

12-1-2021 **FOR THE PUBLIC RECORD**

TO: City of Tualatin Planning Commission

c/o planning@tualatin.gov;

c/o Steve Koper, Assistant Community Development Director

CC: City of Tualatin City Council, and Members of the City Council

FROM : John & Grace Lucini

RE: CITY OF TUALATIN PLANNING COMMISSION HEARING 12-2-2021

Autumn Sunrise Conditional Use Permit (CUP) 21-0001

Autumn Sunrise Subdivision (SB) 21-0001

Lennar Northwest, Inc. & Applicant's Consultant: AKS Engineering & Forestry, LLC

The planning for this development should be thoughtful, based on facts, realistic, coordinated and with anticipated outcomes supportive of existing local, state, and federal codes, mandates and requirements which have been established for the well-being of citizens, property, and the environment in both short and long terms.

Lennar Northwest has been responsive to our requests for information and has provided us with their current plans for stormwater management for their Autumn Sunrise project. At this time the plan calls for the abandonment of one the current outfalls on the east side of Boones Ferry Road, the removal of the culvert that currently drains onto our property, and the redirection of the second outfall on the east side of Boones Ferry road to their proposed collection facility to be located in the SW corner of the Autumn Sunrise development. If this is installed as planned it will ease our concerns over excessive stormwater coming onto our property on the west of Boones Ferry in the long term, which we support.

Please see Attachment 11-24-2021 AKS Response

Please see Attachment 11-24-2021 Lucini/LEA Request

Please see Attachment 11-22-2021 Lucini/LEA Request

The Lennar plans do not provide information as to when their planned demolition of the stormwater conduit under SW Boones Ferry Road will be implemented- which when completed, and Autumn Sunrise southern stormwater facility is operational- will greatly reduce the flooding and/or erosion risks we currently endure.

However, prior to the demolition of the conduit to our property, we are concerned about excessive stormwater discharge onto our property with the start or grading or construction of either the CPAH and/or the August Sunrise projects changing the existing conditions. If the current stormwater outfalls on the east side of BFR are still functional, runoff from any changes to the existing conditions which may occur from the start of any grading or construction by CPAH or that Lennar may do in this area could send increased volumes, increased velocity of stormwaters during peak flows and/or untreated stormwater onto our property through the current outfalls and culvert onto our property. It is anticipated that the CPAH stormwater will be directed to the Lennar facility at some point, but a final resolution or the timing of this has not been established.

We also understand the Autumn Sunrise development may be required to create a temporary/emergency construction road from SW Boones Ferry Road as one of the initial steps to start their first phases of their development. Any grading, or changes to the topography or soil compaction along SW Boones Ferry Road through the existing stormwater catchment area on the CPAH or Autumn Sunrise properties, may have negative downstream impacts-which sediment barriers may not completely mitigate or resolve.

We request the City of Tualatin Planning Commission

Our requests of the Planning Commission are as follows:

1. **The Planning Commission requires as a Condition the Autumn Sunrise Subdivision Approval -The removal of Washington County Stormwater Outfall #5 and the Stormwater culvert under BFR currently draining onto our property be removed, and the stormwater collected in the remaining outfall be directed to the proposed Lennar Stormwater facility on the SW portion of the August Sunrise property- as has been identified within the Autumn Sunrise SB21-0001 application.**
2. **The City requires as a Condition of the Autumn Sunrise Subdivision Approval -the Autumn Sunrise Southern Stormwater Catchment, Conveyance and Treatment infrastructure along SW Boones Ferry Road must be certified as fully functional, prior to the start of grading or construction on the upstream CPAH; and the Washington County outfall #5 and culvert have been abandoned and decommissioned as currently presented within the Autumn Sunrise demolition plans.**
3. **The Planning Commission requires as a Condition of the Autumn Sunrise Subdivision Approval- compliance to TMC 3-5-230 - On-Site Detention Design Criteria and to TMC 3-5-130 - Fish and Wildlife Habitat, as well as applicable Federal, State and Metro**
 - **Stormwater Management Requirements**
 - **Water Quality Protections**
 - **Natural Resource and Wetlands Protections**
 - **Natural Hazards Protections & Land Instability Mitigation**

There are concerns as to the methods and calculations utilized as part of the Stormwater Management Assessment and Planning, which are addressed within the attachment:

11-30-2021

Comments on the Lennar Project Documents

For the Architectural Review of the Autumn Sunrise Development

by Dave LaLiberte, Principal Engineer at LEA, Inc., Wilsonville, Oregon

Due to the issues on the phasing of Improvements for this Subdivision Application and the apparent anticipated future integration of stormwater drainage from the CPAH property impacting the start of construction on either or both projects, the City's TDC 74.110- Phasing of Improvements - indicates the City Council may play an important role- as the Code specifically states.

- 4 **We request clarification as to the Planning Commissions role during their hearing on 12-2-2021 on Autumn Sunrise SB21-0001 and the role the TDC 74.110 indicates the City Council should be taking.**

TDC 74.110. - Phasing of Improvements.

The applicant may build the development in phases. If the development is to be phased the applicant must submit a phasing plan to the City Manager for approval with the development application. The timing and extent or scope of public improvements and the conditions of development must be determined by the City Council on subdivision applications and by the City Manager on other development applications.

(Ord. 895-93, 5-24-1993; Ord. 1414-18, 12-10-2018)

Due to the lack of a City Stormwater Management Plan for the Basalt Creek Area, the ability to assess and ensure the provision of the continuous safe effective Key Public Service of Stormwater Management within

the Basalt Creek Area as part of this Land Use Action- especially due to the apparent dependence of the CPAH development on the phasing of the Autumn Sunrise developments- becomes problematic

- 5. We request clarification of the phasing of Improvements to be made for stormwater infrastructure for the Autumn Sunrise Subdivision application, and the information provided in TDC 74.140. - Construction Timing- when it is apparent the stormwater improvements for the Autumn Sunrise subdivision have not yet been formally coordinated or integrated with the phasing of CPAH development.**
- 6. Due to the lack of an adopted Stormwater Management Plan for the Basalt Creek, and the omission of relevant and important data on Natural Resources within the City's Governing Documents City Map 72-1 and City Map 72-3, it is difficult to understand how the City of Tualatin can conduct effective and professional Land Use Planning within the Basalt Creek Area. The City apparently has not requested or required an evaluation of the potential impacts on various downstream Natural Resources which are known to exist within proximity to the Autumn Sunrise properties and are within 1/4 mile of the property which may be negatively impacted by upstream stormwater caused by the proposed subdivision.**

It is questionable, if an adequate assessment has been requested, obtained, or conducted by the City as per TMC 3-5-210 - Review of Downstream System, or as part of a clearly identified and standardized Goal #5 Natural Resources Inventory.

Our concerns about the City's Land Use Planning efforts in the Basalt Creek Area, have been aggravated by the City of Tualatin's lack of a State required comprehensive regional stormwater Management plan for the Basalt Creek area. Starting in 2015, and continuing thereafter and to the present, we have submitted our concerns on many occasions and although the City has indicated for years that they will develop a comprehensive plan for Basalt Creek, to date nothing has been done. They continue to approach stormwater on a piecemeal basis with little effective overall coordination, relying on the developer of the property in question to present individual plans. As downstream property owners of two major development projects rapidly progressing through the City's Land Use review process, we are concerned that this lack of planning could result in excessive stormwater discharge onto our property and into the natural area in the Basalt Creek Canyon.

We have been homeowners within the Basalt Creek Area in unincorporated Washington County since 2005. We live on SW Boones Ferry Road -directly west (across SW Boones Ferry Road) from the Autumn Sunrise properties; and downstream from the existing stormwater catchment basin which collects drainage from portions of both the Autumn Sunrise properties and the CPAH property-due to the existing configuration of the stormwater drainage system designed and constructed by Washington County as part of the SW Boones Ferry Road Improvement Project in 2012-2015.

It was after the design and construction of the SW Boones Ferry Road Improvement Project by Washington County that our property was flooded from stormwater which originated from the CPAH and Autumn Sunrise lands.

Since our property is not within the Tualatin City Limits, we do not have elected representation in this process.

The City of Tualatin Planning Commission, according to the City's website, has a role and responsibility to...

" review, advise and make recommendations to City Council on matters affecting land use planning and the Comprehensive Plan. They have decision-making power for the following applications: Conditional Use Permits (CUP), Industrial Master Plan (IMP), Reinstatement of Use, Sign Variance (SVAR), Transitional Use Permit (TRP), and Variance (VAR)".

The City of Tualatin's also website states the ["Tualatin Planning Commission \(TPC\). The TPC fulfills Oregon Planning Goal 1, as the committee for citizen involvement in the Land Conservation and Development Commission planning process."](#)

The City of Tualatin has apparently determined the planning commission is to be used in lieu of an independent CCI. Lacking verification of a letter to the LCDC, it is not clear if the members of the Tualatin City Council has assumed the responsibility for development as well as adoption and implementation of the citizen involvement program or has to assign such responsibilities to the Planning Commission.

Consequently, a copy of this submission is also provided to the City of Tualatin City Council.

The State of Oregon Statewide Land Use Planning Goals not only provide a framework upon which all local municipalities must conduct Land Use Planning actions- including Citizen Involvement, the State's Land Use Goals also provide multiple specific mandates which all local governments shall demonstrate compliance as part of Land Use Planning actions.

The City of Tualatin Planning Commission therefore has multiple roles and responsibilities. Each member of the Planning Commission is accountable during their deliberations - not only to fulfilling the requirements established by the City, but also the requirements established by other Regional, State and Federal Statutes.

In addition to Statewide Planning **Goal #1 CITIZEN INVOLVEMENT OAR 660-015-0000(1)**
Goal #2 -LAND USE PLANNING OAR 660-015-0000(2) is also applicable to all Land Use Planning Actions...

["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."](#)

Additional Oregon Statewide Land Use Goals applicable to the proposed Autumn Sunrise Subdivision and CUP Applications:

- Land Use Planning Goal # 5: Natural Resources and Open Spaces OAR 660-015-0000(5)**
- Land Use Planning Goal # 6: Air, Water and Land Resources Quality OAR 660-015-0000(6)**
- Land Use Planning Goal # 7: Areas Subject to Natural Hazards OAR 660-015-0000(7)**
- Land Use Planning Goal # 8: Recreational Needs OAR 660-015-0000(8)**
- Land Use Planning Goal # 9: Economic Development OAR 660-015-0000(9)**
- Land Use Planning Goal # 10 Housing OAR 660-015-0000(10)**
- Land Use Planning Goal #11 Public Facilities and Services OAR 660-015-0000(11)**
- Land Use Planning Goal # 12: Transportation OAR 660-015-0000(12)**
- Land Use Planning Goal # 14: Urbanization OAR 660-015-0000(14)**

METRO -Metropolitan Service District of the Portland metropolitan area also has land use jurisdiction over the City of Tualatin, and the Basalt Creek Area which the City of Tualatin must also comply, coordinate, and support. Several Metro Statutes are relevant to the Autumn Sunrise Subdivision Application SB21-0001 and CUP 21-0001, including:

- Title 3: Water Quality And Flood Management 3.07.310**
- Title 13: Nature In Neighborhoods 3.07.1310**
- Title 12: Protection of Residential Neighborhoods 3.07.1210**

The City of Tualatin Notice has identified the approval criteria for this major Land Use subdivision application as:

**Tualatin Comprehensive Plan Chapters 3 and 10;
Tualatin Development Code (TDC) Chapters 32, 33, 36, 41, 51, 73A, 73B, 73C, 73G, 74, and 75, and
Title 3 of the Tualatin Municipal Code (TMC)**

What has not been made clear, is the City's Land Use process being conducted for the effective planning and coordination of two Key Public Services in Land Use Planning for the urbanization of the Basalt Creek Area. These are two important elements identified within multiple Land Use Planning Goals as well as in LCDC requirements. The City of Tualatin Development Code also identifies the need for effective Land Use Planning for Key Public Services- and adverse consequences if not conducted in a manner within customary professional standards.

The City's code does not encourage or support the abdication of appropriate review, assessments or use of appropriate planning methods in the City's Land Use Planning process.

PLANNING OF KEY PUBLIC SERVICES IS NEEDED and NECESSARY FOR EFFECTIVE AND SUCCESSFUL OUTCOMES FOR LAND USE ACTIONS IN THE BASALT CREEK AREA-

The need for critical evaluation of the Key Public Services of Stormwater Management and Transportation is summarized within the City of Tualatin Development Code

TDC 74.010. - PUBLIC IMPROVEMENT REQUIREMENTS Purpose.

The City's Community Plan sets forth the requirements for providing adequate transportation and utility systems to serve the community's present and future needs. Land development without adequate transportation and utility systems will adversely affect the overall economic growth of the City and cause undue damage to the public health and welfare of its citizens. Consequently, the City finds that it is in the public interest to require land development to meet the following improvement requirements.

(Ord. 895-93, § 14, 5-24-93)

https://library.municode.com/or/tualatin/codes/development_code?nodeId=THDECOTUOR_CH74PUIMRE

Land Conservation and Development Department

Chapter 660 Division 11 PUBLIC FACILITIES PLANNING 660-011-0000

The purpose of this division is to aid in achieving the requirements of Goal 11, Public Facilities and Services, OAR 660-015-0000(11), interpret Goal 11 requirements regarding public facilities and services on rural lands, and implement ORS 197.712(2)(e), which requires that a city or county shall develop and adopt a public facility plan for areas within an urban growth boundary containing a population greater than 2,500 persons.

The purpose of the plan is to help assure that urban development in such urban growth boundaries is guided and supported by types and levels of urban facilities and services appropriate for the needs and requirements of the urban areas to be serviced, and that those facilities and services are provided in a timely, orderly and efficient arrangement, as required by Goal 11.

The division contains definitions relating to a public facility plan, procedures and standards for developing, adopting, and amending such a plan, the date for submittal of the plan to the Commission and standards for Department review of the plan.

660-011-0015

Responsibility for Public Facility Plan Preparation

(2) The jurisdiction responsible for the preparation of the public facility plan shall provide for the coordination of such preparation with the city, county, special districts and, as necessary, state and federal agencies and private providers of public facilities.

- 1. Integration and coordination of REGIONAL STORMWATER MANAGEMENT planning within the Basalt Creek Area is needed to ensure the provision and continuous safe and effective Public Service**
- 2 Coordinated and integrated of planning for effective and safe TRANSPORTATION is needed within the proposed development and into the local community**

STORMWATER MANAGEMENT.

The City of Tualatin lacks an adopted Stormwater Management Plan (SWMP) for the Basalt Creek Area. This is a significant Land Use Planning issue, as the State established this requirement to help ensure the provision for continuous safe and effective stormwater needs assessment and planning for short- and long-term regional needs. Lacking a (SWMP) for the Basalt Creek Area is problematic not only for appropriate Land Use Planning, but inadequate planning may cause significant negative impacts to downstream residents, property and Natural Resources. This is particularly important issue in the Basalt Creek Area, due to the steep slopes, erosion and land stability concerns, and the negative impacts upon a canyon which has 14 acres of wetlands and high valued riparian and upland habitats.

While the City has known of the need for the development of this required Land Use planning and assessment tool for the urbanization of the Basalt Creek Area for many years, the City does not currently have a region wide plan for the Basalt Creek Area and is not planning to start the development of a (SWMP) until the 2021-2022 budget year.

The Basalt Creek Concept Plan and the City of Tualatin Basalt Creek Comprehensive Plan omitted relevant pertinent information and lacked the analysis required in a (SWMP).

Since the adoption of these two documents, the City has adopted Map Changes, Development Code Changes, and granted Land Use Variances, which impact the Land Use Zoning Designations, which questions the validity of the use of either of these two documents for future stormwater management planning.

The City has stated their reliance upon Clean Water Service (CWS) Standards, and the City's utilization of CWS review of individual development plans is sufficient for Stormwater Management Planning. However, this perspective of the City's is not supported by Oregon State Land Use Planning Goals, nor the State's Statutes for the assurance of provision of safe and effective Public Services, due to the lack of an adopted, integrated, and coordinated regional plan based upon accurate assessments, analysis, and identification of the future needs of the entire Basalt Creek Area.

Lacking a Stormwater Management Plan for the Basalt Creek Area, the City may find itself, unable to have the appropriate infrastructure in place when construction starts to change the existing conditions in the Basalt Creek Area -which may increase downstream stormwater volume, velocity or amount of sediment with stormwater runoff.

Effective Land Use Planning for the Basalt Creek Area is hampered by the lack of coordinated and integrated regional stormwater management plan when large multiple developments are already submitting Land Use applications, and where one development is dependent upon one another to ensure the continuous safe and effective provision of this Key Public Service.

We are appreciative of the information provided to us by the developer, Lennar Northwest, Inc and their Consultant AKS during their previous Land Use Action PTA 20-0005 Plan Text Amendment/PMA 20-0002 in March 2021, and again with the current applications.

(Please See 3-8-2021 AKS Attachment).

Based upon their communications, we have been able to obtain a greater understanding of what Lennar Northwest is proposing in the development of their subdivision.

It is our understanding from the documents submitted, that Lennar Northwest, Inc intends to make improvements to the existing stormwater infrastructure which if implemented as presented, and at the time of completion, would reconfigure the existing stormwater infrastructure and reroute stormwater flows along the east side of SW Boones Ferry Road into a collection and conveyance system and into a treatment facility on the southern portion of their property along SW Boones Ferry Road.

While the Autumn Sunrise application indicates the Land Zoned for Neighborhood Commercial (NC) is not included within the current applications, with an unknown date for future planning. Yet, a large portion of the (NC) designated land is included within the current applications and identified as a Stormwater Facility to serve the southern portions of their properties, with plans to be a regional collection and future treatment facility for the southern portion of the CPAH lands. While we understand and support the need for local and regional stormwater management planning, this discrepancy should be noted for current and future Land Use planning.

The current Autumn Sunrise plans- if and when completed, would include the decommissioning/demolition of a stormwater intake, and a stormwater conduit which currently transports stormwater under SW Boones Ferry Road, and discharges untreated stormwater onto our property.

We strongly support this plan, as the current stormwater infrastructure within the NE portion of the Basalt Creek Area was designed and built upon the land use designation of undeveloped rural land, as opposed to the much higher stormwater management needs of more densely constructed buildings, parking lots, streets and sidewalks which significantly increase the impervious runoff.

- This plan if and when implemented would address the need for improved collection and treatment of stormwater from the NE portion of the Basalt Creek Area which currently discharges onto our property, and then into the wetland and high valued habitats downstream.
- This plan if and when implemented, would also address and reduce safety concerns of downstream flooding, erosion and land instability. Our property has already been flooded by a failure in the existing system, which neither the City of Tualatin nor Washington County has made significant improvements to remedy.

As the CPAH property currently drains to the south and onto the Autumn Sunrise property, and then discharges onto our property-we are concerned as to the sequencing of when stormwater runoff from the CPAH property will be collected and treated as their development plan continues to move through the City's Land Use Planning process.

Due to the lack of clarity and planning provided by a regional Stormwater Management Plan for the Basalt Creek Area- a significant question becomes---

How will the City ensure the coordination and provision of consistent safe and effective Stormwater Management downstream in the Basalt Creek Area

- **collect and treat the CPAH stormwater runoff at the start of their grading or construction**
- **to mitigate flooding, erosion and flow of untreated drainage downstream from the CPAH lands**
- **If the Autumn Sunrise southern regional Stormwater collection and treatment facility is not yet completely functional?**

We received a letter dated 11-24-2021 from Mr. Alex Hurley, PE, PLS, Principal AKS ENGINEERING & FORESTRY, LLC for Lennar Northwest, responding to our concerns as to the yet unaddressed and unplanned stormwater management for the CPAH property (which has no current stormwater intake nor treatment facilities on site) yet is planning to develop high density housing upstream from us and from the Autumn Sunrise properties.

Response: The CPAH site development is dependent on construction of Autumn Sunrise Phase 3, bringing sanitary sewer to their site. The Autumn Sunrise Phase 3 development will construct the Boones Ferry Road stormwater system improvements. Thus, the CPAH site development cannot occur prior to the Autumn Sunrise Phase 3 stormwater system being constructed.

Due to the City of Tualatin's lack of a Stormwater Management Plan for the Basalt Creek Area, we have again hired Dave LaLiberte, Principal Engineer at LEA, Inc., Wilsonville, Oregon to evaluate the proposed Autumn Sunrise subdivision. Mr. La Liberte has conducted onsite evaluations within the Basalt Creek Area, and has 30 years of experience in surface water quality analysis and evaluation, hydrology and hydraulics, stormwater system analysis, biological criteria for water and sediments, environmental quality control, sewage and industrial pollution abatement, effluent treatment alternatives and design, discharge requirements for NPDES wastewater and stormwater permits, mixing zone assessment, water intake and thermal discharges and environmental design, to review the Autumn Sunrise Subdivision application.

Please see attachment :

2021 11-30 Review of the Autumn Sunrise Subdivision Application by LEA Associates Appendices A-D

A summary of his findings provides additional points of concern due to the City's Land Use Planning process and results.

His review provides additional points of concerns-should the stormwater conduit discharging onto our property is not removed prior to the beginning of grading or construction upstream from us.

- The proposed development poses a significant risk to downstream properties and wetlands. The Lucini property will receive untreated stormwater discharges from the planned Autumn Sunrise Subdivision (AS). These are stormflows that will be generated on the developed Community Partners for Affordable Housing (CPAH) property before passing through AS.
- The lack of a City of Tualatin, Stormwater Master Plan means that coordination between affected parties will not occur in an organized and documented manner. For example, the lack of coordination between Lennar and CPAH has resulted in errors in the stormwater modeling by AKS Engineering and Forestry (for Lennar). The presentation of the stormwater pond as proposed has resulted in confusion as to how the facility will be integrated with existing wetlands.
- As presently planned, storm flows from the new CPAH and AS developments can flow into Washington County's Boones Ferry Road Storm Outfall #5 (see Appendix C). This outfall discharges directly onto the Lucini property.
- These increased storm flows are largely untreated and violate Clean Water Services standards (see CWS Design and Construction Standards (2019), Chapter 4- - Runoff Treatment and Control). The new storm discharges will ultimately

flow into the Basalt Creek Wetlands negating the basis of the City of Tualatin's Natural Resource maps 72-1 and 72-3 as well as Oregon Division of State Lands (DSL) Title 13 and Goal # 5 - Natural Resources).

- The proposed stormwater pond in the SW portion of the AS development will collect and hold the AS runoff through periods of storm events. The County's Storm Outfall #7 (see Appendix C) is an existing 24-inch pipe that will serve as the pond discharge facility. This is a concrete pipe passing under SW Boones Ferry Road. It discharges directly into a wetland. Storm flows in the outfall will be directly affected by the AS pond operation.
- No detailed drawings of the stormwater pond outlet structure were provided in the Autumn Sunrise Plans. There is no assurance that the stormwater pond storage will operate as assumed in the model.

In addition to lacking an adopted Stormwater Management Plan for the Basalt Creek Area, the City has omitted other significant information and documentation within the City's Governing Documents which are pertinent and necessary for effective Land Use Planning within the Basalt Creek Area- and which the City should be utilizing when reviewing Land Use Applications.

The Tualatin is a "one map" City and the City's Comprehensive Plan Map designation for a specific property also acts as Zoning Map designation for that property.

- The City's adopted (Ord 1418-19) Natural Resource Map 72-1: Natural Resources Protection Overlay District (NRPO) and Greenway Locations and Map 72-3 Significant Natural Resources -
 - omit significant standardized information as to the existence of various Natural Resources known to exist in the Basalt Creek Area- but not documented within the City's Natural Resource Maps
 - multiple steep slopes in excess of 25% identified by Metro,
 - a 14-acre wetlands identified within the Federal Wetlands Inventory List,
 - high valued riparian and upland habitats identified within Basalt Creek Area on several Metro maps including Title 13 Nature in Neighborhoods Map
 - Yet, similar Natural Resources are identified on City Maps 72-1 and 72-3 throughout the other portions of the City's Land Use Planning Area on these maps.
 - As there are several authoritative maps which identify the existence of Natural Resources within the Basalt Creek Area, there appears to be a lack of a clear standardized method of data collection, data application or ability to integrate data into the Governing Documents of the City, which may cause inconsonant implementation of City statutes- particularly affecting the Basalt Creek Area.
- It is also problematic that the Autumn Sunrise application includes maps of Natural Resources, including trees on the property and a wetland, yet the scope of these maps does not exceed the boundaries of the property by a significant distance, and does not provide assessments for 1/4 mile downstream from the properties.
- The lack of accurate information within the City's Natural Resource Maps as to the existence of numerous Goal #5 and Title #13 Natural Resources compounded with the limited downstream assessments included within the Autumn Sunrise SB 21-0001 and CUP 21-0001 should cause alarm as to the effectiveness of the City's responsibilities and accountabilities for the protection and conservation of the Natural Resources within the Basalt Creek Area.
- Due to the lack of identified Natural Resources within the Basalt Creek Area, on the City's Natural Resource Maps, it is questionable if and how **TDC 74.120. - Public Improvements** would be implemented, which can lead to inconsistencies in development within the Basalt Creek

Area. This can also lead into inconsistencies and difficulties of assessment or implementation with other City Codes which utilize or reference City Maps 72-1 or 72-3 as part of criteria for Land Use Actions in the Basalt Creek Area.

660-016-0010

Develop Program to Achieve the Goal

Based on the determination of the economic, social, environmental and energy consequences, a jurisdiction must “develop a program to achieve the Goal.” Assuming there is adequate information on the location, quality, and quantity of the resource site as well as on the nature of the conflicting use and ESEE consequences, a jurisdiction is expected to “resolve” conflicts with specific sites in any of the following three ways listed below.

Compliance with Goal 5 shall also be based on the plan’s overall ability to protect and conserve each Goal 5 resource. The issue of adequacy of the overall program adopted or of decisions made under sections (1), (2), and (3) of this rule may be raised by the Department or objectors, but final determination is made by the Commission, pursuant to usual procedures:

The lack of accurate, standardized assessments of the existing conditions within the Basalt Creek Area within the City's governing documents is a significant issue which has been brought to the attention of the City, the City Planning Commission, and the City Council on multiple occasions over several years, without resolution.

We anticipate the City of Tualatin will provide additional information to the Public as part of the final subdivision approval Land Use process as to the specifics of the stormwater drainage facilities for the Autumn Sunrise Development which are to be granted to the City but are not provided within the SB21-001 application as specified in **TDC 74.330. - Utility Easements.**

Additional City Statutes which are pertinent to Land Use Planning within the Basalt Creek Area- when the City lacks the adoption of multiple documents which have been created to help monitor assesses and implement Land Use Actions designed to protect Citizens and property and to help protect and conserve various types of Natural Resources -- are listed below:

- **TMC 3-5-010 - Policy**
- **TMC 3-5-020 - Application and Purpose, Short Title**
- **TMC 3-5-040 - Erosion Prohibited**
- **TMC 3-5-050 - Erosion Control Permits.**
- **TMC 3-5-390 - Facility Permit Approval.**
- **TDC 74.650. - Water Quality, Storm Water Detention and Erosion Control.**
- **TDC 74.630. - Storm Drainage System**
- **TDC 74.640. - Grading**

It is the City's responsibility to review and ensure the City's compliance to their own City Codes, as well as Metro, State and Federal mandates.

The City has assigned the City of Tualatin Planning Commission to oversee and validate- for themselves- if the City is in compliance.

As the City lacks an independent Committee for Citizen Involvement (CCI) as specified by Statewide Land Use Planning Goal #1 for Citizen Involvement, and Goal#2 for Land Use Planning, the City of Tualatin Planning Commission is apparently responsible and accountable for implementing the goals and intentions of the various regulations established by various governmental entities.

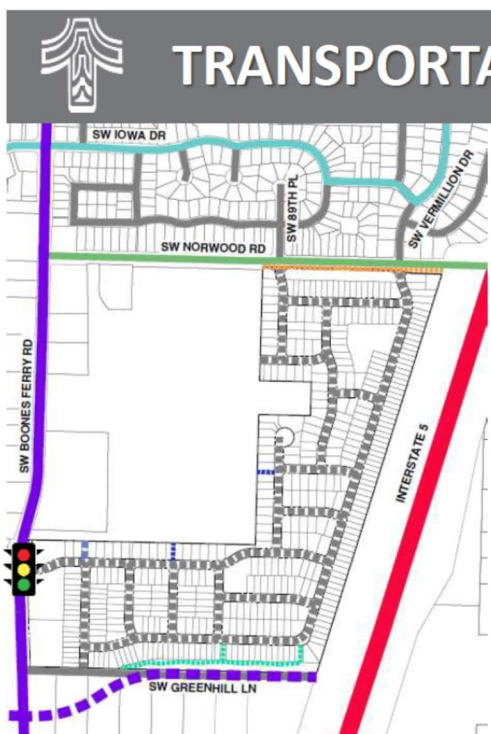
TRANSPORTATION ISSUES:

The purpose and intent of TDC 74.010. - **Purpose Public Improvement Requirements**, is equally applicable to the need for appropriate assessment and planning for the transportation needs of the local properties, as well as the integration into local Basalt Creek roads and community.

During prior Community Meetings, and submissions to the City regarding the Autumn Sunrise development, we sought additional information as to the coordination of planning for traffic flow and volume between the various local governments, and the impacts of the comments, recommendations, or declarations of jurisdictions gained from the outreach and coordination.

We are pleased to see and support the alignment of the SW Boones Ferry Road access will include a signal which will improve safety flow of traffic along SW Boones Ferry Road and access and egress for the Frontage Road.

There are some points of clarification which are requested.



- Signalized intersection at Boones Ferry Road
- New system of local streets
- Sidewalks included along all streets
- Trail connections
- Frontage improvements
 - Boones Ferry Road
 - Norwood Road
- Dedication of right-of-way for future parkway extension in location of Greenhill Lane

Autumn Sunrise CUP and Subdivision

TUALATIN PLANNING COMMISSION
December 2, 2021

6

1. The Transportation Plan copied above, appears to include a road accessing SW Greenhill Road to the South.

Can clarification be provided if changes have been agreed upon between the City of Tualatin, and Washington County as to vehicular access off of the Washington County proposed Basalt Creek Parkway Extension as provided in letter submitted by Washington County to the City of Tualatin on 1-21-2020 as part of the Autumn Sunrise Annexation Process?


(Please See Attached Letter 1-29-20 Washington County to City of Tualatin)

Pursuant to the County TSP designation, the County's expectation is that any future City development approvals on the subject properties will reflect adequate right-of-way dedication, measured from the existing Greenhill Lane centerline, for one half of the ultimate required width for a 4-5 lane arterial roadway per the Washington County TSP, including placement of any necessary retaining walls and/or fill material that may be needed to construct the future

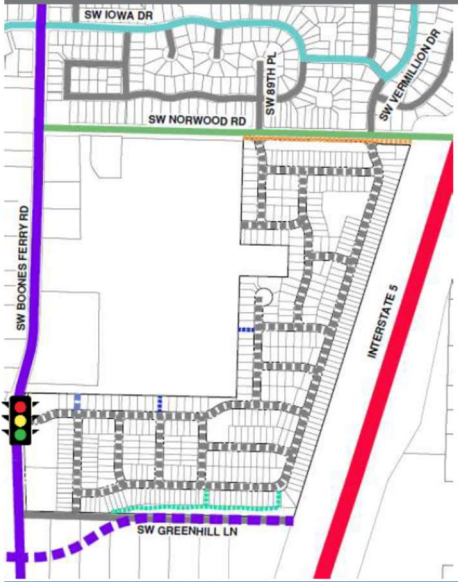
Basalt Creek Parkway overcrossing of 1-5. No vehicular access shall be permitted from the subject properties to the future Basalt Creek Parkway.

2. There appears to be a discrepancy between the traffic planning for the CPAH property as provided as during the City of Tualatin Planning Commission Hearing on 11-18-2021, for the CPAH Land Use Variances, and the Transportation plan included within the Autumn Sunrise SB21-0001 application.

The proposed Autumn Sunrise Transportation Plan as being presented as part of the City's Land Use Hearing on 12-2-2021, does not indicate vehicular access from the Southern portion of the Autumn Sunrise properties north towards the CPAH property.



TRANSPORTATION PLAN



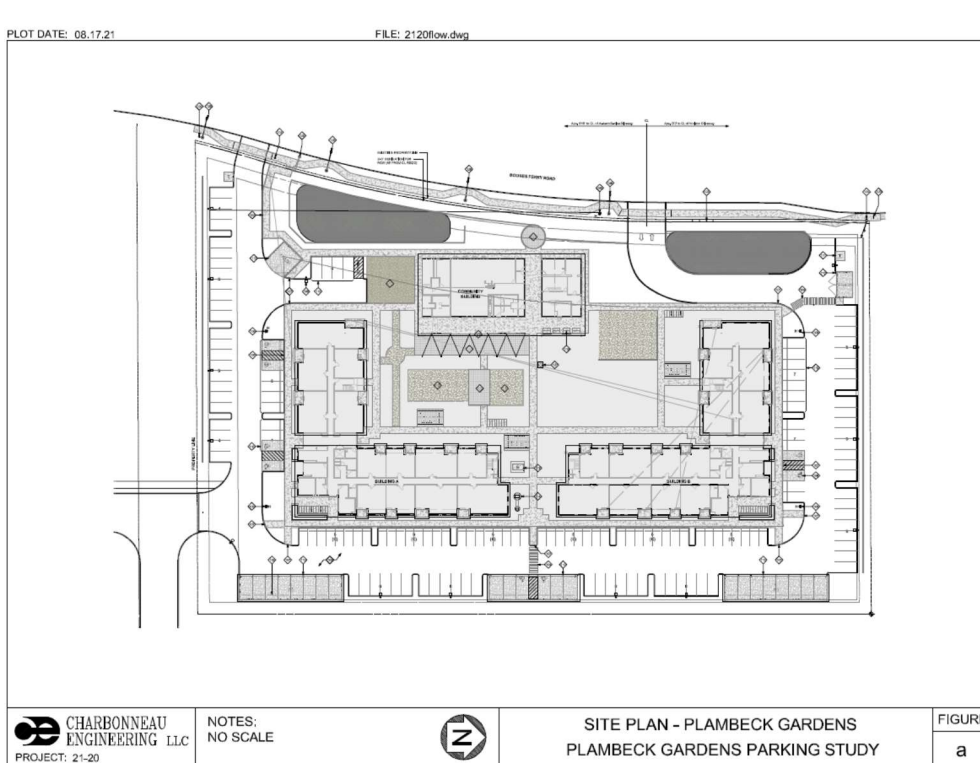
- Signalized intersection at Boones Ferry Road
- New system of local streets
- Sidewalks included along all streets
- Trail connections
- Frontage improvements
 - Boones Ferry Road
 - Norwood Road
- Dedication of right-of-way for future parkway extension in location of Greenhill Lane

Autumn Sunrise CUP and Subdivision

TUALATIN PLANNING COMMISSION
December 2, 2021


6

Yet, the 8-17-2021 Parking Study presented during the 11-18-2021 CPAH Hearing includes a vehicular access to the south border of their property, indicating connection to a road south of the CPAH property connecting through and past the existing Horizon Church and School road, and apparently onto the Autumn Sunrise properties.




It appears there needs to be additional coordination of Land Use Planning provided by the City of Tualatin to resolve these significantly differing transportation plans which were provided as part of the City's Land Use Planning process, within weeks of each other.

3. The Transportation Plan copied above also appears to omit identification of vehicular access for a 50,000 vehicle to provide service and maintenance for the proposed Southern Stormwater Collection and treatment facility along SW Boones Ferry Road as provided in **TDC 74.350. Maintenance Easement or Lots.**
4. The Autumn Sunrise Subdivision application provides little information as to the coordination and integration of Washington County's Basalt Creek Parkway Extension as presented within SB21-0001, and the apparent discrepancies with Washington County's most currently posted 10-20-2020 Boones Ferry Road Access Reconfiguration Map as to the location and positioning of the future intersection of the Basalt Creek Parkway Extension onto SW Boones Ferry Road and its alinement to Greenhill Lane.

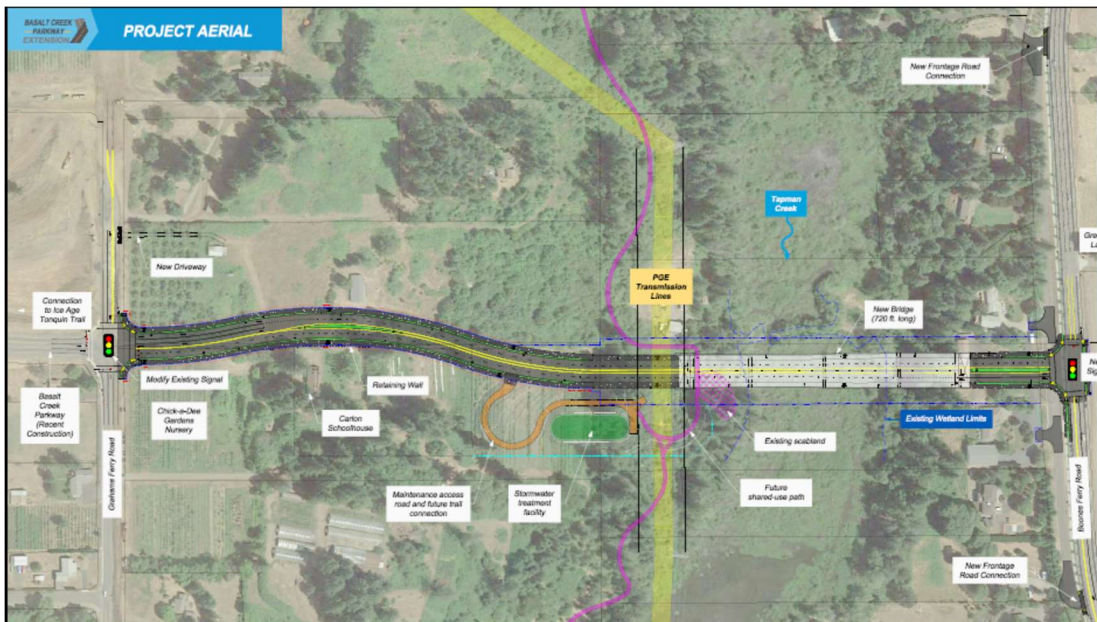


TRANSPORTATION PLAN



- Signalized intersection at Boones Ferry Road
- New system of local streets
- Sidewalks included along all streets
- Trail connections
- Frontage improvements
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 - Norwood Road
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Autumn Sunrise CUP and Subdivision
TUALATIN PLANNING COMMISSION
December 2, 2021



We look forward to hearing the questions and discussions of the City of Tualatin Planning Commission, as each member seeks to gain fact-based information upon which to make a truly informed decision. The Planning Commission must realize the importance of their multiple roles, and the implications in determining the largest residential subdivision to be constructed in the Basalt Creek Area.

Respectfully submitted,
 John and Grace Lucini
 23677 SW Boones Ferry Road
 Tualatin, OR 97062

HISTORICAL RECORDS:

Copies of our submissions to the City relating to the issues presented above should be on file at the City of Tualatin for various Land Use Actions pertaining to the Basalt Creek Area- including but not limited to:

- the Basalt Creek Concept Plan,
- the City of Tualatin Basalt Creek Comprehensive Plan,
- the Land Use Annexations for the Autumn Sunrise and CPAH properties,
- the City of Tualatin Stormwater Master Plan Update,
- the City of Tualatin District Urban Renewal Plan for the Basalt Creek & SW Concept Areas
- various Basalt Creek Land Use Actions changing Land Use zoning,
- Land Use map designation, Development Code Changes, and Development Variance requests for the Basalt Creek Area.

Copies of these submissions can be provided by us, should the City be unable to locate their copies.

ATTACHMENTS:

2021 11-30 Review of the Autumn Sunrise Subdivision Application by LEA Associates Appendices A-D

2021 11-24 AKS Alex Hurley PE, PLS Principal-Letter to Lucini RE: Request for Stormwater Information from Lennar Autumn Sunrise

2021 11-24 EM from Lucini/LEA to Lennar Northwest
Remaining Stormwater Information Needed from Lennar for the Autumn Sunrise Development

2021 11-22 EM from Lucini/ LEA to Lennar Northwest
Request for Stormwater Information from Lennar for Autumn Sunrise Development

2021 3-8 Letter from AKS to Tualatin City Council, City Planning Department
Autumn Sunrise - PTA 20-0005 and PMA 20-0002 Proposed Conditions of Approval

2020 8-2 Email from Lucini to Tualatin City Council, City Planning Department AKS Engineering
Autumn Sunrise Neighborhood Meeting -Lucini Comments

2020 1-29 Letter from Washington County Counsel to City of Tualatin City Attorney
Autumn Sunrise Annexation- Access from Greenhill Lane

City of Tualatin Map 72-1 Significant Natural Resources Map Adopted OR 14-18-19

City of Tualatin Map 72-3

Comments on the Lennar Project Documents For the Architectural Review of the Autumn Sunrise Development

These review comments on the Lennar Northwest, Inc. proposed Autumn Sunrise Subdivision are by Dave LaLiberte, Principal Engineer at LEA, Inc., Wilsonville, Oregon. Cumuli Vitae is available in the attached Appendix A. Comments are made on behalf of John and Grace Lucini at 23677 SW Boones Ferry Road, Tualatin, OR, 97062.

Summary Review Comments

The proposed development poses a significant risk to downstream properties and wetlands. The Lucini property will receive untreated stormwater discharges from the planned Autumn Sunrise Subdivision (AS). These are stormflows that will be generated on the developed Community Partners for Affordable Housing (CPAH) property before passing through AS.

The lack of a City of Tualatin, Stormwater Master Plan means that coordination between affected parties will not occur in an organized and documented manner. For example, the lack of coordination between Lennar and CPAH has resulted in errors in the stormwater modeling by AKS Engineering and Forestry (for Lennar). The presentation of the stormwater pond as proposed has resulted in confusion as to how the facility will be integrated with existing wetlands.

As presently planned, storm flows from the new CPAH and AS developments can flow into Washington County's Boones Ferry Road Storm Outfall #5 (see Appendix C). This outfall discharges directly onto the Lucini property.

These increased storm flows are largely untreated and violate Clean Water Services standards (see CWS Design and Construction Standards (2019), Chapter 4- - Runoff Treatment and Control). The new storm discharges will ultimately flow into the Basalt Creek Wetlands negating the basis of the City of Tualatin's Natural Resource maps 72-1 and 72-3 as well as Oregon Division of State Lands (DSL) Title 13 and Goal # 5 - Natural Resources).

The proposed stormwater pond in the SW portion of the AS development will collect and hold the AS runoff through periods of storm events. The County's Storm Outfall #7 (see Appendix C) is an existing 24-inch pipe that will serve as the pond discharge facility. This is a concrete pipe passing under SW Boones Ferry Road. It discharges directly into a wetland. Storm flows in the outfall will be directly affected by the AS pond operation.

No detailed drawings of the stormwater pond outlet structure were provided in the Autumn Sunrise Plans. There is no assurance that the stormwater pond storage will operate as assumed in the model.

Average flows will increase 34.1 percent for Storm Outfall #7, from 1.04 cfs to 1.40 cfs (cubic-feet-per-second). This is for a 72-hour design storm event as evaluated by AKS in its stormwater Report. The effect of larger average storm flows on the receiving wetland downstream was not evaluated by Lennar or AKS.

There needs to be drawings relating to the prevention of unpredictable flows and erosion from events resulting from temporary and transitory conditions. To aid in this, there needs to be drawings that show at least: 1) the project phases, 2) construction sequencing and 3) temporary stormwater piping required to prevent unpredictable flows and erosion conditions from concentrated flows.

Recently Obtained Reference Documents

Recently obtained (November 2021) documents from Lennar and other sources are reviewed in these comments.

These are: a.) *Autumn Sunrise Composite Utility Overview*, which includes stormwater conveyance plans (and b.) *Preliminary Stormwater Report* by AKS dated July 2021. No information was provided by Lennar relating to coordinating agencies for effects on wetlands.

Construction Sequencing, Temporary Stormwater Facilities and Erosion Control Requirements

An upcoming transition from largely undeveloped to urbanized developed property is planned for this section of land adjacent and east of SW Boones Ferry Road. Presently, this section is predominantly farmland and 2 acre lots, which will be substantially urbanized.

This transition has significant potential to generate unpredictable storm flows and pollution. The Preliminary Grading and Erosion and Sediment Control (ESC) Plan are contained in AKS Plans, PG series. Drawing PG-04 is for the SW section of the development site. However, it shows only storm and erosion controls for surface runoff. It does not show temporary stormwater piping required to handle concentrated storm flows from the CPAH property and prevent erosion.

Uncontrolled grading in the Autumn Sunrise Subdivision will alter storm flow routing and direction and cause erosion. Uncontrolled storm flows before project completion will convey eroded suspended solids into existing water courses. One of these downstream watercourses flows through the Lucini property.

To prevent erosion causing events resulting from temporary and transitory conditions, there needs to be drawings that show at least: 1) the project phases, 2) construction

sequencing and 3) temporary stormwater piping required to prevent unpredictable flows and erosion conditions from concentrated flows.

Coordinated Affected Participants

Wetlands are present on the SW corner portion of the development site and will be earthen filled by the west embankment of the Stormwater Pond. Discharges from the proposed stormwater pond will be released to the West directly into a wetland, which ultimately passes west into the Basalt Creek Wetlands. This is via Washington County's Storm Outfall #7, a 24-inch concrete culvert under SW Boones Ferry Road; and steep down-slope channel.

Lennar has indicated that it is following CWS stormwater requirements (AKS Letter received November 30). However, there have already been a number of significant departures from CWS requirements. Examples of these are:

- A) Using runoff curve numbers other than identified by CWS Design and Construction Standards in 5.04.2 – Flow Determination – Storm Conveyance for undeveloped property for the CPAH property, which is projected to be heavily developed;
- B) Lennar did not identify the downstream wetlands, identified by Oregon DSL and the County, that its proposed stormwater pond will directly discharge into;
- C) Using alternative Hydrologic Soil Group (HSG) than identified by CWS Design and Construction Standards in 5.04.2 – Flow Determination – Storm Conveyance as per SCS requirements. [From page 1 of the AKS Letter received November 30, 2021.]

It is challenging to see how, with these departures from CWS requirements, Lennar will coordinate discharges to/from a multiple source stormwater wetland pond. This also applies to conditions elsewhere on the development site. Stormwater coordination needs to be formalized and include Lennar, City of Tualatin (see Natural Resource maps 72-1 and 72-3), Washington County (responsible agency for BFR), Clean Water Services (CWS), CPAH contributor, Oregon Division of State Lands (DSL, see Title 13 and Goal # 5 - Natural Resources), US Army Corps of Engineers (USCOE), and other contributing agencies and entities?

Timing of Culvert #5 Demolition

The AS demolition plan DP-04 indicates that the existing storm pipe in BFR is to be discontinued (see Plans Notes 16 through 19). This piping section is labeled as Outfall #5 in the Washington County BFR Widening Project (see excerpt in Appendix C). This 12-inch outfall discharges directly to the Lucini property from the proposed AS.

The demolition timing for this outfall is critical. Largely untreated and increased storm flows from the developed CPAH site will flow into this outfall via the AS property until redirected. This is an unacceptable situation and needs to be fixed before the new CPAH development comes on line.

AKS Modeling of CPAH Runoff

Stormwater modeling of rainfall runoff by AKS is non-representative and is simulated as primarily undeveloped. It is known that the CPAH site will be an intensely urban development. This underscores the problem of a lack of a City of Tualatin Stormwater Master Plan. Communication and apparent coordination are affected between Lennar, CPAH, CWS, City of Tualatin and other affected agencies.

Runoff from the CPAH development is modeled as an existing undeveloped catchment with runoff amounts unchanged between pre- and post-developed conditions. The AKS model uses the runoff curve number (CN) as a critical parameter in its stormwater modeling. The greater the runoff CN, the greater the runoff proportion up to 100.

For the subcatchment that comprises the CPAH site, i.e., subcatchment 160X as shown in the excerpts from the AKS Stormwater Report in Appendix B. The runoff curve number used in the HydroQual model employed by AKS is CN=83 for Subcatchment 160X for both developed and undeveloped conditions (see excerpt in Appendix B).

For intensely urban subcatchments, CN values in the 90s are typical (see CWS Design and Construction Standards (2019), Chapter 4 - Runoff Treatment and Control). When AKS modeled its Future Commercial area, it used a CN=94 (see Post-development Subcatchment 2S modeling excerpt in Appendix B). Storm flows could be at least 13.3 percent higher¹ under real conditions than modeled by AKS for the CPAH subcatchment (i.e., subcatchment 160X).

The Lucini property will be receiving these increased unaccounted flows if Storm Outfall #5 is not decommissioned before the proposed CPAH facilities come into operation. Additionally, these will be largely untreated flows that will pass through the Lucini property and into the Basalt Creek Wetlands.

The stormwater pond will also be adversely affected by increases in unaccounted stormflows. Overtopping of the facility is a possibility as no safety factor is applied thus far in the AKS pond design. Moreover, no pond spillway is identified in the Plans and overflows will be uncontrolled.

Stormwater Pond Facility

A major feature of the Autumn Sunrise Subdivision stormwater system is the storage pond.

Pond effects on existing wetlands. The existing wetland on the AS development site will be filled by the West embankment of the stormwater pond. This is shown in the AKS Preliminary Stormwater Report Figure 6 and the Plan Drawing TP-04.

¹ The calculation is: $(94-83)/82 = 0.133$ (13.3 percent) with all other rainfall runoff factors unchanged.

Stormwater from the storage pond will be discharged into an already existing wetland downstream (shown in the County drawings contained in Appendix D). This wetland is not shown on Lennar's drawings for the AS subdivision although it will be directly affected by discharges from the development site.

Pond Outlet Structure and Emergency Spillway drawings are not present in the Plans. No detailed drawings were provided of the pond discharge structure although it is a critical element in AKS stormwater modeling. No overflow structure is incorporated in the Plans (see TP-04) for the Stormwater Pond provided for the Autumn Sunrise Subdivision.

Safety Factor was not used in Sizing the Stormwater Pond

The stormwater pond has no control of potential overflows and no overflow spillway is provided for in the Plans. The AKS Geotech Report (see PDF page 93 of 109) specifically calls out applying a safety factor in its report.

From the AKS Geotech Report:

Infiltration test methods and procedures attempt to simulate the as-built conditions of the planned subsurface disposal system. However, due to natural variations in soil properties, actual infiltration rates may vary from the measured and/or recommended design rates. **All systems should be constructed such that potential overflow is discharged in a controlled manner away from structures, and all systems should include an adequate factor of safety.** Infiltration rates presented in this report should not be applied to inappropriate or complex hydrological models such as a closed basin without extensive further studies. This report presents infiltration test results only, and should not be construed as an approval of a system design. **[Bold by LEA.]**

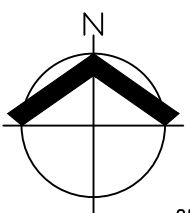
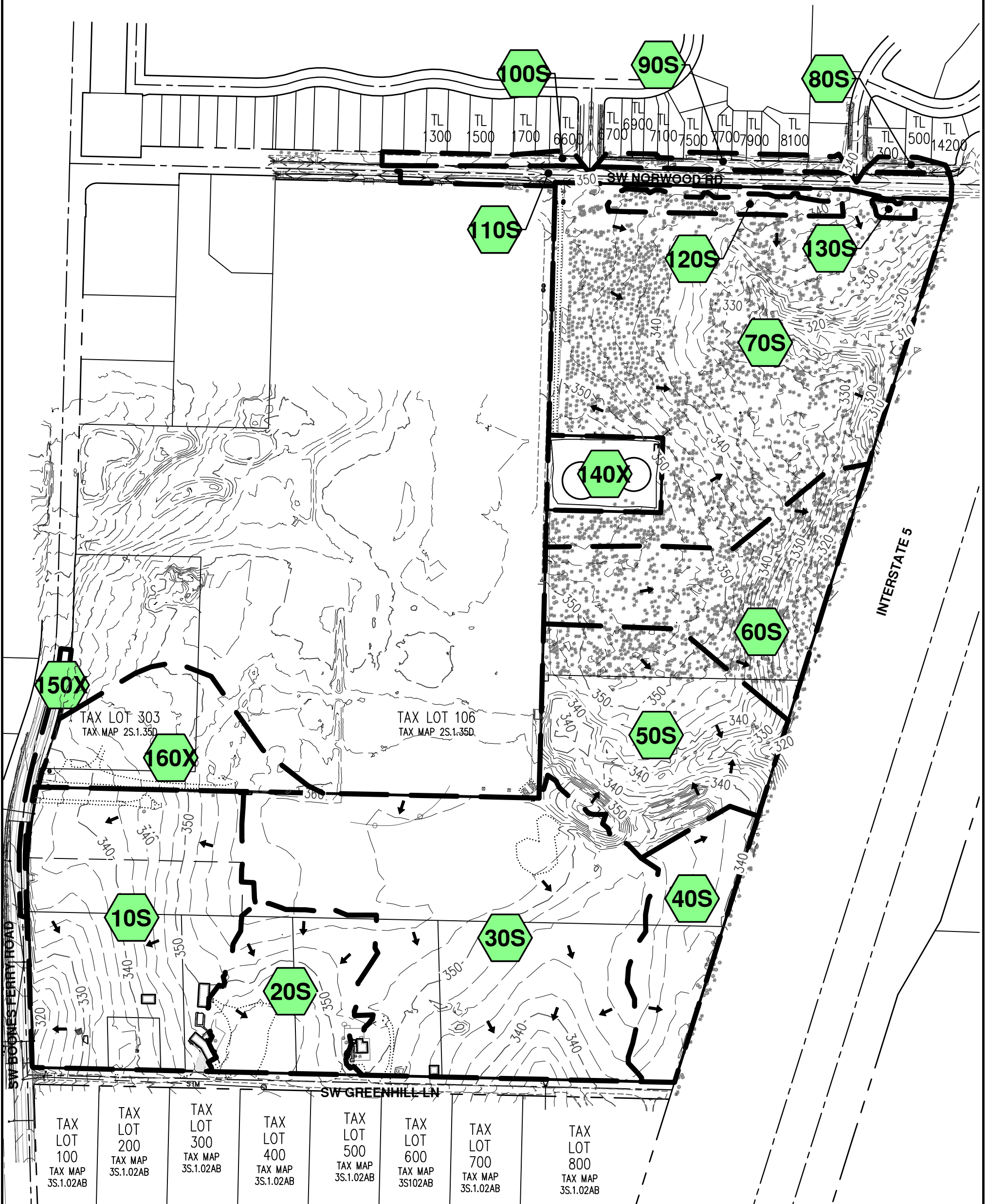
Invalid Hydrologic Soil Group Values Used

The AKS Stormwater Report – Preliminary Geotechnical Engineering Report is missing its figures. Consequently, the locations of the soil test pits are unknown.

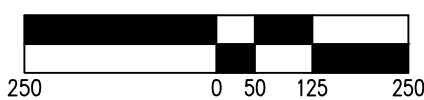
The test pit data in the geotechnical report is used to overturn the Soil Conservation Services - Hydrologic Soil Group designations for the development site. AKS goes from a more porous Group B characterization identified by the SCS to a less porous Group C as derived in the Geotechnical Report. This is inconsistent with CWS, which requires that the SCS values be used. This has a significant effect on runoff curve numbers used in the AKS model.

Appendix B

Excerpts from AKS Stormwater Modeling Report



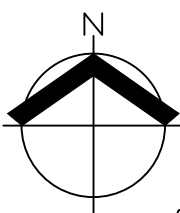
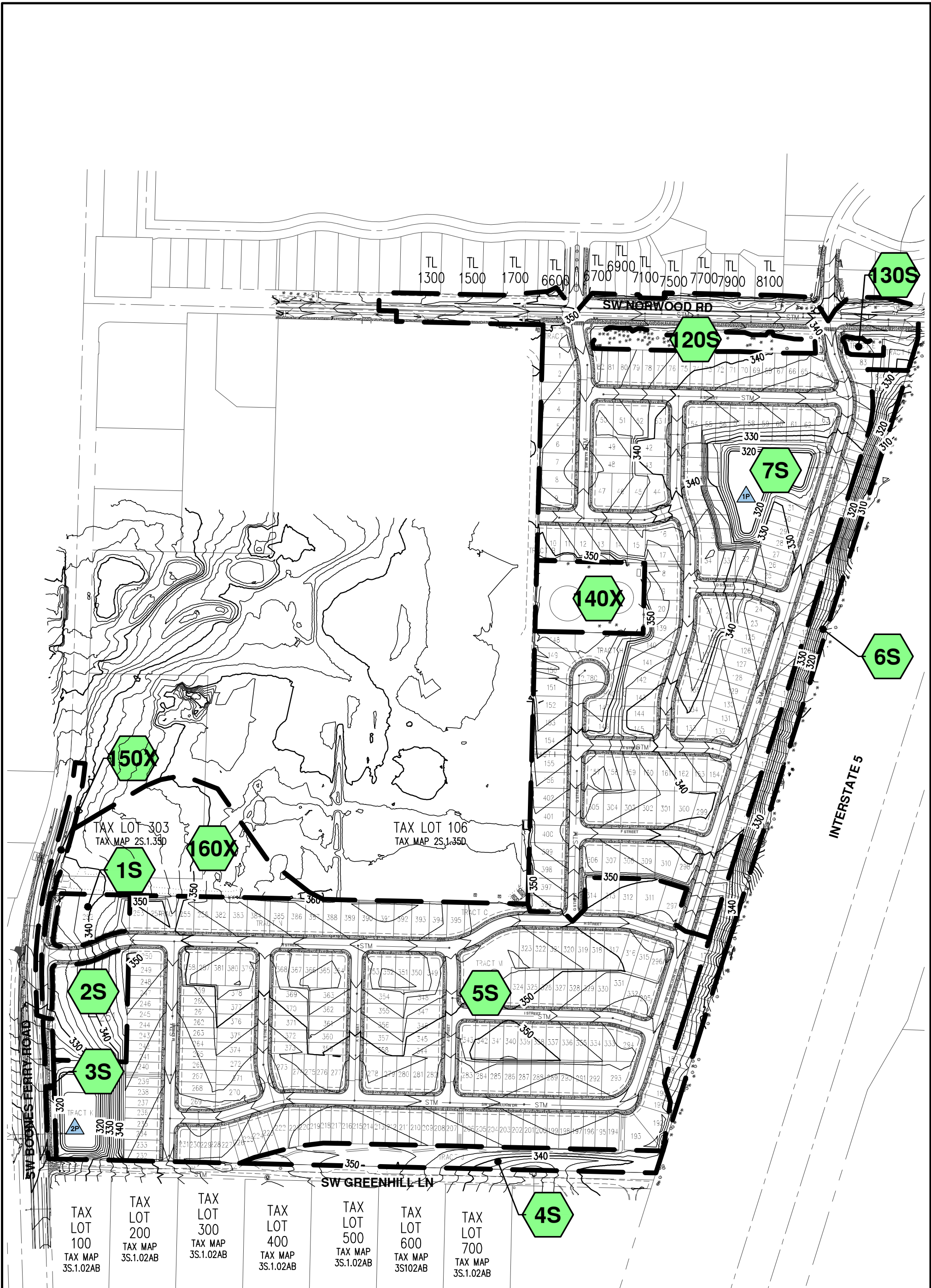
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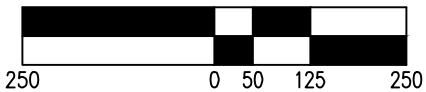
DATE: 07/01/2021

PRE-DEVELOPED BASIN DELINEATION		FIGURE
AUTUMN SUNRISE SUBDIVISION		2
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: JSM CHKD: DS AKS JOB: 7454





SCALE: 1" = 250 FEET



DATE: 07/01/2021

POST-DEVELOPED BASIN DELINEATION

FIGURE

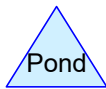
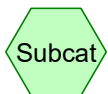
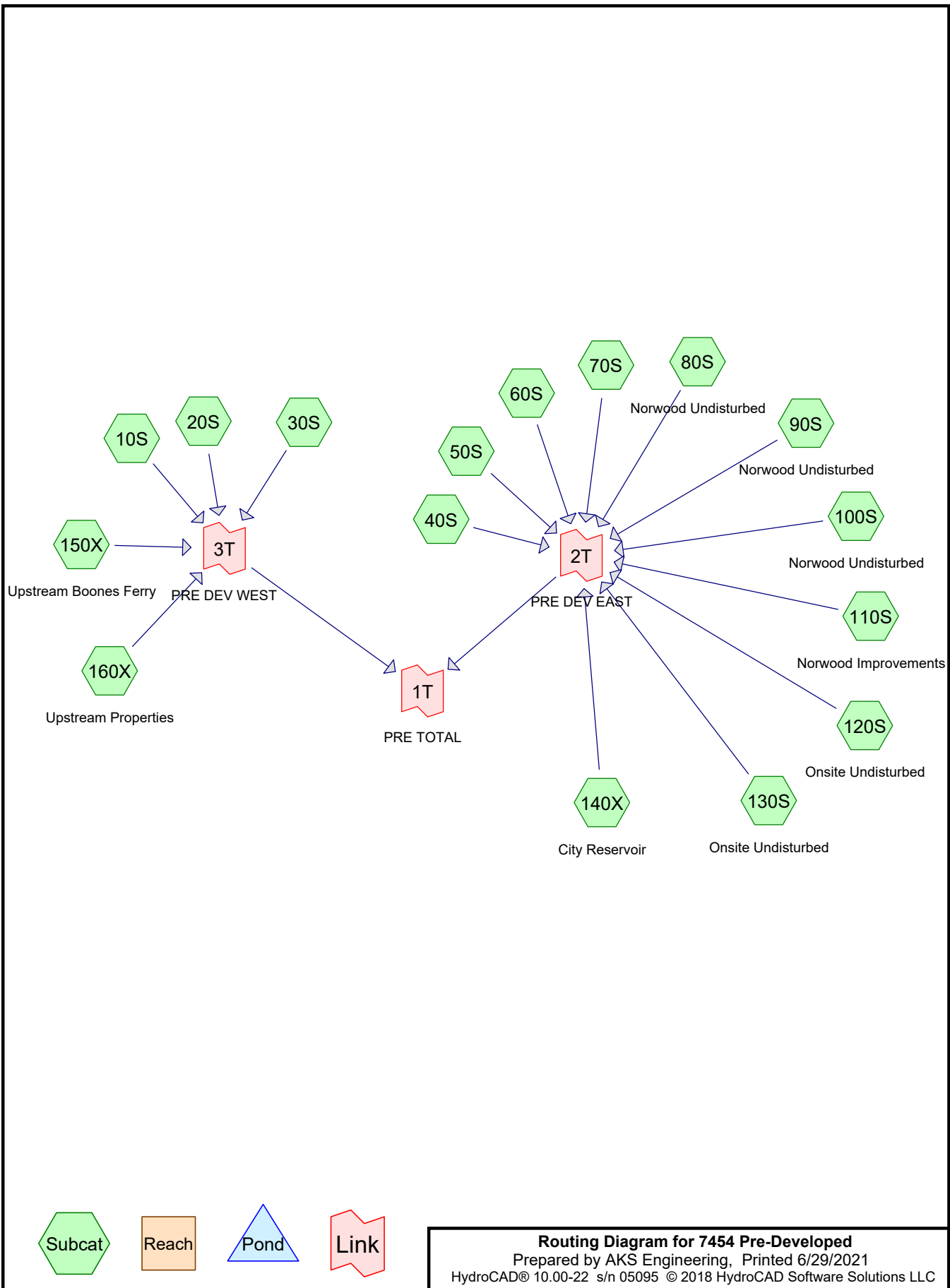
AUTUMN SUNRISE SUBDIVISION

3

AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD, STE 100
 TUALATIN, OR 97062
 503.563.6151 WWW.AKS-ENG.COM

DRWN: JSM
 CHKD: DS
 AKS JOB:
 7454





Routing Diagram for 7454 Pre-Developed
 Prepared by AKS Engineering, Printed 6/29/2021
 HydroCAD® 10.00-22 s/n 05095 © 2018 HydroCAD Software Solutions LLC

7454 Pre-Developed

Prepared by AKS Engineering

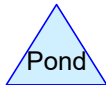
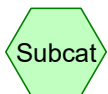
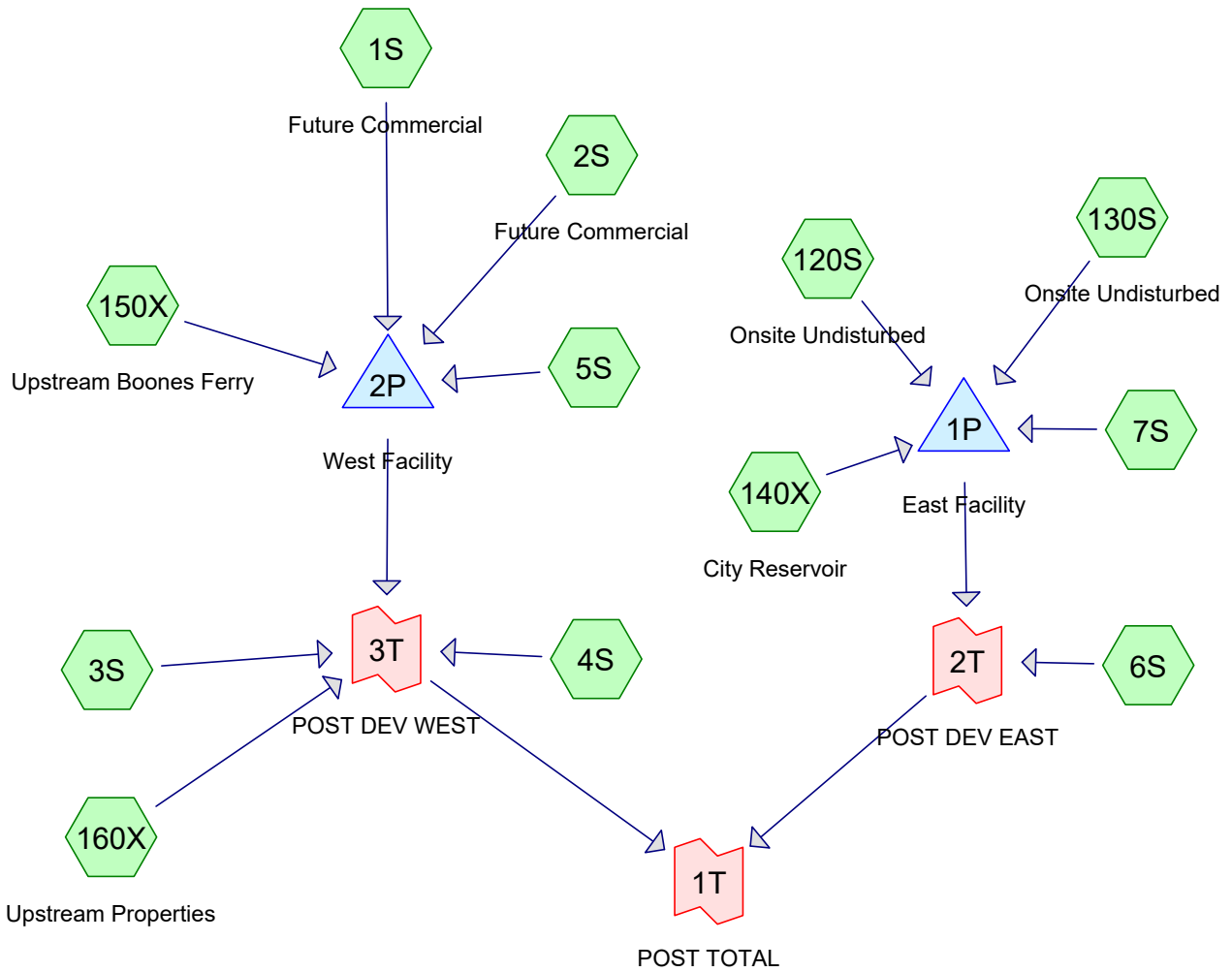
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Printed 6/29/2021

Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
199,375	79	50-75% Grass cover, Fair, HSG C (80S, 90S, 100S, 110S, 160X)
46,914	86	<50% Grass cover, Poor, HSG C (140X)
8,685	74	>75% Grass cover, Good, HSG C (150X)
168,971	87	Dirt roads, HSG C (10S, 20S, 30S)
123,564	82	Farmsteads, HSG C (10S)
2,000	89	Gravel roads, HSG C (30S)
18,835	96	Gravel surface, HSG C (10S, 160X)
81,956	98	Impervious Area (80S, 90S, 100S, 110S, 150X, 160X)
1,920	98	Paved parking, HSG C (20S, 30S)
14,216	98	Paved roads w/curbs & sewers, HSG C (140X)
1,044,944	85	Row crops, straight row, Good, HSG C (10S, 20S, 30S, 40S)
7,483	98	Unconnected roofs, HSG C (10S, 30S)
123,094	73	Woods, Fair, HSG C (50S)
1,042,216	70	Woods, Good, HSG C (60S, 70S, 120S, 130S)
171,927	82	Woods/grass comb., Poor, HSG C (50S)
3,056,100	79	TOTAL AREA



Routing Diagram for 7454 Post-Developed
 Prepared by AKS Engineering, Printed 6/30/2021
 HydroCAD® 10.00-22 s/n 05095 © 2018 HydroCAD Software Solutions LLC

7454 Post-Developed

Prepared by AKS Engineering

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Printed 6/30/2021

Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
122,699	79	50-75% Grass cover, Fair, HSG C (160X)
74,761	98	85% Impervious - Future Commercial (1S, 2S)
46,914	86	<50% Grass cover, Poor, HSG C (140X)
1,024,439	74	>75% Grass cover, Good, HSG C (1S, 2S, 3S, 4S, 5S, 6S, 7S, 150X)
12,930	96	Gravel surface, HSG C (160X)
32,656	98	Impervious Area (150X, 160X)
1,056,000	98	Impervious Area on Lots (2,640 sq.ft. per lot) (5S, 7S)
648,854	98	Paved roads w/curbs & sewers, HSG C (3S, 4S, 5S, 7S, 140X)
36,847	70	Woods, Good, HSG C (120S, 130S)
3,056,100	89	TOTAL AREA

7454 Post-Developed

Prepared by AKS Engineering

HydroCAD® 10.00-22 s/n 05095 © 2018 HydroCAD Software Solutions LLC

Type IA 24-hr 25-YEAR Rainfall=3.90"

Printed 6/30/2021

Page 16

Summary for Subcatchment 160X: Upstream Properties

Runoff = 1.60 cfs @ 8.03 hrs, Volume= 30,169 cf, Depth= 2.28"

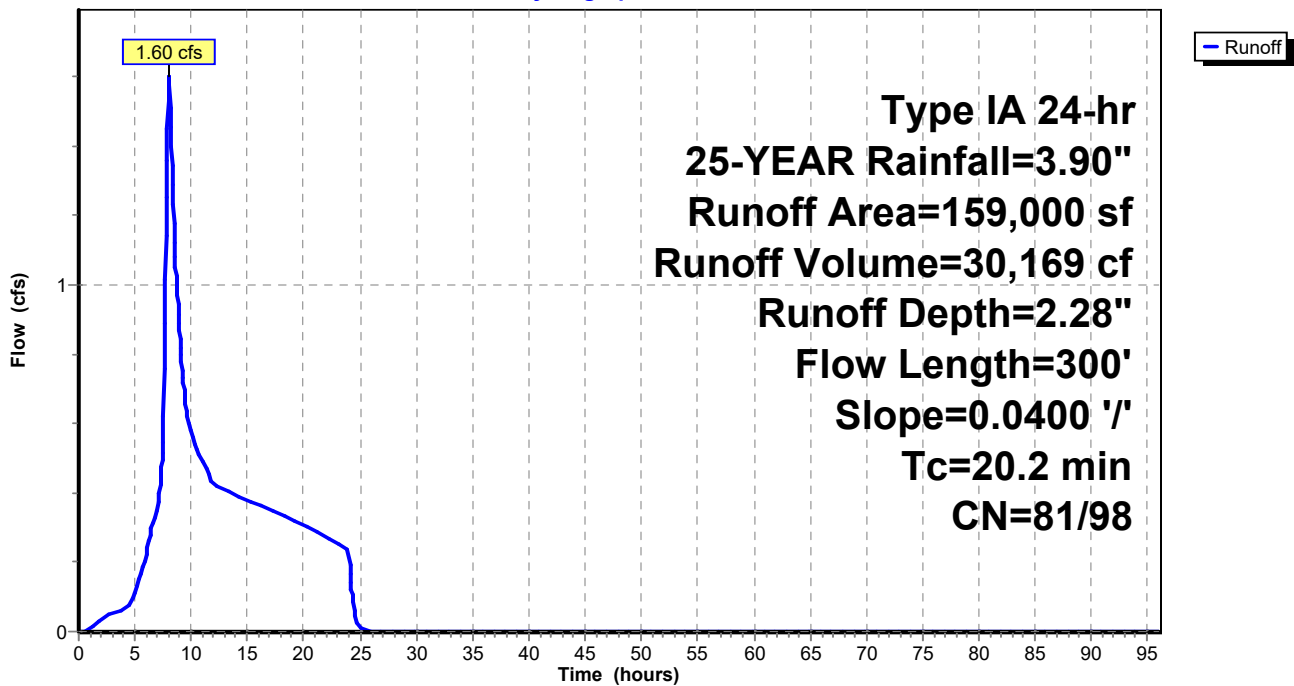
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25-YEAR Rainfall=3.90"

	Area (sf)	CN	Description
*	23,371	98	Impervious Area
	12,930	96	Gravel surface, HSG C
	122,699	79	50-75% Grass cover, Fair, HSG C
	159,000	83	Weighted Average
	135,629	81	85.30% Pervious Area
	23,371	98	14.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.2	300	0.0400	0.25		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"

Subcatchment 160X: Upstream Properties

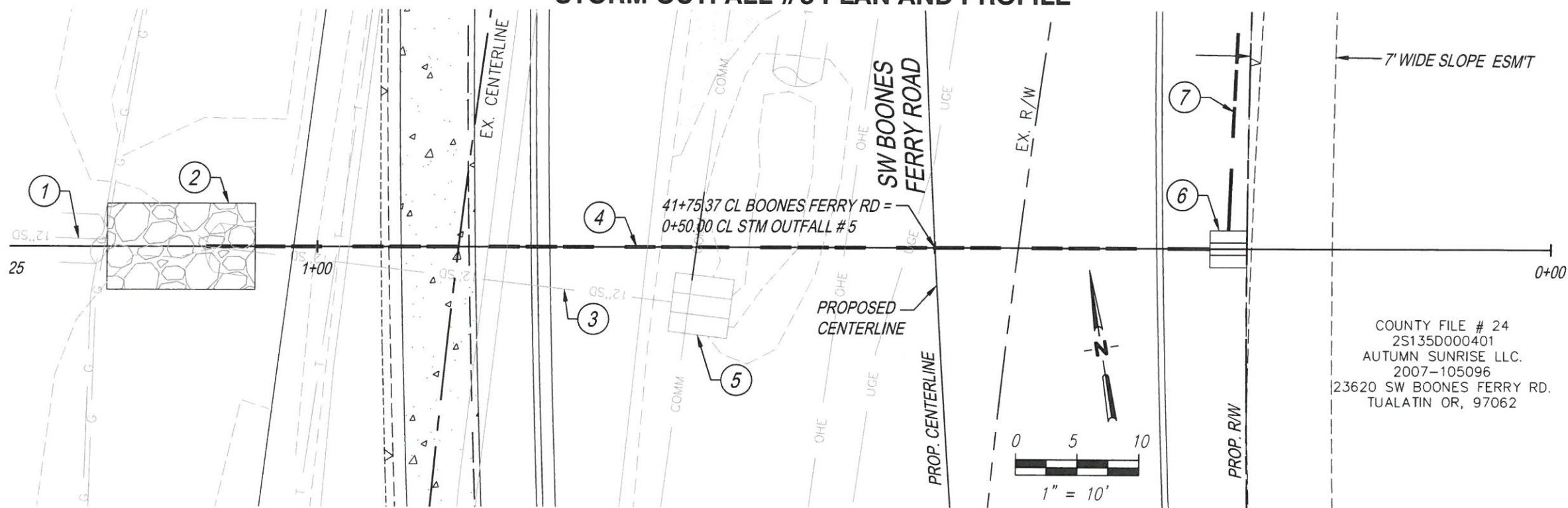
Hydrograph



Appendix C

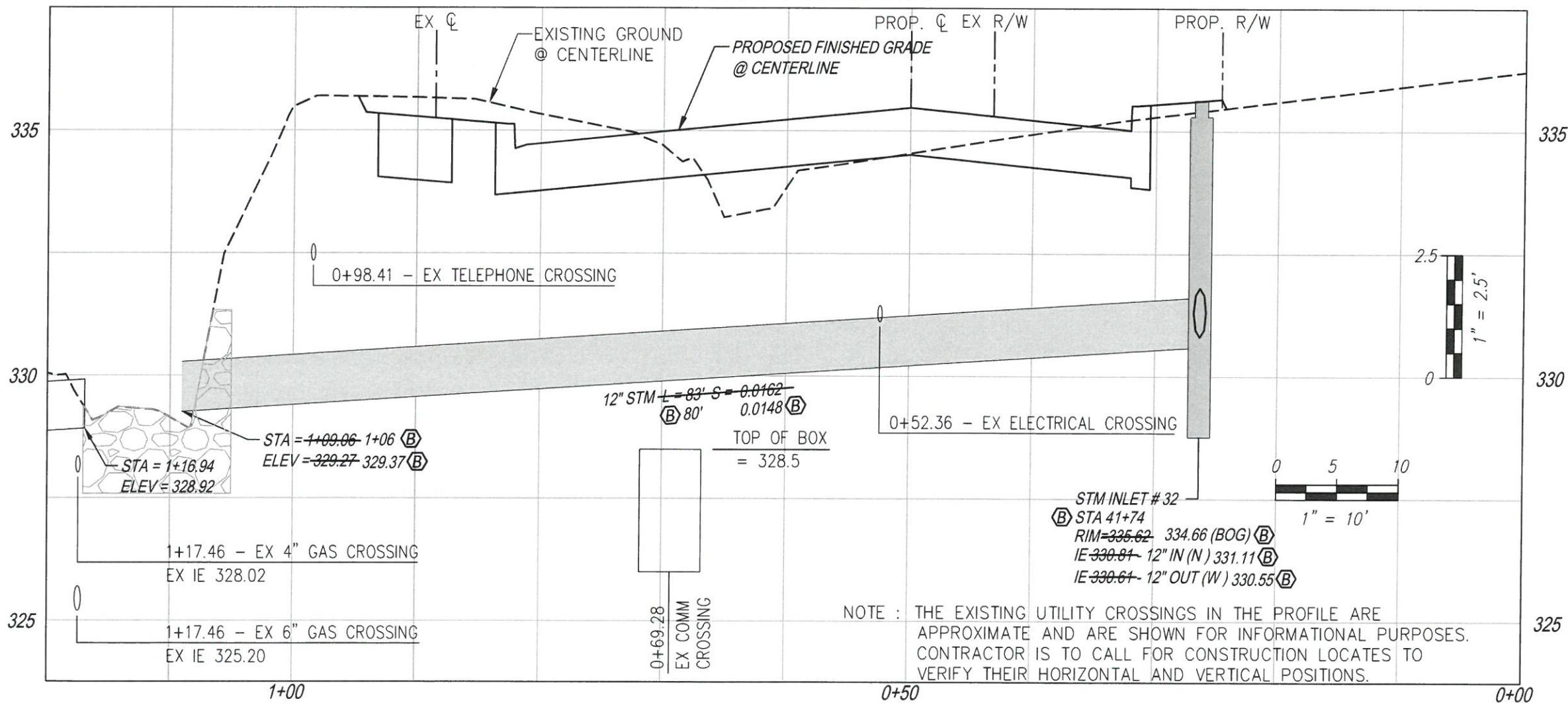
**Excerpts from Washington County's BRF Widening Project
and Stormwater Modeling Report (by MacKay Sposito, 2013)**

STORM OUTFALL #5 PLAN AND PROFILE



COUNTY FILE # 24
 2S135D000401
 AUTUMN SUNRISE LLC.
 2007-105096
 123620 SW BOONES FERRY RD.
 TUALATIN OR, 97062

STORM OUTFALL #5

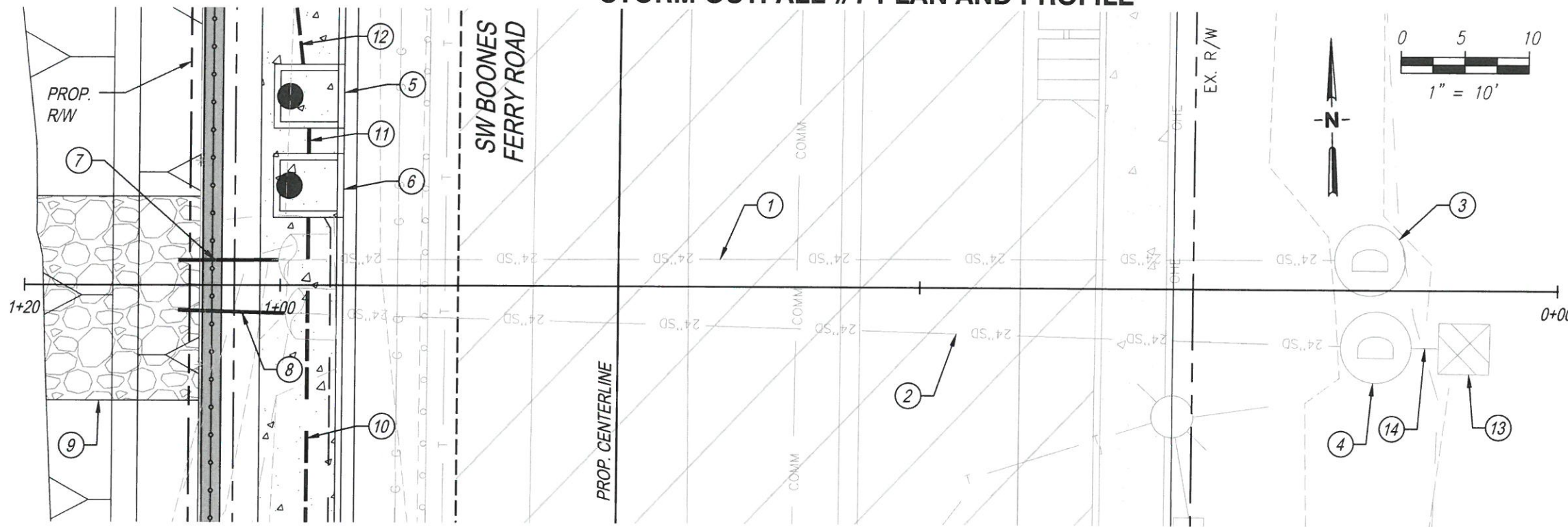


STORM SYSTEM "RECORD" DRAWING 11-14-14

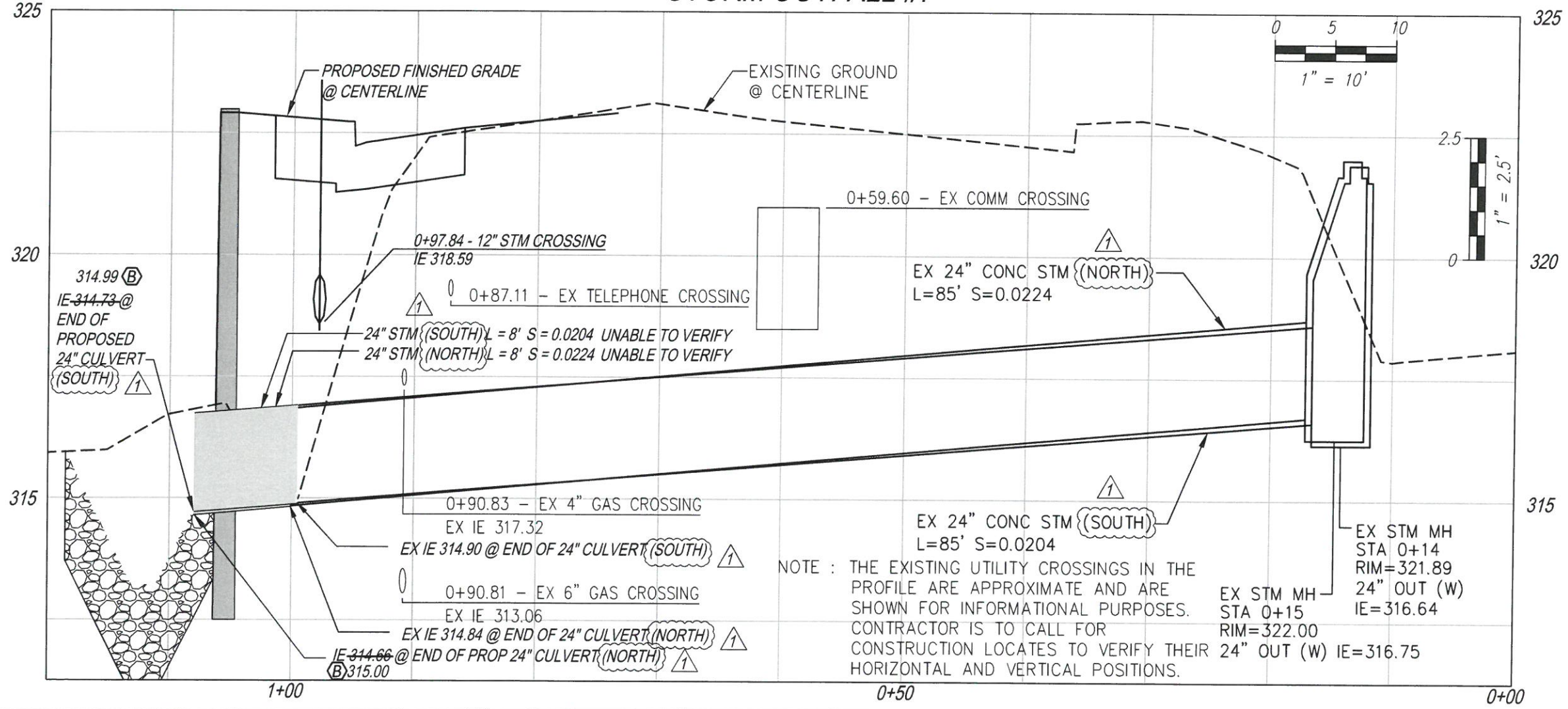
Mackay Spósito
 ENERGY PUBLIC WORKS LAND DEVELOPMENT
 www.mackaysposito.com

DEPARTMENT OF LAND USE & TRANSPORTATION ENGINEERING 	
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SW BOONES FERRY RD. SW DAY RD. TO SW NORWOOD RD. WASHINGTON COUNTY	STORM OUTFALL #5 PLAN AND PROFILE
PROJECT NUMBER 100096	SHEET NO. 179 OF 274 SHEET TITLE 24A

STORM OUTFALL #7 PLAN AND PROFILE



STORM OUTFALL #7



STORM SYSTEM "RECORD" DRAWING 11-14-14

Mackay Sposito
ENERGY PUBLIC WORKS LAND DEVELOPMENT
www.mackaysposito.com

REGISTERED PROFESSIONAL ENGINEER
1552PE
OREGON
JULY 25, 1994
DAMON C. WEBSTER
EXPIRES: 6/30/16

WASHINGTON COUNTY
OREGON

DEPARTMENT OF LAND USE & TRANSPORTATION ENGINEERING

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5-20-2013 AJS
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SW BOONES FERRY RD.
SW DAY RD. TO SW NORWOOD RD.
WASHINGTON COUNTY

STORM OUTFALL #7
PLAN AND PROFILE

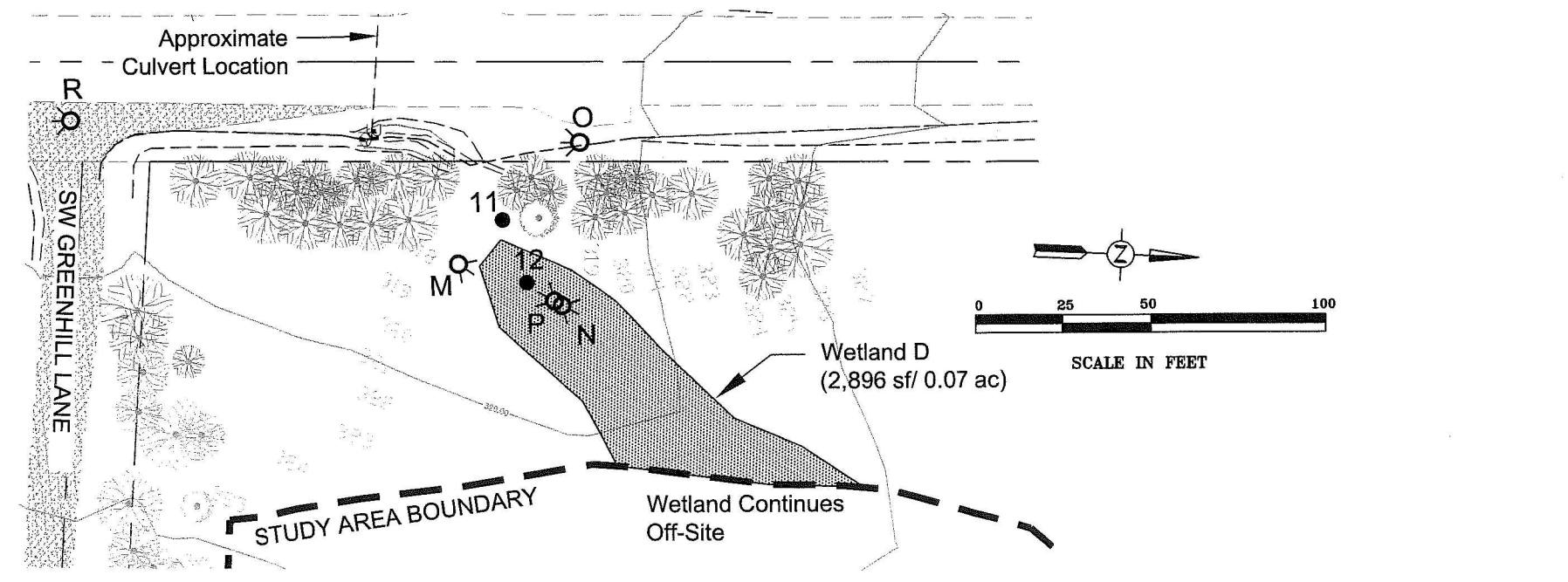
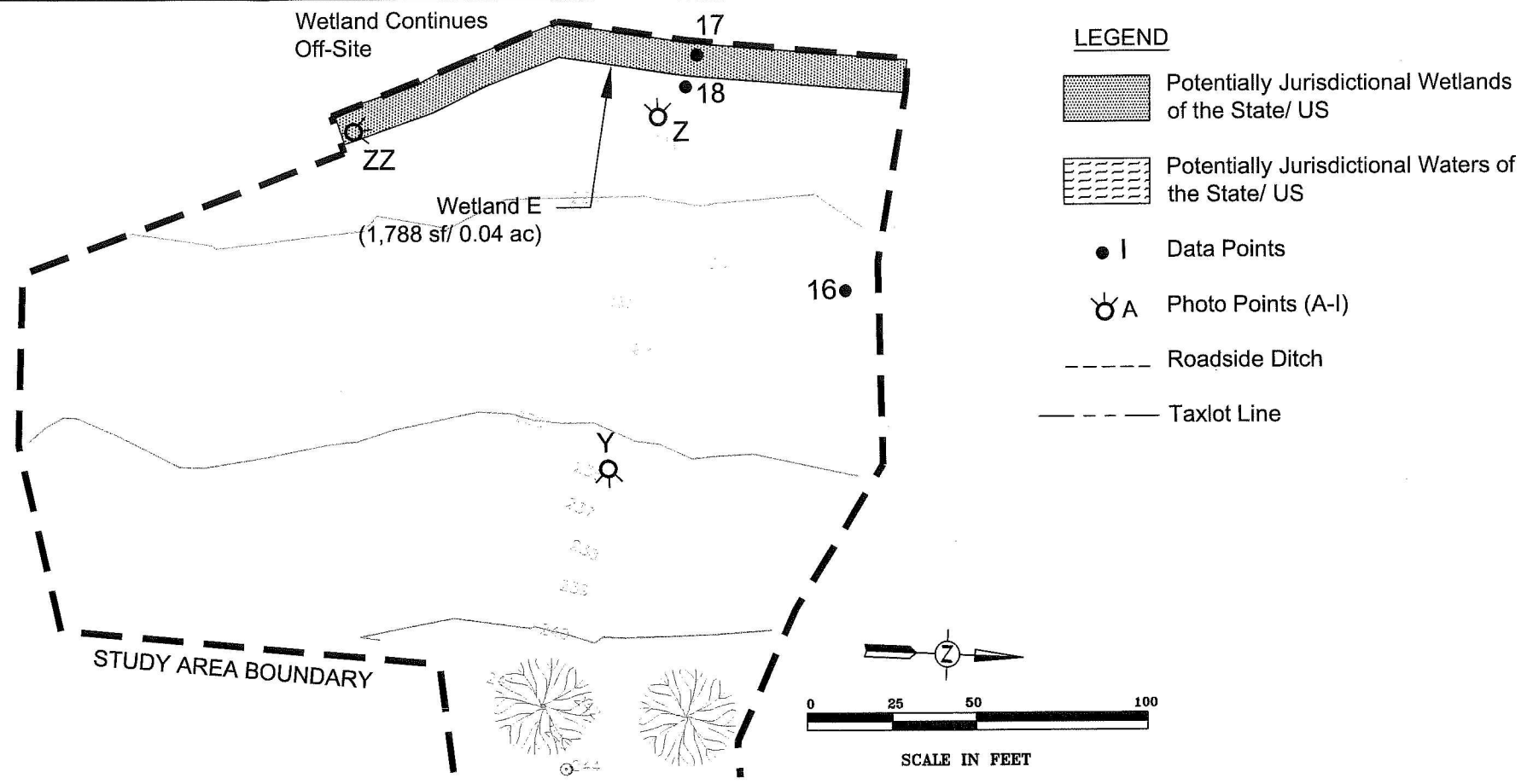
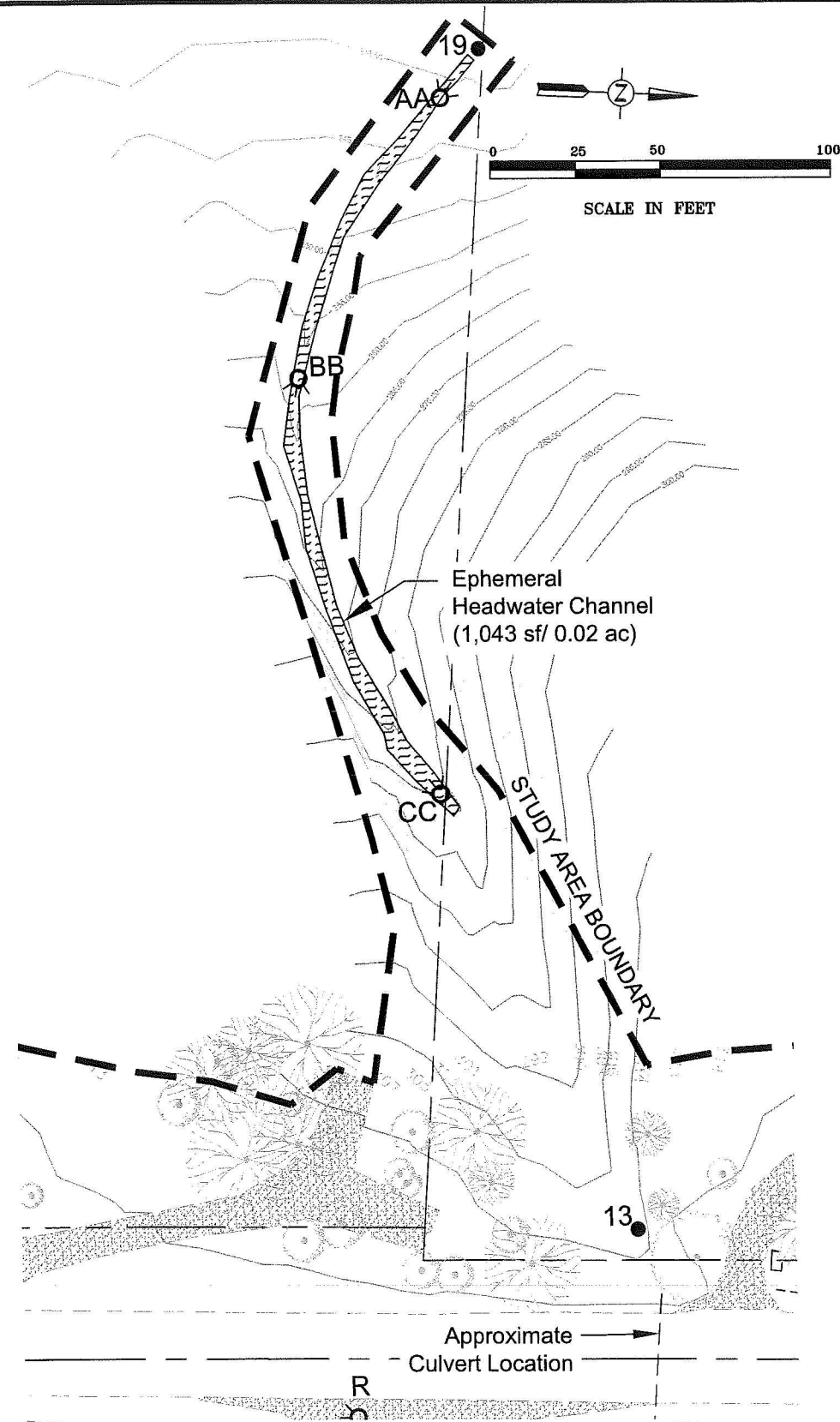
PROJECT NUMBER
100096

SHEET NO.
186 OF 274

SHEET TITLE
27A

Appendix D

**Oregon DSL -Wetland Delineation / Determination Report
Wetlands in the Vicinity of the Stormwater Pond**



- LEGEND**
- Potentially Jurisdictional Wetlands of the State/ US
 - Potentially Jurisdictional Waters of the State/ US
 - Data Points
 - Photo Points (A-I)
 - Roadside Ditch
 - Taxlot Line



Note:
Survey provided by MacKay & Sposito. Survey and data point accuracy is sub-centimeter. Accuracy for data points 4, 13, 14 and 15 is +/-3 feet.

Wetland Delineation
SW Boones Ferry Road Widening Project - Washington County, Oregon

FIGURE
6B

01/14/13

Appendix A

Cumuli Vitae for David M. LaLiberte, P.E.

David M. LaLiberte, P.E.
Principal Engineer



Summary:

Mr. LaLiberte's qualifications comprise over 30 years of experience in surface water quality analysis and evaluation, hydrology and hydraulics, stormwater system analysis, biological criteria for water and sediments, environmental quality control, sewage and industrial pollution abatement, effluent treatment alternatives and design, discharge requirements for NPDES wastewater and stormwater permits, mixing zone assessment, water intake and thermal discharges and environmental design. He has managed and performed on many environmental project teams assisting state and federal agencies, as well as municipal and industrial facilities, and non-governmental organizations in Oregon, California, Washington, Alaska and throughout the USA.

Education: M.S., Civil Engineering, Portland State University, 1990
B.S., Civil Engineering, Portland State University, 1988

Registration: Professional Engineer, Oregon (Civil and Environmental)

Liberte Environmental Associates, Inc. Experience:

Water Quality Evaluation of the Stormwater Management Plan (SWMP) Proposed for The Dalles, Oregon Wal-Mart Super Center for Karl Anuta, Attorney representing the plaintiff Citizens for Responsible Development in The Dalles. The effect on receiving water quality from stormwater discharges from a large retail facility was assessed in a report submitted to the Circuit Court of the State of Oregon. The detailed Expert Report was developed identifying the discharge conditions, storm flows based on local precipitation, storm flow mapping and routes, potential treatment levels using mechanical filtration and swales and other WQ issues. Water quality effects on receiving wetlands and tributaries of the Columbia River were investigated because of increased solids, toxics and bacterial loadings to be released from the proposed facility. Expert Testimony was provided in court supporting the evaluation report. This project was conducted in 2012 and 2013.

NPDES Mixing Zone and Water Quality Evaluations for Trident Seafoods Corporation, Alaska – Effluent characterization, discharge system configuration, receiving waterbody consideration, biological criteria and mixing zone evaluations were performed. Acting as subconsultant for Steigers Corporation. Facility operations generating wastewater discharges include: stormwater runoff inflow, seafood-processing wastewater, non-contact cooling water, treated sanitary effluent and other sources of industrial effluents. The MZ evaluations conformed to NPDES permit requirements and mixing zone guidelines for Trident facilities in Alaska at Akutan and Sandpoint. This project was performed from 2010 through 2012.

NPDES Water Quality Technical Assistance and Alternative Design Evaluations for North Slope Borough, Alaska – Evaluation of US Environmental Protection agency NPDES permit for discharges from oil and gas facilities including discharges from: stormwater system,

David M. LaLiberte (Continued)

drilling operations, cooling water intake and discharge, storage facilities, pipelines, gravel pits, treated sewage discharges, maintenance requirements, and other types of discharges. These discharges include stormwater affected deck drainage, cooling water intake and thermal discharges, treated sewage discharges and drill cuttings disposal to marine sediments. Water quality evaluation of the Camden Bay Exploration Plan for the Beaufort Sea of the Arctic Ocean was conducted for discharge impacts on the marine aquatic environment and relative to BOEMRE/MMS EIS. Analysis of the Chukchi Sea Exploration Plan of the Arctic Ocean was conducted for discharge impacts on the marine aquatic environment and relative to BOEMRE/MMS EIS. These evaluations were based on water quality and treatment alternatives assessment, and comparison to biological criteria. This project was conducted in 2010 through 2011.

Aurora STP NPDES Assessment for CRAG Law Center - Review of documents related to the design, operation and monitoring of the Aurora, Oregon Sewage Treatment Plant. Documents include: NPDES permit; stormwater inflow and infiltration, design related plans and specifications including recent headworks unit design; discharge monitoring reports, irrigation using effluent reuse, biosolids monitoring reports; effluent reuse plan and additional information relating to the design and operation of the Aurora STP. The review provided a basis for assessing potential causes of facility underperformance and discharge violations. An STP site visit was performed during this project to investigate facility aeration treatment, reuse equipment and capacities. This project was conducted from 2008 through 2010.

Review of the Medford STP Nutrient Related Discharges, for CRAG Law Center in Portland, Oregon. Evaluation of treatment facility and nutrient discharges from the Medford Sewage Treatment Plant (STP) into the Rogue River in Jackson County, Oregon. Existing discharges were evaluated for nutrient concentrations based on the discharger's CORMIX mixing zone analysis. Facility costs to upgrade for nutrient removal, including nitrogen and phosphorus, were developed. This project was performed in 2015 through 2017.

Evaluation of Sewage Treatment Plant Discharges to the Illinois River, Oregon, for the City of Cave Junction. Mixing zone analysis using EPA CORMIX was performed to determine the effects of temperature and other discharge parameters on river quality. Hydraulic analysis of river flow conditions was conducted to support the MZ analysis particularly for critical summertime conditions. This project was performed in 2013 through 2014.

Draper Valley Farms, Inc. Chicken Processing Industrial Discharge to Municipal Sewage System, for Smith and Lowney, PLLC representing the plaintiff Waste Action Project Citizens Suit. The effects on sewage treatment processes were evaluated relative to high biochemical oxygen demand (BOD) from Draper Valley Farms (DVF). A key focus of this analysis was the operational consequences of excess BOD on treatment in the aeration basins of the Mt. Vernon, WA municipal facility. The pass-through impact on the Skagit River was assessed for increased BOD from the industrial discharge. This project was conducted in 2014 and 2015.

Coal Discharge Investigation for the Columbia River and Selected Tributaries, for the Sierra Club supported by the Columbia Riverkeepers. Prospective coal samples were collected from sediments along 18 miles of the Columbia River located at the confluences of selected tributaries from Rock Creek (RM 150.0) to the White Salmon River (RM 168.3). Sampling locations corresponded to Burlington Northern Santa Fe (BNSF) railroad crossings at or near

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tributaries. The distribution of coal discharges into the Columbia River were mapped. Samples were analyzed by a third-party laboratory. Sample parameters were: moisture content, fixed carbon, volatile matter, ash and total sulfur. This was based on ASTM Proximate Analysis plus sulfur. Coal identification, to determine potential sources of coal, was completed for this investigation with the support of supplemental analysis advised by the laboratory. Supplemental analysis included ASTM D-388 requirements for heating value, sulfur in ash, free swelling index (carbonization physical characteristic) and classification of coal by rank. A deposition was provided in 2016 to defend the results of coal report. This project was performed in 2012 through 2013 and 2016.

*Oregon Department of Environmental Quality - WQ Technical Assistance: Industrial discharge effluent evaluation of the Port of St. Helens, Oregon ethanol and power generating plants. Outfall mixing zone analysis with design assessment was developed. Provided water quality evaluation and environmental engineering assistance to the Oregon DEQ. Work included receiving WQ analysis, operations review, thermal discharge evaluation, biological criteria comparison and mixing zone analysis. NPDES requirements were based on EPA *Quality Criteria for Water*, EPA *Technical Support Document for Water-based Toxics Control (TSD)* and State Administrative Rules. The mixing zone models CORMIX and PLUMES were evaluated relative to the cases at hand. Potential discharge chlorine residual and temperature requirements were evaluated. The effect of potential temperature Total Maximum Daily Loads (TMDLs) in the Columbia River was also evaluated. This project was performed in 2003 through 2004.*

Wauna Pulp and Paper Mill Outfall 003 and Columbia River Field Survey Locations and Sampling Results for Columbia Riverkeeper including sampling. In coordination with staff and volunteers, water samples were collected in the vicinity of the paper mill outfall for laboratory analysis. The physical outfall mixing zone was mapped using in-situ Hydrolab water quality measurements taken with depth for temperature, dissolved oxygen, pH, conductivity and turbidity. Laboratory samples were analyzed for potentially toxic concentrations of dioxins, total residual chlorine (TRC) and metals including aluminum, arsenic, copper, iron, lead, mercury and zinc. Additional information sources were investigated using the Oregon DEQ permit file and including the mill's NPDES permit and the mutual agreement and order (MAO) compliance schedule. This project was conducted in 2004.

Review of Draft and Final NPDES General Permit Cook Inlet, Alaska Oil and Gas Operators for Cook Inletkeeper - Evaluation of the draft National Pollutant Discharge Elimination System (NPDES) permit proposed by the U.S. Environmental Protection Agency (EPA) authorizing wastewater discharges from oil and gas exploration, development, and production facilities into Cook Inlet, Alaska. There are 18 existing facilities discharging into Cook Inlet with new facilities capable of being brought on line under the draft permit. Technical analysis of these discharges, which can contain toxic and bioaccumulating contaminants, was performed relative to the potential to adversely affect Cook Inlet water quality and sediments. This project was conducted from 2007 through 2009.

Water Quality Evaluations and NPDES Permit Requirements for the four (4) WES publicly owned treatment works (POTW) discharges (2000-2004, 1999) performed for Water Environment Services, Clackamas County, Oregon. These included evaluation of discharge

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effects on the Willamette River (2 outfalls), Sandy River and a tributary of the Clackamas River. Field water quality sampling including detailed outfall mixing zone investigations. Water quality assessment was conducted relative to effluent temperature, disinfection and ammonia requirements to protect fish and aquatic organisms. Effluent mixing zone simulation and analysis was performed. Treatment alternatives analysis and costing were undertaken to ensure existing and future discharge conditions were protective of river WQ. River outfall piping alignment and diffuser design was provided including construction management of river installation.

Expert Analysis of Surimi and Seafood Industrial Wastewater Discharge into the Skipanon and Columbia Rivers, Oregon (2003-2006) was conducted for the National Environmental Law Center. Water quality analysis evaluating the effects of seafood and surimi wastewater discharges on the Skipanon and Columbia Rivers, Oregon. Field data collection was performed to support water quality technical analysis. Investigation included mixing zone analysis of historic seafood and surimi wastewater discharges into the Skipanon River, and new discharges to the Columbia River. Evaluations were performed for various discharge scenarios, monitoring and sampling requirements, potential treatment options, and alternative outfall pipeline alignments. Effluent and instream dissolved oxygen (DO), biochemical oxygen demand (BOD), ammonia, hydrogen sulfide, nutrients nitrogen and phosphorus, oil and grease, and total suspended solids (TSS) were evaluated in detail. Expert witness analysis and reporting was provided.

Westport Sewer Service District, Clatsop County, Oregon - MZ Evaluation with Alternative Disinfection (2003-2004). This project assessed water quality and mixing zone effects of disinfected treated wastewater discharged to Westport Slough, a segment of the Columbia River. Chlorine residual reduction or elimination was a key evaluation concern to satisfy Oregon DEQ requirements. Comparisons of alternative disinfection treatment scenarios and costs were performed that would allow the discharger to continue to meet WQ requirements. Ultraviolet disinfection, chlorination-dechlorination, and outfall diffuser feasibility were all investigated with comparison costs. In particular, the existing chlorination system was evaluated relative to how easily it could be retrofitted to function with dechlorination. The alternatives analysis aided the discharger in making a determination as to course of action.

Public Employees for Environmental Responsibility preparation of report *Effect On Puget Sound Chinook Salmon of NPDES Authorized Toxic Discharges as Permitted by Washington Department of Ecology* (2005-2006). Industrial, municipal, stormwater and general facility NPDES permits were reviewed and analyzed relative to the presence of toxic contaminants in Puget Sound. Toxic contaminants evaluated included metals, hydrocarbons, and chlorinated hydrocarbons.

Citizens for Responsibility v. Izaak Walton League, Circuit Court of the State of Oregon for Lane County, Expert Analysis for Plaintiff evaluating the effects of lead contamination from shooting range into South Fork Spencer Creek (2004-2005). Sediment sampling was conducted for metals including lead, arsenic, copper and polynuclear aromatic hydrocarbons (PAH). This information was evaluated for pollutant distribution and transport from the contaminated site and relative to upstream and downstream properties. Expert testimony was given at trial in 2004. Expert analysis and testimony was also provided in the subsequent equitable relief phase. Participation in the settlement conference was also provided.

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Canby Utility Board - Industrial Discharge from Water Treatment Plant Study and Predesign (1999-2000) addressing Molalla River water quality issues with Oregon DEQ including treatment alternatives: filter backwash sedimentation basin, disinfected effluent de-chlorination, river infiltration gallery design, intake piping system, and sediment and riparian effects mitigation.

Water Environment Services of Clackamas County Hoodland WWTP Outfall Project Descriptions and Costs (2000); FEMA engineering, budgeting and negotiations is intended to reimburse Clackamas County for flood damage to their wastewater treatment plant outfall on the Sandy River. Numerous regulatory issues affected costs including an ACE 404 permit for instream construction work, NMFS ESA Section 7 Consultation, and NEPA documentation including environmental and biological assessments.

City of Bremerton, CSO Projects --A comprehensive review of the City of Bremerton, Washington collection system model was performed (2000). Hydraulic modeling was used to update information for the main sewer lines, combined sewer overflows and discharge conditions. Selected CSO reduction alternatives were evaluated and implemented. The purpose of the CSO reduction alternatives was accomplished and potential early action projects were identified. These projects yielded substantial CSO reductions while being quickly implemented at reasonable cost. Revised CSO baselines were produced conforming to Washington Department of Ecology requirements for Bremerton's 17 CSO outfalls. Expert witness testimony supporting the findings of the CSO baselines was provided in a hearing at the Federal Court in Seattle.

Previous Experience (Montgomery Watson Americas)

In addition, I have performed as project manager and/or project engineer on the following undertakings:

- Project Manager/Engineer evaluating stormwater hydrologic, hydraulic and quality conditions in Balch Creek Basin for the City of Portland, Bureau of Environmental Services, Oregon. The Army Corps of Engineers (COE) hydrographic model, (HEC-1) and hydraulic model (HEC-2) were applied to establish design criteria for flood magnitude, stormwater detention, water quality facility hydraulics and fish passage culvert hydraulics.
- Project Engineer evaluating stormwater hydrologic, hydraulic and quality conditions in Clackamas County for the CCSD#1. The graphically enhanced model, XP-SWMM, was used to develop the hydrology and hydraulics for the Kellogg and Mt. Scott Creeks basins in CCSD#1.
- *City of Portland, Bureau of Environmental Services* included Water Quality Evaluations and Diffuser Designs (2000-2001, 1997,1994) for wet and dry weather flows with chlorine residual discharges, and wet weather stormwater runoff for suspended solids and metals with potentially affected agencies including US Corps of Engineers, Oregon Division of State Lands, NOAA Fisheries, Oregon Dept. of Fish and Wildlife and US Fish and Wildlife.

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- Project Manager/Engineer for the Kensington Mine in Alaska. PLUMES mixing zone modeling was used to evaluate the conditions affecting this industrial outfall. Sedimentation basin design for removal of mine tailings prior to discharge to Lynn Canal.
- City of Bremerton Corrosion and Fluoridation Facility detention facility design. An on-site detention facility was designed pursuant to Washington Department of Ecology's requirements as specified in the *Puget Sound Stormwater Management Manual*.
- Project Engineer for Water Environment Services of Clackamas County Kellogg Creek WWTP Odor Control Project. Participated as team engineer to design malodorous air collection system for headworks, primary clarifiers, secondary clarifiers, and dissolved air floatation thickening (DAFT) building. Malodorous air was passed through a biofilter for treatment.
- Project Engineer for Crescent City, California WWTP outfall mixing zone analysis. A major consideration of this project was developing alternative outfall pipeline alignments and an effective discharge location to optimize mixing.
- Project Manager/Engineer for the Hoodland WWTP Outfall project, which includes outfall diffuser design and construction (1998) in a sensitive Sandy River corridor.
- Project Task Manager—Jefferson County (Birmingham, Alabama) stream water quality analysis was performed relating to recommended NPDES permit limits for dry and wet weather conditions. Collection system analysis and treatment plant design constraints are also considerations in this potentially very large project.
- Project Engineer using Pizer's HYDRA, data compatible with the City of Portland, Oregon's XP-SWMM format, to evaluate gravity flow conditions in the proposed dual outfall system consisting of two connected parallel outfall systems over one mile each and including wet weather (CSO) hydraulic structures such as flow control structures, mix boxes and outfall diffusers.
- *City of Madison, Wisconsin* - stream water quality modeling analysis of POTW discharge relative to NPDES permitting requirements (1995-1996). A key objective of this study was restoration of base flows to the Sugar River Basin using high quality POTW effluent. An EPA QUAL2E model was developed for Badger Mill Creek and the Sugar River. Physical, chemical and biological simulation included temperature, algae, dissolved oxygen (DO), biochemical oxygen demand (BOD), total suspended solids (TSS) and ammonia. Particular attention was focused on the inter-relationships between temperature, climatological conditions, stream shading and channel conditions, DO, BOD and algal activity. Temperature and discharge point design alternatives were investigated using the model. It was demonstrated that, with minimal WWTP facility upgrading and cost, the City could beneficially discharge high quality effluent to surface streams. This assurance was primarily accomplished through detailed modeling analysis and model approach consensus building with regulators (WDNR). Some keys to the success of this project were in identifying important NPDES permitting issues, evaluating them with the model, recommending permit effluent limits and negotiating with regulators.

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- *Washington Beef, Incorporated* in Toppenish, Washington – Development of an NPDES permit under the direction of the EPA (1993-94). The project objective was development of receiving water based permit effluent limits for this food-products industry discharger using dissolved air floatation (DAF) treatment. Important project elements were: interfacing with regulatory (EPA Region 10 and Washington Ecology) and public agencies; evaluation of the effect of effluent parameters on receiving water using modeling analysis (EPA QUAL2E and EPA CORMIX); and providing long-term treatment system design recommendations. Fishery issues were of key concern for this project. Receiving water modeling was used to analyze the discharge effects of on stream dissolved oxygen and temperature on the aquatic environment. The inter-relationship between temperature, climatological conditions, stream shading and channel conditions, DO and algal activity were thoroughly investigated. Temperature and discharge design alternatives were evaluated using the water quality model.

Previous Experience (Other Firm)

- *Oregon Department of Environmental Quality and Oregon Department of State Land Conservation and Development* - Non-point Source Pollution Control Guidebook for Local Government (1994) evaluation of non-point runoff pollution and control measures including detention facilities, sedimentation basins, water quality ponds and marshes; City of Portland, Bureau of Environmental Services (1989-90) - evaluated effects of combined sewer overflows and stormwater discharges on the Columbia Slough of the Columbia River. Hydrologic and water quality modeling support was provided including sampling.
- Project Engineer for NPDES waste discharge permit review and support related to permit effluent limits for the City of Vancouver, Washington. Two tracer dye studies were performed at their two municipal WTP outfalls. The key project objective was to determine actual outfall dilution and provide a physical, receiving water basis for setting permit effluent limits. The mixing zone evaluations showed that actual dilution was greater than estimated by the regulatory agency (Washington Department of Ecology) and higher permit effluent limits were recommended.
- Project Task Manager and Engineer for a comprehensive hydraulic and water quality compliance evaluation and recommendations. The City of Portland's Columbia Boulevard WTP, the largest municipal discharger in Oregon (300 MGD), required assistance in meeting their water quality compliance needs. A highly detailed Columbia River tidal flow evaluation was performed in the outfall vicinity to serve as the basis for the mixing zone simulation and diffuser design. EPA CORMIX, and the EPA supported PLUME model family (including UDKHDEN), were used in the modeling analysis. A thorough investigation of water quality compliance options led to regulatory (ODEQ) approval of the multi-port diffuser design, the lowest cost compliance option.
- Project Engineer for Kehei, Hawaii Water Reuse Facility (1992). Participated as team engineer to design upgrades to the facility's aeration basin including aeration blower design and aeration basin air piping with small bubble diffusion.
- Project Engineer for the Columbia Slough flow augmentation project for the City of Portland Bureau of Environmental Services, Oregon. Dynamic water quality modeling (COE CE-QUAL-W2), water quality sampling, and hydrodynamic sampling were

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performed for this dynamic “freshwater” estuary. This project was driven by the City’s need to evaluate the impact of water quality limited conditions on the Columbia Slough and was coupled to the City’s EPA SWMM model. The objective was to propose best management practices (BMP) and evaluate design alternatives. The effect of temperature on the aquatic environment was examined in detail. The sophisticated two-dimensional (vertical and longitudinal) dynamic model evaluated temperature regimes and their effect on in-stream water quality. In-stream temperature design alternatives were investigated via simulation of climatological conditions, stream shading and channel conditions, algal processes and kinetics, and instream DO.

- Project Engineer conducting stormwater hydrologic and hydraulic simulation to evaluate flood effects for the City of Beaverton, Oregon. HEC-1 hydrographic modeling was conducted to generate peak flow values from surface runoff for existing and future conditions. HEC-1 model results for 2, 5, 10, 25, 50 and 100-year storm events were supplied to the HEC-2 model for detailed hydraulic analysis. The HEC-2 modeling was required as part of a cost assessment that included potential flood damage of key storms.
- Project Manager and Engineer for a mixing zone evaluation and diffuser design for the City of Albany, Oregon. An outfall pipeline and 40 MGD capacity multi-port diffuser was designed for this municipal discharger using EPA CORMIX. Simulation was performed to optimize the diffuser design. The DEQ approved design will meet water quality compliance needs for chlorine and ammonia.
- Project Engineer mixing zone modeling and design for the City of Gresham, Oregon. Alternative disinfection and multiport diffuser design were evaluated. Modeling (EPA CORMIX) was utilized to optimize multiport diffuser design for this WWTP outfall. Simulation offered the flexibility to test numerous design conditions.
- Project Manager and Engineer for a mixing zone evaluation and diffuser design for the Unified Sewerage Agency, Washington County, Oregon. Analysis of four municipal treatment facility outfalls was conducted according to DEQ NPDES requirements. Model simulation was performed to determine revised wet weather chlorine residual effluent limits. The models were calibrated to dye study results. Wet weather stream surveys were also performed at two sites, Hillsboro and Forest Grove. Alternative disinfection was evaluated and diffuser design recommendations were also made.
- Project Manager and Engineer for outfall mixing zone simulation and water quality compliance evaluation for the Oak Lodge Sanitary District, Oregon. As part of NPDES permit requirements, model simulation was performed to characterize the municipal discharge-mixing zone. Available dilution values and recommended permit effluent limits for chlorine, ammonia and metals were derived from the study.
- Project Manager for a mixing zone evaluation and diffuser recommendations for Electronic Controls Devices, Incorporated. A mixing zone field evaluation of this circuit board manufacturer's discharge was performed. Very low amounts of organics and metals from the facility discharge needed to be discharged to a small stream in a responsible manner. This study illustrated that the discharge was well within compliance requirements.

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Previous Experience (Portland State University Research Assistant)

City of Portland, Bureau of Environmental Services (1989-90) - evaluated effects of combined sewer overflows and stormwater discharges on the Columbia Slough of the Columbia River. Hydrologic and water quality modeling support was provided including field sampling.

- Project Engineer for evaluation of fish screen approach velocities and hydraulic design analysis for the Eugene Water and Electric Board, Leaburg, Oregon. The effects of downstream baffles on velocities through fish screens at the Leaburg Power Canal Facility were evaluated for fish passage.
- Project Engineer evaluating combined sewer overflows (CSO) and stormwater discharges on the Columbia Slough. Hydrologic and water quality modeling, using the City's EPA SWMM model data, of urban runoff from sub-basins discharging to the Columbia Slough was supplied as input to the Army Corps of Engineers in-stream surface water model, CE-QUAL-W2. This study was performed for the City of Portland, Bureau of Environmental Services in Oregon.
- Project Engineer for the South Slough National Estuarine Reserve Hydrodynamic and Water Quality Study, State of Oregon, Division of State Lands, Charleston, Oregon. Dynamic water quality modeling, water quality sampling, and hydrodynamic sampling were performed for this southern section of the Coos Bay estuary. Tracer (rhodamine) dye study results were used to calibrate the Army Corps of Engineers CE-QUAL-W2 model.
- Project Engineer for design of stream flow measurement structures on two tributaries of the South Slough National Estuarine Reserve (State of Oregon, Division of State Lands) in Charleston, Oregon. Analysis and design of stream flow measurement structures was required as part of a study assessing the hydrology and hydraulics of this pristine estuary.
- Project Engineer for a hydrologic, hydraulic and water quality assessment of Smith and Bybee Lakes in Portland, Oregon. Lake sampling and modeling was performed. The objective of the study was to evaluate the potential for water quality impairment due to the close proximity of St. John's municipal landfill and Columbia (North) Slough inflow. A hydraulic model of possible flow control structures was incorporated into the Army Corps of Engineers CE-QUAL-W2 hydrodynamic and water quality model. Recommended actions were advanced for improving lake water quality based on simulation scenarios. This study was conducted as part of a larger study for the Port of Portland, Metropolitan Service District, and City of Portland, Bureau of Environmental Services, Portland, OR.
- Project Manager and Engineer assessing the water quality impact of urban runoff from the Leadbetter storm outfall discharge to Bybee Lake. This study was conducted for the Port of Portland, Portland, Oregon.
- Project Engineer assisting in initial field work and model development for assessing impact of landfill leachate on surrounding surface waters. Conducted for the Metropolitan Service District (METRO) as part of the St. Johns Landfill closure.

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Publications and Presentations

Stream Temperature Trading, Presented at the Pacific Northwest Pollution Control Annual Conference, 2001, Bend, Oregon.

Winter Temperature Gradients in Circular Clarifiers (January 1999), *Water Environment Research*, **70**, 1274.

Wet Weather River Diffuser Port Velocities: The Energetic Debate, Presented at the Pacific Northwest Pollution Control Annual Conference 1998, Portland, Oregon.

Near Field Mixing and Regulatory Compliance Implications Presented at Portland State University, February, 1998.

Whither the Wet Weather Flow, Presented at the Pacific Northwest Pollution Control Annual Conference 1997, Seattle, Washington.

November 24, 2021

Mr. and Mrs. Lucini
23677 SW Boones Ferry Road
Tualatin, OR 97062



RE: Request for Stormwater Information from Lennar for the Autumn Sunrise Development

Dear Mr. and Mrs. Lucini:

This letter serves as a response to your letter requesting stormwater information, received November 22nd, 2021.

- 1) *We request the stormwater model of the Autumn Sunrise development, which contains the hydrology (runoff), hydraulics (piping, intakes, etc.), water quality (WQ) treatment, and evaluation report as presently planned.*

Response: Please see preliminary Autumn Sunrise Subdivision stormwater report for details. The report was forwarded to you prior to this letter, by Mike Anders with Lennar.

- 2) *What are the design storms, and their purposes, that Lennar is proposing to use in its stormwater modeling?*

Response: The Autumn Sunrise development will be designed in accordance with Clean Water Services standards, as outlined in the provided preliminary stormwater report.

- 3) *What are the stormwater outflow locations and magnitudes for the Autumn Sunrise development? We need this information, if it is not contained in the stormwater model.*

Response: This information is available in the provided preliminary stormwater report.

- 4) *It appears that stormwater discharges from the Community Partners for Affordable Housing (CPAH) development will come on line before Autumn Sunrise is ready to receive the flow routing through the Autumn Sunrise development area. What plans, and sequence of implementation, does Lennar have for ensuring stormwater flows are not short-circuited into the existing two (2) intakes and the existing culvert passing below Boones Ferry Road (BFR). This culvert discharges onto the Lucini property (Tax Lot 302) and cannot accept additional stormwater flows.*

Response: The CPAH site development is dependent on construction of Autumn Sunrise Phase 3, bringing sanitary sewer to their site. The Autumn Sunrise Phase 3 development will construct the Boones Ferry Road stormwater system improvements. Thus, the CPAH site development cannot occur prior to the Autumn Sunrise Phase 3 stormwater system being constructed.

- 5) *There are a number of proposed sources for stormwater flows discharging into the pond at the NE corner of Greenhill Lane and Boones Ferry Road. These include flows from Washington County's stormwater system draining BFR, CPAH flows and Autumn Sunrise stormwater flows. In lieu of a comprehensive stormwater Master Plan for the City of Tualatin, how does Lennar plan*

on coordinating these flows to ensure that the pond does not exceed capacity for the proposed design storms.

Response: The proposed Autumn Sunrise stormwater facility will be designed to handle all anticipated flows from the subject site. The CPAH development, will be required to constructed stormwater facilities to adequately manage their stormwater flows. Please see the provided preliminary stormwater report for more detailed information.

6) *It is difficult to distinguish how Lennar will safely discharge to a multiple source pond without coordination. Will stormwater coordination include Lennar, Washington County (BFR), Clean Water Services (CWS), CPAH, Oregon Division of State Lands (DSL, Wetlands) and other contributing agencies and entities?*

Response: AKS will coordinate with and design the stormwater system per the applicable requirements of Washington County, Clean Water Services, Oregon Division of State Lands (DSL), and City of Tualatin. All applicable permits will be obtained from said jurisdictions.

7) *How will stormwater treatment be achieved to accomplish WQ compliance prior to discharges leaving Autumn Sunrise facilities? Are there drawings and evaluations available to demonstrate these WQ features?*

Response: The Autumn Sunrise stormwater facility will be an extended dry detention basin, to be designed and constructed per Clean Water Services standards. Detailed construction drawings will be prepared prior to Autumn Sunrise Phase 3 development, anticipated 2024. Please see provided preliminary stormwater report for further details.

Please do not hesitate to reach out to discuss further if you have any additional questions.

Sincerely,

AKS ENGINEERING & FORESTRY, LLC



Alex Hurley, PE, PLS, Principal
12965 SW Herman Road, Suite 100
Tualatin, OR 97062
503-563-6151 | Alex@aks-eng.com

REMAINING Stormwater Information Needed from Lennar For the Autumn Sunrise Development

This REMAINING information application is made by Dave LaLiberte, Principal Engineer at LEA, Inc., Wilsonville, Oregon on behalf of John and Grace Lucini at 23677 SW Boones Ferry Road, Tualatin, OR, 97062.

Lennar's response to LEA's information request has generally been met, pending a more in-depth evaluation of its *Preliminary Stormwater Report* (AKS, July 2021), but two significant items remain as discussed below.

A.) The Construction Sequencing for the stormwater connection from the Community Partners for Affordable Housing (CPAH) development to the Autumn Sunrise development still needs to be resolved. This is a follow-on to LEA's request for information #4 from November 22, 2021.

CPAH stormwater will be discharging into the Autumn Sunrise development without control under the likely present construction scenario. This is accurate for both stormwater flow volume and water quality. This will occur for a period of time, perhaps years. We have significant concerns that stormwater flows from CPAH will be diverted into the existing two (2) intakes and the existing culvert passing below SW Boones Ferry Road (BFR). This culvert discharges largely untreated storm flows onto the Lucini property (Tax Lot 302), which cannot take additional stormwater flows. This is an unacceptable condition that must be fixed as we proceed. It requires formal plans and agreement that commits to this outcome.

B.) No information was provided by Lennar relating to coordinating agencies for effects on wetlands. This is a follow-on to LEA's request for information #6 from November 22, 2021.

Wetlands are present on the SW corner portion of the development site. Discharges from the stormwater wetlands pond will also be discharged West into the Basalt Creek Wetlands. This is via a culvert under SW Boones Ferry Road and steep down-slope channel.

Lennar has not addressed how it will safely coordinate discharges to/from a multiple source stormwater wetland pond. Stormwater coordination needs to be formalized and include Lennar, City of Tualatin (see Natural Resource maps 72-1 and 72-3), Washington County (responsible agency for BFR), Clean Water Services (CWS), CPAH contributor, Oregon Division of State Lands (DSL, see Title 13 and Goal # 5 - Natural Resources), US Army Corps of Engineers (USCOE), and other contributing agencies and entities?

Request for Stormwater Information from Lennar For the Autumn Sunrise Development

This request for information is made by Dave LaLiberte, Principal Engineer at LEA, Inc., Wilsonville, Oregon on behalf of John and Grace Lucini at 23677 SW Boones Ferry Road, Tualatin, OR, 97062.

- 1.) We request the stormwater model of the Autumn Sunrise development, which contains the hydrology (runoff), hydraulics (piping, intakes, etc.), water quality (WQ) treatment, and evaluation report as presently planned.
- 2.) What are the design storms, and their purposes, that Lennar is proposing to use in its stormwater modeling?
- 3.) What are the stormwater outflow locations and magnitudes for the Autumn Sunrise development? We need this information, if it is not contained in the stormwater model.
- 4.) It appears that stormwater discharges from the Community Partners for Affordable Housing (CPAH) development will come on line before Autumn Sunrise is ready to receive the flow routing through the Autumn Sunrise development area. What plans, and sequence of implementation, does Lennar have for ensuring stormwater flows are not short-circuited into the existing two (2) intakes and the existing culvert passing below Boones Ferry Road (BFR). This culvert discharges onto the Lucini property (Tax Lot 302) and cannot accept additional stormwater flows.
- 5.) There are a number of proposed sources for stormwater flows discharging into the pond at the NE corner of Greenhill Lane and Boones Ferry Road. These include flows from Washington County's stormwater system draining BFR, CPAH flows and Autumn Sunrise stormwater flows. In lieu of a comprehensive stormwater Master Plan for the City of Tualatin, how does Lennar plan on coordinating these flows to ensure that the pond does not exceed capacity for the proposed design storms.
- 6.) It is difficult to distinguish how Lennar will safely discharge to a multiple source pond without coordination. Will stormwater coordination include Lennar, Washington County (BFR), Clean Water Services (CWS), CPAH, Oregon Division of State Lands (DSL, Wetlands) and other contributing agencies and entities?
- 7.) How will stormwater treatment be achieved to accomplish WQ compliance prior to discharges leaving Autumn Sunrise facilities? Are there drawings and evaluations available to demonstrate these WQ features?



March 8, 2021

Honorable Mayor and Members of the City Council
c/o Steve Koper, Planning Manager
City of Tualatin Planning Division
18880 SW Martinazzi Avenue
Tualatin, OR 97062-7092

RE: Autumn Sunrise – PTA 20-0005 Plan Text Amendment/PMA 20-0002 – Proposed Conditions of Approval

Dear Mayor Bubenik and Members of the City Council:

Lennar Northwest, Inc. is the applicant for the Autumn Sunrise land use applications for Plan Text and Plan Map Amendment, PTA 20-0005 and PMA 20-0002. The Tualatin Planning Commission voted to recommend approval of the applications on February 18, 2021. At the hearing, there was testimony from adjacent property owners concerning stormwater drainage and transportation.

On March 5th, 2021, Michael Anders and David Force with Lennar Northwest, Inc and I met with John and Grace Lucini, owners of TL 2S135CD00302, to discuss their concerns regarding the Autumn Sunrise development. At this meeting we discussed the Lucini’s concerns regarding stormwater drainage and transportation. AKS provided a letter that summarizes the Lucini concerns and how they will be addressed with the future subdivision or land development applications. The Lucini’s have requested that these commitments be memorialized in Conditions of Approval for the CMA decision.

Conditions of approval must be related to the approval criteria. Applicable criteria for the proposed conditions are listed below:

CHAPTER 33 – APPLICATIONS AND APPROVAL CRITERIA

TDC 33.070. – Plan Amendments.

(5) Approval Criteria.

(a) Granting the amendment is in the public interest.

...

(d) The following factors were consciously considered:

(ii) The suitability of the areas for particular land uses and improvements in the areas;

...

(viii) The public need for healthful, safe, esthetic surroundings and conditions; and

...

(h) Granting the amendment is consistent with Level of Service F for the p.m. peak hour and E for the one-half hour before and after the p.m. peak hour for the Town Center 2040 Design Type (TDC Map 9-4), and E/E for the rest of the 2040 Design Types in the City’s planning area.

(i) Granting the amendment is consistent with the objectives and policies regarding potable water, sanitary sewer, and surface water management pursuant to TDC 12.020, water management issues are adequately addressed during development or redevelopment anticipated to follow the granting of a plan amendment.

Stormwater Drainage Proposed Condition

Any future land development land use application for Tax Lots 400, 401, 500, and 501 on Map 2S 1 35D shall propose a stormwater drainage system that will capture westbound stormwater runoff that results from the proposed development and route it to a new stormwater facility in the southwest corner of the site. The stormwater facility will provide both stormwater quality treatment and quantity detention in accordance with the current Clean Water Services requirements. Additionally, the proposed stormwater system will be designed to re-route stormwater runoff from the two existing ditch inlets near the frontage of TL 2S135D000401 along SW Lower Boones Ferry Road to the proposed stormwater facility. The Applicant will request permission from Washington County to abandon the existing storm pipe by capping both ends.

Transportation Proposed Condition:

Any future land development land use application for Tax Lots 400, 401, 500, and 501 on Map 2S 1 35D shall provide the opportunity for public comment on the location of the “Local Road Connection” as shown on the Basalt Creek Community Map. The exact location of this intersection will be determined in coordination with the Applicant, City of Tualatin and Washington County after a Traffic Impact Analysis has been performed. The Traffic Impact Analysis will review existing and proposed intersection spacing, traffic volumes, traffic speeds, sight distance, and safety.

As previously stated, it is our intent to work with the Lucini’s, City of Tualatin, and Washington County to address the concerns outlined above during the Autumn Sunrise Subdivision land use process. The proposed Conditions of Approval reflect that intent.

Sincerely,

AKS ENGINEERING & FORESTRY, LLC



Mimi Doukas, AICP, RLA – Associate

12965 SW Herman Road, Suite 100 | Tualatin, OR 97062
P: 503.563.6151 | www.aks-eng.com | alex@aks-eng.com

- c. Michael Anders, Lennar Northwest
David Force, Lennar Northwest
John and Grace Lucini



8-2-2020

To the members of the City of Tualatin City Council

CC: City of Tualatin Planning Department

Mimi Doukas AKS Engineering/ Lennar Northwest, Inc/ Autumn Sunrise LLC

My husband and I attended the virtual "Community Meeting" presentation on 7-28-2020 on the proposed TDC text and map changes for the land within the Autumn Sunrise annexation to the City of Tualatin-

REFERENCED AS: **AUTUMN SUNRISE -NEIGHBORHOOD COMMERCIAL (NC) PLAN MAP/TEXT AMENDMENT.**

These are my understandings from the comments made by the Meeting Host, Mimi Doukas from AKS Engineering:

- Tabitha Boschetti, Assistant Planner for the City of Tualatin was a participant in this virtual Community Meeting.
 - Mimi commented that Tabitha was online during the meeting,
 - and Tabitha could also be contacted at the City Planning Department regarding questions.
- I asked questions regarding the process- and understood the following answers
 - this proposed text and map change to the City of Tualatin Development Code will be submitted to the City within the next week or two.
 - There is a 120-day application period, lately the City has been quick in processing these types of applications
 - The City of Tualatin Planning Commission would be scheduled to hold a meeting on these proposed TDC changes
 - *When asked when this meeting would be held by the Planning Commission*
 - *-Mimi could not give a date-but indicated it would be sometime after the application is filed*
 - *There was no additional information regarding the scheduling of the Planning Commission meeting provided by Ms. Boschetti*
 - According to Ms. Doukas,
 - the Neighborhood Commercial Zoning is currently not found anywhere else within the City of Tualatin
 - The proposed code changes are applicable only to the NC portion of this development
- During the Questions and Answers portion of the Community Meeting-Ms. Doukas stated she would summarize the questions which I had previously submitted to her by email
 - Consequently, the questions and comments I submitted by email prior to the virtual meeting were not read verbatim.
 - There were portions of my questions which were not presented by the host and which I believe were not fully addressed.

GENERAL COMMENT REGARDING THE PROPOSAL & INFORMATION PROVIDED TO PUBLIC:

A statement was included within the slide presentation and a similar statement was made by the Meeting Host:

"There are not current development plans for the Neighborhood Commercial site".

Why would the developer at this point of plan of development-

--be proposing a development code change impacting almost 4 acres of commercially zoned land within a housing development

---- and not have basic use plans (i.e. vehicular access and parking) identified to support the request for the Development Code and Maps changes for commercially zoned land?

And, without basic knowledge of future planning for the NC area to support the proposed changes---

How can an informed decision be determined- as to the potential impact the proposed changes will cause on the current and future infrastructure---- without basic plans for the proposed Land Use change including:

- **Connections to current or future roads?**
- **Changes to impervious surfaces with or without streets, buildings and/or parking lots within the NC zone and the impact upon stormwater management (which has already failed within the same stormwater catchment area)?**

Yet, contrary to the statements about the lack of development plans for the NC land -from the statements made during the Community Meeting indicated the configuration of the Neighborhood Commercial area has already undergone evaluation and planning by the applicant

- including two roads connecting into the Horizon Church and High School property as well as
- intended use of ONE SHARED ROAD for use by:
 - the adjacent Church,
 - the adjacent High School,
 - 200+ residential units
 - and any vehicular traffic created by the development of the land zoned for Neighborhood Commercial Development connecting into SW Boones Ferry Road.

This SHARED ROAD is indicated as a portion of the proposed reconfigured and relocated Neighborhood Commercial land.

No information was provided as to how this Shared Road would integrate into the existing congested traffic often evidenced on SW Boones Ferry Road.

No information was provided as to how this Shared Road would integrate into future transportation plans including the Basalt Creek Parkway Extension- consequent redesign of the Boones Ferry Frontage Road.

In response to my written questions about the impact and traffic safety issues which will likely develop due to the Washington County's proposed Basalt Creek Parkway Extension- Ms. Doukas did not provide specific answers and minimized the issue by making comments about the lack of funding for the Parkway Extension causing years of delay.

There are significant traffic congestion concerns within the Basalt Creek Area (absent changes to the health pandemic).

The proposed changes which moves a SHARED ROAD further north (intended to be used by hundreds of vehicles with multiple destinations within the development and into other properties) should be given significant evaluation as to how changing the location and types of users of the SHARED ROAD will integrate into the existing road system.

It would seem reasonable for a proposed change of a SHARED ROAD location-causing the addition of hundreds of vehicles from not only the development-- but also including the High School and neighboring properties-- should undergo thorough evaluation as to how this proposal will impact and integrate with known anticipated major transportation changes planned within close proximity.

It is apparent from the number of postings on a local neighborhood social app- where there are many local residents expressing concern with the current traffic on SW Boones Ferry Road and on Norwood.

It would seem an appropriate time for City Council to take action to seek direct citizen opinion as to comments or concerns regarding current transportation needs within the Basalt Creek Area- and their opinions as to anticipated needs as part of the decision making process in determining the location and configuration of a SHARED ROAD into the future development- and perhaps other neighboring high vehicular use properties.

FOLLOW UP QUESTIONS TO THE PRESENTATION SLIDES, INFORMATION PROVIDED DURING THE COMMUNITY MEETING AND RESPONSES TO THE QUESTION AND ANSWER PORTION OF THE VIRTUAL MEETING:

1. Anticipated Use of Land Within Zoning Change Request- Temporary / Interim Use

-Commercial/Retail or Open Space; Stormwater Management

In response to the questions I submitted about potential use of the NC land for stormwater management

WHAT I HEARD - is that the proposed reconfigured NC land may be temporarily used as either "open space" or "stormwater management"- until the number of "roof tops" would be able to sustain a retail development within the NC zone, and that this zoning code is unique to this development.

- A. Will the requested Code include any conditional requirements/limitations for how long these temporary uses may continue--- or is there potential the land at the southern entrance to the City of Tualatin remain undeveloped for numerous years?**
- 1) Who determines when the critical mass of "rooftops" has been achieved which will cause the developer (at the time) to invest in construction of the Neighborhood Commercial Zone?**
 - 2) During the interim period -prior to the number of "roof tops" being deemed adequate- who would have ownership or be responsible:**
 - If "temporarily" used as an "Open Space" will the NC be considered a Greenway or Natural Area under TDC 51.310 (c) and (d)?**
 - Will the City require the Developer to submit to the City a "Temporary Use Plan" for the proposed change to the NC land?**
 - Will there be conditional requirements added to the proposed Code change- requiring addressing Public Safety Issues during "Temporary Use" (to address the condition of the land for the unknown number of years--- until it is decided to build the Neighborhood Commercial Zone)**
 - The proposed reconfiguration of the NC zone will increase footage along an already existing County Highway 41- and an additional proposed extension of the Basalt Creek Parkway extension on the south—
 - May become a safety liability if the temporary use as an Open Space is utilized as an informal park

- Weed control on undeveloped land may become a fire hazard
- Unplanned/unmonitored stormwater storage- even if temporary
 - May become a safety liability as an attractive nuisance
 - May become a breeding ground for mosquitos etc.

3) Stormwater Management within the proposed NC area is a known problem

- The City is currently working towards Updating the City's Stormwater Management Master Plan
- The City has not adopted a Stormwater Management Plan or Map specifically for the Basalt Creek Area.
- Due to the large size and scope of the land within the anticipated development within the Autumn Sunrise land/Lennar Northwest Inc. Project--- the amount of proportional land required for stormwater retention and/or reabsorption has not yet been identified and still remains to be presented for development review (which has not been submitted)

"Temporary" "Stormwater Management" use of the reconfigured NC -- regardless of the length of time may cause potential *daily* negative impacts and safety concerns upon the downstream property owners

This proposed Code and Land Use Change would:

- cause the inclusion of a different portion of the stormwater catchment area for Washington County Stormwater Outflow #5- which may cause negative downstream impacts,
- and adds the inclusion of two intakes for Washington County Stormwater Outflow #5 -which may cause downstream impacts.

These two stormwater intakes were NOT previously within the NC zoning.

B. My husband and I are direct downstream property owners from the two stormwater intakes east of SW Boones Ferry Road mentioned above.

The City of Tualatin has been informed on many occasions of flooding of our property from Outflow #5.

Any change to the stormwater catchment area; or change of the existing stormwater conveyance system may place our home, our property, or ourselves at harm.

As the applicant's representative has stated the proposed Code and Zoning changes will only affect a specific portion of land-my husband and I submit the following:

Should the City Council Members decide to accept this reconfiguration of the NC Zone and Code change

----We strongly request the City include conditions to this proposed Code and Zoning change to include language which requires:

1) Upon the adoption of the proposal-any TEMPORARY or any INTERIUM use of the NC land under consideration which may

- **Cause change to the stormwater catchment area upstream from Outflow #5 and/or**
- **Cause change to the existing stormwater conveyance system to Outflow #5 and/or**
- **Cause change to the peak flow rate out of Outflow #5**

The developer or owner of the NC property shall be required to perform all Stormwater Management evaluations, planning and design requirements of the City and/or by CWS standards- Prior to initiating any of these types of changes within the NC or surrounding stormwater basin.

- Included within the required evaluations and analysis (but not limited to) will be a Stormwater Drainage Analysis Report- including (but not limited to) Up and Downstream evaluation for Outflow #5
- Results of the stormwater evaluations shall be submitted to the City for review and a copy of the documents submitted to the downstream property owners.

2) *Upon completion of the stormwater evaluations which complies with City Code and Standards*

Any proposed Temporary or Interim Use Application for NC shall include a Stormwater Management Plan, Design and Construction Plan- including anticipated start and completion dates.

- The stormwater management plan shall meet or exceed current City and/or CWS standards
- the plan shall utilize current Stormwater Management theories and/or applications supported by the City and/or CWS.
- The applicant or applicant representative shall consult with potentially affected downstream property owners during ALL phases of the planning, design, and construction of the stormwater management planning.
- Downstream property owners shall be provided a minimum of 10 business days to review any Stormwater Management Plan and/or design – prior to City acceptance ---to allow property owners professional vetting of the information.
- The dates of construction shall be scheduled as to minimize downstream seasonal or negative impacts resulting from the construction or changes to the catchment area/conveyance system.

2. CONFIGURATION CHANGE MAY DECREASE AMOUNT OF RETAIL DEVELOPMENT DUE TO SETBACK REQUIREMENTS ON A NARROWER SHAPED LAND.

- How will be the setback requirements impact the design and development of any retail development due to the elongation of the NC zone?
- Will this consequently decrease the amount of commercial use and/or the number of potential jobs within the Neighborhood Commercial zone?

3. SCHOOL BUFFER CHAPTER 51 - NEIGHBORHOOD COMMERCIAL ZONE (NC)

- DISCREPENCIES WITHIN EXISTING CITY CODE AVAILABLE VIA CITY WEBSITE & INFORMATION PROVIDED

The land within the proposed zoning change abuts a High School.

The information provided within the AKS download, included within the slide presentation, and commented upon during the virtual meeting referenced a "300-foot buffer between Neighborhood Commercial and schools"

As there is a discrepancy between information provided via the City's website, and the written and verbal information provided as part of a "Community Meeting" leading to a proposed Land Use proposal, I am requesting timely access to the City's State mandated CCI – or it's State authorized assignee for provision of Citizen Involvement.

This technical information –involving an adopted City of Tualatin Development Code requires clarification. I am requesting the City provide an exact and complete adopted copy of TDC 51.100 District Size and Location Standards- and provide "assistance to interpret and effectively use the technical information.

The clarification of this information is important and relevant- due to the proximity of the proposed Land Use Change and reconfiguration- may place the proposed NC development change inside the required minimum distance of 1320 feet.

<https://www.aks-eng.com/autumn%20sunrise/>

To learn more about the zone code for this project, read the [Neighborhood Commercial Zone Draft Code](#)

CHAPTER 51 - NEIGHBORHOOD COMMERCIAL ZONE (CN)

TDC 51.100. - Purpose.

The purpose of this district is to provide locations for commercial uses within close proximity to residential areas, to provide opportunities to serve the needs of residents for convenience shopping and services. The primary uses are intended to include professional offices, services, and retail oriented to the day-to-day needs of adjacent neighborhoods. Neighborhood commercial uses are intended to be pedestrian oriented and should serve to reduce automobile trips and energy consumption. The purpose is also to assure that development is of a scale and design that is compatible with the residential environment and is an enhancement to neighborhood areas. It is not the purpose of this district to allow for large scale commercial facilities, such as large grocery or department stores, which are more appropriately located within the downtown area

TDC 51.110. - District Size and Location Standards.

- (1) *District Location.* ~~The boundaries of a CN district must be separated from school property by not less than 300 feet.~~ The boundaries of a CN District must be separated from all other CN, CC, and CG districts by at least 1,320 feet.
- (2) *Street Frontage.* At least one-fourth of the total street frontage of the CN District area must be on an Arterial or Major Collector street.

(Ord. No. 1418-19, § 4, 4-22-19)

This information differs from the information posted to the City's website for TDC 51.110 (downloaded PDF attached) which includes additional language about boundary requirements of a NC District MUST be separated from high school property by at least 1320 feet.

https://library.municode.com/or/tualatin/codes/development_code?nodeId=THDECOTUOR_CH51NECOZONC

<p>TDC 51.110. - District Size and Location Standards.</p> <p>(1) <i>District Location.</i> The boundaries of a NC district must be separated from middle school property by not less than 300 feet. The boundaries of a NC District must be separated from high school property and all other NC, CC, and CG districts by at least 1,320 feet.</p> <p>(2) <i>Street Frontage.</i> At least one-fourth of the total street frontage of the NC District area must be on an Arterial or Major Collector street.</p> <p>(Ord. No. 1418-19, § 4, 4-22-19) (Yellow Highlight added)</p>
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4. CITIZEN INVOLVEMENT IN A PROPOSED LAND USE CHANGE

Prior to the virtual Community Meeting on 7-28-2020 on this proposed City Code change and Land Use change, I submitted a written question requesting specific information on as to the current TDC 51.100 District Size and Location Standards -which appears to conflict with the information presented by the petitioners. Neither the Meeting host- nor the City's Planning Department staff person in attendance- provided the actual adopted text of the TDC in question.

When during the virtual meeting, I asked when the proposed Code changes would be submitted to the City, and when the proposed Code change would be presented to the City's Planning Commission. Upon additional

questioning, I heard the City's Planning Commission would be presented this proposal- sometime AFTER the proposal is submitted to the City for consideration for adoption.

Due to Item #3 -Discrepancies within the City's publicly posted information on TDC 51.100 District Size and Location Standards when compared to information presented as part of a City required Community Meeting for a proposed Code change

--I am seeking accurate information based upon Oregon Statewide Planning Goal #2

" To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions"

Will the City provide me direct contact information as to how and when I can present my concerns to the Goal #1 CCI or State Authorized assignee about this proposed Land Use change?

- regarding conflicting facts of which I just recently became aware
- in a timely manner- prior to the submission of the proposal to the City which may limit my access to effective two-way communication" "between citizens and elected and appointed officials" once the City's Land Use Quasi-Judicial process begins.

Lacking direct contact information to submit my questions to the City's Goal #1 CCI (or State authorized assignee), and under a time constraint (to be imposed by the City's Code/Land Use change process) once the appellant submits this proposal to the City—

I find myself in a dilemma – not caused by any actions taken by me.

I am seeking clarification of pertinent factual information which was not resolved by City Planning staff in attendance during the apparent "Citizen Involvement" event on 7-28-2020.

I am seeking the assistance of a program which the State has mandated be available to Citizens to address such a need- during ALL phases of the planning process

Yet, I understand from the information provided during the virtual "Community Meeting" (apparently a "Citizen Involvement" event) on 7-28-2020, the Planning Commission will not be scheduled to hear information on this proposal until after the developer submits the proposal starting a Quasi-Judicial process which will limit my access two way communication with the elected officials who will be determining the outcome of the adoption request.

In addition, I am not a resident of the City of Tualatin, consequently I cannot be a member of the City's CIO (Citizen Involvement Organization), and I have no elected representative participating within this decision-making process.

All of these factors inhibit my ability to utilize the provisions of Goal #1 (3) CITIZEN INFLUENCE, while my home and property is in close proximity to the land under discussion and may be directly/indirectly impacted by this proposal.

I request the City of Tualatin City Council members- as the governing body and responsible for the development of a functional Citizen Involvement program and the monitoring of the program-- to evaluate the dilemma presented:

- Immediately resolve the factual discrepancies presented in Item #3
- Review and examine the administrative bases of the dilemmas describe above, which I can further clarify if needed.

Respectfully submitted,
Grace and John Lucini

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JAN JENSEN
Administrative Specialist

January 29, 2020

Sean Brady, City Attorney
City of Tualatin
18880 SW Martinazzi Ave
Tualatin, OR 97062

Dear Sean:

Washington County staff have reviewed the materials provided for the City of Tualatin's proposed annexation of properties north of SW Greenhill Lane, between SW Boones Ferry Road and I-5 ("Autumn Sunrise Annexation") into the city of Tualatin. The proposed annexation also includes portions of the right-of-way for SW Boones Ferry Road and SW Greenhill Lane abutting the subject property.

The proposed annexation is entirely within the area referenced in Washington County's Urban Planning Area Agreement (UPAA) with the City of Tualatin. That agreement contains the following clause:

G. The COUNTY shall not oppose annexations to the CITY within the CITY's Urban Planning Area.

The County consents to this annexation, but would like to note opportunities for future coordination with the city, as described in the next paragraphs of this letter.

The annexation materials show the centerline of SW Greenhill Lane as the southerly limit of Tualatin's proposed annexation, which is consistent with the future city limit line between Tualatin and Wilsonville pursuant to both cities' adopted comprehensive plans. SW Greenhill Lane is not a County road, therefore, when this annexation takes effect, Tualatin will become the de facto road authority and assume maintenance responsibility for the north half of SW Greenhill Lane.

In 2013, Washington County adopted Ordinance 761 amending the County's Transportation System Plan (TSP) to show SW Greenhill Lane as the future Basalt Creek Parkway, a 4/5-lane arterial between SW Boones Ferry Road and the Urban Growth Boundary (UGB) line (west right-of-way line of I-5). The same future alignment was also adopted in the Regional



Transportation Plan (RTP project #11436) and depicted in the Basalt Creek Concept Plan adopted by the cities of Tualatin and Wilsonville in August 2018. However, when Tualatin adopted the Basalt Creek Comprehensive Plan and associated city TSP amendments in April 2019, the line for Basalt Creek Parkway ended at SW Boones Ferry Road instead of extending to the UGB line. Washington County requests that upon this annexation, Tualatin initiate a city TSP amendment to show the 4/5 lane arterial extending from Boones Ferry Road to the Urban Growth Boundary, matching the County's TSP and the RTP.

Pursuant to the County TSP designation, the County's expectation is that any future City development approvals on the subject properties will reflect adequate right-of-way dedication, measured from the existing Greenhill Lane centerline, for one half of the ultimate required width for a 4-5 lane arterial roadway per the Washington County TSP, including placement of any necessary retaining walls and/or fill material that may be needed to construct the future Basalt Creek Parkway overcrossing of I-5. No vehicular access shall be permitted from the subject properties to the future Basalt Creek Parkway.

SW Boones Ferry Road is a County road. At this time Washington County will retain road jurisdiction and maintenance authority of that portion of the right-of-way that will be annexed by Tualatin.

County staff look forward to further coordination with the City of Tualatin.

Sincerely,



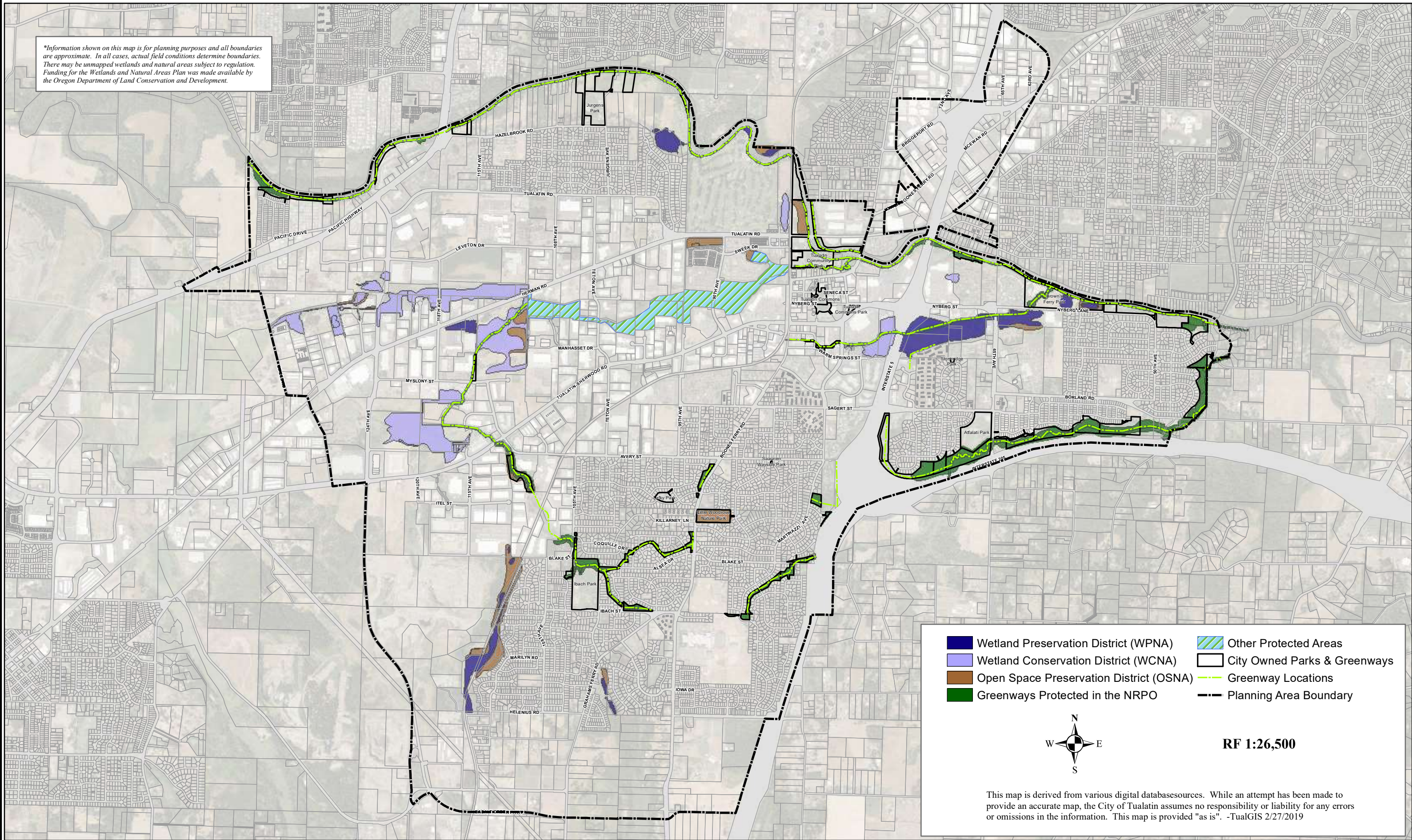
Alan A. Rappleyea
County Counsel

alan_rappleyea@co.washington.or.us

cc: Stephen Roberts, Director of Land Use & Transportation
Andy Back, Planning and Development Services Manager
Erin Wardell, Principal Transportation Planner
Theresa Cherniak, Principal Community Planner

Map 72-1: Natural Resources Protection Overlay District (NRPO) and Greenway Locations

*Information shown on this map is for planning purposes and all boundaries are approximate. In all cases, actual field conditions determine boundaries. There may be unmapped wetlands and natural areas subject to regulation. Funding for the Wetlands and Natural Areas Plan was made available by the Oregon Department of Land Conservation and Development.



Wetland Preservation District (WPNA)	Wetland Conservation District (WCNA)	Open Space Preservation District (OSNA)	Greenways Protected in the NRPO	Other Protected Areas	City Owned Parks & Greenways	Greenway Locations	Planning Area Boundary
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RF 1:26,500

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS 2/27/2019

