

IMPLEMENTATION



COMPREHENSIVE PLAN IMPLEMENTATION

The Frog Pond East and South area will be regulated by Wilsonville's Comprehensive Plan when this Master Plan is adopted. The sections below describe the amendments and actions needed to update the Comprehensive Plan in order to implement the land use regulations contained herein.

ADOPT THE FROG POND EAST & SOUTH MASTER PLAN AS A "SUPPORTING DOCUMENT"

The Master Plan will be adopted as a "supporting document' of the Comprehensive Plan. As such, it will have the "...force and effect of the Plan",¹ meaning the Master Plan's regulatory authority is applicable in instances where "consistency with the Comprehensive Plan" or other reference to the Frog Pond East & South Master Plan occurs in law or code. The Master Plan also serves a key role in establishing requirements for development that are implemented through Wilsonville's Development Code.

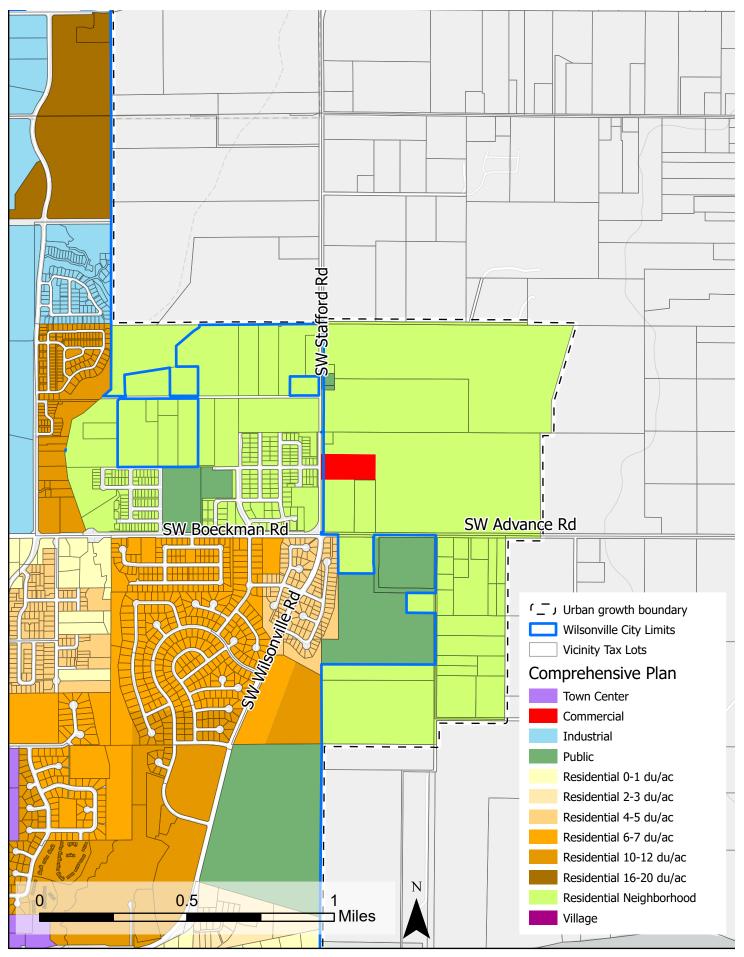
AMEND THE COMPREHENSIVE PLAN'S LAND USE MAP

Figure 29 illustrates the proposed Comprehensive Plan Map for Frog Pond East and South, in the context of adjacent plan designations. Frog Pond East and primarily consist of the "Residential Neighborhood" designation, mirroring Frog Pond West. This designation is designed to effectuate the goals, policies, and regulatory elements of this Master Plan.

Wilsonville Comprehensive Plan, page Intro-5.

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Figure 29. Comprehensive Plan Map





APPLY THE EXISTING GOALS, POLICIES AND IMPLEMENTATION MEASURES OF THE COMPREHENSIVE PLAN

The inclusion of the Frog Pond East and South area on the Wilsonville City Comprehensive Plan map means that applicable Goals, Policies and Implementation Measures of the Comprehensive Plan will apply as development occurs. Comprehensive Plan provisions that are specific to the Frog Pond East and South Area are in the Residential Neighborhood section of the Comprehensive Plan's Land Use and Development chapter. Policy 4.1.7.a establishes the Residential Neighborhood designation and states its purpose:

"The purpose of the Residential Neighborhood designation is to:

- **a.** Implement legislative Area Plans and Master Plans for new neighborhoods in Wilsonville.
- **b.** Create attractive and connected residential neighborhoods.
- **c.** Regulate and coordinate development to result in cohesive neighborhoods that include: walkable and active streets; a variety of housing appropriate to each neighborhood; connected paths and open spaces; parks and other non-residential uses that are focal points for the community; and, connections to and integration with the larger Wilsonville community.
- **d.** Encourage and require high quality architectural and community design.
- e. Provide transportation choices, including active transportation options.
- **f.** Preserve and enhance natural resources so that they are an asset to the neighborhoods, and there is appropriate visual and physical access to nature."²

The Frog Pond East & South Master Plan is consistent with the above purpose statement.

ADOPT ADDITIONAL POLICIES AND IMPLEMENTATION MEASURES

This Master Plan includes recommendations and concepts that have not been previously considered in Wilsonville's Comprehensive Plan. The following are amendments to the Comprehensive Plan being considered concurrently with this Master Plan so there is policy-level support for their implementation through the Development Code or other follow-up actions.

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See Comprehensive Plan starting page D-36.



IMPLEMENTATION MEASURE 4.1.7.D

Implementation of the Frog Pond East & South Master Plan will include the following:

- 1. Designation and mapping of subdistricts. Subdistricts are smaller geographic areas within each neighborhood where specific regulations may be applied to implement the Master Plan.
- 2. Clear and objective Development Code standards that:
 - a. Set minimum number of units at the subdistrict or tax lot level.
 - Establish height, setback and other development standards for the Type 1, Type 2, and Type 3 Urban Forms described and mapped in the Frog Pond East & South Master Plan.
 - c. Require a variety of housing and include minimum and maximum amounts of specific housing types at the subdistrict or tax lot level.
 - **d.** Require middle housing.
- **3.** Zoning provisions that provide an alternative path of discretionary review to provide flexibility for development while still achieving the intent of the Master Plan and Development Code.
 - **a.** The alternative path will include criteria to guide flexibility from the clear and objective height, setback, and other similar development standards for buildings in specific urban design contexts.
- **4.** Define categories of housing for use in implementing housing variety standards.
- **5.** Coordination with the owners of the Frog Pond Grange to coordinate and support continued use and development of the Grange as a community destination. Any future public ownership or use of the Grange building is dependent on future funding not yet identified.
- **6.** Coordination with the Bonneville Power Administration (BPA) on land use and development within their easement in the East Neighborhood.
- **7.** A future study of design options for the creek crossings shown on the Park and Open Space plan in this Master Plan. This work will address potential structured crossings.
- **8.** The City may initiate a Main Street study to evaluate specific designs and implementation for the SW Brisband Main Street.
- **9.** Special provisions will be in place for design of both the public realm and private development along the east side of SW Stafford Road and SW Advance Road and surrounding the East Neighborhood Park.



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- a. On the east side of SW Stafford Road provisions will combine blending the brick wall design used in Frog Pond West and the desire to have structures have a presence fronting SW Stafford Road with access to the protected sidewalk and bicycle path. These provisions will include:
 - i. Requiring structures, besides those fronting the SW Brisband Main Street, to have pedestrian access and entrances facing SW Stafford Road;
 - **ii.** Requiring courtyard-style brick fences matching the materials used along the edges of Frog Pond West, except being approximately half the height, with buildings setback to create usable courtyard areas;
 - iii. Requiring three-story structures, or two-story equivalent to three story-height, along Stafford Road between SW Advance Road and the SW Brisband Main Street and for one block north of the SW Brisband Main Street. This will ensure structures have a visual presence on SW Stafford Road while not dominating the streetscape and provide a gradual design transition from the four-story structures on SW Brisband.
- b. SW Advance Road provisions will be added to require residential structure orientation, including main entrance, to SW Advance Road. This provision intends to ensure SW Advance is integrated into the design of the development like other collectors in the area such as SW Willow Creek Drive in Frog Pond West. The provisions also ensure homes on the north side of SW Advance across from the community park face the community park.
- **c.** Provisions will require development around the East Neighborhood Park to orient as to have an active side of the development facing the park.
- **10.** The Master Plan shows the entire area between streams just below where SW Kahle Road forks as SROZ based on existing tree canopy. According to the property owner a portion of this area may have been planted as agricultural trees and may not meet criteria to be SROZ. The City will coordinate with the property owner to further evaluate if a portion of this area is developable or if it should remain in the SROZ. If it is found to be developable, code provisions will allow it to be developed consistent with Type 3 Urban Design standards.
- **11.** Standards that ensure private yard spaces, particularly for closely spaced detached homes, are of a size and design that are usable, accessible, and practical to maintain.



ZONING IMPLEMENTATION

ZONING MAP AMENDMENTS AND IMPLEMENTATION

Table 7 lists the zone districts that will implement each of the Comprehensive Plan designations identified within the planning area.

Table 7. Implementing Zoning Designations	
COMPREHENSIVE PLAN DESIGNATION	IMPLEMENTING ZONE
Residential Neighborhood	Residential Neighborhood (RN)
Commercial	Planned Development Commercial (PDC)
Public	Public Facilities (PF)
All, where applicable	Significant Resource Overlay Zone (SROZ)

Zoning will be applied concurrent with the annexation and development review process for individual properties.

CODING FOR VARIETY AND PRIORITY HOUSING TYPES

Providing a variety of housing types, and particular housing types, throughout the East and South neighborhoods are important intended outcomes for the Master Plan. There are many examples of how variety and specific housing is designed and delivered in master planned communities such as Northwest Crossing in Bend and like Villebois here in Wilsonville. In those communities, a master developer defines and maps the planned housing types at a very site-specific level such as individual lots or blocks. Master planned communities can also implement specific and strategic phasing of infrastructure and housing types.

The Frog Pond East & South Master Plan aspires to have the detailed variety of a master planned community like Villebois even though it does not have the oversight of a single master developer. There is an opportunity to require and encourage housing that is a priority for the City. Examples include: home ownership opportunities for households of modest income (80-120% of AMI), middle housing units, dwellings that provide for ground floor living (full kitchen, bath and master bedroom on the main floor), and dwellings that provide for ADA³ accessibility.

The standards for Frog Pond's housing variety will also recognize and accommodate several development realties:

³ Americans with Disabilities Act (1990).



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- The neighborhoods will develop incrementally. There may be several larger projects where a developer prepares a coordinated plan for relatively large areas (e.g. 20+ acres). However, there will also be many smaller developments that will occur by different developers, on varied parcel sizes, and at different points of time. The code's variety standards must work for the likely range of differently scaled projects.
- Flexibility will be needed for evolving market and housing needs over time, including to reflect the City's future Housing Needs Analyses and Housing Production Strategies..
- All standards that address housing must be clear and objective. A discretionary review path can be provided as an alternative to provide additional flexibility.

Below is a list of potential strategies for requiring variety throughout Frog Pond East and South. These show the intent of the implementing standards and are subject to refinement or change as the development code is prepared.

Strategy 1: Permit a wide variety of housing types.

Amend the RN Zone to allow the following types in Frog Pond East and South:

- Single-Family Dwelling Units⁴
- Townhouses
- Duplex, Triplex, and Quadplex
- Cluster Housing
- Multiple-Family Dwelling Units
- Cohousing
- Manufactured Dwellings⁵
- Accessory Dwelling Units

Strategy 2: Define "categories" of housing units to be used for implementing variety standards.

Each category would provide a range of housing units to choose from when meeting the variety standards. The categories will be based on the policy objectives of the Council for equitable housing opportunities. They will also include specific housing types desired by the City (e.g. accessory dwelling units). The categories will be defined as part of the development code.

5 Manufactured dwellings are subject to the definitions and requirements of ORS 443.

⁴ Tiny homes are included in this use type



Strategy 3: Establish minimum dwelling unit requirements

Establish the minimum number of dwelling units required in each subdistrict (or on each pre-existing tax lot). The minimum number of required dwellings will help ensure the provision of attached housing forms.

Minimum number of dwelling unit requirements helps ensure variety by preventing a lower production of units than anticipated by the Master Plan. The unit count anticipated in the Master Plan assumes a variety of housing and meeting the minimum is not anticipated to be met without provision of a variety of housing.

Note: The housing capacity estimates prepared for the Master Plan could be used as the basis for the minimums.

Strategy 4: Create development standards for lots and structures that regulate built form according to the mapped Type 1, Type 2, and Type 3 urban form typologies.

This strategy uses form-based standards to create the transect of most compact urban form in Type 1 areas to least compact urban form in Type 3 areas. For each of the Urban form types, define standards for:

- Minimum lot size
- Minimum lot width/street frontage
- Maximum height setbacks for front, side, and rear yards, and garages
- Minimum building spacing
- Maximum lot coverage
- Maximum building width

Strategy 5: Establish minimum housing variety standards by subdistrict and development area.

For each subdistrict (or existing tax lots within subdistricts), define:

- The minimum number of categories required. This standard ensures variety at the subdistrict or tax lot level.
- The maximum percent of net development area for a category. This standard ensures no single category dominates a subdistrict.
- The minimum percent of net development area for categories that represent more affordable and/or accessible housing choices not traditionally provided by the private market and meeting City housing objectives..

Strategy 6: Encourage variety at the block level



Housing variety on the block level prevents segregation of housing types that often subsequently segregates populations by economic status. Code provisions, likely incentives but potentially requirements, related to the percent of net area of blocks by housing category will help ensure a fine grained variety of housing type and integration of lower cost housing.

CODING FOR MAIN STREET

The Brisband Main Street received very strong support in open houses, focus groups, tabling events and surveys for the Master Plan. Community members were excited that Main Street could become a walkable and attractive destination with restaurants, shops and services.

Wilsonville has existing and future models of the type of pedestrian-oriented commercial center envisioned for the Frog Pond's Main Street. The village center in Villebois is an anchor point for that community with its well-designed public realm, higher density housing, mixed-use, and strong connections to the adjacent neighborhoods. Wilsonville's Town Center Main Street is a central element of the Town Center Plan and will include attractive streetscapes, mixed-use buildings, and three-to-four story building form.

To achieve the vision for the Brisband Main Street, the following design and development strategies for the Brisband Main Street will be implemented:

- Permit neighborhood-scale retail, services, mixed-use, multi-family residential
- Prohibit drive-through uses and facilities
- Adopt development standards such as:
 - > Shallow setbacks to bring buildings close to Main Street's sidewalks
 - > Up to 4-story building height

"The overall vision for the neighborhood commercial center is that it is a place that provides local goods and services within easy access of the local neighborhoods, has a high quality and pedestrian-oriented design, and serves as a gathering place for the community. Due to its small scale and local orientation, it will not compete with other commercial areas in Wilsonville."

— Frog Pond Area Plan



- > Tall ground floors to emphasize storefront character
- > Building frontages that occupy a high percentage of the block faces along Main Street
- Adopt design standards such as:
 - > Primary entrances oriented to Brisband or its intersections
 - > Front setback areas designed for pedestrian use
 - > Parking to the sides or rears of buildings
 - > Small plazas designed as an accessible amenity
 - > Weather protection (awnings and/or canopies) along sidewalks
 - > Building articulation, fenestration, and materials that make Main Street an attractive place and contribute to the vitality of the street environment

The City may initiate a design study for Main Street to evaluate detailed public realm improvements and coordinate them with private development.





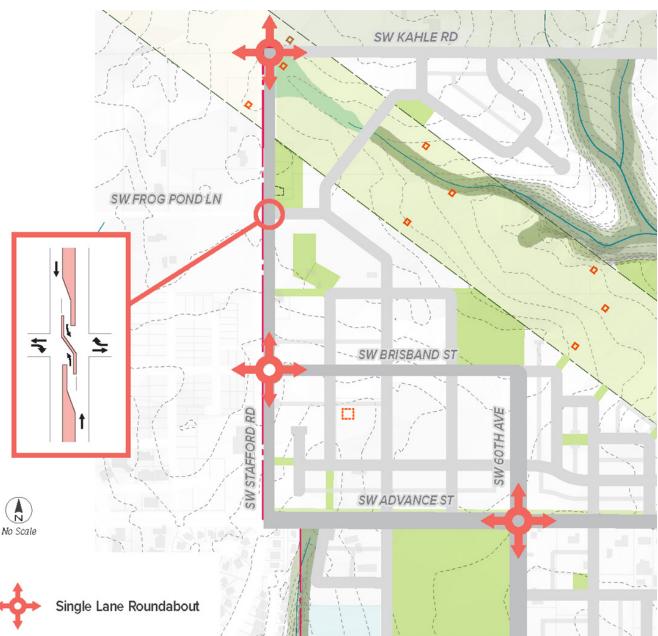
INFRASTRUCTURE PLANS

TRANSPORTATION

TRANSPORTATION ANALYSIS AND IMPROVEMENTS

A comprehensive traffic analysis was performed to determine existing and future transportation conditions for the Frog Pond East and South neighborhoods and to identify needed transportation facility improvements. The analysis focused on

Figure 30. Traffic Control Recommendations



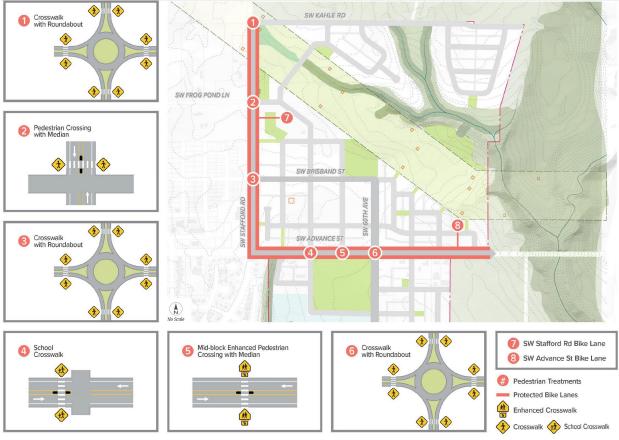


the major intersections both within the project vicinity and within Wilsonville at large, including the two I-5 interchange areas (i.e., Wilsonville Road and Elligsen Road). The study area includes 15 total intersections, including 4 key gateway intersections to the Frog Pond neighborhoods.⁶

The analysis found that, in 2040, all but three of the study intersections are expected to continue to meet standards and targets assuming the completion of the High Priority Projects stated in Wilsonville's Transportation System Plan. Those three intersections are located along Stafford Road and are the gateway intersections to the Frog Pond East neighborhood. The following transportation improvements are recommended for these intersections (see Figure 30).

- SW Stafford Road/SW Kahle Road: Install a single-lane roundabout
- SW Stafford Road/SW Frog Pond Lane: Install a raised median to prohibit minor street through movements and left turns and install an enhanced pedestrian crossing with a center refuge median.
- SW Stafford Road/SW Brisband Street: Install a single-lane roundabout





See A

See Appendix I: Transportation Analysis

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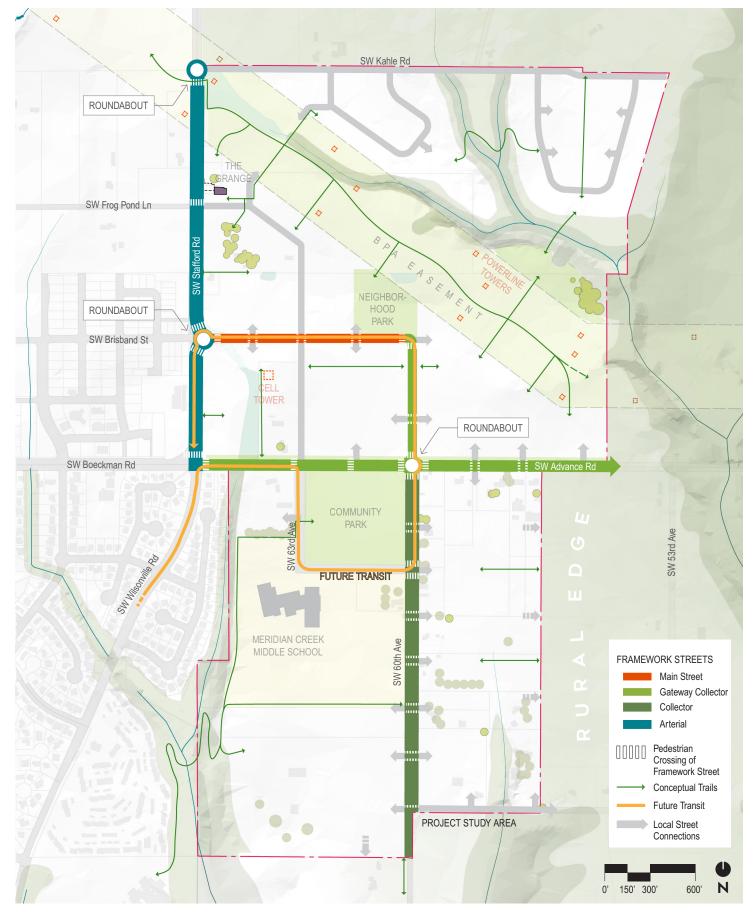
Additional transportation projects were identified for the East and South neighborhood to enhance safety. They include:

- Install a roundabout at Advance Road/60th Avenue, as shown in Figure 30. The installation of a roundabout at this location will create a gateway between the high-speed rural traffic and the new desired slower urban speeds. The roundabout will provide for slower speeds and improved neighborhood access and visibility.
- Install various pedestrian and bicycle improvements on Stafford Road and Advance Road, as shown in Figure 31.

STREET CLASSIFICATIONS

Figure 32 illustrates the recommended functional classifications for streets in Frog Pond East and South. The classifications for SW Stafford Road (Major Arterial), and SW 60th Avenue south of SW Advance Road (Collector) are consistent with the Frog Pond Area Plan's transportation network and classifications. SW Advance Road and the northerly extension of SW 60th avenue into the East Neighborhood are recommended to be Gateway Collectors. SW Brisband Street is recommended to be a Main Street. Please see the Street Design section of this report for recommended cross-sections.

Figure 32. Street Classifications





WATER SYSTEM

A water system analysis and plan were prepared to identify water system improvements required for the planned growth of the Frog Pond East and South neighborhoods.⁷ The analysis built upon previous water system planning conducted for the Frog Pond Area Plan, and updated it to coordinate with this Master Plan's land uses and transportation network. Frog Pond East and South will be served by extensions within Wilsonville's water pressure Zone B. The analysis focused on the distribution system; water treatment and storage are addressed in the City's 2016 Water System Master Plan.

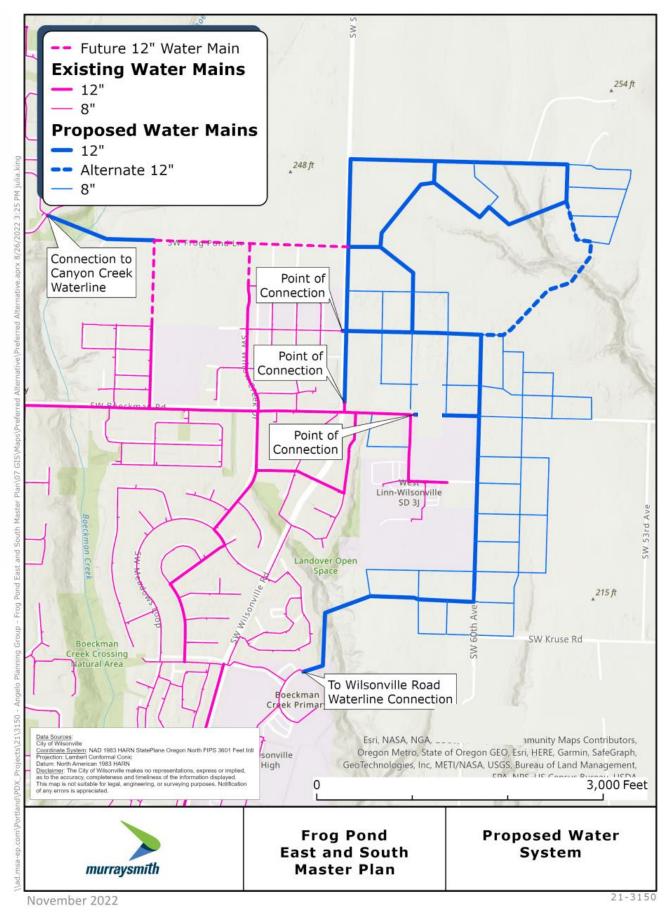
Figure 33 illustrates the Master Plan's water system layout for the East and South neighborhoods, including off-site improvements needed to serve the area. A looped system consisting of 12-inch and 8-inch distribution mains is proposed for supply of domestic water to Frog Pond East and South.

- The existing 12-inch waterline in Boeckman Road is the primary backbone connection for Frog Pond East and South to the City's water supply and storage system.
- The 12- inch main network provides a redundant capacity of 1,500 gallons per minute (gpm) for fire flow to all areas.
- In accordance with City Public Works Standards, 12-inch mains are also required for the commercial main street area proposed along SW Brisband Road in Frog Pond East.
- For all residential zones, 8-inch mains are required, with all lines interconnected as a network to prevent dead ends.

The northernmost neighborhoods in Frog Pond East along SW Kahle Road will be connected to the City's existing water system with a 12-inch loop that connects to the south side of the BPA easement in two locations. The loop can be constructed across the BPA easement either in the proposed road extending northeast from Frog Pond Lane, or across the BPA easement further to the east via a potential pedestrian bridge over the main fork of the Newland Creek. The decision on where to route the loop will depend on what areas are developed first and whether a pedestrian bridge is built that would support the waterline. In either scenario the 12-inch mainline along SW Stafford Road and SW Kahle Road will be required.

Wilsonville's Water System Master Plan recommends two additional connections to the existing distribution system to reliably serve buildout of Frog Pond East and South. The first is a 12-inch connection to the Canyon Creek Road waterline via a crossing of Boeckman Creek at the west end of Frog Pond Lane. The second is a crossing of Meridian Creek with a 12-inch main, south of the Meridian Creek Middle School, installed in conjunction with development of Frog Pond South. Both creek crossings are assumed to be below grade directionally drilled pipelines.

⁷ See Appendix F: "Proposed Infrastructure Plans – Water, Wastewater, Stormwater Systems" Murraysmith, September 6





Alternatively, they could be installed on future pedestrian bridges if the City decides to build those structures.

SANITARY SEWER SYSTEM

A wastewater system analysis and plan were prepared to identify wastewater system improvements required for the planned growth of the Frog Pond East and South neighborhoods.⁸ The analysis drew from previous wastewater system planning conducted for the Frog Pond Area Plan, recent design work for the Boeckman Road trunk sewer and Boeckman Creek interceptor improvements, and the City's 2017 Public Works Standards. Wastewater system improvements were coordinated with this Master Plan's land uses and transportation improvements.

Figure 34 illustrates the Master Plan's wastewater system layout for the Frog Pond East and South neighborhoods. The layout is based on five sewer basins, one for each of the four lift stations required due to topography and one that flows by gravity out of the Frog Pond area. The four lift station basins will each require an 8-inch gravity pipe to convey wastewater to the lift station and a 4-inch force main discharge to the downstream basin.

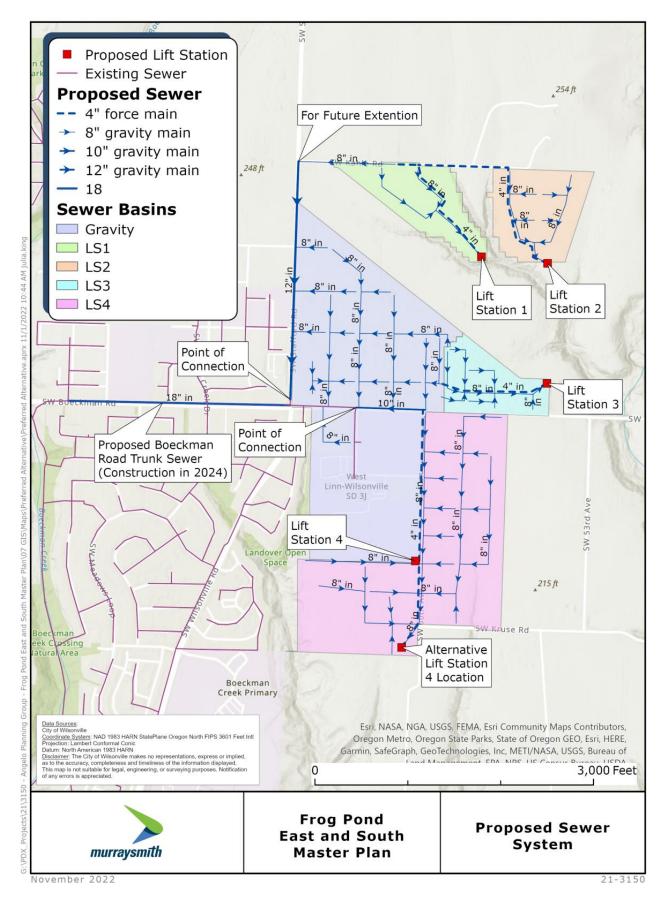
The main trunk traveling north-south on SW Stafford Road conveys sewage from both lift station 1 and 2 and a portion of the gravity basin. This pipe has the capacity to serve the area as an 8-inch line; however, this pipe is identified in the Wilsonville Wastewater Collection System Master Plan as a 12-inch line in order to serve future development to the north.

Extension of the main trunk in SW Boeckman Road eastward on SW Advance Road is needed to convey sewage from both lift stations 3 and 4 and a portion of the gravity basin. A 10-inch size is required to provide capacity necessary for projected development.

All wastewater from Frog Pond East and South is to be conveyed to the wastewater treatment plant through connection to the existing Boeckman Road trunk sewer, which flows west to the existing Boeckman Creek interceptor sewer and the Memorial Park Pump Station. As of the writing of this report, the Boeckman Road trunk sewer is being upsized to 18-inch diameter as part of improvements to SW Boeckman Road, including Boeckman Dip Bridge, with completion anticipated for 2024. This improvement is sufficient to serve the Frog Pond East and South area as well as future development anticipated to the north.

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See Appendix F: "Proposed Infrastructure Plans – Water, Wastewater, Stormwater Systems" Murraysmith, September 6





STORM WATER MANAGEMENT

A stormwater system analysis and plan were prepared to identify stormwater system improvements required for the planned growth of the Frog Pond East and South neighborhoods.⁹ The City of Wilsonville will be the regulatory authority for design and construction of stormwater facilities for the area, in accordance with the City's current National Pollution Discharge Elimination System (NPDES) permit.

Permitting agencies require that collected stormwater runoff remain within its natural drainage basin. Natural drainage basins for Frog Pond East are Newland Creek in the northeast and Meridian Creek in the southwest. The western half of Frog Pond South discharges into Meridian Creek, with a small area draining into to an unnamed tributary (referred to as Kruse Creek in the analysis) to the southwest that drains directly into the Willamette River.

The City's NPDES permit and design standards require the implementation of Low Impact Development (LID) approaches to the maximum extent practicable. This generally involves the construction of decentralized, integrated water quality treatment and flow control facilities near to the location where runoff is generated, for example, in streets, parking lots and on building roofs. Experience with Frog Pond West shows there is significant competition for space along street frontages to provide LID along with other necessary improvements such as driveways, onstreet parallel parking, street trees, fire hydrants, etc., which may not be compatible with LID facilities. This is anticipated to be particularly acute in Frog Pond East and South, where a varying mix of residential types and higher than typical densities are proposed. To maximize the implementation of LID in the Frog Pond Area, the City requires LID to be provided in the following locations:

- Collector and arterial street planter strips where parallel on-street parking is not permitted, such as SW Stafford Road and SW Advance Road;
- Alleys, greenways, and other midblock opportunities (e.g. curb extensions);
- Parks and open space buffers;
- Areas between buildings and roadways/other buildings within a development (e.g. common areas, courtyards, greenspaces, pocket parks); and
- Planters adjacent to buildings to treat roof runoff.

Figure 35. Proposed Stormwater System

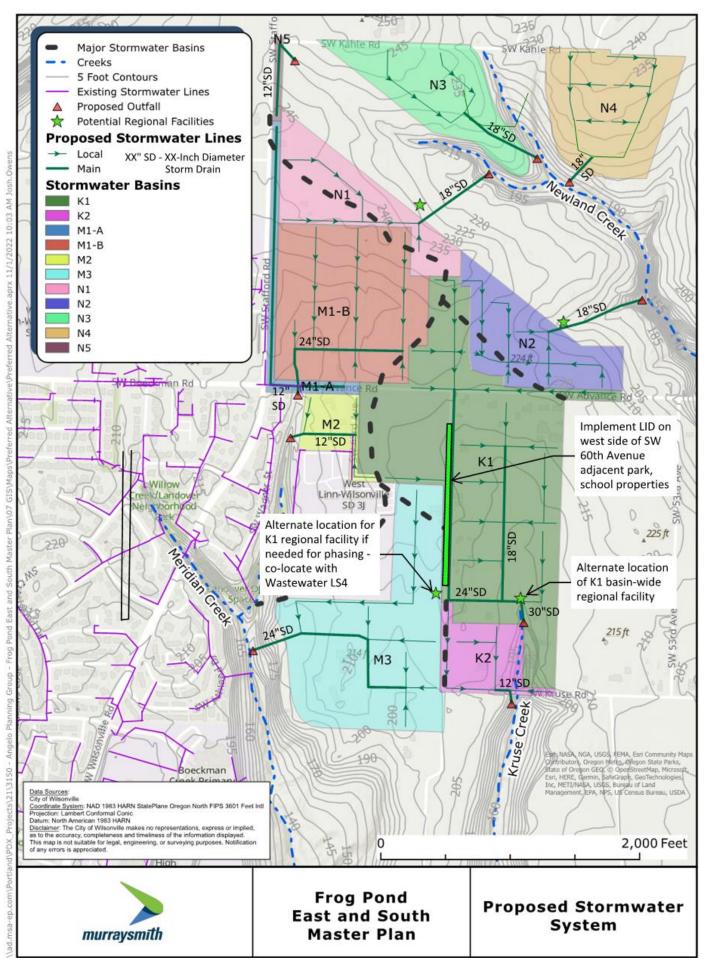




Figure 35 shows the proposed preliminary stormwater system coordinated with the Master Plan's street layout and land uses. For conveyance, the plan designates a stormwater main for each drainage basin, extending from the outfall into the basin. Storm mains will be constructed with the other key infrastructure needed to support development. Developments will be required to provide full stormwater management prior to connecting and discharging into the storm main.

The analysis recommends that development implement LID to the "maximum extent practicable" and, where needed, the City would consider additional LID alternatives. In these cases, the strategy for meeting water quality and flow control requirements should follow the stormwater management hierarchy below, with the order of preference being from Category 1 as the most preferred to Category 3 as the least preferred:

Category 1. LID facilities are used to meet all water quality treatment and flow control requirements.

Category 2. LID facility areas are used in combination with impervious area reduction methods¹⁰ and/or detention ponds to meet all water quality and flow control requirements. The implementation of LID at less than the maximum extent practicable is at the discretion of the City.

Category 3. Regional facilities¹¹ are used to meet all water quality treatment and flow control requirements.

Figure 35 schematically shows the location of potential regional facilities. The map is a visual representation of storm water facility coverage and not an indication of where facilities are required to be placed, which is dependent on individual development proposals.

FIBER PLAN

A broadband internet (fiber) plan will be prepared for the Frog Pond East & South Master Plan area.

10 Wilsonville Public Works Standards 2015 301.4.03

11 Wilsonville Public Works Standards 2015 301.4.02.b



INFRASTRUCTURE FUNDING

As of the writing of this Master Plan, an Infrastructure Funding Plan is in-progress. It will be completed and adopted prior to annexation and development reviews for properties in Frog Pond East and South. The Infrastructure Funding Plan is an integral part of the implementation of this Master Plan. It's primary purpose is to ensure that there are sufficient funds and explicit, actionable plans for how growth is paid for and infrastructure is delivered.

That Infrastructure Funding Plan will evaluate costs and revenues transportation, water, sanitary sewer, storm water, and park improvements. The Funding Plan will identify potential funding gaps and strategies for filling the gaps. Multiple funding options will be evaluated, including a scaled system development charge approach and application of the City's infrastructure fee approach that is in use in Frog Pond West. The City's priority is to ensure adequate funding available at the time the improvement is needed.

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