
DEP Code No. 0200-19-032

SEWAGE FACILITIES PLANNING MODULE

for

CMU 5TH and Clyde Residence Hall and Campus Hub Ward 7 City of Pittsburgh Allegheny County, Pennsylvania

Prepared For:

**Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213**

Prepared By:

Langan Engineering and Environmental Services, Inc.

**2400 Ansys Drive, Suite 403
Canonsburg, Pennsylvania 15317**

LANGAN

**October 2019, Revised March 2020
250064901**

TABLE OF CONTENTS

APPENDIX	DESCRIPTION
A	Transmittal Letter and Correspondence
B	Resolution for Plan Revision for New Land Development
C	Component 3, Narrative Description of Project, Supporting Documentation
D	Alternative Sewage Facilities Analysis
E	Public Notice
F	USGS Map and Plot Plans
G	Cultural Resource Notice
H	PNDI Search Results
I	Component 4A
J	Component 4C
K	Completeness Checklist

APPENDIX A

Transmittal Letter and Correspondence



**TRANSMITTAL LETTER
 FOR SEWAGE FACILITIES PLANNING MODULE**

DEP USE ONLY				
DEP CODE #	APS ID #	CLIENT ID #	SITE ID #	AUTH. ID #

TO: Approving Agency (DEP or delegated local agency)
 PA DEP Southwest Regional Office
 400 Waterfront Drive
 Pittsburgh, PA 15222-4745

Date _____

Dear Sir:

Attached please find a completed Sewage Facilities Planning Module prepared by _____ (Name)

Langan Engineering and Environmental Services, Inc. (Title) for CMU 5th and Clyde Residence Hall and Campus Hub (Name)

a subdivision, commercial, or industrial facility located in the City of Pittsburgh

Allegheny (City, Borough, Township) County.

Check one

- (i) The Planning Module, as prepared and submitted by the applicant, is approved by the municipality as a proposed revision supplement for new land development to its "Official Sewage Facilities Plan", and is adopted for submission to the Department of Environmental Protection transmitted to the delegated local agency for approval in accordance with the requirements of Chapter 71 and the Sewage Facilities Act, OR
- (ii) The Planning Module will not be approved by the municipality as a proposed revision or supplement for new land development to its "Official Sewage Facilities Plan" because the project described therein is unacceptable for the reason(s) checked below.

Check Boxes

- Additional studies are being performed by or on behalf of this municipality which may have an effect on the Planning Module as prepared and submitted by the applicant. Attached hereto is the scope of services to be performed and the time schedule for completion of said studies.
- The Planning Module as submitted by the applicant fails to meet limitations imposed by other laws or ordinances, officially adopted comprehensive plans and/or environmental plans (e.g., zoning, land use, Chapter 71). Specific reference or applicable segments of such laws or plans are attached hereto.
- Other (attach additional sheet giving specifics)

Municipal Secretary: Indicate below by checking appropriate boxes which components are being transmitted to the Approving Agency.

- | | | |
|---|--|--|
| <input type="checkbox"/> Resolution of Adoption | <input type="checkbox"/> 3. Sewage Collection/Treatment Facilities | <input type="checkbox"/> 4.A. Municipal Planning Agency Review |
| <input type="checkbox"/> 2. Individual and Community Onlot Disposal of Sewage | <input type="checkbox"/> 3s Small Flow Treatment Facilities | <input type="checkbox"/> 4.B. County Planning Agency Review |
| <input type="checkbox"/> 2m. Sewage Management Program | | <input type="checkbox"/> 4.C. County or Joint Health Department Review |

 Municipal Secretary (print)

 Signature

 Date

Note: Please remove and recycle the Instructions portion of the Sewage Facilities Planning Module prior to mailing the appropriate completed components and supporting documents to the approving agency.

CORRESPONDENCE

Marci Carter

From: City Address Submissions and Questions <addressing@Pittsburghpa.gov>
Sent: Tuesday, February 25, 2020 9:53 AM
To: Bob Reppe
Subject: CPAC Approval Letter - 4727 & 4735 Fifth Ave

February 25, 2020

Bob Reppe
Carnegie Mellon University
Campus Design & Facility Development
5000 Forbes Ave
Pittsburgh, PA 15213

On February 24, 2020, the City of Pittsburgh Addressing Committee has approved/verified the following address(es):

Parcel	Approved Address	Neighborhood	Description
52-J-74	4727 Fifth Ave	Shadyside	HUB space
52-J-74	4735 Fifth Ave	Shadyside	Residence hall entrance
52-J-74	4723 Fifth Ave	Shadyside	Void Address

Your new/verified address (for 9-1-1 purposes) is effective immediately. If you require emergency services, you must give dispatchers the new/verified address. Where applicable, please put your new/verified number on your building(s)/site so it is visible from the street and on your mailbox(es). This will not only help mail carriers but also assist the emergency services in locating you or your tenant(s). You have 90 days to display the address(es) from receipt of this letter; otherwise you may be cited by the Department of Permits, Licenses and Inspections.

The City will notify relevant City of Pittsburgh departments, Allegheny County departments, and the United States Postal Service of the new/verified address(es). For all other purposes, such as bills, banks, creditors, and other contacts, you, as the property owner, have the sole responsibility to notify these entities of your new/verified address. You must inform your alarm company (if you have one) of the address change in order to ensure efficient emergency response.

If you have any questions, please don't hesitate to contact us at addressing@pittsburghpa.gov or Rebecca Reinhold at (412)255-2152.

Thank you for your cooperation.

City of Pittsburgh Addressing Committee
Innovation & Performance
City-County Building, Rm 604
414 Grant St
Pittsburgh, PA 15219

August 26, 2019

Ms. Samantha Bailey, P.E.
Langan
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

Subject: Water and Sewer (W/S) Use Approval Letter
4723 5th Avenue Development
Submitted: August 20, 2019

Dear Ms. Bailey:

Pursuant to your request, we have reviewed the Water and Sewer Use Application for the 4723 5th Avenue Development (Project) located at 4723 5th Avenue, Pittsburgh, PA 15224. We agree that the Project will result in the following flows:

Total Water Consumption, gpd:	<u>31,800</u>
Total Sanitary Flows, gpd:	<u>31,800</u>
Total Storm Flows, cfs:	<u>4.77</u>

Please be advised that this W/S Use Approval Letter is intended for PWSA purposes only. The Pennsylvania Department of Environmental Protection (PaDEP) is the governing body that makes the final determination on whether sewage facilities planning is required. The PWSA shall send a separate letter to the PaDEP for final review/approval.

Please be advised that the Project is located within a distressed sewershed. In the event that sewage facilities planning is required, we have enclosed for your use the location of the most limited capacity sewer (MLCS). The MLCS shall be flow monitored for a period of 30 days, unless otherwise directed by the PWSA.

Our review was based on information provided by your firm under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at 412-255-8800 x5532 or RHerring@pgh2o.com.

Sincerely,


Robert Herring, P.E.
Engineering Consultant

Enclosure

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Julie Ascioffa – PWSA (via email)
Thomas Flanagan – DEP (via email)
Regis Ryan – DEP (via email)
eBuilder File (via email)



Project No. _____

(PWSA USE ONLY)

**THE PITTSBURGH WATER AND SEWER AUTHORITY
ENGINEERING AND CONSTRUCTION DIVISION**

WATER AND SEWER USE APPLICATION

(Return completed submittal package to The Pittsburgh Water and Sewer Authority (PWSA), Engineering and Construction Division)

This application is used for commercial or residential projects that propose connecting to the PWSA water or sewer system or propose changing the amount of PWSA water consumed and/or flows discharged to the PWSA sewer system.

A. GENERAL INFORMATION

1. Name of Land Development Project CMU 5th and Clyde Residence Hall and Campus Hub
 Location of land development project: Use landmark or address, if available (e.g., north side of Liberty Ave 75 ft. east of intersection of Liberty Ave and 6th St.) 4723 5th Avenue, Pittsburgh, PA 15213

2. Nature of Development. Check appropriate box and provide total flows.

	Total Water Consumption (gpd)	Total Sanitary Flows (gpd)	Total Storm Flows (cfs)
<input checked="" type="checkbox"/> Residential	<u>31,800 GPD</u>	<u>31,800 GPD</u>	<u>4.77 CFS</u>
<input type="checkbox"/> Commercial	_____	_____	_____

3. Acreage of development 1.01 acres

4. Allegheny County Block & Lot Nos. 52-J-74, 52-J-87, 52-J-69

5. Ownership of Land Development

Name	Address
<u>Carnegie Mellon University</u>	<u>5000 Forbes Avenue, Pittsburgh, PA 15213</u>

6. Applicant (Subdivider, Developer, or Responsible Project Agent)
 Name Samantha Bailey, Langan Engineering and Environmental Services, Inc.
 Address 2400 Ansys Drive, Suite 403, Canonsburg, PA 15317
 Telephone 724-514-5162

B. WASTEWATER AND STORMWATER FACILITIES

Provide information on collection and treatment facilities.

1. **COLLECTION SYSTEM**
 - a. Number of proposed connections (sanitary and/or storm) 1 sanitary, 1 storm
 - b. Name of existing collection or conveyance system PWSA system - Clyde Street
 - c. Name of interceptor Monongahela Interceptor
 - d. Name of treatment facility Allegheny County Sanitary Authority (ALCOSAN)

2. **SITE PLAN (24" x 36" maximum size accepted)**
 The following information is to be submitted on a site plan of the proposed subdivision.

a. Existing building.	f. Existing and proposed right(s)-of-way.
b. Lot lines and lot sizes.	g. Existing and proposed street, roadway, etc.
c. Remainder of tract.	h. Water bodies and wetland areas.
d. Orientation to North.	
e. Show proposed sewer line to the point of connection to existing collection system. Including all components (collection & conveyance lines, pumps, etc.)	

<u>Samantha Bailey</u>	<u>7/10/2019</u>
Applicant Signature	Date

Project No.
(PWSA USE ONLY)

C. FALSE SWEARING STATEMENT (To be completed by individual completing the form)

I verify that the statements made in the Component are true and correct to the best of my knowledge, information, and belief. I understand that false statements in this Components are made subject to the penalties of 18 PA C.S.A. § 4904 relating to unsworn falsification to authorities.

CMU 5th and Clyde Residence Hall and Campus Hub

Name of Land Development Project (Same as on Page 1, Section A.1)

Samantha Bailey, P.E.	Senior Staff Engineer
Name (Print)	Title

<i>Samantha Bailey</i>	2400 Ansys Drive, Suite 403, Canonsburg, PA 15317
Signature	Address

724-514-5162	7/10/2019
Telephone Number	Date

D. CHAPTER 94 CONSISTENCY (See PA Department of Environmental Protection Current Regulations)

The following certification is to be completed by the Pittsburgh Water and Sewer Authority agent and agency responsible for completing the (DEP) Chapter 94 report for the collection, conveyance, and treatment facilities.

Planning Module shall likely be required to determine consistency w/ Chpt-94 regulations.
 We certify that the sewerage facilities proposed to serve the new land development described in this Planning Module are in compliance with the provisions of DEP Chapter 94, Municipal Wasteload Management and have adequate capacity to serve the sewage flows to be generated by this development, without creation of an overload or projected overload.

Collection System

Conveyance and Treatment

<i>[Signature]</i>	
Signature of Responsible Agent	Signature of Responsible Agent
Pittsburgh Water and Sewer Authority	ALCOSAN
8/26/2019	
Date	Date

E. PLANNING AGENCY REVIEW

City of Pittsburgh Municipal Planning Agency

This development/project has been reviewed and:

- is consistent
- is not consistent (objections attached)

with programs of planning for the area of the proposed development administered by this planning agency under the municipalities Planning Code (53 P.S. § 10101-11202).

City of Pittsburgh		
Department of City Planning	Zoning Administrator	Date

Stormwater Management

This development/project has been reviewed and:

- is consistent
- is not consistent (objections attached)

With programs of planning for the area of the proposed development administered by this planning agency under the current City of Pittsburgh storm water management regulations.

City of Pittsburgh		
Department of City Planning	Environmental Planner	Date

County or Joint County Health Department

This development/project has been reviewed and:

- approval is recommended
- approval is not recommended (objections attached)

Allegheny County Health		
Department	Signature of Responsible Agent	Date

January 30, 2020

Ms. Marci Carter
Langan
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

Subject: Sewage Facilities Planning Module (SFPM)
Approval Letter for Collection System Flows
Project Name: 4723 5th Avenue
PWSA Project No.: 19013.36

Dear Ms. Carter:

Pursuant to your request, we have reviewed the SFPM and determined that the Project will not create a dry-weather hydraulic overload within the next five (5) years for any collection facility owned by the Pittsburgh Water and Sewer Authority (PWSA). We have enclosed for your use the originally signed "Section J – Chapter 94 Consistency Determination". Please be advised that this approval is limited to the collection system portion of the SFPM.

Our review was based on information provided by others under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at 412-255-8800 x5532 or RHerring@pgh2o.com.

Sincerely,



Robert Herring, P.E.
Engineering Consultant

Enclosures

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Thomas Flanagan – DEP (via email)
Michael Lichte, P.E. – ALCOSAN (via email)
Leslie Stevens – City of Pittsburgh Law Department (via email)
eBuilder – Filing System (via email)

To: Barry King, P.E. - Director of Engineering and Construction

From: Robert Herring, P.E. - Engineering Consultant

Date: January 21, 2020

Subject: Department of Environmental Protection (DEP) - Sewage Facilities
Planning Module (SFPM)

Chapter 94 Consistency Determination

Project Name: 4723 5th Avenue

Project Address: 4723 5th Avenue, Pittsburgh, PA

PWSA Project Number: 19013.36

Dear Barry,

The Pittsburgh Water and Sewer Authority (PWSA) received a SFPM application for the aforementioned Project. In accordance with Title 25 of the Pennsylvania Code, the PWSA is required to prepare an annual Wasteload Management Report on the collection and conveyance of wastewater relative to available capacity. Our review of the SFPM was conducted to understand how the Project will impact available dry-weather capacity and whether the proposed flows will contribute to a dry-weather hydraulic overload within the next five (5) years. Please note that a dry-weather hydraulic overload shall require both the denial of the SFPM and the submission of a Corrective Action Plan to the DEP.

We have determined that the Project will not contribute to a dry-weather hydraulic overload within the next five years. Please refer to the enclosed hydraulic calculations for additional information. Upon your approval, please sign and return the enclosed "Section J - Chapter 94 Consistency Determination" page from the SFPM.

Our review was based on information provided by others under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly.

Yours truly,



Robert Herring, P.E.
Engineering Consultant

Enclosures

cc: e-Builder – Filing System

DEP Sewage Facilities Planning Module
Chapter 94 Consistency Determination
Hydraulic Calculations Review

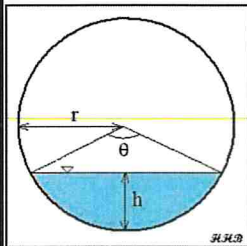
LEGEND:

Input Data

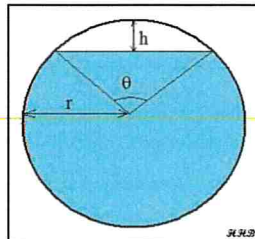
Output Data

PROJECT NAME: 4723 5th Avenue
 PROJECT LOCATION: 4723 5th Avenue, Pittsburgh, PA 15213
 TIE-IN LOCATION: Clyde Street - 15" PVC
 PWSA REVIEWER: Robert Herring, P.E.
 DATE: January 21, 2019

Section A: Manning Equation for Partially Filled Pipes



Partially Full Pipe Flow Parameters
(Less Than Half Full)



Partially Full Pipe Flow Parameters
(More Than Half Full)

Variable	Units	Description
Q	ft ³	Volumetric flowrate
n	Unitless	Manning Roughness Coeff.
A	ft ²	Cross-Sectional Area of Flow
R	ft	Hydraulic Radius
S	ft/ft	Slope of Hydraulic Grade Line
P	ft	Wetted Perimeter of "A"
r	ft	Radius
h	ft	Depth of Flow or Headspace
θ	radians	Central Angle

$$Q = \left(\frac{1.49}{n}\right) \times A \times R^{2/3} \times S^{1/2}$$

$$R = \frac{A}{P}$$

$$\theta = 2 \times \cos^{-1} \left(\frac{r-h}{r} \right)$$

$$A_{<50\% \text{ Full}} = \frac{r^2(\theta - \sin \theta)}{2}$$

OR

$$A_{>50\% \text{ Full}} = \pi \times r^2 \times \frac{r^2(\theta - \sin \theta)}{2}$$

$$P_{<50\% \text{ Full}} = r \times \theta$$

$$P_{>50\% \text{ Full}} = (2 \times \pi \times r) - (r \times \theta)$$

Section B: Data for Calculations

Variable	Value	Units
n	0.016	unitless
Material	Brick	
S	0.016	ft/ft
h	N/A	ft
D	2.50	ft
h/D	#VALUE!	ft/ft
P.F.	3.5	unitless

Peaking Factor, P.F.	
Combined Sewers	3.5
Sanitary Sewers	3

Proposed Project Flows		
Variable	Value	Units
Q _p	31,800	gpd

Section C: Design Flow Calculations

Variable	Description	Definition
Q _{d, peak}	Design Peak Flow	full pipe flow conditions
Q _{d, avg}	Design Avg. Flow	full pipe flow conditions divided by the peaking factor

Peak Design Flow Calcs		
Variable	Value	Unit
D	2.500	ft
r	1.250	ft
A	4.909	ft ²
P	7.854	ft
R	0.625	ft
Q _{d, peak}	43	cfs
Q _{d, peak}	27,658,181	gpd

Average Design Flow Calcs		
Variable	Value	Unit
Q _{d, avg}	7,902,338	gpd

Section D: Existing Flow Calculations

Variable	Description	Definition
Q _{ex, avg}	Existing Avg. Flow	per flow monitoring data
Q _{ex, peak}	Existing Peak Flow	per flow monitoring data

Existing Average Flow Calcs		
Variable	Value	Unit
Q _{ex, peak}	276,000	gpd

Existing Peak Flow Calcs		
Variable	Value	Unit
Q _{ex, avg}	197,000	gpd

Section E: Projected Flow Calculations

Variable	Description	Definition
Q _{proj, peak}	Projected Peak Flow	= (Q _{ex, peak} + Q _p) x 1.05
Q _{proj, avg}	Projected Avg. Flow	= Q _{proj, peak} ÷ P.F.

Projected Flow Calculations		
Variable	Value	Unit
Q _{proj, peak}	240,240	gpd
Q _{proj, avg}	68,640	gpd

Section F: Compare Results with Applicant's Submission

Variable	PWSA Calcs, gpd	Applic. Calcs, gpd	Difference, gpd	Difference, %
Q _{d, peak}	27,658,181	27,658,143	38	0%
Q _{d, avg}	7,902,338	7,902,327	11	0%
Q _{ex, peak}	276,000	276,000	0	0%
Q _{ex, avg}	197,000	197,000	0	0%
Q _{proj, peak}	323,190	323,190	0	0%
Q _{proj, avg}	92,340	92,340	0	0%



January 30, 2020

Mr. Thomas Flanagan
PA Department of Environmental Protection
Clean Water Program
400 Waterfront Drive
Pittsburgh, PA 15222

Subject: Tap Allocation Authorization Letter

Dear Mr. Flanagan:

Please be advised that the Pittsburgh Water and Sewer Authority (PWSA) authorizes the tap allocations associated with the following Project:

Project Name: 4723 5th Avenue
Project Address: 4723 5th Avenue
Pittsburgh, PA
Proposed Flow, gpd: 31,800
EDU's, 400gpd/EDU: 79.5

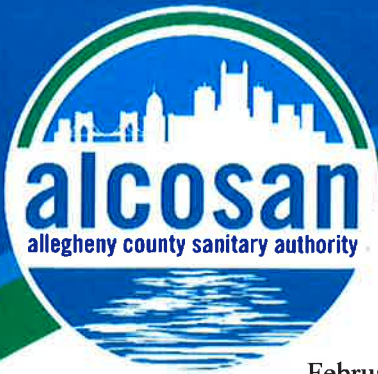
Our review is based on information provided by others under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at 412-255-8800 x5532 or RHerring@pgh2o.com.

Sincerely,

A handwritten signature in blue ink that reads 'Robert Herring'.

Robert Herring, P.E.
Consultant - Engineering

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Langan – Applicant (via email)
Regis Ryan – DEP (via email)
eBuilder – Filing System (via email)



February 12, 2020

Members of the Board

Corey O'Connor
Chair Person
Rep. Harry Readshaw
Sylvia C. Wilson
Shannah Tharp-Gilliam, Ph.D.
Jack Shea
John Weinstein
Brenda L. Smith

Arletta Scott Williams
Executive Director
William H. Inks, CPA
*Director
Finance & Administration*
Jan M. Oliver
*Director
Regional Conveyance*
Douglas A. Jackson, P.E.
*Director
Operations & Maintenance*
Kimberly N. Kennedy, P.E.
*Director
Engineering & Construction*
Michelle M. Buys, P.E.
*Director
Environmental Compliance*
Jeanne K. Clark
*Director
Governmental Affairs*
Joseph Vallarian
*Director
Communications*

Mr. Paul Ceriani, P.E.
Langan Engineering
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

**Re: CMU 5th and Clyde Residence Hall – City of Pittsburgh, 7th Ward
PA DEP Sewage Facilities Planning Module
ALCOSAN Regulator Structure M-29-00**

Dear Mr. Ceriani:

We have reviewed the Component 3 Planning Module for the referenced project to be located in the 7th Ward of the City of Pittsburgh. The project will generate an increased peak flow of 31,800 gpd in the ALCOSAN Monongahela River Interceptor and Woods Run Treatment Plant.

The capacity at the ALCOSAN M-29-00 Regulator Structure is approximately 44.9 MGD. The monitored peak dry weather flow is approximately 6.83 MGD. Dry weather capacity exists for this connection. However, the ALCOSAN Monongahela River Interceptor and the Woods Run Treatment Plant do not have the capacity for the flows generated during wet weather periods. This limitation will be addressed as ALCOSAN implements its Clean Water Plan.

ALCOSAN requests that this letter be made part of the planning module submission. The signed Component 3 Planning Module is attached. The sewers in this project are to be designed as separated sanitary and storm sewers. If you have any questions regarding this matter, please contact me at 412-732-8053.

Sincerely,

ALLEGHENY COUNTY SANITARY AUTHORITY

**Shawn P. McWilliams, EIT
Civil Engineer**

attachment

cc: C. Dean (w/o attachment)
D. Thornton (w/o attachment)
M. Lichte (w/o attachment)
Barry King/ PWSA (w/o attachment)
Thomas Flanagan/ PADEP (w/o attachment)
Fred Fields/ ACHD (w/o attachment)

COUNTY OF



ALLEGHENY

RICH FITZGERALD
COUNTY EXECUTIVE

October 9, 2019

Ms. Samantha Bailey, P.E.
Langan Engineering
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

**RE: SEWAGE FACILITIES PLANNING MODULE
CMU 5th and Clyde Residence Hall and Campus Hub, City of Pittsburgh
ALLEGHENY COUNTY**

Dear Ms. Bailey:

Enclosed is a signed copy of Component 4C, County or Joint County Health Department Review, for the above-referenced development. This Planning Module Component was received on October 7, 2019. The project proposes the following:

Project Description:	CMU 5th and Clyde Residence Hall and Campus Hub. The proposed development (owned and operated by Carnegie Mellon University) is to consolidate 3 lots (52-J-74, 52-J87, and 52-J-227) for the construction of a 99,000 GSF multi-story CMU 5th and Clyde Residence Hall and Campus Hub, impervious pedestrian walkways, landscaped areas, an asphalt parking lot, stormwater management facilities and associated site features located at 4723 5th Avenue in the City of Pittsburgh, Allegheny County.
Sewage Flow:	31,800 GPD
Conveyance:	The flow from this site will be conveyed via one on-site gravity lateral to the Pittsburgh Water & Sewer Authority (PWSA) collection system along Clyde Street (15-inch) to ALCOSAN POC M-29 to the Monongahela interceptor and then to the ALCOSAN Treatment Plant at Woods Run.
Sewer's Owner:	PWSA (collection) and ALCOSAN (interceptor)
Name of Sewage Treatment Plant:	ALCOSAN



KAREN HACKER, MD, MPH, DIRECTOR
ALLEGHENY COUNTY HEALTH DEPARTMENT

PUBLIC DRINKING WATER AND WASTE MANAGEMENT PROGRAM
3901 PENN AVENUE • BUILDING 5 • PITTSBURGH, PA 15224-1318
PHONE: 412.578.8040 • FAX: 412.578.8053 • WWW.ACHD.NET

Please be advised that a permit must be obtained from the Allegheny County Health Department's (ACHD) Plumbing Section prior to commencing any plumbing work for the proposed project. Plumbing work for which an ACHD Plumbing Permit must be obtained includes any plumbing work done on the site and any sewers, which will not be owned and operated by a municipality or a sewer authority. In addition, it should be noted that the approval of this sewage facilities planning module does not include approval of pipe size and/or type. Approval for pipe size and/or type must be obtained by filing a specific plumbing plan with the ACHD's Plumbing Section. If you should have any questions relative to ACHD's plumbing requirements, you can contact Ivo Miller, Plumbing Program Manager at 412-578-8393.

The ACHD has no objection to the approval of this project. If you have any questions, please call me at 412-578-8046.

Sincerely,

A handwritten signature in blue ink that reads "Freddie Fields". The signature is written in a cursive style with a large, prominent "F" and "D".

Freddie Fields, M.B.A.
Environmental Health Engineer III
Water Pollution Control & Solid Waste Management

FF/cb
Enclosure

cc: Thomas Flanagan, PA DEP w/attachment (electronically)
Ivo Miller, ACHD w/attachment (electronically)

APPENDIX B

Resolution for Plan Revision for New Land Development

Resolution No. _____

CITY OF PITTSBURGH

Introduced: Bill No:

Committee: Intergovernmental Affairs Committee Status:

Sponsored by:

Resolution adopting Plan Revision to the City of Pittsburgh's Official Sewage Facilities Plan for the CMU 5th and Clyde Residence Hall and Campus Hub, 4735 Fifth Avenue, Pittsburgh, PA 15213.

WHEREAS, SECTION 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the rules and regulations of the Pennsylvania Department of Environmental Protection (the "Department") adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the City of Pittsburgh to adopt an Official Sewage Facilities Plan (the "Official Plan") providing for sewage services adequate to prevent contamination of waters of the Commonwealth and/or environmental health hazards from sewage wastes, and to revise said plan whenever it is necessary to determine whether a proposed method of sewage disposal for a new development conforms to a comprehensive program of pollution control and water quality management; and

WHEREAS, Carnegie Mellon University has proposed the development of a certain parcel of land CMU 5th and Clyde Residence Hall and Campus Hub, 4735 Fifth Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-J-74 in the 7th Ward of the City of Pittsburgh and described in the attached Sewage Facilities Planning Module (the "Planning Module") for land development and proposes that project be served by a sewer tap-in to the City of Pittsburgh sewage systems; and

WHEREAS, the Pittsburgh Water Sewer Authority, the Allegheny County Sanitary Authority, the City of Pittsburgh Planning Department and the Allegheny County Health Department have reviewed the respective components of the attached Planning Module in regard to each authority/department's expertise and have approved the respective components as explained in the attached Planning Module.

WHEREAS, based upon the approval of the above authorities and departments, the City of Pittsburgh finds that the project described in the attached Planning Module for land development conforms to applicable zoning, subdivision, other municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF PITTSBURGH AS FOLLOWS:

SECTION 1. The City of Pittsburgh hereby adopts and submits to the Department of Environmental Protection for its approval as a Plan Revision to the City of Pittsburgh's Official Sewage Facilities Plan, the above-referenced Planning Module for land development, which is attached hereto as **Exhibit A**.

Said Planning Module includes the proposed land CMU 5th and Clyde Residence Hall and Campus Hub, 4735 Fifth Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-J-74, in the 7th Ward of the City of Pittsburgh.

Finally, that any Ordinance or Resolution or part thereof conflicting with the provisions of this Resolution, is hereby repealed so far as the same affects this Resolution.

Effective Date: _____

Passed in Council: _____

Approved: _____

Recorded in R.B. ___ page _____ in City Clerk's Office.

Fiscal Impact Statement
Updated 1/29/2020 to satisfy City Code §219.07

Department	Law
Preparer	Ben Smith
Standing Committee Representative	Paul Ceriani, P.E. (Langan Engineering) 724-514-5167
Type of Legislation	Other

Description of Legislation

Carnegie Mellon University has proposed the development of a certain parcel of land identified CMU 5th and Clyde Residence Hall and Campus Hub, 4735 Fifth Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-J-74, in the Seventh Ward of the City of Pittsburgh, Pennsylvania and described in the attached Sewage Facilities Planning Module (the "Planning Module") for land development and proposes that project be served by use of existing connections to the City of Pittsburgh sewage systems; and

The City of Pittsburgh must adopt and submit to the Department of Environmental Protection for its approval, as a Plan Revision to the City of Pittsburgh's Official Sewage Facilities Plan, the Planning Module for land development.

Total Cost	\$ 0			
Frequency of Expenditure	<input type="checkbox"/> One-Time		<input type="checkbox"/> Multi-Year	
Funding Source	<input type="checkbox"/> Operating	<input type="checkbox"/> Capital	<input type="checkbox"/> Grant	<input type="checkbox"/> Trust Fund
Is this item budgeted?	<input type="checkbox"/> Yes		<input type="checkbox"/> No	

JDE Account Information

N/A

Additional Operational Costs

N/A

Impact on City Revenue

N/A

If the resolution authorizes a professional services contract, complete this page:

<i>Method of Procurement</i> <i>Select one.</i>	<input type="checkbox"/> RFP	<input type="checkbox"/> Signed Waiver from OMB	<input type="checkbox"/> Amendment to Existing Contract <i>Do not fill out the rest of the form.</i>
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Name of Vendor and Award Justification

List the name of the awarded vendor and its qualifications.

Other Respondents

List the other respondents. If there were none, clearly state that.

Selection Criteria

Describe the selection or scoring criteria.

Selection Committee Representation

List the department(s) or bureau(s) represented on the committee. Do not list individual names.

Waiver Justification

If a waiver was granted, explain the justification.

EORC Synopsis

Insert synopsis that was presented.

<i>Date Presented at EORC:</i> Insert date.	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved
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*Per §219.07 of the City Code, you **must** include an electronic copy of the solicitation or your signed waiver with your submission to the Office of Management and Budget.*

Attachments

- *Please attach any additional documents and/or exhibits.*

City of Pittsburgh
Sewer Facilities Planning Module Questionnaire

PROJECT NAME: CMU 5th and Clyde Residence Hall and Campus Hub

1) What was the previous permitted use for this property?

Educational Institution

2) What is the proposed use for the property?

Educational Institution

3) How is green stormwater mitigation being integrated into the proposed project?

The proposed project includes the reuse of an existing infiltration trench and detention pipe and proposed green infrastructure including green roof areas, bioretentive tree pits, a bioretention area, and soil amendments. The stormwater management facilities implemented as part of this project will reduce the rate and volume of the proposed runoff and improve the quality of the proposed stormwater runoff.

4) Will the development result in a net positive or net negative change in stormwater flow?

After the implementation of the proposed stormwater management system, the development will result in a net negative change in stormwater flow.

APPENDIX C

Component 3, Narrative Description of Project, Supporting Documentation



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

Code No.

SEWAGE FACILITIES PLANNING MODULE

Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY

DEP CODE #	CLIENT ID #	SITE ID #	APS ID #	AUTH ID #

This planning module component is used to fulfill the planning requirements of Act 537 for the following types of projects: (1) a subdivision to be served by sewage collection, conveyance or treatment facilities, (2) a tap-in to an existing collection system with flows on a lot of 2 EDU's or more, or (3) the construction of, or modification to, wastewater collection, conveyance or treatment facilities that will require DEP to issue or modify a Clean Streams Law permit. Planning for any project that will require DEP to issue or modify a permit cannot be processed by a delegated agency. Delegated agencies must send their projects to DEP for final planning approval.

This component, along with any other documents specified in the cover letter, must be completed and submitted to the municipality with jurisdiction over the project site for review and approval. All required documentation must be attached for the Sewage Facilities Planning Module to be complete. Refer to the instructions for help in completing this component.

REVIEW FEES: Amendments to the Sewage Facilities Act established fees to be paid by the developer for review of planning modules for land development. These fees may vary depending on the approving agency for the project (DEP or delegated local agency). Please see section R and the instructions for more information on these fees.

NOTE: All projects must complete Sections A through I, and Sections O through R. Complete Sections J, K, L, M and/or N if applicable or marked .

A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name CMU 5th and Clyde Residence Hall and Campus Hub

2. Brief Project Description Carnegie Mellon University (CMU) is proposing to redevelop approximately 1.5 acres of land bounded by Fifth Avenue to the South, Clyde Street to the East, existing residential buildings to the North, and a CMU educational building to the West. The proposed improvements include the construction of the proposed 99,000 gross square foot building that will serve as a residence hall for on-campus housing as well as a campus hub for the CMU community. The proposed site area will consist of the multi-story building, impervious pedestrian walkways, landscaped areas, an asphalt parking lot, and associated site features. The sanitary service for the project will be provided by one proposed 10-inch on-site gravity sewer lateral to connect to the existing 15-inch PWSA combination sewer located in Clyde Street via wye. Proposed sewage flows will then be conveyed via the Monongahela Interceptor to the ALCOSAN Wastewater Treatment Facility, and ultimately discharged into the Ohio River.

B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)

Municipality Name	County	City	Boro	Twp
City of Pittsburgh	Allegheny	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title

Additional Individual Last Name	First Name	MI	Suffix	Title

Municipality Mailing Address Line 1	Mailing Address Line 2
City of Pittsburgh Law Department	414 Grant St. Suite 313

Address Last Line -- City	State	ZIP+4

Pittsburgh	PA	15219
Area Code + Phone + Ext. 412-255-2015	FAX (optional)	Email (optional)

C. SITE INFORMATION (See Section C of instructions)

Site (Land Development or Project) Name
CMU 5th and Clyde Residence Hall and Campus Hub

Site Location Line 1 4723 5 th Ave	Site Location Line 2
--	----------------------

Site Location Last Line -- City Pittsburgh	State PA	ZIP+4 15213	Latitude 40°26'51"N	Longitude 79°56'45"W
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Detailed Written Directions to Site: Head south on Waterfront Dr toward Three Rivers Heritage Trail. Continue straight onto 30th St Bridge. Turn right onto River Ave. Turn right onto 31st St Bridge/William Raymond Promenade Memorial Bridge. Continue onto 31st St. Turn left onto Liberty Ave. Turn right onto Herron Ave. Turn left onto Melwood Ave. Melwood Ave turns slightly right and becomes Gold Way. Turn left onto Baum Blvd. Turn right at the 1st cross street onto Melwood Ave. Turn left onto Centre Ave. Turn right onto N Neville St. Turn left onto Fifth Ave and the destination is on your left.

Description of Site The site is currently occupied by landscaped areas, pedestrian walkways, stormwater management facilities, and an asphalt parking lot.

Site Contact (Developer/Owner)

Last Name Horgan	First Name Ralph	MI	Suffix	Phone 412-268-2910	Ext.
---------------------	---------------------	----	--------	-----------------------	------

Site Contact Title Associate Vice President, Campus Design and Facility Development	Site Contact Firm (if none, leave blank) Carnegie Mellon University
---	--

FAX 412-268-8976	Email rh44@andrew.cmu.edu
---------------------	------------------------------

Mailing Address Line 1 5000 Forbes Avenue	Mailing Address Line 2
--	------------------------

Mailing Address Last Line -- City Pittsburgh	State PA	ZIP+4 15213
---	-------------	----------------

D. PROJECT CONSULTANT INFORMATION (See Section D of instructions)

Last Name Rowland	First Name Scott	MI	Suffix
----------------------	---------------------	----	--------

Title Principle/Vice President	Consulting Firm Name Langan Engineering & Environmental Services
-----------------------------------	---

Mailing Address Line 1 2400 Ansys Drive	Mailing Address Line 2 Suite 403
--	-------------------------------------

Address Last Line -- City Canonsburg	State PA	ZIP+4 15317	County Washington
---	-------------	----------------	----------------------

Email srowland@langan.com	Area Code + Phone 724-514-5123	Ext.	Area Code + FAX 724-514-5101
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E. AVAILABILITY OF DRINKING WATER SUPPLY

The project will be provided with drinking water from the following source: (Check appropriate box)

- Individual wells or cisterns.
- A proposed public water supply.
- An existing public water supply.

If existing public water supply is to be used, provide the name of the water company and attach documentation from the water company stating that it will serve the project.

Name of water company: PWSA

F. PROJECT NARRATIVE (See Section F of instructions)

- A narrative has been prepared as described in Section F of the instructions and is attached.
The applicant may choose to include additional information beyond that required by Section F of the instructions.

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (See Section G of instructions)

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter 93 (relating to wastewater treatment requirements).

1. COLLECTION SYSTEM

a. Check appropriate box concerning collection system

- New collection system Pump Station Force Main
 Grinder pump(s) Extension to existing collection system Expansion of existing facility

Clean Streams Law Permit Number _____

b. Answer questions below on collection system

Number of EDU's and proposed connections to be served by collection system. EDU's 80

Connections 1 (1 sanitary)

Name of:

existing collection or conveyance system Clyde Street 15-inch

owner PWSA

existing interceptor Monongahela Interceptor

owner Allegheny County Sanitary Authority (ALCOSAN)

2. WASTEWATER TREATMENT FACILITY

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter(s) 91 (relating to general provisions), 92 (relating to national Pollution Discharge Elimination System permitting, monitoring and compliance) and 93 (relating to water quality standards).

a. Check appropriate box and provide requested information concerning the treatment facility

- New facility Existing facility Upgrade of existing facility Expansion of existing facility

Name of existing facility Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility

NPDES Permit Number for existing facility PA 0025984

Clean Streams Law Permit Number PA 0025984

Location of discharge point for a new facility. Latitude 40° 28' 34" N Longitude 80° 02' 44" W

b. The following certification statement must be completed and signed by the wastewater treatment facility permittee or their representative.

As an authorized representative of the permittee, I confirm that the ALCOSAN
(Name from above) sewage treatment facilities can accept sewage flows from this project without adversely affecting the facility's ability to achieve all applicable technology and water quality based effluent limits (see Section I) and conditions contained in the NPDES permit identified above.

Name of Permittee Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent _____

Agent Signature _____ Date _____

(Also see Section I. 4.)

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (Continued)

3. PLOT PLAN

The following information is to be submitted on a plot plan of the proposed subdivision.

- a. Existing and proposed buildings.
- b. Lot lines and lot sizes.
- c. Adjacent lots.
- d. Remainder of tract.
- e. Existing and proposed sewerage facilities. Plot location of discharge point, land application field, spray field, COLDS, or LVCOLDS if a new facility is proposed.
- f. Show tap-in or extension to the point of connection to existing collection system (if applicable).
- g. Existing and proposed water supplies and surface water (wells, springs, ponds, streams, etc.)
- h. Existing and proposed rights-of-way.
- i. Existing and proposed buildings, streets, roadways, access roads, etc.
- j. Any designated recreational or open space area.
- k. Wetlands - from National Wetland Inventory Mapping and USGS Hydric Soils Mapping.
- l. Flood plains or Flood prone areas, floodways, (Federal Flood Insurance Mapping)
- m. Prime Agricultural Land.
- n. Any other facilities (pipelines, power lines, etc.)
- o. Orientation to north.
- p. Locations of all site testing activities (soil profile test pits, slope measurements, permeability test sites, background sampling, etc. (if applicable).
- q. Soils types and boundaries when a land based system is proposed.
- r. Topographic lines with elevations when a land based system is proposed

4. WETLAND PROTECTION

YES NO

- a. Are there wetlands in the project area? If yes, ensure these areas appear on the plot plan as shown in the mapping or through on-site delineation.
- b. Are there any construction activities (encroachments, or obstructions) proposed in, along, or through the wetlands? If yes, Identify any proposed encroachments on wetlands and identify whether a General Permit or a full encroachment permit will be required. If a full permit is required, address time and cost impacts on the project. Note that wetland encroachments should be avoided where feasible. Also note that a feasible alternative **MUST BE SELECTED** to an identified encroachment on an exceptional value wetland as defined in Chapter 105. Identify any project impacts on streams classified as HQ or EV and address impacts of the permitting requirements of said encroachments on the project.

5. PRIME AGRICULTURAL LAND PROTECTION

YES NO

- Will the project involve the disturbance of prime agricultural lands?
If yes, coordinate with local officials to resolve any conflicts with the local prime agricultural land protection program. The project must be consistent with such municipal programs before the sewage facilities planning module package may be submitted to DEP.
If no, prime agricultural land protection is not a factor to this project.
- Have prime agricultural land protection issues been settled?

6. HISTORIC PRESERVATION ACT

YES NO

- Sufficient documentation is attached to confirm that this project is consistent with DEP Technical Guidance 012-0700-001 *Implementation of the PA State History Code* (available online at the DEP website at www.dep.state.pa.us, select "subject" then select "technical guidance"). As a minimum this includes copies of the completed Cultural Resources Notice (CRN), a return receipt for its submission to the PHMC and the PHMC review letter.

7. PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES

Check one:

- The "Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt" resulting from my search of the PNDI database and all supporting documentation from jurisdictional agencies (when necessary) is/are attached.
- A completed "Pennsylvania Natural Diversity Inventory (PNDI) Project Planning & Environmental Review Form," (PNDI Form) available at www.naturalheritage.state.pa.us, and all required supporting documentation is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning module will be considered incomplete upon submission to the Department and that the DEP review will not begin, and that processing of my planning module will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials _____.

H. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (See Section H of instructions)

- An alternative sewage facilities analysis has been prepared as described in Section H of the attached instructions and is attached to this component.

The applicant may choose to include additional information beyond that required by Section H of the attached instructions.

I. COMPLIANCE WITH WATER QUALITY STANDARDS AND EFFLUENT LIMITATIONS (See Section I of instructions) (Check and complete all that apply.)

1. Waters designated for Special Protection

- The proposed project will result in a new or increased discharge into special protection waters as identified in Title 25, Pennsylvania Code, Chapter 93. The Social or Economic Justification (SEJ) required by Section 93.4c. is attached.

2. Pennsylvania Waters Designated As Impaired

- The proposed project will result in a new or increased discharge of a pollutant into waters that DEP has identified as being impaired by that pollutant. A pre-planning meeting was held with the appropriate DEP regional office staff to discuss water quality based discharge limitations.

3. Interstate and International Waters

- The proposed project will result in a new or increased discharge into interstate or international waters. A pre-planning meeting was held with the appropriate DEP regional office staff to discuss effluent limitations necessary to meet the requirements of the interstate or international compact.

4. Tributaries To The Chesapeake Bay

- The proposed project result in a new or increased discharge of sewage into a tributary to the Chesapeake Bay. This proposal for a new sewage treatment facility or new flows to an existing facility includes total nitrogen and total phosphorus in the following amounts: _____ pounds of TN per year, and _____ pounds of TP per year. Based on the process design and effluent limits, the total nitrogen treatment capacity of the wastewater treatment facility is _____ pounds per year and the total phosphorus capacity is _____ pounds per year as determined by the wastewater treatment facility permittee. The permittee has determined that the additional TN and TP to be contributed by this project (as modified by credits and/or offsets to be provided) will not cause the discharge to exceed the annual total mass limits for these parameters. Documentation of compliance with nutrient allocations is attached.

Name of Permittee Agency, Authority, Municipality _____

Initials of Responsible Agent (See Section G 2.b) _____

See *Special Instructions* (Form 3800-FM-BPNPSM0353-1) for additional information on Chesapeake Bay watershed requirements.

J. CHAPTER 94 CONSISTENCY DETERMINATION (See Section J of instructions)

Projects that propose the use of existing municipal collection, conveyance or wastewater treatment facilities, or the construction of collection and conveyance facilities to be served by existing municipal wastewater treatment facilities must be consistent with the requirements of Title 25, Chapter 94 (relating to Municipal Wasteload Management). If not previously included in Section F, include a general map showing the path of the sewage to the treatment facility. If more than one municipality or authority will be affected by the project, please obtain the information required in this section for each. Additional sheets may be attached for this purpose.

1. Project Flows 31,800 gpd
2. Total Sewage Flows to Facilities (pathway from point of origin through treatment plant)

When providing "treatment facilities" sewage flows, use Annual Average Daily Flow for "average" and Maximum Monthly Average Daily Flow for "peak" in all cases. For "peak flows" in "collection" and "conveyance" facilities, indicate whether these flows are "peak hourly flow" or "peak instantaneous flow" and how this figure was derived (i.e., metered, measured, estimated, etc.).

- a. Enter average and peak sewage flows for each proposed or existing facility as designed or permitted.
- b. Enter the average and peak sewage flows for the most restrictive sections of the existing sewage facilities.
- c. Enter the average and peak sewage flows, projected for 5 years (2 years for pump stations) through the most restrictive sections of the existing sewage facilities. Include existing, proposed (this project) and future project (other approved projects) flows.

To complete the table, refer to the instructions, Section J.

	a. Design and/or Permitted Capacity (gpd)		b. Present Flows (gpd)		c. Projected Flows in 5 years (gpd) (2 years for P.S.)	
	Average	Peak	Average	Peak	Average	Peak
Collection	7,902,327	27,658,143	197,000	276,000	92,340	323,190
Conveyance	-	44.9 MGD	5.38 MGD	6.83 MGD	5.47 MGD	6.93 MGD
Treatment	-	250 MGD	216.1 MGD	250 MGD	202.9 MGD	250 MGD

3. Collection and Conveyance Facilities

The questions below are to be answered by the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities. These questions should be answered in coordination with the latest Chapter 94 annual report and the above table. The individual(s) signing below must be legally authorized to make representation for the organization.

YES NO

- a. YES NO This project proposes sewer extensions or tap-ins. Will these actions create a hydraulic overload within five years on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until all inconsistencies with Chapter 94 are resolved or unless there is an approved Corrective Action Plan (CAP) granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the module package.

If no, a representative of the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not affect that status.

b. Collection System

Name of Agency, Authority, Municipality PWSA

Name of Responsible Agent Barry King, P.E. / Director of Engineering

Agent Signature [Signature] Date 1/29/2020

J. CHAPTER 94 CONSISTENCY DETERMINATION (See Section J of instructions)

c. Conveyance System

Name of Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent SHAWN P. MCWILLIAMS, EIT

Agent Signature Shawn P. McWilliams

Date 2/12/2020

4. Treatment Facility

The questions below are to be answered by a representative of the facility permittee in coordination with the information in the table and the latest Chapter 94 report. The individual signing below must be legally authorized to make representation for the organization.

YES NO ALCOSAN IS UNDER A CONSENT DECREE TO ADDRESS WET WEATHER OVERFLOWS.

a. This project proposes the use of an existing wastewater treatment plant for the disposal of sewage. Will this action create a hydraulic or organic overload within 5 years at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this inconsistency with Chapter 94 is resolved or unless there is an approved CAP granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the planning module.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not impact that status.

b. Name of Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent SHAWN P. MCWILLIAMS, EIT

Agent Signature Shawn P. McWilliams

Date 2/12/2020

K. TREATMENT AND DISPOSAL OPTIONS (See Section K of instructions)

This section is for land development projects that propose construction of wastewater treatment facilities. Please note that, since these projects require permits issued by DEP, these projects may **NOT** receive final planning approval from a delegated local agency. Delegated local agencies must send these projects to DEP for final planning approval.

Check the appropriate box indicating the selected treatment and disposal option.

- 1. Spray irrigation (other than individual residential spray systems (IRSIS)) or other land application is proposed, and the information requested in Section K.1. of the planning module instructions are attached.
- 2. Recycle and reuse is proposed and the information requested in Section K-2 of the planning module instructions is attached.
- 3. A discharge to a dry stream channel is proposed, and the information requested in Section K.3. of the planning module instructions are attached.
- 4. A discharge to a perennial surface water body is proposed, and the information requested in Section K.4. of the planning module instructions are attached.

L. PERMEABILITY TESTING (See Section L of instructions)

The information required in Section L of the instructions is attached.

M. PRELIMINARY HYDROGEOLOGIC STUDY (See Section M of instructions)

The information required in Section M of the instructions is attached.

N. DETAILED HYDROGEOLOGIC STUDY (See Section N of instructions)

The detailed hydrogeologic information required in Section N. of the instructions is attached.

O. SEWAGE MANAGEMENT (See Section O of instructions)

(1-3 for completion by the developer(project sponsor), 4-5 for completion by the non-municipal facility agent and 6 for completion by the municipality)

Yes No

1. Is connection to, or construction of, a DEP permitted, non-municipal sewage facility or a local agency permitted, community onlot sewage facility proposed.

If Yes, respond to the following questions, attach the supporting analysis, and an evaluation of the options available to assure long-term proper operation and maintenance of the proposed non-municipal facilities. If No, skip the remainder of Section O.

2. Project Flows _____ gpd

Yes No

3. Is the use of nutrient credits or offsets a part of this project?

If yes, attach a letter of intent to purchase the necessary credits and describe the assurance that these credits and offsets will be available for the remaining design life of the non-municipal sewage facility;

(For completion by non-municipal facility agent)

4. Collection and Conveyance Facilities

The questions below are to be answered by the organization/individual responsible for the non-municipal collection and conveyance facilities. The individual(s) signing below must be legally authorized to make representation for the organization.

Yes No

- a. If this project proposes sewer extensions or tap-ins, will these actions create a hydraulic overload on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, a representative of the organization responsible for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with Chapter 71 §71.53(d)(3) and that this proposal will not affect that status.

- b. Collection System

Name of Responsible Organization _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

- c. Conveyance System

Name of Responsible Organization _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

5. Treatment Facility

The questions below are to be answered by a representative of the facility permittee. The individual signing below must be legally authorized to make representation for the organization.

Yes No

- a. If this project proposes the use of an existing non-municipal wastewater treatment plant for the disposal of sewage, will this action create a hydraulic or organic overload at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with §71.53(d)(3) and that this proposal will not impact that status.

- b. Name of Facility _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

(For completion by the municipality)

6. The **SELECTED OPTION** necessary to assure long-term proper operation and maintenance of the proposed non-municipal facilities is clearly identified with documentation attached in the planning module package.

P. PUBLIC NOTIFICATION REQUIREMENT (See Section P of instructions)

This section must be completed to determine if the applicant will be required to publish facts about the project in a newspaper of general circulation to provide a chance for the general public to comment on proposed new land development projects. This notice may be provided by the applicant or the applicant's agent, the municipality or the local agency by publication in a newspaper of general circulation within the municipality affected. Where an applicant or an applicant's agent provides the required notice for publication, the applicant or applicant's agent shall notify the municipality or local agency and the municipality and local agency will be relieved of the obligation to publish. The required content of the publication notice is found in Section P of the instructions.

To complete this section, each of the following questions must be answered with a "yes" or "no". Newspaper publication is required if any of the following are answered "yes".

Yes No

1. Does the project propose the construction of a sewage treatment facility ?
2. Will the project change the flow at an existing sewage treatment facility by more than 50,000 gallons per day?
3. Will the project result in a public expenditure for the sewage facilities portion of the project in excess of \$100,000?
4. Will the project lead to a major modification of the existing municipal administrative organizations within the municipal government?
5. Will the project require the establishment of *new* municipal administrative organizations within the municipal government?
6. Will the project result in a subdivision of 50 lots or more? (onlot sewage disposal only)
7. Does the project involve a major change in established growth projections?
8. Does the project involve a different land use pattern than that established in the municipality's Official Sewage Plan?

P. PUBLIC NOTIFICATION REQUIREMENT cont'd. (See Section P of instructions)

9. Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)?
10. Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in §71.21(a)(5)(i), (ii), (iii)?
11. Will sewage facilities discharge into high quality or exceptional value waters?
- Attached is a copy of:
- the public notice,
 - all comments received as a result of the notice,
 - the municipal response to these comments.
- No comments were received. A copy of the public notice is attached.

Q. FALSE SWEARING STATEMENT (See Section Q of instructions)

I verify that the statements made in this component are true and correct to the best of my knowledge, information and belief. I understand that false statements in this component are made subject to the penalties of 18 PA C.S.A. §4904 relating to unsworn falsification to authorities.

Paul Ceriani, P.E.



Name (Print)

Signature

Senior Project Engineer

September 10, 2019

Title

Date

2400 Ansys Drive, Suite 403

Canonsburg, PA 15317

724-514-5167

Address

Telephone Number

R. REVIEW FEE (See Section R of instructions)

The Sewage Facilities Act establishes a fee for the DEP planning module review. DEP will calculate the review fee for the project and invoice the project sponsor **OR** the project sponsor may attach a self-calculated fee payment to the planning module prior to submission of the planning package to DEP. (Since the fee and fee collection procedures may vary if a "delegated local agency" is conducting the review, the project sponsor should contact the "delegated local agency" to determine these details.) Check the appropriate box.

- I request DEP calculate the review fee for my project and send me an invoice for the correct amount. I understand DEP's review of my project will not begin until DEP receives the correct review fee from me for the project.
- I have calculated the review fee for my project using the formula found below and the review fee guidance in the instructions. I have attached a check or money order in the amount of \$ 4,000.00 payable to "Commonwealth of PA, DEP". Include DEP code number on check. I understand DEP will not begin review of my project unless it receives the fee and determines the fee is correct. If the fee is incorrect, DEP will return my check or money order, send me an invoice for the correct amount. I understand DEP review will NOT begin until I have submitted the correct fee.
- I request to be exempt from the DEP planning module review fee because this planning module creates **only** one new lot and is the **only** lot subdivided from a parcel of land as that land existed on December 14, 1995. I realize that subdivision of a second lot from this parcel of land shall disqualify me from this review fee exemption. I am furnishing the following deed reference information in support of my fee exemption.

County Recorder of Deeds for _____ County, Pennsylvania

Deed Volume _____ Book Number _____

Page Number _____ Date Recorded _____

R. REVIEW FEE (continued)

Formula:

1. For a new collection system (with or without a Clean Streams Law Permit), a collection system extension, or individual tap-ins to an existing collection system use this formula.

$$\# 80 \text{ Lots (or EDUs) X } \$50.00 = \$ 4,000.00$$

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
 - For community sewer system projects, one EDU is equal to a sewage flow of 400 gallons per day.
2. For a surface or subsurface discharge system, use the appropriate one of these formulae.

- A. A new surface discharge greater than 2000 gpd will use a flat fee:

\$ 1,500 per submittal (non-municipal)
\$ 500 per submittal (municipal)

- B. An increase in an existing surface discharge will use:

$$\# \text{ _____ Lots (or EDUs) X } \$35.00 = \$ \text{ _____}$$

to a maximum of \$ 1,500 per submittal (non-municipal) or \$ 500 per submittal (municipal)

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
 - For community sewage system projects one EDU is equal to a sewage flow of 400 gallons per day.
 - For non-single family residential projects, EDUs are calculated using projected population figures
- C. A sub-surface discharge system that requires a permit under The Clean Streams Law will use a flat fee:
- \$ 1,500 per submittal (non-municipal)
\$ 500 per submittal (municipal)

NARRATIVE DESCRIPTION OF PROJECT

SECTION F SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

**Re: Project Narrative
CMU 5th and Clyde Residence Hall and Campus Hub
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250064901**

The project site is located on Carnegie Mellon University's campus, northwest of the intersection of 5th Avenue and Clyde Street, in the EMI, Educational/Medical Institution District within the City of Pittsburgh, Allegheny County, Pennsylvania. Carnegie Mellon University (CMU) is proposing to redevelop approximately 1.5 acres composed of lots 52-J-74, 52-J87, and 52-J-227 to be consolidated, to include the proposed 99,000 GSF multi-story CMU 5th and Clyde Residence Hall and Campus Hub, impervious pedestrian walkways, landscaped areas, an asphalt parking lot, Stormwater management facilities and associated site features. The proposed development will be owned and operated by Carnegie Mellon University.

The project proposes one on-site gravity sewer lateral for the proposed building that will tie into the existing 15-inch PWSA combined sewer located in Clyde Street to be conveyed to and treated by Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility. This ultimate method (to serve the development in the long term, five years or more) will provide for disposal of the total combined daily flow of 31,800 gallons per day (106 EDU's). A reference for the approximate sewage flow for the proposed development can be found within Appendix C. The proposed lateral will remain private and will not create any undue financial burdens to the City of Pittsburgh, PWSA, or ALCOSAN.

Since the proposed development is located within a distressed PWSA sewershed, flow monitoring was conducted in accordance with the project's approved water and sewer use application. Flow monitoring at the most limited capacity downstream PWSA manhole MH052N001 was completed for 30 days between November 8, 2019 and December 7, 2019 by Drnach Environmental, Inc. Data was collected continuously in 5 minute intervals for the full 30 days, recording head (in), velocity (fps), flow (mgd), and precipitation (in). The results from this flow monitoring was used to update the dry flow data of the existing collection system in Section J of Component 3.

Water service will ultimately be provided by the Pittsburgh Water and Sewer Authority (PWSA) via one proposed 6-inch domestic service lateral and one proposed 8-inch fire service lateral to connect into the existing 8-inch PWSA water line located in Clyde Street. The total proposed water demand is 31,800 gallons per day. The existing municipal system is expected to adequately meet proposed demands. A copy of the water availability letter from PWSA can be found in Appendix C.

**ANTICIPATED SEWAGE
FLOW REFERENCE**

**CMU - 5th and Clyde Residence Hall and Campus Hub
S Neville Street - 30 Inch Combined Sewer
Dry Flow Comparison Calculations**

Given Information⁽¹⁾	
Pipe Location:	S Neville St
Pipe Type:	BR
Pipe Diameter (IN):	30
Slope:	1.64%
Wetted Perimeter (FT):	7.854
Manning's n Value:	0.016
Radius of Pipe, r (FT):	1.25
Area of Flow, A (FT ²):	4.909
Wetted Perimeter (FT):	7.854
Hydraulic Radius (FT):	0.625

Solve for Full Flow Peak & Average Capacity	
Flow (CFS):	42.793
Full Flow Peak Capacity (GPD):	27,658,143
Peak Factor:	3.5
Full Flow Average Capacity (GPD):	7,902,327

Flow Monitored Present Average Dry Flow	
Flow (GPD) ⁽²⁾ :	197,000

Flow Monitored Present Peak Dry Flow	
Flow (GPD) ⁽²⁾ :	276,000

Summary	
Anticipated Peak Flow Contribution (GPD) ⁽³⁾ :	31,800
Present Average Flow (GPD):	197,000
Present Peak Flow (GPD):	276,000
Design/Permitted Average Capacity (GPD):	7,902,327
Design/Permitted Peak Capacity (GPD):	27,658,143
Peak Projected Flow (GPD) ⁽⁴⁾	323,190
Average Projected Flow (GPD)	92,340

$$V = \frac{k}{n} R^{2/3} S^{1/2} \quad k=1.4859 ft^{1/3}/s \quad Q = VA$$

1. Pipe capacity information provided by PWSA in the Hydraulically Limited Sewer Calculation Spreadsheet
2. Dry Flow Data derived from Flow Monitoring Results - Dry Flow Data Tab
3. Information estimated using Table 2-1 of the PWSA Procedures Manual of Developers.
4. Projected Peak Flow = (Q_{ex, peak} + Q_{peak, contribute})*1.05

step	solve for	if flow depth < radius
1	circular segment height	$h = d$
2	central angle	$\theta = 2 \arccos\left(\frac{r-h}{r}\right)$
3	circular segment area	$K = \frac{r^2}{2}(\theta - \sin \theta)$
4	arc length	$s = r \times \theta$
5	flow area	$A = K$
6	wetted perimeter	$P_w = s$
7	hydraulic radius	$R_h = \frac{A}{P_w}$

**EXISTING SANITARY PIPE CALCULATIONS
CMU 5TH AND CLYDE**

Q_{max}	Based on Total Units Discharging
Q_{design}	$3.5 * Q_{max}$
Q_{full}	$1.49/n * A_{pipe} * R^{2/3} * S^{1/2}$
Q_{half}	FLOW AT HALF FULL = $0.48 * Q_{full}$
V_{max}	VELOCITY AT 80% FULL = $1.15 * Q_{full} / A_{pipe}$
V_{half} , (fps)	VELOCITY OF FLOW AT HALF FULL = $Q_{half} / (A_{pipe} * 0.5)$
PIPE SIZED ACCORDINGLY	CHECKS IF Q_{design} IS LESS THAN Q_{half}

FROM BLDG TO EXISTING 15-IN COMBO SEWER IN CLYDE STREET

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 1.0%

MATERIAL	PVC	Q_{full} , cfs	Q_{full} , gpd	Q_{half} , cfs	Q_{half} , gpd	V_{max} , fps	V_{half} , fps
LENGTH, ft	70	3.67	2,371,919	1.76	1,138,521	7.74	6.73
DIAMETER, in	10						
SLOPE	2.00%			PIPE SIZED ACCORDINGLY: TRUE			
n	0.011			$V_{max} < 10$ fps: TRUE			
Q_{max} , gpd	31,800			$V_{half} > 2$ fps: TRUE			
Q_{design} , gpd	111,300						

**DOCUMENTATION
FROM UTILITY COMPANIES**

August 26, 2019

Ms. Samantha Bailey, P.E.
Langan
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

Subject: Water and Sewer (W/S) Use Approval Letter
4723 5th Avenue Development
Submitted: August 20, 2019

Dear Ms. Bailey:

Pursuant to your request, we have reviewed the Water and Sewer Use Application for the 4723 5th Avenue Development (Project) located at 4723 5th Avenue, Pittsburgh, PA 15224. We agree that the Project will result in the following flows:

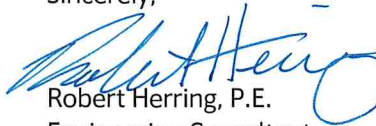
Total Water Consumption, gpd:	<u>31,800</u>
Total Sanitary Flows, gpd:	<u>31,800</u>
Total Storm Flows, cfs:	<u>4.77</u>

Please be advised that this W/S Use Approval Letter is intended for PWSA purposes only. The Pennsylvania Department of Environmental Protection (PaDEP) is the governing body that makes the final determination on whether sewage facilities planning is required. The PWSA shall send a separate letter to the PaDEP for final review/approval.

Please be advised that the Project is located within a distressed sewershed. In the event that sewage facilities planning is required, we have enclosed for your use the location of the most limited capacity sewer (MLCS). The MLCS shall be flow monitored for a period of 30 days, unless otherwise directed by the PWSA.

Our review was based on information provided by your firm under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at 412-255-8800 x5532 or RHerring@pgh2o.com.

Sincerely,


Robert Herring, P.E.
Engineering Consultant

Enclosure

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Julie Ascioffa – PWSA (via email)
Thomas Flanagan – DEP (via email)
Regis Ryan – DEP (via email)
eBuilder File (via email)



Project No. _____

(PWSA USE ONLY)

**THE PITTSBURGH WATER AND SEWER AUTHORITY
ENGINEERING AND CONSTRUCTION DIVISION**

WATER AND SEWER USE APPLICATION

(Return completed submittal package to The Pittsburgh Water and Sewer Authority (PWSA), Engineering and Construction Division)

This application is used for commercial or residential projects that propose connecting to the PWSA water or sewer system or propose changing the amount of PWSA water consumed and/or flows discharged to the PWSA sewer system.

A. GENERAL INFORMATION

1. Name of Land Development Project CMU 5th and Clyde Residence Hall and Campus Hub
 Location of land development project: Use landmark or address, if available (e.g., north side of Liberty Ave 75 ft. east of intersection of Liberty Ave and 6th St.) 4723 5th Avenue, Pittsburgh, PA 15213

2. Nature of Development. Check appropriate box and provide total flows.

	Total Water Consumption (gpd)	Total Sanitary Flows (gpd)	Total Storm Flows (cfs)
<input checked="" type="checkbox"/> Residential	<u>31,800 GPD</u>	<u>31,800 GPD</u>	<u>4.77 CFS</u>
<input type="checkbox"/> Commercial	_____	_____	_____

3. Acreage of development 1.01 acres

4. Allegheny County Block & Lot Nos. 52-J-74, 52-J-87, 52-J-69

5. Ownership of Land Development

Name	Address
<u>Carnegie Mellon University</u>	<u>5000 Forbes Avenue, Pittsburgh, PA 15213</u>

6. Applicant (Subdivider, Developer, or Responsible Project Agent)
 Name Samantha Bailey, Langan Engineering and Environmental Services, Inc.
 Address 2400 Ansys Drive, Suite 403, Canonsburg, PA 15317
 Telephone 724-514-5162

B. WASTEWATER AND STORMWATER FACILITIES

Provide information on collection and treatment facilities.

1. **COLLECTION SYSTEM**
 - a. Number of proposed connections (sanitary and/or storm) 1 sanitary, 1 storm
 - b. Name of existing collection or conveyance system PWSA system - Clyde Street
 - c. Name of interceptor Monongahela Interceptor
 - d. Name of treatment facility Allegheny County Sanitary Authority (ALCOSAN)

2. **SITE PLAN (24" x 36" maximum size accepted)**
 The following information is to be submitted on a site plan of the proposed subdivision.

a. Existing building.	f. Existing and proposed right(s)-of-way.
b. Lot lines and lot sizes.	g. Existing and proposed street, roadway, etc.
c. Remainder of tract.	h. Water bodies and wetland areas.
d. Orientation to North.	
e. Show proposed sewer line to the point of connection to existing collection system. Including all components (collection & conveyance lines, pumps, etc.)	

<u>Samantha Bailey</u> Applicant Signature	<u>7/10/2019</u> Date
---	--------------------------

Table of Contents

Existing Conditions	1
Proposed Development	1
Proposed Water and Sewer Use	1
Proposed Best Management Practices	2
FLOW CALCULATION SHEETS	2
Proposed Water Consumption and Sanitary Flows	2
Proposed Stormwater Flows	3
TR-55 SCS Method	3

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	NRCS Soils Map
Figure 3	Existing Land Use Map
Figure 4	Proposed Land Use Map

LIST OF DRAWINGS

DRAWING	DESCRIPTION
GI101	PWSA Sewer Termination Plan
GI102	PWSA Water Tap-In Plan
GI103	PWSA Sewer Tap-In Plan
GI501	PWSA Water Tap-In Details
GI502	PWSA Sewer Tap-In Details

LIST OF APPENDICES

APPENDIX	DESCRIPTION
A	Curve Number Calculations
B	Existing Hydrographs
C	Proposed Hydrographs
D	Flow Comparison Calculations
	Existing Sanitary Pipe Calculations
	Dry Flow Calculations
	MEP Flow Memo

PROJECT NARRATIVE

Existing Conditions

The project site is located at the northwest corner of the intersection of 5th Avenue and Clyde Street, on Carnegie Mellon University's campus, in the Shadyside neighborhood of the City of Pittsburgh, and is comprised of multiple parcels to be consolidated in consideration for the proposed development. The site is generally bound by residential buildings to the north, Clyde Street to the east, 5th Avenue to the south, and a CMU educational building to the west (refer to Figure 1). The site is currently occupied by a parking lot with landscaped areas and impervious pedestrian walkways.

Proposed Development

Carnegie Mellon University (CMU) is proposing to construct the 5th and Clyde Residence Hall and Campus Hub to provide additional on-campus housing for students and serve as a new campus hub for the Carnegie Mellon University community. The proposed multi-story building will consist of approximately 99,000 GSF with impervious pedestrian walkways, landscaped areas, and associated site features.

Proposed Water and Sewer Use

The proposed project includes a 10-inch sanitary sewer connection from the proposed building to the existing combined 15-inch PVC combination sewer line in Clyde Street, north of existing PWSA Manhole #052J014, via a proposed wye connection. See Table 1 for proposed sanitary sewage flow estimation computations. The proposed sanitary demand is anticipated to be 31,800 gallons per day, or 106 EDUs.

The proposed water facilities for the 5th and Clyde Residence Hall will consist of one 8-inch tap into the 8-inch water main in Clyde Street. A proposed 6-inch domestic service line and a proposed 8-inch fire service line will "tee" off of one proposed 8-inch service lateral. The 6-inch domestic service line and the 8-inch fire service line will enter a proposed meter vault within the property limits following the tee connection, per PWSA detail WS-C1V. From the meter vault, a 6-inch domestic service line and an 8-inch fire service line will emerge to service the proposed project. The proposed water demand is anticipated to be 31,800 gallons per day, or 106 EDUs.

The proposed storm facilities for the development include on-site gravity storm system, including inlets, underground storm sewer pipes, an underground detention system, a bioretention area, and a green roof, in addition to the reuse of an existing infiltration trench and underground detention pipe. Stormwater from the proposed site will be directed to the existing and proposed BMPs, to be detained and released at an allowable rate determined from the existing conditions model and as outlined in Section 1303.04 of the City of Pittsburgh Code. Stormwater will discharge from the existing and proposed underground detention systems and infiltration trench into the existing 15-inch PVC combined sewer in Clyde Street.

Stormwater discharge rates for the proposed development are based on the Rational Method described within the PWSA Procedures Manual for Developers. Based on calculations using the Rational Method, the site has a pre-development 25-year storm discharge of 4.48 cubic feet per second, and a post-development 25-year storm discharge of 4.74 cubic feet per second. The calculations are as follows:

$$\text{Pre-development Discharge} = [0.67(0.95) + 0.34(0.4)] * 5.8 = 4.48 \text{ cfs}$$

$$\text{Post-development Discharge} = [0.76(0.95) + 0.25(0.4)] * 5.8 = 4.77 \text{ cfs}$$

Based on calculations using the SCS Method described later in this narrative, the site has a storm flow of 5.49 cubic feet per second for the pre-development 25-year storm, and a flow of 6.16 cubic feet per second for the post-development 25-year storm, without the use of stormwater management controls. The use of stormwater best management practices (BMPs) will be implemented to ensure the post-development storm flow does not exceed the pre-development storm flow. Refer to Table 3, Table 4, Table 5, Appendix A, Appendix B and Appendix C for detailed calculations using the SCS Method.

At this time, the project will not receive public funding; therefore, it is not subject to Section 1303.03.a.3 and 1303.b.3 of the City of Pittsburgh Code. Stormwater runoff generated on-site will be passed through water quality devices or will infiltrate through the bioretention sections. Since the project area to be disturbed is greater than one acre, a General NPDES Permit will be obtained.

The existing municipal system is expected to meet the proposed demands for water, sanitary sewer, and storm sewer services for the development.

Proposed Best Management Practices

To meet the water quality requirements of the City of Pittsburgh and the Pennsylvania Department of Environmental Protection, the stormwater runoff from the proposed building will be directed to various water quality management devices/features, which will remove the required stormwater pollutants associated with runoff (i.e., TSS, oil, and grease).

FLOW CALCULATION SHEETS

Proposed Water Consumption and Sanitary Flows

The calculations of the total anticipated sanitary flows are based on the flow estimates found in Table 2-1: Sanitary Flow Estimates in the PWSA Procedures Manual for Developers. As shown in Table 1, the anticipated average sewage flow for the proposed development is 31,800 gallons per day, or 106 EDUs. The proposed net water consumption is expected to be the same as the proposed sanitary flows for the office building (31,800 gallons per day).

TABLE 1: PROPOSED SANITARY SEWAGE FLOW ESTIMATION

Type of Establishment	Unit	Size	Anticipated Average Rate (GPD/Unit)¹	Anticipated Average Sewage Flow (GPD)
School, boarding	Per Resident	173	100	26,500
School, day (without cafeterias, gyms or showers)	Per Student/Employee	282	15	4,230
Condensate ²	-	-	-	862
Required GPD =				31,592
Required EDUs³ =				106
Requested TOTAL GPD =				31,800

1 – Rate is based on the flow estimate defined in Table 2-1 of the PWSA Procedures Manual for Developers.

2 – Condensate Loads calculated for the proposed building as follows:

(lb/hour / 100 CFM of airflow) (12 hours / day) (60,000 CFM / 100 CFM) (1 lb / hour) (12 hours) (1 gallon / 8.345404 lbs) = 862 GPD

3 – EDUs are based on 300 GPD/EDU.

Proposed Stormwater Flows

The stormwater management design for this site follows Section 906.07 of the City of Pittsburgh Code and Chapter 7 of the Pennsylvania Department of Transportation Publication 584, which was adopted and approved in accordance with the Pennsylvania Storm Water Management Act.

TR-55 SCS Method

This study was prepared using methods contained in the USDA Soil Conservation Service Publication TR-55 "Urban Hydrology for Small Watersheds". TR-55 outlines procedures for calculating peak rates of runoff resulting from precipitation events and for developing runoff hydrographs. The storm flow estimates discussed in this narrative reflect the TR-55 results.

The TR-55 procedure simulates a watershed as a series of overland flows, channel flows, and inflow and outflow structures for its contribution to runoff. Values for area, curve number (CN), and time of concentration (Tc) were calculated for each watershed.

The CN is a land sensitive coefficient that dictates the relationship between total rainfall depth and direct storm runoff. Based on the coverage of soil groups and land use in the area, an average CN was determined for each watershed for existing and proposed conditions. The CN calculations for existing and proposed conditions can be found in the Appendix A.

Using the Soil Conservation Service Soil Survey for Allegheny County the soils within the watershed were divided into hydrologic soil groups (A, B, C, and D). The SCS classification system evaluates the runoff potential of a soil according to its infiltration and transmission rates. "A" soils have the lowest runoff potential and "D" soils have the greatest runoff potential.

The Tc is defined as the time for runoff to travel from the hydraulically most distant point of the watershed to a point of interest. Due to short flow paths, values of the time of concentration for existing and proposed conditions are equal to the minimum of five (5) minutes.

The design storm used for this study is the 24-hour SCS, Type II cumulative rainfall distribution. The following rainfall totals were used in the design:

TABLE 2: SCS 24-HOUR RAINFALL DISTRIBUTION

Storm Frequency*	Rainfall Intensity
1 year	2.04 inches
2 year	2.50 inches
5 year	2.99 inches
10 year	3.61 inches
25 year	4.31 inches
50 year	4.65 inches
100 year	5.71 inches

*Values from City of Pittsburgh Code of Ordinances – Section 906.07.F.2 Storm Frequencies (2-year, 10-year, 25-year and 100-year), and from NOAA data sourced in the Pennsylvania Department of Transportation (PennDOT) Publication 584 (1-year, 5-year and 50-year)

Rainfall hydrographs developed from TR-55 methods were then routed through the proposed connections to the existing combined sewer system. Based off of the results summarized in the following tables below, stormwater BMPs will be designed so that the post-development discharge rates do not exceed the pre-development discharge rates. More detailed calculations can be found in the appendices.

TABLE 3: SUMMARY OF EXISTING PEAK DISCHARGES

EXISTING DISCHARGE RATE (CFS)*							
	1-YEAR	2-YEAR	5-YEAR	10-YEAR	25-YEAR	50-YEAR	100-YEAR
EXISTING	1.961	2.657	3.417	4.389	5.489	6.022	7.678

*Values include a minimum 20 percent meadow cover for existing conditions per §1303.04.b.2 of the City of Pittsburgh Zoning Code

TABLE 4: SUMMARY OF PROPOSED PEAK DISCHARGES (WITHOUT BMP)

PROPOSED DISCHARGE RATE (CFS)							
	1- YEAR	2- YEAR	5- YEAR	10- YEAR	25- YEAR	50- YEAR	100- YEAR
<i>PROPOSED</i>	2.658	3.376	4.136	5.090	6.161	6.679	8.287

TABLE 5: SUMMARY OF PROPOSED PEAK DISCHARGES (WITH BMP)

PROPOSED DISCHARGE RATE (CFS)							
	1- YEAR	2- YEAR	5- YEAR	10- YEAR	25- YEAR	50- YEAR	100- YEAR
<i>PROPOSED</i>	1.817	2.248	2.693	3.243	3.856	4.151	5.062

\\langan.com\data\pit\data9\250064901\project data\discipline\site civil\permit apps\pwsa\water and sewer use application\01 cmu - 5th and clyde project narrative.docx

APPENDIX D

Alternative Sewage Facilities Analysis

SECTION H SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

**Re: Alternative Sewage Facilities Analysis
CMU 5th and Clyde Residence Hall and Campus Hub
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250064901**

The project site is located on Carnegie Mellon University's campus, at 5th Avenue and Clyde Street, in the EMI, Educational/Medical Institution District within the City of Pittsburgh, Allegheny County, Pennsylvania. Carnegie Mellon University (CMU) is proposing to redevelop approximately 1.5 acres composed of lots 52-J-74, 52-J-87, and 52-J-227 to be consolidated, to include the proposed 99,000 GSF multi-story CMU 5th and Clyde Residence Hall and Campus Hub, impervious pedestrian walkways, landscaped areas, an asphalt parking lot, and associated site features. The proposed development will be owned and operated by Carnegie Mellon University.

The project site is generally bound by residential buildings to the north, Clyde Street to the east, 5th Avenue to the south, and a CMU educational building to the west. The site is currently occupied by a parking lot with landscaped areas and impervious pedestrian walkways. An existing 15-inch PWSA combined sewer is located on Clyde Street.

The sanitary service for the project will be provided by one proposed on-site gravity sewer lateral to connect to the existing 15-inch PWSA combination sewer located in Clyde Street to be conveyed to the Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility in Pittsburgh, PA. This ultimate method will provide for disposal of the total combined daily flow of 31,800 gallons per day (80 EDU's). A reference for the approximate sewage flow for the proposed development can be found in Appendix C. The proposed lateral and private sanitary line will remain private and will not create any undue financial burdens to the City of Pittsburgh, PWSA, or ALCOSAN.

Alternative methods of sewage disposal that could be considered include on-site subsurface disposal systems (septic systems) and an individual package wastewater treatment plant. The existing developments in the area are all currently connected to the public sewer system; therefore, an on-site septic system would not be consistent with the neighboring buildings, nor would it be a practical solution to provide adequate service for the site. The nearest discharge point from the site for a stream discharge is the Monongahela River, approximately 1.4 miles southwest of the site. A package wastewater treatment plant with discharge to the Monongahela River is not feasible due to the size and cost of the site.

APPENDIX E

Public Notice

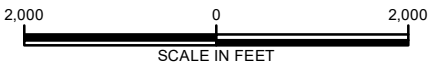
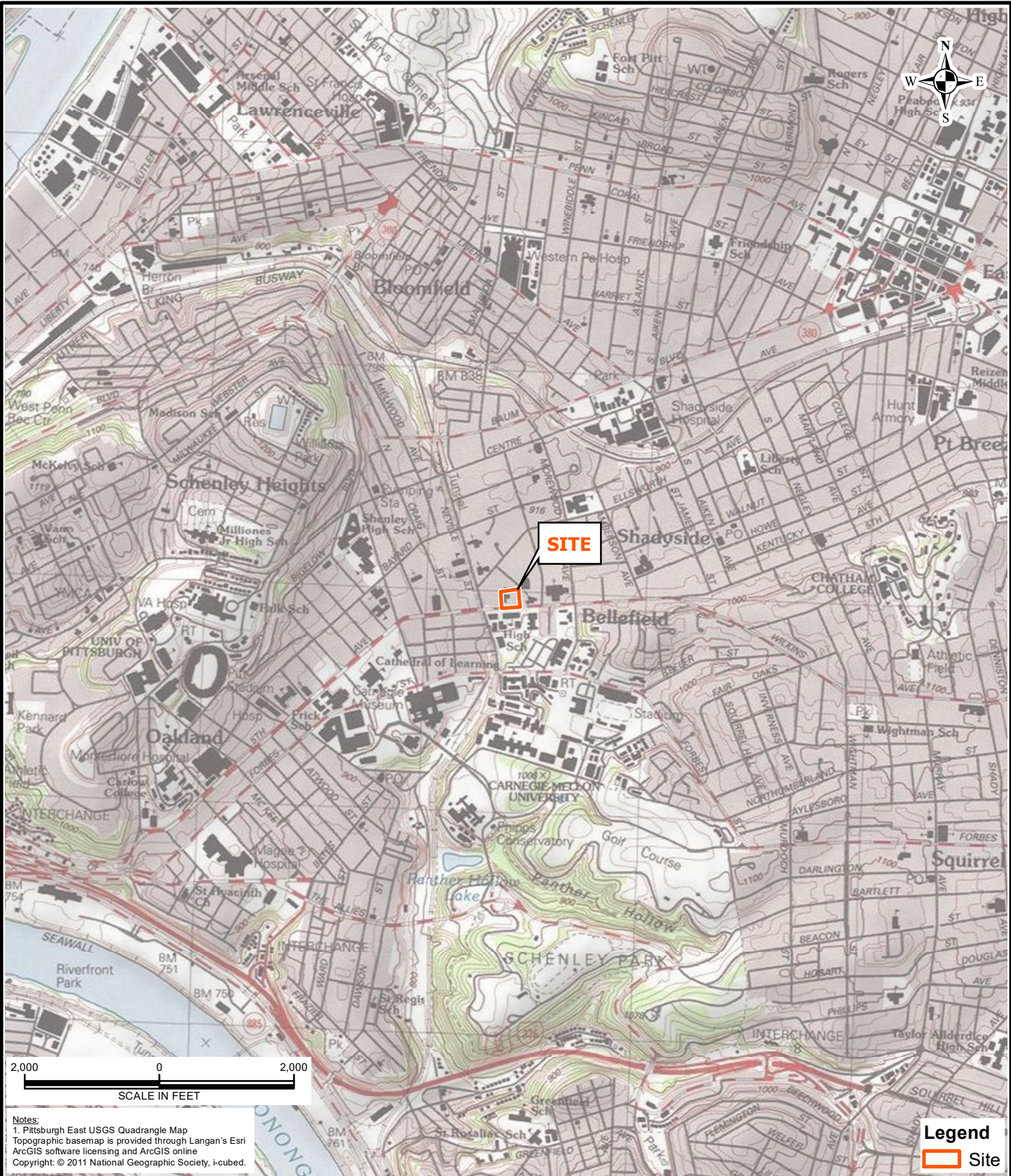
**SECTION P
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3**

**Re: Public Notice
CMU 5th and Clyde Residence Hall and Campus Hub
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250064901**

A public notification is not required for this project since no items in Section P of Component 3 (Appendix C) were applicable to this project.

APPENDIX F

USGS Map and Plot Plans



Notes:
 1. Pittsburgh East USGS Quadrangle Map
 Topographic basemap is provided through Langan's Esri
 ArcGIS software licensing and ArcGIS online
 Copyright: © 2011 National Geographic Society, I-cubed.

Legend
 Site

2400 Ansys Drive, Suite 403 Canonsburg, PA 15317 T: 724.514.5100 F: 724.514.5101 www.langan.com Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. Langan International LLC Collectively known as Langan	Project CARNEGIE MELLON UNIVERSITY 5TH AND CLYDE PITTSBURGH ALLEGHENY COUNTY PENNSYLVANIA	Drawing Title <div style="text-align: center; font-size: 24px; font-weight: bold;"> SITE LOCATION MAP </div>	Project No. 250064901 Date 8/6/2019 Scale 1" = 2,000' Drawn By BLA	Figure <div style="text-align: center; font-size: 36px; font-weight: bold;"> 1 </div>
	<div style="text-align: right; font-size: 8px;"> Path: \\Wangan.com\data\PIT\data9\250064901\Project Data\ArcGIS\MXD\Civil_Figures\Site Location Map.mxd </div>			

ENCROACHMENTS

- ① 6 FOOT TALL WOOD FENCE ENCROACHES ONTO SUBJECT PARCEL AS SHOWN
- ② BLOCK WALL ENCROACHES ONTO SUBJECT PARCEL AS SHOWN
- ③ UTILITY POLE FEEDING POWER TO MARKETING AND COMMUNICATIONS BUILDING ENCROACHES ONTO PN 52-E-234

SCHEDULE B SECTION II EXCEPTIONS -

PER CHICAGO TITLE INSURANCE COMPANY POLICY NO. 150565PIT WITH A POLICY DATE OF AUGUST 6, 2015

ITEMS 2 THROUGH 6 NOT SURVEY RELATED

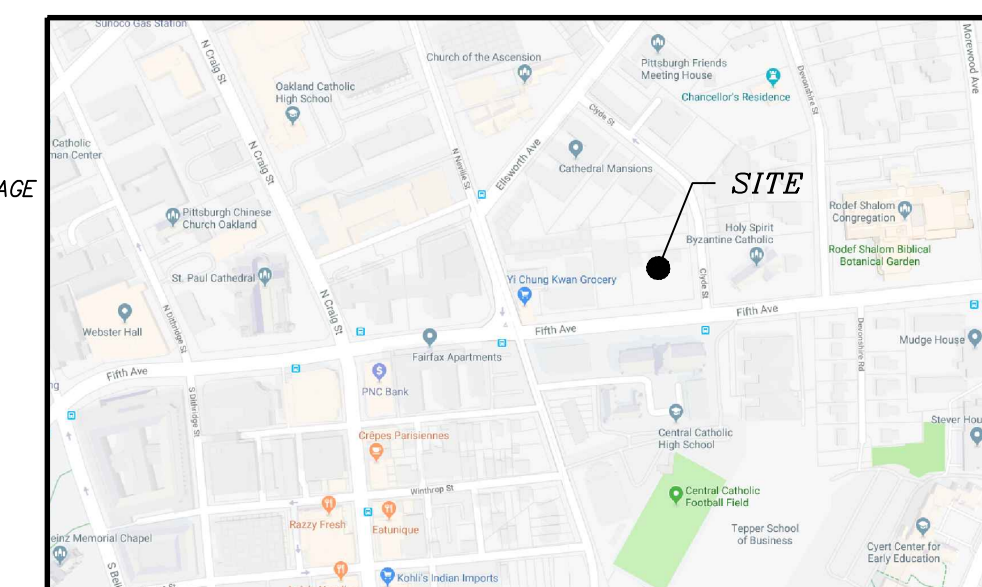
1. Unrecorded easements, discrepancies or conflicts in boundary lines, shortages in area and encroachments which an accurate and complete survey would disclose. (ENCROACHMENTS ARE NOTED AS SHOWN HEREON.)

SCHEDULE B SECTION II EXCEPTIONS -

PER CHICAGO TITLE INSURANCE COMPANY POLICY NO. 120510PIT WITH A POLICY DATE OF JUNE 28, 2012

ITEMS 1 THROUGH 5 AND 7 THROUGH 10 NOT SURVEY RELATED

6. RIGHT OF WAY FROM CENACLE OF PITTSBURGH, INC. TO BELL TELEPHONE COMPANY OF PENNSYLVANIA, INC. AS SHOWN ON THE RECORD IN THE RECORD BOOK VOLUME 6087, PAGE 187. (THERE IS A TELEPHONE BOX LOCATED AT THE SOUTHEAST CORNER OF SUBJECT PARCEL NUMBER 52-J-74, SHOWN HEREON.)



PROJECT LOCATION MAP

SCALE: NOT TO SCALE

SOURCE: www.google.com/maps

PER CHICAGO TITLE INSURANCE COMPANY POLICY NO. 150565PIT, EFFECTIVE DATE: 08/06/2015

LEGAL DESCRIPTION
ALL THAT CERTAIN PARCEL OF GROUND SITUATE IN THE SEVENTH (FORMERLY TWENTIETH) WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING BOUNDED AND DESCRIBED AS FOLLOWS, TO WIT:

BEGINNING AT A POINT ON THE WESTERLY SIDE OF CLYDE STREET, 150 FEET FROM THE SOUTHERLY LINE OF ELLSWORTH AVENUE; THENCE CONTINUING ALONG SAID LINE OF SAID CLYDE STREET, SOUTH 51° 10' 55" EAST, 59.85 FEET TO A POINT; THENCE SOUTH 38° 49' 05" WEST, 263.63 FEET TO A POINT; THENCE SOUTH 81° 18' 05" WEST, 86.78 FEET TO A POINT; THENCE NORTH 17° 27' 25" WEST, 1.50 FEET TO A POINT; THENCE NORTH 38° 49' 05" EAST, 326.80 FEET TO THE POINT AT THE PLACE OF BEGINNING.

BEING TAX PARCEL BLOCK 52-E LOT 243.

PER CHICAGO TITLE INSURANCE COMPANY POLICY NO. 120510PIT, EFFECTIVE DATE: 06/28/2012

LEGAL DESCRIPTION
ALL THAT CERTAIN LOT OR PIECE OF GROUND SITUATE IN THE 7TH WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING BOUNDED AND DESCRIBED AS FOLLOWS:

FIRST DESCRIBED:
ALL THAT CERTAIN LOT OR PIECE OF GROUND SITUATE IN THE 7TH WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTHERLY LINE OF FIFTH AVENUE, 60 FEET WIDE, AT A POINT SOUTH 84° 28' 28" WEST 170.00 FEET FROM THE INTERSECTION OF THE NORTHERLY LINE OF FIFTH AVENUE AND THE WESTERLY LINE OF CLYDE STREET, 50 FEET WIDE; THENCE FROM SAID POINT OF BEGINNING ALONG THE NORTHERLY LINE OF FIFTH AVENUE, SOUTH 84° 28' WEST A DISTANCE OF 100.00 FEET TO A POINT; THENCE NORTH 05° 32' WEST 247.82 FEET TO A POINT ON LINE OF LAND NOW OR FORMERLY OF M.R. WRIGHT; THENCE ALONG LINE OF LAND NOW OR FORMERLY OF M.R. WRIGHT AND LINE OF LAND NOW OR FORMERLY OF CLARENCE J. HUNTER, NORTH 81° 18' EAST 100.15 FEET TO A POINT; THENCE SOUTH 05° 32' EAST 263.35 FEET TO A POINT ON THE NORTHERLY LINE OF FIFTH AVENUE AT THE PLACE OF BEGINNING.

BEING TAX PARCEL BLOCK 52-J LOT 69.

SECOND DESCRIBED:
ALL THAT CERTAIN LOT OR PIECE OF GROUND SITUATE IN THE 7TH WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING ON THE WESTERLY SIDE OF CLYDE STREET AT A POINT DISTANT 120 FEET NORTHWARDLY FROM THE NORTHWEST CORNER OF CLYDE STREET AND FIFTH AVENUE; THENCE NORTHWARDLY ALONG THE LINE OF CLYDE STREET 45 FEET TO A POINT AT THE LINE OF PROPERTY NOW OR FORMERLY OF CLARENCE M. WOLFF; THENCE ALONG THE LINE OF CLYDE STREET 120 FEET TO THE PREMISES NOW OR FORMERLY OF CLARENCE M. WOLFF FACING 170 FEET TO THE LINE OF PROPERTY NOW OR FORMERLY OF GEORGE H. BENNETT; THENCE SOUTHWARDLY ALONG THE LINE OF SAID GEORGE H. BENNETT 45 FEET TO A POINT ON PROPERTY NOW OR FORMERLY OF SHAW AND HENRY J. ORTH; THENCE ALONG THE LINE OF SAID SHAW AND ORTH'S LAND, PARALLEL WITH FIFTH AVENUE EASTWARDLY 170 FEET TO THE WESTERLY LINE OF CLYDE STREET AT THE PLACE OF BEGINNING.

ALSO, BEGINNING ON THE NORTHWEST CORNER OF FIFTH AVENUE AND CLYDE STREET, THENCE ALONG FIFTH AVENUE WESTWARDLY 170 FEET TO THE LINE OF PREMISES NOW OR FORMERLY OF FIFTH AVENUE LAND COMPANY; THENCE NORTHWESTWARDLY AND PARALLEL WITH CLYDE STREET 120 FEET TO THE PREMISES NOW OR FORMERLY OF E.H. AND MARY A. MITCHELL; THENCE EASTWARDLY AND PARALLEL WITH FIFTH AVENUE AND ALONG SAID MITCHELL LINE 170 FEET TO THE WESTERLY SIDE OF CLYDE STREET, AND THENCE SOUTHWESTWARDLY ALONG SAID SIDE OF CLYDE STREET 120 FEET TO THE PLACE OF BEGINNING.

BEING TOGETHER DESIGNATED AS TAX PARCEL BLOCK 52-J, LOT 74.

THIRD DESCRIBED:
ALL THAT CERTAIN LOT OR PIECE OF GROUND SITUATE IN THE 7TH WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY SIDE OF CLYDE STREET, DISTANT 165 FEET NORTHWARDLY FROM THE NORTHWEST CORNER OF CLYDE STREET AND FIFTH AVENUE; THENCE ALONG SAID SIDE OF CLYDE STREET NORTHWARDLY 45 FEET TO LINE OF LAND NOW OR FORMERLY OF JAMES M. RUSSELL; THENCE ALONG SAID LAND PARALLEL WITH FIFTH AVENUE WESTWARDLY 170 FEET TO THE LINE OF LANDS NOW OR FORMERLY OF GEORGE H. BENNETT; THENCE ALONG SAID LAND PARALLEL WITH CLYDE STREET 45 FEET TO LINE OF LAND NOW OR FORMERLY OF GEORGE H. BENNETT AND MARY A.G. MITCHELL; THENCE ALONG SAID LAND PARALLEL WITH FIFTH AVENUE, EASTWARDLY 170 FEET TO CLYDE STREET AT THE PLACE OF BEGINNING.

BEING DESIGNATED AS TAX PARCEL BLOCK 52-L, LOT 87.

FOURTH DESCRIBED:
ALL THAT CERTAIN LOT OR PIECE OF GROUND SITUATE IN THE 7TH WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY LINE OF CLYDE STREET AT THE LINE OF LAND NOW OR FORMERLY OF JAMES HAY, DISTANT 210 FEET NORTHWARDLY FROM THE NORTHWEST CORNER OF FIFTH AVENUE AND CLYDE STREET; THENCE NORTHWARDLY ALONG THE WESTERLY LINE OF CLYDE STREET 52.76 FEET TO THE LINE OF LAND NOW OR FORMERLY OF JOSEPH S. SEAMAN; THENCE WESTWARDLY ALONG LINE OF LAND NOW OR FORMERLY OF JOSEPH S. SEAMAN 170.25 FEET TO A POINT ON THE LINE OF LAND NOW OR FORMERLY OF GEORGE H. BENNETT; THENCE ALONG THE LINE OF LAND NOW OR FORMERLY OF GEORGE H. BENNETT 43.35 FEET TO THE LINE OF LAND NOW OR FORMERLY OF JAMES HAY AFORESAID; AND THENCE EASTWARDLY ALONG SAID LINE OF LAND NOW OR FORMERLY OF JAMES HAY 170 FEET, MORE OR LESS, TO THE PLACE OF BEGINNING.

BEING DESIGNATED AS TAX PARCEL BLOCK 52-E, LOT 227.

FIFTH DESCRIBED:
ALL THAT CERTAIN LOT OR PIECE OF GROUND SITUATE IN THE 7TH WARD OF THE CITY OF PITTSBURGH, COUNTY OF ALLEGHENY AND COMMONWEALTH OF PENNSYLVANIA, BEING ALL OF LOT NUMBER 1 IN CLARENCE M. WOLFF'S LAND SURVEY OF THE CATHOLIC INSTITUTE OF PITTSBURGH, PENNSYLVANIA, BY LENNON SMITH, SOULERET, DRAWING NO. 39124AS, DATED JUNE 11, 2012

BEING TAX PARCEL BLOCK 52-E, LOT 239.

NOTES

1. THIS PLAN WAS PREPARED WITH REFERENCE TO A COMMITMENT FOR TITLE INSURANCE PREPARED BY CHICAGO TITLE INSURANCE COMPANY, POLICY NUMBER 120510PIT, POLICY DATE: JUNE 28, 2012 & POLICY NUMBER 150565PIT, POLICY DATE AUGUST 6, 2015.
2. THIS PLAN WAS PREPARED WITH THE RESPECT TO THE FOLLOWING REFERENCES:
 - A. PITTSBURGH WATER & SEWER AUTHORITY SEWER LINE MAP, DATED & RECEIVED ON JANUARY 30, 2019, RECEIVED 01/30/2019.
 - B. PITTSBURGH WATER & SEWER AUTHORITY WATERLINE MAP, DATED & RECEIVED ON JANUARY 30, 2019, RECEIVED 01/30/2019.
 - C. PA ONE CALL GAS LINE MAP, DATED FEBRUARY 11, 2019, RECEIVED ON FEBRUARY 12, 2019.
 - D. AS-BUILT SITE UTILITY PLAN BY CEC INC., DATED MAY 10, 2016.
 - E. CLYDE PLAN CATHOLIC INSTITUTE OF PITTSBURGH, PLAN BOOK VOLUME 149, PAGE 1.
 - F. ALTA/ACSM LAND TITLE SURVEY OF THE CATHOLIC INSTITUTE OF PITTSBURGH, PENNSYLVANIA, BY LENNON SMITH, SOULERET, DRAWING NO. 39124AS, DATED JUNE 11, 2012
 - F. ALTA/ACSM LAND TITLE SURVEY OF THE MOTHERAL, INC. OF PENNSYLVANIA CORPORATION, BY LENNON SMITH, SOULERET, DRAWING NO. 391-1, DATED JUNE 10, 2015
3. MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, PER GPS OBSERVATIONS IN FEBRUARY, 2019.
4. VERTICAL DATUM IS BASED ON NAVD88 PER GPS OBSERVATIONS.
5. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES FIELD WORK COMPLETED DURING THE MONTH OF FEBRUARY 2019.
6. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND LOCATIONS WHERE DATA IS OBTAINED, DESPITE MEETING THE REQUIRED STANDARD OF CARE, THE SURVEYOR CANNOT, AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
7. ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.
8. UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
9. PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
10. THIS SURVEY IS NOT VALID WITHOUT THE EMBOSSED OR INKED SEAL OF THE PROFESSIONAL.

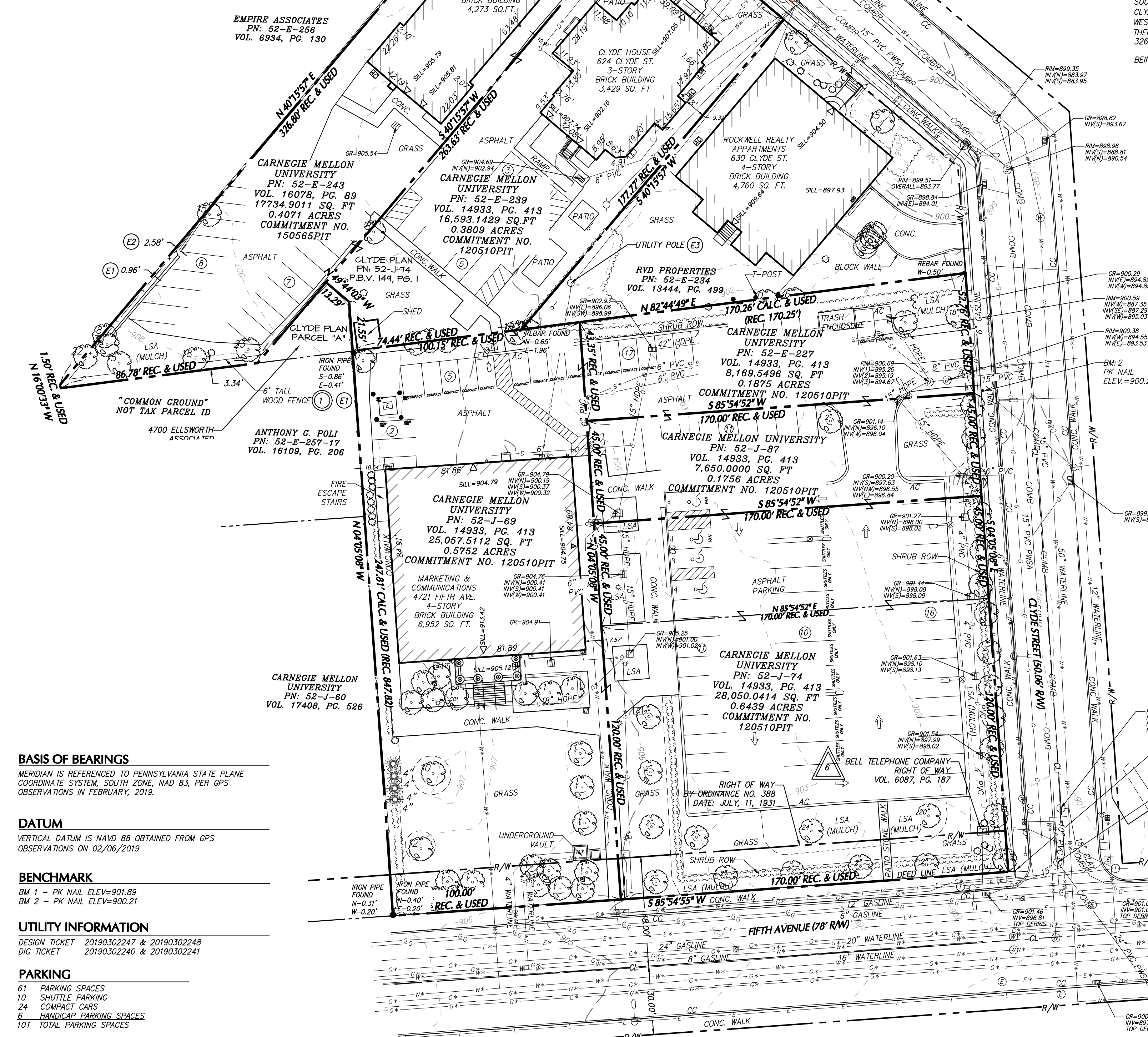
SURVEYOR'S CERTIFICATION

1. CARNEGIE MELLON UNIVERSITY
2. CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(B), 7(A), 7(B)(1), 8, 9, 11, 13, AND 14 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON FEBRUARY, 2019.

SHAUN F. HIGGINS

PROFESSIONAL LAND SURVEYOR
PA LIC. NO. SU-051088-E



BASIS OF BEARINGS

MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, PER GPS OBSERVATIONS IN FEBRUARY, 2019.

DATUM

VERTICAL DATUM IS NAVD 88 OBTAINED FROM GPS OBSERVATIONS ON 02/06/2019

BENCHMARK

BM 1 - PK NAIL ELEV=901.89
BM 2 - PK NAIL ELEV=900.21

UTILITY INFORMATION

DESIGN TICKET 20190302247 & 20190302248
DIG TICKET 20190302240 & 20190302241

PARKING

- 61 PARKING SPACES
- 10 SHUTTLE PARKING
- 24 COMPACT CARS
- 6 HANDICAP PARKING SPACES
- 101 TOTAL PARKING SPACES

ZONING

AS PER THE CITY OF PITTSBURGH INTERACTIVE ZONING DISTRICTS MAP, THE SUBJECT PARCEL IS ZONED EM, EDUCATIONAL/MEDICAL INSTITUTE. NO ZONING INFORMATION PROVIDED BY THE INSURER. FOR MORE INFORMATION SEE THE CITY OF PITTSBURGH, PENNSYLVANIA DEVELOPMENT CODE.

FLOOD CERTIFICATION

AS PER THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) MAP TITLED "ALLEGHENY COUNTY, PENNSYLVANIA (ALL JURISDICTIONS), PANEL 354 OF 558, MAP NUMBER 4200300354H," WITH AN EFFECTIVE DATE OF SEPTEMBER 26, 2014, THE SUBJECT PARCEL IS LOCATED IN ZONE X (OTHER AREAS), AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

UTILITY COMPANY	ADDRESS
PEOPLES GAS COMPANY LLC	375 NORTH SHORE DRIVE, PITTSBURGH, PA. 15212
VERIZON PENNSYLVANIA LLC	1026 HAY ST, PITTSBURGH, PA. 15221
PITTSBURGH WATER & SEWER AUTHORITY	1200 PENN AVE., PITTSBURGH, PA. 15222
PITTSBURGH CITY DEPT. OF PUBLIC WORKS	611 SECOND AVE. PITTSBURGH, PA. 15219
DUQUESNE LIGHT COMPANY	2645 NEW BEAVER AVE., PA-TD, PITTSBURGH, PA. 15233
LIGHTTOWER FIBER NETWORKS LLC	N/A
CENTURY LINK	1025 ELDERADO BLVD, BROOMFIELD, CO. 80021
VERIZON BUSINESS FORMERLY MCI	400 INTERNATIONAL PARKWAY, RICHARDSON, TX. 75081
COMCAST CABLEVISION	1530 CHARTIERS AVE, PITTSBURGH, PA. 15204
UPMC SHADYSIDE	5230 CENTRE AVE, PITTSBURGH, PA. 15232

LEGEND (NOT SHOWN TO SCALE)

○	MONUMENTATION FOUND (TYPE AS NOTED)	●	BOLLARD	CP	CONCRETE PAD
○	SET 8" x 30" STEEL PIN WITH CAP "LANGAN"	□	ELECTRIC BOX	AC.	ASPHALT CURB
○	SET DRILL HOLE	□	ELECTRIC METER	CC	CONCRETE CURB
○	HYDRANT	□	GAS METER	EP	EDGE OF PAVEMENT
○	STAND PIPE	□	WATER METER	---	FENCE (TYPE AS NOTED)
○	ROOF DRAIN	□	TELEPHONE BOX	--- </td <td>SUBJECT PROPERTY LINE</td>	SUBJECT PROPERTY LINE
○	BOLLARD	□	TRAFFIC SIGNAL POLE	--- </td <td>ADJOINING PROPERTY LINE</td>	ADJOINING PROPERTY LINE
○	STREET LIGHT	□	DOOR	--- </td <td>EASEMENT LINE</td>	EASEMENT LINE
○	AREA LIGHT	□	DOUBLE DOOR	--- </td <td>TREE LINE</td>	TREE LINE
○	SIGNAL POLE	□	GARAGE DOOR	--- </td <td>GUIDE RAIL (TYPE AS NOTED)</td>	GUIDE RAIL (TYPE AS NOTED)
○	POWER POLE	REC.	DEED OF RECORD	ST-ST	STEAM LINE
○	GUY WIRE	CALC.	CALCULATED	--- </td <td>OVERHEAD WIRE</td>	OVERHEAD WIRE
○	MANHOLE (TYPE AS LABELED)	OBS.	OBSERVED	COMB	COMBINED SEWER LINE
○	SQ. FT.	CSF.	SQUARE FEET	G	GAS LINE
○	WATER VALVE	CSR.	CITY SURVEY RECORD	W	WATER LINE
○	GAS VALVE	AFN	AUDITOR'S FILE NUMBER	E	ELECTRIC LINE
○	UNKNOWN VALVE	PN	PARCEL NUMBER	T	TELEPHONE LINE
○	CATCH BASIN	VOL	DEED VOLUME	S	SANITARY LINE
○	PG	PG	PAGE	D	DRAINAGE LINE
○	SIGN	LSA	LANDSCAPE AREA	X*	REFERENCE UTILITY LINE (TYPE AS NOTED) - PLOTTED FROM EXISTING MAPPING

Date	Description	No.
2/22/19	Title & Additional Survey Area	2
2/19/19	Lot Area Revisions	1

REVISIONS

LANGAN
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317
T: 724.514.5100 F: 724.514.5101 www.langan.com

Project **CMU**
5TH & CLYDE
RESIDENCE HALL
PN: 52-E-227, 52-J-74, 52-J-87
7TH WARD
CITY OF PITTSBURGH
ALLEGHENY COUNTY PENNSYLVANIA

ALTA/NSPS
LAND TITLE
SURVEY

Project No. **250064901** Drawing No. **VL101**
Date **FEBRUARY 15, 2019**
Drawn By **BLR**
Checked By **ALM**

Sheet 1 of 1

GENERAL SITE PLAN NOTES

- EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION IS BASED ON A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" FOR THE "CARNEGIE MELLON UNIVERSITY 5TH & CLYDE RESIDENCE HALL" PROJECT SITUATED IN THE "CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA," PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED FEBRUARY 25, 2019.
- THIS SITE PLAN HAS ONLY BEEN PREPARED FOR LOTS S2-E-227, S2-J-87, AND S2-J-74, TO BE CONSOLIDATED.
- THESE PLANS REPRESENT THE OVERALL SITEWORK IMPROVEMENTS REQUIRED FOR PROJECT CONSTRUCTION. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
- THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER MAKES NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY AVAILABLE INFORMATION WHICH WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS, CORRELATE CONDITIONS WITH THE DRAWINGS AND RESOLVE ANY POSSIBLE CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL MAKE ADDITIONAL TOPOGRAPHIC SURVEYS HE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
- THE CONTRACTOR SHALL, WHEN THEY DEEM NECESSARY, PROVIDE WRITTEN REQUESTS FOR INFORMATION (RFIS) TO THE OWNER AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE RFI SHALL BE IN A FORM ACCEPTABLE TO OWNER AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF TWO WORK DAYS OR ADDITIONAL REASONABLE TIME FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
- INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
- THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL SUCH DOCUMENTS.
- PAVEMENT AFFECTED BY TRENCHING OR OTHER CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL AND PROPER CONDITION.
- ALL WORK WITHIN THE CITY OF PITTSBURGH PUBLIC RIGHT-OF-WAY SHALL BE PERMITTED WITH THE CITY OF PITTSBURGH DEPARTMENT OF PUBLIC WORKS, THE DEPARTMENT OF MOBILITY AND INFRASTRUCTURE, AND/OR THE DEPARTMENT OF CITY PLANNING.
- ALL PROPOSED ASPHALT PAVEMENT SECTIONS SHALL CONFORM TO PENNDOT STANDARDS FOR STANDARD FULL DEPTH ASPHALT PAVEMENT.
- ALL PROPOSED CONCRETE SIDEWALK SECTIONS SHALL CONSIST OF 6-INCHES OF STANDARD CONCRETE AND A DENSE GRADED AGGREGATE BASE COURSE OF A MINIMUM OF 4-INCHES WITH CONTINUOUS 6-IN X 6-IN X W2.9 X W2.9 WELDED WIRE FABRIC AS SPECIFIED BY THE CITY OF PITTSBURGH DPW STANDARDS OF CONSTRUCTION.
- ALL PROPOSED CONCRETE SIDEWALK SECTIONS AND CONCRETE CURBS WITHIN THE CITY OF PITTSBURGH PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF PITTSBURGH DEPARTMENT OF PUBLIC WORKS RIGHT OF WAY PROCEDURES MANUAL.
- ALL PROPOSED CONCRETE PAVEMENT SECTIONS SHALL BE ACCORDING TO THE LANDSCAPE PLANS AND SPECIFICATIONS.

LEGEND

	EXISTING	PROPOSED
ROW BOUNDARY		
BUILDING LINE		
CONCRETE CURB		
DEPRESSED CURB		
DOOR		
BOLLARD		
CONCRETE SIDEWALK		
CONCRETE PAVEMENT		
LANDSCAPED AREA		
ADA DETECTABLE WARNING SURFACE		
PARKING COUNT		18

FIFTH AND CLYDE RESIDENCE HALL

5TH AVE AT CLYDE ST

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DESIGN ARCHITECT

LTL ARCHITECTS

LEWIS TSURUMI LEWIS

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PERFIDO 408 Boulevard of the Allies

WEISKOPF Pittsburgh, PA 15219

WAGSTAFF + T: 412.391.2884

GOETTEL F: 412.391.1657

LANGAN

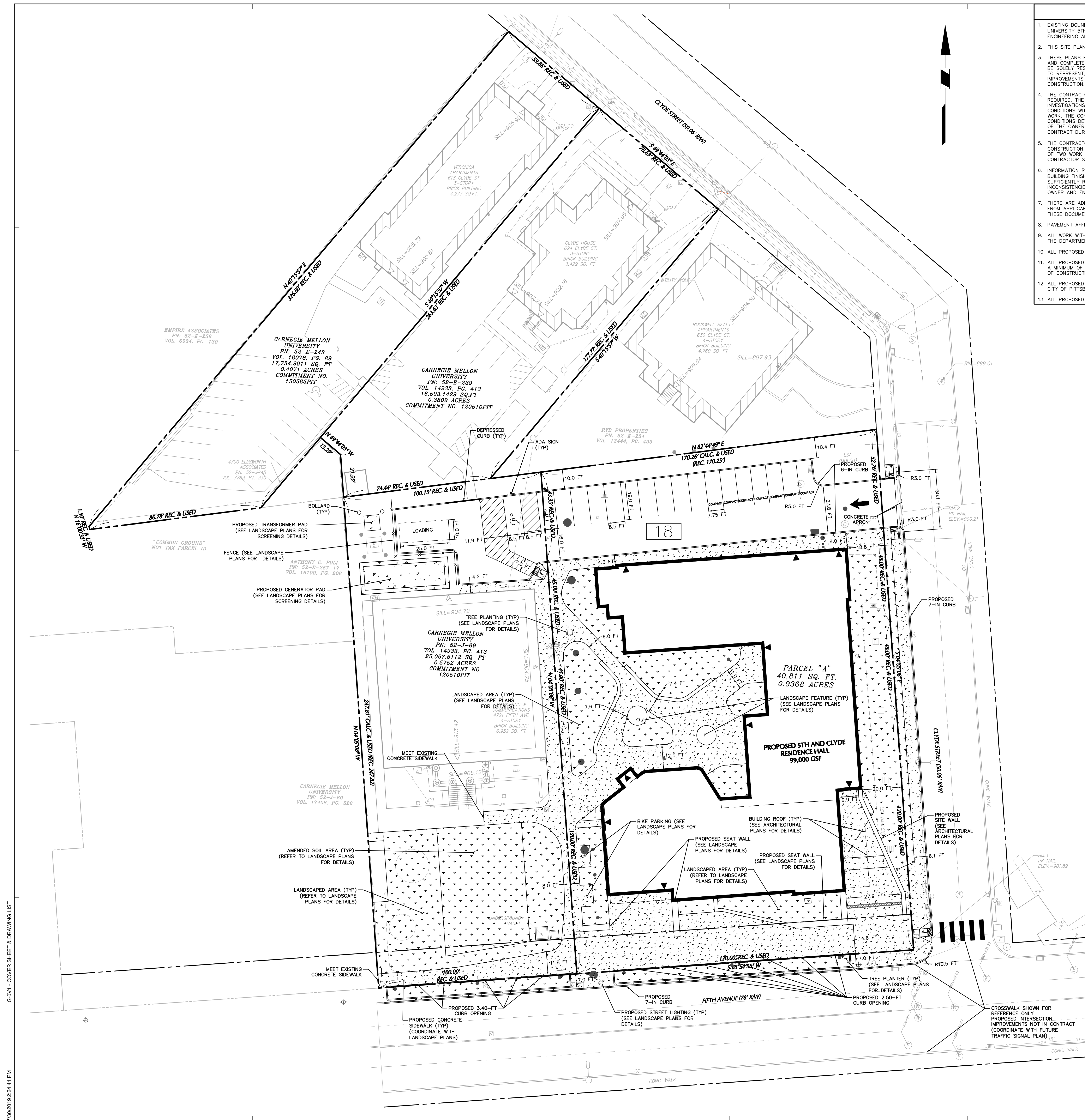
Langan Engineering and

Environmental Services, Inc.

2400 Ansys Drive, Suite 403

Caronsburg, PA 15117

T: 724.514.5100 F: 724.514.5101 www.langan.com



SEAL

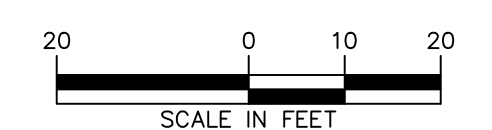
NOT FOR CONSTRUCTION

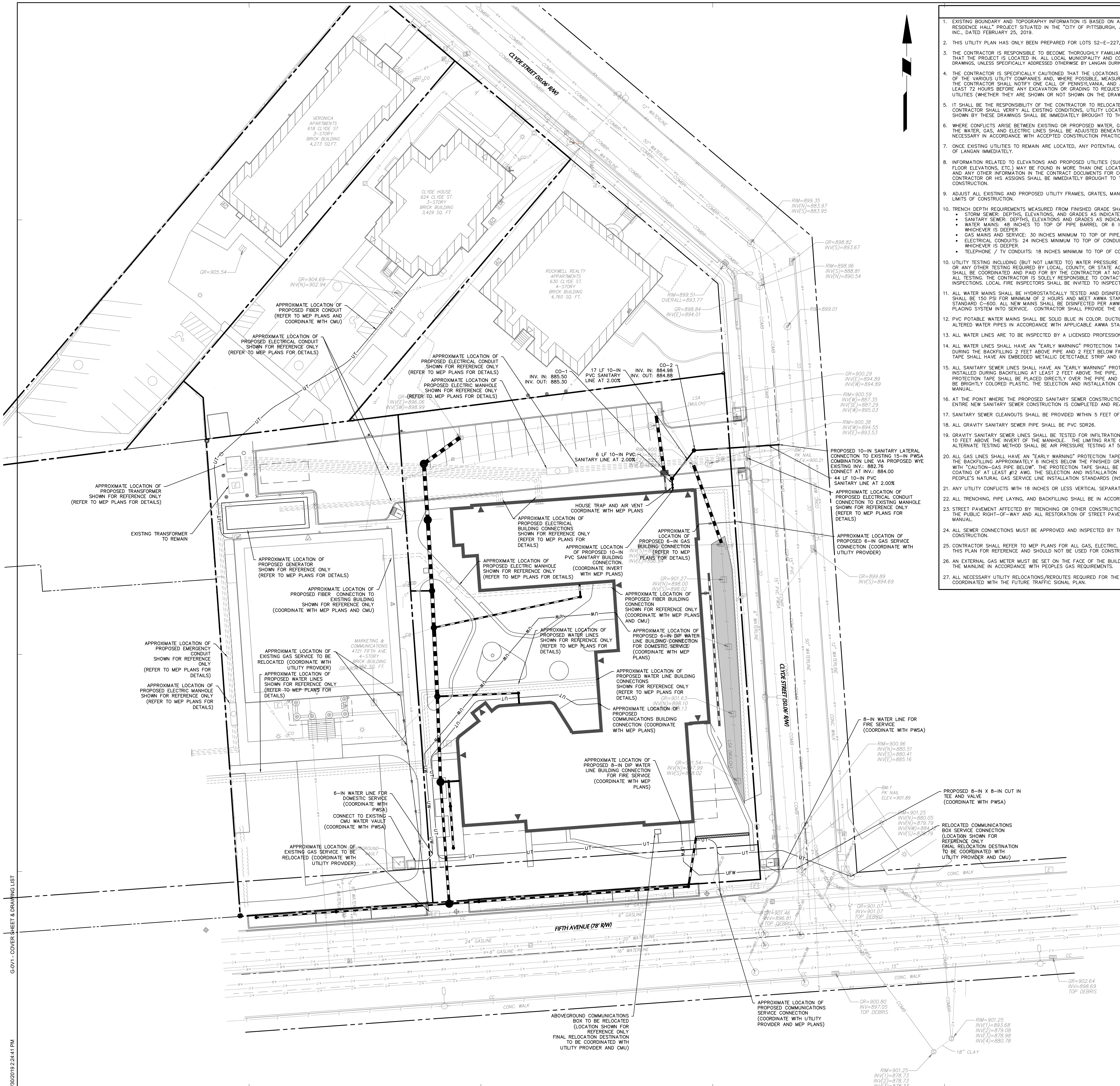
REVISION NO.	DESCRIPTION	DATE

JOB: 21833.00
SCALE: AS NOTED
DRAWN: MMC
DATE: 12-09-2019
TITLE: SITE PLAN

SHEET NUMBER
CS1.01

75% CONSTRUCTION DOCUMENTS





UTILITY NOTES

- EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION IS BASED ON A PLAN FILED BOUNDARY & TOPOGRAPHIC SURVEY FOR THE "CARNEGIE MELLON UNIVERSITY 5TH & CLYDE RESIDENCE HALL" PROJECT SITUATED IN THE "CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA," PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED FEBRUARY 25, 2019.
- THIS UTILITY PLAN HAS ONLY BEEN PREPARED FOR LOTS S2-E-227, S2-J-87, AND S2-J-74, TO BE CONSOLIDATED.
- THE CONTRACTOR IS RESPONSIBLE TO BECOME THOROUGHLY FAMILIAR WITH THE ENGINEERING, DRAINAGE, AND UTILITY STANDARDS OF THE LOCAL MUNICIPALITY AND COUNTY THAT THE PROJECT IS LOCATED IN. ALL LOCAL MUNICIPALITY AND COUNTY STANDARDS WILL TAKE PRECEDENCE OVER THE DETAILS, SPECIFICATIONS, AND NOTES PROVIDED ON THESE DRAWINGS, UNLESS SPECIFICALLY ADDRESSED OTHERWISE BY LANGAN DURING THE PROJECT UPON CONTACT FROM THE CONTRACTOR.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATIONS (VERTICAL AND HORIZONTAL) OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL NOTIFY ONE CALL OF PENNSYLVANIA, AND ALL APPROPRIATE UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAYS AT LEAST 72 HOURS BEFORE ANY EXCAVATION OR GRADING TO REQUEST EXACT FIELD LOCATION OF UTILITIES. NOTIFY ONE CALL OF PENNSYLVANIA AT 1-800-243-1776. ANY UTILITIES (WHETHER THEY ARE SHOWN OR NOT SHOWN ON THE DRAWINGS) DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT HIS COST.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, DEPTHS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THESE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF LANGAN.
- WHERE CONFLICTS ARISE BETWEEN EXISTING OR PROPOSED WATER, GAS, AND ELECTRIC LINES AND PROPOSED STORMWATER OR SANITARY CONVEYANCE PIPES OR STRUCTURES, THE WATER, GAS, AND ELECTRIC LINES SHALL BE ADJUSTED BENEATH OR AROUND THE PROPOSED STORMWATER OR SANITARY CONVEYANCE PIPES OR STRUCTURES AS NECESSARY IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- ONCE EXISTING UTILITIES TO REMAIN ARE LOCATED, ANY POTENTIAL CONFLICTS WITH OTHER UTILITIES, RELOCATED UTILITY POLES, ETC. SHALL BE BROUGHT TO THE ATTENTION OF LANGAN IMMEDIATELY.
- INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RM ELEVATIONS, GRADE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
- ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, GRATES, MANHOLE COVERS, VALVE BOXES, ETC. TO BE FLUSH WITH THE PROPOSED SURFACE ELEVATIONS WITHIN THE LIMITS OF CONSTRUCTION.
- TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE SHALL MEET THE FOLLOWING:
 - STORM SEWER: DEPTHS, ELEVATIONS, AND GRADES AS INDICATED ON DRAWINGS.
 - SANITARY SEWER: DEPTHS, ELEVATIONS AND GRADES AS INDICATED ON DRAWINGS.
 - WATER MAINS: 48 INCHES TO TOP OF PIPE BARREL OR 6 INCHES BELOW THE FROST LINE OR ESTABLISHED BY THE LOCAL BUILDING OFFICIAL OR WATER COMPANY, WHICHEVER IS DEEPER.
 - GAS MAINS AND SERVICE: 30 INCHES MINIMUM TO TOP OF PIPE, OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - ELECTRICAL CONDUITS: 24 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY NEC 300-5 / NEC 710-36 CODES, OR THE LOCAL UTILITY COMPANY REQUIREMENTS, WHICHEVER IS DEEPER.
 - TELEPHONE / TV CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
- UTILITY TESTING INCLUDING (BUT NOT LIMITED TO) WATER PRESSURE TESTING, WATER SYSTEM FLUSHING, BACTERIOLOGICAL TESTING, VIDEO CAMERA TESTING, MANDREL TESTING, OR ANY OTHER TESTING REQUIRED BY LOCAL, COUNTY, OR STATE AGENCIES PRIOR TO FINAL ACCEPTANCE OF THE PROJECT AND CERTIFICATE OF OCCUPANCIES BEING ISSUED SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER OF RECORD SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO CONTACT AND COORDINATE THE LOCAL AND COUNTY OFFICIALS THAT ARE REQUIRED TO BE PRESENT AT ALL INSPECTIONS. LOCAL FIRE INSPECTORS SHALL BE INVITED TO INSPECT ALL FIRE SERVICE LINES PRIOR TO BACKFILLING OF TRENCHES.
- ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS. LATEST REVISIONS. HYDROSTATIC TESTING FOR PVC MAINS SHALL BE 150 PSI FOR MINIMUM OF 2 HOURS AND MEET AWWA STANDARD C-605. DUCTILE IRON MAINS SHALL BE TESTED AT 150 PSI FOR 2 HOURS AND MEET AWWA STANDARD C-800. ALL NEW MAINS SHALL BE DISINFECTED PER AWWA STANDARD C-651. BACTERIOLOGICAL TESTS FOR 2 CONSECUTIVE DAYS SHALL BE APPROVED PRIOR TO PLACING SYSTEM INTO SERVICE. CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER OF RECORD WITH AWWA C806 AND NSF-61 CERTIFICATIONS.
- PVC POTABLE WATER MAINS SHALL BE SOLID BLUE IN COLOR. DUCTILE IRON WATER MAINS SHALL BE PAINTED WITH BLUE BANDS. CONTRACTORS SHALL INSTALL ALL NEW OR ALTERED WATER PIPES IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS AND / OR ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PROCEDURES.
- ALL WATER LINES ARE TO BE INSPECTED BY A LICENSED PROFESSIONAL ENGINEER DURING INSTALLATION.
- ALL WATER LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE SHALL BE INSTALLED DURING THE BACKFILLING 2 FEET ABOVE PIPE AND 2 FEET BELOW FINISHED GRADE DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "CAUTION WATER PIPE". THE TAPE SHALL HAVE AN EMBEDDED METALLIC DETECTABLE STRIP AND BE BLUE IN COLOR. PROTECTION TAPE SHALL BE TERRA-TAPE OR APPROVED EQUAL.
- ALL SANITARY SEWER LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE SHALL BE INSTALLED DURING BACKFILLING AT LEAST 2 FEET ABOVE THE PIPE, AT LEAST 2 FEET BELOW THE FINISHED GRADE, AND AT MOST 4 FEET BELOW THE FINISHED GRADE. THE PROTECTION TAPE SHALL BE PLACED DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "CAUTION GAS PIPE BELOW". THE PROTECTION TAPE SHALL BE 6 INCH WIDE YELLOW PLASTIC PAIRED WITH A SOLID COPPER TRACER WIRE WITH YELLOW THERMOPLASTIC COATING OF AT LEAST #12 AWG. THE SELECTION AND INSTALLATION OF THE PROTECTION TAPE MUST MEET THE REQUIREMENTS SPECIFIED WITHIN THE PWSA PROCEDURES MANUAL.
- AT THE POINT WHERE THE PROPOSED SANITARY SEWER CONSTRUCTION MEETS A LINE OR EXISTING SEWER, THE NEW SANITARY SEWER SHALL BE SECURELY PLUGGED UNTIL THE ENTIRE NEW SANITARY SEWER CONSTRUCTION IS COMPLETED AND READY FOR FINAL INSPECTION.
- SANITARY SEWER CLEANOUTS SHALL BE PROVIDED WITHIN 5 FEET OF ALL BUILDING CONNECTIONS FOR ALL SEWER CONNECTIONS TO COMBINED SEWERS.
- ALL GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR26.
- GRAVITY SANITARY SEWER LINES SHALL BE TESTED FOR INFILTRATION BY MEASURING FLOW OVER A V-NOTCH OR TESTED FOR EXFILTRATION BY FILLING THE LINE WITH WATER TO 10 FEET ABOVE THE INVERT OF THE MANHOLE. THE LIMITING RATE OF INFILTRATION SHALL NOT EXCEED 200 GALLONS PER 1-INCH DIAMETER PER MILE PER 24 HOURS. AN ALTERNATE TESTING METHOD SHALL BE AIR PRESSURE TESTING AT 5 PSI FOR A DURATION OF 10 MINUTES YIELDING NO OBSERVED DROP IN PRESSURE.
- ALL GAS LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE SHALL BE INSTALLED DURING THE BACKFILLING APPROXIMATELY 6 INCHES BELOW THE FINISHED GRADE. THE PROTECTION TAPE SHALL BE PLACED DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "CAUTION-GAS PIPE BELOW". THE PROTECTION TAPE SHALL BE 6 INCH WIDE YELLOW PLASTIC PAIRED WITH A SOLID COPPER TRACER WIRE WITH YELLOW THERMOPLASTIC COATING OF AT LEAST #12 AWG. THE SELECTION AND INSTALLATION OF THE PROTECTION TAPE AND TRACER WIRE MUST MEET THE REQUIREMENTS SPECIFIED WITHIN THE PEOPLE'S NATURAL GAS SERVICE LINE INSTALLATION STANDARDS (INSTALLER'S GUIDE).
- ANY UTILITY CONFLICTS WITH 18 INCHES OR LESS VERTICAL SEPARATION BETWEEN OUTSIDE OF PIPE AND OUTSIDE OF PIPE SHALL BE CONCRETE ENCASED.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS AND ANY LOCAL AUTHORITIES.
- STREET PAVEMENT AFFECTED BY TRENCHING OR OTHER CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL AND PROPER CONDITION. ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY AND ALL RESTORATION OF STREET PAVEMENTS SHALL ABIDE BY THE POLICIES SET FORTH IN THE CITY OF PITTSBURGH RIGHT-OF-WAY PROCEDURES MANUAL.
- ALL SEWER CONNECTIONS MUST BE APPROVED AND INSPECTED BY THE ALLEGHENY COUNTY HEALTH DEPARTMENT (ACHD). CONTRACTOR TO RECEIVE ACHD APPROVAL PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL REFER TO MEP PLANS FOR ALL GAS, ELECTRIC, AND COMMUNICATIONS LAYOUTS, DESIGN, AND TRENCHING DETAILS. THESE UTILITIES ARE ONLY SHOWN ON THIS PLAN FOR REFERENCE AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.
- AN EXTERNAL GAS METER MUST BE SET ON THE FACE OF THE BUILDING WITH A STRAIGHT-LINE PATH NO LONGER THAN 100 LINEAR FEET FROM THE POINT OF CONNECTION TO THE MAINLINE IN ACCORDANCE WITH PEOPLES GAS REQUIREMENTS.
- ALL NECESSARY UTILITY RELOCATIONS/REWORKS REQUIRED FOR THE FIFTH AVENUE AND CLYDE STREET INTERSECTION IMPROVEMENTS ARE NOT IN CONTRACT AND ARE TO BE COORDINATED WITH THE FUTURE TRAFFIC SIGNAL PLAN.

UTILITY PROVIDERS

WATER	SEWER
THE PITTSBURGH WATER AND SEWER AUTHORITY ADDRESS: PENN LIBERTY PLAZA 1 1200 PENN AVENUE PITTSBURGH, PA 15222 PHONE: 412-255-8800 CONTACT: JULIE ASCOLLA	THE PITTSBURGH WATER AND SEWER AUTHORITY ADDRESS: PENN LIBERTY PLAZA 1 1200 PENN AVENUE PITTSBURGH, PA 15222 PHONE: 412-255-8800 CONTACT: JULIE ASCOLLA
PEOPLES NATURAL GAS COMPANY LLC ADDRESS: 375 NORTH SHORE DRIVE, SUITE 600 PITTSBURGH, PA 15212 PHONE: 412-258-4479 CONTACT: TIM VITULLO	DUQUESNE LIGHT COMPANY ADDRESS: 2925 NEW BEAVER AVENUE PITTSBURGH, PA 15233 PHONE: 412-393-7812 CONTACT: EARL ELDER
COMCAST CABLE - KENNESHA REGION ADDRESS: 1530 CHARTERS AVENUE PITTSBURGH, PA 15204 PHONE: 412-878-1397 CONTACT: LEONARD SNATCHKO	VERIZON OF PA ADDRESS: 15 MONTGOMERY PLACE PITTSBURGH, PA 15212 PHONE: 412-237-2291 CONTACT: DANIEL BARREN

LEGEND

	EXISTING	PROPOSED
ROW BOUNDARY		
SANITARY SEWER		
SANITARY MANHOLE/CLEANOUT COMBINATION		
SEWER LINE		
STORM SEWER		
STORM MANHOLE/OUTLET CONTROL STRUCTURE		
INLET		
TRENCH DRAIN		
UNDERGROUND WATER LINE		
UNDERGROUND FIRE LINE		
FIRE HYDRANT		
WATER VALVE		
GAS LINE		
UNDERGROUND COMMUNICATIONS AND ELECTRIC LINE		
UNDERGROUND TELEPHONE LINE		
UNDERGROUND ELECTRIC LINE		
OVERHEAD ELECTRIC LINE		
ELECTRIC MANHOLE ELECTRIC STRUCTURE		
UTILITY POLE		

PROJECT
FIFTH AND CLYDE RESIDENCE HALL
5TH AVE AT CLYDE ST

DESIGN ARCHITECT
LTL ARCHITECTS
Lewis Tsutsumi Lewis
227 West 29th Street, 7th Fl.
New York, NY 10001
T: 212 505-5565
F: 212 505-1648

ARCHITECT OF RECORD
PERFIDO 408 Boulevard of the Allies
Weiskopf Pittsburgh, PA 15219
WAGSTAFF + GOTTLE 1.412.391.2884
1.412.391.1657

LANGAN
Langan Engineering and Environmental Services, Inc.
2400 Ansys Drive, Suite 403
Coraopolis, PA 15117
T: 724.514.5100 F: 724.514.5101 www.langan.com

NOT FOR CONSTRUCTION

REVISION NO.	DESCRIPTION	DATE

JOB: 21833.00
SCALE: AS NOTED
DRAWN: MMC
DATE: 12-09-2019
TITLE: UTILITY PLAN

SHEET NUMBER
CU1.01
75% CONSTRUCTION DOCUMENTS

7/20/2019 2:24:41 PM G:\01 - COVER SHEET & DRAWING LIST

APPENDIX G

Cultural Resource Notice

**SECTION G
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3**

**Re: Cultural Resources Notice (CRN)
CMU 5th and Clyde Residence Hall and Campus Hub
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250064901**

Per DEP Document #0120-PM-PY0003a – Section F, a Cultural Resource Notice is not required for this project because the project area is less than 10 acres, and does not contain any existing historical buildings.

APPENDIX H

PNDI

1. PROJECT INFORMATION

Project Name: **Carnegie Melon University 5th and Clyde**

Date of Review: **3/8/2019 03:04:17 PM**

Project Category: **Development, Other**

Project Area: **3.21 acres**

County(s): **Allegheny**

Township/Municipality(s): **PITTSBURGH**

ZIP Code: **15213**

Quadrangle Name(s): **PITTSBURGH EAST**

Watersheds HUC 8: **Lower Allegheny; Lower Monongahela**

Watersheds HUC 12: **Allegheny River-Ohio River; Streets Run-Monongahela River**

Decimal Degrees: **40.447793, -79.946056**

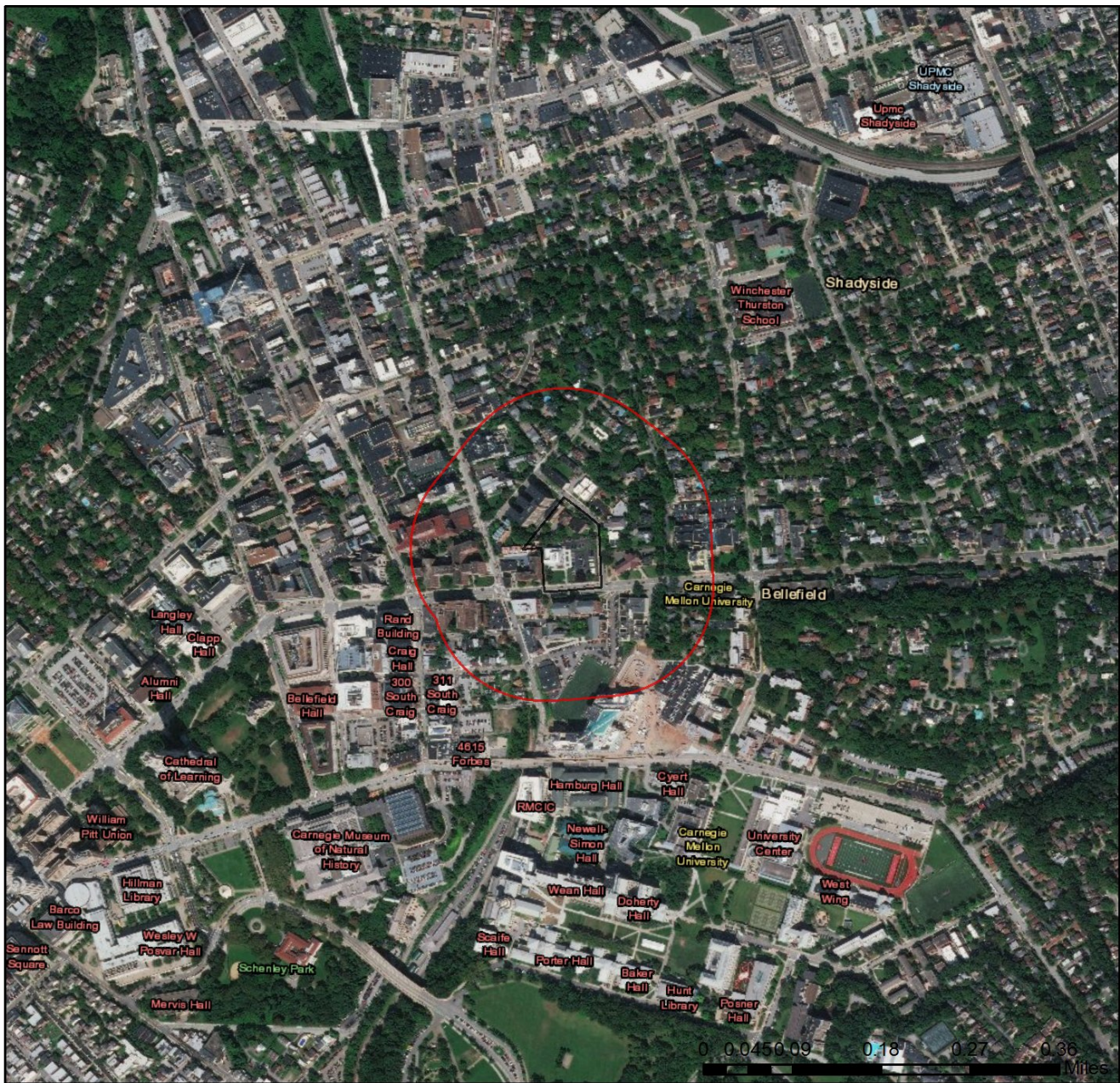
Degrees Minutes Seconds: **40° 26' 52.557" N, 79° 56' 45.8018" W**

2. SEARCH RESULTS

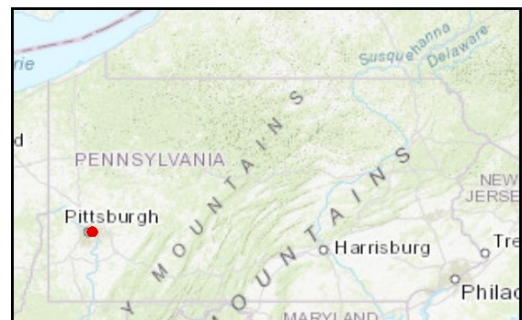
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Carnegie Mellon University 5th and Clyde

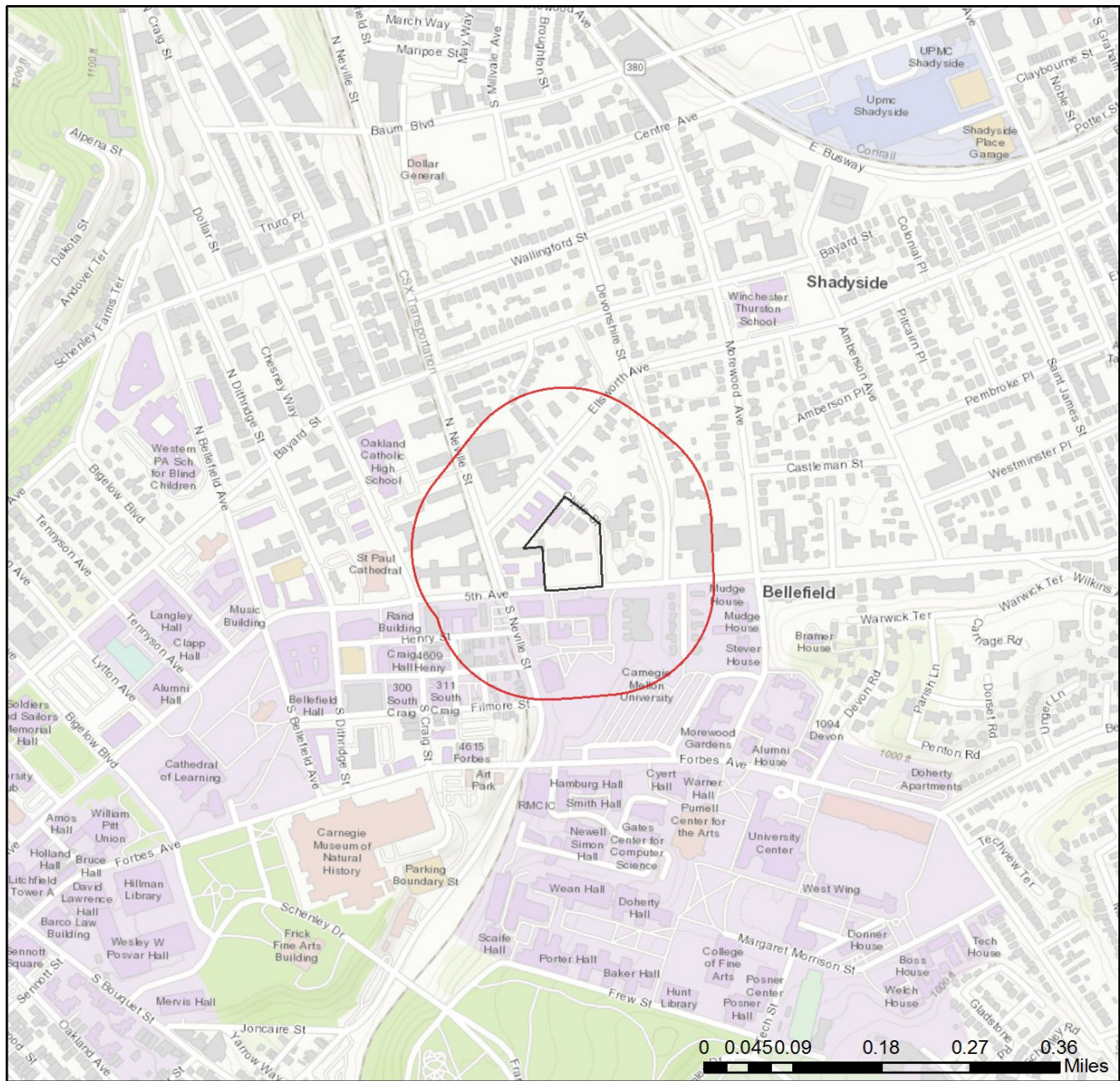


- Project Boundary
- Buffered Project Boundary

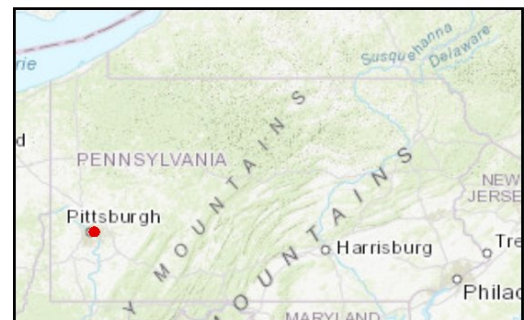


Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Carnegie Mellon University 5th and Clyde



- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

RESPONSE TO QUESTION(S) ASKED

Q1: The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).

Your answer is: No forests, woodlots or trees will be affected by the project.

Q2: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Crystal Roemer
Company/Business Name: Langan Engineering & Environmental Services, Inc.
Address: 2400 Ansys Drive, Suite 401
City, State, Zip: Canonsburg, PA 15317
Phone: (724) 514-5168 Fax: (724) 514-5101
Email: croemer@langan.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.



applicant/project proponent signature

03/08/2019

date

APPENDIX I

Component 4A



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code #:

SEWAGE FACILITIES PLANNING MODULE
COMPONENT 4A - MUNICIPAL PLANNING AGENCY REVIEW

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the local municipal planning agency for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name

CMU 5th and Clyde Residence Hall and Campus Hub

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by municipal planning agency 10-4-19
2. Date review completed by agency 10-15-19

SECTION C. AGENCY REVIEW (See Section C of instructions)

- | Yes | No | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1. Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, <i>et seq.</i>)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2. Is this proposal consistent with the comprehensive plan for land use?
If no, describe the inconsistencies _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Is this proposal consistent with the use, development, and protection of water resources?
If no, describe the inconsistencies _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. Does this project propose encroachments, obstructions, or dams that will affect wetlands?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 6. Will any known historical or archaeological resources be impacted by this project?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7. Will any known endangered or threatened species of plant or animal be impacted by this project?
If yes, describe impacts _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 8. Is there a municipal zoning ordinance? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 9. Is this proposal consistent with the ordinance?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 11. Have all applicable zoning approvals been obtained? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Is there a municipal subdivision and land development ordinance? |

SECTION C. AGENCY REVIEW (continued)

Yes No

- 13. Is this proposal consistent with the ordinance?
 If no, describe the inconsistencies _____
- 14. Is this plan consistent with the municipal Official Sewage Facilities Plan?
 If no, describe the inconsistencies _____
- 15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
 If yes, describe _____
- 16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision?
 If yes, is the proposed waiver consistent with applicable ordinances?
 If no, describe the inconsistencies _____

17. Name, title and signature of planning agency staff member completing this section:

Name: Martina Battistone
 Title: Senior environmental planner
 Signature: M. Battistone
 Date: 10-15-19
 Name of Municipal Planning Agency: Dept. City Planning
 Address: 200 Ross St 4th Floor Pittsburgh, PA 15219
 Telephone Number: (412) 255-2516

SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)

This component does not limit municipal planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets.

The planning agency must complete this component within 60 days.

This component and any additional comments are to be returned to the applicant.

APPENDIX J

Component 4C



SEWAGE FACILITIES PLANNING MODULE
COMPONENT 4C - COUNTY OR JOINT HEALTH DEPARTMENT REVIEW

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the county or joint county health department for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name

CMU 5th and Clyde Residence Hall and Campus Hub

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by county or joint-county health department. October 7, 2019

Agency name Allegheny County Health Department (ACHD)

2. Date review completed by agency October 9, 2019

SECTION C. AGENCY REVIEW (See Section C of instructions)

Yes No

1. Is the proposed plan consistent with the municipality's Official Sewage Facilities Plan?

If no, what are the inconsistencies? _____

2. Are there any waste water disposal needs in the area adjacent to the new land development that should be considered by the municipality?

If yes, describe _____

3. Is there any known groundwater degradation in the area of the proposed subdivision?

If yes, describe _____

4. The county or joint county health department recommendation concerning this proposed plan is as follows: ACHD recommends approval. See attached letter.

5. Name, title and signature of person completing this section:

Name: Freddie Fields

Title: Environmental Health Engineer III

Signature: 

Date: October 9, 2019

Name of County Health Department: ACHD

Address: 3901 Penn Avenue, Building #5, Pittsburgh PA 15224-1318

Telephone Number: 412-578-8046

SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)

This Component does not limit county planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets.

The county planning agency must complete this Component within 60 days.

This Component and any additional comments are to be returned to the applicant.

APPENDIX K

Completeness Checklist

Checklist



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

Completeness Checklist

The individual completing the component should use the checklist below to assure that all items are included in the module package. The municipality should confirm that the required items have been included within 10 days of receipt, and if complete, sign and date the checklist.

Sewage Collection and Treatment Facilities

- Name and Address of land development project.
- U.S.G.S. 7.5 minute topographic map with development area plotted.
- Project Narrative.
- Letter from water company (if applicable).
- Alternative Analysis Narrative.
- Details of chosen financial assurance method.
- Proof of Public Notification (if applicable).
- Name of existing collection and conveyance facilities.
- Name and NPDES number of existing treatment facility to serve proposed development.
- Plot plan of project with required information.
- Total sewage flows to facilities table.
- Signature of existing collection and/or conveyance Chapter 94 report preparer.
- Signature of existing treatment facility Chapter 94 report preparer.
- Letter granting allocation to project (if applicable).
- Signature acknowledging False Swearing Statement.
- Completed Component 4 (Planning Agency Review) for each existing planning agency and health department.
- Information on selected treatment and disposal option.
- Permeability information (if applicable).
- Preliminary hydrogeology (if applicable).
- Detailed hydrogeology (if applicable).

Municipal Action

- Component 3 (Sewage Collection and Treatment Facilities).
- Component 4 (Planning Agency Comments and Responses).
- Proof of Public Notification.
- Long-term operation and maintenance option selection.
- Comments, and responses to comments generated by public notification.
- Transmittal Letter

Signature of Municipal Official

Date submittal determined complete