

Appendix B

Public Facilities

Final Memo #1:
Newberg Downtown Improvement Plan
Existing Conditions Analysis
City of Newberg

This page intentionally left blank.

TECHNICAL MEMORANDUM

DATE: October 2015
TO: City of Newberg
FROM: Brittany Cowgill, PE
SUBJECT: Public Facilities Existing Conditions
CC:
PROJECT NUMBER: 274-2395-094
PROJECT NAME: Newberg Downtown Improvement Plan

EXECUTIVE SUMMARY

Introduction

The purpose of this Existing Conditions Analysis is to establish the current status of public utilities and roadway cross section in the Newberg Downtown area to inform the Newberg Downtown Improvement Plan. City of Newberg-provided utility GIS data was used to review the size and location of water distribution lines, fire hydrants, sanitary sewer lines and manholes, and storm sewer lines and manholes. Field and GIS-based measurements were used to establish typical roadway sections within the downtown study area.

Policy Framework

The water distribution, storm sewer, sanitary sewer, and transportation systems must be designed and maintained according to local, state and federal guidelines and regulations. The 2015 City of Newberg Design & Construction Standards Manual in concert with the Master Plans for each of these systems outline the policy and design standards applicable in the design of new facilities or revisions to the existing systems. The 2004 City of Newberg Water Distribution System Plan,¹ 2014 City of Newberg Stormwater Master Plan,² 2007 City of Newberg Sewerage Master Plan Update,³ and 2015 Newberg Transportation System Plan Update Draft⁴ each provide policy guidance.

Water Distribution System

The water distribution system serving the Newberg downtown area is well established. There are no specific projects within the study area identified in the City of Newberg Water Distribution System Plan to make improvements to the system, though the Plan recommends replacing aging pipelines as part of the annual City budgeting process. One location identified by the City of Newberg as having insufficient pressure for future development is the pipe on the south side of 1st Street.

¹ 2004 City of Newberg Water Distribution System Plan, CH2MHill, December 2004.

² City of Newberg Stormwater Master Plan, Brown and Caldwell (Alissa Marie Maxwell), June 5, 2014.

³ City of Newberg Sewerage Master Plan Update 2007, Brown and Caldwell (James R. Hansen), June 21, 2007.

⁴ Newberg Transportation System Plan Update, DKS Associates, September 21 2015 DRAFT version.

Storm Sewer System

The downtown storm water system is concentrated on Hancock Street, 1st Street, and Howard Street. The City of Newberg Stormwater Master Plan identified a number of observed drainage problem areas, as reported by City staff. The Stormwater Master Plan identified one project within the study area. This project, located from Hancock near Howard Street, diagonally to Blaine Street, and only partially within the study, recommends decommissioning a storm sewer line that runs on private property and upsizes surrounding lines to accommodate future anticipated flows.

Sanitary Sewer System

Oriented on a grid system in the Newberg downtown area, the sanitary sewer system is well established to serve the study area. One of four named sanitary trunklines in the City, the 21" Wynooski Trunkline, cuts through the east end of the study area. The City of Newberg Sewerage Master Plan recommends upsizing a portion of this trunkline in the study area from 21" to 24" to increase its capacity for modeled 2040 flows.

Transportation System

Under a combination of state and local jurisdiction, the roadway system in the Newberg downtown study area is a well-established grid system providing connectivity for automobiles, bicycles, and pedestrians. The City of Newberg Transportation System Plan Update identifies a number of recommended future projects categorized by transportation mode and classified by the likelihood they will receive funding based on analysis and forecasting of funding through 2035.

Opportunities and Constraints to Development

Potential opportunities for and constraints to development in the Newberg Downtown area were identified through the existing conditions analysis and conversations with City staff. The following opportunities and constraints were identified:

Opportunities

- ODOT jurisdiction over some or all of the 1st Street and Hancock Street (99W) right-of-way can be beneficial from a partnering perspective for future development in the corridor. Communication of goals and objectives and formulation of mutually beneficial solutions with regard to the future of the corridor may be keys to successful partnering.

Constraints

- The locations of private underground utilities and abandoned underground oil storage tanks in the downtown area are uncertain. If uncovered during construction, they could present challenges not previously foreseen and add to project costs for relocation, remediation and removal.
- Sidewalk vaults in unconfirmed locations could inhibit or constrain roadway reconstruction, especially widening.
- City staff noted that there have been abandoned railroad ties discovered during past construction projects embedded in roadways in the downtown area. Wooden railroad ties encased in concrete approximately six inches under the asphalt are known to be located in 1st Street west of Harrison Street and at Meridian Street in the center of the roadway.

- The existing water lines on the south side of 1st Street are currently undersized and unable to support any new service on that line. This would hinder building development in the area served by the water line.
- Coordination with the rail owner and Portland & Western Railroad (which has an expired franchise agreement) is required for work on or in Blaine Street due to the active rail line in the right-of-way.

POLICY FRAMEWORK

Water Distribution

The City of Newberg owns and operates its own water distribution system. The water sources are all considered to be groundwater. The City must comply with the Oregon Department of Human Services Drinking Water Program (DHS DWP) and Oregon Water Resources Department (OWRD) guidelines in the operation of the system.

At the time of the formulation of the 2004 City of Newberg Water Distribution System Plan, the City complied with the following regulations pertaining to the water distribution system:

Table 1. Ordinances for Water Distribution to Which the City of Newberg Complies

Ordinance	Description
OAR 333-061-0042 OAR 333-061-0036	Coliform Bacteria and Chlorine Residual
OAR 333-061-0036	Lead and Copper at the Customer’s Tap
OAR 333-061-0036	Disinfection/Disinfectants By-Products
OAR 333-061-0070 OAR 333-061-0071 OAR 333-061-0072 OAR 333-061-0073 OAR 333-061-0074	Cross Connection Control Program
OAR 690-086	Unaccounted-for Water
OAR 690-086	Leak Detection

Source: City of Newberg Water Distribution System Plan section 2.3, table 2-3

In addition to the Oregon Administrative Rules listed above, water distribution systems in the City of Newberg shall also comply with Oregon Revised Statutes 448, American Water Works Association (AWWA) Standards, 2015 City of Newberg Design & Construction Standards Manual, and 2004 City of Newberg Water Distribution System Master Plan.

According to the WDSP 6.2.4, water mains must be able to provide the worst-case of the two following scenarios:

1. The pipeline must be able to provide the peak hour demand (PHD), maintain pressure above 30 psi, and have pipeline flow velocities below 8 feet per second (fps),
2. The pipeline must be able to provide the required flows of a combination fire and maximum day demand (MDD) with a minimum residual pressure of 20 psi through the distribution system as established by the DHS DWP in OAR 333-61-025.

Stormwater

Stormwater facilities shall comply with the 2015 City of Newberg Design & Construction Standards Manual, City of Newberg Erosion and Sediment Control Manual, and 2014 City of Newberg Stormwater Master Plan.

The City of Newberg is subject to the regulatory requirements of the Total Maximum Daily Load (TMDL) program, but not the National Pollutant Discharge Elimination System (NPDES) due to its size, according to the City of Newberg Stormwater Master Plan (section 5.2).

The Willamette River has been classified as a 303(d) stream by the Department of Environmental Quality (DEQ) and the United States Environmental Protection Agency (USEPA), which led to a TMDL Implementation plan, agreed to by DEQ and the City of Newberg in 2008 to address the parameters of concern and six minimum measures to remedy them (SWMP 5.2.1).

Sanitary Sewer

Wastewater systems shall meet policy and design guidelines set forth in the City of Newberg Wastewater Master Plan Update 2007 (City of Newberg Sewerage Master Plan Update 2007) and the Oregon Department of Environmental Quality wastewater design guidelines with a 75 year life expectancy, according to the 2015 City of Newberg Design & Construction Standards Manual (Section 2.0).

Transportation

State Highway 99W (Hancock St and 1st Street), and District Highways OR-219 (College Street) and OR-240 (Main Street) shall meet the requirements of the Oregon Department of Transportation (ODOT) Highway Design Manual. Local Streets within the study area shall meet the requirements of the 2015 City of Newberg Design & Construction Standards Manual and City of Newberg Municipal Code. All roadways and traffic control devices shall meet federal design requirements set forth in the latest editions of the AASHTO Policy on Geometric Design of Highways and Streets and Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

The Newberg Transportation System Plan provides additional policy guidance on the state, regional and local transportation system goals and objectives, including recommended future typical sections by roadway functional classification (TSP Update, Table 2 and Figures 14-19).

EXISTING CONDITIONS

A review of the existing utilities was conducted by evaluating the available City of Newberg Master Plans for water distribution, sewerage, storm sewer and drainage, and transportation. The existing conditions of these utilities and systems within the study area are summarized in the following technical memorandum.

Water Distribution System

Water lines run under a large portion of the streets in the study area. A water line runs under 1st Street for the entire length of the study area from Portland Rd to the railroad tracks. Short lengths of water line run along Hancock which spur from north-south water lines. 2nd Street also has a water line for the majority of the length of the study area with a gap between Meridian Street and Edwards Street. All north-south streets in the study area have a water line running under some portion of the road.

Based on conversations with City staff, it is understood that most water lines in the study area are undersized for either current or anticipated future demand. Specifically, all water lines under 8" are likely to require upsizing to

accommodate future development and demand (see the attached Water Line Map locations and sizes). According to the City, the water line on the south side of 1st Street has been evaluated and does not have adequate pressure to serve future development. Upsizing would be necessary for any new development served by this line.

The 2004 City of Newberg Water Distribution System Plan identifies a number of system improvements including constructing new trunk lines, pump stations and other facilities to meet projected 2010 and 2025 demands and storage requirements. The only water distribution system project identified within the downtown area is to upgrade 2,500 feet of circa 1910 sand-cast lead-joint pipe to 10-inch DIP on 1st Street from Main Street to Meridian Street. According to the Plan, the hydrants on First Street are unusable because of the 4 inch header pipes which cross the street (WDSP 5.8.5) The Plan also recommends inspecting and replacing aging pipes throughout the city (WDSP 5.6.1), completing water main looping, and addressing dead-end lines (WDSP 5.8), but no specific project locations have been provided by the City.

Storm Sewer System

The Newberg Downtown study area is split between the Chehalem Creek and Hess Creek subcatchment areas, which are two of the three primary subcatchments in the City of Newberg (see the attached Storm Sewer Map for line locations and sizes). The approximate breakline between the two subcatchments, Chehalem Creek on the west side of the study area and Hess Creek on the east, is between College Street and School Street.

Observed drainage problem areas have been documented in the City of Newberg Stormwater Master Plan (section 3.5). Three of these drainage problem areas are within the study area:

1. Storm drain line runs underneath a private commercial building between E 1st Street and E 2nd Street at Howard Street (DP-C-10, Table 3-8, Figure 3-3)
2. With every rainfall, flooding is observed in front of the Subway restaurant on the southeast corner of 1st Street and Harrison Street (DP-C-6, Table 3-8, Figure 3-3)
3. With heavy rainfall, the driveway into the Nap’s Thriftway parking lot floods at 2nd Street and Main Street (DP-C-7, Table 3-8, Figure 3-3).

The City of Newberg Stormwater Master Plan recommended one Capital Improvement Project (CIP) that is within the study area:

Table 2. Recommended Stormwater Capital Improvement Projects

CIP Number	CIP Name	Proposed CIP Location	CIP Description	Estimated Capital Implementation Cost Total
C-1	S Blaine Street Improvements	S Blaine Street, Between E 6th and E 7th Streets	Decommission the stormwater pipes which are in private property and add a 24” stormwater pipe along S Blaine Street and a 12” pipe along E 1st Street. Connect the stormwater system from E 6th Street to S Blaine Street to provide conveyance and storage. Upsize existing stormwater pipes to 24” and 18” to convey existing and future flows.	\$1,161,000

Source: City of Newberg Stormwater Master Plan, Table 6-2

Portions of this project, but not the entire project, are within the study area. In addition to the specific project listed above, the Stormwater Master Plan recommends replacing aging pipes over time and for the City to

consider a Water Quality Retrofit Program which would set aside funds for water quality treatment enhancements in conjunction with other capital projects. Potential locations for these water quality retrofit projects within the study area are on 2nd Street and Sheridan Street (SWMP 6.3.2).

Sanitary Sewer System

Within the study area there are existing sanitary sewer lines on most streets. Sanitary sewer lines exist on Hancock Street from River Street and School Street and west of Grant Street; between Hancock Street and 1st Street from Center Street to mid-block between Garfield Street and Main Street; between 1st Street and 2nd Street from Meridian Street to Garfield Street; on Center Street from 3rd Street to Sheridan Street; on Washington Street from 3rd Street to Sheridan Street; on Grant Street from 2nd Street to the railroad tracks; on Meridian Street, Edwards Street, College Street, and Howard Street south of 1st Street; on School Street and Howard Street north of 1st Street; Meridian Street and Edwards Street north of Hancock Street; between Garfield Street and Main Street from 3rd Street to Sheridan Street; between Main Street and Grant Street from 3rd Street to the railroad tracks; and some short pipe runs mid-block north of Memorial Park and south of Rotary Centennial Park. The Wyooski Trunkline, a 21" diameter PVC pipe and one of four named trunklines in the City, runs through the study area on Center Street. See the attached Sanitary Sewer Map for location and size of lines and structures in the study area.

Hydraulic analysis conducted as part of the Sewerage Master Plan Update 2007 identified a small portion of the Wyooski Trunkline within the study area that will require upsizing for modeled 2040 flows (SWMP Figures 5-2, 5-3, 5-4). The trunklines were modeled for existing, 2025, and 2040 capacity. The Wyooski Trunkline on Center Street south of 1st Street (ID # G126240 and G126239) is recommended to be upsized from 21" to 24" to accommodate 2040 flows (SWMP Table 6-5).

Table 3. Recommended Upsizing of Wyooski Trunkline

Pipe ID	Length (feet)	Existing diameter (inches)	Average pipe depth (feet)	Peak Q (gpm)	Existing Qm (gpm)	Existing Q/Qm	Required diameter (inches)	Upsized Q/Qm	Estimated cost
G126240	398	21	10.3	5,353	4,560	1.17	24	0.82	\$246,000
G126239	402	21	9.6	5,353	4,538	1.18	24	0.83	\$189,000

Source: Excerpt from Table 6-5 in the Stormwater Master Plan

The upsizing of the pipes on the Wyooski Trunkline are listed as a Priority 3 in the Sewerage Master Plan Update, which refers to pipes that are undersized for 2040. Priorities 1 and 2, higher priority levels than 3 are for pipes that are currently undersized or are undersized for 2025 projections (SWMP Chapter 6).

Transportation System

Traffic Signals

The only traffic signals within the study area are located on 1st Street or Hancock Street and all are owned and operated by ODOT.

Sidewalks

Sidewalk vaults, which may indicate building basements below the sidewalk and could constrain future street or sidewalk adjustments, did not appear to be common based on observation within the study area, specifically on

1st Street and Hancock Street. One possible location of vaulted sidewalk is on the west side of College Street just south of 1st Street. The general condition of the sidewalks in the study area is fair, with some areas in poor condition and some in excellent condition. Per conversations with the City, ODOT made ADA curb ramp improvements on 1st Street and Hancock Street within the last year from Main Street to the west boundary of the study area. Concrete parking lanes enclosed on both ends by curb extensions also appeared to be recently constructed, with typically 7'-6" sidewalks mid-block and 13' wide sidewalk bulb-outs at the intersections.

Roadway Classification and Characteristics

1st Street (99W) from Harrison Street to River Street is a one-way, eastbound, major arterial. It is a resolute highway, meaning it is state highway routed over a city street, giving ODOT jurisdiction from curb-to-curb only. The roadway is comprised of three through lanes from Harrison Street to Meridian Street. 1st Street west of Meridian Street has a left turn only lane and two through lanes up to River Street. There are sidewalks on both sides of 1st Street for the entire length of the study area. A marked crosswalk is provided across 1st Street at all signalized intersections within the study area and at the un-signalized intersections of Garfield Street, Washington Street, Blaine Street, School Street, and Edwards Street. Street parking is provided on 1st Street on both sides of the street from Main Street to Center Street. A marked bike lane on the right side of the street is present on 1st Street from Garfield Street to River Street. The bike lane is between the travel lanes and the parking lane. Between Center Street and River Street, where there is no street parking, the bike lane is between the travel lane and the curb on the right side.

Hancock Street (99W) from Harrison Street to River Street is a one-way, westbound, major arterial. It is a state route, under fee ownership of ODOT, which manages the route from right-of-way to right-of-way. The roadway is comprised of three through lanes from River Street to Blaine Street. West of Blaine Street the right lane transitions into a right turn only lane at Main Street. From Main Street to Harrison Street, Hancock Street is two lanes. There are sidewalks on both sides of Hancock Street for the entire length of the study area. A marked crosswalk is provided across Hancock at each signalized intersection in the study area, and at the un-signalized intersections of Garfield Street, Washington Street, Blaine Street, School Street, and Edwards Street. Street parking is provided on the south side of Hancock Street between Meridian Street and Harrison Street. Street parking is not provided on the north side of Hancock Street except in the block between Main Street and Grant Street. A marked bike lane is present on the right side of Hancock Street from River Street to Main Street and from Grant Street to Harrison Street. The bike lane is between the right travel lane and the curb in all locations.

River Street is classified as a Major Collector south of 1st Street/Hancock Street within the study area by the City of Newberg Transportation System Plan. River Street is a two-way, two-lane street south of 1st Street with the addition of a right turn only lane at the intersection of 1st Street. North of 1st Street, River Street is one-way, one-lane northbound for one block before returning to two-way traffic and two-lanes. There is sidewalk on both sides of River Street. Diagonal on-street parking is provided on River Street in the block immediately north of 1st Street both diagonal and parallel on-street parking on River Street in the block immediately south of 1st Street.

Center Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Center Street is a two-way road with no centerline markings. On-street parking is allowed in some locations. There are sidewalks on both sides of Center Street south of 1st Street, but only on the east side of Center Street north of Hancock Street. Center Street does not connect between 1st Street and Hancock Street.

Meridian Street north of Hancock Street is classified as a Minor Collector within the study area by the City of Newberg Transportation System Plan. Meridian Street south of Hancock Street is a two-way, two-lane street with centerline markings from 1st Street to the north only. Sharrow symbols indicate a shared lane for vehicles and bicycles. On-street parking is marked, and there are sidewalks on both sides of Meridian Street.

Edwards Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Edwards Street is a two-way, two-lane road with no centerline markings. On-street parking is provided and marked on both sides, except north of Hancock where it is not marked and only allowed on the west side of the street. There are sidewalks on both sides of Edwards Street.

College Street (OR-219) is classified as a Minor Arterial north of 1st Street and a Minor Collector south of Hancock Street within the study area by the City of Newberg Transportation System Plan. OR-219 is a resolute highway, as is 1st Street in the downtown area, meaning ODOT has jurisdiction from curb-to-curb north of 1st Street only. College Street is a two-way, two-lane street with marked centerline. The centerline is dashed yellow except between 1st Street and Hancock Street where it is a double yellow line. On-street parking is allowed both sides of College Street south of 1st Street. There are sidewalks on both sides of College St.

School Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. School Street is a two-way, two-lane street without a marked centerline. On-street parking is allowed on both sides of the street between 1st Street and Hancock Street, but only on the west side north of Hancock Street. There are sidewalks on both sides of School Street.

Howard Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Howard Street is a two-way, two-lane road south of Hancock and one-way northbound, one-lane road north of Hancock, where it becomes an entrance to the Newberg Public Library and Chehalem Cultural Center. The centerline is marked only between 1st Street and Hancock Street. Street parking is allowed and marked south of Hancock Street.

Blaine Street south of Hancock Street is classified as a Minor Collector street within the study area by the City of Newberg Transportation System Plan. Blaine Street is a two-way, two-lane road with marked street parking but no marked centerline due to the active rail line running down the center of the pavement. Blaine Street within the study area has an active rail line within the right-of-way. Portland & Western Railroad (PNWR) operates on this track. There are rail crossing gates and signals on Hancock Street and 1st Street, but there are no gates on any of the other cross streets that intersect Blaine Street in the study area. These un-gated cross streets do provide railroad crossing pavement markings in advance of Blaine Street.

Washington Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Washington Street is a two-way, two-lane road in the study area. The right-of-way narrows considerably north of Hancock Street. Street parking is marked on both sides of the street south of Hancock Street. There is no marked centerline.

Garfield Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Garfield St is a two-way, two-lane road that does not extend south of 1st Street. Between 1st Street and Hancock Street there is marked street parking on both sides of the street.

Main Street (OR-240) is classified as a Minor Collector north of 1st Street and as a major collector south of 1st Street within the study area by the City of Newberg Transportation System Plan. OR-240 is also classified as a resolute highway, giving ODOT jurisdiction from curb-to-curb north of 1st Street only. Main Street has a marked centerline within the study area. In addition to one thru lane for each direction, between 1st Street and Hancock Street there are left-turn lanes on Main Street for the movements onto Hancock Street and 1st Street. Street parking is allowed in some locations and prohibited in others along the street in the study area.

Grant Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Grant Street is a two-way road without a marked centerline. On-street parking is marked on both sides of

the street between 1st Street and Hancock Street only, but on-street parking is allowed elsewhere on Grant St within the study area.

Lincoln Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Lincoln Street is a two-way road with no longitudinal pavement markings of any kind within the study area. Street parking is allowed on both sides of the street. Lincoln Street is private between 1st and Hancock.

Harrison Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Harrison Street is a two-way road with no longitudinal pavement markings of any kind within the study area. Street parking is allowed on both sides of the street.

2nd Street is classified as a Major Collector from River Street to Main Street within the study area by the City of Newberg Transportation System Plan. 2nd Street is a two-way, two-lane roadway with on-street parking allowed in most locations on both sides of the street within the study area, but is not always marked. There is a striped centerline east of Main Street to River Street on 2nd Street. Marked crosswalks across 2nd Street are provided at Main Street, Blaine Street (includes recent ADA curb ramp upgrades), Howard Street, College Street, and Meridian Street.

Sheridan Street is classified as a Local Street within the study area by the City of Newberg Transportation System Plan. Sheridan Street is a two-way roadway with no marked centerline and on-street parking allowed within the study area. On Sheridan Street in front of the Chehalem Cultural Center (between School Street and Blaine Street), recent roadway improvements have added curb extensions, aesthetic concrete roadway surface, and other pedestrian enhancements. See Table 4 for a summary of this information. See the attached Existing Typical Sections figure and Functional Classification Map.

Table 4. Summary of Roadway Characteristics

Street Name	Jurisdiction	Functional Classification	Lanes Each Direction	One-Way or Two-Way	On-Street Parking	Bike Lane	Sidewalk
1 St Street (99W)	ODOT (Resoluted)	Major Arterial	3	One (EB)	Yes	Yes	Yes
Hancock Street (99W)	ODOT (Fee ownership)	Major Arterial	3	One (WB)	Yes	Yes	Yes
River Street	Local	Major Collector	1	Two	Yes	No	Yes
Center Street	Local	Local Street	1	Two	Yes	No	Yes
Meridian Street	Local	Minor Collector	1	Two	Yes	Sharrow	Yes
Edwards Street	Local	Local Street	1	Two	Yes	No	Yes
College Street (OR-219)	ODOT (Resoluted)	Minor Arterial	1	Two	Yes	No	Yes
School Street	Local	Local Street	1	Two	Yes	No	Yes
Howard Street	Local	Local Street	Varies	Varies	Yes	No	Yes
Blaine Street	Local	Minor Collector	1	Two	Yes	No	Yes
Washington Street	Local	Local Street	1	Two	Yes	No	Yes
Garfield Street	Local	Local Street	1	Two	Yes	No	Yes
Main Street (OR-240)	Local (Resoluted)	Minor Collector	1	Two	Yes	No	Yes
Grant Street	Local	Local Street	1	Two	Yes	No	Yes
Lincoln Street	Local	Local Street	1	Two	Yes	No	Yes
Harrison Street	Local	Local Street	1	Two	Yes	No	Yes
2nd Street	Local	Major Collector	1	Two	Yes	No	Yes
Sheridan Street	Local	Local Street	1	Two	Yes	No	Yes

Recommended Transportation Projects

The 2015 Newberg Transportation System Plan Update Draft (TSP) identifies a number of recommended Capital Improvement Projects. Of these projects, 12 are located partially or fully within the study area. The project numbers indicate the mode of transportation the project targets to improve. “B” indicates a bicycle project, “P” indicates a pedestrian/sidewalk project, “E” indicates an expansion project, and “S” indicates a standards project. There are CIP projects to target intersection improvements and ADA improvements but there are not any projects in these categories within the study area.

Funding confidence is categorized into “Likely Funded” and “Aspirational” projects according to funding forecasts for 2035. Likely Funded projects are those which “the City believes are reasonably likely to be funded during the 20-year planning horizon” and Aspirational projects are those “identified projects for improving Newberg’s transportation system that are not reasonably likely to be funded during the 20-year planning horizon, but do not address an identified problem and are supported by the City” (2015 TSP Update Draft, pg. 52).

Table 5. Recommended Transportation Capital Improvement Projects (2015 Draft TSP)

Project #	Project Name	Project Description	Project Lead	Total Cost	Funding Confidence
B02	Main St Bike Lanes - with S12, E03, S08	From 5th St to Mountainview Dr	City	\$3,760,000	Aspirational
E02	Hancock Street Arterial Improvement	Reconstruct Hancock Street to major arterial street standards between Harrison Street and Main Street to include sidewalks and bicycle lanes on each side of Hancock Street.	ODOT	\$135,000	Aspirational
E03	N Main Street (OR240) Arterial Improvement	Reconstruct to full minor arterial standards between Illinois and 1st to include three travel lanes, bike lanes, and sidewalks.	ODOT	\$1,350,000	Aspirational
E05	College St Arterial Improvement	Reconstruct to minor arterial street standards between 1st St and Bell Rd to include sidewalks and bicycle lanes on each side of College Street.	ODOT	\$8,835,750	Aspirational
P15	Meridian St Sidewalks	From Hancock Street to 2nd Street	City	\$45,900	Likely
S04	Downtown Street Redevelopment	Pedestrian enhancements such as improved crossings, wider sidewalks, and curb extensions should be considered on 1st St and Hancock St in the downtown	City	\$1,100,000	Aspirational
S05	Remove RT Lane on Hancock	Remove right turn lane onto Main St, add back-in diagonal parking	City	\$5,000	Aspirational
S07	Downtown Road Diet	Remove one lane each from Hancock St and 1st St to use for additional enhancement to pedestrian, bicycle, or other amenities. This may be implemented after completion of the Phase 1 Bypass on a temporary basis pending future capacity needs.	ODOT	\$4,500,000	Likely
S08	S Main St Collector Improvement	Reconstruct to major collector street standards between 1st St and 5th St to include sidewalks and bicycle lanes on each side.	City	\$27,000	Aspirational
S09	2nd St Collector Improvement	Reconstruct 2nd St to major collector street standards between Main St and River St to include sidewalks, bicycle lanes, and on-street parking on each side of 2nd Street	City	\$27,000	Aspirational
S10	Blaine St Collector Improvement	Reconstruct Blaine St to major collector street standards between Hancock St and 9th St to include sidewalks and bicycle lanes on each side of Blaine Street.	City	\$2,025,000	Likely
S19	Meridian St Traffic Calming	Meridian St Traffic Calming	City	\$90,000	Aspirational

Opportunities and Constraints to Development

Potential opportunities for and constraints to development in the Newberg Downtown area were identified through the existing conditions analysis and conversations with City staff. The following opportunities and constraints were identified:

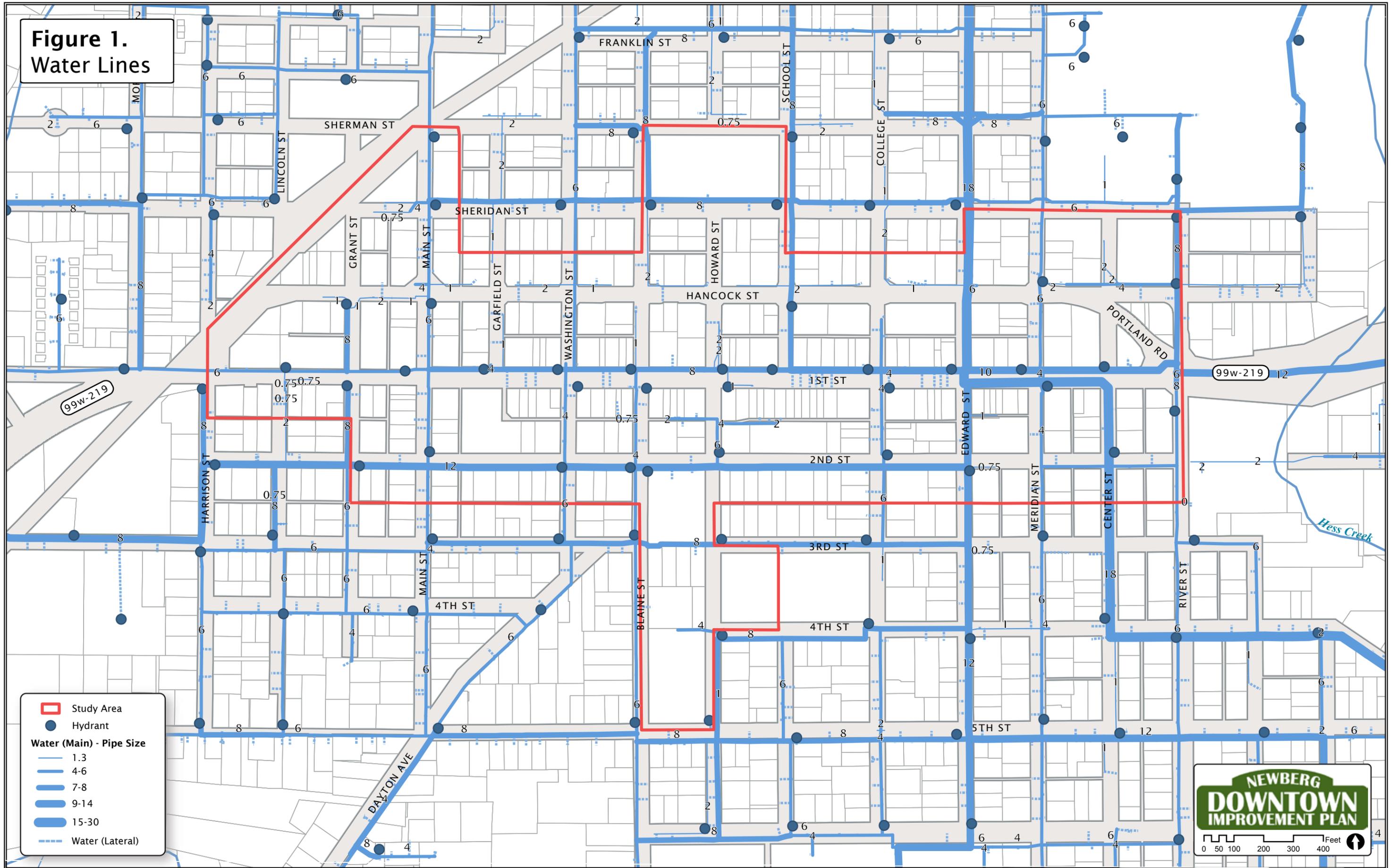
Opportunities

- ODOT jurisdiction over some or all of the 1st Street and Hancock Street (99W) right-of-way can be beneficial from a partnering perspective for future development in the corridor. Communication of goals and objectives and formulation of mutually beneficial solutions with regard to the future of the corridor may be keys to successful partnering.

Constraints

- The locations of private underground utilities and abandoned underground oil storage tanks in the downtown area are uncertain. If uncovered during construction, they could present challenges not previously foreseen and add to project costs for relocation, remediation and removal.
- Sidewalk vaults in unconfirmed locations could inhibit or constrain roadway reconstruction, especially widening.
- City staff noted that there have been abandoned railroad ties discovered during past construction projects embedded in roadways in the downtown area. Wooden railroad ties encased in concrete approximately six inches under the asphalt are known to be located in 1st Street west of Harrison Street and at Meridian Street in the center of the roadway.
- The existing water lines on the south side of 1st Street are currently undersized and unable to support any new service on that line. This would hinder building development in the area served by the water line.
- Coordination with the rail owner and Portland & Western Railroad is required for work on or in Blaine Street due to the active rail line in the right-of-way.

Figure 1.
Water Lines



Study Area
● Hydrant
Water (Main) - Pipe Size
— 1.3
— 4-6
— 7-8
— 9-14
— 15-30
- - - Water (Lateral)

NEWBERG
DOWNTOWN
IMPROVEMENT PLAN

0 50 100 200 300 400 Feet

4

Figure 2.
Stormwater

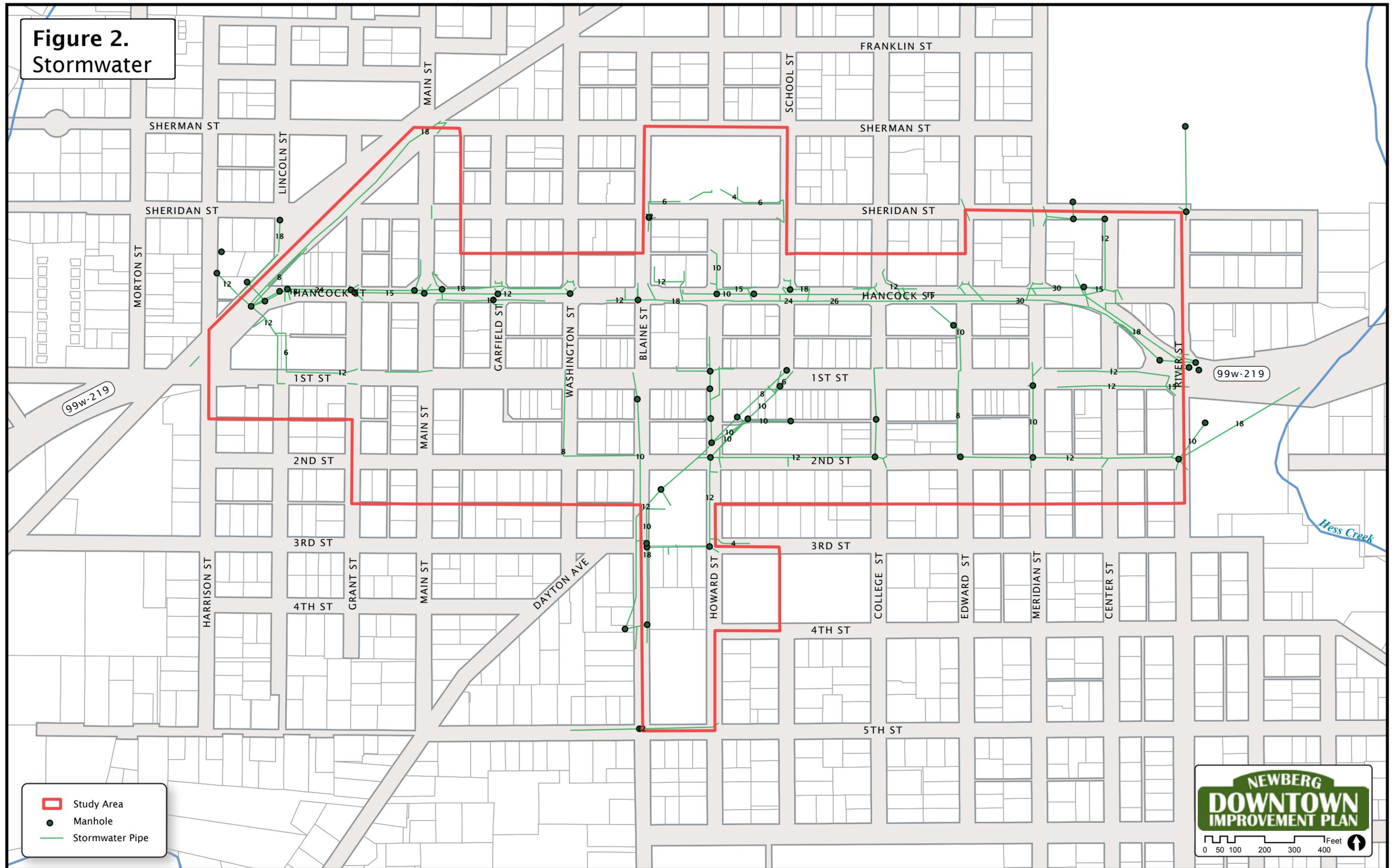


Figure 3.
Sanitary Sewer

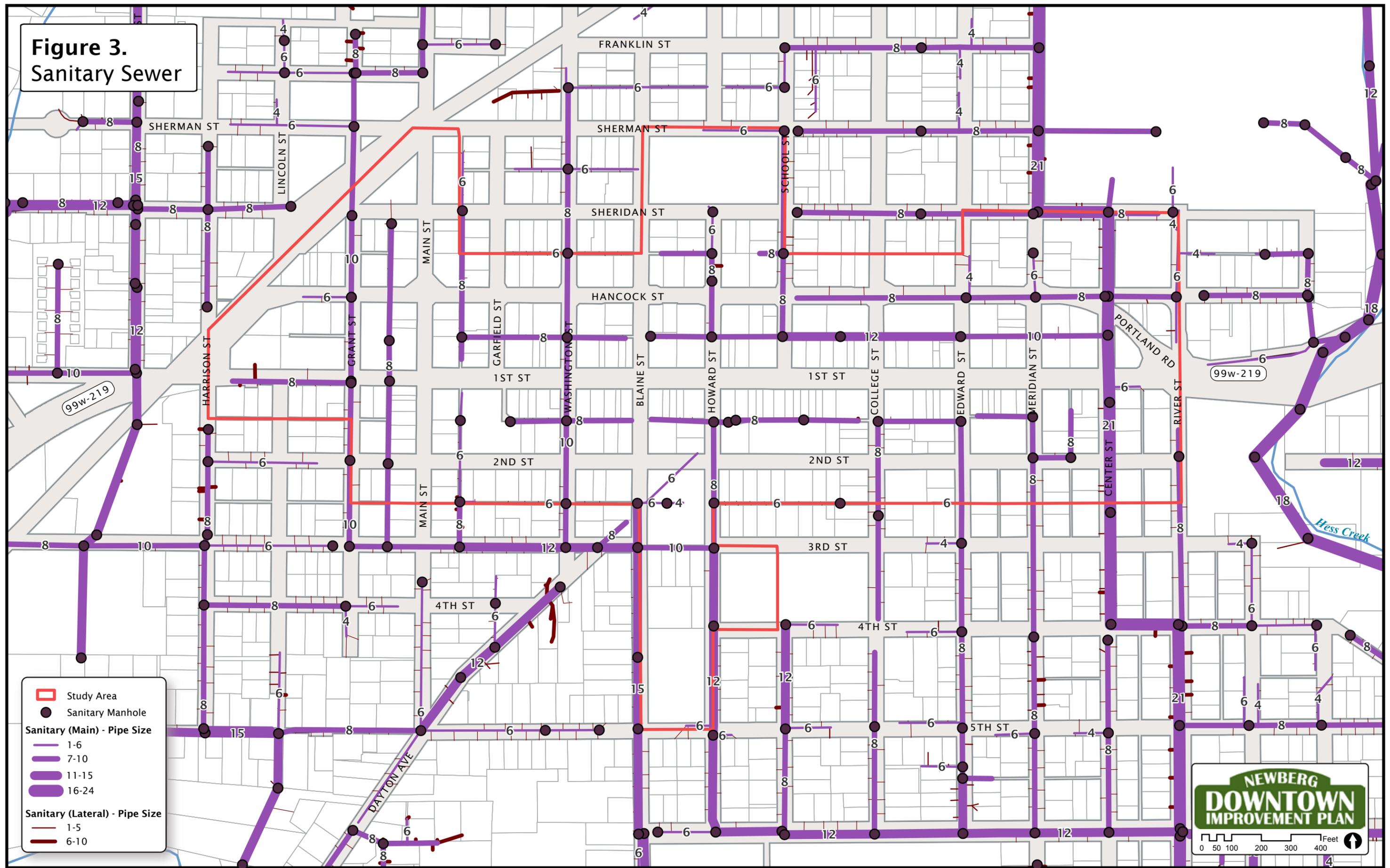


Figure 4.
Existing Typical Sections

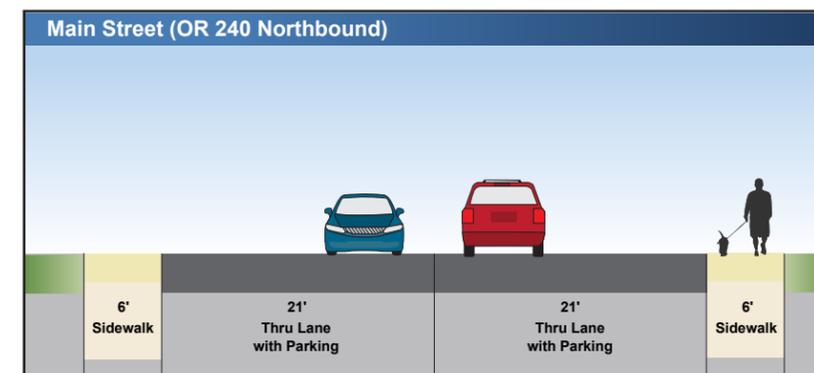
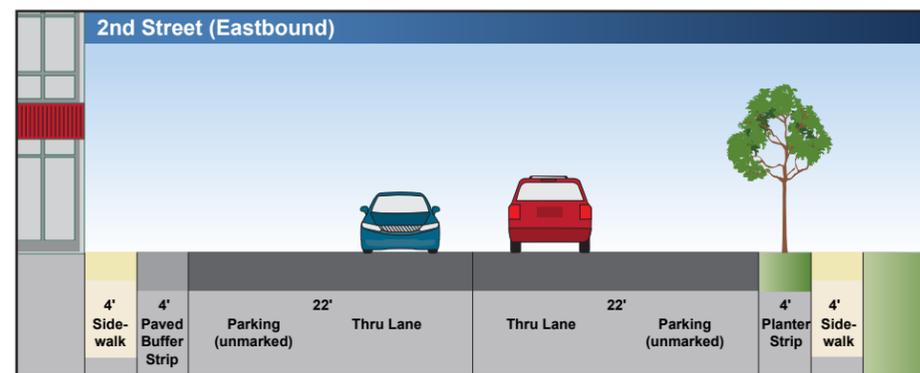
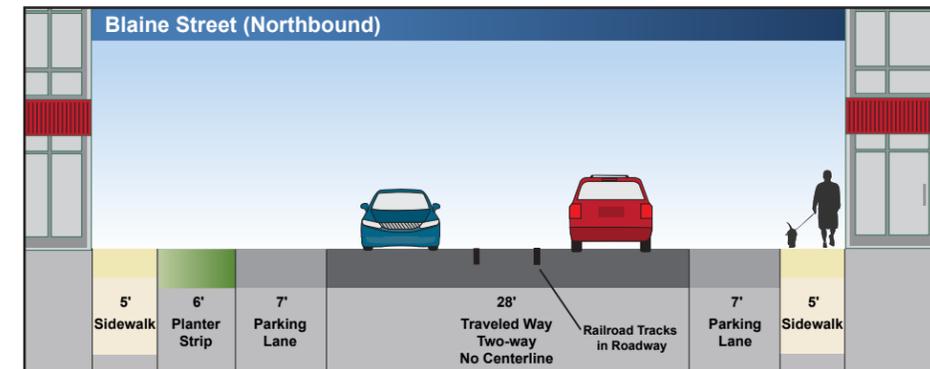
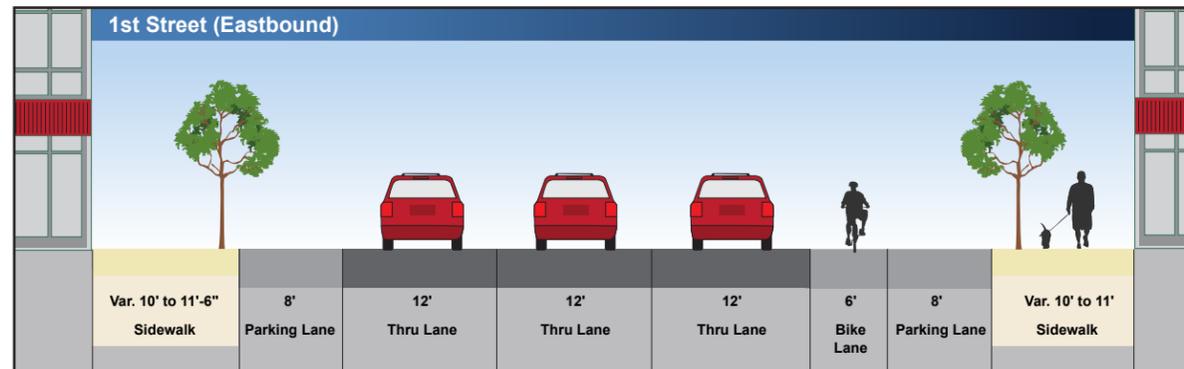
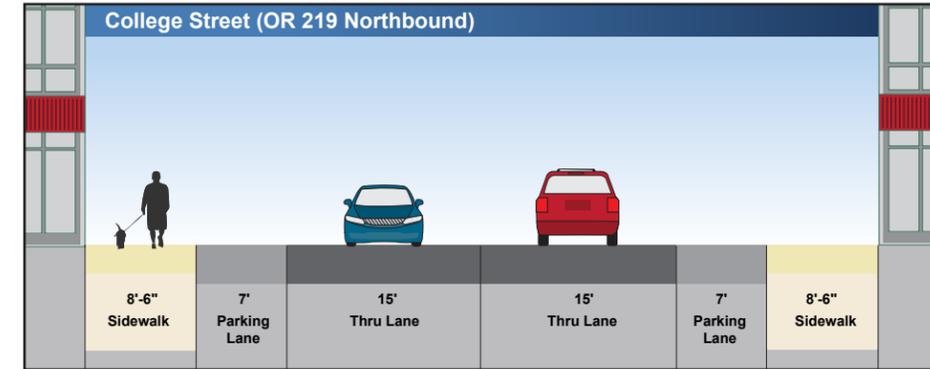
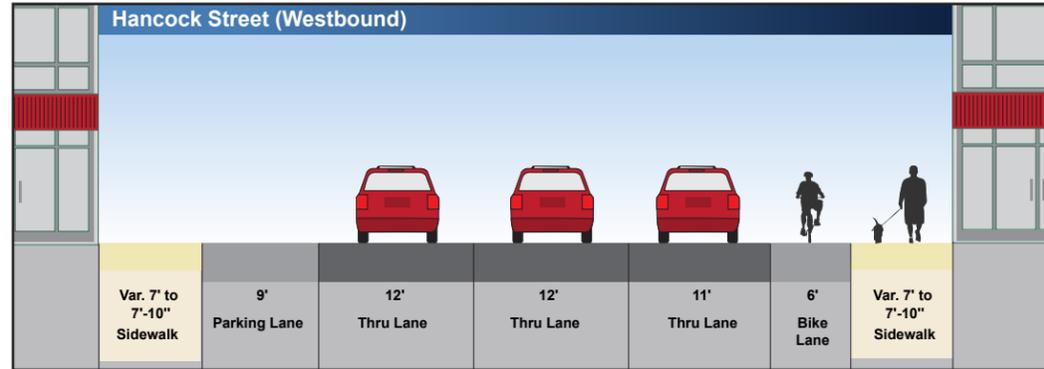
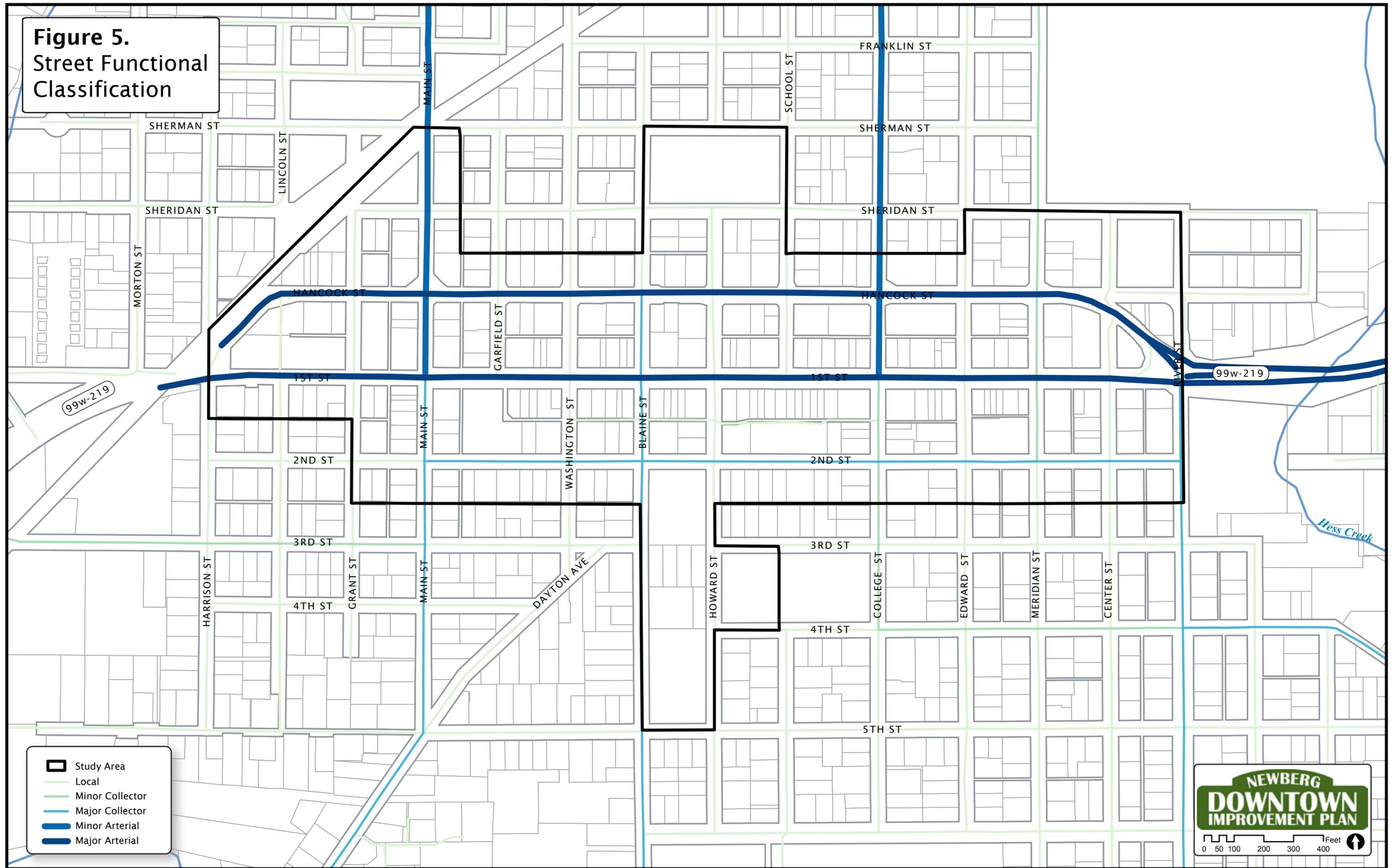


Figure 5.
Street Functional
Classification



- Study Area
- Local
- Minor Collector
- Major Collector
- Minor Arterial
- Major Arterial

NEWBERG
DOWNTOWN
IMPROVEMENT PLAN

0 50 100 200 300 400 Feet

Figure 6.
Public Utilities

