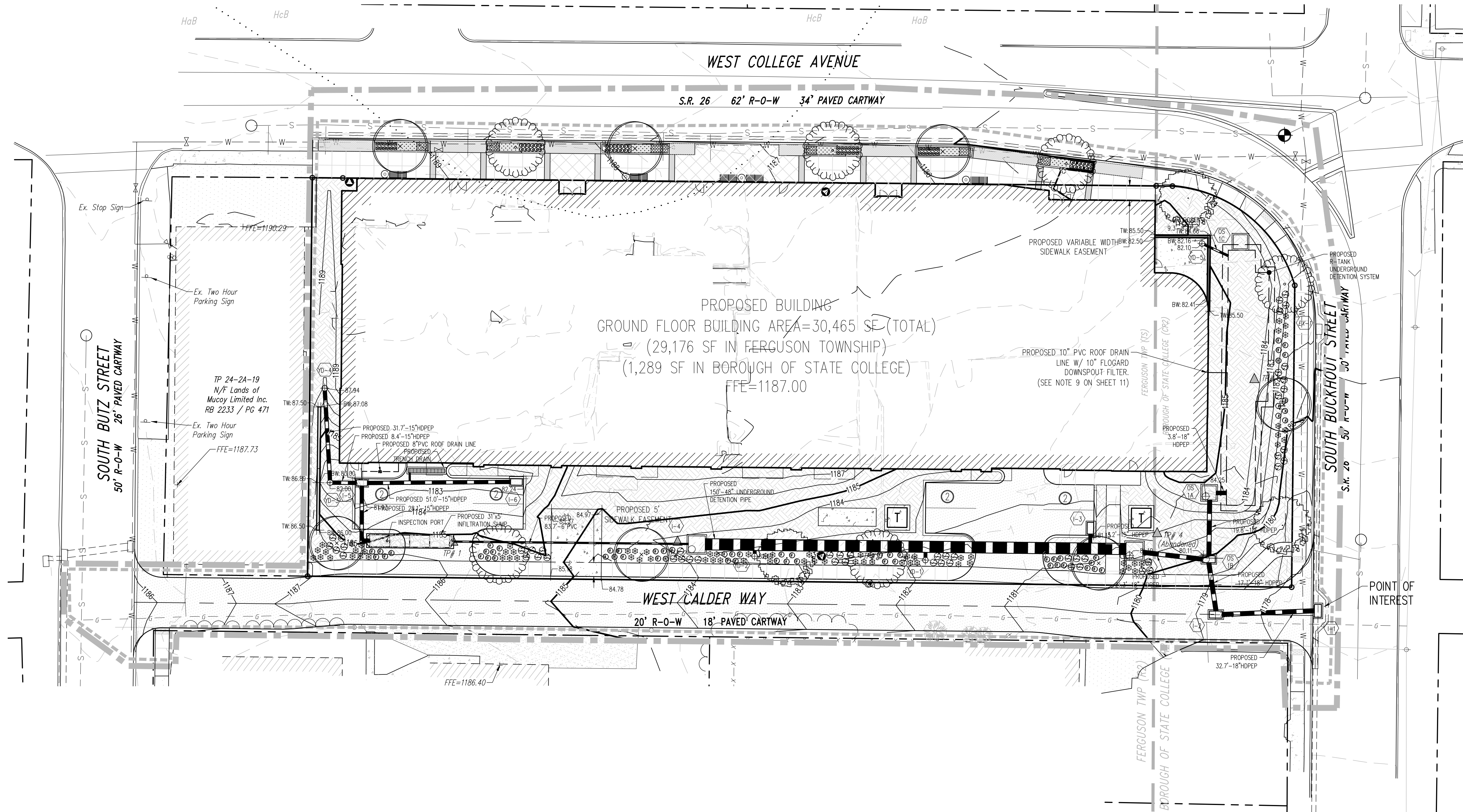
Item	Rate
1. Seed Mixture Consisting of 50% Poa pratensis (Kentucky Bluegrass) 30% Festuca rubra (Creeping Red Fescue) 20% Lolium perenne L. (Perennial Rye)	102 lbs./acre
2. *Mulch (straw)	3 tons/ acre

Post Construction Earth Moving Activities

Construction Sequence:
 A. Once stabilization has been achieved on all disturbed areas, and a 70% uniform vegetative cover is established, ensure that all sediment is removed from the sumped inlet bottoms (proposed inlets 1-5). Install Grate Inlet Skimmer Boxes and Floodgates Downspout Filters.

NPDES PERMIT NOTICE OF TERMINATION NOTE:

UPON CONTRACTOR BEING AWARDED THE SITE WORK CONTRACT, THE CONTRACTOR IS RESPONSIBLE AND SHALL PROCESS FORMS W/ THE CENTRE COUNTY CONSERVATION DISTRICT TO BECOME A CO-PERMITTEE ON THE NPDES PERMIT AND SHALL REMAIN AS A CO-PERMITTEE UNTIL THE CONTRACTOR FILES THE NOTICE OF TERMINATION. THE NOTICE OF TERMINATION REQUIRES CERTIFICATION OF THE STORMWATER FACILITIES MENTIONED ON THE POST CONSTRUCTION STORMWATER PLAN.

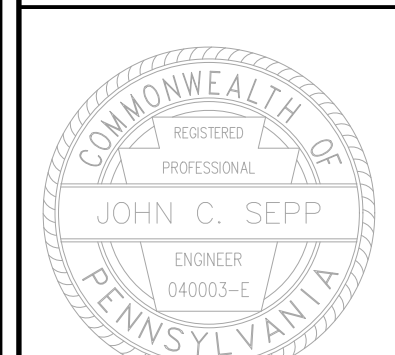


PennTerra ENGINEERING INC.
 CENTRAL PENNSYLVANIA REGION OFFICE:
 3075 ENTERPRISE DRIVE
 SUITE 100
 STATE COLLEGE, PA 16801
 PH: 814-231-8285
 Fax: 814-237-2308

LANCASTER REGION OFFICE:
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DESIGNER: EAH
 DRAFTSMAN: EAH
 PROJ. MANAGER: JCS
 SURVEYOR: BRK
 PERMETER CL.:
 BOOK: 542, PG: 42
 ACOD: 19052-FERGUSON-PRELIMINARY-LD-PCI
 LAYOUT: PCI

Date	Description	REVISIONS
01/21/21	REVISED FOR FERGUSON TOWNSHIP COMMENTS	
12/18/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS	
11/26/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS	

WEST COLLEGE STUDENT HOUSING

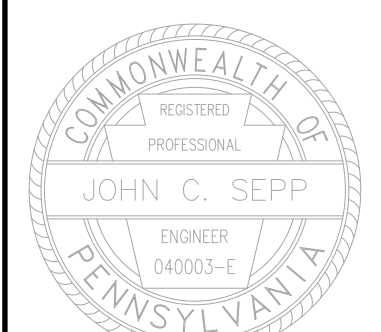
FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	PC1

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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	1952-FERGUSON-PRELIMINARY-LD-PC2
Layout	SWDT

01/21/21	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS
Date	Description
REVISIONS	

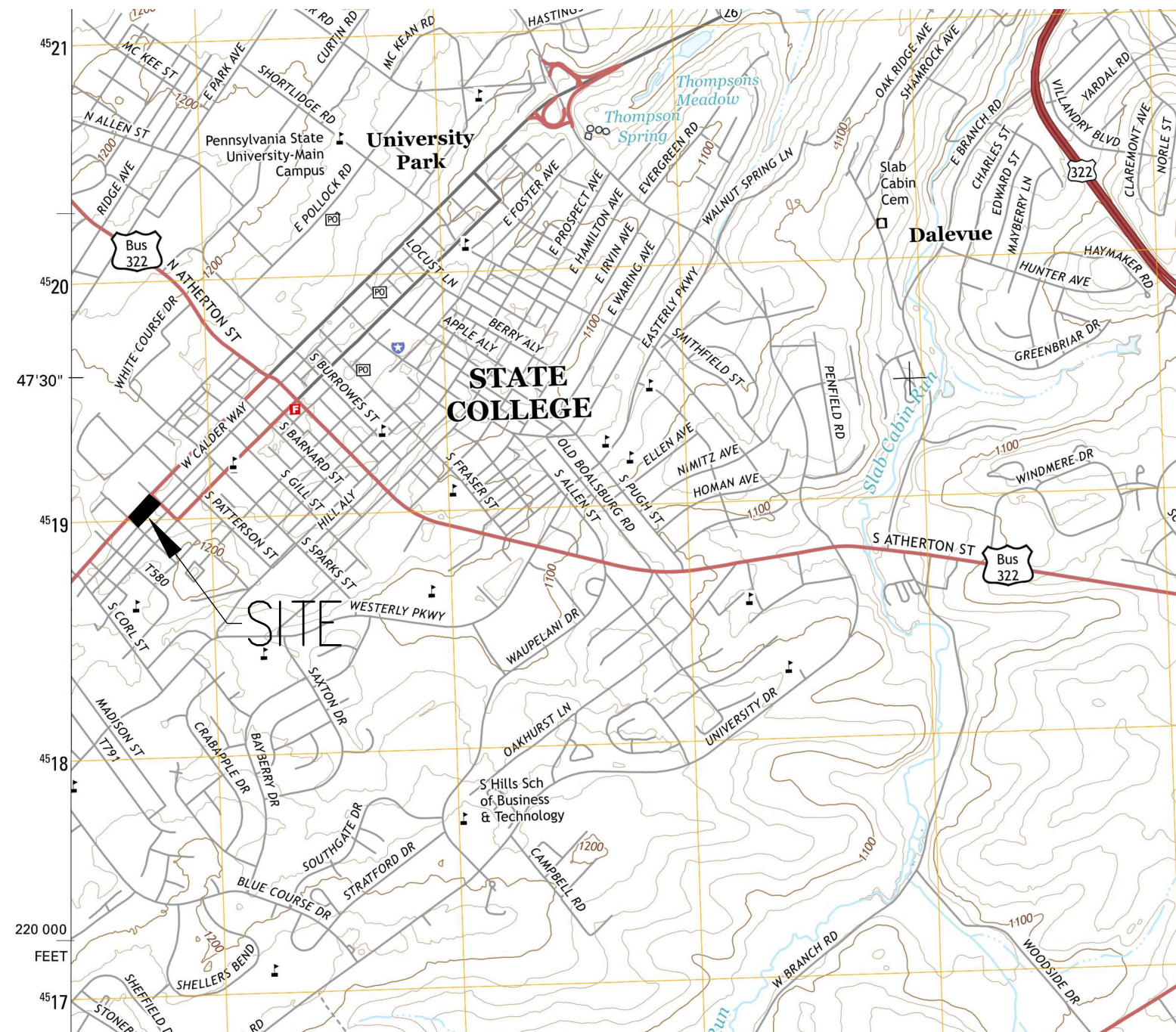
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

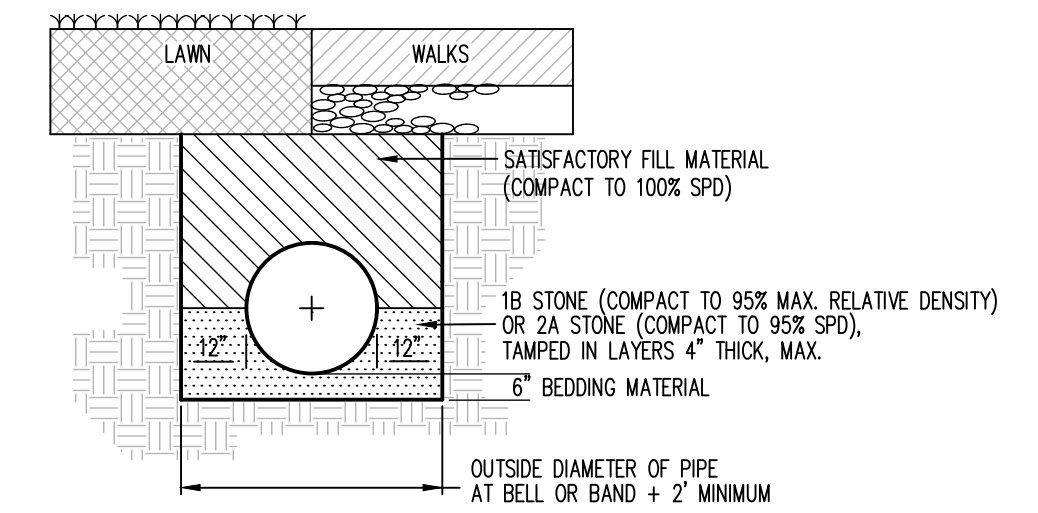
PRELIMINARY LAND DEVELOPMENT PLAN

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	N.T.S.
SHEET NO.	PC2

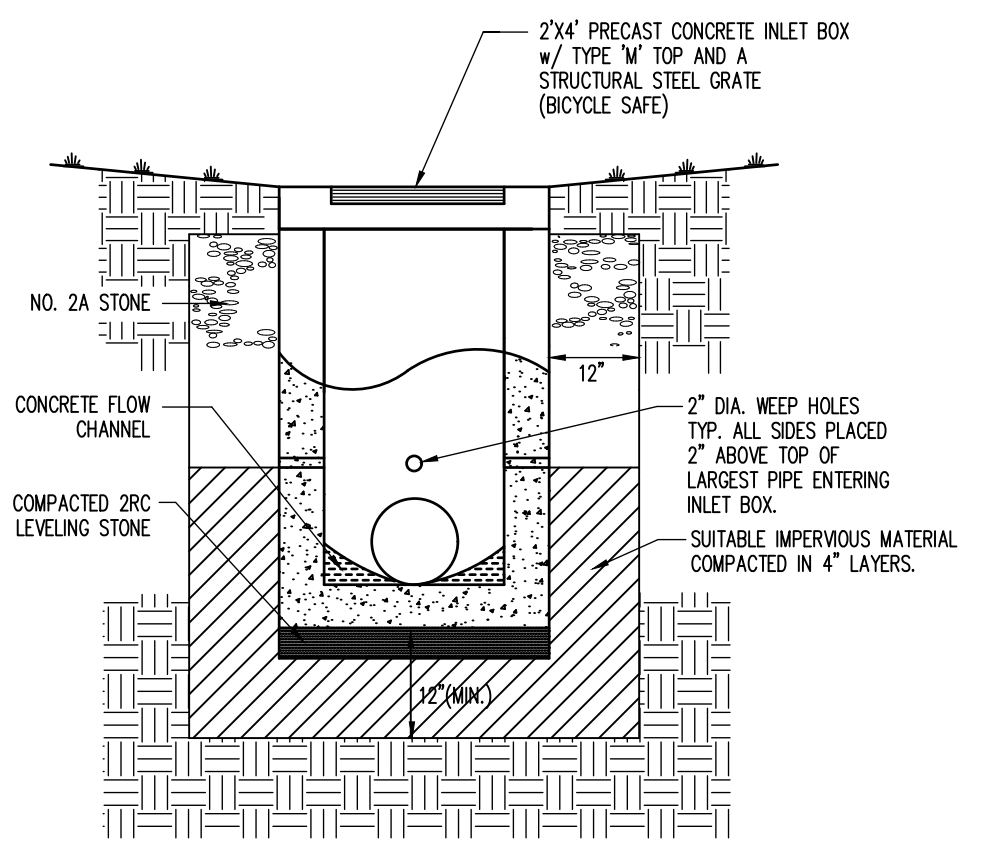


LOCATION MAP
SCALE (1" = 2000')

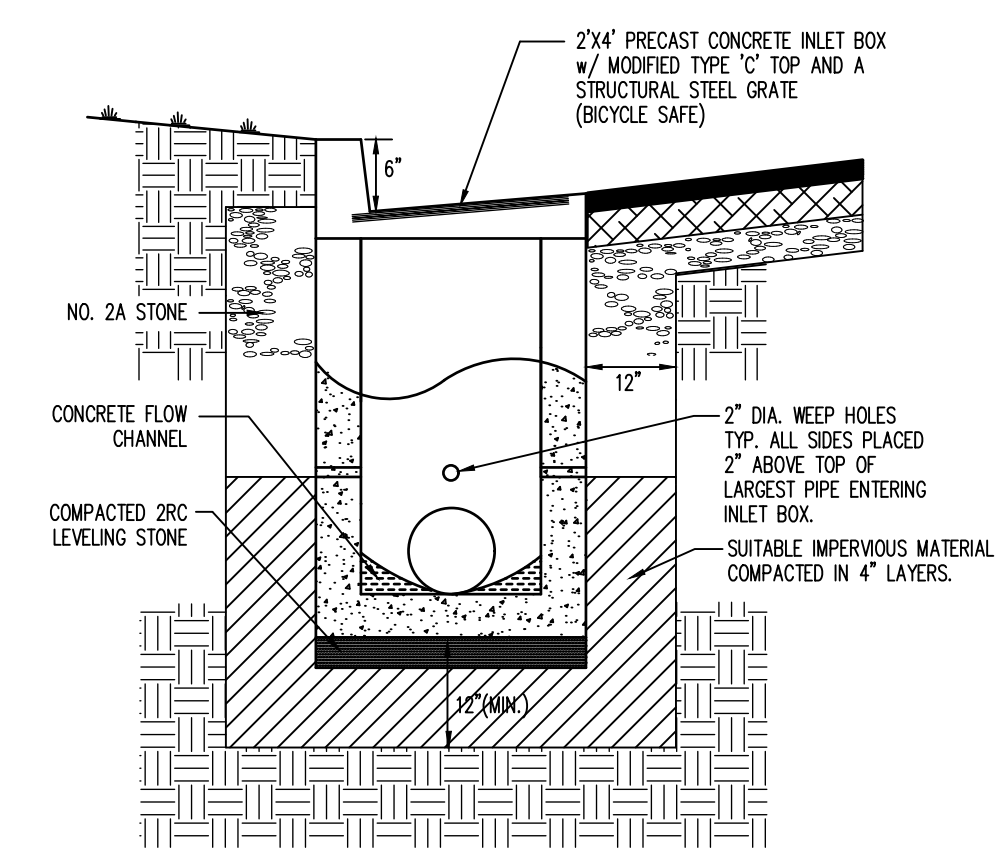


- NOTES:**
- EXCAVATE THE TRENCH TO THE WIDTH OF THE OUTSIDE DIAMETER OF THE PIPE + 2" AND CREATE AN APPROPRIATE BEDDING 6" DEEP.
 - AT UNPAVED AREAS SUITABLE MATERIAL MAY BE UTILIZED THE ENTIRE DEPTH OF TRENCH (LESS 6" TOPSOIL). PLACEMENT AND COMPACTION TO BE AS NOTED FOR PAVED AREAS.
 - ALL STORM SEWER PIPE IS TO BE HIGH-DENSITY POLYETHYLENE (HDPE) AND HAVE A SMOOTH LINED INTERIOR WITH WATER-TIGHT JOINTS.
 - 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)
 - PLACE SATISFACTORY FILL MATERIAL IN LAYERS 8" THICK MAX. COMPACT TO 100% SPD.
 - 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.

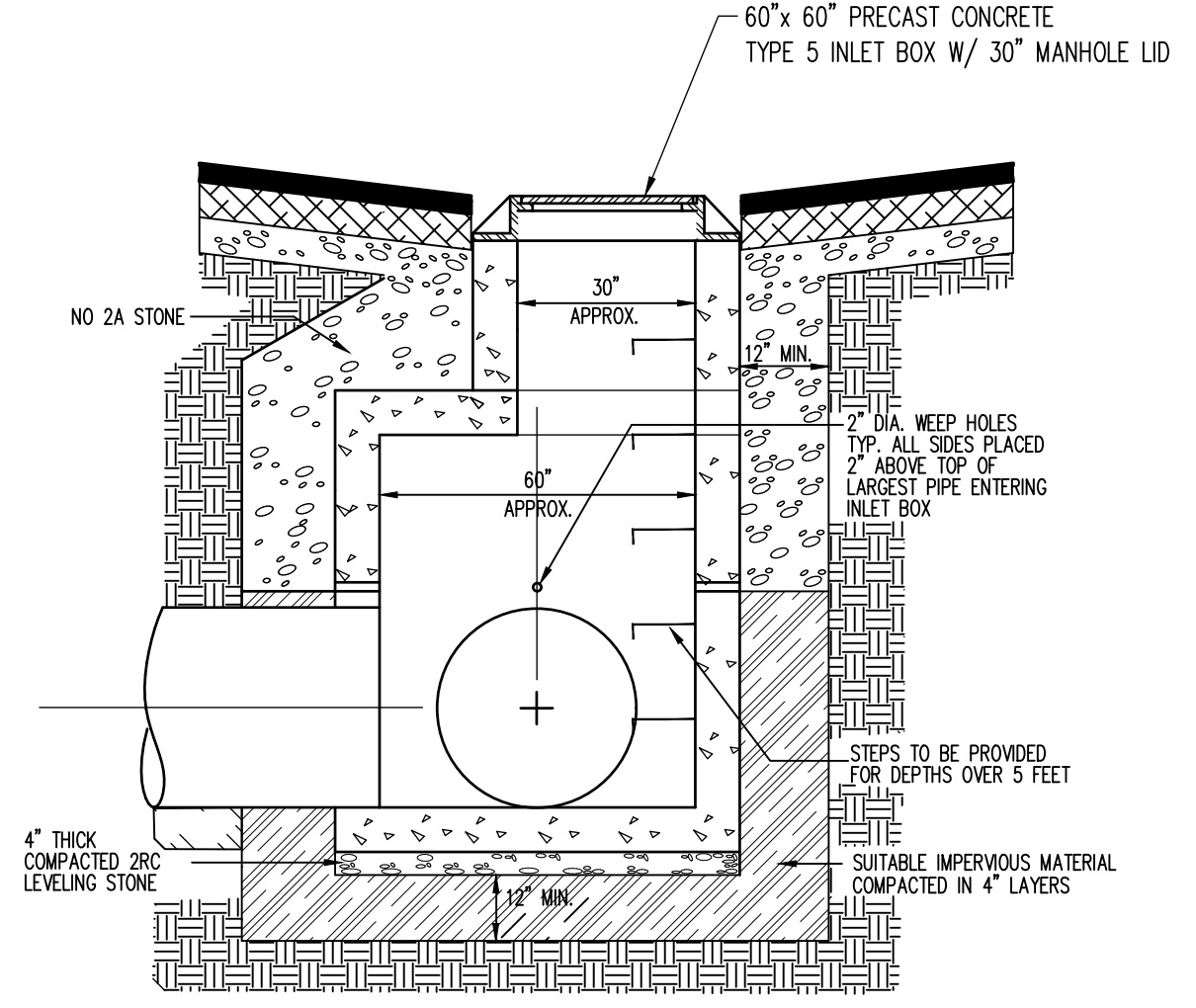
STORMSEWER (HDPE) INSTALLATION
NOT TO SCALE



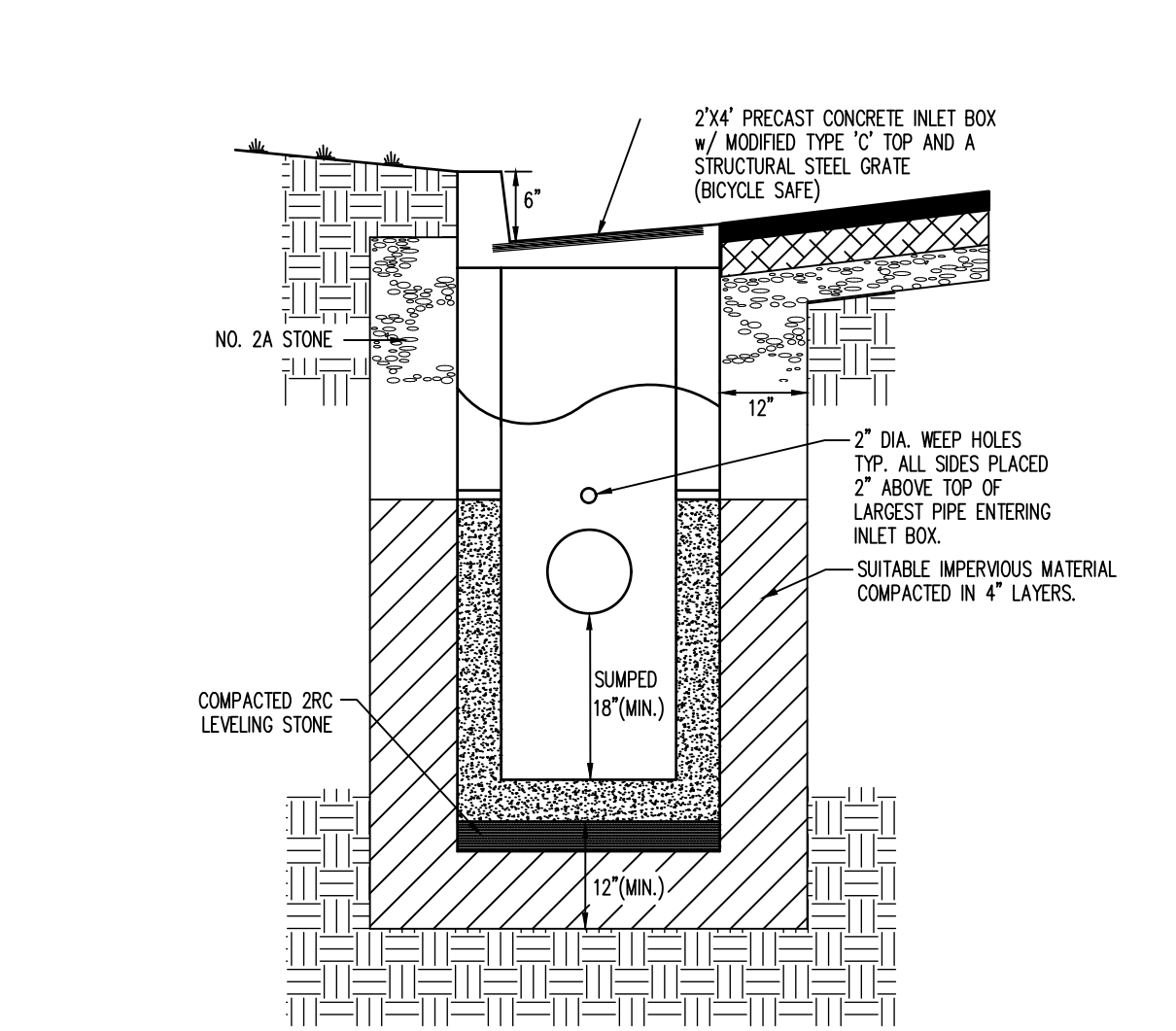
TYPE 'M' PRECAST CONCRETE INLET
NOT TO SCALE



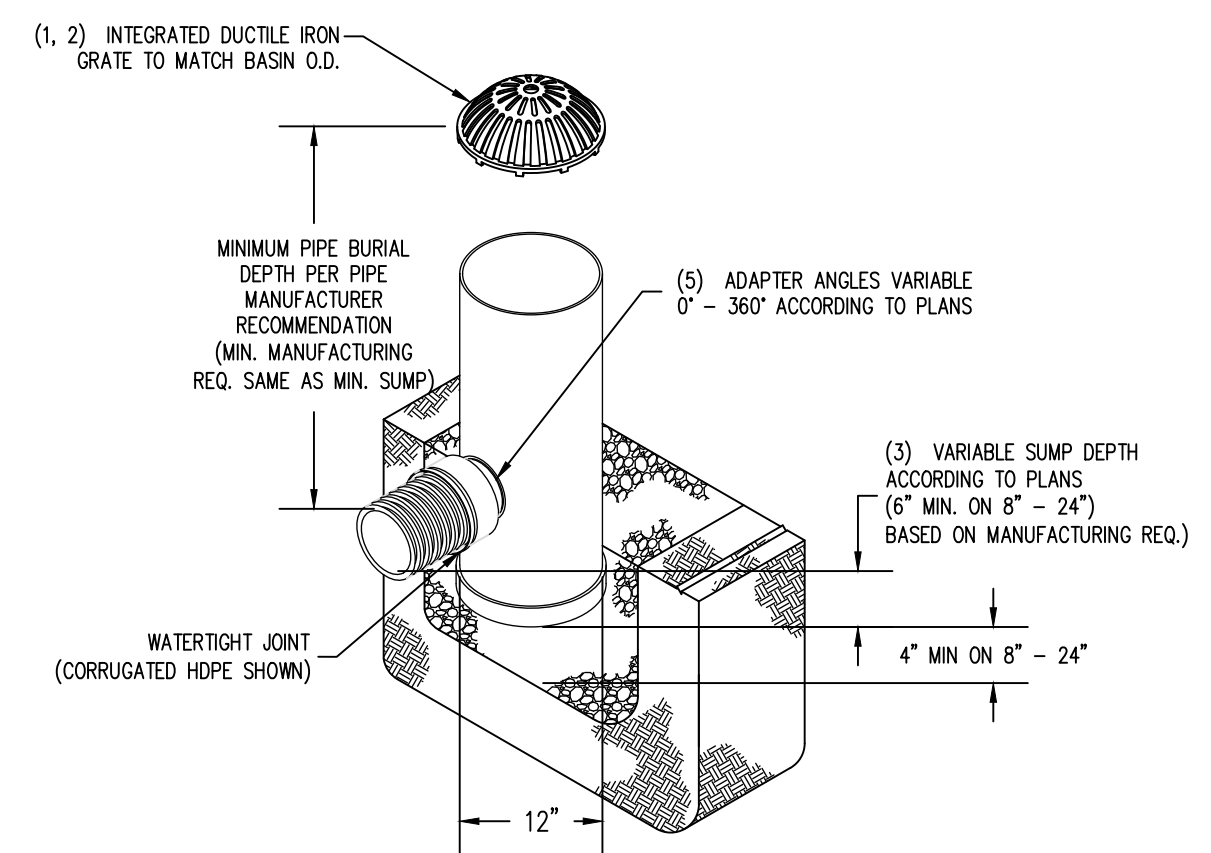
MODIFIED TYPE 'C' PRECAST CONCRETE INLET
NOT TO SCALE



60"X60" PENNDOT PRECAST TYPE 5 INLET W/ 30" MANHOLE LID
NOT TO SCALE

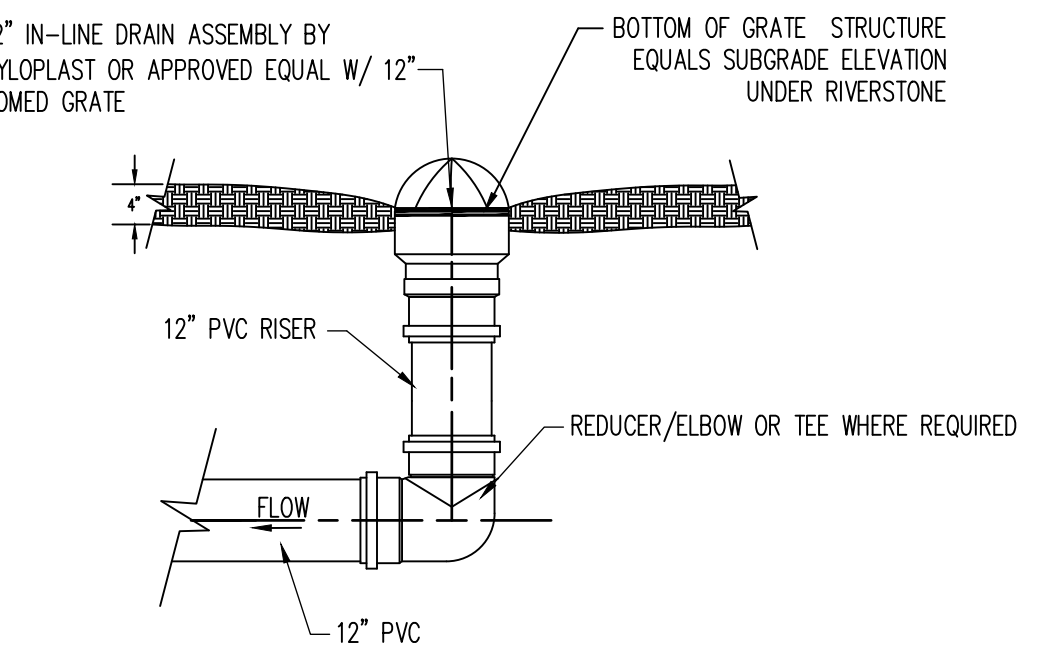


MODIFIED TYPE 'C' PRECAST CONCRETE INLET WITH SUMPED BOTTOM INLET 1-5
NOT TO SCALE

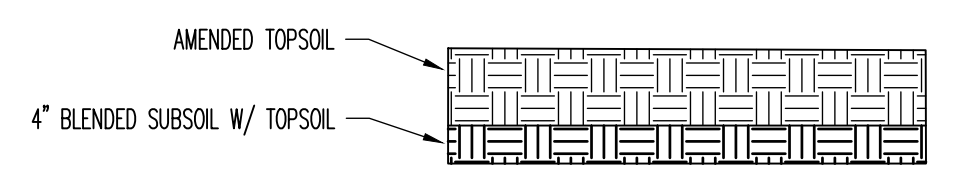


- NOTES:**
- THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTION UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

YARD DRAIN DRAIN BASIN ASSEMBLY
NOT TO SCALE

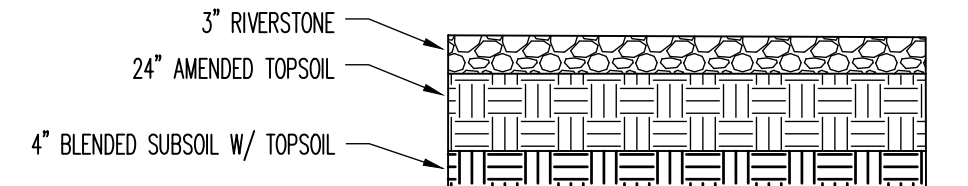


YARD DRAIN IN-LINE DRAIN ASSEMBLY
NOT TO SCALE



- NOTES:**
- USE TILLING EQUIPMENT TO MIX AND BLEND TOPSOIL WITH THE SUBSOIL.
 - DO NOT OVERCOMPACT SUBSOIL/TOPSOIL LAYERS. MINIMIZE RUBBER TIRE VEHICULAR TRAFFIC AFTER PLACEMENT.
 - ALL INFILTRATION BASIN MUST UTILIZE TOPSOIL BLENDING TECHNIQUES.

AMENDED TOPSOIL BLENDING SPECIFICATION
NOT TO SCALE



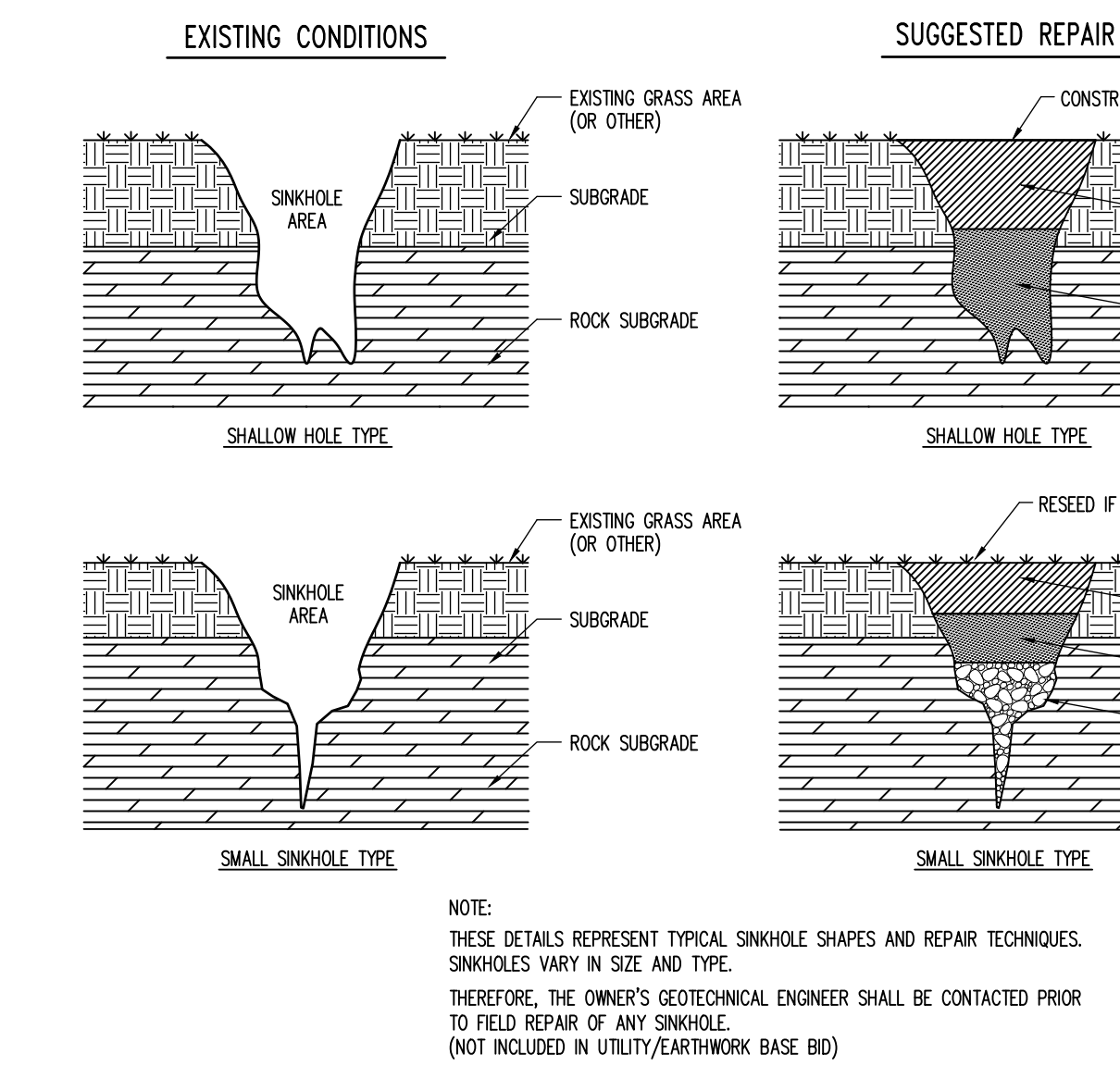
- NOTES:**
- USE TILLING EQUIPMENT TO MIX AND BLEND TOPSOIL WITH THE SUBSOIL.
 - DO NOT OVERCOMPACT SUBSOIL/TOPSOIL LAYERS. MINIMIZE RUBBER TIRE VEHICULAR TRAFFIC AFTER PLACEMENT.
 - ALL INFILTRATION BASIN MUST UTILIZE TOPSOIL BLENDING TECHNIQUES.

RIVERSTONE AREA W/ AMENDED TOPSOIL
NOT TO SCALE

SOIL AMENDMENTS

- SOIL AMENDMENT APPLICATION - PREMIXTURE WITH TOPSOIL (AREAS AT SUBGRADE AND LITTLE TO NO TOPSOIL IN PLACE)**
- SOIL AMENDMENT MEDIA COMPOST TO BE TRIPLE COURSE BARK MULCH. MATERIAL TO BE COMPOSTED AT A PADEP BUREAU OF WASTE MANAGEMENT PERMITTED SITE AND CONFORMING TO PA CODE TITLE 25, CHAPTER 291, COMPOST FACILITIES. COMPOST SHALL BE TESTED IN ACCORDANCE WITH US COMPOSTING COUNCIL TEST METHODS FOR EXAMINING OF COMPOSTING AND COMPOST (TMECC).
 - PREPARE A MIXTURE OF TOPSOIL AND COMPOST AT A RATE OF 2:1 (TOPSOIL:COMPOST). IF A PROPRIETARY PRODUCT IS USED, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED IN TERMS OF MIXING AND APPLICATION RATE.
 - SOIL RESTORATION SHOULD NOT BE USED ON SLOPES GREATER THAN 30%. IN THESE AREAS, DEEP-ROOTED VEGETATION CAN BE USED TO INCREASE STABILITY.
 - SOIL RESTORATION SHOULD NOT TAKE PLACE WITHIN THE DRIP LINE OF A TREE TO AVOID DAMAGING THE ROOT SYSTEM.
 - ON-SITE SOILS WITH AN ORGANIC CONTENT OF AT LEAST 5 PERCENT CAN BE PROPERLY STOCKPILED (TO MAINTAIN ORGANIC CONTENT) AND REUSED.
 - SPREAD MIXTURE REFERENCED IN ITEM B. TO A MINIMUM DEPTH OF 6 INCHES OVER THE ENTIRE PROPOSED LAWN AREA.
 - THE SOIL AMENDMENT MIXTURE MUST NOT BE COMPACTIONED.
- NOTE: SOIL AMENDMENTS SHALL BE CONSTRUCTED WITH DEEP CHISLING OR SUBSOILING TO A DEPTH OF 20 INCHES OR THE BOTTOM OF COMPACTIONED SOIL.**

SOIL AMENDMENT APPLICATION & INSTALLATION
NOT TO SCALE



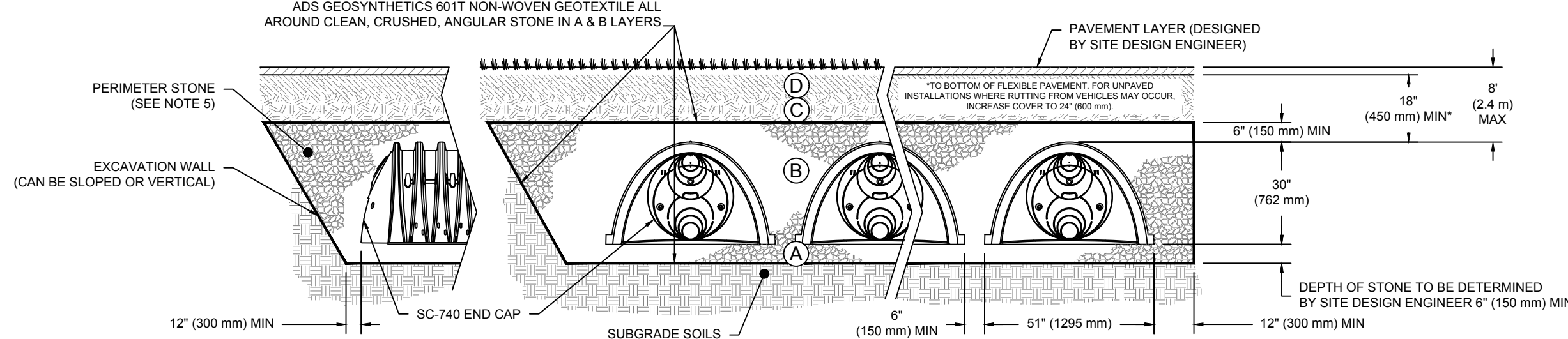
SINKHOLE REPAIR
NOT TO SCALE

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ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

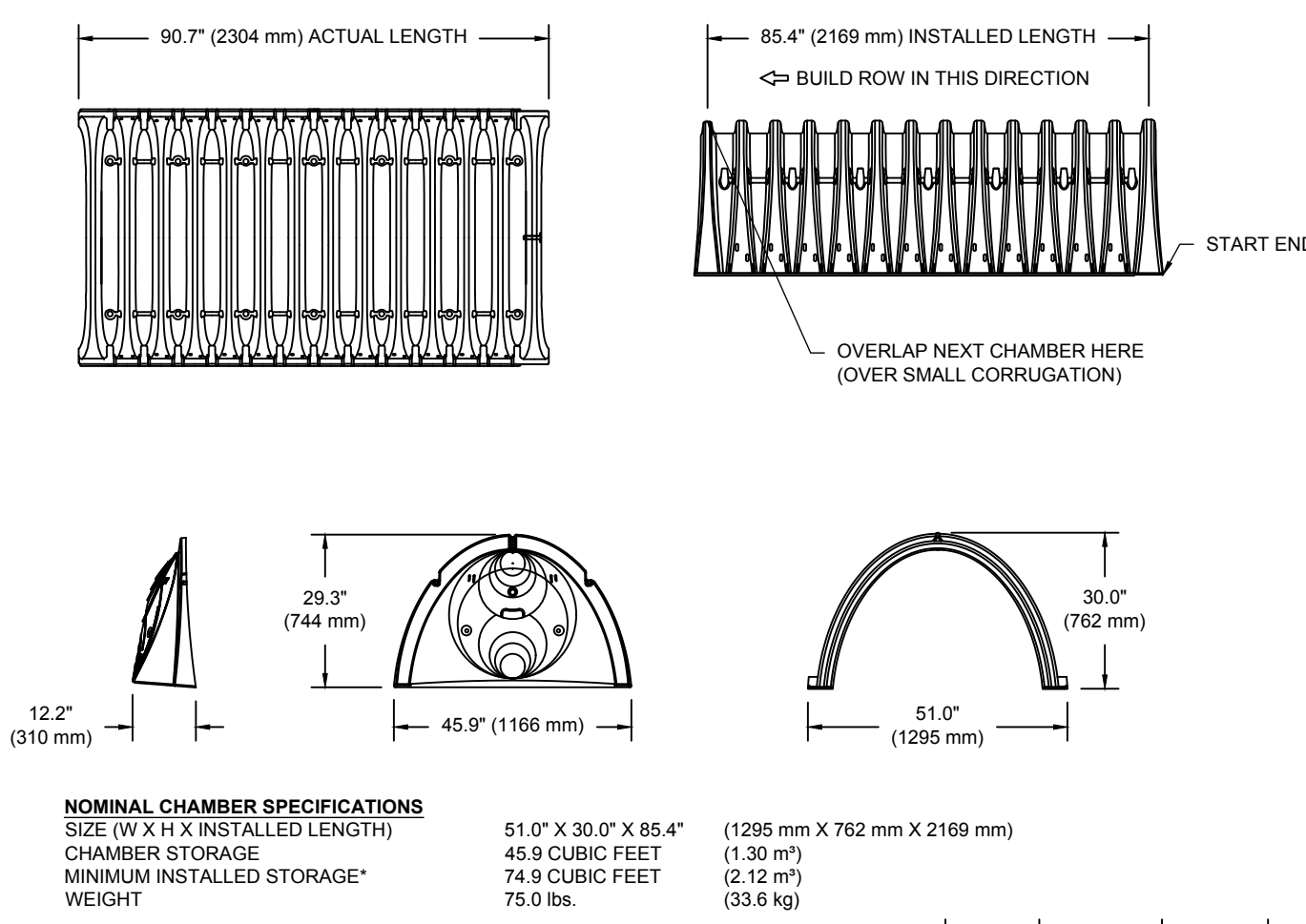
- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) MAX LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 - ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS.



NOTES:

- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

1 SC-740 CROSS SECTION DETAIL



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4" (1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m ³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m ³)
WEIGHT	75.0 lbs. (33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "CC"

PART #	STUB	A	B	C
SC740EP06T / SC740EP06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EP06B / SC740EP06BPC	---	---	---	0.5" (13 mm)
SC740EP08T / SC740EP08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EP08B / SC740EP08BPC	---	---	---	0.8" (15 mm)
SC740EP10T / SC740EP10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EP10B / SC740EP10BPC	---	---	---	0.7" (18 mm)
SC740EP12T / SC740EP12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EP12B / SC740EP12BPC	---	---	---	1.2" (30 mm)
SC740EP15T / SC740EP15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EP15B / SC740EP15BPC	---	---	---	1.3" (33 mm)
SC740EP18T / SC740EP18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EP18B / SC740EP18BPC	---	---	---	1.6" (41 mm)
SC740EP24B	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

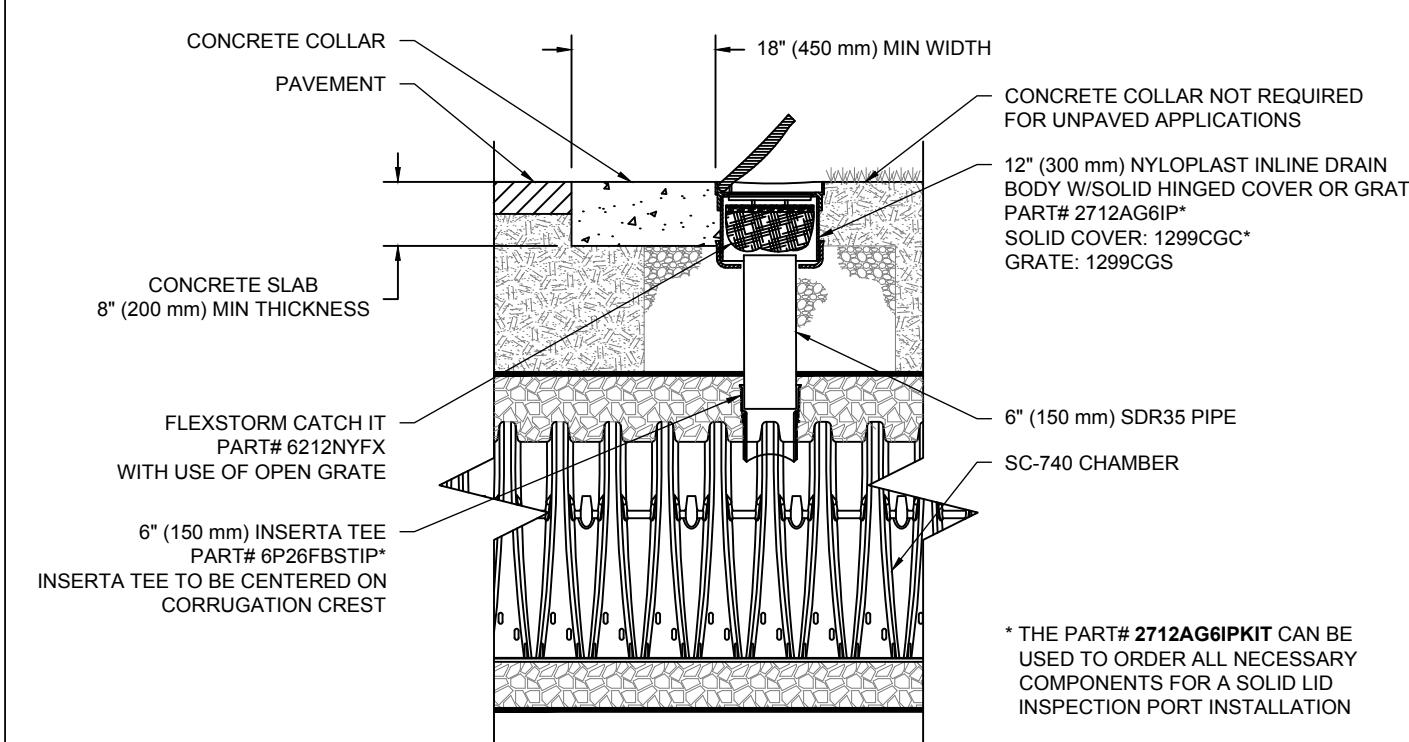
ALL STUBS, EXCEPT FOR THE SC740EP24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EP24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

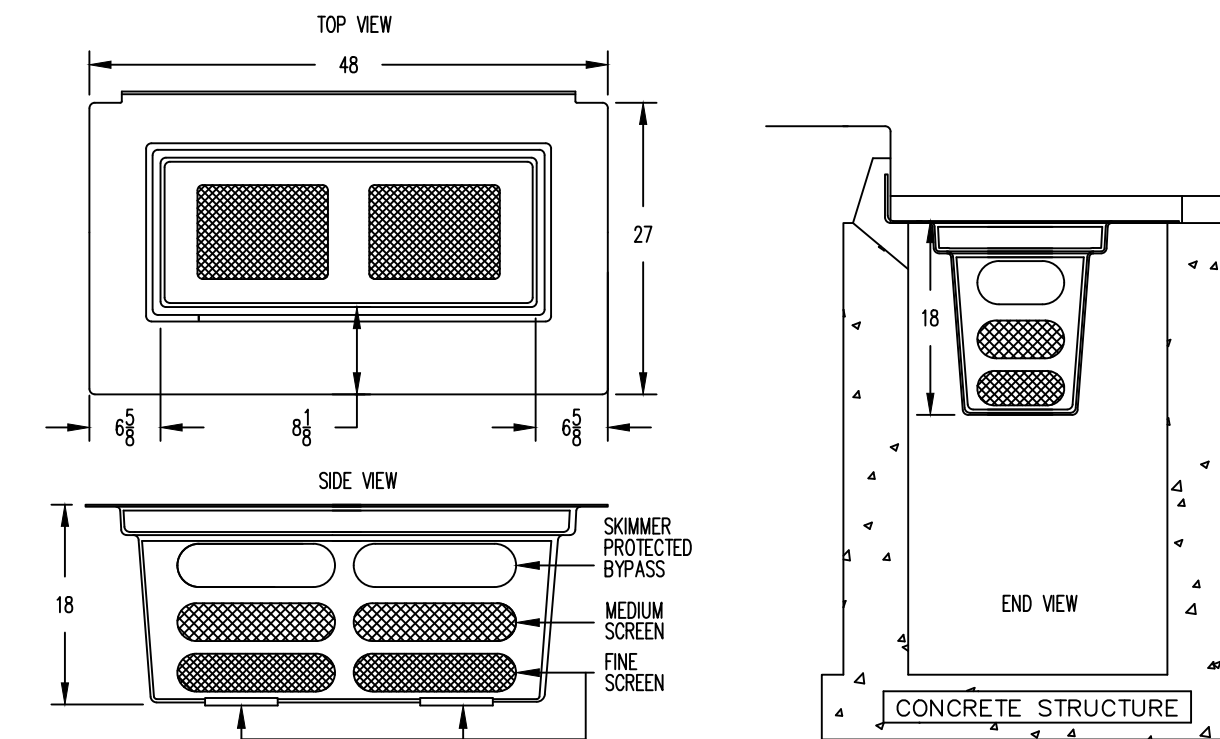
NOTE: ALL DIMENSIONS ARE NOMINAL.

2 SC-740 TECHNICAL SPECIFICATIONS

3 SC-740 CROSS SECTION DETAIL



4 SC-740 6" (150 mm) INSPECTION PORT DETAIL



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Part # QISB-27-48-18

GRATE INLET SKIMMER BOX FOR PENNDOT TYPE C INLETS
NOT TO SCALE

2

4

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TOWSON, MD 21286
(706) 538-9699

PolyDrain - 4" [100mm] ID Precast Trench Drain with Uncoated Decorative Grate

SERIES: PD-2509P (Regular Joe) REV: 00

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TRENCH DRAINS
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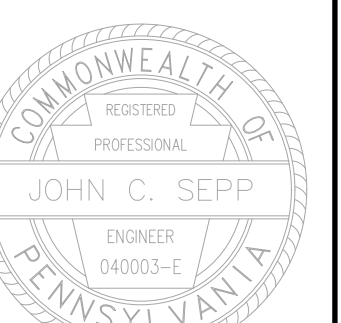


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Draftsman: EAH
Proj. Manager: JCS
Surveyor: BRX
Perimeter Ok:
Book: 542, Pg: 42
Acad: 19052-FERGUSON-PRELIMINARY-LD-PC3
Layout: SWDT

Date	Description
01/21/21	REVISED FOR FERGUSON TOWNSHIP COMMENTS
12/18/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS
11/24/20	REVISED FOR FERGUSON TOWNSHIP COMMENTS

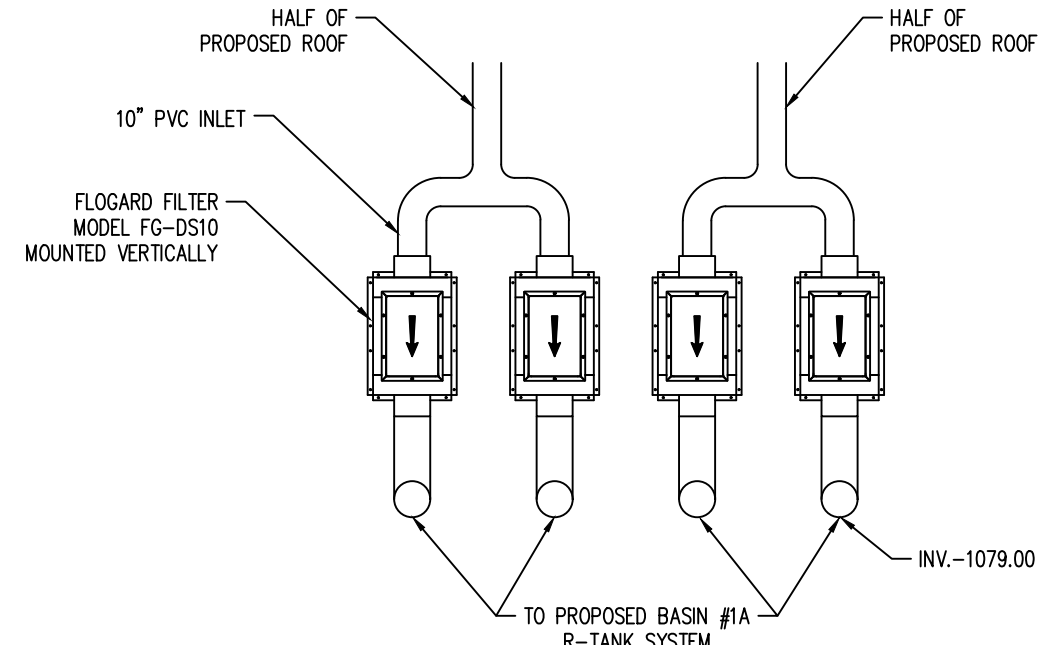
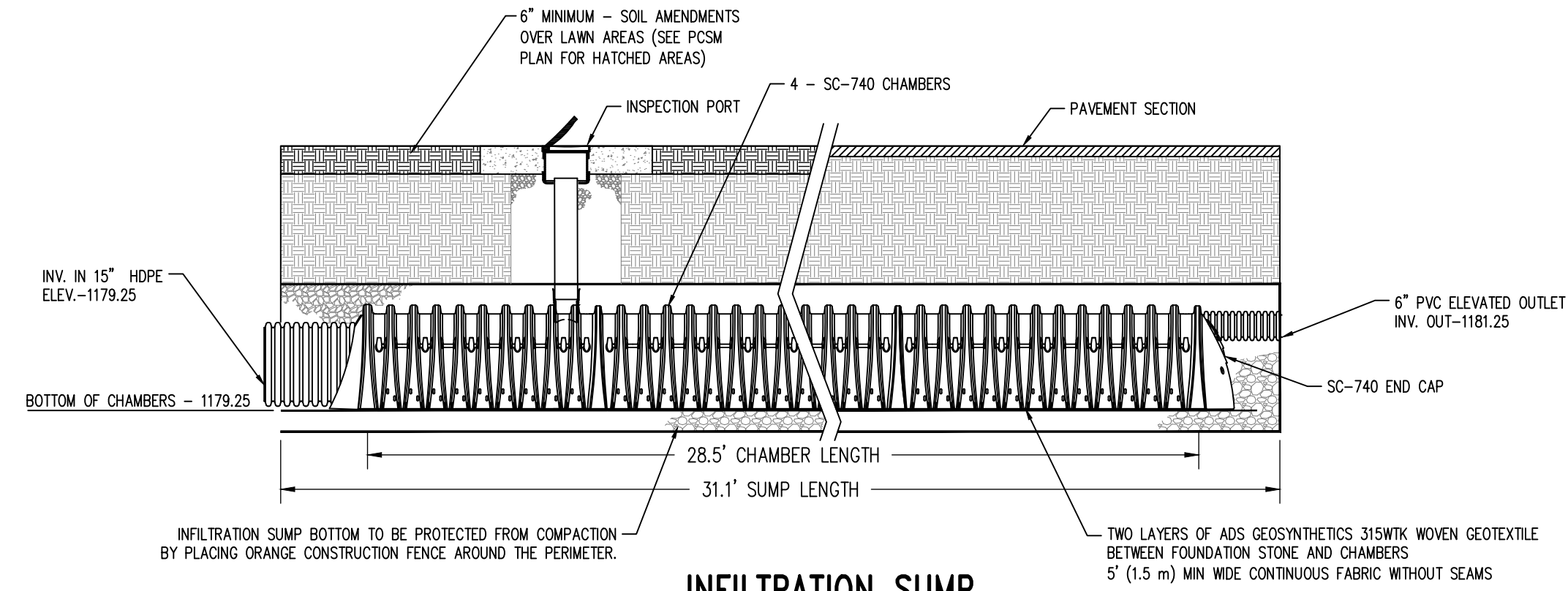
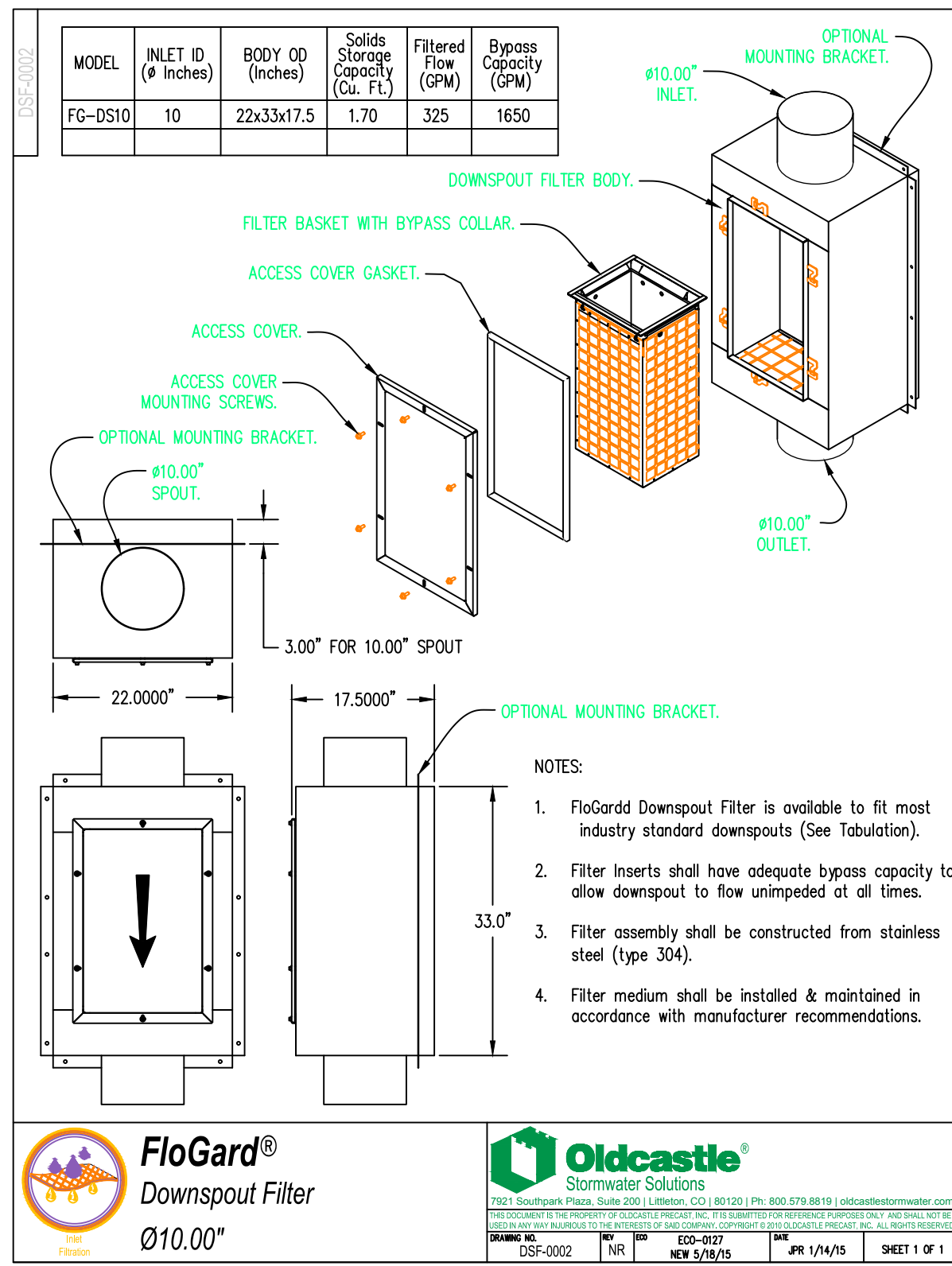
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

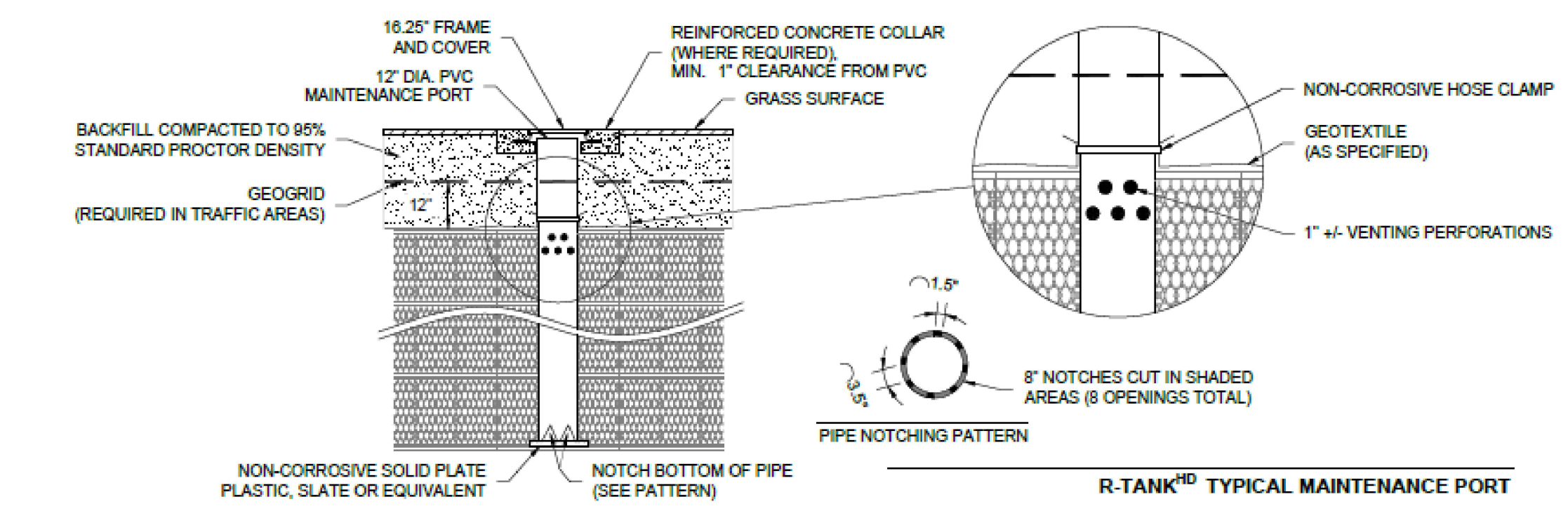
POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

PROJECT NO.
19052
DATE
AUGUST 14, 2020
SCALE
N.T.S.
SHEET NO.
PC3

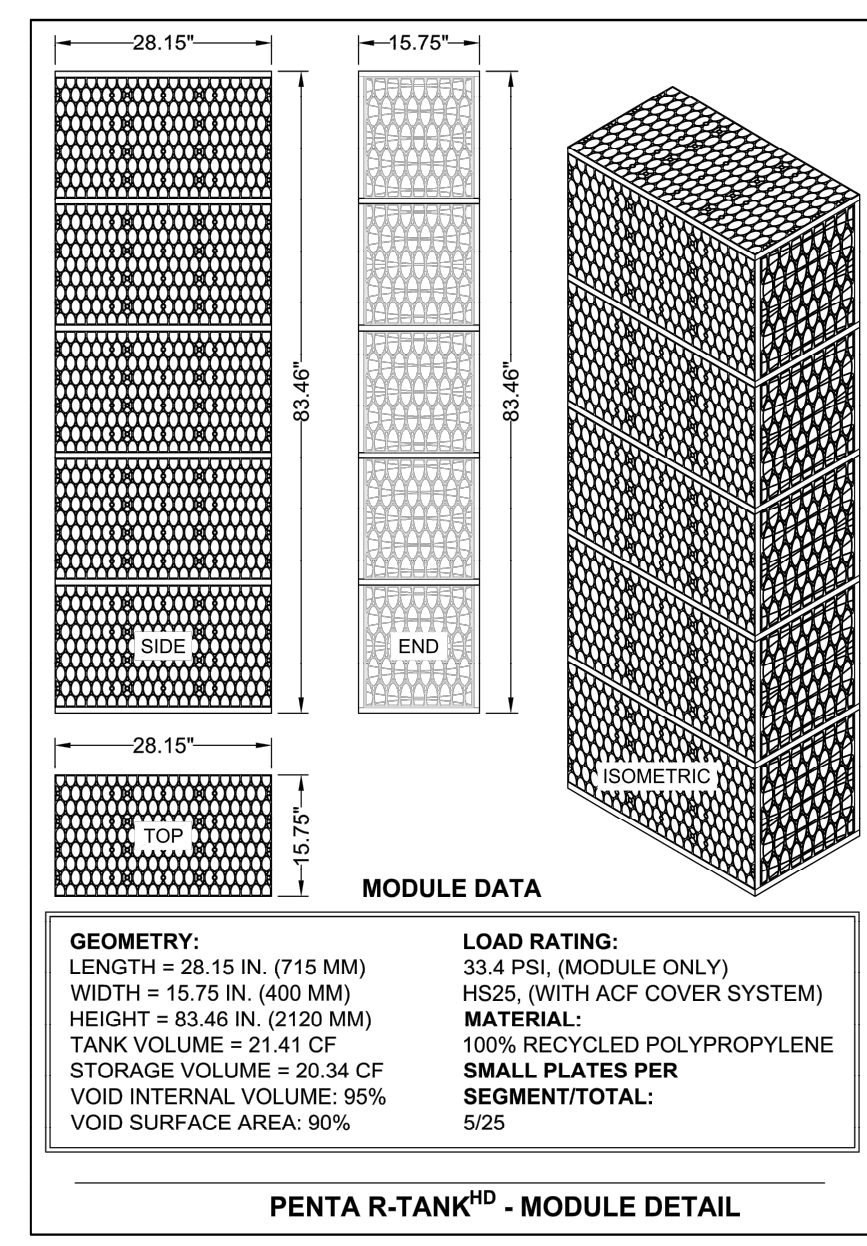


NOTES:
 1. A MAXIMUM OF 8,275 SQUARE FEET OF ROOF AREA TO ANY ONE FLOGARD, BASED ON THE CURRENT 29,571 SF BUILDING, 4 FLOGARD FILTER WILL BE REQUIRED.
10" FLOGARD DOWNSPOUT FILTER
 NOT TO SCALE

TYPICAL MULTIPLE FLOGARD LAYOUT
 NOT TO SCALE



R-TANK MAINTENANCE PORT
 NOT TO SCALE

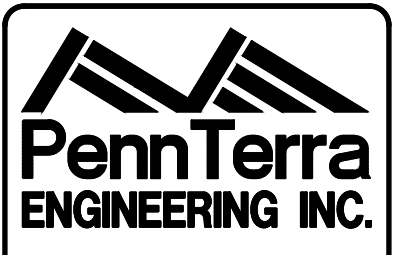


PENTA R-TANK^{HD} - MODULE DETAIL
 NOT TO SCALE

STORMWATER MAINTENANCE PROGRAM
 All stormwater management facilities on the West College Ave Student Housing site not contained in a Ferguson Township or State College Borough Right-of-Way shall be owned and maintained by the owner/developer (Aspen Heights Partners), Ferguson Township and State College Borough shall have the uninterrupted right to access the property to inspect the stormwater facilities. The facilities that will require maintenance are the inlets, amended soil areas, grate inlet skimmer boxes, flogard downspout filters, storm sewer pipes, extended detention basins, infiltration sump and all basin outlet structures. All stormwater facilities should be inspected and maintained as follows:

STORMWATER BMP MAINTENANCE ITEM	MAINTENANCE DUTY	OCCURRENCE INTERVAL
STORM SEWER INLETS AND PIPES (BOTH MUNICIPALITIES)	STORM SEWER INLETS AND PIPES SHALL BE CLEANED OF ALL DEBRIS, LITER, AND OTHER DELETERIOUS MATERIAL. SPECIFICALLY, THE SUMP WITHIN INLET I-5 SHALL HAVE ALL MATERIAL REMOVED.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 0.5" RAIN
AMENDED SOIL AREAS (BOTH MUNICIPALITIES)	SOIL AMENDED AREAS SHALL MINIMIZE TRACKING OF HEAVY MACHINERY WHEN MOWING/ACTIVITIES OCCUR. ALL AMENDED SOIL AREAS ARE TO BE NEAR 100% GRASS COVER IN GOOD CONDITION.	EVERY 6 MONTHS
GRATE INLET SKIMMER BOXES (I-3,5,6) (FERGUSON TWP)	THE GRATE INLET SKIMMER BOXES SHALL BE SERVICED QUARTERLY (4 TIMES A YEAR) AND AFTER MAJOR STORM EVENTS. THE STORM BOOM SHALL BE REPLACED WHEN THERE IS KNOWN DEBRIS/CONTAMINANTS IN THE SKIMMER TRAY, AND THE OLD STORM BOOM DISPOSED OF PROPERLY. IT IS RECOMMENDED THAT THE STORM BOOM BE REPLACED AT A MINIMUM OF 2 TIMES A YEAR REGARDLESS OF VISUAL CONTAMINANTS. DEBRIS IN THE FILTRATION BOX SHALL BE DUMPED INTO A PROPER DISPOSAL CONTAINER OR SUCTIONED OUT WITH A VACUUM. CLEAN THE SCREENS WITH A SPRAY WAND OR BRUSH.	QUARTERLY OR AFTER EACH RAINFALL EVENTS PRODUCING 0.5" RAIN
FLOGARD DOWNSPOUT FILTERS (STATE COLLEGE BOROUGH)	THE FLOGARD DOWNSPOUT FILTERS SHALL BE INSPECTED FOR DEFECTS AND POSSIBLE LEAKAGE. COLLECTED MATERIALS WITHIN THE UPPER AND LOWER FILTERS SHALL BE REMOVED USING A VACUUM OR IT SHALL BE DUMPED IN A DOT APPROVED CONTAINER. THE FILTER LINER, GASKETS, STAINLESS STEEL FRAME, MOUNTING BRACKETS AND LINER SHALL BE INSPECTED TO ENSURE THEY ARE FULLY FUNCTIONAL, AND SHALL BE REPAIRED/REPLACED AS NECESSARY. THE FILTER MEDIUM SHALL BE REPLACED AT A MINIMUM ONCE PER YEAR.	ANNUALLY
UNDERGROUND EXTENDED DETENTION BASIN 1 (FERGUSON TWP)	THE BASIN SHALL BE INSPECTED AND CLEANED OF DEBRIS AND VACUUMED OUT IF NECESSARY.	EVERY 6 MONTHS
UNDERGROUND EXTENDED DETENTION BASIN 1A (STATE COLLEGE BOROUGH)	THE BASIN SHALL BE INSPECTED AND CLEANED OF DEBRIS AND VACUUMED OUT IF NECESSARY.	EVERY 6 MONTHS
INFILTRATION SUMP (FERGUSON TWP)	MONITOR SEDIMENT BUILDUP. CLEANOUT AND VACUUM OUT ANY NOTICABLE BUILDUP. IF THE SUMP DOES NOT DEWATER IN 72 HOURS, CONTACT A REGISTERED PROFESSIONAL FOR EVALUATION AND SUBSEQUENT REMEDIATION.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 0.5" RAIN
OUTLET STRUCTURES OS-1 (FERGUSON TWP)	THE OUTLET STRUCTURES SHALL BE INSPECTED TO ENSURE STRUCTURAL STABILITY. ALL JOINTS WITH OUTLET PIPES SHALL BE WATER-TIGHT AND IF NECESSARY RE-GROUTED.	ANNUALLY
OUTLET STRUCTURES OS-1A (STATE COLLEGE BOROUGH)	THE OUTLET STRUCTURES SHALL BE INSPECTED TO ENSURE STRUCTURAL STABILITY. ALL JOINTS WITH OUTLET PIPES SHALL BE WATER-TIGHT AND IF NECESSARY RE-GROUTED.	ANNUALLY
TREE PLANTER AREAS (FERGUSON TOWNSHIP)	THE TREE PLANTER AREAS SHALL REMOVE ANY DEBRIS ACCUMULATION WITHIN THE CURB CUT THAT WILL ALLOW RUNOFF INTO THE PLANTER.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 0.5" RAIN
SINKHOLE PREVENTION MEASURES	INSPECT THE UNDERGROUND SUMP AND BASIN BOTTOM FOR ANY SUBSIDENCE. IN THE EVENT THAT A SINKHOLE FORMS, CONTACT THE TOWNSHIP & BOROUGH ENGINEER, ANY ADJACENT PROPERTY OWNER THAT MAY BE AFFECTED AND THE STATE COLLEGE BOROUGH WATER AUTHORITY IMMEDIATELY.	MONTHLY OR AFTER EACH RAINFALL EVENT PRODUCING 0.5" RAIN

*DOCUMENTATION OF INSPECTIONS MUST BE MAINTAINED BY THE OWNER AND SUBMITTED TO TOWNSHIP & BOROUGH UPON REQUEST. MAINTENANCE INSPECTIONS MAY BE PERFORMED BY THE TOWNSHIP AND/OR BOROUGH TO ENSURE PROPER FUNCTIONING OF ALL STORMWATER FACILITIES.

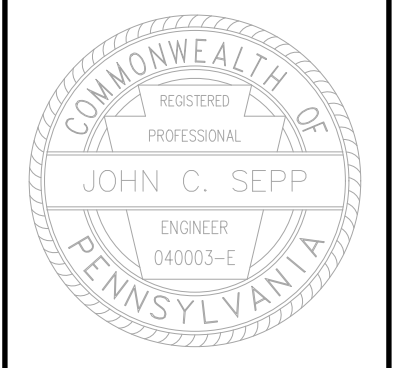


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Designer: EAH
 Draftsman: EAH
 Proj/Manager: JCS
 Surveyor: BRK
 Perimeter Ok: _____
 Book: 542, Pg: 42
 Acad: 19052-FERGUSON-PRELIMINARY-LD-PCS
 Layout: SWDT

REVISIONS
01/21/21 EAH COMMENTS REVISED FOR FERGUSON TOWNSHIP
12/16/20 EAH COMMENTS REVISED FOR FERGUSON TOWNSHIP
11/24/20 EAH COMMENTS REVISED FOR FERGUSON TOWNSHIP
Date: _____ Description: _____

WEST COLLEGE STUDENT HOUSING
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

PROJECT NO.
19052
 DATE
AUGUST 14, 2020
 SCALE: N.T.S. SHEET NO.
PC5

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

SOILS LEGEND

Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE

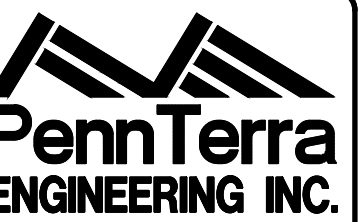
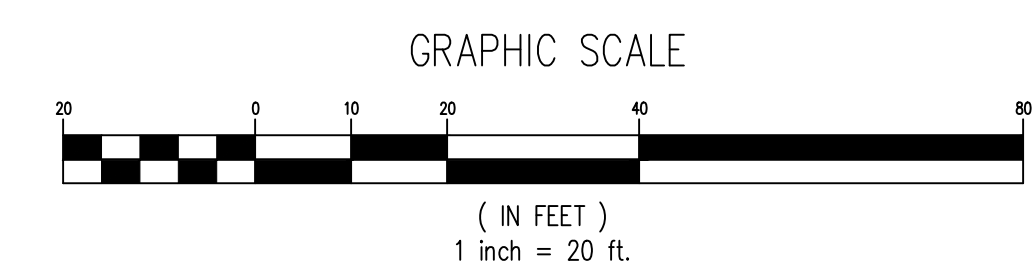
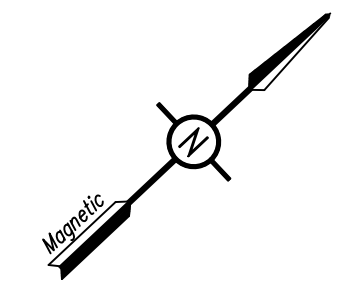
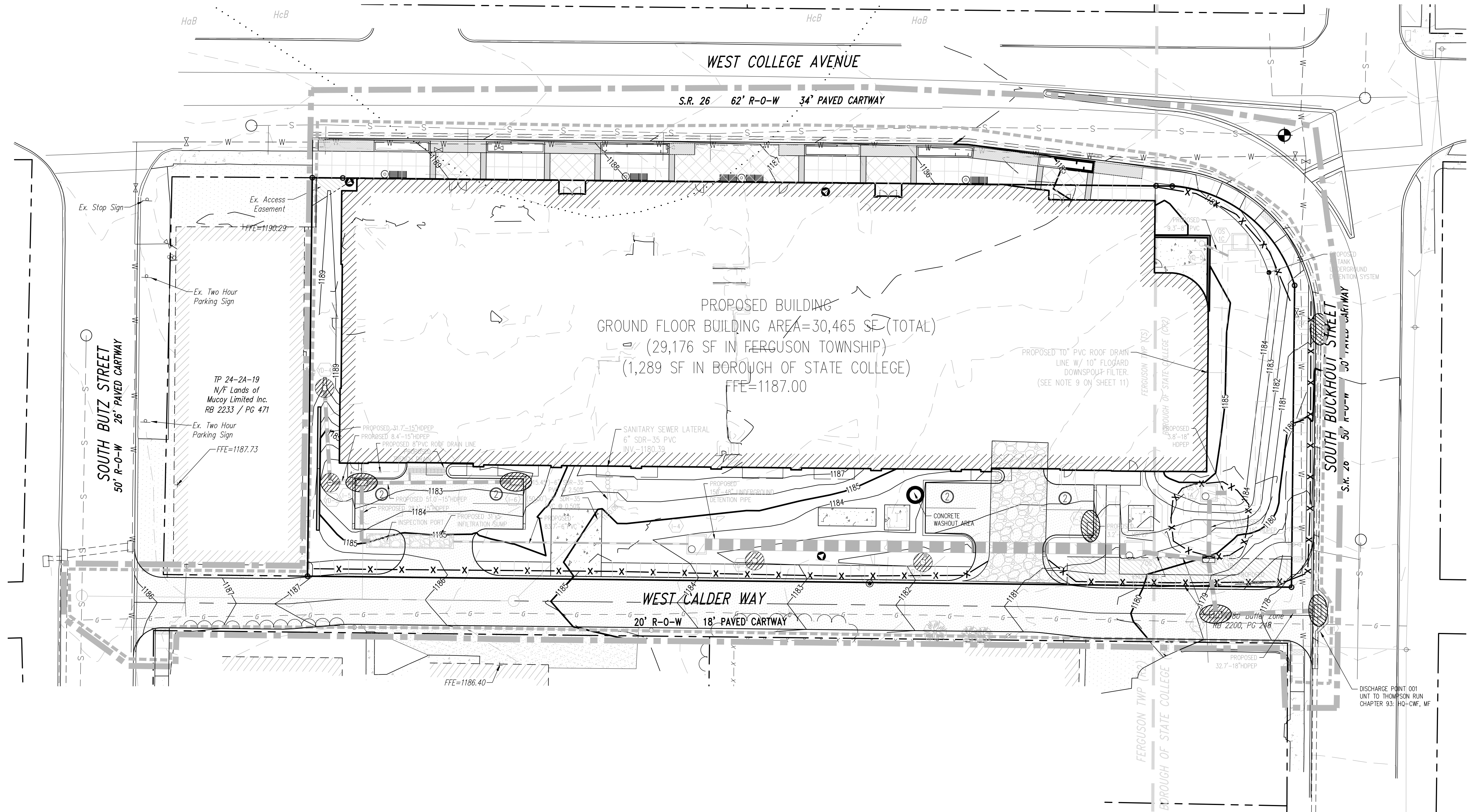
EROSION & SEDIMENTATION CONTROL LEGEND

- NPDES BOUNDARY LINE
- LIMIT OF DISTURBANCE
- 18" SILT SOCK
- CONSTRUCTION ENTRANCE
- INLET PROTECTION
- YARD DRAIN PROTECTION
- CONCRETE WASHOUT AREA

NPDES PERMIT NOTICE OF TERMINATION NOTE:
 UPON CONTRACTOR BEING AWARDED THE SITE WORK CONTRACT, THE CONTRACTOR IS RESPONSIBLE AND SHALL PROCESS FORMS W/ THE CENTRE COUNTY CONSERVATION DISTRICT TO BECOME A CO-PERMITTEE ON THE NPDES PERMIT AND SHALL REMAIN AS A CO-PERMITTEE UNTIL THE CONTRACTOR FILES THE NOTICE OF TERMINATION. THE NOTICE OF TERMINATION REQUIRES CERTIFICATION OF THE STORMWATER FACILITIES MENTIONED ON THE POST CONSTRUCTION STORMWATER PLAN.

CRITICAL STAGES OF CONSTRUCTION
 THE SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER TO ENSURE THAT A REGISTERED PROFESSIONAL SHALL BE ON-SITE FOR THE CONSTRUCTION OF THE FOLLOWING FACILITIES:

1. REPAIR & DESIGN OF THE PERMANENT SINKHOLE FIX SHALL BE OVERSEEN BY A QUALIFIED GEOTECHNICAL ENGINEER OR HIS DESIGNEE.
2. EXCAVATION AND INSTALLATION OF THE UNDERGROUND INFILTRATION SUMP.
3. EXCAVATION AND INSTALLATION OF THE UNDERGROUND EXTENDED DETENTION BASIN 1 AND 1A.
4. PLACEMENT OF SOIL AMENDMENTS.
5. FINAL SITE GRADING.

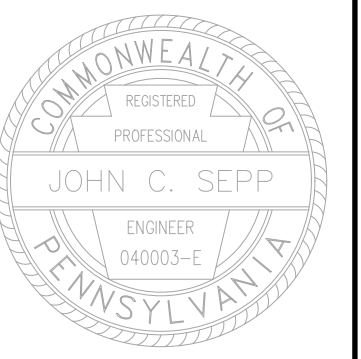


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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-ESI
Layout	ESI

Date	Description	REVISIONS
01/21/21	EAH	REVISED FOR FERGUSON TOWNSHIP COMMENTS
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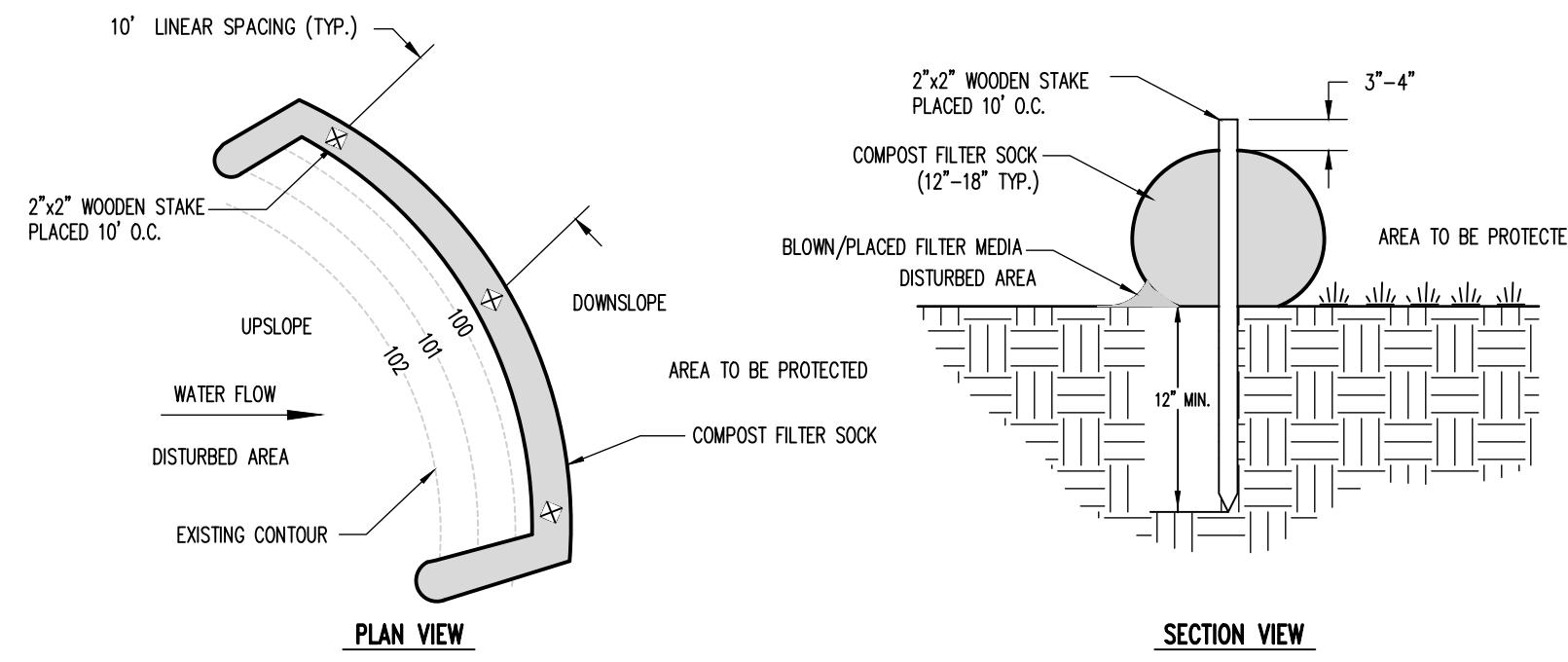
WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL PLAN

PROJECT NO.	19052
DATE	AUGUST 14, 2020
SCALE	1"=20'
SHEET NO.	ES1



1. Sock fabric shall meet standards of Table 4.1. Compost shall meet the standards of Table 4.2.
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.
5. Traffic shall not be permitted to cross filter socks.
6. Accumulated sediment shall be removed when it reaches half the aboveground height of the sock and disposed in the manner described elsewhere in the plan.
7. Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.
8. Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's recommendations.
9. Upon stabilization of the area tributary to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mulch spread as a soil supplement.

TABLE 4.1
Compost Sock Fabric Minimum Specifications

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

Two-Ply Systems

Inner Containment Netting	HDPE biaxial net
	Continuously wound
Outer Filtration Mesh	Fusion-welded junctures
	3/4"x3/4" Max. aperture size

Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch)

3/16" Max. aperture size

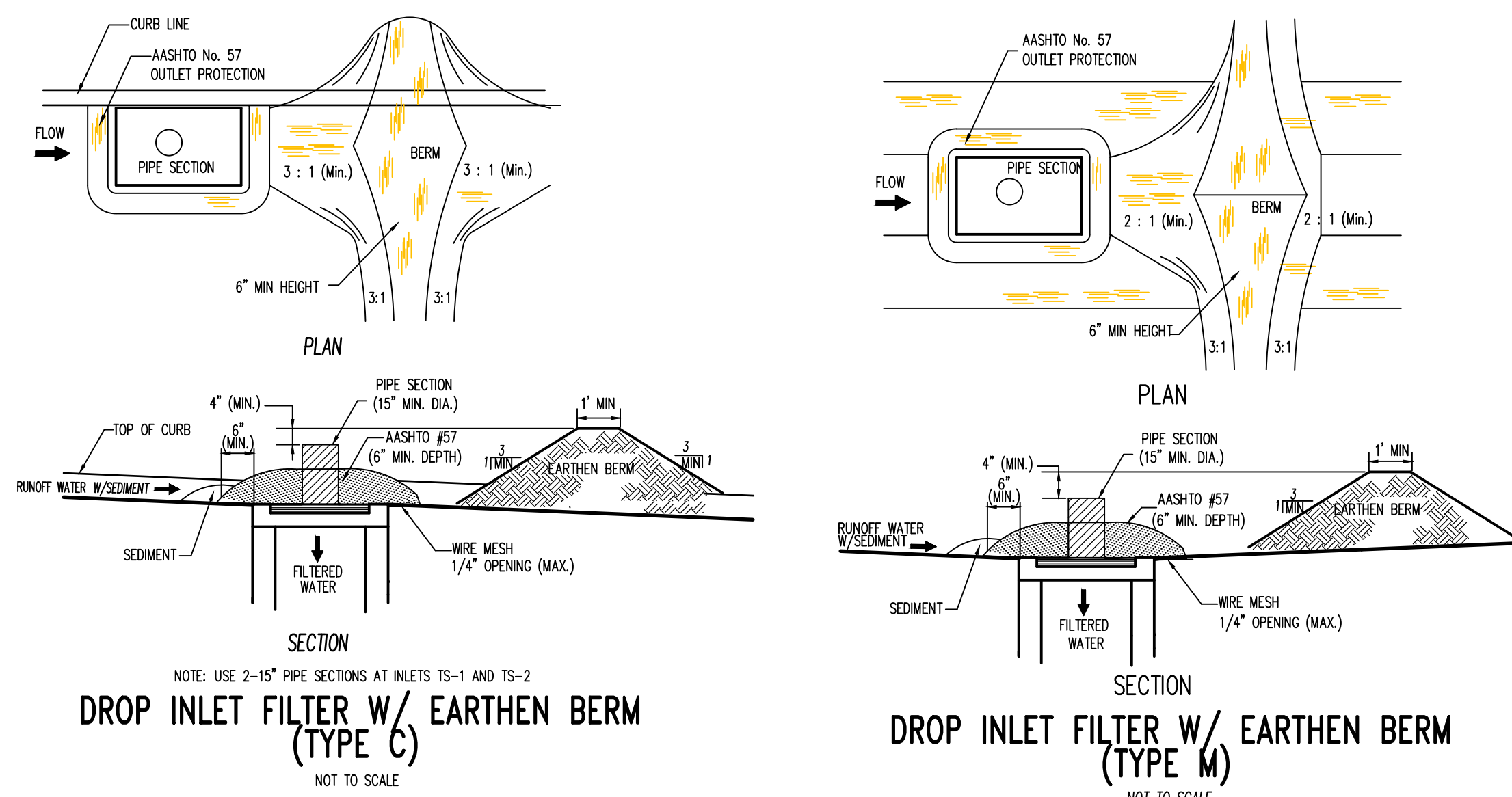
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.

TABLE 4.2
Compost Standards

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

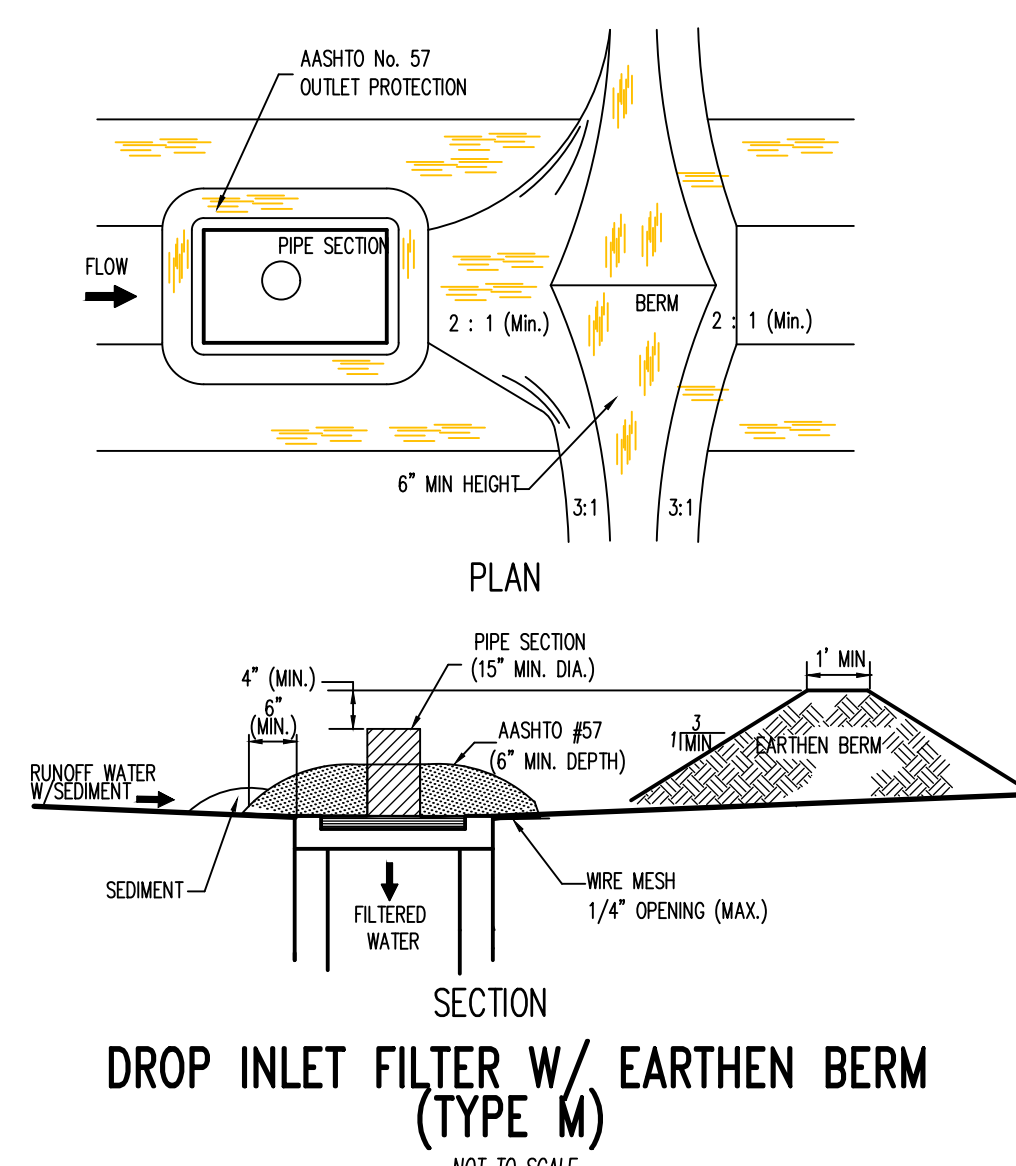
COMPOST FILTER SOCK DETAIL

NOT TO SCALE



DROP INLET FILTER W/ EARTHEN BERM (TYPE C)

NOT TO SCALE

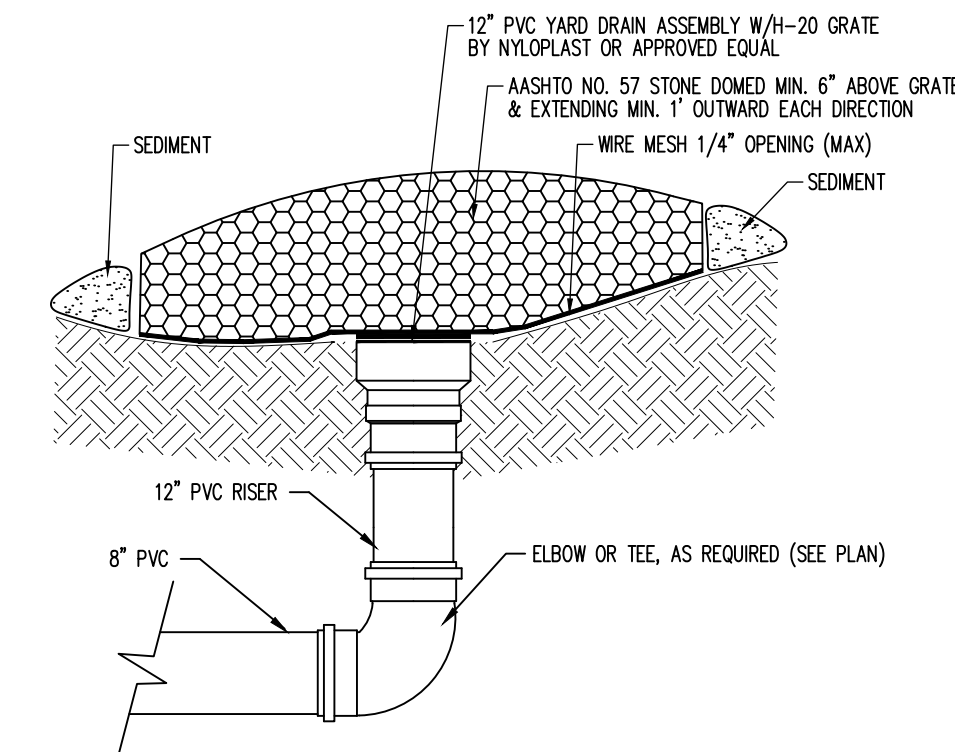


DROP INLET FILTER W/ EARTHEN BERM (TYPE M)

NOT TO SCALE

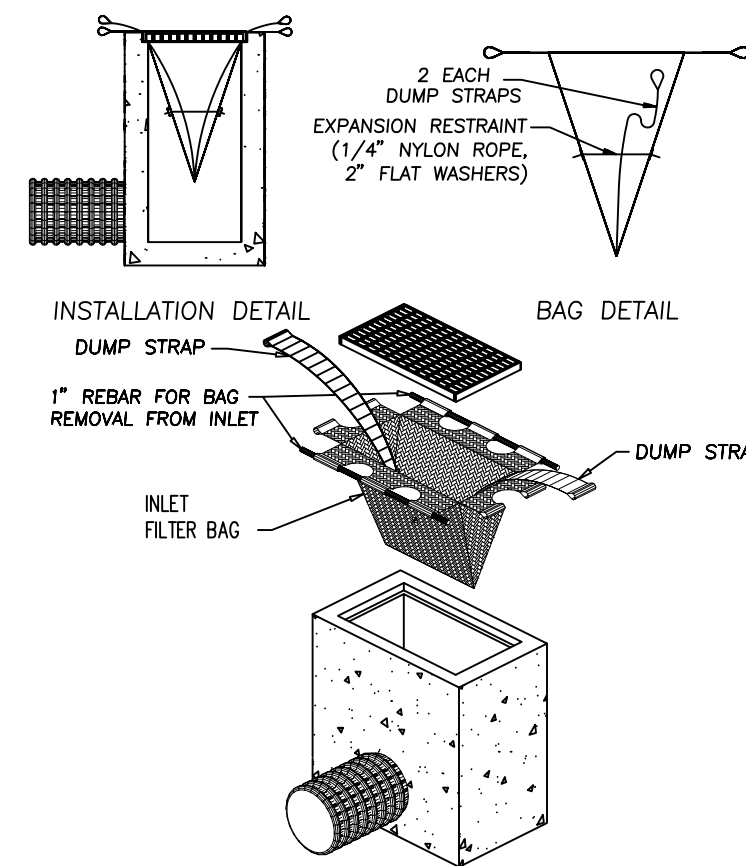
15" INLINE DRAIN INLET PROTECTION

NOT TO SCALE



YARD DRAIN INLET PROTECTION

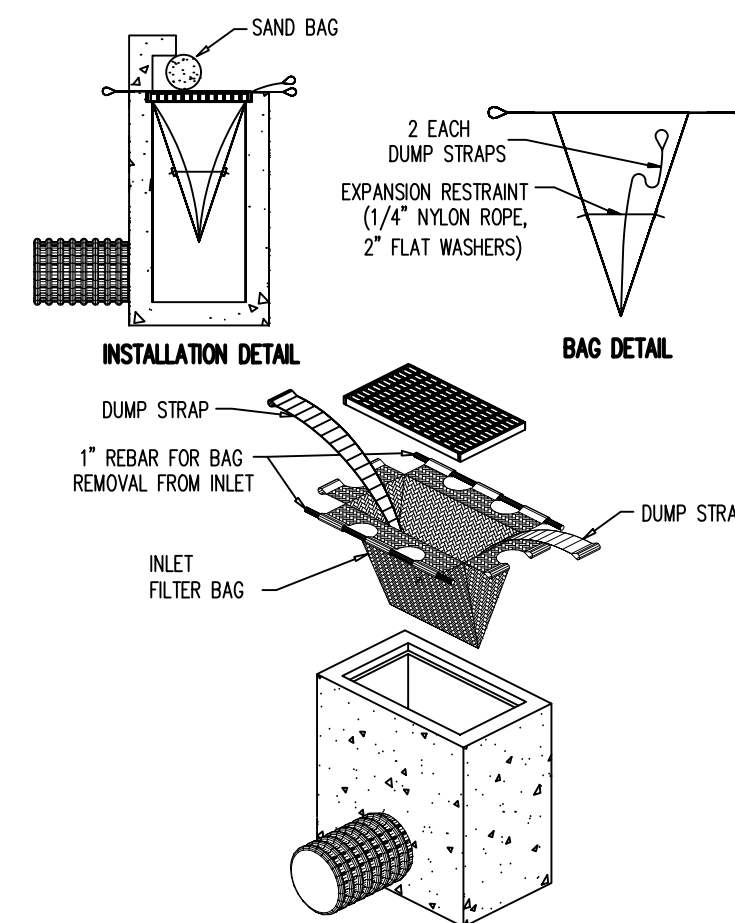
NOT TO SCALE



INLET FILTER BAG (TYPE M)

NOT TO SCALE

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



INLET FILTER BAG (TYPE C)

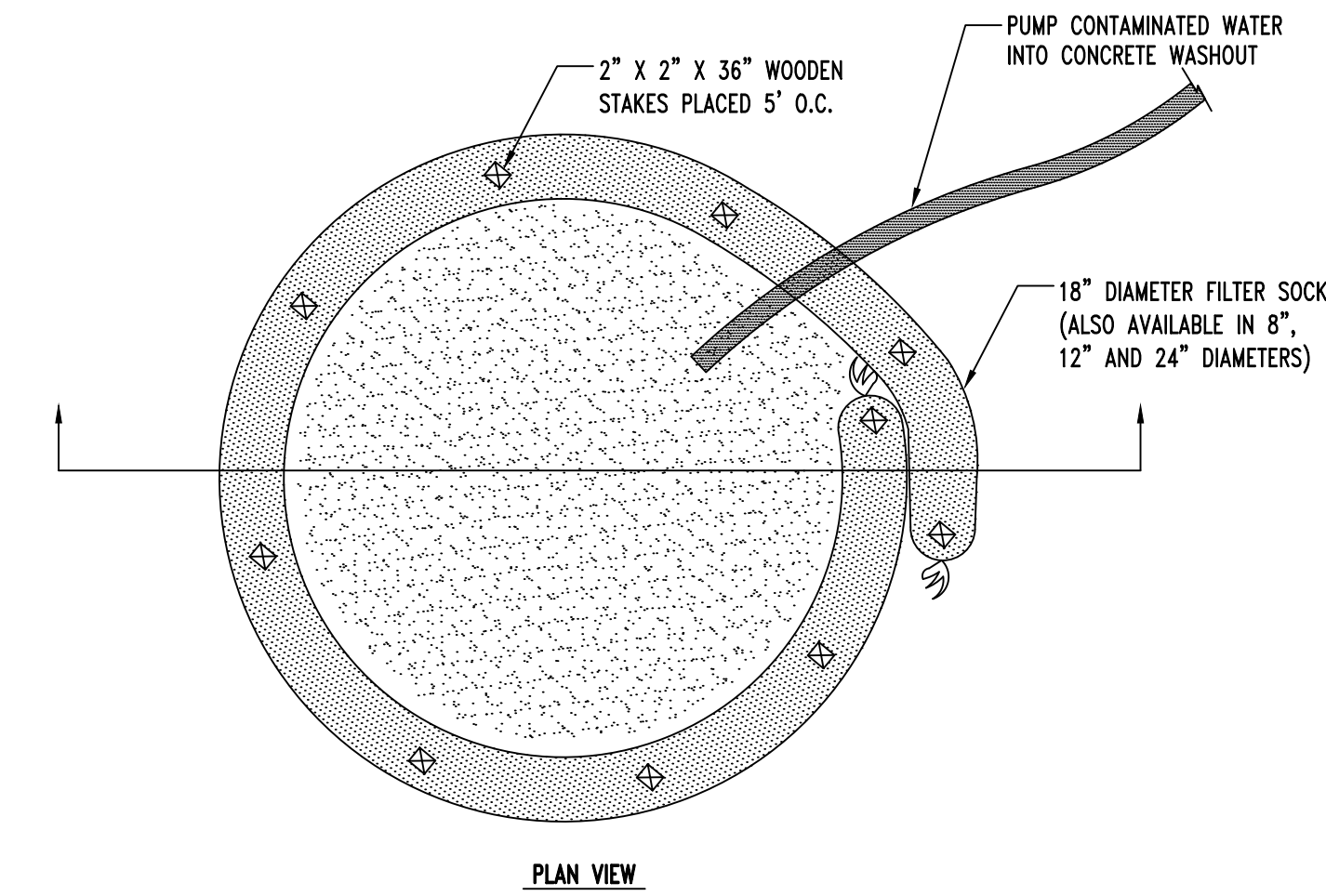
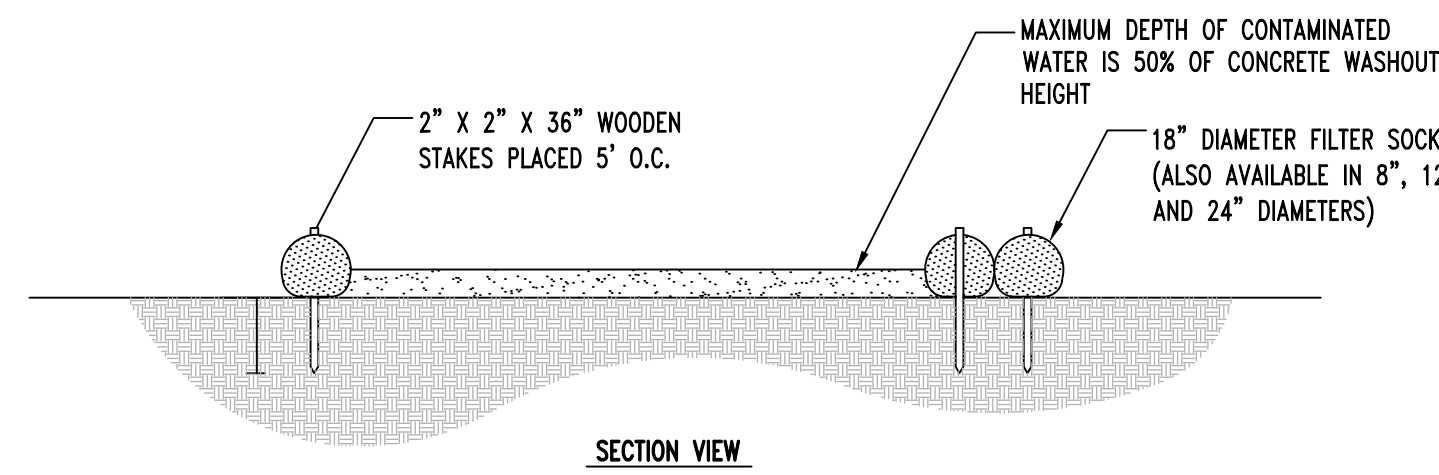
NOT TO SCALE

- INLET FILTER BAG NOTES:
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 - 5. DAMAGED FILTER BAGS SHOULD BE REPLACED.
 - 6. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.

CONCRETE WASHOUT AREA

NOT TO SCALE

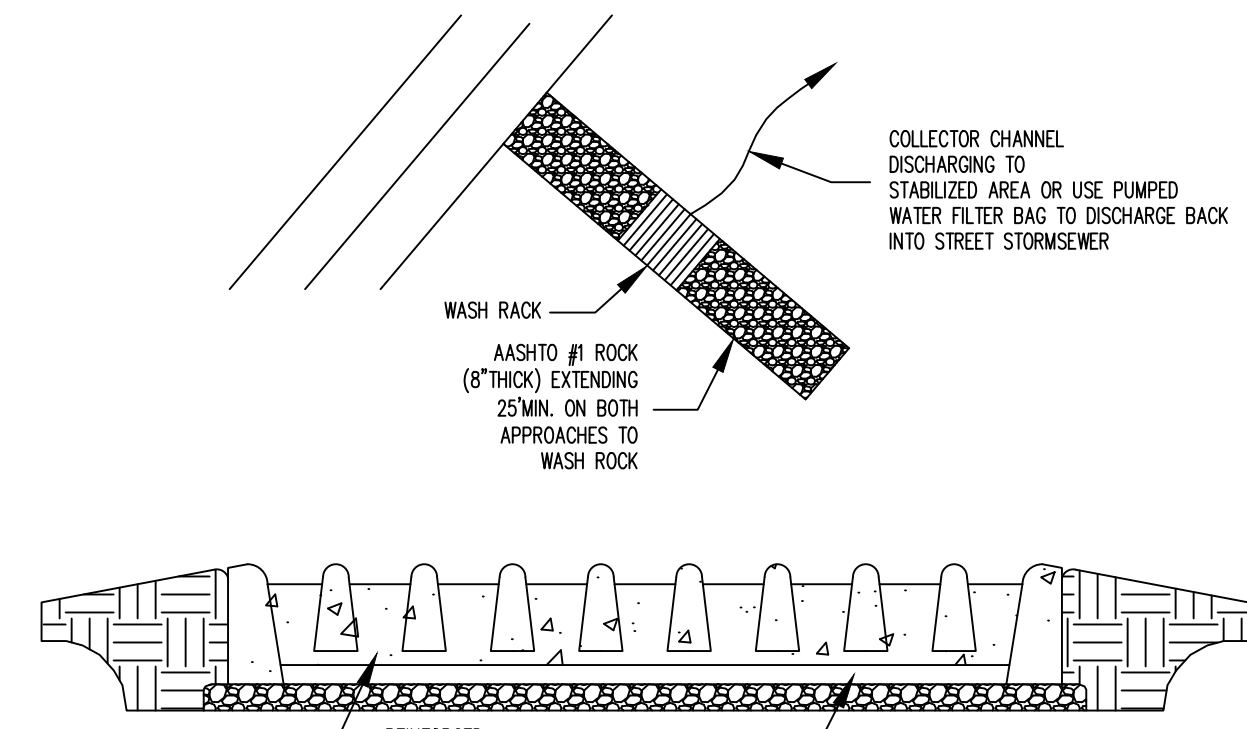
- NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
 2. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
 3. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
 4. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE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



PUMPED WATER FILTER BAG DETAIL

NOT TO SCALE

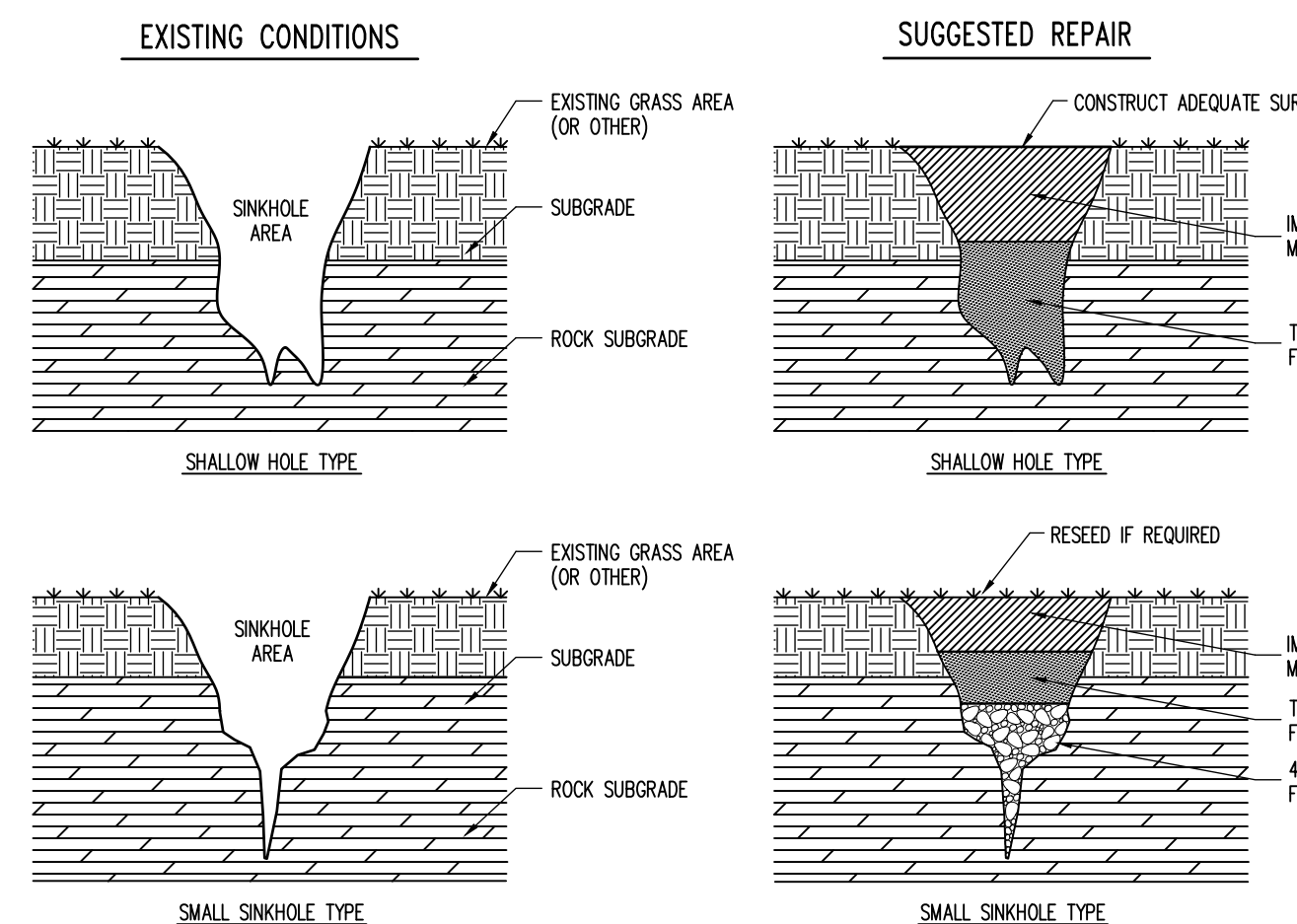
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER 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 SIX PERCENT.
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 INTAKE SHOULD BE FLOATING AND SCREENED.



ROCK CONSTRUCTION ENTRANCE WITH WASH RACK

NOT TO SCALE

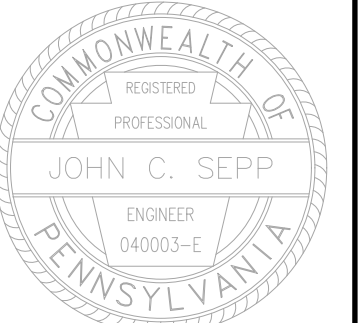
- NOTES:
1. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
 2. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
 3. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.



SINKHOLE REPAIR

NOT TO SCALE

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



Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FERGUSON-PRELIMINARY-LD-ES2
Layout	ES-DET

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Date	Description	REVISIONS

WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP CENTRE COUNTY PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL DETAILS

PROJECT NO.	19052
DATE	AUGUST 14, 2020
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 procedure 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 final 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 Centre County 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, remulching and renetting 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 outlopes 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 permanent and temporary seeding shall be done within 72 hours of the completion of disturbances for all areas requiring vegetative cover.
- In order to avoid compaction of the proposed underground infiltration basin bottom, special procedures shall be implemented for equipment operations within the bottom of the underground infiltration basin. The final excavation shall be completed utilizing equipment located outside the infiltration basin bottom (if excavation cannot fully be completed from outside the bottom, refer to the typical underground infiltration basin bottom excavation detail.)
- Prior to exiting the site, all construction vehicles must drive over the construction entrance.
- Silt Socks must be placed and maintained downslope of all topsoil stockpiles. Topsoil stockpiles must also be seeded with the temporary seeding mixture.
- 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.

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.

- Install construction entrances off of Calder Way.
- Install the proposed silt sock, as shown on the Erosion and Sedimentation Control Plan (E&SCP).
- Install inlet protection on the existing inlets shown on the E&SCP.
- Repair the closed depression/sinkhole by contacting a registered professional to oversee construction and design a permanent fix as the area is excavated. The design shall incorporate limiting potential surface and subsurface runoff from entering this area.
- Demolish existing pavement, concrete, vegetation and all other features as proposed to be demolished. Haul away all material in accordance with the "Responsibilities for Fill Materials" section shown below.
- Strip the topsoil from the proposed site and stockpile the topsoil on the topsoil stockpile as shown on the E&SCP, after installing silt sock on the downslope end of the topsoil stockpile. Seed the topsoil stockpile with the temporary seeding mixture.
- Begin rough grading and bulk excavation for the site. Haul away all material in accordance with the "Responsibilities for Fill Materials" section shown below.
- Once excavation is complete, building construction can occur at this time.
- Continue with other site grading, and begin installing the underground infiltration sump and extended detention basin.
- Other remaining utilities including storm sewer, sanitary sewer and water line installation, 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/yard drain protection on all inlets/yard drains, as shown on the E&SCP.
- Install all site sidewalks.
- Once final grade of the roadway area is complete, paving operations can begin thus removing rock construction entrance.
- As all lawn areas are brought to grade, stabilize these areas immediately with topsoil, erosion control lining and the permanent seeding mixture.
- Once permanent stabilization has been achieved, all temporary erosion and sediment controls may be removed (see General Construction Note 6). These controls include, topsoil stockpiles, inlet/yard drain protection, and silt socks. Stabilize any areas disturbed by the removal of these controls immediately with the permanent seeding mixture. Remove all sediment that may have entered the infiltration sump (in accordance with Note 2 above). Stabilize all other disturbed areas with topsoil and the permanent seeding mixture. Install the Gate Inlet Skimmer Boxes and Flogard Downspout Filters.

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. The topsoil stockpile is provided for a convenient place to stock onsite topsoil. Inlet/yard drain protection will be used to prevent sedimentation of the storm sewer systems. Erosion control lining will be used to help stabilize all proposed vegetated areas.

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 stormwater underground infiltration basin, storm sewer pipes, Gate Inlet Skimmer Boxes, Water Quality Snot 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.t.) and 1000 lbs/acre 10-20-20 fertilizer (25 lbs/ 1000 s.t.) 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 (AGR-TAC), DCA-70, Petrosel or Terratack 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:

During inspection of these facilities, written documentation for each inspection for all BMP repair, replacement, and/or maintenance activities shall be completed using the DEP Form 3800-FM-BCW0271d (A copy of this form is located in the Appendix of this report). Inspection reports should be kept onsite at all times.

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.

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.

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.

Yard Drain Protection:

- Sediment shall be removed from the structure and spread over an existing stockpile with controls already in place and be seeded with the temporary seeding mixture.
- The structure should be checked regularly to ensure its soundness. If the stone filter has been disturbed and cannot perform its proper protective function, additional stone should be installed to provide adequate filtration.

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 260.1et 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.

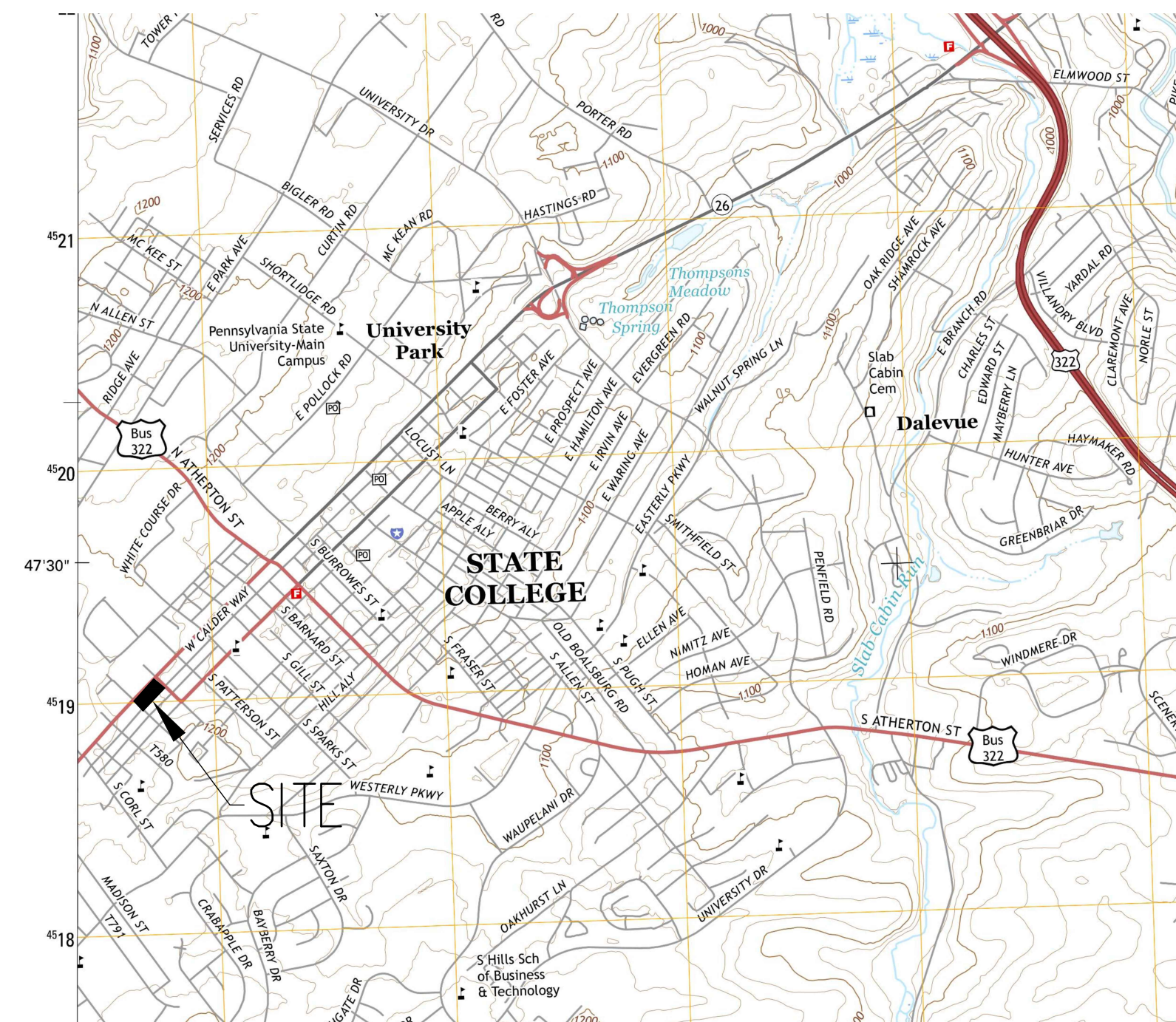
Responsibilities for Fill Materials

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, Sonbarn 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.



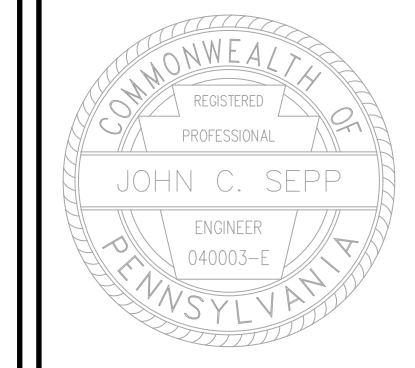
LOCATION MAP
SCALE (1" = 2000')

PennTerra ENGINEERING INC.
CENTRAL PENNSYLVANIA REGION OFFICE:
3075 ENTERPRISE DRIVE SUITE 100
STATE COLLEGE, PA 16801
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3904 B ABEL DRIVE
COLUMBIA, PA 17512
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Designer	EAH
Draftsman	EAH
Proj/Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg 42
Acad	1929-FERGUSON-PRELIMINARY-LD-ES3
Layout	ES-DET

Date	Description
01/21/21	EAH REVISION FOR FERGUSON TOWNSHIP COMMENTS
12/16/20	EAH REVISION FOR FERGUSON TOWNSHIP COMMENTS
11/26/20	EAH REVISION FOR FERGUSON TOWNSHIP COMMENTS

WEST COLLEGE STUDENT HOUSING

FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL NARRATIVE

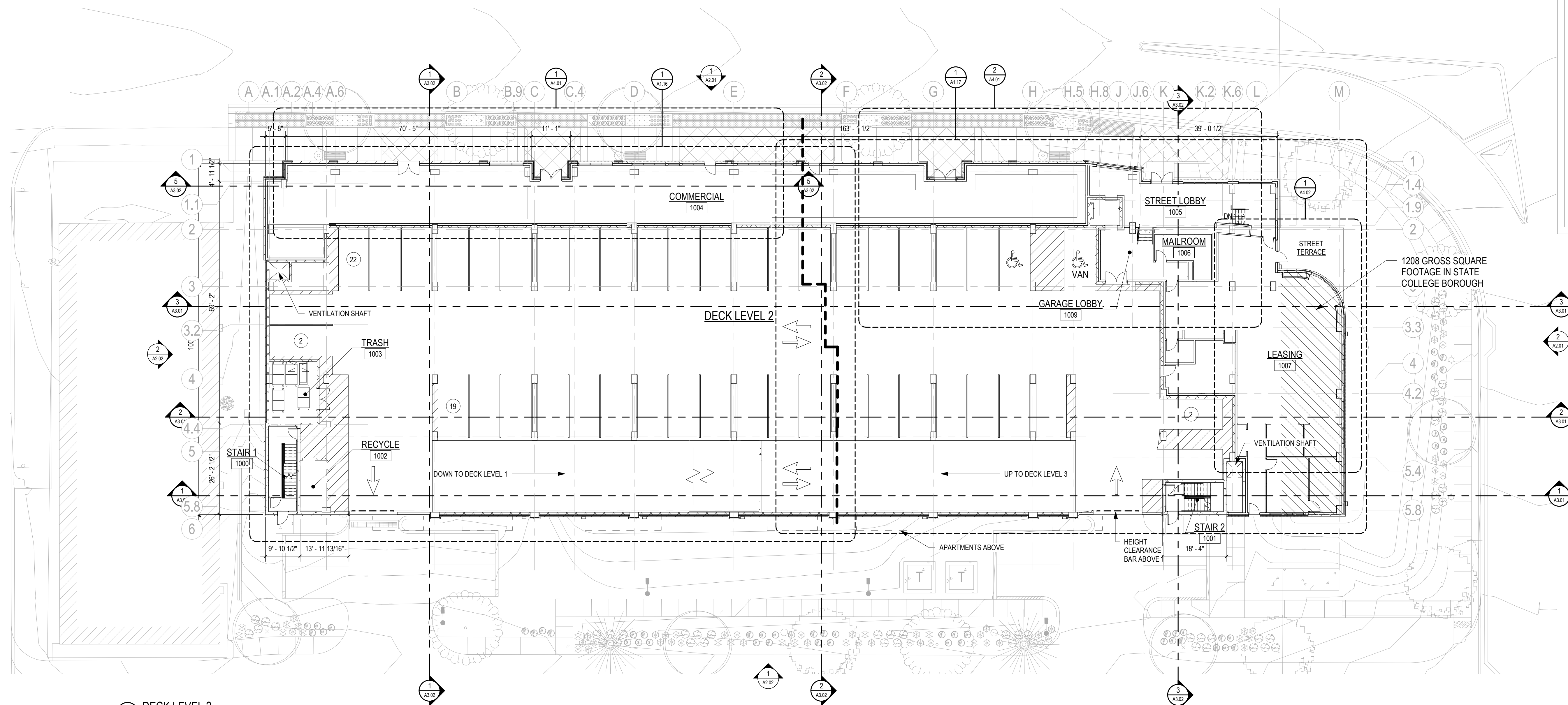
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DATE	AUGUST 14, 2020
SCALE	SHEET NO.
N.T.S.	ES3

BUILDING PLAN NOTES

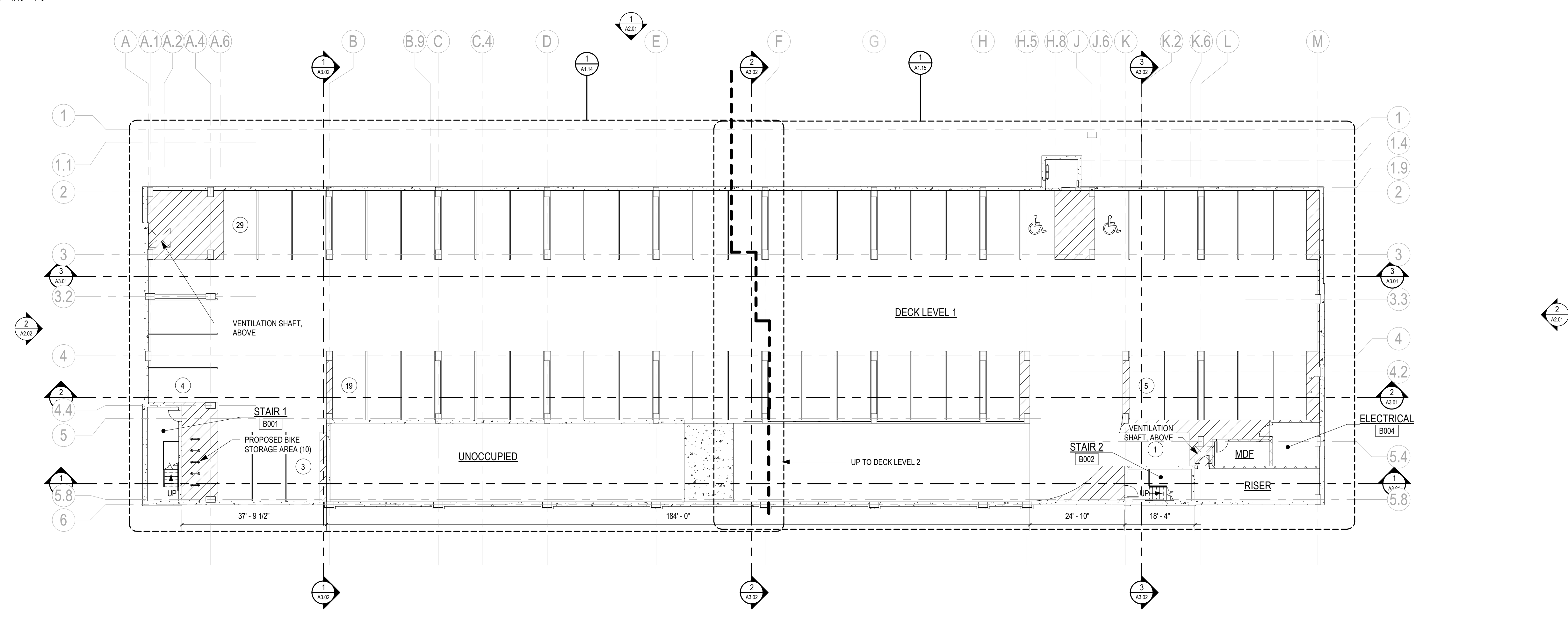
- SEE EDGE OF SLAB PLANS AND UNIT PLANS FOR ADDITIONAL DIMENSIONS AND OTHER INFORMATION.
- COORDINATE ALL WORK WITH ALL ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, AND LANDSCAPE DRAWINGS AND SPECIFICATIONS.
- NOTIFY ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. NO SINGLE SHEET REPRESENTS ALL THE INFORMATION REQUIRED TO BUILD ANY PORTION OF THE BUILDING FOR ANY TRADE.
- GC IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES WITH THE FULL SET OF CONSTRUCTION DOCUMENTS.
- SEE AO X SERIES SHEETS FOR ADDITIONAL GENERAL NOTES.
- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- REFERENCE STRUCTURAL DRAWINGS FOR BEARING WALL LOCATIONS.
- REFERENCE ELEVATIONS FOR EXTERIOR CLADDING CONDITIONS.
- AT LOCATIONS WHERE 2X4 UNIT DIMENSIONING WALL EXTENDS BEYOND ADJACENT UNIT TOWARDS THE BUILDING EXTERIOR, THE EXTERIOR FRAMING WILL BE REQUIRED TO TRANSITION TO 2X6 WALL FRAMING.
- ALIGN THE OUTSIDE FACE OF STUDS WITH EDGE OF SLAB BELOW.
- CONTINUE 2X6 STUD FRAMING AND ALL LAYERS OF INTERIOR GYPSUM BOARD TO CLOSEST INTERIOR PERPENDICULAR WALL, TYPICAL.
- MAINTAIN MINIMUM 7'-6" (90") HEADROOM CLEARANCE ABOVE FINISHED FLOOR AT ALL AMENITY AREAS AND HABITABLE SPACES AT RESIDENTIAL FLOORS. SEE PLANS FOR CEILING HEIGHTS.
- ALL WALKING SURFACES AT MEANS OF EGRESS ROUTES SHALL HAVE SLIP RESISTANT FINISH.

ISSUE DATE: 12/18/2020

REVISIONS



2 DECK LEVEL 2
1/16" = 1'-0"



1 DECK LEVEL 1
1/16" = 1'-0"

12/18/2020 - 95% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

WEST COLLEGE AVE
WEST COLLEGE AVENUE
STATE COLLEGE, PENNSYLVANIA



1616 Garden Road, Suite 200
Cherry Hill, NJ 08003
704.786.2329

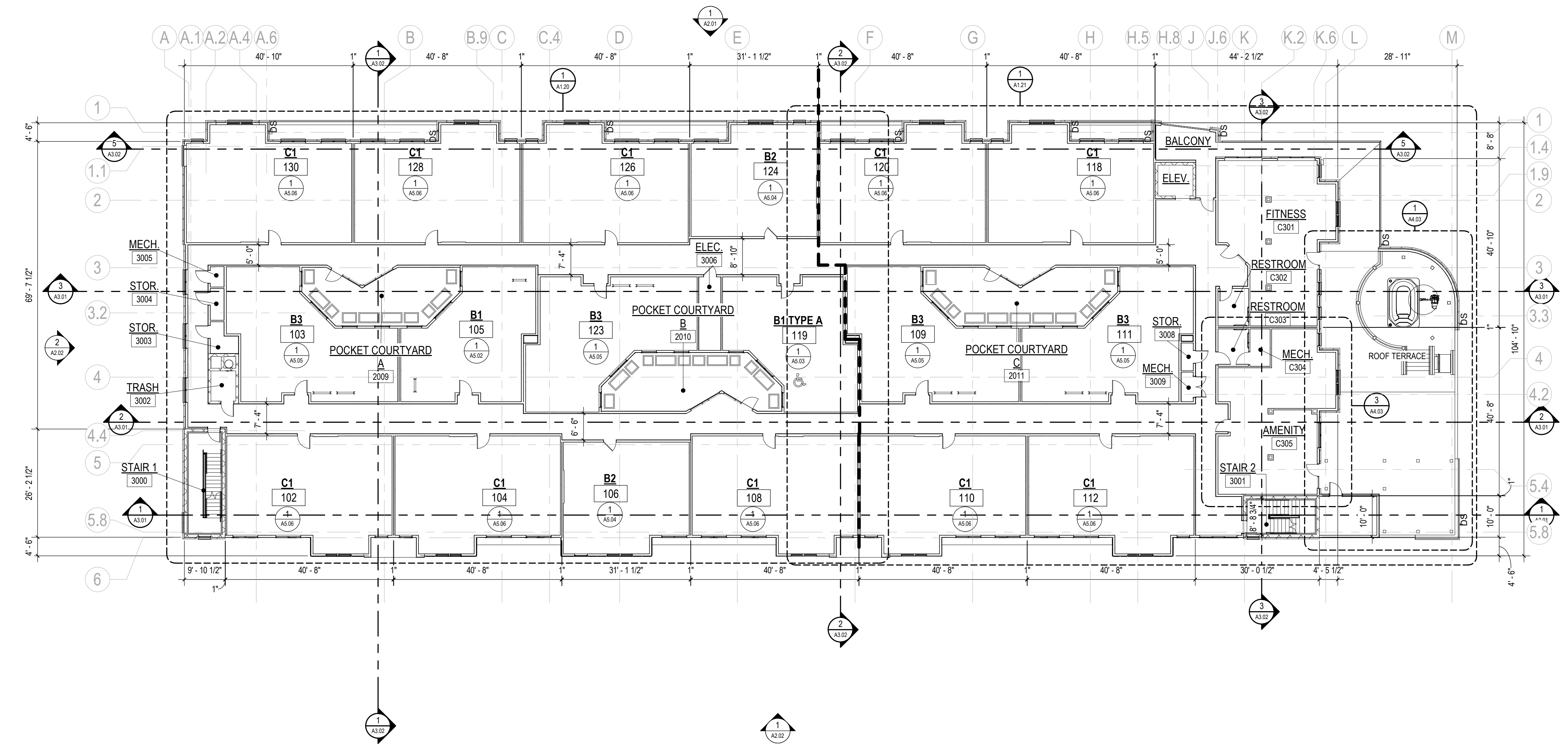
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BUILDING PLANS

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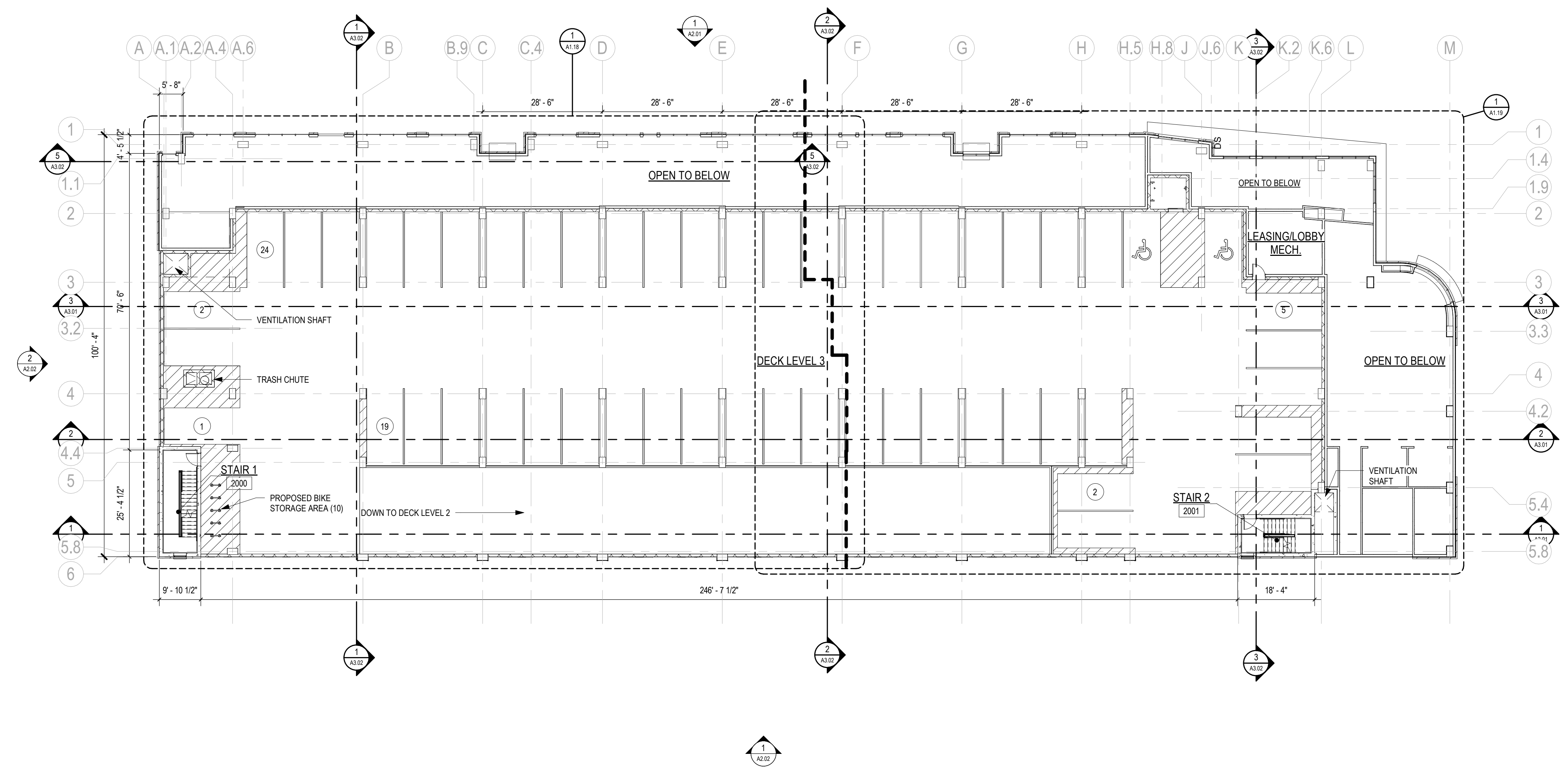
- ### BUILDING PLAN NOTES
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NO.	REVISIONS



2 RESIDENTIAL LEVEL 1
 1/16" = 1'-0"



1 DECK LEVEL 3
 1/16" = 1'-0"

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WEST COLLEGE AVE
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 Chambersburg, PA 17003
 717.266.2228

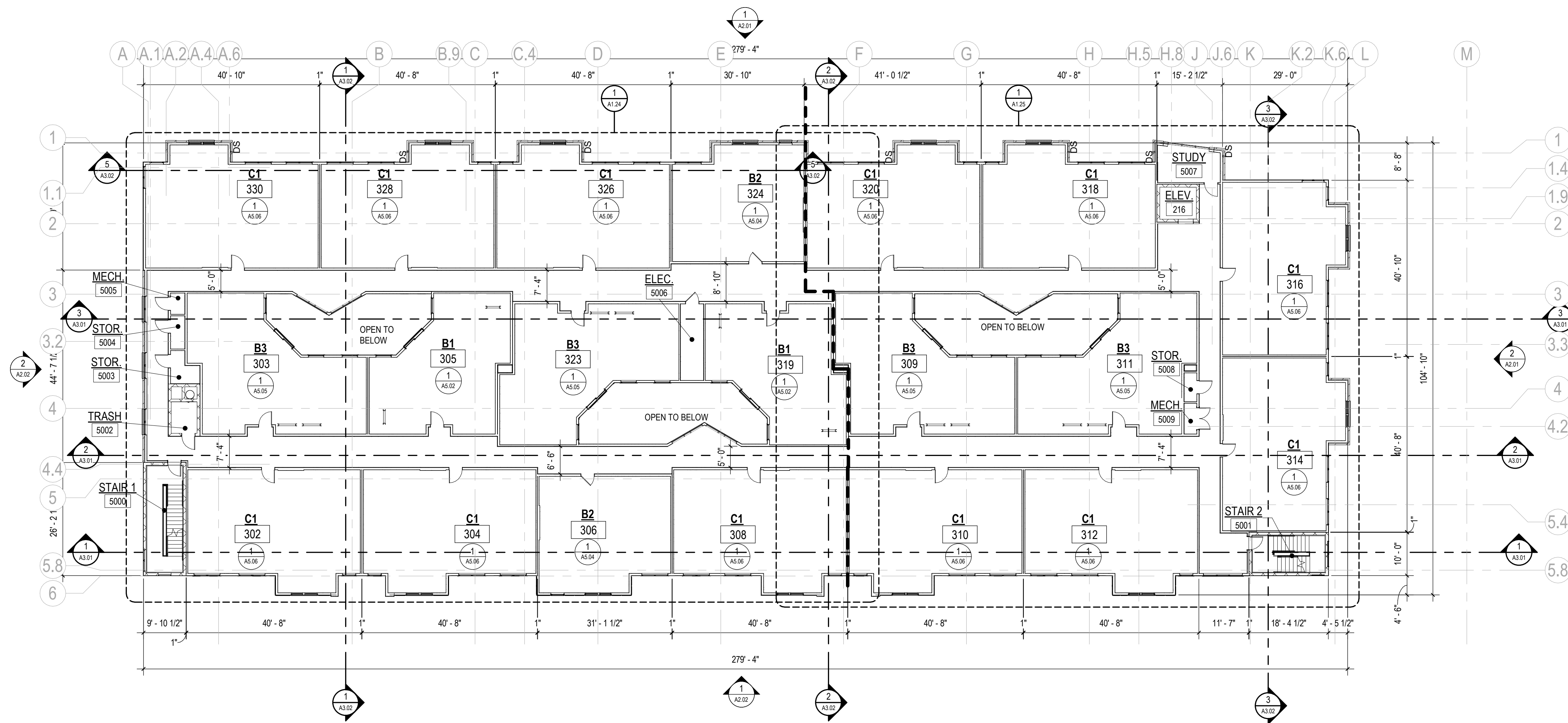
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 RESIDENTIAL LEVEL 1
 BUILDING PLANS

BUILDING PLAN NOTES

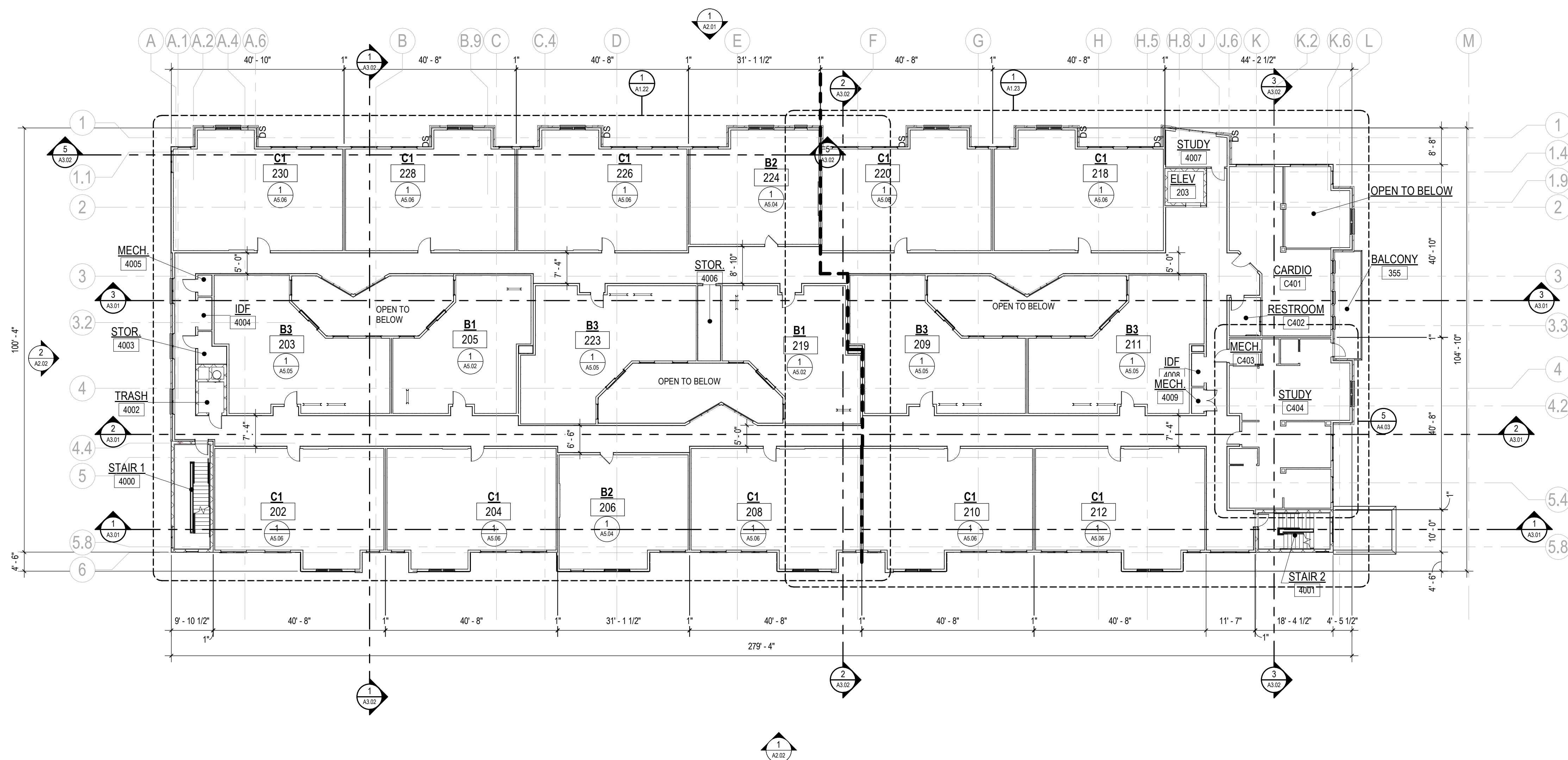
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ISSUE DATE: 12/18/2020

REVISIONS



2 RESIDENTIAL LEVEL 3
3/16" = 1'-0"



1 RESIDENTIAL LEVEL 2
3/16" = 1'-0"

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JOB NO. SH190415
DESIGNED BY: AK, MP
CHECKED BY: ML
RESIDENTIAL LEVELS 2 & 3
BUILDING PLANS

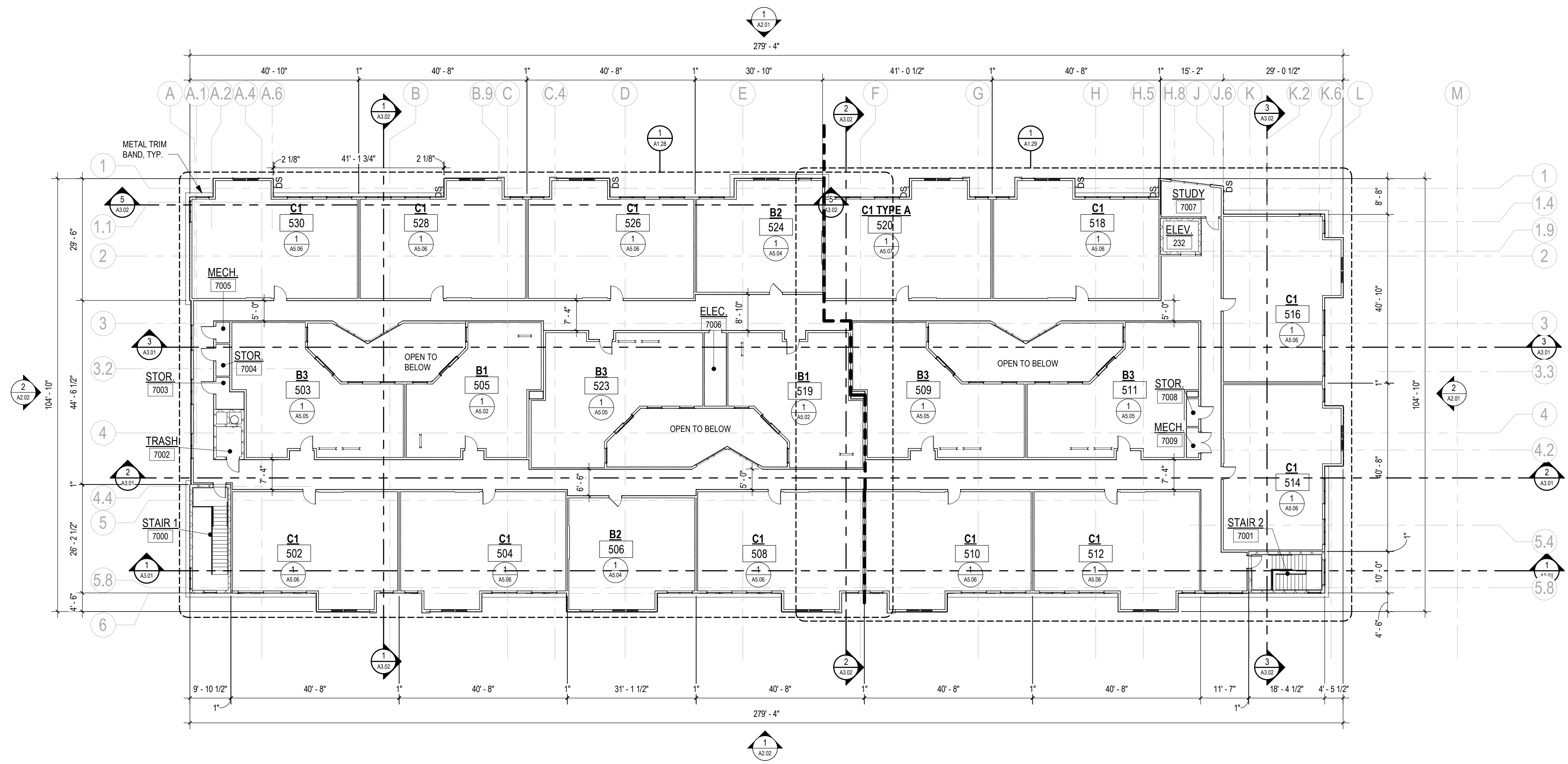
A1.11

BUILDING PLAN NOTES

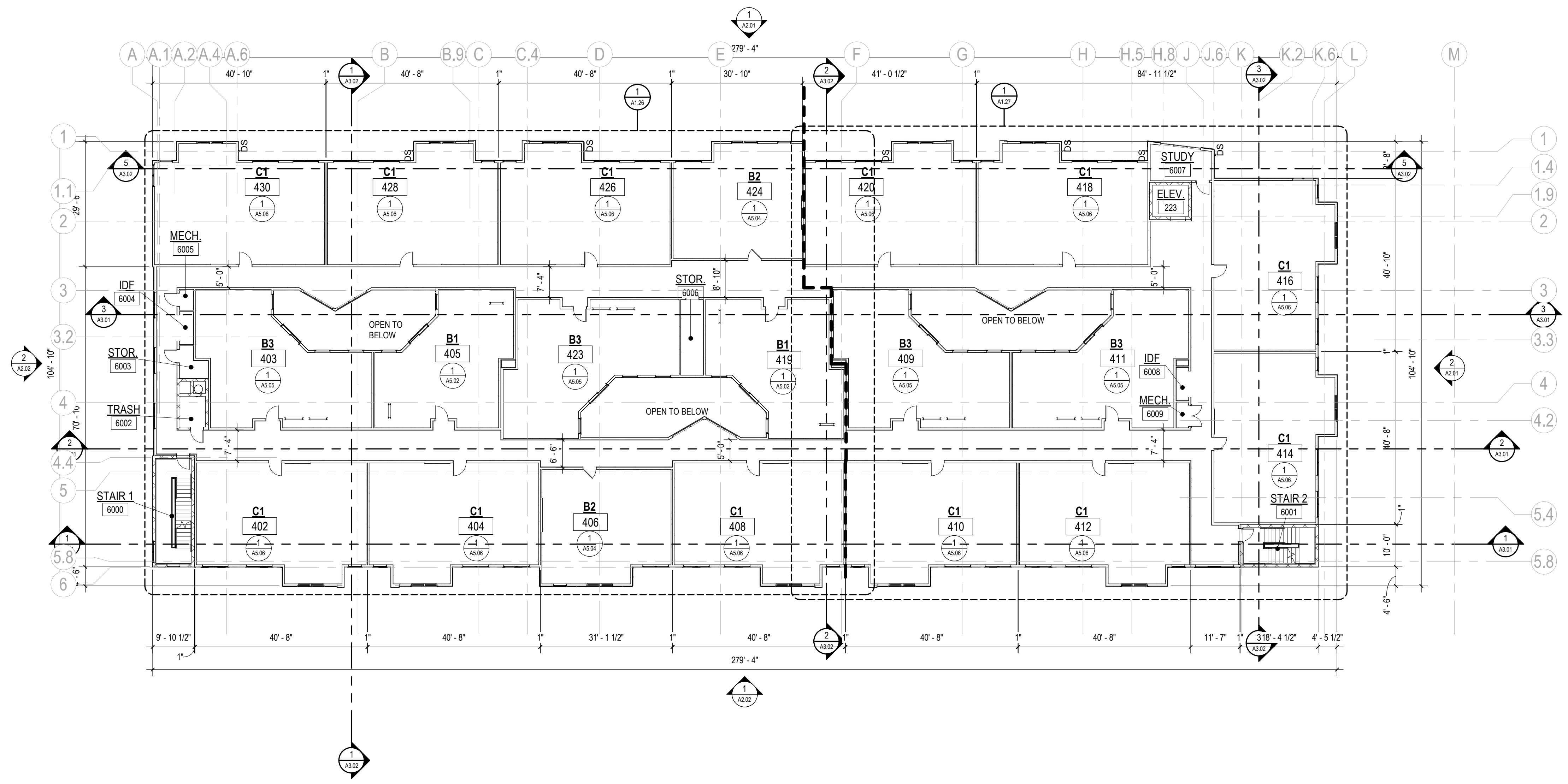
- SEE EDGE OF SLAB PLANS AND UNIT PLANS FOR ADDITIONAL DIMENSIONS AND OTHER INFORMATION.
- COORDINATE ALL WORK WITH ALL ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, AND LANDSCAPE DRAWINGS AND SPECIFICATIONS.
- NOTIFY ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. NO SINGLE SHEET REPRESENTS ALL THE INFORMATION REQUIRED TO BUILD ANY PORTION OF THE BUILDING FOR ANY TRADE.
- GC IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES WITH THE FULL SET OF CONSTRUCTION DOCUMENTS.
- SEE A0-X SERIES SHEETS FOR ADDITIONAL GENERAL NOTES.
- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- REFERENCE STRUCTURAL DRAWINGS FOR BEARING WALL LOCATIONS.
- REFERENCE ELEVATIONS FOR EXTERIOR CLADDING CONDITIONS.
- AT LOCATIONS WHERE 2X4 UNIT DIMENSING WALL EXTENDS BEYOND ADJACENT UNIT TOWARDS THE BUILDING EXTERIOR, THE EXTERIOR FRAMING WILL BE REQUIRED TO TRANSITION TO 2X6 WALL FRAMING.
- ALIGN THE OUTSIDE FACE OF STUDS WITH EDGE OF SLAB BELOW.
- CONTINUE 2X6 STUD FRAMING AND ALL LAYERS OF INTERIOR GYPSUM BOARD TO CLOSEST INTERIOR PERPENDICULAR WALL, TYPICAL.
- MAINTAIN MINIMUM 7'-6" (90") HEADROOM CLEARANCE ABOVE FINISHED FLOOR AT ALL AMENITY AREAS AND HABITABLE SPACES AT RESIDENTIAL FLOORS. SEE PLANS FOR CEILING HEIGHTS.
- ALL WALKING SURFACES AT MEANS OF EGRESS ROUTES SHALL HAVE SLIP RESISTANT FINISH.

ISSUE DATE: 12/18/2020
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REVISIONS



2 RESIDENTIAL LEVEL 5
 1/16" = 1'-0"



1 RESIDENTIAL LEVEL 4
 1/16" = 1'-0"

12/18/2020 - 95% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

WEST COLLEGE AVE
 WEST COLLEGE AVENUE
 STATE COLLEGE, PENNSYLVANIA



1616 Garden Road, Suite 200
 Chambersburg, PA 17003
 717.261.2222

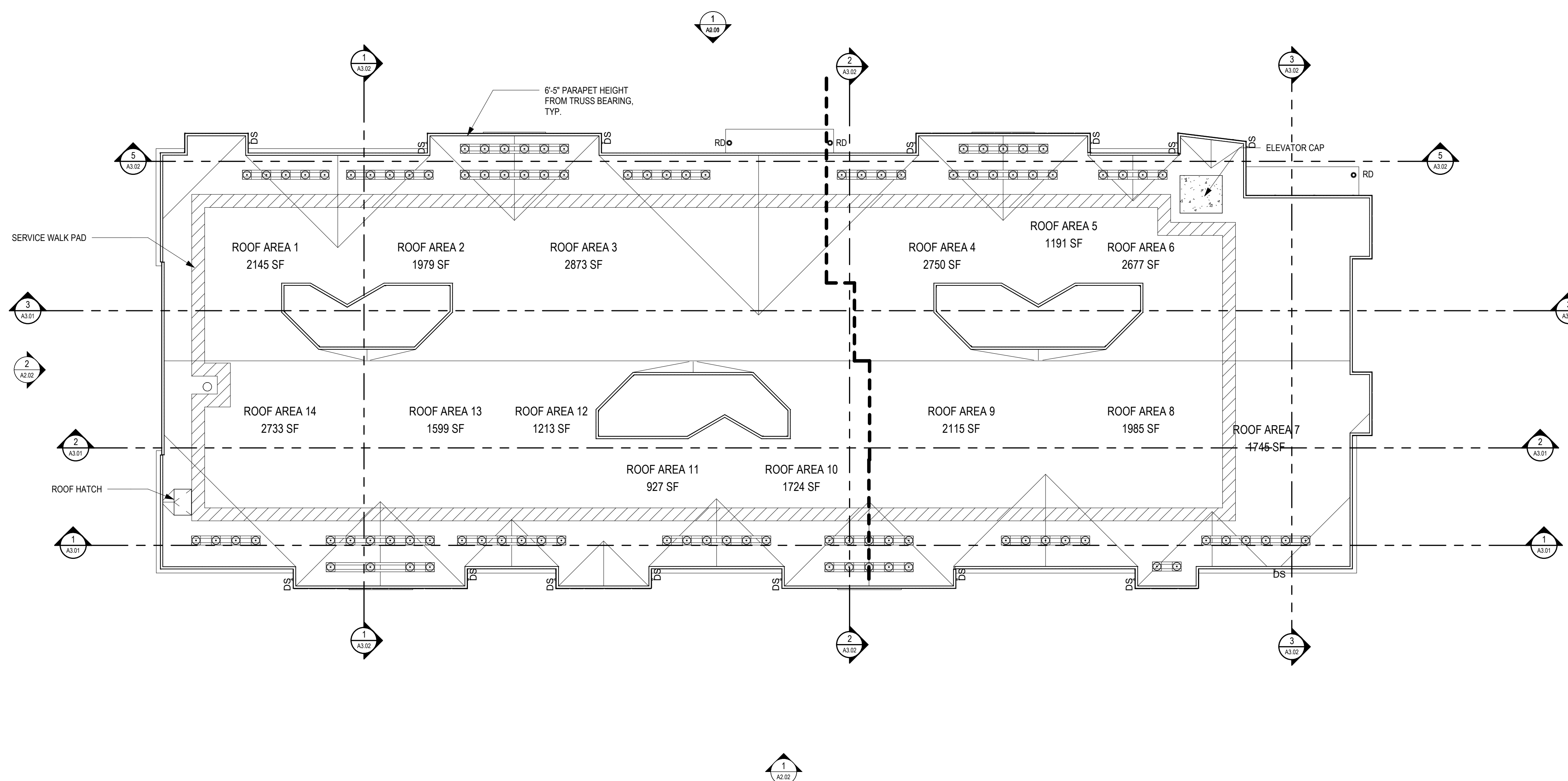
JOB NO. SH190415
 DESIGNED BY: AK, MP
 CHECKED BY: ML
 RESIDENTIAL LEVELS 4 & 5
 BUILDING PLANS

ROOF DRAINAGE SCHEDULE

LOCATION	ROOF DATA				RAINFALL DATA		DOWNSPOUT DATA						
	ROOF AREA	ROOF PITCH	ROOF PITCH FACTOR	ADJUSTED AREA	RAINFALL INTENSITY PER IFC SECTION 1106	REQ'D GPM	DS TYPE	NOMINAL SIZE	DS CAPACITY (EACH) PER IFC TABLE 1106.3	REQ'D NUMBER OF DS	DS SHOWN	TOTAL DS CAPACITY (GPM)	ADEQUATE DS
ROOF AREA 1	2145 SF	1/4" / 12"	1	2145 SF	3.75	83.57	RECT	6"	563	1	1	563	YES
ROOF AREA 2	1979 SF	1/4" / 12"	1	1979 SF	3.75	77.12	RECT	6"	563	1	1	563	YES
ROOF AREA 3	2873 SF	1/4" / 12"	1	2873 SF	3.75	111.93	RECT	6"	563	1	1	563	YES
ROOF AREA 4	2750 SF	1/4" / 12"	1	2750 SF	3.75	107.16	RECT	6"	563	1	1	563	YES
ROOF AREA 5	1191 SF	1/4" / 12"	1	1191 SF	3.75	46.39	RECT	6"	563	1	1	563	YES
ROOF AREA 6	2677 SF	1/4" / 12"	1	2677 SF	3.75	104.31	RECT	6"	563	1	2	1126	YES
ROOF AREA 7	1745 SF	1/4" / 12"	1	1745 SF	3.75	67.97	RECT	6"	563	1	1	563	YES
ROOF AREA 8	1985 SF	1/4" / 12"	1	1985 SF	3.75	77.35	RECT	6"	563	1	1	563	YES
ROOF AREA 9	2115 SF	1/4" / 12"	1	2115 SF	3.75	82.42	RECT	6"	563	1	1	563	YES
ROOF AREA 10	1724 SF	1/4" / 12"	1	1724 SF	3.75	67.16	RECT	6"	563	1	1	563	YES
ROOF AREA 11	927 SF	1/4" / 12"	1	927 SF	3.75	36.11	RECT	6"	563	1	1	563	YES
ROOF AREA 12	1213 SF	1/4" / 12"	1	1213 SF	3.75	47.28	RECT	6"	563	1	1	563	YES
ROOF AREA 13	1599 SF	1/4" / 12"	1	1599 SF	3.75	62.29	RECT	6"	563	1	1	563	YES
ROOF AREA 14	2733 SF	1/4" / 12"	1	2733 SF	3.75	106.47	RECT	6"	563	1	1	563	YES
ROOF AREA 15	327 SF	1/4" / 12"	1	327 SF	3.75	12.76	RECT	6"	563	1	2	1126	YES
ROOF AREA 16	973 SF	1/4" / 12"	1	973 SF	3.75	37.90	RECT	6"	563	1	1	563	YES
ROOF AREA 17	1031 SF	1/4" / 12"	1	1031 SF	3.75	40.16	RECT	6"	563	1	1	563	YES
ROOF AREA 18	214 SF	1/4" / 12"	1	214 SF	3.75	8.33	RECT	6"	563	1	1	563	YES
ROOF AREA 19	285 SF	1/4" / 12"	1	285 SF	3.75	11.09	RECT	6"	563	1	1	563	YES

ROOF PLAN NOTES

- ALL FLAT ROOFS SHALL HAVE A MIN. 1/4" PER FOOT SLOPE FOR DRAINAGE. REFERENCE BUILDING SECTIONS AND STRUCTURAL DETAILS FOR PARAPET CONSTRUCTION.
- ROOF CRICKETS TO SLOPE AS NEEDED FOR POSITIVE DRAINAGE.
- FLASH ALL ROOF PENETRATIONS PER MANUFACTURER'S REQUIREMENTS TO PROVIDE CONTINUOUS WARRANTY.
- EXTERIOR FINISH MATERIALS AT SIDE RETURNS FROM HIGH PARAPETS TO EXTEND TO REAR END OF PARAPET WALL.
- PROVIDE WALK PADS FROM ROOF ACCESS DOOR TO ROOF TOP MECHANICAL EQUIPMENT AS REQUIRED.
- ALL ROOF PENETRATIONS (PLUMBING STACK VENTS, ETC.) TO BE PAINTED TO MATCH ROOFING COLOR.
- CONTINUE ROOF MEMBRANE UP PARAPET WALLS AND OVER BLOCKING, TURNING DOWN MIN. 3" AT EXTERIOR FACE EDGE.
- TURN ROOF MEMBRANE UP 4" ONTO HIGHER PARAPET WALLS AT END OF "LOW" PARAPET WALLS.
- INSTALL PREFABRICATED SADDLE FLASHING AT "LOW" PARAPET TERMINATION TO "HIGH" PARAPET WALL.
- COPING TO INCLUDE CONTINUOUS CLEAT AT EXTERIOR SIDE AND MECHANICAL ATTACHMENT AT INTERIOR SIDE OF ROOF AND WATERPROOFING DETAILS.
- NO ROOF PENETRATIONS TO OCCUR WITHIN 4' HORIZONTAL AT EACH SIDE OF TERMINATION OF 2-HOUR FIRE WALLS.
- TPO TO BE MECHANICALLY FASTENED. MAINTAIN 12" MINIMUM FROM END OF HIP/RIDGE VENT TO ROOF EDGE/INTERSECTION.
- PROVIDE VAPOR RETARDER WITH A TRANSMISSION RATE NOT EXCEEDING 1 PERM PER ASTM E96 ON THE WARM SIDE OF THE ATTIC INSULATION.
- USE 5" PREFINISHED ALUMINUM GUTTERS AND 3" X 4" DOWNSPOUTS. COLOR TO BE SELECTED BY ARCHITECT. PROVIDE SPLASH GUARD EXTENSIONS AT VALLEYS TO DIRECT OVERFLOW.
- ALL ROOF OVERHANGS ARE 24" UNLESS NOTED OTHERWISE.
- ALL ROOF PITCHES SHALL BE 6:12 UNLESS NOTED OTHERWISE.
- ATTIC ACCESS, 22" X 36" MINIMUM WITH INSULATION ON TOP OF ACCESS PANEL.
- PROVIDE DRAFTSTOPPING WITH MINIMUM OF 1/2" WOOD SHEATHING TO SUBDIVIDE THE ATTIC INTO SPACES OF 3,000 SQUARE FEET MAXIMUM AREAS. TYPICAL.
- PROVIDE SELF-CLOSING, 24" X 84" MINIMUM, UNLESS NOTED OTHERWISE. ACCESS DOOR PANEL IN DRAFT STOP ASSEMBLY WHERE SHOWN FOR FIRE DEPARTMENT ACCESS TO ATTIC COMPARTMENT FROM COMMON AREA.
- PROVIDE 3/4" PLYWOOD WALK FROM ATTIC ACCESS TO DRAFT STOP PANEL(S) FOR INSPECTION ACCESS. TYPICAL.
- PROVIDE VALLEY FLASHING 18" UP EACH SLOPED FACE.
- DOWNSPOUTS TO BE TIED IN TO SUB-SURFACE DRAINAGE SYSTEM. REFER TO CIVIL ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.
- CONTRACTOR TO VERIFY AND COORDINATE LOCATIONS OF ALL MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS WITH MEP DRAWINGS.



ROOF PLAN LEGEND

- GUTTER AND DOWNSPOUT
- SERVICE WALKPAD WITH ADD. LAYER OF TPO
- CONDENSER UNIT, 3"X28"X28" MOUNTING PAD UNDER EACH
- RIDGE VENT
- 4:12 ROOF PITCH
- OUTSIDE FACE OF STUD, BELOW
- SCUPPER & DOWNSPOUT WITH EMERGENCY SCUPPER
- ROOF DRAIN
- SECONDARY ROOF DRAIN
- FIRE WALL
- 1-HOUR RATED ROOF ACCESS
- ATTIC DRAFTSTOPPING
- AV-36-C4 EXHAUST VENT
- PV-24-C6 INTAKE VENT

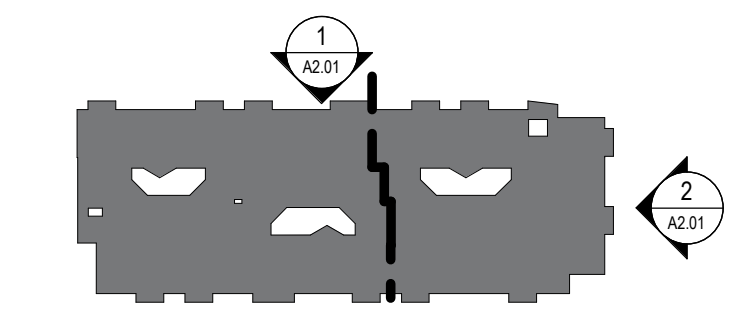


BIRD'S-EYE VIEW OF S. BUCKHOUT AND WEST COLLEGE AVENUE



STREET VIEW OF S. BUCKHOUT AND WEST COLLEGE AVENUE

KEY PLAN

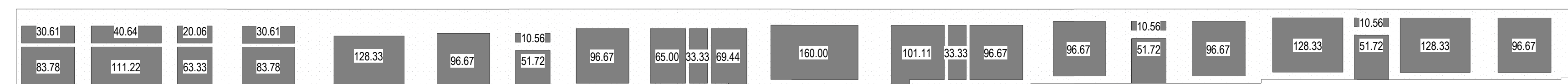
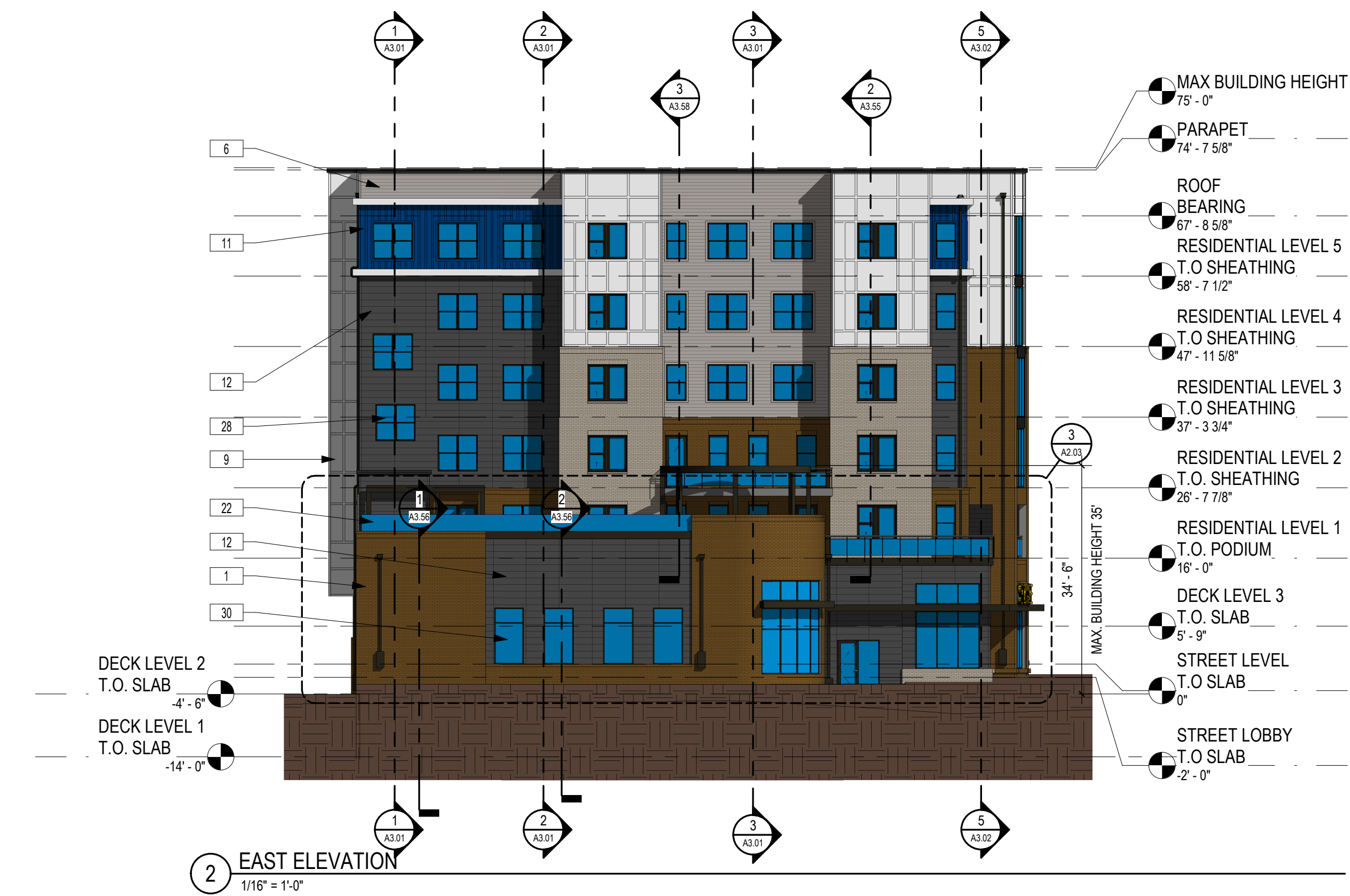


ELEVATIONS NOTES

1. PROVIDE DRIP CAP FLASHING AT ALL WINDOW & DOOR HEADS.
2. REFER TO FLOOR PLANS & SCHEDULES FOR DOOR AND WINDOW SIZES AND LOCATIONS.
3. PROVIDE FLASHING AS REQUIRED TO PREVENT THE PENETRATION OF WATER INTO THE EXTERIOR SHELL OF THE BUILDING.
4. ACCESSIBLE ROUTES - ADJUST FINISHED GRADING & SLOPE WALKWAYS UP TO PORCH LANDINGS AT ALL EXTERIOR COMMON ENTRIES. COORDINATE REQUIREMENTS WITH CIVIL ENGINEERING DOCUMENTS.
5. SEE SPECIFICATIONS, GENERAL NOTES AND DETAILS FOR MORE INFORMATION.
6. WINDOW SUPPLIER TO PROVIDE TEMPERED GLAZING AS REQUIRED PER SECTION 2408 OF THE 2015 IBC.
7. EXTERIOR MATERIALS, DETAILING, AND COLORS TO WRAP CORNER AT ALL BAY CONDITIONS AND TERMINATE AT THE INSIDE CORNER, UNLESS NOTED OTHERWISE.
8. CONTROL JOINTS SHOULD OCCUR AT INSIDE CORNER WHERE WALLS MEET AND WHERE SHOWN ON ELEVATIONS. EXTEND UP ENTIRE MASONRY VENEER FACE, UNLESS NOTED OTHERWISE.
9. SEAL ALL WALL PENETRATIONS WITH MEMBRANE FLASHING AT SURFACE OF EXTERIOR SHEATHING.
10. PROVIDE 3/8" JOINT SPACE WITH SEALANT INTERFACE BETWEEN DISSIMILAR EXTERIOR FINISHES.
11. GENERAL CONTRACTOR TO CONSOLIDATE AND ALIGN (VERTICALLY AND HORIZONTALLY) ALL DRYERS AND EXHAUST VENTS. COORDINATE WITH MEP, ARCHITECTURAL AND STRUCTURAL.
12. CONFIRM EXTERIOR SIGNAGE LOCATIONS WITH THE OWNER AND PROVIDE BLOCKING AND POWER REQUIRED. COORDINATE EXTERIOR FINISH INSTALLATION WITH SIGNAGE AS NECESSARY.
13. ALL PRIMARY FACE MATERIALS SHALL RETURN TO THE SECONDARY PLANE, AT WHICH THE MATERIAL TRANSITION OCCURS.

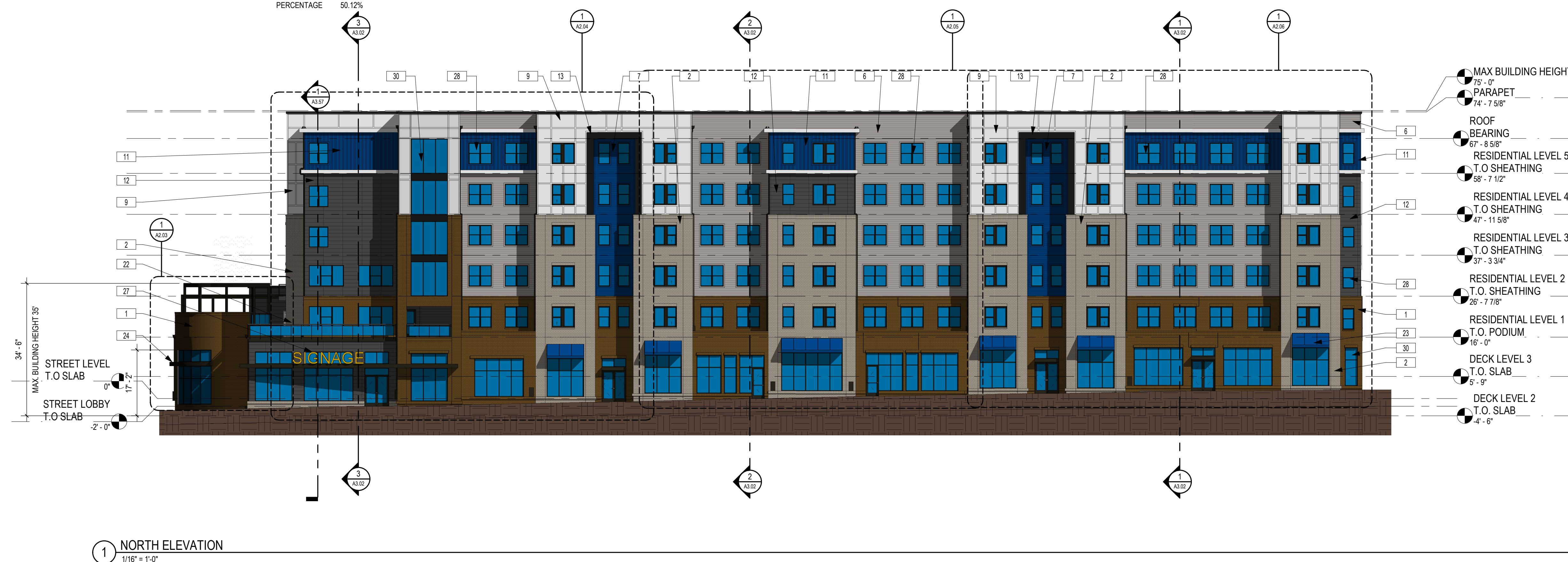
FINISH SCHEDULE

TAG	MATERIAL
1	MASONRY "BROWN"
2	MASONRY "TAN"
4	BRICK SOLDIER COURSE
5	BRICK SOLDIER COURSE AND ROW-LOCK SILL
6	FIBER CEMENT LAP-SIDING 6" REVEAL "TAN"
7	FIBER CEMENT LAP-SIDING 6" REVEAL "BLUE"
9	FIBER CEMENT LAP-SIDING 6" REVEAL "GRAY"
10	FIBER CEMENT PANEL "WHITE"
11	FIBER CEMENT PANEL "GRAY"
11	FIBER CEMENT PANEL BOARD AND BATTEN "BLUE"
12	NICHIA ILLUMINATION SERIES
13	BRAKE METAL "CHARCOAL"
14	FIBER CEMENT TRIM 1X4 "TAN"
15	FIBER CEMENT TRIM 1X4 "BLUE"
16	FIBER CEMENT TRIM 1X4 "WHITE"
17	FIBER CEMENT TRIM 1X4 "GRAY"
20	PRE-FINISHED ALUMINUM COPING "CHARCOAL"
22	POWDER COATED METAL RAILING WITH GLASS PANELS
23	FABRIC AWNINGS
24	METAL CANOPIES
27	SIGNAGE
28	VINYL WINDOWS "BRONZE"
30	STOREFRONT "BRONZE"
31	FIBER CEMENT CORNER BOARD "WHITE"
32	FIBER CEMENT CORNER BOARD "TAN"
34	HEIGHT CLEARANCE BAR
37	CONTROL JOINT
38	FLOGARD

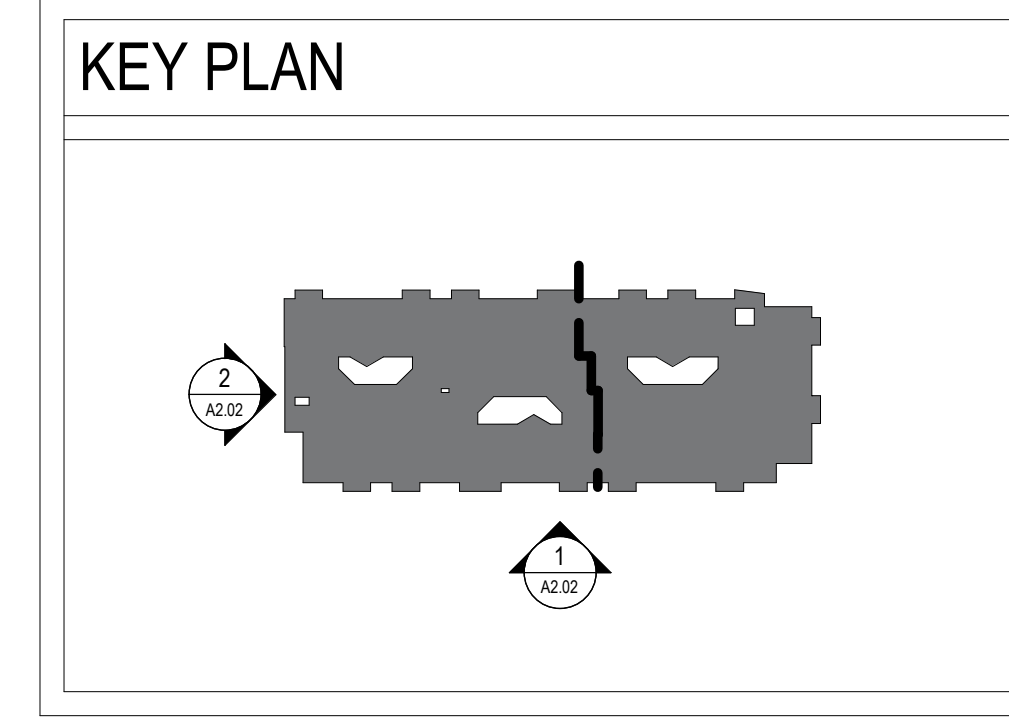


PERCENTAGE OF GLAZING, WEST COLLEGE AVE:

STOREFRONT AREA	2110.67 SQFT
WALL AREA	4211.28 SQFT
PERCENTAGE	50.12%



1 NORTH ELEVATION
1/16" = 1'-0"



ISSUE DATE: 12/18/2020
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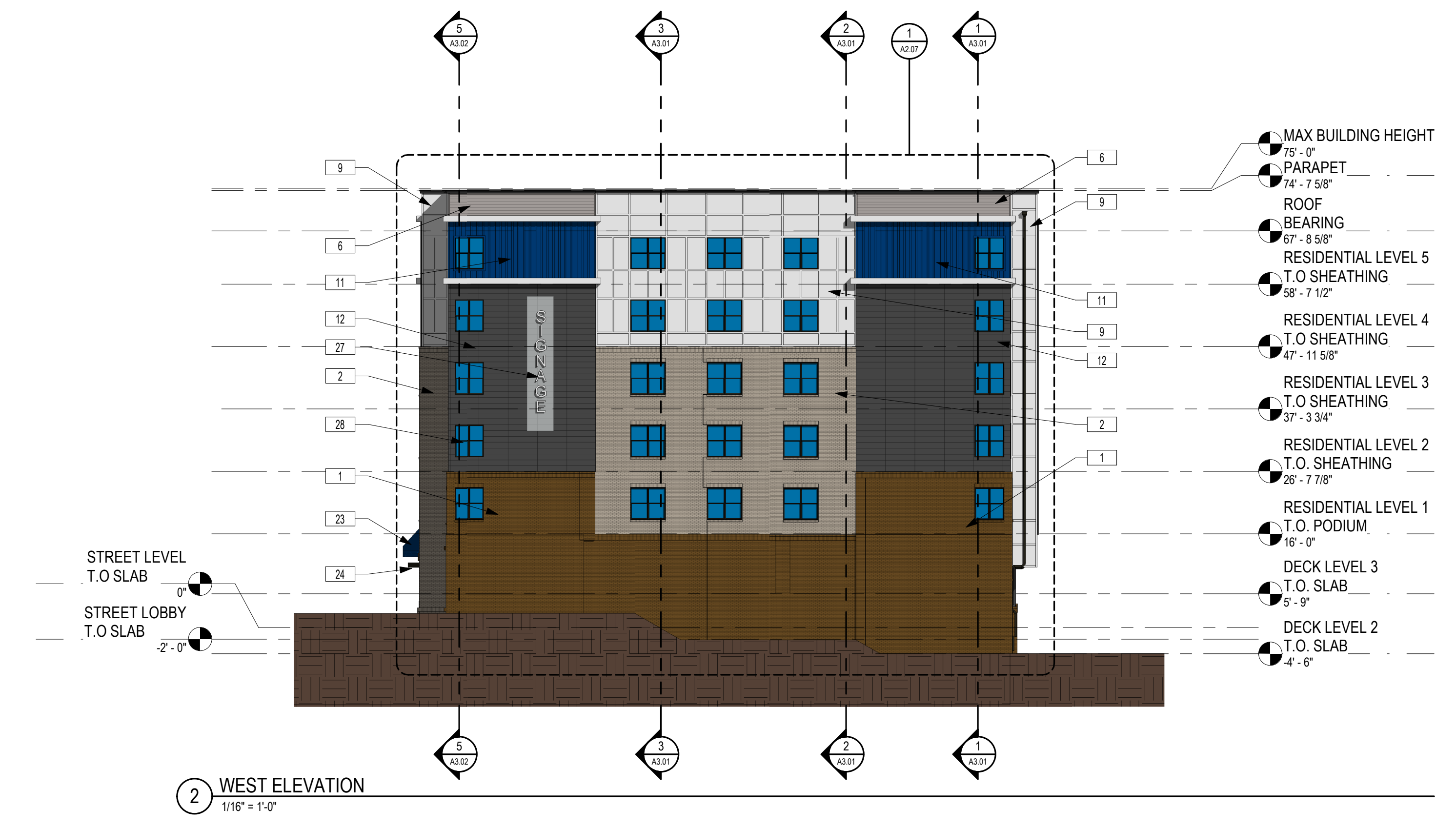
REVISIONS

ELEVATIONS NOTES

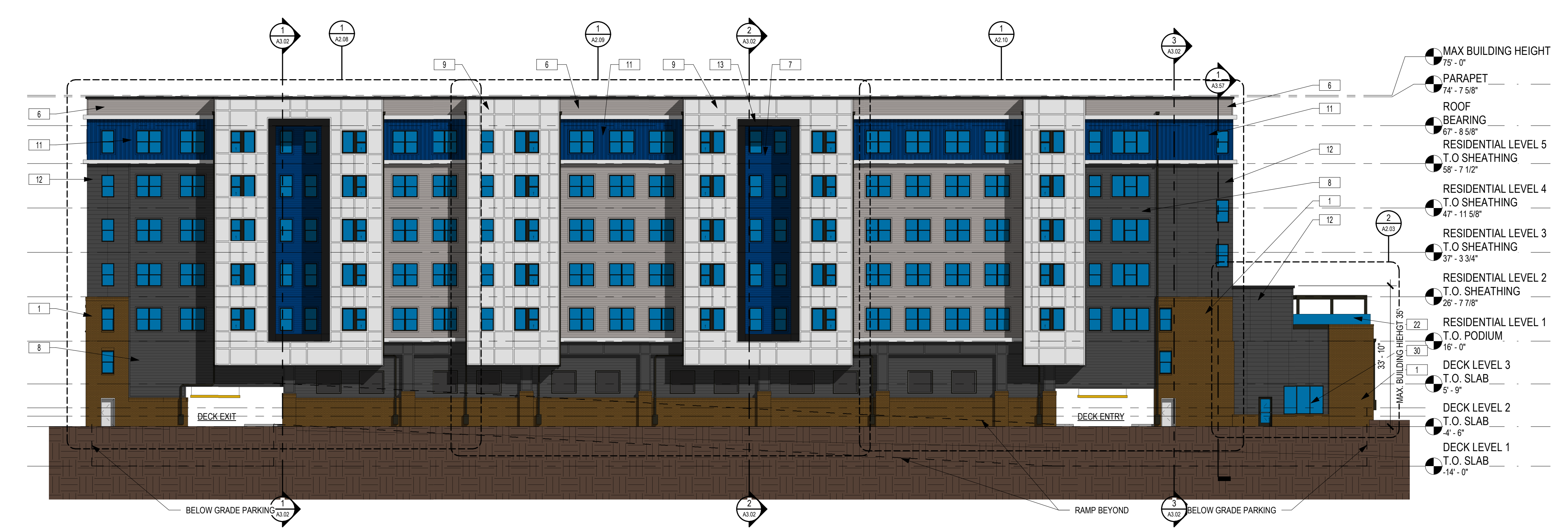
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34	HEIGHT CLEARANCE BAR
37	CONTROL JOINT
38	FLOGARD



2 WEST ELEVATION
 1/16" = 1'-0"



1 SOUTH ELEVATION
 1/16" = 1'-0"

12/18/2020 - 95% CONSTRUCTION DOCUMENTS - NOT FOR CONSTRUCTION

WEST COLLEGE AVE
 WEST COLLEGE AVENUE
 STATE COLLEGE, PENNSYLVANIA



1916 Garden Road, Suite 205
 Chambers, North Carolina 27805
 704.796.2329

JOB NO. SH190415
 OSWALD, W.F., AIA, MP
 CHECKED: ML
 ELEVATIONS

TO: Kristina Aneckstein, Community Planner

From Jeffrey Ressler, Zoning Administrator

DATE: February 5, 2021

SUBJECT: West College Student Housing Preliminary Plan Review 3rd Review

1. A five foot concrete sidewalk shall be provided along the entire length of the property adjacent to West Calder Way Alley. (Chapter 27-304.C.4.c.2) **Comment Not Addressed**
2. The location of signs as regulated by the Signs Regulations must be included on the plan. [Chapter 19, Part 1] (Chapter 22, Section 401.A.1.m) **Comment Not Addressed.**
3. The face area of signs as regulated by the Signs Regulations must be included on the plan. [Chapter 19, Part 1] (Chapter 22, Section 401.A.1.m) **Comment Not Addressed**
4. The height of signs as regulated by the Signs Regulations must be included on the plan. [Chapter 19, Part 1] (Chapter 22, Section 401.A.1.m) **Comment Not Addressed.**
5. Proposed street address and address for each unit, if applicable, must be included on the plan. (Chapter 22, Section 401.A.3.q) **Comment Remains**
6. A time extension must be submitted with any revised plan. (Chapter 22, Section 303) **Comment Remains.**
7. A digital copy of the plan in accordance with Township requirements must be provided to the Township prior to final plan signature. (Chapter 22, Section 307.7) **Comment Remains.**
8. Surety must be posted for all public improvements. (Chapter 22, Section 304) **Comment Remains.**
9. The plan must be signed, all fees paid to the Township, and the plan recorded within the plan deadline. **Comment Remains.**
10. The seal of the professional licensed engineer or registered landscape architect must be affixed to the plan. (Chapter 22, Section 401.C.1.k) **Comment Remains.**




TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801

Telephone: 814-238-4651 • Fax: 814-238-3454

www.twp.ferguson.pa.us

TO: Kristina Aneckstein, Community Planner

FROM: Ron Seybert, Township Engineer 

DATE: February 5, 2021

SUBJECT: Aspen West College Student Housing Preliminary Land Development Plan
Fourth Review (ES – 409)

I have completed my fourth review of the 'West College Student Housing Preliminary Land Development Plan' consisting of twenty-seven sheets as prepared by PennTerra Engineering, dated August 14, 2020, and last revised January 27, 2021. Prior comments are listed below along with any follow up comments. Any previously resolved comments have been removed.

- ~~1. The Township stormwater engineer needs to review and approved the stormwater management site plan. I am not sure how to reconcile the requirements of the stormwater ordinance with a preliminary plan that provides developer approval to start construction without recording the plan. For this to occur, we will probably need to have a separate stormwater management site plan submission that is not part of the land development plan, but is referenced on the land development plan. This way, the stormwater management site plan can be recorded along with the maintenance agreement, which need to be in place prior to earth disturbance, but at the same time does not grant any final development approval. This sounds confusing, so I am not sure how best to reconcile this. This will require more discussion. Pending. The applicant proposes to record the SW Agreement along with the approved preliminary plan as an exhibit. Only sheets PC1 through PC 5 should be recorded with the agreement. These are the only sheets that are necessary for the Stormwater Management Site Plan (SWMSP) and all required information needs to be depicted on these sheets. Sheets ES-1 through ES-3 are not part of the SWMSP. **Not resolved. The comment response letter indicates that a separate stormwater management site plan will be submitted. This has not been received and the current land development plan set does not respect a separate stormwater management site plan.**~~
7. A new private street agreement is needed for the new accesses to Calder Way. **Not resolved. The note provided does not meet the requirements of Ch 22, Section 504.2.A(2). A private street agreement needs to be prepared and submitted for review that meets the requirements of this section of the ordinance. The applicant suggests a discussion between attorneys to resolve this.**
8. The improvements to paving on Calder Way are not all within the right of way. An easement should be provided and included within the private street agreement. **Not resolved. See response to Comment 7 and provide the easement on the plan.**
9. The driveway entrances to Calder Way are required to be 26 feet wide with 20 feet radii. **Not resolved. The applicant states that a modification request has been submitted.**

10. *The wall for the refuse and recycling pad blocks sight distance for vehicles exiting the parking garage to Calder Way and need to be moved. Also, the pad seems small for the number of units in the building. Has the trash/recycling requirements for this building been properly considered and coordinated? **Not resolved. Please indicate on the plan where the temporary storage space referenced in the comment response letter is located.***
11. *The Township Board of Supervisors should review all discretionary approval items of the Streetscape Design (e.g. benches, trash receptacles, color and pattern of pavers, etc.) for concurrence with proposed design. **Pending review and action by Board of Supervisors.***
14. *Street lighting comments:*
 - a. *The street light poles and placement need to be reviewed to make sure they can accommodate the proposed banner and planter arms. **Please provide 24” banner arms to be consistent with banner arms being installed by the Township at other locations. Specify on the plan for the banner arms to be installed perpendicular, towards the building.***
 - c. *The plan needs to show the type and location of pull boxes to be placed adjacent to each light fixture. **Consider placing the pull boxes that are at the base of each light fixture on the building side of the foundation and run the conduit that is parallel to West College Avenue into the pull box without using sweeps.***
 - j. *The lighting design sheets ES1 and ES2 provided via e-mail from John Sepp on January 12, 2021 need to be incorporated into the land development plan set. **The plans are include on the title sheet but were not included with this submission. The plan set now has ES1 and ES2 utilized twice. Please revise the sheet numbers to avoid confusion.***
 - k. **Address all comments from Barton Associates.**
 - l. **For consistency in the West College Avenue corridor, consider 14’ pole heights, as were installed at Corl Street. This was done by the Township to meet glare design requirements.**
16. *Sidewalk easements need to be depicted on the plan and an appropriate easement agreement provided for recording with the final plan for public sidewalks located on private property. ~~The agreement is not referenced in the site notes.~~ **Once the lot consolidation plan and new deed is recorded, the remaining information can be completed on the agreement, signed by new owner, and submitted for Township signature.***
17. *The existing conditions plan will need to reflect the recorded lot consolidation plan which has to be completed prior to this plan being approved. All ownership data and property lines should be revised pending lot consolidation plan approval. **Pending recording of the lot consolidation plan.***

22. *The traffic impact study is still under review and may result in improvements to be added to the plan. Add a project reference note to the plan for the TIS. **Pending. The TIS most recent review letter of January 22, 2021 needs addressed. Once approved, any required improvements need to be added to the plan and Note 9.e updated to provide the last revised date of the TIS.***
26. *The comment response letter indicates that signing has been added to the plan along West College Avenue for parking/stopping restrictions as well as pedestrian crossing. The location of these signs are shown on Sheet 5 with details on Sheet 12.*
 - b. *The parking/stopping restrictions signs must be approved by Township Ordinance. Please provide the appropriate engineering study to justify the placement of the signs to support the ordinance. The “No Stopping Any Time” is not an approved sign. Consider a “No Standing Any Time” which still permits the momentary stop while actually engaged in receiving or discharging passengers, but prohibits all other stopping such as deliveries. Consider time of day restrictions for certain areas along the frontage so off-peak deliveries could be made from some locations along West College Avenue. **The proposed one hour permitted parking along West College Avenue for a portion of the frontage is not acceptable. This will place a parked car in a marked travel lane with is contrary to the motor vehicle code. The No Standing Any Time sign is acceptable for this area. A sign with a right arrow will need placed at the end of the zone. The engineering study needs revised accordingly and the proposed No Stopping or Standing zone also needs to be included in the study along with specific location limits. The lane widths in the study (F7 and F8) should be 11’, not 17’.***
 - d. *The pedestrian sign is shown in two locations on the plan. It is presumed that one is an advance warning sign and the other is placed at the crosswalk. Appropriate supplemental signs need to be included. It is also recommended to make these signs fluorescent yellow-green. **The W11-2 sign size should be 30”x30”.***

A revised plan needs to be provided addressing all the above comments. If you or the applicant have any questions on these comments, please contact me.

Attachment: Barton Associates Review

Copy: Scott Brown, NTM
Jennifer Harrington, BA
Mellissa Southern, SSE
John Sepp, Penn Terra
Jenna Wargo, Planning Director
Greg Garth, SC Borough
Andy Arnold, GDF for SC Borough
Greg Kausch, CRPA/CATA

February 2, 2021

Via Email

Township of Ferguson
3147 Research Drive
State College, Pennsylvania 16801

Attn: Ms. Kristina Aneckstein, Community Planner

**RE: West College Student Housing
Stormwater Management Site Plan and Lighting Plan Review**

Dear Kristina,

We have completed our third stormwater management and lighting review for the West College Student Housing Plan. The applicant's Design Professional, PennTerra Engineering, Inc., submitted the following information that serves as the basis of our review:

1. West College Student Housing - Preliminary Land Development Plan, dated August 14, 2020 last revised January 27, 2021 .
2. West College Ave. Student Housing - Post Construction Stormwater Management Plan (report), dated August 14, 2020 and last revised January 27, 2021.
3. Comment response letter dated January 27, 2021.

NTM has reviewed these plans for compliance with Township lighting and stormwater management ordinances (Chapters 4 of the Township Code and 26 of the Township Code). Our continuing comments are provided in bold face text below:

Chapter 4, Part 1 - Outdoor Lighting

3. The luminance levels of the Type B fixture on the west corner of the building towards South Butz Street exceeds the maximum maintained illuminance levels allowed at property lines. The remaining proposed lighting meets the requirements for the maximum maintained illuminance levels allowable at property lines.

2020 11 19 Comment: Applicant indicates that the adjoiner will provide an easement for this encroachment. A copy of the executed easement agreement will be required prior to plan approval.

2021 01 19 Comment: **November 19 comment acknowledged by applicants Engineer. Comment remains.**

Chapter 26 – Stormwater Management

1. On the Cover Sheet Identify which plan sheets are to be recorded as part of the Stormwater Management Site Plan.

2020 11 19 Comment: The sheets identified do not include all the information required per §26-402 3.B. Specifically items (1), (6), (9), (14), (15), (21), (22), (25), (26), (27), (28), (29). Some of this information is included on other plan sheets. All sheets intended to meet the requirements of §26-402 3.B. should be identified.

Per Township Engineer Comment 1, a separate Stormwater Management Site Plan must be submitted including all information identified in §26 Article IV.

2021 01 19 Comment: It has been brought to my attention that all plan content items identified in §26-402 3.B must be included on Stormwater Management site plan sheets which need to be separate from sheets used to meet content requirements for the preliminary plan. This includes appropriate signature blocks, notes, and any documentation related to the stormwater design.

Information not currently included on plan sheets identified in the Index as being part of the Stormwater Management Site Plan are listed below:

Item (6) requires that an existing conditions plan be included.

Item (21) requires that a note be included identifying that infiltration testing be performed as part of the as-built certification. The note should also identify the minimum infiltration rate that must be achieved.

Item (22) requires that the actual repair detail for the existing site sinkhole be identified and detailed on the plan.

Also, the grading details illustrated on Sheets 7 and 8, all site cover conditions including landscaping located in drainage swales, and all complete roof drainage details must be part of the Stormwater Management Site Plan.

2021 02 02 Comment: Applicant indicates that a separate Stormwater Management Site Plan Drawing set will be submitted under separate cover. Plan set not yet received. Comments from 2021 01 19 remain.

10. Provide roof plumbing plans identifying areas tributary to each roof drain line proposed on the Utility Plan. Also provide the location of discharges from the overflow or emergency roof drain system. The roof drainage subareas should also be identified on the drainage area plans.

2020 11 19 Comment: Comment not addressed. Note that the architectural plans specify downspout locations but no emergency overflow locations. The architectural plans also indicate downspouts are designed for 2.5 inches per hour. The local one year 5-minute intensity is 3.7 inches per hour. Please include an explanation of how the roof drainage system works and how any flows exceeding downspout capacities are managed.

2021 01 19 Comment: Comment partially addressed. Architectural Plan Sheet A1.13 provides a tabulation of the design rainfall quantity and downspout sizes for the 3.7 inch per hour 1-year storm event. This analysis and an accompanying graphic clearly illustrating the locations of the gutters and downspouts must be included as part of the Stormwater Management Site Plan

Drawings and Report. The report must also include an explanation of how the roof drainage system works and how any flows exceeding gutter or downspout capacities (up to a 100-year event) are to be managed.

2021 02 02 Comment: Applicant indicates that a separate Stormwater Management Site Plan Drawing set will be submitted under separate cover. Plan set not yet received. Comments from 2021 01 19 remain.

11. Specific plans and details should be included that illustrate how the existing sinkhole in the east corner of the site will be treated.

2020 11 19 Comment: Comment acknowledged but not addressed.

2021 01 19 Comment: §26 402 B. 22 in the Ferguson Township Ordinance and Section 222 b. (21) of the Borough of State College Ordinance require that modifications to sinkholes be detailed on the Stormwater Management Site Plan Drawings. Sinkhole repair shall be identified as a Critical Stage of Construction that is to be observed by a qualified geotechnical engineer or his designee. Also include a note indicating that an as-built detail of the repair shall be provided on the project Stormwater As-Built plans.

2021 02 02 Comment: Revisions were made to the Critical Stages of Construction notes on Sheet ES1 and a note was added to Sheet 4 identifying that the sinkhole repair detail is to be included as part of the Stormwater As-built plans. This information must also be represented on the Stormwater Management Site Plan Drawings.

14. Subsurface Detention Facility:

- c. To minimize the risk of sinkhole development, which could impact Township and Borough infrastructure, add notes and details as appropriate to ensure no leakage from this facility.

2020 11 19 Comment: Comment partially addressed. All joints and connections within and between Extended Detention Basin 1 and 1A should be watertight.

2021 01 18 Comment: Comment partially addressed. Provide a more complete connection detail for OS-1C and OS-1A.

2021 02 02 Comment: Comment partially addressed. The stone limits on Profile B-B do not match the stone limits shown in the plan view. Provide additional graphics or notes defining how OS-1C and OS-1A are to be attached to the R-Tank System. Also provide notes defining how the liner penetration at OS-1A is to be sealed.

18. Explain how peak discharges from the site will be managed during construction to ensure no increase in runoff to downstream drainage system.

2020 12 04 Comment: Comment not adequately addressed. Update the sequence of construction to identify how site runoff is to be controlled during all stages of construction. The perimeter controls shown on the E&S plan will initially direct all site runoff to the eastern corner of the site. Standard silt sock is not intended to provide sedimentation control for concentrated flows.

The sequence of construction must describe how the sinkhole in the easter most corner of the site will be repaired and protected from sediment laden runoff.

2021 01 19 Comment: Comment not adequately addressed with respect to sequencing to ensure runoff from the site is not concentrated to the eastern most corner of the site during all phases of construction.

2021 02 02 Comment: Applicant indicates that “Additional notes have been added to the plan.” Reviewer was unable to find said notes. Comment from 2020 01 19 remains.

37. The infiltration sump recharge credit is limited to the lesser of the capture volume or the volume tributary to the sump during the 1-year 24-hr storm.

2020 12 08 Comment: Comment not addressed. Include a clear summary calculation documenting the recharge required per §26 304 C (in cubic feet) and the recharge being provided.

2021 01 19 Comment: Unable to find the summary calculation and data table identified in the response letter.

2021 02 02 Comment: Comment partially addressed. Clearly identify all areas tributary to the infiltration sump on the proposed conditions drainage area map.

41. Address all outstanding stormwater related comments in the Township Engineer’s comment letter.

2021 01 19 Comment: Stormwater Comments by the Township Engineer have not been addressed at the time of this letter.

2021 02 02 Comment: Comment partially addressed. There is one continuing stormwater comment in the Township Engineer’s January 19, 2021 comment memo.

Additional Comments:

42. Newly proposed river stone area is not identified as being treated in accordance with the amended soil specification on Sheet PC2. Adjust the soil amendment volume credit and hydrologic/hydraulic analysis impacted by the associated change in runoff curve number for this area.

2021 02 02 Comment: Comment addressed.

43. Update the DA maps to identify the location of the proposed river stone. Also add the Amended soil hatch to the legend.

2021 02 02 Comment: Comment partially addressed. Include the Riverstone with Amended Soil in the Stormwater Management legend.

44. Pages 251 through 322 of the revised report appear to have been included in error. Please remove.

2021 02 02 Comment: Comment addressed

If you have any questions or require additional information, please feel free to contact me at 814-862-9191.

Sincerely,
NTM Engineering, Inc.



Scott A. Brown, PE, D.WRE
Senior Project Manager

ec: Mr. Ronald Seybert, Township Engineer, Ferguson Township
Mr. Gregory Garth, Borough of State College Senior Planner
Mr. James Coslo, Centre County Conservation District

2021 02 02 West College Student Housing r4

Project: Aspen West College Student Housing
Preliminary Land Development Plan (ES-409) **Date:** January 27, 2021

Project No: 2021012.01 **By:** JLH/RIK

Submission Date: January 11, 2021

Item No.	Drawing/ Spec Section	Comments	Response/By
1	ES1	The use of copper wire as a pull string is not advisable. Provide pull string made of nylon that is resistant to rot and mildew and having tensile strength of a minimum 200lbs.	
2	ES1	General Note B states that all wiring shall be of type RHW however wire type XHHW is indicated on the actual circuiting. Confirm wiring type intended for use and correct discrepancy on drawing.	
3	ES1	Provide trenching detail indicating provisions for traceable wire marker tape for all conduit runs on plan.	
4	ES1	Demonstrate the street lighting design meets/exceeds the PennDOT Glare Minimization Requirements.	
5	ES1	Base details/notes for street lighting and Millbank enclosures indicate 1/2" high base (above finished grade) with 1/2" chamfer. Provide a separate detail note which indicates a 4" high base (above finished grade) with 1/2" chamfer to protect poles and equipment from lawn mower damage.	
6	ES2	The specified Milbank enclosure's meter socket configuration is not compatible with West Penn Power's standards. Verify metering installation requirements with West Penn and provide compatible configuration. Indicate complete shop drawings shall be provided by Milbank for review by Ferguson Township during the Construction Phase of the project.	

7 ES2 Provide detailed description on plans for desired lighting control sequence of operations. Ferguson Township prefers the site lighting to operate dusk-to-dawn via central photocell and receptacles to turn 'on' via photocell and 'off' via timeclock.



November 10, 2020

John C. Sepp, P.E.
PennTerra Engineering, Inc.
3075 Enterprise Drive, Suite 100
State College, PA 16801

Reference: Preliminary Land Development Plan - West College Student Housing

Dear Mr. Sepp:

Land development plan approval is vested with the Borough's Planning Department and it is the Department's conclusion that the plan works toward meeting the general planning criteria and objectives of the zoning regulations of the Planned Commercial 2 (CP-2) zoning district.

DESIGN REVIEW BOARD COMMENTS (Advisory)

These comments are suggestions offered to help improve plan design, aesthetics, and functionality. The Design Review Board (DRB) reviewed the proposal during its October 6, 2020 meeting and provided the following comments:

1. Consider providing electric vehicle charging stations within the internal parking areas.
2. The DRB suggests placing the mailroom and lobby in the West Calder Way side of the building to avoid potential vehicle stoppages along W College Ave for deliveries and pick up/drop off by taxis, Uber, Lyft, etc. If the developer is unable or unwilling to do this, they should consider adding a pull-off lane/unloading area along W College Ave if it is technically feasible. This may also meet CATA's objectives for bus service to and from the area.
 - a. *Staff notes that this must be supported by the Traffic Impact Study, and the Borough and Ferguson Township Engineering departments must be consulted.*
3. The main building entrance does not stand out, and people coming from campus would likely enter through the commercial entrance area at the intersection of W College Ave and S Buckhout St.
4. The pedestrian crossing shown in the middle of W College Ave is a potential safety hazard that could be remedied by moving the main entrance to W Calder Way.
5. Is there dedicated parking provided in the building for employees and patrons of the commercial spaces? It should be clearly signed so people know it is available.
6. The DRB strongly encourages bicycle parking within the building's parking area to avoid residents bringing bicycles up to their apartments and potentially damaging the elevators and corridors.
7. Consider making the kitchens larger and suitable for families in addition to students in the event that the housing market changes in the future and families look to rent apartments in the building.
8. The DRB suggests adding conduits to facilitate the future addition of solar panels on the building roof.
9. Consider pursuing LEED certification for the building.
10. The exterior lighting is missing and needs to be shown on the final plans.
11. Security cameras are recommended inside and outside the building.
12. The DRB recommends upgrading W Calder Way if it is not already required by either municipality.
13. The streetscape along W College Ave is important. Consider providing enough area for outdoor seating.
14. The DRB recommends providing a full-time onsite building manager.

15. Coordinate recycling and refuse accommodations with the Borough Sanitation Foreman and Ferguson Township staff as applicable.

PLANNING COMMISSION COMMENTS (Advisory)

The Planning Commission (PC) reviewed the plans at its October 22, 2020 meeting and offered the following comments:

1. Consider designating areas for UBER, Lyft, and taxis.
2. How will building access be controlled?
3. Consider providing a designated loading area.
4. The overall energy efficiency of the building is important.
5. The PC suggests making accommodations for solar energy.
6. Bicycle parking facilities within the parking area are recommended to avoid damage to the elevators, stairwells, and corridors.
7. The PC suggests providing inclusionary housing units within the building.
8. Consider the impact of lighting to the surrounding houses in the neighborhood.
9. Is a crosswalk at the turn at S Buckhout St optimal for pedestrian/bicycle safety?
10. Pedestrian safety in this area is a major concern. The PC suggests some form of traffic control where the pedestrian accesses are located.
11. Consider improving the entirety of W Calder Way in the surrounding area because of pedestrian and traffic safety concerns all around and along the school crossing area.
12. The Borough should think very carefully about mitigation of pedestrian safety hazards and these potential hazards should be discussed soon with PennDOT.
13. The PC recommends a post-construction traffic study update.
14. The developer may wish to reconsider use of balconies in buildings intended for students.
15. The Planning Commissioners reviewed the following comments provided by the public:
 - a. Consider ways to mitigate potential traffic impacts to the Holmes-Foster neighborhood.
 - b. This development could drastically change the neighborhood and increase noise, present safety concerns to the area around the Corl Street Elementary school, and decrease property values.
 - c. Consider making the curb cuts larger and sidewalks longer where pedestrian crosswalks would be located.
 - d. West Calder Way is a major pedestrian thoroughfare during the evening and the crosswalk at S Buckhout St is very dangerous.
 - e. Contemplate lighting and construction traffic impacts to the surrounding neighborhood.
 - f. Consider a second egress coming from the West Campus Parking Deck.
 - g. The installation of fences along the sidewalks may be appropriate.

BOROUGH ARBORIST COMMENTS (Required)

The Borough Arborist has reviewed the plans and offers the following comments:

1. The trees and plants proposed are appropriate for our area.
2. There is a 3-phase electric line running down the south side of W Calder Way, and the proposed trees will eventually interfere with the lines and they will be pruned by West Penn Power. Smaller trees or columnar trees are recommended in this area.

BOROUGH ENGINEER COMMENTS (Required)

The following engineering comments must be addressed prior to plan approval:

1. § XIX-1216b - Address all stormwater management plan review comments from NTM Engineering. Additionally, please submit a complete stormwater package to the Borough.
2. § XIX-305e - Address all TIS review comments from Stahl Sheaffer Engineering. Please submit all TIS revisions to the Borough.
3. Project constructability will be reviewed as part of the final plan review.

FIRE CHIEF COMMENTS (Required)

The Fire Chief has reviewed the plans and offers the following comments:

1. Although not on the drawings, there is an existing hydrant proximate to the site on the north corner of West College Avenue and S Buckhout St.
2. In the past there have been concerns about the ownership of some portions of West Calder Way in Ferguson Township. Are the Township's traffic ordinances enforceable in the section of West Calder Way adjacent to this site? The fire department needs to have unfettered access to the parking garage and rear of the structure.
3. All remaining site elements are acceptable as proposed.

ZONING/SALDO COMMENTS (Required)

The items listed below are content requirements that are needed on the final plan submission. The applicable sections of the zoning ordinance are cited.

General Comments

1. § XIX-305a.(23) - Provide a minimum of 4 geodetic reference points in degrees, minutes, and seconds or decimal degrees format. This is required by the Centre County GIS Office in order to accurately depict plan elements in geospatial datasets.
2. Refuse and recycling for the site will be the responsibility of Ferguson Township, not State College Borough since the majority of the development will be within the Township.
3. The plans need to be updated to show the consolidated lot rather than the individual lots that existed prior to the proposed consolidation. The lot consolidation plan needs to be approved and recorded prior to land development approval.
4. The plans incorrectly show "N Buckhout St" and need to be updated to show "S Buckhout St."
5. § 19-2706 - Provide a lighting plan meeting the requirements of Part K: Lighting.
6. Provide the following on the final plan:
 - a. § 305a.(9) - A signature block for the property owner, indicating agreement to install and maintain all landscaped areas.
 - b. § 305a.(19) - Signature blocks for the stormwater design engineer, Borough Engineer, and landowners.
 - c. § 305a.(24) - Space labeled "Municipal Approval By" for the signature of the Zoning Officer.
 - d. § 305a.(29) - A space for the stamp of the Centre County Recorder of Deeds.
 - e. § 305a.(35) - An approval signature block for the Borough Arborist.
7. § 305a.(33) - Provide a tree protection zone for each public tree, which shall be the area extending to the drip line of each public tree.
8. § 305a.(34) - Provide a tree protection report prepared by a certified arborist that assesses the health of each affected public tree identified in Section 32 that assesses the amount of canopy and/or root pruning that will result from the proposed land development on each affected public tree and that indicates the steps proposed to be taken by the applicant to mitigate all impacts for any public tree exposed to pruning (of either the root system or limbs) within the tree protection zone, storage of construction materials within the tree protection

zone, soil compaction within the tree protection zone during construction whether by equipment or for any other reason, or site access, whether permanent or temporary, within the tree protection zone.

9. § 305a.(36) - The plans must show the size and material of all proposed utility lines.
10. Based on the total number of parking spaces, a total of 6 ADA spaces are required. At least one of these needs to be van accessible.
11. § 14-118b - Building and property signage within the Borough will need to be separately reviewed and licensed in accordance with the Sign Ordinance (Chapter XV). Signs in Planned Commercial districts also require advisory review by the Design Review Board.
12. § 19-2403 - The civil plans indicate that 859 sq ft of office space will be provided within the Borough side of the building. Based on that square footage and the use of the space as "office," the provided parking is adequate. However, the architectural plans show it as "commercial" space and they do not show the gross occupiable square footage of the space. The civil and architectural plans both need to show the amount of square footage provided, and the proposed use so that the parking requirement can be determined. Any future change to the use of the space within the Borough side of the building will require a change of use permit to ensure that adequate parking is provided.

Sheet 1 - Cover Sheet

13. § XIX-305a.(23) - Please add the municipal boundaries to the Location Map.
14. § XIX-305a.(23) - The plans list both the UAJA and the Borough as sanitary sewer providers. We acknowledge that the UAJA will be responsible for treatment, but the final plan needs to confirm which entity will be responsible for collection and conveyance.

Sheet 4 - Landscaping and Layout/Record Plan

15. Please provide the landscaping plan on a separate plan sheet on the final plan submission.
16. § 1402b.(1) - Show the 30' required front yard setback along both E College Ave and S Buckhout St for the portion of the building within the Borough.
17. § 1402b.(3) - The 7'x7' transformer cannot be located as shown because the CP-2 regulations prohibit buildings and structures within the rear yard setback.
 - a. We also strongly recommend coordinating the placement of the 9'x9' generator pad with Ferguson Township to ensure that there is no pedestrian hazard near the rear entrance of the building.
18. § 1402c.(2) - Note 3.g should be updated to indicate that the open space requirements and calculations relate to the Borough portion of the property. *Staff notes that the provided open space meets the requirement.*

Architectural Plans

19. § XIX-305a.(23) - The plans need to show the gross square footage of the building areas within the Borough. This can be provided as labels or a table, and should exclude stairwells, elevator shafts, and any other non-occupiable space.

PROCEDURE

The Borough's zoning ordinance provides for a two-step land development submission process; preliminary (concept) plan followed by a final plan (Section 305.b). **This letter signifies the completion of the preliminary plan review, and the applicant may now proceed with a final plan submission.**

There is no deadline for submission of the final plan; it may be submitted at the applicant's convenience. The final plan must conform to the requirements of the zoning ordinance and may include any modifications made in response to the advisory comments provided by the Historic and Architectural Review Board (where applicable), Design Review Board, and Planning Commission.

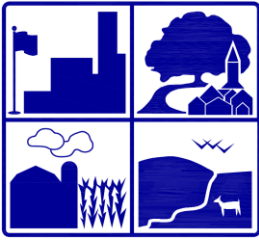
Please call me at (814) 234-7190 or email ggarthe@statecollegepa.us with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gregory J. Garthe", with a long horizontal flourish extending to the right.

Gregory J. Garthe, AICP
Planner/Zoning Officer

cc: Ed LeClear, Borough Planning Director
Aaron Jolin, Borough Engineer
Alan Sam, Borough Arborist



TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801
Telephone: 814-238-4651 • Fax: 814-238-3454
www.twp.ferguson.pa.us

TO: Planning Commission

FROM: Kristina Aneckstein, Community Planner

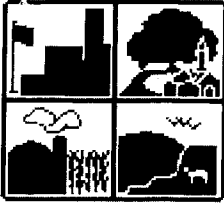
DATE: February 8, 2021

SUBJECT: Application for Consideration of a Modification/Waiver

PennTerra Engineering, Inc has requested a modification/waiver from Section 502.5.I.3.b of the Ferguson Township Subdivision and Land Use Ordinance (SALDO). This section requires all entrances drives serving more than four dwelling units and all other uses in this category shall be laid out to conform to the design, service and access standards established in this chapter for the classification of street based on expected ADT. The driveway entrances to Calder Way are required to be 26 feet wide with a 20' radii based on street classification and expected ADT.

Penn Terra has proposed entrances to the building that meet Township parking lot design criteria and feel this design provides a safe access to the building.

Staff Recommendation: The Planning Commission make a recommendation to the Board of Supervisors to approve the Application for Consideration of a Modification/Waiver for Section 22.502.5.I.3.b for West College Avenue Student housing LDP, dated August 14, 2020 and last revised on January 27, 2021.



APPLICATION FOR CONSIDERATION OF A MODIFICATION
Ferguson Township, Centre County

Submittal Date: 11/9/2020

A fee of \$50.00 is required at the time of submitting this application.

The undersigned hereby applies for approval of a modification/waiver, submitted herewith and described below:

Applicant Information

Aspen Heights Partners, LLC

Name

8008 Corporate Centre Drive Charlotte NC

28226

Street Address

City

Zip

8142318285

Phone Number

Property/Plan Information

West College Student Housing

Plan Name

19052

8/14/20

Plan Number

Plan Date

West College Avenue and Buckout Street 24-2A-15

Project Location

Parcel Number

Scott L. and Glenda C. Yocum

Name of Property Owner(s)

P.O. Box 57

Boalsburg

16827

Street Address

City

Zip

Application Type:

Subdivision

Terraced Streetscape District (TSD)

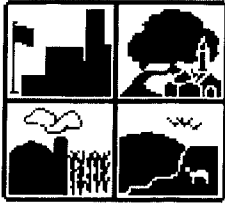
Land Development

Traditional Town Development (TSD) District

Modification/Waiver Request Information

Specific Section(s) of the Subdivision and Land Development Ordinance or Design Standards for which a Modification/Waiver is requested:

22-502-51(3)(b) - All entrance drives serving more than four dwelling units and all other uses in this category shall be laid out to conform to the design, service, and access standards established in this chapter for the classification of street based on expected ADT.



APPLICATION FOR CONSIDERATION OF A MODIFICATION
Ferguson Township, Centre County

State any proposed alternative(s) to the requirement:

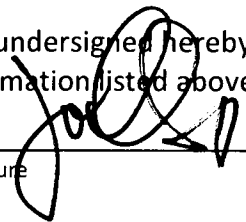
The proposed entrances to the building are designed to meet Township parking lot design criteria.

Please state in full, the grounds and facts of the unreasonableness or hardship the Ferguson Township Subdivision and Land Development Ordinance has placed on the property.

The entrances to the building do not meet township street standards but are more than adequate to provide safe access to the building. Please note that the access to the project is from Calder Way which has a smaller width than the access to the building (Calder is 20' wide, the proposed driveway is 24' wide). The access to the building is actually an access to a parking lot. The design meets Township parking lot design criteria.

*If necessary, please continue with your hardship specification on another page.

The undersigned hereby represents that, to the best of their knowledge and belief, all information listed above is true, correct, and complete.



Signature

11-9-2020

Date

-For Office Use Only-

Date Received: _____ By: _____

Date Paid: _____ Check No.: _____ Amount: _____

Advertisement Dates: _____ Planning Commission Review Date: _____

Board of Supervisors Meeting Date: _____

FERGUSON TOWNSHIP
CHAPTER 22 SUBDIVISION AND LAND DEVELOPMENT,
PART 2—TERMINOLOGY, SECTION 202—DEFINITIONS

Definitions.

Unless a contrary intention clearly appears, the following words and phrases shall have the meanings given in this section. All words and terms not defined herein shall be used with a meaning of standard usage as defined in Merriam Webster's Collegiate Dictionary, Eleventh Edition.

ARBORIST—The Arborist of Ferguson Township. The Arborist is a professional in the practice of arboriculture. This term shall include the Township Arborist as well as any consultants engaged to perform similar services in the promulgation and enforcement of the Ferguson Township Ordinances.

APPROVED PRESERVED TREE—Any tree that is inside the limit of disturbance and is to be properly protected and not destroyed or injured during construction as required by this chapter and as suggested by the owner and approved by the Township Arborist.

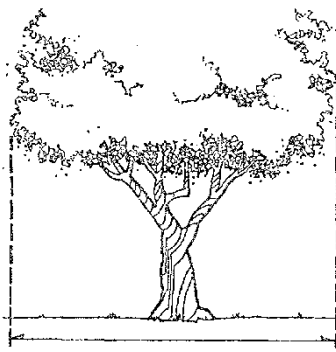
BOUNDARY TREE—A tree on an adjacent property whose root drip line intrudes across the property line of the property under consideration.

CALIPER—A measure of nursery stock measured in diameter. For four-inch diameter stock or smaller, the measure is taken at six inches above the root ball. For stock above four inches, the measurement is taken at 12 inches above the root ball.

CANOPY TREE—A tree, either single-stemmed or multi-stemmed (clump form), which has a caliper of at least 2 inches at planting and is of a species which, at maturity, shall reach a height of at least 30 feet with a spread of at least 30 feet. See the Township's official plant list for a listing of permitted canopy trees.

DIAMETER AT BREAST HEIGHT (DBH)—A measure of a tree trunk diameter in inches, taken at 4 ½ feet above the natural ground line. The measured section of the tree should be free of branches and representative of the typical age of the tree species. DBH measurement is applied to existing trees (compared to caliper used for nursery stock).

DRIPLINE—The boundary created by the outermost branches of a tree.



DRIPLINE

Rendering for illustrative purposes only.

EVERGREEN TREE—A tree, either single-stemmed or multi-stemmed (clump form), which is a minimum of six (6) feet tall at planting and is a species which at maturity can be expected to reach a height of at least 20 feet. See the Township’s official plant list for a listing of permitted evergreen trees.

FARM-BASED BUSINESS—A scale of operation essential to farm activities and based on production of products. This use shall be considered of similar nature and function as a home-based business.

FLOWERING/ORNAMENTAL TREE—A tree, either single-stemmed or multi-stemmed (clump form), which has a caliper of at least 1 1/2 inches at planting and is of a species which, at maturity, can be expected to reach a height of at least 10 feet. See the Township’s official plant list for a listing of permitted trees.

GROUND COVER—A low-growing perennial plant.

HEDGEROW—A narrow linear vegetated area with a mix of woody trees and shrubs enclosing or separating farm fields and pastures.

HERITAGE TREE—Any tree or stand of trees located on public or private property, of landmark importance due to age, size, species horticultural quality or historic importance that has a DBH greater than 36 inches or an age greater than 75 years, and has been approved as a heritage tree by the Board of Supervisors and which has been accepted by the tree owner or responsible party.

INVASIVE SPECIES—Any plant that appears in the most recent invasive plants list published by the Pennsylvania Department of Conservation and Natural Resources (DCNR).

LIMIT OF DISTURBANCE—Boundary line to be shown on a plan delineating the area outside of which no activity of any sort relating to transplanting, demolition, grading, construction, drainage, storage or any other project activities is permitted.

NATIVE PLANTS—A plant species indigenous to the Northeastern United States that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions.

REMOVED TREE—Any tree that is destroyed, injured or otherwise not protected according to the provisions of this chapter.

REPLACEMENT TREE—A tree required to be planted per this chapter to compensate for the removal or damage of existing trees on a site.

SIGNIFICANT TREE—Any tree or stand of trees located on public or private property that is of landmark importance due to age, size, species, horticultural quality or historic importance that has been approved as a significant tree by Ferguson Township’s Tree Commission and which status has been accepted by the tree owner or responsible party.

TREE—Any hard-wooded perennial plants, whether evergreen or deciduous, or a species which normally reaches a height of eight feet or more at maturity.

TREE CANOPY—The layer of leaves, branches, and stems of a tree or trees that cover the ground when viewed from above.

TREE COMMISSION—Ferguson Township’s Tree Commission.

TREE CONDITION—An assessment of tree health and structure by the Arborist or a qualified arborist as approved by Ferguson Township’s Arborist.

TREE PROTECTION ZONE—An area approved by the Arborist that is radial in all directions to the trunk of a tree to be protected. The tree protection zone shall be 15 feet from the trunk of the tree to be retained, or the distance from the trunk to the dripline (the line marking the outer edge of the branches of the tree), whichever is greater. Where a group of trees or woodlands is to be protected, the tree protection area shall be the aggregate of the protection areas for the individual trees.

TREE RISK RATING—A method that ranks both the relative degree of risk and consequence of tree failure by considering tree condition and defects, the size of the tree part prone to failure and the vulnerability and value of any target that may be struck. Tree risk ratings include:

IMPROBABLE—Tree is not likely to fail even in severe weather.

POSSIBLE—Failure could occur but is unlikely during normal weather conditions.

PROBABLE—Tree failure is expected under normal weather conditions.

IMMINENT—Tree failure has started or will occur in near future.

TREE SURVEY PLAN—Plan identifying the size, location, species and canopy of all existing trees having a diameter at breast height (DBH) of six inches or greater.

FERGUSON TOWNSHIP
CHAPTER 22 SUBDIVISION AND LAND DEVELOPMENT,
PART 5—DESIGN AND IMPORVEMENT STANDARDS,
SECTION 515—TREE PRESERVATION AND PROTECTION

Intent.

Trees improve air and water quality. Trees reduce soil erosion, noise, and glare, while providing habitat for desirable wildlife. Trees moderate the climate and enhance community image, property values, and protects the public health, safety, and general welfare. The purpose of these regulations is to encourage the protection of trees through sound land use and tree management practices by:

1. Preserving, protecting and maintaining existing native trees in Ferguson Township and increasing the overall tree canopy and understory with native species and improving tree and ecosystem health on both public and private lands.
2. Preserving and evaluating healthy trees on site whenever possible, in partnership with the applicant, by ensuring that all applications for grading permits, land development plans, and subdivision plans respect existing trees as a natural resource.
3. Preserving and protecting all individual and groups of heritage trees as defined herein.

Applicability.

1. Any applicant who submits an application for a grading permit, land development plan, or subdivision plan of five parcels or more shall comply with the terms of this chapter.
2. Any applicant submits a Minor Alteration Plan may choose to take advantage of incentives within this chapter by compliance with the terms herein.
3. This chapter is not intended to apply to:
 - a. Farm-based business.
 - b. Subdivisions of four parcels or fewer.
 - c. A land development plan of a residential structure unless located within the Ridge Overlay Zoning District.
 - d. The removal of trees from a lot containing an existing single-family residence, unless such removal is a part of grading activities that impact one acre or more of area. However, no owner or occupant shall be permitted to remove trees if such trees have been planted or preserved to meet the requirements of Township ordinances or an application approved by the Township.
 - e. The removal of trees identified as dead or diseased by the Township Arborist.
 - f. The removal of trees for sale in the ordinary course of business from horticultural properties, such as farms, nurseries or orchards.
 - g. The removal of any tree, including preserved, Heritage and Significant, which is deemed a probable or imminent hazard by the Arborist as established by ISA Tree Risk Assessment.
 - h. The removal of trees required for approved utility construction and maintenance within established easement areas.
 - i. Timbering and forestry practices as defined by the Pennsylvania Municipalities Planning Code.

Tree preservation, protection and replacement.

1. Tree Survey Plan.
 - a. Every application for a grading permit, land development plan or subdivision plan shall include an existing tree survey plan and a proposed tree plan except any action that does not include ground coverage disturbance.
 - i. Minor Alteration Plans that choose to take advantage of the incentives within this Chapter shall submit an existing tree survey plan, a proposed tree plan and comply with the terms of this chapter.
 - b. Existing Tree Survey Plan. The existing tree survey plan shall contain existing topographic information at two-foot contour intervals and shall show all existing buildings and structures, driveways, parking areas, drainage structures, water detention/retention areas, utilities and all limits of grading.
 - i. The existing tree survey plan shall denote each tree currently on the lot over 6 inches in caliper and the existing canopy coverage. It will denote each tree that will be saved, the location of the tree protection fences for each tree to be saved and trees to be removed.
 1. Existing tree survey methodologies must be approved by the Township Arborist.
 - c. Proposed Tree Plan. The proposed tree plan shall contain proposed topographic information at two-foot contour intervals and shall show all proposed buildings, structures, driveways, parking areas, drainage structures, water detention/retention areas, utilities and all limits of grading.
 - i. The proposed tree plan shall denote the proposed tree replacement schedule, including the pre-existing trees that will be saved, and the proposed tree canopy of the replacement trees at maturity. The species of proposed replacement and additional trees shall be species listed on the Official Township Planting List. The proposed tree plan shall also include the landscaped buffer and all interior landscaping as required in §27-707, Landscaping.
 - d. The existing tree survey plan and proposed tree plan shall be reviewed by the Township Arborist.
 - e. The number of trees shall be calculated using the guidelines listed in this chapter.
 - f. Heritage, Significant and boundary trees shall be individually noted on the existing and proposed tree plans.
2. Tree preservation and protection.
 - a. Tree preservation. Every application for a grading permit, land development plan or subdivision plan application shall preserve 20% of the existing tree canopy on the lot, except where it can be demonstrated that it is not practical to do so and approved by the Township Arborist. The conditions for determining the practicality of tree preservation on a given lot shall be as follows:
 - i. Condition: Trees that are dead or determined to be in poor condition by the Township Arborist are not eligible for preservation.
 - ii. Species: Any invasive species as defined by this ordinance is not eligible for preservation.
 - b. The applicant may preserve more than the required 20% of the existing tree canopy on the lot to offset parking requirements for that site (as required by §22-501.C, Off-Street

Parking and Loading in the Subdivision and Land Development Ordinance), not to exceed 20% of parking credited.

- c. The applicant may plant additional trees on the lot to increase the overall tree canopy to offset parking requirements for that site (as required by §22-501.C, Off-Street Parking and Loading in the Subdivision and Land Development Ordinance), not to exceed 20% of parking credited.
- d. The credit (round up) for approved preserved trees and additional canopy tree plantings to offset parking requirements shall be calculated as follows:

Percentage of Existing Tree Canopy	Parking Credit
20%	Required
30%	10%
40%	15%
50%	20%

- i. Approved preserved trees around the perimeter of the property may offset the buffer requirements for the land development or subdivision (as required by §27-707, Landscaping, of the Zoning Ordinance). The number of trees required to be planted in buffer yards may be reduced by canopy tree credit for approved preserved trees as follows:
 - 1. The credit for approved preserved trees to offset buffer yard landscaping requirements shall be calculated as follows:

Diameter of Trunk of Preserved Tree (DBH in inches)	Number of Trees Credited
30 or greater	8
18 to 29	6
12 to 17	4
6 to 11	2

- ii. Any tree preserved within 20 feet of any proposed building or within five feet of a proposed road or sidewalk (measured from edge of curb or edge of right of way) shall not be considered an approved preserved tree by this Ordinance.
- iii. The Township Arborist will perform a tree assessment for each proposed preserved tree on the lot to assess the health and structure prior to credit calculations.
- e. The applicant is encouraged to maintain contiguous tree masses.
- f. Additional tree planting requirement.
 - i. If the applicant chooses to increase the tree canopy by planting additional trees, every additional tree must measure at a minimum 2 inches in caliper at time of planting and be listed on the Official Township Plant List.
 - ii. The species of additional planted canopy trees shall be subject to the recommendation of the Tree Commission. Species are to be hardy to the area and noninvasive and 60% shall be native, consistent with the provisions of this

section. The applicant can refer to Ferguson Township's Official Plant List for selections.

- iii. Subject to the approval of the Tree Commission:
 - 1. A Maximum of 30% of the additional planted canopy trees may be replaced with evergreen trees (at a minimum of 6 feet in height at the time of planting) at a ratio of two evergreen trees per required two-inch-caliper canopy tree.
 - 2. A maximum of 20% of the additional planted canopy trees may be replaced with ornamental/flowering trees at a ratio of two understory trees per required two-inch-caliper canopy tree.
 - 3. A maximum of 10% of the additional canopy trees may be replaced as shrubs with a minimum size of 2 gallons at time of planting and will reach 24" in height at maturity at a ratio of six shrubs per required two-inch-caliper canopy tree.
 - 4. A maximum of 10% of the additional canopy trees may be replaced as groundcover at a ratio of 40 plants to one two-inch-caliper canopy tree. The minimum size of the groundcover will be a one-gallon container.
- iv. Calculation and estimation of existing trees and canopy to be indicated on the existing tree survey plan shall be performed before any clearing commences and shall be performed in the presence of the Township Arborist.
- g. Protective fencing. Every application subject to this Ordinance shall be prepared in such a manner to preserve the healthy trees and shrubs on the site.
 - i. Prior to the preconstruction conference with the Township Arborist, protective fencing shall be placed around trees to minimize damage to root systems. Fencing shall be a minimum of 8 feet in height and constructed of chain link or other material approved by the Township Arborist.
 - ii. The protective fencing shall be placed around the dripline of the tree. Nothing shall be stored, stockpiled, temporarily placed, excavated or allowed in the protective fencing
 - iii. This fence will be installed prior to any and all earth disturbance.
 - iv. No fuel storage, refueling or maintenance of equipment or wash down of cement handling equipment shall be permitted within any protective fencing.
 - v. Any damage to the fencing or encroachment on the protected areas shall be remedied immediately. Any observed damage to the trees or roots shall be immediately reported to the Township and remedied as soon as is practicable.
 - vi. At the discretion of the Township Arborist, approved preserved trees that have not been adequately protected or damaged may be required to be removed and replaced at the expense of the applicant in addition to paying a fine of \$1,000.00.
 - 1. If the approved preserved tree was identified as a Heritage Tree, the applicant will be required to remove and replace the Heritage Tree in addition to paying a fine of \$1,000.00 and the appraised value of the Heritage tree as determined by the Township Arborist in accordance with established ISA tree appraisal standards.
- h. Preconstruction conference. 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 Arborist shall inspect the tree protection fences and other protective devices which have been installed to protect trees.

- i. Notification. After the preconstruction conference, the Township Arborist shall notify the Planning and Zoning Department of his/her findings in writing. Upon approval of the tree protection measures by the Township, grading and construction may proceed, provided that all pertinent permits have been secured.
- j. Invasive vines. Invasive vines which threaten the health of any approved preserved tree shall be cut at the base using a hand saw, snips or loppers, and treated with a basal herbicide to minimize regrowth. The vine shall not be pulled out of the tree but shall be allowed to die in place.
- k. Post-construction. Calculation of approved trees remaining after construction shall be performed by the applicant and reviewed and approved by the Township Arborist based on a procedure similar to that used in completing the tree survey. In the event the completed project is not in compliance with the approved schedule of preserved trees on the final plan, the applicant shall receive written instructions from the Township addressing reparation for all removed trees. The applicant shall complete the reparation, weather permitting, within 45 days of receiving such notification.
- l. Maintenance. All replacement and additional tree plantings shall be guaranteed and maintained in a healthy and/or sound condition or shall be replaced with a new tree of the same species with a minimum caliper of 2 inches to maintain conformance with the approved subdivision or land development plan.