

24-000237

## Service Provider Letter

**This form and the attached conditions will serve as your Service Provider Letter in accordance with Clean Water Services Design and Construction Standards (R&O 19-5, as amended by R&O 19-22).**

<b>Jurisdiction:</b> <u>City of Tualatin</u>	<b>Review Type:</b> <u>Tier 2 Analysis</u>
<b>Site Address / Location:</b> <u>23370 SW Boones Ferry Rd</u> <u>Tualatin, OR 97062</u>	<b>SPL Issue Date:</b> <u>March 12, 2024</u>
	<b>SPL Expiration Date:</b> <u>March 12, 2026</u>

**Applicant Information:**

Name SONYA DAVIS  
 Company AKS ENGINEERING & FORESTRY. LLC  
12965 SW HERMAN RD, SUITE 100  
 Address TUALATIN, OR 97062  
 Phone/Fax (503) 563-6151  
 E-mail: daviss@aks-eng.com

**Owner Information:**

Name KEN ALLEN  
 Company HORIZON COMMUNITY CHURCH  
23370 SW BOONES FERRY RD  
 Address TUALATIN, OR 97062  
 Phone/Fax \_\_\_\_\_  
 E-mail: \_\_\_\_\_

**Tax lot ID**

2S135D000106

**Development Activity**

Horizon Community Church Expansion

**Pre-Development Site Conditions:**

Sensitive Area Present:  On-Site  Off-Site  
 Vegetated Corridor Width: Variable  
 Vegetated Corridor Condition: Marginal/Degraded

**Post Development Site Conditions:**

Sensitive Area Present:  On-Site  Off-Site  
 Vegetated Corridor Width: Variable

**Enhancement of Remaining Vegetated Corridor Required:**

**Square Footage to be enhanced:**

18,565

**Encroachments into Pre-Development Vegetated Corridor:**

Type and location of Encroachment:	Square Footage:
<u>Road Improvements (Permanent Encroachment; Mitigation Required)</u>	<u>4,907</u>
_____	_____
_____	_____

**Mitigation Requirements:**

Type/Location	Sq. Ft./Ratio/Cost
<u>On-site VC Replacement and Public Benefit Mitigation</u>	<u>5,907/1.2:1</u>
_____	_____
_____	_____

Conditions Attached  Development Figures Attached (4)  Planting Plan Attached  Geotech Report Required

**This Service Provider Letter does NOT eliminate the need to evaluate and protect water quality sensitive areas if they are subsequently discovered on your property.**

**In order to comply with Clean Water Services water quality protection requirements the project must comply with the following conditions:**

1. No structures, development, construction activities, gardens, lawns, application of chemicals, uncontained areas of hazardous materials as defined by Oregon Department of Environmental Quality, pet wastes, dumping of materials of any kind, or other activities shall be permitted within the sensitive area or Vegetated Corridor which may negatively impact water quality, except those allowed in R&O 19-5, Chapter 3, as amended by R&O 19-22.
2. Prior to any site clearing, grading or construction the Vegetated Corridor and water quality sensitive areas shall be surveyed, staked, and temporarily fenced per approved plan. During construction the Vegetated Corridor shall remain fenced and undisturbed except as allowed by R&O 19-5, Section 3.06.1, as amended by R&O 19-22 and per approved plans.
3. **Prior to any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). The applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits.**
4. An approved Oregon Department of Forestry Notification is required for one or more trees harvested for sale, trade, or barter, on any non-federal lands within the State of Oregon.
5. Prior to any ground disturbing activities, an erosion control permit is required. Appropriate Best Management Practices (BMP's) for Erosion Control, in accordance with Clean Water Services' Erosion Prevention and Sediment Control Planning and Design Manual, shall be used prior to, during, and following earth disturbing activities.
6. Prior to construction, a Stormwater Connection Permit from Clean Water Services or its designee is required pursuant to Ordinance 27, Section 4.B.
7. Activities located within the 100-year floodplain shall comply with R&O 19-5, Section 5.10, as amended by R&O 19-22.
8. Removal of native, woody vegetation shall be limited to the greatest extent practicable.
9. The water quality swale and detention pond shall be planted with Clean Water Services approved native species, and designed to blend into the natural surroundings.
10. **Should final development plans differ significantly from those submitted for review by Clean Water Services, the applicant shall provide updated drawings, and if necessary, obtain a revised Service Provider Letter.**
11. **The Vegetated Corridor width for sensitive areas within the project site shall be a minimum of 50 feet wide, as measured horizontally from the delineated boundary of the sensitive area.**
12. **For Vegetated Corridors up to 50 feet wide, the applicant shall enhance the entire Vegetated Corridor to meet or exceed good corridor condition as defined in R&O 19-5, Section 3.14.2, Table 3-3, as amended by R&O 19-22.**
13. Removal of invasive non-native species by hand is required in all Vegetated Corridors rated ""good."" Replanting is required in any cleared areas larger than 25 square feet using low impact methods. The applicant shall calculate all cleared areas larger than 25 square feet prior to the preparation of the required Vegetated Corridor enhancement/restoration plan.
14. Prior to any site clearing, grading or construction, the applicant shall provide Clean Water Services with a Vegetated Corridor enhancement/restoration plan. Enhancement/restoration of the Vegetated Corridor shall be provided in accordance with R&O 19-5, Appendix A, as amended by R&O 19-22, and shall include planting specifications for all Vegetated Corridor, including any cleared areas larger than 25 square feet in Vegetated Corridor rated ""good.""
15. Prior to installation of plant materials, all invasive vegetation within the Vegetated Corridor shall be removed per methods described in Clean Water Services' Integrated Pest Management Plan, 2019. During removal of invasive vegetation care shall be taken to minimize impacts to existing native tree and shrub species.

- 16. Clean Water Services and/or City shall be notified 72 hours prior to the start and completion of enhancement/restoration activities. Enhancement/restoration activities shall comply with the guidelines provided in Planting Requirements (R&O 19-5, Appendix A, as amended by R&O 19-22).
- 17. **Maintenance and monitoring requirements shall comply with R&O 19-5, Section 2.12.2, as amended by R&O 19-22. If at any time during the warranty period the landscaping falls below the 80% survival level, the owner shall reinstall all deficient planting at the next appropriate planting opportunity and the two year maintenance period shall begin again from the date of replanting.**
- 18. **Performance assurances for the Vegetated Corridor shall comply with R&O 19-5, Section 2.07.2, Table 2-1 and Section 2.11, Table 2-2, as amended by R&O 19-22.**
- 19. **Clean Water Services shall require an easement over the Sensitive Area and Vegetated Corridor conveying storm and surface water management to Clean Water Services or the City that would prevent the owner of the Vegetated Corridor from activities and uses inconsistent with the purpose of the corridor and any easements therein.**

**FINAL PLANS**

- 20. **Final construction plans shall include landscape plans.** In the details section of the plans, a description of the methods for removal and control of exotic species, location, distribution, condition and size of plantings, existing plants and trees to be preserved, and installation methods for plant materials is required. Plantings shall be tagged for dormant season identification and shall remain on plant material after planting for monitoring purposes.
- 21. **A Maintenance Plan shall be included on final plans** including methods, responsible party contact information, and dates (minimum two times per year, by June 1 and September 30).
- 22. **Final construction plans shall clearly depict the location and dimensions of the sensitive area and the Vegetated Corridor** (indicating good, marginal, or degraded condition). Sensitive area boundaries shall be marked in the field.
- 23. Protection of the Vegetated Corridors and associated sensitive areas shall be provided by the installation of permanent fencing and signage between the development and the outer limits of the Vegetated Corridors. **Fencing and signage details to be included on final construction plans.**











**This Service Provider Letter is not valid unless CWS-approved site plan is attached.**

*Stacy Benjamin*

**Stacy Benjamin  
Environmental Plan Review**

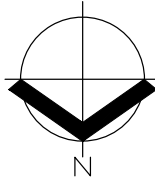
**Attachments (4)**

**LEGEND (COLOR COPY):**

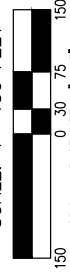
-  TOTAL ON-SITE PFO/PSS/PEM/DEPRESSIONAL WETLAND A AREA: 12,256 SF± (0.28 ACRES)
-  CWS VEGETATED CORRIDOR (VC)
-  TOTAL ON-SITE VC AREA: 23,472 SF± (0.53 ACRES)
-  MARGINAL CONDITION VC AREA: 4,980 SF± (0.11 ACRES)
-  DEGRADED CONDITION VC AREA: 18,482 SF± (0.42 ACRES)
-  STW — STORMWATER LINE
-  TOTAL LENGTH OF ON-SITE ROADSIDE DRAINAGE DITCHES: 1,043 LF±
-  ROADSIDE DITCH 1: 613 LF±
-  ROADSIDE DITCH 2: 369 LF±
-  ROADSIDE DITCH 3: 61 LF±

WETLAND BOUNDARY AND DATA PLOTS SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC (AKS) ON MAY 31, 2022 AND LOCATED WITH SUBMETER ACCURACY USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

1-FT INTERVAL GROUND CONTOURS, EXISTING CONDITIONS, STUDY AREA BOUNDARY, AND A PARTIAL TREE SURVEY OF TREES >6" DBH DERIVED FROM AKS PROFESSIONAL LAND SURVEY ON APRIL 4-6, OCTOBER 17-21, FEBRUARY 20-21, 2022 AND APRIL 22, 2023.



SCALE: 1" = 150 FEET



DATE: 12/20/2023

FIGURE

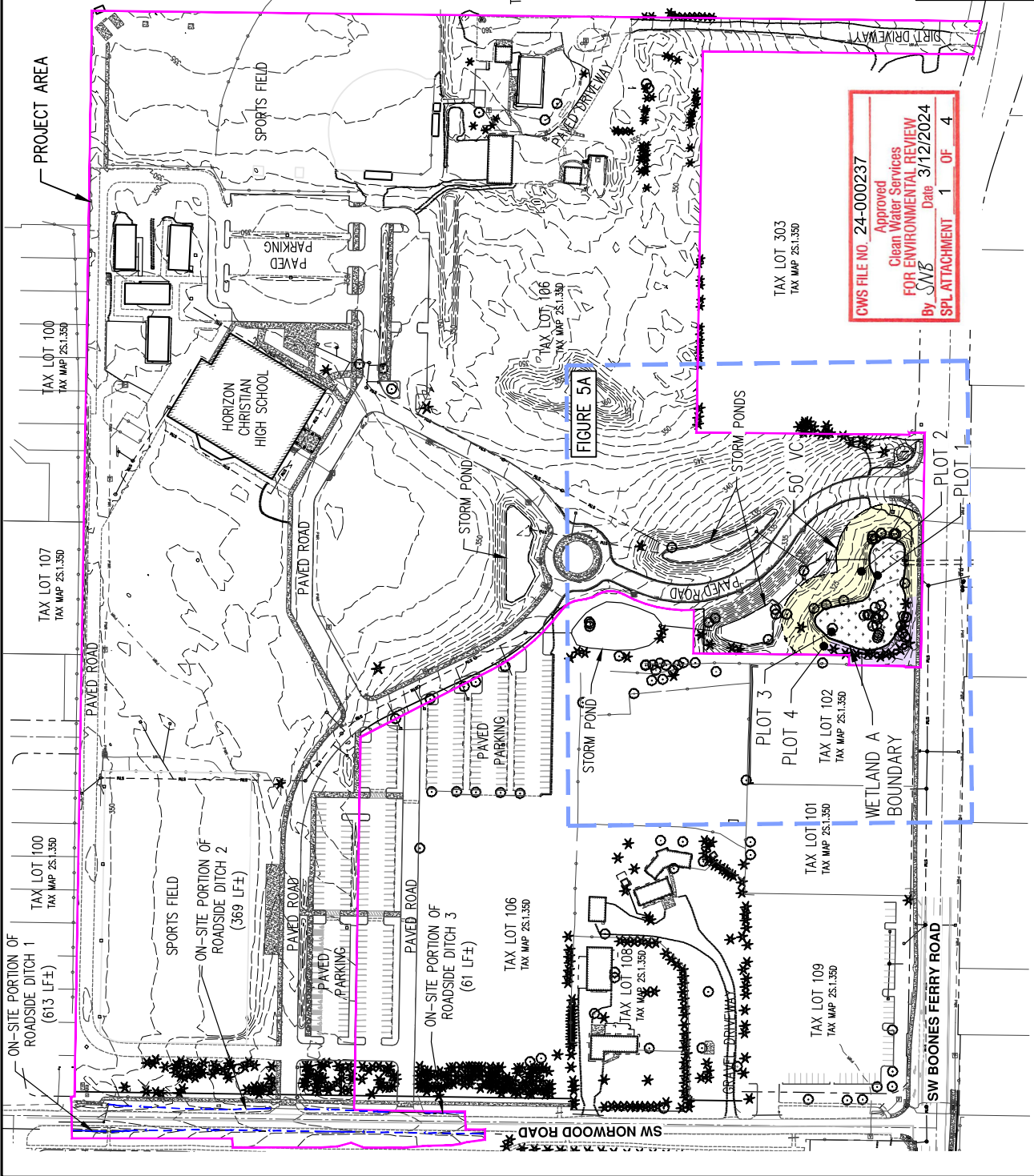
**NATURAL RESOURCES  
EXISTING CONDITIONS OVERVIEW**

HORIZON COMMUNITY CHURCH TIER 2 ALTERNATIVES ANALYSIS REPORT

5

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

DRWN: GPM  
CHKD: SKD  
AKS JOB:  
9349



**LEGEND (COLOR COPY):**







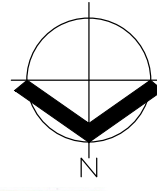
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PHOTO POINT LOCATION AND ORIENTATION

WETLAND BOUNDARY AND DATA PLOTS SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC (AKS) ON MAY 31, 2022 AND LOCATED WITH SUBMETER ACCURACY USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

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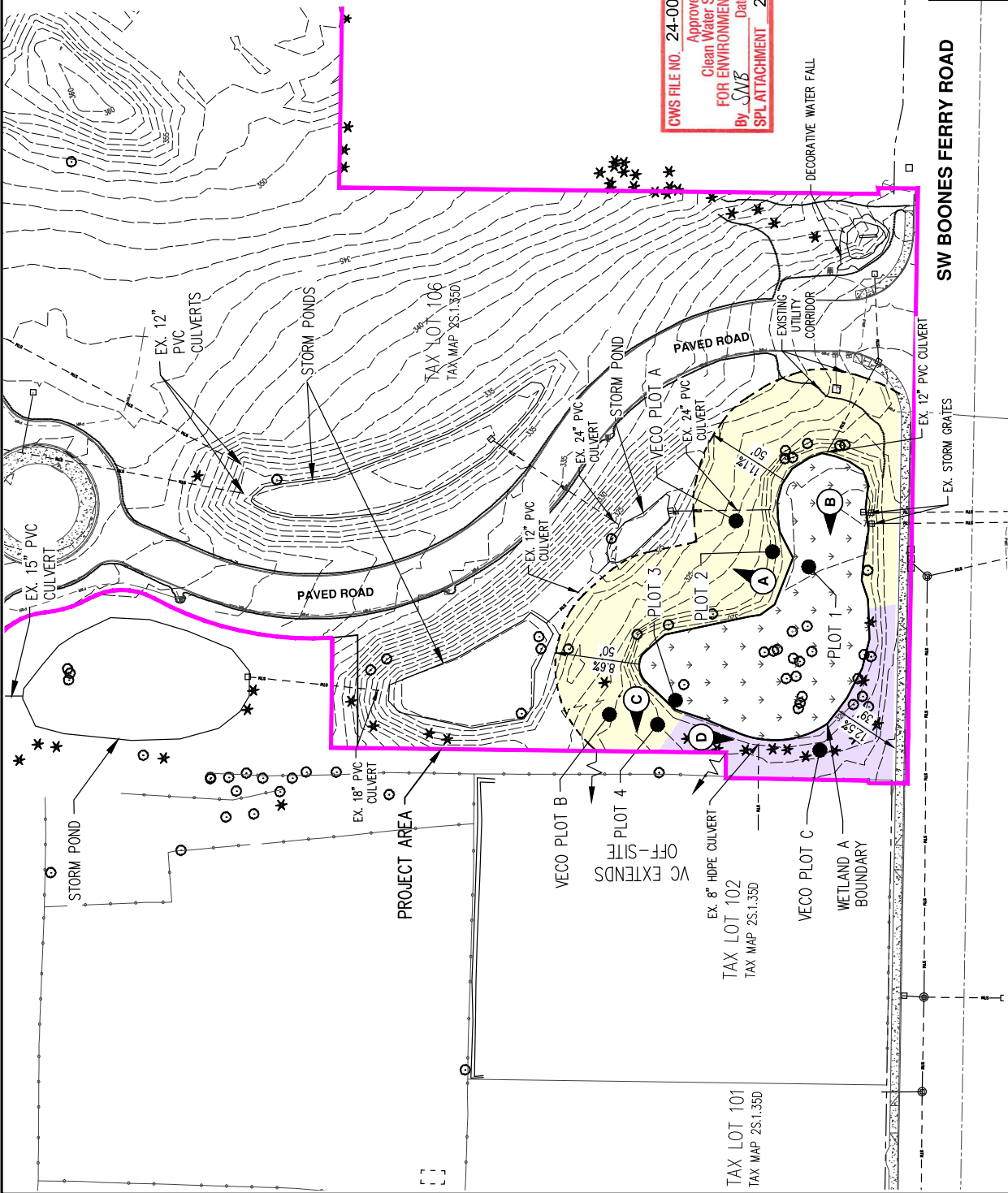
SCALE: 1" = 60 FEET

ORIGINAL PAGE SIZE: 11" x 17"

CWS FILE NO. 24-000237  
Approved  
Clean Water Services  
FOR ENVIRONMENTAL REVIEW  
By: *SWB* Date: 3/12/2024  
SPL ATTACHMENT 2 OF 4

DATE: 12/20/2023

FIGURE	
5A	
NATURAL RESOURCES EXISTING CONDITIONS	
HORIZON COMMUNITY CHURCH TIER 2 ALTERNATIVES ANALYSIS REPORT	
AKS ENGINEERING & FORESTRY, LLC	
12965 SW HERMAN RD, STE 100	
TUALATIN, OR 97062	
AKS JOB:	9349
503.563.6151	WWW.AKS-ENG.COM



SW BOONES FERRY ROAD



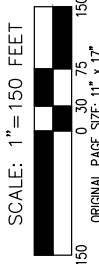
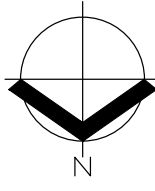
**LEGEND (COLOR COPY):**

- TOTAL ON-SITE PFO/PSS/PEM/DEPRESSIONAL WETLAND A AREA TO REMAIN: 12,198 SF± (0.28 ACRES)
- PERMANENT WETLAND IMPACT AREA: 58 SF±
- TEMPORARY WETLAND IMPACT AREA: 140 SF±
- PERMANENT VC IMPACT AREA: 4,907 SF± (0.11 ACRES±)
- VC REPLACEMENT MITIGATION TO BE PLANTED TO GOOD CONDITION: 4,907 SF± (0.11 ACRES)
- MARGINAL/DEGRADED CONDITION VC TO BE ENHANCED TO GOOD CONDITION: 18,565 SF± (0.43 ACRES)
- PUBLIC BENEFIT MITIGATION AREA TO BE PLANTED TO GOOD CONDITION: 1,000 SF± (0.02 ACRES)
- TREES TO BE REMOVED

WETLAND BOUNDARY WAS DELINEATED BY AKS ENGINEERING & FORESTRY, LLC (AKS) ON MAY 31, 2022 AND LOCATED WITH SUBMETER USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

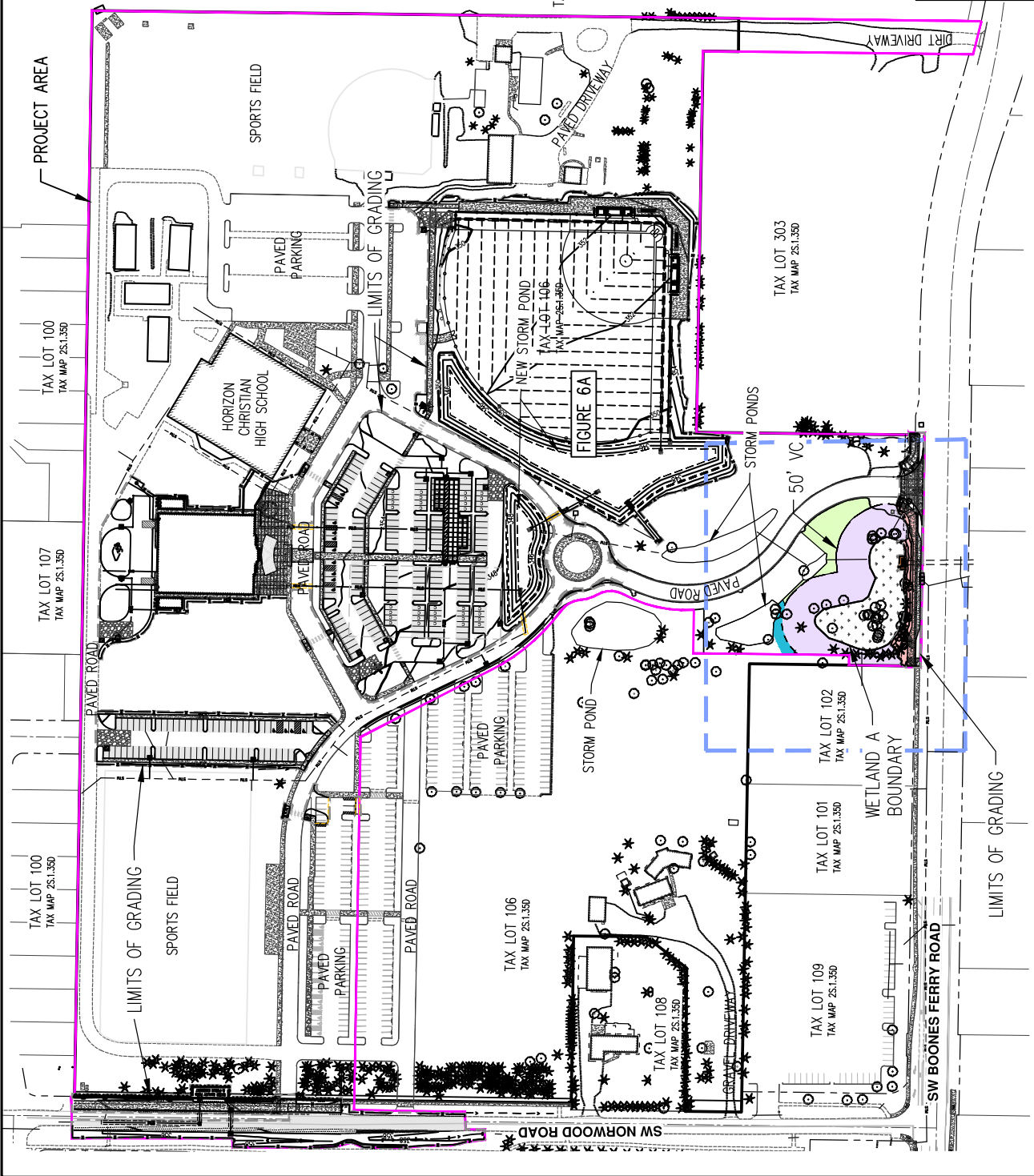
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CWS FILE NO. 24-000237  
 Approved  
 Clean Water Services  
 FOR ENVIRONMENTAL REVIEW  
 By *SWB* Date 3/12/2024  
 SPL ATTACHMENT 3 OF 4



DATE: 01/10/2024

FIGURE	
NATURAL RESOURCES	
SITE PLAN OVERVIEW	
6	
DRWN: GPM	CHKD: SKD
AKS JOB: 9349	
HORIZON COMMUNITY CHURCH TIER 2 ALTERNATIVES ANALYSIS REPORT	
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TUALATIN, OR 97062	
503.563.6151 WWW.AKS-ENG.COM	

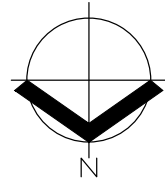


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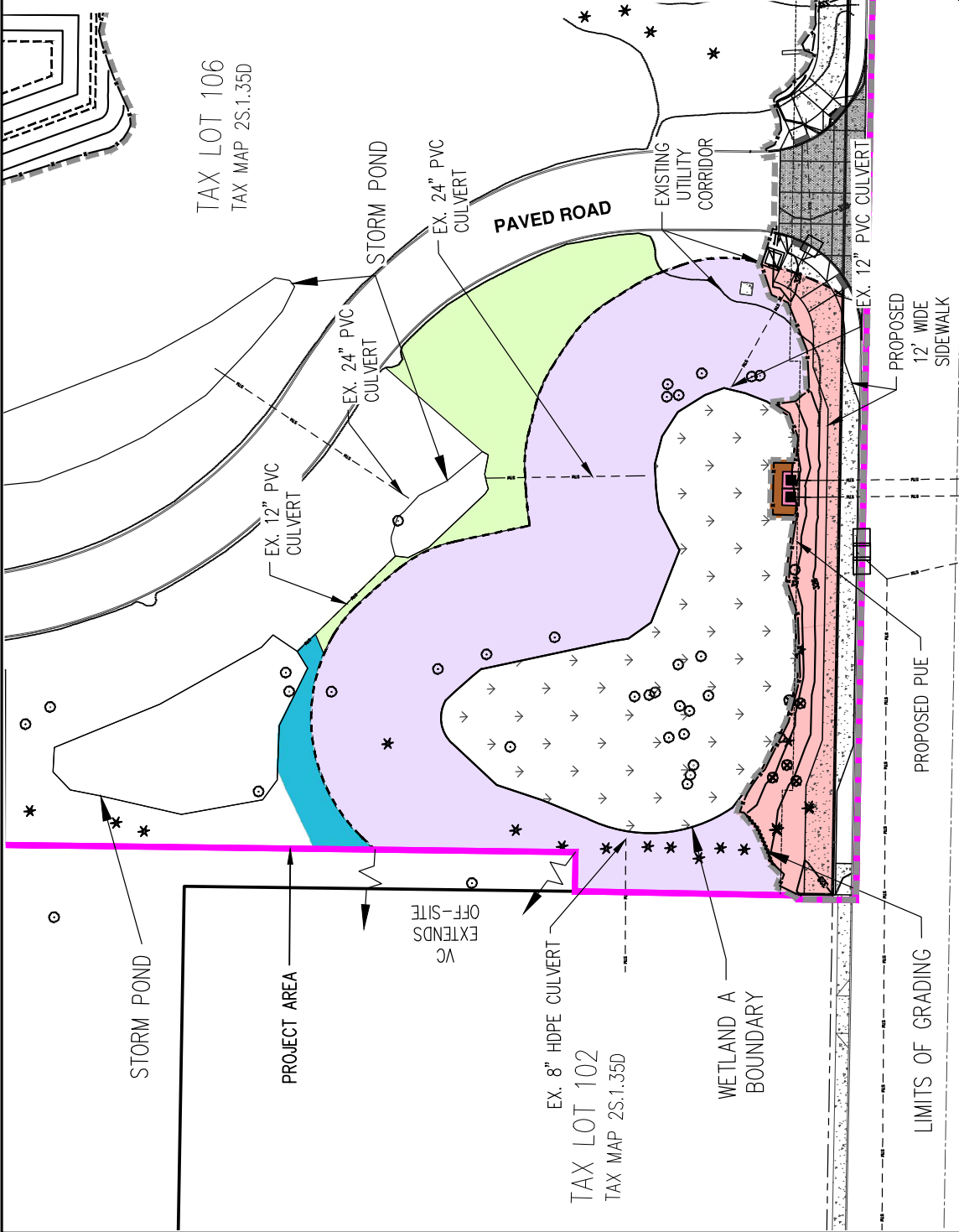
CWS FILE NO. 24-000237  
 Approved  
 Clean Water Services  
 FOR ENVIRONMENTAL REVIEW  
 By SVB Date 3/12/2024  
 SPLATTACHMENT 4 OF 4



SCALE: 1" = 40 FEET  
 ORIGINAL PAGE SIZE: 11" x 17"

DATE: 01/10/2024

FIGURE	
NATURAL RESOURCES SITE PLAN	
6A	
HORIZON COMMUNITY CHURCH TIER 2 ALTERNATIVES ANALYSIS REPORT	DRINK: GPM
AKS ENGINEERING & FORESTRY, LLC	CHKD: SKD
12965 SW HERMAN RD, STE 100	AKS JOB: 9349
TUALATIN, OR 97062	
503.563.6151	WWW.AKS-ENG.COM



**SW BOONES FERRY ROAD**

**FIRE CODE / LAND USE / BUILDING REVIEW  
APPLICATION**



**North Operating Center**  
11945 SW 70<sup>th</sup> Avenue  
Tigard, OR 97223  
Phone: 503-649-8577

**South Operating Center**  
8445 SW Elligsen Rd  
Wilsonville, OR 97070  
Phone: 503-649-8577

REV 6-30-20

**Project Information**

Applicant Name: Chris Knight  
Address: 12965 SW Herman Road SUITE 100  
Phone: (503) 563-6151  
Email: knightc@aks-eng.com  
Site Address: 23370 SW Boones Ferry Road  
City: Tualatin  
Map & Tax Lot #: Tax Map 2S.1.35D, Tax Lot #106  
Business Name: Horizon Community Church  
Land Use/Building Jurisdiction: Tualatin  
Land Use/ Building Permit # \_\_\_\_\_

Choose from: Beaverton, Tigard, Newberg, Tualatin, North Plains, West Linn, Wilsonville, Sherwood, Rivergrove, Durham, King City, Washington County, Clackamas County, Multnomah County, Yamhill County

**Project Description**

To construct a new sanctuary and baseball field along with associated parking lot and frontage improvements. Will include the re-configuration and update of the existing stormwater facilities and associate underground utilities.

**Permit/Review Type (check one):**

- Land Use / Building Review - Service Provider Permit
- Emergency Radio Responder Coverage Install/Test
- LPG Tank (Greater than 2,000 gallons)
- Flammable or Combustible Liquid Tank Installation (Greater than 1,000 gallons)
  - \* Exception: Underground Storage Tanks (UST) are deferred to DEQ for regulation.
- Explosives Blasting (Blasting plan is required)
- Exterior Toxic, Pyrophoric or Corrosive Gas Installation (in excess of 810 cu.ft.)
- Tents or Temporary Membrane Structures (in excess of 10,000 square feet)
- Temporary Haunted House or similar
- OLCC Cannabis Extraction License Review
- Ceremonial Fire or Bonfire (For gathering, ceremony or other assembly)

**For Fire Marshal's Office Use Only**

TVFR Permit # 2024-0075  
Permit Type: SPP-Tualatin  
Submittal Date: 5/31/2024  
Assigned To: McGladrey  
Due Date: 5/31/2024  
Fees Due: N/A  
Fees Paid: N/A

**Approval/Inspection Conditions**

(For Fire Marshal's Office Use Only)

**This section is for application approval only**

Alex Mc G 5/31/2024  
Fire Marshal or Designee Date

Conditions:

TVF&R final inspection is required for this project.

**See Attached Conditions:**  Yes  No

**Site Inspection Required:**  Yes  No

**This section used when site inspection is required**

Inspection Comments:

\_\_\_\_\_  
Final TVFR Approval Signature & Emp ID Date





www.tvfr.com

Command & Business Operations Center  
and North Operating Center  
11945 SW 70<sup>th</sup> Avenue  
Tigard, Oregon 97223-8566  
503-649-8577

South Operating Center  
8445 SW Elligsen Road  
Wilsonville, Oregon  
97070-9641  
503-649-8577

Training Center  
12400 SW Tonquin Road  
Sherwood, Oregon  
97140-9734  
503-259-1600

## FIRE DEPARTMENT ACCESS AND WATER SUPPLY PERMIT CHECKLIST

Project Name	Address and/or Legal Description	TVF&R Permit #
Description of Proposed Work:	To construct a new sanctuary and baseball field along with associated parking lot and frontage improvements. Will include the re-configuration and update of the existing stormwater facilities and associate underground utilities.	Jurisdiction:
Bldg. Square Footage:	Type of Construction: <p style="text-align: center;">Type IA</p>	Fire Sprinklers: Y <input type="checkbox"/> N <input type="checkbox"/>
Fire Alarms: Y <input type="checkbox"/> N <input type="checkbox"/>	Bldg. Height: (Measured to gutter line or top of parapet)	ERRC <input type="checkbox"/> MERRC <input type="checkbox"/> N/A <input type="checkbox"/>

**Complete checklist below if the submittal involves constructing or altering a building.**

ITEM #	PROVIDED		REQUIREMENT	CODE REF
1	Y	N/A	Fire service plans shall consist of a site plan and elevation views of buildings. The site plan shall be labeled as FS-1. Elevation view sheets shall be FS-2, FS-3, etc.	OFC 105.4.2
2	Y	N/A	Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet. (OFC 503.1.1)	OFC 503.1.1
3	Y	N/A	Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. Diagrams can be found in the corresponding guide located at: <a href="http://www.tvfr.com/DocumentCenter/View/1296">http://www.tvfr.com/DocumentCenter/View/1296</a> .	OFC 503.2.5 & D103.1
4	Y	N/A	Buildings exceeding 30 feet in height or three stories in height shall have at least two separate means of fire apparatus access.	D104.1
5	Y	N/A	Buildings or facilities having a gross building area of more than 62,000 square feet shall have at least two approved separate means of fire apparatus access. Exception: Projects having a gross building area of up to 124,000 square feet that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.	OFC D104.2
6	Y	N/A	Multifamily projects having more than 100 dwelling units shall be provided with two separate and approved fire apparatus access roads. Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1, 903.3.1.2. Projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus roads regardless of whether they are equipped with an approved automatic sprinkler system.	OFC D106
7	Y	N/A	Buildings with a vertical distance between the grade plane and the highest roof surface that exceeds 30 feet in height shall be provided with a fire apparatus access road constructed for use by aerial apparatus with an unobstructed driving surface width of not less than 26 feet. For the purposes of this section, the highest roof surface shall be determined by	OFC D105.1, D105.2

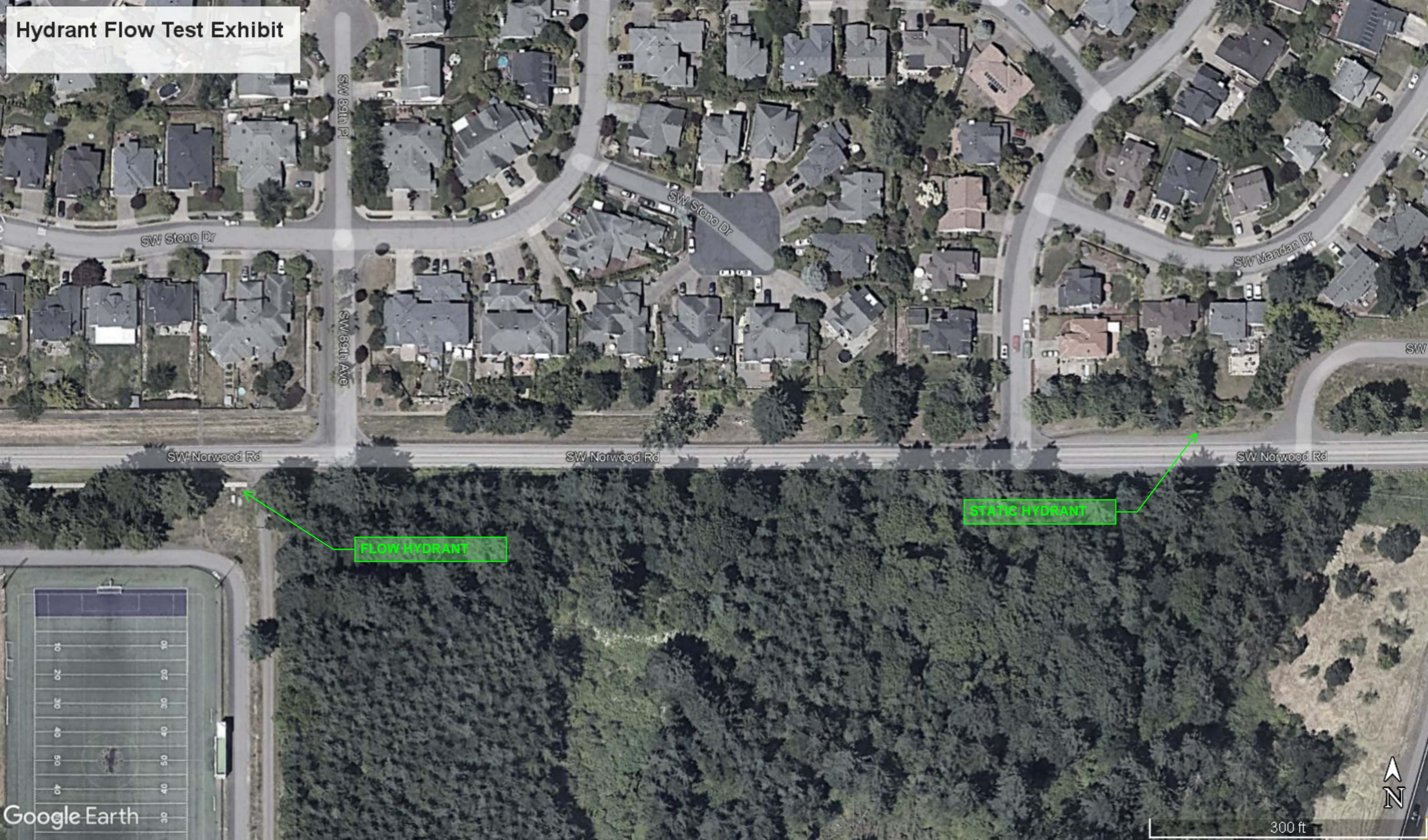
ITEM #	PROVIDED		REQUIREMENT	CODE REF
			measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of the parapet walls, whichever is greater. Any portion of the building may be used for this measurement, provided that it is accessible to firefighters and is capable of supporting ground ladder placement.	
8	Y	N/A	Developments of one- or two-family dwellings, where the number of dwelling units exceeds 30, shall be provided with separate and approved fire apparatus access roads and shall meet the requirements of Section D104.3. Exception: Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1, 903.3.1.2, or 903.3.1.3 of the International Fire Code, access from two directions shall not be required.	OFC D107
9	Y	N/A	At least one of the required aerial access routes shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial access road is positioned shall be approved by the Fire Marshal. Overhead utility and power lines shall not be located over the aerial access road or between the aerial access road and the building.	OFC D105.3, D105.4
10	Y	N/A	Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the area to be served (as identified by the Fire Marshal), measured in a straight line between accesses.	OFC D104.3
11	Y	N/A	Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants and an unobstructed vertical clearance of not less than 13 feet 6 inches).	OFC 503.2.1 & D103.1
12	Y	N/A	The fire district will approve access roads of 12 feet for up to three dwelling units (Group R-3) and accessory (Group U) buildings.	OFC 503.1.1
13	Y	N/A	Where access roads are less than 20 feet and exceed 400 feet in length, turnouts 10 feet wide and 30 feet long may be required and will be determined on a case by case basis.	OFC 503.2.2
14	Y	N/A	Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "No Parking" signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Signs shall read "NO PARKING - FIRE LANE" and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background.	OFC D103.6
15	Y	N/A	Where required, fire apparatus access roadway curbs shall be painted red (or as approved) and marked "NO PARKING FIRE LANE" at 25-foot intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background	OFC 503.3
16	Y	N/A	Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet and shall extend 20 feet before and after the point of the hydrant.	OFC D103.1
17	Y	N/A	Where access roads are less than 20 feet and exceed 400 feet in length, turnouts 10 feet wide and 30 feet long may be required and will be determined on a case by case basis.	OFC 503.2.2
18	Y	N/A	Fire apparatus access roads shall be of an all-weather surface that is easily distinguishable from the surrounding area and is capable of supporting not less than 12,500 pounds point load (wheel load) and 75,000 pounds live load (gross vehicle weight). Documentation from a registered engineer that the final construction is in accordance with approved plans or the requirements of the Fire Code may be requested.	OFC 503.2.3
19	Y	N/A	The inside turning radius and outside turning radius shall not be less than 28 feet and 48 feet respectively, measured from the same center point.	OFC 503.2.4 & D103.3
20	Y	N/A	Fire apparatus access roadway grades shall not exceed 15%. Alternate methods and materials may be available at the discretion of the Fire Marshal (for grade exceeding 15%).	OFC D103.2
21	Y	N/A	Approved forest dwellings (in which the structure meets all County forest dwelling fire siting, fire retardant roof, and spark arrestor requirements) are allowed up to 20% maximum grade. Access roads greater than 20% shall be considered on a case-by-case basis. Forest dwelling access roads shall be an all-weather surface capable of supporting imposed loads of not less than 37,000 pounds gross vehicle weight and be no less than 12 feet minimum width. All other access requirements, including turnarounds shall be determined upon a heavy brush unit response capability to the individual property.	OFC 503.1.1 & D102.1.1

ITEM #	PROVIDED		REQUIREMENT	CODE REF
	Y	N/A		
22	Y	N/A	Turnarounds shall be as flat as possible and have a maximum of 5% grade with the exception of crowning for water run-off.	OFC 503.2.7 & D103.2
23	Y	N/A	Intersections shall be level (maximum 5%) with the exception of crowning for water run-off.	OFC 503.2.7 & D103.2
24	Y	N/A	Portions of aerial apparatus roads that will be used for aerial operations shall be as flat as possible. Front to rear and side to side maximum slope shall not exceed 10%.	OFC D103.2
25	Y	N/A	Gates securing fire apparatus roads shall comply with all of the following: <ol style="list-style-type: none"> <li>1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width).</li> <li>2. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.</li> <li>3. Electric gates shall be equipped with a means for operation by fire department personnel.</li> <li>4. Electric automatic gates shall comply with ASTM F 2200 and UL 325.</li> </ol>	OFC D103.5, & 503.6
26	Y	N/A	Private bridges shall be designed and constructed in accordance with the State of Oregon Department of Transportation and American Association of State Highway and Transportation Officials Standards <i>Standard Specification for Highway Bridges</i> . Vehicle load limits shall be posted at both entrances to bridges when required by the Fire Marshal.	OFC 503.2.6
27	Y	N/A	Applicants shall provide documentation of a fire hydrant flow test or flow test modeling of water availability from the local water purveyor if the project includes a new structure or increase in the floor area of an existing structure. Tests shall be conducted from a fire hydrant within 400 feet for commercial projects, or 600 feet for residential development. Flow tests will be accepted if they were performed within 5 years as long as no adverse modifications have been made to the supply system. Water availability information may not be required to be submitted for every project.	OFC Appendix B
28	Y	N/A	Where a portion of a commercial building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided.	OFC 507.5.1
29	Y	N/A	Where the most remote portion of a residential structure is more than 600 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the structure(s), on-site fire hydrants and mains shall be provided.	OFC 507.5.1
30	Y	N/A	Rural one-and-two-family dwellings, where there is no fixed and reliable water supply and there is approved access, shall not be required to provide a firefighting water supply.	OFC B103
31	Y	N/A	Detached U occupancies, in rural areas, that are in excess of 3,600 square feet are not required to have a water supply when they have approved fire department access.	OFC D102
32	Y	N/A	Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the Fire Marshal.	OFC C102.1
33	Y	N/A	Where fire hydrants are subject to impact by a motor vehicle, guard posts, bollards or other approved means of protection shall be provided.	OFC 507.5.6 & OFC 312
34	Y	N/A	FDCs shall be located within 100 feet of a fire hydrant (or as approved). Hydrants and FDC's shall be located on the same side of the fire apparatus access roadway or drive aisle, fully visible, and recognizable from the street or nearest point of the fire department vehicle access or as otherwise approved.	OFC 912.2.1 & NFPA 13

ITEM #	PROVIDED		REQUIREMENT	CODE REF
35	Y	N/A	<p>In new buildings where the design reduces the level of radio coverage for public safety communications systems below minimum performance levels, a distributed antenna system, signal booster, or other method approved by TVF&amp;R and Washington County Consolidated Communications Agency shall be provided.</p> <p><a href="http://www.tvfr.com/DocumentCenter/View/1296">http://www.tvfr.com/DocumentCenter/View/1296</a>.</p> <ul style="list-style-type: none"> <li>• Emergency responder radio system testing and/or system installation is required for this building. Please contact me (using my contact info below) for further information including an alternate means of compliance that is available. If the alternate method is preferred, it must be requested from TVF&amp;R prior to issuance of building permit.</li> <li>• Testing shall take place after the installation of all roofing systems; exterior walls, glazing and siding/cladding; and all permanent interior walls, partitions, ceilings, and glazing.</li> </ul> <p>MERRC Q&amp;A <a href="#">MERRC Q&amp;A</a>  MERRC Permit Application <a href="#">MERRC Permit Application</a></p>	OFC 510, Appendix F, & OSSC 915
36	Y	N/A	<p>A Knox box for building access may be required for structures and gates. See Appendix B for further information and detail on required installations. Order via <a href="http://www.knoxbox.com">www.knoxbox.com</a> or contact TVF&amp;R for assistance and instructions regarding installation and placement.</p>	OFC 506.1



# Hydrant Flow Test Exhibit



SW Stone Dr

SW 89th Pl

SW Stone Dr

SW Mandan Dr

SW 89th Ave

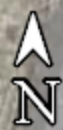
SW Norwood Rd

SW Norwood Rd

SW Norwood Rd

FLOW HYDRANT

STATIC HYDRANT





## Glen Southerland

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**From:** McGladrey, Alexander M. <alexander.mcgladrey@tvfr.com>  
**Sent:** Tuesday, April 30, 2024 2:35 PM  
**To:** Chris Knight  
**Cc:** Chris Beatty; Stacey Morrill  
**Subject:** RE: Horizon Sanctuary - fire SPL review meeting

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Hi Chris,

Thanks for the follow up. You are correct on the required fire flow calculation of 1,000gpm. Once I have that memorialized on the site plan as well as the knox box location, and new hydrant flow test I can issue the TVF&R approval.

Thanks again

**Alex McGladrey | Deputy Fire Marshal**

Tualatin Valley Fire & Rescue

Direct: 503-259-1420

[www.tvfr.com](http://www.tvfr.com)

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**From:** Chris Knight <KnightC@aks-eng.com>  
**Sent:** Tuesday, April 30, 2024 13:31  
**To:** McGladrey, Alexander M. <alexander.mcgladrey@tvfr.com>  
**Cc:** Chris Beatty <beattyc@aks-eng.com>; Stacey Morrill <Morrills@aks-eng.com>  
**Subject:** Horizon Sanctuary - fire SPL review meeting

**\*\*\*The sender is from outside TVF&R – Do not click on links or attachments unless you are sure they are safe\*\*\***

Hello Alex,

Thank you for meeting with Chris and I today. below is a summary of what we talked about and a double check about the fire flow reduction standard. We will be submitting the additional information as soon as we have the new test results back. But im glad it sounds like we are pretty much there.

We reviewed the fire flow requirements and the building and we will provide the basic calculations that brings us to 3,000 gallons per minute required before the sprinkler reduction. Please confirm the allowed reduction, as I understand in the table below the sanctuary does not fall under section 903.3.1.2 (NFPA 13R) as it is not a low rise residential building and therefore can be reduced to 25% of the flow value with a required minimum of 1000 gallons per minute.

**TABLE B105.2**

**REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWE  
BUILDINGS AND TOWNHOUSES**

<b>AUTOMATIC SPRINKLER SYSTEM (Design Standard)</b>	<b>MINIMUM FIRE FLOW (gallons per minute)</b>	
No automatic sprinkler system	Value in Table B105.1(2)	[
Section 903.3.1.1 of the <i>International Fire Code</i>	25% of the value in Table B105.1(2) <sup>a</sup>	Duration in T:
Section 903.3.1.2 of the <i>International Fire Code</i>	25% of the value in Table B105.1(2) <sup>b</sup>	Duration in T:

For SI: 1 gallon per minute = 3.785 L/m.

- a. The reduced fire flow shall be not less than 1,000 gallons per minute.
- b. The reduced fire flow shall be not less than 1,500 gallons per minute.

We also discussed the need to locate the knox box on the site plan and the need for an updated fire flow test from the two hydrants on either side of the proposed building. It sounds like everything else is in order.

Thank you,

Chris

**Christopher Knight, PE**



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