

"Making a difference through excellence of service"



CITY OF WARRENTON

AGENDA

CITY COMMISSION OF THE CITY OF WARRENTON
REGULAR MEETING

November 14, 2017 – 6:00 P.M.

Warrenton City Commission Chambers – 225 South Main Avenue
Warrenton, OR 97146

1. **CALL TO ORDER**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL**
4. **COMMISSIONER COMMENTS/COMMUNICATIONS/AGENDA ADDITIONS**
5. **CONSENT CALENDAR**

- A. City Commission Meeting Minutes – 10.10.17
- B. Community Center Minutes – April 24, 2017
- C. Warrenton Water Facility & Water Works Inventory/Operation Overview

6. **PUBLIC COMMENT (AGENDA ITEMS)**

At this time, anyone wishing to address the City Commission concerning items on the Agenda may do so. The person addressing the Commission will, when recognized, give his or her name and address for the record. All remarks will be addressed to the whole City Commission and limited to 3 minutes per person. The Commission reserves the right to delay any action, if required, until such time as they are fully informed on a matter.

7. **BUSINESS ITEMS**

- A. Public Hearing - Fort Pointe Planned Unit Development - Tagg Appeal
- B. Consideration of Planning Recommendation on C-1 General Commercial Mini-Storage Conditional Use Code Amendment - Ordinance No. 1214-A

- C. Consideration of Advertisement for Bids – Water Meter Replacement Project Plans and Specs
- D. Consideration of Grant Writing RFP

8. PUBLIC COMMENT

At this time, anyone wishing to address the City Commission concerning items of interest not already on the Agenda may do so. The person addressing the Commission will, when recognized, give his or her name and address for the record. All remarks will be addressed to the whole City Commission and limited to 3 minutes per person. The Commission reserves the right to delay any action, if required, until such time as they are fully informed on a matter.

9. EXECUTIVE SESSION

Under the authority of ORS 192.660(2)(h); *to consult with counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed.*

10. ADJOURNMENT

Warrenton City Hall is accessible to the disabled. An interpreter for the hearing impaired may be requested under the terms of ORS 192.630 by contacting Dawne Shaw, Deputy City Recorder, at 503-861-2233 at least 48 hours in advance of the meeting so appropriate assistance can be provided.

5-A

MINUTES
Warrenton City Commission
Regular Meeting – October 10, 2017
6:00 p.m.
Warrenton City Hall - Commission Chambers
225 S. Main
Warrenton, OR 97146

Mayor Pro-tem Newton called the meeting to order at 6:00 p.m. and led the public in the Pledge of Allegiance.

Commissioners Present: Pam Ackley, Tom Dyer, Mark Baldwin and Rick Newton
Absent: Mayor Henry Balensifer

Staff Present: City Manager Linda Engbretson, Community Development Director Skip Urling, Fire Chief Tim Demers, Police Chief Mathew Workman, Interim Public Works Director Collin Stelzig, Public Works Operations Manager Kyle Sharpsteen, and Deputy City Recorder Dawne Shaw

COMMISSIONER COMMENTS

Commissioner Baldwin welcomed everyone and gave a brief update on the condition of Ocean View cemetery, noting there has been no improvement.

Commissioner Ackley stated she and Commissioner Baldwin attended a long range facility planning work shop with the Warrenton-Hammond School District, to discuss long term plans and how to make a school built for 500 kids work for 1100 kids. She noted it is the largest K-8 school in the State, not associated with a larger district, and fourth largest overall. Commissioner Ackley stated she watched an interesting webinar called Smart Cities, which she will share with the Commission. Commissioner Baldwin stated that when a school issue comes to vote, every Warrenton citizen that votes needs to pay a lot of attention to what the school is doing. He noted the School District Superintendent Mark Jeffries, works very hard for the schools and cares about the city as a whole. Commissioner Baldwin noted he is hopeful we can come up with a cost effective way to improve on what we have and a plan that everyone can sign onto.

Commissioner Dyer welcomed everyone and thanked them for coming.

Mayor Pro-tem Newton stated he was in Alaska during the last Commission meeting, and noted many of the issues Alaska is facing are the same issues affecting Warrenton. He noted October is National Seafood month; and also thanked the Fire Department for fighting wildfires abroad. Mayor Pro-tem Newton noted he attended the Safety Committee meeting where the jail situation and the youth facility were discussed; as well as the lack of security at the County Courthouse. He also thanked Cindy Yingst for the article in the Columbia Press about the Library, and noted the library levy on the November 7th ballot.

City Manager Engbretson stated she and Mayor Balensifer attended the County jail work session. She noted the current facility cannot hold many people and hopes the County can come up with something going forward. She also noted she is excited to see the Urban Renewal landscaping plan moving forward.

Commissioner Ackley made the motion to approve the consent calendar as presented. Motion was seconded and passed unanimously.

Newton – aye; Dyer – aye; Ackley – aye; Baldwin – aye

PUBLIC COMMENT (Agenda Items) – None

BUSINESS

Community Development Director Skip Urling presented a request from Tarah and Shannon McGregor, for a license to occupy a portion of the western SW Juniper Avenue Right-of-Way (ROW). He explained the specifics of the request as outlined in the agenda packet, noting the McGregor's intent is to build a fence and install a lawn in the unused area. City Manager Engbretson noted the fence is set back far enough to not impede site lines. Brief discussion followed.

Commissioner Dyer made the motion to approve the license to occupy that portion of the SW Juniper Avenue right-of-way adjacent to 1003 SW 2nd Street, also identified as Tax Lot No. 81020AA01900, by Tarah and Shannon McGregor for a fence and landscaping improvements. Motion was seconded and passed unanimously.

Newton – aye; Dyer – aye; Ackley – aye; Baldwin – aye

City Manager presented Resolution No. 2506; Authorizing the City to Transfer the Surplus Balance of the Public Safety Building GO Bond Fund. She noted that as of June 15, 2017, the Series 1998 General Obligation Bonds that funded the construction of a public safety building and refunded the former City of Hammond's General Obligation Installment Sewer Bonds, Series 1980, have been paid in full. Ms. Engbretson stated the City's bond attorney has prepared the attached resolution so that the City Commission may authorize closure of this fund as of September 30, 2017, in the amount of \$25,629.43, into the General Fund. She noted this is a housekeeping measure as the debt service for the City Hall building is paid off, and this has been accounted for in this year's budget.

Commissioner Ackley made the motion to approve Resolution No. 2506, Declaring that the necessity of the Series 1998 General Obligation Bonds Debt Service Fund has ceased to exist and Authorizing the City to Transfer the Surplus Balance to the designated General Fund Pursuant to Oregon Revised Statutes Sections 287 A.140 and 294.353. Motion was seconded and passed unanimously.

Newton – aye; Dyer – aye; Ackley – aye; Baldwin – aye

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City Manager Linda Engbretson stated legal counsel has reviewed and updated the proposed sublease between the City of Warrenton and Paul Leitch, Sturgeon Paul's, at the Hammond Marina, to clearly define the term of the lease and the language for termination, per the Commission's request. She stated as required in our lease with the USACE, the revised agreement was submitted for their approval. She noted this is the last piece of housekeeping on our end and will allow the Portland Office to finalize their part of the transfer process. It will then be sent to Washington DC, and the process can take about a year to complete.

Commissioner Dyer made the motion to authorize the Mayor's signature on the lease between the City and Mr. Leitch for Sturgeon Paul's at the Hammond Marina, upon final approval from the US Army Corps of Engineers. Motion was seconded and passed unanimously.

Newton – aye; Dyer – aye; Ackley – aye; Baldwin – aye

Interim Public Works Director Collin Stelzig stated the Public Works department has been working with the Fire Chief on ideas to improve the intersection of SW 9th Street and S. Main Avenue. He noted the intersection does not currently accommodate all types of vehicles and should possibly be avoided by larger vehicles. He noted many school buses use this intersection to reach Warrenton Elementary School. Mr. Stelzig stated they have looked at several options that would allow vehicles to safely maneuver the intersection and Public Works believes they have developed a schematic design that is economical and required the least amount of additional right-of-way. He stated the current estimate to complete these improvements is \$160,000, and funds from the SE 2nd Street project could be used to complete the project. Brief discussion continued on the right-of-way, and Mr. Stelzig they have not made contact with the homeowners yet.

Commissioner Ackley made the motion to approve staff to contract for design services and construction of the improvements to the Intersection of SW 9th Street and S. Main Avenue for a total cost of \$160,000. Motion was seconded and passed unanimously.

Newton – aye; Dyer – aye; Ackley – aye; Baldwin – aye

PUBLIC COMMENT – Jim Ray noted he was pleased to see the repairs completed on the Skipanon Bridge near Lum's, the day after he voiced his concerns at the previous Commission meeting. Dennis Faletti thanked the Commission for getting the Warrenton Marina restroom building fixed, noting it looks good now.

There being no further business Mayor Pro-tem Newton adjourned the meeting at 6:36 p.m.

APPROVED:

Henry Balensifer, Mayor

ATTEST:

Dawne Shaw, Deputy City Recorder

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5-B

WARRENTON COMMUNITY CENTER
Advisory Board Meeting

Meeting Date: April 24, 2017

Place: Warrenton Community Center

Call to Order – Chairman, Mel Jasmin called the meeting to order at 4:00 PM

Roll Call: Chairman, Mel Jasmin; Vice Chairman, Frank Becker; Secretary, Carol Snell; Lorna Anderson and Warrenton Finance Director, April Clark. Members absent and excused: Melissa Whitt and Marc Silva.

Introduction of Guests: None

Public Comment: None

Approval of Minutes: Frank offered a motion to approve the minutes of the March 16, 2017 meeting. The motion second by Lorna. Motion passed.

Financial Report: Finance Director, April Clark, reported approx. \$ 1,800.00 in donations and proceeds from the breakfast, the raffle \$ 238.00 totaling \$ 2,000.00 for the Easter breakfast. The rents for the Center will be increased 10% effective July 1, 2017. We reviewed the proposed budget and gave our consent. The budget will be presented to the City on May 11, 2017. April also stated that the Warrenton Business Association donated \$ 5,000.00 to replace one of the three furnaces at the Center.

Old Business:

Frank moved and Carol second to write Melissa Whitt that her position has been vacated. Member, Marc Silva, never submitted a resignation from the board so his position has been vacated also.

New Business:

Mel stated he was going to change the number of drawings in order to facilitate vacating the tables for needed space during the breakfast.

He also suggested that we pre-wrap heavy duty silverware with napkins to speed up re-setting the tables. He knows someone who will do it for \$ 40.00. After some discussion it was decided to continue as is.

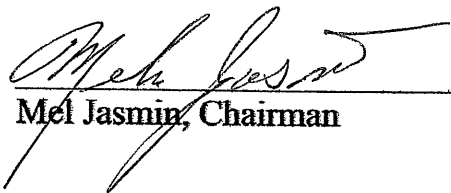
It was suggested that the donation letters be mailed by November 8, 2017.

Carol offered a motion, seconded by Lorna, that we skip the September meeting and meet in October. Motion passed.

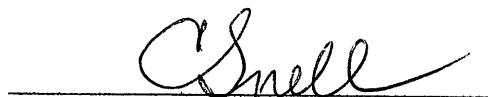
Correspondence: None

Next Meeting: The next meeting will be October 19, 2017.

Frank moved and Lorna seconded; to adjourn the meeting at 5:00 PM.



Mel Jasmin, Chairman



Carol Snell, Secretary

5-C

WARRENTON WATER FACILITY & WATER WORKS
INVENTORY/ OPERATION OVERVIEW



Respectfully Submitted By,

Robert L. Bingham, Warrenton Water Facility Superintendent

November 2017

SUPERINTENDENT'S MESSAGE

First and foremost, on behalf of myself and plant operator, Dave Davis, I would to thank Warrenton City Mayor Henry Balensifer, All City Commissioners, City Manager Linda Engbretson , Public Works Director , all other City Departments, and especially valued water customers for their continued funds and support for the City of Warrenton Water Facilities.

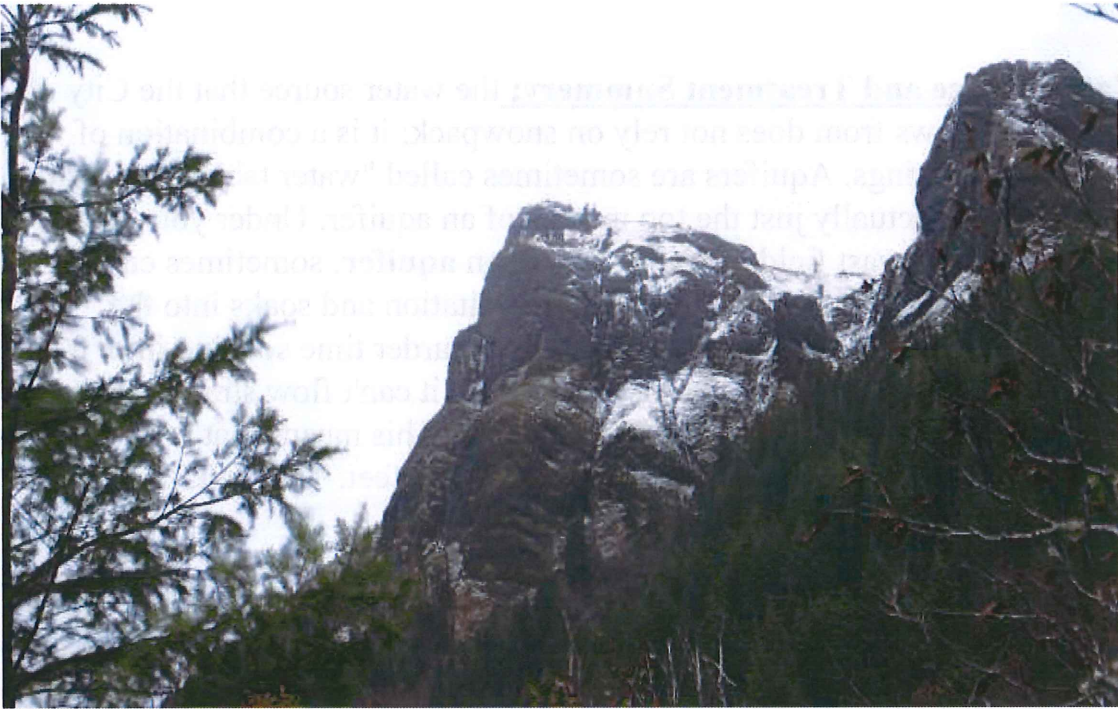
Always, we at the water facility believe in preventative maintenance for many reasons, I feel the water customers of Warrenton's water system deserve comfort knowing their investments are maintained properly and the water is safe for water consumption and fire protection and available 24/7.

WARRENTON WATER FACILITIES

Information given in this overview is actual components and accurate information. This gives new and current water consumers and others including city staff an opportunity to understand where their water comes from including the treatment process from the water source to their home.

This report also covers the overall working condition of the entire City of Warrenton Water Headwork's System. As you will notice, one of our main goals is to operate equipment and facilities at a maintainable status. I understand the importance at great expense to achieve Safe drinking Water.

I have also added some *interesting facts* about water including budget information, job descriptions that you may find interesting.



Watershed begins on western slops of Saddle Mt. flowing westward



Big and Little South fork rivers watershed

STARTING FROM THE WATER SOURCE TO YOUR HOME

Water Source and Treatment Summary; the water source that the City of Warrenton draws from does not rely on snowpack; it is a combination of aquifers and springs. Aquifers are sometimes called "water tables," though a **water table** is actually just the top margin of an aquifer. Under your feet, there is always a vast field of water. This is an **aquifer**, sometimes called **groundwater**. Water that has fallen as precipitation and soaks into the ground eventually reaches a level that it has a harder time soaking into. It might be shale or limestone, for instance. Since it can't flow straight down anymore, it moves sideways--but still downhill. This means that huge sheets of fresh water are slowly moving underneath your feet. They are, in effect, underground streams.

It is important to realize, though, that an aquifer is not your ordinary stream. Because it is underground, its water fills the tiny spaces between particles of rock, dirt, and clay. The earth becomes a giant sponge, in other words. So while the water in an aquifer flows downhill, it does so very...very...slowly.

There is often more than one aquifer in any given location. For instance, if you dig down, you may find an aquifer six or eight feet down. A well might be sunk to an aquifer that is much deeper than that.

Where aquifers reach open air, we no longer call them aquifers. If they run in channels over the land, we call them **streams** and **rivers**. If they are contained and slow, we call them **lakes** and **ponds**. Where aquifers "leak" out onto land, they make **springs**.

The raw water intakes are located in the Lewis & Clark River Watershed in the Lower Columbia Sub-Basin of the Lower Columbia Basin.

The streams that contribute water to the intakes extend upstream to the western slopes of Saddle Mountain with a cumulative total of 24.8 miles and encompass a total area of 28.7 square miles of watershed.

The watershed is primarily dominated by forestry land uses. The potential contaminant sources include clear cuts, gravel pits, landslides/debris flow, and Saddle Mountain State Park.

The raw water for Warrenton is supplied by four Surface Water Dam intakes starting at the main Lewis & Clark river dam flowing downstream to three tributaries flowing into the Lewis & Clark River, the Big and Little South Fork river dams then downstream to Camp C creek dam.

Unlike ground water contaminates which may contain heavy metals or various inorganics, Surface water typically contains a high suspended solids content, bacteria, algae, organic matter.

Note:

During the summer months you will often hear from the news concerning a water shortage or similar situations at various locations. Every water system has its own unique water sources and operations. City of Warrenton Dams are very small in size, also the L&C River has a fish ladder that always flows. If the City water customers would stop using water, the raw water would continue to flow downstream regardless. Does this mean we should still conserve water, absolutely; we still have to conserve and maintain raw water in the 16 million gallon reservoir and 7 million gallons combined in 2 finished water reservoirs.

All water sources are gravity feed into one common 24inch Ductile Iron and Fiber Glass pipeline, and then flow downstream to the 16 million gallon Raw Water Reservoir, then to the Water Treatment Facility where the water is filtered then treated.

Prior to filtration an average of 6 ppm of Isopac 80 is used for pretreatment to coagulate very small organic particles to form larger particles which cannot pass the .2 micron filters. This process came into effect in 2005 due to the EPA disinfection by-product ruling when Chlorine is used for disinfection.

WHAT ARE COAGULANTS?

Coagulants are chemicals that are used to assist with the removal of color and turbidity present in untreated, raw water. They do this by forming particles in the form of flocs, which are then removed in downstream clarification or filtration treatment processes. Coagulants may be classified as being inorganic or organic. Inorganics are metals found in water such as Iron.

After filtered, the water is treated with an average of 2 ppm (parts per million) 0.8% Sodium Hypochlorite (bleach), for disinfection purposes, then Sodium Fluoride is added to maintain 0.70% ppm. Both Sodium Hypochlorite and Isopac 80 may vary in dosing levels depending on raw water quality primarily due to heavy rain runoff which causes surface water to become muddy and or high levels of organics.

The treated water then flows into a 3.5 million gallon water reservoir steel tank, and then flows into the distribution system to your home or business. A second 3.5 million gallon water reservoir concrete tank is located south of Warrenton in Clatsop Plains known as the South Water Reservoir. The South Water Reservoir was designed to add an additional 3.5 million Gallon reservoir in the future.

Warrenton's public water system serves approximately 9100 citizens or 3,241 connections.

Interesting Fact:

According to USGS, if it rained one inch on one acre of land, 27,154 gallons of water fell on that one acre. If our watershed totals 28.7 square miles and was converted to acres it would total 18,368 acres. So if one inch of rain fell on our watershed, it would total 498,764,672 gallons of water.

Rivers become muddy during these events due to the increase water velocity which is one of the reasons for filtration. Also explains why low lying lands flood during heavy rains. What would five inches of rain total up to?



Land slide on L&C river after heavy rains

DAMS , PIPELINES, BRIDGES AND BUILDINGS

A map of the raw water system was completed Feb. 2010 that includes good photos of the Dams and Facilities. This map is located on the west wall just inside the front door entrance of City Hall next to the commission chambers.

Lewis & Clark Dam

The Lewis & Clark River is our largest water source. The elevation height of the intake is 347 foot above sea level, and is the only dam structure with a fish ladder as seen in left side of picture.

As with all Dams, Raw water is collected through ¼ inch stainless screens before entering into the pipeline. This Dam is available all year but only used from July1 thru September for two main reasons, due to the higher water flows during the winter months, the access to the intake screens is the opposite side of the roadway, which requires walking on the spillway of the dam, which becomes too dangerous. During the winter months the demand for finished water is low so we only use the smaller rivers.



LEWIS AND CLARK DAM WITH FISH LADDER



24inch DI pipe after realignment below L&C Dam

South Fork Dam

The Big South fork river is a tributary of the L&C River. Elevation is 375 feet above sea level. The water quality is a little better than the other rivers due to the river bottom is mostly rock. A 16" fiberglass water line delivers raw water from the dam to Bridge 7.



South Fork Dam

Little South Fork Dam

The Little South Fork River is a tributary of the L&C River. Elevation is 375 feet above sea level. Good water flow but flows slow down considerably during mid-July thru September. A 16" fiberglass line delivers raw water from the dam to Bridge 7.



Little South Fork Dam

Bridge 7 pipeline crossings

Bridge 7 is where the 24" Fiberglass water main is reduce to a 16" HDPE waterline inside of a steel pipe attached to bridge 7 then back to a 24" fiberglass water main once across the bridge. Both the Big and Little South Fork Rivers connect into the 24" water main transmission line Lewis and Clark Dam. The 24" pipeline with combined 3 water sources then flows toward Camp C creek.



Bridge 7 with L&C Pipeline Crossing



Big South Fork 16" Ductile Pipeline Crossing

Camp C Dam

Camp C dam is the smallest of all the dams and has an ODFW fish escapement vault below the intake as seen in the picture. . The elevation of the dam is 340 feet above sea level. A 12" water line delivers raw water to the 24" fiberglass raw water mainline coming from Bridge 7. At this point all 4 raw water sources are combined into one 24" raw water mainline.



Camp C Dam

Interesting Facts:

The total amount of water on the earth is about 326 million cubic miles of water. Of all the water on the earth, humans can use only about three tenths of a percent of this water. Such usable water is found in groundwater aquifers, rivers, and freshwater lakes. The United States uses about 346,000 million gallons of fresh water every day. The United States uses nearly 80 percent of its water for irrigation and thermoelectric power. The average person in the United States uses anywhere from 80-100 gallons of water per day. Flushing the toilet actually takes up the largest amount of this water. Approximately 85 percent of U.S. residents receive their water from public water facilities. The remaining 15 percent supply their own water from private wells or other sources

RAW WATER RESERVOIR

The Raw Water Reservoir is located on the Lewis and Clark mainline. The reservoir is an open Hyplon lined 16 million gallon reservoir used primarily to store less turbid raw water.

During storm events or when the rivers are at a least desirable condition due to high turbidity or muddy, the raw water is drawn from this reservoir. The reservoir also provides emergency storage in the case of a major break on the 24" main transmission line between the reservoirs upstream to the four Dams.

The static head pressure at the water facility drawing water from the reservoir when full is 28psi; drawing water from the dams increases to 50 psi due to increase elevation. **1 foot of elevation change creates 0.433 PSI of water pressure.**



16 Million Gallon Raw Water Reservoir



Installing new Hypalon liner in Raw Water Reservoir

Interesting Fact:

Most of the chemical data that is reported for water bodies is expressed as a concentration: a mass of chemical per unit volume of water.

A milligram per liter (MG/L) of water is equivalent to 1 PPM (part-per-million) because a liter of water weighs 1000 grams and a milligram is 1 one thousandth of a gram.

Average Chlorine residual leaving the Warrenton Treatment Facility is 1ppm or MG/L, and Fluoride is 0.70ppm.

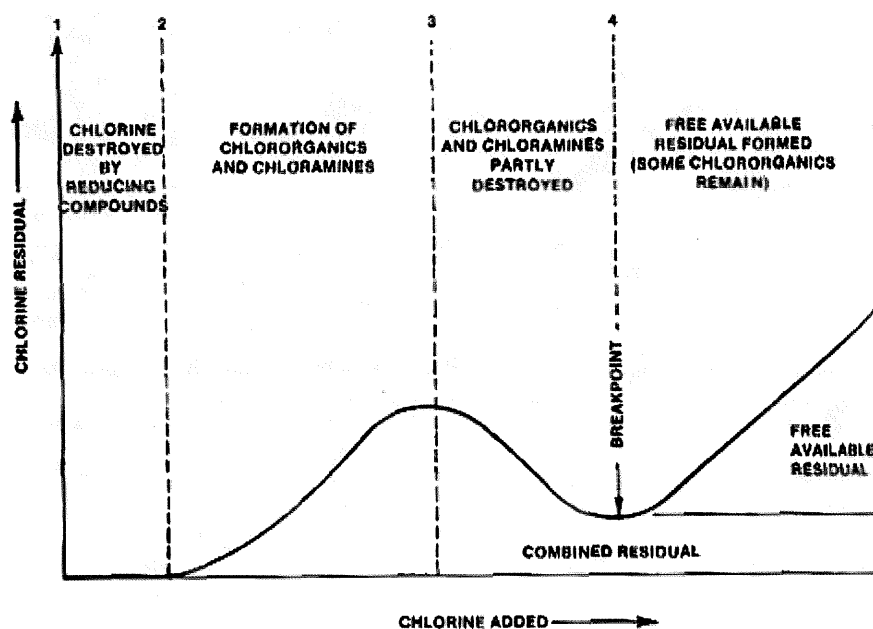
A part per million is equal to:

- *one penny in \$10,000*
- *one minute in two years*
- *one dime in a one-mile-high stack of pennies*

The most common complaint in drinking water is chlorine taste and odor. Oddly enough in most cases the water needs more chlorine. The chlorine residual has three parts: combined, free, and total. The sum of the combined chlorine residual and free chlorine residual is the total chlorine residual.

When the chlorine demand has been satisfied, the combined residual increase's as it combines with organic compounds in the water to form chlororganics and chloramines. These compounds may result in taste and odor problems. Adding more chlorine takes the treated water slightly beyond the breakpoint and provides a free available residual.

The operator can use a field chlorine test kit to test at the complaints house for total and free chlorine residuals. If the free chlorine is zero or substantially less than the total chlorine residual, there is an increase demand for chlorine somewhere in the distribution system. To increase the free chlorine residual by adding more chlorine or flush the system in the area near the complaints house often corrects the problem. Flushing the entire water system on a regular basis along with proper free chlorine residual often will prevent these types of complaints.



WATER TREATMENT FACILITY

In the USA, the 1986 Safe Drinking Water Act (SDWA) and the 1998 Enhanced Surface Water Treatment Rule (ESWTR) focused on the control of microbial contaminants, particularly *Cryptosporidium* oocyst, (parasitic disease) and *Giardia* cyst also known as Beaver fever in systems using surface water, or ground water under the direct influence of surface water.

Prior to 2002 the raw water was treated thru a series of settling ponds off the Lewis and Clark road. Some people may remember seeing the old water facility pictured below. The only treatment process against microbial contaminants was the use of 100% gas Chlorine. No filtration of any kind was used, also without filtration and the water was turbid or muddy, it was present in the distribution system, as some may remember. If the levels were above the state standards known as MCL, Maximum Containment Level, thru water sample testing, a boil water notice was given to the water customers.



Old settling ponds during the demo process

The current Water Treatment Facility started operating the Fall of 2002.



Warrenton Water Treatment Facility

The facility is a US Filter, now Evoqua Technology Continuous Microfiltration (CMF) system. This membrane-based technology is what provides the filtration of the influent raw water.

Microfiltration is a type of physical filtration process where a contaminated fluid (Raw Water) is passed through a special pore-sized membrane to separate microorganisms and suspended particles from process liquid.

All other equipment within the facility makes up subsystems that support this technology.



Membrane Room



Multiple turbidity units on CMF Train 1



New Filters ready to be installed Dec 2012



Side View of the type of filter used at the Water Facility

In the picture above you will notice hundreds of hair like tubes or referred to as fibers, (20,000) in one filter. Raw Water is forced in the sides of the fibers thru the filter media. Once the water passes thru the fibers it comes out filtered in both ends of the filter.

The Water Facility consist of 9 CMF (continuous Microfiltration units) , each CMF unit holds 90 filters. The Facility is setup to produce 6 million gallons per day with the capabilities of installing 3 more CMFs which would have a total capacity of producing 8 million per day.

Once the Raw water is pretreated with Isopac 80 then filtered, it is dosed with 0.8% Sodium Hypochlorite, not 100% Chlorine Gas used before filtration. The Sodium Hypochlorite is made at the Water Facility with the use of an onsite generation system. Salt brine plus electricity equals Sodium Hypochlorite or bleach. Check the ingredients of household bleach, it is 5.25% or greater of Sodium Hypochlorite. The primary reason to use Chlorine is for one, it is inexpensive compared to other disinfectants, and second it provides a barrier to prevent any form of bacteria that may form in the distribution system which consist of many miles of pipeline. The final process is adding Fluoride to maintain a 0.7 ppm residual. Many forms of testing of both raw and finished water in both the water facility and distribution system are performed daily or when required.



Sodium Hypochlorite Generation system

Interesting Fact:

1. *Roughly 70 percent of an adult's body is made up of water.*
2. *At birth, water accounts for approximately 80 percent of an infant's body weight.*
3. *A healthy person can drink about three gallons (48 cups) of water per day.*
4. *Drinking too much water too quickly can lead to water intoxication. Water intoxication occurs when water dilutes the sodium level in the bloodstream and causes an imbalance of water in the brain.*
5. *Water intoxication is most likely to occur during periods of intense athletic performance.*
6. *While the daily recommended amount of water is eight cups per day, not all of this water must be consumed in the liquid form. Nearly every food or drink item provides some water to the body.*
7. *Soft drinks, coffee, and tea, while made up almost entirely of water, also contain caffeine. Caffeine can act as a mild diuretic, preventing water from traveling to necessary locations in the body.*



3.5 Steel Reservoir at Water Facility

Pressure Reducing Valve Station and 24” Water Mainline

The PR valve is used to reduce the water pressure from 112lbs psi to 93lbs psi coming from the water facility to the entire water distribution system. The valve is located in a large vault in Gearhart, consisting of a PR valve with a bypass pipe used while performing maintenance on the PR valve. The vault is heated and a dehumidifier is used to help to prevent the steel pipe from sweating and cause corrosion. This will aid in the longevity of the PR valve assembly.

Interesting fact:

Bottled water, because it is defined as a “food” under federal regulations, is under the authority of the Food and Drug Administration (FDA) while the Environmental Protection Agency (EPA)—under much stricter standards—regulates tap water. Thus, bottled water, depending upon the brand, may actually be less clean and safe than tap water. The EPA mandates that local water treatment plants provide city residents with a detailed account of tap water’s source and the results of any testing, including contaminant level violations. Bottled water companies are under no such directives.

I personally drink both tap and bottled water and prefer to drink water from a cold spring. I certainly understand why some people would rather drink bottled water than from the tap for various reasons.

Granted, the city’s water source is not coming out of a glacier in the Alps, but it is not coming out of the Willamette River either, as with the City of Wilsonville. We are fortunate to have a water source surrounded by forest lands versus cities and industry.

SOUTH WATER RESERVOIR

The South water reservoir was completed in 2011 to satisfy both State and Federal requirements which require all finished water storage containments to be covered.

The new 3.5 mg South reservoir will better serve the needs of the City of Warrenton water customers in maintaining finished water quality and overall water storage totaling 7 million gallons between the new 3.5 mg South Water reservoir and the current 3.5 mg Clear Well located at the water facility.

The new South reservoir will also help maintain constant water pressure for emergencies such as fire and higher water demand during the summer months.



3.5 Million Gallon South Water Reservoir



New Bridge and Ductile Pipeline

New pipe was installed going to and from the new reservoir from the current 18" Water Main.

A pre-fabricated 10x10 concrete building will be installed next to the reservoir to house a SCADA (Supervisory Control and Data Accusation) system to be able to monitor the current water level inside the South reservoir, chlorine residual, high and low water alarms, and security, 24/7 at the Water Facility.

The South reservoir SCADA system will tie into the current SCADA system at the Water Facility via radio or phone. This allows the water plant operator to monitor current water quality conditions; mechanical failures and intruder break in at all sites mentioned above. Any alarms will be tied into the water facilities automated dialer so the plant operators or other selected city staff personal will be notified by phone within a few minutes of an event.

Also the SCADA system will give needed information to the booster station below the new South reservoir. The SCADA will be given a known water level inside the Reservoir for normal operation, say between 35 and 38 feet. If the water level is close to 35 feet the SCADA will signal the booster station to start the booster pump depending on the water flow. Then once the

level gets closer to 38 feet, the SCADA will signal the pump to stop. All operations and parameters are programmed by the operators.

The South Water Reservoir system will operate as follows;

The clear well located at the water facility will supply finished water to the distribution system between the water facility and the south reservoir, including the new south reservoir with the aid of a booster station located below the south water reservoir. The south water reservoir will supply water for the entire distribution system north of the south water reservoir.

An isolation valve will be installed on the 18 inch water “main” between the inlet water line feeding the south water reservoir, and outlet water line feeding the distribution system north of the south reservoir. This isolation valve will be “normally closed” which allows water to continually flow into the south reservoir, and out to the north distribution system eliminating the need to waste water to maintain free chlorine residual.

In the event the clear well at the water facility or the south reservoir needs to be taken off line, the “normally closed” isolation valve can be opened. This would allow either the south reservoir to feed both north and south of the distribution system, or the water facilities clear well will feed the entire distribution system bypassing the south reservoir.

Something to consider:

Living in the Northwest, people question why water cost so much because it rains so much? Water, like many natural resources, has to be processed to meet strict regulations to become usable. State and Federal regulation changes, and increase cost to process and the delivery of a once free resource comes with a price.

During the past few years the overall economy has been unstable, mainly in the private sector. Considerations of the unstable economy are part of the budget process.

On behalf of our budget, a very large percent of the Water Facilities budget is distributed back into the private sector. This includes hiring local private contractors, businesses, and vendors. Also privately owned utilities such as

PP&L, Integra Telecom, Verizon Wireless, and internet Satellite are paid for by the water fund.

Local people who live within Warrenton's water system and work at these establishments, who have received payment from the City of Warrenton for their services, have contributed their earnings back into the local economy.

Average cost of operation:

Water Fund 025-(435) Treatment Facility: Materials and Services
\$400,000.00

Water Fund 025-(440) Raw Water: Materials and Services
\$100,000.00

Water Fund 025-(445) South Water Reservoir: Materials and Services
\$45,000.00

Total Emergency Call Outs: Facility Equipment Failure, Mainline Leaks,
Etc.

05 avg. per year

Most call outs are corrected from home using the operator's laptop computer. That is another great feature of using SCADA. Employee cost for corrections using the computer at home is 1 hour of the current call out rate, 3 hours if having to go to the Facility for something unable to correct over the computer.

State recommends an operator to physically check the water facility daily to check for operational problems that may affect the water quality. Also lab test of chlorine, fluoride, PH and turbidity levels are required to make sure the water quality instruments are reading correctly.

Raw water levels are checked and screen intakes are cleaned when needed within the same 3 hour time frame.

Warrenton Water Facilities safety policy requires a minimum of 2 employees with life jackets when working near water. In our case, only 1

employee is union who gets paid at the minimum 3 hour rate, and 1 is non-union.

Operations:

I often give tours of the water facility. One of the most common questions that are asked after giving a tour is, “what do you guys do all day”. So here is the general description of duties taken from our job descriptions for both Dave and myself.

Water Facility Superintendent Duties:

General Description

Under the general supervision of the Public Works Director and / or City Manager, operates and maintains water treatment facilities, raw water facilities, dams and screen intakes, gravel roads to access facilities, raw and finished water reservoir structures, headwork’s distribution system, equipment, pressure reducing valve station, buildings and grounds, responsible for completing State and Federal reports, hiring and choosing of Contractors and Vendors for plant operations.

The superintendent is also responsible for the yearly budget of the water treatment facility and headwork’s facilities, process invoices, maintain operational records, reports, research and purchase of equipment and chemicals, follow safety procedures and develop safety policies, incident reports, supervise and direct plant and headwork’s personnel.

Follow requirements of water quality standards of the Oregon Department of Human Services, Department of Water Services, Department of Environmental Quality, Fish and Wildlife, Oregon Dept. of State Forestry, and all other local State and Federal agencies with jurisdiction.

Direct personnel to calculate chemical requirements and/or make other adjustments to treatment processes to obtain required water quality.

Direct personnel to perform onsite daily sampling and testing of water quality.

Complete record keeping and chart recording as required by Oregon Department of Human Services, Department of Environmental Quality, Health services.

Develop distribution maps and update when needed of the entire headwork's distribution system.

Direct personnel to maintain facilities and grounds in a neat, clean and organized fashion.

Maintain and update files in a neat and organized fashion.

Water Treatment Facility Operator:

General Description

Under general supervision of the Water Facilities Superintendent, operates and maintains water treatment facilities, equipment, buildings and grounds. The Operator is also responsible for maintenance of dam and reservoir structures, intakes, and headwork's distribution system.

Follow recommended maintenance routines of equipment of water quality devices as required by Oregon Department of Human Services, and Department of Environmental Quality.

Follow all safety procedures of the written City of Warrenton safety policy including OR-OSHA.

Follow all rules and regulations when working within private property surrounding the water facilities.

Follow all State and Federal regulations including the Oregon Department of state Forestry, Fish and Wildlife, and other local State and Federal agencies with jurisdiction.

Calculate chemical requirements and make adjustments of equipment for treatment processes to obtain required water quality.

Perform regular maintenance on continuous micro filtration units and monitor on a daily basis trends that indicate changes or adjustments of chemical pump settings or CIP needed for chemical cleaning of the filters.

Perform onsite daily sampling and testing of water quality and record the readings as required by Department of Human services.

Complete record keeping and chart recording as required by Oregon Department of Human Services, and Health Services.

Operate and maintain water valve identification and exercise program within the head works distribution system and follow flushing of water mains procedures.

Maintain facilities in a neat, clean, and organized fashion.

Maintain files and records in a neat and organized fashion.

Maintain grounds including brush cutting, operating chainsaws, operating side hill mower and, applying herbicides when instructed by the Water Plant Superintendent.

Monitor water plant using PC program provided by the City of Warrenton to make adjustments and remedy alarms when called out by the water plants dialer system.

Warrenton Water production totals for 2016

Maximum Daily Production per Month

<u>Jan. 1.840 MGD</u>	<u>Jul. 1.979</u>
<u>Feb. 1.031</u>	<u>Aug. 2.479</u>
<u>Mar. 1.118</u>	<u>Sept. 1.730</u>
<u>Apr. 1.174</u>	<u>Oct. 1.427</u>
<u>May 1.173</u>	<u>Nov. 1.026</u>
<u>Jun. 2.103</u>	<u>Dec. 1.900</u>

Yearly Max. Avg/ 1.58 MGD

Minimum Daily Production per Month

<u>Jan. 0.446GD</u>	<u>Jul. 1.093</u>
<u>Feb. 0.723</u>	<u>Aug. 0.877</u>
<u>Mar. 0.610</u>	<u>Sept. 1.121</u>
<u>Apr. 0.760</u>	<u>Oct. 0.826</u>
<u>May 1.018</u>	<u>Nov. 0.859</u>
<u>Jun. 0.764</u>	<u>Dec. 0.00</u>

Yearly Min. Avg/ 0.758MGD

Average Daily (24hr) Production per Month

<u>Jan. 0.926 MGD</u>	<u>Jul. 1.716</u>
<u>Feb. 0.880</u>	<u>Aug. 1.933</u>
<u>Mar. 0.881</u>	<u>Sept. 1.406</u>
<u>Apr. 0.982</u>	<u>Oct. 1.026</u>
<u>May 1.121</u>	<u>Nov. 0.952</u>
<u>Jun. 1.456</u>	<u>Dec. 0.985</u>

Yearly Avg / 1.180 MGD

Total Raw Water Entering Facility; 484.540MG

Total Backwash Wastewater (Loss); 48.420 MG

Total Finished Water Produced ; 435.652 MG *

Average Production per Month; 36.304 MG

2016 Water Facility Efficiency/ 91% (MG finished water produced divided by MG raw water entering facility

Total Finished Water Production 6 year history; "Averaged up"

2011/595MG 2013/468MG 2015/424MG

2012/559MG 2014/423MG 2016/436MG

Produced 12 MG more than previous year, 2015

SPECIAL ACKNOWLEDGEMENTS

As mentioned before, achieving goals and improving or maintaining infrastructure could not be achieved without the support and trust of city leaders, city staff, private businesses, vendors and contractors, and most of all, our valued water customers. I have found when writing annual reports you realize just how many people and funds are involved giving continual support throughout the year.

I would also like to thank my co-worker, Dave Davis, for his hard work and in helping me achieve many goals during this past year, it is greatly appreciated. The Water Facilities is somewhat complicated and complex in operation, having full time personal with good attitudes is the key to a successful and safe operation. Often overlooked, job knowledge and experience is something that is acquired over time, you can't buy it at a store, and it becomes a great loss when someone retires from several years of training and service.

As always, my #1 goal is to create a safe, efficient operating water system and providing the necessary tools and maintenance records needed for any operator who in time takes over my position, for whatever reason, to do the job successfully.

Thank You,

Robert L. Bingham
Warrenton Water Facility Superintendent
503-738-7809
warrentontp@gmail.com
State of Oregon Water Treatment certification # T-6382

7-A

"Making a difference through excellence of service"



CITY OF WARRENTON

AGENDA MEMORANDUM

TO: The Warrenton City Commission

FROM: Skip Urling, Community Development Director *SU*
 Collin Stelzig, Interim Public Works Director/City Engineer *CS*

DATE: For the Agenda of November 14, 2017

SUBJ: **PUBLIC HEARING:** Fort Pointe Planned Unit Development
 Preliminary Approval—Tagg Appeal

The Planning Commission approved the preliminary planned unit development application submitted on behalf of Fort Pointe Partners LLC with 29 conditions. Mrs. Elizabeth Tagg timely filed an appeal of that decision regarding Warrenton Municipal Code Chapters 16.156, Wetland and Riparian Corridor Development Standards, 16.256 Traffic Impact Study, and Section 16.208.050 Type III Procedure (Quasi-Judicial). Despite identifying the specific code chapters above, there is no discussion of wetland or riparian corridor improprieties, traffic impacts or procedural errors; the bulk of Mrs. Tagg's appeal appears to focus on the potential adverse effects of storm water from the development on her property. She also addresses several conditions of approval: Nos. 4, 7, 9, 10, 14 and 17. Adam Dailey of Otak Inc., submitted a response on behalf of Fort Pointe Partners LLC which is attached as are all documents in the Planning Commission record.

Staff's response to the appeal allegations are below.

- Mrs. Tagg alleges that the conditions of approval were not available prior to the Planning Commission public hearing. The conditions were included in the staff report which was available seven days prior.

Mrs. Tagg was sent notice of the public hearing as an adjacent property owner at least 20 days prior to the hearing but did not request to review the staff report; she submitted written comments and her employee and co-signer of the appeal, Scott Andros, attended the hearing.

- She makes the allegation that work was performed to divert storm water from the Enterprise Street ditch to her farm ditch. Otak indicates that if that work were performed, it was off the Fort Pointe property and not performed buy Fort Pointe. Please note that Condition No. 4 requires a final storm water report to be submitted with construction drawings after preliminary plat approval of the single family residential component of the PUD. Related is Condition No. 14 which requires the applicant to make all necessary offsite improvements if downstream deficiencies are created by the PUD development. The Interim Public Works Director/City Engineer has indicated that there is insufficient information to evaluate the effects of the proposed development on the storm water system which was the rationale for requiring a final storm water report with the construction drawings, and making the applicant responsible for necessary downstream improvements post entitlement. We continue to hold this position, but the applicant should recognize that delaying any detailed storm water evaluation until after the entitlement runs the risk of redesigned the preliminary plat which would require additional Planning Commission review and action.
- Mrs. Tagg states that the 9th Street Sanitary Sewer Pump Station has not been able to keep up with flows during heavy rain fall and that the city has diverted the overflow to a nearby stream. The Interim Public Works Director/City Engineer indicates this facility is less than two years old and the city has no records of it failing. He also states that the city has not received any complaints of raw sewage overflows. Additionally, Condition No. 7 requires the developer to perform video inspections of the existing sewer system to the 9th Street pump station to verify the quality and capacity of the system prior to submitting construction drawings.

- Mrs. Tagg argues that the barrier discussed in Condition No. 10 is inappropriate. The intent of the condition is to prevent encroachment by abutting property owners to ensure city access to the storm and sewer pipes for maintenance and repair.
- Condition No. 17 required a maintenance road, where possible, to allow city vehicles access to the proposed water and sewer facilities proposed to be installed in the 11th Street right-of-way. Mrs. Tagg alleges “they” removed trees and improved ditches in the right-of-way and this work resulted in her property receiving increased storm water flows. Staff does not know who “they” refers to; Otak stated that the location of the work referenced by Mrs. Tagg is off Fort Pointe property and that Fort Pointe did not perform the work.
- With respect to the statement that the 11th Street improvements have opened up the area to the public and that wildlife habitat is at risk of disturbance and degradation, the City does not recognize this area a sensitive and does not regulate or restrict human access to it.

While we cannot say Mrs. Tagg’s concerns are not without merit, there is no solid evidence to link her observations of increased storm water flow on her property to activities conducted by Fort Pointe. All work she describes is off the Fort Pointe property and the only activity that has taken place on that property was the removal of several thousand cubic yards of sand several years ago.

The preliminary PUD plan approval was heavily conditioned to ensure that storm water runoff from the future development will be managed appropriately such that the volume and flow of storm water post development will be no greater than pre-development. It will be incumbent on the developer to analyze and document the condition of downstream facilities and make any improvements necessary to accommodate the effects of the development. A final detailed storm water plan is required prior to the submittal of construction plans. Failure of the plan to satisfy the city engineer may result in a redesign of the preliminary plat and re-review by the Planning Commission. We believe Mrs. Tagg’s and other adjacent and

downstream property owners' interest will be protected through these measures.

RECOMMENDATION/SUGGESTED MOTION

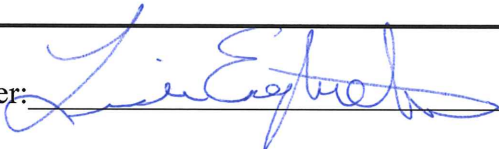
Based on the Planning Commission's findings supporting the Fort Pointe Preliminary PUD approval and the staff response in the agenda summary for the November 14, 2017 public hearing to Elizabeth Tagg's appeal of that decision, I move to uphold the Planning Commission decision and deny Mrs. Tagg's appeal.

ALTERNATIVE

None recommended

FISCAL IMPACT

None

Approved by City Manager:  _____

All supporting documentation, i.e., maps, exhibits, etc., must be attached to this memorandum.

Attachments

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CITY OF WARRENTON

NOTICE OF PUBLIC HEARING

A public hearing is scheduled before the City of Warrenton City Commission at 7:00 p.m. on Tuesday, November 14, 2017 at the Warrenton City Hall, Commission Chambers, regarding an appeal of the Planning Commission's August 10, 2017, approval of application for Planned Unit Development Preliminary Development Plan submitted by Otak Inc., on behalf of Fort Pointe Partners LLC. The subject property consists of 277.3 acres but only the westerly 53 acres will be developed. The property is identified as Tax Lot 810170001300 and is on Ridge Road south of the KOA Campground.

The appeal submitted by Elizabeth Tagg and Scott Andros alleges that Fort Pointe Partners LLC is responsible for altering drainage facilities downstream of the subject property and increased or altered flows onto Mrs. Tagg's property. The City Commission will focus on this issue relative to Warrenton Municipal Code Chapter 16.140 Stormwater and Surface Water Management.

Anyone wishing to participate in the above-noted public hearing may present testimony orally at the public hearing, or submit written testimony, which must be received by the Warrenton Planning and Building Department no later than 5:00 P.M. on the day of the hearing. Written comments may be mailed to Skip Urling, Community Development Director, Warrenton Planning and Building Department, P.O. Box 250, Warrenton Oregon, 97146-0250. Failure to raise an issue on the record in person or by letter before the close of the record at the public hearing, or failure to provide statements or evidence sufficient to afford the decision making body an opportunity to respond to the issue, will preclude appeal to the Land Use Board of Appeals based on that issue.

Anyone wishing to review and/or purchase copies of the application and/or staff report may do so at the City of Warrenton Planning and Building Department, Warrenton City Hall, 225 South Main, Warrenton. The staff report will be available for review at no cost at least seven days before the hearing. For more information call Skip Urling at 503.861.0920.

Notice to mortgagee, lienholder, vendor, or seller: the Warrenton Development Code requires that if you receive this notice it shall be promptly forwarded to the purchaser.

Skip Urling, Community Development Director

Oct 19, 2017

Date

August 21, 2017

City of Warrenton
Community Planning Director

RE: Forte Pointe Planned Development
Decision & Order
August 15, 2017

Appeal of 16.156, 16.256, 16.208.050

I am adjoining land owner to this property, I submitted written concerns about this matter to the 8/10/17 Hearing. Some of the information in the "Decision and Order" was not available before the hearing so no chance to comment at the hearing. I have concerns about Item #4, #9, #14, #17, and that drainage work on some of this property was done last spring including logging NW 11th st. 80 year old trees and attempting to divert Enterprise water into my farm ditch and Tansy Creek. The Enterprise ditch was dug in the 1920's and drains the area north of Camp Rilea. The CCC engineered the Enterprise to drain into the Columbia River in Hammond; the Enterprise was not engineered to drain Tansy creek. This was changed last spring and needs to be blocked where the Enterprise enters the 11th st ditch and again down stream right after a large culvert under 11th sending upstream overflow back to the Enterprise and the Columbia River. If this is not done it will cause flooding in the Tansy Creek drainage because ditches and culverts are not sized to take care of the increase.

Item #7 & #9:

In the past the 9th st. pump station has not been able to handle the water in times of heavy rain fall so public works has pumped the overflow into a small adjoining slough that is clogged so the sewer water back-up flowed upstream into my farm ditch and for almost a mile into the West Fork of Alder Creek. It run past several homes and the water stinks of sewer.

Item #14

"Downstream deficiencies" were already created last spring as Enterprise water was diverted to Tansy and had no place to go overflowing onto my property.

Item #10: No barrier or any other method should be allowed to interfere with public access to any public utilities regardless of who installed them. These are public supported by both local and federal taxes and they belong to the public.

Item #17 Work has already been done cutting the 80 year old trees on NW 11th, ditches and roads and clearings have already

RECEIVED
AUG 29 2017
BY: *W. Weese*
CITY OF WARRENTON

been made last spring causing increased and speeded up winter run-off; they stopped digging when they came to my property line clearly leaving it so Enterprise back-up can travel probably a mile or more into my farm ditch raising my water level crouding out my water and making my land wetter. The "couple hundred acres between the development" and my property is meaningless now that they have opened up and re-dug the 11th st. roadside ditch all the way to my property line clearly leaving their and the Enterprise increased and speeded up run-off to drain into my farm ditch and Tansy creek. They ignored the bottle-neck where my ditch enters Tansy, the 5 trees down in Tansy and the willows and brush in Tansy that slows run-off to the Warrenton Drive culvert that probably is not big enough to handle the increase.

The 11th st. ditch needs to be blocked where Enterprise winter back-up enters it and again about 400' east side of a large culvert under 11th putting all Enterprise water back to the Enterprise as the CCC engineered it to go.

The newly opened up 11th street its self needs to be gated or blocked at the Enterprise ditch to prevent ATV mudders and poachers from gaining new access into hundreds of acres wetland that is elk calving and habitat. When people go into that it moves the elk out into residential areas where they get hit by cars, poached, and end up attacking people and dogs.

Last spring a road was cleared from 11th along my west property for a long distance into the natural area and wetland; opening this up to public access needs special attention from city; ODFW and DSL.

I am not against development but it appears this one will be sending increased water my way and opening up a untouched natural area to ATV mudders and poachers and lead to tresspass on to my land.

Sincerely:

Edy de la Cruz
Scott Anderson

Emailed Pic.
From

503 791-1723

Skip Urling

From: Scott Andros (via Google Photos) <noreply-bf4243207bd5255e405818a57f3b1702@google.com>
Sent: Tuesday, August 29, 2017 4:24 PM
To: Skip Urling
Subject: Scott Andros shared 1 photo with you



Scott Andros shared a photo with you



Skip Urling

From: Scott Andros (via Google Photos) <noreply-bf4243207bd5255e405818a57f3b1702@google.com>
Sent: Tuesday, August 29, 2017 4:22 PM
To: Skip Urling
Subject: Scott Andros shared 1 photo with you



Scott Andros shared a photo with you



Skip Urling

From: Scott Andros (via Google Photos) <noreply-bf4243207bd5255e405818a57f3b1702@google.com>
Sent: Tuesday, August 29, 2017 4:21 PM
To: Skip Urling
Subject: Scott Andros shared 1 photo with you



Scott Andros shared a photo with you



Skip Urling

From: Scott Andros (via Google Photos) <noreply-bf4243207bd5255e405818a57f3b1702@google.com>
Sent: Tuesday, August 29, 2017 4:20 PM
To: Skip Urling
Subject: Scott Andros shared 1 photo with you



Scott Andros shared a photo with you





4253-A Highway 101 N • seaside, oregon 97138

503.738-3425 • fax 503.738-7455

www.otak.com

October 18, 2017

Warrenton City Council
225 S Main Ave
Warrenton, OR 97146

Re: Fort Pointe PUD Preliminary Plat Application Appeal

Mr. Mayor and Members of the City Council,

August 10, 2017 the Warrenton Planning Commission approved the preliminary plan for the Fort Pointe PUD subject to the 29 conditions of approval. During the appeal period a letter from Elizabeth Tagg was submitted with several concerns. Please accept this letter as a counter argument to several of Ms. Tagg's points and a request for the appeal to be rejected.

Page 1, Introduction:

- To the developer's knowledge, no logging or diversion of any waterways on the Fort Pointe property had occurred last spring on NW 11th St., including any 80 year old trees, in an attempt to divert enterprise water into Ms. Tagg's farm ditch and Tansy Creek.
- To the developer's knowledge, no changes were made to the existing drainage on the Fort Pointe property last spring resulting in a change to the drainage pattern of the Enterprise Ditch to Drain to Tansy Creek. A site visit conducted by Otak on October 10 confirmed that the Enterprise Ditch does currently drain to the Columbia River via the Right of Way along Enterprise. Evidence of preexisting ditch cleaning is apparent all along the Enterprise Ditch and 11th St. including what appears to be a tie in between the two drainages. It is believed the tie in and culverts are not on Fort Pointe property and were not altered by the developer or with the developer's knowledge. This preexisting condition is not a deficiency created by the development which would have to be improved according to condition #14 of the preliminary plan approval.
- Flooding of the Tansy Creek drainage due to inadequate culverts should be evaluated by a Registered Professional Engineer to conclude if there are deficiencies, including culvert sizing. This type of evaluation is not required for approval of the preliminary plan. Preexisting deficiencies should be resolved and maintained by the respective owners.

- A site visit conducted by Otak on October 10 confirmed that the Enterprise Ditch does currently drain to the Columbia River via the Right of Way along Enterprise. Evidence of preexisting ditch cleaning is apparent all along the Enterprise Ditch and 11th St. including what appears to be a tie in between the two drainages. This existing condition is not a deficiency created by the development which would have to be improved according to condition #14 of the preliminary plan approval. The drainage should be evaluated by a Registered Professional Engineer to conclude if there are deficiencies, including blocking the Enterprise/11th connection due to unforeseen consequences to other properties. This type of evaluation is not required for approval of the preliminary plan. Preexisting deficiencies should be resolved and maintained by the respective owners.
- The Enterprise and 11th right of way are public property. Unlawful use of a right of way is not the responsibility of this developer.
- Many of the properties adjacent to these rights of way are private. Trespassing and unlawful use of those properties is not the responsibility of this developer.
- This developer is coordinating with the required agencies for land use. Attention from the City, ODFW and DSL to the adjacent private properties is not the responsibility of this developer.
- Although it is common that wildlife is in this area, none of the proposed development is protected wildlife habitat. In the history of development in this area, people have caused displacement of wildlife by many means including private development, farming, and raising livestock. A significant portion of the planned undeveloped acreage will continue to be available as habitat and may be available for permanent conservation. There is the possibility that unlawful use and trespass may decrease as a result of the additional residential presence and interest in conserving the wetland areas.

On behalf of the Fort Pointe Developer we respectfully request that you deny the appeal and allow the developer to address Ms. Tagg's concerns in their preliminary plat application as conditionally approved. Please include this on the November 14, 2017 agenda for the City Council hearing. Contact me if you need any additional information.

Sincerely,
Otak, Inc.



Adam Dailey, P.E.
Senior Civil Engineer

Cc: Project Files

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CITY OF WARRENTON

NOTICE OF DECISION AND ORDER Fort Pointe Planned Unit Development SUB 17-1

Applicant: Fort Pointe Partners LLC
Application: Planned Unit Development & Preliminary Plat
Location: Southeast Quadrant Ridge Road and Peter Iredale Road
Application Date: May 18, 2017
Application Complete: July 7, 2017
120 Day Deadline: October 14, 2017

Criteria: Warrenton Municipal Code Chapters

16.216 Land Divisions and Lot Line Adjustments
16.192 Large-Scale Developments
16.28 Intermediate density Residential (R-10) District
16.128 Vehicle and Bicycle Parking
16.156 Wetland and Riparian Corridor Development Standards
16.224 Planned Unit Developments (PUD)
16.256 Traffic Impact Study
16.208.050 Type III Procedure (Quasi-Judicial)

Hearing and Record: The Planning Commission held a public hearing August 10, 2017 after which it reached a decision to approve the preliminary planned unit development exclusive of the preliminary plat, with conditions as follows:

1. Applicant shall revise the preliminary plat design to incorporate one or more neighborhood parks in compliance with WMC 16.216.020.I and Resolution No. 2499.
2. Construction Documents shall meet all requirements of federal, state, and local standards, codes, ordinances, guidelines and/or other legal requirements.
3. Prior to approval of construction plans the developer will waive any and all rights to remonstrate against the formation of a Local Improvement District (LID) for the purpose of making sanitary sewer, storm sewer, water or street improvements that benefit the property and assessing the cost to benefited properties pursuant to the City's regulations in effect at the time of such improvement.

4. A Final Stormwater Report will be required to be submitted with final construction documents. The City has concerns with the drainage system that drains this property to the Columbia River. The developer will be required to provide drainage calculations for the drainage system leading to the outfall to the Columbia River. Improvements to the existing drainage system may be required and will be paid by the developer. An alternate solution could include matching pre-construction and post-construction runoff from the site.
5. Developer shall provide the City with all necessary access permits from the County prior to approval of Construction Drawings.
6. Developer will coordinate with City to located refuse containers in an acceptable location.
7. Video inspection of the existing sewer system to the 9th street pump station is necessary to verify the quality and capacity of the system prior to submitting Construction Drawings. Inspection shall be completed per Oregon Standard Specifications.
8. Developer will determine what public water improvements are needed to provide adequate domestic and fire flows to this development. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. A water model will be developed by the developer and reviewed by the City appointed consultant. The developer may use the City appointed consultant to prepare the necessary water model. Improvements will need to be reviewed and approved by Oregon Health Authority and City Engineer and paid for by the developer.
9. Developer will determine what public sewer improvements are needed in order for the City to accept sewer flows from this development. This includes the overall flow development and the implications on scheduling of upgrade of the treatment facility. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. All necessary improvements will be reviewed and approved by Oregon Department of Environmental Quality and paid for by the developer.
10. Easement between lot 89 and 90 should have a barrier to prevent encroachment from property owners over access to storm and sewer pipes, or establish as a right of way.
11. All pump stations shall be on designated lots dedicated to the city.
12. It is expected that many residences of this development will want to gain access to the Fort Stevens State Park. The Developer should provide a safe road crossing to access this Park.
13. Provide the Public an easement to use and maintain existing drainages located on this property.
14. The developer shall agree to make all necessary offsite stormwater improvements if downstream deficiencies are created by the development of this property

15. Provide the City with appropriate documents to use and maintain a new local road within the County right-of-way.
16. Loop waterline on Pennyroyal Lane to Thistle Avenue.
17. NW 11th street shall have a maintenance road where possible, with proper drainage for access to water and sewer lines.
18. Developer shall collaborate with the City, if the City determines it is in their best interest to upsize and/or extend the new utilities proposed in NW 11th Street.
19. Developer shall provide a geotechnical report signed and stamped by an engineer licensed in the state of Oregon for all areas where public infrastructure will be installed.
20. Areas where proposed streets exceed a slope of 12 percent shall be redesigned to comply with WMC 16.120.020.L.4.
21. Applicant shall submit a final wetland delineation with concurrence from the Department of State Lands with the final PUD plan.
22. The access streets shall bring all sections of the homes within 150 feet of the Fire Apparatus, not just the closest portion as listed.
23. Corner radii will be 45 feet or greater or to the satisfaction of the Fire Chief.
24. The road widths must be maintained at 26 feet or greater without the curb or to the satisfaction of the Fire Chief.
 - a. One side of the street will be required to be posted No Parking Fire Lane (by signs) and the curb painted red. Sign location will be approved prior by the Fire Department.
 - b. Fire Lane and may not be encumbered in any way.
25. Pennyroyal Lane will require the same street width.
 - a. The road width must be maintained at 26 feet or greater without the curb or to the satisfaction of the Fire Chief.
 - b. A minimum 90 foot turnaround.
 - c. Signed with No Parking, Fire Lane in the turnaround. Sign location will be approved prior by the Fire Department.
26. The extension of Thistle Avenue into the NW 11th Street right-of-way as an emergency access will require upgrading the existing KOA driveway to a 26-foot wide paved road. Alternatively, Thistle Avenue may terminate at the north property line, but because segment north of the intersection with Snapdragon Way is approximately 500 feet long and exceeds the 150-foot limit found in WMC 16.120.020.L.3, a turnaround will be required with the design approved by the Fire Chief.
27. Any construction effort within the Ridge Road Right-of-way will require a *Permit to Occupy or Perform Operations within a Public or County Road*, which application forms are available online from the Clatsop County website. Engineering drawings are required for these type of improvements.

28. The Cattail Avenue portion of the street within the Ridge Road right-of-way is allowed, with the maintenance responsibility of Cattail Avenue to be under the City of Warrenton. The maintenance responsibility will be transferred with a metes and bounds description for the portion of Cattail Avenue that resides within the Ridge Road portion of the right-of-way. A buffer is required between Ridge Road and Cattail Avenue. The buffer should consist of an earthen berm or vegetation hedge depending on topography.
29. County staff has received a request from the applicant for permission from the County to use the 11th Street corridor for utilities to serve the property. The applicant needs to prepare a report outlining, which sections of the corridor require action from the County. While the County may have had some real property interest or rights in the past, the County may not have any real property interest or rights today. The report should have a map or diagram and list the deeds of dedication or plats that generated the 11 Street corridor.

Any appeal of this decision shall be pursuant to Warrenton Municipal Code 16.208.050 H. **The deadline for an appeal of this decision is 5:00 p.m., August 29, 2017.**

Notice of appeal. Any person with standing to appeal may appeal a Planning Commission Decision by filing a Notice of Appeal according to the following procedure:

1. Time for filing. A notice of appeal shall be filed with the Community Development Director within 14 days of the date the Notice of Decision was mailed. **A notice of appeal must be received in the Warrenton Planning Department by 5:00 p.m. August 29, 2017.**
2. Content of notice of appeal. The notice of appeal shall contain:
 - a. an identification of the decision being appealed, including the date of the decision;
 - b. a statement demonstrating the person filing the notice of appeal has standing to appeal;
 - c. a statement explaining the specific issues raised on appeal;
 - d. if the appellant is not the applicant, a statement demonstrating that the appeal issues were raised during the comment period; and
 - e. filing fee.
3. Scope of Appeal. The appeal of a Type III quasi-judicial decision shall be limited to the specific issues raised during the written comment period or at the public hearing, as provided under Subsection ii.D above, unless the City Commission allows additional evidence or testimony concerning any other relevant issue. The City

Commission may allow such additional evidence if it determines that such evidence is necessary to resolve the case. Written or oral comments received during the comment period or public hearing will usually limit the scope of issues on appeal. Only in extraordinary circumstances should new issues be considered by the City Commission on appeal of a Type III Quasi-Judicial Decision.

4. Appeal Procedures. Type III notice as provided in this section and hearing procedures as provided by Section 16.208.060 shall be used for all Type III quasi-judicial decision appeals.

Christine Bridgens 08/15/17
Christine Bridgens, Chair, Planning Commission Date

Distribution: Applicant
Elizabeth Tagg
Scott Andros
Cary Johnson

"Making a difference through excellence of service"



CITY OF WARRENTON

August 3, 2017

To: Warrenton Planning Commission
From: Skip Urling, Community Development Director
Re: ~~Fort Pointe Planned Unit Development Application SUB-17-1~~

On behalf of Fort Pointe Partners LLC, Otak Inc., submitted an application for a planned unit development and preliminary plat. The proposal consists of 160 lots for single family dwellings, and an 8.34 acre tract for future development of 20 duplex/townhomes and up to 300 multiple family residential units. The entire property, Tax Lot 810170001300, is 277.3 acres, but only the western 53 acres adjacent to NW Ridge Road will be developed.

Three zoning districts cover the subject property: 28.36 acres of R-10 Intermediate Density Residential, 63.68 acres of R-40 Low Density Residential and 170.44 acres of RGM/R-10 Rural Growth Management/Intermediate Density Residential Development which cumulatively would allow 934 dwelling units. A proposal to partition the northeast 50 acres of the subject property for sale to a third party is being formulated. Subtracting those 50 acres would yield a maximum of 718 dwelling units, still above the 480 proposed in the application.

The application was submitted May 18 and deemed complete July 7, 2017 after submittal of supplemental information. We notified adjacent property owners of the public hearing July 20 and published notice in the Columbia Press July 28, 2017. We have received no comments from the public; comments from the Fire Chief, City Engineer and Clatsop County Public Works Director are attached.

The application is reviewed under the following chapters/sections of the Warrenton Municipal Code:

- 16.216 Land Divisions and Lot Line Adjustments
- 16.192 Large-Scale Developments
- 16.28 Intermediate density Residential (R-10) District
- 16.128 Vehicle and Bicycle Parking
- 16.156 Wetland and Riparian Corridor Development Standards
- 16.212 Site Design Review
- 16.224 Planned Unit Developments (PUD)
- 16.256 Traffic Impact Study
- 16.208.050 Type III Procedure (Quasi-Judicial)

Findings

Below are presented the applicable code sections with the applicant's responses followed by staff findings.

16.216 Land Divisions and Lot Line Adjustments

16.216.020 General Requirements.

- I. Residential Neighborhood Parks. A proposed subdivision which exceeds 50 lots and is more than one mile of an existing park, shall place a neighborhood park within the subdivision.*

Applicant Response: The Warrenton Soccer Fields, an approximately 12.8 acres community park is located south of the proposed subdivision on Ridge Rd. From the southern driveway of the subdivision to the parking area of the community park is less than a one-mile drive. The Warrenton Parks Master Plan describes this community park as also having trail access to the Shag Lake Trail, providing for a combination of open space for play and respite.

With the park located within one mile from the project site, this criterion is not applicable

Staff finding: Using the city's geographic information system, the most southern entrance to the proposed project is slightly less than 2,000 feet to the northerly property line of the most northern soccer field property and another 1,100 feet to the playground equipment recently installed by the Lower Columbia Youth Soccer Club. As pointed out in the 2010 *Warrant Parks Master Plan*, "the park is generally not accessible by alternative modes and is dependent upon vehicular access. There are no sidewalks on Ridge Road, leading to the park, and it is outside comfortable walking distance from most homes and schools." Page 22. Staff believes these conditions would apply to the proposed development as they do to existing development. While the applicant chooses to measure the distance from the most southerly access point, it is important to note that the distance from the most northerly access would add approximately 4,000 feet.

The City Commission adopted Resolution 2499 providing interpretation for WMC 16.216.020.I regarding measuring the distance from a subdivision to an existing park. Following the City Commission's interpretation, the distance from the approximate center of the proposed development to the playground area is approximately 5,700 feet. Staff believes this code section is indeed applicable, and with the proposed creation of up to 480 new dwelling units without the inclusion of one or more neighborhood parks or recreational facilities, the proposal does not satisfy this development standard.

16.216.050 Approval Criteria—Preliminary Plat.

A. General Approval Criteria. The City may approve, approve with conditions or deny a preliminary plat based on the following approval criteria:

1. Partition and Subdivision.

a. The proposed preliminary plat complies with all of the applicable Development Code sections and other applicable City ordinances and regulations. At a minimum, the provisions of this chapter, and the applicable sections of Division 2 (Land Use Districts) and Division 3 (Design Standards) shall apply. Where a variance is necessary to receive preliminary plat approval, the application shall also comply with the relevant sections of Chapter 16.272, Variances.

Response: This application is for both partition and subdivision via the Planned Unit Development (PUD) process. Compliance with applicable City ordinances and regulations, including Divisions 2 and 3, is demonstrated through the following narrative. No variances are being requested. The application satisfies these criteria.

Staff finding: The applicant’s response is noted.

b. Housing Density. The subdivision meets the City’s housing density standards of the applicable zoning district (Division 2).

Response: The property comprises 277 acres of land, and is covered by three different zoning designations – as described below

Acreage	Zoning	Allowed Density	Maximum Units Allowed
28.26	R10 Intermediate Density Residential	One lot per 10,000 S.F.	123
63.68	R40 Low Density Residential	One lot per 40,000 S.F.	69
170.44	RGM-R10 Growth Management Zone	One lot per 10,000 S.F.	742
277	Total		934

Accordingly, based on an allowed gross density the site could potentially accommodate up to 934 housing units.

Subarea	Housing Type	Acreage	Requested Number of Units
A	Detached Single-Family	45	160
B	Attached Single-Family	8	20
	Multi-Family		Up to 300
Total		277	480

The proposal requests a total of 481 units. As the request is below the maximum allowed, and there are no minimum density requirements for the zoning designations present on site, the standard has been met.

Staff finding: As noted above in the introductory comments, the applicant is working on partitioning approximately 50 acres in the northeast corner of the property. Even with the reduction in the tax lot’s gross acreage, the proposed number of dwelling units remains lower than total that could be developed.

B. Conditions of Approval. The City may attach such conditions as are necessary to carry out provisions of this Code, and other applicable ordinances and regulations, and may require reserve strips be granted to the City for the purpose of controlling access to adjoining undeveloped properties. See also Chapter 16.136 (Public Facilities Standards).

Response: The applicant recognizes the City’s authority to attach conditions as necessary. As this is not a standard applying to the application no demonstration of compliance is warranted.

Staff finding: Acknowledged.

16.192.010 Approval Process.

A. Large-Scale Development. A development which is:

1. *A planned unit development, manufactured dwelling park, recreational vehicle park, or campground; or*
2. *A multifamily housing development or row house/townhouse (single-family attached) development which within two calendar years will have 10 or more dwelling units; or*
3. *A commercial, industrial, public or institutional development which within two calendar years will use two or more acres of land or will have buildings with 10,000 square feet or more of floor area; or*
4. *Dependent on the expansion of City utility system(s) to service the development, including, but not limited to, development (or improvement) of transportation facilities or water and/or sewer mainline extensions.*

Response: This application is for a PUD, includes multifamily housing and is dependent on expansion of City utility systems. Having satisfied criteria 1, 2 and 4, this application meets the threshold for applying as a Large-Scale Development.

Staff finding: Staff concurs.

16.192.030 Soil Suitability.

- A. *Unless the Community Development Director (Type I or Type II) or hearings body (Type III) determines that an adequate detailed soil survey has already been undertaken for the entire portion of the site proposed for development, the owner or developer shall have a new soil survey of the site prepared to determine if construction on the site would be hazardous to facilities on the parcel or to nearby property due to the load bearing capacity of the soils, the potential for wind or water erosion, or the wetness or slope characteristics of the soil.*

Response: The application has developed a soil report matching the requirements above. Said report is attached as Appendix A: Fort Pointe NRCS Soils Report.

Staff finding: Acknowledged.

- B. *The soil survey shall be performed by a registered geotechnical engineer that is licensed in the State of Oregon.*

Response: As per direction from the City of Warrenton Otak has developed an analysis of the site soil conditions. The results are attached as Appendix A.

Staff finding: There is no name or professional engineer's stamp on the soils report.

- C. *If the detailed soil survey indicates that significant amounts of hazardous soils are in locations desired for development, the developer or owner shall submit a report to the City of Warrenton prepared by a licensed geotechnical engineer which indicates suitable techniques to minimize potential soil hazards to facilities on the parcel or to nearby property.*

Response: No significant amounts of hazardous soils are present. The standard is met.

Staff finding: A detailed geotechnical report stamped by a licensed geotechnical engineer will be required as part of the construction designs for the public infrastructure.

- D. *The proposed use will only be approved if:*

1. *The detailed soil survey indicates that there is not a significant amount of hazardous soils on the portion of the site proposed for development; or*
2. *A method of eliminating hazards which could result from soils on the site prepared by a licensed geotechnical engineer and submitted to the City of Warrenton Planning and Building Department for review by a City-appointed engineer who will be paid by the developer and/or property owner.*

Response: No significant amounts of hazardous soils are present. The standard is met.

Staff finding: There is no analysis attributed to a geotechnical or civil engineer drawing this conclusion.

If a detailed soil survey indicates that corrosive resistant materials are appropriate for pipes or foundations associated with the development, the City-appointed engineer may require that suitable materials be used for the pipes or foundations.

Response: No soil circumstances are present which would lead to undue corrosion of pipes.

16.192.040 Stormwater Management.

The applicant shall submit a stormwater management plan, which shall meet the criteria of Chapter 16.140 of this Code, to the City of Warrenton Planning and Building Department for review for the proposed development that is prepared by a registered engineer currently licensed in the State of Oregon.

Response: Tamara Connolly, (Oregon registration number: 72619PE) of Otak Inc. developed a stormwater management plan for the proposed project.

The purpose of this Preliminary Drainage Report is to demonstrate compliance of the Fort Pointe stormwater management system with City of Warrenton's *Public Works Department Engineering Specifications and Design Criteria* (City of Warrenton, 2013). Descriptions of the existing and proposed hydrologic conditions, as well as preliminary documentation showing the proposed onsite stormwater management system's compliance with City of Warrenton's standards are included in the attached report.

Design of the proposed stormwater system will meet the design criteria listed in *Public Works Department Engineering Specifications and Design Criteria* (City of Warrenton, 2013).

Water Quality

The City of Warrenton *Public Works Department Engineering Specifications and Design Criteria* does not require water quality treatment for stormwater runoff. This was confirmed via email correspondence with Richard "Collin" Stelzig, City Engineer for the City of Warrenton, on March 28, 2017. Water quality treatment will not be provided for the Fort Pointe development project.

Water Quantity

The City of Warrenton *Public Works Department Engineering Specifications and Design Criteria* states that:

- "All developments must be constructed and maintained so that impacts to natural and man-made drainage ways do not unreasonably burden upstream or downstream properties with surface water flooding as a result of the developments" (WMC 16.140.030).
- "No development may be constructed or maintained so that the development unreasonably impedes the natural flow of water from higher adjacent properties across the development, resulting in substantial damage to the higher adjacent properties" (WMC 16.140.030).
- "No development may be constructed or maintained so that stormwater from the development is collected and channeled into natural or man-made drainage ways, such that the volume and/or rate of flow is substantially great than the pre-development volume and/or rate" (WMC 16.140.030).

- “No development may be constructed such that the flow of water through natural or existing man-made drainage ways is obstructed. Bridges and culverts constructed to allow the flow of water through a development must be designed to pass flow during a 100-year storm event” (WMC 16.140.030).

While the City of Warrenton standards do not require onsite detention, development of the project site will result in increased stormwater runoff rates, see Appendix B. During final design, conveyance will be assessed to document that the proposed Fort Pointe development does not adversely impact upstream or downstream properties. Furthermore, it will be demonstrated that the culvert beneath Peter Iredale Road, which conveys runoff leaving the property, is sufficiently sized to pass flow from the 100-year design storm event, per City of Warrenton standards.

Conveyance

Preliminary pipe layouts will be shown in the construction plan sets (to be provided in final Stormwater Management Plan document). Inlets, manholes, and pipes will be used to collect and convey stormwater runoff from the proposed development, designed per City of Warrenton design criteria. During final design, the stormwater conveyance network will be sized using the 100-year, 24-hour storm event. The minimum size of storm sewer mains is 18 inches in diameter and the minimum size of storm sewer laterals to catch basins is 12 inches in diameter (WMC 16.140.050). Analysis of the conveyance system will be completed during the final design stage and reported in the final Stormwater Management Plan.

The proposed Fort Pointe development will include a stormwater management system designed to follow the standards set forth by the City of Warrenton. Of the 277.3-acre property, the majority of the site is wetland area and will remain undeveloped. Approximately 55.5 acres of the site will be developed, and the proposed development will create approximately 24.7 acres of impervious area. Per the City of Warrenton *Public Works Department Engineering Specifications and Design Criteria*, water quality treatment and detention will not be provided for this proposed development. During final design, the stormwater conveyance network will be sized using the 100-year, 24-hour storm event. It will be demonstrated that the proposed stormwater design does not adversely impact upstream or downstream properties.

The full report is attached as Appendix B: Preliminary Drainage Report.
The standard is met.

Staff finding: The City Engineer comments that a Final Stormwater Report will be required to be submitted with final construction documents. The City has concerns with the drainage system that drains this property to the Columbia River. The developer will be required to provide drainage calculations for the drainage system leading to the outfall to the Columbia River. Improvements to the existing drainage system may be required and will be paid by the developer. An alternate solution could include matching pre-construction and post-construction runoff from the site.

16.192.050 Utilities.

- A. *The applicant shall provide detailed information and analyses, as necessary, to the City of Warrenton to allow the City to assess the expected impacts of the development on the capacity of Warrenton's water, sewer, and transportation. The development will only be allowed if sufficient capacity exists or suitable evidence indicates it will exist prior to completion of the development construction. In deciding the sufficiency of capacity, consideration will be given to possible increases in flows resulting from activities of existing system users and from facilities which are likely to be built due to the proposed use, but are not part of the development.*

Response: Adam Dailey, (Oregon registration number: 74370PE) of Otak Inc. developed a utility plan for the proposed project. All required public services and facilities are available and adequate or are proposed to be provided by the applicant. The sanitary sewer service will be provided by the City of Warrenton. The completed development will include 2 on-site sanitary sewer pump stations which will connect to a force main sewer. The force main sewer will be routed through the County property known as 11th Street and will connect to a gravity manhole at Warrenton Drive. The water system will also be provided by the City and will follow the same route as the force main sewer line. Interconnection to the existing waterline in Ridge road is anticipated.

Access to and from the site is proposed to be made from NW Ridge Road. Additionally an emergency access street tees into Peter Iredale east of the KOA facility. Modelling indicates that both primary access points can be facilitated via stop signs on the approaches to Ridge Road Lancaster Engineering has performed an analysis of the transportation system to identify capacity issues or impacts. Based on discussions with the City and County, plus the notes regarding the pre-application, the TIS included traffic counts and full analysis at the following intersections:

1. Willow Street (NW Ridge Road) at Pacific Drive
2. NW Ridge Road at Peter Iredale Road
3. NW Ridge Road at northern site access

4. NW Ridge Road at Parkview Apartments driveway/site access
5. NW Ridge Road at southern site access
6. NW Ridge Road at 9th Street
7. NW Ridge Road at 18th Street/Delaura Beach Lane

Also, project-generated trips identified the following intersections, although traffic counts and full operational analyses will not be necessary.

8. NW Ridge Road at Jetty Road
9. NW Ridge Road at Pacific Ridge Lane

As stated above the scope of the TIS has been confirmed with the Clatsop County and the City of Warrenton. Appendix C: Traffic Impact Study (TIS) includes the detailed results of this analysis plus mitigating measures or investments needed to facilitate the development of the Fort Pointe subdivision.

Following preliminary subdivision; as part of the final plat process the applicant will obtain from Clatsop County the necessary right-of-way license for use of lands adjacent to NW Ridge Road. Additionally, through said process a speed study may be conducted to assess correct functional classification of said road.

The standard is met.

Staff finding: Staff agrees that the application meets these standards for this phase of the project.

B. On-site water supply, sewage disposal, access and circulation, shall be approved by the Warrenton Public Works Director. The development will not be allowed unless satisfactory provisions are made for these facilities. Satisfactory provisions, in part, mean that the size of any water lines, sewer lines, access roads, and drainage-ways will be sufficient to meet the needs of the development and, where desirable, accommodate growth in other areas. Suitable arrangement, including dedication of land or use of easements, shall be made so that the City will be able to maintain appropriate water, sewer, street, and drainage facilities. The construction of lengthy pressure-forced sewer lines to the site which by-pass undeveloped properties will be discouraged.

Response: The water and sewer system has been designed to 30% in accordance with the standards set forth by the City of Warrenton.

The standard is met

Staff finding: Staff concurs with the concepts provided in the application materials. The city engineer made the following comments which can be addressed at the construction design phase:

- Video inspection of the existing sewer system to the 9th street pump station is necessary to verify the quality and capacity of the system prior to submitting Construction Drawings. Inspection shall be completed per Oregon Standard Specifications.
- Developer will determine what public water improvements are needed to provide adequate domestic and fire flows to this development. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. A water model will be developed by the developer and reviewed by the City appointed consultant. The developer may use the City appointed consultant to prepare the necessary water model. Improvements will need to be reviewed and approved by Oregon Health Authority and City Engineer and paid for by the developer.
- Developer will determine what public sewer improvements are needed in order for the City to accept sewer flows from this development. This includes the overall flow development and the implications on scheduling of upgrade of the treatment facility. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. All necessary improvements will be reviewed and approved by Oregon Department of Environmental Quality and paid for by the developer.

C. Utility lines in the development (including electricity, communications, street lighting and cable television) shall be placed underground. Appurtenances and associated equipment such as surface mounted terminal boxes and meter cabinets may be placed above ground.

Response: All utility lines within the development are proposed for underground placement.

The standard is met.

Staff finding: Staff concurs.

D. All utilities shall be installed in conformance with this Code and City construction standards.

Response: See plan sheets C3-C8 for planned utility location and formats. This application requests the subdivision of land. Provision of utilities will be made through a subsequent permit. At said time, installation specifications will be provided and followed prior to application for final plat.

The applicant has also been in contact with providers of police, fire, gas and electricity services. The Police and Fire representatives were present for the pre-application conference and are aware of the upcoming proposal. They stated that they will provide comment regarding capacity following submittal as part of the application review process. The gas company, NW Natural, relies on its website for assessing availability. According to their site, gas is nearby and can be accessed. The power company expressed zero concern about serviceability and is ready to establish an account when the site receives property addresses resulting from the requested subdivision approval. The standard will be met.

Staff finding: Staff concurs.

16.192.060 Schools.

Evidence indicating that local schools will be capable of accommodating the children from the development must be submitted in conjunction with proposals for large-scale residential development.

Response: The nearest grade school is the Warrenton Grade School located at 815 SW Cedar Avenue. The grade school is approximately two miles from the project site. The #15 bus runs past the site and the Grade School. The nearest high school is the Warrenton High School located at 1700 S Main Ave. At approximately 3 miles away it is about a 5 minute drive. Currently the #15 bus only does not reach the high school. If a student de-boarded the bus at the grade school he or she would have a walk of approximately 15 minutes.

The applicant has consulted with Mark Jeffery, Superintendent of the Warrenton Hammond School District in regard to capacity of these facilities. As per the letter, *"The district added four new classrooms two years ago and will be adding an additional 7 classrooms along with several offices at Warrenton Grade School in an effort to deal with increased enrollment over the past four years. The Board currently (is) in the process of determining how best to expand classroom space at Warrenton High School within the next five years.*

At this time we have the capacity at the elementary school and are developing plans for growth at the high school to provide educational services to the families who will reside in the homes mentioned in your correspondence (referring to the 217 single family homes proposed by the subdivision)."

A letter declaring this capacity is signed by Mr. Jeffery is attached as Appendix D.

The standard is met.

Staff finding: Staff concurs.

16.192.070 Landscape Suitability.

The development shall comply with the provisions of a landscape plan which is consistent with Chapter 16.124 of this Code.

Response: This application is being made for a Preliminary Plan using the Planned Unit Development process. A landscape plan will be developed for inclusion with the Final Plan of the PUD in accordance with the WMC.

Staff finding: The typical practice in other subdivisions is to allow the initial purchasers of the new dwellings/lots to install landscaping. The design for the multiple family/duplex component of the PUD has been deferred. Staff will review that plan upon submittal and prepare a finding for the Planning Commission at that time.

16.192.080 Signs.

All signs of any type within the development are subject to design review and approval by the Community Development Director or hearings body (Type III). The City shall consider each sign on its merits based on the aesthetic impact on the area, potential traffic hazards, and need for the sign. No sign shall violate provisions in Chapter 16.144.

Response: An entry sign is expected for placement at the project site's primary connection to Ridge Road. Said sign has not yet been designed, nor is it proposed within this application. Proper procedures will be followed at time of signage proposal.

This criterion is not valid at this time.

Staff finding: Staff is comfortable with reviewing the entrance sign at a later date.

16.192.090 Additional Provisions.

D. The standards of this section are required in addition to development review (Type I and II) and site design review (Type III) standards of Chapter 16.212.

Response: See Section III [of the application narrative] for demonstration of compliance with site design review standards from the WMC Chapter 16.212

Staff finding: The applicant's response inadvertently refers the reader to Section III. Section VII addresses site design review. Staff's findings will be presented with those criteria and responses.

16.28.020 [Intermediate Density Residential District] Permitted Uses.

The following uses and their accessory uses are permitted in the R-10 zone if the Community Development Director determines that the uses conform to the standards in Sections 16.28.040 through 16.28.050, applicable Zoning Ordinance standards, and other City laws:

- A. *Single-family detached dwelling.*
- B. *Modular home.*
- C. *Manufactured home subject to standards in Chapter 16.168.*
- D. *Residential home.*
- E. *Residential (care) facility.*
- F. *Day care.*
- G. *Cemetery.*
- H. *Farming, grazing, truck gardening, orchards and production of nursery stock.*
- I. *A temporary dwelling for no more than six months while building a permanent residence.*
- J. *Accessory structure no larger than 1,200 square feet, in conjunction with an existing residence on the same property, and subject to standards of Chapter 16.180.*
- K. *Transportation facilities and improvements subject to the standards of Section 16.20.040.*
- L. *Similar uses as stated above.*
- M. *Community garden(s) (see definitions).*
- N. *Incidental sales of firewood, cut flowers, produce grown on the premises, lemonade, and similar items.*
- O. *Home occupations. (Ord. 1175-A § 4, 2013)*

Response: The proposal contains requests for single-family detached dwellings (A).

The uses are allowed within the district; the standard is met.

Staff finding: Staff concurs.

16.28.030 Conditional Uses.

The following uses and their accessory uses may be permitted in the R-10 zone when approved under Chapter 16.220:

- A. *Government buildings and uses subject to standards of Sections 16.28.040(C) and 16.28.050.*
- B. *Hospital, sanitarium, rest home, nursing or convalescent home.*
- C. *Public utility structure.*

- D. *School: nursery, primary, elementary, junior or senior high; public or private.*
- E. *Child care center.*
- F. *Golf course.*
- G. *Parks, playgrounds and community centers.*
- H. *Church, synagogue, or other place of worship.*
- I. *Bed and breakfast.*
- J. *Master planned development with a minimum lot size of three contiguous acres, subject to the provisions in Chapter 16.224.*
- K. *Accessory dwelling that complies with Section 16.180.040.*
- L. *RV park.*
- M. *Similar uses as stated above.*

Response: The proposal contains requests for conditional use through the PUD application (Chapter 16.224) via transferred density establishing capacity for additional housing in the form of multi-family development and duplexes or triplexes.

The uses are conditionally allowed within the district; the standard met.

Staff finding: Staff concurs.

16.28.040 Development Standards.

The following development standards are applicable in the R-10 zone:

- A. *Density Provisions.*
 - 1. *Minimum lot area for residences: 10,000 square feet.*
 - 2. *Minimum lot width at the front building line: 50 feet.*
 - 3. *Minimum lot depth: 70 feet.*
 - 4. *Not more than 35% of the lot area shall be covered by buildings except as may be permitted by conditional use permit or variance.*
 - 5. *Maximum building height: 30 feet.*
 - 6. *Maximum building height for agricultural buildings: 40 feet.*

Response: This proposal is made through a PUD application (Chapter 16.224) which allows for flexibility in lot geometry and transfer of density.

- 1. The project contains approximately 198.7 acres of land carrying the R-10 designation. Accordingly, 865 housing units would be allowed based on a minimum lot size of 10,000 square feet per lot. Another 69 units would be allowed for the 63.68 acres of land comprised of R-40 zoning. The proposal requests for a total of 474 units.
- 2. The lot dimensions for the single-family lots are generally consistent with the minimum width of frontage width of 50 feet and depth of 70. Following is a summary of the lots to illustrate overall consistency with current practice and the R10 zone:

- Average 9,609 s.f.
 - Minimum 7,500 s.f.
 - Maximum 19,897 s.f.
3. No lots exceed the 35% threshold
 4. Planned single-family homes will not exceed the 30 foot height limit.
 5. No agricultural buildings are proposed.

The standards are met via the PUD process.

Staff finding: Staff generally concurs. The 35 percent lot coverage and building height thresholds cannot be determined until building permit applications are submitted. We also note that earlier the maximum number of dwelling units was 480.

B. Setback Requirements.

1. *Minimum front yard setback: 15 feet.*
2. *Minimum side yard setback: 10 feet.*
3. *Corner lot minimum street side yard setback: 10 feet.*
4. *Minimum rear yard setback: 15 feet, except accessory structures that meet the criteria of Section 16.280.020, may extend to within five feet of a rear property line.*
5. *Corner lot minimum rear yard setback: 10 feet.*

Response: This proposal is made through a PUD application (Chapter 16.224) which allows for flexibility in building position. The lot widths for the single-family lots are generally consistent with the minimum setback standards. Accordingly standard city setbacks will be utilized.

The standards are met via the PUD process.

Staff finding: We note that the PUD development standards 16.224.040.G call for buildings to be no closer than 20 feet from a public street unless otherwise approved by the Planning Commission. If measured from the curb or inside edge of the sidewalk, this standard would be met. If measured from the front property line/right-of-way, it would not.

16.28.050 Other Applicable Standards.

- A. *Outside sales and service areas shall be approved by the Warrenton Planning Commission if not enclosed by suitable vegetation, fencing or walls.*

Response: None are proposed

Staff finding: Acknowledged.

B. Outside storage areas shall be enclosed by suitable vegetation, fencing or walls, in conformance with Chapter 16.124.

Response: None are proposed

Staff finding: Acknowledged.

C. All uses shall comply with access and parking standards in Chapters 16.116 and 16.128 except as may be permitted by conditional use or variance.

Response: Chapter 16.116 applies to the commercial district along Highway 101, SW Dolphin and SE Marlin Avenues. This location is not within said district. Chapter 16.128 is addressed within this application, see Section V. All proposed single-family homes are accompanied by a two-car garage. Additional parking is also available on driveways.

Staff finding: Staff concurs.

D. Signs shall comply with standards in Chapter 16.144.

Response: No signs are proposed at this time. An entry sign is expected for application at a later date, and will comply with Chapter 16.144

Staff finding: Staff is comfortable with reviewing signs at a later date.

E. All development shall comply with the wetland and riparian area protection standards of Chapter 16.156.

Response: Within the lands not proposed for development, wetlands are expected to be present. The area proposed for development resides at the property northwestern edge. It is expected to abut development. Pacific Habitat Services has inventoried the site and developed detailed mapping of the wetland resource. See response to section 16.156 for details, including potential impacts and mitigation.

Staff finding: See finding below.

F. Manufactured homes must comply with the criteria of Section 16.168.010.

Response: None are proposed

Staff finding: Acknowledged.

G. A garage or carport is required and shall conform to the standards of Chapter 16.180.

Response: All proposed single-family homes are accompanied by two-car garages.

Staff finding: Acknowledged.

G. All other applicable Development Code requirements must be met.

Response: This proposal contains response relevant chapters of the Warrenton Municipal Code as relayed to the applicant's agent by the City of Warrenton following a pre-application conference.

Staff finding: The application falls short of meeting the subdivision code general requirement for neighborhood parks.

H. All new sewer and water connections for a proposed development shall comply with all City regulations.

Response: Sewer and water connections proposed were designed to comply with all City regulations. See plan set for additional details.

Staff finding: The city engineer has indicated that the proposal includes sufficient detail on the utilities to determine that the final construction drawings will comply.

I. RV parks shall comply with Chapter 16.176 and all applicable State and Federal laws and regulations.

Response: None are proposed

Staff finding: Acknowledged.

16.128.030 Vehicle Parking Standards.

At the time a structure is erected or enlarged, or the use of a structure or parcel of land is changed within any zone in the City, off-street parking spaces shall be provided in accordance with requirements in this section, chapter, and Code, unless greater requirements are otherwise established. The minimum number of required off-street vehicle parking spaces (i.e., parking that is located in parking lots and garages and not in the street right-of-way) shall be determined based on the standards in Table 16.128.030.A.

Response: No structures or changes in use are proposed at this time. Accordingly, no spaces will be constructed at this time. The application does however contain plans for future parking spaces.

All single-family lots are proposed to include a two-car garage. Table 16.128.030.A specifies a range of parking required based on the number of bedrooms per unit. The maximum of 2 spaces for a three-bedroom unit would result in 322 spaces. Said spaces are indeed accommodated within the garages. Additionally, many of the driveways could also supply overflow off-street parking.

Staff finding: Staff agrees.

A. *General Provisions.*

1. *Groups of four or more off-street parking spaces shall be served by a driveway or aisle so that no backing movements or other maneuvering within a street or right-of-way, other than an alley, will be required. Section 16.120.020 contains driveway opening and width standards.*

Response: Groups of four or more off-street spaces will be planned at a later date with a proposal for development of multi-family housing on the northern situated lot that is proposed for future development. At such time, the geometric standards of the WMC will guide the design.

2. *Service drives or aisles to off-street parking areas shall be designed and constructed to facilitate the flow of traffic and to provide maximum safety to pedestrian, bicycle, and vehicular traffic on the site.*

Response: No service drives or aisles are proposed at this time.

3. *Service drives or aisles shall be clearly and permanently marked and defined through the use of bumper rails, fences, buildings, walls, painting, or other appropriate markers.*

Response: No service drives or aisles are proposed at this time.

5. *All parking lots shall be designed and constructed to meet the City standards of Section 16.120.020, this chapter, Chapter 16.136, and this Code.*

Response: No parking lots are proposed at this time. Parking lot/s will be planned at a later date with a proposal for development of multi-family housing on the northern situated lot that is proposed for future development. At such time, the geometric standards of the WMC will guide the design.

Staff finding: Staff will review the parking design for the multiple family component of the PUD upon submittal.

6. *Uses not specifically listed above shall furnish parking as required by the Community Development Director, who shall consider uses similar to those listed in Table 16.128.030.A and the Institute of Traffic Engineers Parking Generation as guides for determining requirements for other uses.*

Response: There are no non-specified uses referenced table are included with this application.

Staff finding: Staff agrees.

16.156.030 Wetland Area Development Standards.

Wetland areas in the City of Warrenton are identified on the 1" equals 400' feet maps entitled City of Warrenton Wetland Conservation Plan Inventory dated October 17, 1997. These maps show approximate wetland boundaries for wetland areas within the Warrenton Urban Growth Boundary.

- A. Applications to the City of Warrenton for subdivision, partition planned unit development, conditional use, site design review, variance, or temporary building permits that would lead to the disturbance of a wetland upon approval and issuance of grading or building permits, shall include a delineation of the wetland boundary, approved by the Oregon Department of State Lands.*

Response: Several parcels and a portion of the proposed Cattail Ave. in the eastern portion of the proposed development coincide with the mapped 2009 National Wetlands Inventory (NWI) boundary. As required by this section, wetland delineation is included with this application, see Appendix H. Pacific Habitat Services developed the mapping and an accompanying report on the delineation of the wetland boundary during the winter of 2017. The standard is met.

Staff finding: Staff acknowledges the wetland delineation, but notes that the Department of State Lands has yet to issue concurrence with the wetland boundaries.

B. Applications to the City of Warrenton for grading or building permits that would authorize development within a jurisdictional wetland boundary approved by the Oregon Department of State Lands shall contain the following:

- B. 1. A State of Oregon Wetland Removal-Fill Authorization.*
- C. 2. Written verification from the Warrenton Community Development Director, or designee, that the affected wetland area is classified as "non-significant" per the City of Warrenton Locally Significant Wetland Map dated October 17, 1997. Alternatively, for development in a "significant" wetland, a City of Warrenton Hardship Variance (see Section 16.156.080) must be obtained instead of the Community Development Director's written verification.*

Response: No development or grading is proposed at this time. At time of future application for grading or development this standard will apply; however the standard is not applicable at this time.

Staff finding: Staff agrees.

C. Applications to the City of Warrenton for subdivision, partition, planned unit development, conditional use, site design review, variance, or temporary building permits that include designs of altering land within 25 feet of a mapped wetland, or grading permits or building permits that would alter land within 25 feet of a mapped wetland boundary, but not within a mapped wetland area itself, shall contain the following:

D. 1. A delineation of the wetland boundary, approved by the Oregon Division of State Lands.

E. 2. A to-scale drawing that clearly delineates the wetland boundary, the proposed setback to the wetland area (if any), and existing trees and vegetation in the mapped wetland area.

Response: Several parcels and a portion of the proposed Cattail Ave. in the eastern portion of the proposed development coincide with the mapped 2009 National Wetlands Inventory (NWI) boundary. As required by this section, wetland delineation is included with this application. The wetland boundary is depicted in the Plan Sheets. The standard is met.

Staff finding: This standard will not be met until the Department of State Lands issues it concurrence on the delineated wetland boundaries.

D. Applications to the City of Warrenton for subdivision, partition, planned unit development, conditional use, site design review, variance, or temporary building permits, or grading or building permits on parcels that contain mapped wetland areas but would not alter land within 25 feet of a mapped wetland area, or portion thereof, shall present a to-scale drawing that clearly depicts the wetland boundary (as mapped on the City of Warrenton Wetland Conservation Plan Inventory) and the proposed setback to the wetland area for all new or proposed development. A delineation of the wetland boundary, approved by the Oregon Department of State Lands, is not required by the City of Warrenton but may be submitted in lieu of the wetland boundary on the wetland inventory.

Response: The proposed subdivision includes development that would be within 25 feet of the wetland. Accordingly item E. is not applicable; the application instead responds to item C above. The standard for item E is not applicable.

Staff finding: Staff agrees, with the caveat that DSL concurrence will be required prior to commencement of construction.

16.156.040 Significant Wetland Area Development Standards.

B. Alteration of a significant wetland or portion of a significant wetland by grading, excavating, placement of fill including structures, and removal of vegetation, shall be prohibited, except for the following uses, upon demonstration that the uses are designed and constructed to minimize intrusion into the wetland area:

F. 1. Agricultural (farming and ranching) activities other than construction of buildings, structures, or paved roads conducted in accordance with federal, state, and local laws; or

G. 2. Replacement of existing structures, streets, driveways, and utilities in the same location that do not disturb additional wetland surface area; or

H. 3. Perimeter mowing and other cutting necessary for hazard prevention; or

I. 4. Removal of non-native vegetation or nuisance plants and replacement with native plant species. All work conducted under this subsection (A)(4) must occur by hand (i.e., hand-pulling, machete, chain saw, or other similar means) unless approval from the Oregon Division of State Lands or the US Army Corp of Engineers for mechanized work has been granted. Submission of a landscape plan (including a revegetation plan) in accordance with Chapter 16.124 of this Code is required; or

J. 5. Maintenance of existing ditches (not streams) to same configuration as previously constructed; or

K. 6. A forest operation subject to the requirements of the Oregon Forest Practices Act and associated administrative rules; or

L. 7. Uses authorized by an approved City of Warrenton hardship variance in conjunction with a valid State of Oregon Wetland Removal-Fill Authorization.

Response: No wetland alteration triggering this section is proposed.

Staff finding: Acknowledged.

16.156.050 Riparian Corridor Inventory.

A. The City of Warrenton Riparian Corridor Map dated January 21, 2004, together with the City of Warrenton Riparian Corridor Inventory and ESEE Analysis dated January 21, 2004 identify the following riparian corridors map units number:

Response: None of the identified riparian corridors exist within the project site.

Staff finding: Staff concurs.

16.156.060 Riparian Corridor Development Standards.

A. Rivers, lakes, creeks, and sloughs in the City of Warrenton that are subject to the riparian corridor development standards of this section are shown on the City of Warrenton Riparian Corridor Map and Riparian Corridor Inventory and ESEE Analysis dated January 21, 2004. Individual riparian corridor unit maps dated January 21, 2004 that show the ESEE Impact Areas and riparian corridor boundaries, as required by Statewide Planning Goal 5, have been adopted as part of the Riparian Corridor Map and Riparian Corridor Inventory and ESEE Analysis. The inventory of significant riparian corridors is listed in Section 16.156.050 and is contained in Chapter 3 of the Riparian Corridor Inventory and ESEE Analysis. The Riparian Corridor Map and Riparian Corridor Inventory and ESEE Analysis, together with the individual riparian corridor unit maps, have been adopted as an addendum to the Warrenton Comprehensive Plan. Riparian corridors that have been identified as nonsignificant for purposes of Statewide Planning Goal 5 are not subject to the provisions of this section.

Response: The Riparian Corridor Map and Inventory do not depict any features within the proposed development area. Accordingly the Riparian Corridor Development Standards are not applicable.

Staff finding: Staff concurs.

16.212.040 Site Design Review.

The applicant went to great lengths to address the various criteria and standards of this code section. However, site design review is not applicable to the preliminary plat review process. Instead site design review will be followed on the multiple family/duplex-townhouse component of the PUD.

16.224 Planned Unit Developments (PUD)

16.224.030 Permitted Building and Uses.

The following buildings and uses may be permitted as hereinafter provided. Buildings and uses may be permitted either singly or in combination provided the overall density of the planned development does not exceed the density of the zoning district as provided by Section 16.224.040.

- A. *Single-family dwellings.*
- B. *Duplexes, triplexes, and multifamily dwellings.*

Response: No buildings or use changes are proposed at this time. The proposal contains lots for single-family dwelling plus a lot for future development to host multi-family dwellings and duplexes or triplexes. The 277 acre site would have a maximum density of 934 residential units. The proposal for 160 lots for single-family housing and one lot for future attached single-family and multi-family development of 320 units, for a total of 480 housing units is below the maximum allowed.

This standard is met.

Staff finding: Staff concurs, even with the potential partition and sale of 50 acres, the proposed number of dwelling units would be under the maximum allowed.

16.224.040 Development Standards.

- A. *Minimum Site Size. Planned unit developments shall be established only on parcels of land which are suitable for the proposed development and are no smaller than the minimum lot size established in the zoning district. The minimum lot size for RV parks and campgrounds shall be five acres.*

Response: At 277 acres in size, the site is larger than 5 acres. The standard is met.

Staff finding: Staff concurs.

- B. *Open Space. In all PUDs, at least 40% of the total area shall be devoted to open space. Up to 25% of this open space may be utilized privately by individual owners or users of the planned development; however, at least 75% of this area shall be common or shared open space.*

Response: The PUD application includes 204 acres of common or shared open space. This is comprised primarily of the preserved lands that make up the majority of the site. Additionally, private open space will be provided through patios and yards.

Staff finding: The amount of open space included with the application exceeds the 25 percent threshold. The application is silent on ownership of this territory. Patios and yards are not considered open space.

C. *Density.* The density of the planned development shall not exceed the density of the zone in which it is located. Minimum space size for RV parks is 700 square feet (see Chapter 16.176 for additional standards; where PUD standards differ from standards found elsewhere in this Code, the more stringent requirement shall apply). The Planning Commission shall review density allowances for campgrounds on a case-by-case basis using the criteria of Section 16.220.030 as a minimum standard for approval.

Response: The 277 acre site would have a maximum density of 934 residential units. The proposal for 160 lots for single-family housing and one lot for future attached single-family and multi-family development of 320 units, for a total of 480 housing units is below the maximum allowed.

This standard is met.

Staff finding: Staff agrees.

D. *Subdivision Lot Sizes.* Minimum area, width, depth and frontage requirements for subdivision lots in a planned unit development may be less than the minimums set forth elsewhere in this Code, provided that the overall density is in conformance with Section 16.224.040 and the lots conform to the approved preliminary development plan.

Response: This proposal is made through a PUD application (Chapter 16.224) which allows for flexibility in building position. The lot widths for the single-family lots are generally consistent with the minimum setback standards. Accordingly standard city setbacks will be utilized.

The standard is met.

Staff finding: The overall density of the proposal is within the limits of the code for the acreage of the property. See the finding regarding setbacks above and below.

E. *Off-Street Parking.* Parking areas shall conform to all provisions of Chapter 16.128.

Response: Each lot for single-family homes is proposed to include a two-car garage, ensuring compliance with the City's maximum of 2 spaces per each house with three or more bedrooms. Parking for the lot set aside for future development will be determined at the time of proposed development in accord with Table 16.128.030.A. The standard is met.

Staff finding: Staff concurs.

F. Signs. All signs of any type within a planned unit development are subject to review and approval of the Planning Commission. The Commission shall consider each sign on its merits based on its aesthetic impact on the area, potential traffic hazards, potential violation of property and privacy rights of adjoining property owners, and need for said sign.

Response: An entry sign will be designed at a later date. At such time it will be presented to the Planning Commission as required. This standard will be met.

Staff finding: We have no objections to reviewing signs at a later date.

G. Setbacks and Yard Requirements. No structure shall be located closer than 20 feet from any public street within a planned unit development unless otherwise approved by the Planning Commission. Other setbacks are to be determined by the Planning Commission where they are considered essential to the public health, safety or welfare. These setbacks required by the Planning Commission shall be recorded as part of the protective covenants as required by Section 16.224.060.

Response: No lots are proposed for which a building would need to be located within 20 feet of a public street.

Staff finding: We note that the PUD development standards 16.224.040.G call for buildings to be no closer than 20 feet from a public street unless otherwise approved by the Planning Commission. If measured from the curb or inside edge of the sidewalk, this standard would be met. If measured from the front property line/right-of-way, it would not.

H. Height Limits. Height limits in a planned unit development are the same as in the zoning district, except that the Planning Commission may further limit heights when necessary for the maintenance of the public health, safety or welfare.

Response: No buildings are proposed at this time. As such, no proposed modifications are requested in regard to height. The standard is met.

Staff finding: This standard will be addressed when building permit applications are submitted.

J. Streets, Sidewalks and Roads. Necessary streets, sidewalks, and roads within the planned unit development shall be constructed to City standards and dedicated to the public. See Division 3 for applicable standards. A private roadway, or a private road network, may be permitted if adequate provisions for access and circulation have been provided in accordance with Chapter 16.120 and facilities have been approved and installed in accordance with Chapter 16.136.

Response: Proposed roads have been designed in accordance with the Warrenton Municipal Code Chapter 120. See Plan Set for street cross sections. The standard is met.

Staff finding: The application is silent on the requirements of Chapter 16.136 which provides street standards. Local streets code standards call for a minimum width of 28 feet with sidewalks on both sides. The street cross section in the plan set shows a 24-foot driving surface, 2-foot curbs on both sides and a meandering sidewalk on one side only. The Fire Chief commented that because of the length of the roads, the minimum driving surface width should be 26 feet inside the curbs with parking prohibited on one side. He also commented that the driveway used by KOA in NW 11th Street right-of-way to the north where an emergency access is proposed is substandard and must be upgraded to standard to be considered a [fire] access.

J. Dedication and Maintenance of Facilities. The Planning Commission or, on appeal, the City Commission, may as a condition of approval for a planned unit development require that portions of the tract or tracts under consideration be set aside, improved, conveyed or dedicated for the following uses:

- 1. Recreation Facilities. The Planning Commission or City Commission, as the case may be, may require that suitable area for parks or playgrounds be set aside, improved or permanently reserved for the owners, residents, employees or patrons of the development.*
- 2. Common Areas. Whenever a common area is provided, the Planning or City Commission may require that an association of owners or tenants be created into a non-profit corporation under the laws of the State of Oregon, which shall adopt such articles of incorporation and by-laws and impose such declaration of covenants and restrictions on such common areas that are acceptable to the Planning Commission. Said association shall be formed and continued for the purpose of maintaining such common area. Such an association, if required, may undertake other functions. It shall be created in such a manner that owners of property shall automatically be members and shall be subject to assessment levied to maintain said common area for the purposes intended. The period of existence of such association shall be not less than 20*

years and it shall continue thereafter and until a majority vote of the members shall terminate it.

3. *Easements. Easements necessary to the orderly extension of public utilities may be required as a condition of approval.*

Response: The Planning Commission's authority is recognized. The standard will be met as required.

Staff finding: The proposal is to develop the subject property to accommodate up to 480 dwelling units. Presently, the application states that the soccer fields will provide adequate recreational opportunities for the future residents of the development. Staff disagrees and recommends the project be redesigned to provide neighborhood park space with appropriate facilities as prescribed by WMC 16.126.020.I. This park (or parks) and facilities should be maintained by the homeowners association.

K. Approvals. Prior to Planning Commission (or City Commission approval upon appeal), written consent for the development shall be received from the City-appointed Engineer, Fire Chief, and any other department or agency (i.e., County Sanitarian, DEQ, ODOT, Division of Health, ODF&W, DSL, DLC, etc.) that can demonstrate that they have legal authority or jurisdiction over the proposal [or part(s) of the proposal].

Response: The applicant has contacted the fire and police departments directly. In both cases the chief or staff relayed that they are aware of the project and will review the application following submittal to the City of Warrenton. Sewer and water and other city services are provided by the City and will be party to reviewing the submittal. Clatsop County, who attended the pre-application conference, will review the submittal and the traffic report developed by Lancaster Engineering for whom they have assisted with the scoping of the research. A wetland delineation has been performed in coordination with the State of Oregon.

Staff findings: The Fire Chief, City Engineer and Clatsop County Public Works Director submitted comments and recommended conditions of approval. Those comments have been incorporated herein. The Department of State Lands has yet to receive the delineation for review and concurrence.

L. Other Requirements. The Planning Commission may establish additional requirements which it deems necessary to assure that any development conforms to the purpose and intent of this section.

Response: The Planning Commission's authority is recognized.

Staff finding: See recommended conditions of approval below.

16.224.050 Procedure—Preliminary Development Plan.

A. The applicant shall submit four copies of a preliminary development plan to the Planning Commission prior to formal application for approval. This plan and any written statements shall contain at least the following information:

- 1. Proposed land uses and densities.*
- 2. Location, dimensions and heights of structures.*
- 3. Plan of open or common spaces.*
- 4. Map showing existing features of site and topography.*
- 5. Proposed method of utilities service and drainage.*
- 6. Road and circulation plan, including off-street parking areas.*
- 7. Relation of the proposed development to the surrounding area and the Comprehensive Plan.*
- 8. Lot layout.*
- 9. A schedule, if it is proposed that the final development plan will be executed in stages.*
- 10. Information deemed necessary by the Community Development Director.*

Response: Appropriate site plans are attached to this application and can be viewed in the Plan Set. The standard for application site plan is met.

- 11. Required application fee.*

Response: This application was accompanied by a fee of \$9,400 as required by the City of Warrenton. The standard is met.

Staff finding: The requisite drawings were submitted with the application fee.

B. Applications for planned unit development preliminary approval shall be reviewed by the Planning Commission using a Type III procedure as specified in Section 16.208.050. The Planning Commission shall determine whether the proposal conforms to Section 16.224.040. In addition, in considering the plan, the Planning Commission shall seek to determine that:

- 1. There are special physical conditions or objectives of development which the proposal will satisfy to warrant a departure (if any) from the standard Code requirements.*

Response: The PUD process provides for the preservation of 204 acres of land that likely contain some wetlands and riparian areas by allowing for a transfer of density to the upland areas in the northwest portion of the property.

Staff finding: Staff concurs.

2. *Resulting development will not be inconsistent with the Comprehensive Plan provisions or zoning objectives of the area.*

Response: The area is designated for residential development by the City's Comprehensive Plan and zoned accordingly. This application provides for said housing within the City Limits and Urban Growth Boundary while also preserving sensitive lands.

Staff finding: Staff concurs.

3. *The proposed development will be in substantial harmony with the surrounding area.*

Response: While the site is currently undeveloped, the proposed lots for housing are generally similar to those in recent nearby subdivisions.

Staff finding: Staff concurs.

4. *The plan can be completed within a reasonable period of time.*

Response: A phasing plan is described on the attached plan sheets. The phasing has been established in order to provide for development within a reasonable amount of time.

Staff finding: Responses to the application indicate approximately 40 single family dwelling lots will be developed per year, for a four year build out. The multiple family/townhome component is projected to be completed within three years. These time frames are reasonable. Elsewhere the narrative states the number of lots created in any time period will be market driven.

5. *Any proposed commercial development can be justified economically.*

Response: No commercial development is proposed.

Staff finding: Noted.

6. *The streets are adequate to support the anticipated traffic and the development will not overload the streets outside the planned area.*

Response: The TIS found in Appendix C demonstrates that Ridge Road and affected nearby intersections will continue to function within thresholds of the City's mobility standards.

Staff finding: The City Engineer raised the question that the traffic counts for the TIS were taken in April and would the same conclusions be reached if counts were taken during the summer tourist season. Review of the levels of service at the study intersections during morning and afternoon peak hours were all A's and B's (on a scale of A to F.) It is highly doubtful that congestion would increase during the summer months such that these intersections would suffer operational failure.

7. Proposed utility and drainage facilities are adequate for the population densities and type of development proposed.

Response: A drainage plan has been developed to ensure effective detention and treatment of stormwater. The drainage report is attached as Appendix B.

Staff finding: The City Engineer had the following comments:

- A Final Stormwater Report will be required to be submitted with final construction documents. The City has concerns with the drainage system that drains this property to the Columbia River. The developer will be required to provide drainage calculations for the drainage system leading to the outfall to the Columbia River. Improvements to the existing drainage system may be required and will be paid by the developer. An alternate solution could include matching pre-construction and post-construction runoff from the site.
- Provide the Public an easement to use and maintain existing drainages located on this property.
- The developer shall agree to make all necessary offsite stormwater improvements if downstream deficiencies are created by the development of this property
- Easement between lot 89 and 90 should have a barrier to prevent encroachment from property owners over access to storm and sewer pipes, or establish as a right of way.

16.224.060 Procedure—Final Development Plan Approval.

- A. Within one year after preliminary approval or modified approval of a preliminary development plan, the applicant shall, at the next regularly scheduled meeting, file with the Planning Commission a final plan for the entire development or, when submission in stages has been authorized, for the first unit of the development. The final plan shall conform in all major respects with the approved preliminary development plan. The final plan shall include all information included in the preliminary plan, plus the following:*

Response: This proposal does not request approval of a final plat. Accordingly this section is not applicable at this time.

Staff finding: Staff agrees.

16.256 Traffic Impact Study

16.256.030 When Required.

A traffic impact study may be required to be submitted to the City with a land use application, when the following conditions apply:

A. The development application involves a change in zoning or a plan amendment designation; or,

B. The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation manual; and information and studies provided by the local reviewing jurisdiction and/or ODOT:

- 1. An increase in site traffic volume generation by 300 average daily trips (ADT) or more; or*
- 2. An increase in ADT hour volume of a particular movement to and from the state highway by 20% or more; or*
- 3. An increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day; or*
- 4. The location of the access driveway does not meet minimum site distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the state highway, creating a safety hazard; or*
- 5. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area.*

Response: Regarding A and B above – the proposal is accompanied by a traffic impact study. The study was conducted by Lancaster Engineering and is included as Appendix C.

Staff finding: Acknowledged.

16.256.040 Traffic Impact Study Requirements.

- A. Preparation. *A traffic impact study shall be prepared by a professional engineer in accordance with OAR 734-051-180.*

Response: The study was completed by Todd Mobley, licensed professional engineer with Lancaster Engineering. The scope was developed in coordination with the City of Warrenton. Said study is attached as Appendix C. The standard is met.

Staff finding: Staff concurs.

- B. *Transportation planning rule compliance, Section 16.232.060.*

Response: This proposal does not request a comprehensive plan or zone change that would necessitate evaluation in relation to the Transportation Planning Rule (TPR). The standard is not applicable.

Staff finding: Staff concurs.

16.120 Access and Circulation

16.120.010 Purpose.

The purpose of this chapter is to ensure that developments provide safe and efficient access and circulation, for pedestrians and vehicles. Section 16.120.020 provides standards for vehicular access and circulation. Section 16.120.030 provides standards for pedestrian access and circulation. Planning and design standards for improvements to public and private transportation facilities and utilities are provided in Chapter 16.136.

16.120.020 Vehicular Access and Circulation.

- C. Access Permit Required. *Access to a street requires an access permit in accordance with the following procedures:*

M. 1. *Permits for access to state highways shall be subject to review and approval by Oregon Department of Transportation (ODOT), except when ODOT has delegated this responsibility to the City or Clatsop County. In that case, the City or County shall determine whether access is granted based on its adopted standards.*

N. 2. *Permits for access to county highways shall be subject to review and approval by Clatsop County, except where the County has delegated this responsibility to the City, in which case the City shall determine whether access is granted based on adopted City standards.*

Response: Permit for access will be made to Clatsop County

Staff finding: NW Ridge Road is a county facility. Clatsop County Public Works Director had the following comments regarding access.

Any construction effort within the Ridge Road Right-of-way will require a *Permit to Occupy or Perform Operations within a Public or County Road*, which application forms are available online from the Clatsop County website. Engineering drawings are required for these type of improvements.

Frontage Improvements are not required for Ridge Road.

The segment of Cattail Avenue that resides within the Ridge Road Right-of-way, a license agreement is required with Clatsop County for the permanent occupation of this roadway within the Ridge Road right-of-way. Or, a right-of-way vacation or County maintenance withdrawal order/agreement may be required for this segment of roadway. Clatsop County Public Works will not perform any maintenance on Cattail Avenue. A buffer is required between Ridge Road and Cattail Avenue. The buffer should consist of an earthen berm or vegetation hedge depending on topography.

D. Traffic Study Requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also Chapter 16.136, Public Facilities Standards, and Chapter 16.256, Traffic Impact Study.)

Response: The proposal is accompanied by a traffic impact study. The study was conducted by Lancaster Engineering and is included as Appendix C.

Staff finding: Acknowledged.

F. Access Options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (a minimum of 10 feet per lane is required). These methods are "options" to the developer/subdivider, unless one method is specifically required under Division 2, or through conditions required by the hearings body.

- 1. Option 1. Access is from an existing or proposed alley or mid-block lane. If a property has access to an alley or lane, direct access to a public street is not permitted.*
- 2. Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., "shared driveway"). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.*
- 3. Option 3. Access is from a public street adjacent to the development parcel. If practicable, the owner/developer may be required to close or consolidate an existing*

access point as a condition of approving a new access. Street accesses shall comply with the access spacing standards in subsection G of this section, and require an access permit in accordance with subsection C of this section.

Response: Access to the site is proposed from Ridge Road to the west in three locations. An addition access to the north, connecting to Iredale Rd. is proposed for emergency vehicles only.

Staff finding: This section applies to access to private property rather than to a subdivision development.

4. Subdivisions and Partitions Fronting Onto an Arterial Street. Land divisions fronting onto a City arterial street shall be required to provide alley or secondary (local or collector) streets for access to individual lots. When alleys or secondary streets cannot be constructed due to topographic or other physical constraints, access may be provided by consolidating driveways for clusters of two or more lots (e.g., includes flag lots and mid-block lanes). Land divisions fronting onto state highways are expected to meet state access management and mobility standards.

Response: The proposed subdivision fronts the Collector Ridge Road. Access to the site is proposed from Ridge Road to the west in three locations. Lots within the subdivision will be served by an interior street system. Said system is illustrated on Plan Sheets.

Staff finding: Staff concurs.

5. Double-Frontage Lots. When a lot has frontage onto two or more streets, access shall be provided first from the street with the lowest classification. For example, access shall be provided from a local street before a collector or arterial street. Except for corner lots, the creation of new double-frontage lots shall be prohibited in all residential districts, unless topographic or physical constraints require the formation of such lots. When double-frontage lots are permitted in a residential district, a landscape buffer with trees and/or shrubs and groundcover not less than 10 feet wide shall be provided between the back yard fence/wall and the sidewalk or street; maintenance shall be assured by the owner (i.e., through homeowner's association, etc.).

Response: The double frontage lots are exclusively corner lots. The standard is met.

Staff findings: Exclusive of the corner lots referenced above, Lots 1, 87, 88, 89, 103, 104 and 105 on Pennyroyal Lane are double front lots, and Lots 62 and 131 through 160 double front Cattail Avenue and NW Ridge Road. Lots 1, 87-89, and 103-105 should gain access from Pennyroyal Lane. The double front lots on Cattail Avenue should gain access from that street.

6. *Important Cross-References to Other Code Sections. Divisions 2 and 3 may require buildings placed at or near the front property line and driveways and parking areas oriented to the side or rear yard. The City may require the dedication of public right-of-way and construction of a street (e.g., frontage road, alley or other street) when the development impact is proportionate to the need for such a street, and the street is identified by the Comprehensive Plan or Transportation System Plan. (Please refer to Chapter 16.136, Public Facilities Standards.)*

Response: The authority is recognized

Staff finding: Acknowledged.

- G. *Access Spacing. Driveway accesses shall be separated from other driveways and street intersections in accordance with the following standards and procedures:*

1. *Local Streets. A minimum of 25 feet separation (as measured from the sides of the driveway/street) shall be required on local streets (i.e., streets not designated as collectors or arterials) for all single-family detached dwellings, except as provided in paragraph 3 of this subsection. A minimum of 20 feet separation shall be required on local streets for all single-family attached dwellings, duplexes, and triplexes, except as provided in paragraph 3 of this subsection.*

Response: All proposed driveways for single family lots are equal to or in excess of the 25 foot separation standard. The criterion is met.

Staff finding: Driveways are not shown on the preliminary plat. This standard will be reviewed as building permits are applied for and issued.

2. *Arterial and Collector Streets. Unless directed otherwise by this Development Code or by the Warrenton Comprehensive Plan/TSP, access spacing on City collector and arterial streets (see Warrenton Comprehensive Plan and TSP for a list of City collector and arterial streets) and at controlled intersections (i.e., with four-way stop sign or traffic signal) in the City of Warrenton shall be determined based on the policies and standards contained in the Warrenton Transportation System Plan, Manual for Uniform Traffic Control Devices, or other applicable documents adopted by the City. Access spacing on state highways, and in other areas determined by the State of Oregon to be under the jurisdictional authority of ODOT, shall be at the direction of ODOT. Access to Highway 101 and all other state highways in the City of Warrenton (e.g., Highway 104, Highway 104 Spur, Highway 105, Highway 105 Extension No. 1, Highway 105 Extension No. 2, Alternate Highway 101) shall be determined by ODOT.*

Response: Three local street accesses to Ridge Road (Collector) are proposed. They are 2875 and 1098 feet apart, exceeding the minimum County driveway spacing requirement of 130 feet.

Staff finding: Staff concurs.

3. *Special Provisions for All Streets. Direct street access may be restricted for some land uses, in conformance with the provisions of Division 2, Land Use Districts. For example, access consolidation, shared access, and/or access separation greater than that specified by paragraphs 1 and 2 of this subsection, may be required by the City, County or ODOT for the purpose of protecting the function, safety and operation of the street for all users. (See subsection I of this section.) Where no other alternatives exist, the permitting agency may allow construction of an access connection along the property line farthest from an intersection. In such cases, directional connections (i.e., right in/out, right in only, or right out only) may be required.*

Response: No direct access restrictions are proposed.

Staff finding: Acknowledged.

4. *Corner Clearance. The distance from a street intersection to a driveway or other street access shall meet or exceed the minimum spacing requirements for the street classification in the Warrenton TSP.*

Response: No driveway is closer to a street corner than allowed as per the local street classification.

Staff finding: Driveways are not shown on the preliminary plat. This standard will be reviewed as building permits are applied for and issued.

H. *Number of Access Points. For single-family (detached and attached), two-family, and three-family housing types, one street access point is permitted per dwelling unit, when alley access or shared driveways cannot otherwise be provided; except that one additional access point may be permitted for one-family, two-family and three-family housing types on corner lots (i.e., no more than one access per street), subject to the access spacing standards in subsection G of this section. The number of street access points for multiple family, commercial, industrial, and public/institutional developments shall be minimized to protect the function, safety and operation of the street(s) and sidewalk(s) for all users. Shared access may be required, in conformance with subsection I of this section, in order to maintain the required access spacing, and minimize the number of access points.*

Response: Each lot intended for single-family housing is proposed to have one street access for a driveway.

Staff finding: Driveways are not shown on the preliminary plat. This standard will be reviewed as building permits are applied for and issued.

I. Shared Driveways. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division, development review, or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:

1. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. "Stub" means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent parcel develops. "Developable" means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).

O. 2. Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval (Chapter 16.216) or as a condition of development review or site development approval (Chapter 16.212).

P. 3. Exception. Shared driveways are not required when existing development patterns or physical constraints (e.g., topography, parcel configuration, and similar conditions) prevent consolidation of access points to public streets.

Q. 4. Cross Access. Cross access is encouraged, and may be required, between contiguous sites in commercial (C-1, C- MU, C-2 & R-C) and industrial (I-1 & I-2) districts and for multifamily housing developments in the High Density Residential District in order to provide more direct circulation between sites and uses for pedestrians, bicyclists, and drivers.

Response: Each lot intended for single-family housing is proposed to have one street access for a driveway. No driveways are proposed for an arterial or collector where a shared drive would be beneficial to traffic flow and pedestrian safety. Accordingly, no shared driveways are proposed at this time. The proposed lot for future development will, at some time in the future receive access from one or more shared driveways.

Staff finding: Acknowledged.

J. Street Connectivity and Formation of Blocks Required. In order to promote efficient vehicular and pedestrian circulation throughout the City, land divisions and large site

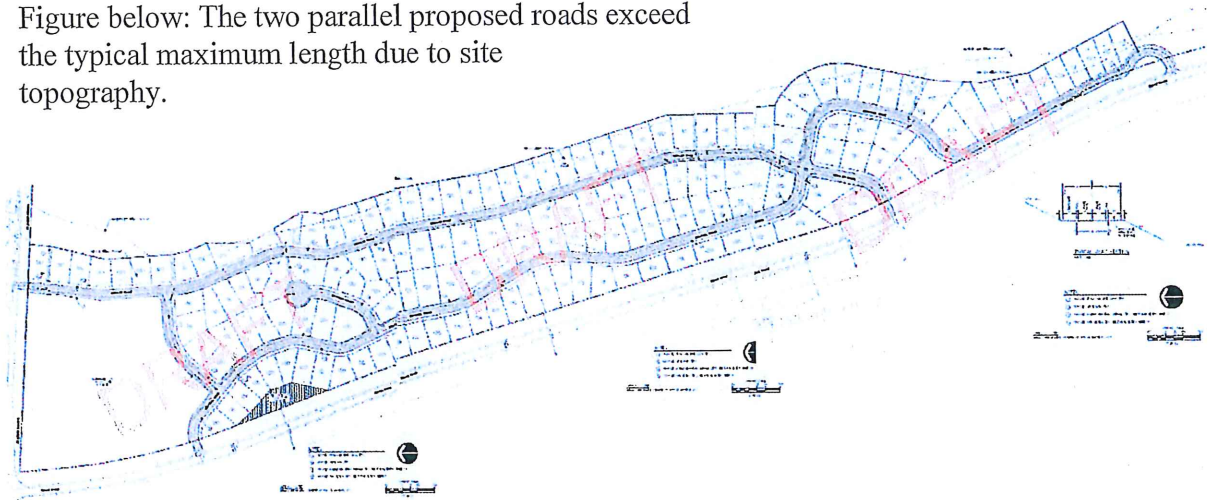
developments shall produce complete blocks bounded by a connecting network of public and/or private streets, in accordance with the following standards:

- 1. Block Length and Perimeter. The maximum block length shall not exceed 1,000 feet between street corner lines unless it is adjacent to an arterial street or unless the topography or the location of adjoining streets justifies an exception. The minimum length of blocks along an arterial is 1,800 feet. A block shall have sufficient width to provide for two tiers of building sites unless topography or location of adjoining streets justifies an exception.*
- 2. Street Standards. Public and private streets shall conform to the standards of Chapter 16.136, Public Facilities Standards; Section 16.120.030, Pedestrian Circulation; applicable Americans With Disabilities Act (ADA) design standards; City construction standards for streets; and other applicable Development Code sections.*
- 3. Exception. Exceptions to the above standards may be granted when blocks are divided by one or more pathway(s), in conformance with the provisions of Section 16.120.030. Pathways shall be located to minimize out-of-direction travel by pedestrians and may be designed to accommodate bicycles.*

Response: The upland portion of the property, where lot creation is proposed, is oriented in a linear north-south direction. Geometrically it is roughly 4,000 feet long but on average approximately 500 feet wide. Accordingly, it is only feasible to locate two streets running in the north-south direction. Thistle Avenue originates from NW Ridge at the location of the intersection with the Parkview apartments driveway. It travels eastward as far as practical and then turns north to travel the duration of the property. Cattail Avenue departs Thistle Avenue 1601 feet from its intersection with NW Ridge Road and travels northward on the western edge of the property. The roads essentially straddle a ridge line, each providing access to the lots fronting them. Thistle Avenue is 3540 feet long. Cattail Avenue is 4438 feet long. Each of these two roads exceeds that City's maximum length of 1,000 feet. The topography of the site does not permit for cross streets that would enable the road length to be decreased, meeting the standard. As referenced in #1 above, an exception to the standard can be provided if topography makes it necessary. This request asks for said exception.

As shown on plan sheets C2 – C12 the local streets were designed in accordance with the City of Warrenton Standards and provide for the requisite multi-modal access

Figure below: The two parallel proposed roads exceed the typical maximum length due to site topography.



Staff finding: Staff agrees with the applicant's assessment and recommends granting the street length exception subject to the Fire Chief's comment that all streets must be at least 26 feet wide inside the curbs.

K. Driveway Openings and Widths. Driveway openings (or curb cuts) shall be the minimum width necessary to provide the required number of vehicle travel lanes (10 feet for each travel lane). The following standards (i.e., as measured where the front property line meets the sidewalk or right-of-way) are required to provide adequate site access, minimize surface water runoff, and avoid conflicts between vehicles and pedestrians:

- 1. Single-family, two-family, and three-family uses shall have a minimum driveway width of 10 feet, and a maximum width of 24 feet, except that one recreational vehicle pad driveway may be provided in addition to the standard driveway for lots containing at least 5,000 square feet of area.*
- 2. Multiple-family uses with between four and seven dwelling units shall have a minimum driveway width of 20 feet, and a maximum width of 24 feet.*
- 3. Multiple-family uses with eight or more dwelling units shall have a minimum driveway width of 24 feet, and a maximum width of 30 feet. These dimensions may be increased if the Community Development Director, City-appointed engineer, or Planning Commission determines that more than two lanes are required based on the number of trips generated or the need for turning lanes.*
- 4. Access widths for all other uses shall be based on 10 feet of width for every travel lane, except that driveways providing direct access to parking spaces shall conform to the parking area standards in Chapter 16.128.*

Response: 1 – 4 The single-family homes will be supplied with two-car garages. Accordingly the driveways will exceed the 10 foot minimum. The lot designated for future multiple-family use is sized and situated to allow for access that meets the standards.

Staff finding: Driveways are not shown on the preliminary plat. This standard will be reviewed as building permits are applied for and issued.

5. *Setback Required. A minimum five-foot setback from the edge of driveway to any property line is required. The setback area shall be kept free of impervious surfaces at all times and shall be vegetated to minimize surface water runoff to adjoining properties. These requirements may be increased if the Community Development Director, building official, City-appointed engineer, or Planning Commission determines that topography, soil conditions, or other circumstances dictate the need for additional protection measures.*

Response: Properties are sized to allow for the appropriate spacing from the future driveways to the nearest property line.

Staff finding: Driveways are not shown on the preliminary plat. This standard will be reviewed as building permits are applied for and issued.

6. *Driveway Aprons. Driveway aprons shall meet City construction standards and be installed between the street right-of-way and the private drive, as shown in Figure 16.120.020.K. Driveway aprons shall conform to ADA standards for sidewalks and pathways, which require a continuous route of travel that is a minimum of three feet in width, with a cross slope not exceeding two percent.*

Response: The site will feature a rolled curb. These are easily mounted by a vehicle and allow for a sidewalk that matches the grade of the roadway while also facilitating minimal cross slope for ADA travel.

7. *Driveway Approaches. Driveway approaches should be designed and located to provide an existing vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes or tapers should be avoided due to potential for vehicle conflicts.*

Response: Driveway locations are not determined at this time. At the time of housing development these requirements will be adhered to. Further, the site contains zero accel or decell lanes.

Staff finding: Staff concurs.

8. *Loading Area Design.* The design of driveways and on-site maneuvering and loading areas for commercial and industrial developments shall consider the anticipated storage length for entering and exiting vehicles, in order to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation.

Response: The single-family homes will not include any loading area. The multiple-unit lot on the property has not yet been designed.

Staff finding: Acknowledged.

L. *Fire Access and Circulation.* The City of Warrenton adopts the Uniform Fire Code, as amended, including administrative sections and all appendices and all the State of Oregon revisions. All development in the City of Warrenton is required to meet these minimum adopted standards.

R. 1. *Required Access.* A fire equipment access drive that meets City construction standards shall be provided for any portion of an exterior wall of the first story of a building that is located more than 150 feet from an improved public street or approved fire equipment access drive. Plans for fire apparatus access roads shall be submitted to the Warrenton Fire Department and Warrenton City-appointed engineer for review and approval prior to issuance of building permits, grading permits, or start of construction. When fire apparatus access road(s) are required, the road(s) shall be installed and made serviceable prior to and during time of construction. Fire department access roads shall be provided and maintained in accordance with the fire department access requirements of the Uniform Fire Code, as amended.

Response: The proposed lots would not permit the houses to be more than 150 feet from the public street.

Staff finding: Staff concurs.

2. *Dimensions.* Fire apparatus roads shall have an unobstructed width of not less than 20 feet and unobstructed vertical clearance of not less than 13 feet 6 inches. Fire apparatus roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities.

Response: An emergency access road is proposed heading north to connect with the extension of Peter Iredale Rd. It exceeds the minimum width.

Staff finding: The Fire Chief questions the capability of the gravel driveway used by KOA in the NW 11th Street right-of-way where the emergency access would intersect. His recommendation is for the developer to bring this gravel driveway up to standard.

3. *Turnaround Required.* Dead-end fire apparatus roads in excess of 150 feet shall be provided with approved provisions for the turning around of fire apparatus. See Table 16.136.010 for minimum standards.

S. **Response:** No such dead ends are proposed.

Staff finding: Staff concurs.

4. *Grade.* The gradient for a fire apparatus access road shall not exceed 12% except that isolated segments no longer than 250 feet may have grades up to 15% upon approval by the Warrenton Fire Chief. Non-fire apparatus access roads (driveways and private streets) shall maintain a maximum grade of 15% unless otherwise approved by the Warrenton City-appointed engineer. See Table 16.136.010 for other applicable standards.

Response: No grades exceed the 12% standard

Staff finding: The City Engineer has identified two locations where the streets exceed the 12 percent grade standard: Pennyroyal Lane - Between lot 87 and 105 and Cattail Avenue - Between lot 103 and 155.

5. *Parking Areas.* Parking areas shall provide adequate aisles or turn-around areas for service and delivery vehicles so that all vehicles may enter the street in a forward manner. See also Chapter 16.136, Public Facilities Standards.

Response: No parking areas are included with this proposal. The multiple-family future lot will have a parking area. At the time of said design, the applicable standards will be consulted.

Staff finding: Staff will review and make a recommendation to the Planning Commission on the multiple family parking design upon submittal.

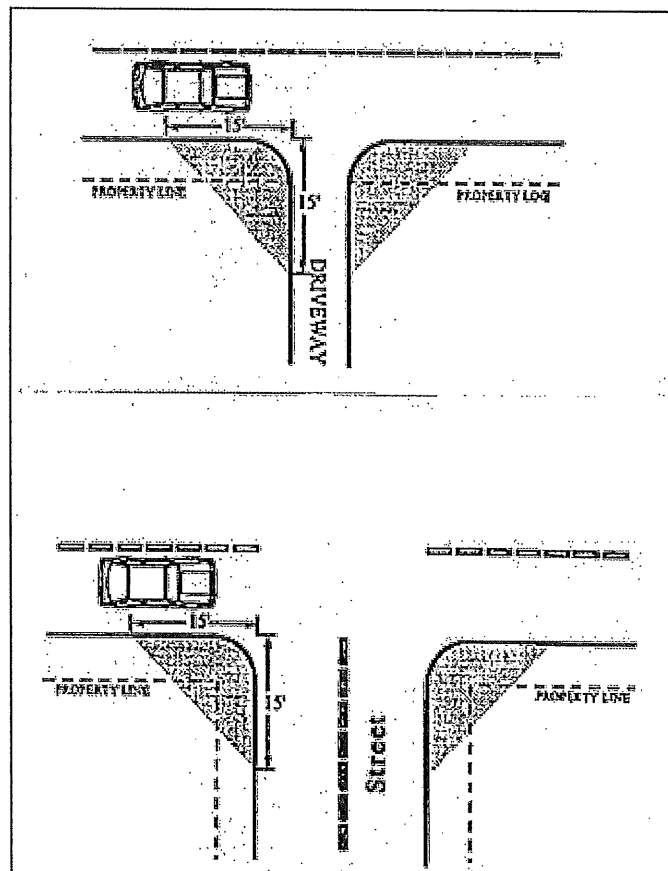
M. *Vertical Clearances.* Driveways, private streets, aisles, turn-around areas and ramps shall have a minimum vertical clearance of 13 feet 6 inches for their entire length and width.

Response: There are no proposed limits to vertical clearance.

Staff finding: Staff agrees.

N. *Vision Clearance.* No signs, structures or vegetation in excess of three feet in height shall be placed in vision clearance areas, as shown in Figure 16.120.020.N. The minimum vision clearance area may be increased by the Community Development Director, City-appointed engineer, or Planning Commission upon finding that more sight distance is required (i.e., due to traffic speeds, roadway alignment, etc.). See also Chapter 16.132 for additional requirements.

*Figure 16.120.020.N
Vision Clearance Area*



T. Response: No landscaping or signs that would block visibility are proposed near roadway intersections.

Staff finding: Staff will ensure that individual property owners also follow this standard as building permit applications are submitted.

16.120.030 Pedestrian Access and Circulation.

A. Pedestrian Access and Circulation. To ensure safe, direct and convenient pedestrian circulation, all developments, except single-family detached housing, duplexes, or triplexes on individual lots, shall provide a continuous pedestrian and/or multi-use pathway system. (Pathways only provide for pedestrian circulation. Multi-use pathways accommodate pedestrians and bicycles.) The system of pathways shall be designed based on the standards in paragraphs 1 through 3 of this subsection:

Response: This application consists solely of lots for single-family housing at this time. Accordingly the internal access standards are not applicable at this time.

Staff finding: Staff concurs.

CONCLUSIONS AND RECOMMENDATION

Fort Pointe Partners LLC proposed to develop a planned unit development to include single family dwelling lots and a multiple family/single family attached component on approximately 53 acres of a 277 tract. The limited development area of the subject property is primarily driven by the extent of wetlands on the property. Staff supports the concept of the application, but finds that as submitted, the application is not completely consistent with development code standards.

The planned unit development code requires Planning Commission approval of a preliminary plan prior to Planning Commission approval of a final plan which authorizes the applicant to prepare construction engineering plans, installation of appropriate infrastructure and submittal of a final plat for recordation. Accordingly, based on the findings above, staff recommends approval of the preliminary plan for the Fort Pointe PUD, but not the preliminary plat, subject to the following conditions which must be brought back to the Planning Commission for final approval.

1. Applicant shall revise the preliminary plat design to incorporate one or more neighborhood parks in compliance with WMC 16.216.020.I and Resolution No. 2499.
2. Construction Documents shall meet all requirements of federal, state, and local standards, codes, ordinances, guidelines and/or other legal requirements.
3. Prior to approval of construction plans the developer will waive any and all rights to remonstrate against the formation of a Local Improvement District (LID) for the purpose of making sanitary sewer, storm sewer, water or street improvements that benefit the property and assessing the cost to benefited properties pursuant to the City's regulations in effect at the time of such improvement.
4. A Final Stormwater Report will be required to be submitted with final construction documents. The City has concerns with the drainage system that drains this property to the Columbia River. The developer will be required to provide drainage calculations for the drainage system leading to the outfall to the Columbia River. Improvements to the existing drainage system may be required and will be paid by the developer. An alternate solution could include matching pre-construction and post-construction runoff from the site.
5. Developer shall provide the City with all necessary access permits from the County prior to approval of Construction Drawings.
6. Developer will coordinate with City to located refuse containers in an acceptable location.

require storm water report

7. Video inspection of the existing sewer system to the 9th street pump station is necessary to verify the quality and capacity of the system prior to submitting Construction Drawings. Inspection shall be completed per Oregon Standard Specifications.
8. Developer will determine what public water improvements are needed to provide adequate domestic and fire flows to this development. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. A water model will be developed by the developer and reviewed by the City appointed consultant. The developer may use the City appointed consultant to prepare the necessary water model. Improvements will need to be reviewed and approved by Oregon Health Authority and City Engineer and paid for by the developer.
9. Developer will determine what public sewer improvements are needed in order for the City to accept sewer flows from this development. This includes the overall flow development and the implications on scheduling of upgrade of the treatment facility. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. All necessary improvements will be reviewed and approved by Oregon Department of Environmental Quality and paid for by the developer.
10. Easement between lot 89 and 90 should have a barrier to prevent encroachment from property owners over access to storm and sewer pipes, or establish as a right of way.
11. All pump stations shall be on designated lots dedicated to the city.
12. It is expected that many residences of this development will want to gain access to the Fort Stevens State Park. The Developer should provide a safe road crossing to access this Park.
13. Provide the Public an easement to use and maintain existing drainages located on this property.
14. The developer shall agree to make all necessary offsite stormwater improvements if downstream deficiencies are created by the development of this property
15. Provide the City with appropriate documents to use and maintain a new local road within the County right-of-way.
16. Loop waterline on Pennyroyal Lane to Thistle Avenue.
17. NW 11th street shall have a maintenance road where possible, with proper drainage for access to water and sewer lines.
18. Developer shall collaborate with the City, if the City determines it is in their best interest to upsize and/or extend the new utilities proposed in NW 11th Street.
19. Developer shall provide a geotechnical report signed and stamped by an engineer licensed in the state of Oregon for all areas where public infrastructure will be installed.

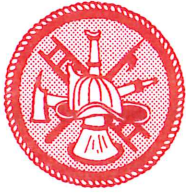
20. Areas where proposed streets exceed a slope of 12 percent shall be redesigned to comply with WMC 16.120.020.L.4.
21. Applicant shall submit a final wetland delineation with concurrence from the Department of State Lands with the final PUD plan.
22. The access streets shall bring all sections of the homes within 150 feet of the Fire Apparatus, not just the closest portion as listed.
23. Corner radii will be 45 feet or greater.
24. The road widths must be maintained at 26 feet or greater without the curb.
 - a. One side of the street will be required to be posted No Parking Fire Lane (by signs) and the curb painted red. Sign location will be approved prior by the Fire Department.
 - b. Fire Lane and may not be encumbered in any way.
25. Pennyroyal Lane will require the same street width.
 - a. The road width must be maintained at 26 feet or greater without the curb.
 - b. A minimum 90 foot turnaround.
 - c. Signed with No Parking, Fire Lane in the turnaround. Sign location will be approved prior by the Fire Department.
26. The extension of Thistle Avenue into the NW 11th Street right-of-way as an emergency access will require upgrading the existing KOA driveway to a 26-foot wide paved road. Alternatively, Thistle Avenue may terminate at the north property line, but because segment north of the intersection with Snapdragon Way is approximately 500 feet long and exceeds the 150-foot limit found in WMC 16.120.020.L.3, a turnaround will be required with the design approved by the Fire Chief.
27. Any construction effort within the Ridge Road Right-of-way will require a *Permit to Occupy or Perform Operations within a Public or County Road*, which application forms are available online from the Clatsop County website. Engineering drawings are required for these type of improvements.
28. For the segment of Cattail Avenue that resides within the Ridge Road Right-of-way, a license agreement is required with Clatsop County for the permanent occupation of this roadway within the Ridge Road right-of-way. Or, a right-of-way vacation or County maintenance withdrawal order/agreement may be required for this segment of roadway. Clatsop County Public Works will not perform any maintenance on Cattail Avenue. A buffer is required between Ridge Road and Cattail Avenue. The buffer should consist of an earthen berm or vegetation hedge depending on topography.
29. County staff has received a request from the applicant for permission from the County to use the 11th Street corridor for utilities to serve the property. The applicant needs to prepare a report outlining, which sections of the corridor require action from the County. While the County may have had some real property interest or rights in the past, the County may not have any real property interest or rights today. The

report should have a map or diagram and list the deeds of dedication or plats that generated the 11 Street corridor.

Recommended motion: Based on the findings and conclusions of the August 3, 2017 staff report, I move to approve the preliminary plan of the Fort Pointe Planned Unit Development, exclusive of preliminary plat approval, subject to the recommended 29 conditions of approval.

Attachments

Correspondence
Resolution No. 2499
Application



Warrenton Fire Department

P.O. Box 250 Warrenton, OR 97146-0250 503/861-2494 Fax 503/861-2351

MEMORANDUM

To: Skip Urling, Community Development Director
Date: July 27, 2017
From: Tim Demers, Fire Chief *TD*
Re: Fort Pointe Single Family Preliminary Platt Comments

Based on the information provided, the Fire Department has the following comments.

Please note: No comments are listed pertaining to the multi-family portion as there was no submittal.

ACCESS:

The proposed access appears to be a public street, a minimum of 26 feet wide (not including the curbs). This would be the minimum width we would allow especially with streets of this length (Cattail Avenue and Thistle Avenue). Snap Dragon Way should also maintain this width. Penroyal Lane will require the same street width and a minimum 90 foot turnaround and signed with No Parking, Fire Lane in the circle as well.

If the road width remains at 26 feet wide, one side of the street will be required to be posted No Parking Fire Lane (by signs) and the curb painted red. Sign location will be approved prior by the Fire Department. It will become the Fire Lane and may not be encumbered in any way (ie speed bumps). Vertical clearance of 13 feet 6 inches must be maintained. The grade should not exceed 10% and approach and departure angles will have to be pre-approved.

The Thistle Avenue access that exits into KOA appears to create a bottle neck into an already congested and unpaved area. This exit into an existing driveway should be entering into a full width, paved road way and will require significant improvements to be considered an access.

The South end, Cattail Avenue access is across from the Parkview Apartment access and should be built as an intersection. It should also remain a full width street.

Access Conditions

- 1. The access shall bring all sections of the homes within 150 feet of the Fire Apparatus, not just the closest portion as listed.**
- 2. Corner radiuses will be 45 feet or greater.**
- 3. The road width must be maintained at 26 feet or greater without the curb.**

- a. **One side of the street will be required to be posted No Parking Fire Lane (by signs) and the curb painted red. Sign location will be approved prior by the Fire Department.**
 - b. **Fire Lane and may not be encumbered in any way.**
4. **Thisle Avenue must be made into a full access.**
5. **Penroyal Lane will require the same street width.**
 - a. **The road width must be maintained at 26 feet or greater without the curb.**
 - b. **A minimum 90 foot turnaround.**
 - c. **Signed with No Parking, Fire Lane in the turnaround. Sign location will be approved prior by the Fire Department.**

WATER SUPPLY:

Since this is a through street, all of the homes will be required to be within 250 feet of a fire hydrant. It appears that the single family units will require a 1000 gpm fire flow based on ordinary construction and square footages less than 3,600.

The fire flow for the structures will be required to be verified and engineered to meet the 1000 gpm flow requirements. I would recommend that the new water main will be looped back onto Ridge Road to provide a more robust water system to the Forte Point Community and meet fire flows. If fire flow cannot be accomplished sprinklers may be required.

The hydrants proposed shall be a Meuller 2500 Centurion with 2 each, 2.5 inch, and one each 4.5 inch discharge ports. A 4.5 inch to 5 inch Storz connection will be provided by the developer for each hydrant. Final fire hydrant locations shall be approved prior to installation by the Fire Department.

Water Supply Conditions

1. **All of the homes will be required to be within 250 feet of a fire hydrant.**
 - a. **The hydrants proposed shall be a Meuller 2500 Centurion with 2 each, 2.5 inch, and one each 4.5 inch discharge ports.**
 - b. **A 4.5 inch to 5 inch Storz connection will be provided by the developer for each hydrant.**
 - c. **Final fire hydrant locations shall be approved prior to installation by the Fire Department.**
2. **The single family units will require a 1000 gpm fire flow.**
3. **The new water main will be looped back onto Ridge Road.**

ADDRESSING:

The homes will be addressed with contrasting color numbers placed on the entrance facing the Fire Department access. The Fire Department will approve the size, color and location of the address numbers.

Addressing Conditions

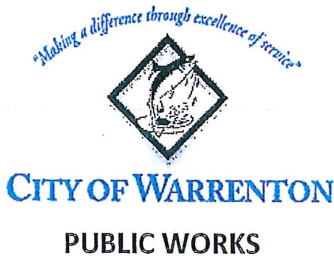
1. **The homes will be addressed with contrasting color numbers placed on the entrance facing the Fire Department access.**

SETBACK SPACING:

Setback spacing between homes must be maintained at 10 feet. Invasion of this setback will require the sub division to be sprinkled.

Setback Spacing Conditions

1. **Setback spacing must be maintained at 10 feet on both sides of the property line between homes.**



Pre-Application Review Memorandum

To: Skip Urling, Community Development Director
From: Collin Stelzig, City Engineer
Cc: Jim Dunn, Public Works Director
Date: July 28, 2017

Regarding: Fort Pointe PUD – Taxlot Key 810170001300 – Planning Submittal

The following comments apply to the planning submittal for the Fort Pointe PUD. This memorandum is intended to review the provided documents and determine the functionality of the development and provide comments to the Community Development Director and Planning Commission. This memorandum is not a detailed review of Design Documents.

Documents Reviewed

- Traffic Impact Study May 5, 2017
- Preliminary Drainage Report April 12, 2017
- Planned Unit Development Application June 19, 2017
- Drawings
 - Cover Sheet June 19, 2017
 - Site Plan June 19, 2017
 - Street & Storm Drainage Plans June 19, 2017
 - Water & Sewer Plans June 19, 2017
 - Grading and Erosion Control Plan June 19, 2017
 - 11th Street Utility Plan June 19, 2017

Comments and Conditions

1. Construction Documents shall meet all requirements of federal, state, and local standards, codes, ordinances, guidelines and/or other legal requirements.
2. Prior to approval of construction plans the developer will waive any and all rights to remonstrate against the formation of a Local Improvement District (LID) for the purpose of making sanitary sewer, storm sewer, water or street improvements that benefit the property and assessing the cost to benefited properties pursuant to the City's regulations in effect at the time of such improvement.
3. A Final Stormwater Report will be required to be submitted with final construction documents. The City has concerns with the drainage system that drains this property to the Columbia River. The developer will be required to provide drainage calculations for the drainage system leading to the outfall to the Columbia River. Improvements to the

existing drainage system may be required and will be paid by the developer. An alternate solution could include matching pre-construction and post-construction runoff from the site.

4. Developer shall provide the City with all necessary access permits from the County prior to approval of Construction Drawings.
5. Developer will coordinate with City to located refuse containers in an acceptable location.
6. Video inspection of the existing sewer system to the 9th street pump station is necessary to verify the quality and capacity of the system prior to submitting Construction Drawings. Inspection shall be completed per Oregon Standard Specifications.
7. Developer will determine what public water improvements are needed to provide adequate domestic and fire flows to this development. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. A water model will be developed by the developer and reviewed by the City appointed consultant. The developer may use the City appointed consultant to prepare the necessary water model. Improvements will need to be reviewed and approved by Oregon Health Authority and City Engineer and paid for by the developer.
8. Developer will determine what public sewer improvements are needed in order for the City to accept sewer flows from this development. This includes the overall flow development and the implications on scheduling of upgrade of the treatment facility. The improvements will be designed in such a way as to ensure the added flow does not reduce the capacity of the system or negatively impact the system. All necessary improvements will be reviewed and approved by Oregon Department of Environmental Quality and paid for by the developer.
9. It appears that wetlands will be impacted onsite, this will likely require a permit from DSL and possibly USACE. Please note that stormwater treatment and detention may be required as part of these permits.
10. Easement between lot 89 and 90 should have a barrier to prevent encroachment from property owners over access to storm and sewer pipes, or establish as a right of way.
11. All pump stations shall be on designated lots.
12. It is expected that many residences of this development will want to gain access to the Fort Stevens State Park. The Developer should provide a safe road crossing to access this Park.
13. Provide the Public an easement to use and maintain existing drainages located on this property.
14. The developer shall agree to make all necessary offsite stormwater improvements if downstream deficiencies are created by the development of this property
15. Provide the City with appropriate documents to use and maintain a new local road within the County right-of-way.
16. Loop waterline on Pennyroyal Lane to Thistle Avenue.
17. NW 11th street shall have a maintenance road where possible, with proper drainage for access to water and sewer lines.

18. Developer shall collaborate with the City, if the City determines it is in their best interest to upsize and/or extend the new utilities proposed in NW 11th Street.

Below are items that Public Works may comment on when construction plans are submitted for review:

1. Cleanouts installed outside the Paved Roadways shall be in a utility box or be protected from damage and/or burial to prevent extraneous flows into sanitary sewer.
2. All pump stations shall have flow meters and natural gas backup generators (or pumps) with propane dual fuel and a bypass port for connection of portable pumps.
3. There should be a flow meter at both ends of the sewer force main to indicate leakage where is inaccessible.
4. Mission telemetry for alarms and ultrasonic level controls on pump stations
5. All process piping at the pump stations shall be epoxy coated for corrosion control.
6. Develop a trail/ sidewalk to the soccer field. Consider measures to keep foot traffic off Ridge Road and future possibilities of trails to the soccer field.

Possible Comments:

1. Traffic was counted on April 13, 2017. How did this traffic impact study account for summer use of the recreational facilities on Ridge Road?
2. The impact study states that the intersection on Ridge Road and Peter Iredale Road has a higher CMEV, but does not suggest any changes to this intersection. It would be worth discussing the broad open access used by KOA and the vehicle stacking in the NW 11th Street right-of-way. Would limiting access at this location provide a safer intersection.

Skip Urling

From: Michael Summers <msummers@co.clatsop.or.us>
Sent: Friday, July 28, 2017 3:45 PM
To: Skip Urling
Subject: Fort Pointe PUD Application

Skip,

For the Fort Pointe PUD Application, I have the following comments:

Any construction effort within the Ridge Road Right-of-way will require a *Permit to Occupy or Perform Operations within a Public or County Road*, which application forms are available online from the Clatsop County website. Engineering drawings are required for these type of improvements.

Frontage Improvements are not required for Ridge Road.

The segment of Cattail Avenue that resides within the Ridge Road Right-of-way, a license agreement is required with Clatsop County for the permanent occupation of this roadway within the Ridge Road right-of-way. Or, a right-of-way vacation or County maintenance withdrawal order/agreement may be required for this segment of roadway. Clatsop County Public Works will not perform any maintenance on Cattail Avenue. A buffer is required between Ridge Road and Cattail Avenue. The buffer should consist of an earthen berm or vegetation hedge depending on topography.

The traffic analysis is sufficient, yet should be revised as the report indicates four access points for the development. The four access points being three full movement intersections along Ridge Road and a fourth a full movement access point onto the KOA property. The preliminary PUD improvement plans do not indicate a full movement roadway connection to the KOA property. I suspect that revising the traffic analysis to match the intent in the PUD plans will likely not change the conclusions in the study.

County staff has received a request from the applicant for permission from the County to use the 11th Street corridor for utilities to serve the property. The applicant needs to prepare a report outlining, which sections of the corridor require action from the County. While the County may have had some real property interest or rights in the past, the County may not have any real property interest or rights today. The report should have a map or diagram and list the deeds of dedication or plats that generated the 11 Street corridor.

Michael Summers, PE
Clatsop County Public Works Director

1100 Olney Avenue
Astoria OR, 97103
Phone: (503) 325-8631
Fax: (503) 325-9312

This message has been prepared on resources owned by Clatsop County, Oregon. It is subject to the Internet and Online Services Use Policy and Procedures of Clatsop County.

Skip Urling

From: Michael Summers <msummers@co.clatsop.or.us>
Sent: Tuesday, August 08, 2017 9:47 AM
To: Skip Urling
Subject: RE: ft pointe

Skip,

For the Forte Pointe Project:

I would like to update my comment regarding Cattail Avenue.

The Cattail Avenue portion of the street within the Ridge Road right-of-way is allowed, with the maintenance responsibility of Cattail Avenue to be under the City of Warrenton. The maintenance responsibility will be transferred with a metes and bounds description for the portion of Cattail Avenue that resides within the Ridge Road portion of the right-of-way.

Michael Summers, PE
Clatsop County Public Works Director

1100 Olney Avenue
Astoria OR, 97103
Phone: (503) 325-8631
Fax: (503) 325-9312

From: Skip Urling [<mailto:cityplanner@ci.warrenton.or.us>]
Sent: Monday, August 07, 2017 4:50 PM
To: Michael Summers
Subject: ft pointe

Skip Urling
Community Development Director
City of Warrenton
503.861.0920

This message has been prepared on resources owned by Clatsop County, Oregon. It is subject to the Internet and Online Services Use Policy and Procedures of Clatsop County.

Warrenton City Planning Commission:

8/9/17

Re: Fort Pointe proposed development

Code (16.216, 16.156, 16.120)

Commissioners:

I am asking that a Drainage Study be made to assure runoff from this proposed plan does not affect other neighboring property owners. It needs to be made sure that speeded up run-off is more than "just over the hill". Where is it going after that? It appears someone may have been working before or without permits in the wetland area just below this site.

Recently considerable land clearing, ditching, cutting of large trees in wetland "just over the hill" and it appears an attempt was made to divert Enterprise overflow into a ditch using 11st street into my farm ditch and Tansy creek. This is going to cause flooding for property between NW 9th and 13th even backing into Hammond area. Because the ditch just before Tansy will not be big enough to handle the speeded up runoff, there are 5 large trees down in Tansy and willows and brush have been bulldozed into Tansy that interfere with it being free flowing; plus the culvert under NW Warrenton Drive at about 12th st. will not be big enough to handle the speeded up and extra water.

The large trees and brush that have been cut from the Enterprise and south of 11th street soaked up a lot of water that now will be added to the above mentioned areas water problem. If this is all the work of the same above mentioned landowner and their development then the city needs to require they do all that is needed to see their speeded up run-off is free flowing all the way out the Alder Creek tide gates. * Most of that water would have otherwise gone out the Enterprise tide gates. But even now there is the makings of 2 large beaver dams in the Enterprise that will block the flow and back all upstream water into the 11th street ditch; (to block the 11th st ditch about 1000 feet east of the Enterprise on the east side of a large culvert under 11th would prevent Enterprise back flow into a good ditch taking it back to the Enterprise tidegate and away from Tansy populated area).

Increased traffic will be a problem for all of us; mostly for Hammond to handle the increase that this development will bring to the town.

Sincerely:

Elizabeth Tagg

Elizabeth Tagg
P.O. Box 567 710 N.W. 9th
Warrenton, OR 97146
861-7220

**(But is not legal to direct water from 1 drainage basin to another. ASCS)*

RECEIVED
AUG 10 2017

BY: *Muller*
CITY OF WARRENTON

City of Warrenton Planning Commission
Fort Pointe sub-division

Dear Commissioners,

I believe it is an important time for the City of Warrenton. Warrenton is experiencing positive growth and development that is not being seen in other areas of Clatsop County. Because of its proximity to the beach, river, parks and other amenities, it remains a very desirable for people to live and work.

It is important, as the City of Warrenton continues to grow, that we take a balanced approach to new development. Right now, there are many things happening in commercial development that require housing options for working families. We have all heard of the need for housing, and the application before you is a step in the right direction. There is a need for multifamily development, but let us not forget that we need new neighborhoods and single-family homes as well.

My wife and I currently own 3 homes in the Juniper neighborhood, just to the East of the Fort Pointe property, and I also had the privilege of building many of those homes as a home builder. The Juniper neighborhood provides housing for working families and I am proud to have been a part of its success. My favorite thing to see is the children getting off the school bus arriving home to their safe neighborhood and homes. This is what building a neighborhood is all about.

That being said, I'm proud to lend my support to this project. It will be a great place for families to grow up. It is in keeping with a balanced approach and greatly benefits the City of Warrenton.

Sincerely,



Cary Johnson

92080 John Day River Rd.
Astoria Or. 97103

RECEIVED
AUG 10 2017

BY: _____
CITY OF WARRENTON

"Making a difference through excellence of service"



CITY OF WARRENTON

NOTICE OF PUBLIC HEARING

A public hearing is scheduled before the City of Warrenton Planning Commission at 7:00 p.m. on Thursday, August 10, 2017 at the Warrenton City Hall Commission Chambers, 225 S Main Avenue, Warrenton, regarding a land use application submitted by Otak Inc. on behalf of Fort Pointe Partners LLC for preliminary approval of a residential planned unit development consisting of 160 lots for detached single-family homes, one (1) lot for future development of up to 20 units in townhome or duplex fashion and multi-family residential living of between 150 and 300 units. The proposed development would be on the westerly ±53 acres of Tax Lot 810170001300 which consists of approximately 277.3 acres. The subject property abuts Ridge Road to the west south of Peter Iredale Road and is covered by multiple zoning districts, R10 Intermediate Density Residential, R40 Low Density Residential, and RGM-R10 Growth Management Zone.

This application will be reviewed under the applicable standards and criteria in Warrenton Municipal Code Chapters 16.224 Planned Unit Developments, 16.216 Land Divisions and Lot Line Adjustments, 16.192 Large Scale Developments, 16.228 Intermediate Density Residential (R-10) District, 16.128 Vehicle and Bicycle Parking, 16.156 Wetland and Riparian Corridor Development Standards, 16.212 Site Design Review, 16.256 Traffic Impact Study, and 16.120 Access and Circulation. The review will follow WMC 16.208.050 Type III Procedure (Quasi-Judicial).

Anyone wishing to participate in the above-noted public hearing may present testimony orally at the public hearing, or submit written testimony, which must be received by the Warrenton Planning and Building Department no later than 5:00 P.M. on the day of the hearing. Written comments may be mailed to Skip Urling, Community Development Director, Warrenton Planning and Building Department, P.O. Box 250, Warrenton Oregon, 97146-0250. Failure to raise an issue on the record in person or by letter before the close of the record at the public hearing, or failure to provide statements or evidence sufficient to afford the decision making body an opportunity to respond to the issue, will preclude appeal to the Land Use Board of Appeals based on that issue.

Anyone wishing to review and/or purchase copies of the application and/or staff report may do so at the City of Warrenton Planning and Building Department, Warrenton City Hall, 225 South Main, Warrenton. The staff report will be available for review at no cost at least seven days before the hearing. For more information call Skip Urling at 503.861.0920.

Notice to mortgagee, lienholder, vendor, or seller: the Warrenton Development Code requires that if you receive this notice it shall be promptly forwarded to the purchaser.


Skip Urling, Community Development Director


Date

RECEIVED
MAY 18 2017

CITY OF WARRENTON PLANNING AND BUILDING DEPARTMENT

SUBDIVISION APPLICATION
(To be accompanied by a Tentative Map, and copy of property deed, Letter of Authorization, if applicable.)

OFFICE USE ONLY	
FILE #	<u>SUB 17-1-9400</u>
ZONING DISTRICT	<u>R10240 RGN</u>
RECEIPT #	_____
DATE RECEIVED	<u>5/18/17</u>

Legal Description of the Subject Property:

Township	Range	Section	Tax Lot
<u>8</u>	<u>10</u>	<u>17</u>	<u>1300</u>

Street address of the property: Site has no address. It is west of Ridge Road and south of the KOA access road

I/WE, THE UNDERSIGNED APPLICANT(S) OR AUTHORIZED AGENT, AFFIRM BY MY/OUR SIGNATURE(S) THAT THE INFORMATION CONTAINED IN THE FOREGOING APPLICATION AND ASSOCIATED SUBMISSIONS IS TRUE AND CORRECT.

APPLICANT:

Printed Name: Glen Bolen

Signature: [Signature] Date: 4/21/2017

Address: 808 sw 3rd, ave, Suite 300 Phone: 503.415.2375

City/State/Zip: Portland, OR 97204 Fax: _____

PROPERTY OWNER (if different from Applicant)

Printed Name: Mark Tolley for Forte Pointe Partners LLC

Signature: [Signature] Date: 5/16/17

Address: 202 W El Prado Dr. Phone: _____

City/State/Zip: Olmos Park, TX 78212 Fax: _____

Is this a Planned Unit Development (PUD)? No _____ Yes X

IS THIS A "PHASED DEVELOPMENT"? Yes X No _____

7-B

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CITY OF WARRENTON

AGENDA MEMORANDUM

TO: The Warrenton City Commission
FROM: Skip Urling, Community Development Director
DATE: For the Agenda of November 14, 2017
SUBJ: Planning Recommendation on C-1 General Commercial Mini-Storage Conditional Use Code Amendment—Ordinance No. 1214-A

A handwritten signature in blue ink, appearing to be 'S. Urling', located to the right of the 'FROM:' field.

Presently, mini-warehouses and similar storage facilities are permitted in the C-1 General Commercial zoning district other than along the Highway 101 corridor as a conditional use. Warrenton Municipal Code (WMC) 16.40.030.B.9. At the direction of the City Commission (CC), staff initiated a code amendment to limit such conditional uses to the east side of Highway 101 only.

After listening to testimony opposed to the amendment at a public hearing this past October 19, the Planning Commission (PC) acted unanimously to recommend the CC not adopt the proposed ordinance effecting the amendment. The finding of the Planning Commission was that the proposed amendment was too broad, would thwart commerce and economic development, and would infringe on individual property rights. The proposed ordinance, PC staff report and correspondence submitted into the record are attached. We'll provide copies of the meeting minutes at the CC meeting after the PC acts on them November 9th.

WMC 16.208.060.G.4 states that the CC shall "[a]pprove, approve with modifications, approve with conditions, deny, or adopt an alternative to an application for legislative change, or remand the application to the Planning

Commission for rehearing and reconsideration on all or part of the application.” It also states the CC may “[c]onsider the recommendation of the Planning Commission; however, it is not bound by the Planning Commission’s recommendation.” Before scheduling a public hearing before the City Commission, staff is looking for direction whether to move forward with the proposed ordinance as is or revise the concept and language.

RECOMMENDATION/SUGGESTED MOTION

Not applicable

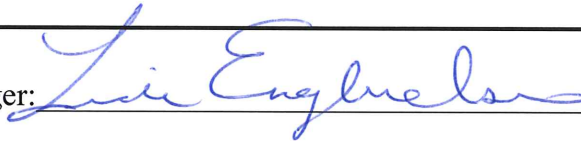
ALTERNATIVE

See the last above.

FISCAL IMPACT

None

Approved by City Manager:



All supporting documentation, i.e., maps, exhibits, etc., must be attached to this memorandum.

Attachments

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CITY OF WARRENTON

Notice of Planning Commission Recommendation

After conducting a public hearing on October 19, 2017, it was the unanimous decision of the Warrenton Planning Commission to recommend to the City Commission to not adopt proposed Ordinance No. 1214-A which would amend Warrenton Municipal Code 16.40.030 by limiting mini-warehouses and similar storage uses as conditional uses in the C-1 General Commercial Zone areas east of Highway 101.

The Planning Commission made this decision based on testimony during the public hearing stating that the proposal was too broad and would unnecessarily thwart economic development and restrict individual property rights.

Christine Bridgens 11/4/17

Christine Bridgens, Chair


Date

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CITY OF WARRENTON

September 11, 2017

To: Warrenton Planning Commission
From: Skip Urling, Community Development Director 
Re: Development Code Amendment: Eliminating Mini-Storage Facilities as Conditional Uses in the General Commercial Zone West of Highway 101

At the direction of the City Commission, staff has initiated an amendment to Warrenton Municipal Code 16.40.030 to allow mini-warehouses and similar storage uses in the General Commercial zoning district as conditional uses east Highway 101 only.

This proposal is being reviewed pursuant to Warrenton Municipal Code Sections 16.208.060 (Type IV Procedure - Legislative and Map Amendments), 16.232 (Land Use District Map and Text Amendments), Comprehensive Plan (CP), Statewide Planning Goals, Oregon Revised Statutes and the Oregon Administrative Rules. Notice was sent to affected property owners on August 7, 2017 and published in The Columbia Press on September 1, 2017

FINDINGS

Comprehensive Plan

Section 3.320 Commercial Lands spells out the policies regarding commercial lands. Item (1) states "it is the City's philosophy to promote convenient and attractive commercial areas that, along with other commercial facilities in the County, provided an adequate level of trade and services for local citizens, other County residents and tourists. Commercial enterprises may be permitted in these three kinds of areas.

(c) The purpose of the General Commercial Zone is to allow a broad range of commercial uses providing products and services in the downtown area, the Hammond business district, and along the Highway 101 corridor.

Section 9.200 Goal

(3) Strengthen and enhance a strong commercial core within the City of Warrenton.

Warrenton Downtown and Marina Master Plans

The Downtown Master Plan calls for a walkable community with a healthy mix of downtown businesses...with a distinct urban character. It envisions active store fronts and a workaday setting for local commerce. A general vision is to improve the central business district for shopping working and living.

The Downtown Master Plan identifies a variety of business types that were seen as well suited to a downtown Warrenton location and desirable by residents participating in the master planning effort. These include:

Community Businesses

- Dry cleaners
- Coffee shop/bakery
- Deli or restaurant
- Health Club
- Marine chandlers
- Camping, outdoors and cycling supply
- Fishing tackle
- Bookstore
- Antiques

Professional Businesses

- Doctors/dentists
- Insurance
- Lawyers
- Brokers
- Real estate agents/loan officers

Tourist Businesses

- Seafood sales and restaurant
- Souvenirs groceries
- Groceries (to serve Fort Stevens) wine store
- Hotel/B&B
- Art gallery
- Clothes and shoes
- Horseback riding
- Bike rentals and repairs
- Scooter/motorbike rental
- Kayak/small craft
- Boat tours

Both the CP and master plan are silent on the specific issue of the appropriateness of mini-storage facilities as a core area use. But due to the nature of their function, mini-storage facilities would not add to the vibrancy and economic boost in the downtown core areas.

Compliance with Oregon’s Statewide Planning Goals and Related Rules and Statutes

Goal 1, Citizen Involvement

Goal 1 outlines policies and procedures to be used by local governments to ensure that citizens will be involved “in all phases of the planning process.”

This proposal for a development code amendment is being reviewed in accordance with the acknowledged provisions for citizen involvement in the municipal code. It does not propose any changes to those provisions. This application therefore complies with Goal 1.

Goal 2, Land Use Planning

Goal 2 requires local governments to “establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.”

The proposal and applicable comprehensive land use plan policies is being reviewed by the Planning Commission who will forward a recommendation to the City Commission who will ultimately make a decision on it, which satisfies Goal 2.

Goal 3, Agricultural Lands

Goal 3 deals with conservation of “agricultural lands” as defined in that goal. The goal’s provisions are directed toward counties, not cities (such as Warrenton). The goal states, “Agricultural land does not include land within acknowledged urban growth boundaries....” This goal does not apply.

Goal 4, Forest Lands

Goal 4 deals with conservation of “forest lands” as defined in that goal. Details about such conservation are set forth in related administrative rules: OAR Chapter 660, Division 006. OAR 660-006-0020 states: “Goal 4 does not apply within urban growth boundaries....” This goal does not apply.

Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces

The basic aim of Goal 5 is “To protect natural resources and conserve scenic and historic areas and open spaces.” Because no such natural resources, scenic and historic areas and open spaces will be affected, this goal does not apply.

Goal 6, Air, Water and Land Resources

Statewide Planning Goal 6 is “to maintain and improve the quality of the air, water and land resources of the state.” It deals mainly with control of “waste and process discharges from future development.” Because no development is proposed, this goal does not apply.

Goal 7, Areas Subject to Natural Hazards

Statewide Planning Goal 7 is to “to protect people and property from natural hazards.” No part of the proposal will affect the city’s approved Goal 7 plan, therefore this goal is not applicable.

Goal 8, Recreational Needs

Goal 8 is “to satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.” This goal does not apply.

Goal 9, Economic Development

Goal 9 calls for the provision of adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare and prosperity for Oregon’s citizens.

This proposal is to amend the development code to limit mini-storage facilities as conditional uses to those areas zoned as General Commercial east of Highway 101. Precluding such uses along the gateways to and the city center would eliminate the potential for such development which does not provide for significant employment opportunities or tax revenue and reserve that potential for uses that do. This goal is satisfied.

Goal 10, Housing

Statewide Planning Goal 10 is “to provide for the housing needs of citizens of the state.” The goal requires cities to assess future need for various housing types and to plan and zone sufficient buildable land to meet those projected needs. This goal is not applicable.

Goal 11, Public Facilities and Services

Goal 11 is “to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.” Mini-storage facilities are typically low users of public facilities and services. Eliminating the development of such uses west of Highway 101 will not affect this goal. This goal is satisfied.

Goal 12, Transportation

Goal 12 is “to provide and encourage a safe, convenient and economic transportation system.”

Mini-storage facilities typically generate very little traffic. Eliminating the development of such uses west of Highway 101 will not affect this goal. This goal is satisfied.

Goal 13, Energy

Goal 13 is simply “to conserve energy.”

This application for a code amendment would not affect the plan provisions for energy conservation. Any development within the boundaries of the subject property after the proposed rezoning would be subject to those provisions and to all applicable state and federal requirements for energy conservation. This application therefore complies with Goal 13.

Goal 14, Urbanization

Goal 14 is “to provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.” This is a code amendment to regulate uses and does not affect this goal.

Goal 15, Willamette River Greenway

Goal 15 deals with lands adjoining the Willamette River and does not apply to this proposal.

Goal 16, Estuarine Resources

Goal 16 is “to recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.” Because the code amendment would not affect any natural estuarine characteristics, this goal does not apply.

Goal 17, Coastal Shorelands

Goal 17 aims “to conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics.” This goal does not apply.

Goal 18, Beaches and Dunes

Goal 18 says that “coastal areas subject to this goal shall include beaches, active dune forms, recently stabilized dune forms, older stabilized dune forms and interdune forms.” No such land forms exist within the area of the proposed amendment this goal does not apply.

Goal 19, Ocean Resources

Goal 19 deals with management of resources in Oregon’s territorial sea (the waters bordering the state’s coastline). No part of the territory subject to the proposed amendment lies within or next to the territorial sea. Goal 19 thus does not apply to this application.

CONCLUSIONS AND RECOMMENDATION

While the comprehensive plan does not provide clear guidance on the issue of ministorage facilities in the gateway corridors to and the downtown area, the downtown master program identifies the types of businesses desired to create a commercial area that exhibits great vitality. The proposed code amendment is also not in conflict with the statewide planning goals. Accordingly, based on the findings above, staff recommends the Planning Commission forward Ordinance No. 1214-A allowing mini-storage facilities as conditional uses in the C-1 General Commercial zoning district only east of Highway 101 to the City Commission with a recommendation to adopt.

Suggested motion: Based on the findings and conclusions of the September 11, 2017 staff report, I move to forward Ordinance No. 1214-A to the City Commission with a recommendation to adopt.

Ordinance No. 1214-A

Introduced by all Commissioners.

An Ordinance Amending Warrenton Municipal Code (WMC) 16.40.030 [General Commercial] Conditional Uses to Limit the Development of Mini-warehouses or similar storage uses in the C-1 General Commercial Zoning District as Conditional Uses East of Highway 101 only.

The City Warrenton ordains as follows:

Section 1. WMC 16.40.030 is hereby amended as follows:

The following uses and their accessory use may be permitted in the C-1 zone when approved under Chapter 16.220 and shall comply with Sections 16.40.040 through 16.40.060 and Chapters 16.124 (Landscaping) and 16.212 (Site Design Review):

A. Only the following uses and their accessory uses are permitted along Highway 101, SE Marlin and SW Dolphin Avenues, and shall comply with the above noted sections and Chapter 16.132:

1. Cabinet, carpenter, woodworking or sheet metal shops.
2. Processing uses such as bottling plants, bakeries and commercial laundries.
3. Research and development establishments.
4. Wholesale storage and distribution facilities, including cold storage.
5. RV park.
6. Similar uses as those stated in this section.

B. The following uses and their accessory uses are permitted in all other C-1 zoned areas within the City limits of Warrenton:

1. Cabinet, carpenter, woodworking or sheet metal shops.
2. Building contractor shops, including plumbing, electrical and HVAC.
3. Fuel oil distributor.
4. Processing uses such as bottling plants, bakeries and commercial laundries.
5. Research and development establishments.
6. Wholesale storage and distribution facilities, including cold storage.
7. Veterinary clinic, kennels.
8. Tool and equipment rental.
9. Mini-warehouses or similar storage uses, east of Highway 101 only.
10. Church, synagogue, or other place of worship.

11. Commercial uses with 2nd floor residential use(s) [apartment(s)].
12. RV park.
13. Similar uses to those listed in this section.

Section 2. Severability. If any section, sentence, clause or phrase of this ordinance is ruled invalid by a court of competent jurisdiction, the remaining portion of this ordinance shall remain valid and in full force and effect.

Section 3. Effective Date. This ordinance shall be effective 30 days after the second reading.

ADOPTED by the City of Warrenton, Oregon, this _____ day of _____, 2017.

First Reading: _____

Second Reading: _____

Approved:

Henry Balensifer, Mayor

Attest:

Dawne Shaw, Deputy City Recorder

Ordinance No. 1214-A

Introduced by all Commissioners.

An Ordinance Amending Warrenton Municipal Code (WMC) 16.40.030 [General Commercial] Conditional Uses to Limit the Development of Mini-warehouses or similar storage uses in the C-1 General Commercial Zoning District as Conditional Uses East of Highway 101 only.

The City Warrenton ordains as follows:

Section 1. WMC 16.40.030 is hereby amended as follows:

The following uses and their accessory use may be permitted in the C-1 zone when approved under Chapter 16.220 and shall comply with Sections 16.40.040 through 16.40.060 and Chapters 16.124 (Landscaping) and 16.212 (Site Design Review):

A. Only the following uses and their accessory uses are permitted along Highway 101, SE Marlin and SW Dolphin Avenues, and shall comply with the above noted sections and Chapter 16.132:

1. Cabinet, carpenter, woodworking or sheet metal shops.
2. Processing uses such as bottling plants, bakeries and commercial laundries.
3. Research and development establishments.
4. Wholesale storage and distribution facilities, including cold storage.
5. RV park.
6. Similar uses as those stated in this section.

B. The following uses and their accessory uses are permitted in all other C-1 zoned areas within the City limits of Warrenton:

1. Cabinet, carpenter, woodworking or sheet metal shops.
2. Building contractor shops, including plumbing, electrical and HVAC.
3. Fuel oil distributor.
4. Processing uses such as bottling plants, bakeries and commercial laundries.
5. Research and development establishments.
6. Wholesale storage and distribution facilities, including cold storage.
7. Veterinary clinic, kennels.
8. Tool and equipment rental.
9. Mini-warehouses or similar storage uses, east of Highway 101 only.
10. Church, synagogue, or other place of worship.

11. Commercial uses with 2nd floor residential use(s) [apartment(s)].
12. RV park.
13. Similar uses to those listed in this section.

Section 2. Severability. If any section, sentence, clause or phrase of this ordinance is ruled invalid by a court of competent jurisdiction, the remaining portion of this ordinance shall remain valid and in full force and effect.

Section 3. Effective Date. This ordinance shall be effective 30 days after the second reading.

ADOPTED by the City of Warrenton, Oregon, this _____ day of _____, 2017.

First Reading: _____

Second Reading: _____

Approved:

Henry Balensifer, Mayor

Attest:

Dawne Shaw, Deputy City Recorder

Campbell & Popkin LLC
1580 N Roosevelt Drive
Seaside, OR 97138

Attorneys
Steven T. Campbell
Lawrence J. Popkin
Christopher J. Palmer *
Sunil K. Raju
* Also admitted in WA

Sunil Raju
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Brianna Anderson
Legal Assistant
banderson@campbellpopkin.com

October 19, 2017

By Hand Delivery

Warrenton Planning Commission
PO Box 250
225 S Main Ave
Warrenton, OR 97146

Re: Paul Leitch's Objection to Proposed Ordinance 1214-A

Dear Members of the Planning Commission:

This firm has been retained by Paul A. Leitch, who is a small business owner in Warrenton. He is the long-time business owner of America's Best Storage and Sturgeon Paul's. We hereby submit this written statement into the record for consideration and review by the planning commission.

We strongly urge the planning commission to not forward the proposed ordinance, Ordinance 1214-A, in its current form. There are many issues and questions surrounding this ordinance which harm America's Best Storage, which are anti-small-business, and which significantly impair Mr. Leitch's property interests and raise potential legal claims and liabilities for the City of Warrenton.

We invite the planning commission to recognize that the proposed ordinance is poorly drafted, is overly broad, and arbitrarily discriminates against America's Best Storage and other mini-warehouse businesses west of Highway 101 in Warrenton. The proposed ordinance also raises a huge red flag for any other businesses listed in the ordinance, which may well be targeted next.

I. Ordinance 1214-A is Poorly Drafted, is Overly Broad, and is Arbitrary in its Application

Ordinance 1214-A is fatally flawed in numerous ways. Its stated purpose is to "create a commercial area that exhibits great vitality." The ordinance relies on the Downtown Master Plan and attempts to justify compliance with Oregon's Statewide Planning Goals and Related Rules and Statutes.

The Downtown Master Plan does not indicate that mini-warehouses are any different than any other commercial business. The Downtown Master Plan does not provide any support whatsoever to the ordinance's choice to limit development of mini-warehouses. There is not reasoning to demonstrate why one would start with mini-warehouses versus other, similar commercial businesses listed in the ordinance.

The Downtown Master Plan's goals are laudable, and speak of a walkable community with a healthy mix of downtown businesses. The plan also speaks of active storefronts and a central business district for shopping, working, and living.

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Seaside, OR 97138

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The problem is that the plan has no relationship to the ordinance. Prohibiting existing mini-warehouses, or expansion, west of Highway 101 is illogical. The part of Warrenton that is west of Highway 101 is diverse, and much of it is not amenable to development of the plan.

Many, many businesses west of Highway 101 do not fit into the description of ideal businesses listed in the plan. This ordinance should be cause for grave concern for many small business owners, whose small businesses may well be next.

Oregon's Statewide Planning Goals and Related Rules and Statutes do not support this ordinance. Goal 1, regarding citizen involvement, requires the planning commission to take pause and reflect and how the ordinance affects residents and small businesses in the community. This goal not only requires the planning commission to provide notice, but also requires the planning commission to carefully and respectfully listen to and reflect upon the concerns of small business owners like Paul Leitch, who has owned and run America's Best Storage for many years.

Goal 2, regarding land use planning, requires local governments to have an adequate factual basis for such decisions and actions. Mr. Urling's September 11, 2017, letter, which accompanies the ordinance and recommends it be forwarded to the city commission, has no factual basis whatsoever for picking mini-warehouses, as opposed to other commercial businesses, for regulation by the ordinance.

As to Goal 9, regarding economic development, Mr. Urling's letter states, without any reasoning or support, that mini-storage facilities do not contribute to the economic activities vital to the health, welfare, and prosperity for Oregon's citizens.

Mr. Urling states that Goal 10, regarding housing, is not applicable. And yet with the growth of Warrenton, fishermen, families, and small businesses have greater need for storage space. Mr. Urling also state that Goal 14, regarding urbanization, does not apply, and yet, as population density increases, fishermen, families, and small businesses have greater need for storage space.

II. Ordinance 1214-A Raises Significant Legal Issues, Would Constitute a Taking, and Raises Measure 49 Concerns

Ordinance 1214-A is unconstitutional on its face, as it does not exempt or grandfather in existing mini-warehouse businesses west of Highway 101 in Warrenton. The ordinance therefore is subject to challenge under Article I, Section 18 of the Oregon Constitution and the 5th Amendment of the United States Constitution.

In Oregon, we have a proud tradition that recognizes and respects property rights. There has been significant litigation over land use litigation that unfairly impacts property rights, including under Measure 37, and later Measure 49.

//

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Given its application to businesses like Mr. Leitch's, the planning commission should completely scrap the proposed ordinance.

III. Mr. Leicht has Built a Successful Business and Plans to Expand his Business

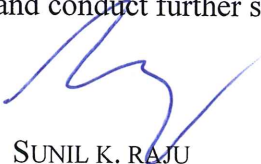
As Mr. Leicht's testimony will show, he is a hard-working, entrepreneurial man who has started and built two successful small businesses. He is representative of the small business community in Warrenton and should be encouraged, not stifled.

IV. Key Issues and Questions Which Require Further Study and Discussion

There are several key issues and questions which demand further discussion and study by the planning commission:

- **Which public officials are sponsoring and supporting this ordinance?**
- **Why does the ordinance specifically target mini-warehouse businesses?**
- **Why does the ordinance target all mini-warehouse businesses west of Highway 101 in Warrenton, and not take into account the character of the area?**

We believe and agree that the development of Warrenton is important for the future success of the community, but this ordinance has no relationship to the Master Downtown Plan or the statewide planning goals. We strongly urge the planning commission to not forward the ordinance to the city commission, and to hold further hearings and conduct further study.



SUNIL K. RAJU
Attorney at Law

SKR:ba
cc: Client



Exhibit A

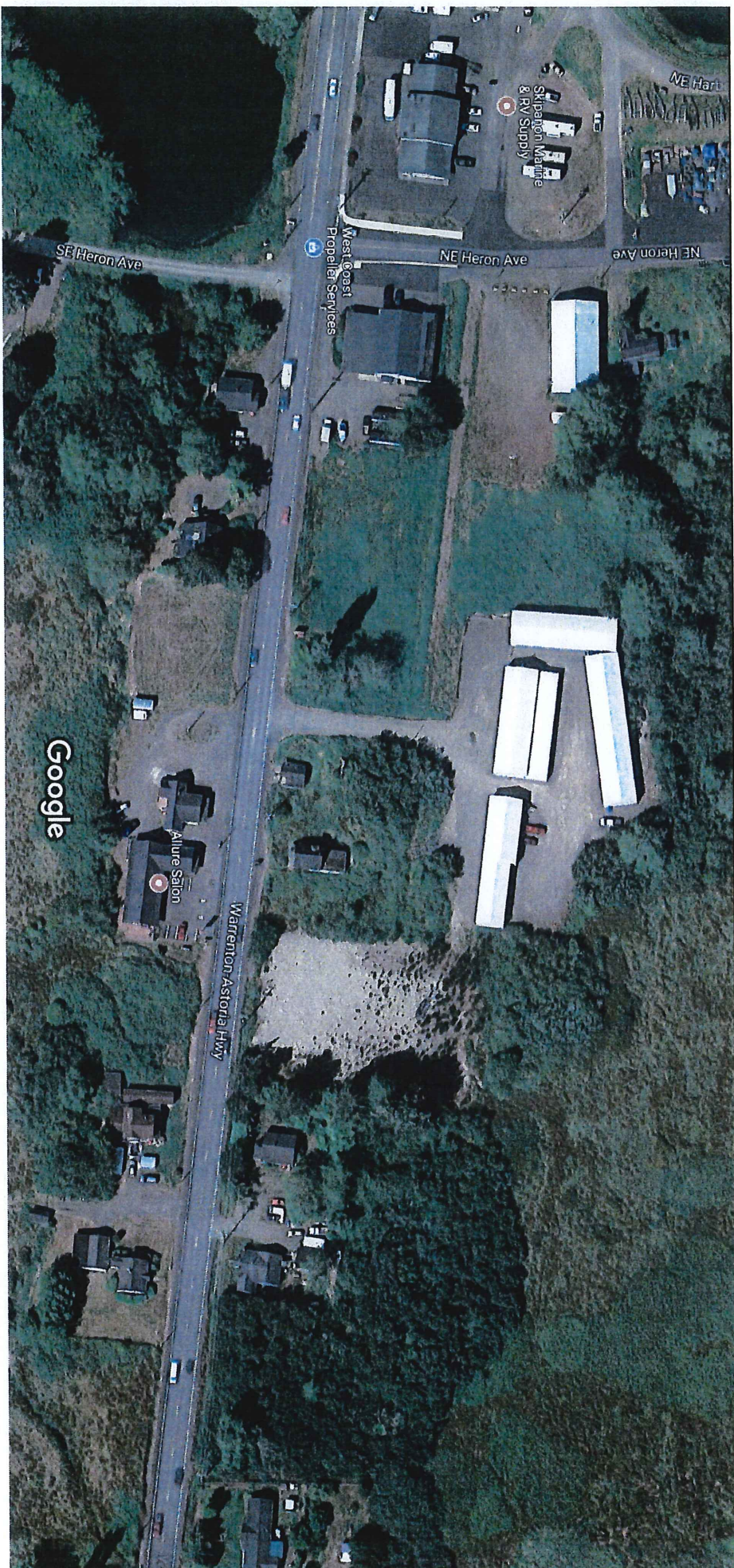


Imagery ©2017 Google, Map data ©2017 Google United States 200 ft

Google



Exhibit B



Imagery ©2017 Google, Map data ©2017 Google United States 50 ft

Exhibit C

TESTIMONY OF BUSINESS OWNER PAUL A. LEITCH RE ORDINANCE 1214-A

My name is Paul Leitch, and I am a long-time resident of Hammond and a long-time small business owner with businesses in both Hammond and Warrenton. Many people in the community simply know me as Sturgeon Paul, because of my history with the fishing community. I am happily married to my wife Heather, and have children and grandchildren in this community.

I was born and raised in Ilwaco, just across the way. I come from a family of fishermen, and have been a part of the fishing community in Warrenton for twenty years in various ways—as a sportsman, as a guide, and as a business person. Since 2000, I have successfully owned and operated Sturgeon Paul's.

In 2007, I took a chance and started America's Best Storage, my mini-warehouse business, which is located at 60 Iredale Street, in Warrenton. I invested a significant amount of money into the mini-warehouse that existed at that time, believing that this part of Warrenton would be a great location for my small business. Initially, this business struggled a lot due to the recession in the late 2000's, and the success of Sturgeon Paul's kept the mini-warehouse business afloat.

Today, things are the other way around. My mini-warehouse business is thriving, while Sturgeon Paul's, which employs 8 employees in peak season, depends on my mini-warehouse business financially. I have fishermen, families, and small business owners as customers. As Warrenton has grown, my customer base has grown, and I have had full occupancy for several years.

I have started and run many small businesses, and I could not be prouder of both America's Best Storage and Sturgeon Paul's. Like many small business owners in Warrenton, I am entrepreneurial, am a hard worker, and love this community. I started my small businesses in this community as part of a long-term plan. I love serving my customers and living out my hopes and dreams.

America's Best Storage is located off of E Harbor Street, east of downtown Warrenton and west of Highway 101. Anyone who knows this area will recognize that it is not pedestrian friendly, that it has heavy traffic going between Highway 101 and downtown Warrenton, and that there are no businesses mentioned in the Downtown Master Plan (such as coffee shops, bakeries, bookstores, etc.). This stretch of E Harbor Street has never been a place for tourists to visit, or for locals to hang out. Most people are simply passing through.

When I started America's Best Storage in 2007, like many small business owners, I planned not only to succeed, but to continue operating my mini-warehouse business and to expand it. I own an adjacent piece of land, and am in the process of acquiring another adjacent piece of land. I have been planning for several years to expand this business, and have relied on the City of Warrenton to support me. As a result, I have many happy customers, I have a wait list, and I want to invest more in my business. I have a pending conditional use permit with the city for one of the adjacent parcels. I also plan to expand my mini-warehouse business in Hammond, as part of Sturgeon Paul's. Since 2007, I have paid over \$500,000 to the city in rent, utilities, and property taxes.

I am very concerned about the proposed ordinance. It is unclear to me why the mini-warehouse business is being singled out. I am not in a residential area, and I am not in an area where tourists or locals hang out. I love this community, and want to see it continue to grow, but this ordinance does not do that—at least as far as it affects my business. I need clarification from the city that my current location will be grandfathered in. I have operated my business for ten years now, and hope to continue running the business for a long time.

I also am very concerned about the ordinance's impact on my ability to grow my business. I am growing my business simply based on demand—this is something my customers want—they are local fishermen, they are families who need extra space, and they are local business owners who need to store their equipment. I own one of the adjoining pieces of land outright, and am in the process of acquiring the other. These adjoining pieces of land are part of a years-long plan I have for continuing to build my small business. As I said earlier, I plan to expand my mini-warehouse business at Sturgeon Paul's; many of my customers at Sturgeon Paul's are fishermen who need storage for their equipment.

I would urge the planning commission to not pass this ordinance. My current mini-warehouse business, and my plans to expand it, should not be held back by this ordinance. This ordinance is way too broad; it is not fair to simply prohibit all mini-warehouse businesses west of Highway 101. My small business in no way interferes with the Downtown Master Plan, and yet the ordinance treats my small business as if I am a trouble maker and a blight on the city.

I am concerned that my type of business is being singled out; I don't understand why other similar businesses are not being limited or prohibited.

I love this community, I support anything that will help us continue to prosper, including attracting more tourism and welcoming locals to spend more time in our downtown. However, the area where my business is located has never been, and will never be the place where tourist and locals come to spend time. This location will always be one where people are passing through, except when they come to businesses like mine which they need, use, and support.

As a small business owner, I have relied on the City of Warrenton to give me the freedom and opportunity to run and grow my business for ten years. I hope the city will see that this ordinance is anti-business, and is way too broad in how far it reaches. My small business is not located in an area where people shop, where people work, and where very few people live. It is a primarily commercial area and the perfect location for my business. If my mini-warehouse business is harmed by this ordinance, there is no telling what other small business owners will have happen to them next. I strongly urge the planning commission to *not* forward this ordinance to the city commission. There needs to be a lot more discussion and research about this ordinance, to make sure innocent business owners like me are not affected.

"Making a difference through excellence of service"



**CITY OF WARRENTON
PUBLIC WORKS**

Agenda Item 7-C

Agenda Item Memorandum

TO: The Honorable Mayor and Members of the Warrenton City Commission
Linda Engbretson, City Manager

From: Collin Stelzig, Interim Public Works Director

Date: November 14, 2017

Subj: Water Meter Replacement – Advertisement for Bids

Summary:

On October 11, 2016, the Commission authorized staff to apply for funding for a water meter replacement project. An application was submitted to the Oregon Infrastructure Finance Authority of the Business Development Department (“the IFA”) to obtain financial assistance from the Safe Drinking Water Revolving Loan Fund. On February 28, 2017, the Commission approved Resolution 2487 authorizing the City to enter into a financing contract with IFA to fund the project. On July 25, 2017, the Commission authorized the City to enter into a contract for professional services with Gray & Osborne, Inc. for the project management portion of the project. We are now asking for approval to advertise the attached plans and specifications for the implementation water meter replacement project.

Recommendation

Staff recommends the following motions;

“I move to authorize staff to advertise the proposed plans and specifications for Water Meter Replacement Project.”

Alternative

- 1) Other action as deemed appropriate by the City Commission
- 2) None recommended

Fiscal Impact

Funds for this project are budgeted in the current fiscal year’s Water Fund under the ongoing meter replacement program 025-430-371004.

Approved by City Manager: _____

CITY OF WARRENTON

CLATSOP COUNTY

OREGON

CONTRACT PROVISIONS

for

WATER METER REPLACEMENT

**FUNDED IN PART BY THE STATE OF OREGON
SAFE DRINKING WATER STATE REVOLVING FUND**

**G&O #17270
NOVEMBER 2017**



Gray & Osborne, Inc.

CONSULTING ENGINEERS

CITY OF WARRENTON

CLATSOP COUNTY

OREGON

CONTRACT PROVISIONS

for

WATER METER REPLACEMENT

FUNDED IN PART BY THE STATE OF OREGON
SAFE DRINKING WATER STATE REVOLVING FUND



EXPIRES: 12/31/2017

G&O #17270
NOVEMBER 2017



Gray & Osborne, Inc.

CONSULTING ENGINEERS

CALL FOR BIDS

CITY OF WARRENTON

WATER METER REPLACEMENT ENGINEER'S ESTIMATE \$178,350

Sealed Proposals will be received by the undersigned at the City of Warrenton, 225 South Main Avenue, Warrenton, Oregon 97146, up to 2:00 p.m.; local time on Monday, December 11, 2017, for furnishing the necessary labor, materials, equipment, tools, and guarantees thereof to construct the Water Meter Replacement.

The work under this Contract includes replacement of water meters with Owner-furnished meters as well as limited replacement of meter boxes with Owner-furnished meter boxes.

The Work shall be physically complete within 45 working days after the commencement date stated in the Notice to Proceed. All bidding and construction is to be performed in compliance with the Contract Provisions and Contract Plans for this project and any addenda issued thereto that are on file at the office of the City Clerk, City Hall, Warrenton, Oregon.

The Proposals will be publicly opened and read aloud shortly after the time and date stated above. Proposals are to be submitted only on the form provided with the Bid Documents. All Proposals must be accompanied by a certified check, irrevocable letter of credit, cashiers check, or Proposal bond payable to the "City of Warrenton" and in an amount of not less than ten percent (10%) of the total Proposal amount.

Bid Documents may be *examined* at the office of the City of Warrenton, or the office of the Project Engineer, Gray & Osborne, Inc. Bid Documents for this project are available free-of-charge at the following website: "<http://gobids.grayandosborne.com>". Bidders are encouraged to "Register" in order to receive automatic email notification of future addenda and to be placed on the "Bidders List". All addenda for the project will be posted at the website above. The City will not mail notice of Addenda. For assistance, please call (206) 284-0860. Contract questions shall be directed only to the office of the Project Engineer.

A Prebid Conference is scheduled for Tuesday, December 5, 2017. The conference will begin at the City of Warrenton, City Commission Chambers, 225 South Main Avenue, Warrenton, Oregon at 10:00 a.m. (local time). Prospective bidders are encouraged to participate. No unauthorized visits or unscheduled visits will be allowed.

No bid will be received or considered unless the bid contains a statement by the bidder, as part of their bid, that Contractor agrees to be bound by and will comply with the provisions of ORS 279C.838, 279C.840 or 40 U.S.C. 3141 to 3148 (Davis- Bacon Act),

**CONTRACT PROVISIONS
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CITY OF WARRENTON
WATER METER REPLACEMENT**

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Figure 1 – City of Warrenton Water System
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PART 7. APPENDIX

Appendix A – Water Meter Route Maps

PART 1

BID DOCUMENTS

BIDDER'S CHECKLIST

1. REQUIRED FORMS

The Bidder shall submit the following forms, which must be executed in full and submitted with the Proposal.

- a. Proposal (including Statement of Bidder's Qualifications) (Pages P-1 - P-8)
- b. Bid Deposit or Proposal Bond (PB-1)

2. AGREEMENT FORMS

The following forms (a., b., and c.) are to be executed and the following Certificates of Insurance (d. and e.) are to be provided after the Contract is awarded and prior to Contract execution.

- a. Agreement (Pages C-1 - C-6)
- b. Performance Bond (Page B-1)
- c. Public Works Payment Bond (Page B-2)
- d. Certificate of Insurance
- e. Certificate of Builders Risk Insurance

WATER METER REPLACEMENT

PROPOSAL

City of Warrenton
225 South Main Avenue
Warrenton, Oregon 97146

The undersigned has examined the Work site(s), local conditions, the Contract, and all applicable laws and regulations covering the Work. The following unit and lump sum prices are tendered as an offer to perform the Work in accordance with all of the requirements set forth in the Contract and all applicable laws and regulations.

As required by the Contract, an irrevocable letter of credit, certified check, cashier's check or Proposal bond made payable to the Owner is attached hereto. If this Proposal is accepted and the undersigned fail(s) or refuse(s) to enter into a contract and furnish the required performance bond, labor and material payment bond, special guarantee bonds (if required), required insurance and all other required documentation, the undersigned will forfeit to the Owner an amount equal to ten percent of the Proposal amount.

After the date and hour set for submitting the Proposals, no bidder may withdraw its Proposal, unless the Award of the contract is delayed for a period exceeding 60 consecutive calendar days.

The undersigned agrees that in the event it is Awarded the contract for the Work, it shall employ only Contractors and Subcontractors that are duly licensed by the State of Oregon and remain so at all times they are in any way involved with the Work.

The undersigned agrees that the Owner reserves the right to reject any or all Proposals and to waive any minor irregularities and informalities in any Proposal.

The undersigned agrees that the Owner reserves the right to Award the Contract to the lowest responsible, responsive bidder whose Proposal is in the best interest of the Owner. The Owner will determine at the time of Award which Additive Items, if any, to include in the Contract.

PROPOSAL - Continued

BASE BID:

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1.	Mobilization and Demobilization	1 LS	\$_____	\$_____
2.	3/4-Inch Water Meter Installation	2,077 EA	\$_____	\$_____
3.	1-Inch Water Meter Installation	56 EA	\$_____	\$_____
4.	3/4-Inch Meter Box	96 EA	\$_____	\$_____
5.	1-Inch Meter Box	1 EA	\$_____	\$_____
6.	Project Documentation	1 LS	\$_____	\$_____

TOTAL CONSTRUCTION COST (BASE BID): \$_____

ADDITIVE ITEM: OPTIONAL WITH OWNER

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1.	Remove and Install Asphalt	3 EA	\$_____	\$_____
2.	Remove and Install Concrete	47 EA	\$_____	\$_____
3.	Elevate Water Meter	19 EA	\$_____	\$_____
4.	Lower Water Meter	2 EA	\$_____	\$_____

TOTAL CONSTRUCTION COST (ADDITIVE): \$_____

BID SUMMARY

1. TOTAL CONSTRUCTION COST
(BASE BID forwarded from above):..... \$_____
2. TOTAL CONSTRUCTION COST
(ADDITIVE forwarded from above):..... \$_____
3. TOTAL CONSTRUCTION COST
(BASE BID AND ADDITIVE) \$_____

Note: A bid must be received on all items.

PROPOSAL - Continued

ALTERNATES TO BID ITEMS

Bidders shall use this page to submit proposals on any alternate types of equipment or materials that bidders recommend the Owner consider using. Contract Award will be made on the basis of equipment and materials that are specified. After Award, the Owner may consider any proposal alternates that, in the opinion of the Owner, will be equivalent to or better than the item specified. The Owner shall have complete discretion on whether to use any alternates, and the Owner's decision shall not be subject to challenge.

BASE BID:

Alternate to Bid Item No.	Item	Manufacturer	Amount Bid

ADDITIVE ITEM:

Alternate to Bid Item No.	Item	Manufacturer	Amount Bid

PROPOSAL - Continued

STATEMENT OF BIDDER'S QUALIFICATIONS

Name of Firm: _____

Address: _____

Telephone No. _____ Fax No. _____

Contact Person for this Project: _____

E-mail: _____

Number of years the Contractor has been engaged in the construction business under the present firm name, as indicated above:

Gross dollar amount of work currently under contract: _____

Gross dollar amount of contracts currently not completed: _____

General character of work performed by firm: _____

List of five major projects of a similar nature which have been completed by the Contractor within the last five years and the gross dollar amount of each project, together with the Owner's name and telephone number, and the Engineer's name:

Project Name	Amount	Owner	Phone	Engineer's Name

PROPOSAL - Continued

List five major pieces of equipment which are anticipated to be used on this project by the Contractor and note which items are owned by the Contractor and which are to be leased or rented from others:

Bank Reference: _____

How many general superintendents or other responsible employees in a supervisory position do you have at this time, and how long have they been with the firm?

Identify who will be the general superintendent and/or project superintendent on this project. Also, list the number of years each person identified has been with firm.

Have you changed bonding companies within the last three years? _____

If so, why? _____

Have you ever been a party to a lawsuit or an arbitration proceeding in any way relating to a construction project? _____

Identify the proceeding and parties and describe the claims asserted by all parties. _____

What was the disposition of the case? _____

Bidder agrees that the Owner shall have the right to obtain credit reports.

Yes

No

PROPOSAL - Continued

WORK COMPLETED BY CONTRACTOR

List the Work and the dollar amount thereof that the Contractor will complete with its forces, if awarded the contract.

Work to be Performed	Dollar Amount

ADDENDA RECEIVED

Addendum No.	Date Received	Name of Recipient

NOTE: Bidder shall acknowledge receipt of all addenda. Bidder is responsible for verifying the actual number of addenda issued prior to submitting a Proposal.

Subject to any extensions of the Contract time granted under the Contract, the undersigned agrees to substantially complete the Work required under this Contract within 40 working days (the Substantial Completion Date) and to physically complete the Work required under this contract within 45 working days (the Physical Completion Date) from when Contract Time begins.

The undersigned has reviewed and fully understands the provisions in the Contract regarding liquidated damages and agrees that liquidated damages shall be \$500.00 per day for each and every working day beyond the Contract time allowed for substantial completion until the Substantial Completion Date is achieved and \$500.00 for each and every working day required beyond the Contract Time for physical completion until the Physical Completion Date is achieved.

The undersigned is, and will remain in, full compliance with all Oregon State administrative agency requirements including, but not limited to registration requirements for contractors, including but not limited to requirements for bond, proof of insurance and annual registration fee.

PROPOSAL - Continued

The undersigned's Oregon Construction Contractor's Board License No. is:

The undersigned has reviewed all insurance requirements contained in the Contract and has verified the availability of and the undersigned's eligibility for all required insurance. The undersigned verifies that the cost for all required insurance, has been included in this Proposal.

The undersigned agrees to be bound by and will comply with the provisions of ORS 279C.838, 279C.840 or 40 U.S.C. 3141 to 3148, the Oregon Prevailing Wage law or the Federal Davis Bacon Act, as applicable.

The undersigned certifies that the undersigned Contractor is not ineligible to receive a contract for a public work pursuant to ORS 279C.860. Bidder further agrees, if awarded a contract, that every subcontractor will be eligible to receive a contract for a public work pursuant to ORS 279C.860.

The undersigned certifies that the undersigned Contractor has not discriminated against minority, women or emerging small businesses enterprises in obtaining any required subcontracts. The bidder understands and acknowledges that it may be disqualified from bidding on this public improvement project as set forth in OAR 137-049-0370, including but not limited to City discovery a misrepresentation or sham regarding a subcontract or that the Bidder has violated any requirement of ORS 279A.110 or the administrative rules implementing the Statute.

In determining the lowest responsible bidder, City shall, for the purpose of awarding the contract, add a percent increase on the bid of a non-resident bidder equal to the percent, if any, of the preference given to that bidder in the state in which the bidder resides. "Resident bidder" of Oregon means a bidder that has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the bid, has a business address in this state and has stated in the bid that the bidder is a "resident bidder" of the State of Oregon. The undersigned represents him/her self in this bid to be either a Resident or a Nonresident bidder by completing the appropriate blank below.

By signing the proposal, the undersigned declares, under penalty of perjury under the laws of the United States and the State of Oregon, that the following statements are true and correct:

1. That the undersigned person(s) or entity(ies) has(have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this Proposal is submitted.

PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, That we _____

of _____ as principal, and the _____

a corporation duly organized under the laws of the state of _____,
_____ and authorized to do business in the State of Oregon, as surety, are held and firmly bound unto the **CITY OF WARRENTON** in the full and penal sum of five percent of the total amount of the bid proposal of said principal for the work hereinafter described, for the payment of which, well and truly to be made, we bind our heirs, executors, administrators and assigns, and successors and assigns, firmly by these presents.

The condition of this bond is such, that whereas the principal herein is herewith submitting his or its sealed proposal for the following construction project, to wit:

WATER METER REPLACEMENT

said bid and proposal, by reference thereto, being made a part hereof.

NOW, THEREFORE, If the said proposal bid by said principal be accepted, and the contract be awarded to said principal, and if said principal shall duly make and enter into and execute said Contract and shall furnish bond as required by the **CITY OF WARRENTON** within a period of 10 days from and after said award, exclusive of the day of such award, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

IN TESTIMONY WHEREOF, The principal and surety have caused these presents to be signed and sealed this _____ day of _____, _____.

(Principal)

(Surety)

(Attorney-in-fact)

**CONTRACTOR/SUBCONTRACTOR CONTRACT AGREEMENT
Addendum to Contract between Contractor and Subcontractor**

Contract

Part A

Date:		Contractor:	
Project Number:		Address:	
Project Name:			

1. The parties, having executed a contract for:

in the amount of \$	in the construction of the above-identified project acknowledge and agree that:

- a. The Labor Standards provision and Lobbying Certification are included in the aforesaid contract;
- b. The applicable Davis-Bacon wage rates and BOLI wage rates are included in aforesaid contract;
- c. The addendum to the Contract between Contractor and Subcontractor is part of the Contract;
- d. The attached Fringe Benefit Summary form describes how the required fringe benefit amounts, if any, will be paid by the subcontractor; and,
- e. Correction of any infractions of the aforesaid conditions, including infractions by the subcontractor and any lower tier subcontractors, is a mutual responsibility.

2. The parties certify that:

- a. As required by 24 Code of Federal Regulations part 24, neither they nor their principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this covered transaction; and,
- b. No part of the aforementioned contract has been or will be subcontracted to any subcontractor if such subcontractor or any of its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this or a lower tier covered transaction.

3. The subcontractor agrees to obtain and forward to the contractor within ten days after the execution of any subcontract, including those executed by the subcontractors and any lower tier subcontractors copy of said contract containing fully executed items 1.(a), (b), (c) and (d) listed above.

4. The Subcontractor certifies that:

- a. The legal name and the business address is:

Employer I.D.	
---------------	--

- b. The subcontractor is an independent contractor in compliance with Oregon Revised Statutes Chapter 701.
- c. The subcontractor is currently registered with the Oregon Construction Contractors Board in a class appropriate for the work to be performed under this subcontract.

d. Construction Contractors Board Number:	
Contractor Signature:	Subcontractor Signature:
(Title/Date)	(Title/Date)

Payroll Signature Authorization

Part B

Since the owner, partner or corporate officer is not signing the certified payrolls, I, as an owner, partner or corporate officer certify that I have appointed

--

whose signature appears below to supervise the payment of the company's employees beginning (date)

--

and that this person is in a position to have full knowledge of the facts set forth in the payroll documents and in the statement of compliance required by the so-called Kick-Back Statute which said person is to execute with my full authority and approval until such time as I submit to the local agency administering the contract a new certificate appointing some other person for the purposes stated above.

Signature of Appointee		Date
Signature of (prime)(sub) Contractor		Date

Fringe Benefit Summary Form

Part C

Project Name:		Project Number:	
Name of Recipient:			
Name of Contractor:			

The contractor named above will pay employees on this project fringe benefits required by the applicable David-Bacon wage determination or BOLI wage determination as follows:

1. Required fringe benefit amounts will be paid in cash.
2. **FUNDED PLAN(S)** (Deductions for fringe benefits will be paid into a fund, plan, or program administered by a third party “e.g., union plan, Blue Cross”)

Name of plan(s)

I certify that the deductions made for the above plan(s) are:

- a. Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and consent is not a condition either for the obtaining of or the continuation of employment,

or

They are provided for in a bona fide collective bargaining agreement between the contractor and representatives of the employees:

- b. No profit or other benefit is otherwise obtained, directly or indirectly, by the contractor or any affiliated person in the form of commission, dividend, or otherwise;
 - c. The deductions shall serve the convenience and interest of the employee;
 - d. Contributions to the plans are made at least quarterly;
 - e. When the cash paid and per hour contribution for benefits do not equal the total rate set forth in the wage determination, the difference will be paid in cash; and
 - f. Employees who are excluded from the plans for any reason will be paid in cash.
3. **UNFUNDED PLAN(S)** (Deductions for fringe benefits will be administered by the contractor “e.g. vacation plan”)

Name of plan(s)

I certify that no deductions will be made for unfunded plans until approval is obtained from the U.S. Department of Labor. I understand that to obtain approval, I must provide the representative of the Safe Drinking Water Revolving Loan Fund recipient with the following for submission to the U.S. Department of Labor:

- a. Description of the coverage that will be provided to employees including conditions for receiving the benefits; and
- b. Signed authorization from those employees to accept those specific employer-paid contribution amounts.

Until approval is obtained, I will pay the employees the fringe benefit amounts in cash.

Contractor/Subcontractor Signature	Date

Certification Regarding Lobbying

Part D

The undersigned certifies, to the best of his or her knowledge and belief, that:

- A. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- C. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signed (Contractor)
Title / Firm
Date

PART 2

AGREEMENT AND BONDS

AGREEMENT

THIS AGREEMENT is entered into by and between the **CITY OF WARRENTON** (hereinafter called the Owner) and _____ (hereinafter called the Contractor).

The Owner and the Contractor agree as follows:

ARTICLE 1. WORK.

The work under this Contract includes replacement of water meters with Owner-furnished meters as well as limited replacement of meter boxes with Owner-furnished meter boxes.

ARTICLE 2. CONTRACT TIME.

The Contractor shall substantially complete the Work required by the Contract within _____ working days (the Substantial Completion Date) and physically complete the Work within _____ working days (the Physical Completion Date).

ARTICLE 3. LIQUIDATED DAMAGES.

The Owner and the Contractor recognize that time is of the essence and that the Owner will suffer financial loss if the Work is not completed within the time, plus any extensions thereof, allowed in accordance with the Contract. They also recognize the inconvenience, expense, and difficulties involved in a legal proceeding to prove the actual loss suffered by the Owner if the Work is not completed within the time allowed in the Contract. Accordingly, the Owner and the Contractor agree that as liquidated damages for delay, and not as a penalty, the Contractor shall pay the Owner (\$ _____) per day for each working day beyond the Substantial Completion Date that the Contractor achieves substantial completion of the Work and (\$ _____) for each working day beyond the Physical Completion Date that the Contractor achieves physical completion of the Work.

ARTICLE 4. CONTRACT PRICE.

The Owner shall pay the Contractor the amount(s) set forth in the Proposal (in United States dollars) for completion of the Work in accordance with the Contract.

ARTICLE 5. CONTRACT.

The Contract, which comprises the entire agreement between the Owner and the Contractor concerning the Work, consists of the following:

- This Agreement;
- The Call for Bids;
- The Contractor’s Proposal including the bid, bid schedule(s), information required of bidder, Proposal bond, and all required certificates and affidavits;
- The Performance Bond and the Public Works Payment Bond;
- The Contract Provisions, including 2018 ODOT Standard Specification as referenced;
- The Plans (or drawings) consisting of Figures 1 through 4 and Meter Route Maps in Appendix A;
- Addenda numbers _____, inclusive;
- Change Orders issued after the effective date of this Agreement; and
- Permits issued by Clatsop County and Oregon State Department of Transportation.

There are no Contract Documents other than those listed in this Article 5. The Contract may be amended only in writing by Change Order as provided in the Contract.

ARTICLE 6. MISCELLANEOUS.

The Contractor shall not assign any rights under or interests in the Contract, including but not limited to rights to payment, without the prior written consent of the Owner. Unless specifically stated in a written consent to an assignment, no assignment will release or discharge the Contractor-assignor from any duty or responsibility under the Contract.

The Contract is binding upon the Owner and the Contractor, and their respective partners, successors, assigns and legal representatives.

AGREEMENT – Continued

IN WITNESS WHEREOF, Owner and Contractor have caused this Agreement to be executed the day and year indicated below.

CITY OF WARRENTON

CONTRACTOR

By _____

License No. _____

By _____

Date _____

Title _____

Attest _____

Name and Address for giving notices (print)

PUBLIC WORKS PAYMENT BOND
to CITY OF WARRENTON, OR

Bond No. _____

The **CITY OF WARRENTON**, Oregon, (City) has awarded to _____ (Principal), a contract for the construction of the project designated as Water Meter Replacement in Warrenton, Oregon (Contract), and said Principal is required under the terms of that Contract to furnish a payment bond.

The Principal, and _____ (Surety), a corporation organized under the laws of the State of _____ and licensed to do business in the State of Oregon as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly bound to the City, in the sum of _____ US Dollars (\$_____) Total Contract Amount, subject to the provisions herein.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons including all workers, laborers, mechanics, subcontractors, and materialmen, and all persons who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, except as provided herein, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond may be executed in two (2) original counterparts, and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety.

PRINCIPAL

SURETY

Principal Signature

Date

Surety Signature

Date

Printed Name

Printed Name

Title

Title

Name, address, and telephone of local office/agent of Surety Company is:

Approved as to form:

City Attorney, City of Warrenton

Date

PART 3

**SUPPLEMENTARY GENERAL CONDITIONS
AND GENERAL CONDITIONS**

SUPPLEMENTARY GENERAL CONDITIONS

Construction Contract Requirements for Recipients of Safe Drinking Water financing

SAM Registration and DUNS number are required for all entities that enter into direct contracts with the recipients of Safe Drinking Water Revolving Loan funds

SAM Registration: http://www.sam.gov/portal/public/SAM/ NOTE: The SAM registration expires annually and must be kept active until the SDWRLF project is closed	DUNS Number http://www.dnb.com/get-a-duns-number.html
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Language to be included verbatim in construction contracts according to any accompanying instructions

Clauses required in all Contracts

- Termination for Cause and for Convenience & Breach of Contract** (language to be included in all construction contracts and subcontracts in excess of \$10,000:)
“Contractor shall address termination for cause and for convenience, including the manner by which it will be effected and the basis for settlement. In addition, contractor shall address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.”
- Equal Employment Opportunity** (language to be included in all construction contracts and subcontracts in excess of \$10,000:)
“Contractor shall comply with Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60).”
- Procurement of Recovered Materials** (language to be included in all construction contracts and subcontracts in excess of \$10,000:)
“Contractor must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, including procurement of recovered materials in a manner designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247.”
- Whistleblower** (language to be included in all construction contracts and subcontracts)
“Contractor receiving SDWRLF funds shall under or through this contract to, post notice of the rights and remedies provided to whistleblowers under No Fear Act Pub. L. 107-174. 29 CFR § 1614.703 (d).”

- Source of Funds** (language to be included in all construction contracts and subcontracts)

“Work under this contract is funded by the federal Safe Drinking Water Revolving Loan Fund through Business Oregon and a partnership of Local and/or Private Funds. “

- Suspension and Debarment** (language to be included in all construction contracts and subcontracts)

“Contractor certifies that it is not debarred or suspended or is otherwise excluded from or ineligible for participation in federal assistance programs under Executive Order 12549, “Debarment and Suspension”, and shall not contract or permit any subcontract at any level with any party similarly excluded or ineligible. A list of excluded parties is available in the System for Award Management (SAM) at www.sam.gov, under “search records”.”

- Copeland “Anti-Kickback” Act** (language to be included in all construction contracts and subcontracts)

“Contractor shall comply with the Copeland “Anti-Kickback” Act (18 U.S.C. 847) as supplemented in Department of Labor regulations (29 CFR part 3).”

- Intellectual Property** (language to be included in all construction contracts and subcontracts:)

“Contractor hereby grants to the U.S. E.P.A. a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for federal government purposes, any intellectual property developed under this contract. Contractor shall secure from third parties the same license in the name of the U.S. E.P.A. regarding any intellectual property developed by third parties as subcontractors under this contract, or developed under contract with the Contractor specifically to fulfill Contractor’s obligations related to this contract.”

- Inspections; Information** (language to be included in all construction contracts and subcontracts:)

“Contractor shall permit, and cause its subcontractors to allow *[insert name of water system Owner]*, the State of Oregon, the federal government and any party designated by them to:

- Examine, visit and inspect, at any and all reasonable times, the property, if any, constituting the Project.
- Inspect and make copies of any accounts, books and records, including, without limitation, its records regarding receipts, disbursement, contracts, and any other matters relating to the Project, and to its financial standing, and shall supply such reports and information as reasonably requested.
- Interview any officer or employee of the Contractor, or its subcontractors, regarding the Project.

Contractor shall retain all records related to the Project for three years after final payments are made and any pending matters are closed.

- Disadvantaged Business Enterprises** (language to be included in all construction contracts and subcontracts:)

Recipient will implement the good faith efforts for solicitation and contracting with Disadvantaged Business Enterprises (“DBE”) described in Section 4.1 of the Safe Drinking Water Handbook. This applies to all solicitation and contracting for construction, equipment, supplies, engineering or other services that constitute the Project financed by this Contract. Recipient will maintain documentation in a Project file on Disadvantaged Business Enterprises. Recipient will maintain documentation in a Project file and submit required forms, as described in Section 4.1 of the Safe Drinking Water Handbook. Recipient will ensure that all prime contractors and subcontractors implement the good faith efforts for

solicitation and contracting, and comply with all DBE procurement forms, statements, and reporting requirements. If the Loan exceeds \$250,000, Recipient agrees to apply the current regional fair share objectives.

Recipient will ensure that each procurement contract (prime plus all subcontractor contracts) includes the following term and condition:

“The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.”

Recipient will ensure that all prime contractors and subcontractors implement the good faith efforts for solicitation and contracting, and comply with all DBE procurement forms, statements, and reporting requirements. If the Loan exceeds \$250,000, Recipient agrees to apply the current regional fair share objectives.

(Include the following forms, found in the Business Oregon Preconstruction Packet:)

- *DBE Six Good Faith Efforts and Form*

American Iron Steel

(language to be included in all construction contracts and subcontracts:)

The Contractor acknowledges to and for the benefit of the *[insert name of water system Owner]* (“Purchaser”) and the State of Oregon (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Federal Labor Standards

(language to be included in all construction contracts and subcontracts:)

Prevailing Wage Requirements.

“Construction projects assisted in whole or in part with the Safe Drinking Water Revolving Loan Fund Program (SDWRLF) must be carried out in compliance with Federal Davis Bacon and Related Acts and the Oregon Bureau of Labor and Industries (BOLI) requirements. Contractor shall pay each worker employed in the performance of this contract not less than the higher of the wage rate for the type of work being performed as set forth in either the Oregon Prevailing Wage “Prevailing Wage Rate for Public Works Contracts in Oregon” or the applicable federal Davis-Bacon Wage Decision. Contractor shall download a U.S. Department of Labor Employee Fair Compensation Notice and post it at the work site along with a list of locally prevailing wage rates. Contractor shall prepare and submit weekly Certified Payroll Reports on forms to be supplied by Business Oregon. Contractor shall permit access to construction site in order to conduct on-site interviews with workers during working hours.”

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Sub recipients may obtain wage determinations from the U.S. Department of Labor’s web site, www.dol.gov.

(ii)(A) The sub recipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the sub recipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the sub recipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the sub recipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The sub recipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or

any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the sub recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the sub recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the sub recipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sub recipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress,

expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and sub recipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

Additional Clauses for Contracts greater than 100,000

Construction contracts and subcontracts greater than 100,000 must include all clauses listed above in addition to the clauses listed below

Federal Labor Standards

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The sub recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The sub recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through

(4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Sub recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Sub recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The sub recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The sub recipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The sub recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Sub recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB.

Sub recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

(c) The sub recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The sub recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the sub recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Sub recipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the sub recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The sub recipient shall periodically review contractors and subcontractor's use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These

reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Sub recipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/whd/america2.htm>.

- Environmental and Natural Resource Laws** (include the following language in all construction contracts and subcontracts in excess of \$100,000:)

“Contractor shall comply with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

- Prohibition on the Use of Federal Funds for Lobbying** (Certification Regarding Lobbying form follows, for any contracts in excess of \$100,000)

Certification Regarding Lobbying

(Awards to Contractors and Subcontractors in Excess of \$100,000)

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signed

Title

Date

GENERAL CONDITIONS

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GENERAL CONDITIONS

SECTION 1 - GENERAL INFORMATION APPLICABLE TO PROPOSAL AND CONTRACT

1.01 DEFINITIONS AND TERMINOLOGY

The following terms are abbreviated and defined as they are used in the Contract. When used in the Proposal form to denote items of Work and units of measurements, abbreviations mean the full expression of the abbreviated term.

1.02 ABBREVIATIONS AND TERMINOLOGY

1.02.1 REFERENCED STANDARDS AND CODES

The following is a partial list of specifications and codes that may be referenced in sections of the Contract. The Contractor shall be responsible for conducting its Work and carrying out its operations and furnishing equipment in accordance with the latest edition or versions, in effect at the time of bid opening, of any applicable specified portions of the referenced standards and codes.

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AFBMA	Anti-friction Bearing Manufacturing Association
AGA	American Gas Association
AGC	Associated General Contractors of America
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANLA	American Nursery and Landscape Association
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
ARA	American Railway Association
AREMA	American Railway Engineering and Maintenance-of-Way Association
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASME	American Society Mechanical Engineers
ASNT	American Society for Nondestructive Testing
ASTM	American Society for Testing and Material
AWPA	American Wood Preservers' Association
AWS	American Welding Society

AWWA	American Water Works Association
CFR	Code of Federal Regulations
CLI	Chain Link Institute
CRSI	Concrete Reinforcing Steel Institute
CSA	Canadian Standards Associations
CSI	Construction Specifications Institute
DIPRA	Ductile Iron Pipe Research Association
EI	Edison Electric Institute
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FHWA	Federal Highway Administration
FM	Factory Mutual
FSS	Federal Specifications and Standards, General Services Administration
HUD	United State Department of Housing and Urban Development
IBC	International Building Code
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers
IES	Illumination Engineering Society
IMSA	International Municipal Signal Association
IPC	International Plumbing Code
ISA	Instrumentation Society of America
JIC	Joint Industry Conference Electrical Standards for Industrial Equipment
LID	Local Improvement District
LPI	Lightning Protection Institute
MSHA	Mine Safety and Health Act
MSS	Manufacturer's Standardization Society of the Valve and Fitting Industry
MUTCD	Manual on Uniform Traffic Control Devices
NCMA	National Concrete Manufacturer's Association
NEC	National Electrical Code
NEMA	National Electrical Manufacturers' Association
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NRMCA	National Ready Mix Concrete Association
ORS	Oregon Revised Statutes
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PPI	Plastic Pipe Institute
P/PCI	Precast/Prestressed Concrete Institute
SAE	Society of Automotive Engineers
SIES	Specifications and Illuminating Engineering Society
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratory
ULID	Utility Local Improvement District
UMTA	Urban Mass Transit Administration
OABO	Oregon Association of Building Officials
WCLIB	West Coast Lumber Inspection Bureau
WRI	Wire Reinforcement Institute

1.02.2 TERMINOLOGY

The use of pronouns of any gender in these General Conditions shall include pronouns of all genders, as applicable.

The terms “provide,” “furnish” and “install” are used interchangeably in the Contract and mean that the Contractor shall provide, furnish, and install the item(s) described unless specifically noted otherwise.

The terms “Plans” and “Drawings” are used interchangeably in the Contract and shall mean the Contract Plans, which show location, character, and dimensions of prescribed Work, including layouts, profiles, cross-sections, and other details.

1.02.3 ITEMS OF WORK AND UNITS OF MEASUREMENT

AC	Asbestos Cement Pipe
Agg.	Aggregate
Al.	Aluminum
ATB	Asphalt Treated Base
BST	Bituminous Surface Treatment
CB	Catch Basin
Cfm	Cubic Feet per Minute
Cfs	Cubic Feet per Second
Cl.	Class
CMP	Corrugated Metal Pipe
Comb.	Combination
Conc.	Concrete
CPEP	Corrugated Polyethylene Pipe
Crib.	Cribbing
Culv.	Culvert
Cy or Cu. Yd.	Cubic Yard(s)
Dia.	Diameter
DI	Ductile Iron
DIM	Dimension
EA	Each
EL	Elevation
Est.	Estimate or Estimated
Excl.	Excluding
F	Fahrenheit
FIG	Figure
Ft.	Foot or Feet
GALV	Galvanized
Gph	Gallon(s) per Hour
Gpm	Gallon(s) per Minute

HDPE	High Density Polyethylene
HMA	Hot Mix Asphalt
HR	Hour
Hund.	Hundred
In.	Inch or Inches
Incl.	Including
L	Liter
Lb.	Pound(s)
LF or Lin. Ft.	Linear Foot (Feet)
LS	Lump Sum
M	Thousand
MBM	Thousand Feet Board Measure
Pres.	Pressure
PSI	Pounds per Square Inch
PSF	Pounds per Square Foot
PVC	Polyvinyl Chloride
QTY	Quantity
Reg.	Regulator
Reinf.	Reinforced, Reinforcing
SF	Square Foot (Feet)
Sec.	Section
SL	Slope
St.	Street
Stl.	Steel
SST	Stainless Steel
Str.	Structural
Sy or Sq. Yd.	Square Yard(s)
Th.	Thick or Thickness
TN	Ton
Tr.	Treatment
TYP	Typical
VC	Vitrified Clay

1.03 DEFINITIONS

ACCEPTANCE

The formal action by Owner or Owner's governing body to accept the project as complete.

ADDENDUM

A written or graphic document issued to all Bidders prior to bid opening and identified as an addendum, which clarifies, modifies or supplements the bid documents and becomes part of the Contract.

ADDITIVE

A supplemental unit of work or group of bid items, identified separately in the Proposal, which may, at the discretion of the Owner, be awarded in addition to the base bid.

ALTERNATE

One of two or more units of work or groups of bid items, identified separately in the Proposal, from which the Owner may make a choice between different methods or material of construction for performing the same work.

AWARD

The formal decision of the Owner awarding the Contract to the lowest or most favorable responsible and responsive Bidder for the Work.

BID DOCUMENTS

The component parts of the proposed Contract which may include, but not limited to, the Proposal form, the proposed Contract Provisions, the proposed Contract Plans, Addenda, and Subsurface Boring Logs (if any).

BIDDER

A natural person or legal entity (e.g., partnership, corporation, limited liability company, firm, or joint venture) submitting a proposal or bid.

BUSINESS DAY

A business day is any day from Monday through Friday, except holidays, as listed in Section 3.04.14.

CLERK

The duly elected or appointed Clerk of the Commission, Council, or Board of Directors of the Owner.

COMMISSION, COUNCIL, OR BOARD OF DIRECTORS

The duly elected or appointed Council, Commission, or Board of Directors of the Owner.

CONTRACT

The written agreement between the Owner and the Contractor. It describes, among other things:

1. What work will be done, and by when;

2. Who will provide labor and materials; and
3. How Contractor will be paid.

The Contract includes: the agreement form, Bidder's completed Proposal form, all required certificates and affidavits, Performance Bond and Public Works Payment Bond, Contract Provisions, Contract Plans, Standard Plans, and all Addenda and Change Orders executed pursuant to the provisions of the Contract.

CONTRACT BOND

The approved form of security furnished by the Contractor and the Contractor's Surety as required by the Contract, that guarantees performance of all the Work required by the Contract and payment to anyone who provides supplies or labor for the performance of the Work.

CONTRACT DOCUMENTS

See definition for "Contract."

CONTRACT PLANS (PLANS OR DRAWINGS)

The Contract Plans (or drawings) are those plans, drawings or other illustrations and all addenda and revisions, whether issued before or after the award of the contract to Contractor, which show location, character, and dimensions of the Work, including layouts, profiles, cross-sections and other details.

CONTRACT PROVISIONS

A publication addressing the work required for an individual project. At the time of the call for bids, the contract provisions may include, for a specific individual project, general conditions, supplemental general conditions, specifications, a listing of the applicable standard plans, the prevailing minimum hourly wage rates, and an informational proposal form with the listing of bid items. The proposed contract provisions may also include, for a specific individual project, various required certifications or declarations. At the time of the contract execution date, the contract provisions include the proposed contract provisions and include any addenda, a copy of the agreement form, and a copy of the proposal form with the contract prices and extensions.

CONTRACT TIME

The period of time established by the terms and conditions of the Contract within which the work shall be complete.

CONTRACTOR

The natural person(s) or legal entity (e.g., partnership, corporation, limited liability company, firm, joint venture) awarded the contract to perform the Work pursuant to the Contract Documents.

DATES

Substantial Completion Date is the day that the Engineer determines the Owner has full and unrestricted use and benefit of the Work, from both an operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the physical completion of the total Work.

Physical Completion Date is the day that the Engineer determines that all of the Work required by the Contract is physically completed and the Owner has received from the Contractor all required record drawings, operation and maintenance manuals, manufacturers' affidavits, and software and programming.

Contract Completion Date is the day when all the Work and all the obligations of the Contractor under the Contract are fulfilled by the Contractor. All documentation and other items required by the Contract and required by law shall be furnished by the Contractor before establishment of this date.

Final Acceptance Date is the date on which the Owner accepts the work as complete.

FIELD REPRESENTATIVE

The Owner's representative who observes the Contractor's performance of the Work. Such observation shall not be relied upon by the Contractor or others as approval or acceptance of the Work, nor shall it in any manner relieve the Contractor from its obligations and responsibilities under the Contract.

NOTICE TO PROCEED

The written notice from the Owner or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract Time begins.

OWNER

The government entity or agency that awards the contract to the Contractor and is responsible for the execution and administration of the Contract.

PROJECT ENGINEER/ENGINEER

The Owner's representative who administers the construction program for the Owner.

PROPOSAL (or BID)

A Bidder's offer, on a properly completed Proposal form, to perform the Work required by the Contract. The terms Proposal and Bid may be used interchangeably.

SPECIFICATIONS

Written provisions describing the Work and requirements thereof.

STANDARD PLANS

A manual of specific plans or drawings adopted by the Owner, which show frequently recurring components of work that, have been standardized for use.

SUBCONTRACTOR

A natural person, or entity (e.g., partnership, corporation, limited liability company, firm or joint venture) to which the Contractor sublets a portion of the Work.

SUBGRADE

The top surface of the roadbed on which subbase, base, surfacing, pavement, or layers of similar materials are placed.

SUPPLEMENTARY GENERAL CONDITIONS

That part of the Contract amends or supplements these General Conditions.

TRAVELED WAY

That part of the roadway made for vehicle travel, excluding shoulders and auxiliary lanes.

WORK

The provision of all labor, materials, tools, equipment, supervision and other things needed to complete the project in full accordance with the Contract Documents.

WORKING DRAWINGS

Shop drawings, shop plans, erection plans, falsework plans, framework plans, cofferdam, cribbing and shoring plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data, including a schedule of submittal dates for working drawings where specified, that the Contractor shall submit to the Engineer for approval.

SECTION 2 - INSTRUCTIONS FOR PREPARATION OF PROPOSAL (OR BID)

2.01 BID PROCEDURES AND CONDITIONS

2.01.1 QUALIFICATIONS OF BIDDERS

Where applicable and required, Bidders shall provide all requested information relating to experience, financing, equipment, and organization relating to their ability to properly perform the Work. The Owner reserves the right to take whatever action it deems necessary to ascertain the responsibility of the Bidder and the ability of the Bidder to perform the Work satisfactorily.

2.01.2 CONTRACT PROVISIONS AND CONTRACT PLANS

Contract Provisions and Contract Plans are on file in the offices of the Owner and the Engineer, Gray & Osborne, Inc. After award of the Contract, five sets of Contracts will be issued without charge to the Contractor. Additional sets of Contracts may be purchased from the Owner by the Contractor.

2.01.3 ESTIMATED QUANTITIES

The quantities shown in the Proposal form are estimates and are stated only for bid comparison purposes. The Owner does not warrant, expressly or by implication, that the actual quantities will correspond with those estimates. Payment will be made on the basis of the actual quantities of each item of Work satisfactorily completed in accordance with the requirements of the Contract.

2.01.4 EXAMINATION OF CONTRACT AND SITE

2.01.4(1) General

Bidders shall satisfy themselves by personal examination of Contract Provisions, Contract Plans, and site of the proposed improvements, and by any other examination and investigation which they may desire to make as to the accuracy of the estimate of quantities, the nature of the Work and the difficulties to be encountered. Bidders shall review the entire Contract to ensure that the completeness of their Proposal includes all items of Work regardless of where shown in the Contract. Bidders are cautioned that alternate sources of information (copies of the Contract obtained from third parties) are not necessarily an accurate or complete representation of the Contract. Bidders shall use such information at their own risk.

Bidders shall be familiar and comply with all applicable federal, state, and local laws, ordinances, and regulations in any way applicable to the performance the Work. Bidders are responsible for familiarizing themselves with all current state and federal wage rates applicable to the Work and its duration before submitting a Proposal based on the Contract Provisions and Contract Plans. Any wage determination contained in the Contract is for the Bidder's general information only and is not warranted to be complete or accurate. The Owner will not consider any plea of misunderstanding or ignorance of such requirements. Bid prices shall reflect what the Bidder has determined to be the total cost of completing the Work, including but not limited to: construction methods, materials, labor, administrative costs, any and all applicable taxes, and equipment.

Except as the Contract may provide, the Bidder to which the contract is awarded shall receive no payment for any costs that exceed those set forth in the Proposal.

2.01.4(2) Interpretation of the Contract Provisions and Contract Plans

If any Bidder desires interpretation or clarification of the Contract Provisions and Contract Plans, the Bidder shall make a written request to the Engineer for such clarification or interpretation prior to the submission of a Proposal. If the Engineer determines that the Contract Provisions and/or Contract Plans do not require interpretation or clarification, the Engineer will so notify the Bidder making the request. All interpretations and clarifications made by the Engineer will be by written addendum to all planholders of record, and a copy of the addendum will be filed in the office of the Owner. Neither the Owner nor the Engineer will be responsible for any interpretation, clarification or explanation of the Contract Provisions and Contract Plans that is not set forth in a written addendum to all planholders of record, and Bidders shall not under any circumstances rely on any other interpretation, clarification or explanation.

2.01.4(3) Subsurface Information

The Owner not has made a subsurface investigation of the site of the proposed Work.

Bidders are solely responsible for making the necessary investigations to support and/or verify any conclusions or assumptions used in preparation of their Proposals.

2.01.4(4) Availability of Specified Items

Prior to submitting a Proposal, all Bidders shall verify that all items necessary to complete the Work will be available in time to allow the Work to be completed within the Contract Time. In the event that one or more items may not be available to allow the Work to be completed within the Contract Time, the Bidder shall notify the Engineer in writing prior to submitting a Proposal. Responsibility for delays and related costs because of non-availability of items necessary to complete the Work shall be borne by the Contractor.

2.01.5 PROPOSAL DEPOSIT

A deposit of at least 10 percent of the total Proposal amount shall accompany each Proposal. This deposit may be in the form of a Proposal bond (surety bond), certified check, cashier's check, or postal money order made payable to the Owner. All Proposal bonds shall be on the form included within the Contract Provisions and shall be signed by the Bidder and the surety. The surety company shall be licensed to do business in the State of Oregon. The Proposal bond shall not be conditioned in any way to modify the minimum 10 percent required. The Proposal Deposit will be held as a guaranty that the successful Bidder will, within 10 days from the date of notification of Award, enter into a Contract and furnish approved Performance and Public Works Payment Bonds, on forms attached, in amounts equal to 100 percent of the amount of the Contract, including state sales tax.

2.01.6 PROPOSAL

- (1) Proposals shall be submitted on the Proposal form included in the Contract Provisions. All Proposals shall be completed, signed by an authorized person and dated. To be considered by the Owner as a responsive Proposal, the Bidder shall bid on all Additive or Alternate items set forth in the Proposal form, unless otherwise specified in the Contract Documents.
- (2) To be responsive, a Proposal shall state that it will remain valid for a period of 60 days following the date of Proposal opening. In the event that a conflict in this duration appears elsewhere in the Contract Provisions, the longest duration shall apply.
- (3) All prices set forth on the Proposal form shall be legible and either be written in ink or typed. In the space provided on the Proposal form, Bidders shall identify all Addenda that have been received. The Proposal, Bid bond, and all other certificates, forms or other documents required by the Contract Provisions to be executed and delivered with the Proposal shall be submitted in a sealed package, addressed to the Owner, and plainly marked "Proposal for City of Warrenton Water Meter Replacement (insert name of project as shown on the Proposal) to be opened on the _____ day of _____, 20____," (insert the day, month and year shown in the published bid notice). The Owner will not consider any Proposal received after the time established for opening Proposals.
- (4) Where noted in the Proposal, the Bidder to furnish information concerning its experience with work of a similar nature, equipment to be used on this project, and general background information. Information that is incomplete, evasive, or of a general nature only, may be considered as grounds for rejection of the Proposal.
- (5) After opening and reading Proposals, the Owner will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit, converted to the actual extension, will control. The total extensions, corrected where necessary, will be used by the Owner for comparison and award purposes and to establish the amount of the Contractor's Performance and Public Works Payment Bonds.

2.01.7 WITHDRAWING OR REVISING PROPOSAL

After submitting a physical Proposal to the Owner, the Bidder may withdraw, or revise it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Proposals, and
2. The Owner receives the request before the time set for receipt of Proposals, and
3. The revised or supplemented Proposal (if any) is received by the Owner before the time set for receipt of Proposals.

If the Bidder's request to withdraw or revise its Proposal is received before the time set for receipt of Proposals, the Owner will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised package in its entirety. If the Bidder does not submit a revised package, then its bid shall be considered withdrawn.

Late revised Proposals or late withdrawal requests will be date recorded by the Owner and returned unopened. Mailed, emailed, or faxed requests to withdraw or revise a Bid Proposal are not acceptable.

2.01.8 DISQUALIFICATION OF BIDDERS

1. A proposal will be considered irregular and will be rejected if:
 - a. The Bidder is not prequalified when so required;
 - b. The authorized proposal form furnished by the Owner is not used or is altered;
 - c. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
 - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
 - e. A price per unit cannot be determined from the Bid Proposal;
 - f. The Proposal form is not properly executed;
 - g. The Bidder fails to submit or properly complete a First-Tier Subcontractor Disclosure Form within the required timeframe, if applicable;
 - h. The Bidder fails to submit or properly complete a Disadvantaged, Minority or Women's Business Enterprise Certification, if applicable;
 - i. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - j. More than one proposal is submitted for the same project from a Bidder under the same or different names.

2. A Proposal may be considered irregular and may be rejected if:
 - a. The Proposal does not include a unit price for every Bid item;
 - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
 - c. Receipt of Addenda is not acknowledged;
 - d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
 - e. If Proposal form entries are not made in ink.

A Bidder will be deemed not responsible if:

1. The Bidder does not meet the mandatory bidder responsibility criteria ORS 279C.375(3); or

2. Evidence of collusion exists with any other Bidder or potential Bidder. Participants in collusion will be restricted from submitting further bids; or
3. The Bidder, in the opinion of the Owner, does not have the means or the qualifications to complete the Work; or
4. An unsatisfactory performance record exists based on past or current Owner work or for work done for others, as judged from the standpoint of conduct of the work; workmanship; or progress; affirmative action; equal employment opportunity practices; termination for cause; or Disadvantaged Business Enterprise, Minority Business Enterprise, or Women's Business Enterprise utilization; or
5. There is uncompleted work (Owner or otherwise), which in the opinion of the Owner might hinder or prevent the prompt completion of the work bid upon; or
6. The Bidder failed to settle bills for labor or materials on past or current contracts, unless there are extenuating circumstances acceptable to the Owner; or
7. The Bidder has failed to complete a written public contract or has been convicted of a crime arising from a previous public contract, unless there are extenuating circumstances acceptable to the Owner; or
8. The Bidder is unable, financially or otherwise, to perform the work, in the opinion of the Owner; or
9. There are any other reasons deemed proper by the Owner.

The basis for evaluation of Bidder compliance with these mandatory and supplemental criteria shall be any documents or facts obtained by Owner (whether from the Bidder or third parties) which any reasonable owner would rely on for determining such compliance, including but not limited to: (1) financial, historical, or operational data from the Bidder; (2) information obtained directly by the Owner from owners for whom the Bidder has worked, or other public agencies or private enterprises; and (3) any additional information obtained by the Owner which is believed to be relevant to the matter.

If the Owner determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Owner shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within 48 hours of receipt of the Owner's determination by presenting its appeal in writing to the Owner. The Owner will consider the appeal before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Owner will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the final determination.

2.01.9 PROPOSAL ERRORS

If a Bidder discovers an error in the Bidder's Proposal after the Proposals have been opened and tabulated and desires to withdraw the erroneous Proposal, the Bidder shall submit a notarized affidavit signed by the Bidder, accompanied by original certified worksheets used in the preparation of the Proposal, requesting relief from the Award. The affidavit shall describe the specific error(s) and certify that the worksheets are the originals used in the preparation of the Proposal.

The affidavit and the certified worksheets shall be received by the Engineer before 5:00 p.m. local time on the next business day following the day of the Proposal opening or the claim of error will not be considered. The Engineer will review the certified worksheets to determine the validity of the claimed error, and make its recommendation to the Owner. If the Owner and Engineer concur that the claim of error is allowable under applicable law, the Bidder will be relieved of responsibility for the Proposal, and the Proposal Deposit will be returned to the Bidder. Thereafter, at the discretion of the Owner, all Proposals may be rejected or an Award made to the next lowest responsive, responsible Bidder.

2.02 AWARD AND EXECUTION OF CONTRACT

2.02.1 AWARD OF CONTRACT

A Contract will not be awarded until the Owner is satisfied that the successful Bidder is responsible, reasonably familiar with the Work to be performed and has the necessary capital, tools, personnel and equipment to satisfactorily perform the Work.

The Owner reserves the right to waive informalities in the bidding, accept a Proposal of the lowest responsive, responsible Bidder, reject any or all Proposals, republish the call for Proposals, or revise or cancel the project.

After the date and hour set for the opening of the Proposals, no Bidder may withdraw its Proposal unless the Award of the Contract is delayed for a period exceeding 60 calendar days following Proposal opening. In the event that a conflicting duration appears elsewhere in the Invitation for Proposals or Contract Provisions or advertisement, the longer period shall govern.

2.02.2 EXECUTION OF CONTRACT

Within 10 calendar days after notification by the Owner of the Award, the successful Bidder shall return to the Engineer the signed Owner-prepared Contract, all insurance certificates and endorsements required by the Contract Provisions, all other certificates, information, and forms required by the Contract Provisions, and Performance and Public Works Payment Bonds required by the Contract Provisions. If the Contract is signed by an officer, agent, or other authorized representative of the Contractor, the officer, agent, or other representative shall furnish satisfactory evidence of authority to sign as the legal representative of the Contractor, if required by the Owner. An authorized partner of a joint venture may sign the Contract, subject to the approval of the Owner, which may, at its discretion, require each and every member of the joint venture to sign the Contract.

Should the successful bidder fail to return to the Engineer the signed Owner-prepared Contract, all insurance certificates and endorsements required by the Contract Provisions, all other certifications, information, and forms required by the Contract Provisions, and Performance and Public Works Payment Bonds required by the Contract Provisions within 10 calendar days after notification by the Owner of the Award, the Owner reserves the right to and may elect to withdraw the award to the successful bidder and award the Contract to the next responsible, responsive bidder.

Until the Owner executes the Contract, no Proposal shall bind the Owner, and the Contractor shall not commence any Work. The Contractor shall bear all risks for any Work begun before the Contract is executed by the Owner.

2.02.3 FAILURE TO EXECUTE CONTRACT

If the Contractor fails to submit the insurance certificates, bonds, and all other certificates, forms, information and documents as required by the Contract Provisions, with the executed Contract within the time required by the Contract Provisions, the Owner may then award the Contract to the next lowest responsive, responsible Bidder or reject any or all Proposals.

2.02.4 RETURN OF BID DEPOSIT

When Proposals have been examined and corrected as necessary, proposal bonds and deposits accompanying Proposals ineligible for further consideration will be returned. All other Proposal bonds and deposits will be held until the Contract is awarded and fully executed, after which the Proposal bonds and deposits, except those subject to forfeiture, will be returned.

2.02.5 NOTICE TO PROCEED

A written Notice to Proceed will be issued to the Contractor by the Owner or Engineer after the Contract has been executed by the Contractor and the Owner, and the Performance and Public Works Payment Bonds and required insurance and other certificates and documents are approved by the Owner and, when applicable, by State or Federal agencies responsible for funding any portion of the project. The Contractor shall not commence Work until the Notice to Proceed has been issued.

SECTION 3 - GENERAL REQUIREMENTS OF THE CONTRACT

3.01 SCOPE OF THE WORK

3.01.1 INTENT OF THE CONTRACT

The intent of the Contract is to describe a functionally complete project to be constructed in accordance with the Contract. The Contractor shall provide all labor, supervision, materials, tools, equipment, transportation, supplies, and other things required expressly by, or reasonably implied from, the Contract, to complete all Work. Omissions from the Contract of details of Work which are necessary to carry out the intent of the Contract, or which are customarily performed, shall not relieve the Contractor from performing the complete Work called for by the Contract; such Work shall be performed as if fully set forth and described in the Contract. The unit or other bid prices shall be full payment for everything required to complete the Work, including but not limited to labor, supervision, materials, equipment, jobsite and home office overhead and profit.

3.01.2 COORDINATION OF CONTRACT

The Contract Plans and the Contract Provisions for the Work shall be considered as a whole, and anything shown or called for in one and omitted in any other is as binding as if called for or shown on both. Figure dimensions shall, in all cases, be used in preference to scale dimensions. Any inconsistency in the Contract Documents shall be resolved by the following order of precedence (e.g., 1 presiding over 2 through 4, 2 presiding over 3 through 4, etc.):

1. Addenda;
2. The Agreement and Proposal Form;
3. Specifications;
- 3a. Supplementary General Conditions (including conditions supplied by federal or state agencies on projects funded, in whole or part, by such agencies. In the event of a conflict in various forms of General Conditions, those conditions affording the greatest benefit or protection to the Owner shall govern.);
- 3b. General Conditions;
- 3c. Technical Specifications;
4. Contract Plans.

3.01.3 ASSIGNMENT OF CONTRACT

The Contractor shall not assign the Contract or any part of the Contract or of the funds to be received under the Contract unless such assignment is approved by the Owner and the Contractor's Performance and Public Works Payment Bonds surety prior to the execution or effectiveness of the assignment.

3.02 CONTROL OF WORK

3.02.1 AUTHORITY AND ROLE OF THE ENGINEER

- (1) The Engineer is the authorized representative of the Owner, and is employed to act as advisor and consultant to the Owner in engineering matters relating to the Contract. Among other things, the Engineer shall: determine the amount, quality, acceptability and fitness of the various kinds of Work, materials and equipment, which are to be paid for under the Contract; decide for the Owner all questions relating to the meaning and intent of the Contract; decide all questions relating to the classification and measurements of quantities and materials and the fulfillment of obligations under the Contract; and decide all other questions relating to quality, acceptability and conformity of labor and materials to the requirements of the Contract.
- (2) The Engineer does not purport to be a safety expert, and is not engaged in that capacity under the Contract or the Engineer's contract with the Owner. The Engineer does not have either the authority or the responsibility to enforce construction safety laws, rules, regulations or procedures, or to order the stoppage of Work for claimed violations thereof. From time to time, the Engineer may inform the Contractor of conditions that may constitute safety issues or violations. Such information will be provided solely to cooperate with and assist the Contractor and shall not make the Field Representative or the Engineer responsible for the enforcement of safety laws, rules, regulations or procedures. After receiving information relating to safety issues from the Engineer, the Contractor shall make its own examination and analysis of the situation reported and take such action, if any, that the Contractor determines to be appropriate. The Engineer's performance of project representation and observation services shall not make the Engineer responsible for the enforcement of safety laws, rules, regulations or procedures; nor shall it make the Engineer responsible for construction means, methods, techniques, sequences, or procedures, or for the Contractor's failure to properly perform the Work, all of which are entirely the responsibility of the Contractor.
- (3) The Engineer shall have no liability whatsoever to, or contractual relationship with, the Contractor in any way relating to the Contract. The Owner and the Contractor shall look solely to each other for the enforcement with respect to any rights, obligations, claims or liabilities arising under or in any way relating to the Contract. Neither the authority given to the Engineer herein, nor any action or service provided by the Engineer or its subconsultants with regard to the Project, shall create any duty owed by the Engineer or its subconsultants to the Contractor or a cause of action against the Engineer or its subconsultants by Contractor.
- (4) Nothing in the Contract shall, in any way, be construed to place responsibility on the Field Representative, Engineer or the Owner for the method, manner, direction or superintendency of the performance of the Work by the Contractor. Such responsibility rests solely with the Contractor.

- (5) Neither the Engineer nor any of its assistants or agents shall have any power to waive any obligation of the Contract. The Engineer's failure to reject Work that is defective or otherwise does not comply with the requirements of the Contract shall not constitute approval or acceptance of the Work or relieve the Contractor of its obligations under the Contract, notwithstanding that such Work have been estimated for payment or that payments have been made for that Work. Neither shall such failure to reject Work, nor any acceptance by the Engineer or by the Owner of any part or of the whole of the Work bar a claim by the Owner at any subsequent time for recovery of damages for the cost of removal and replacement of any portions of the Work that do not comply with the Contract.
- (6) No order, measurement, determination or certificate by the Engineer or Owner for payment of money or payment for or acceptance of the whole or of any part of the Work by the Engineer or the Owner or extension of time or possession taken by the Owner shall constitute a waiver of any portion of the Contract, nor shall any waiver of any breach of the Contract constitute a waiver of any other or subsequent breach thereof.

3.02.2 AUTHORITY OF FIELD REPRESENTATIVE

- (1) Field Representatives are assigned to the project site to keep the Engineer and Owner generally informed as to the progress of the Work and the manner in which it is being done; to keep records; and to act as liaison between the Contractor, Owner and Engineer. When observed, the Field Representative shall call the attention of the Contractor to any deviations from the Contract. However, failure of the Field Representative to call the attention of the Contractor to faulty Work or deviations from the Contract shall not constitute either a waiver of any requirement in the Contract or acceptance of said Work.
- (2) Since one of the Field Representative's primary responsibilities is to observe that the Work progresses expediently and in a workmanlike manner, he or she may offer suggestions to the Contractor, which the Contractor, at its sole discretion, may or may not choose to follow. Such suggestions are not to be considered as anything but suggestions offered to cooperate with and assist the Contractor and shall not constitute an assumption of responsibility, financial or otherwise, by the Field Representative, the Engineer or the Owner.
- (3) The presence or absence of the Field Representative on the job site will be at the sole discretion of the Owner, and the presence or absence of the Field Representative at any time will not relieve the Contractor of its responsibility to properly perform the Work as required by the Contract.
- (4) The Field Representative will have the authority, but not the obligation, to reject defective materials and equipment if observed; however, the failure of the Field Representative to reject defective materials and equipment or any other Work involving deviations from the Contract will not constitute acceptance of such Work.

The Field Representative is not authorized to approve or accept any portion of the Work or to issue instructions contrary to the Contract; all such approvals, acceptances or instructions shall be in writing and signed by the Engineer or the Owner.

- (5) The Field Representative does not purport to be a safety expert, and is not engaged in that capacity under the Contract or the Engineer's contract with the Owner. The Field Representative does not have either the authority or the responsibility to enforce construction safety laws, rules, regulations or procedures, or to order the stoppage of Work for claimed violations thereof. From time to time, the Field Representative may inform the Contractor of conditions that may constitute safety issues or violations. Such information will be provided solely to cooperate with and assist the Contractor and shall not make the Field Representative or the Engineer responsible for the enforcement of safety laws, rules, regulations or procedures. After receiving information relating to safety issues from the Field Representative, the Contractor shall make its own examination and analysis of the situation reported and take such action, if any, that the Contractor determines to be appropriate. The Field Representative's performance of observation services shall not make the Field Representative responsible for the enforcement of safety laws, rules, regulations or procedures; nor shall it make the Field Representative responsible for construction means, methods, techniques, sequences, or procedures, or for the Contractor's failure to properly perform the Work, all of which are entirely the responsibility of the Contractor.

3.02.3 CONSTRUCTION OBSERVATION AND INSPECTIONS

- (1) All Work required by the Contract, including all materials and equipment to be furnished and the manufacture and preparation thereof shall, at all times, be subject to observation by the Owner's designated representatives, who may, at any time in the performance of their duties, enter upon the Work or the shops and factories where any part of the Work, materials or equipment are being prepared, fabricated or manufactured.
- (2) Observation of Work by the Owner, the Engineer, or the Field Representative shall not relieve the Contractor of its obligation to furnish satisfactory materials and workmanship. Work or materials found unsatisfactory at any time during the life of the Contract, and the applicable warranty periods, guarantees or limitation periods shall be promptly corrected or replaced immediately by the Contractor at its own expense.
- (3) Upon request by the Owner or Engineer, the Contractor shall furnish all tools, labor, equipment and materials necessary to examine any Work that may be completed or in progress, even to the extent of uncovering or taking down portions of completed or covered Work. Work shall be left exposed until examined by the Owner or Engineer, at no additional cost to the Owner. If the Owner or the Engineer determines that the uncovered Work does not comply with the requirements of the

Contract, the cost of such examination and the cost of reconstruction and/or repair shall be borne by the Contractor.

- (4) The Contractor shall promptly comply with all directions of the Engineer with reference to correcting any Work or replacing any materials or equipment found to be not in accordance with the Contract. In the event of a dispute, the Contractor may appeal to the Engineer's decision to the Owner in accordance with the Contract, and the Owner's decision shall be final.

3.02.4 EMERGENCY CONTACT LIST

The Contractor shall submit an emergency contact list to the Engineer no later than five calendar days after the date the contract is executed. The list shall include, at a minimum, the Contractor's project manager or equivalent, project superintendent, traffic control supervisor, and erosion and sediment control lead. The list shall identify a representative with delegated authority to act as the emergency contact on behalf of the Contractor and include one or more alternates. The emergency contact shall be available upon the Engineer's request at other than normal working hours. The emergency contact list shall include 24-hour telephone numbers for all individuals identified as emergency contacts or alternates.

3.02.5 ORAL AGREEMENTS

No oral agreement or conversation with any officer, agent, or employee of the Owner, either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the contract. Such oral agreement or conversation shall be considered as unofficial information and in no way binding upon the Owner, unless subsequently put in writing and signed by the Owner.

3.03 LEGAL RELATIONS AND RESPONSIBILITIES

3.03.1 APPLICABLE LAWS AND REGULATIONS

3.03.1(1) General

The Contractor shall comply with all laws, ordinances, rules and regulations of any authority having jurisdiction in any way relating to the project, including, but not limited to, regulations governing site maintenance, clean-up, air pollution control, noise control, water quality control, surface water control and runoff, tree and vegetation protection, cultural resources and oil and hazardous substance control.

3.03.1(2) Utilities and Similar Facilities

The Contractor shall protect all private and public utilities from damage. Utilities include, among others: telephone lines; cable television and high-speed internet lines; gas; electric power lines; sanitary sewer; sewer; storm sewer and water lines; street lighting and traffic signal and signing systems; and railroad tracks and related equipment.

The Contractor shall call the One-Number Locator Service for the field location of underground utilities. If no locator service is available for the area where the project is located, the Contractor shall provide written notice to all owners of utilities known to, or suspected of, having underground facilities within or near all areas of that will be excavated.

If the Work requires removing or relocating one or more utilities, the Contract will assign the task to the Contractor or utility owner. When this task is assigned to the utility owner and that work is not complete before the Contractor begins work, the Contractor shall immediately notify the Engineer in writing.

To expedite the removal or relocation work or to make that work more efficient, the Contractor may ask utility owners to move, remove, or alter their utilities or equipment in ways other than those specified in the Contract. If so, the Contractor shall make the arrangements with the utility owner and pay all costs associated therewith.

The Contractor shall be responsible for all costs required to protect public and private utilities from damage, including the costs of removal and replacement.

3.03.1(3) Site Maintenance

The Contractor shall keep the Work site, staging areas, and Contractor's facilities clean and free from rubbish and debris. Materials and equipment shall be removed from the Work site when they are no longer necessary. Upon completion of the Work and before final acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish and the Work site shall be left in clean and neat condition.

3.03.1(5) Equal Employment Responsibilities

The Contractor shall, at its sole cost and expense, comply with all applicable laws, policies and regulations pertaining to nondiscrimination and equal employment opportunities. The absence of specific provisions or other requirements mandated by state, municipal or federal laws, policies or regulations from these General Conditions shall not excuse the Contractor from compliance with such laws, regulations or policies.

3.03.1(6) Archaeological and Historical Objects

Archaeological or historical objects, such as ruins, human skeletal remains, sites, buildings, artifacts, fossils, or other objects of antiquity that may have significance from a historical or scientific standpoint, which may be encountered by the Contractor, shall not be further disturbed. The Contractor shall immediately notify the Engineer of any such finds.

The Engineer will determine if the material is to be salvaged. The Contractor may be required to stop work in the vicinity of the discovery until such determination is made. The Engineer may require the Contractor to suspend Work in the vicinity of the discovery until salvage is accomplished.

If the Engineer finds that the suspension of Work in the vicinity of the discovery increases or decreases the cost or time required for performance of any part of the Work under the Contract, the Engineer will make an adjustment in payment or the time required for the performance of the work in accordance with Section 3.04.6.

3.03.2 SAFETY MEASURES

All Work under the Contract shall be performed in a safe manner. The Contractor and all subcontractors shall comply with all applicable rules, regulations, and safety standards of the State of Oregon and all other federal, state, local and other governmental entities having jurisdiction over the project. The Contractor shall be solely and completely responsible for the conditions of the job site, including the safety of all persons and property during the performance of the Work. This requirement shall apply continuously and not be limited to normal working hours.

The Engineer's review of the Contractor's work plan, safety plan, construction sequences, schedule or performance does not and is not intended to include review or approval of the adequacy of the Contractor's safety measures in, on, or near the job site. The Engineer does not purport to be a safety expert, and is not engaged in that capacity under the Contract. The Engineer has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations, or procedures, or to order the stoppage of Work for claimed violations thereof.

The Contractor shall exercise all required and appropriate precautions to protect all persons and property from injury and damage.

3.03.3 HAZARDOUS MATERIAL

Biological hazards and associated physical hazards may be present at the Work site. The Contractor shall take precautions and perform any necessary Work to provide and maintain a safe and healthful Work site in accordance with all applicable laws. The cost for all Work necessary to provide and maintain a safe Work site shall be included in the Contractor's Proposal, unless the Contract includes provisions to the contrary.

3.03.4 PAYMENT OF WAGES AND RELATED REQUIREMENTS

3.03.4(1) Minimum Prevailing Wage Requirements

- a. The Contract is subject to the minimum prevailing wage and hour requirements of the State of Oregon ORS 279C.800 to 279C.870 (as amended or supplemented). On projects having federal funding, federal wage laws and rules may also apply and the Contractor must pay the higher of the State or Federal Davis Bacon Wage rate.
- b. The Contractor, any Subcontractor, and all individuals or firms required by the State of Oregon, or the Federal Davis-Bacon and Related Acts (DBRA) to pay minimum prevailing wages, shall not pay any worker less than the minimum hourly wage rates and fringe benefits required the State of Oregon or the DBRA. Higher wages and benefits may be paid.

- c. The applicable prevailing wage rates that are in effect on the date when Proposals are due shall remain in effect for the duration of the Contract. By incorporating prevailing wage rates into the Contract, the Owner does not warrant or imply that the Contractor will find labor available at those rates. The Contractor shall calculate in its Proposal any amounts above the minimums that it will actually have to pay. Further, rates for wages and/or fringe benefits may change while the Contract is in force. If they do, the Contractor shall bear the cost of paying rates above those in effect at time of bid.
- d. If employing labor in a class not listed in the Contract Provisions on a federally funded project, the Contractor shall request the U.S. Secretary of Labor to determine the correct wage and benefits rate.
- e. The Contractor shall be responsible for compliance with the requirements of the DBRA and State of Oregon wage laws by all firms (Subcontractors, lower tier subcontractors, Suppliers, Manufacturers, or Fabricators) engaged in any part of the Work necessary to complete the Contract. Therefore, should a violation of this Subsection occur by any firm that is providing Work or materials for completion of the Contract whether directly or indirectly responsible to the Contractor, the Owner will take action against the Contractor, as provided by the provisions of the Contract, to achieve compliance, including, but not limited to, withholding payment on the Contract until compliance is achieved.

3.03.4(2) Posting Notice Requirements

The Contractor shall post the following, together with anything else necessary to comply with all applicable laws and regulations:

- a. FHWA 1495/1495A “Wage Rate Information” poster if the project is funded with federal aid.

Notice shall be posted at a location readily visible to workers at the job site, or where no field office is established, at a local office.

3.03.4(3) Not Used

3.03.4(4) Required Documents

The Contractor shall submit to the Owner the following for itself and for each subcontractor and firm that provides work and materials for the Contract:

- a. The Contractor shall submit certified payrolls to the Owner for the Contractor and all Subcontractors or lower tier subcontractors. All certified payrolls shall be complete and explicit. Employee Work classification codes used on certified payrolls shall coincide exactly with the occupation codes listed on the minimum

wage schedule in the Contract Provisions, unless the Engineer specifically approves an alternate method to identify the occupation coding used by the Contractor to compare with the codes listed in the Contract Provisions.

- b. In addition to any other retainage obligated by the Public Contracting Code, the Owner will withhold 25 percent of any amount earned by the prime contractor if the prime contractor does not turn in its certified payroll reports each week. Once the certified payroll reports have been submitted, the Owner will pay the 25 percent withheld within 14 days.

3.03.5 BONDS, INSURANCE AND INDEMNITY OBLIGATIONS

3.03.5(1) Contract Bonds

The successful bidder shall provide an executed Performance Bond and Public Works Payment Bond for the full Contract amount (including sales tax). The Contract Bonds shall:

1. Be on Owner-furnished forms;
2. Be conditioned upon the faithful performance of the Contract by the Contractor within the prescribed time; and
3. Guarantee that the Surety shall indemnify, defend, and protect the Owner against any claim of direct or indirect loss resulting from the failure:
 - a. Of the Contractor (or any of the employees, Subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform the Contract; or
 - b. Of the Contractor (or the Subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, Subcontractors, lower tier subcontractors, materialperson, or any other person who provides supplies or provisions for carrying out the Work.
4. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
5. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond must be signed by the president or vice-president, unless accompanied by written proof of the authority of the individual signing the bond to bind the corporation (i.e., corporate resolution, power of attorney or a letter to such effect by the president or vice-president).

The Owner may require Sureties or Surety companies on the Contract Bonds to appear and qualify themselves. Whenever the Owner deems the Surety or Sureties to be inadequate, it may, upon written demand, require the Contractor to furnish additional Surety to cover any remaining Work. Until the added Surety is furnished, payments on the Contract will stop.

3.03.5(1.1) Two-Year Guarantee Period

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within 2 years after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Owner's written notice of a defect, and shall complete such work within the time stated in the Owner's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Owner's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for 2 years after acceptance of the corrections by Owner.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Owner.

3.03.5(4) Public Liability & Property Damage Insurance

3.03.5(4.1) General Requirements

- A. The Contractor shall procure and maintain insurance described in all subsections in this Section, from insurers with a current A.M. Best rating not less than A – VII and licensed to do business in the State of Oregon. The Owner reserves the right to approve or reject the insurance provided, based on the insurer (including financial condition), terms and coverage, the Certificate of Insurance, and/or endorsements.
- B. The Contractor shall keep this insurance in force during the term of the Contract and for 30 days after the Physical Completion Date, unless otherwise indicated.
- C. All insurance coverage required by this section shall be written and provided by "occurrence-based" policy forms rather than by "claims made" forms.
- D. The insurance policies shall contain a "cross liability" provision.
- E. The Contractor's and all subcontractors' insurance coverage shall be primary and non-contributory insurance as respects the Owner's insurance, self-insurance, or insurance pool coverage. Any insurance, self-insurance or self-insured pool coverage maintained by the Owner shall be excess of the Contractor's insurance and shall not contribute with it.

- F. The Contractor shall provide the Owner and all Additional Insured with written notice of any policy cancellation and the date of effective cancellation within 2 business days of receipt.
- G. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Owner.
- H. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of Contract, upon which the Owner may, after giving 5 business days notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Owner on demand, or at the sole discretion of the Owner, offset against funds due the Contractor from the Owner.
- I. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

3.03.5(4.2) Additional Insured

All insurance policies, with the exception of Workers Compensation, shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- The Owner and its officers, elected officials, employees, agents, and volunteers;
- Gray & Osborne, Inc.;
- Oregon State Department of Transportation.

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by the Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 3.03.5(4.4) describes limits lower than those maintained by the Contractor.

3.03.5(4.3) Subcontractors

Contractor shall ensure that each subcontractor of every tier obtains and maintains at a minimum the insurance coverages listed in 3.03.5(4.5)A and 3.03.5(4.5)B. Upon request of the Owner, the Contractor shall provide evidence of such insurance.

3.03.5(4.4) Verification of Coverage

The Contractor shall deliver to the Owner a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the Work. The certificate and endorsements shall conform to the following requirements:

1. An ACORD certificate or a form determined by the Owner to be equivalent. The

certificate or an endorsement form shall indicate the Contractor's insurance is primary and non-contributory.

2. The Contractor shall obtain endorsement forms CG 2010 07 04, CG 2032 07 04 and CG 2037 07 04 or the equivalent of each, naming the Owner and all other entities listed in 3-03.5(4.2) as Additional Insured(s) and showing the policy number. If the Contractor is unsuccessful in securing these endorsements after exerting commercially reasonable efforts, the Contractor shall obtain other endorsements providing equivalent protection to the Additional Insured. A statement of additional insured status on an ACORD Certificate of Insurance shall not satisfy this requirement. Commercially reasonable efforts shall be evidenced by a signed statement by the Contractor's insurance broker indicating that endorsement forms CG 2010 07 04, CG 2032 07 04 and CG 2037 07 04 are not available and the endorsements submitted provide equivalent protection to the Additional Insured.
3. Any other amendatory endorsements to show the coverage required herein.
4. Upon request, the Contractor shall forward to the Owner a full and certified copy of the insurance policy(s). If Builders Risk Insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the Work.

3.03.5(4.5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve the Contractor from liability in excess of such limits. All deductibles and self-insured retentions shall be disclosed and are subject to approval by the Owner. The cost of any claim payments falling within the deductible shall be the responsibility of the Contractor.

3.03.5(4.5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least 3 years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

\$1,000,000	Each Occurrence
\$2,000,000	General Aggregate
\$2,000,000	Products & Completed Operations Aggregate
\$1,000,000	Personal & Advertising Injury, each offence
\$1,000,000	Stop Gap/Employers' Liability

3.03.5(4.5)B Automobile Liability

Automobile Liability for owned, non-owned, hired, and leased vehicles, with an MCS 90 endorsement and a CA 9948 endorsement attached if “pollutants” are to be transported. Such policy(ies) shall provide the following minimum limit:

\$1,000,000 combined single limit each accident

3.03.5(4.5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Oregon.

3.03.5(4.5)D Excess or Umbrella Liability

The Contractor shall provide Excess or Umbrella Liability coverage at limits of \$2 million per occurrence and annual aggregate. This excess or umbrella liability coverage shall apply, at a minimum, to both the Commercial General and Auto insurance policy coverage and employers liability.

This requirement may be satisfied instead through the Contractor's primary Commercial General and Automobile Liability coverage, or any combination thereof.

3.03.5(4.5)E Builders Risk Insurance

The Contractor shall purchase and maintain Builders Risk insurance covering interests of the Owner, the Contractor, Subcontractors, and Sub-subcontractors in the work. Builders Risk shall be required for all structures on the project. A structure is any equipment, facility, building, bridge, retaining wall, or tank extending 4 feet or more above adjacent grade; or any facility less than 4 feet above adjacent grade, designed for human access, and containing more than \$50,000 worth of electrical or mechanical equipment. Poles, light standards, or antenna less than 50 feet in height and less than 2 feet in diameter shall not be considered structures. Builders Risk insurance, when required, shall be on an all-risk policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including flood, earthquake, theft, vandalism, malicious mischief and collapse. The Builders Risk insurance, when required, shall include coverage for temporary buildings, debris removal, and damage to materials in transit or stored off-site. Such insurance shall cover “soft costs” including but not limited to design costs, licensing fees, and architect's and engineer's fees. Builders Risk insurance shall be written in the amount of the completed value of the applicable portions of the project, with no coinsurance provisions.

The Builders Risk insurance covering the Work shall have a deductible of \$5,000 for each occurrence, which will be the responsibility of the Contractor. Higher deductibles for flood, earthquake and all other perils may be accepted by the Owner upon written request by the Contractor and written acceptance by the Owner. Any increased deductibles accepted by the Owner will remain the responsibility of the Contractor.

The Builders Risk insurance shall be maintained until the Physical Completion Date.

The Contractor and the Owner waive all rights against each other and any of their Subcontractors, Sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other perils to the extent covered by Builders Risk insurance or other property insurance applicable to the work. The policies shall provide such waivers by endorsement or otherwise.

Liability for facilities not covered by Builders Risk shall remain the responsibility of the Contractor.

3.03.5(4.5)F LHWCA Insurance

If the Contract involves work on or adjacent to Navigable Waters of the United States, the Contractor shall procure and maintain insurance coverage in compliance with the statutory requirements of the U.S. Longshore and Harbor Workers' Compensation Act (LHWCA).

Such policy must provide the following minimum limits:

\$1,000,000	Bodily Injury by Accident – each accident
\$1,000,000	Bodily Injury by Disease – each employee
\$1,000,000	Bodily Injury by Disease – policy limits

3.03.5(4.5)G Protection and Indemnity Insurance Including Jones Act

If the Contract involves marine activities, or work from a boat, vessel, or floating platform, the Contractor shall procure and maintain Protection and Indemnity (P&I) coverage including collision liability, injury to crew (Merchant Marine Act of 1920 - Jones Act) and passengers, removal of wreck and liability for seepage, pollution, containment and cleanup using form SP-23 or SP 38 or a form as least as broad.

All entities listed under Section 3.03.5(4.2) of the General Conditions shall be named as additional insureds on the Contractor's Protection and Indemnity insurance policy.

Such policy must provide the following minimum limits:

\$1,000,000	Bodily Injury by Accident – each accident or occurrence
\$1,000,000	Bodily Injury by Disease – each employee
\$1,000,000	Bodily Injury by Disease – policy limits

3.03.5(4.5)H Hull and Machinery

If the Contract involves use of a boat, vessel, or floating platform, the Contractor shall procure and maintain coverage at Market Value of vessel on American Institute Hull Clauses, 6/2/77 form.

3.03.5(5) Indemnity and Hold Harmless

- a. To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Owner and the Engineer and their appointed and elective officers, agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees and expenses arising out of or resulting from the negligent performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and (2) is caused by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Provided, however, that when any such claim, damage, loss or expense arises from the concurrent negligence of (1) the Owner, or anyone for whose acts it may be liable, and (2) the Contractor, or anyone for whose acts it may be liable, it is expressly agreed that the Contractor's obligations of defense and indemnity under this section shall be effective only to the extent of the Contractor's negligence and those for whose negligence the Contractor is responsible. This obligation of indemnity shall not extend to claims, losses or expenses arising from the sole negligence of the Owner, its appointed or elected officials, agents or employees.
- b. In any and all claims against the Owner or the Engineer or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts, it being the expressed intent of the parties that Contractor herein specifically waives any immunity granted under the State Industrial Insurance Law.

3.03.5(6) Patent Royalties & Process Fees

The Contractor shall be responsible for all costs arising from the use of patented devices, materials, or processes used in or incorporated in the Work. The Contractor agrees to indemnify, defend, and save harmless the Owner from all claims and damages, in any way relating to the use of patented devices, materials, or processes used in or incorporated in the Work.

3.03.6 METHOD OF SERVING NOTICE

All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, shall be in paper format, hand delivered or sent via mail delivery service to the Owner. Electronic formats such as emails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

3.04 PROSECUTION AND PROGRESS OF THE WORK

3.04.1 QUALITY OF WORK

3.04.1(1) Workmanship

- a. The Contractor represents that it is fully experienced and possesses all the necessary capital, facilities and expertise to perform all of the Work, and hereby guarantees that all of the Work performed by it under the Contract will be of the highest quality and done in a workmanlike fashion in strict accordance with the requirements of the Contract.
- b. The Contractor shall at all times employ skilled workmen and use skilled Subcontractors in the performance of the Work. When required in writing by the Owner or the Engineer, the Contractor or its Subcontractors shall remove from the Work site any person or Subcontractor who is, in the opinion of the Owner or the Engineer, not competent, not qualified, disorderly, or otherwise unsatisfactory and shall not again employ such discharged person or Subcontractor on the Work, except with the prior written consent of the Owner. Discharge of any person or Subcontractor shall not be the basis of any claim for compensation or damages against the Owner or the Engineer.
- c. All Work performed under the Contract shall be of first quality workmanship throughout, with the Work complete and in full working order upon completion.
- d. Except when otherwise expressly specified in the Contract, the Contractor shall design, survey, layout and be responsible for all methods, materials and equipment used in performing the Work.
- e. If, at any time, the Contractor's workforce (including Subcontractors), in the opinion of the Owner and/or the Engineer, shall be inadequate for maintaining the necessary progress required to complete the Work within the Contract Time, the Contractor shall, if so required by the Owner and/or the Engineer, increase the workforce or equipment to such an extent as to give reasonable assurance of compliance with the Work schedule. The failure of the Owner and/or the Engineer to make such demand shall not relieve the Contractor of its obligation to perform the Work in accordance with the requirements of the Contract. The Contractor alone shall be responsible for the safety, efficiency and adequacy of its activities, construction methods and the rate of progress required by the Contract.

3.04.1(2) Contractor's Supervisory and Site Personnel

- a. The Contractor shall assign sufficient supervisory personnel to ensure the faithful prosecution of the Work and shall have adequate supervisory personnel present at the Work site who are either employees of the Contractor or duly authorized representatives designated in writing to the Owner and/or the Engineer. The Contractor shall at all times maintain at the Work site a complete copy of the Contract Provisions, Contract Plans, and record drawings of the Work that has been completed.
- b. The Contractor shall at all times have at least one duly authorized supervisory representative at the Work site who shall be fully authorized to make binding decisions on behalf of the Contractor with respect to the Work. If the Contractor's duly authorized supervisory representative at the Work site will be absent from the Work site for more than four hours, he/she shall designate an assistant who possesses the same authority and so inform the Owner and the Field Representative, if applicable.

3.04.2 MATERIALS AND EQUIPMENT

- (1) Materials and equipment furnished and installed shall be manufactured, fabricated or constructed to meet all applicable safety requirements. All material and equipment supplied by the Contractor and incorporated in the Work shall be of new manufacture, free from defects and in strict compliance with the requirements of the Contract. When required by the Owner, a certificate from the manufacturer or other responsible supplier shall be supplied attesting to this fact.
- (2) All tools and equipment used for construction operations shall be of the size and type suitable for the Work and shall be kept in safe and good working condition at all times.
- (3) The Contractor shall, whenever required during the progress of the Work and after completion of the Work, furnish proof acceptable to the Owner that all items of equipment and all materials installed equal or exceed all requirements specified in the Contract.
- (4) The Contractor shall use all means possible to protect materials and equipment from damage or degradation of any kind before, during and after installation.
- (5) The Contractor shall replace any materials or equipment damaged during the performance of the Work to the approval of the Owner and the Engineer. The cost of replacing damaged materials and equipment shall be borne by the Contractor.

3.04.3 SPECIFICATION OF PARTICULAR MATERIALS AND EQUIPMENT

- (1) Within the Contract, certain items are specified by brand, style, trade name, or manufacturer in order to set forth a standard of quality, and/or preference by the Owner. Unless specifically noted otherwise, it is not the intent of the Contract to exclude other processes or materials of a type and quality equal to those designated.
- (2) The term “or equal” as used in the Contract does not mean that the Contractor’s substitution of material or equipment will necessarily be approved as equal by the Engineer. If the Contractor desires to substitute material or equipment on the basis that it is equal to that specified, the Contractor shall submit a written request to the Engineer to substitute the material or equipment. The Contractor shall not use or incorporate such material or equipment into the Work until the Contractor has received written approval from the Engineer.
- (3) If the Contractor proposes substitutions, the Engineer will record all time used to evaluate each proposed substitution. If an approved substitution requires revisions to the Contract Documents, the Engineer will record all time to accomplish the revisions. Whether or not the Engineer approves a proposed substitution all direct and indirect cost to evaluate the proposed substitution shall be deducted from amounts due or to become due to the Contractor.
- (4) No additional compensation or extension of time will be allowed the Contractor for any changes required to incorporate substituted materials or equipment.

3.04.4 STORAGE

3.04.4(1) On-Site Storage

The Contractor shall store all equipment and materials in a safe and suitable place in accordance with the manufacturer’s recommendations. Materials and equipment shall be covered or wrapped to protect them from moisture, dust and deterioration, as required or necessary. All on-site storage areas shall be approved in advance by the Owner and the Engineer.

3.04.4(2) Off-Site Storage

The Contractor may be required to provide offsite storage of equipment and materials to enable construction to occur at the Work site. The Contractor has full responsibility to secure all offsite storage areas, if needed, and shall include the costs for providing such storage areas in the bid Proposal for the individual equipment and material items requiring off-site storage. All off-site storage areas shall be enclosed or fenced and be secure.

3.04.5 DEFECTIVE MATERIALS, EQUIPMENT AND WORKMANSHIP

- (1) Materials, equipment, or workmanship which, in the opinion of the Owner or the Engineer, does not conform to the Contract or are in any other way unsatisfactory or unsuited to the purpose for which they are intended may be rejected. The

Contractor shall remove from the Work site without delay, all rejected materials, equipment and work, and shall promptly replace the same in strict conformity with the requirements of the Contract. Unsatisfactory materials, equipment and workmanship may be rejected at any time, notwithstanding any previous testing, inspection or acceptance of such materials, equipment or workmanship, or inclusion thereof in any previously issued progress estimates.

- (2) If the Contractor fails to correct defective Work, equipment or materials, the Owner shall have the right to exercise any of the following options or any combination thereof:
- a. The Owner may replace the defective Work, materials or equipment by purchase from or contract with any other parties at the expense of the Contractor, and in this event, the Owner shall be entitled without compensation to the Contractor, to the use of the defective Work or equipment for such reasonable time as is necessary to enable Owner to replace such defective Work, materials or equipment.
 - b. The Owner may elect to accept the defective Work, materials or equipment and issue a Change Order reflecting a credit against the contract price, computed under the terms of the Contract in an amount to be determined by the Engineer, which amount shall reflect the actual value to the Owner of the accepted Work.
 - c. Upon receipt of notice from the Owner of any defects in material, equipment or workmanship which appear within a two-year period following the Substantial Completion Date, or within any other warranty or guarantee period required by the Contract or provided by a manufacturer or supplier, the Contractor shall promptly and with the least possible delay and inconvenience to the Owner, repair or replace such defective workmanship, material or equipment without expense to the Owner.
 - d. The Contractor shall be responsible for the full cost of correcting defective Work and complying with warranties and guarantees as required by the Contract. Direct or indirect costs, including administrative and engineering, incurred by the Owner attributable to correcting and remedying defective or unauthorized work, or Work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Owner from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.
 - e. All warranties, guarantees, and other obligations to correct work that does not comply with the Contract are material requirements of the Contract. The performance of all warranties, guarantees and other obligations shall be

secured by the Performance Bond and the Public Works Payment Bond submitted by the Contractor at the time the Contract is signed.

3.04.6 CHANGES IN THE WORK

- (1) The Owner or the Engineer may, at any time, without notice to the Performance Bond or Public Works Payment Bond sureties, by written order designated or indicated to be a Change Order or Change Directive, make any change, including modifications to, additions to or deletions from the Work including, but not limited to, changes:
 - a. To the Contract Provisions and Contract Plans;
 - b. To quantities or performance of the Work;
 - c. To Owner-furnished facilities, equipment, materials, services or the Work site; or
 - d. To the schedule for the Work or the Contract Time.
- (2) A Change Order is an amendment to the Contract, which signifies changes in the scope of the Work, the Contract Time, and/or the Contract price. A Change Order shall be the complete expression of the agreement between the Owner and the Contractor. No claims or entitlement to and equitable adjustment or changes to the Contract Time and/or Contract Price will be allowed for alleged verbal or oral agreements or directives.
- (3) The Engineer will issue a written change order for any change. If the Engineer determines that the change increased or decreased the Contractor's costs or time to do any of the Work, the Engineer will make an equitable adjustment to the Contract. The equitable adjustment will be by agreement with the Contractor. However, if the parties are unable to agree, the Engineer will determine the amount of the equitable adjustment in accordance with Section 3.04.6(7) and adjust the time as the Engineer deems appropriate. Extensions of time will be evaluated in accordance with Section 3.04.15(1).

The Contractor shall proceed with the Work upon receiving:

1. A written change order approved by the Owner (City Commission); or
2. An oral order from the Engineer before actually receiving the written change order.

Within 14 calendar days of delivery of the change order the Contractor shall endorse and return the change order, request an extension of time for endorsement or respond in accordance with Section 3.04.8. The Owner may unilaterally process the change order if the Contractor fails to comply with these requirements. Changes

normally noted on field stakes or variation from estimated quantities, except as provided in Section 3.04.6(8), will not require a written change order. These changes shall be made at the unit prices that apply. The Contractor shall respond immediately to changes shown on field stakes without waiting for further notice.

The Contractor shall obtain written consent of the Surety or Sureties if the Engineer requests such consent.

- (4) All Change Orders will be prepared by the Owner or Engineer and executed in triplicate with one copy to the Owner, one to the Contractor, and one retained by the Engineer.
- (5) If the Contractor encounters any circumstances during the performance of the Work that the Contractor contends creates any entitlement to a change in the Contract Time, the Contract Price, or both, the Contractor shall immediately provide written notice to the Engineer. Within 10 calendar days after providing written notice, the Contractor shall provide a written request to the Engineer for a change to the Contract Time and/or Contract Price and provide detailed information supporting the request, including cost and schedule information.
- (6) No claim by the Contractor shall be allowed if the terms of this Section 3.04.6 are not strictly followed. In the event of any non-compliance, the Contractor shall be conclusively determined to have waived any claim or entitlement to an adjustment of the Contract Time or the Contract Price.
- (7) The cost to be included in an adjustment for any changes to the Work, adjustment of the Contract Time or Contract Price and any equitable adjustment or entitlement related to the Work or the Contract shall meet the claim notice provisions of Section 3.04.6, and will be determined strictly by one or a combination of the following methods:
 - a. Contract unit bid prices previously agreed upon; or
 - b. If there are no unit bid prices, an agreed lump sum; or
 - c. If the amount of the adjustment cannot be agreed upon in advance or in the manner provided in subparagraph a or b above, the cost will be determined by the actual cost of:
 1. Labor including working foremen. Labor rates will only include the basic wage and fringe benefits, the current rates for Federal Insurance Compensation Act (FICA), Federal Unemployment Tax Act (FUTA) and State Unemployment Tax Act (SUTA), and the company's present rates for medical aid and industrial insurance premiums;
 2. Materials incorporated permanently into the Work;

3. The ownership or rental cost of equipment during the time of use on the extra work. Equipment rates shall be as set forth in the then current Equipment Watch Cost Recovery (Blue Book). These rates shall be full compensation for all costs incidental to furnishing and operating the equipment. The Contractor shall submit copies of the applicable portions of the Equipment Watch Cost Recovery (Blue Book) to the Engineer; plus

4. Overhead and Profit as follows:

For Work performed by the Contractor, an amount to be agreed upon but not to exceed 15 percent of the labor, material, and equipment cost agreed to by the Engineer as compensation for supervision, small tools, provisions for safety, home office and field overhead, profit and other general conditions expenses, including, but not limited to, insurance, bond and business and occupation taxes.

For Subcontractor Work, the Subcontractor will be allowed an amount to be agreed upon but not to exceed 15 percent of the labor, material, and equipment cost agreed to by the Engineer as compensation for supervision, small tools, provisions for safety, home office and field overhead, profit and other general conditions expenses, including, but not limited to, insurance, bond and business and occupation taxes. The Contractor will be allowed an additional markup of 10 percent to compensate the Contractor for all administrative costs, including home office and field overhead, profit, bonding, insurance, business and occupation taxes and any other costs incurred.

In no case will the total fixed fee for the Contractor and all Subcontractors of all tiers exceed 30 percent.

(8) Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original bid quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of any Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original bid quantity, and that bid item represents 10 percent or more of the total original contract price. In that case, payment for Contract Work may be adjusted as described herein.

The adjusted final quantity shall be determined by starting with the final accepted quantity measured after all Work under an item has been completed. From this amount, subtract any quantities included in additive change orders accepted by both parties. Then, to the resulting amount, add any quantities included in deductive

change orders accepted by both parties. The final result of this calculation shall become the adjusted final quantity and the basis for comparison to the original Proposal quantity.

- a. **Increased Quantities.** Either party to the Contract will be entitled to renegotiate the price for that portion of the adjusted final quantity in excess of 1.25 times the original Proposal quantity, if 10 percent or more of the original contract price. The price for excessive increased quantities will be determined by agreement of the parties, or, where the parties cannot agree, the price will be determined by the Engineer based upon the actual costs to perform the Work, including reasonable markup for overhead and profit. The final price will be determined by the Engineer.

- b. **Decreased Quantities.** Either party to the Contract will be entitled to an equitable adjustment if the adjusted final quantity of Work performed is less than 75 percent of the original Bid quantity, if 10 percent or more of the original contract price. The Contractor shall submit the documentation to support the equitable adjustment to the Engineer. The equitable adjustment shall be based upon and limited to three factors:
 1. Any increase or decrease in unit costs of labor, materials or equipment, utilized for Work actually performed, resulting solely from the reduction in quantity;
 2. Changes in production rates or methods of performing Work actually done to the extent that the nature of the Work actually performed differs from the nature of the Work included in the original plan; and
 3. An adjustment for the anticipated contribution to unavoidable fixed cost and overhead from the units representing the difference between the adjusted final quantity and 75 percent of the original Plan quantity.

The following limitations shall apply to renegotiated prices for increases and/or equitable adjustments for decreases:

1. The equipment rates shall be actual cost but shall not exceed the rates set forth in the Equipment Watch Cost Recovery (Blue Book).
2. No payment will be made for extended or unabsorbed home office overhead and field overhead expenses to the extent that there is an unbalanced allocation of such expenses among the Contract Bid items.
3. No payment for consequential damages or loss of anticipated profits will be allowed because of any variance in quantities from those

originally shown in the Proposal form, Contract Provisions, and Contract Plans.

4. The total payment (including the adjustment amount and unit prices for Work performed) for any item that experiences an equitable adjustment for decreased quantity shall not exceed 75 percent of the amount originally Bid for the item.

If the adjusted final quantity of any item does not vary from the quantity shown in the Proposal by more than 25 percent, then the Contractor and the Owner agree that all Work under that item will be performed at the original Contract unit price.

When ordered by the Engineer, the Contractor shall proceed with the Work pending determination of the cost or time adjustment for the variation in quantities.

The Contractor and the Owner agree that there will be no cost adjustment for decreases if the Owner has entered the amount for the item in the Proposal form only to provide a common Proposal for Bidders.

3.04.7 DIFFERING SITE CONDITIONS

The Contractor shall promptly, and before such conditions are disturbed, notify the Engineer in writing of: (1) pre-existing subsurface or latent physical conditions at the Work site that differ materially from those indicated in the Contract Documents, or (2) pre-existing unknown physical conditions at the Work site, of an unusual nature, that differ materially from those ordinarily encountered and generally recognized as inherent in the Work of the character required by the Contract. The Engineer shall be given an opportunity to examine such conditions in order to advise the Owner of possible modifications to the Work to mitigate such conditions. If the Engineer determines that conditions are materially different and cause a material increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, an equitable adjustment shall be made in the Contract Time and/or Contract price in accordance with other applicable provisions of the Contract relating to changes in the Work. Failure of the Contractor to give notice of such conditions at the time of discovery shall constitute a waiver of any claim for an equitable adjustment. Any such adjustments to the Contract Price shall be computed strictly limited to amounts provided under paragraph 3.04.6.

3.04.8 PROTEST BY THE CONTRACTOR

If the Contractor disagrees with anything in a Change Order or a written directive, or with any interpretation or determination by the Engineer, the Contractor shall:

- a. Immediately submit a signed written notice of protest to the Engineer before doing the Work;

- b. Supplement the written protest within 14 calendar days with a written statement and supporting documents providing the following:
 1. The date and nature of the protested order, direction, instruction, interpretation or determination;
 2. A full discussion of the circumstances which caused the protest, including names of persons involved, time, duration, and nature of the Work involved and a review of the Plans and Contract Provisions referenced to support the protest;
 3. The estimated dollar cost, if any, of the protested Work and a detailed breakdown showing how that estimate was determined; and
 4. An analysis of the progress schedule showing the schedule change or disruption if the Contractor is asserting a schedule change or disruption; and
 5. If the protest is continuing, the information required above shall be supplemented upon request by the Engineer until the protest is resolved.

The Contractor shall keep detailed and complete records of extra costs and schedule impacts to Contract Time that in any way relate to a protest. The Contractor shall allow the Engineer to have access to all documents and records needed for evaluating the protest.

The Engineer will evaluate all protests that comply with this Section. If the Engineer determines that a protest is valid, the Engineer will adjust the Contract Price and/or the Contract Time by an adjustment in accordance with Section 3.04.6 and 3.04.15(2).

During the time when any protest is pending, the Contractor shall proceed promptly with the Work, as the Engineer orders in writing.

The Contractor's failure to submit a protest in strict accordance with the requirements of this Section shall constitute a waiver of any claim for an adjustment to the Contract Time, the Contract Price, or other relief.

3.04.9 SUBCONTRACTORS AND SUBCONTRACTS

3.04.9(1) Contractor Responsibility

Nothing contained in the Contract shall create any contractual or other relationship between the Owner and/or the Engineer and any Subcontractor or sub-subcontractor, and no performance undertaken by any such Subcontractor or sub-subcontractor shall, under any circumstances, relieve the Contractor of its obligations and responsibilities under the Contract.

Prior to subcontracting any Work, the Contractor shall verify that every first tier Subcontractor meets the responsibility criteria stated below at the time of subcontract execution. The Contractor shall include these responsibility criteria in every subcontract, and require every Subcontractor to:

1. All subcontractors performing Work described in ORS 701.005(2) will be registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board in accordance with ORS 701.035 to 701.055 before the subcontractors commence Work under the Contract.
2. Not be disqualified from bidding on any public works contract;
3. Verify these responsibility criteria for every lower tier subcontractor at the time of subcontract execution; and
4. Include these responsibility criteria in every lower tier subcontract.

3.04.9(2) Contractor Work Performance Requirement

Work done by the Contractor's own organization shall account for at least 30 percent of the awarded Contract price.

3.04.9(3) Approval of Subcontractors

The Contractor shall not subcontract Work unless the Engineer approves in writing. Each request to subcontract shall be on the form the Engineer provides. If the Engineer requests, the Contractor shall provide proof that the subcontractor has the experience, ability, and equipment the work requires. The Contractor shall require each subcontractor to comply with Section 3.03.4 and to furnish all certificates and statements required by the contract. Approval of a Subcontractor by the Owner shall not relieve the Contractor or Subcontractor of any obligations or responsibilities under the Contract. Any delays or other impacts caused by the failure of the Contractor to provide required information and obtain approval of any Subcontractor in a timely manner will not be considered as justification for additional compensation or an extension of the Contract Time.

3.04.9(4) Subcontracts

Upon approval of Subcontractors by the Owner, the Contractor shall, if requested, provide the Owner with complete copies of all subcontracts entered into between the Contractor and any Subcontractor. Providing requested subcontracts to the Owner shall be a condition precedent to the Owner's obligation to make any progress payment to the Contractor.

3.04.9(5) Incorporation of Contract

Every subcontract entered into by the Contractor shall expressly bind each Subcontractor to all of the terms and conditions of the Contract, which the Contractor shall incorporate into each subcontract by reference.

3.04.9(6) Replacement of Subcontractors

Subject to the requirements of state and/or federal agencies having jurisdiction over MBE/WBE/DBE requirements applicable to the Work, should it become impossible for a Subcontractor to perform the Subcontractor's intended work, the Contractor shall submit the information required above for an alternate Subcontractor at least 10 days prior to the time that the Subcontractor is scheduled to begin work. The failure of any Subcontractor to perform its portion of the Work in a timely or workmanlike fashion is the sole responsibility of the Contractor.

3.04.10 MUTUAL RESPONSIBILITY OF CONTRACTORS

The Owner reserves the right to perform other work on or near the Work site using its own forces and/or other contractors. The Contractor shall take all reasonable steps to coordinate its performance of the Work with the Owner and/or such other contractors and subcontractors. If, through acts of commission or omission on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage with respect to the other work being performed by the Owner, the Contractor agrees to promptly settle with such other contractor or subcontractor by agreement or other dispute resolution process. The Contractor agrees to indemnify and hold harmless the Owner and the Engineer from all claims asserted against and liability incurred by the Owner or the Engineer resulting from disputes between the Contractor and any other contractor or any subcontractor or material supplier. The indemnification rights of the Owner and the Engineer include expenses such as, but not limited to, salaries/wages of employees and all other expenses relating to any mediation, litigation, or arbitration, including costs, consulting fees and attorneys' fees. If such other contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been sustained by an act or omission of the Contractor or anyone for whose acts it may be liable, the Owner or the Engineer shall notify the Contractor, which shall defend, indemnify and save harmless the Owner and the Engineer against such claim.

The coordination of the Work with other work by the Owner shall be taken into account by the Contractor as part of its site investigation obligations under Section 2.01.4, and all costs thereof shall be borne by the Contractor as part of the contract price for the Work.

3.04.11 RISK OF LOSS

The Contractor shall have all risk of loss for all Work in progress, all materials, all equipment and all other items in any way relating to the Work through theft, fire, other casualty, act of God, or any other cause until the Contract Completion Date.

3.04.12 MEASUREMENT AND PAYMENT

3.04.12(1) General

The Contract price for the Work, whether lump sum or unit prices, shall constitute full compensation for furnishing all facilities, labor, materials, appurtenances, and incidentals and performing all operations necessary to construct and complete all items of the Work in accordance with the Contract, notwithstanding that minor or incidental features of the Work may not be shown on the Contract Plans or Contract Provisions.

3.04.12(2) Measurement

Measurement for all items shall be as specified in the Contract for unit price and lump sum price items.

3.04.12(3) Payment

Payment for all of the Work will be made at the lump sum or unit contract price as set forth in the Contract. Payment of the contract price shall constitute full compensation for the complete performance of all of the Work. Payment will be made in accordance with ORS 279C.570.

The Contractor shall include in each subcontract for property or services the contractor enters into with a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract:

- (a) A payment clause that obligates the contractor to pay the first-tier subcontractor for satisfactory performance under the subcontract within 10 days out of amounts the contracting agency pays to the contractor under the public improvement contract.
- (b) A clause that requires the contractor to provide a first-tier subcontractor with a standard form that the first-tier subcontractor may use as an application for payment or as another method by which the subcontractor may claim a payment due from the contractor.
- (c) A clause that requires the contractor, except as otherwise provided in this paragraph, to use the same form and regular administrative procedures for processing payments during the entire term of the subcontract. A contractor may change the form or the regular administrative procedures the contractor uses for processing payments if the contractor:
 - (A) Notifies the subcontractor in writing at least 45 days before the date on which the contractor makes the change; and
 - (B) Includes with the written notice a copy of the new or changed form or a description of the new or changed procedure.
- (d) An interest penalty clause that obligates the contractor, if the contractor does not pay the first-tier subcontractor within 30 days after receiving payment from the contracting agency, to pay the first-tier subcontractor an interest penalty on amounts due in each payment the contractor does not make in accordance with the payment clause included in the subcontract under paragraph (a) of this subsection. A contractor or first-tier subcontractor is not obligated to pay an interest penalty if the only reason that the contractor or first-tier subcontractor did not make payment when payment was due is that the contractor or first-tier subcontractor did not receive payment from the contracting agency or contractor when payment

was due. The interest penalty:

- (A) Applies to the period that begins on the day after the required payment date and that ends on the date on which the amount due is paid; and
- (B) Is computed at the rate specified in ORS 279C.515 (Conditions concerning payment of claims by public officers, payment to persons furnishing labor or materials and complaints) (2).

The contractor shall, in each of the Contractor's subcontracts, require the first-tier subcontractor to include a payment clause and an interest penalty clause that conforms to the standards of this section in each of the first-tier subcontractor's subcontracts and to require each of the first-tier subcontractor's subcontractors to include such clauses in the first-tier subcontractors' subcontracts with each lower-tier subcontractor or supplier.

3.04.12(4) Access to Books and Records

The Contractor shall, whenever so requested, give the Owner and/or the Engineer access to all invoices, bills of lading and other documents relating to the Work. The Contractor shall, without charge, provide personnel and measures and scales with adequate capacity for measuring or weighing any materials or other items paid for on a unit price basis.

3.04.12(5) Progress Payment Estimates

Progress payment estimates shall be prepared by the Engineer and reviewed by the Contractor and will be submitted with the Engineer's recommendation to the Owner for its approval on the first day of the month for all Work completed through the 26th day of the preceding month, unless otherwise agreed upon by the Owner, the Engineer and the Contractor. The Engineer will prepare progress payment estimates as accurately as available information permits. The Owner will make no payment under the Contract for the Work performed until the "Statement of Intent to Pay Prevailing Wages," is submitted to the Engineer, including Subcontractor wage rates. In general, each progress payment will be based upon the payment schedule and the value of Work performed during the preceding pay period. Before the final progress payment estimate is prepared, all quantities will be reviewed by the Engineer.

3.04.12(6) Payment for Materials on Hand

The Owner may reimburse the Contractor for 90 percent of the invoice amount of materials and equipment purchased before their incorporation into the work if properly stored on or near the Work site. Invoices for equipment and materials will be verified and approved by the Engineer. Each invoice shall be sufficiently detailed to enable the Engineer to determine actual costs. Payment for materials on hand shall not exceed the total contract cost of the contract item. Payment will not be made for granular materials, forming materials, consumables, nails, tie wire, etc. Payment will not be made for materials for any invoice that is less than \$2,000.00 or for freight bills and similar items. Payment for equipment or materials on hand shall not constitute acceptance of the equipment or materials. Equipment and materials will be rejected if found to be faulty, even if payment for it has been made.

3.04.12(7) Payments Withheld

The Engineer may decide not to recommend approval of all or a portion of a progress estimate, and/or the Owner may decide to withhold from a progress estimate an amount sufficient to protect the Owner from loss because of:

- a. Defective Work not remedied;
- b. Third-party claims or reasonable evidence indicating the probability that a third-party claim will be asserted;
- c. Failure of the Contractor to make timely and proper payments to Subcontractors or for labor, materials or equipment;
- d. Reasonable evidence that the Work cannot be completed for the unpaid balance of the contract price;
- e. Damage to the Owner or another contractor;
- f. Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance of the contract price will not be adequate to cover actual or liquidated damages for the anticipated delay;
- g. Repeated failure by the Contractor to comply with the directions of the Owner or the Engineer or to carry out the Work in accordance with the Contract;
- h. Other appropriate reasons necessary to protect the Owner.

3.04.12(8) Payment Upon Correction of Deficiencies

When the reason or reasons for withholding payment are resolved, payment will be made for amounts previously withheld.

3.04.12(9) Final Payment

After final inspection (Section 3.04.16(2)) of the Work and a determination by the Engineer that the Physical Completion Date has been achieved, the balance of the Contract price due to the Contractor will be paid based upon the final estimate by the Engineer and presentation of a Final Contract Voucher Certification signed by the Contractor. The Final Contract Voucher Certification shall be deemed to be a release of all claims of the Contractor unless a claim is filed in accordance with the requirements of Section 3.05 and is expressly excepted from release in the Contractor's Final Contract Voucher Certification. The date the Owner signs the Final Contract Voucher Certification constitutes the Contract Completion Date in accordance with Section 3.04.16(3).

If the Contractor fails, refuses, or is unable to sign and return the Final Contract Voucher Certification or any other documentation required in order to achieve the Contract Completion Date, the Owner reserves the right to establish a completion date) and unilaterally accept the Work. Unilateral final acceptance will occur only after the Contractor has been provided the opportunity, by written request from the Engineer, to voluntarily submit such documents. If voluntary compliance is not achieved, formal notification of the impending establishment of a completion date and unilateral final acceptance will be provided by certified letter from the Owner to the Contractor, which will provide 30 calendar days for the Contractor to submit the necessary documents. The 30 calendar day period will begin on the date the certified letter is received by the Contractor. The date on which the Owner unilaterally signs the Final Contract Voucher Certification shall constitute the Contract Completion Date under Section 3.04.16(3). The Owner shall have the right to unilaterally establish a Contract Completion Date when either (1) the Physical Completion Date for the Work has been achieved in accordance with Section 3.04.16(2), or (2) the Owner terminates the contract in accordance with Section 3.07. Unilateral establishment of the Contract Completion Date by the Owner shall not in any way relieve the Contractor of any liability for failing to comply with the Contract or from responsibility for compliance with all federal, state, tribal, or local laws, ordinances, and regulations that affect the Work.

Payment to the Contractor of partial or final payment estimates and retained percentages shall be subject to applicable laws.

3.04.13 WORK HOURS

Except in the case of emergency or unless otherwise approved by the Owner, the normal straight time working hours for the contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the Work.

Written permission from the Engineer is required, if a Contractor desires to perform Work on holidays, Saturdays, or Sundays; before 7:00 a.m. or after 6:00 p.m. on any day; or longer than an 8-hour period on any day. The Contractor shall apply in writing to the Engineer for such permission, no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 10:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Owner's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

Permission to work Saturdays, Sundays, holidays, or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Owner or Engineer. These conditions may include but are not limited to:

- The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Owner's material testing lab; inspectors; and other Owner employees when in the opinion of the Engineer, such Work necessitates their presence.
- Requiring the Contractor to reimburse the Owner all the costs in excess of straight time costs for the Owner's representatives who work during such times. These costs shall be deducted from amounts due or to become due to the Contractor.
- Considering the Work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.
- Considering multiple work shifts as multiple working days with respect to contract time, even though the multiple shifts occur in a single 24-hour period.

3.04.14 CONTRACT TIME

The Contract Time shall begin on the first working day following the 10th calendar day after the issuance of the written Notice to Proceed or the first day on which the Contractor begins to perform Work on the site, whichever occurs first. Time is of the essence of the Contract. All of the Work shall be completed within the time limits set forth in the Contract, and the Contractor's unexcused failure to do so shall result in the assessment of liquidated damages as provided in the Contract.

The Contractor shall complete all of the physical Work within the number of working days that are specified as the Contract Time. Every day will be counted as a working day unless it is a non-working day or the Engineer determines the day to be an unworkable day. A non-working day is a Saturday, a Sunday, a day on which the Contract suspends work, or one of the following holidays: January 1st; the third Monday of January; the third Monday of February; Memorial Day; July 4th; Labor Day; November 11th; Thanksgiving Day; the day after Thanksgiving; and Christmas. Whenever any of these holidays falls on a Sunday, the following Monday shall be counted a non-working day. When the holiday falls on a Saturday, the preceding Friday shall be counted a non-working day.

The days between December 25th and January 1st will be classified as nonworking days, provided that the Contractor actually suspends performance of the Work.

An unworkable day is defined as a partial or whole day that the Engineer determines to be unworkable because of weather, conditions caused by the weather, or such other conditions beyond the control of the Contractor that prevent the satisfactory and timely performance of the Work, and such performance, if not hindered, would have otherwise progressed toward physical completion of the Work.

Each working day shall be charged to the Contract Time as it occurs until the Work is physically complete. If requested by the Contractor in writing, the Engineer will provide the Contractor with a weekly statement that shows the number of working days: (1) charged to the Contract Time the week before; (2) specified for the substantial and physical completion of the Contract Time; and

(3) remaining to achieve the substantial and physical completion of the Contract. The statement will also show the nonworking days and any partial or whole days that the Engineer declares to be unworkable. If the Contractor disagrees with any statement issued by the Engineer, the Contractor shall submit a written protest within 10 calendar days after the date of the statement. The protest shall be sufficiently detailed to enable the Engineer to ascertain the basis for the dispute and amount of time disputed. Any statement that is not protested by the Contractor as required in this Section shall be deemed as having been accepted as correct. If the Contractor elects to work 10 hours a day 4 days a week (a 4-10 schedule), the fifth day of that week will be charged as a working day if that day would be chargeable as a working day if the Contractor had not elected to utilize a 4-10 schedule.

3.04.15 CONSTRUCTION SCHEDULE

3.04.15(1) Progress Schedule

- a. Within 5 days after the date the Contract is executed, the Contractor shall submit to the Engineer four copies of a preliminary progress schedule covering the first 90 days of the Work. Within 30 days after the Contract is executed, the Contractor shall submit to the Engineer four copies of a comprehensive critical path method progress schedule and analysis for the entire Work. The preliminary progress schedule may consist of a bar graph or arrow diagram and shall show the time the Contractor intends to start and complete various Work activities. No progress payments will be made until the required progress schedules have been submitted in a form acceptable to the Engineer.
- b. Each week the Work is performed, the Contractor shall submit a Weekly Look-Ahead Schedule showing the Contractor's and all the Subcontractors' proposed Work activities for the next two weeks. The Weekly Look Ahead Schedule shall include the description, duration and sequence of Work, along with the planned hours of Work. This schedule may be network schedule, bar chart, or other standard schedule format. The Weekly Look-Ahead Schedule shall be submitted to the Engineer by the mid-point of the week preceding the scheduled Work or some other mutually agreed upon submittal time.
- c. The comprehensive progress schedule shall include a brief explanation of the schedule submitted, together with an analysis showing the following:
 - i. The percentage of each Work activity completed;
 - ii. The anticipated Substantial Completion Date, Physical Completion, and Contract Completion Date;
 - iii. A description of anticipated problem areas that may impact the schedule;
 - iv. A description of any current factors that are impacting the schedule and the affect of each;

- v. An explanation of corrective actions taken or proposed.
- d. The Contractor shall promptly, and in no event more than 7 days following the occurrence of any of the events described below, submit to the Engineer a revised schedule:
 - i. A Change Order affects the Contract Time or the sequence of Work activities;
 - ii. The progress of any activity on the critical path falls behind schedule or progresses significantly ahead of schedule;
 - iii. A delay in the progress of a non-critical activity results in a change to the critical path for the Work;
 - iv. The Contractor elects to change the sequence of any activities affecting the critical path.
- e. The original and all supplemental progress schedules shall not conflict with any time and order-of-work requirement in the Contract.
- f. If the Engineer deems that the original or any necessary supplemental progress schedule does not provide the information required in this section, the Owner may withhold progress payments until a schedule containing the required information has been submitted by the Contractor and accepted by the Engineer.
- g. The Contractor shall comply with other progress schedule requirements that are further defined in the Specifications.
- h. The Engineer's approval of any schedule shall not transfer any of the Contractor's responsibilities to the Owner. The Contractor alone shall remain responsible for adjusting forces, equipment, and work schedules to ensure completion of the work within the time(s) specified in the Contract.

3.04.15(2) Extensions of the Contract Time

- a. The Contractor specifically waives claims for damages for any hindrance or delay, excepting unreasonable delays caused by the Owner. In lieu thereof, the Contractor will be granted equitable extensions of the Contract Time for which liquidated damages will not otherwise be claimed by the Owner under the following circumstances:
 - i. A delay caused by any suit or other legal action against the Owner will entitle the Contractor to an equivalent extension of time, unless the period of such delay exceeds 90 calendar days. When such period is exceeded, the Owner will, upon written request of the Contractor, either negotiate a

termination of the Contract or grant a further extension of the Contract Time, whichever is in the best interests of the Owner.

- ii. If the volume of specified unit price work is increased over the estimated volume utilized in the Proposal at the time of the Award for reasons beyond the control of the Contractor, and the increased volume delays the Contractor's performance of the Work, the Contractor will be granted an equivalent extension of the Contract Time as determined by the Engineer. As a condition precedent to entitlement to an adjustment of the Contract Time, Contractor must meet the claim notice provisions of Paragraph 3.04.6 herein. Failure to provide timely notice of claim shall be deemed a complete waiver of entitlement to an extension of time.
- iii. Should any other unforeseen condition occur that is beyond the reasonable control of Contractor, requires more time for the Contractor to complete the performance of the Work by the Substantial Completion Date, the Contractor shall notify the Owner and the Engineer in writing prior to the performance of such Work, and in any event within 10 calendar days after the occurrence of the unforeseen condition. The notice shall set forth in detail the Contractor's estimate of the required time extension. The Owner will allow such equitable extension of the Contract Time that the Engineer determines to be appropriate. Failure to complete with the claim notice provisions required by the Contract shall be deemed a complete waiver of any entitlement to adjustment of the Contract Time.

3.04.15(3) Liquidated Damages

- a. The Contractor acknowledges that the Owner will suffer monetary damages in the event of an unexcused delay in the Substantial Completion Date and the Physical Completion Date of the Work. If the Contractor fails, without excuse under the Contract, to complete the Work within the Contract Time, or any proper extension thereof granted by the Owner, the Contractor agrees to pay to the Owner the amount specified in the Proposal form, not as a penalty, but as liquidated damages for such breach of the Contract, for each day that the Contractor shall be in default after the time stipulated for the Substantial Completion Date and the Physical Completion Date of the Work.
- b. The amount of liquidated damages is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is specifically agreed to be a reasonable approximation of damages that the Owner would sustain as a result of an unexcused delay in the Substantial Completion Date and the Physical Completion Date; said amount may be retained from time to time by the Owner from current progress payments.

3.04.16 COMPLETION AND ACCEPTANCE OF THE WORK

3.04.16(1) Substantial Completion Date

- a. When the Contractor considers the Work to be substantially complete and ready for its intended purpose, the Contractor shall notify the Engineer in writing and include an itemized list of remaining Work to be completed. On the Substantial Completion Date, the Owner shall have full and unrestricted use and benefit of all of the facilities that comprise the Work, both from an operational and safety standpoint, with only minor incidental work, replacement of temporary substitute facilities, or correction or repair of work remaining for the physical completion of the total Work.
- b. If the Engineer determines that the Work is not substantially complete, it will so notify the Contractor in writing identifying those items of the Work that shall be completed by the Contractor in order to achieve the Substantial Completion Date.
- c. If the Engineer believes that the Work is substantially complete, the Engineer will meet with the Contractor to: (1) prepare a list of incomplete or unsatisfactory items of the Work that shall be completed or corrected; (2) define the division of responsibility between Owner and Contractor with respect to security, operation, maintenance, heat, utilities, insurance, etc., for the facilities; and (3) describe any other issues related to approval of the substantially completed Work. Upon reaching agreement with the Contractor, the Engineer will notify the Owner that, in its opinion and based on the information supplied by the Contractor, the Work is substantially complete, listing the items of incomplete Work, defining the division of responsibilities for the facilities, and setting forth any other terms related to final completion and acceptance.
- d. The Owner, who has sole authority to make the determination of the Substantial Completion Date, will review the Engineer's recommendation that the Work is substantially complete and, if it concurs, will instruct the Engineer to notify the Contractor that the Work is accepted as being substantially complete. Except for any portion(s) of Work specified for early completion or required by the Owner for early possession, substantial completion will not occur for any portion of the Work until the entire Work is ready for possession and use. The approval notice will include a list of incomplete Work items, establish the Substantial Completion Date, and describe any other terms relating to such approval. The Contractor shall acknowledge receipt of the approval notice in writing, indicating acceptance of all of its terms and provisions.
- e. The date of Substantial Completion, as determined by the Engineer and agreed to by the Owner, shall be the date for the beginning of the warranty period.
- f. Subsequent to the Substantial Completion date, the Owner may exclude the Contractor from the Work during such periods when construction activities might

interfere with the operation of the Project. The Owner, however, shall allow the Contractor reasonable access for completion of incomplete punch list items.

3.04.16(2) Physical Completion Date

- a. The Contractor shall complete all physical Work within the Contract Time.
- b. Upon physical completion of the Work, including completion of all corrective Work described in Section 3.04.16(1) above and the submission of all required record drawings, operation and maintenance manuals, manufacturers' affidavits, software and programming, and other items required by the Contract, the Contractor shall notify the Engineer in writing that the Work is physically complete. Upon receipt of the notification, the Engineer will determine if the Work is physically complete in accordance with the Contract. If the Engineer determines that any materials, equipment, or workmanship do not meet the requirements of the Contract, the Engineer will prepare a list of such items and submit it to the Contractor. Following the satisfactory completion of the corrective Work by the Contractor, the Engineer will notify the Owner that the Work is physically complete in accordance with the requirements of the Contract.
- c. The Engineer, with the concurrence of the Owner, will give the Contractor written notice of the Physical Completion Date for all of the Work. The Physical Completion Date shall not constitute the Owner's acceptance of the Work.

3.04.16(3) Contract Completion Date (Acceptance of the Project)

- a. When all of the Contractor's obligations under the Contract have been performed satisfactorily, the Owner will provide the Contractor with written notice of the Contract Completion Date. The following events shall occur in order for the Contractor to achieve the Contract Completion Date:
 1. The Contractor shall have achieved the Substantial Completion Date and the Physical Completion Date for the Work; and
 2. The Contractor shall furnish all documentation required by the Contract and required by law. The documents shall include, but are not limited to, the following:
 - i. Complete and legally effective releases and/or waivers of liens or bond or retainage claims in a form acceptable to the Owner. Subject to prior approval of the Owner, the Contractor may, if approved by the Owner, submit in lieu of the lien or claims releases and waivers: (1) receipts showing payment of all accounts in full; (2) an affidavit that the release and receipts cover all labor, services, materials, and equipment for which a lien or other claim could be filed and that all payrolls, material, and equipment bills and other indebtedness connected with the Work for which the Owner or the Owner's

property might in any way be responsible, have been paid; and (3) the consent of the surety, if any, to final payment. If any Subcontractor or supplier fails to furnish a release waiver or receipt in a form satisfactory to the Owner, the Contractor may be permitted by the Owner to furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any lien or similar claim;

- ii. Certified Payrolls (Federal Aid projects or if requested);
 - iii. Final Contract Voucher Certification.
 - iv. Affidavits of Wages Paid for the Contractor and all subcontractors must be submitted to the Owner.
- b. The Contractor agrees that neither completion nor final acceptance shall relieve the Contractor of the responsibility to indemnify, defend, and protect the Owner against any claim or loss resulting from the failure of the Contractor (or the subcontractors or lower tier subcontractors) to pay all laborers, mechanics, subcontractors, materialpersons, or any other person who provides labor, supplies, or provisions for carrying out the work or for any payments required for unemployment compensation or for industrial insurance and medical aid required.

Final acceptance shall not constitute acceptance of any unauthorized or defective work or material. The Owner shall not be barred from requiring the Contractor to remove, replace, repair, or dispose of any unauthorized or defective work or material or from recovering damages for any such work or material.

3.04.16(4) Use of Completed Portions of the Work

The Owner reserves the right to use and occupy any portion of the Work which has been completed sufficiently to permit partial use and occupancy, and such partial use and occupancy shall not be construed as an acceptance of the Work as a whole or any part thereof. Any claims that the Owner may have against the Contractor shall not be deemed to have been waived by such partial use and occupancy.

3.04.16(5) Waiver of Claims by Contractor

The Contractor's acceptance of the final payment from the Owner constitutes an irrevocable and complete waiver of any and all claims against the Owner under the Contract or otherwise arising from the Work, except for those claims that have been properly identified in writing in advance of final payment, and for which timely and sufficient prior written notice has been given, all in accordance with the Contract.

3.04.17 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

The Owner's final payment to the Contractor shall not relieve the Contractor of responsibility for faulty materials, equipment or workmanship. The Contractor shall promptly repair or replace any such defects discovered within the warranty or other applicable limitations period.

3.04.18 RETAINAGE

1. There will be retained from monies earned by the Contractor on progress estimates a sum not to exceed 5 percent of the monies earned by the Contractor. Such retainage shall be used as a trust fund for the protection and payment or for the claims of any other person or entity arising under the Contract. Retainage shall be administered in accordance with ORS 279C.550 to 279C.570.
2. Monies retained shall, at the option of the Contractor, be:
 - a. Retained in a fund by the Owner;
 - b. Deposited by the Owner in an interest-bearing account in a bank, mutual savings bank, or savings and loan association (interest on monies so retained may be paid to the Contractor);
 - c. Deposited by the Owner in an escrow (interest-bearing) account in a bank, mutual saving bank, or savings and loan association (interest on monies so retained shall be paid to the Contractor). Deposits are to be in the name of the Owner and are not to be allowed to be withdrawn without the Owner's written authorization. The Owner will issue a check representing the sum of the monies reserved, payable to the bank or trust company;
 - d. In choosing option (b) or (c), the Contractor agrees to assume full responsibility to pay all costs which may accrue from escrow services, brokerage charges or both, and further agrees to assume all risks in connection with the investment of the retainage in securities.
 - e. Alternatively, the Contractor may submit a bond in lieu of retainage per ORS 279C.560.

At the time the Contract is executed the Contractor shall designate the option desired.

3. Release of retainage will be made within the statutory period following the last date for filing of claims, provided that the following conditions are met:
 - a. All claims by the Owner against the Contractor have been resolved;
 - b. No claims have been filed against the retained percentage;

4. In the event that claims are filed against the retainage, the Contractor will be paid the retained percentage less an amount sufficient to pay all such claims, together with a sum determined by the Owner to be sufficient to pay the costs of foreclosing on claims and to attorneys' fees, all in accordance with applicable law.

3.05 DISPUTES AND CLAIMS

3.05.1 DISPUTES

When disputes occur, the Contractor shall pursue resolution through the Engineer. The Contractor shall follow the notice and protest procedures outlined in Section 3.04. If negotiation using the procedures outlined in Section 3.04 fails to provide satisfactory resolution, the Contractor shall pursue the more formalized method set forth in Section 3.05.2 for submitting claims.

3.05.2 CLAIMS

If the Contractor contends that additional payment is due, has provided timely notices and protests as required by Section 3.04, and the Contractor has pursued and exhausted all of the means provided in that section to resolve the dispute, the Contractor may submit a claim as provided in this Section. Any claim for an increase in the Contract Price or for an extension of the Contract Time by the Contractor is waived if the written notifications and protests required in Section 3-04 have been not provided, or if the Engineer is not afforded reasonable access to the Contractor's complete records relating to the claim, as required by Section 3-04.8, or if a claim is not submitted in accordance with the requirements of this Section. The fact that the Contractor has provided proper notification, properly submitted a claim, or provided the Engineer with access to records, shall not in any way be construed as proving or substantiating the validity of the claim. If, after consideration by the Owner, the claim is found to have merit, the Owner will make an equitable adjustment to either the Contract Price, the Contract Time, or both. If the Owner finds the claim to be without merit, no adjustment will be made.

All claims submitted by the Contractor shall be in writing and in sufficient detail to enable the Engineer to ascertain the basis for and amount of the claim. All claims shall be submitted to the Engineer in the manner in Section 3.03.6. The following information shall accompany each claim submitted:

1. A detailed factual statement of the basis for the claim for additional compensation and/or extension of time, including all relevant dates, locations, and items of work relating to the claim.
2. The date on which the events occurred that give rise to the claim.
3. The name of each person involved in or having knowledge about the claim.
4. The specific provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim.

5. If the claim relates to a decision of the Engineer that the Contract leaves to the Engineer's discretion or as to which the Contract provides that the Engineer's decision is final, the Contractor shall set out in detail all facts supporting its position relating to the decision of the Engineer.
6. The identification of any documents and the substance of any oral communications that support the claim.
7. Copies of any identified documents, other than Owner documents and documents previously furnished to the Owner by the Contractor, that support the claim (manuals which are standard to the industry may be included by reference).
8. If an extension of the Contract Time is sought:
 - a. The specific days and dates for which the extension is sought;
 - b. The specific reasons why the Contractor believes a time extension should be granted;
 - c. The specific provisions of Section 3-04.15(2) under which the time extension is sought; and
 - d. An analysis of the Contractor's progress schedule, demonstrating the reasons why a time extension should be granted.
9. If additional compensation is sought, the exact amount sought and a breakdown of that amount into the following categories:
 - a. Labor;
 - b. Materials;
 - c. Direct equipment. The actual cost for each piece of equipment for which a claim is made, or, in the absence of actual cost, the rates established by the Equipment Watch Cost Recovery (Blue Book) which was in effect when the Work was performed. The amounts claimed for any piece of equipment shall not exceed the rates established by the Equipment Watch Cost Recovery (Blue Book), even if the actual cost for such equipment is higher. The Owner may audit the Contractor's cost records, as provided in Section 3.06, to determine actual equipment costs. The following information shall be provided for each piece of equipment:
 - i. Detailed description (e.g., make, model, year, diesel or gas, size of bucket);
 - ii. The hours of use or standby; and
 - iii. The specific day and dates of use or standby.
 - d. Subcontractor claims (in the same level of detail as specified herein); and
 - e. Other information as requested by the Engineer or the Owner.

10. A notarized statement containing the following language:

Under the penalty of law for perjury or falsification, the undersigned,

_____, _____
(name) (title)

of _____
(company)

hereby certifies that the claim for extra compensation and time, if any, made herein for work on this Contract is a true statement of the actual costs incurred and time sought, and is fully documented and supported under the contract between the parties.

Dated _____/s/_____

Subscribed and sworn before me this _____ day of _____

Notary Public

My Commission Expires:_____

It will be the responsibility of the Contractor to keep full and complete records of the costs and additional time incurred with respect to any claim. The Contractor shall permit the Engineer to have access to those records and any other records and documents as may be required by the Engineer to determine the facts or contentions involved in the claim. The Contractor shall retain all records and documents in any way relating to the Work for a period of not less than three years after the Contract Completion Date.

The Contractor shall in good faith attempt to reach a negotiated resolution of all claims with the Engineer or its designee.

The Contractor's failure to submit with the Final Contract Voucher Certification a list of all claims, together with the information and details required by this Section shall operate as a waiver of the claims by the Contractor, as provided in Section 3.04.12(9).

If the Contractor submits a claim in full compliance with all the requirements of this Section, the Owner will respond in writing to the claim as follows:

1. Within 45 calendar days from the date the claim is received by the Owner, if the claim amount is less than \$100,000;
2. Within 90 calendar days from the date the claim is received by the Owner, if the claim amount is equal to or greater than \$100,000; or

3. If these time periods are unreasonable due to the complexity of the claim, the Contractor will be notified within 15 calendar days from the date the claim is received by the Owner of the amount of time which will be necessary for the Owner to evaluate the claim and issue a response.

Full compliance by the Contractor with the provisions of this Section is a condition precedent to the Contractor's right to seek commence a lawsuit or pursue other legal remedies.

3.05.3 TIMELINE AND JURISDICTION

For the convenience of the parties to the Contract it is mutually agreed by the parties that any claims or causes of action which the Contractor has against the Owner arising from the Contract shall be brought within 180 calendar days from the date of Physical Completion (Section 3.04.16(2)) of the Contract by the Owner; and it is further agreed that any such claims or causes of action shall be brought only in the Superior Court of the county where the Owner headquarters is located. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action. It is further mutually agreed by the parties that when any claims or causes of action which the Contractor asserts against the Owner arising from the Contract are filed with the Owner or initiated in court, the Contractor shall permit the Owner to have timely access to any records deemed necessary by the Owner to assist in evaluating the claims or action.

3.05.4 CONTINUATION OF WORK PENDING RESOLUTION OF DISPUTES

The Contractor shall expeditiously carry on the Work, adhere to the progress schedule, and comply with all written directives of the Owner or the Engineer regardless of any dispute or claim that may exist between the Owner and the Contractor. No Work shall be delayed or postponed pending resolution of any dispute or claim. Failure or refusal of the Contractor to comply with the written directives of the Owner or the Engineer shall constitute a material breach of the Contract and immediately constitute grounds for the Owner to withhold payments to the Contractor, suspend the Work or terminate the Contract. Notice under this Section shall be in accordance with other provisions of the Contract.

3.06 AUDITS

If the Contractor requests an equitable adjustment to either the Contract price or the Contract Time, the Owner shall have the right to audit the Contractor's books, records, other documents, and accounting practices and procedures, and to inspect the Contractor's plant, equipment and facilities to examine all facts and verify all direct and indirect costs of whatever nature claimed to have been incurred or are anticipated to be incurred. The right to audit encompasses all subcontracts and is binding upon Subcontractors. All subcontracts that the Contractor enters into shall contain a clause allowing the Owner to audit all Subcontractor books, records, other documents, and accounting practices and procedures, and to inspect the Subcontractor's plant, equipment and facilities. All audits shall be performed by auditors of the Owner during normal working hours at the Contractor's or Subcontractor's office or any other location mutually agreed upon. The Contractor

shall cooperate fully with the auditor and shall make available all required information. Failure to cooperate or provide requested information shall be grounds for denial of the claim.

3.07 SUSPENSION OF WORK AND TERMINATION OF CONTRACT

3.07.1 SUSPENSION OF WORK

1. The Owner or the Engineer may order suspension of all or any part of the Work if:
 - a. Unsuitable or other conditions that are beyond the reasonable control of the Contractor exist or arise that prevent satisfactory and timely performance of the Work; or
 - b. The Contractor fails to comply with written directives by the Owner or the Engineer to correct deficiencies in its performance of the Work; or
 - c. It is in the public interest.
2. If the Contractor believes that suspension of performance of all or any part of the Work is occasioned by any wrongful act or omission of the Owner, the Contractor shall notify the Engineer in writing within 10 calendar days following the beginning of the suspension of the Contractor's intent to seek an equitable adjustment in the Contract Time or the Contract price.
3. If the Contractor believes that the suspension of performance of all or part of the Work has continued for an unreasonable period of time, the Contractor shall give written notice to the Engineer of its intention to seek an equitable adjustment in the Contract Time or the Contract price. In the event that an equitable adjustment is allowed, no adjustment shall be allowed for any time lost or costs incurred more than 10 calendar days before delivery of the written notice to the Engineer.
4. If the Engineer determines that the suspension is for reasons set forth in Subsection a. above, an equitable adjustment will be made in the Contract Time but not the Contract price. If the Engineer determines that the suspension is for reasons set forth in Subsection b. above, no adjustment shall be made in the Contract Time or the Contract Price.

3.07.2 TERMINATION FOR DEFAULT

1. The Owner may terminate the Contract for default, effective seven days following delivery of written notice of default to the Contractor, if the Contractor:
 - a. Refuses or fails to supply enough properly skilled laborers or conforming materials to complete the Work in a timely manner;
 - b. Refuses or fails to prosecute the Work with such diligence as will ensure its physical completion by the Physical Completion Date;

- c. Performs work which deviates from the requirements of the Contract and refuses or fails to correct the non-conforming work;
 - d. Fails to make prompt payment to Subcontractors and/or suppliers for labor or materials;
 - e. Fails to comply with laws, ordinances, rules, regulations or orders of a public authority having jurisdiction; or
 - f. Otherwise fails to follow written directives of the Owner or the Engineer or is in default of a material provision of the Contract.
2. If the Contractor abandons the Work for any cause other than failure of the Owner to make monthly progress payments for Work properly performed, or if the Contractor refuses to comply with requirements of the Contract, the Owner has the additional right to notify the Contractor's performance bond surety and require the surety to complete the Work in accordance with the Contract.

3.07.3 TERMINATION FOR CONVENIENCE OF THE OWNER

The Owner may by written notice terminate the Contract at any time in whole or in part, without cause, and except where termination is due to the Contractor's default, the Owner shall pay the Contractor that portion of the Contract price corresponding to the acceptable Work completed to the Owner's satisfaction, together with reasonable costs, as determined in the sole discretion of the Owner, necessarily incurred by the Contractor in terminating the remaining portion of Work, less any payments made before termination. In no event shall the Owner be required to pay the Contractor any amount in excess of the completed portion Contract price. The Owner shall not be required to pay the Contractor any amount for consequential damages including but not by means of limitation lost or anticipated profits on Work that is not performed as a result of termination.

3.07.4 RESPONSIBILITY OF THE CONTRACTOR AND SURETY

Termination of the Contract shall not relieve the Contractor of any responsibilities under the Contract for Work performed. Nor shall termination of the Contract relieve the sureties of their obligations under the bonds required or permitted by the Contract or applicable law.

3.08 STATE OF OREGON REQUIREMENTS

3.08.1 PROMPT PAYMENT

Per ORS 279C.505(1), the Contractor shall:

1. Make payment promptly, as due, to all persons supplying to the contractor labor or material for the performance of the work provided for in the contract.

2. Pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the contract.
3. Not permit any lien or claim to be filed or prosecuted against the state or a county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished.
4. Pay to the Department of Revenue all sums withheld from employees under [ORS 316.167 \(Withholding of tax required\)](#).

3.08.2 EMPLOYEE DRUG TESTING

Per ORS 279C.505(2), the Contractor shall demonstrate that it has an employee drug testing program in place.

3.08.3 SALVAGE OR RECYCLING OF DEMOLITION DEBRIS

If the Work includes demolition as defined in ORS 279C.510(1), the Contractor shall salvage or recycle construction and demolition debris, if feasible and cost effective.

3.08.4 COMPOST OR MULCHING OF YARD WASTE MATERIAL

If the Work includes lawn or landscape maintenance, the Contractor shall compost or mulch yard waste material at an approved site, if feasible and cost effective per ORS 279C.510(1).

3.08.5 PAYMENT OF CLAIMS

Per ORS 279C.515(1), if the Contractor fails, neglects or refuses to pay promptly a person's claim for labor or services that the person provides to the Contractor or a Subcontractor in connection with the public improvement contract as the claim becomes due, the Owner may pay the amount of the claim to the person that provides the labor or services and charge the amount of the payment against funds due or to become due the Contractor by reason of the Contract.

3.08.6 LATE PAYMENT OF SUBCONTRACTORS

Per ORS 279C.515(2), if the Contractor or a first-tier Subcontractor fails, neglects or refuses to pay a person that provides labor or materials in connection with the public improvement contract within 30 days after receiving payment from the Owner or Contractor, the Contractor or first-tier Subcontractor owes the person the amount due plus interest charges that begin at the end of the 10-day period within which payment is due under ORS [279C.580 \(Contractor's relations with subcontractors\)](#) (4) and that end upon final payment, unless payment is subject to a good faith dispute as defined in ORS [279C.580 \(Contractor's relations with subcontractors\)](#). The rate of interest on the amount due is nine percent per annum. The amount of interest may not be waived.

3.08.7 PERSON'S RIGHT TO FILE A COMPLAINT WITH THE CONSTRUCTION CONTRACTOR'S BOARD

Per ORS 279C.515(3), if the Contractor or a Subcontractor fails, neglects or refuses to pay a person that provides labor or materials in connection with the public improvement contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS [279C.580 \(Contractor's relations with subcontractors\)](#).

3.08.8 HOURS OF LABOR

Per ORS 279C.520(1):

1. A Contractor may not employ an employee for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy absolutely requires otherwise, and in such cases, except in cases of contracts for personal services as defined in ORS [279C.100 \(Definitions for ORS 279C.100 to 279C.125\)](#), the Contractor shall pay the employee at least time and a half pay for:
 - (A)
 - (i) All overtime in excess of eight hours in any one day or 40 hours in any one week if the work week is five consecutive days, Monday through Friday; or
 - (ii) All overtime in excess of 10 hours in any one day or 40 hours in any one week if the work week is four consecutive days, Monday through Friday; and
 - (B) All work the employee performs on Saturday and on any legal holiday specified in ORS [279C.540 \(Maximum hours of labor on public contracts\)](#).
2. The Contractor shall comply with the prohibition set forth in ORS [652.220 \(Prohibition of discriminatory wage rates based on sex\)](#), and compliance is a material element of the Contract and a failure to comply is a breach that entitles the Owner to terminate the Contract for cause.
3. The Contractor may not prohibit any of the Contractor's employees from discussing the employee's rate of wage, salary, benefits or other compensation with another employee or another person and may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits or other compensation with another employee or another person.

3.08.9 PAYMENT FOR MEDICAL CARE AND PROVIDING WORKMEN'S COMPENSATION

Per ORS 279C.530:

1. The Contractor shall promptly, as due, make payment to any person, copartnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the Contractor, of all sums that the Contractor agrees to pay for the services and all moneys and sums that the Contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.
2. All employers, including the Contractor, that employ subject workers who work under this Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126.

3.08.10 MAXIMUM HOURS OF LABOR

The Contractor shall comply with the Maximum Hours of Labor requirements of ORS 279C.540.

3.08.11 TIME LIMITATIONS ON CLAIMS FOR OVERTIME

The time limitations on claims for overtime as described in ORS 279C.545 shall apply to this project.

3.08.12 BOLI PUBLIC WORKS BOND

Per ORS 279C.830(2), the Contractor and every subcontractor must have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS [279C.836 \(Public works bond\)](#) (4), (7), (8) or (9).

3.08.13 NOTICE OF CLAIMS ON BONDS

Notice of claims on bonds will be sent per ORS 279C.605.

3.08.14 CONTRACTOR'S CERTIFICATION OF COMPLIANCE WITH ORS 305.385

The Contractor shall provide certification that it is in compliance with the tax laws described in ORS 305.380.

3.08.15 CONTRACTOR'S CERTIFICATION OF SUBCONTRACTORS

The Contractor shall provide certification that all subcontractors performing Work described in ORS 701.005(2) will be registered with the Construction Contractors Board or licensed by the

State Landscape Contractors Board in accordance with ORS 701.035 to 701.055 before the subcontractors commence Work under the Contract.

PART 4

TECHNICAL SPECIFICATIONS

ENGINEERING SPECIFICATIONS

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DIVISION 1

GENERAL TECHNICAL REQUIREMENTS

SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 SCOPE OF WORK

The work specified in this Section consists of furnishing all labor, materials, and equipment necessary for replacing existing water meters with new meters previously purchased for the City of Warrenton (City) water system. Work shall include, but not be limited to, the following:

- A. Install new Owner-furnished water meters per schedule provided in Section 11680. Work includes documentation of meter change-out using the form provided in these Specifications.
- B. Install new Owner-furnished meter boxes per schedule provided in Section 11680.
- C. Provide testing, commissioning, and training as specified herein.
- D. Provide all other associated work as specified herein, for a complete and workable system.

At the Owner's option, additional work may include:

- E. Raising or lowering meters as needed to meet the City's meter installation standard
- F. Removing and replacing concrete or asphalt materials surrounding meter boxes that need to be replaced to accommodate the new meter.

1.2 PROJECT INFORMATION

The City has purchased 2,133 Master Meter Multi-Jet water meters for use in the replacement of existing manual read water meters as listed below.

- A. 2007 – (5/8" x 3/4") Master Meter BLMJ meter lead free body with plastic bottom with Allegro register-under the glass (gallons).
- B. 56 – 1-inch Master Meter BLMJ meter lead free body with plastic bottom with Allegro register-under the glass (gallons).

The accompanying Specifications describe the location, arrangement, and type of work to be performed under the proposed project.

Except for the City purchased meters and boxes, all materials and labor are to be furnished by the Contractor unless otherwise specifically provided in the Specifications. All workmanship, equipment, and materials incorporated in the work covered by this Contract are to be new, unless otherwise noted to use salvaged existing materials, and shall be of the best available grade or quality.

The Contractor shall be responsible for proper notification to and coordination with all utility districts, service districts, and all other persons and services that will be affected by this Project at least 1 week in advance of beginning any construction that affects them.

The Contractor shall take all necessary precautions required to prevent damage to existing piping, utilities, and structures above or belowground during construction. Verification of elevations and locations of existing items shall be the responsibility of the Contractor.

1.3 CONTRACTOR USE OF SITE AND PREMISES

Construction operations shall be limited to the areas noted within the Specifications and as approved by the Owner.

The Contractor shall plan his work to be completed within the time limits indicated in these Specifications. The hours of construction work shall be confined to the period of 7:00 a.m. to 6:00 p.m., Monday through Friday. No construction equipment shall be started, warmed up, or tested prior to 7:00 a.m., and all construction equipment shall be promptly shutdown at 6:00 p.m. No work shall be permitted on holidays without prior approval of the Engineer. A recognized holiday shall be a day currently accepted by the trades or occupations in the locality where the work is being performed, and shall include New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving Day, and Christmas Day. Exceptions to these work hours will be allowed only for startup, testing, and commissioning as specified, or for work only with prior review and approval by the Engineer of the work and methods to be employed.

The Contractor shall provide notice to each household regarding water shutoff. A household shall not be without water for more than 2 hours.

The Contractor shall be responsible for providing each customer with a door-hanger notice informing them of the date and time that work will be performed.

The notice shall provide a 4-hour window for the work and shall be placed on the door at least 48 hours in advance of performance of the work.

1.4 ORDER OF WORK

The order of work will be at the option of the Contractor, in keeping with good construction practice, time restrictions, and requirements of the permits applicable to this Project, all costs of which shall be included in the various bid amounts. Shutdowns of local utilities shall be limited to 4 hours unless approved by the Engineer. The Contractor shall provide a written plan of activities to the Engineer each Thursday for the following week.

The implementation of any measure required to protect the environment shall supersede any order of work designated within these Specifications. The Contractor shall meet the conditions as outlined in any and all permits and requirements of the Federal, State, County, and City regulatory agencies.

***** END OF SECTION *****

SECTION 01160

REGULATORY REQUIREMENTS

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section contains information pertaining to permits and licenses, and use of private property.

1.2 PERMITS AND LICENSES

The City has obtained permits for this project from Clatsop County (County) and Oregon State Department of Transportation (ODOT). The Contractor shall abide by all conditions stipulated in the County and ODOT permits acquired for this project. The Contractor must have a business license issued by the City of Warrenton.

1.3 USE OF PRIVATE PROPERTY

The Contractor shall be responsible for all conditions of any arrangements the Contractor makes for the use of any privately owned property.

In the event any dispute occurs and claims for damages are filed by the property owners, the Owner will request that the Contractor give evidence that he has requested his insurance company to make personal contact with the claimants. Any settlement for insurance claims shall be strictly an act restricted to the claimee, the Contractor and his insurance company.

The Contractor is advised that in the event of any property damage, the Owner reserves the right to withhold monies to protect the property owner.

1.4 PROPERTY RELEASE FORM

The Contractor shall be held responsible for acquiring signed property release forms, in the format provided on the following page, for all properties that have been disturbed or damaged by the Contractor's operations, or utilized by the Contractor for staging, storing, or stock piling of materials or equipment.

This work shall include submitting the form(s), as further shown herein, by certified mail to each property owner effected and further including therein a self addressed stamped envelope for the property owner's use. The enclosed self addressed envelope shall be addressed to: Mr. Collin Stelzig, City of Warrenton,

45 SW 2nd Street, Warrenton, Oregon 97146. Contractor shall provide evidence of all certified mailings.

***** END OF SECTION *****

PROPERTY RELEASE

(Property Address)

DATE: _____

I, _____, owner of _____
(Property Owner's Name) (Property Description or
_____, hereby release
Address)
_____, from any property
(Contractor's Name)

damage or personal injury resulting from construction adjacent
to or on my property located at _____,
(Property Address)
during construction of the Water Meter Replacement.

My signature below is my acknowledgment and acceptance that my property, as identified
above, was returned to a satisfactory condition.

Name: _____

Signed: _____

Address: _____

Phone: _____

SECTION 01200

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SCOPE

This Section further defines Measurement and Payment for this project.

1.2 RELATED WORK SPECIFIED ELSEWHERE

<u>Section</u>	<u>Item</u>
GC Section 3.04.12	Measurement and Payment
01290	Schedule of Values
01300	Submittals

1.3 MEASUREMENT

Measurement for all items shall be as indicated in these Specifications for unit price and lump sum price bid items. Bid items are outlined in detail in this Specification Section and listed in the Proposal.

1.4 INDIVIDUAL BID ITEMS

The following is a list of bid items for the project. The contract price for each item constitutes full compensation for furnishing all equipment, labor, materials, appurtenances, and incidentals and performing all operations necessary to construct and complete the various bid items in accordance with the Contract Documents. Payment for each item shall be considered as full compensation, notwithstanding that minor features may not be mentioned herein. Work paid for under one item will not be paid for under any other item. If a particular item of work shown on the Plans or described in Specifications is not described in a specific bid item, this item of work shall be considered as incidental to the work and the costs for this work shall be merged into the various respective unit price and lump sum bid items.

A. BASE BID

1. Mobilization and Demobilization
 - a. Measurement: Will be measured by lump sum.
 - b. Payment: The lump sum contract price for MOBILIZATION AND DEMOBILIZATION shall include

all costs for the labor, materials, and equipment required for mobilization and demobilization on the project as described in Section 01505.

Payment for MOBILIZATION AND DEMOBILIZATION shall be as follows:

35% Payment: When Contractor has mobilized on-site and temporary facilities are in place.

50% Payment: When 5 percent of the total pay items are completed (not including payment for materials on hand).

75% Payment: When 50 percent of the total pay items are completed (not including payment for materials on hand).

100% Payment: When Project is completed and recommended for acceptance.

2. 3/4-Inch Water Meter Installation

- a. Measurement: Shall be measured per each.
- b. Payment: The unit price per each for 3/4-INCH WATER METER INSTALLATION shall include all cost for labor, material, and equipment to remove the existing meter and deliver it to the Owner, install an Owner-furnished meter and verify that the register detects movement of water through the meter, and provide the Owner a meter change-out form with the self-adhesive label affixed to the meter change-out form where indicated

3. 1-Inch Water Meter Installation

- a. Measurement: Shall be measured per each.
- b. Payment: The unit price per each for 1-INCH WATER METER INSTALLATION shall include all cost for labor, material, and equipment to remove the existing meter and deliver it to the Owner, install an Owner-furnished meter and verify that the register detects movement of water through the meter, and provide the Owner a meter change-

out form with the self-adhesive label affixed to the meter change-out form where indicated

4. 3/4-Inch Meter Box
 - a. Measurement: Shall be measured per each.
 - b. Payment: The unit price per each for 3/4-INCH METER BOX shall include all cost for labor, material, and equipment to remove and wastehaul an existing meter box and install a new Owner-furnished meter box as shown in Figure 2 at the end of these specifications. Box replacement shall be noted on the as-built record drawings furnished at the end of the project.

5. 1-Inch Meter Box
 - a. Measurement: Shall be measured per each.
 - b. Payment: The unit price per each for 1-INCH METER BOX shall include all cost for labor, material, and equipment to remove and wastehaul an existing meter box and install a new Owner-furnished meter box as shown in Figure 3 at the end of these specifications. Box replacement shall be noted on the as-built record drawings furnished at the end of the project.

6. Project Documentation (\$2,000 Minimum)
 - a. Measurement: Shall be measured by lump sum.
 - b. Payment: The lump sum bid for PROJECT DOCUMENTATION (\$2,000 MINIMUM) shall include all costs for maintaining and providing record drawings and photographic documentation as described in Section 01385 and Section 01720. The minimum amount bid shall be \$2,000.

B. ADDITIVE ITEM: OPTION WITH OWNER

1. Remove and Install Asphalt
 - a. Measurement: Shall be measured per each.

- b. Payment: The unit price per each for REMOVE AND INSTALL ASPHALT shall include all cost for labor, material, and equipment to remove and install asphalt pavement around meter box when removed up to 18-inches surrounding the new meter box as specified in Section 02900. Contractor shall furnish and install asphalt pavement materials when this work is necessary to restore the surrounding area to existing conditions, as approved by the Engineer.
- 2. Remove and Install Concrete
 - a. Measurement: Shall be measured per each.
 - b. Payment: The unit price per each for REMOVE AND INSTALL CONCRETE shall include all cost for labor, material, and equipment to remove and install concrete pavement around meter box when removed up to 18-inches surrounding the new meter box as specified in Section 02900. Contractor shall furnish and install concrete pavement materials when this work is necessary to restore the surrounding area to existing conditions, as approved by the Engineer.
- 3. Elevate Water Meter
 - a. Measurement: Shall be measured per each.
 - b. Payment: The unit price per each for ELEVATE WATER METER shall include all cost for labor, material, and equipment to raise meters as needed and approved by the Engineer using riser furnished by the Owner to provide a fully functional water meter. Figures 2 and 3 show the City's standards for meter elevation.
- 4. Lower Water Meter
 - a. Measurement: Shall be measured per each.
 - b. Payment: The unit price per each for LOWER WATER METER shall include all cost for labor, material, and equipment to lower meters as needed and approved by the Engineer to provide a fully functioning water meter.

Figures 2 and 3 show the City's standards for meter elevation.

1.5 PROJECT MATERIALS ON HAND

See General Conditions Section 3.04.12(6).

1.6 PAYMENT

Payment for all work will be made at the contract unit price or lump sum price as indicated in the Proposal, payment of which shall constitute full compensation, for a complete installation.

***** END OF SECTION *****

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section includes requirements that shall apply to all equipment and materials supplied on the Project. The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. The Contractor shall verify that all features of all products conform to the requirements of the Specifications and Drawings. Submittal documents shall be clearly edited to indicate only those items, models, or series of equipment that are being submitted for review. All extraneous materials shall be crossed out or otherwise obliterated. The Contractor shall ensure that there is no conflict with other submittals and notify the Engineer in each case where his submittal may affect the work of another contractor or the Owner. The Contractor shall ensure coordination of submittals among the related crafts and subcontractors and shall verify such coordination on all submittals. Where approved substitutions of specified equipment affect other materials or equipment, mechanical, structural, or electrical work, the Contractor shall note in the equipment submittal any necessary changes to accommodate the substituted equipment. It shall also be the responsibility of the Contractor to coordinate other mechanical, structural, or electrical equipment submittals to make sure that all changes necessary to accommodate the substituted equipment are addressed in these submittals as well.

1.2 WORK INCLUDED

Submittals required for this work shall include any or all of the following as required by the particular Specification section and the submittal schedule:

- A. Construction Schedules.
- B. Asphalt and Concrete Submittals.
- C. Post Construction (Record) Drawings showing meter installation locations and details. These will consist of detailed redline mark-ups of individual meter maps as found in Appendix A of these specifications.
- D. Meter change form (for each meter replaced or modified).

- E. Payment Schedules.
- F. Post-Construction Photographic Records.

1.3 SUBMITTAL INFORMATION

Shop, catalog, and other appropriate drawings and information shall be submitted to the Engineer for review prior to fabrication or ordering of all equipment and materials specified. The number of copies of submittal information to be submitted shall be as indicated below.

All submittal information shall be sent to the Engineer through the general Contractor. The Contractor shall assign a separate submittal number to each item or group of items that relate to each Specification section. Submittal numbers shall be assigned in consecutive ascending order, with the first project submittal assigned the number "1." Resubmittals shall be numbered using the same number followed by an alphabetical suffix. All submittals shall bear the Contractor's certification that he has reviewed, checked, and approved the submittal information prior to transmitting to the Engineer. The submittal number and related specification section shall be marked on each submittal.

PART 2 PRODUCTS

2.1 CONSTRUCTION SCHEDULE

The Contractor shall submit construction schedules in accordance with the requirements of Section 01320.

PART 3 EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS

A. GENERAL

Each submittal shall be accompanied by a letter of transmittal showing the date of transmittal, specification section or drawing number to which the submittal pertains, submittal number, and a brief description of the material submitted.

B. RESUBMITTALS

When material is resubmitted for any reason, it shall be submitted under a new letter of transmittal and referenced to the previous submittal.

3.2 REVIEW OF SUBMITTALS

The Engineer shall review all submittals for general conformance with the design and other requirements of the Contract Documents. Markings or comments shall not be construed as relieving the Contractor from compliance with the Contract Documents. Submittals may be rejected based on inadequate information and/or not meeting the requirements of the Specifications or Drawings. Rejection of submittals requires action on the part of the Contractor to correct the reason for the rejection. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes and for techniques of assembly and installation.

3.3 COORDINATION OF PRODUCT SUBMITTALS

A. GENERAL

Prior to submittal for review by the Engineer, all data shall be fully coordinated, including the following:

1. All field dimensions and conditions.
2. All trades and public agencies involved, including necessary approvals.
3. All deviations from the Contract Documents.

B. GROUPING OF SUBMITTALS

1. All submittals shall be grouped with associated items, unless otherwise specifically permitted by the Engineer.
2. The Engineer may reject the submittals in their entirety or any part thereof, if not in accordance with the Contract Documents.

C. CERTIFICATION

Submittals shall bear the Contractor's certification that he has reviewed, checked, and approved the shop drawings prior to forwarding them to the Engineer.

3.4 SUBSTITUTIONS

A. GENERAL

In order to establish a basis of quality, certain processes, types of machinery and equipment or kinds of material may be specified on the drawings or herein by designating a manufacturer by name and referring to his brand or product designation. It is not the intent of these Specifications to exclude other processes or materials of a type and quality equal to those designated.

Whenever a manufacturer's name, brand, or item designation is given, it shall be understood that the words "or equal" follow such name or designation whether in fact they do so or not.

It shall not be assumed that the phrase "or equal" means that material, equipment, or methods will be approved as equal by the Engineer unless the item has been specifically approved in writing for this work by the Engineer.

No extras will be allowed the Contractor for any changes required to adopt substitute equipment; therefore, the Contractor's proposal, including any approved substitutions, shall include all costs for any modifications to the work such as structural and foundation changes, additional piping or changes in piping, electrical changes, or any other modifications which may be necessary for approval and adaption of the proposed alternative equipment.

***** END OF SECTION *****

SECTION 01310

PROJECT MEETINGS

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section includes information pertaining to the various meetings that will be held during the course of constructing this Project.

1.2 PRECONSTRUCTION CONFERENCE

As soon as possible following the award of the Contract, a preconstruction conference shall be scheduled for representatives of the Owner, the Contractor, and the Engineer.

1.3 PROJECT PROGRESS MEETINGS

The Owner and the Engineer will schedule and attend weekly meetings with the Contractor for coordination, administrative, and procedural requirements of the Project. Additionally, the Contractor, Owner's representative and Resident Inspector shall meet at the beginning of each work day to review planned work and ensure it has been coordinated with property owners whose property will be accessed to perform the work.

1.4 CONSTRUCTION MEETINGS

The Contractor shall schedule and hold regular meetings with the Engineer and Owner (at their option) as follows during the Project:

- A. Safety Meetings (Contractor's subcontractors shall attend if they are working onsite.)
- B. Equipment Installation Meetings
- C. Coordination Meetings
- D. Startup and Testing Meetings

***** END OF SECTION *****

SECTION 01385

PHOTOGRAPHIC RECORD

PART 1 GENERAL

1.1 SCOPE

This Section relates to visual documentation of the existing and post-construction conditions. The Contractor shall be required to furnish and provide a photographic record of the site to include preconstruction photographs where construction work is to be performed. The photographic record shall be of commercial quality and performed in the presence of the Owner or Engineer. This work will only apply to the installation of meters.

A photographic record shall be provided showing complete coverage of all effected areas where work is going to be performed. A post-photographic record, shall be provided by the Contractor in the same format and perspective as the original preconstruction photographic record. The Contractor shall provide a digital photo of every meter replaced including a view of the meter with the lid removed and the finished ground level view of the meter, including all restoration work around the meter. The Contractor shall provide photographs (color) in a digital JPG format on CD-ROM.

Upon completion of the work, the Contractor shall provide photos in the same manner and vantage point as the preconstruction photos. The intent is to provide comparison between post and preconstruction conditions.

When available light is not sufficient to produce a clear photo image, additional lighting shall be supplied by the photographer to ensure good picture quality. The camera crew shall be able to work independent of any power source, utilizing battery power to operate the camera and lighting.

***** END OF SECTION *****

SECTION 01505

MOBILIZATION AND DEMOBILIZATION

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section consists of mobilization, administration, and demobilization required for this work including, but not necessarily limited to, the following items and work associated with any or all of the various schedules of the work when required by the Contract Documents:

- A. Bonds and Insurance
- B. Mobilization
- C. Permits and Licenses
- D. Invoice Preparation
- E. Administration Costs
- F. Temporary Facilities (as required by the Contractor)
- G. Cleanup
- H. Demobilization

PART 2 PRODUCTS

Products and materials required for mobilization and demobilization are described in the various sections of Division 1 and in other parts of the Contract Documents.

PART 3 EXECUTION

Execute the mobilization and demobilization as required by the various sections of Division 1 and other parts of the Contract Documents.

***** END OF SECTION *****

SECTION 01720

RECORD DRAWINGS

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section includes the record drawings, which shall be maintained and annotated by the Contractor during construction.

1.2 RELATED WORK SPECIFIED ELSEWHERE

<u>Section</u>	<u>Item</u>
01300	Submittals

1.3 INFORMATION PROVIDED BY THE OWNER

The Contractor will be provided with the following items to maintain record drawings for the project:

- A. One set of Meter Route Maps.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall maintain the following record drawings for the project:

- A. A neat and legibly marked set of Meter Route Maps provided in Appendix A clearly showing any deviations from the original drawing;
- B. Additional documents such as schedules, lists, drawings, and electrical and instrumentation diagrams included in the Contract Documents; and
- C. Contractor layout and installation drawings.

Unless otherwise specified, record drawings shall be maintained in a clean, dry, and legible condition. Record documents shall not be used for construction purposes and shall be available for review by the Engineer during normal working hours at

the Contractor's field office. At the completion of the work, prior to final payment, all record drawings shall be submitted to the Engineer.

Marking of the drawings shall be kept current and shall be done at the time the material and equipment are installed. Annotations to the record documents shall be made with an erasable colored pencil conforming to the following color code:

- A. Additions - Red
- B. Deletions - Green
- C. Comments - Blue
- D. Dimensions - Graphite

Legibly mark drawings to record actual depths, horizontal and vertical location of underground raceways, cables, and appurtenances referenced to permanent surface improvements.

The Contractor's record drawings (hard-copy) will be reviewed monthly for completeness by the Engineer prior to preparing the progress estimate for payment. If the record drawings do not reflect the work performed, payment for that item of work will not be included in the progress estimate.

***** END OF SECTION *****

SECTION 01740

CLEANUP

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section specifies that throughout the construction period, the Contractor is to maintain any and all construction areas in a standard of cleanliness as described herein. The Contractor is also to maintain access to all existing, operating equipment such that the equipment may be serviced and operated.

1.2 RELATED WORK SPECIFIED ELSEWHERE

In addition to standards described in this Section, comply with all requirements for cleaning up when described in other sections of these Contract Documents.

1.3 QUALITY ASSURANCE

A. INSPECTION

The Contractor shall conduct daily site inspections, and more often if necessary, to verify that requirements are being met.

B. CODES AND STANDARDS

In addition to the standards described in this Section, comply with all pertinent requirements of governmental agencies having jurisdiction.

PART 2 PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

Provide all required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY

Use only the cleaning materials and equipment that are compatible with the surface being cleaned, as recommended by the manufacturer of the material or as approved by the Engineer.

PART 3 EXECUTION

3.1 PROGRESS CLEANING

A. GENERAL

Retain all stored materials and equipment in an orderly fashion allowing maximum access, not impeding drainage or traffic, and providing protection.

Do not allow the accumulation of scrap, debris, waste material, and other items not required for this work.

At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the project site.

Provide adequate storage for all materials awaiting removal from the project site, observing all requirements for fire protection and protection of the environment.

B. SITES

Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Move these items into a place designated for their storage until disposal becomes available.

Weekly, and more often if necessary, inspect all arrangements of materials stored on the site, restack, arrange, or otherwise service all arrangements to meet the requirements above.

Maintain the site in a neat and orderly condition at all times to meet the approval of the Engineer.

3.2 FINAL CLEANING

A. DEFINITION

Except as otherwise specifically provided, “clean” shall be interpreted as meaning the level of cleanliness generally provided by commercial building maintenance equipment and materials.

B. GENERAL

Prior to final inspection, remove from the jobsite all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final project cleaning as described below.

C. WORK AREAS

Visually inspect all exterior grades and surfaces and remove all traces of construction debris. Any surfaces that are damaged or disturbed by the Contractor's operations shall be repaired to their preconstruction condition. This shall include, but not be limited to regrading, restoring lawns with hydroseed and/or sod, repairing concrete sidewalks and driveways, restoring landscaping and other property features on and along the right-of-way including the adjacent private properties.

***** END OF SECTION *****

DIVISION 2

SITework

SECTION 02050

LOCATE EXISTING UTILITIES

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section includes location of existing utilities. It shall be the responsibility of the Contractor to locate existing utilities and their depth.

1.2 RELATED WORK SPECIFIED ELSEWHERE

<u>Section</u>	<u>Item</u>
01200	Measurement and Payment

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall determine the difficulties to be encountered in constructing the Project and his locate effort based upon the information provided on the Plans, field investigation, and the Contractor's contacts with the existing utility companies. The Contractor shall determine the extent of exploration required to first prevent damage to those existing utilities, and secondly to determine if the proposed improvements are in conflict with existing utilities.

The Contractor shall call the Oregon Utility Notification Center to locate any underground utilities that may be impacted by the work. The Contractor shall call for field location, not less than 2 nor more than 10 business days before the scheduled date for commencement of excavation that may affect underground utility facilities, unless otherwise agreed upon by the parties involved. A business day is defined as any day other than Saturday, Sunday, or a legal local, State, or Federal holiday. If no one-number locator service is available, notice shall be provided individually to those owners known to or suspected of having underground facilities within the area of the proposed excavation.

No excavation shall begin until all know facilities in the vicinity of the excavation area have been located and marked.

***** END OF SECTION *****

SECTION 02240

DEWATERING

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section includes dewatering excavations of any kind and location, including but not limited to groundwater, surface water, and precipitation, until backfilling has been completed to finished grade.

1.2 RELATED WORK SPECIFIED ELSEWHERE

<u>Section</u>	<u>Item</u>
01200	Measurement and Payment

PART 2 PRODUCTS

The Contractor shall provide sufficient dewatering equipment and/or other machinery to adequately dewater excavations.

PART 3 EXECUTION

3.1 GENERAL

High groundwater conditions may exist throughout the project area. During excavation and the installation of meters and meter boxes, excavations shall be kept free of water, subsurface or otherwise. The Contractor shall furnish all equipment necessary to dewater the excavations and shall dispose of the water so as not to cause a nuisance or menace to the public. The dewatering system shall be installed and operated by the Contractor so that the groundwater level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property. The release of groundwater to its static levels shall be performed so as to maintain the undisturbed state of the foundation soils, prevent disturbance of backfill and prevent movement of all pavement, structures, and pipelines.

Design, implementation, and maintenance of any dewatering equipment shall be the responsibility of the Contractor.

***** END OF SECTION *****

SECTION 02950

SITE RESTORATION AND REHABILITATION

PART 1 GENERAL

1.1 SCOPE

The work specified in this Section includes those areas, which shall be graded, restored with hydroseeding and sod, concrete and asphalt sidewalk and driveway, and the restoration of those areas impacted by the project. The work also includes repair and replacement of fencing and other property features impacted by construction.

Particular care shall be taken to minimize damage to landscaped areas within and adjacent to construction areas. In the event construction is to be carried out in areas, which are landscaped, appropriate measures shall be taken to restore such areas to conditions existing prior to construction.

1.2 RELATED WORK SPECIFIED ELSEWHERE

<u>Section</u>	<u>Item</u>
01200	Measurement and Payment
01300	Submittals
11680	Water Service Meters

1.3 QUALITY ASSURANCE

A. SEED

Conform to the standards for “certified”-grade seed or better.

Furnished in standard container on which the following information is shown: seed name, lot number, net weight, percentage of purity, germination, weed seed and inert material.

Furnish to the Owner or Engineer duplicate copies of a statement signed by the vendor, certifying that each lot of seed has been tested by a recognized seed testing laboratory within 6 months before the date of delivery on the Project.

Seed that is wet, moldy, or otherwise damaged in transit or storage will not be accepted.

PART 2 PRODUCTS

2.1 HYDROSEEDING

The seed mixture for easement and property restoration shall have the following composition, proportion, and quality:

Kind and Variety of Seed in Mixture	Percent By Weight	Minimum Percent of Pure Seed	Minimum Percent of Germination
Colonial Bent Grass (Highland or Astoria)	10%	9.8%	85%
Creeping Red Fescus (Illahee Rainier or Pennlawn)	40%	39.2%	90%
Perennial Rye Grass	30%	29.4%	90%
White Clover (Pre-inoculated)	20%	19.6%	90%
Maximum Percentage of Weed Seed	1.0%		
Maximum Inert and Other Crops	1.0%		

The seed mixture shall have the following composition, proportion and quality:

The seed shall be applied at a minimum rate of 120 pounds per acre.

A commercial fertilizer of the following formulation shall be furnished as specified, and all fertilizer shall be premixed prior to use on the job. The fertilizer shall be applied at the rate of 500 lbs. per acre.

Nitrogen (Inorganic) as N₂	Nitrogen (Organic) Ureaformaldehyde	Phosphorous as P₂O₅	as K₂O	Potassium lbs/Acre
10%	38%	20%	20%	500

For lawns, provide fertilizer with percentage of nitrogen required to provide not less than 1 pound of actual nitrogen per 1,000 sf of lawn area and not less than 4 percent phosphoric acid and 2 percent potassium. Provide nitrogen in a form that will be available to lawn during initial period of growth; at least 50 percent of nitrogen to be organic form.

2.2 TOPSOIL

Topsoil shall have a pH value between 6 and 8, shall be fertile, friable, natural loam, containing 5 to 8 percent of humus, and shall be capable of sustaining vigorous lawn growth. Topsoil shall be free of any admixtures of subsoil, stones 2 inches in diameter or larger, clods of earth, plants or their roots, sticks, or other

extraneous material. All topsoil shall be furnished as necessary and approved by the Owner to complete the required restoration and seeding.

2.3 CONCRETE

Concrete for concrete curb and gutter shall meet the requirements of Section 02015 of the ODOT Standard Specifications. Concrete for driveways shall meet the requirement of Section 02015 of the ODOT Standard Specifications.

2.4 ASPHALT

Asphalt for asphalt driveway repair shall meet the requirement of Section 00748 of the ODOT Standard Specifications.

PART 3 EXECUTION

3.1 HYDROSEEDING

Areas that have been cleared and grubbed and graded within the public right-of-way, which are not covered by gravel, concrete, or pavement, shall receive hydroseeding, fertilizing, and mulching. These areas shall be leveled, acceptable to Owner, existing topsoil broken up to a depth of 6 inches and hydroseeded. Graded areas shall receive 6 inches of topsoil prior to hydroseeding. Native materials selected by the Owner from material excavated for foundations and stockpiled onsite may be used for topsoil.

For those areas in which hydroseeding would be difficult, the Contractor may request approval from the Owner to hand-apply the hydroseeding mix. Approval shall be granted for hand-application only after reviewing and approving the procedure that the Contractor recommends.

Seeding, fertilizing, and mulching shall be installed in conformance with Sections 01030.48 of the ODOT Standard Specifications.

Seeding, fertilizing, and mulching shall be installed using an approved type hydroseeder.

When weather conditions are not conducive to satisfactory results from seeding operations, the Owner may order the work suspended and it shall be resumed only when the desired results are likely to be obtained.

Areas that have received an application of mulching shall be inspected upon completion of the work and again on the completion of the application of seed and fertilizer.

3.2 SOIL PREPARATION

Verify that planting bed grades are in accordance with those indicated on the Plans before proceeding with work. Verify that soil conditions are satisfactory for soil preparation work.

Prepare soil no closer than 3 feet from existing tree trunks up to 6 inches in diameter; no closer than 4 feet from existing tree trunks up to 12 inches in diameter; no closer than 6 feet from existing tree trunks larger than 12 inches in diameter.

Loosen compacted soils to a depth of 12 inches. Rake and remove all material larger than 1-1/2 inches in diameter.

Place 2 to 3 inches of topsoil over existing soil, mix and till to a depth of 6 inches. This material shall be suitable topsoil from the site or imported material.

3.3 TOPSOIL

Those areas to receive topsoil shall have the trenched backfilled to within 6 inches of the finished grade. A compacted 6-inch depth of topsoil shall then be applied to the subgrade. The Contractor may elect to utilize and stockpile existing and excavated topsoil material; however, no separate payment will be made for its use.

3.4 CONCRETE

Portland Cement Concrete Pavement (PCC) pavements should be patched with Portland Cement Concrete or one of the ODOT approved patching materials as specified in Section 02015 of the ODOT Standard Specifications. Prepare and apply patching materials according to the manufacturer instructions. If recommended by the patching material manufacturer, use a bonding agent.

The PCC surface to be repaired should have all loose material removed down to solid material or to full depth if necessary. A jackhammer or similar equipment may be necessary to remove some of the material in the area to be patched. The area to be repaired needs to be squared by concrete sawing, then sand blasted, cleaned and dried.

Delamination occurs when a thin layer of surface concrete has lost bond with the underlying concrete. The area around the patch should be checked for delamination. Tapping on the surface with a hammer and listening for a hollow sound is one way to find the delaminated areas.

If reinforcing steel is encountered, remove or neutralize all rust. Coat exposed reinforcing steel with an ODOT approved product to prevent rust from reoccurring. Then proceed with patching the area.

Traffic should be kept off the new patch as specified by the manufacturer, until it gains sufficient strength to support traffic.

Place, process, finish, and cure concrete in conformance with the applicable requirements of ACI 614 and this Specification. Where the requirements differ, the higher requirement shall govern.

Broom the surface with a fine-hair broom at right angles to the length of the walk and tool at all edges, joints, and markings. Upon completion of the finishing, apply an approved curing compound to exposed surfaces. Protect the sidewalk from damage for a period of 7 days.

Driveway access shall be maintained at all times. The Contractor shall use steel plates to bridge entrances or construct entrances in sections in order to protect new driveway entrances and allow access during the curing period.

The driveway entrance, curb and gutter and sidewalk shall be protected against damage or defacement of any kind until acceptance by the Owner. Any driveway entrance not acceptable, in the opinion of the Engineer, because of damage or defacement shall be removed, wastehaled, and replaced by the Contractor at the Contractor's expense. Sacking, grinding, or spot repair shall not be considered an acceptable means for repairing unacceptable sections.

3.5 ASPHALT

Asphalt shall be removed down to a stable base. This may include removal of some of the subgrade material. The excavated area should extend into the good pavement around by about 12 inches. Cut the edges of the patch area vertically and in straight lines with a pavement saw to provide a good line for compaction later.

After the cut is made and the existing material is removed, level and compact the base material to make an adequate foundation for the new asphalt concrete material. Surfacing materials (gravel base, crushed surfacing) and pavement shall be replaced in depths at least equal to the original design or by additional depth of ACP compacted in lifts of 1 to 3 inches. Apply a tack coat of asphalt to the vertical sides of the hole to assure a good bond and seal between old and new pavements.

Back fill the hole with a hot plant-mix material such as Asphalt Concrete Class B. The asphalt should be compacted in lifts of no more than 3 inches thick using a

vibrating plate compactor. Standing water should not be allowed on the mix between lifts.

The patch shall be compacted to be even and flush with the surrounding surface. The patch should be cool enough before traffic is allowed on it, so it will not leave marks in the surface. Deeper patches will require more time to cool and must be planned for accordingly.

Do not use sand, clay, or other temporary patching material to patch. On today's roads these methods usually cost more in the long run and often leave unsafe conditions for the traveling public. Asphalt pre-mix is the preferred method, even if it has to be replaced when final repairs are made.

3.6 LANDSCAPED AND IMPROVED AREAS

Certain improvements and landscaping have been placed on and along the rights-of-way including the adjacent private properties. Wherever such property is damaged, destroyed, or the use thereof is interfered with due to the operation of the Contractor, it shall be immediately restored to its former condition by the Contractor. Notice should be given to the property owner along the route of construction by the Contractor advising them of the methods he will use to preserve and restore the improvements.

3.7 HYDROSEEDING, GRASS SOD, LANDSCAPING, WATERING MAINTENANCE AND PROTECTION

The Contractor shall water, protect and care for all seeded areas until fully established and healthy. Care shall include equipment and labor necessary to provide sufficient watering of all planted areas until final acceptance.

Watering of hydroseeded shall be at the Contractor's expense until new plantings are fully established.

The Contractor shall guarantee landscaping materials and workmanship for a period of 2 years following the date of project acceptance. During the 2-year guarantee period, should any planted areas show signs of failure, such as dead or dying areas of grass or bare spots, or any shrubs or trees planted as part of the site restoration fail, the Contractor shall repair or replace all deficient seeded areas and replace all dead shrubs and trees to the satisfaction of the Owner. If any seeded areas or plants require replacement, the Contractor's maintenance and guarantee period applicable to the replaced plants shall extend for an additional 1-year period after the time of the replacement.

The Contractor shall mow all newly established lawn areas a minimum of two mowings. The first mowing shall be performed only after an established and healthy stand of grass is judged to have grown. The second mowing shall occur upon establishment of second healthy stand of grass (4 inches in height).

3.8 FINISHING AND CLEANUP

Before acceptance of the Project, all disturbed surfaces shall be cleaned of all debris and foreign material. After all other work on the Project is completed and before final acceptance, disturbed area shall be neatly finished to the lines, grades and cross-sections shown on the Drawings and as hereinafter specified.

In undeveloped areas, the entire area which has been disturbed by the construction shall be shaped so that, upon completion, the area will present a uniform appearance, blending into the contour of the adjacent properties. All other requirements outlined previously shall be met. Slopes, sidewalk areas, planting areas and roadway shall be smoothed and finished to their original cross-section and grade.

Upon completion of the cleaning and dressing, the Project shall appear uniform in all respects. All graded areas shall be true to line and grade as shown on the typical sections and as required by the Owner.

All rocks in excess of 1-inch diameter shall be removed from the entire construction area and shall be disposed of the same as required for other waste material. In no instance, shall the rock be thrown onto private property. Overhang on slopes shall be removed and slopes dressed neatly so as to present a uniform, well sloped surface.

All excess excavated material within the limits of the Project shall be removed entirely. All debris resulting from clearing and grubbing or grading operations shall be removed and disposed.

Drainage facilities, such as inlets, catch basins, culverts, and open ditches, shall be cleaned of all debris resulting from the Contractor's operations.

All pavements and oil mat surfaces, whether new or old, shall be thoroughly cleaned. Existing improvements, such as Portland cement concrete curbs, curb and gutters, walls, sidewalks, and other facilities which have been sprayed by the asphalt cement shall be cleaned to the satisfaction of the Owner.

Castings for manholes, monuments, water valves, lamp poles, vaults, and other similar installations which have been covered with the asphalt material shall be cleaned to the satisfaction of the Owner.

3.9 CONSTRUCTION ACCEPTANCE

The Contractor shall protect and care for all seeded and sodded areas until fully established and healthy. Care shall include equipment and labor necessary to provide sufficient and continuous watering of all seeded areas until final acceptance.

The Contractor shall guarantee landscaping materials and workmanship for a period of 2 years following the date of project acceptance. During the 2-year guarantee period, should any seed areas show signs of failure such as dead or dying areas of grass or bare spots, the Contractor shall repair or replace all deficient areas to the satisfaction of the Owner.

3.10 PERMANENT SIGNING AND APPURTENANCES

During the life of the Contract all existing signs, mailboxes and other appurtenances that are damaged or removed shall be replaced by the Contractor at no additional expense to the Owner.

Existing signs may be temporarily relocated to portable sign stands for convenience of construction, subject to the approval of the Owner. When temporarily installed on posts, the signs shall be located as near as practical to their permanent locations and shall have a minimum vertical clearance above the pavement in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). Private signs and appurtenances shall be removed and provided to the Owner.

All portable sign stands shall be designed to rigidly support the sign in position without creating a hazard to the motorist. Portable sign stands shall be furnished by the Contractor and upon completion of the work shall remain the property of the Contractor and shall be removed from the Project.

All signs, unless specified herein, shall be mounted at a height of 7 feet as measured vertically from the ground (finished grade) to the bottom of the sign.

***** END OF SECTION *****

DIVISION 11
EQUIPMENT

SECTION 11680

WATER SERVICE METERS

PART 1 GENERAL

1.1 SCOPE

The work shall include the installation of owner-furnished water service meters for the City of Warrenton's water utility. The project will consist of the replacement of 3/4-inch and 1-inch manual read water meters with new radio read capable water meters as well as replacement boxes, risers and all work related to making the meter functional. Unless otherwise indicated, the City (Owner) will furnish meters, risers and boxes for this work as requested. The Contractor is not responsible for verifying that the radio transmitters on the new meters is operable, only that the meter is installed per these specifications and is registering the movement of water through the meter. Where Owner furnished materials are used, the Contractor is responsible for using proper tools, equipment and workmanship to install these items and provide all necessary documentation as specified in this contract.

1.1 RELATED WORK SPECIFIED ELSEWHERE

<u>Section</u>	<u>Item</u>
01200	Measurement and Payment
02950	Site Restoration and Rehabilitation

1.2 SUBMITTALS

Submittal procedures are further specified in Section 01300.

A drawing of the City of Warrenton water system is provided as Figure 1 located in Part 6 "Plans." An electronic version of the water system base map as well as GIS-based meter addresses will be provided to the selected contractor. The water meter route maps showing the locations of the City's meters and which meters are to be replaced are provided in Appendix A located in Part 6 "Plans."

1.3 DELIVERY, STORAGE, AND HANDLING

The meters, boxes and risers have been purchased by the Owner and will be stored at the public works facility at the address below:

45 SW 2nd Street
Warrenton, Oregon 97146

The Contractor will be responsible for taking all Owner furnished items from the public works facility to their place of installation.

The Contractor will be issued up to 500 meters at a time by the Owner and will be required to sign for receipt and will be responsible to protect the meters from damage between receipt and installation.

1.4 GUARANTEES

A WARRANTY

The Contractor shall warrant all items of work completed for this project against defects in workmanship for a minimum period of 2 years from date of system startup under normal use, operation, and service. The Contractor shall repair or replace, at the Contractor's expense, any meter installation that fails during the 2-year warranty period due to the Contractor's workmanship.

PART 2 PRODUCTS

2.1 GENERAL

The meters and the meter boxes will be supplied by the City of Warrenton.

2.2 APPROVED MANUFACTURERS

A WATER METERS

Water meters shall only be Master Meter Bottom Load Multi-Jet with Allegro registers, as supplied by the Owner.

B METER BOXES

Meter boxes shall only be manufactured by Armorcast, as supplied by the Owner.

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall install all equipment necessary to provide a fully functioning water meter at each site where the meter is replaced by the Contractor.

3.2 INSTALLATION

A METERS AND BOXES

The Contractor shall install all meters, boxes, and surrounding materials, as necessary. Any modifications required to existing service meter settings shall be the responsibility of the Contractor. The Contractor will be required to raise or lower meters that have been deemed deep or shallow, respectively. The City will provide the riser for this modification when a meter is elevated.

Meters may be submerged in water at the time of installation. Contractor is responsible for dewatering the area around the meter as necessary to install the meter and shall provide equipment needed to dewater as needed.

Copies of the Owner's standard details for water service meter installations are provided at the end of this Section as Figures 2 and 3 located in Part 6 "Plans." Deviations from these standard installations shall only be allowed after approval by the City and the Engineer. The Owner reserves the right to vary contract quantities in accordance with **Section 3.04.6 of the General Conditions.**

Contractor shall provide all labor, equipment and tools required to replace meters, meter boxes, and risers.

When sawcutting, removal and replacement of concrete or asphalt pavement is required to install a new meter box, the Contractor shall provide all labor, tools, equipment and materials for such work and follow specifications and procedures as outlined in Section 02950 of the specifications.

The Contractor shall swab or dip all pipe and fittings with 5 to 6 percent chlorine solution prior to installation. Water shall be flushed from the service meter and piping prior to delivery to system.

The installed meter shall be visually free of leaks upon completion. If leaks are detected, it is the responsibility of the Contractor to fix the leaks.

The Contractor is responsible for repairing all damage to existing meter boxes and service lines incurred during meter replacement and restoring areas surrounding the meter box that are disturbed by the Contractor's activities as described in Section 02950.

The Contractor shall fill out a meter change form for each meter replaced or modified using the form that is provided as Figure 4 located in Part 6

“Plans.” The meter change forms shall be provided to the City (Owner) on light blue card stock to the City’s project representative no later than one day after installation. The meter label furnished with the meter shall be affixed to the form where indicated.

***** END OF SECTION *****

PART 5
WAGE RATES

OREGON STATE PREVAILING WAGE RATES

FEDERAL WAGE RATES

General Decision Number: OR170063 09/22/2017 OR63

Superseded General Decision Number: OR20160063

State: Oregon

Construction Type: Heavy

County: Clatsop County in Oregon.

HEAVY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/13/2017
2	03/31/2017
3	06/16/2017
4	07/21/2017
5	09/22/2017

CARP0001-037 06/01/2012

	Rates	Fringes
CARPENTER (Including Form Work).....	\$ 32.61	14.44
MILLWRIGHT.....	\$ 33.11	14.44

ELEC0048-018 01/01/2017

	Rates	Fringes
ELECTRICIAN.....	\$ 40.20	22.18

ELEC0125-002 02/01/2014

	Rates	Fringes
LINE CONSTRUCTION LINEMAN.....	\$ 46.87	4%+13.35

ENGI0701-036 01/01/2017

	Rates	Fringes
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POWER EQUIPMENT OPERATOR

GROUP 1.....	\$ 39.90	14.10
GROUP 1A.....	\$ 41.90	14.10
GROUP 1B.....	\$ 43.89	14.10
GROUP 2.....	\$ 37.99	14.10
GROUP 3.....	\$ 36.84	14.10
GROUP 4.....	\$ 35.76	14.10
GROUP 5.....	\$ 34.52	14.10
GROUP 6.....	\$ 31.30	14.10

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: CRANE: Helicopter Operator, when used in erecting work; Whirley Operator, 90 ton and over; LATTICE BOOM CRANE: Operator 200 tons through 299 tons, and/or over 200 feet boom; HYDRAULIC CRANE: Hydraulic Crane Operator 90 tons through 199 tons with luffing or tower attachments;

GROUP 1A: HYDRAULIC CRANE: Hydraulic Operator, 200 tons and over (with luffing or tower attachment); LATTICE BOOM CRANE: Operator, 200 tons through 299 tons, with over 200 feet boom;

GROUP 1B: LATTICE BOOM CRANE: Operator, 300 tons through 399 tons with over 200 feet boom; Operator 400 tons and over

GROUP 2: CRANE: Cableway Operator, 25 tons and over; HYDRAULIC CRANE: Hydraulic crane operator 90 tons through 199 tons (without luffing or tower attachment); TOWER/WHIRLEY OPERATOR: Tower Crane Operator; Whirley Operator, under 90 tons; LATTICE BOOM CRANE: 90 through 199 tons and/or 150 to 200 feet boom; HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (with luffing or tower attachment); Rubber tired scraper with tandom scrapers; Loader 120,000 lbs and above; BLADE: Auto Grader; Blade Operator-Robotic; Bulldozer over 120,000 lbs and above;

GROUP 3: HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (without luffing or tower attachment); LATTICE BOOM CRANES: Lattice Boom Crane-50 through 89 tons (and less than 150 feet boom); Rubber Tired Scraper: with tandom scrapers; self loading, paddle wheel, auger type, finish and/or 2 or more units; Loader 60,000 lbs and less than 120,000 lbs; Bulldozer over 70,000 lbs up to and including 120,000 lbs;

GROUP 4: CRANE: Hydraulic Crane Operator, under 50 tons; LATTICE BOOM CRANE OPERATOR: Lattice Boom Crane Operator, under 50 tons; TRACKHOE/BACKHOE-ROBOTIC: track and wheel type, up to and including 20,000 lbs. with any or all attachments; BLADE: Blade Operator; Tractor operator with boom attachment; DRILLING: Churm Drill and Earth Boring Machine Operator; Directional Drill Operator over 20,000 lbs pullback; CRANE: Chicago boom and similar types; Boom type lifting device, 5 ton capacity or less; Rubber-Tired Scraper, single engine, single scraper; Compactor-Self Propelled; Loaders 25,000 lbs and less than 60,000 lbs; Bulldozer over 20,000 lbs and more than 100 horse up to 70,000 lbs; Screed; Compactor with blade

GROUP 5: TRACKHOE/BACKHOE HYDRAULIC: Track type up to and including 20,000 lbs, Wheel type (Ford, John Deer, Case Type); Boom truck operator; DRILLING: Churm Drill and Earth Boring Machine Operator; Directional Drill Operator less than 20,000 lbs pullback; Loaders, rubber tired type , less than 25,00 lbs; Forklift over 5 ton, Bulldozer 20,000 lbs or 100 horses or less; Roller; Compactor without blade

GROUP 6: LOADERS: (less than 1 cu yd.); Oiler; Grade Checker; Crane oiler; Forklift; Roller (non-asphalt)

Zone Differential (add to Zone 1 rates):

Zone 2 - \$3.00

Zone 3 - \$6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or projects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens "Blast Zone" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

ENGI0701-037 01/01/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
(PIPELINE)		
GROUP 2.....	\$ 37.99	14.10
GROUP 3.....	\$ 36.84	14.10
GROUP 4.....	\$ 35.76	14.10
GROUP 5.....	\$ 34.52	14.10

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 2: Bulldozer over 120,000 lbs and above;

GROUP 3: Bulldozer over 70,000 lbs up to and including 120,000 lbs;

GROUP 4: TRACKHOE/BACKHOE-ROBOTIC: track and wheel type, up to and including 20,000 lbs. with any or all attachments; Bulldozer over 20,000 lbs and more than 100 horse up to 70,000 lbs

GROUP 5: TRACKHOE/BACKHOE HYDRAULIC: Track type up to and including 20,000 lbs, Wheel type (Ford, John Deer, Case Type); Bulldozer 20,000 lbs or 100 horses or less

Zone Differential (add to Zone 1 rates):

Zone 2 - \$3.00

Zone 3 - \$6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or projects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens "Blast Zone" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

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For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

IRON0029-013 07/01/2015

	Rates	Fringes
IRONWORKER (Reinforcing and Structural).....	\$ 34.12	23.04

* LABO0737-031 06/01/2017

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 28.86	13.85
GROUP 2.....	\$ 29.94	13.85

LABORER CLASSIFICATIONS

GROUP 1: Asphalt Spreader

GROUP 2: Grade Checker

PAIN0055-020 07/01/2013

	Rates	Fringes
Painters:		
Brush, Roller and Spray.....	\$ 21.01	8.83

PLAS0555-006 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER....	\$ 31.50	17.62

TEAM0037-012 06/01/2017

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 27.94	14.37
GROUP 2.....	\$ 28.06	14.37
GROUP 3.....	\$ 28.19	14.37
GROUP 4.....	\$ 28.46	14.37

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Water Truck up to 3,000 gallons

GROUP 2: Water Truck over 3,000 to 5,000 gallons

GROUP 3: Water Truck over 5,000 to 10,000 gallons

GROUP 4: Water Truck over 10,000 to 15,000 gallons

 SUOR2009-061 11/23/2009

	Rates	Fringes
LABORER: Common or General.....	\$ 20.31	7.26
LABORER: Flagger.....	\$ 18.76	6.15
LABORER: Mason Tender - Cement/Concrete.....	\$ 21.27	5.35
LABORER: Pipelayer.....	\$ 20.77	6.51
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 22.77	7.90
OPERATOR: Broom/Sweeper.....	\$ 32.31	6.43
OPERATOR: Excavator.....	\$ 21.73	6.32
OPERATOR: Mechanic.....	\$ 20.64	5.58
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 27.59	2.96
TRUCK DRIVER: Dump Truck.....	\$ 17.22	4.83
TRUCK DRIVER: Off the Road Truck.....	\$ 31.81	6.33

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the

interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

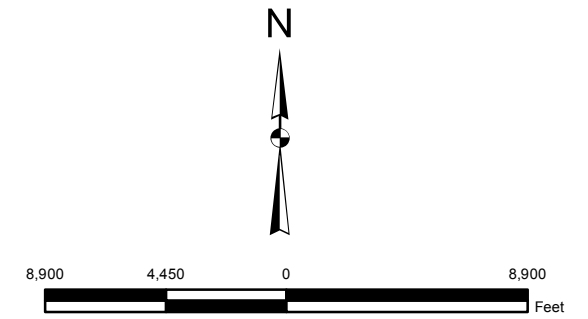
4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

PART 6

PLANS



LEGEND

WATER METERS SIZE

- 0.75
- 1
- 1.5
- 2
- 3
- 4
- 6
- 8
- 10

--- WARRENTON CITY LIMITS

--- ASTORIA CITY LIMITS

--- GEARHART CITY LIMITS

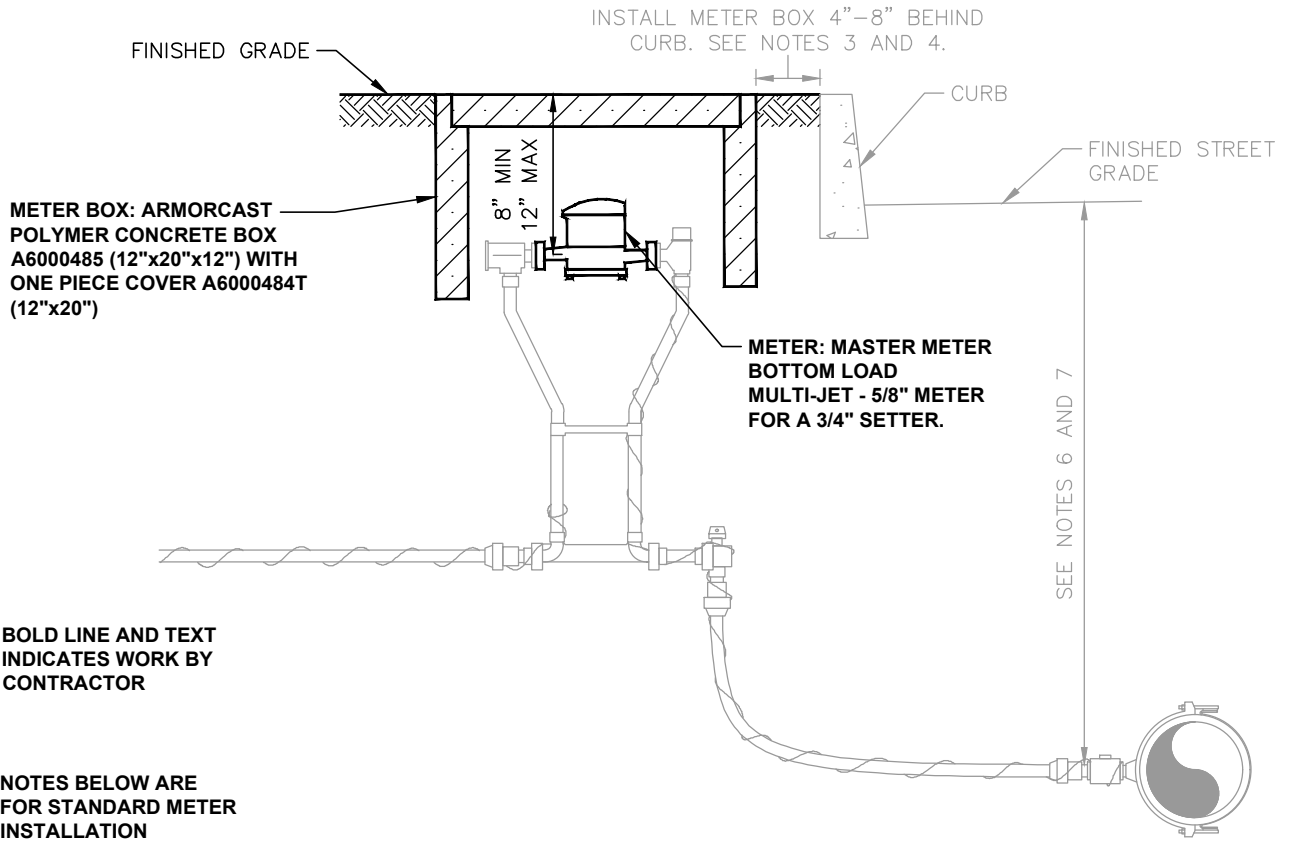
— HWY 101

— HWY 104

ORTHO SOURCE: NAIP 2016

CITY OF WARRENTON
WATER METER REPLACEMENT
PROJECT
FIGURE 1
WATER METER LOCATIONS

Gray & Osborne, Inc.
CONSULTING ENGINEERS



**BOLD LINE AND TEXT
INDICATES WORK BY
CONTRACTOR**

**NOTES BELOW ARE
FOR STANDARD METER
INSTALLATION**

NOTES:

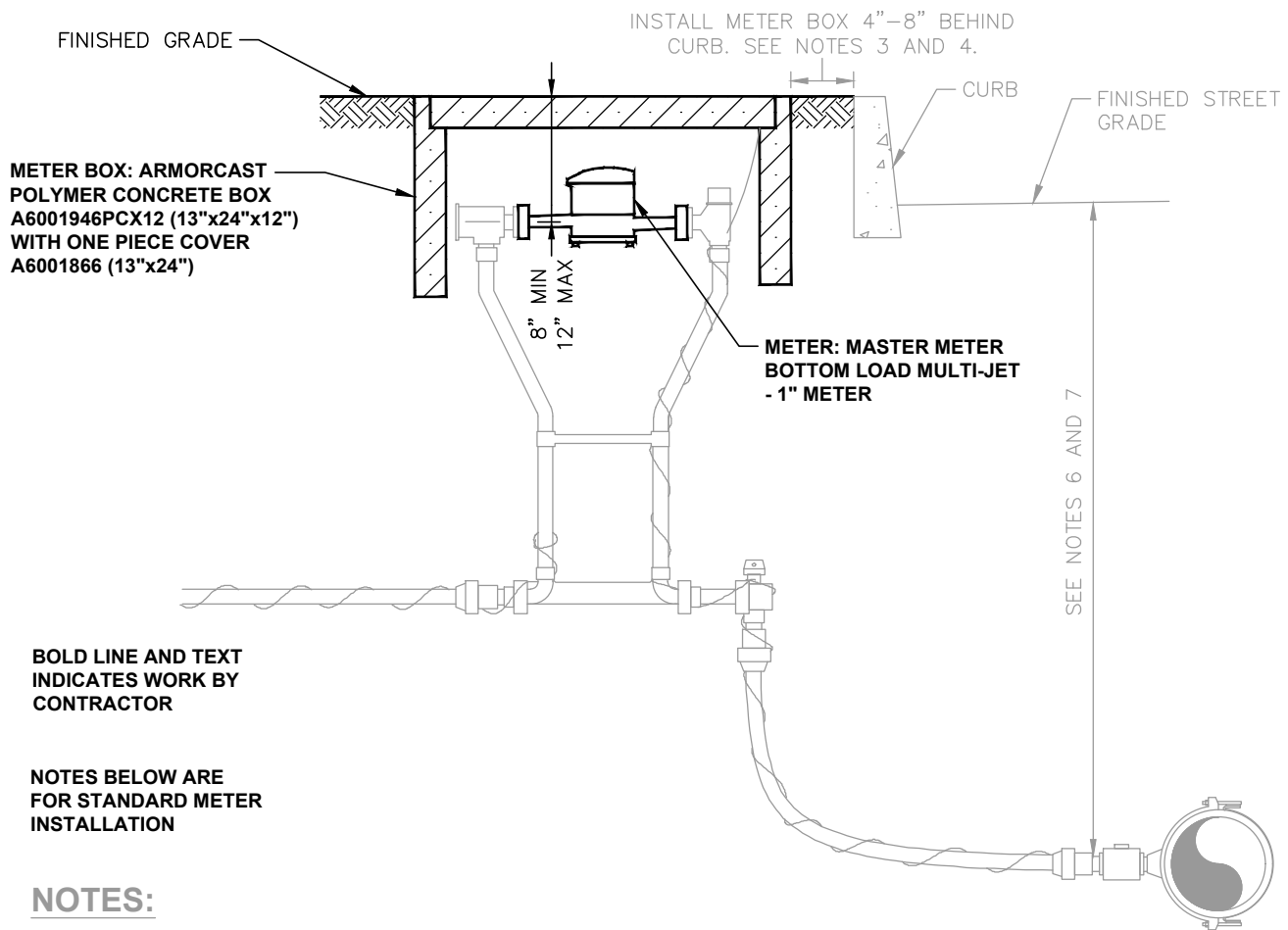
1. FOR DOMESTIC CONSTRUCTION, THE CITY SHALL SUPPLY AND INSTALL THE WATER METER AND TRANSMITTER AT THE TIME OF OCCUPANCY, FOR COMMERCIAL CONSTRUCTION THE CONTRACTOR SHALL SUPPLY AND INSTALL THE METER AND TRANSMITTER.
2. ALL MATERIAL AND FITTINGS SHALL BE AS SPECIFIED.
3. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP OR YARD. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK.
4. THE WATER METER BOX SHALL NOT BE LOCATED IN IMPERVIOUS SURFACES.
5. ALL COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
6. THE WATER SERVICE LINE SHALL HAVE 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
7. WATER MAIN SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY, AND A MINIMUM COVER OF 48" IN UNIMPROVED RIGHT-OF-WAY AND EASEMENTS.
8. THE WATER LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
9. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (IRON PIPE SIZE) MEETING ASTM D-2239-SIDR 7 (PE 3408), 200 PSI MINIMUM.
10. WATER SERVICES SHALL BE PRESSURE TESTED ALONG WITH THE MAIN.
11. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN TO INSPECTION AT ALL CORPORATIONS.
12. ALL SERVICES ARE SUBJECT TO REVIEW FOR BACKFLOW PROTECTION REQUIREMENTS.
13. A MAXIMUM OF ONE FITTING SHALL BE ALLOWED BETWEEN THE CORP. STOP AND THE METER SET ON ALL SERVICE TRANSFERS.

**CITY OF
WARRENTON**



**STANDARD 3/4" WATER
SERVICE CONNECTION**

DRAWN BY KJK	CHECKED BY KCA	APPROVED BY JD	
		DATE SEP 2017	SCALE 2"=1'-0"



BOLD LINE AND TEXT INDICATES WORK BY CONTRACTOR

NOTES BELOW ARE FOR STANDARD METER INSTALLATION

NOTES:

1. FOR DOMESTIC CONSTRUCTION, THE CITY SHALL SUPPLY AND INSTALL THE WATER METER AND TRANSMITTER AT THE TIME OF OCCUPANCY, FOR COMMERCIAL CONSTRUCTION THE CONTRACTOR SHALL SUPPLY AND INSTALL THE METER AND TRANSMITTER.
2. ALL MATERIAL AND FITTINGS SHALL BE AS SPECIFIED.
3. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP OR YARD. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK.
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9. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (IRON PIPE SIZE) MEETING ASTM D-2239-SIDR 7 (PE 3408), 200 PSI MINIMUM.
10. WATER SERVICES SHALL BE PRESSURE TESTED ALONG WITH THE MAIN.
11. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN TO INSPECTION AT ALL CORPORATIONS.
12. ALL SERVICES ARE SUBJECT TO REVIEW FOR BACKFLOW PROTECTION REQUIREMENTS.
13. A MAXIMUM OF ONE FITTING SHALL BE ALLOWED BETWEEN THE CORP. STOP AND THE METER SET ON ALL SERVICE TRANSFERS.

**CITY OF
WARRENTON**



**STANDARD 1" WATER
SERVICE CONNECTION**

DRAWN BY KJK	CHECKED BY KCA	APPROVED BY JD	
		DATE SEP 2017	SCALE 2"=1'-0"

WATER METER INSTALLATION DATA

ADDRESS _____

SERVICE REQUEST/WORK ORDER # _____

NEW METER INFORMATION	
INSTALLED BY _____	INSTALLATION DATE _____
NEW SERIAL NUMBER (REGISTER NUMBER) _____	READING METHOD RADIO <input type="checkbox"/> DIRECT <input type="checkbox"/> TOUCH <input type="checkbox"/>
Place Meter Register Tag Here (Serial Number/UPC Code)	
METER BODY NUMBER _____	MANUFACTURER _____
METER SIZE (CIRCLE ONE)	<input type="checkbox"/> 3/4" <input type="checkbox"/> 1" <input type="checkbox"/> 1.5" <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" _____
CURRENT READING _____	NO. OF DIGITS _____
METER LOCATION (from fixed object) _____ _____	

OLD METER INFORMATION	
OLD METER REGISTER NO. (SERIAL NUMBER) _____	MANUFACTURER _____
OLD METER BODY NUMBER _____	OLD METER READING _____
READING METHOD DIRECT <input type="checkbox"/> TOUCH <input type="checkbox"/> RADIO <input type="checkbox"/> CHECK ONE BOX	
REMOVED BY _____	REMOVAL DATE _____

OTHER PARTS USED _____

REQUIRED MAINTENANCE
(not lockable?, riser needed?....) (bad register, body leaks.) _____ _____ _____

Office use	PW <input type="checkbox"/>	GIS <input type="checkbox"/>	UB <input type="checkbox"/>
ROUTE-SEQUENCE _____	REFERENCE NUMBER _____		

ADDRESS _____

PART 7
APPENDIX

APPENDIX A

WATER METER ROUTE MAPS



N



LEGEND

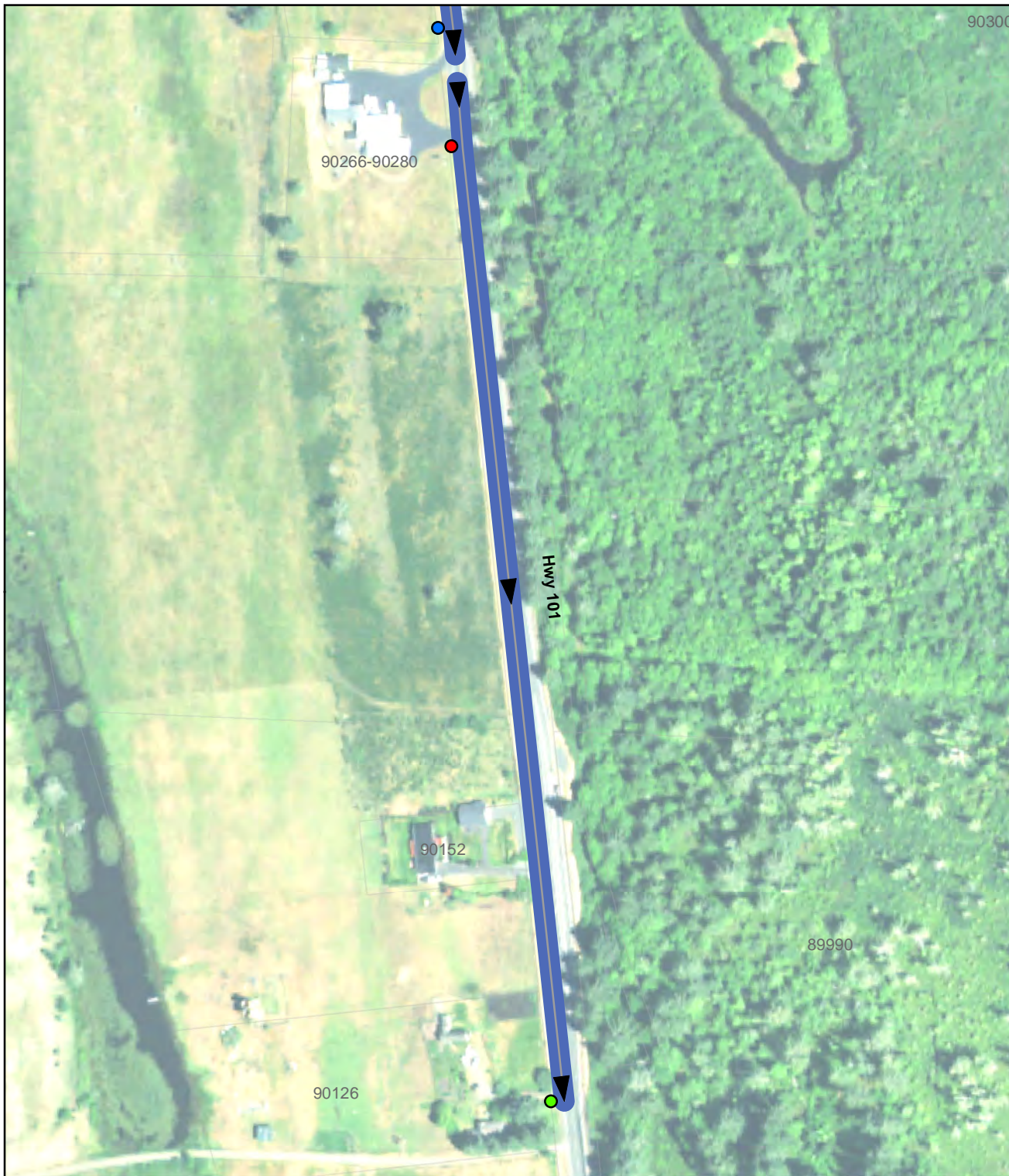
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 1
 ROUTE10 LEG1001**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 2
 ROUTE10 LEG1001**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 3
ROUTE 10 LEG 1002**





N



LEGEND

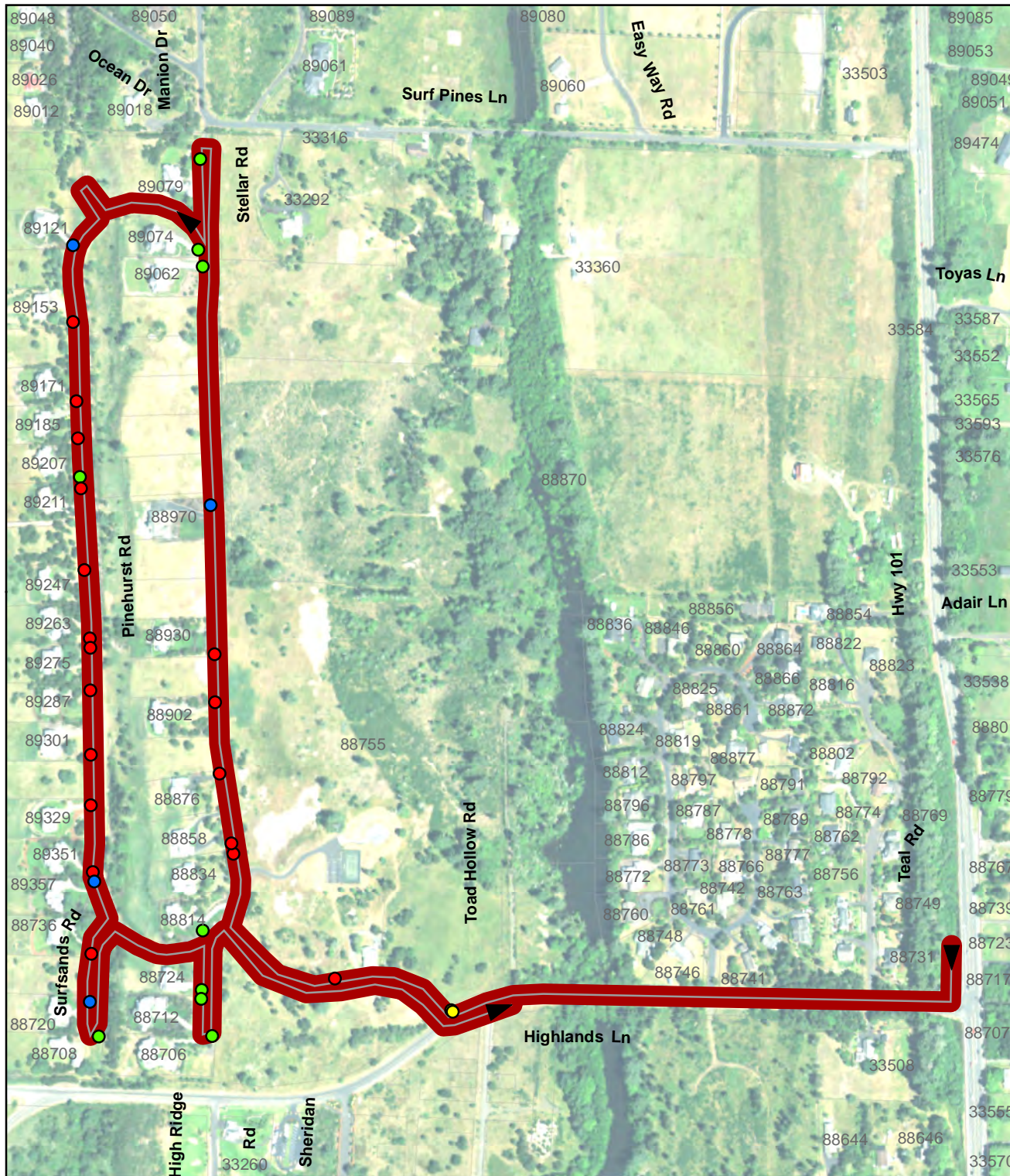
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
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- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 4
 ROUTE10 LEG1003**





LEGEND

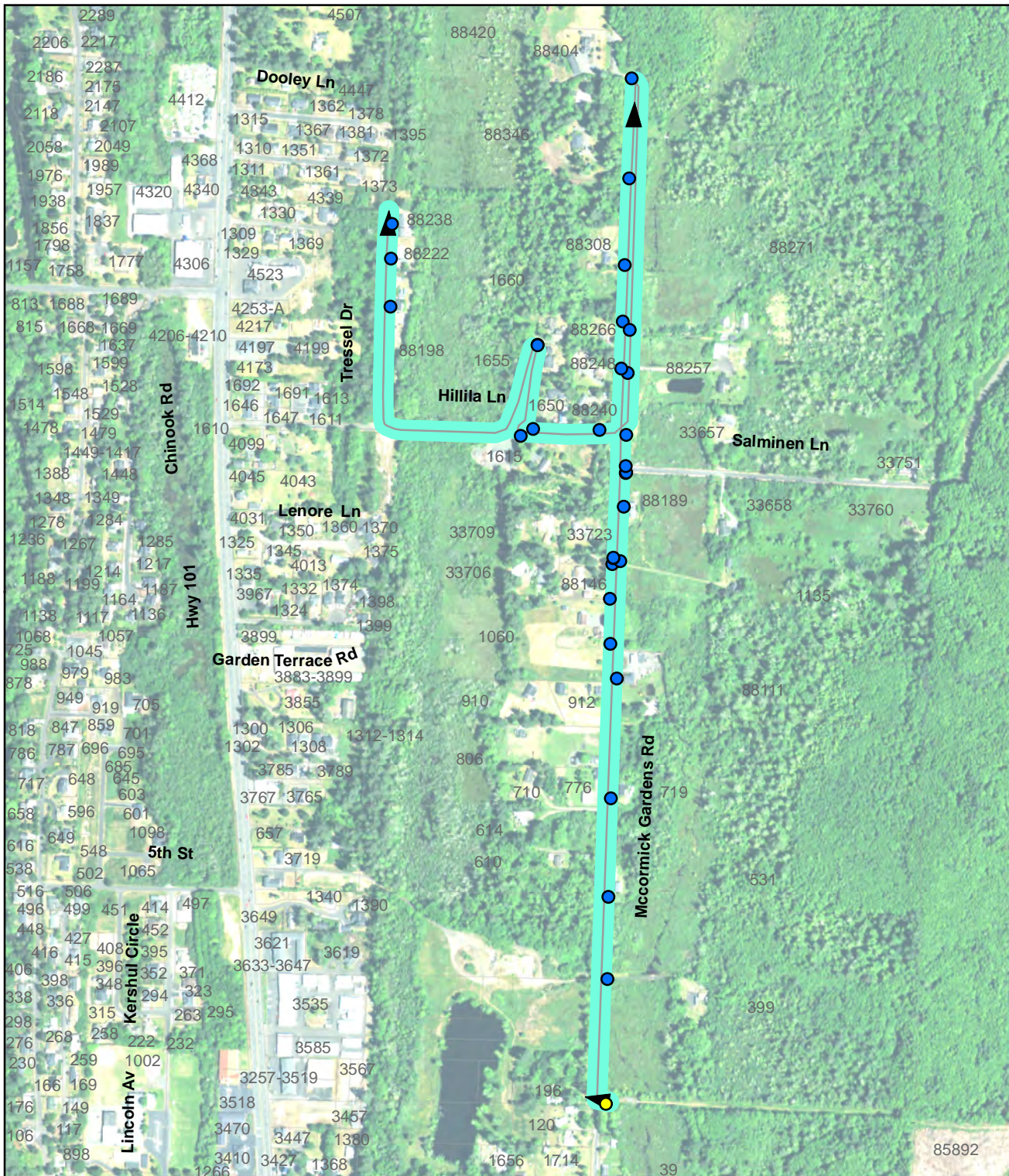
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 5
ROUTE 10 LEG 1004**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 6
ROUTE 10 LEG 1005**





N



LEGEND

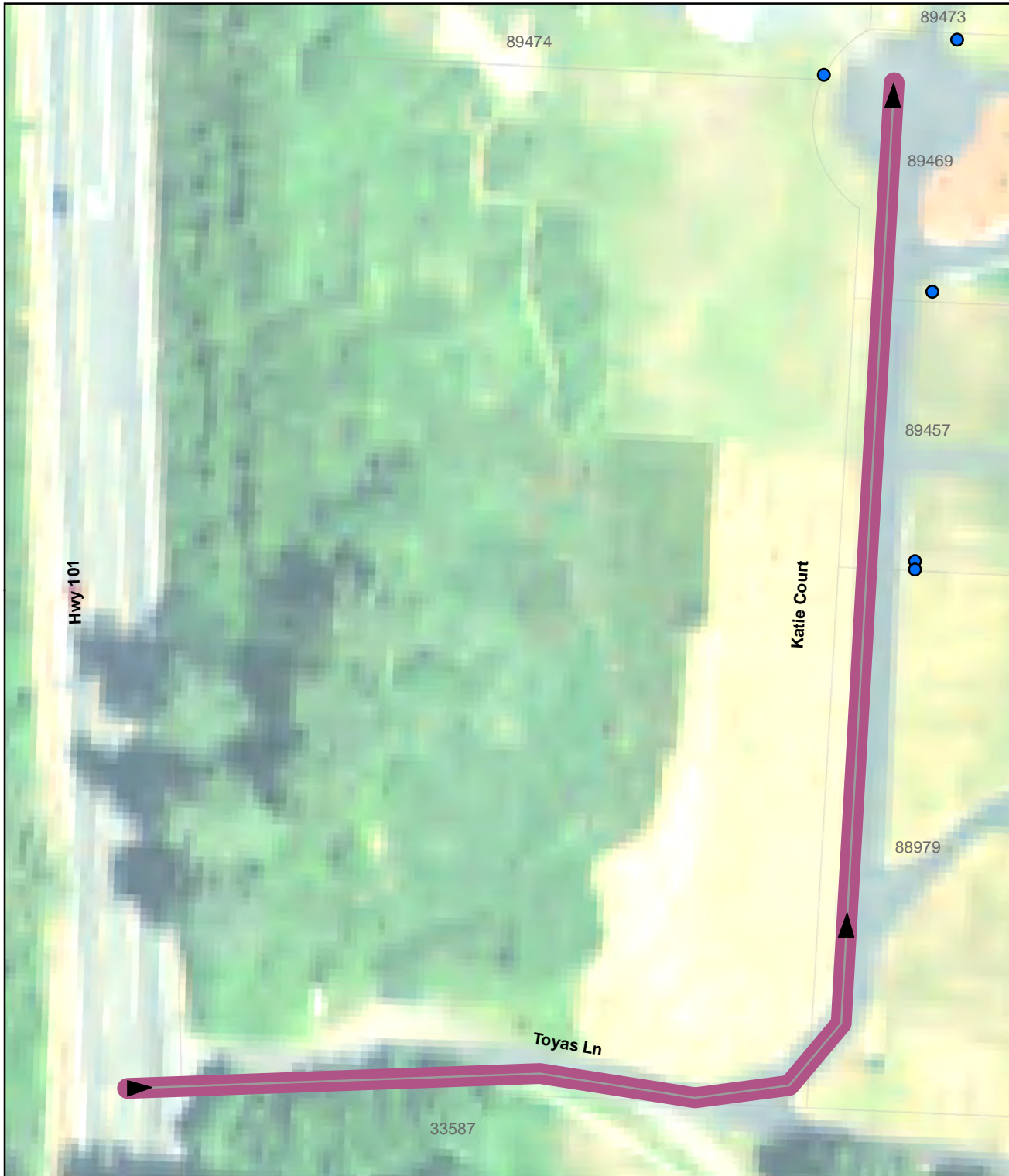
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 7
ROUTE10 LEG1006





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 8
 ROUTE10 LEG1007**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 9
 ROUTE10 LEG1008**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 10
 ROUTE10 LEG1009**





N



LEGEND

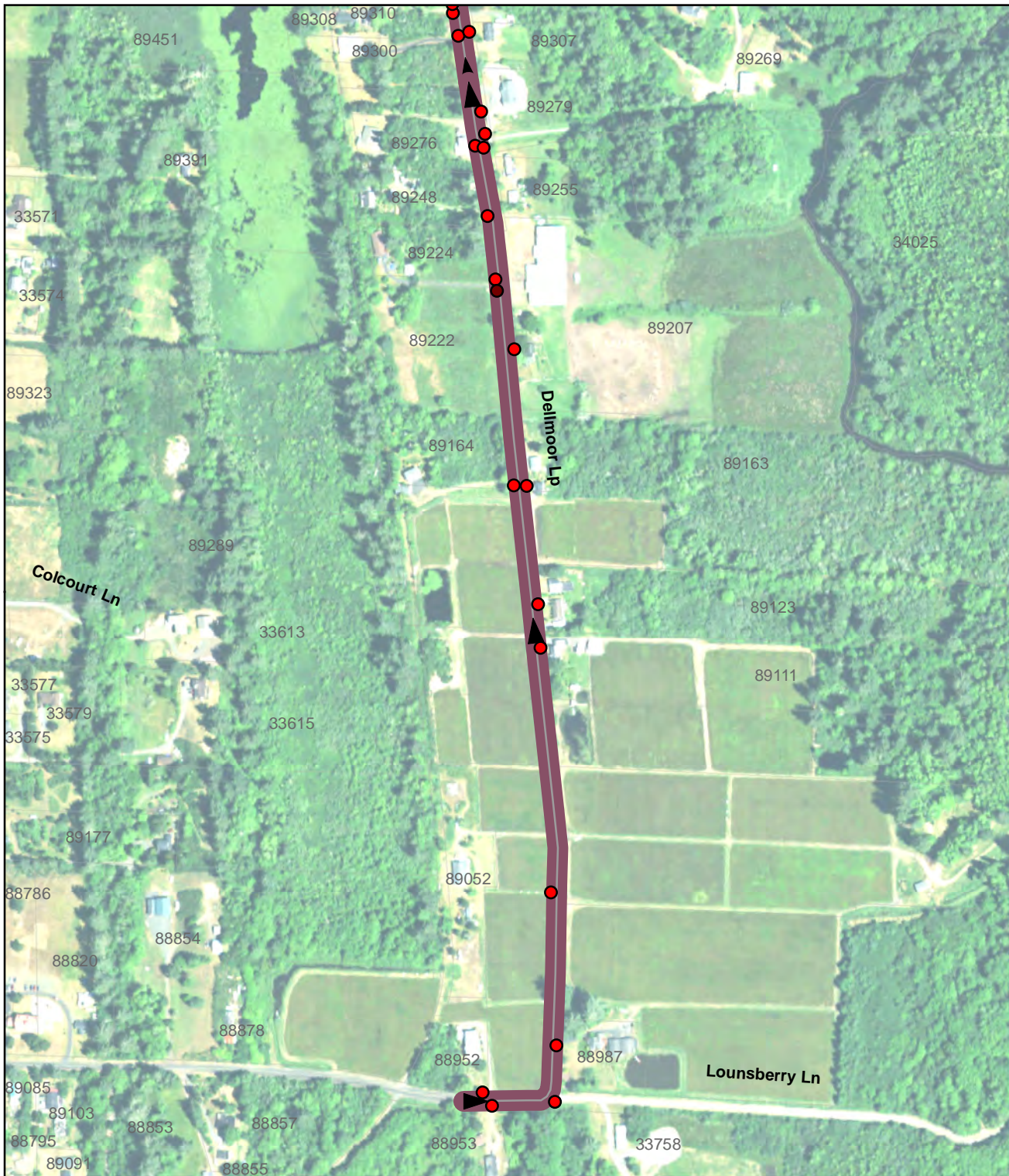
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- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

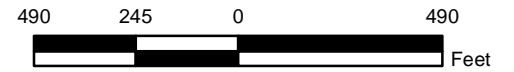
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 11
 ROUTE10 LEG1010**





N



LEGEND

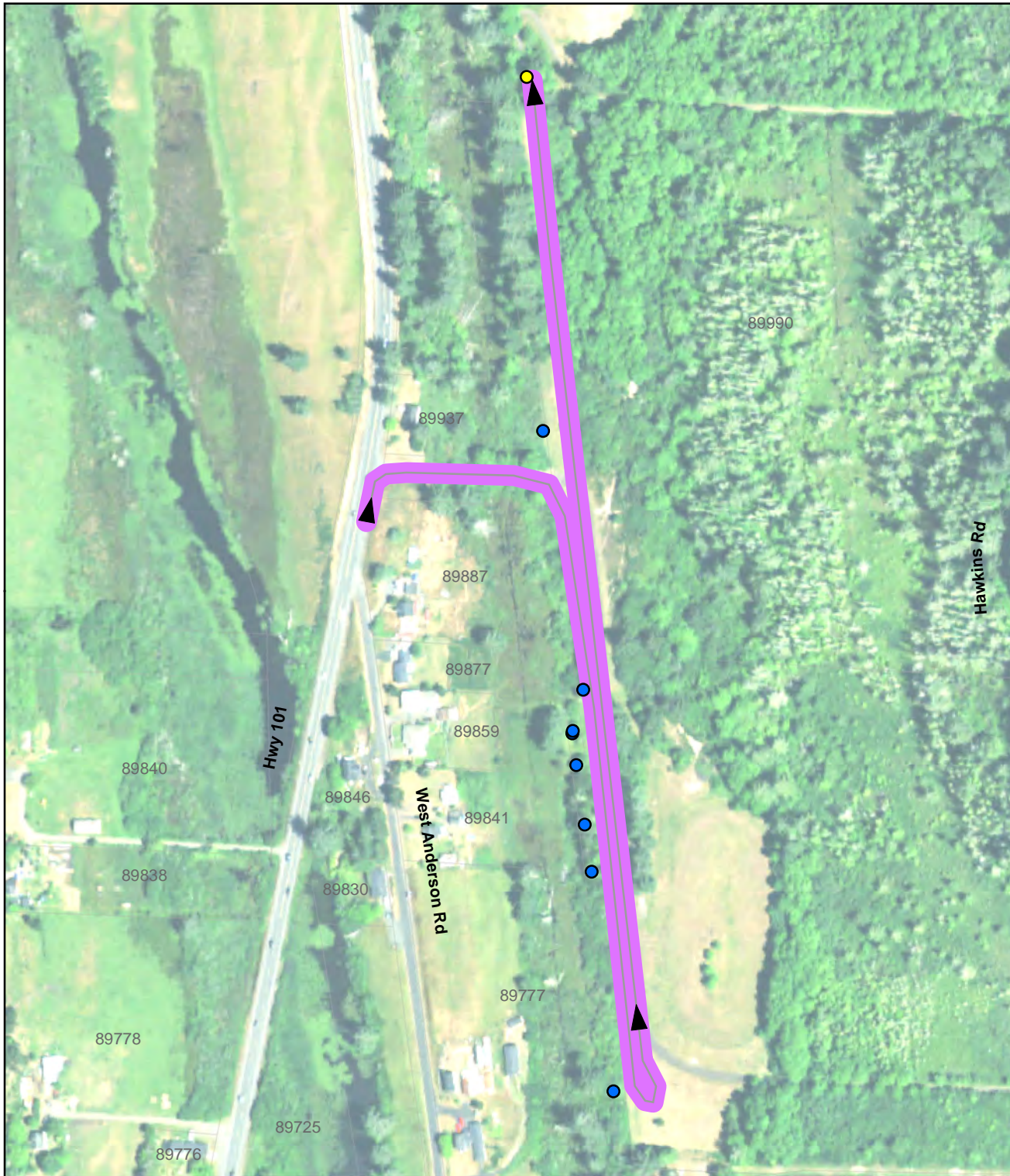
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
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- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 12
 ROUTE10 LEG1010**





N



LEGEND

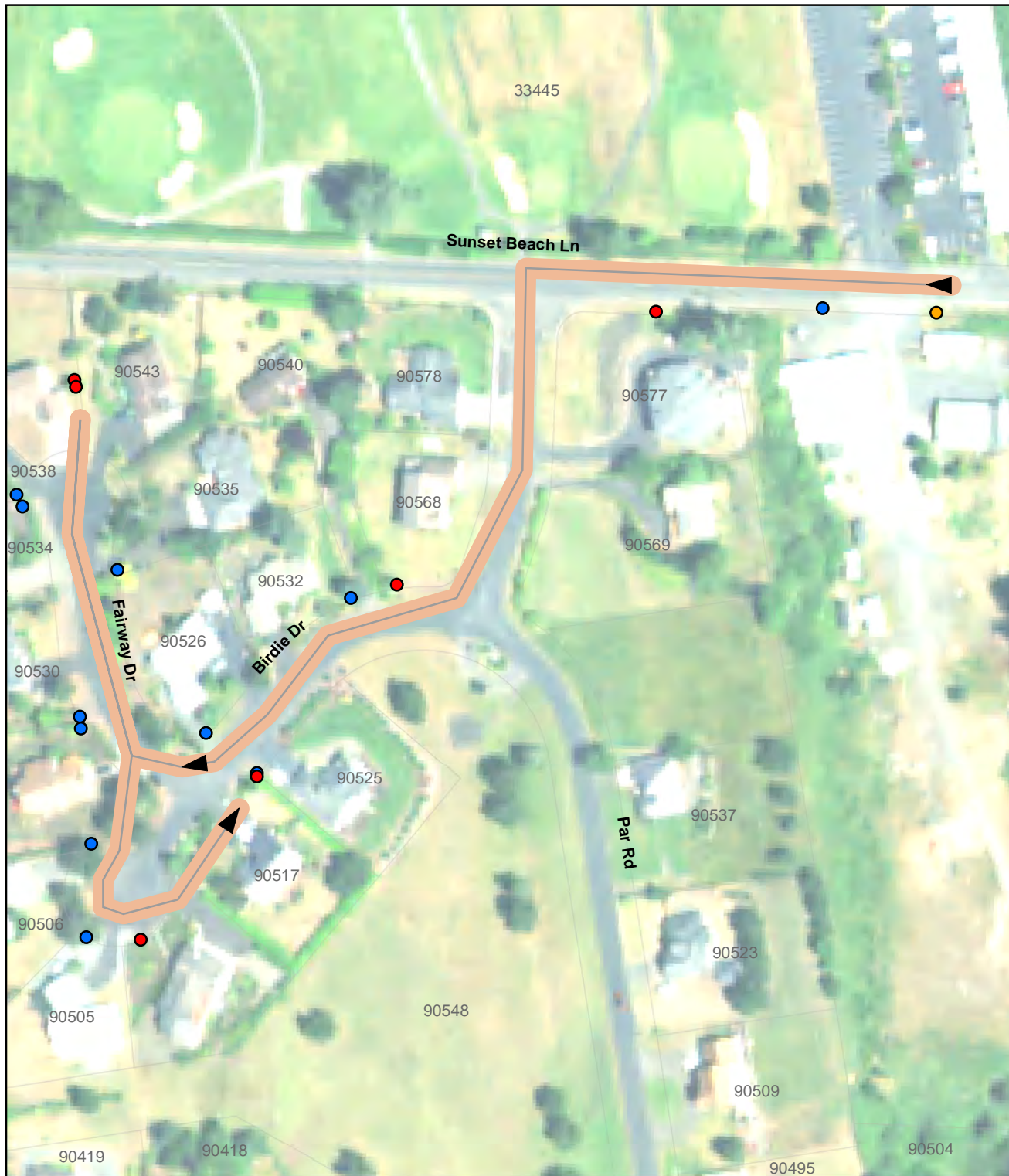
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- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
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- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 14
 ROUTE10 LEG1012**





LEGEND

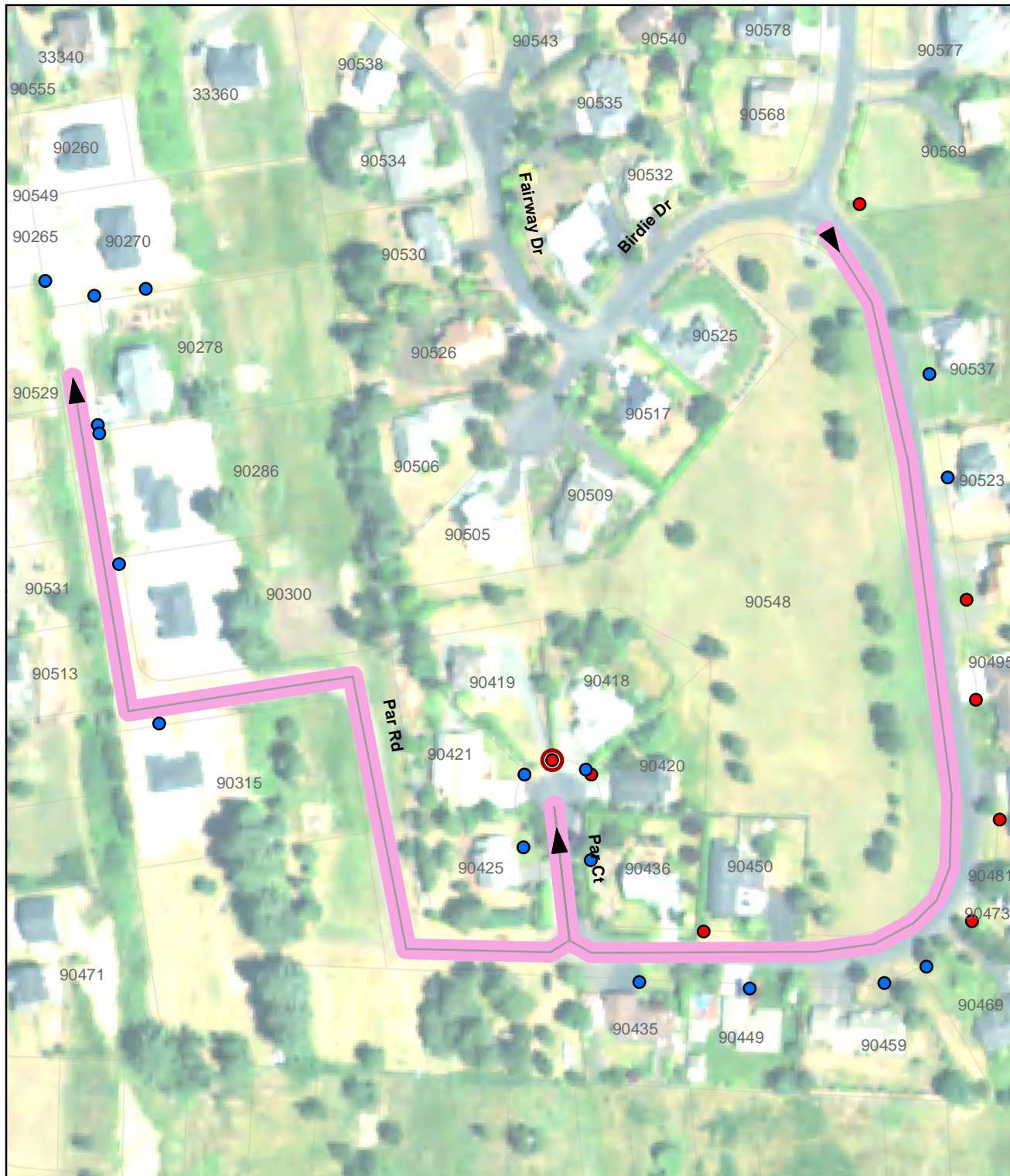
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- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

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- SHALLOW METER (LOWER)
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- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 15
 ROUTE11 LEG1101**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
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- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 16
 ROUTE11 LEG1102**





N



LEGEND

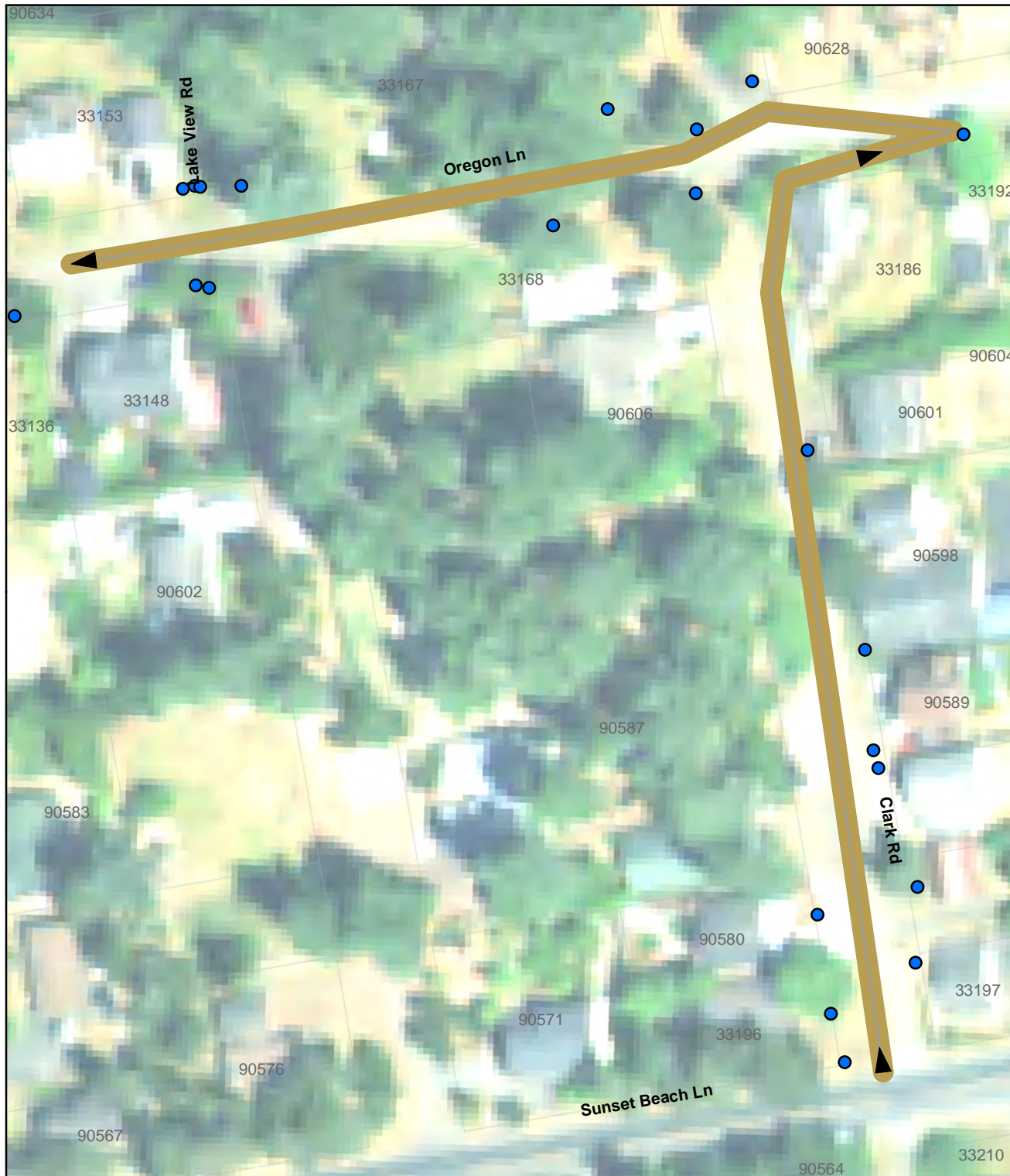
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- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

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- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 18
 ROUTE11 LEG1104**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 19
 ROUTE11 LEG1105**





LEGEND

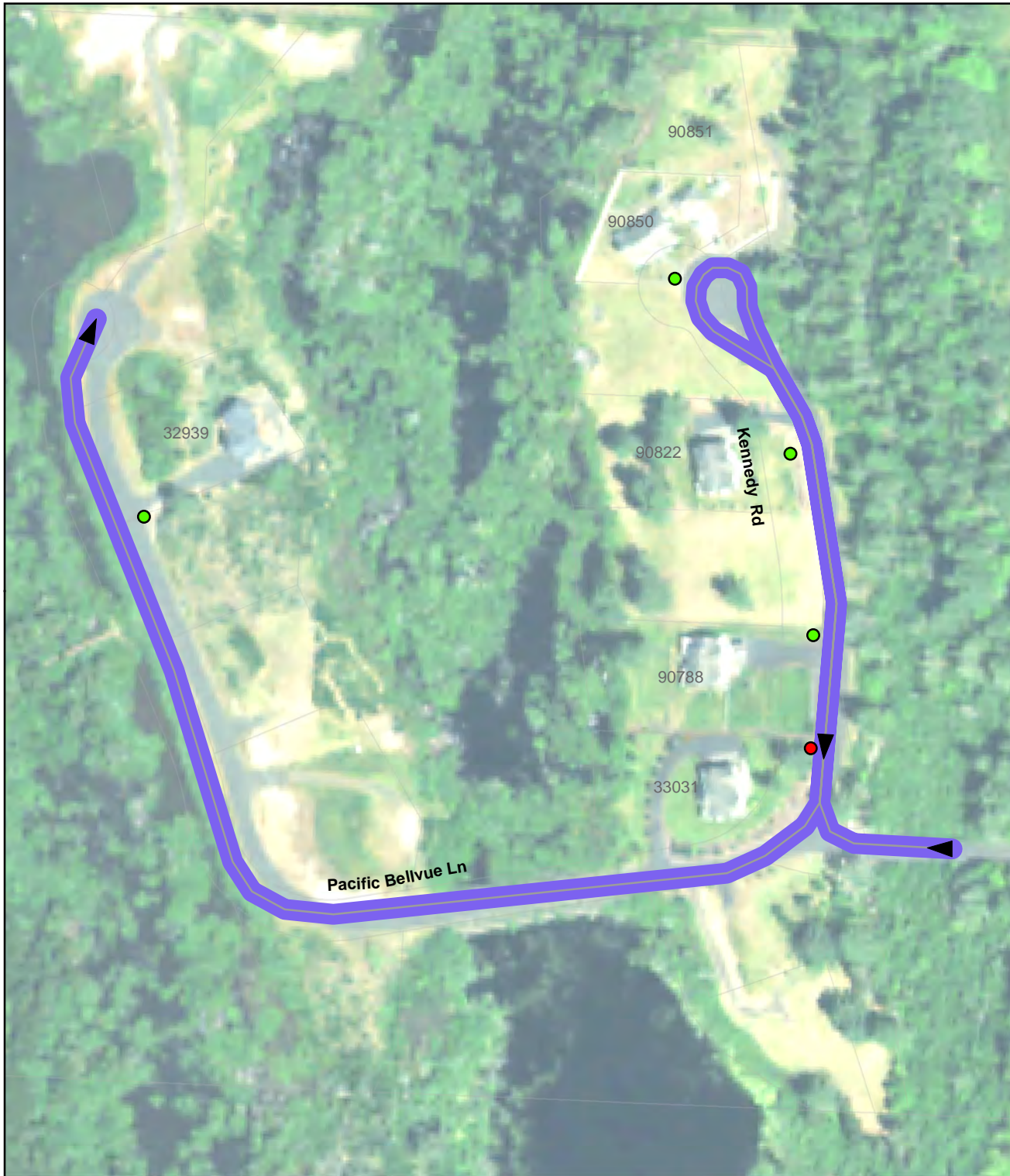
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 20
ROUTE 11 LEG 1106**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

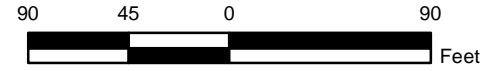
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 21
ROUTE11 LEG1107





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 22
 ROUTE11 LEG1108**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 24
 ROUTE11 LEG1110**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 25
 ROUTE11 LEG1110**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER

— TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 26
ROUTE11 LEG1111





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 27
 ROUTE11 LEG1112**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 28
 ROUTE12 LEG1201**





LEGEND

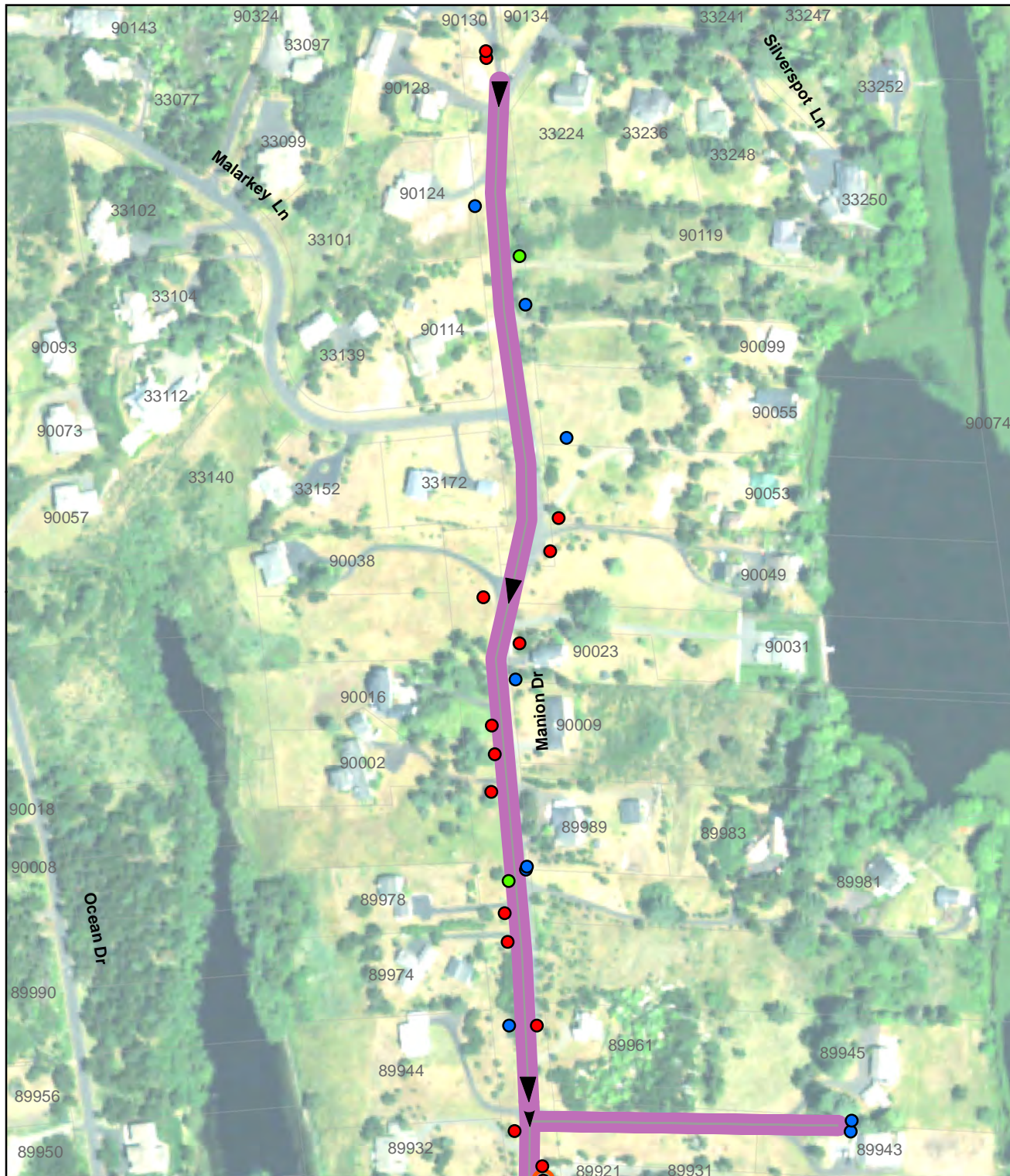
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 29
ROUTE 12 LEG 1202**

Gray & Osborne, Inc.



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 30
ROUTE12 LEG1202**





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LEGEND

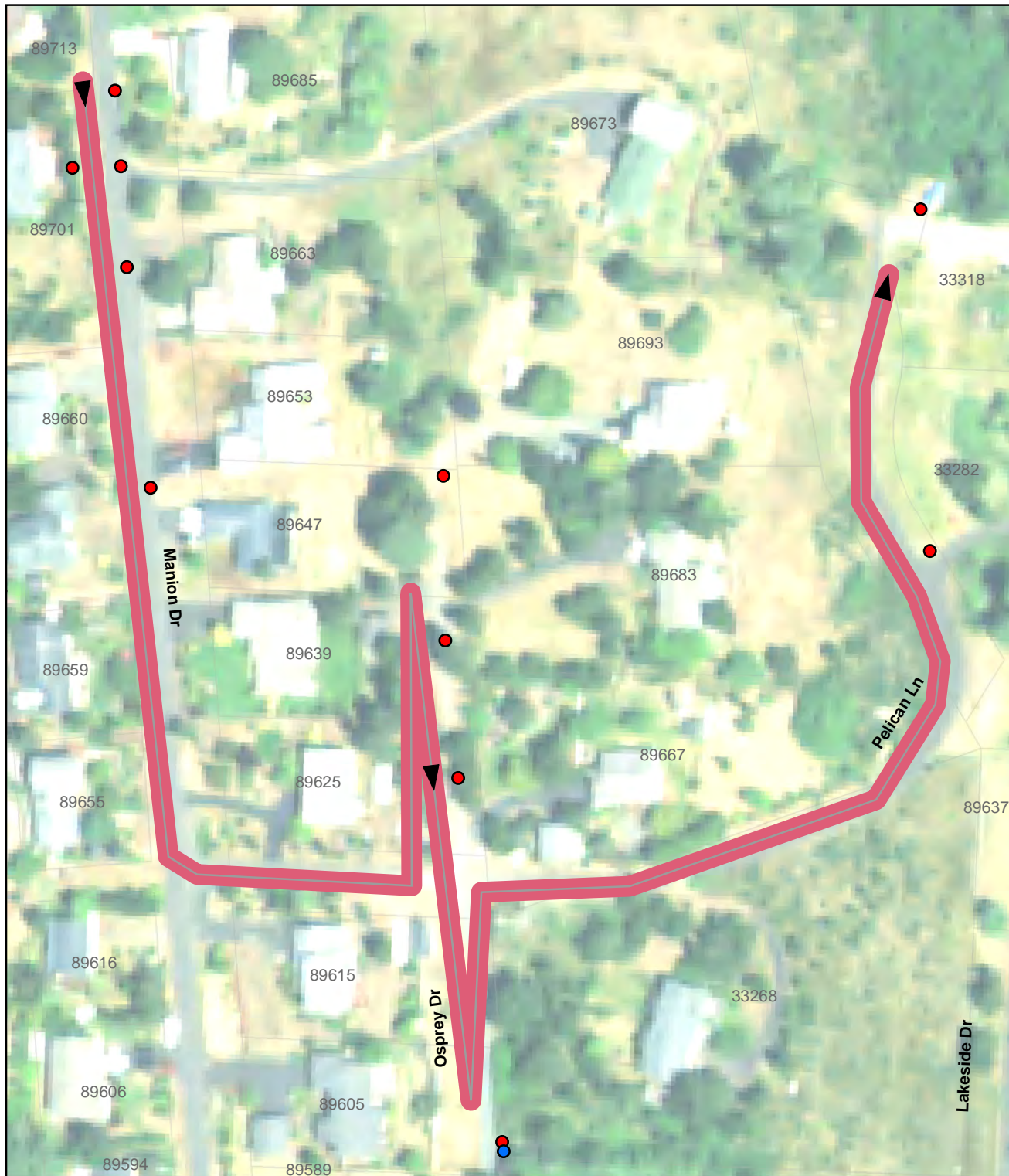
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 31
 ROUTE12 LEG1203**





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LEGEND

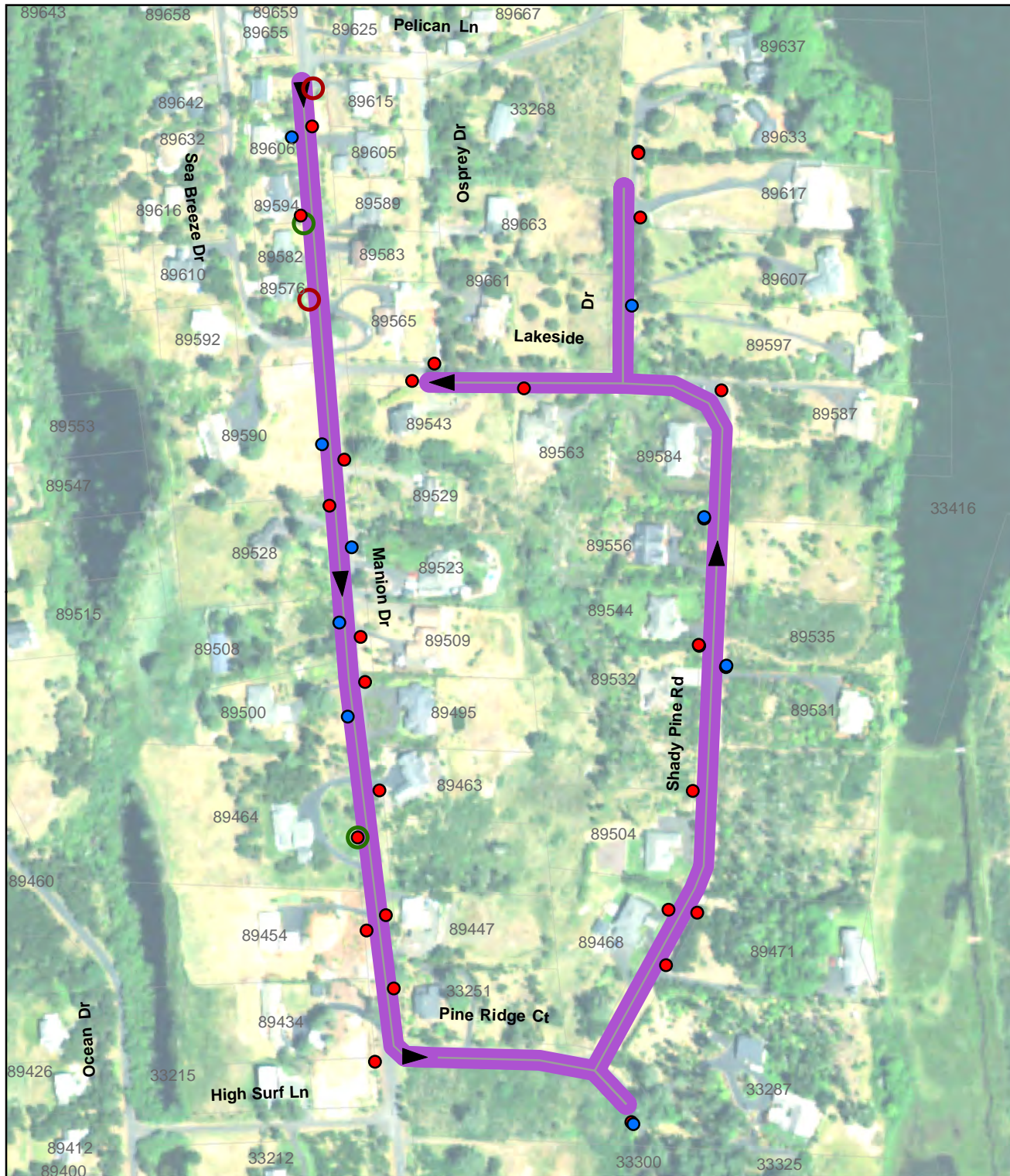
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

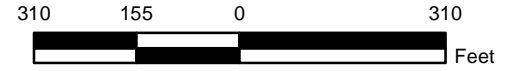
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 32
 ROUTE12 LEG1204**





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LEGEND

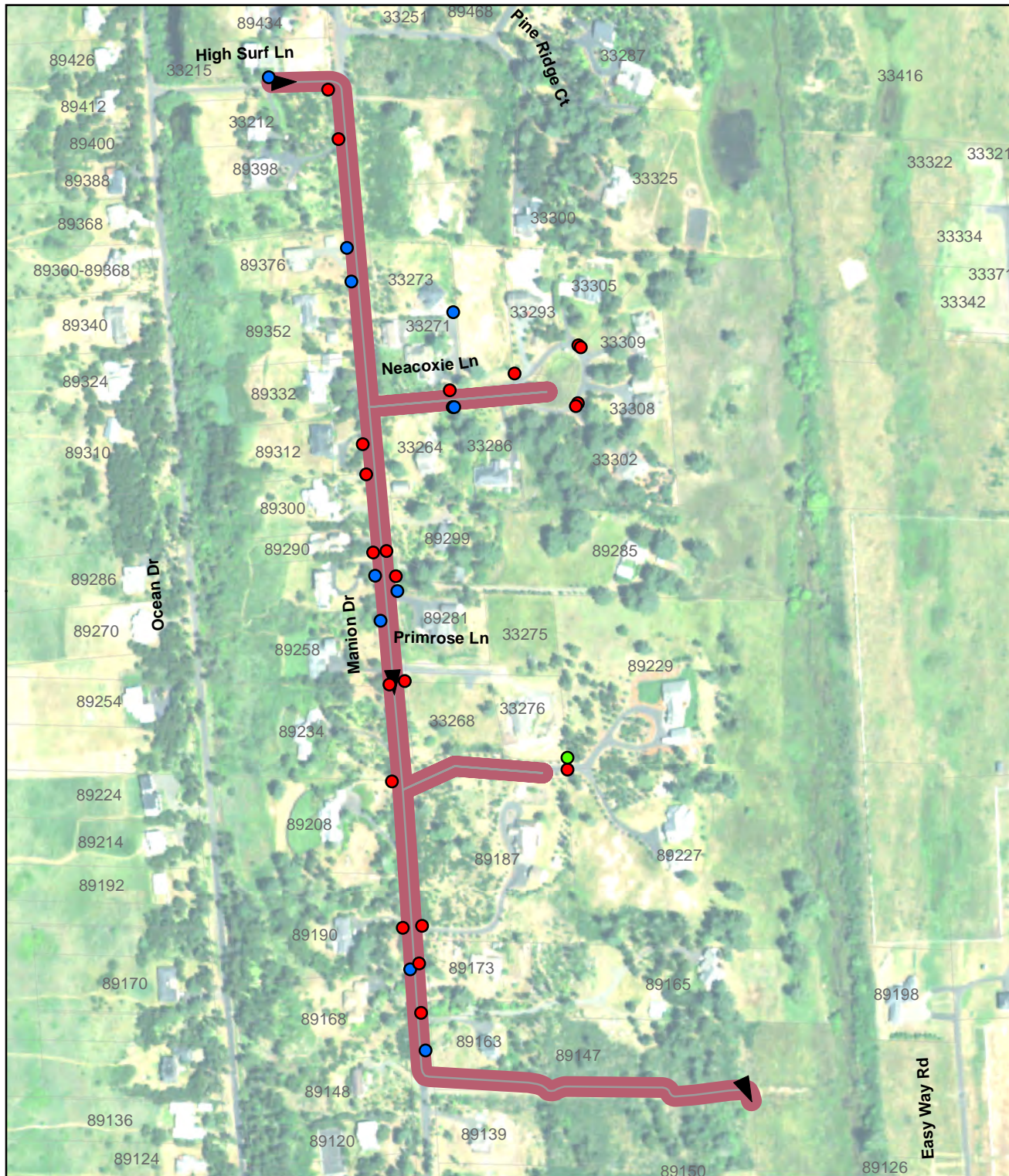
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 33
 ROUTE12 LEG1205**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 36
 ROUTE12 LEG1207**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 37
 ROUTE12 LEG1208**





LEGEND

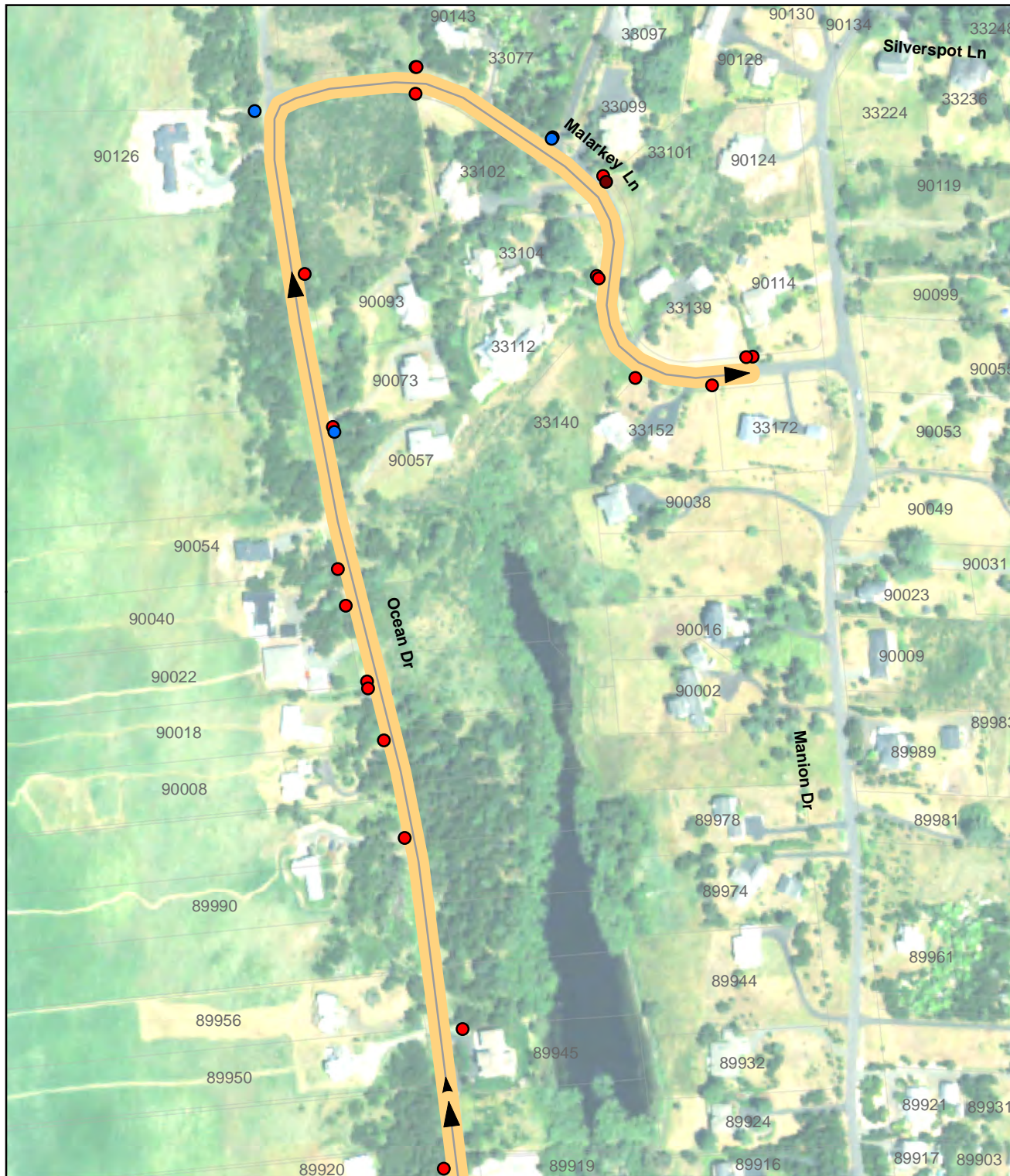
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 38
ROUTE12 LEG1209

Gray & Osborne, Inc.



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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 39
 ROUTE12 LEG1209**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 40
 ROUTE12 LEG1209**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 41
ROUTE 12 LEG 1209**






LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

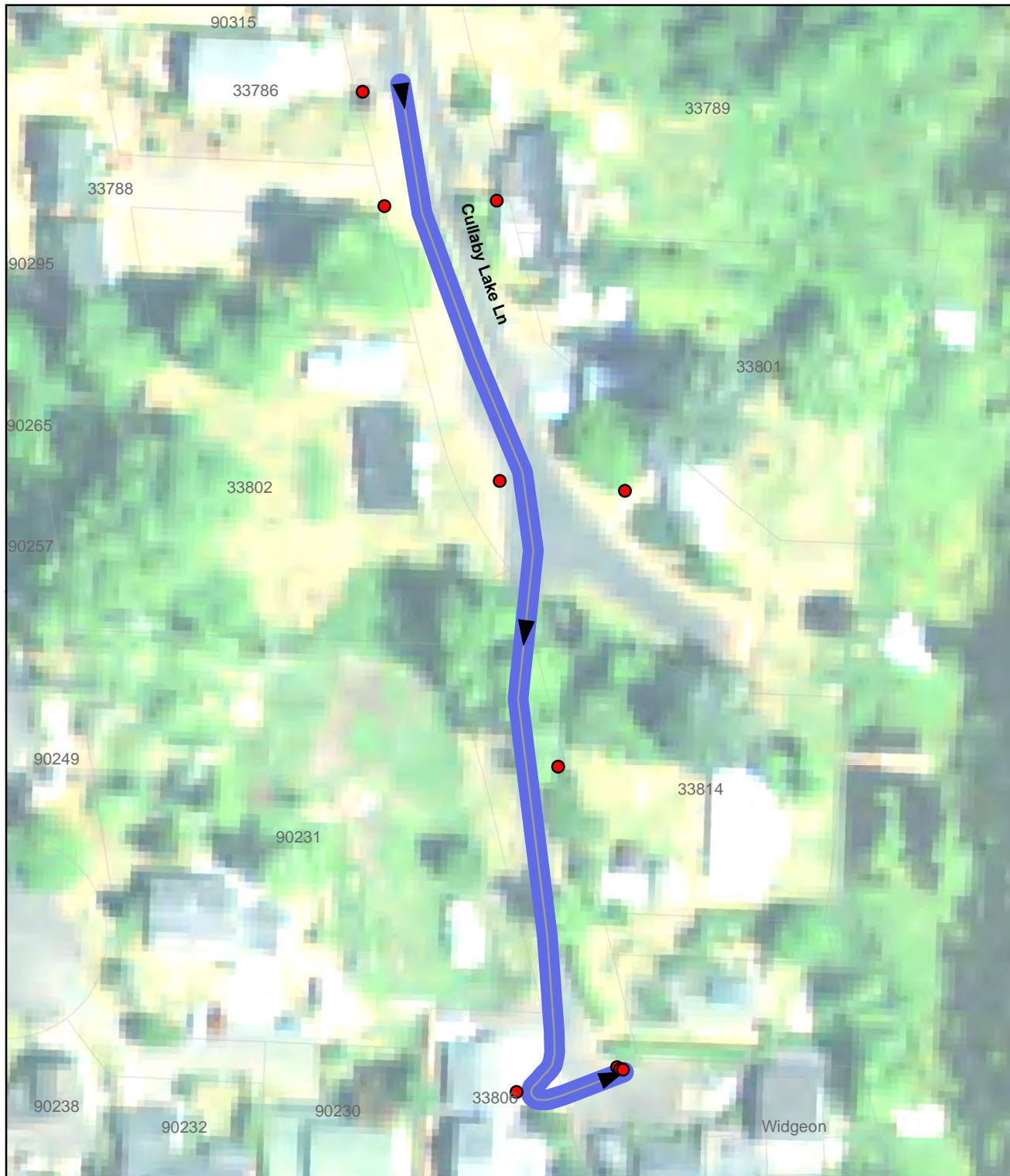
METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 42
ROUTE 13 LEG 1301



Gray & Osborne, Inc.



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LEGEND

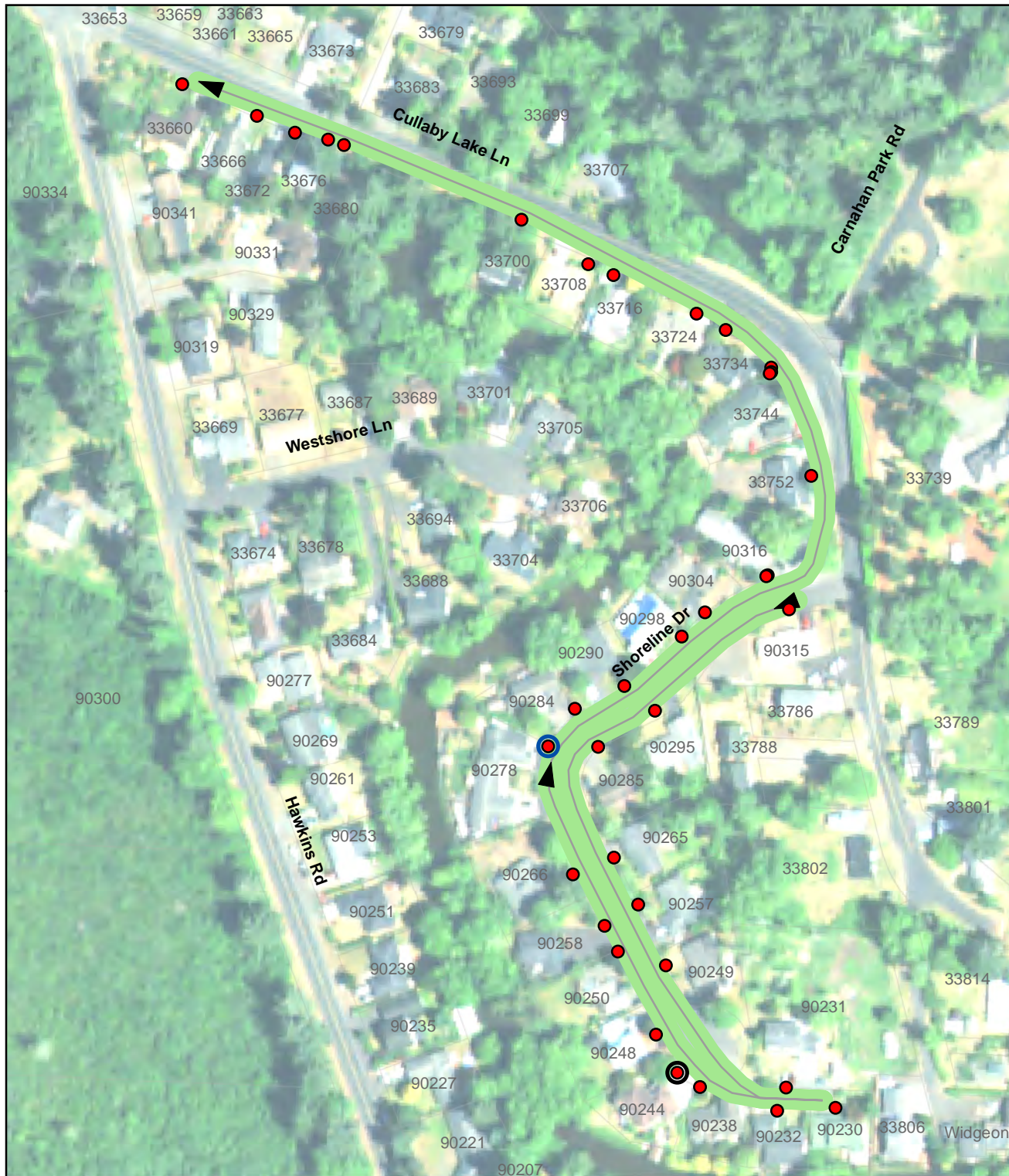
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 43
 ROUTE13 LEG1302**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 44
 ROUTE13 LEG1303**





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LEGEND

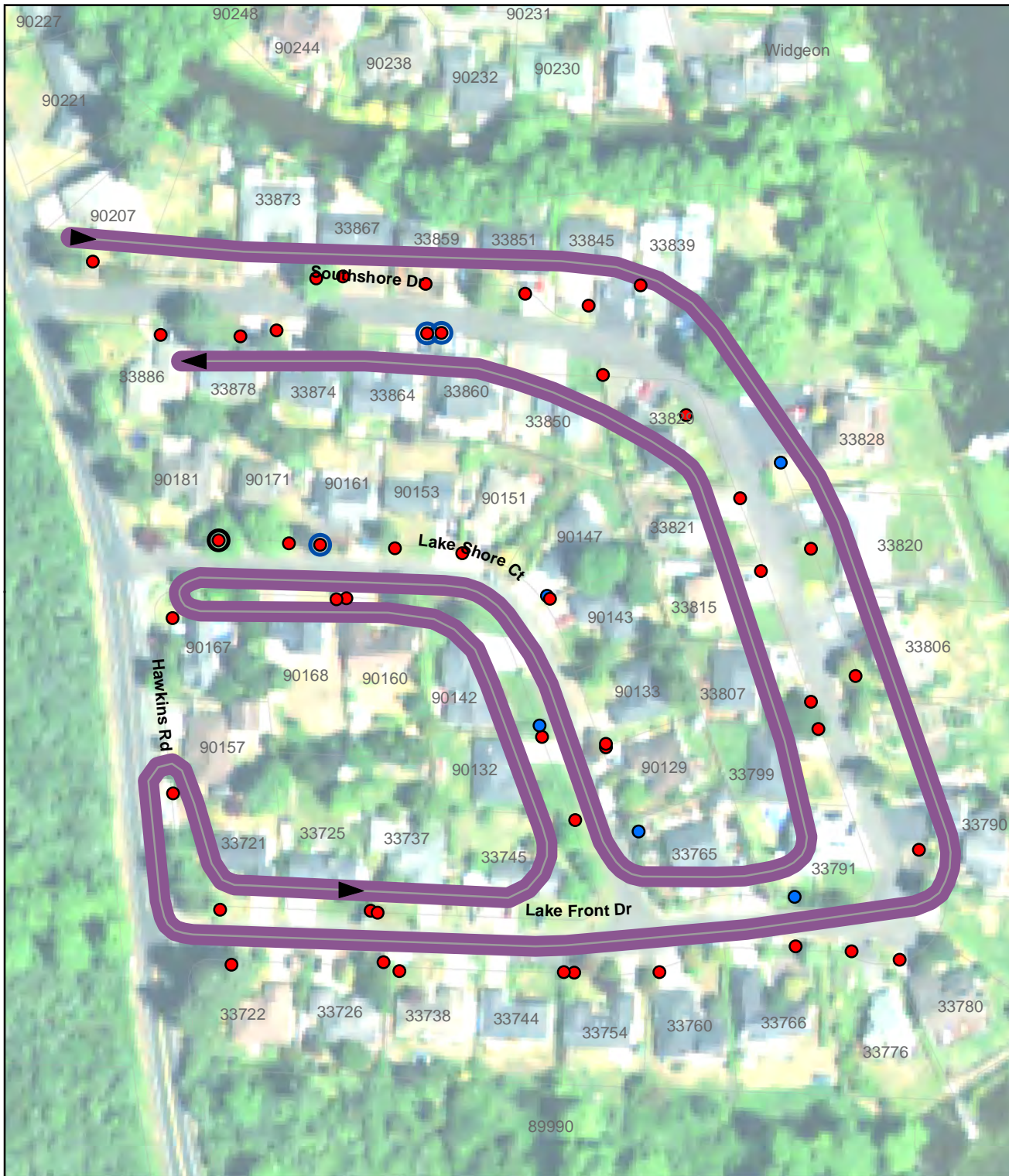
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 45
 ROUTE13 LEG1304**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 46
 ROUTE 13 LEG 1305**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 47
ROUTE 13 LEG 1306





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 48
ROUTE 13 LEG 1307**





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LEGEND

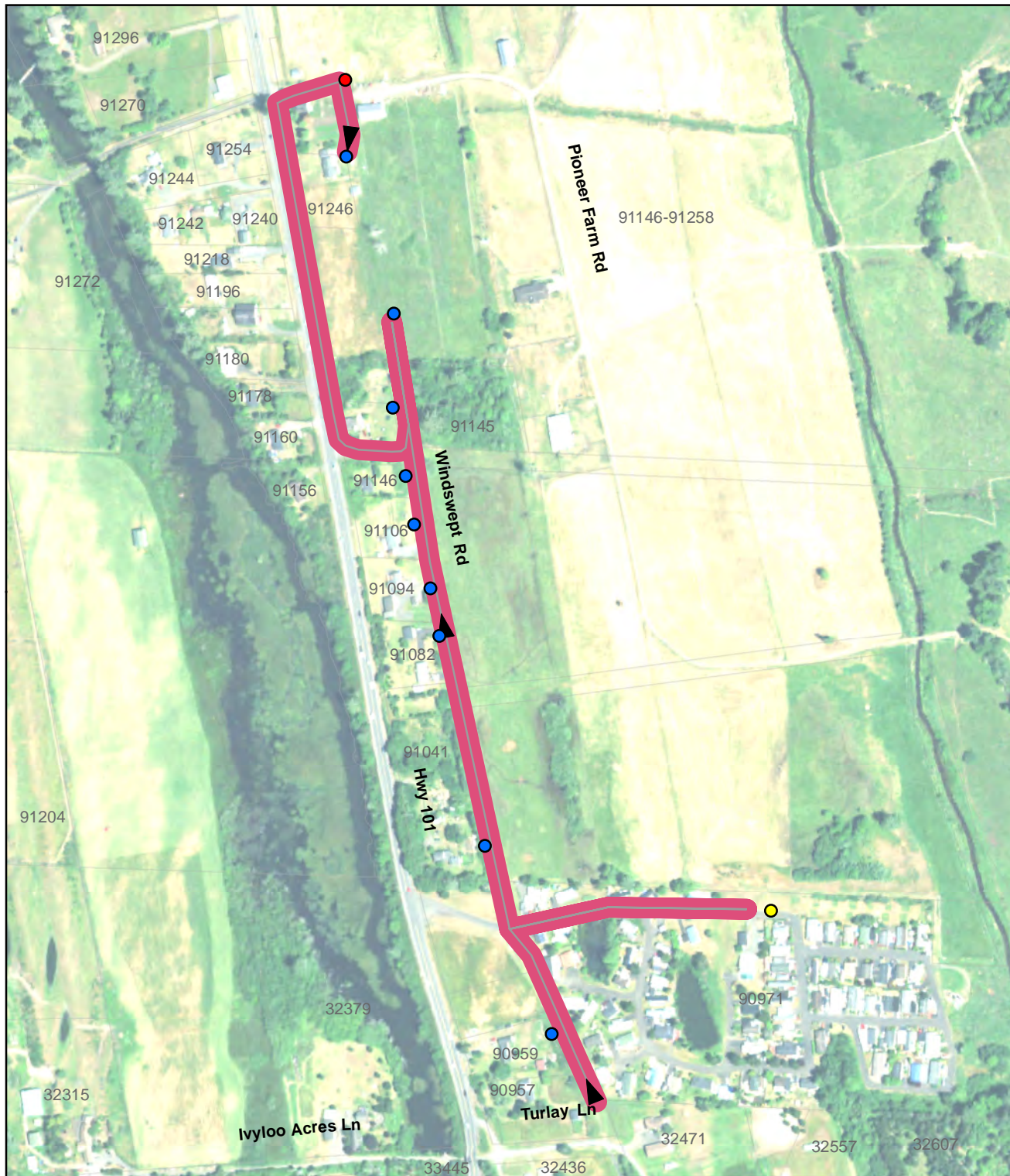
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 49
ROUTE13 LEG1308





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 50
 ROUTE13 LEG1309**





N



LEGEND

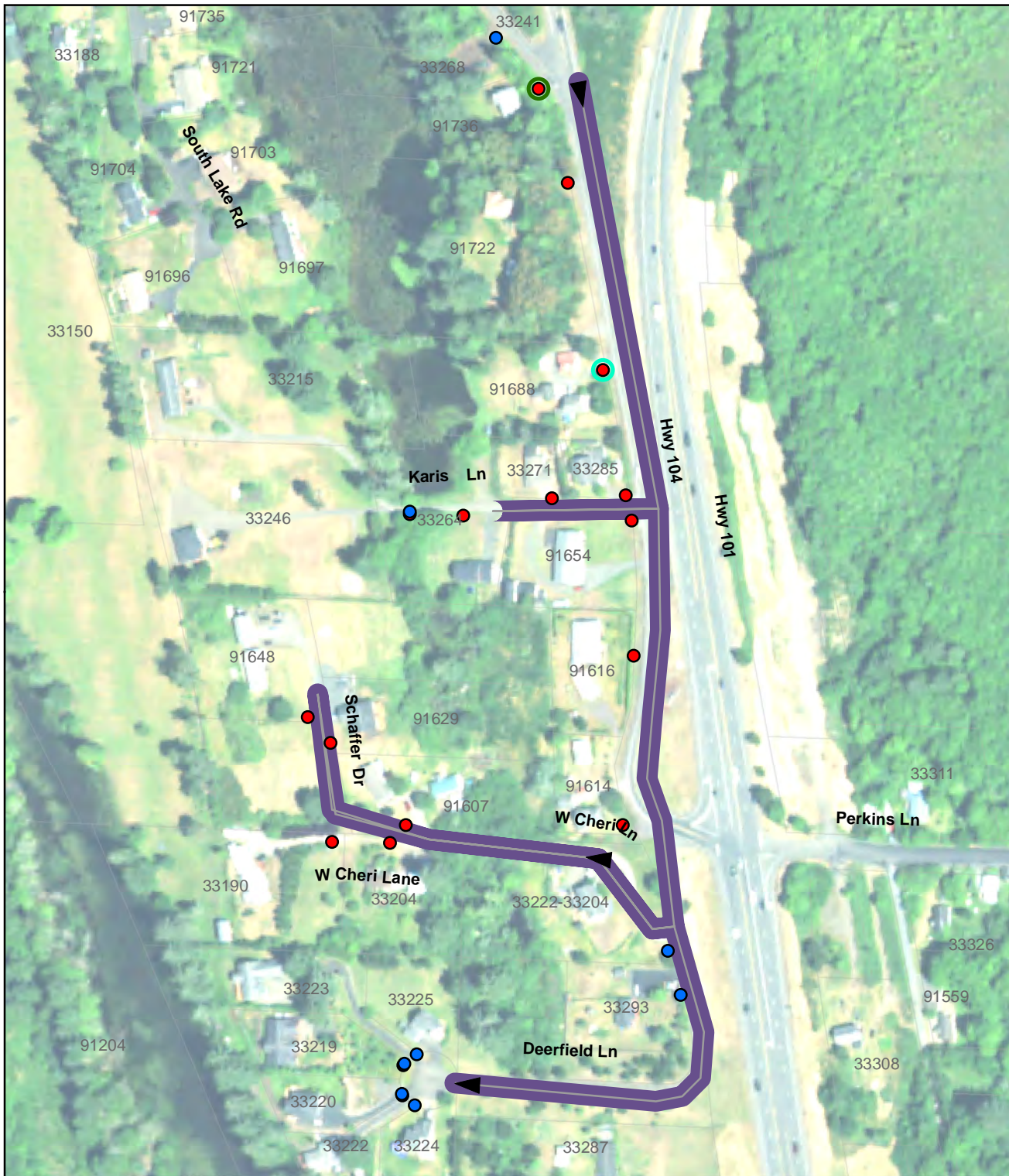
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 51
 ROUTE13 LEG1310**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 52
 ROUTE14 LEG1401**





N



LEGEND

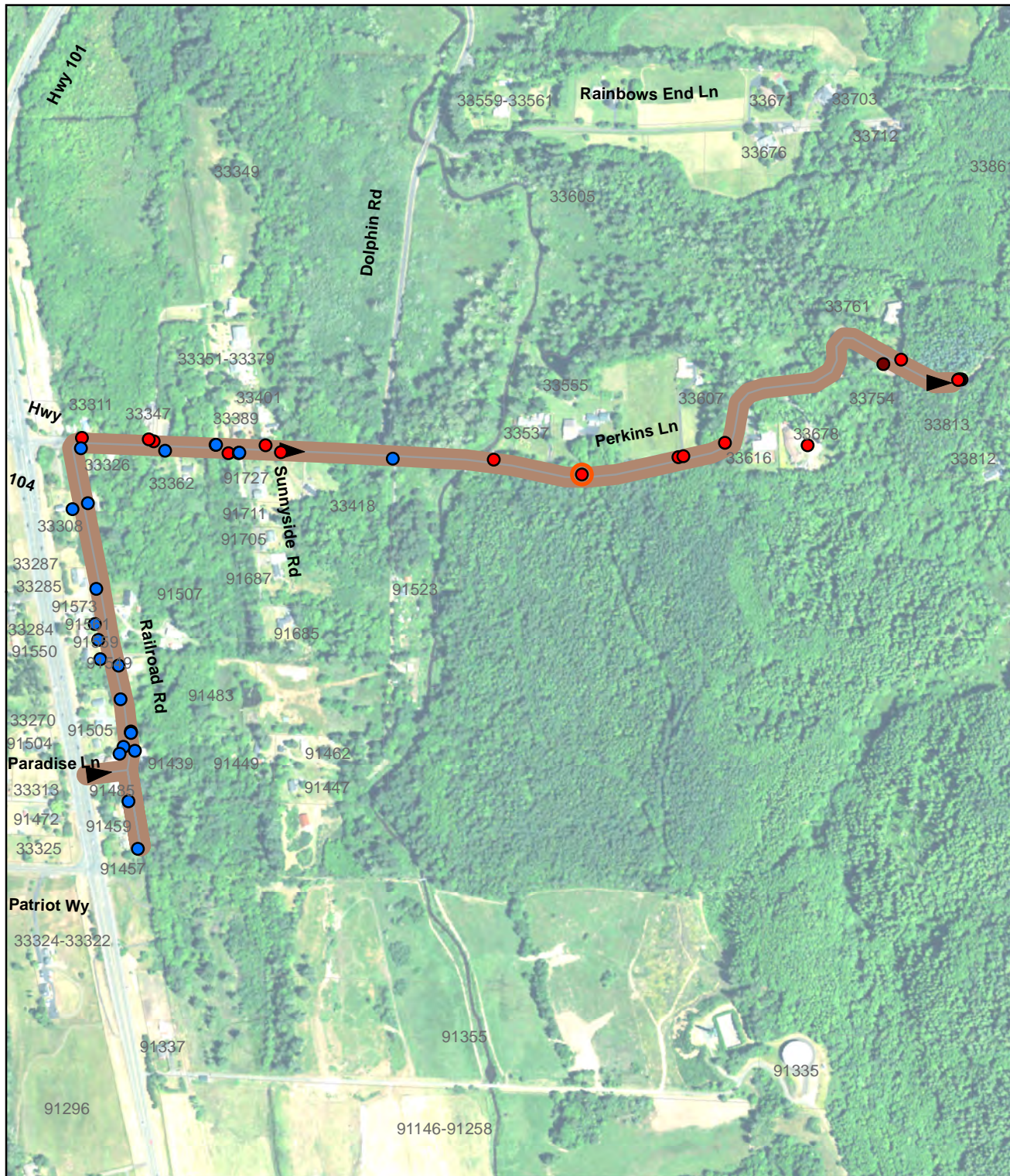
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 53
 ROUTE14 LEG1402**





LEGEND

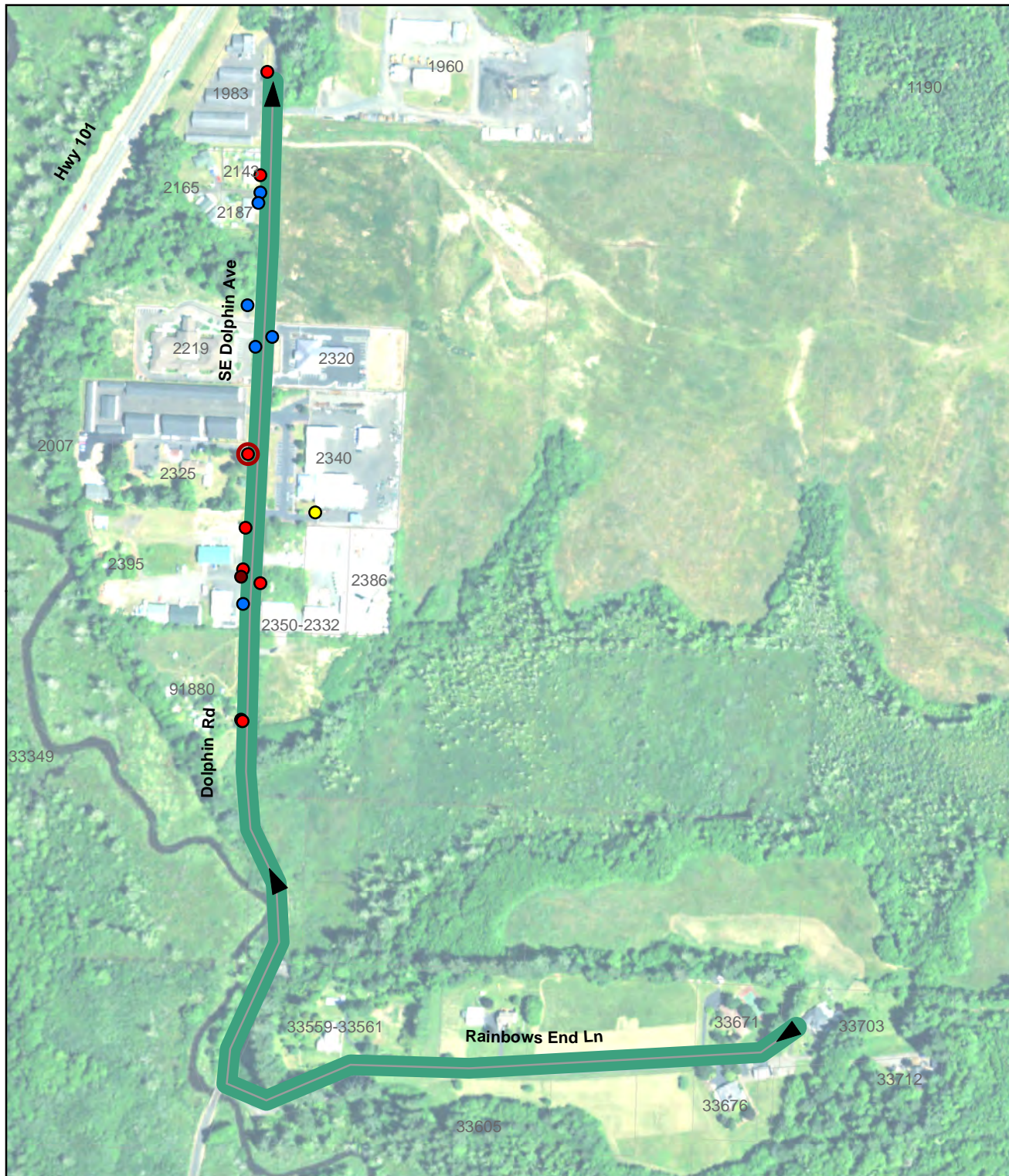
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 54
 ROUTE14 LEG1403**





LEGEND

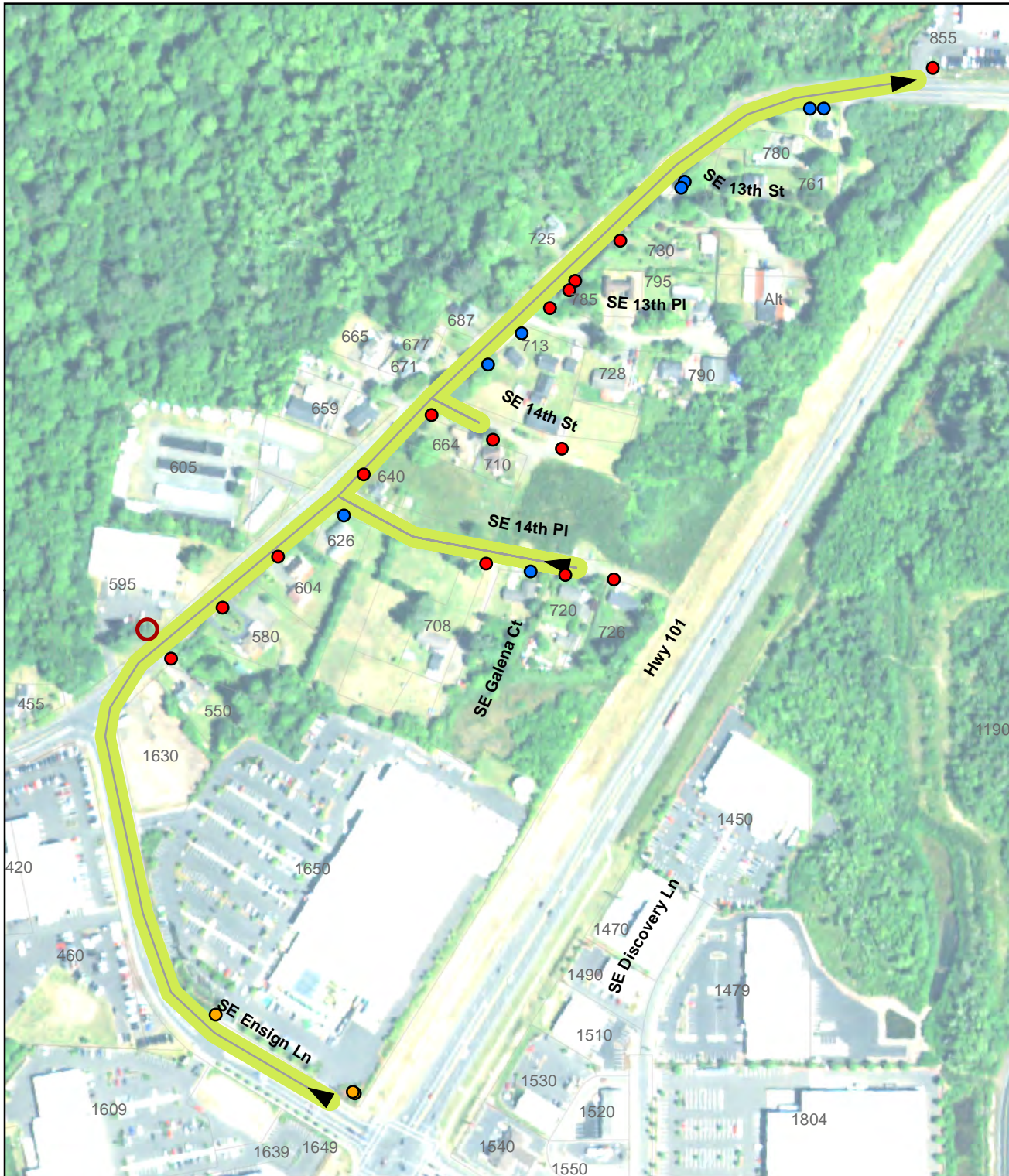
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 55
 ROUTE14 LEG1404**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 56
 ROUTE14 LEG1405**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 57
 ROUTE14 LEG1406**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 58
 ROUTE14 LEG1407**





N



LEGEND

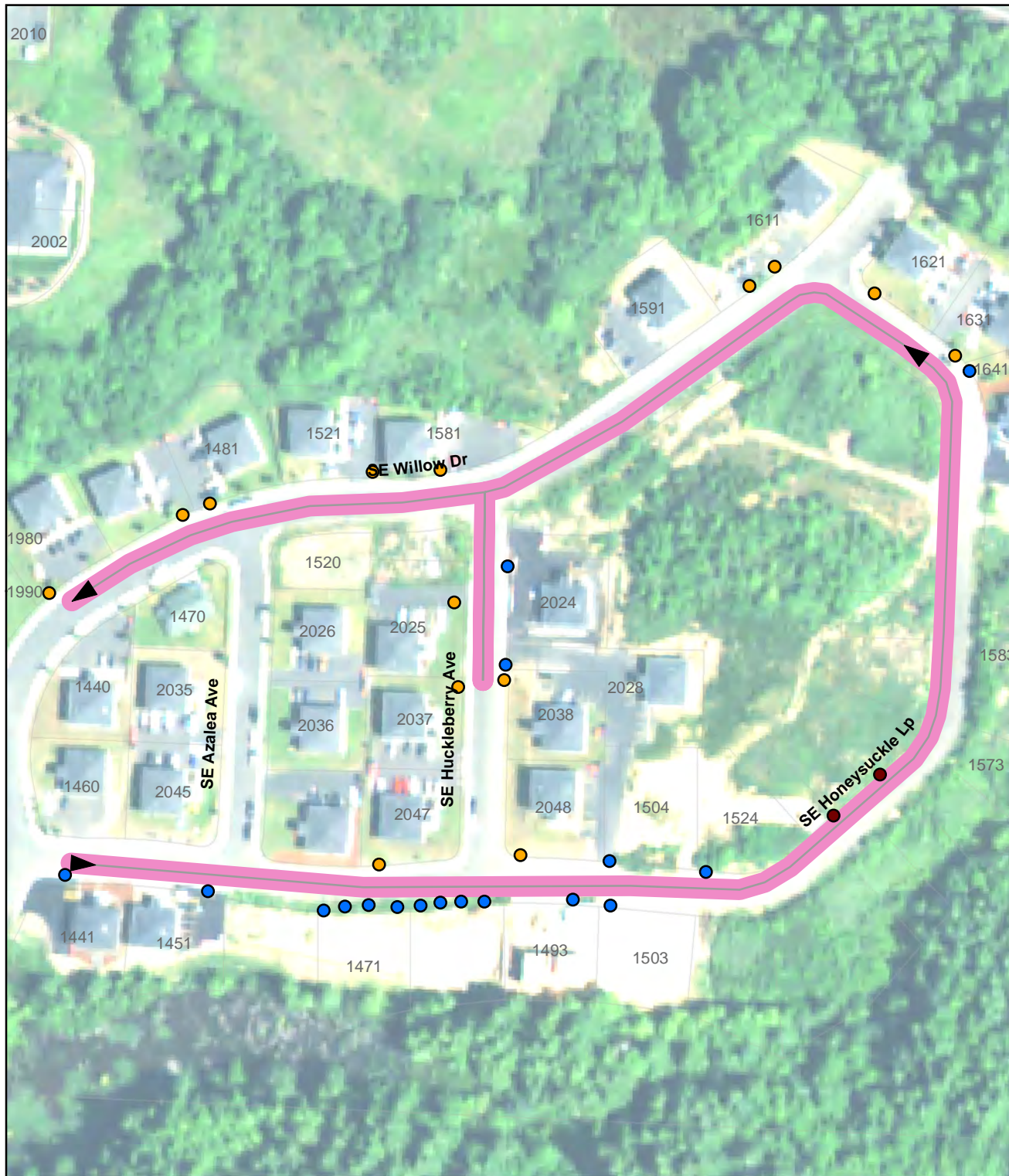
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 59
 ROUTE14 LEG1408**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 60
 ROUTE14 LEG1409**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 61
ROUTE14 LEG1410





N



LEGEND

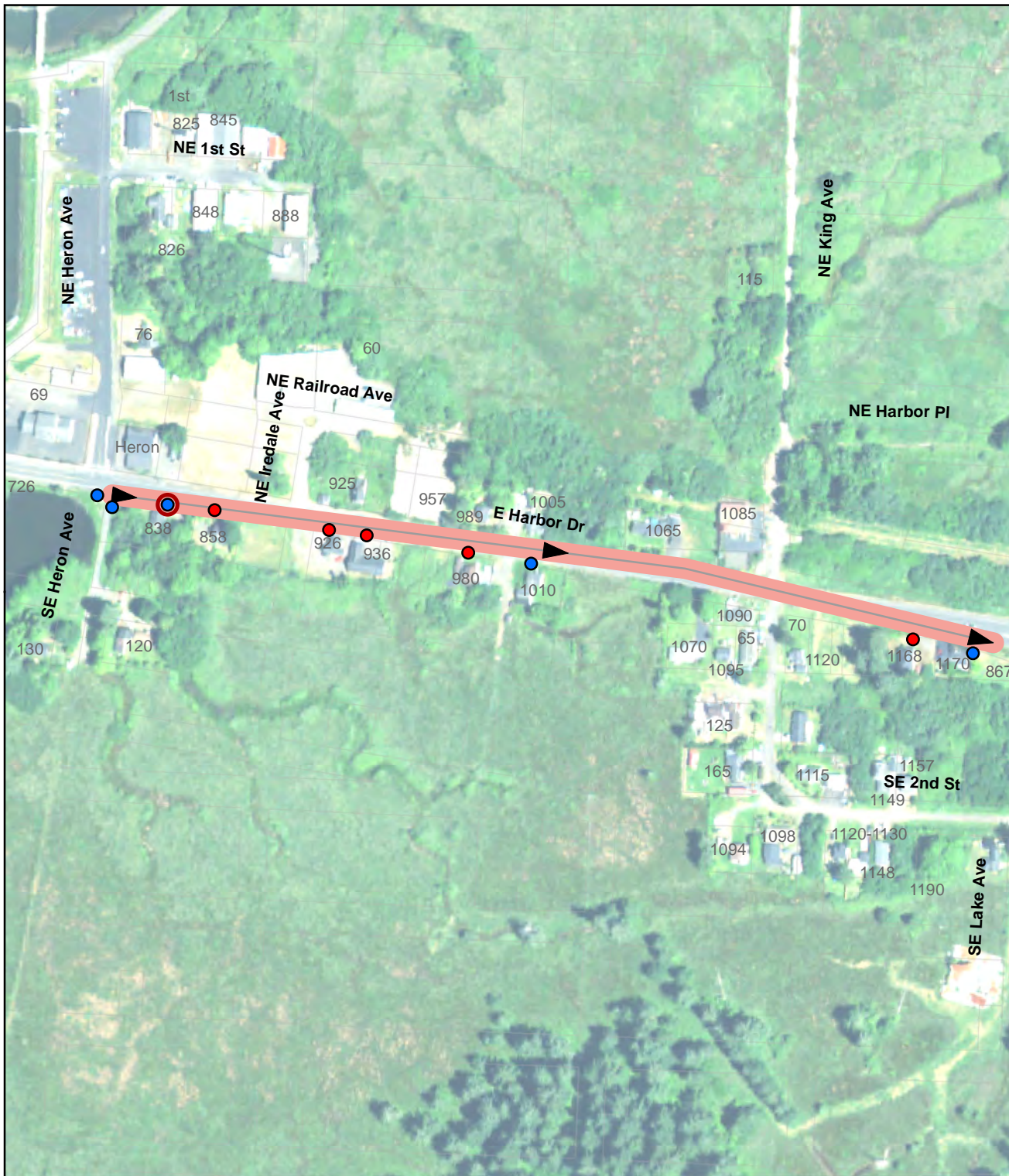
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 62
ROUTE15 LEG1501





LEGEND

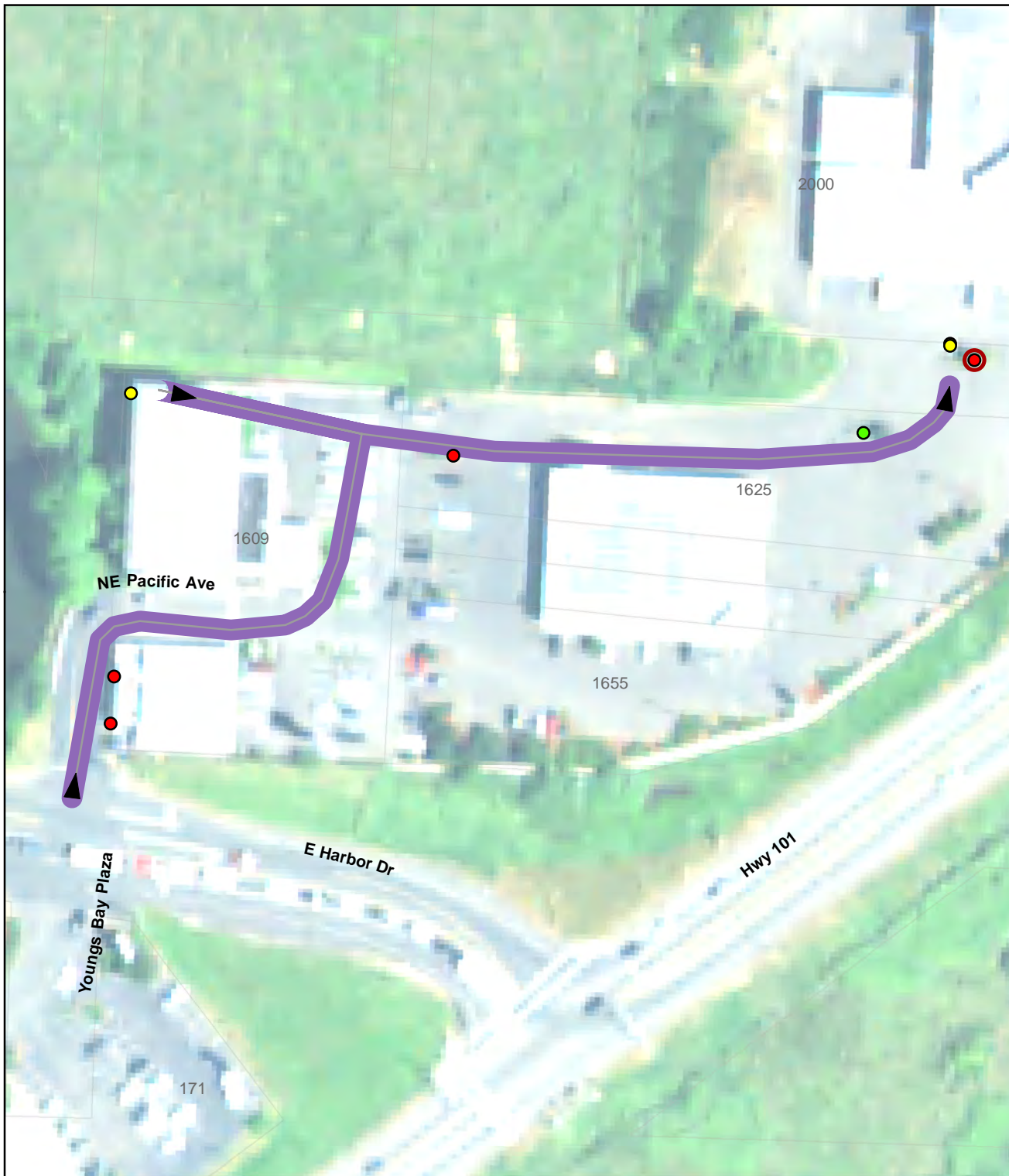
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 63
ROUTE15 LEG1502**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 64
ROUTE15 LEG1503**





LEGEND

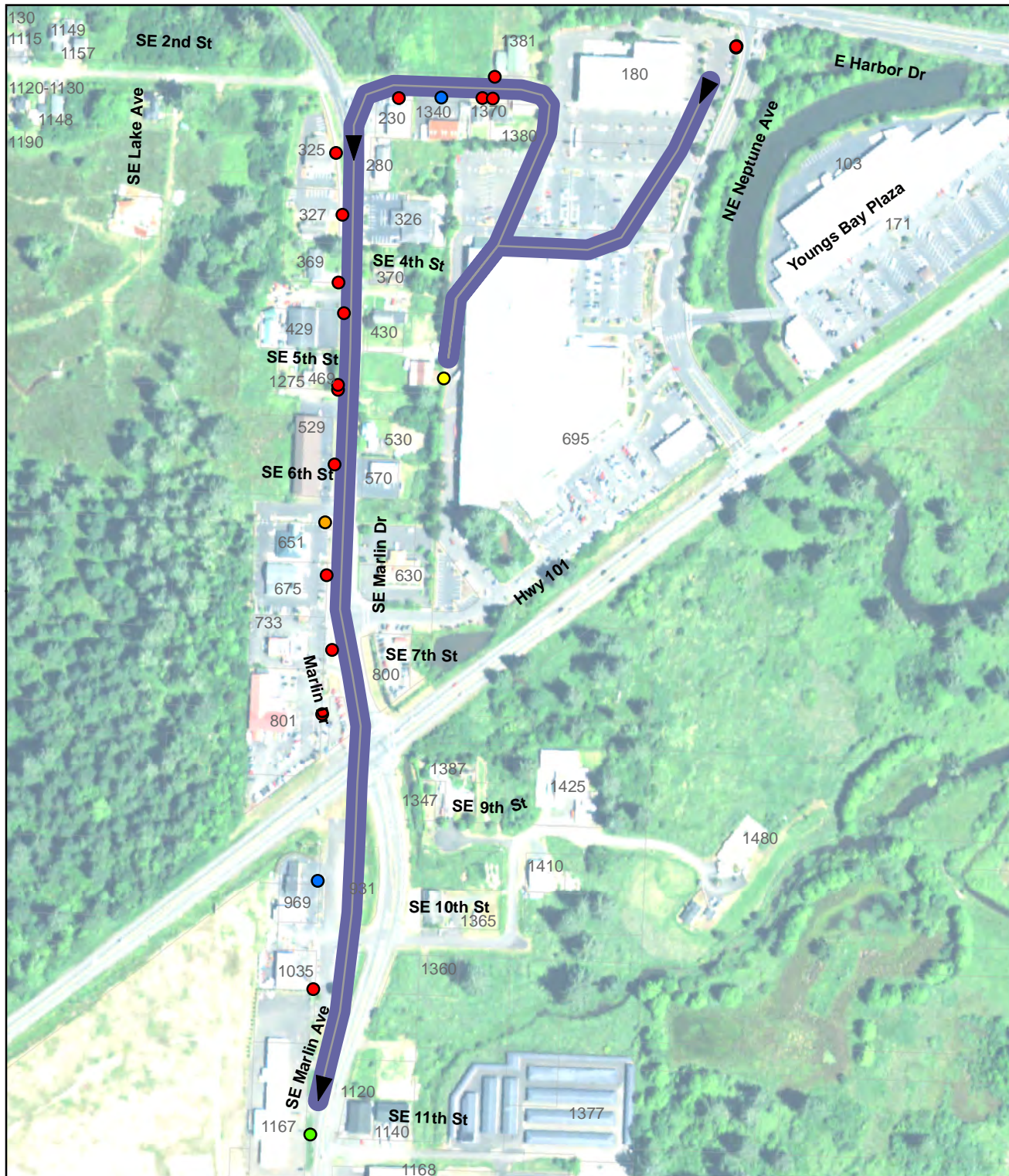
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 65
 ROUTE15 LEG1504**





N



LEGEND

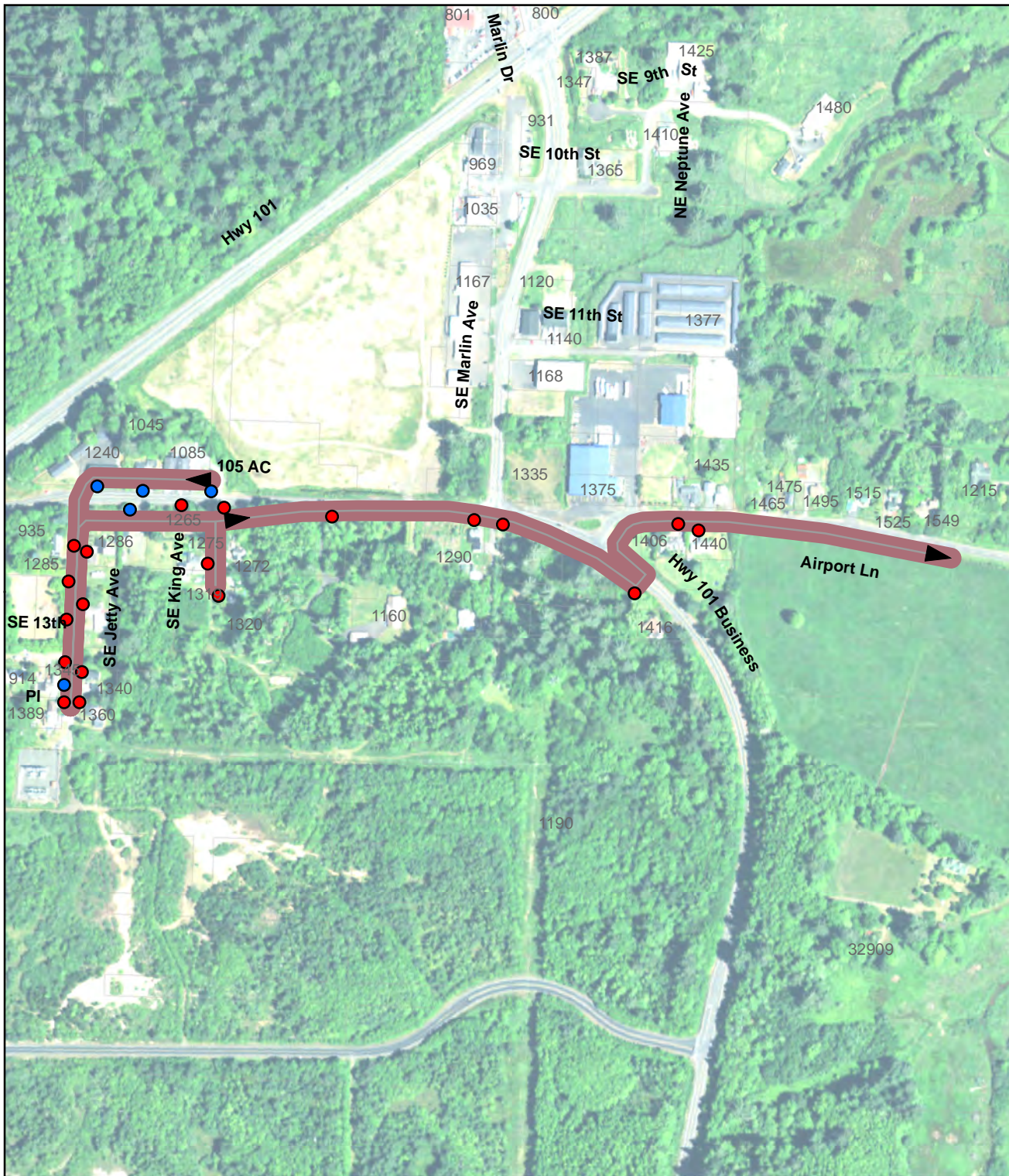
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 66
ROUTE 15 LEG 1505**





N



LEGEND

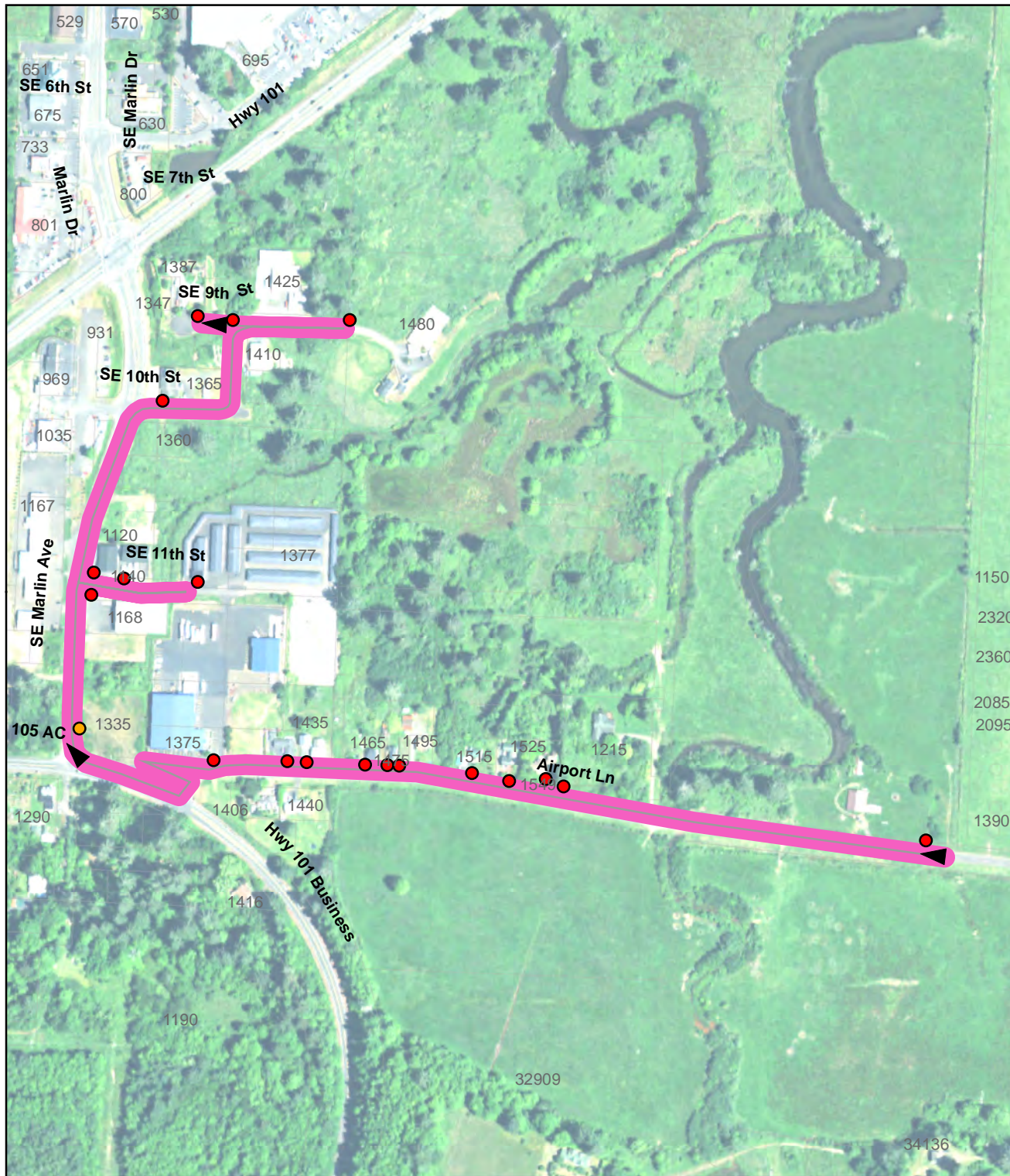
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 67
 ROUTE15 LEG1506**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 68
ROUTE 15 LEG 1507**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 69
 ROUTE15 LEG1508**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 70
ROUTE 15 LEG 1509**





N



LEGEND

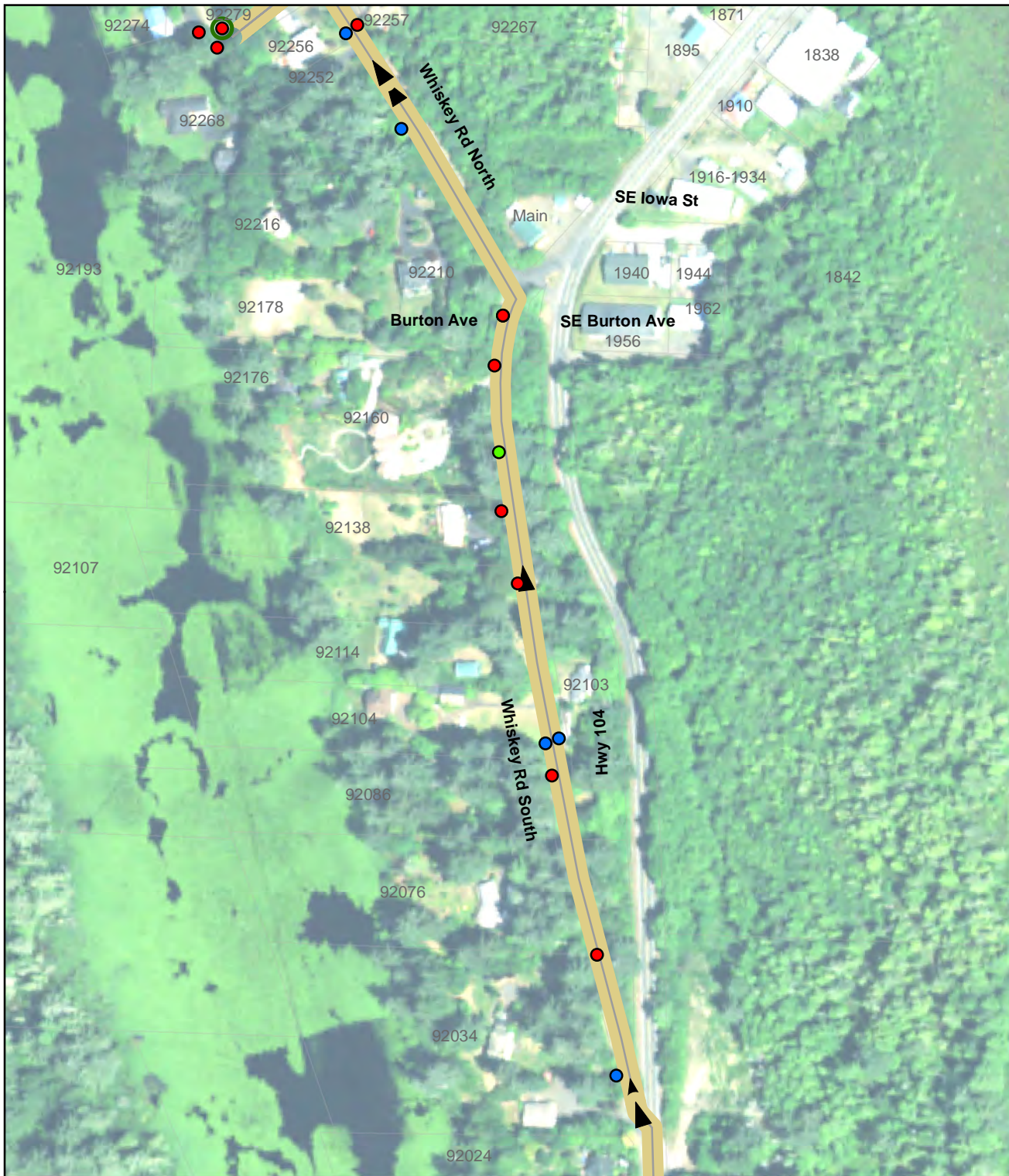
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 71
 ROUTE16 LEG1601**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 72
 ROUTE16 LEG1602**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 73
 ROUTE16 LEG1602**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 75
ROUTE 16 LEG 1603**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 76
ROUTE 16 LEG 1604**





N



LEGEND

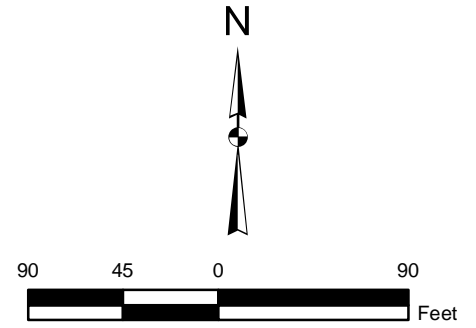
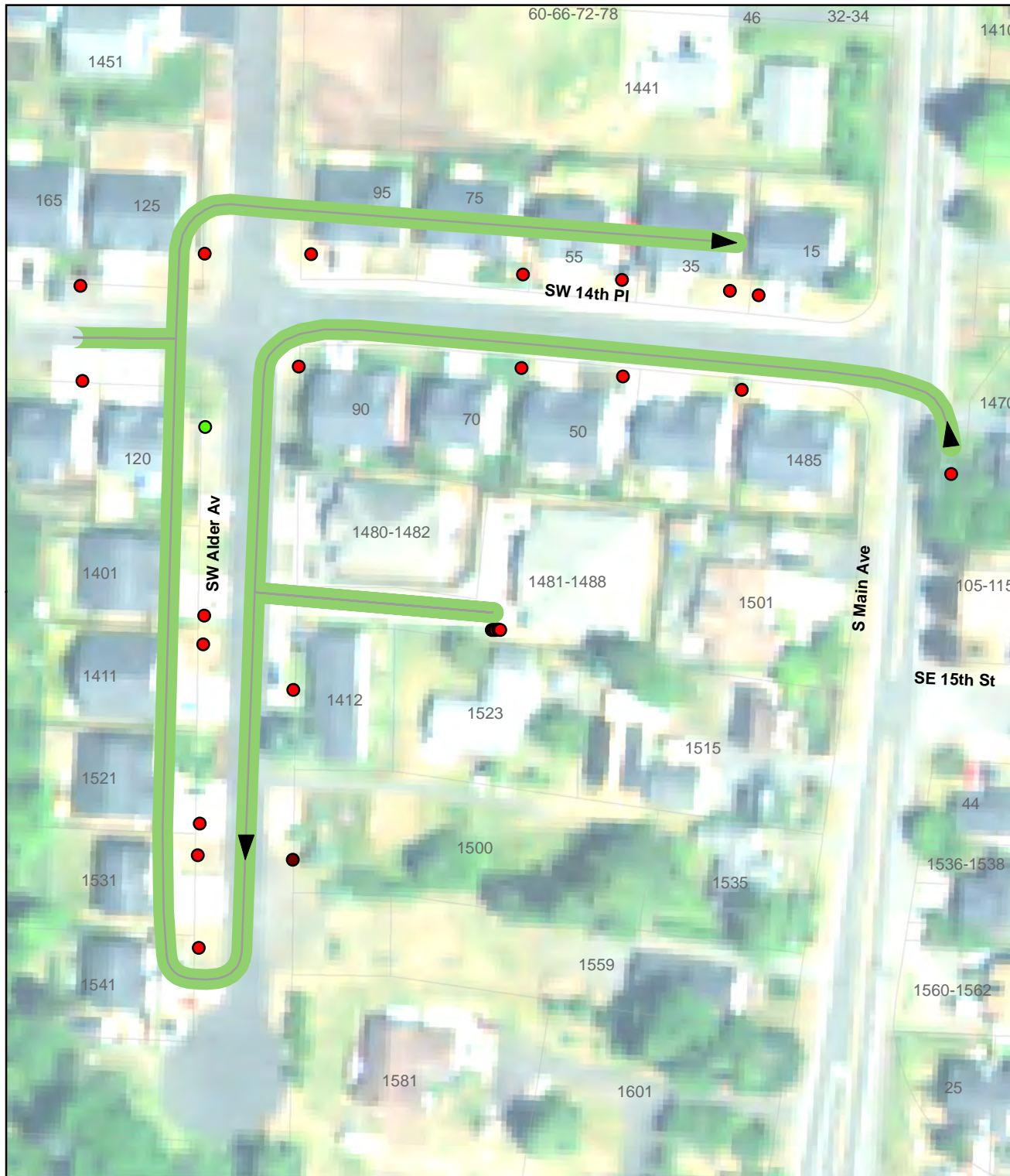
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 77
ROUTE 16 LEG 1605






LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

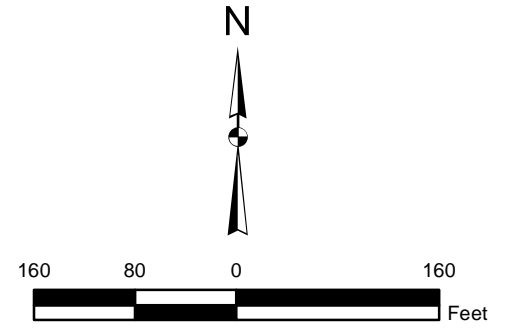
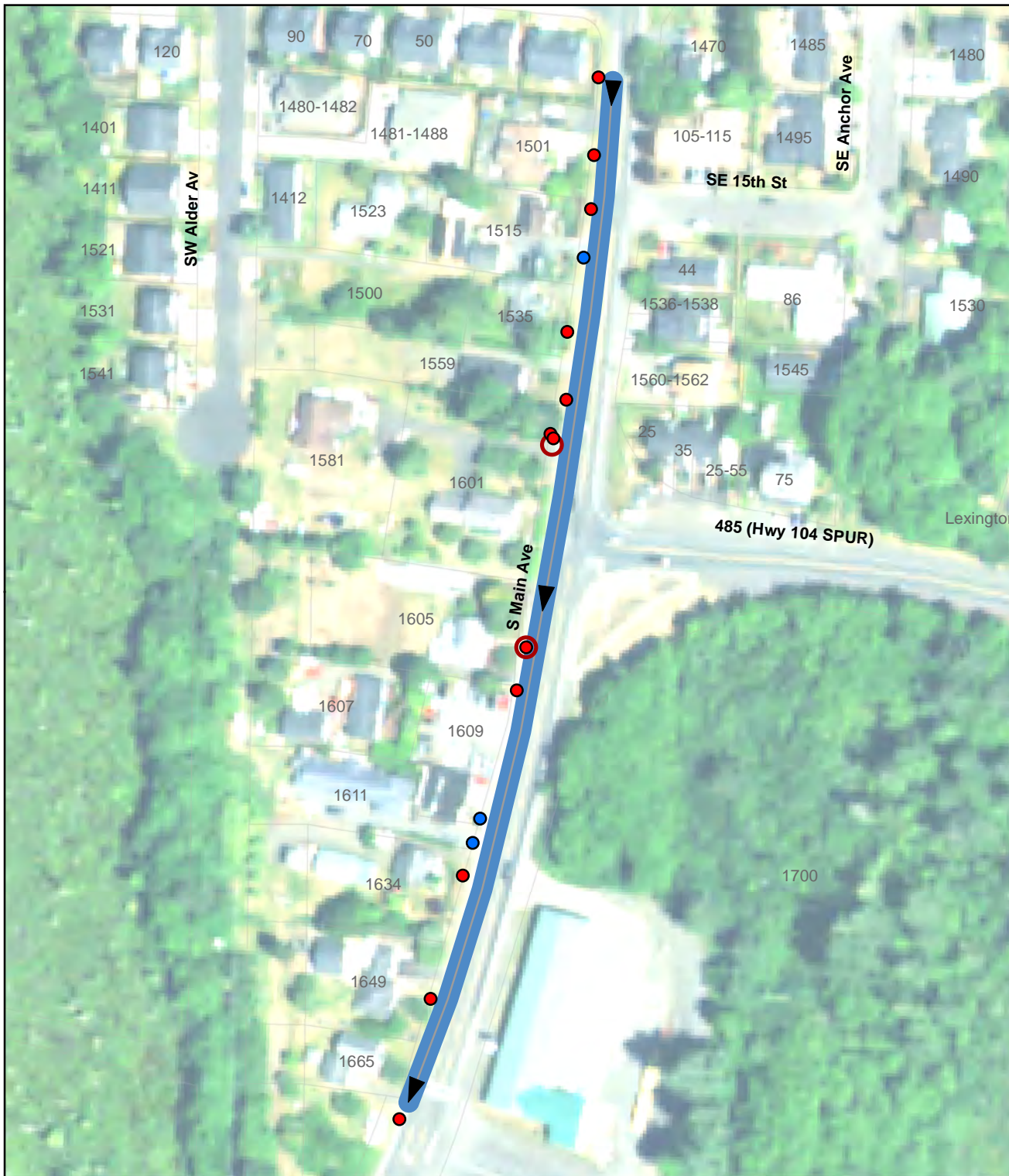
METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 78
ROUTE 16 LEG 1606**



Gray & Osborne, Inc.



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 79
ROUTE 16 LEG 1607





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 80
 ROUTE16 LEG1608**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 81
 ROUTE16 LEG1609**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 82
 ROUTE16 LEG1610**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 83
 ROUTE16 LEG1611**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 84
ROUTE 16 LEG 1612**





N



LEGEND

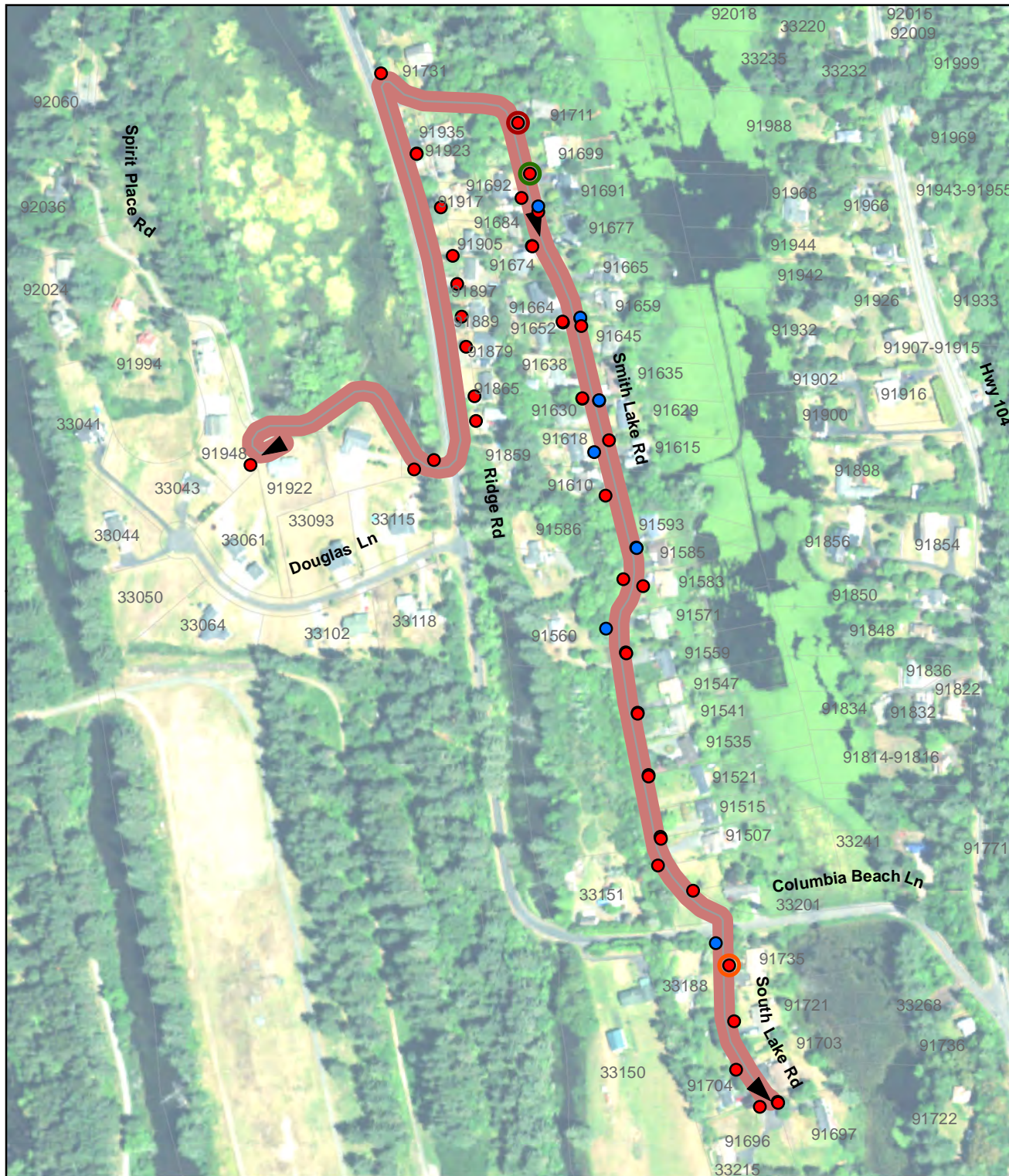
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 85
 ROUTE17 LEG1701**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 86
ROUTE 17 LEG 1702**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 87
 ROUTE17 LEG1703**





LEGEND

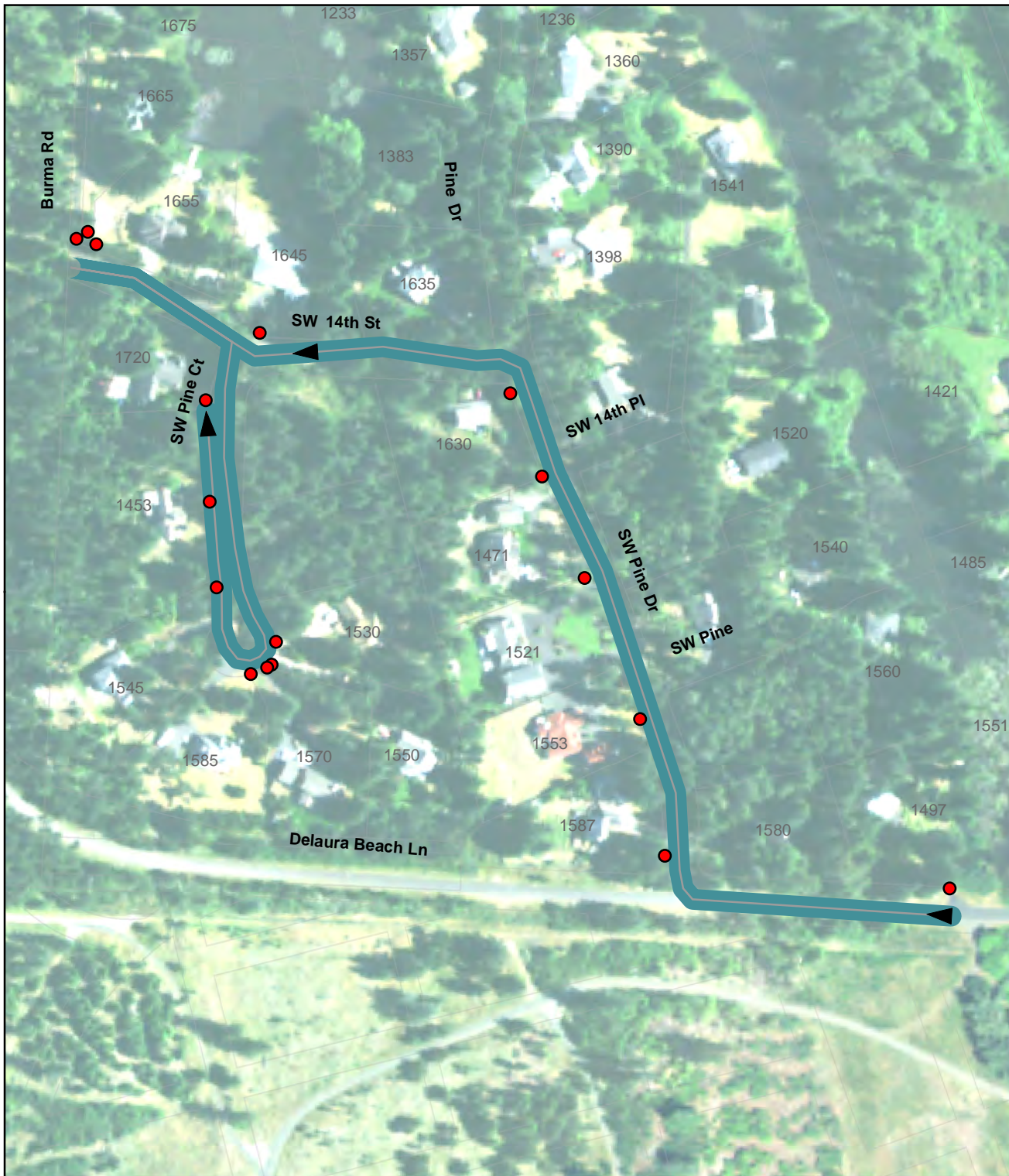
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 88
ROUTE17 LEG1704**





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LEGEND

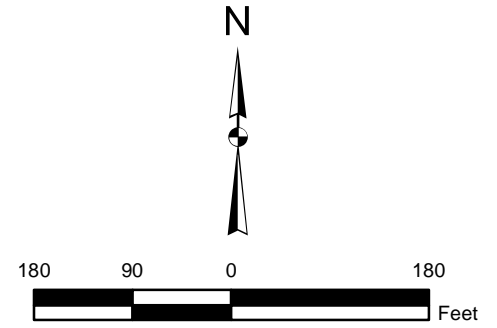
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 89
 ROUTE17 LEG1705**





LEGEND

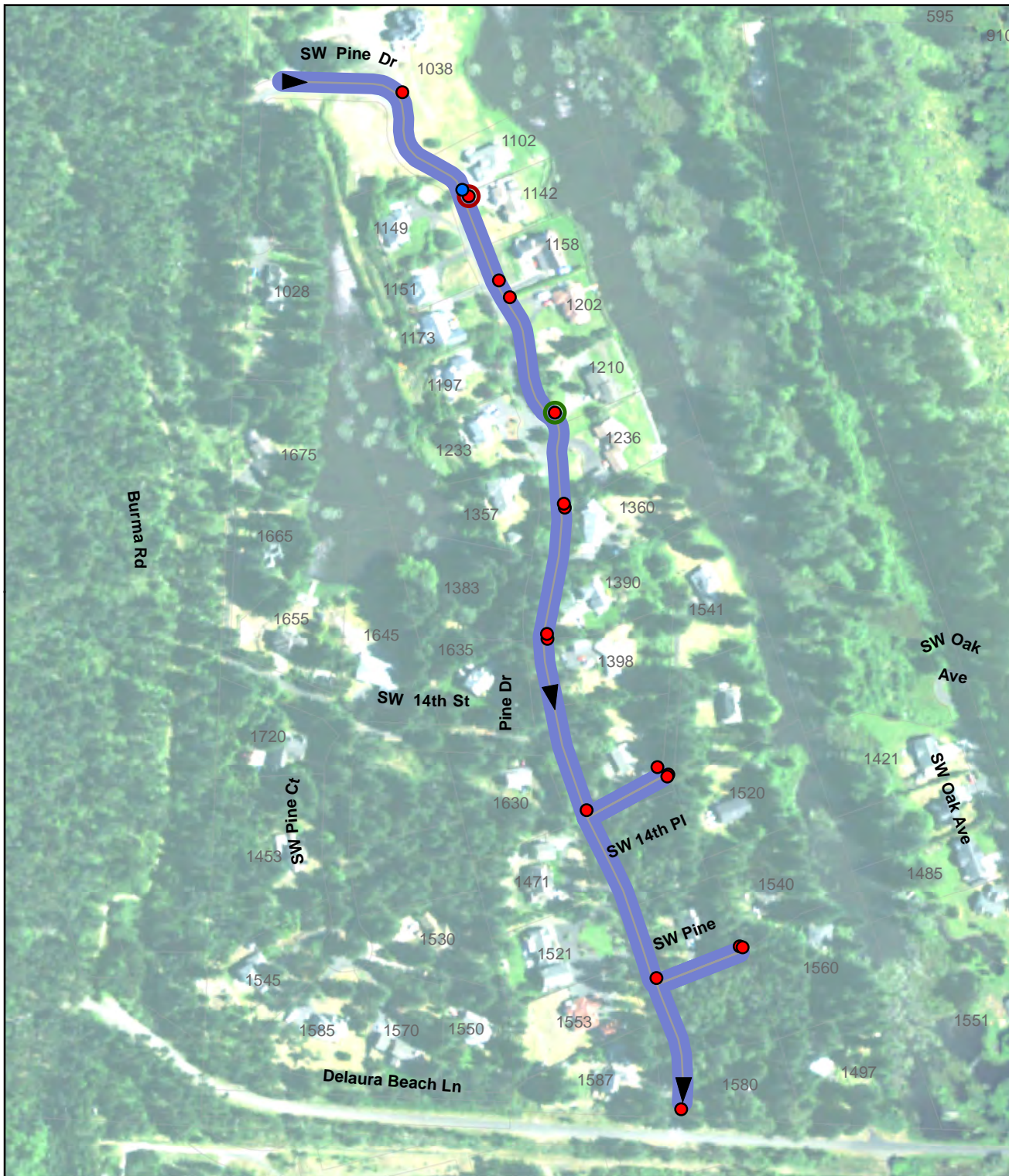
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 90
ROUTE17 LEG1706

Gray & Osborne, Inc.



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 91
 ROUTE17 LEG1707**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 92
 ROUTE17 LEG1708**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 93
ROUTE 17 LEG 1709**





LEGEND

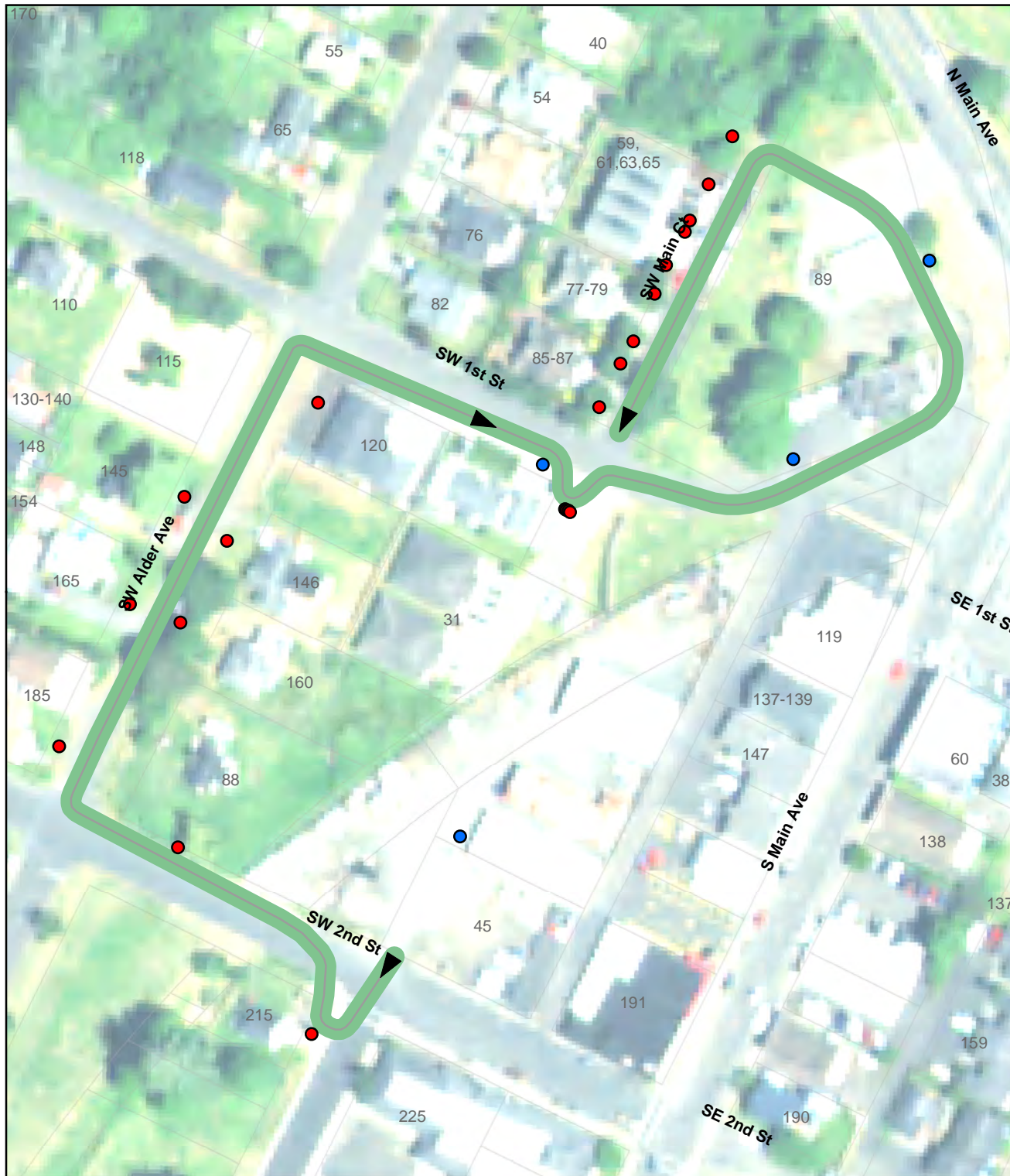
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 94
ROUTE 17 LEG 1710

Gray & Osborne, Inc.



LEGEND

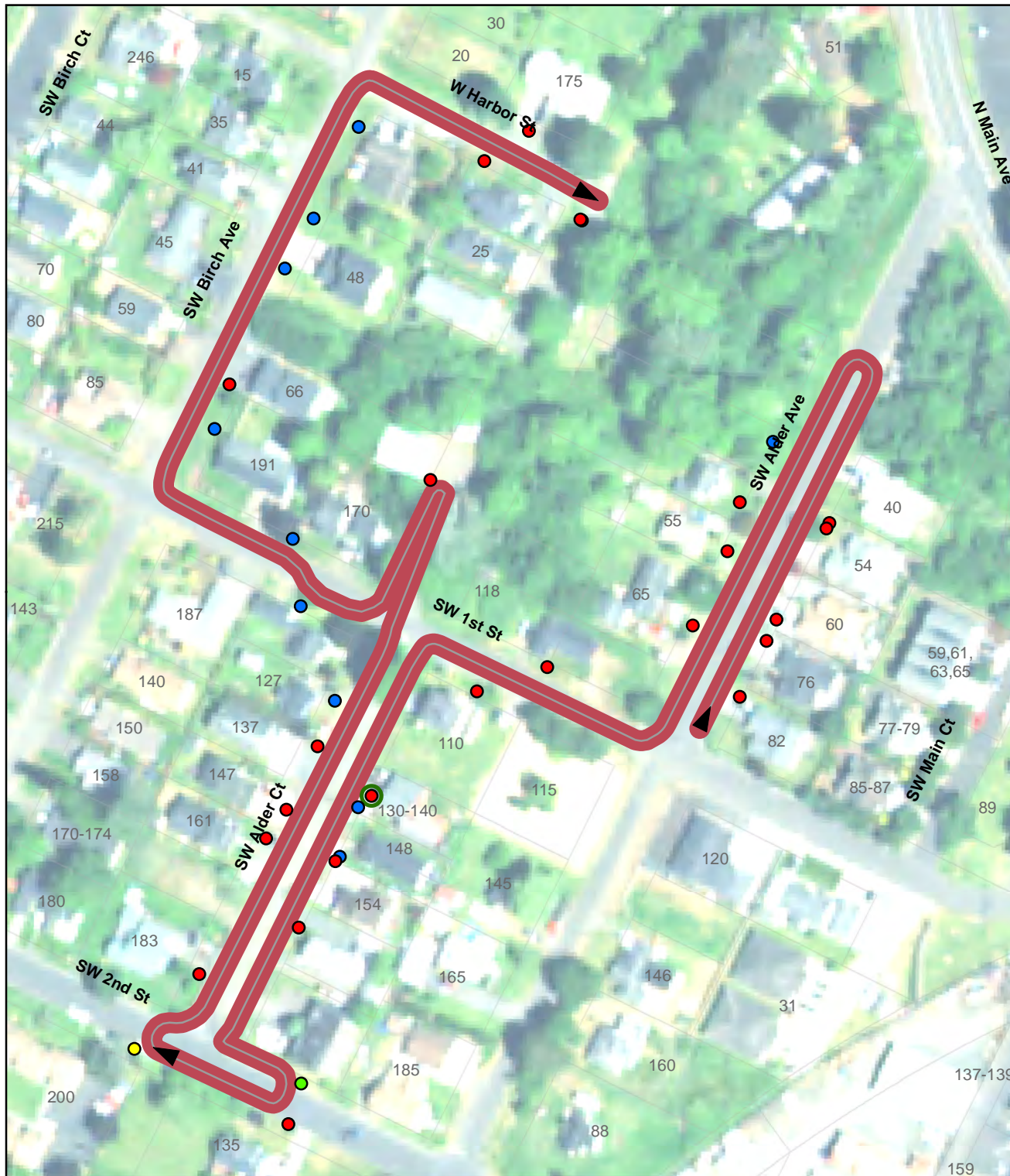
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 95
ROUTE 18 LEG 1801





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 96
ROUTE 18 LEG 1802**





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LEGEND

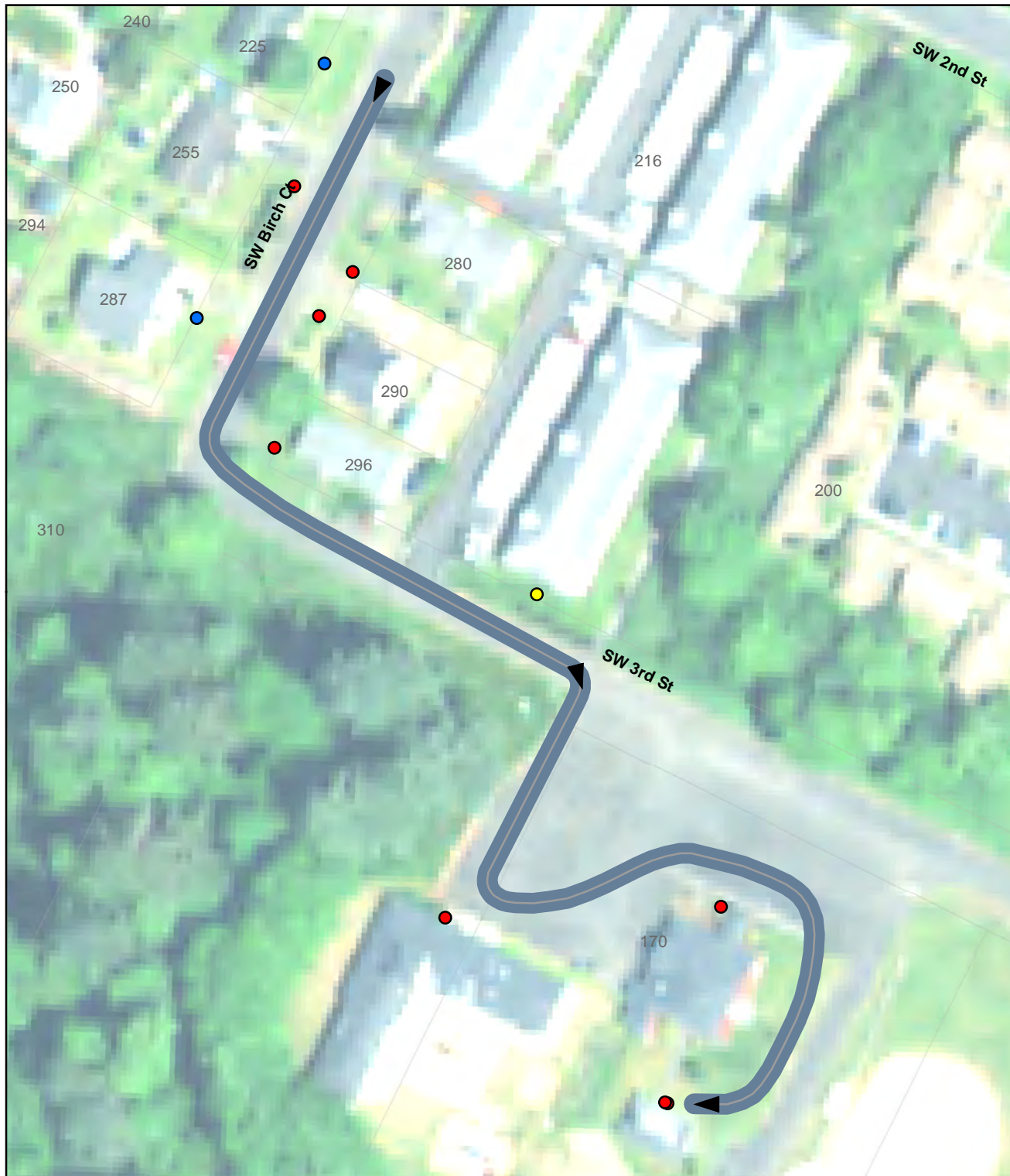
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 97
 ROUTE18 LEG1803**





LEGEND

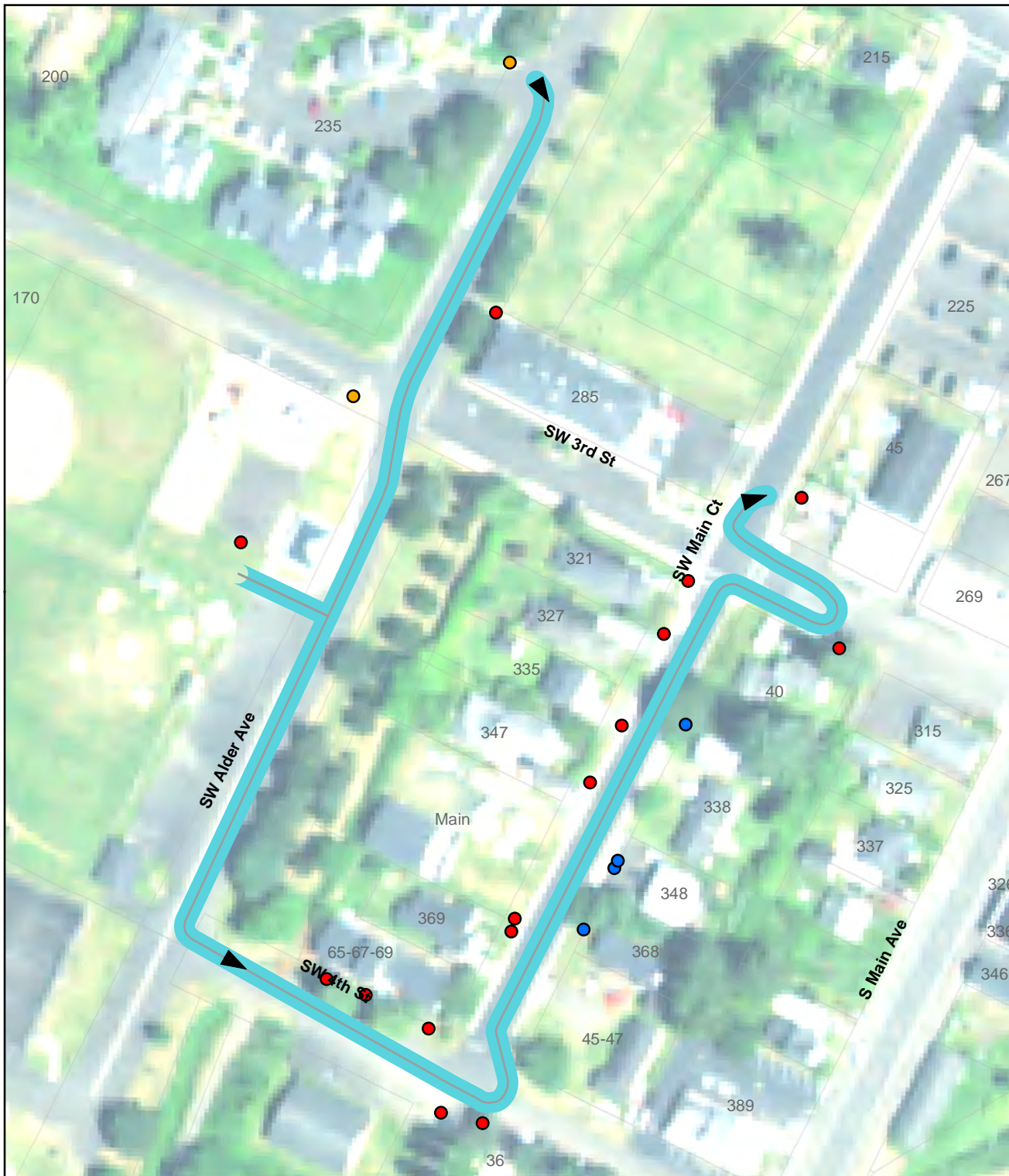
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 98
 ROUTE18 LEG1804**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 99
 ROUTE18 LEG1805**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 100
ROUTE 18 LEG 1806**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 101
 ROUTE18 LEG1807**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 102
 ROUTE18 LEG1808**





LEGEND

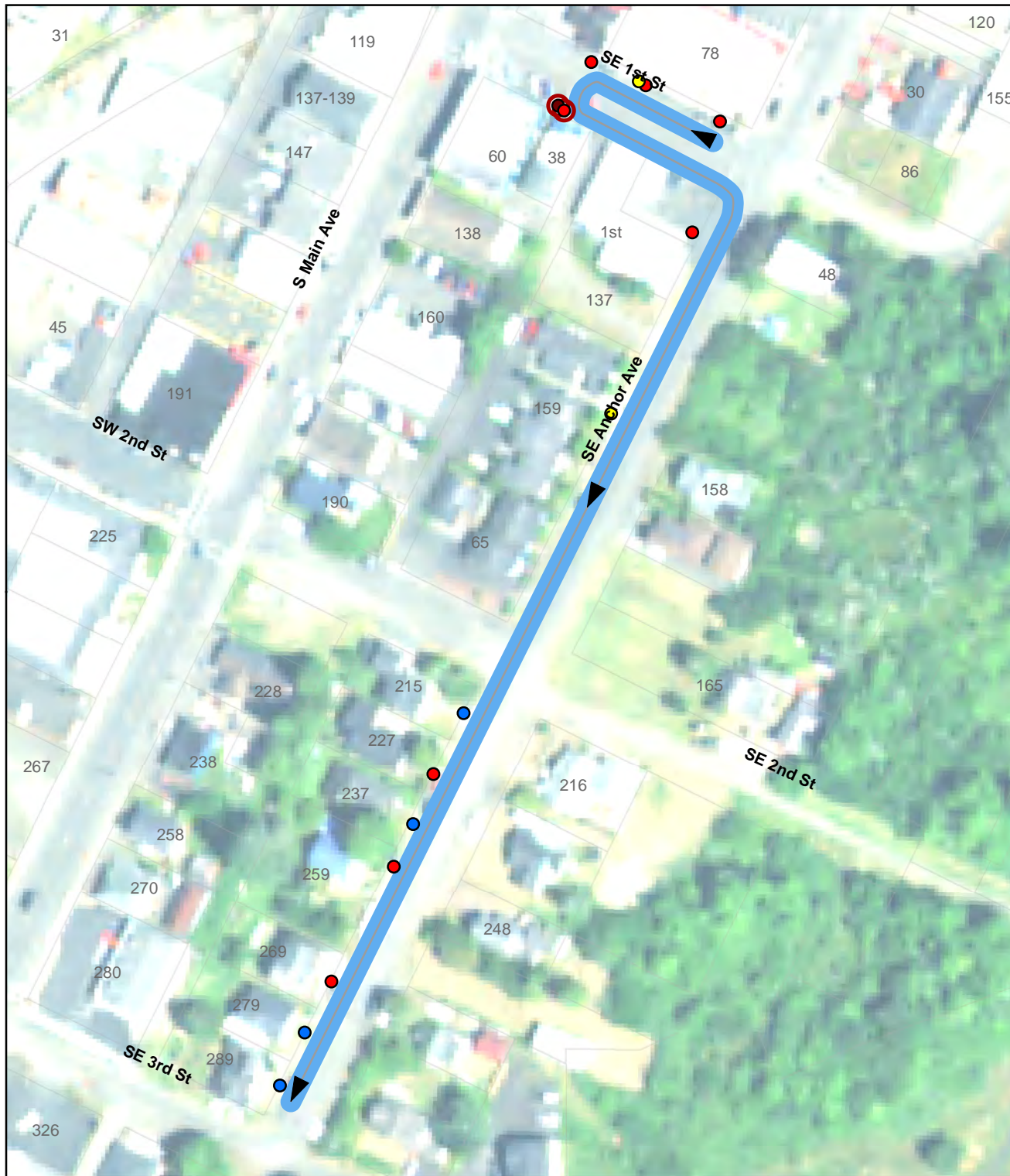
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 103
 ROUTE18 LEG1809**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 104
 ROUTE18 LEG1810**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 105
ROUTE 18 LEG 1811**





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LEGEND

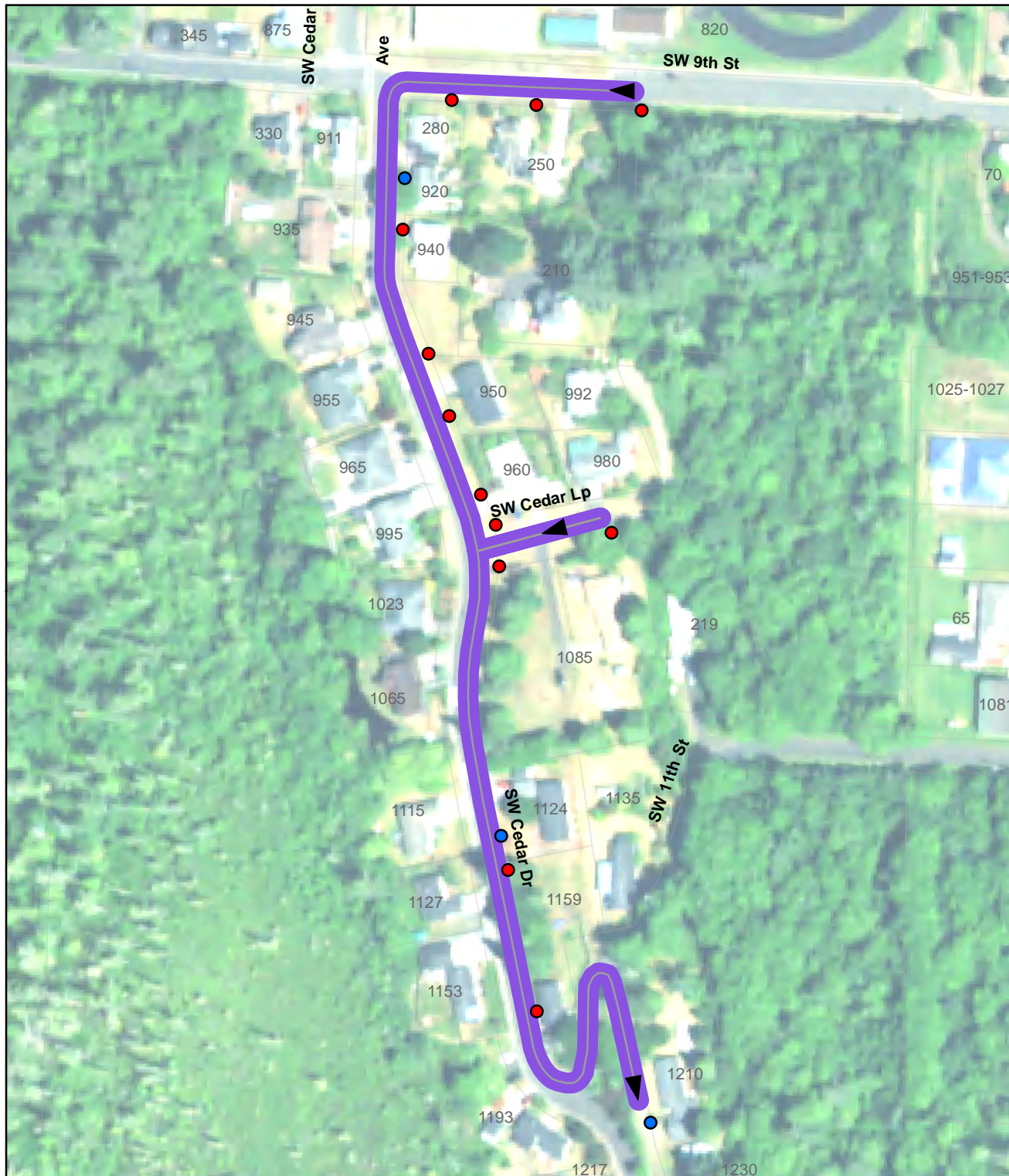
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 106
 ROUTE19 LEG1901**





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LEGEND

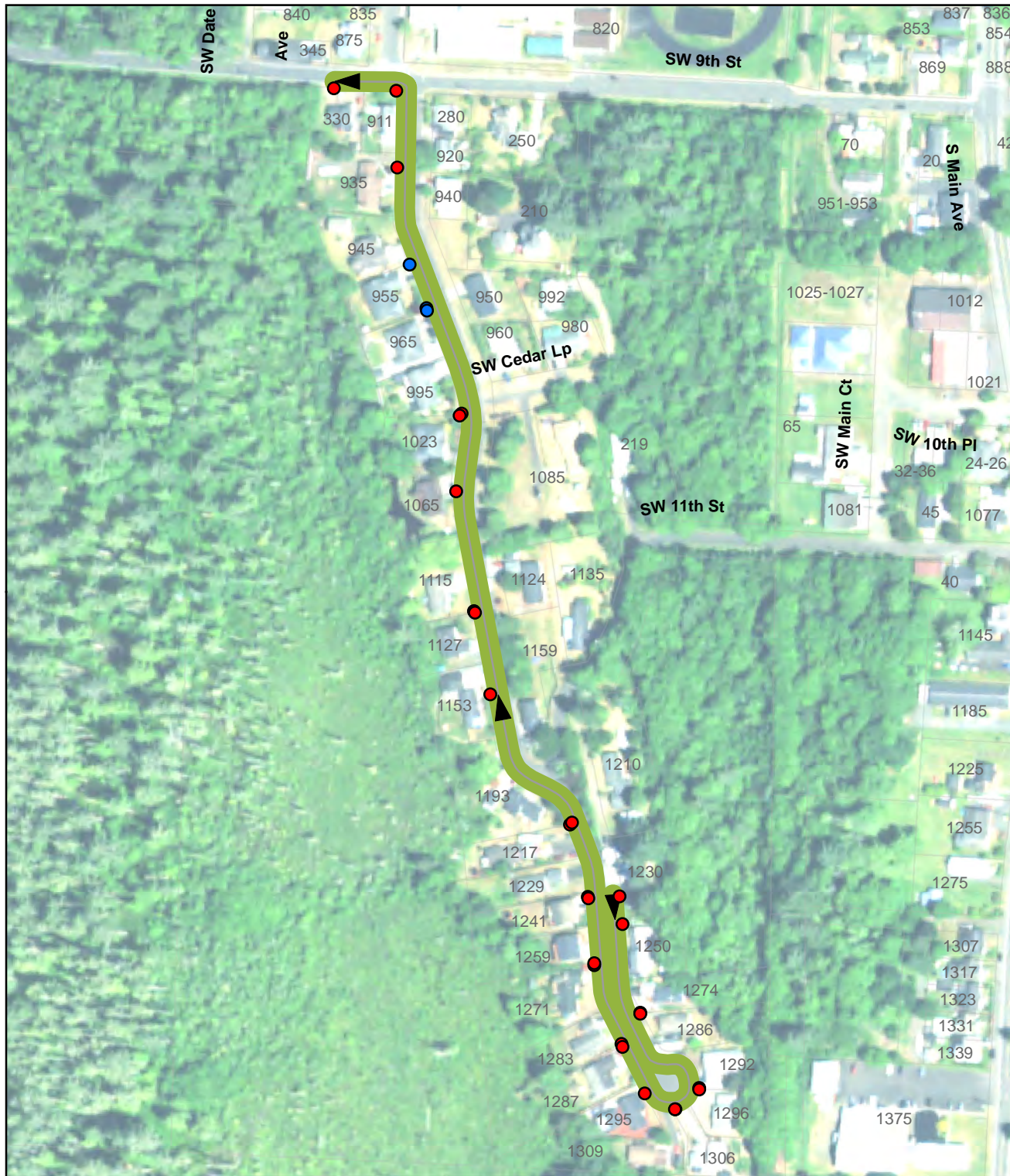
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 107
 ROUTE19 LEG1902**





LEGEND

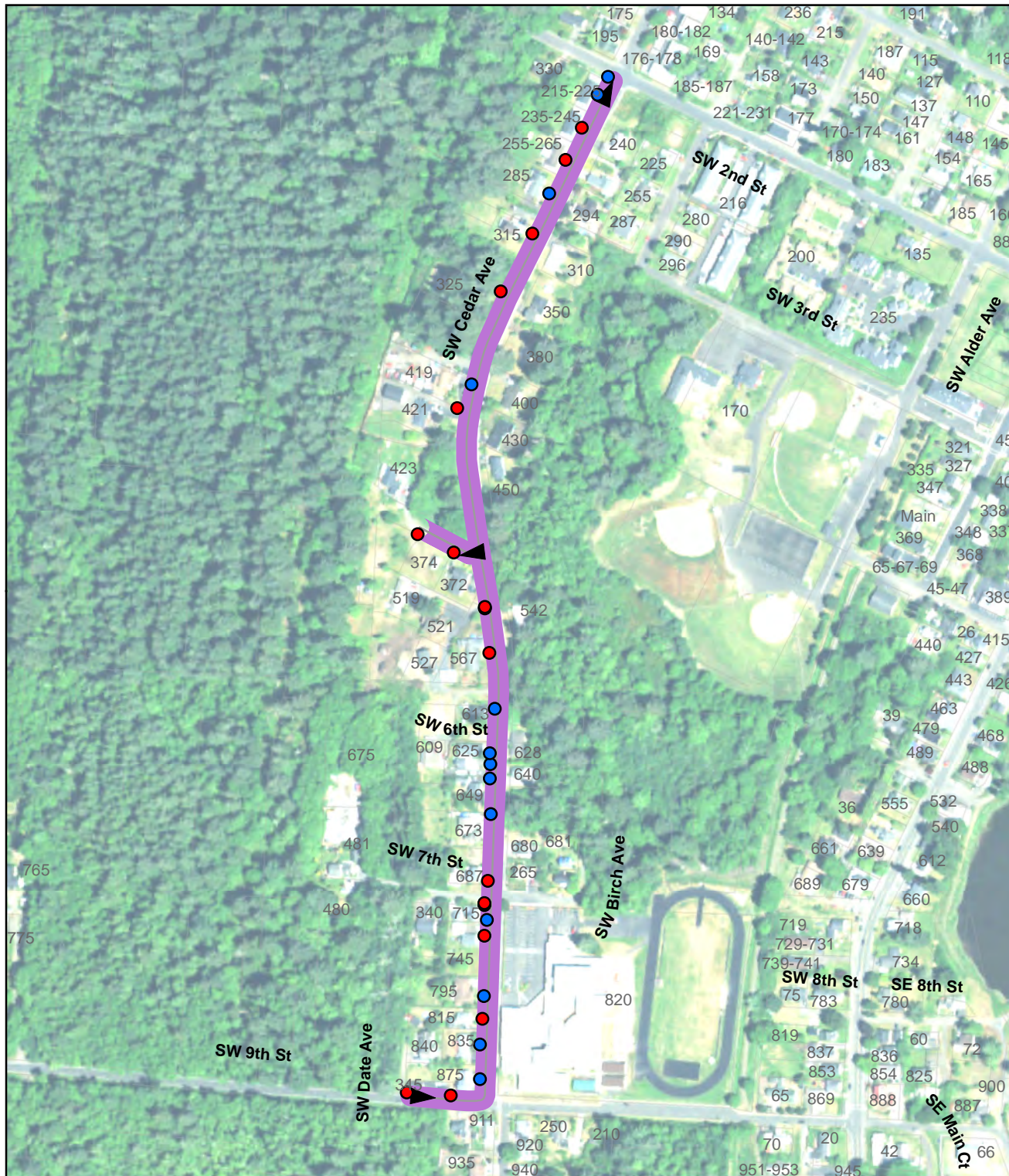
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

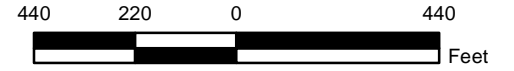
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 108
ROUTE 19 LEG 1903**





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LEGEND

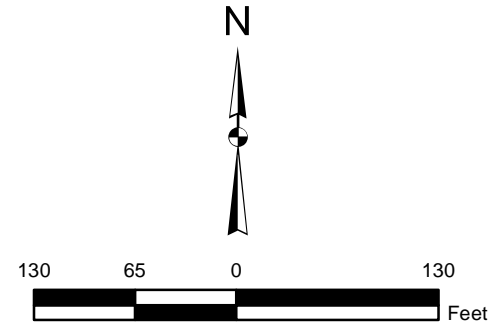
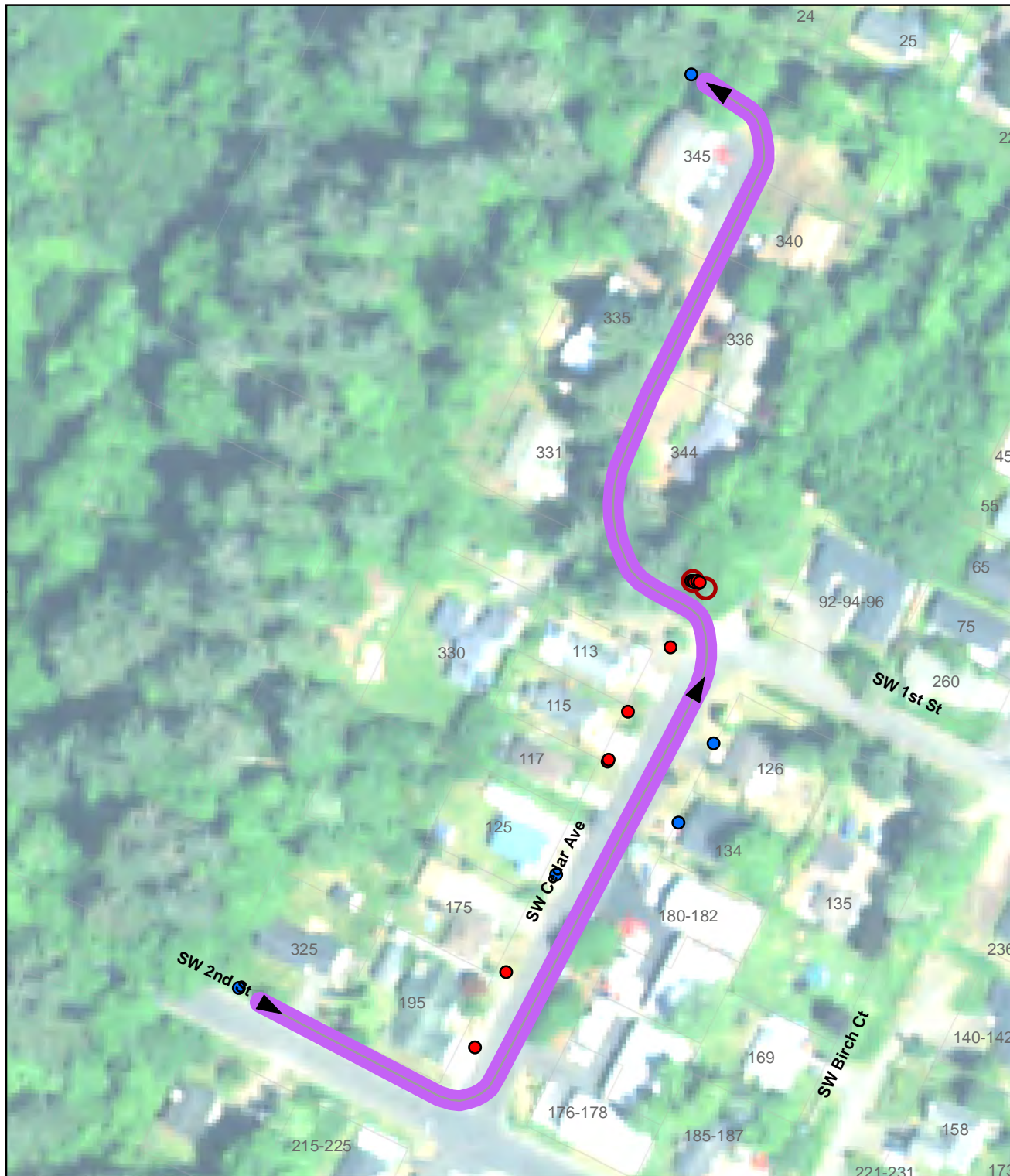
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 109
 ROUTE19 LEG1904**





LEGEND

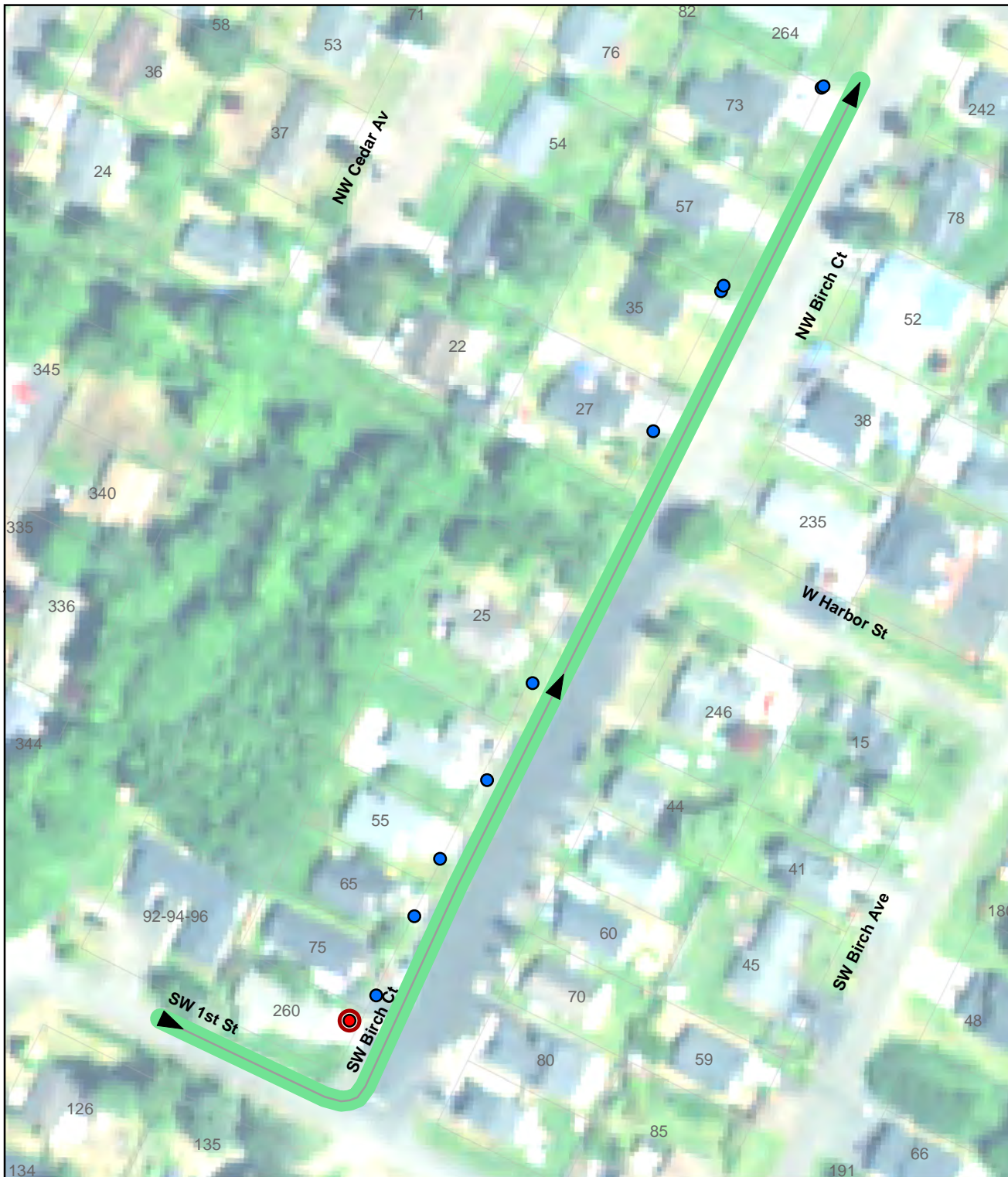
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 110
ROUTE 19 LEG 1905

Gray & Osborne, Inc.



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LEGEND

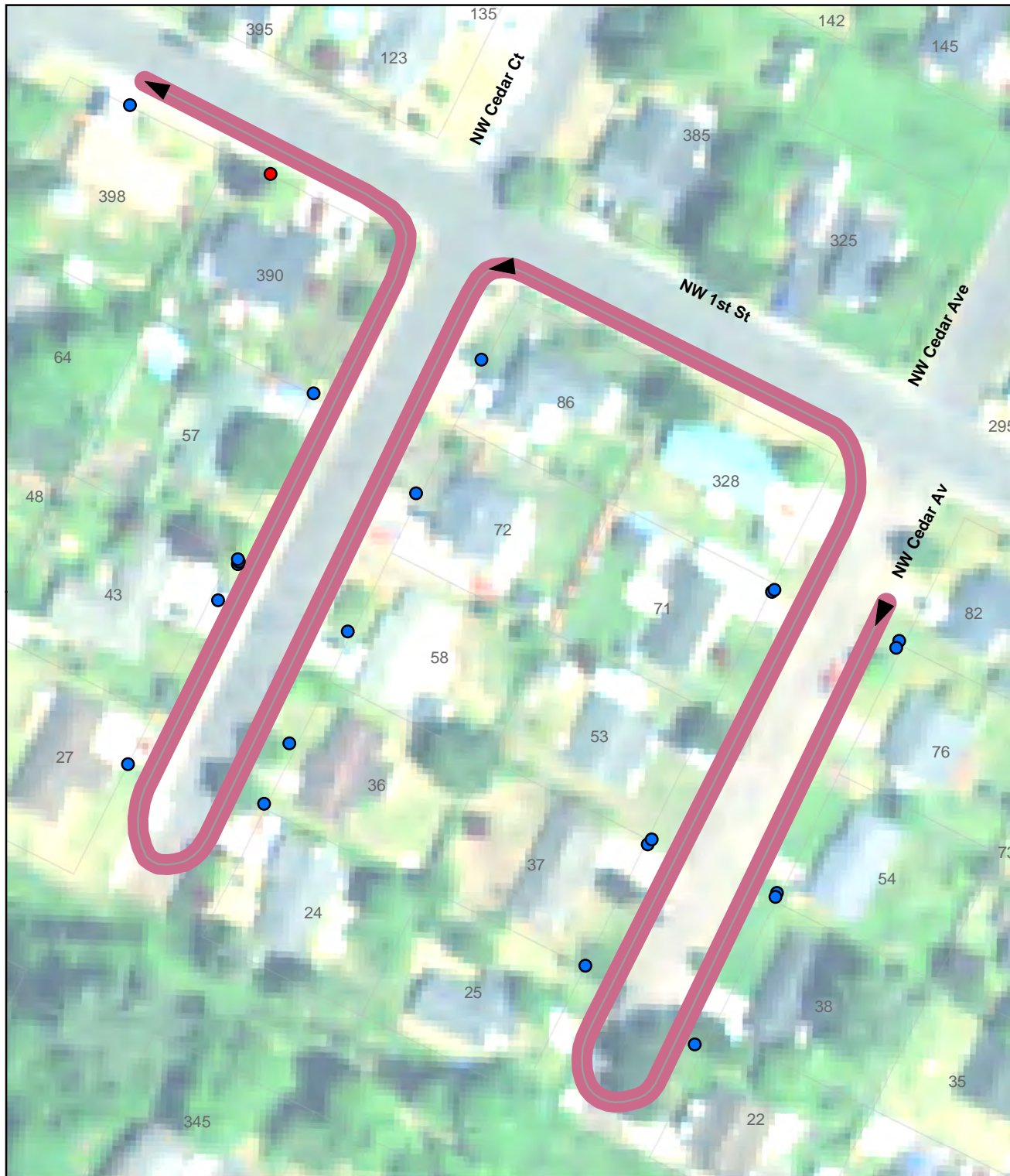
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

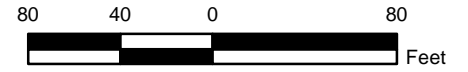
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 111
 ROUTE19 LEG1906**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 112
ROUTE19 LEG1907





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LEGEND

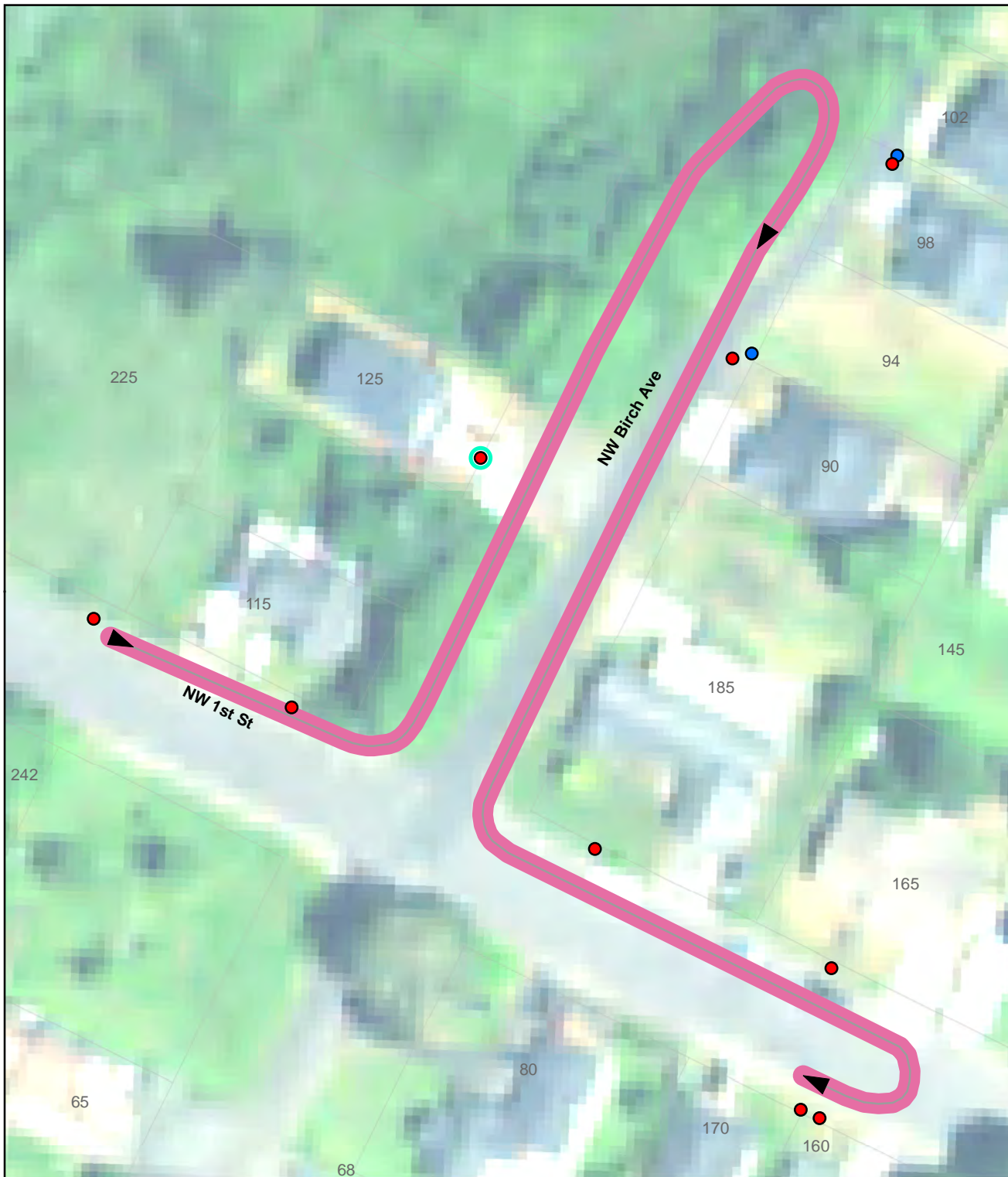
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 113
 ROUTE19 LEG1908**





LEGEND

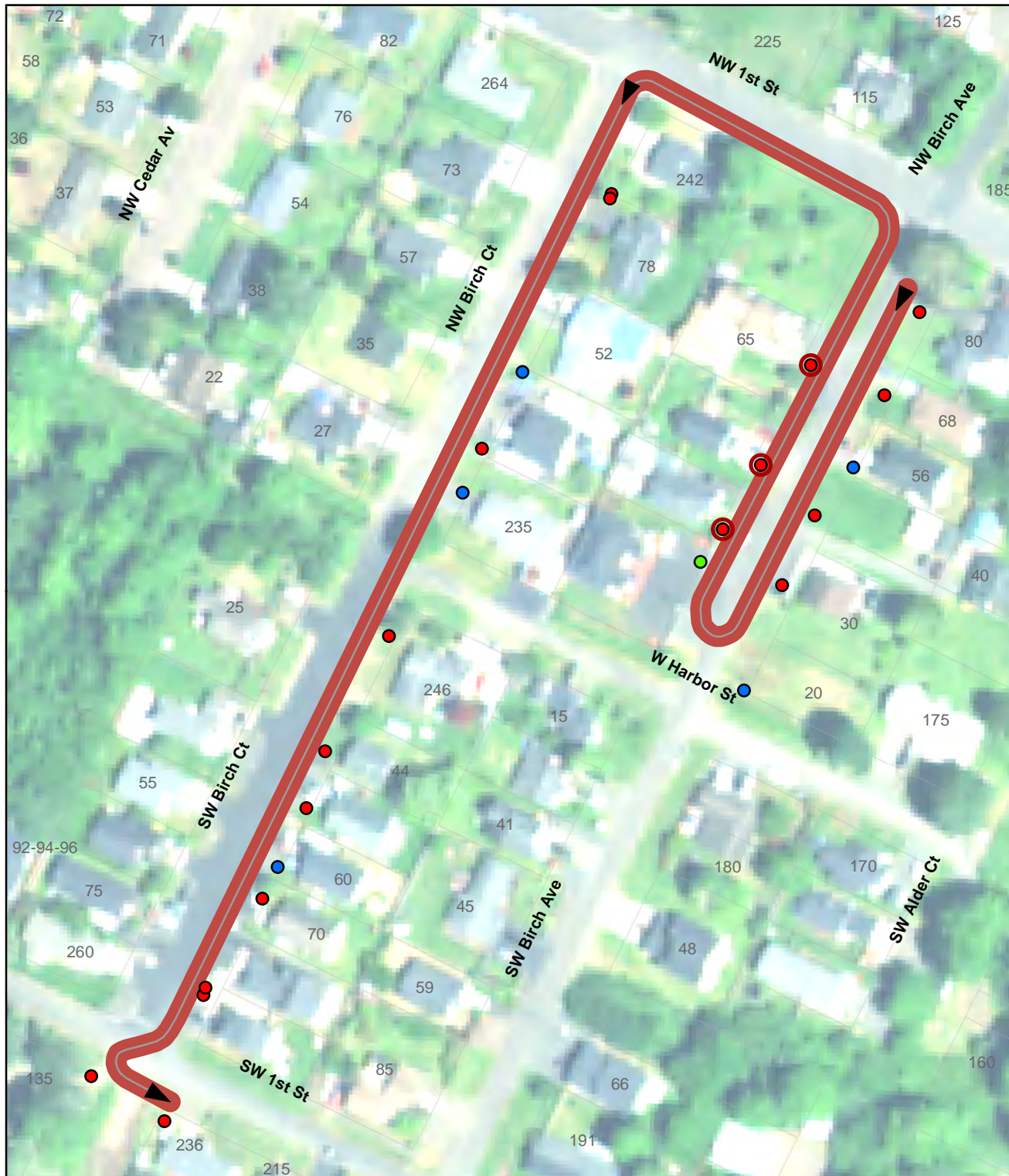
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 114
 ROUTE19 LEG1909**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 115
 ROUTE19 LEG1910**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

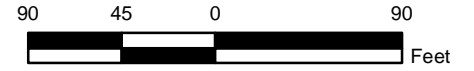
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 116
 ROUTE20 LEG2001**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 117
 ROUTE20 LEG2002**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 118
 ROUTE20 LEG2003**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 119
ROUTE20 LEG2004**





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LEGEND

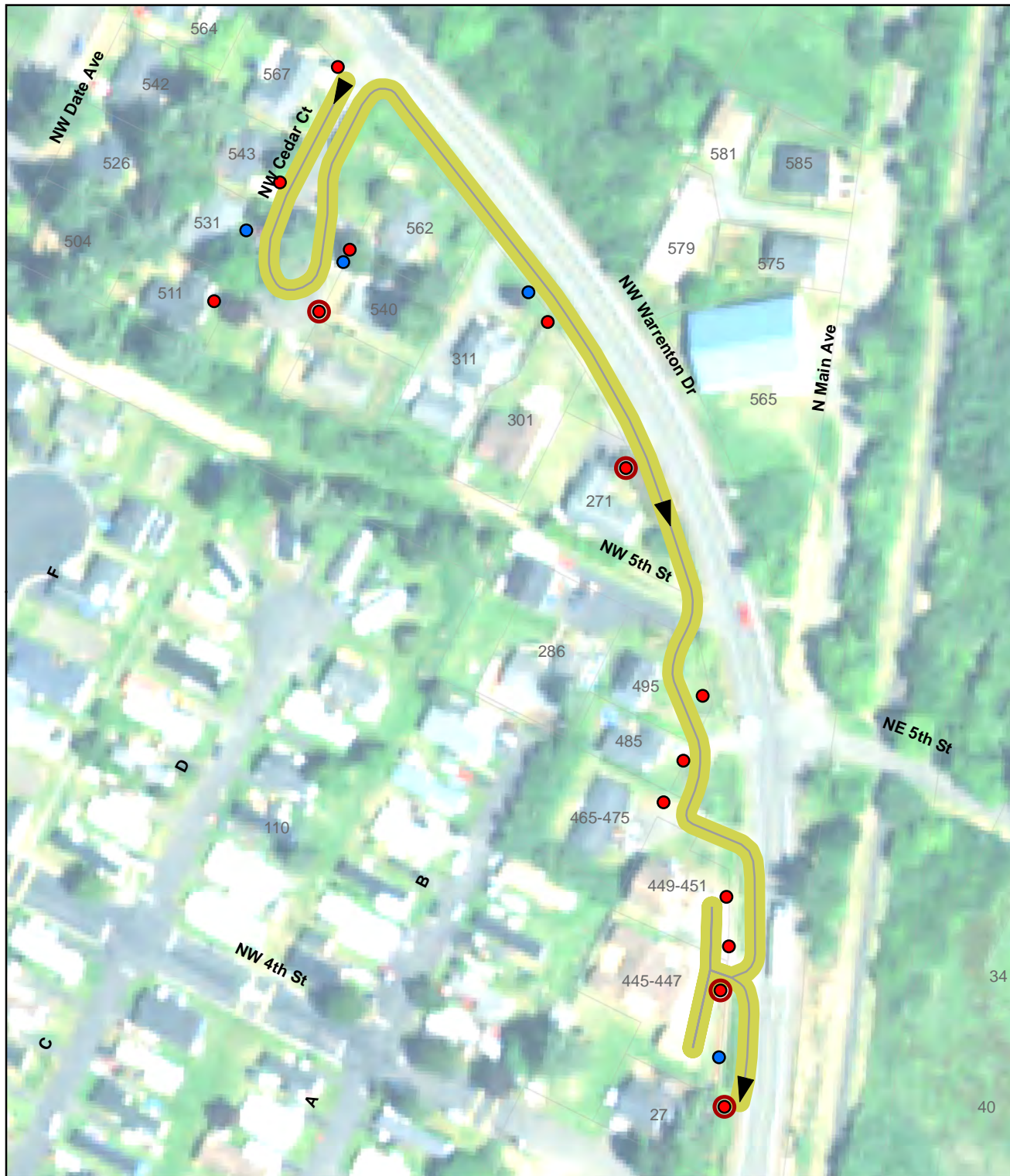
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 120
 ROUTE20 LEG2005**





LEGEND

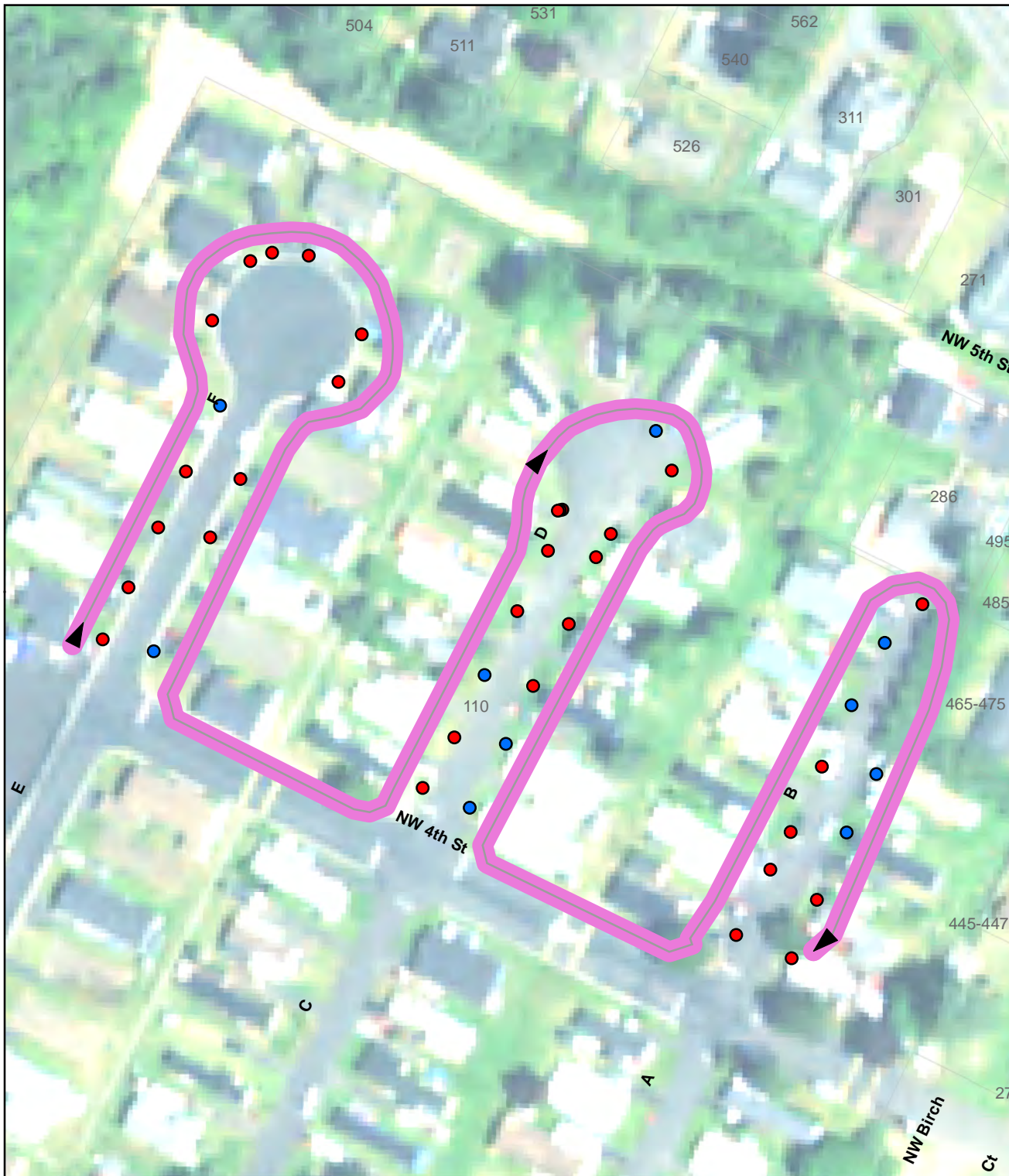
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 121
ROUTE20 LEG2006**





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LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 123
ROUTE20 LEG2008





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

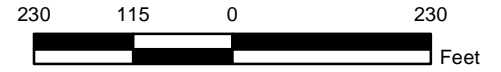
- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 124
ROUTE20 LEG2009**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 125
 ROUTE20 LEG2010**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 126
ROUTE20 LEG2011





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 127
 ROUTE21 LEG2101**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 128
 ROUTE21 LEG2102**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 129
ROUTE21 LEG2103





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 130
 ROUTE21 LEG2104**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 131
ROUTE21 LEG2105





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 132
ROUTE21 LEG2106





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 133
ROUTE21 LEG2107**





N



LEGEND

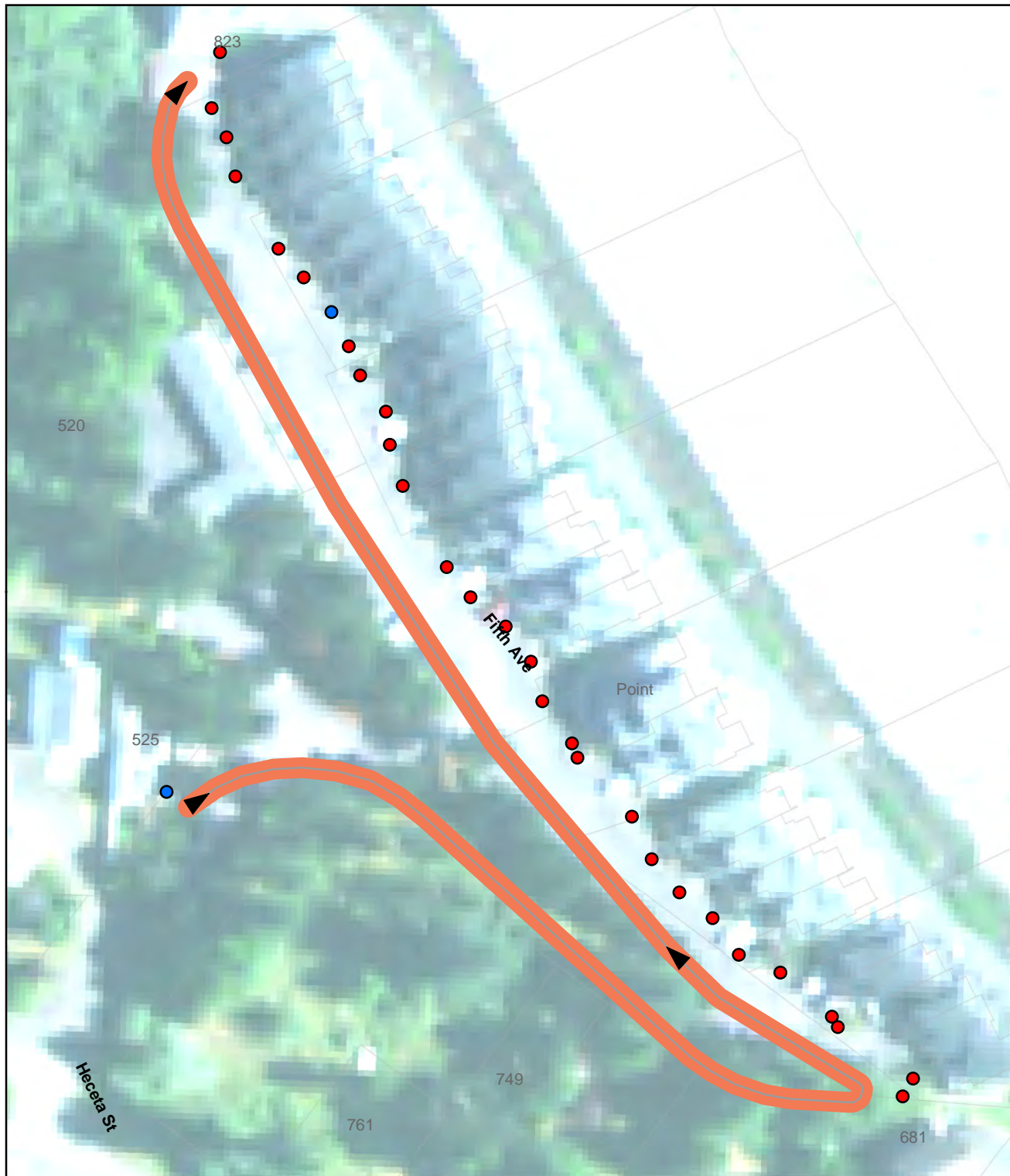
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 134
 ROUTE21 LEG2108**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 135
ROUTE21 LEG2109**





N



LEGEND

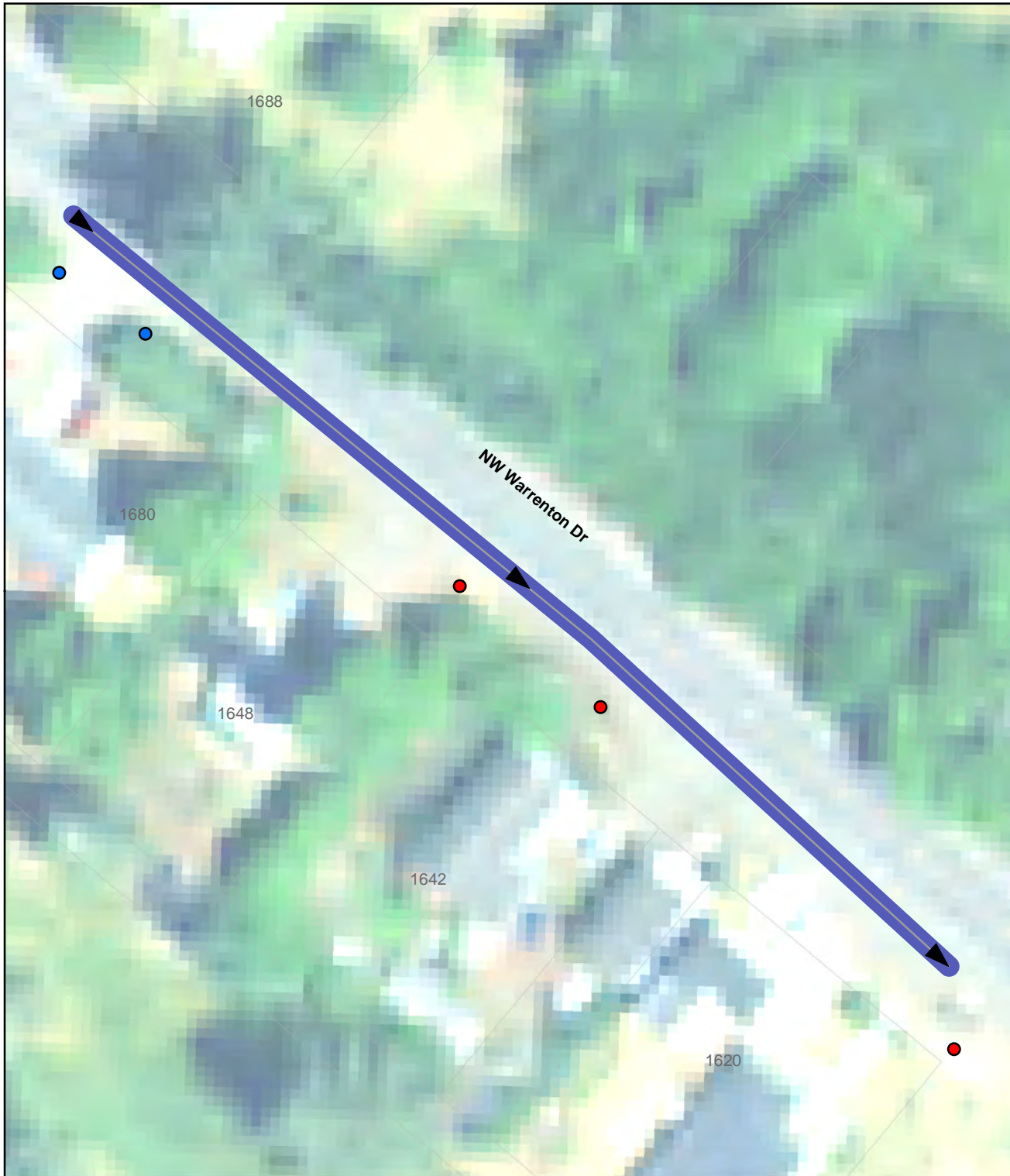
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 136
ROUTE21 LEG2110





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 137
 ROUTE21 LEG2111**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 138
ROUTE21 LEG2112





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 139
 ROUTE22 LEG2201**





LEGEND

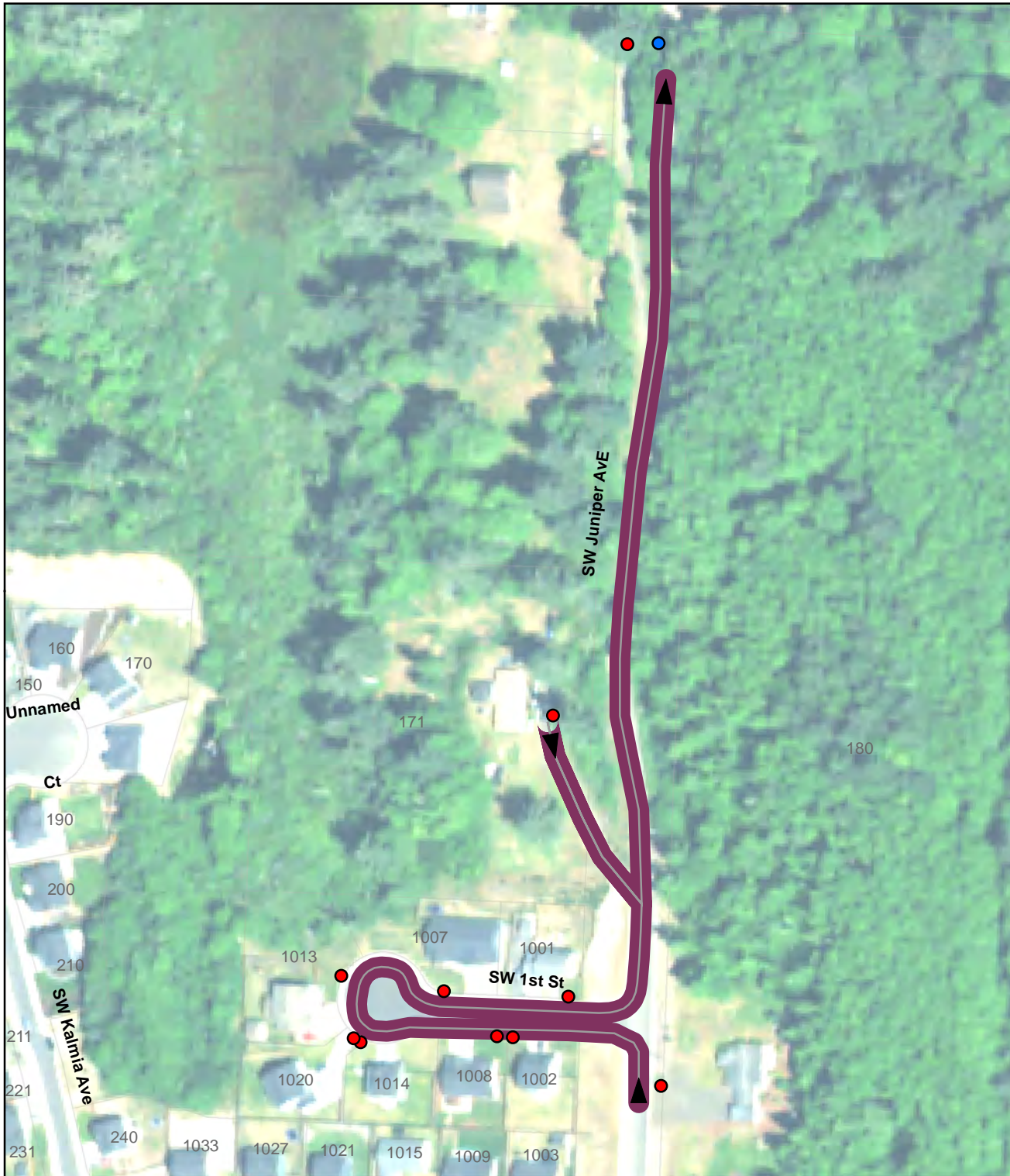
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 140
 ROUTE22 LEG2202**





LEGEND

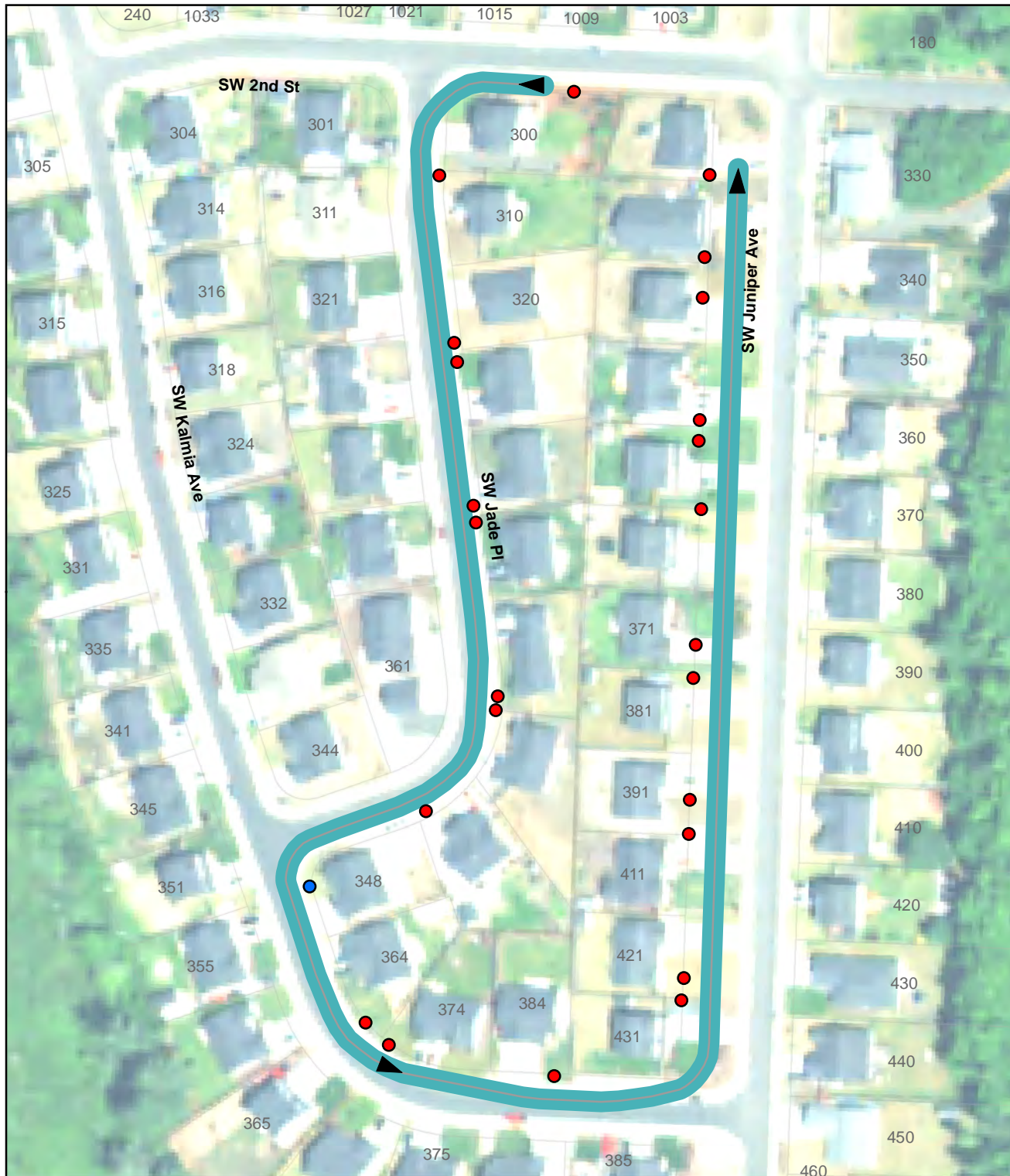
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 141
ROUTE22 LEG2203**

Gray & Osborne, Inc.



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LEGEND

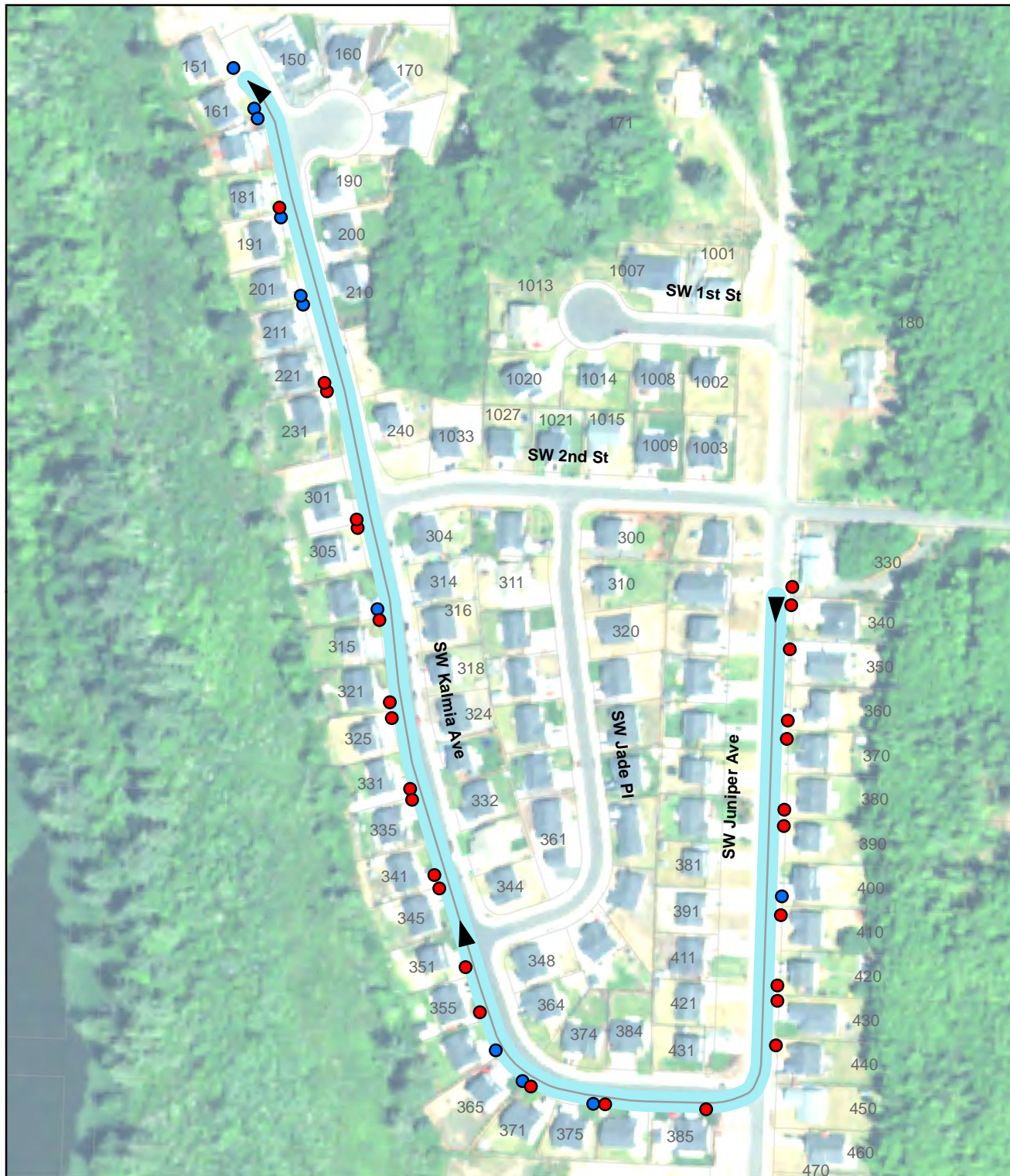
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 142
 ROUTE22 LEG2204**





LEGEND

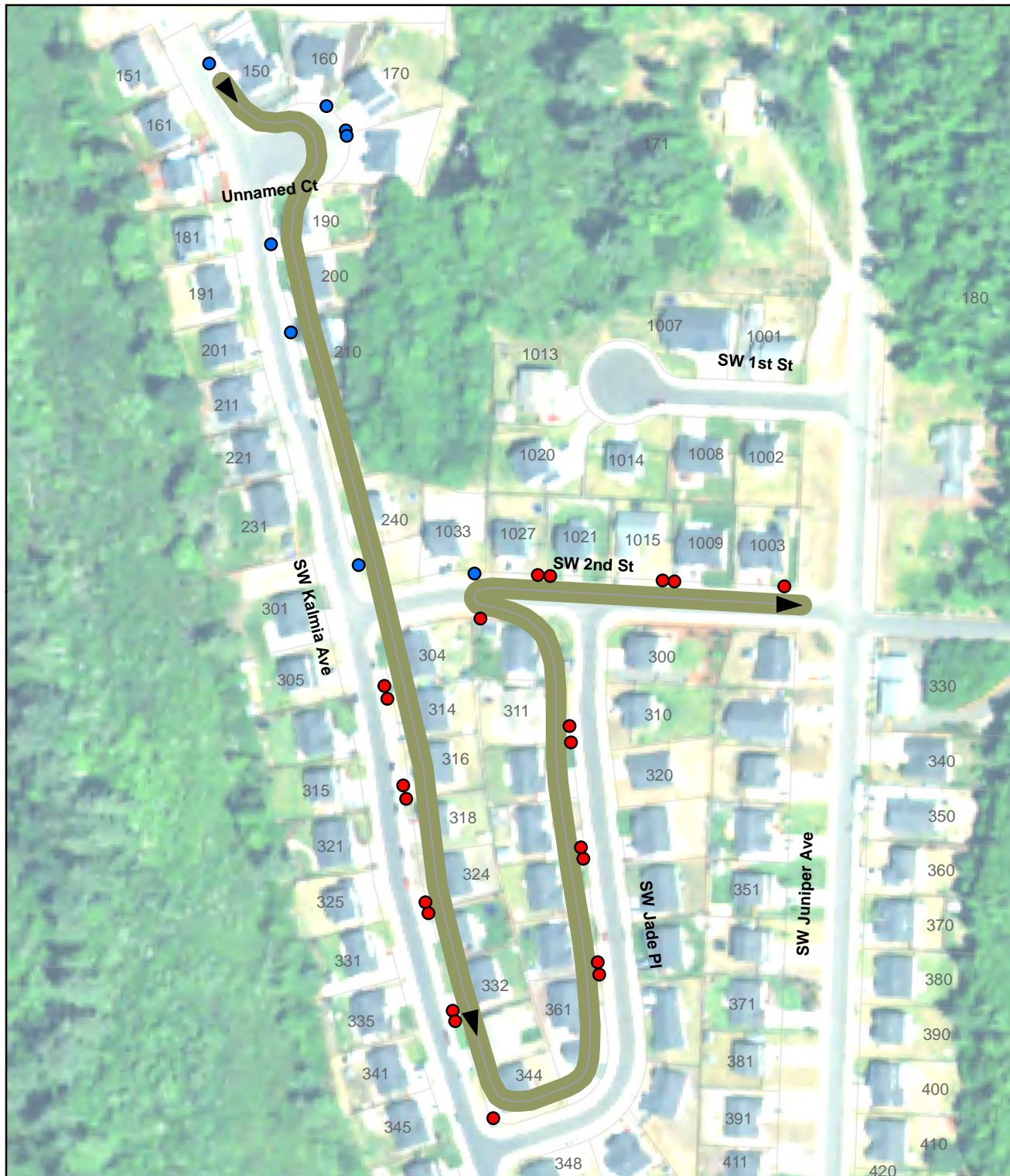
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 143
 ROUTE22 LEG2205**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 144
 ROUTE22 LEG2206**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 145
 ROUTE22 LEG2207**





N



LEGEND

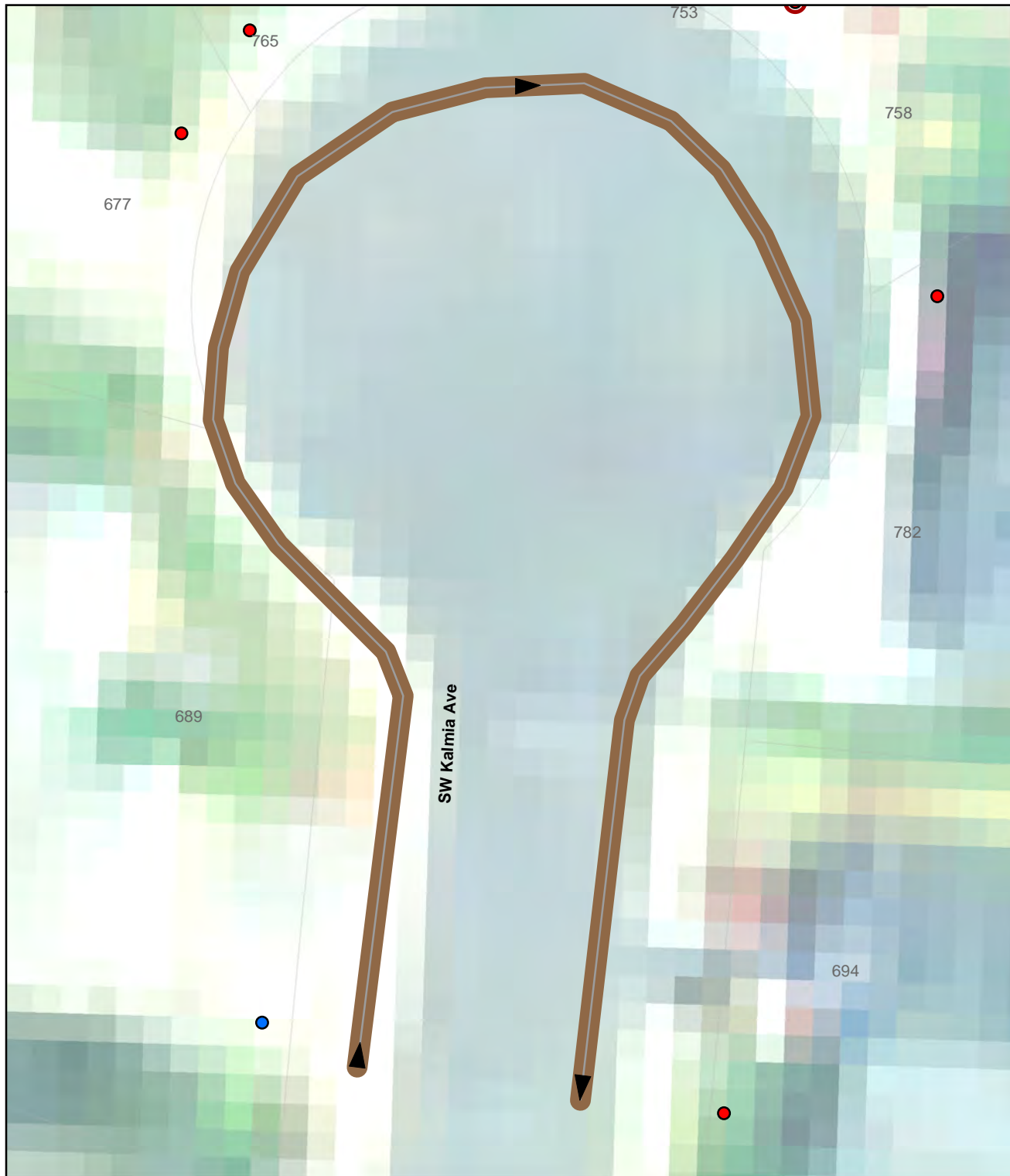
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 146
ROUTE22 LEG2208





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 147
ROUTE22 LEG2209





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 148
 ROUTE22 LEG2210**





N



LEGEND

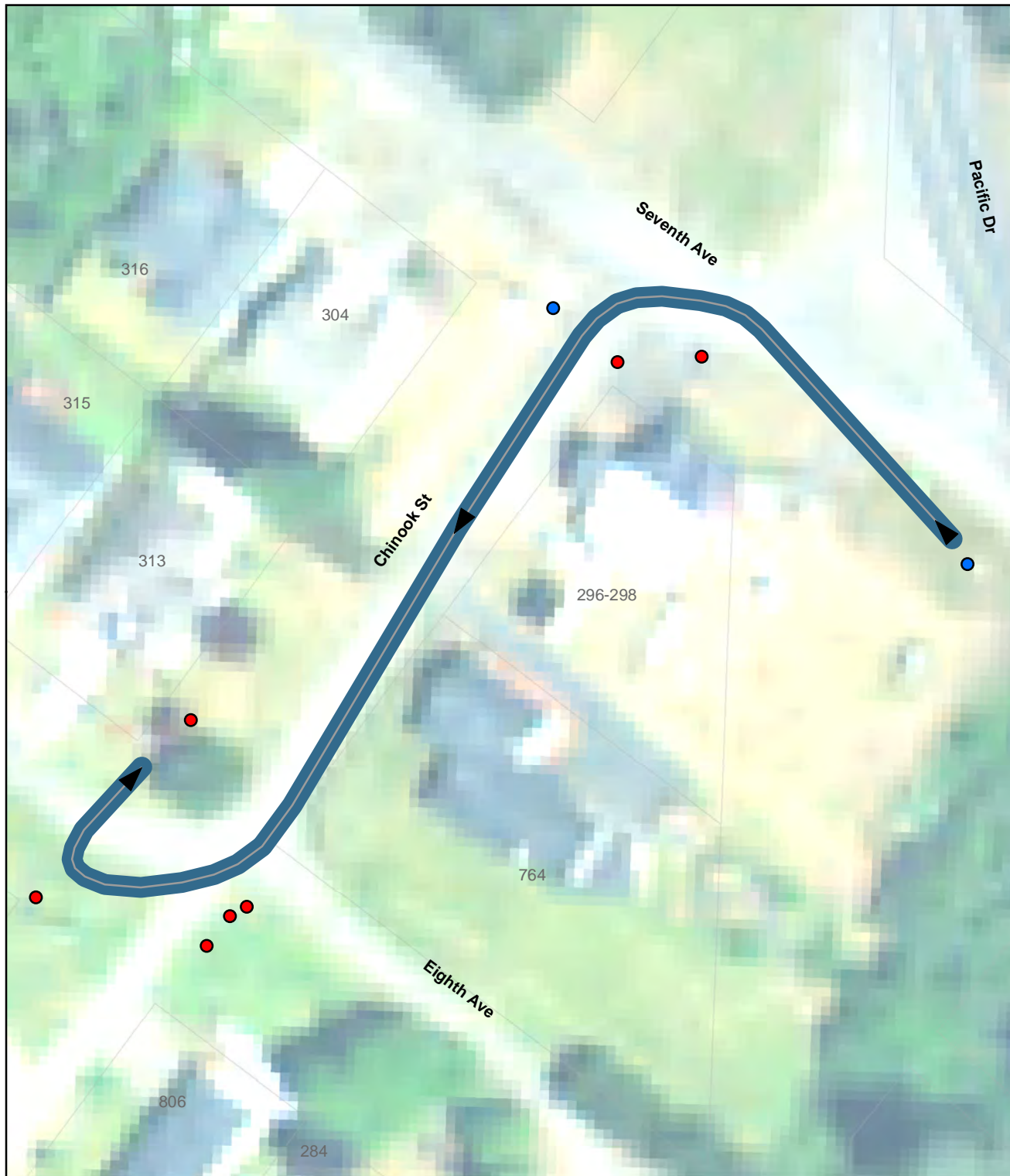
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 149
ROUTE22 LEG2211**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 150
ROUTE23 LEG2301





N



LEGEND

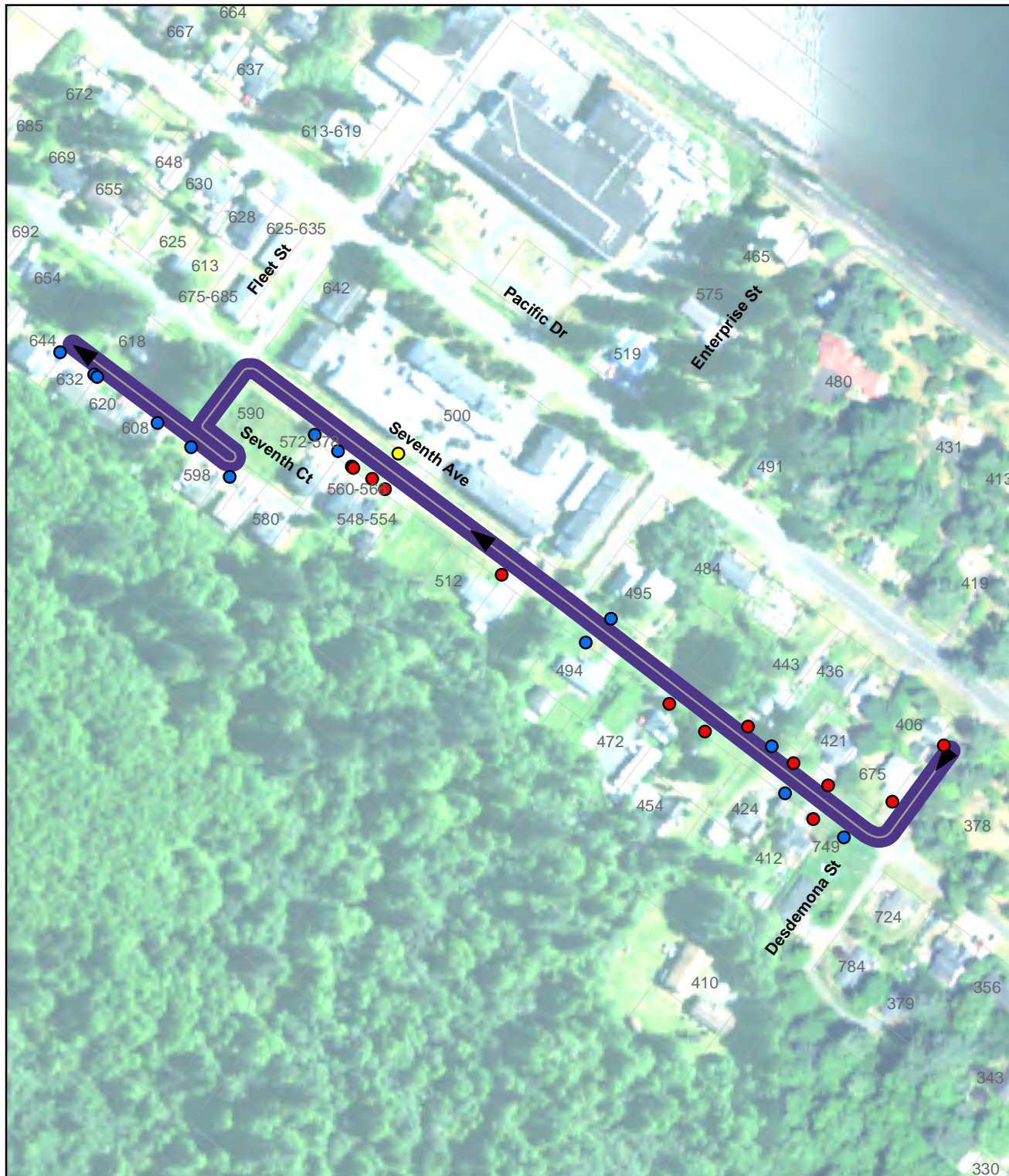
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 151
 ROUTE23 LEG2302**





N



LEGEND

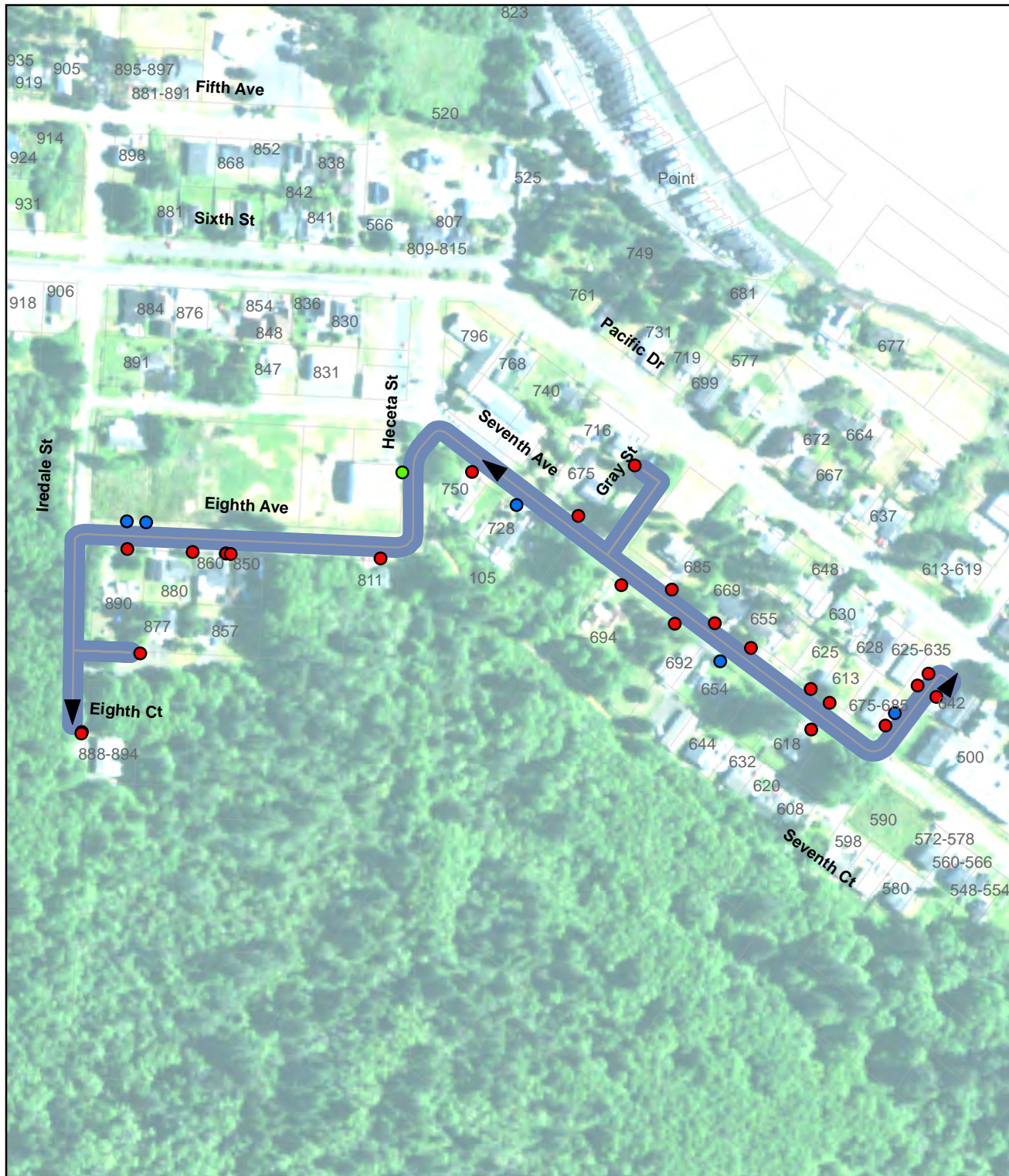
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 152
 ROUTE23 LEG2303**





LEGEND

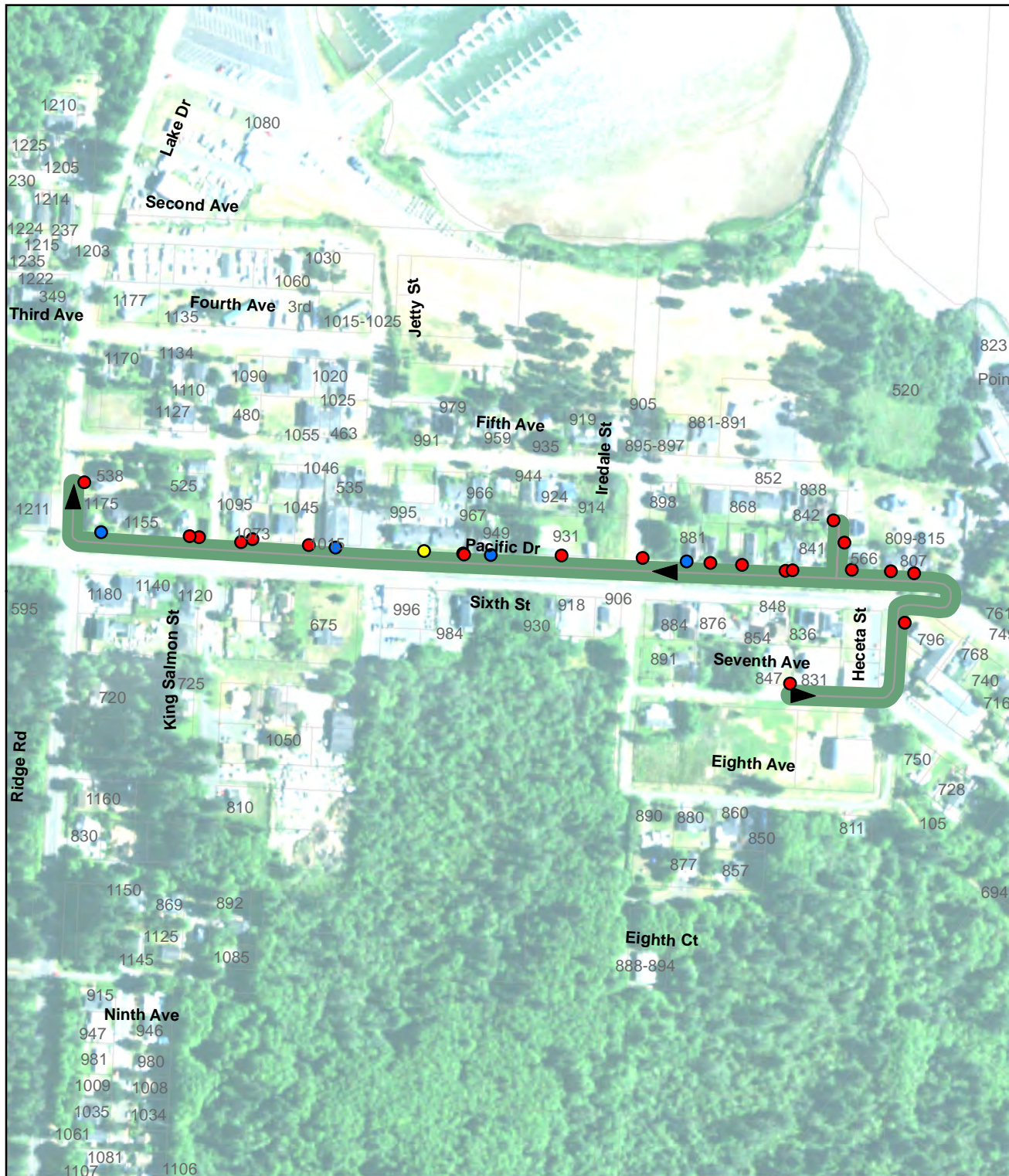
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 153
 ROUTE23 LEG2304**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 154
 ROUTE23 LEG2305**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 155
 ROUTE23 LEG2306**





N



LEGEND

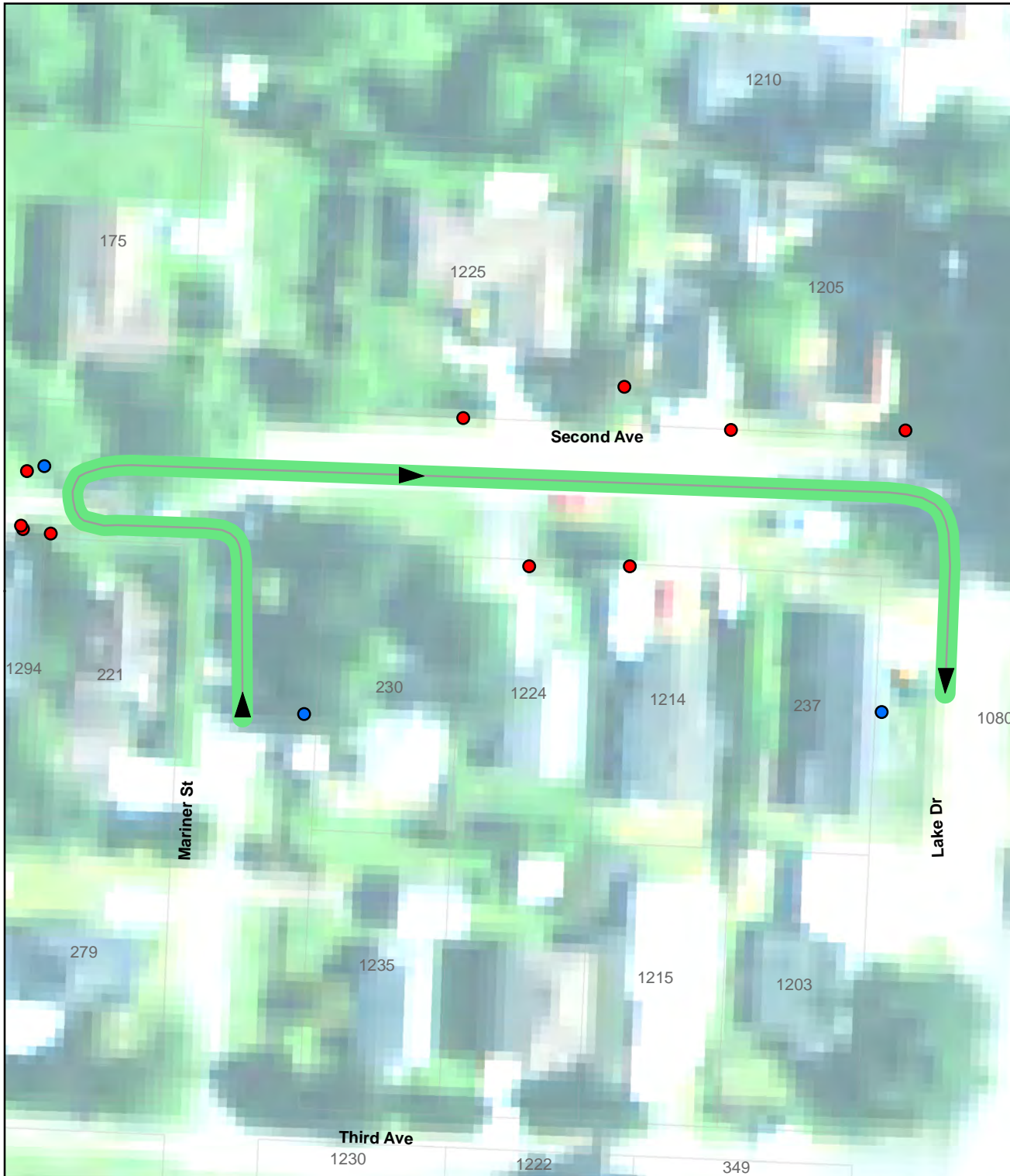
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 156
 ROUTE23 LEG2307**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 157
 ROUTE23 LEG2308**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 158
 ROUTE23 LEG2309**





LEGEND

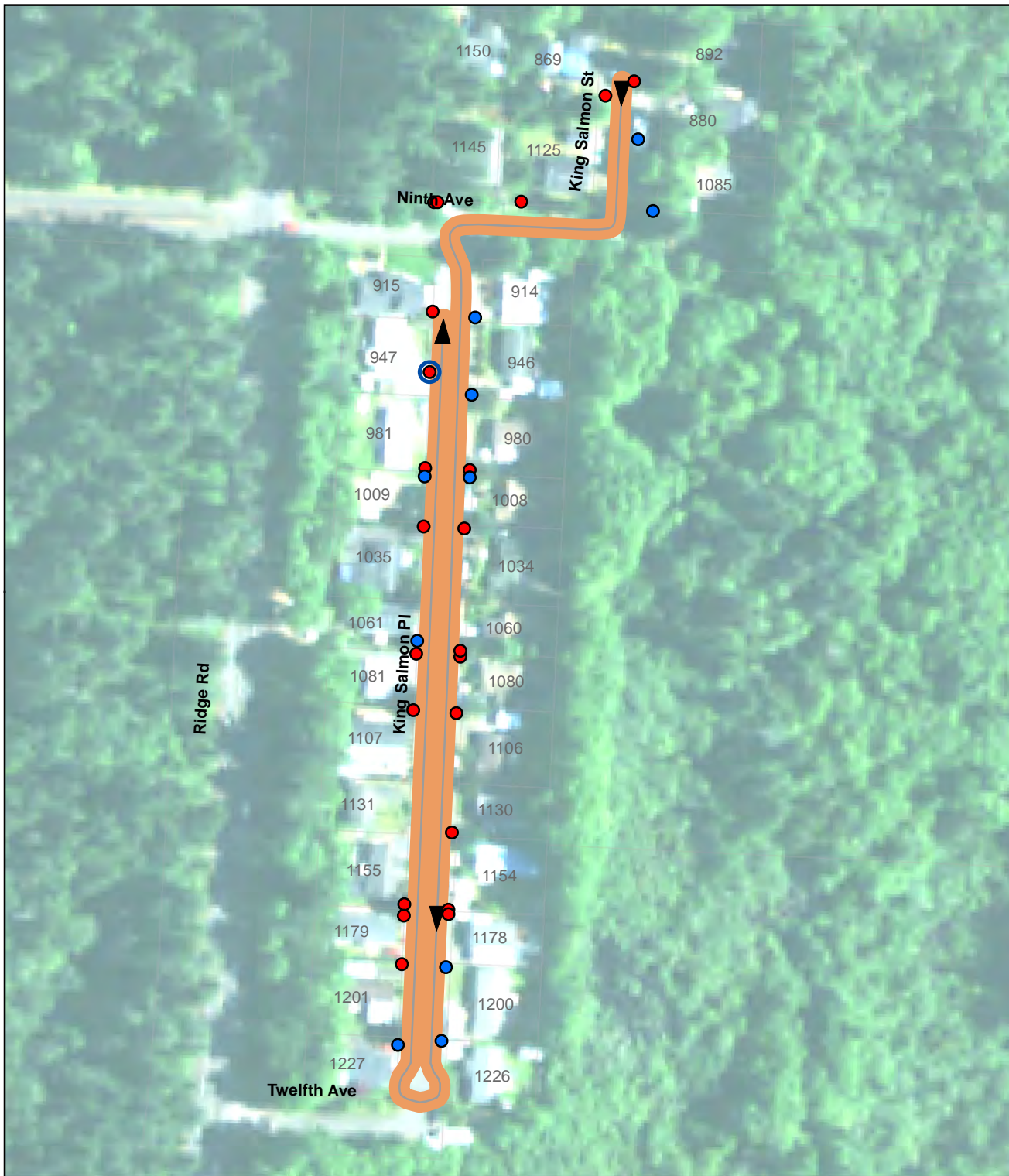
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 159
ROUTE23 LEG2310**





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LEGEND

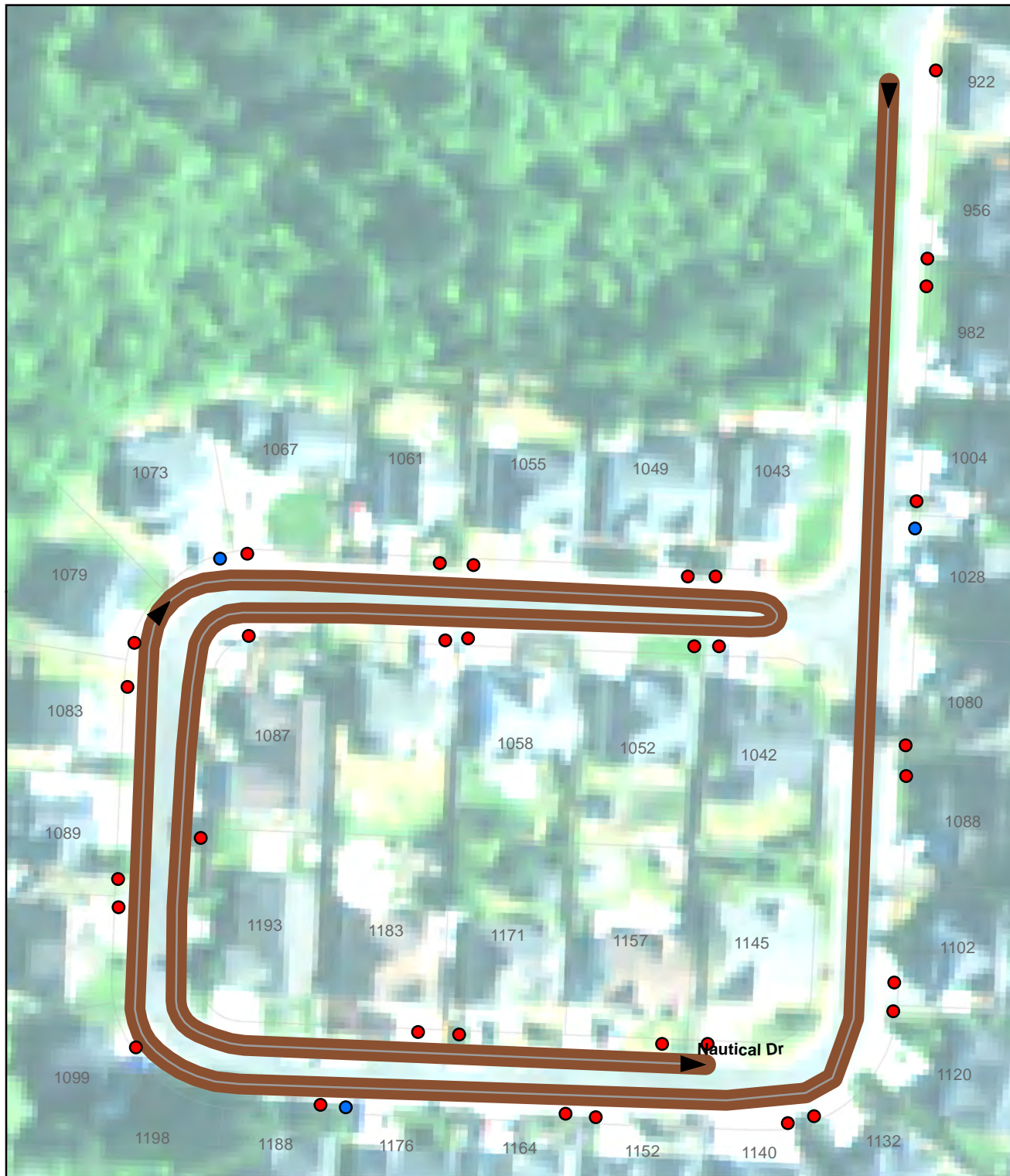
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 160
ROUTE24 LEG2401





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 161
ROUTE24 LEG2402**





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LEGEND

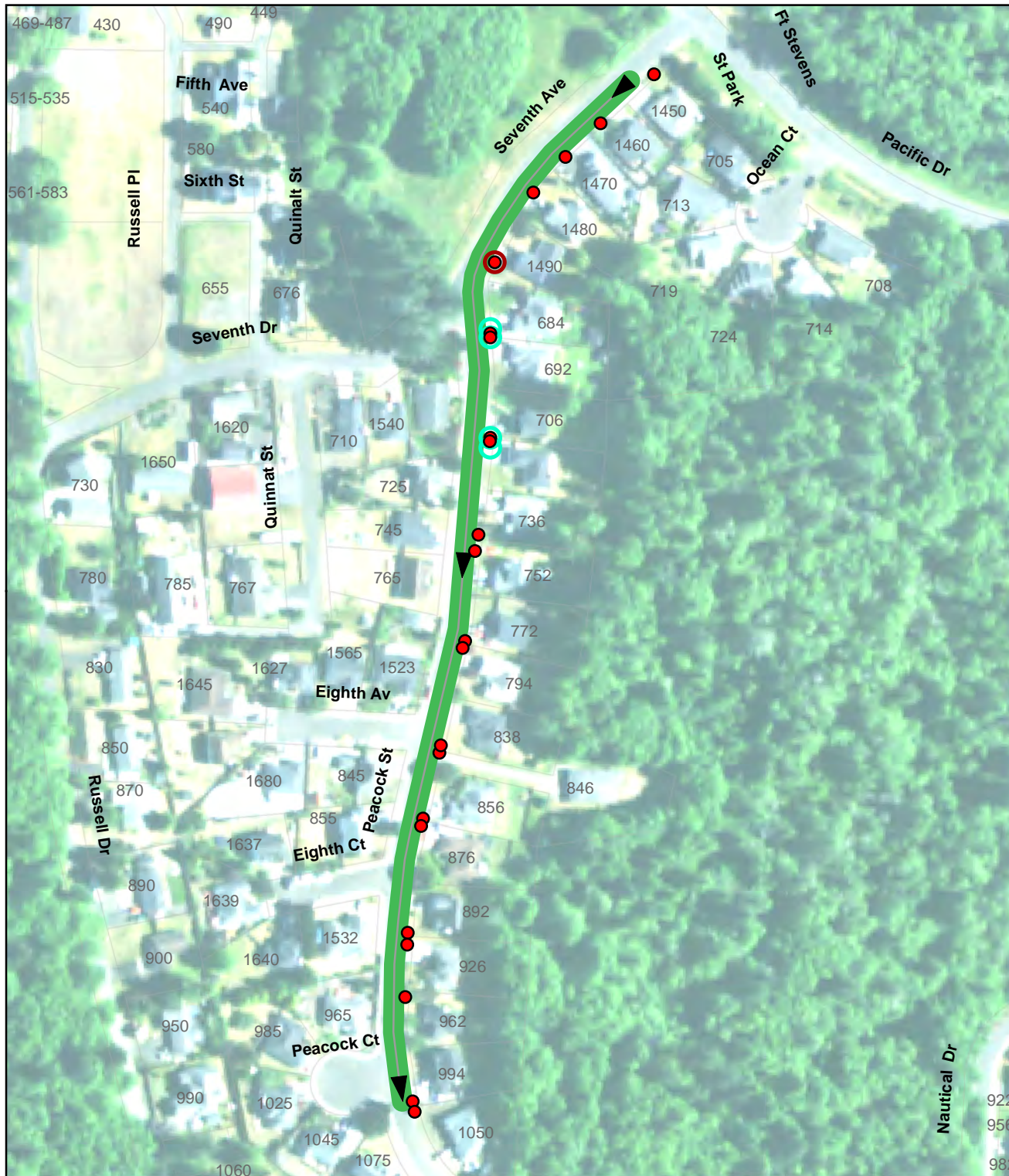
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 162
ROUTE24 LEG2403





LEGEND

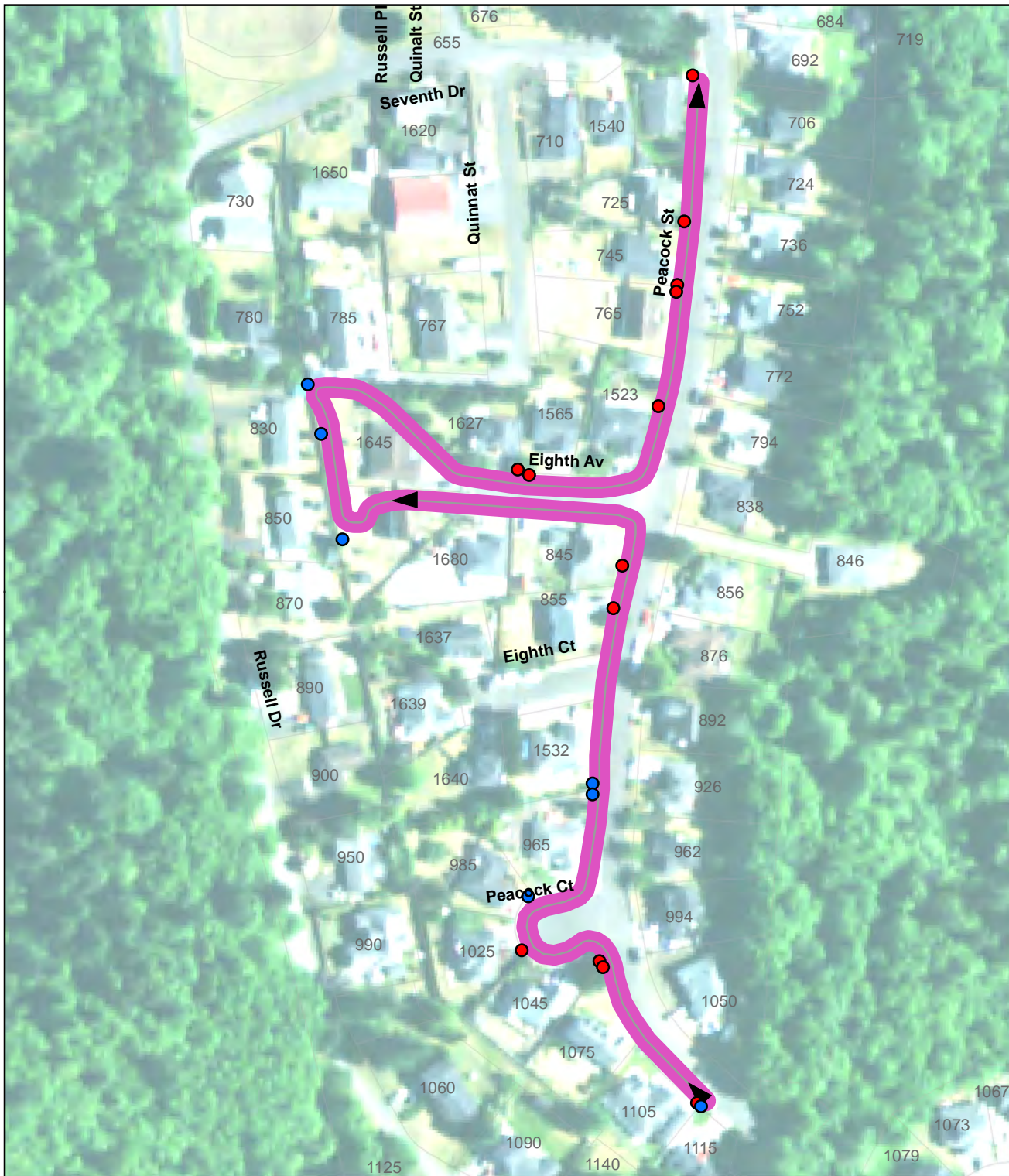
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 163
 ROUTE24 LEG2404**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 164
 ROUTE24 LEG2405**





LEGEND

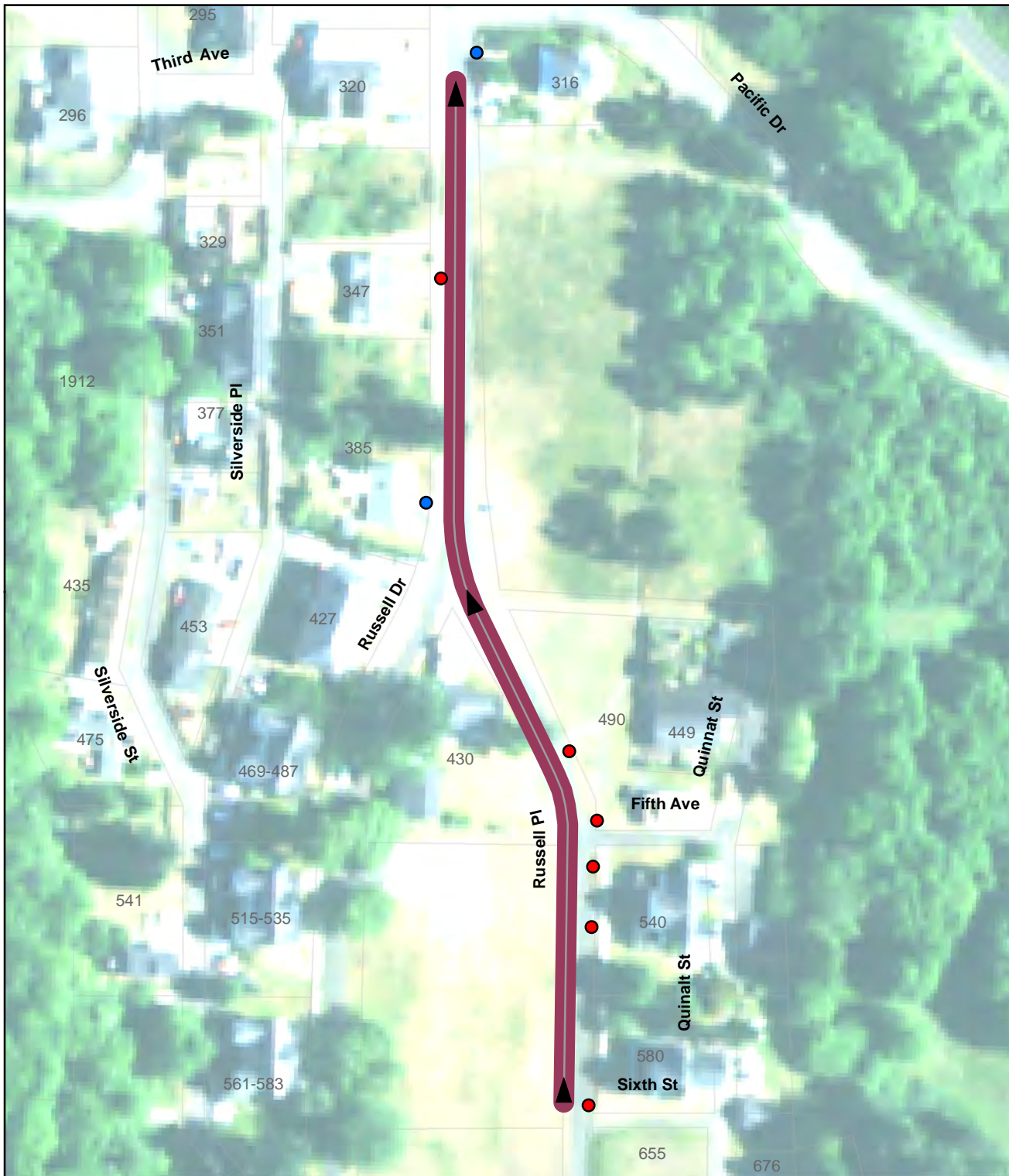
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 165
 ROUTE24 LEG2406**





N



LEGEND

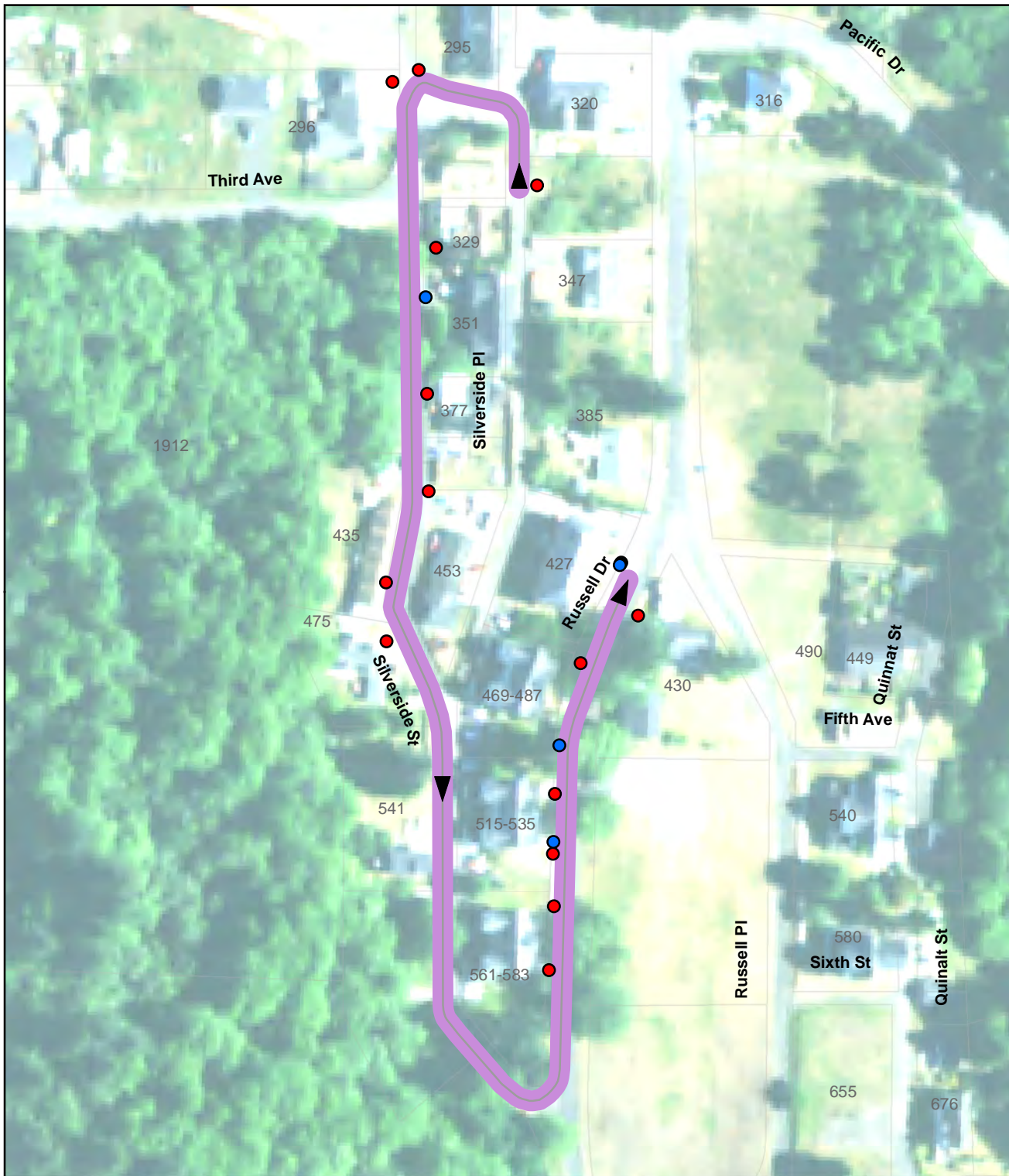
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 166
ROUTE24 LEG2407**





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LEGEND

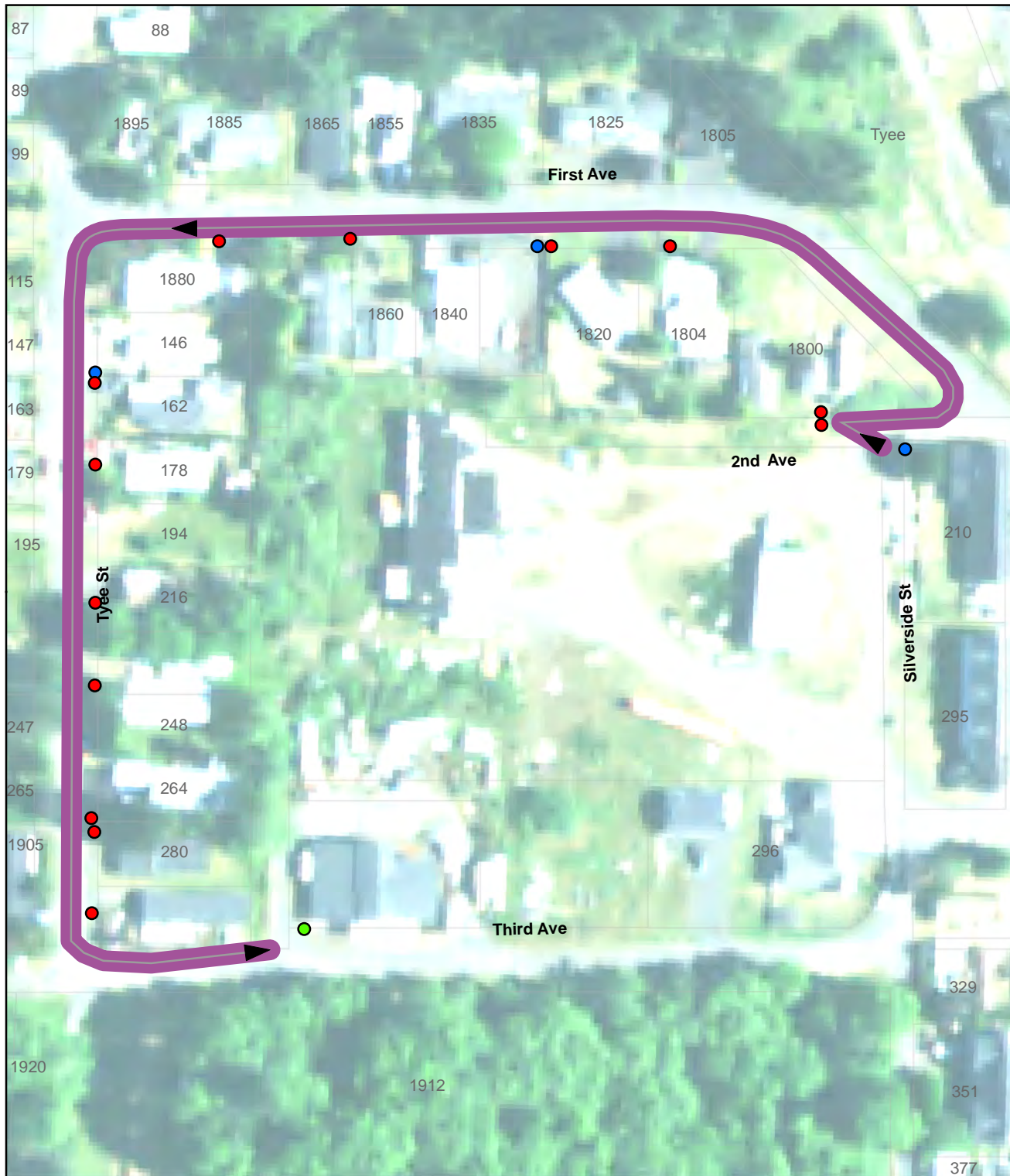
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 167
 ROUTE24 LEG2408**





LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 168
 ROUTE24 LEG2409**





N



LEGEND

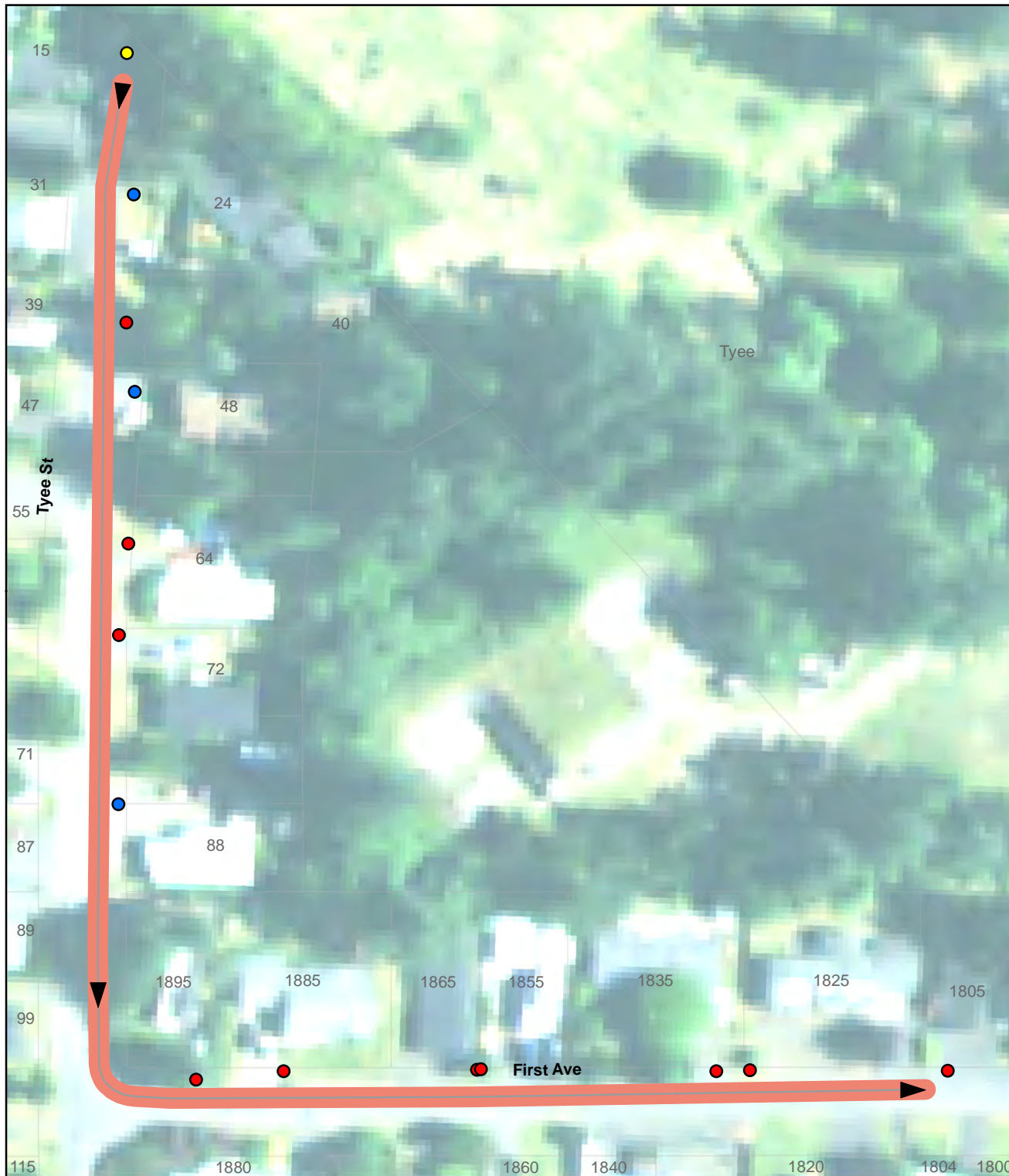
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 169
ROUTE24 LEG2410**





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LEGEND

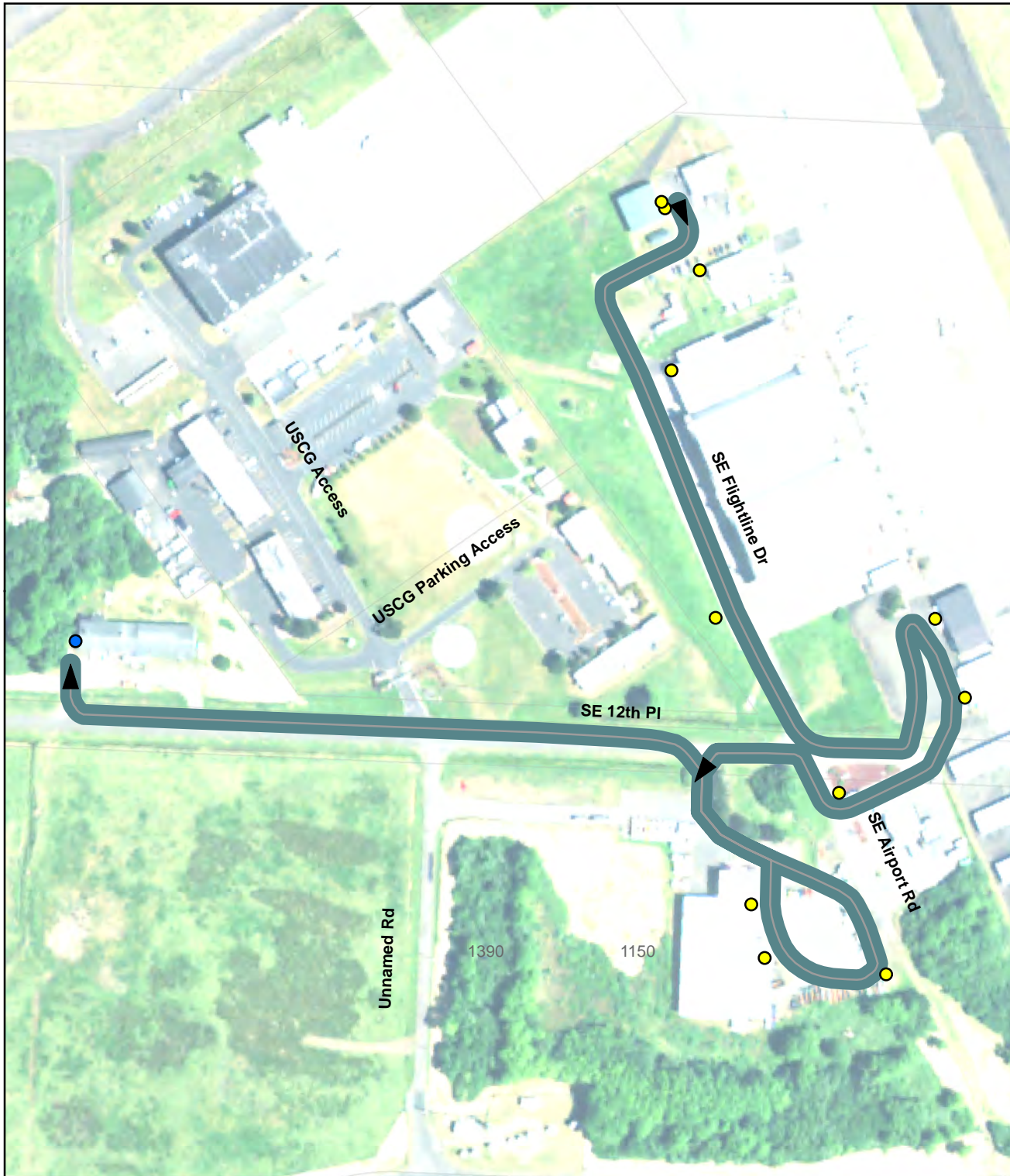
- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER
- ▭ TAX LOTS

METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

**CITY OF WARRENTON
 WATER METER
 REPLACEMENT PROJECT
 FIGURE 170
 ROUTE24 LEG2411**





N



LEGEND

- EX. AMR, VARYING SIZES
- EX. DIRECT READ, VARYING SIZES
- EX. RADIO, VARYING SIZES
- EX. TOUCH PAD, VARYING SIZES
- REPLACE 0.75" METER
- REPLACE 1" METER

▭ TAX LOTS

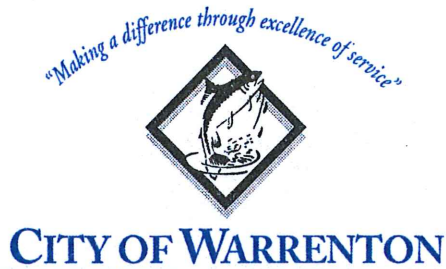
METER ISSUES

- DEEP METER (ELEVATE)
- SHALLOW METER (LOWER)
- IN ASPHALT
- IN CONCRETE
- NEEDS NEW BOX
- NEEDS NEW BOX AND DEEP METER
- NEEDS NEW BOX AND IN ASPHALT
- NEEDS NEW BOX AND IN CONCRETE

CITY OF WARRENTON
WATER METER
REPLACEMENT PROJECT
FIGURE 171
ROUTE25 LEG2501



7-D



AGENDA MEMORANDUM

TO: The Warrenton City Commission
FROM: Linda Engbretson, City Manager *Lucy*
DATE: November 14, 2017
SUBJ: Homeland Security Grant

SUMMARY

Chief Demers and I met with Tiffany Brown, Director Clatsop County Emergency Mgmt., on Friday, November 3. The purpose was to check in and talk about various emergency preparedness activities in the County and Warrenton. As I have previously mentioned to you, Chief Demers is working with Tiffany and Cannon Beach to jointly apply for a Homeland Security Grant for placement of the six sirens we obtained earlier this year from the County. I also explained I had requested from several consultants a cost associated with updating our Emergency Operations Plan (EOP), which was prepared in 2010. It appears the cost will be \$15,000 - \$20,000 depending on detail. Tiffany stated the City could apply for a Homeland Security Grant to update the EOP.

I would like to contract with someone to write the grant. The deadline is coming up fast and should be in to the County the beginning of January. It will be helpful to get assistance to complete the application process. We have room in our Professional Services budget to cover the cost of a grant writer.

RECOMMENDATION/SUGGESTED MOTION

"I authorize staff to go through an informal solicitation and request proposals to write a Homeland Security Grant application to update the City's EOP."

ALTERNATIVE

Other action as deemed appropriate by the City Commission

FISCAL IMPACT

Professional Services budget.