

FACILITIES PLAN TECHNICAL REPORTS

Utilities Assessment

In partnership with:



Portland Community College

Utility Assessments

Prepared for
SRG Partnership



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April 2018

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1 INTRODUCTION

David Evans and Associates, Inc. (DEA) was contracted by SRG Partnership, Inc. (SRG) to review the condition of utilities throughout the Portland Community College (PCC) properties. The utilities covered in this review include storm sewer, sanitary sewer, domestic water, fire service water and gas services. The PCC Campuses studied include; Cascade Campus, Rock Creek Campus, Southeast Campus and Sylvania Campus. The PCC Centers studied include; CLIMB Center, Downtown Center, Hillsboro Center, Metropolitan Workforce Training Center, Newberg Center, Swan Island Center, and Willow Creek Center.

2 SITE ASSESSMENTS

In order to assess the condition of utilities, David Evans and Associates, Inc. gathered information during field visits as well as information from record drawings provided by PCC. This information was supplemented with online mapping provided by the jurisdiction. The sites had a limited amount of record information, therefore the utility assessments are not comprehensive.

3 CAMPUSES

3.1 CASCADE CAMPUS

3.1.1 Site Information

Portland Community College Cascade Campus is located in Portland, Oregon at 705 N Killingsworth Street, Portland, OR 97217. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lots 1N1E15CC, 1N1E15CD, and 1N1E22BA.

3.1.2 Assessment Results

3.1.2.1 Storm System

There were no records found for the original campus construction. The first record found showing changes to the storm system is from 2003. More improvements were made with the additions of buildings and other infrastructure improvements between 2003 and 2015, including new stormwater facilities as well as pipe, manhole, and area drain additions and replacements.

There are various water quality facilities throughout the campus; however, there are many areas of the campus where no storm drainage information is provided. It is inconclusive whether or not the campus currently provides sufficient water quality and quantity facilities. A more in-depth analysis of these facilities is necessary in order to permit any major renovations to the campus. Table 1, below, describes the vegetated stormwater facilities in greater detail. There are also many Contech StormFilter catch basins and manholes located throughout the site that are not included in the table. Those are shown on the exhibit [CASC-UT-1](#) along with all other storm and sanitary facilities.

For location and size of the existing storm sewer system, refer to exhibit [CASC-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. Information regarding water quality facilities are based on site observation and record drawings. All information regarding on-site storm sewer utilities are based on record drawings.

Table 1: Cascade Campus Vegetated Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #1
WQ #2	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #2
WQ #3	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #3
WQ #4	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #4
WQ #5	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #5
WQ #6	WQ Planter	Good	Constructed in 2013	Photo: Cascade WQ #6
WQ #7	WQ Planter	Good	Constructed in 2013	Photo: Cascade WQ #7
WQ #8	WQ Planter	Good	Constructed in 2013	Photo: Cascade WQ #8
WQ #9	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #9
WQ #10	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #10
WQ #11	WQ Planter	Good	Unknown	Treats water from public roadway; Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #11
WQ #12	LIDA Swale	Good	Constructed in 2015	Photo: Cascade WQ #12
WQ #13	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Cascade WQ #13

3.1.2.2 Sanitary Sewer System

There were no records found for the original campus construction. The first record found showing changes to the sanitary system is from 2003. More improvements were made between 2003 and 2014

with the additions of buildings and other campus infrastructure improvements, including new pipe and manholes as well as the abandonment of old sanitary sewer pipes.

For location and size of the existing sanitary sewer system, refer to exhibit [CASC-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. Many of the combined sewer lines are noted as “not in service” according to Portland Maps. Since it is assumed that there is functioning sewer pipe serving the site currently, further investigation is necessary if connections to these lines are needed in the future. All sanitary sewer utilities depicted on-site are based on information gathered from record drawings.

3.1.2.3 Water System – Fire and Domestic

There were no records found for the original campus construction. The first record found showing changes to the water system is from 2003. Improvements were made to both the domestic water lines and fire service lines between 2003 and 2014. Improvements included new water service connections, line replacements and abandonment of old lines.

For location and size of the existing water system, refer to exhibit [CASC-UT-2](#). All water service utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All water service utilities depicted on-site are based on information gathered from record drawings. Information regarding visible water structures, including FDCs and water meters, were verified during field visits.

3.1.2.4 Gas

For location and size of the existing gas utilities, refer to exhibit [CASC-UT-2](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The locations of the gas meters were verified during field visits.

3.2 ROCK CREEK CAMPUS

3.2.1 Site Information

Portland Community College Rock Creek Campus is located in Portland, Oregon at 17705 NW Springville Road, Portland, OR 97229. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lot #200, 1N11800.

3.2.2 Assessment Results

3.2.2.1 Storm System

There were no records found for the original campus construction. The first record found showing changes to the storm system is from 1981. More improvements were made with the additions of buildings and other campus infrastructure improvements between 1981 and 2016, including new stormwater facilities as well as pipe, manhole, and area drain additions and replacements.

The campus appears to have sufficient water quality and quantity facilities. A more in-depth analysis of these facilities is necessary in order to permit any major renovations to the campus. Table 2, below, describes the stormwater facilities in greater detail.

For location and size of the existing storm sewer system, refer to exhibit [ROCR-UT-1](#). Information regarding water quality facilities are a result of site observation and record drawings. All information regarding on-site storm sewer utilities are based on record drawings.

Table 2: Rock Creek Campus Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	LIDA Swale	Good	Constructed in July 2015	Photo: Rock Creek WQ #1
WQ #2	LIDA Swale	Good	Constructed in July 2015	Photo: Rock Creek WQ #2
WQ #3	LIDA Swale	Good	Constructed in July 2015	Photo: Rock Creek WQ #3
WQ #4	LIDA Swale	Good	Constructed in July 2015	Photo: Rock Creek WQ #4
WQ #5	Water Quality Pond	Good	Improvements made in 2013	0.29 Acres Photo: Rock Creek WQ #5
WQ #6	Stormwater Planter	Good	Constructed in 2012	Area Drain Connected to 18" Mainline with 6" Pipe Photo: Rock Creek WQ #6
WQ #7	Stormwater Basin	Good	Constructed in 2012	Photo: Rock Creek WQ #7
Pond #1	Pond	Unknown	Unknown	0.44 Acres Photo: Rock Creek Pond #1
Pond #2	Pond	Unknown	Unknown	0.03 Acres Photo: Rock Creek Pond #2
Pond #3	Pond	Unknown	Unknown	0.04 Acres Photo: Rock Creek Pond #3
Pond #4	Pond	Unknown	Unknown	Photo: Rock Creek Pond #4

3.2.2.2 Sanitary Sewer System

There were no records found for the original campus construction. The first record found showing changes to the sanitary system is from 1981. More improvements were made between 1981 and 2016 with the additions of buildings and other campus infrastructure improvements, including new pipe and manholes as well as the abandonment of old sanitary sewer pipes.

For location and size of the existing sanitary sewer system, refer to exhibit [ROCR-UT-1](#). All sanitary sewer utilities depicted are based on information gathered from record drawings.

3.2.2.3 Water System – Fire and Domestic

There were no records found for the original campus construction. The first record found showing changes to the water system is from 1993, with the addition of Building 4 on the southwest side of campus. Improvements were made to both the domestic water lines and fire service lines between

1993 and 2016 with the additions of buildings and other campus infrastructure improvements. Improvements included new water service connections, line replacements and abandonment of old lines. The main domestic water service is a 14-inch line located on the west side of campus.

For location and size of the existing water system, refer to exhibit [ROCR-UT-2](#). All water service utilities depicted are based on information gathered from record drawings. All information regarding visible water structures, including FDCs and water meters, were verified during field visits.

3.2.2.4 Gas

There were no records found for the original campus construction. Currently, there are two main gas lines that service Rock Creek Campus. The west line is connected to the 6 5/8-inch main gas line in Springville Road and services the buildings on the East side of campus. The east line is connected to the main line in Springville Road at the intersection of a 6 5/8-inch line and a 6-inch line in Springville Road. This line services the buildings on the West side of campus. The majority of gas line piping is polyethylene, with the exception of a small section of steel pipe in the northeastern corner of campus near Building 6.

For location and size of the existing gas utilities, refer to exhibit [ROCR-UT-2](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The locations of the gas meters were verified during field visits.

3.3 SOUTHEAST CAMPUS

3.3.1 Site Information

Portland Community College Southeast Campus is located in Portland, Oregon at 2305 SE 82nd Avenue, Portland, OR 97216. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lot 1S2E05DD.

3.3.2 Assessment Results

3.3.2.1 Storm System

There were no records found for the original campus construction. The first record found showing changes to the storm system is from 2002. More improvements were made with the additions of buildings and other campus infrastructure improvements between 2002 and 2013, including new stormwater facilities as well as pipe, manhole, and area drain additions and replacements.

The campus appears to have sufficient water quality and quantity facilities. A majority of the treatment is achieved through mechanical methods, including filter catch basins and filter manholes which are connected to drywells that allow the water to infiltrate back into the groundwater. A more in-depth analysis of these facilities is necessary in order to permit any major renovations to the campus. Table 3, below, describes the vegetated stormwater facilities in greater detail. There are also many Contech StormFilter catch basins located throughout the site that are not included in the table. Those are shown on exhibit [SOEA-UT-1](#), along with all other storm and sanitary facilities.

For location and size of the existing storm sewer system, refer to exhibit [SOEA-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Portland

Maps. Information regarding water quality facilities are a result of site observation and record drawings. All information regarding on-site storm sewer utilities are based on record drawings.

Table 3: Southeast Campus Vegetated Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	LIDA Swale	Good	Constructed in 2013	Photo: Southeast WQ #1
WQ #2	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #2
WQ #3	LIDA Swale	Good	Constructed in 2013	Photo: Southeast WQ #3
WQ #4	LIDA Swale	Good	Constructed in 2013	Photo: Southeast WQ #4
WQ #5	LIDA Swale	Good	Constructed in 2013	Photo: Southeast WQ #5
WQ #6	WQ Planter	Poor	Unknown	Observed during 2017 site visit; no as-builts. Photo: Southeast WQ #6
WQ #7	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #7
WQ #8	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Southeast WQ #8
WQ #9	WQ Planter	Fair	Constructed in 2013	Photo: Southeast WQ #9
WQ #10	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #10
WQ #11	LIDA Swale	Good	Constructed in 2013	Photo: Southeast WQ #11
WQ #12	LIDA Swale	Good	Constructed in 2013	Photo: Southeast WQ #12
WQ #13	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #13
WQ #14	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #14
WQ #15	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #15
WQ #16	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #16
WQ #17	LIDA Swale	Fair	Constructed in 2013	Photo: Southeast WQ #17
WQ #18	WQ Planter	Fair	Constructed in 2013	Photo: Southeast WQ #18
WQ #19	WQ Planter	Fair	Constructed in 2013	Photo: Southeast WQ #19

ID	TYPE	CONDITION	AGE	NOTES
WQ #20	WQ Planter	Fair	Constructed in 2013	Photo: Southeast WQ #20
WQ #21	WQ Planter	Fair	Constructed in 2013	Photo: Southeast WQ #21
WQ #22	LIDA Swale	Fair	Constructed in 2013	Photo: Southeast WQ #22
WQ #23	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #23
WQ #24	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #24
WQ #25	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #25
WQ #26	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #26
WQ #27	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #27
WQ #28	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #28
WQ #29	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #29
WQ #30	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #30
WQ #31	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #31
WQ #32	WQ Planter	Good	Constructed in 2013	Photo: Southeast WQ #32
WQ #33	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #33
WQ #34	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #34
WQ #35	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #35
WQ #36	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #36
WQ #37	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #37
WQ #38	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #38
WQ #39	WQ Planter	Poor	Constructed in 2002	Photo: Southeast WQ #39
WQ #40	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Southeast WQ #40

ID	TYPE	CONDITION	AGE	NOTES
WQ #41	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Southeast WQ #41
WQ #42	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Southeast WQ #42
WQ #43	WQ Planter	New	Unknown	Observed during 2017 site visit; no as-builts. Photo: Southeast WQ #43

3.3.2.2 Sanitary Sewer System

There were no records found for the original campus construction. The first record found showing changes to the sanitary system is from 2002. More improvements were made between 2002 and 2013 with the additions of buildings and other campus infrastructure improvements, including new pipe and manholes as well as the abandonment of old pipes.

For location and size of the existing sanitary sewer system, refer to exhibit [SOEA-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All sanitary sewer utilities depicted on-site are based on information gathered from record drawings.

3.3.2.3 Water System – Fire and Domestic

There were no records found for the original campus construction. The first record found showing changes to the water system is from 2002. Improvements were made to both the domestic water lines and fire service lines between 2002 and 2013. Improvements included new water service connections, line replacements and abandonment of old lines.

For location and size of the existing water system, refer to exhibit [SOEA-UT-2](#). All water service utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All water service utilities depicted on-site are based on information gathered from record drawings. All information regarding visible water structures, including FDCs and water meters, were verified during field visits.

3.3.2.4 Gas

There were no records found for the original campus construction. Currently, there is a main 2-inch gas line that services several buildings on the Southeast Campus.

For location and size of the existing gas utilities, refer to exhibit [SOEA-UT-2](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The locations of the gas meters were verified during field visits.

3.4 SYLVANIA CAMPUS

3.4.1 Site Information

Portland Community College Sylvania Campus is located in Portland, Oregon at 12000 SW 49th Avenue, Portland, OR 97219. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lots #100 and #200, 1S1E31D.

3.4.2 Assessment Results

3.4.2.1 Storm System

There were no records found for the original campus construction. The first record found showing changes to the storm system is from 1966. More improvements were made with the additions of buildings and other campus infrastructure improvements between 1966 and 2016, including new stormwater facilities as well as pipe, manhole, and area drain additions and replacements.

The campus appears to have sufficient water quality and quantity facilities to treat the runoff from the parking lots on the east side of the property. The rest of the campus lacks water quality and quantity treatment. Any major renovations would most likely require the addition of new facilities. Table 4, below, describes the stormwater facilities in greater detail.

For location and size of the existing storm sewer system, refer to exhibit [SYLV-UT-1](#). Information regarding water quality facilities was obtained through site observation and record drawings. All information regarding on-site storm sewer utilities are based on record drawings.

Table 4: Sylvania Campus Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	LIDA Swale	Good	Constructed in 2013	Photo: Sylvania WQ #1
WQ #2	LIDA Swale	Good	Constructed in 2013	Photo: Sylvania WQ #2
WQ #3	LIDA Swale	Good	Constructed in 2013	Photo: Sylvania WQ #3
WQ #4	LIDA Swale	Good	Constructed in 2016	Photo: Sylvania WQ #4
WQ #5	LIDA Swale	Good	Constructed in 2016	Photo: Sylvania WQ #5
WQ #6	LIDA Swale	Good	Constructed in 2016	Photo: Sylvania WQ #6
WQ #7	Swale	Poor	Constructed in 2016	Difficult to locate exact location of swale Photo: Sylvania WQ #7
WQ #8	Water Quality Planter	Good	Constructed in 2012	Photo: Sylvania WQ #8
WQ #9	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Sylvania WQ #9

ID	TYPE	CONDITION	AGE	NOTES
WQ #10	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Sylvania WQ #10
WQ #11	Swale	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Sylvania WQ #11

3.4.2.2 Sanitary Sewer System

There were no records found for the original campus construction. The first record found showing changes to the sanitary system is from 1967. More improvements were made between 1967 and 2003 with the additions of buildings and other campus infrastructure improvements, including new pipe and manholes as well as the abandonment of old pipes.

For location and size of the existing sanitary sewer system, refer to exhibit [SYLV-UT-1](#). All sanitary sewer utilities depicted are based on information gathered from record drawings.

3.4.2.3 Water System – Fire and Domestic

There were no records found for the original campus construction. The first record found showing changes to the water system is from 1967. Improvements were made to both the domestic water lines and fire service lines between 1967 and 2009. Improvements included new water service connections, line replacements, and abandonment of old lines. The main domestic water service is a 10-inch line along the perimeter of the campus.

For location and size of the existing water system, refer to exhibit [SYLV-UT-2](#). All water service utilities depicted are based on information gathered from record drawings. All information regarding visible water structures, including FDCs and water meters, were verified during field visits.

The FDC for the TCB building is very hard to find because it is setback from the pathway and overgrown with vegetation. The FDC is located on the north side of the building on a pedestrian pathway. It appears that the sign for locating the FDC is no longer installed in the proper location, as it was found lying on the ground. It is recommended that clearer signage is installed in order for the fire department to locate the FDC. See attached photos [Sylvania 1](#) and [Sylvania 2](#).

Throughout the campus, a clear path to all FDCs should be maintained at all times. The FDCs for the CC and HP buildings were not clearly visible from the fire lane. See attached photos [Sylvania 3](#) and [Sylvania 4](#).

3.4.2.4 Gas

There were no records found for the original campus construction. Currently, there is one gas line that services Sylvania Campus. The line is connected to a main gas line in Kerr Parkway.

For location and size of the existing gas utilities, refer to exhibit [SYLV-UT-2](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The location of the gas meter was verified during field visits.

4 CENTERS

4.1 CLIMB CENTER

4.1.1 Site Information

Portland Community College CLIMB Center is located in Portland, Oregon at 1626 SE Water Avenue, Portland, OR 97214. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lot #1701, 1S1E03DA.

4.1.2 Assessment Results

4.1.2.1 Storm System

The CLIMB Center appears to have sufficient water quality and quantity facilities. A more in-depth analysis of these facilities is necessary in order to permit any major renovations to the center. Table 5, below, describes the stormwater facilities in greater detail.

For location and size of the existing storm sewer system, refer to exhibit [CLIM-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All information regarding water quality facilities are a result of site observation. There were no records found for any on-site storm sewer utilities.

Table 5: CLIMB Center Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: CLIMB WQ #1
WQ #2	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: CLIMB WQ #2
WQ #3	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: CLIMB WQ #3
WQ #4	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: CLIMB WQ #4
WQ #5	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: CLIMB WQ #5

4.1.2.2 Sanitary Sewer System

For location and size of the existing sanitary sewer system, refer to exhibit [CLIM-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. There were no records found for any on-site sanitary sewer utilities.

4.1.2.3 Water System – Fire and Domestic

For location and size of the existing water system, refer to exhibit [CLIM-UT-1](#). All water service utilities depicted in the public right-of-way are based on information gathered from Portland Maps.

All information regarding visible water structures, including FDCs and water meters, were verified during field visits. There were no records found for any on-site water utilities.

4.1.2.4 Gas

For location and size of the existing gas service, refer to exhibit [CLIM-UT-1](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The location of the gas meter was verified during field visits.

4.2 DOWNTOWN CENTER

4.2.1 Site Information

Portland Community College Downtown Center is located in Portland, Oregon at 722 SW 2nd Avenue, Portland, OR 97204. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lot #03300, 1S1E03BA.

4.2.2 Assessment Results

4.2.2.1 Storm System

No information regarding water quality facilities from record drawings or site investigation was found for the Downtown Center.

For location and size of the existing storm sewer system, refer to exhibit [DOWN-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. There were no records found for any on-site storm sewer utilities.

4.2.2.2 Sanitary Sewer System

For location and size of the existing sanitary sewer system, refer to exhibit [DOWN-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. There were no records found for any on-site sanitary sewer utilities.

4.2.2.3 Water System – Fire and Domestic

For location and size of the existing water system, refer to exhibit [DOWN-UT-1](#). All water service utilities depicted in the public right-of-way are based on information gathered from Portland Maps. There were no records found for any on-site water utilities.

4.2.2.4 Gas

For location and size of the existing gas service, refer to exhibit [DOWN-UT-1](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping.

4.3 HILLSBORO CENTER

4.3.1 Site Information

Portland Community College Hillsboro Center is located in Hillsboro, Oregon at 775 SE Baseline Street, Hillsboro, OR 97123. The property is owned by Portland Community College (PCC) and is comprised of Washington County tax lot #10000, 1N231DC.

4.3.2 Assessment Results

4.3.2.1 Storm System

The Hillsboro Center was constructed in 2009 and adequate water quality and quantity facilities were added at that time. Table 6, below, describes the stormwater facilities in greater detail.

For location and size of the existing storm sewer system, refer to exhibit [HILL-UT-1](#). All storm sewer utilities depicted are based on information gathered from Hillsboro Maps and the 2009 record drawings.

Table 6: Hillsboro Center Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	Stormwater Infiltration Planter	Good	Constructed in 2009	Photo: Hillsboro WQ #1
WQ #2	Stormwater Infiltration Planter	Good	Constructed in 2009	Photo: Hillsboro WQ #2
WQ #3	Stormwater Infiltration Planter	Good	Constructed in 2009	Photo: Hillsboro WQ #3

4.3.2.2 Sanitary Sewer System

For location and size of the existing sanitary sewer system, refer to exhibit [HILL-UT-1](#). All sanitary sewer utilities depicted are based on information gathered from Hillsboro Maps and the 2009 record drawings.

4.3.2.3 Water System – Fire and Domestic

For location and size of the existing water system, refer to exhibit [HILL-UT-1](#). All water service utilities depicted are based on information gathered from Hillsboro Maps and the 2009 record drawings.

4.3.2.4 Gas

For location and size of the existing gas service, refer to exhibit [HILL-UT-1](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping and the 2009 record drawings.

4.4 METROPOLITAN WORKFORCE TRAINING CENTER

4.4.1 Site Information

Portland Community College Metropolitan Workforce Training Center is located in Portland, Oregon at 5600 NE 42nd Avenue, Portland, OR 97218. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lots #7600, #7700, and #7800, 1N2E18CC.

4.4.2 Assessment Results

4.4.2.1 Storm System

The Metropolitan Workforce Training Center appears to have sufficient water quality facilities. From site observation, the water appears to be treated using mechanical methods, including filter catch basins and filter manholes.

For location and size of the existing storm sewer system, refer to exhibit [MWTC-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All information regarding water quality facilities are a result of site observation. There were no records found for any on-site storm sewer utilities.

4.4.2.2 Sanitary Sewer System

For location and size of the existing sanitary sewer system, refer to exhibit [MWTC-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. There were no records found for any on-site sanitary sewer utilities.

4.4.2.3 Water System – Fire and Domestic

For location and size of the existing water system, refer to exhibit [MWTC-UT-1](#). All water service utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All information regarding visible water structures, including FDCs and water meters, were verified during field visits. There were no records found for any on-site water utilities.

4.4.2.4 Gas

For location and size of the existing gas service, refer to exhibit [MWTC-UT-1](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The location of the gas meter was verified during field visits.

4.5 NEWBERG CENTER

4.5.1 Site Information

Portland Community College Newberg Center is located in Newberg, Oregon at 135 Werth Boulevard, Newberg, OR 97132. The property is owned by Portland Community College (PCC) and is comprised of Yamhill County tax lot #6500, 21T3SR2W.

4.5.2 Assessment Results

4.5.2.1 Storm System

The original storm system was created when the center was constructed in 2009. No records show any changes since 2009.

The Newberg Center appears to have sufficient water quality and quantity facilities. A more in-depth analysis of these facilities is necessary in order to permit any major renovations to the center. Table 7, below, describes the stormwater facilities in greater detail.

For location and size of the existing storm sewer system, refer to exhibit [NEWB-UT-1](#). All storm sewer utilities depicted are based on information gathered from the 2009 record drawings.

Table 7: Newberg Center Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	Swale	Good	Constructed in 2009	Treats runoff from parking lot. Photo: Newberg WQ #1
WQ #2	Swale	Good	Constructed in 2009	Treats runoff from parking lot. Photo: Newberg WQ #2
WQ #2	Swale	Good	Constructed in 2009	Photo: Newberg WQ #3

4.5.2.2 Sanitary Sewer System

The original sanitary sewer system was created when the center was constructed in 2009. No records show any changes since 2009.

For location and size of the existing sanitary sewer system, refer to exhibit [NEWB-UT-1](#). All sanitary sewer utilities depicted are based on information gathered from the 2009 record drawings

4.5.2.3 Water System – Fire and Domestic

The original water lines were created when the center was constructed in 2009. No records show any changes since 2009. The main public water line is 8-inch and is located in Werth Boulevard. The fire and domestic water connections for the center are connected to this line.

For location and size of the existing water system, refer to exhibit [NEWB-UT-1](#). All water service utilities depicted are based on information gathered from the 2009 record drawings.

4.5.2.4 Gas

No information regarding the gas service, from record drawings or site investigation, was found for the Newberg Center.

4.6 SWAN ISLAND CENTER

4.6.1 Site Information

Portland Community College Swan Island Trades Center is located in Portland, Oregon at 6400 N Cutter Circle, Portland, OR 97217. The property is owned by Portland Community College (PCC) and is comprised of Multnomah County tax lot #1000 1N1E17D.

4.6.2 Assessment Results

4.6.2.1 Storm System

There were no records found for the original building construction. Changes were made when the new lobby and classroom wing were constructed in 2013. These improvements included the removal of existing storm lines that conflicted with the new building footprint as well as the addition of a

stormwater facilities and storm piping. In addition to the swale, a Stormceptor manhole was found at the edge of the property near the public road. That is not typically an approved method of treatment per City of Portland standards, so a more in-depth analysis of this facility is necessary in order to permit any major renovations to the center in the future. Table 8, below, describes the vegetated stormwater facility.

For location and size of the existing storm sewer system, refer to exhibit [SITC-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. Information regarding water quality facilities and on-site storm sewer utilities are a result of site observation and record drawings.

Table 8: Swan Island Trades Center Vegetated Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
SW #1	Swale	Good	Constructed in 2013	Photo: Swan Island WQ #1

4.6.2.2 Sanitary Sewer System

There were no records found for the original campus construction. Changes were made to the sanitary system when the new lobby and classroom wing were constructed in 2013. These improvements included a new sanitary connection and clean out. The building still utilizes the original sanitary system.

For location and size of the existing sanitary sewer system, refer to exhibit [SITC-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Portland Maps. Information regarding on-site sanitary sewer utilities are a result of site observation and record drawings.

4.6.2.3 Water System – Fire and Domestic

There were no records found for the original campus construction. Changes were made to the water system when the new lobby and classroom wing were constructed in 2013. These improvements included the addition of a fire department connection and backflow and a domestic water connection. All water connections are serviced from the main line located in Cutter Circle.

For location and size of the existing water system, refer to exhibit [SITC-UT-1](#). All water service utilities depicted in the public right-of-way are based on information gathered from Portland Maps. All information regarding visible water structures, including FDCs and water meters, were verified during field visits. Information regarding on-site water utilities are a result of site observation and record drawings.

4.6.2.4 Gas

For location and size of the existing gas service, refer to exhibit [SITC-UT-1](#). There were no records found for the original campus construction. Records from the 2013 building addition and NW Natural’s online mapping indicate an existing gas line on the eastern property line.

4.7 WILLOW CREEK CENTER

4.7.1 Site Information

Portland Community College Willow Creek Center is located in Beaverton, Oregon at 241 SW Edgeway Drive, Beaverton, OR 97006. The property is owned by Portland Community College (PCC) and is comprised of Washington County tax lot #3500, 1S201AA.

4.7.2 Assessment Results

4.7.2.1 Storm System

The Willow Creek Center appears to have sufficient water quality and quantity facilities. A more in-depth analysis of these facilities is necessary in order to permit any major renovations to the center. Table 9, below, describes the stormwater facilities in greater detail.

For location and size of the existing storm sewer system, refer to exhibit [WICR-UT-1](#). All storm sewer utilities depicted in the public right-of-way are based on information gathered from Hillsboro Maps. All information regarding water quality facilities is a result of site observation. Information regarding on-site storm sewer utilities is a result of site observations and record drawings.

Table 9: Willow Creek Center Stormwater Facilities

ID	TYPE	CONDITION	AGE	NOTES
WQ #1	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Willow Creek WQ #1
WQ #2	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Willow Creek WQ #2
WQ #3	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Willow Creek WQ #3
WQ #4	WQ Planter	Good	Unknown	Observed during 2017 site visit; no as-builts. Photo: Willow Creek WQ #4

4.7.2.2 Sanitary Sewer System

For location and size of the existing sanitary sewer system, refer to exhibit [WICR-UT-1](#). All sanitary sewer utilities depicted in the public right-of-way are based on information gathered from Hillsboro Maps. Information regarding on-site sanitary sewer utilities is a result of site observation and record drawings.

4.7.2.3 Water System – Fire and Domestic

For location and size of the existing water system, refer to exhibit [WICR-UT-1](#). All water service utilities depicted in the public right-of-way are based on information gathered from Hillsboro Maps. All information regarding visible water structures, including FDCs and water meters, were verified during field visits. Information regarding on-site water utilities is a result of site observation and record drawings.

4.7.2.4 Gas

For location and size of the existing gas service, refer to exhibit [WICR-UT-1](#). All gas service utilities depicted in the public right-of-way are based on information gathered from NW Natural’s online mapping. The location of the gas meter was verified during field visits.

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5 APPENDICES

Appendix A: Site Photos



Cascade WQ #1

[Table 1](#): Cascade Campus
Vegetated Stormwater Facilities



Cascade WQ #2

[Table 1](#): Cascade Campus
Vegetated Stormwater Facilities



Cascade WQ #3

[Table 1](#): Cascade Campus



Cascade WQ #4
[Table 1](#): Cascade Campus
Vegetated Stormwater Facilities



Cascade WQ #5
[Table 1](#): Cascade Campus
Vegetated Stormwater Facilities



Cascade WQ #6
[Table 1](#): Cascade Campus



Cascade WQ #7
[Table 1](#): Cascade Campus
Vegetated Stormwater
Facilities



Cascade WQ #8
[Table 1](#): Cascade Campus Vegetated Stormwater
Facilities



Cascade WQ #9
[Table 1](#): Cascade Campus Vegetated
Stormwater Facilities



Cascade WQ #10

[Table 1](#): Cascade Campus Vegetated Stormwater Facilities



Cascade WQ #11

[Table 1](#): Cascade Campus Vegetated Stormwater Facilities



Cascade WQ #12

[Table 1](#): Cascade Campus Vegetated Stormwater Facilities



Cascade WQ #13

[Table 1](#): Cascade Campus Vegetated Stormwater Facilities



Rock Creek WQ #1

[Table 2](#)



Rock Creek WQ #2

[Table 2](#)



Rock Creek WQ #3
[Table 2](#)



Rock Creek WQ #4
[Table 2](#)



Rock Creek WQ #5
[Table 2](#)



Rock Creek WQ #6
[Table 2](#)



Rock Creek WQ #7
[Table 2](#)



Rock Creek Pond #1
[Table 2](#)



Rock Creek Pond #2
[Table 2](#)



Rock Creek Pond #3
[Table 2](#)



Rock Creek Pond #4
[Table 2](#)



Southeast WQ #1
[Table 3](#)



Southeast WQ #2
[Table 3](#)



Southeast WQ #3
[Table 3](#)



Southeast WQ #4

[Table 3](#)



Southeast WQ #5

[Table 3](#)



Southeast WQ #6

[Table 3](#)



Southeast WQ #7

[Table 3](#)



Southeast WQ #8

[Table 3](#)



Southeast WQ #9

[Table 3](#)



Southeast WQ #10

[Table 3](#)



Southeast WQ #11

[Table 3](#)



Southeast WQ #12

[Table 3](#)



Southeast WQ #13

[Table 3](#)



Southeast WQ #14

[Table 3](#)



Southeast WQ #15

[Table 3](#)



Southeast WQ #16

[Table 3](#)



Southeast WQ #17: West water quality facility #17

[Table 3](#)



East water quality facility



Southeast WQ #18

[Table 3](#)



Southeast WQ #19

[Table 3](#)



Southeast WQ #20: East water quality facility #20

[Table 3](#)



West water quality facility #20



Southeast WQ #21
[Table 3](#)



Southeast WQ #22
[Table 3](#)



Southeast WQ #23
[Table 3](#)



Southeast WQ #24
[Table 3](#)

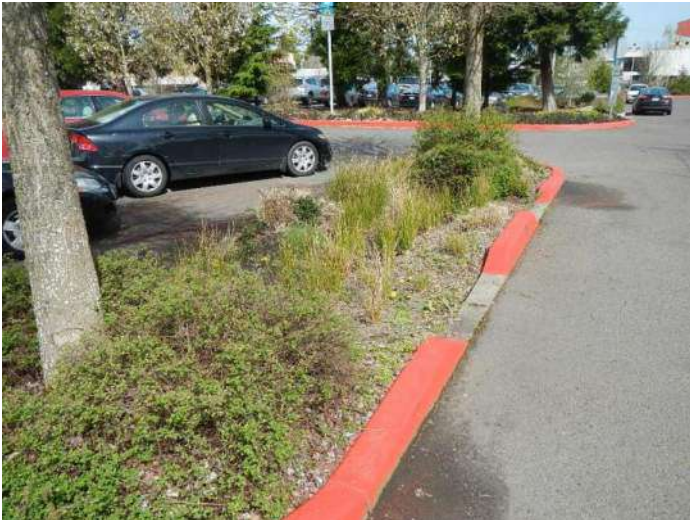


Southeast WQ #25
[Table 3](#)



Southeast WQ #26

[Table 3](#)



Southeast WQ #27

[Table 3](#)



Southeast WQ #28

[Table 3](#)



Southeast WQ #29

[Table 3](#)



Southeast WQ #30

[Table 3](#)



Southeast WQ #31

[Table 3](#)



Southeast WQ #32

[Table 3](#)



Southeast WQ #33

[Table 3](#)



Southeast WQ #34

[Table 3](#)



Southeast WQ #35

[Table 3](#)



Southeast WQ #36

[Table 3](#)



Southeast WQ #37

[Table 3](#)



Southeast WQ #38
[Table 3](#)



Southeast WQ #39
[Table 3](#)



Southeast WQ #40
[Table 3](#)



Southeast WQ #41
[Table 3](#)



Southeast WQ #42
[Table 3](#)



Southeast WQ #43
[Table 3](#)



Sylvania 1: Sign to located the FDC for TCB building



Sylvania 2: FDC for TCB building



Sylvania 3: FDC for HP building



Sylvania 4: FDC for CC building



Sylvania WQ #1

[Table 4](#)



Sylvania WQ #2

[Table 4](#)



Sylvania WQ #3

[Table 4](#)



Sylvania WQ #4

[Table 4](#)



Sylvania WQ #5

[Table 4](#)



Sylvania WQ #6

[Table 4](#)



Sylvania WQ #7

[Table 4](#)



Sylvania WQ #8

[Table 4](#)





Sylvania WQ #9
[Table 4](#)



Sylvania WQ #10
[Table 4](#)



Sylvania WQ #11
[Table 4](#)



CLIMB WQ #1
[Table 5](#)



CLIMB WQ #2
[Table 5](#)



CLIMB WQ #3
[Table 5](#)



CLIMB WQ #4
[Table 5](#)



CLIMB WQ #5
[Table 5](#)



Hillsboro WQ #1
[Table 6](#)



Hillsboro WQ #2
[Table 6](#)



Hillsboro WQ #3
[Table 6](#)



Newberg WQ #1
[Table 7](#)



Newberg WQ #2
[Table 7](#)



Newberg WQ #3
[Table 7](#)



Swan Island WQ #1
[Table 8](#)



Willow Creek WQ #1
[Table 9](#)



Willow Creek WQ #2
[Table 9](#)



Willow Creek WQ #3
[Table 9](#)



Willow Creek WQ #4

[Table 9](#)

Appendix B: Utility Exhibits

CASCADE CAMPUS -
STORM & SANITARY

LEGEND

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

WATER QUALITY FACILITY

SANITARY SEWER LINE

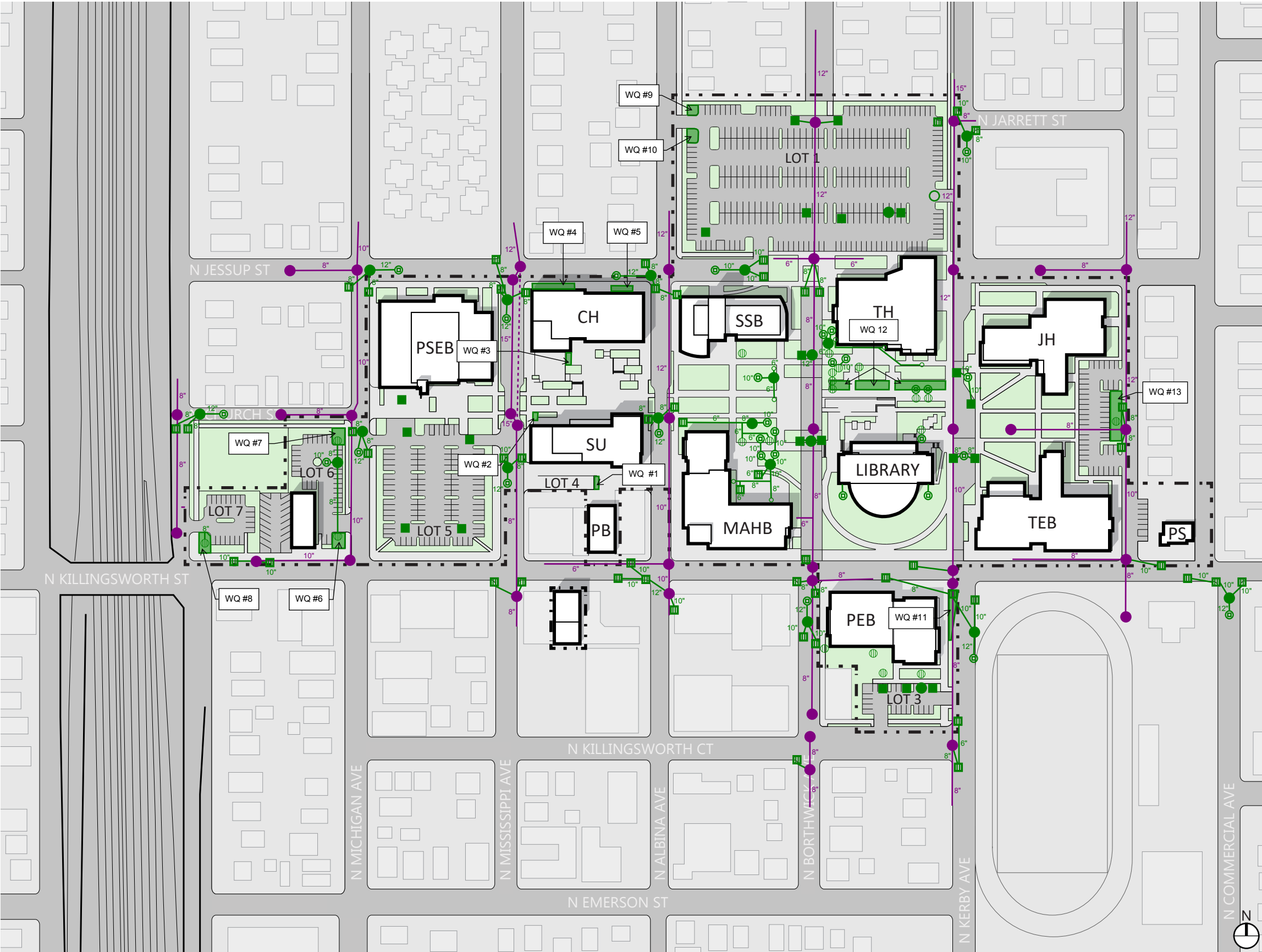
SANITARY SEWER MANHOLE

COMBINED SEWER LINE*

COMBINED SEWER MANHOLE

NOTE

* Many combined sewers noted "not in service" on Portland Maps. Further investigation is necessary if new connections are needed.



CASCADE CAMPUS -
FIRE, WATER & GAS

LEGEND

WATER LINE - DOMESTIC

WATER METER

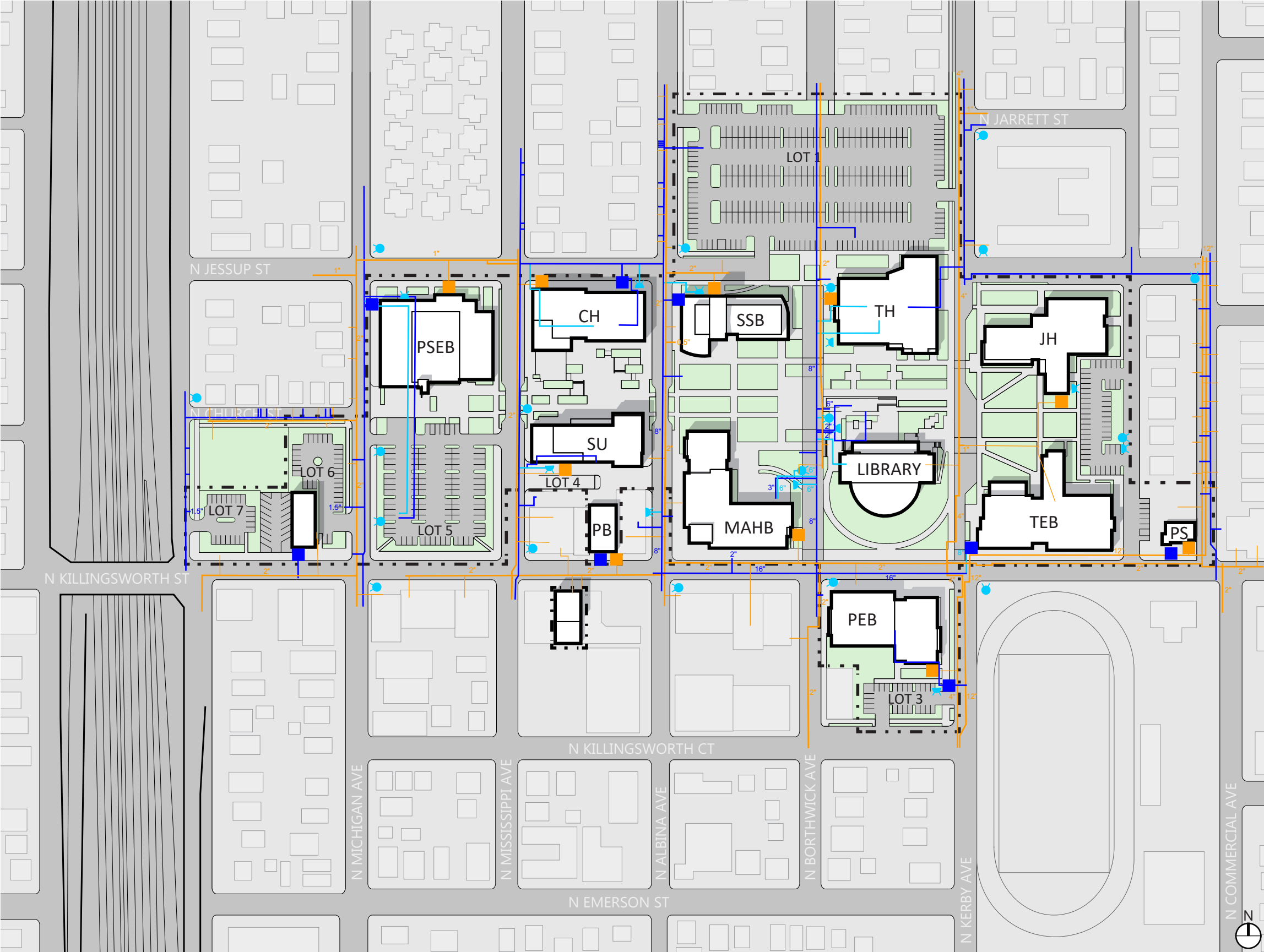
WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER



ROCK CREEK CAMPUS -
STORM & SANITARY

LEGEND

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



ROCK CREEK CAMPUS -
FIRE, WATER & GAS

LEGEND

WATER LINE - DOMESTIC

WATER METER

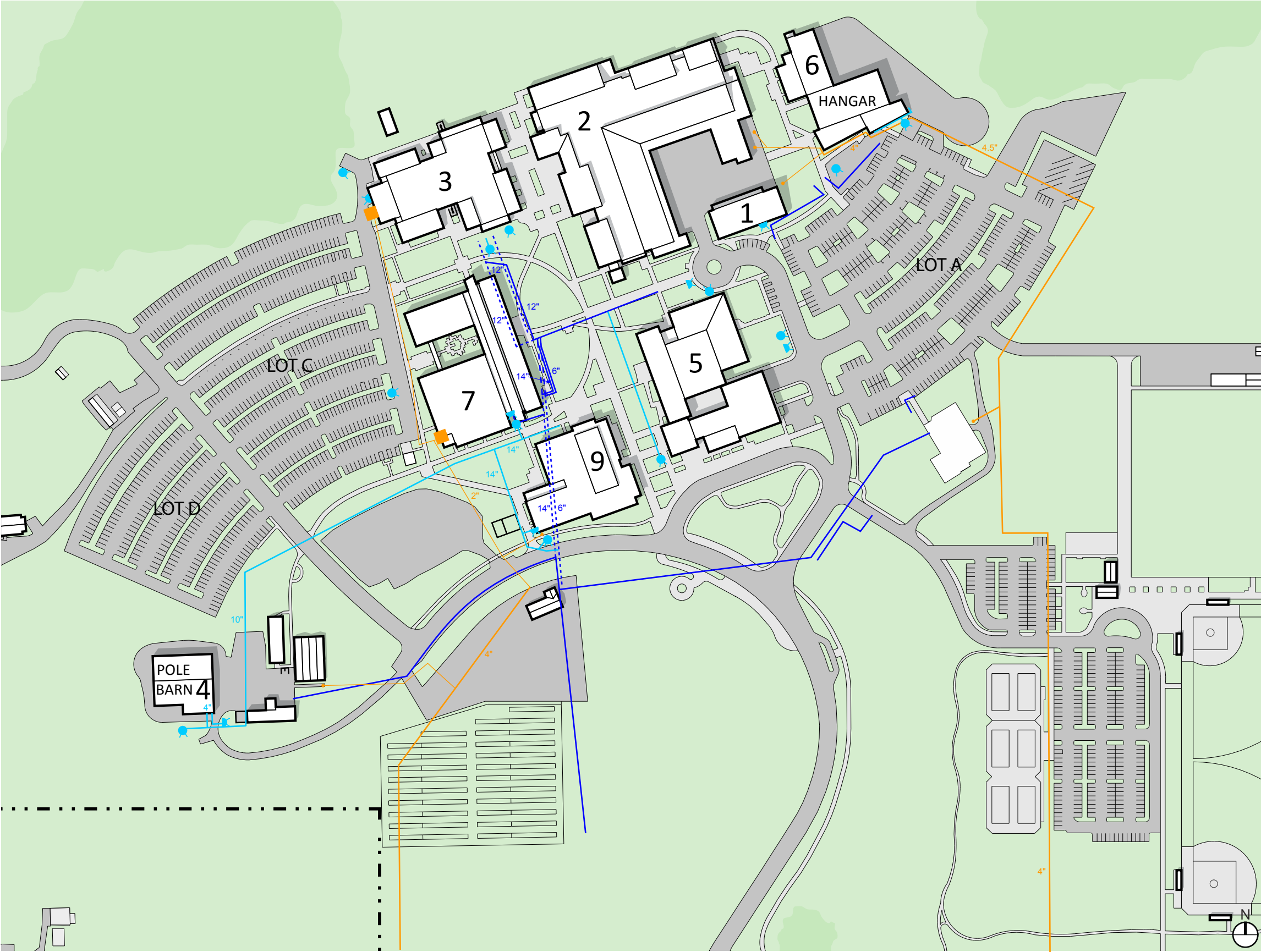
WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER



SOUTHEAST CAMPUS -
STORM & SANITARY

LEGEND

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

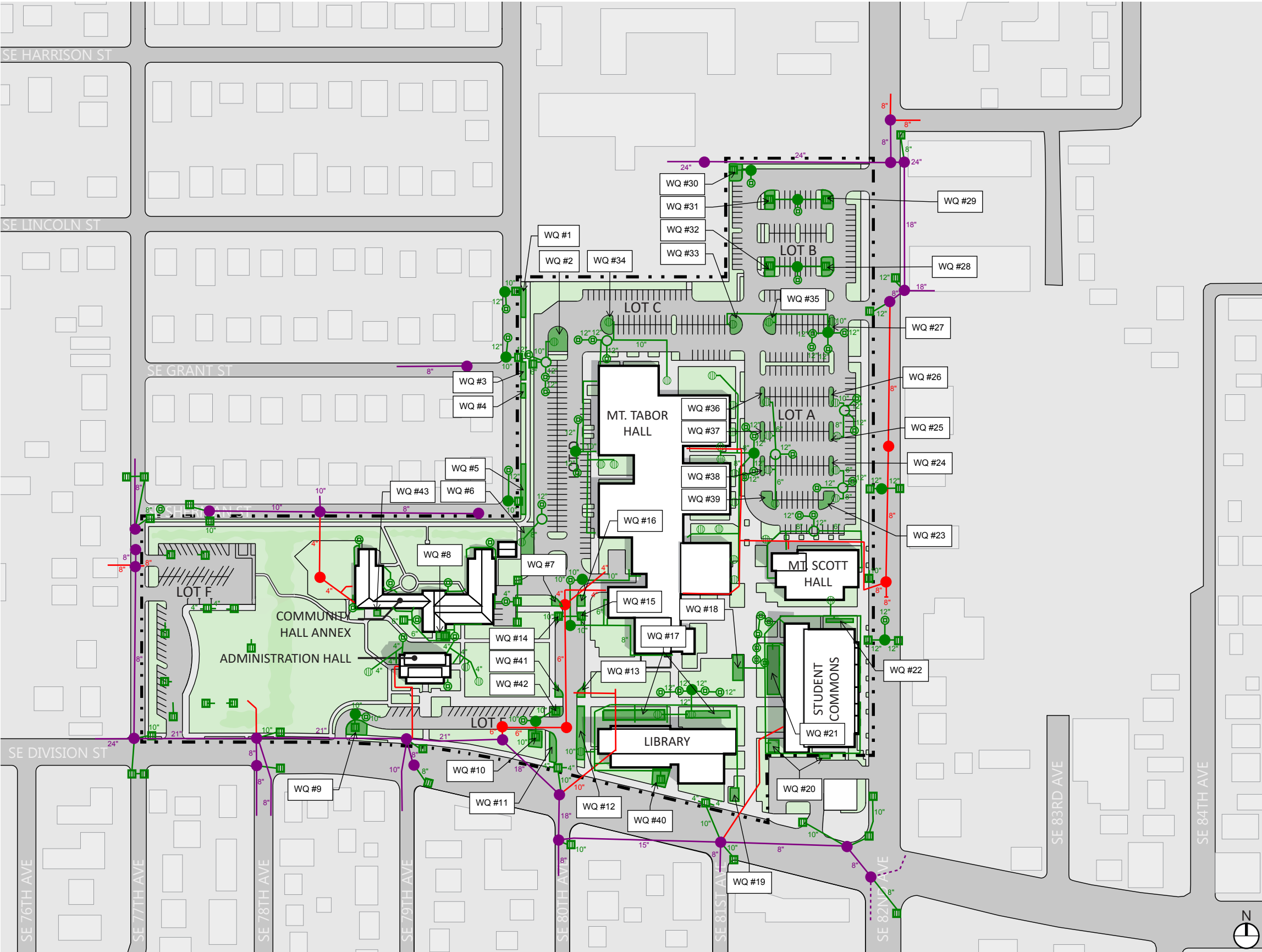
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



SOUTHEAST CAMPUS -
FIRE, WATER & GAS

LEGEND

WATER LINE - DOMESTIC

WATER METER

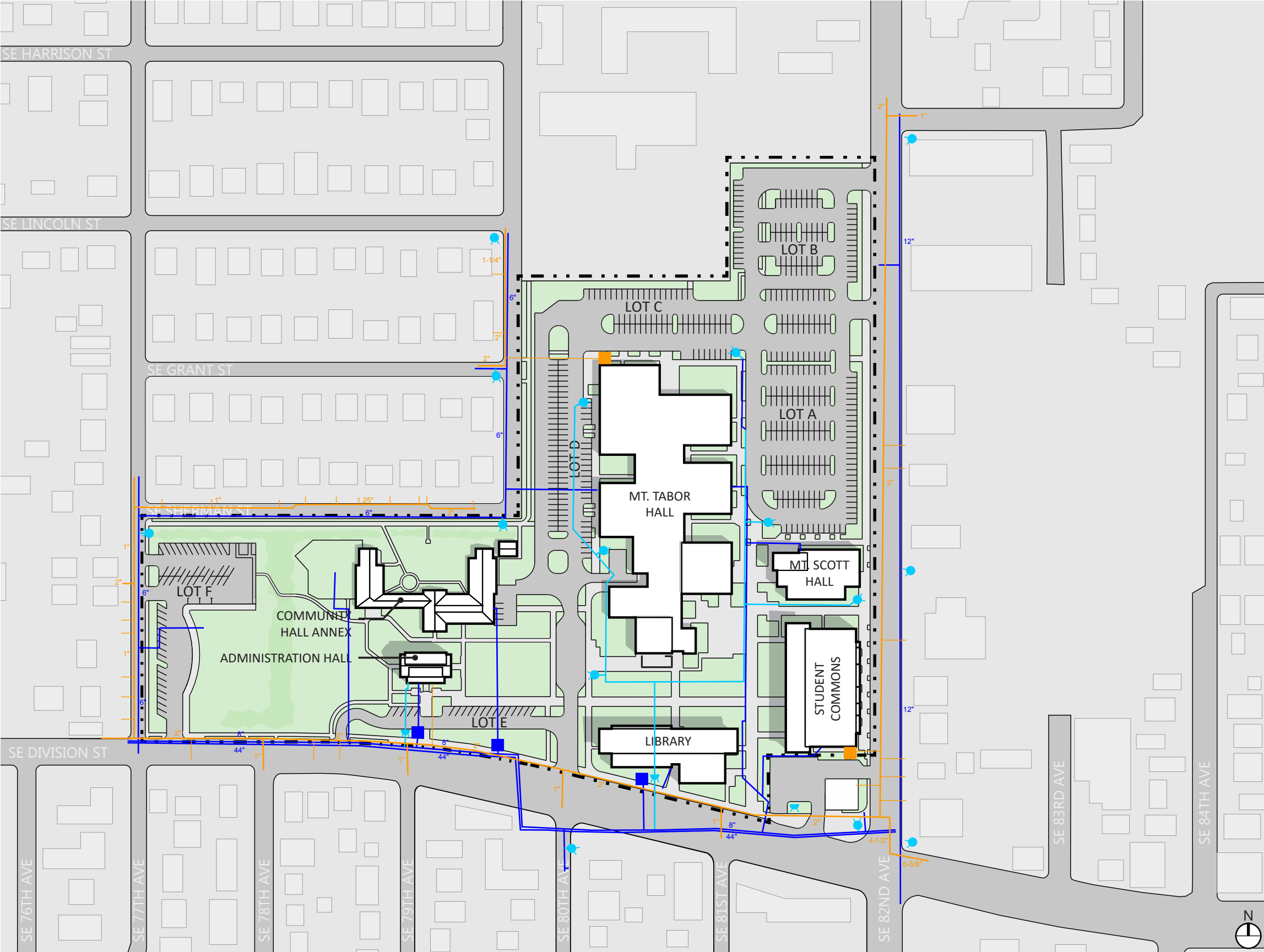
WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER



SYLVANIA CAMPUS -
STORM & SANITARY

LEGEND

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

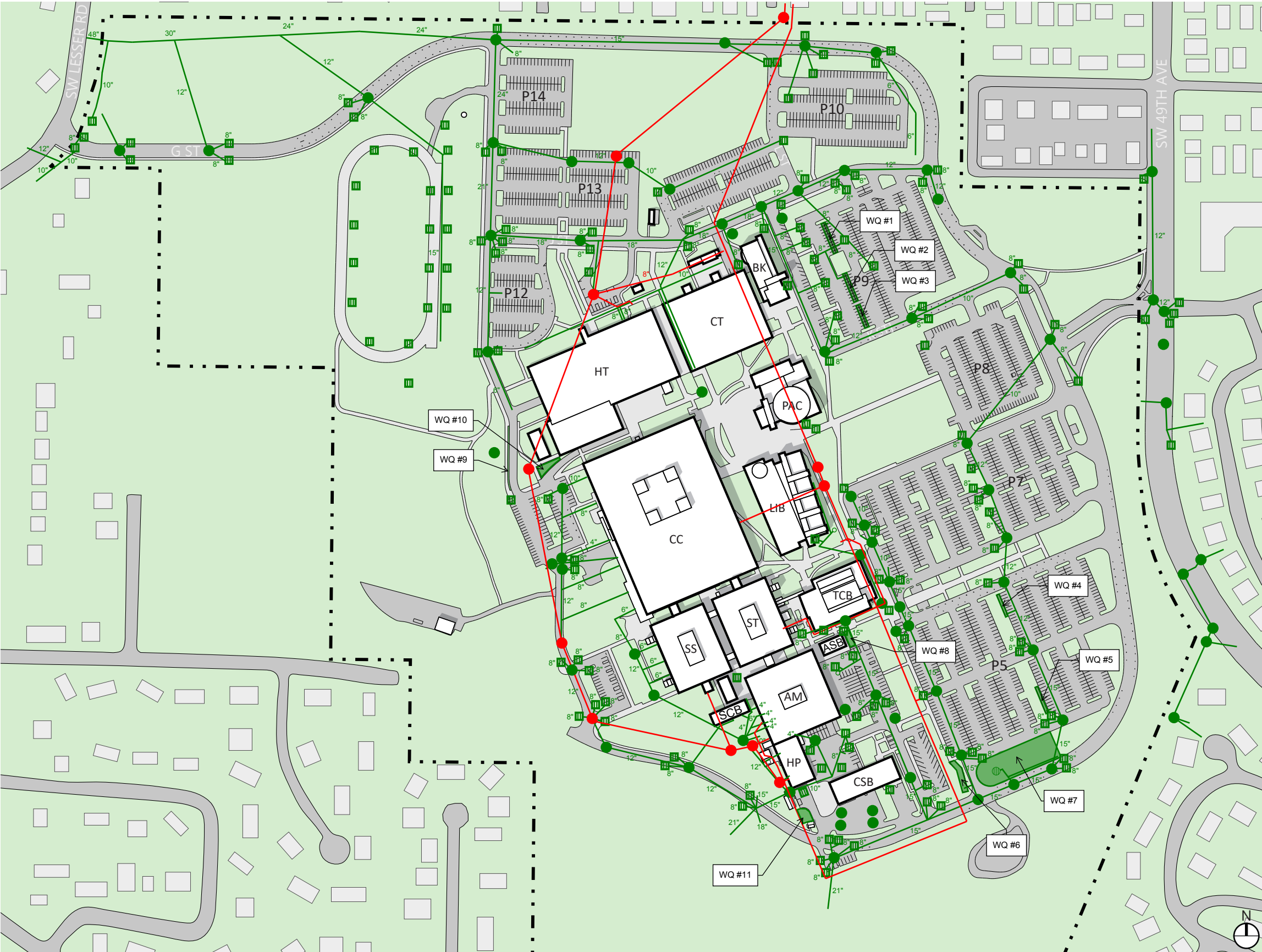
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



**SYLVANIA CAMPUS -
FIRE, WATER & GAS**

LEGEND

WATER LINE - DOMESTIC

WATER METER

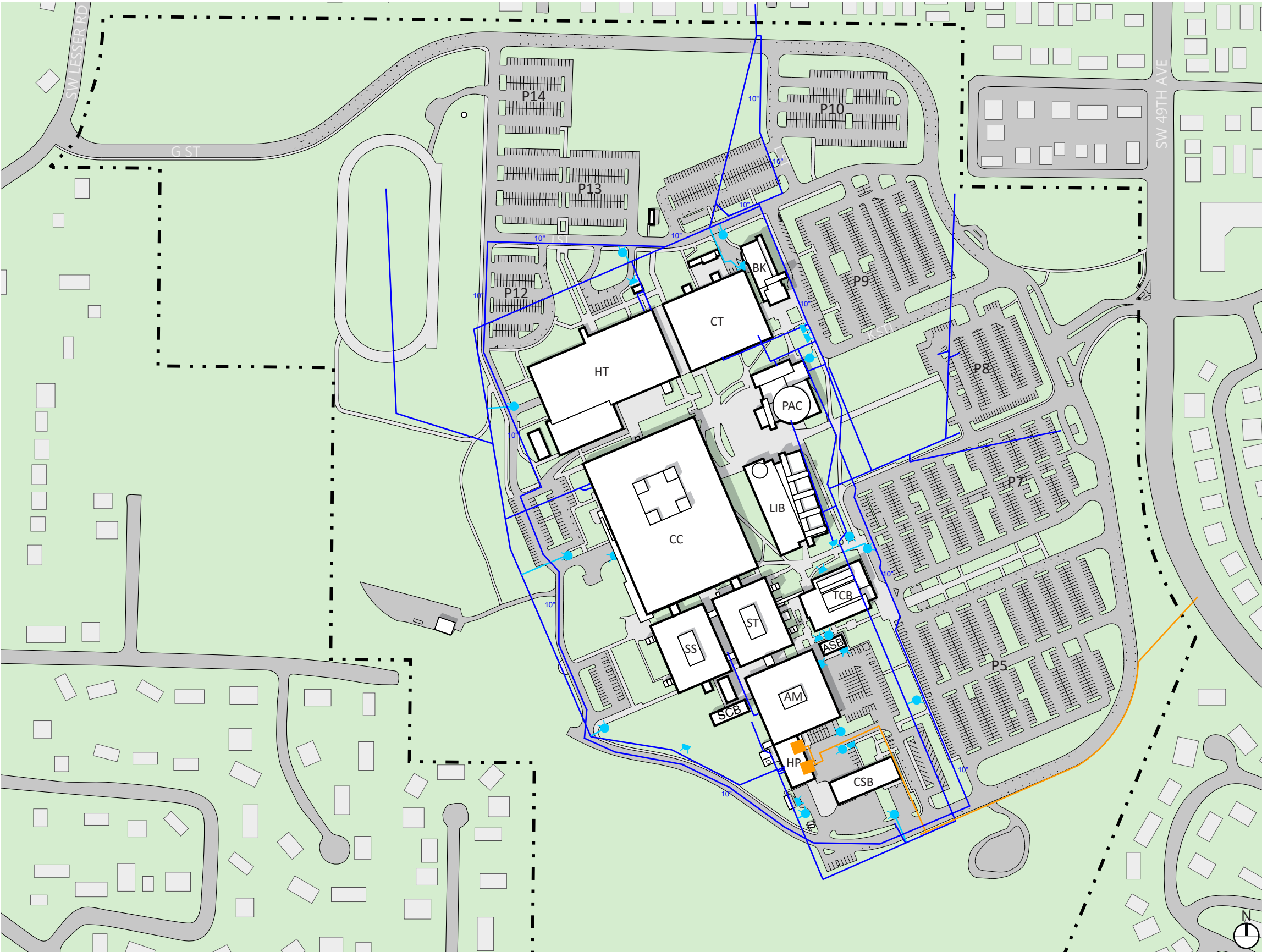
WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER



CLIMB CENTER FOR
ADVANCEMENT

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

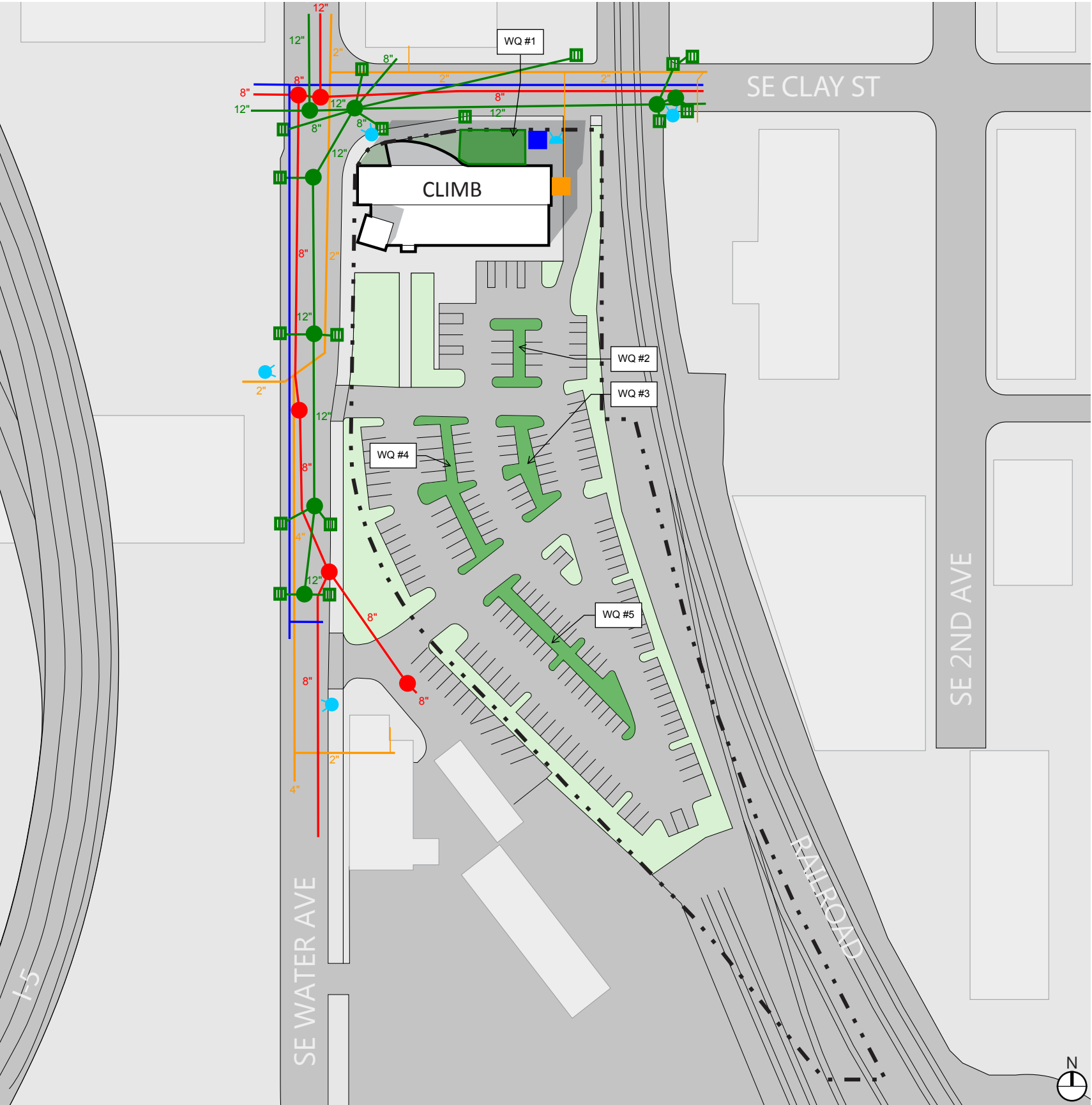
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



DOWNTOWN CENTER

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

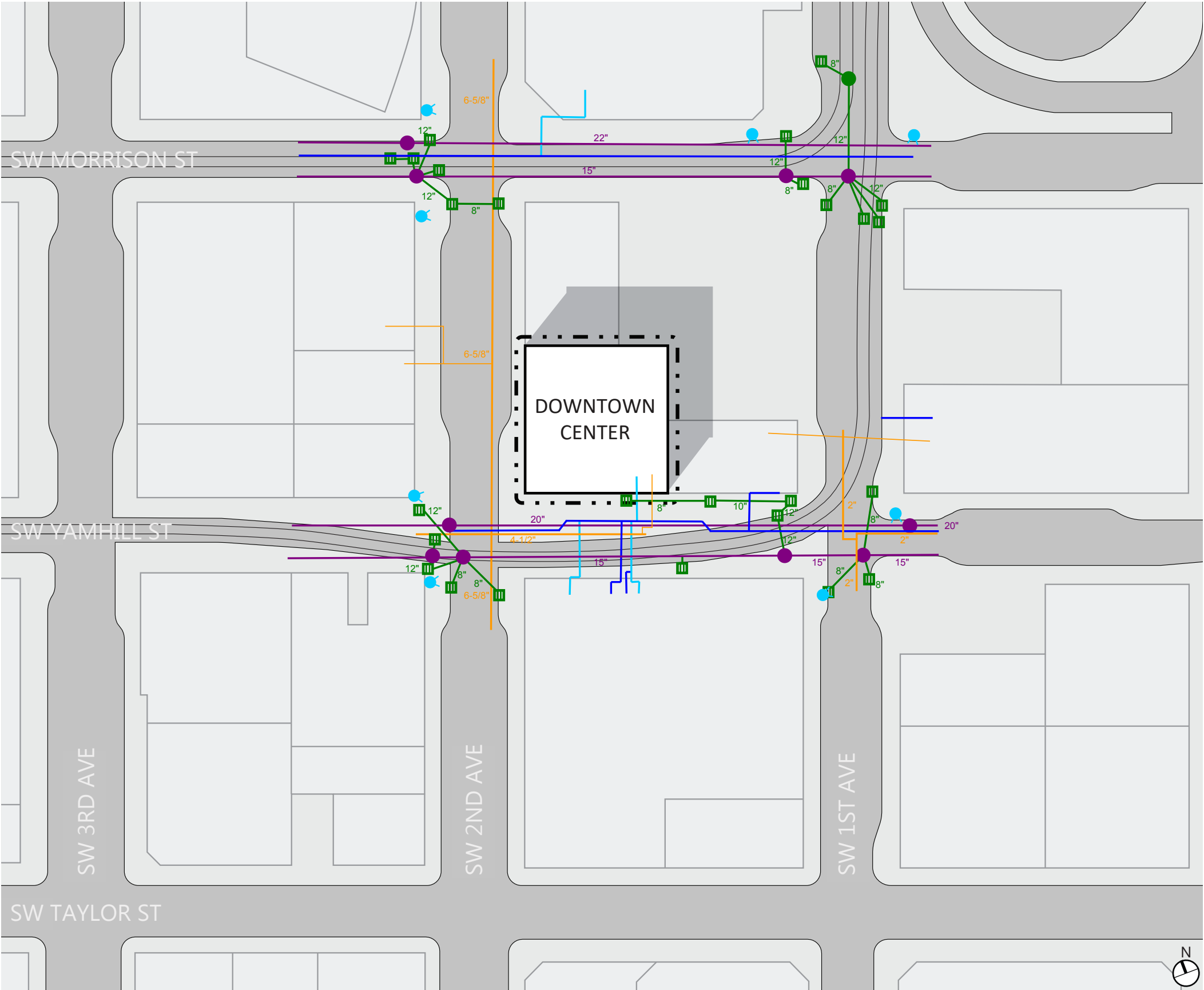
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



HILLSBORO CENTER

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

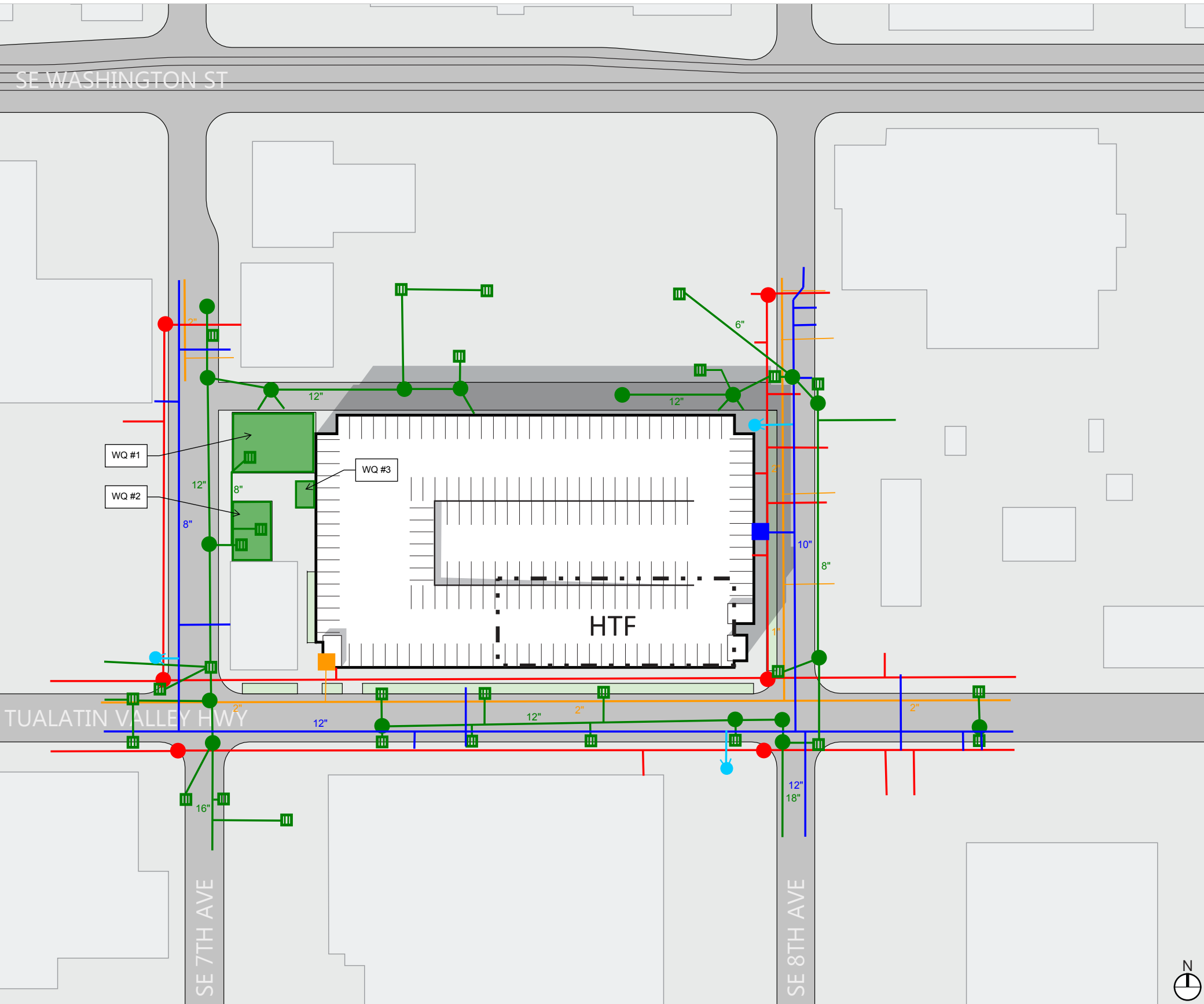
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



METROPOLITAN WORKFORCE
TRAINING CENTER

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

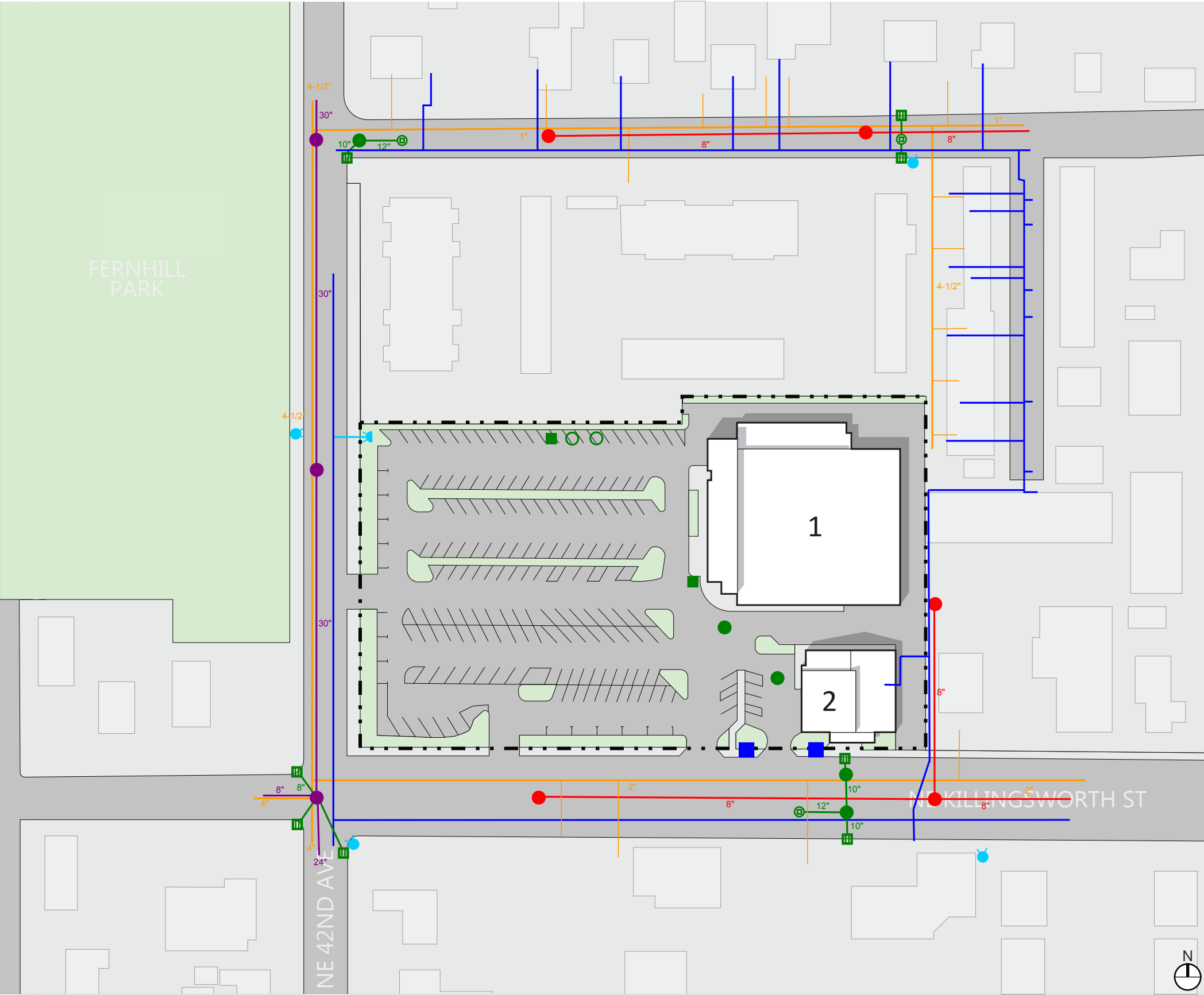
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



NEWBERG CENTER

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

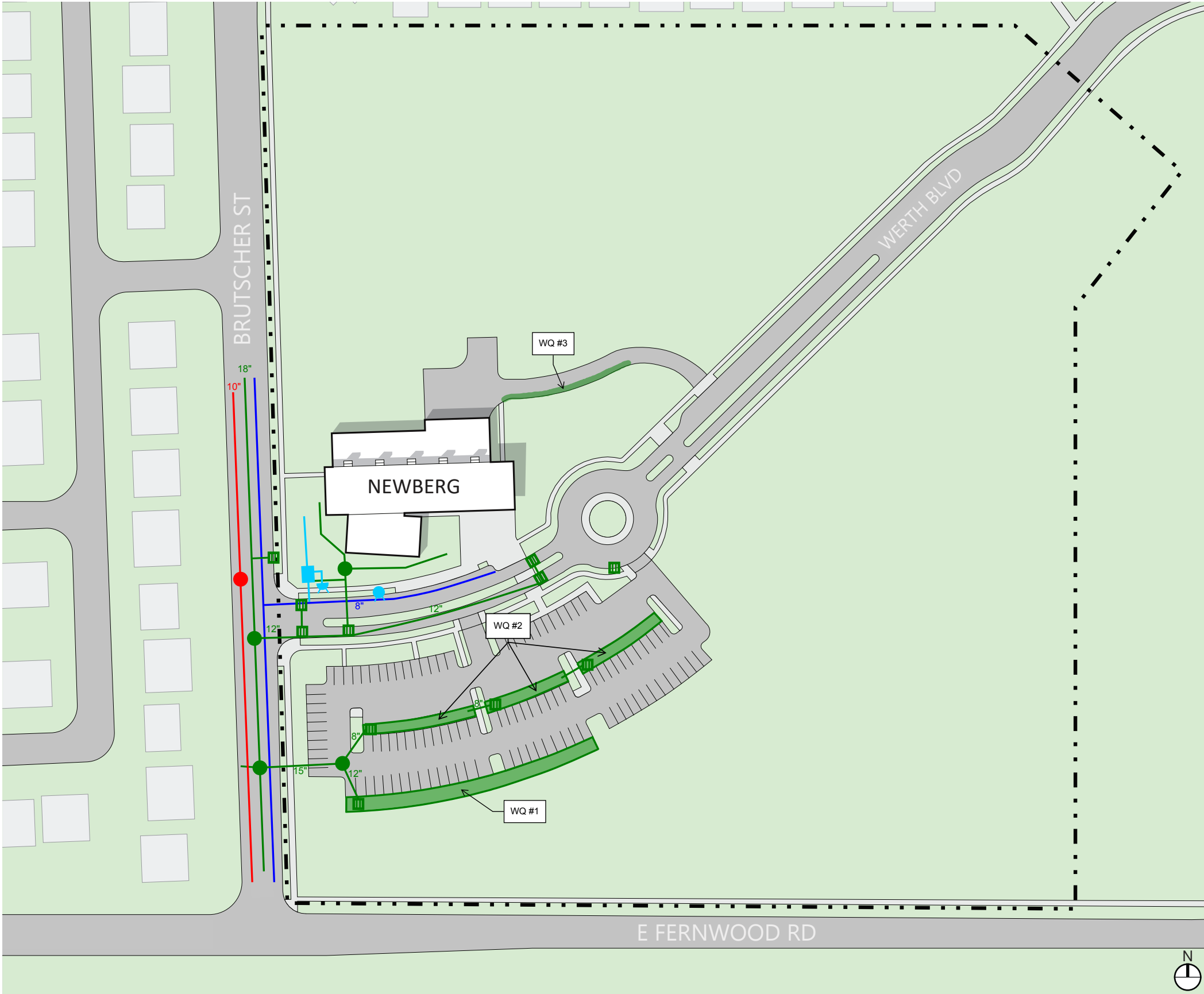
WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



SWAN ISLAND
TRADES CENTER

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE



WILLOW CREEK CENTER

LEGEND

WATER LINE - DOMESTIC

WATER METER

WATER LINE - FIRE

FIRE HYDRANT

FIRE DEPARTMENT CONNECTION (FDC)

GAS LINE

GAS METER

STORM SEWER LINE

AREA DRAIN

CATCH BASIN

DRYWELL

STORM MANHOLE

WATER QUALITY MANHOLE

WATER QUALITY CATCH BASIN

WATER QUALITY FACILITY

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

COMBINED SEWER LINE

COMBINED SEWER MANHOLE

