Department of State Lands
775 Summer Street, Suite 100
Salem, OR 97301-1279
☎ 503-986-5200

Permit No.:	**59822-RF**
Permit Type:	**Removal/Fill**
Waterway:	**Wetland**
County:	**Linn**
Expiration Date:	**July 19, 2019**

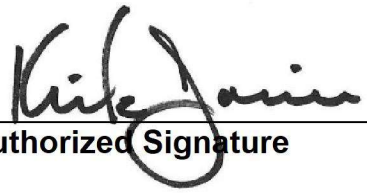
CITY OF ALBANY

IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE ATTACHED COPY OF THE APPLICATION, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:

1. This permit does not authorize trespass on the lands of others. The permit holder shall obtain all necessary access permits or rights-of-way before entering lands owned by another. For new linear facility projects, the removal-fill activity cannot occur until the permit holder obtains either the landowner's consent, a right, title or interest with respect to the property that is sufficient to undertake the removal or fill activity, or a court order or judgment authorizing the use of the property.
2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.
3. All work done under this permit shall comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.
4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action, which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.
5. Employees of the Department of State Lands (DSL) and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.
6. Any permit holder who objects to the conditions of this permit may request a hearing from the Director, in writing, within twenty-one (21) calendar days of the date this permit was issued.
7. In issuing this permit, DSL makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project's design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390, and related administrative rules.
8. Permittee shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.
9. Authorization from the U.S. Army Corps of Engineers may also be required.

NOTICE: If removal is from state-owned submerged and submersible land, the permittee shall comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you shall comply with ORS 274.905 to 274.940 if you want a transfer of title; public rights to such filled lands are not extinguished by issuance of this permit. This permit does not relieve the permittee of an obligation to secure appropriate leases from DSL to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact Department of State Lands, 503-986-5200.

Kirk Jarvie, Southern Region Manager
Aquatic Resource Management
Oregon Department of State Lands



Authorized Signature

July 19, 2018
Date Issued

ATTACHMENT A

Permit Holder: City of Albany

Project Name: Somerset Extension Subdivision

Special Conditions for Removal/Fill Permit No. 59822-RF

READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT.

The project site may be inspected by the Department of State Lands (DSL) as part of our monitoring program. DSL has the right to stop or modify the project at any time if you are not in compliance with these conditions. A copy of this permit shall be available at the work site whenever authorized operations are being conducted.

1. **Responsible Party:** By signature on the application, Ron Irish is acting as the representative of City of Albany. By proceeding under this permit, City of Albany agrees to comply with and fulfill all terms and conditions of this permit, unless the permit is officially transferred to another party as approved by DSL.

2. **Authorization to Conduct Removal and/or Fill:** This permit authorizes the placement of up to 7,335 cubic yards and removal of up to 1,483 cubic yards of material in T10S R3W Section 3, portion of Tax Lot 100, within wetland, in Linn County, as described in the attached final permit application, map and drawings, received February 2, 2018. In the event information in the application conflicts with these permit conditions, the permit conditions prevail. See Attachment B for project location.

3. **Changes to the Project or Inconsistent Requirements from Other Permits:** It is the permittee's responsibility to ensure that all state, federal and local permits are consistent and compatible with the final approved project plans and the project as executed. Any changes made in project design, implementation and/or operating conditions to comply with conditions imposed by other permits resulting in removal/fill activity must be approved by DSL prior to implementation.

4. **DSL May Halt or Modify:** DSL retains the authority to temporarily halt or modify the project or require rectification in case of unforeseen damage.

5. **DSL May Modify Conditions Upon Permit Renewal:** DSL retains the authority to modify conditions upon renewal, as appropriate, pursuant to the applicable rules in effect at the time of the request for renewal or to protect waters of this state.

Pre-Construction

6. **Local Government Approval Required Before Beginning Work:** Prior to the start of construction, the permittee shall obtain approvals for subdivision applications from the City of Albany.

7. **Stormwater Management Approval Required Before Beginning Work:** Prior to the start of construction, the permittee shall obtain a National Pollution Discharge Elimination System (NPDES) permit from the Oregon Department of Environmental Quality (DEQ), if one is required by DEQ.

8. **Pre-construction Resource Area Fencing or Flagging:** Prior to any site grading, the boundaries of the avoided wetlands, waterways, and riparian areas adjacent to the project site must be surrounded by noticeable construction fencing or flagging. The marked areas must be maintained during construction of the project and be removed immediately upon project completion.

9. **Deed Restriction Recording:** Avoided wetlands have been protected in perpetuity by a Declaration of Covenants and Restrictions and Access Easement (Protection Instrument) on the property. A copy of the signed and recorded instrument has been received prior to the issuance of this permit.

General Construction Conditions

10. **Water Quality Certification:** The Department of Environmental Quality (DEQ) may evaluate this project for a Clean Water Act Section 401 Water Quality Certification (WQC). If the evaluation results in issuance of a Section 401 WQC, that turbidity condition will govern any allowable turbidity exceedance and monitoring requirements.

11. **Erosion Control Methods:** The following erosion control measures (and others as appropriate) shall be installed prior to construction and maintained during and after construction as appropriate, to prevent erosion and minimize movement of soil into waters of this state.

    a. All exposed soils shall be stabilized during and after construction in order to prevent erosion and sedimentation.
    b. Filter bags, sediment fences, sediment traps or catch basins, leave strips or berms, or other measures shall be used to prevent movement of soil into waterways and wetlands.
    c. To prevent erosion, use of compost berms, impervious materials or other equally effective methods, shall be used to protect soil stockpiled during rain events or when the stockpile site is not moved or reshaped for more than 48 hours.
    d. Unless part of the authorized permanent fill, all construction access points through, and staging areas in, riparian and wetland areas shall use removable pads or mats to prevent soil compaction. However, in some wetland areas under dry summer conditions, this requirement may be waived upon approval by DSL. At project completion, disturbed areas with soil exposed by construction activities shall be stabilized by mulching and native vegetative plantings/seeding. Sterile grass may be used instead of native vegetation for temporary sediment control. If soils are to remain exposed more than seven days after completion of the work, they shall be covered with erosion control pads, mats or similar erosion control devices until vegetative stabilization is installed.
    e. Where vegetation is used for erosion control on slopes steeper than 2:1, a tackified seed mulch shall be used so the seed does not wash away before germination and rooting.
    f. Dredged or other excavated material shall be placed on upland areas having stable slopes and shall be prevented from eroding back into waterways and wetlands.
    g. Erosion control measures shall be inspected and maintained as necessary to ensure their continued effectiveness until soils become stabilized.
    h. All erosion control structures shall be removed when the project is complete and soils are stabilized and vegetated.

12. **Hazardous, Toxic, and Waste Material Handling:** Petroleum products, chemicals, fresh cement, sandblasted material and chipped paint, wood treated with leachable preservatives or other deleterious waste materials shall not be allowed to enter waters of this state. Machinery refueling is to occur at least 150 feet from waters of this state and confined in a designated area to prevent

spillage into waters of this state. Barges shall have containment system to effectively prevent petroleum products or other deleterious material from entering waters of this state. Project-related spills into waters of this state or onto land with a potential to enter waters of this state shall be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.

13. **Archaeological Resources:** If any archaeological resources and/or artifacts are encountered during construction, all construction activity shall immediately cease. The State Historic Preservation Office shall be contacted (phone: 503-986-0674). You may be contacted by a Tribal representative if it is determined by an affected Tribe that the project could affect Tribal cultural or archeological resources.

14. **Construction Corridor:** There shall be no removal of vegetation or heavy equipment operating or traversing outside the designated construction corridor or footprint (Sheet 1).

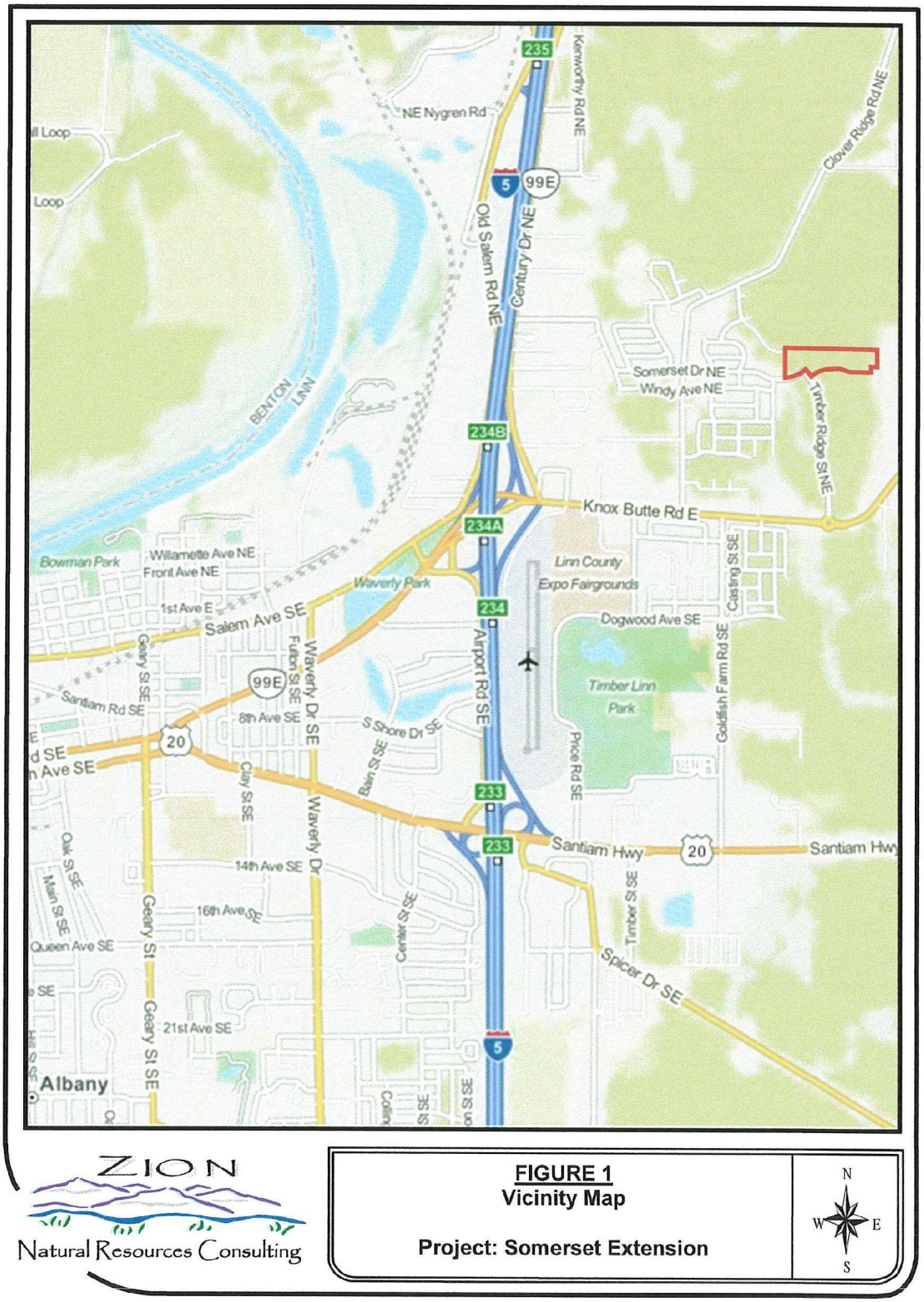
15. **Mitigation Bank Credit Purchase**: Mitigation for the unavoidable loss of 4.61 acres of PEM, slope/flats wetland has been accomplished via purchase of 4.61 credits from the One Horse Slough Wetland Mitigation Bank, per the proof of purchase dated June 26, 2018.

ATTACHMENT B

Permit Holder: City of Albany

Project Name: Somerset Extension Subdivision

Maps and Drawings for Removal/Fill Permit No. 59822-RF



ZION
Natural Resources Consulting

FIGURE 1
Vicinity Map

Project: Somerset Extension

N
W
E
S

ZION
Natural Resources Consulting

FIGURE 4
Aerial Photo – Google Earth July 23, 2016

Project: Somerset Extension

N
W E
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SOMERSET EXTENSION

SEC. 34, T. 10 S., R. 3 W., W.M.
CITY OF ALBANY, LINN COUNTY, OREGON

Owner / Developer:
CITY OF ALBANY
333 BROADALBIN ST. SW
ALBANY, OREGON 97321

STUDY AREA BOUNDARY	523,978 S.F.	(12.03 AC.)
TOTAL WETLANDS IMPACTED	200,721S.F.	(4.61 AC.)
TOTAL WETLANDS AVOIDED	198,508 S.F.	(4.56 AC.)
TOTAL WETLANDS	399,229 S.F.	(9.17 AC.)
TOTAL WATERS IMPACTED	0 S.F.	(0.00 AC.)
TOTAL WATERS AVOIDED	3,190 S.F.	(0.07 AC.)
TOTAL WATERS	3,190 S.F.	(0.07 AC.)
TOTAL DEVELOPABLE LOTS	26	

TEMPORARY WETLAND/WATERS IMPACTS:

	CUT CU.YDS.	FILL CU.YDS.	SQ. FT.
AREA 'N'	72	72	507
WATERS	47	47	81

INFORMATION SHOWN ON THESE PLANS REFLECT ACTUAL FIELD DATA GATHERED USING TRIMBLE S4 ROBITIC INSTRUMENT, HORIZONTAL ANGLE ACCURACY ±1 SECOND, HORIZONTAL DISTANCE ACCURACY ±(2 mm.+2ppmxD)M.S.E.

WETLAND/WATERS IMPACTS:

	CUT CU.YDS.	FILL CU.YDS.	SQ. FT.
AREA 'A'	1,445	7,160	195,250
AREA 'Ba'	38	175	5,471
AREA 'Ca'	0	0	0
AREA 'L'	0	0	0
AREA 'N'	0	0	0
WATERS	0	0	0
TOTALS:	1,483	7,335	200,721

TOTAL CUT/FILL CU.YDS. 8,818

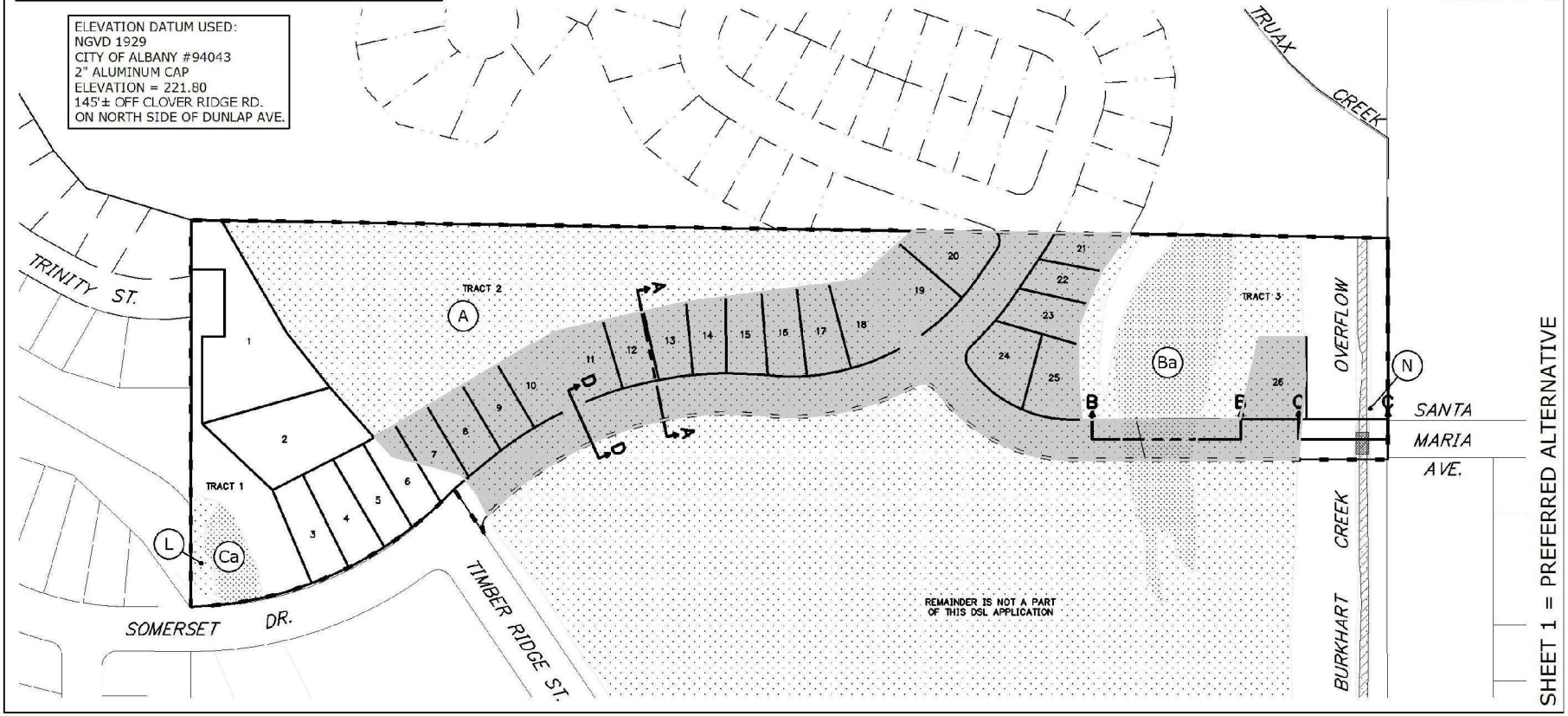
STUDY AREA CUT 1,462 CU.YDS.
FILL 7,645 CU.YDS.

0' 200'

SCALE:
1" = 200'

WETLANDS AREA
- DELINEATED WETLANDS AREA
- DELINEATED SIGNIFICANT WETLANDS AREA
- WATERS (CREEK)
- STUDY AREA BOUNDARY
- IMPACTED WETLANDS AREA
- TEMPORARY WETLAND IMPACT AREA

ELEVATION DATUM USED:
NGVD 1929
CITY OF ALBANY #94043
2" ALUMINUM CAP
ELEVATION = 221.80
145'± OFF CLOVER RIDGE RD.
ON NORTH SIDE OF DUNLAP AVE.



SHEET 1 = PREFERRED ALTERNATIVE

Joint Permit Application

This is a joint application, and must be sent to both agencies, who administer separate permit programs. Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.

RECEIVED
FEB 12 2018
DEPARTMENT OF STATE LANDS

U.S. Army Corps of Engineers Portland District	Oregon Department of State Lands
Corps Action ID Number	DSL Number **59822** (*Revised*)

(1) APPLICANT AND LANDOWNER CONTACT INFORMATION

	Applicant	Property Owner (if different)	Authorized Agent (if applicable) ☑ Consultant ☐ Contractor
Contact Name	Ron Irish, Transportation Systems Analyst	*Same*	Eric Henning
Business Name	City of Albany		Zion Natural Resources Consulting
Mailing Address 1	PO Box 490		PO Box 545
Mailing Address 2			
City, State, Zip	Albany OR 97321		Monmouth OR 97361
Business Phone	(541) 917-7656		503-838-0103
Cell Phone			503-881-4171
Fax			503-623-7425
Email	Ron.Irish@cityofalbany.net		eric@zionconsulting.org

(2) PROJECT INFORMATION

A. Provide the project location.

Project Name	Tax Lot #	Latitude & Longitude*
Somerset Extension Subdivision	100 (portion of)	44.6500 / -123.0413
Project Address / Location	**City (nearest)**	**County**
East of Timber Ridge Street NE	Albany	Linn

Township	Range	Section	Quarter/Quarter
10S	3W	3	B

Brief Directions to the Site
South on Interstate 5 to Exit 234B, continue east on Knox Butte Road, then north on Timber Ridge Street NE to the site.

B. What types of waterbodies or wetlands are present in your project area? (Check all that apply.)

☑ River / Stream ☑ Non-Tidal Wetland ☐ Lake / Reservoir / Pond
☐ Estuary or Tidal Wetland ☐ Other ☐ Pacific Ocean

Waterbody or Wetland Name**	River Mile	6th Field HUC Name	6th Field HUC (12 digits)
Wetlands A, Ba, Ca, L, & N Burkhart Creek Overflow	NA	Truax Creek – Willamette River Watershed	170900030610

C. Indicate the project category. (Check all that apply.)

☐ Commercial Development ☐ Industrial Development ☑ Residential Development
☐ Institutional Development ☐ Agricultural ☐ Recreational
☐ Transportation ☐ Restoration ☐ Bank Stabilization
☐ Dredging ☐ Utility lines ☐ Survey or Sampling

(2) PROJECT INFORMATION

☐ In- or Over-Water Structure ☐ Maintenance ☐ Other:

* In decimal format (e.g., 44.9399, -123.0283)
** If there is no official name for the wetland or waterway, create a unique name (such as "Wetland 1" or "Tributary A").

(3) PROJECT PURPOSE AND NEED

Provide a statement of the purpose and need for the overall project.

The purpose of this project is to construct the extension of Santa Maria Avenue west to Timber Ridge Street NE in accordance with the City of Albany Transportation System Plan (2010). The street extension will provide the Draperville neighborhood with needed vehicle, pedestrian, and bike access to Timber Ridge Elementary School. The City of Albany's roadway system plan provides guidance on how to best facilitate roadway travel over the next 20 years, as well as identifying key elements of a future vision of transportation facilities serving the City. This plan is based on the identified existing and anticipated future operational and circulation needs.

In order to support the building of the extension of this residential street and associated infrastructure the applicant is proposing to create residential housing lots along the proposed residential streets. The construction of the road and associated utility improvements is not financially feasible without the ability to create and sell lots along the alignment. The intent of the City of Albany is to plat and sell the lots, not develop them, and the lots would be sold as platted on the Preferred Alternative (same size and configuration). This new subdivision, called the Somerset Extension, will consist of 26 lots and two residential streets within the city limits of Albany in Linn County.

The Housing Section of the Albany Comprehensive Plan updated in 2007, estimates the need for additional dwelling units based upon the Oregon Housing and Community Services Housing Needs Model and demographic and housing trends. The City's analysis indicates a need for 1,797 single family dwelling units to accommodate the 2025 population forecast. The Willamette Valley Multiple Listing Service indicates that as of April 2017 the current months of inventory is 2.95 which means that at the current rate of sales we would 'run out of homes' in 2.95 months. Compared to this time last year the inventory was at 4.15 months. Based upon forecasted growth and low vacancies in the City of Albany there is a growing need for additional residential homes in this developing community.

Background Information
As part of a larger annexation, the property in question was annexed into the City Limits in 2002. Development of this area has been well studied through Comprehensive Planning and Zoning; regional planning studies; master planning efforts for schools, parks, transportation, sewer, and water utilities; and localized development plans. All of these studies supported the design and layout of development in the area over the last 15 years. The current proposal will fill the remaining street and utility gaps between the more recent development and older established neighborhoods. Efficient use of this land for development while still protecting important significant wetlands is also necessary to avoid accelerating the need for a UGB expansion.

The City of Albany constructed substantial road and utility improvements in this area in the late 2000's to support the construction of Timber Ridge Elementary/Middle School as well as broader community needs in the area. These improvements were constructed through a Local Improvement District (LID) with the City fronting the initial construction costs and then assessing benefited properties for reimbursement of that original investment. Assessments coincided with the great recession, and a major land owner in the area found it to be in their financial interest to let the City take possession of their property rather than pay their assessments. This has resulted in the City holding property but still needing to recover the $3.1M that was assessed to those properties. The property that is the subject of this application is a part of the property obtained through that process and is obligated to the debt.

In addition to obligations for past debt, the subject property also has critical public infrastructure that needs to be constructed across the site. The street and utility improvements installed on adjoining parcels were

(3) PROJECT PURPOSE AND NEED

based on master plan alignments. Because this site will connect and fill the gap in those facilities, routes and alignments across the site are constrained and essentially fixed.

The loss of past reimbursement for improvements and the need to fund additional significant capital improvements typically constructed through private development have put the City in a difficult financial situation. Additionally, when comparing recent wetland delineations to those in place at the time the City took the property, the amount of land encumbered by wetlands has grown. This doesn't appear to be a natural occurrence but rather the result of modified drainage patterns from development that took place in the early 2000's. Prior developments to the northwest partially blocked overland flow, resulting in an expansion of the back water area and wetland on the subject site. The artificially increased wetland areas have increased the City's financial burden through a reduction in property value and increased mitigation costs for any construction that does occur.

As the underlying property owner of a site with outstanding debt and infrastructure obligations, the City now finds itself in the difficult situation of trying to secure required critical infrastructure and cover debts without additional burden to its rate/tax payers. The City's underlying objective is not to maximize profits but rather meet community needs and cover debts. To accomplish this, some amount of development must occur on the subject parcel. The City has evaluated several development options for this parcel and selected a proposed development plan that balances wetland preservation and cost recovery.

If the City's goal had been to maximize profit a zone change would have been pursued to relocate multi-family zoning from the adjacent site to this parcel together with an increase in the developed area and a decrease in the area of avoided wetlands. This approach would have maximized profit and resulted in much more proposed wetland fill. The City's second best financial option would have been to maximize residential development on the parcel under its current zone designation, again filling much more wetlands. Rather than take either of these approaches the City is proposing to fill the minimum necessary to build required public infrastructure and recover costs through limited development. Through this proposal the City is protecting significant wetlands, preserving and promoting hydraulic connectivity, and protecting and avoiding a large area of non-significant wetland area through deed restrictions.

The fill proposed outside the right-of-way is not for speculative development, but rather the minimum fill and resulting lots necessary to make construction of master plan street and utility infrastructure financially feasible to construct. In fact, one of the primary reasons the City can financially afford to limit development on this parcel is due to a partnership with a proposed development to the north of the subject parcel. In recognition of mutual interests and cost sharing opportunities, the City and the developer to the north have partnered and submitted a phased subdivision application that incorporates the privately held property to the north and the subject property. The City and developer are in the process of a purchase and sale agreement that will facilitate single family lot development, by the developer, on the subject parcel. Again, the number of lots proposed on the subject parcel are the minimum necessary to meet financial obligations associated with outstanding debt and the cost to construct the master plan required public infrastructure.

(4) DESCRIPTION OF RESOURCES IN PROJECT AREA

A. Describe the existing physical and biological characteristics of each wetland or waterway. Reference the wetland and waters delineation report if one is available. Include the list of items provided in the instructions.

(4) DESCRIPTION OF RESOURCES IN PROJECT AREA

A Hydrogeomorphic Based Assessment of Wetlands – Reference Based Methodology has been completed and included with this application package. The HGM classification is Slope/Flats. The following wetland area information has been obtained from the Wetland Delineation Report for the City of Albany Timber Ridge Property which has been concurred with by DSL (WD-2016-0117).

Wetlands within the 12.03 acre study area consist of five separate wetland areas comprising a total of 9.24 acres of palustrine emergent wetlands. Waters of the state within the proposed study area consists of the Burkhart Creek Overflow (0.07 acres).

Wetland A

Wetland A is a palustrine emergent seasonally flooded/saturated slope (PEME/slope) wetland that continues beyond the study area to the north into a similarly vacant field that was the subject of WD2015-0341. It is dominated by *Agrostis capillaris* (FAC) and *Festuca arundinacea* (FAC). The hydrology driver appears to be direct precipitation and shallow interflow from the school grounds. Most of the drainage is northward via topographic swales.

Wetland Ba

Wetland Ba is a palustrine forested seasonally flooded/saturated slope (PFOE/slope) wetland that continues slightly off-site to the north. It is dominated by *Fraxinus latifolia* (FACW) in the tree stratum and *Ranunculus ucinatus* (FAC) in the herb stratum. The hydrology driver appears to be primarily shallow interflow from the topographically higher wetlands adjacent to the east, south and west, as well as direct precipitation.

Wetland Ca

Wetlands Ca is an Oregon ash/Slough sedge wetlands located in a swale. They are all palustrine forested seasonally flooded/saturated slope (PFOE/slope) wetlands that are dominated by *Fraxinus latifolia* in the tree stratum and *Carex obnupta* (OBL) in the herb stratum. The hydrology driver appears to be primarily shallow interflow from the adjacent wetlands and uplands, as well as direct precipitation.

Wetland L

Wetland L is a palustrine emergent seasonally flooded/saturated slope (PEME/slope) wetland that continues offsite to the northwest. It is located in the same swale system as Wetland Ca. This wetland is dominated by *Alopecurus pratense* (FACW) and *Festuca arundinacea* (FAC). The hydrology driver appears to be primarily shallow interflow from the adjacent uplands to the north and south, continuation of the flow from Wetland Ca, as well as direct precipitation.

Wetland N

This is a palustrine emergent seasonally saturated slope (PEMB/slope) wetland that extends northward beyond the study area. The wetland is a "halo" of saturated soils immediately adjacent to Truax Creek. Wetland N is dominated by *Festuca arundinacea* (FAC) and *Agrostis capillaris* (FAC). The hydrology driver appears to be primarily shallow interflow from the adjacent uplands to the west and east. Drainage is towards the creek.

Burkhart Creek Overflow is a channelized perennial stream that extends off-site north as an open channel. The ordinary high water location was determined by observing the distinct topographical break in the stream side slope delineating the low flow channel that also corresponds to the limit of non-aquatic vegetation.

B. Describe the existing navigation, fishing and recreational use of the waterway or wetland.

(4) DESCRIPTION OF RESOURCES IN PROJECT AREA

There are no existing navigation, fishing, or recreational use of the wetlands.

(5) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

Describe project-specific criteria necessary to achieve the project purpose. Describe alternative sites and project designs that were considered to avoid or minimize impacts to the waterway or wetland.

Project specific criteria necessary to achieve the project purpose includes the following:

- Provide affordable single family residential housing needed within the City of Albany UGB
- Favorable low density residential zoning (RS-5), minimum lot size required by this zone is 5,000 sq. ft.
- Provide efficient utility access and street connectivity per the City of Albany Transportation Plan (extension of Santa Maria Avenue to the west) linking the Draperville neighborhood to Timber Ridge Elementary School.
- Land use consistency (adjacent residential neighborhoods)
- Avoidance of waters/wetlands
- Provide treatment of onsite stormwater (SLOPES V standards)
- Project must be economically viable

The improvements identified in the subject parcel are the minimum necessary to meet community wide needs identified in street and utility master plans. Master plan level improvements represent the backbone of a large system, with small connections branching off to serve discrete areas. Both circumstances are occurring here. Water and sewer master plan mains must be extended to the east, and service mains to the north. The road extension to the north is needed to provide the adjoining private development with a secondary emergency vehicle connection and a route for that development to access the existing roundabout at the Knox butte Road/Timber Ridge Drive intersection. Absent that street connection trips from the private development would be forced to an intersection on Knox Butte Drive (at Clover Ridge Drive) that lacks the capacity to accommodate them.

Through extensive prior master planning efforts the City has evaluated alternate road alignments for the area. By constructing the road along the proposed alignment the City can avoid road improvements on adjacent developing parcels that would bisect and eliminate wetlands. By allowing road construction on the proposed alignment, more wetlands in the area will be avoided and allowed to remain in a natural state rather than being bisected by infrastructure improvements and adjacent development.

Alternative Sites

Since the purpose of this project is to connect Santa Maria Avenue from the east with Timber Ridge Street NE to the west there are no alternative sites that would meet this project specific criteria. This street alignment is necessary for connectivity as well as to provide maintenance access over a sanitary sewer trunk main serving the Draperville neighborhood.

Alternative Site Designs

No Impact Alternative

This alternative includes the least impacting design by impacting 0.00 acres while avoiding 12.03 acres of wetlands. This particular design would allow only 5 lots to be developed. This site plan does not meet the project criteria as described below:

(5) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

- Alternative would not be economically viable. The applicant performed a feasibility study that assessed the range of dwelling units needed to make the project economically viable. The cost estimate for the road and utility extensions inclusive of wetland mitigation is $2.7 million. The current value of the lots created under the preferred alternative will be less than that; even with creation of the 26 lots envisioned by the preferred alternative the City will need to additionally subsidize the construction. A further reduction to the number of units would result in smaller gross revenue to pay for the residential street extensions and infrastructure. The applicant would not be able to proceed with the project since the number of lots permitted is less than the range of lots determined to provide an economically viable project.
- Alternative would not allow installation of a master plan required sanitary sewer main and associated maintenance road serving the Draperville neighborhood.

Less Impact Alternative

This alternative includes impacting 4.12 acres of wetlands and avoiding 5.04 acres of wetlands. This particular design would allow 24 lots to be developed along with the two residential streets. This site plan does not meet the project criteria as described below:

- As described in the narrative above, the requested fill area for SFR lots represents the minimum necessary to recover costs from initial infrastructure LID and the need for master planned street and utility improvements across the subject parcel. More intense development on the site would be required to recover costs if it weren't for the subdivision partnership with the developer to the north.
- Smaller Lots or Zoning Variance - The subject property has a zone designation of RS-5. The minimum average lot size in that zone is 5,000 square feet. The proposed development plan is for 5,000 square foot lots located along the street extension. Development along the street will be just one lot deep, and will avoid the creation of rear or flag lots. The remaining land behind the created lots is being set aside as protected wetland and is contiguous and connected to a wetland area being set aside by the private development to the north. There are no variance options in the City's development code for creation of lots smaller than required by a zone designation.
- Lot Configuration - Unfortunately, the subject property is nearly entirely encumbered with wetlands. Great care has been taken to avoid significant wetlands, respect locally desired wetland buffers, and create large and interconnected wetland areas protected by deed restriction. Because the site is nearly entirely covered by wetlands, it is not possible to develop a plan where the minimum number of lots needed for the project to be financially feasible would avoid wetlands.
- City Subsidize Lots – The City is already in debt on these properties and has additional public infrastructure that must be funded across the subject parcel. Substantial City contributions consisting of water and sewer reserves and System Development Charge revenues/credits are already programmed into the project at levels substantially higher than typical for private developments. There are no additional resources that the City can contribute. Infrastructure construction and maintenance needs throughout the City exceed financial means and the City continues to struggle to find ways to maintain service levels. Further subsidies for this parcel are not practical or feasible.

Alternative Route Design

This alternative includes impacting 5.46 acres of wetlands and avoiding 4.62 acres of wetlands. This particular design would allow 24 lots to be developed along with the two residential streets while routing the eastern road connection around the significant wetlands (Ba). This site plan does not meet the project criteria as described below:

- Eastern Road Connection - The road improvement itself is necessary to connect two existing

(5) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

streets and provide master plan identified utility improvements. Given that there is a relatively short distance between the two existing streets there aren't any viable alternatives for varying alignment. Pursuit of minor variations would not result in wetland avoidance as there is a significant wetland drainage and wooded area running perpendicular to the road alignment. This wetland and its buffers are equally important north and south of the proposed alignment. Further, existing development to the east limits the ability to vary the alignment without impacting existing homes. It is also important to remember master planned utilities are required along this same route. A gravity sewer main extension is required and any variations in alignment would not only drive up costs but impact the ability to serve existing and future development by loss of grade through a longer, realigned route. Realigning the road and keeping the sewer on the proposed more direct alignment would double wetland impacts because of the need for a maintenance access roads over the utilities. Finally, if it were desirable to realign street and utility improvements it would increase costs (i.e. additional length, manholes, fittings, etc.) which would then drive up the need for additional cost recovery through creation of more single family residential lots than are proposed in this application.

- Narrower Road - The proposed roads are all classified as local streets and are designed with the minimum right of way (54') and curb to curb width (30') allowed for under the City's development code. The curb width will be further narrowed (to 24') to minimize wetland impacts by eliminating on street parking areas at the one crossing of a significant wetland and along sections that do not have abutting residential lots.

Preferred Alternative (Site Plan)

This design includes the impact of 4.61 acres of wetlands and the avoidance of 4.56 acres of wetlands. This site plan would provide 26 residential lots and the placement of the utility infrastructure, stormwater facilities, and two residential streets. This alternative meets all of the City's zoning requirements while providing an adequate number of housing lots to ease the market demand as well as make the construction of Santa Maria Avenue financially viable. This plan satisfies the project specific criteria by:

- Providing low density single family residential housing within the City of Albany.
- Provides efficient utility access and street connectivity.
- Meets the City's demand for single family homes.
- Provides onsite treatment of stormwater.
- Development will be contiguous with the surrounding land uses consisting of established residential neighborhoods to the north, east, and west with Timber Ridge School to the south.
- The impacted wetlands would be compensated through an approved wetland mitigation bank that will provide a lift in the functions and values compared to the existing wetland conditions.

Measures to avoid and minimize effects of changes:

Wetland avoidance areas are fed primarily by groundwater, overland flow, and precipitation. According to the topography of the site Wetland A drains to the north. Please refer to the attached memo from the project engineer regarding the *Somerset Extension Hydrology* and how the hydrology pathway and wetland connectivity will be maintained through the stormwater management plan. In addition the avoided wetlands will be protected in perpetuity through a conservation easement for tracts 2 and 3.

The crossing of the Burkhart Creek Overflow (waters) by Santa Maria Avenue will be accomplished through the use of a three sided box culvert (bottomless). The length of the culvert is 18 feet and will span the OHWL of the creek and the associated wetlands (N) resulting in no impacts to these features.

(6) PROJECT DESCRIPTION

A. Briefly summarize the overall project including work in areas both in and outside of waters or wetlands.

The design of this proposed project requires fill material within the designated wetland impact areas to construct two residential streets and 26 subdivision lots. The applicant is proposing to permanently impact 4.61 acres wetlands within the proposed project area (Preferred Site Plan). This plan will have an approximate total fill volume of 7,645 cubic yards and a removal volume of 1,756 cubic yards of material (rock, gravel, and topsoil) to complete the entire development.

B. Describe work within waters and wetlands.

Work within wetlands will result in 4.61 acres of wetland impacts and the avoidance of 4.56 acres of remaining wetlands. Designated wetland impact areas will have an approximate fill volume of 7,335 cubic yards and a removal volume of 1,483 cubic yards of material (rock, gravel, and topsoil).

C. Construction Methods. Describe how the removal and/or fill activities will be accomplished to minimize impacts to waters and wetlands.

Fill material will be transferred onsite from the surrounding uplands by means of trucks during the dry season to limit potential impacts to the remaining resources. Access to the site for construction activities will be from Timber Ridge Street NE and Santa Maria Avenue.

Throughout construction, best management practices (BMP) will be used to minimize erosion and siltation associated with site runoff. Practicable erosion control measures may include but are not limited to silt fencing, bio bags, sediment collection basins, and gravel entryways installed prior to the commencement of construction. All BMPs will be properly maintained throughout the duration of the project to keep sediments from entering any wetlands and other waterways in the project vicinity. Following completion of construction, all disturbed areas will be stabilized and re-vegetated with an approved groundcover material. An erosion control plan and stormwater management plan have been prepared as part of the proposed development.

D. Describe source of fill material and disposal locations if known.

Fill material will be utilized onsite from the subject property as part of the site grading. Crushed rock will be imported from a local source to complete the development requirements.

(6) PROJECT DESCRIPTION

E. Construction timeline.

What is the estimated project start date?	September 2017
What is the estimated project completion date?	September 2018
Is any of the work underway or already complete? If yes, describe.	☐ Yes ☑ No

F. Fill Volumes and Dimensions (if more than 4 impact sites, include a summary table as an attachment)

Wetland / Waterbody Name *	Fill Dimensions					Duration of Impact**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq. ft.)	Volume (cy)		
Wetland A				195,250	7,160	Perm	Topsoil, rock
Wetland Ba				5,471	175	Perm	Topsoil, rock
Wetland N				507	72	Temp	Topsoil
Burkhart Creek Over				81	47	Temp	Topsoil

G. Total Fill Volumes and Dimensions

Fill Impacts to Waters	Length (ft.)	Area (sq. ft.)	Volume (c.y.)
Total Fill to Wetlands		200,721	7,335
Total Fill Below Ordinary High Water			
Total Fill Below Highest Measured Tide			
Total Fill Below High Tide Line			
Total Fill Below Mean High Water Tidal Elevation			

H. Removal Volumes and Dimensions (if more than 4 impact sites, include a summary table as an attachment)

Wetland / Waterbody Name*	Removal Dimensions					Duration of Impact**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq. ft.)	Volume (c.y.)		
Wetland A				195,250	1,445	Perm	Topsoil, rock
Wetland Ba				5,471	38	Perm	Topsoil, rock
Wetland N				507	72	Temp	Topsoil
Burkhart Creek Over				81	47	Temp	Topsoil

I. Total Removal Volumes and Dimensions

Removal Impacts to Waters	Length (ft.)	Area (sq. ft.)	Volume (c.y.)
Total Removal to Wetlands		200,721	1,483
Total Removal Below Ordinary High Water			
Total Removal Below Highest Measured Tide			
Total Removal Below High Tide Line			
Total Removal Below Mean High Water Tidal Elevation			

* If there is no official name for the wetland or waterway, create a unique name (such as "Wetland 1" or "Tributary A").
** Indicate the days, months or years the fill or removal will remain. Enter "permanent" if applicable. For DSL, permanent removal or fill is defined as being in place for 24 months or longer.
*** Example: soil, gravel, wood, concrete, pilings, rock etc.

(7) ADDITIONAL INFORMATION

Are there any state or federally listed species on the project site?	☐ Yes	☐ No	☑ Unknown
Is the project site within designated or proposed critical habitat?	☐ Yes	☑ No	☐ Unknown
Is the project site within a national Wild and Scenic River?	☐ Yes	☑ No	☐ Unknown
Is the project site within the 100-year floodplain?	☐ Yes	☑ No	☐ Unknown

*** If yes to any of the above, explain in Block 4 and describe measures to minimize adverse effects to these resources in Block 5.**

Is the project site within the Territorial Sea Plan (TSP) Area?	☐ Yes	☑ No	☐ Unknown

(7) ADDITIONAL INFORMATION

Will the overall project involve construction dewatering or ground disturbance of one acre or more? ☑ Yes ☐ No ☐ Unknown

*** If yes, you may need a 1200-C permit from the Oregon Department of Environmental Quality (DEQ).**

Is the fill or dredged material a carrier of contaminants from on-site or off- site spills? ☐ Yes ☑ No ☐ Unknown

Has the fill or dredged material been physically and/or chemically tested? ☐ Yes ☑ No ☐ Unknown

***If yes, explain in Block 4 and provide references to any physical/chemical testing report(s).**

Has a cultural resource (archaeological) survey been performed on the project area? ☑ Yes ☐ No ☐ Unknown

*** If yes, provide a copy of the survey with this application. Do not describe any resources in this document.**

Identify any other federal agency that is funding, authorizing or implementing the project.

Agency Name	Contact Name	Phone Number	Most Recent Date of Contact

List other certificates or approvals/denials required or received from other federal, state or local agencies for work described in this application. For example, certain activities that require a Corps permit also require 401 Water Quality Certification from Oregon DEQ.

Approving Agency	Certificate/ approval / denial description	Date Applied

Other DSL and/or Corps Actions Associated with this Site (Check all that apply.)

☐ Work proposed on or over lands owned by or leased from the Corps

☐ State owned waterway DSL Waterway Lease #

☐ Other Corps or DSL Permits Corps # DSL #

☐ Violation for Unauthorized Activity Corps # DSL #

☑ Wetland and Waters Delineation Corps # DSL # 2016-0117

- ☑ A wetland / waters delineation has been completed (if so, provide a copy with the application)
- ☐ The Corps has approved the wetland / waters delineation within the last 5 years
- ☐ DSL has approved the wetland / waters delineation within the last 5 years

(8) IMPACTS, RESTORATION/REHABILITATION, COMPENSATORY MITIGATION

A. Describe unavoidable environmental impacts that are likely to result from the proposed project. Include permanent, temporary, direct, and indirect impacts.

The resulting development would permanently impact 4.61 acres and avoid 4.56 acres of palustrine emergent wetlands. Due to the proposed stormwater management plan all hydrology within the subject property will be directed and discharged after pre-treatment into Wetland A to the north. Please refer to the attached memo from the project engineer regarding the *Somerset Extension Hydrology* and how the hydrology pathway and wetland connectivity will be maintained.

B. For temporary removal or fill or disturbance of vegetation in waterways, wetlands or riparian (i.e., streamside) areas, discuss how the site will be restored after construction.

(8) IMPACTS, RESTORATION/REHABILITATION, COMPENSATORY MITIGATION

No temporary impacts proposed.

Compensatory Mitigation

C. Proposed mitigation approach. Check all that apply:

☐ Permittee-responsible Onsite Mitigation	☐ Permittee-responsible Offsite mitigation	☑ Mitigation Bank or in-lieu fee program	☐ Payment to Provide (not approved for use with Corps permits)

D. Provide a brief description of mitigation approach and the rationale for choosing that approach. If you believe mitigation should not be required, explain why.

The onsite wetlands are seasonal and are currently undeveloped. Onsite mitigation was reviewed as part of the development plan, but the surrounding land uses are a significant site constraint for successful onsite wetland creation. The proposed adverse effects are considered to be reasonable and these wetland impacts will be mitigated through the purchase of wetland credits through an approved wetland mitigation bank which will ensure the proposed wetland impacts will be compensated through mitigation that will result in an increase in wetland functions compared to the existing wetlands proposed to be impacted.

By compensating for the impacts through a wetland mitigation bank the following principle objectives listed in 141-085-0680 (2) will be met based on the results of the attached HGM which indicates that the current wetlands onsite proposed for impact are low functioning and also low value largely due to surrounding development and agricultural use of the wetlands. We therefore believe that purchase of wetland credits from a local bank will provide the lift necessary to meet the mitigation requirements.

(A) The bank will provide functions and values lost at the site which it has successfully provided within this watershed
(B) The bank will provide local replacement for locally important functions and values within the same watershed.
(C) Purchase of mitigation bank credits supports the creation of wetlands that have been designed to be self-sustaining and require minimal long term maintenance
(D) The bank will ensure greater ecological suitability than onsite mitigation and would not provide connectivity to other similar habitats as what is present at the bank.
(E) The bank already contains mitigated wetlands and therefore the temporal loss would be considerably minimized vs. developing onsite or other offsite mitigation areas.

Table 1. Reference Based Functional Assessment and Assessment of Values for the proposed wetland impacts.

Functional Attributes	Reference Based Functional Assessment	Assessment of Values
Water Quality & Quantity Functions		
Water Storage & Delay	**.25**	**.3**
Sediment Stabilization & Phosphorus Retention	**.55**	**.3**
Nitrogen Removal	**.49**	**.4**
Fish & Wildlife Habitat Functions		
Thermoregulation	**N/A**	**N/A**
Resident Fish Habitat Support	**N/A**	**N/A**
Anadromous Fish Habitat Support	**N/A**	**N/A**
Invertebrate Habitat Support	**.23**	**.3**

(8) IMPACTS, RESTORATION/REHABILITATION, COMPENSATORY MITIGATION

Amphibian & Turtle Habitat	**.28**	**.1**
Breeding Water Bird Support	**0**	**.1**
Wintering & Migratory Water bird Support	**.43**	**.2**
Songbird Habitat Support	**.33**	**.1**
Native Plant Communities & Species Diversity		
Primary Production	**.40**	**.1**
Support of Characteristic Vegetation	**.45**	**.2**

*Scoring is based upon the HGM Guidebook's qualitative assessment of functions by assigning a score between 0 (minimal capacity) to 1.0 (highest capacity) to the functional attribute for the site indicated. Assessment of values were averaged for each functional attribute.

Archeological and Historic Resources

An archeological survey was conducted by Geosciences Management International, Inc. for the project area was completed in December of 2016 and indicated that no cultural resources were found. However, if any archeological resources and/or artifacts are encountered all construction activity will immediately cease and the State Historic Preservation Office will be contacted.

Mitigation Bank / In-Lieu Fee Information:

Name of mitigation bank or in-lieu fee project: One Horse Slough Wetland Mitigation Bank

Type of credits to be purchased: PEMC

If you are proposing permittee-responsible mitigation, have you prepared a compensatory mitigation plan?

☐ Yes. Submit the plan with this application and complete the remainder of this section.

☐ No. A mitigation plan will need to be submitted (for DSL, this plan is required for a complete application).

Mitigation Location Information (Fill out only if permittee-responsible mitigation is proposed)

Mitigation Site Name/Legal Description	Mitigation Site Address	Tax Lot #

County	City	Latitude & Longitude (in DD.DDDD format)

Township	Range	Section	Quarter/Quarter

(9) ADJACENT PROPERTY OWNERS

☑ Pre-printed mailing labels of adjacent property owners attached	Project Site Adjacent Property Owners	Mitigation Site Adjacent Property Owners

OLIVER MICHAEL S & ASHLEY
N 619 TRINITY ST NE
Albany OR, 97322

HERING TINA
610 TRINITY ST NE
Albany OR, 97322

MBBH Development, LLC
123 NW 7th Street
Corvallis, OR 97330

Timber Ridge School
373 Timber Ridge Street NE
Albany, Oregon 97322

GOMEZ MARIA & JOSIAS
4597 SANTA MARIA AVE NE
Albany, Oregon 97322

MUNSEY JEFF M & DEBORAH
4500 SANTA MARIA AVE NE
Albany, Oregon 97322

HUNT MATTHEW R & SHARLEE
4235 SOMERSET DR NE
Albany, Oregon 97322

(10) CITY/COUNTY PLANNING DEPARTMENT LAND USE AFFIDAVIT (TO BE COMPLETED BY LOCAL PLANNING OFFICIAL)

I have reviewed the project described in this application and have determined that:

- ☐ This project is not regulated by the comprehensive plan and land use regulations.
- ☐ This project is consistent with the comprehensive plan and land use regulations.
- ☒ This project will be consistent with the comprehensive plan and land use regulations when the following local approval(s) are obtained:
  - ☐ Conditional Use Approval
  - ☐ Development Permit
  - ☒ Other Permit (see comment section)
- ☐ This project is not consistent with the comprehensive plan. Consistency requires:
  - ☐ Plan Amendment
  - ☐ Zone Change
  - ☐ Other Approval or Review (see comment section)

An application ☐ has ☐ has not been filed for local approvals checked above.

Local planning official name (print)	Title	City / County (circle one)
Bob Richardson	Planning manager	City of Albany

Signature	Date
Robert Richardson	6/1/17

Comments:
Completion and approvals for subdivision applications.

(11) COASTAL ZONE CERTIFICATION

If the proposed activity described in your permit application is within the Oregon coastal zone, the following certification is required before your application can be processed. A public notice will be issued with the certification statement, which will be forwarded to the Oregon Department of Land Conservation and Development (DLCD) for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program, contact DLCD at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050.

CERTIFICATION STATEMENT

I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Print /Type Name	Title

Signature	Date

(12) SIGNATURES

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or DSL staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish supplemental information in support of this permit application. I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance.
To be considered complete, the fee must accompany the application to DSL. The fee is not required for submittal of an application to the Corps.

Fee Amount Enclosed	$1,170.00

Applicant Signature

Print Name Ron Irish RON IRISH	Title Transportation Systems Analyst
Signature	Date 6/01/17

Authorized Agent Signature

Print Name Eric Henning, Zion Natural Resources Consulting	Title Managing Member
Signature	Date 6/2/2017

Landowner Signature(s)

Landowner of the Project Site (if different from applicant)

Print Name	Title
Signature	Date

Landowner of the Mitigation Site (if different from applicant)

Print Name	Title
Signature	Date

Department of State Lands, Property Manager (to be completed by DSL)

If the project is located on state-owned submerged and submersible lands, DSL staff will obtain a signature from the Land Management Division of DSL. A signature by DSL for activities proposed on state-owned submerged/submersible lands only grants the applicant consent to apply for a removal-fill permit. A signature for activities on state-owned submerged and submersible lands grants no other authority, express or implied and a separate proprietary authorization may be required.

Print Name	Title
Signature	Date

(13) ATTACHMENTS

- ☑ **Drawings (items in bold are required)**
  - ☑ **Location map with roads identified**
  - ☑ **U.S.G.S topographic map**
  - ☑ **Tax lot map**
  - ☑ **Site plan(s)**
  - ☑ **Cross section drawing(s)**
  - ☑ **Recent aerial photo**
  - ☐ Project photos
  - ☐ Erosion and Pollution Control Plan(s), if applicable
  - ☑ DSL/Corps Wetland Concurrence letter and map, if approved and applicable
- ☑ Pre-printed labels for adjacent property owners (Required if more than 5)
- ☐ Restoration plan or rehabilitation plan for temporary impacts
- ☐ Mitigation plan
- ☑ Wetland functional assessment and/or stream functional assessment
- ☑ Alternatives analysis
- ☐ Biological assessment (if requested by Corps project manager during pre-application coordination.)
- ☐ Stormwater management plan (may be required by the Corps or DEQ)
- ☐ Other:
  - ☐
  - ☐

Send Completed form to:

U.S. Army Corps of Engineers
ATTN: CENWP-OD-GP
PO Box 2946
Portland, OR 97208-2946
Phone: 503-808-4373

Counties:
Baker, Clackamas, Clatsop, Columbia, Gilliam, Grant, Hood River, Jefferson, Lincoln, Malheur, Marion, Morrow, Multnomah, Polk, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco, Washington, Wheeler, Yamhill

OR

U.S. Army Corps of Engineers
ATTN: CENWP-OD-GE
211 E. 7th AVE, Suite 105
Eugene, OR 97401-2722
Phone: 541-465-6868

Counties:
Benton, Coos, Crook, Curry, Deschutes, Douglas Jackson, Josephine, Harney, Klamath, Lake, Lane, Linn

Send Completed form to:

DSL - West of the Cascades:

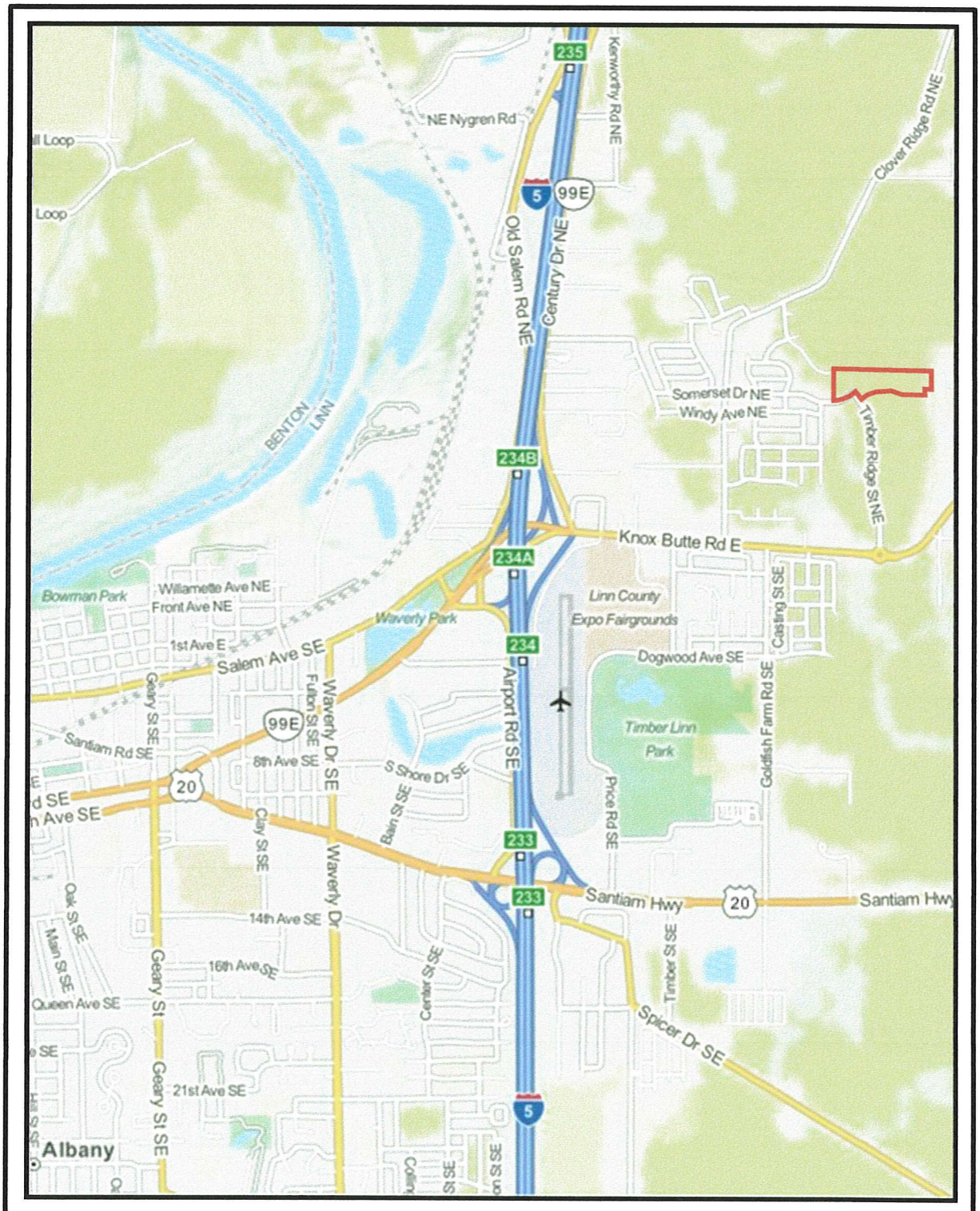
Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Phone: 503-986-5200

OR

DSL - East of the Cascades:

Department of State Lands
1645 NE Forbes Road, Suite 112
Bend, Oregon 97701
Phone: 541-388-6112

Send all Fees to:
Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Pay by Credit Card by Calling 503-986-5253



ZION
Natural Resources Consulting

FIGURE 1
Vicinity Map

Project: Somerset Extension

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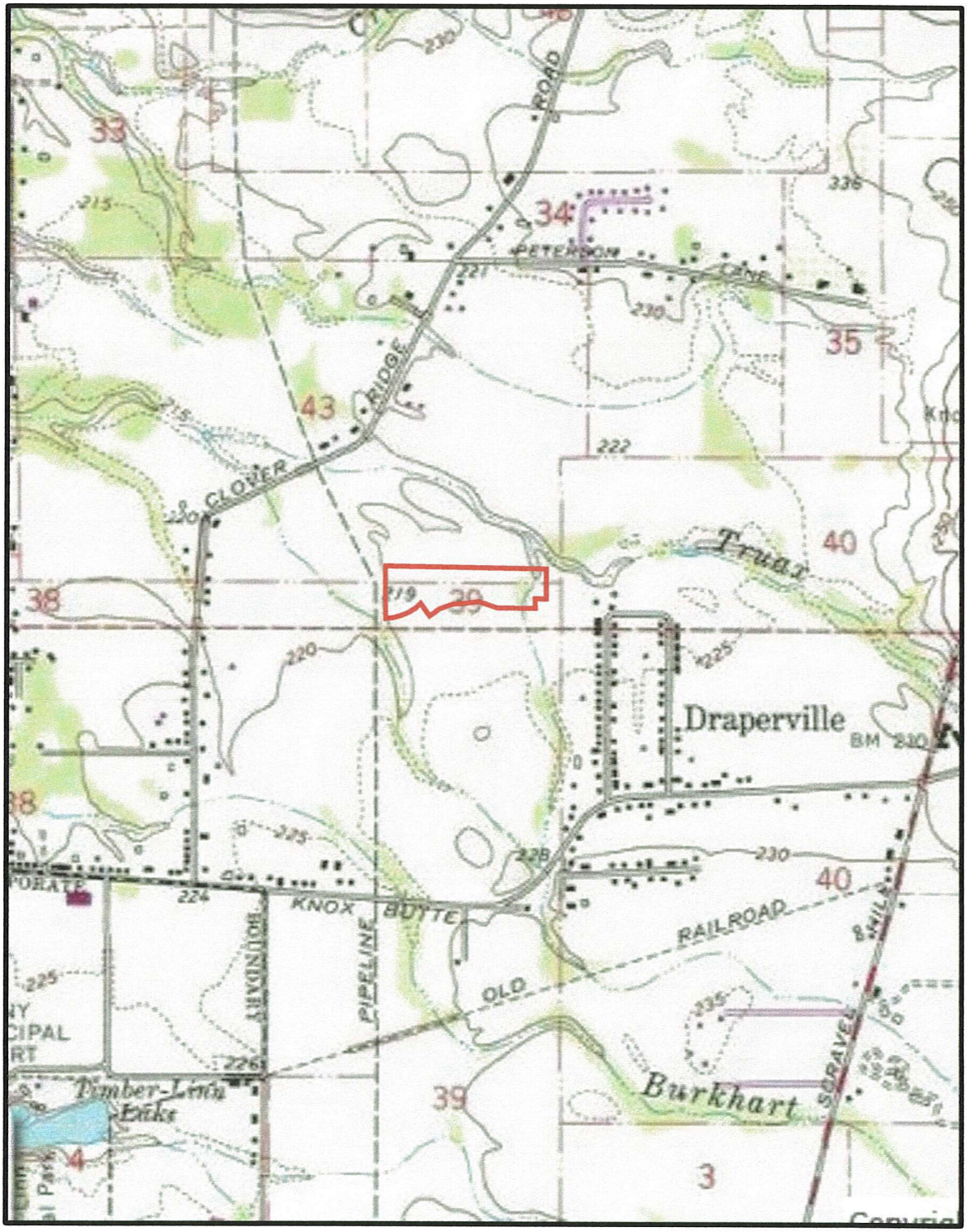

ZION
Natural Resources Consulting

FIGURE 2
Topography Map

Project: Somerset Extension

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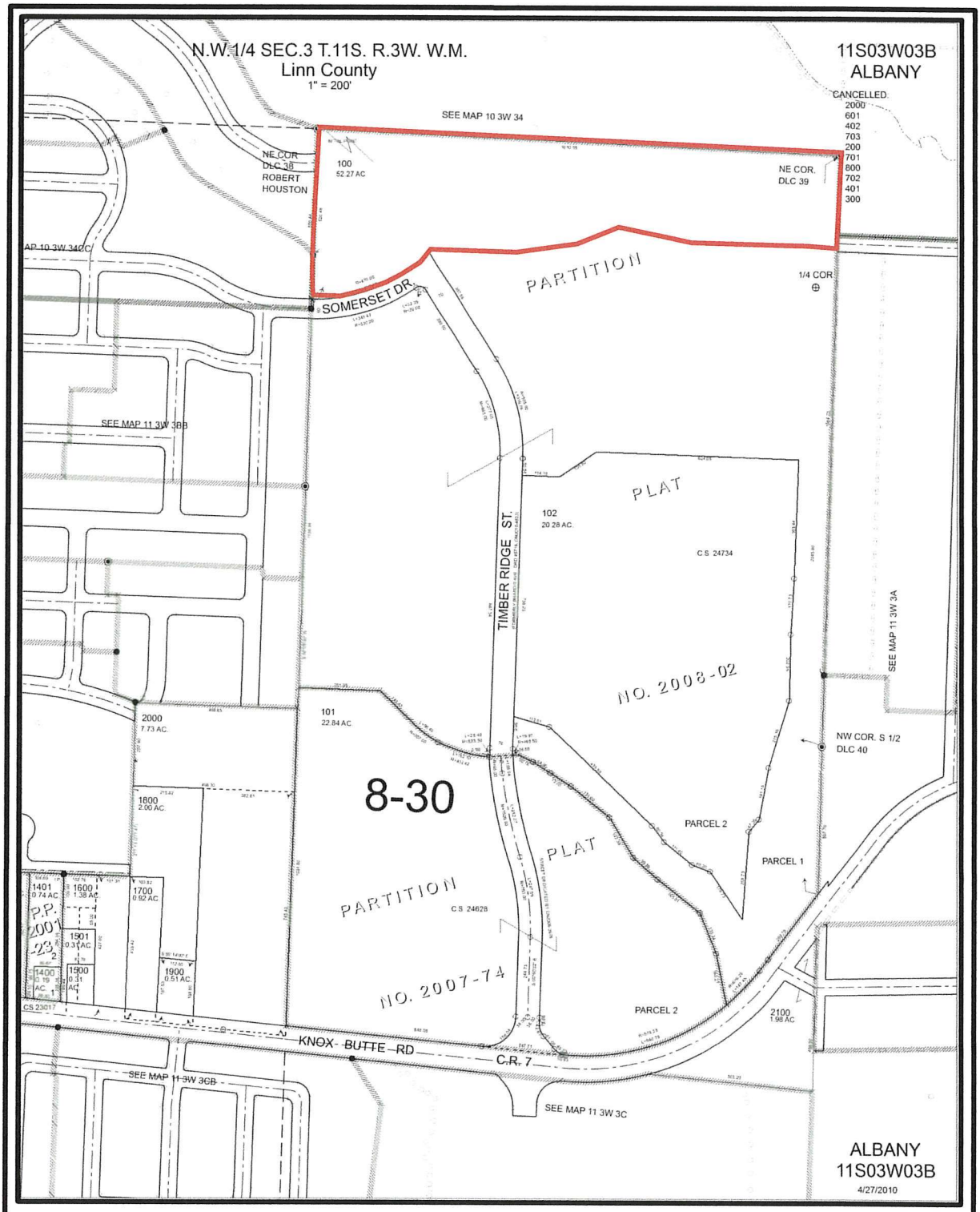

ZION
Natural Resources Consulting

FIGURE 3
Tax Lot Map

Project: Somerset Extension

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ZION
Natural Resources Consulting

FIGURE 4
Aerial Photo – Google Earth July 23, 2016

Project: Somerset Extension

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SOMERSET EXTENSION

SEC. 34, T. 10 S., R. 3 W., W.M.
CITY OF ALBANY, LINN COUNTY, OREGON

Owner / Developer:
CITY OF ALBANY
333 BROADALBIN ST. SW
ALBANY, OREGON 97321

STUDY AREA BOUNDARY	523,978 S.F.	(12.03 AC.)
TOTAL WETLANDS IMPACTED	200,721S.F.	(4.61 AC.)
TOTAL WETLANDS AVOIDED	198,508 S.F.	(4.56 AC.)
TOTAL WETLANDS	399,229 S.F.	(9.17 AC.)
TOTAL WATERS IMPACTED	0 S.F.	(0.00 AC.)
TOTAL WATERS AVOIDED	3,190 S.F.	(0.07 AC.)
TOTAL WATERS	3,190 S.F.	(0.07 AC.)
TOTAL DEVELOPABLE LOTS	26	

TEMPORARY WETLAND/WATERS IMPACTS:

	CUT CU.YDS.	FILL CU.YDS.	SQ. FT.
AREA 'N'	72	72	507
WATERS	47	47	81

INFORMATION SHOWN ON THESE PLANS REFLECT ACTUAL FIELD DATA GATHERED USING TRIMBLE S4 ROBITIC INSTRUMENT, HORIZONTAL ANGLE ACCURACY ±1 SECOND, HORIZONTAL DISTANCE ACCURACY ±(2 mm.+2ppmxD)M.S.E.

ELEVATION DATUM USED:
NGVD 1929
CITY OF ALBANY #94043
2" ALUMINUM CAP
ELEVATION = 221.80
145'± OFF CLOVER RIDGE RD.
ON NORTH SIDE OF DUNLAP AVE.

WETLAND/WATERS IMPACTS:

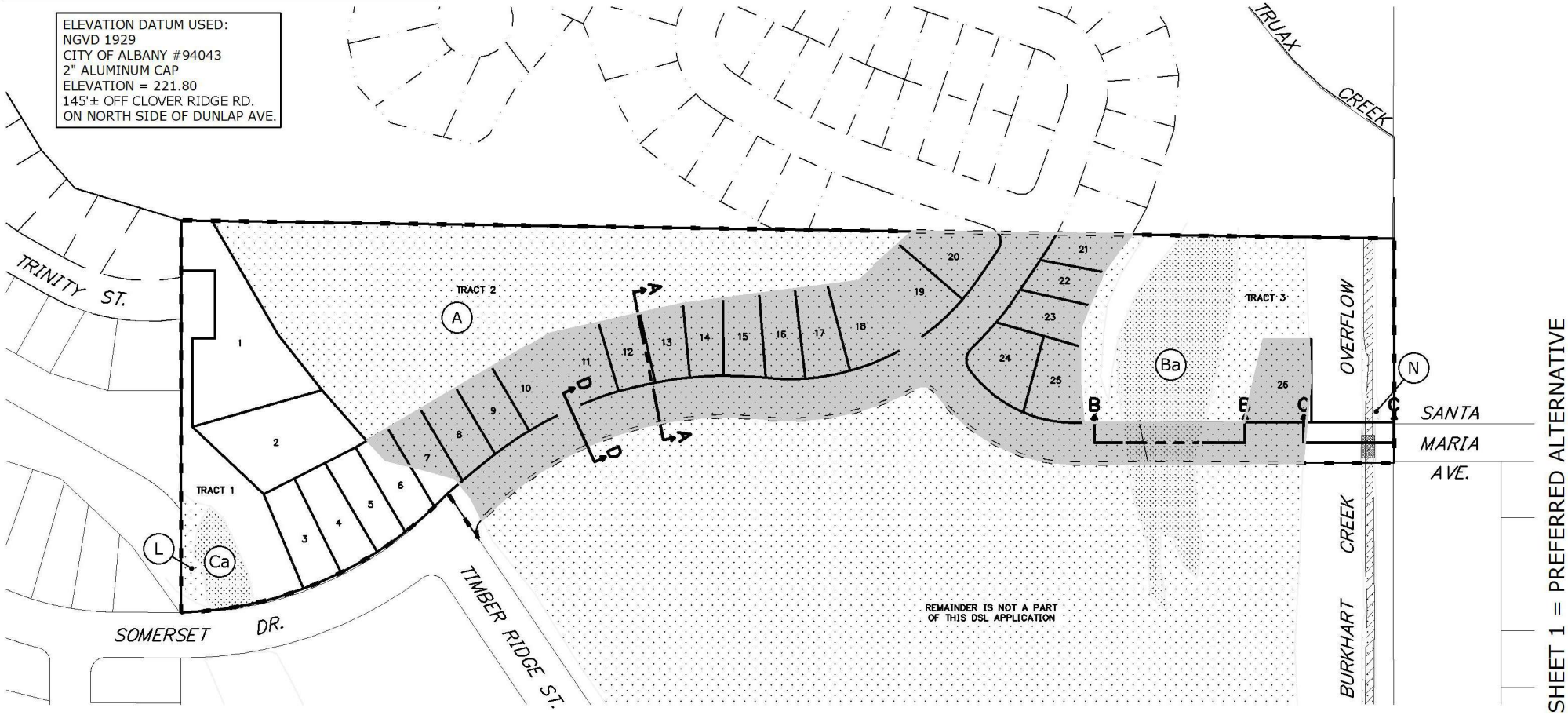
	CUT CU.YDS.	FILL CU.YDS.	SQ. FT.
AREA 'A'	1,445	7,160	195,250
AREA 'Ba'	38	175	5,471
AREA 'Ca'	0	0	0
AREA 'L'	0	0	0
AREA 'N'	0	0	0
WATERS	0	0	0
TOTALS:	1,483	7,335	200,721

TOTAL CUT/FILL CU.YDS. 8,818

STUDY AREA CUT 1,462 CU.YDS.
FILL 7,645 CU.YDS.

0' 200'
SCALE: 1" = 200'

WETLANDS AREA
- DELINEATED WETLANDS AREA
- DELINEATED SIGNIFICANT WETLANDS AREA
- WATERS (CREEK)
- STUDY AREA BOUNDARY
- IMPACTED WETLANDS AREA
- TEMPORARY WETLAND IMPACT AREA



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SOMERSET EXTENSION

SEC. 34, T. 10 S., R. 3 W., W.M.
CITY OF ALBANY, LINN COUNTY, OREGON

Owner / Developer:
CITY OF ALBANY
333 BROADALBIN ST. SW
ALBANY, OREGON 97321

STUDY AREA BOUNDARY	523,978 S.F.	(12.03 AC.)
TOTAL WETLANDS IMPACTED	179,537 S.F.	(4.12 AC.)
TOTAL WETLANDS AVOIDED	219,692 S.F.	(5.04 AC.)
TOTAL WETLANDS	399,229 S.F.	(9.17 AC.)
TOTAL WATERS IMPACTED	0 S.F.	(0.00 AC.)
TOTAL WATERS AVOIDED	3,190 S.F.	(0.07 AC.)
TOTAL WATERS	3,190 S.F.	(0.07 AC.)
TOTAL DEVELOPABLE LOTS	24	

WETLAND/WATERS IMPACTS:

	CUT CU.YDS.	FILL CU.YDS.	SQ. FT.
AREA 'A'	1,354	6,622	174,066
AREA 'Ba'	38	175	5,471
AREA 'Ca'	0	0	0
AREA 'L'	0	0	0
AREA 'N'	0	0	0
WATERS	0	0	0
TOTALS:	1,392	6,797	179,537
TOTAL CUT/FILL CU.YDS.		8,189	

STUDY AREA CUT 1,665 CU.YDS.
FILL 7,1047 CU.YDS.

INFORMATION SHOWN ON THESE PLANS REFLECT ACTUAL FIELD DATA GATHERED USING TRIMBLE S4 ROBITIC INSTRUMENT, HORIZONTAL ANGLE ACCURACY ±1 SECOND, HORIZONTAL DISTANCE ACCURACY ±(2 mm.+2ppmxD)M.S.E.

ELEVATION DATUM USED:
NGVD 1929
CITY OF ALBANY #94043
2" ALUMINUM CAP
ELEVATION = 221.80
145'± OFF CLOVER RIDGE RD.
ON NORTH SIDE OF DUNLAP AVE.

WETLANDS AREA
- DELINEATED WETLANDS AREA
- DELINEATED SIGNIFICANT WETLANDS AREA
- WATERS (CREEK)
- STUDY AREA BOUNDARY
- IMPACTED WETLANDS AREA

0' 200'
SCALE: 1" = 200'

SHEET 1 = ALTERNATIVE DESIGN LESS IMPACT

SOMERSET EXTENSION

SEC. 34, T. 10 S., R. 3 W., W.M.
CITY OF ALBANY, LINN COUNTY, OREGON

Owner / Developer:
CITY OF ALBANY
333 BROADALBIN ST. SW
ALBANY, OREGON 97321

STUDY AREA BOUNDARY	612,460 S.F.	(14.06 AC.)
TOTAL WETLANDS IMPACTED	237,999 S.F.	(5.46 AC.)
TOTAL WETLANDS AVOIDED	201,040 S.F.	(4.62 AC.)
TOTAL WETLANDS	439,039 S.F.	(10.08 AC.)
TOTAL WATERS IMPACTED	0 S.F.	(0.00 AC.)
TOTAL WATERS AVOIDED	3,190 S.F.	(0.07 AC.)
TOTAL WATERS	3,190 S.F.	(0.07 AC.)
TOTAL DEVELOPABLE LOTS	24	

WETLAND/WATERS IMPACTS:

	CUT CU.YDS.	FILL CU.YDS.	SQ. FT.
AREA 'A'	1,480	8,058	236,477
AREA 'Ba'	56	56	1,522
AREA 'Ca'	0	0	0
AREA 'L'	0	0	0
AREA 'N'	0	0	0
WATERS	0	0	0
TOTALS:	1,536	8,114	237,999
TOTAL CUT/FILL CU.YDS.		9,650	

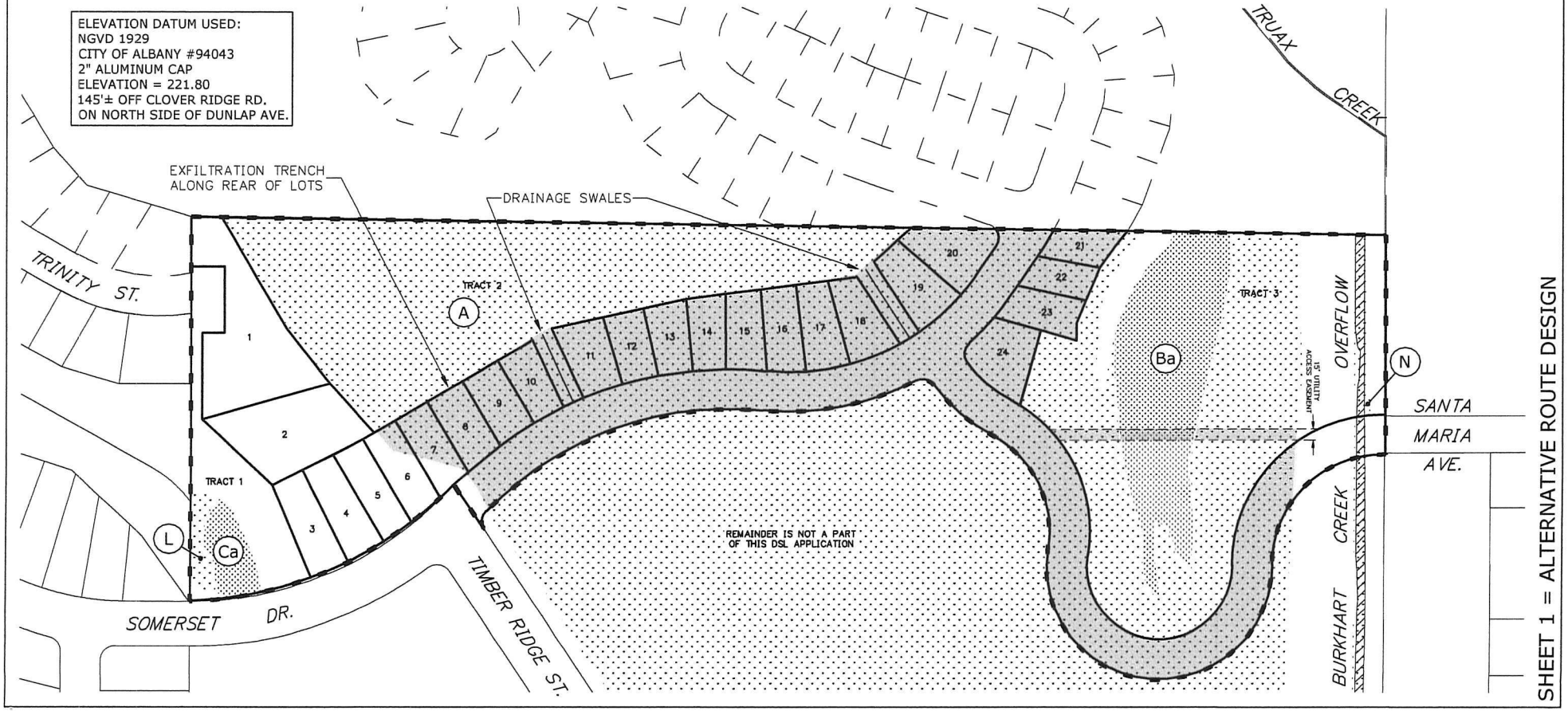
STUDY AREA CUT 1,791 CU.YDS.
FILL 8,775 CU.YDS.

INFORMATION SHOWN ON THESE PLANS REFLECT ACTUAL FIELD DATA GATHERED USING TRIMBLE S4 ROBITIC INSTRUMENT, HORIZONTAL ANGLE ACCURACY ±1 SECOND, HORIZONTAL DISTANCE ACCURACY ±(2 mm.+2ppmxD)M.S.E.

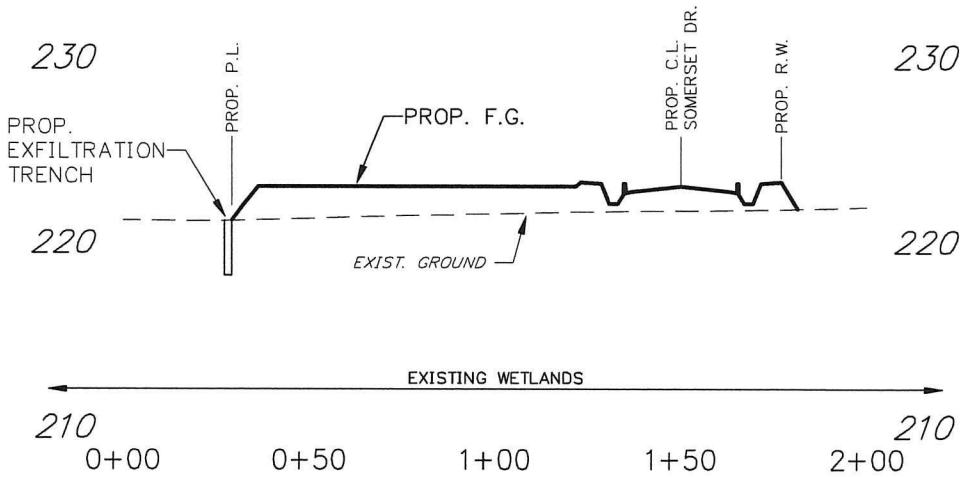
ELEVATION DATUM USED:
NGVD 1929
CITY OF ALBANY #94043
2" ALUMINUM CAP
ELEVATION = 221.80
145'± OFF CLOVER RIDGE RD.
ON NORTH SIDE OF DUNLAP AVE.

WETLANDS AREA
- DELINEATED WETLANDS AREA
- DELINEATED SIGNIFICANT WETLANDS AREA
- WATERS (CREEK)
- STUDY AREA BOUNDARY
- IMPACTED WETLANDS AREA

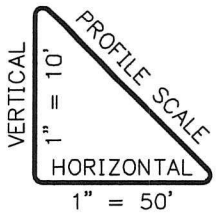
0' 200'
SCALE: 1" = 200'

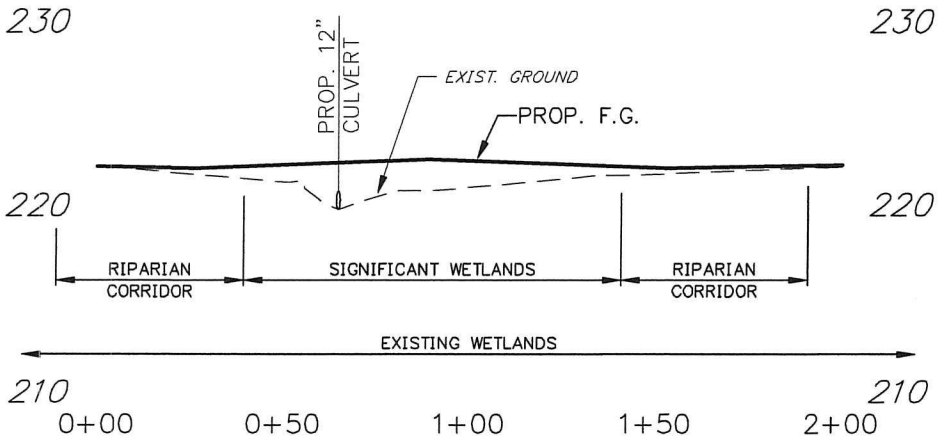


SHEET 1 = ALTERNATIVE ROUTE DESIGN

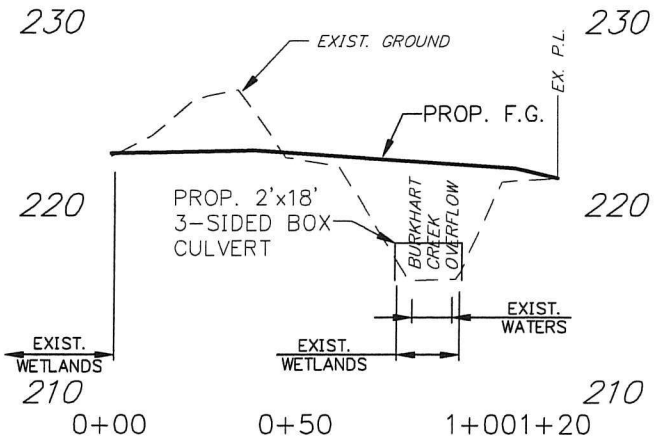


SECTION A–A



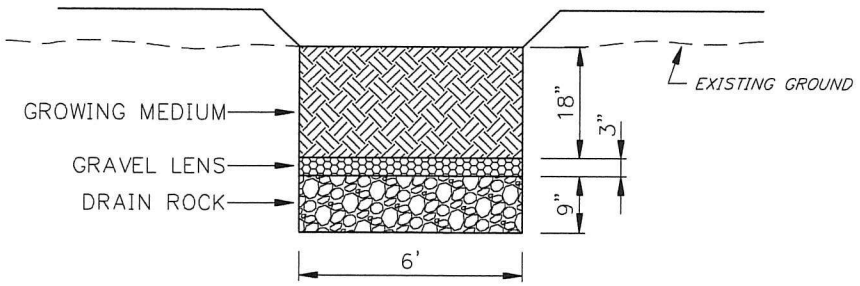


SECTION B–B

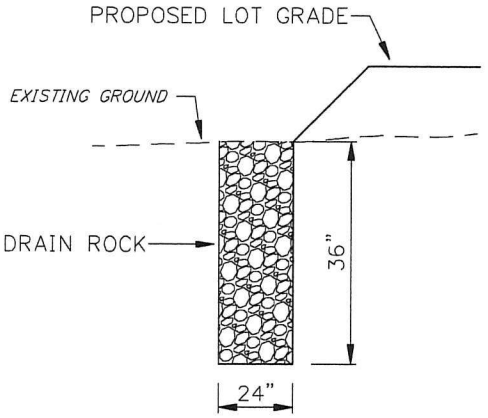


SECTION C–C

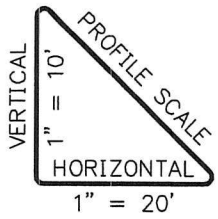
SHEET 2 = CROSS SECTIONS

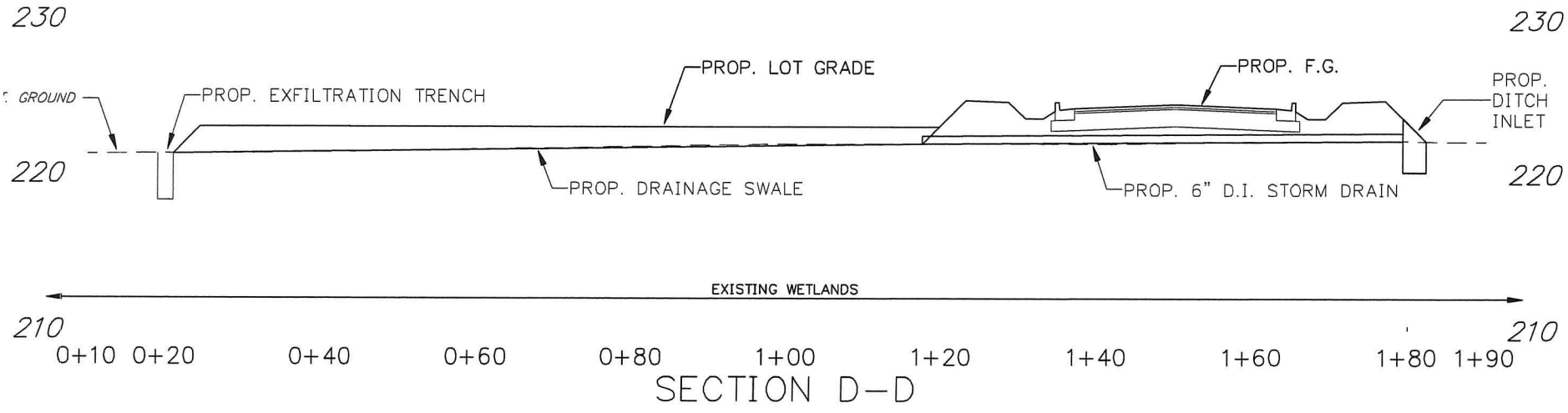


DRAINAGE SWALE
-NTS-



EXFILTRATION TRENCH
-NTS-





SECTION D-D

SHEET 3 = CROSS SECTIONS

MEMO

MULTI/TECH
ENGINEERING SERVICES, INC.

REGISTERED PROFESSIONAL ENGINEER
80415
OREGON
JANUARY 3, 2011
NATALIE G. JANNEY
Renew date: 6-30-2019

Date: May 18, 2017
To: Eric Henning
From: Natalie Janney, P.E., M.S.
RE: ***Somerset Extension Hydrology***

A meeting was held on March 22, 2017 with representatives for the applicant of the Somerset Extension project as well as representatives from the Oregon Department of State Lands (DSL). Concerns were raised during this meeting regarding the effect of constructing the Somerset Extension on the hydrology and health of the remaining wetlands to the north. This memo aims to address these concerns.

The following page shows the proposed Somerset extension, as required in Albany's Transportation System Plan, from the existing Somerset Drive to a proposed development to the north (Somerset Subdivision). Albany's permit application also includes construction of additional master plan required infrastructure along an extension of Santa Maria Ave, and lots located on the north side of each extension. Only the wetlands north of the extension of the Somerset Drive extension are the subject of this memorandum.

It was the goal of the stormwater design to allow for the migration of water to be preserved from the natural conditions. The plan on the following page shows the approximate flow paths for the water from the existing topography. It is important to maintain this flow path so that water is still feeding all areas of the wetlands.

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NJanney@mtengineering.net

However, sewer, water, and street improvements along the Somerset Drive extension represent critical master plan required infrastructure to meet regional transportation and utility requirements. These improvements are also required to serve planned development consistent with the City's Comprehensive Plan. Facilitating such development helps to preserve farm and forest land by deferring UGB expansions.

For these reasons, our design provides for preservation of significant wetland areas and functions while accommodating extension of master plan required infrastructure and residential development consistent with the City's Comprehensive Plan, zoning maps, and Development Code. Preserving wetland functions is taken into account not only through the Stormwater Management Plan proposed for the Somerset Extension, but also with the empty spaces between some of the lots (lots 45 & 46 and lots 53 & 54 on the above image) at low points.

This design involves the use of drain corridors under the roadway, having drain rock with pipe extend from the south side of the street right-of-way (ROW) to the north side ROW. This will allow the surface water from the South Wetland to drain to these low spots, travel through the rock and out into the

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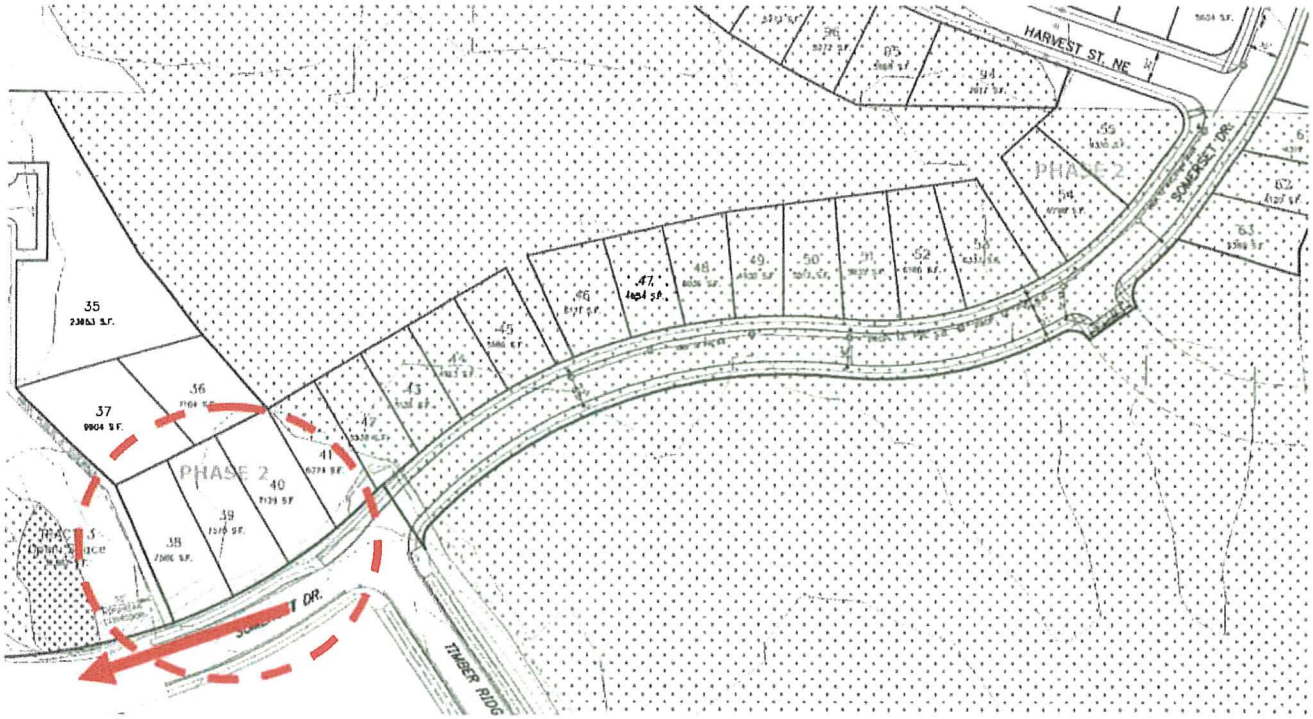
remaining North Wetlands. The surface runoff would then be able to drain to the north until it reaches the overflow located along the boundary between the proposed lots and the wetland.

In addition, the proposed drainage system serving the street and adjacent homes also drains towards the wetlands. The street-side swales have been changed (from what was shown in the original Stormwater Management Plan) to vegetated bioswales that allow the system to provide water quality while flowing to the empty spaces between lots 45 & 46 and 53 & 54, which will contain rain gardens that will provide further treatment and dispersion of flow. The runoff will then infiltrate through the growing media and into the underlying drain rock. The rain garden drain rock is then connected to a drain rock trench located along the rear of the lots adjacent to the wetland. This drain rock section will be located under the back of the lots and will daylight to the North Wetland. The water will percolate through the drain rock and out into the North Wetland, in a sheet flow fashion.

Here is a more detailed explanation of how the proposed system will provide hydrology:

Lots 38-40 will drain to the west and will not be treated by any water quality facility.



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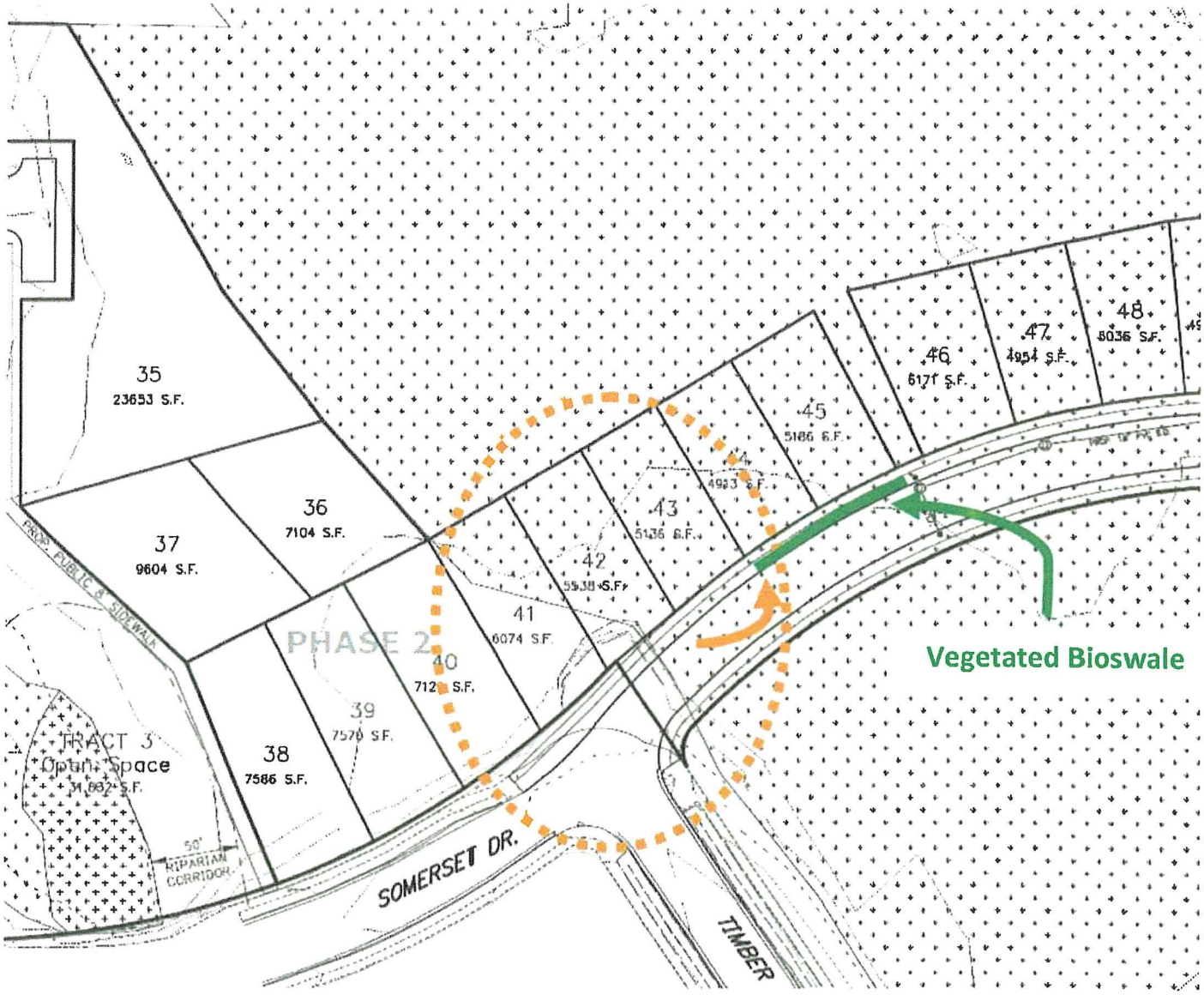
Lots 41-43 and the sidewalk and roadway in front of these lots will drain into the vegetated bioswale. This ensures that the stormwater will flow through at least 100 feet of vegetated swale before entering the combination swale located in the empty space between lots 45 & 46.



The runoff from lots 44, 45 and the sidewalk and street in front of them will then drain into the combination swale, joining the treated runoff. The combination swale has a bottom width of 6 feet, is 80 long, with 3 to 1 side slopes (horizontal to vertical).

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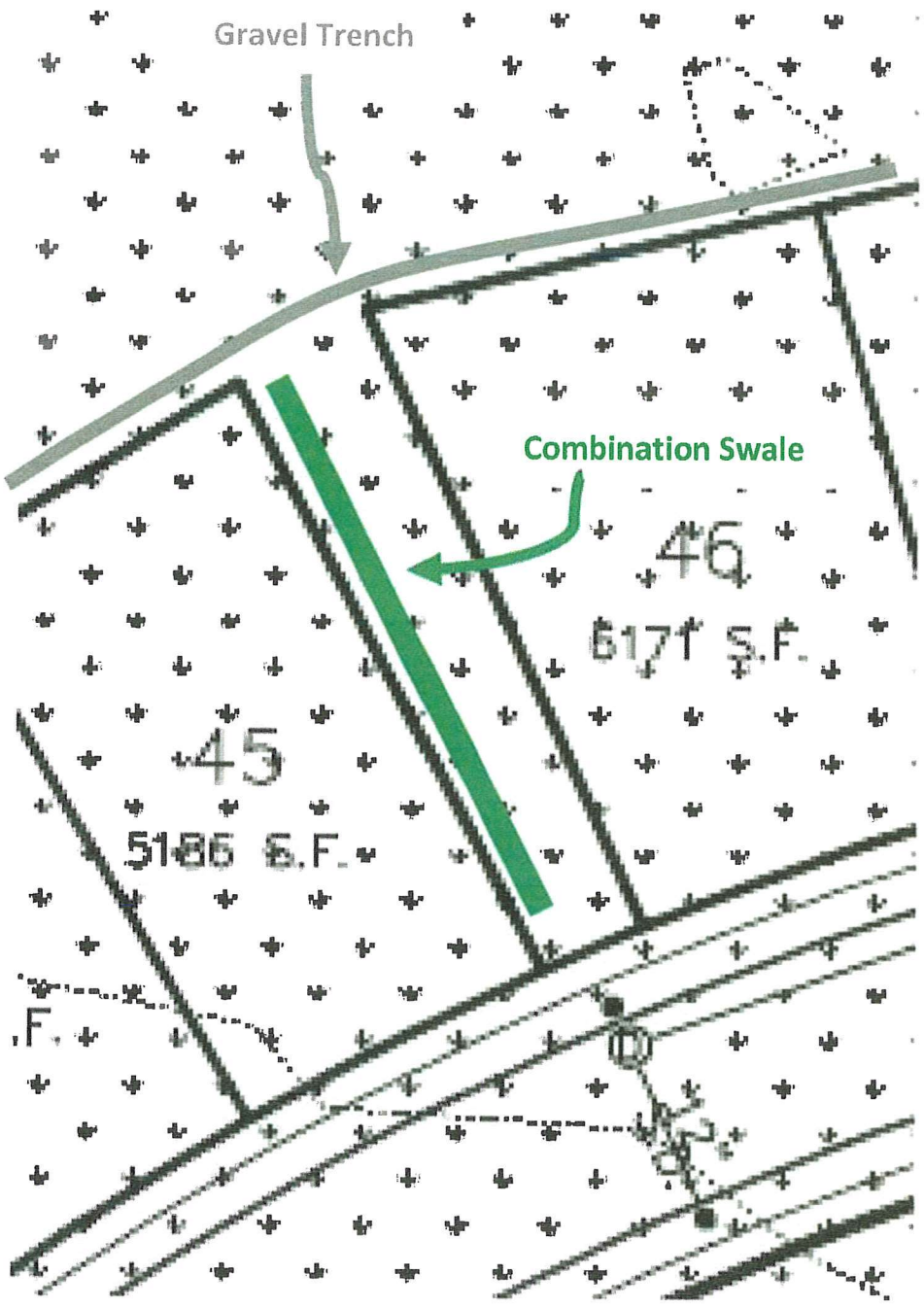

With an infiltration rate of 2.0 inches per hour, the water will pond in the combination swale to a depth of 0.05 feet. The water will then enter the underlying drain rock. The water will move through the drain rock, toward the rear-yard drain trench. From here, the water will percolate through and out of the drain rock into the North Wetland.

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This provides several benefits. First, it allows water to be released into the wetland in a dispersed fashion, rather than as a point source. This mimics natural drainage in a more realistic manner. It also helps to prevent erosion, as point sources can cause erosion during higher flows.

This method also provides a treatment train, removing pollutants along each step. Pollutants are removed with the vegetated swale through sedimentation, adsorption, and biological uptake. As they infiltrate through the growing media of the rain garden, pollutants are filtered out while other pollutants adsorb onto the soil particles and some metals are taken up by the plants roots. The gravel trench will also provide some treatment through filtration. Because of this treatment train, the water that will be draining into the wetland has been treated prior to its release into the North Wetland.

Allowing the water quality facilities to drain into the North Wetlands should provide a fairly steady amount of water. The water quality event is chosen as the 90% recurring storm, meaning that 90% of the annual rainfall is less than the water quality event. Only 10% of the annual rainfall will be in excess of the water quality event, meaning that most rain storms will provide runoff into the North Wetlands. This, along with the drain corridors should provide ample water to the North Wetlands to maintain the function and hydrology.

Feel free to contact us with any further questions or concerns.

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