

**WILSONVILLE CITY HALL
DEVELOPMENT REVIEW BOARD PANEL B**

MONDAY, JANUARY 25, 2016 - 6:30 P.M.

I. **Call To Order:**

II. **Chairman's Remarks:**

III. **Roll Call:**

Dianne Knight Cheryl Dorman Aaron Woods Richard Martens Shawn O'Neil Council Liaison Julie Fitzgerald

IV. **Citizen's Input:**

V. **City Council Liaison's Report:**

VI. **Consent Agenda:**

A. Approval of Minutes of November 23, 2015 meeting

Documents: [Nov 23 2015 minutes.pdf](#)

VII. **Public Hearing:**

A. Resolution No. 322.

Universal Health Services: Universal Health Services, Inc., Willamette Valley Behavioral Health- Applicant. The applicant is requesting approval of an Annexation of territory, a Comprehensive Plan Map Amendment from Washington County - Future Development - 20 District (FD-20) designation to City - Industrial designation, a Zone Map Amendment from Washington County - Future Development - 20 District (FD-20) to City - Planned Development Industrial - Regional Significant Industrial Area (PDI-RSIA) zone, a Stage I Preliminary Development Plan, Waivers, Stage II Final Plan, Site Design Review, Type C Tree Plan and Signs for an 8.72 acre site. The subject site is located on Tax Lots 400, 500 and 501 of Section 2B, Township 3 South, Range 1 West, Willamette Meridian, City of Wilsonville, Washington County, Oregon.

Case Files: DB15-0091 - Annexation

DB15-0092 - Comprehensive Plan Map Amendment

DB15-0093 - Zone Map Amendment

DB15-0094 - Stage I Preliminary Plan (Master Plan)

DB15-0095 - Two (2) Waivers

DB15-0096 - Stage II Final Plan

DB15-0097 - Site Design Review

DB15-0098 - Type C Tree Plan

DB15-0099 - Class III Signs

The DRB action on the Annexation, Comprehensive Plan Map Amendment and Zone Map Amendment is a recommendation to the City Council.

Documents: [UHS Staff Report.Exhibits.pdf](#), [Exhibit B1.pdf](#)

VIII. **Board Member Communications:**

A. Results of the December 14, 2015 DRB Panel A meeting

Documents: [DRB-A Dec 14 2015 Results.pdf](#)

B. Results of the January 11, 2016 DRB Panel A meeting

Documents: [DRB-A Jan 14 2016 Results.pdf](#)

IX. Staff Communications:

X. Adjournment

Assistive Listening Devices (ALD) are available for persons with impaired hearing and can be scheduled for this meeting. The City will also endeavor to provide the following services, without cost, if requested at least 48 hours prior to the meeting.

- Qualified sign language interpreters for persons with speech or hearing impairments.
- Qualified bilingual interpreters.
- To obtain such services, please call the Planning Assistant at 503 682-4960

DEVELOPMENT REVIEW BOARD MEETING

MONDAY, JANUARY 25, 2016

6:30 PM

VI. Consent Agenda:

- A. Approval of minutes from the November 23, 2015
DRB Panel B meeting**

**Wilsonville City Hall
29799 SW Town Center Loop East
Wilsonville, Oregon**

**Development Review Board – Panel B
Minutes–November 23, 2015 6:30 PM**

I. Call to Order

Chair Aaron Woods called the meeting to order at 6:30 p.m.

II. Chair’s Remarks

The Conduct of Hearing and Statement of Public Notice were read into the record.

III. Roll Call

Present for roll call were: Aaron Woods, Dianne Knight, Richard Martens, and Shawn O’Neil. Cheryl Dorman arrived at 6:35 pm. Council Liaison Julie Fitzgerald was absent.

Staff present: Blaise Edmonds and Barbara Jacobson

IV. Citizens’ Input This is an opportunity for visitors to address the Development Review Board on items not on the agenda. There were no comments.

V. City Council Liaison Report

No City Council liaison report was given due to Councilor Fitzgerald’s absence.

VI. Consent Agenda:

A. Approval of minutes of September 28, 2015 meeting

Shawn O’Neil moved to approve the September 28, 2015 DRB Panel B meeting minutes as presented. Richard Martens seconded the motion, which passed 3 to 0 to 1 with Dianne Knight abstaining.

VII. Public Hearing:

A. Resolution No. 316. Old Town Site Design Review for 2 Houses: Mark Britcliffe – Applicant for Diane Ferris – Owner. The applicant is requesting approval of a Site Design Review for two single-family dwellings in Old Town. The site is located at 30580 SW Boones Ferry Road on Tax Lots 3801 and 3802 of Section 23AC, T3S, R1W, City of Wilsonville, Clackamas County, Oregon. Staff: Jennifer Scola

Case Files: DB15-0074 – Site Design Review

Cheryl Dorman arrived at 6:35 pm.

Blaise Edmonds, Manager of Current Planning, announced the Applicant requested that the public hearing be continued to the DRB-Panel A meeting on December 14, 2015. Because the December Panel B meeting had been cancelled, the Applicant would have had to wait until the end of January, prompting concerns about the 120-day land use review period. The Applicant also wanted to redesign his current proposal in response to recent neighborhood input.

- Since the project would be reviewed by a different panel, Staff sent out a new public hearing notice for Panel A today to all neighbors within 250 ft of the project site. He apologized to members of the

audience waiting to testify on the application, noting Staff was only informed of the requested continuance on Friday.

B. Resolution No. 317. Charbonneau Boat Dock Access: Charbonneau Country Club - Applicant. The applicant is requesting approval of a Conditional Use Permit within the Willamette River Greenway Boundary, Type 'C' Tree Removal Plan and an abbreviated Significant Resource Overlay Zone (SROZ) Impact Report (SRIR) for Charbonneau Country Club, for replacement and relocation of an access gangway to the Charbonneau boat marina. The site is located on the northwest corner of Tax Lot 318, and also affecting Tax Lot 308, and ODOT R.O.W, in Section 25, Township 3 South, Range 1 West, Willamette Meridian, City Of Wilsonville, Clackamas County, Oregon. Staff: Blaise Edmonds

Case Files: DB15-0059 – Greenway Conditional Use
DB15-0060 – Type C Tree Plan
SI15-0001 – Abbreviated Significant Resource Impact Report (SRIR) and map verification within the Significant Resource Overlay Zone (SROZ)

Chair Woods called the public hearing to order at 6:6:37 p.m. and read the conduct of hearing format into the record. Chair Woods and Shawn O'Neil declared for the record that they had visited the site. No board member, however, declared a conflict of interest, bias, or conclusion from a site visit. No board member participation was challenged by any member of the audience.

Richard Martens disclosed that as a homeowner in Charbonneau, he had an ownership interest in the Charbonneau Country Club; therefore, he recused himself from the hearing.

Blaise Edmonds, Manager of Current Planning, announced that the criteria applicable to the application were stated on page 5 of the Staff report, which was entered into the record. Copies of the report were made available to the side of the room.

Mr. Edmonds presented the Staff report via PowerPoint, briefly reviewing the site's history and noting the project's location and surrounding features, with these key comments:

- Due to heavy rains over the years including near 100-year flood events, the existing path to the decades-old Charbonneau boat marina has had bank failure, making it difficult, and hazardous at times, to get down to the marina where there were approximately 40 boat slips.
- Three existing properties were involved in this application: The Illahee Drive Fee Owner, LLC, the owners of the property with a parking lot that accessed the trailhead to the boat dock; the City of Wilsonville and the Oregon Department of Transportation (ODOT). The Charbonneau Village Country Club owned the boat marina.
 - A pathway currently traversed the Oregon Department of Transportation right-of-way and down to the boat dock with a parking lot at the end. The Applicants proposed to abandon that pathway on ODOT property and begin the pathway ramp down to the marina from the parking lot with a new structure. (Slides 3 and 4)
- He noted the proposed access ramp was within the City's Significant Resource Overlay Zone (SROZ) (Slide 5) and the 25-ft SROZ Impact Buffer, as well as the Willamette River Greenway, which required a conditional use permit.
 - As part of the notification requirements, the City was required to notify the Oregon Parks Division, which reviews any developments within the Willamette River Greenway, but no comment was received regarding this application despite plenty of notice to do so.

- He indicated the actual Significant Resource Impact Report (SRIR) Impact, noting the four trees proposed for removal, the parking lot, a structure at the end of the ramp and landing, which would lead to the marina and boat slips. (Slide 6)
- The ramp had steps as it was too steep to be a flat ramp. (Slide 7) The rendering did not show the ramp was not designed to have any contact with the bank or that the four trees in its pathway that would need to be removed.
- In addition to bank restoration, the Applicant's proposed mitigation plan involved taking out the trail and replanting it with landscaping, including 14 trees and shrubs (Slide 10), to discourage people from continuing to use the same bad path down to the marina
- The improved access would also shorten the distance to the marina, and he believed it would be a welcome addition to the residents of Charbonneau and those who lease boat slips at the once-popular marina.
- Staff recommended approval of the application.

Dianne Knight asked if ADA requirements had to be met for boat slip accessibility.

Mr. Edmonds replied no, as it was not a public facility. It would also not be feasible due to the slope being serpentine along the entire bank to get down to that point and the impact on the SROZ would be tremendous. The application had been submitted to the Building Division for comment and they did not suggest ~~there be~~ any ADA requirement for the project.

Chair Woods called for the Applicant's presentation.

Ben Altman, Pioneer Design Group, 9020 SW Washington Square Dr, Suite 170, Portland, 97223, stated he was accompanied by Rick Shram, Charbonneau Country Club Project Coordinator, Tony Holt, Charbonneau Country Club President, and Susie Stevens, Charbonneau Country Club Executive Director. He believed Staff had done a good job of summarizing the proposal, which would basically replace the existing access with a new ramp and mitigate the removal of the path on the ODOT property.

- The Applicant had been coordinating with ODOT and the Planning Division would be reviewing the construction plans for actual permit issuance and overseeing the construction. The mitigation plan had also been coordinated with Kerry Rappold, the City's Natural Resource Manager.
- The application was a little complicated because the project was in the resource area and multiple jurisdictions were involved, but he believed the plan made sense and thus far, everyone was in agreement with it.
- He noted the ramp was shown as a stair structure because of the steep grade; however, there was some concern regarding the extra cost of the structure. The Applicant would like to have the option to provide a ramp with anti-skid plating, similar to that used by the City's dock.
 - The Applicants had debated the best and safest way to get people hauling items to and from the boats. In addition to the ramp, a cable mechanism was considered to move equipment up and down rather than carrying it.
- The steep slope of the ramp was necessary to remove the sway and maintain ground clearance, and he believed the ramp was too steep for ADA compliance, which would require some kind of escalator or lift.
 - In the past, guests or anyone needing such access or more parking would board their boats at the Charbonneau Marina, then travel west to load at the County marina boat launch, which had a flatter ramp access.

Chair Woods confirmed there were no questions for the Applicant and called for public testimony in favor of, opposed, and neutral to the application. Seeing none, he confirmed there was no rebuttal and asked if there were any additional questions for Staff.

Shawn O'Neil asked if Staff had verified that no ADA requirement was necessary. He understood it was submitted to the appropriate department.

Mr. Edmonds responded he was not a building official and could not comment.

Mr. O'Neil said he expected the Applicant to provide more detail on the ADA issue, but they had punted it back to Staff. He was concerned because many Charbonneau residents relied on ADA accommodations and he wanted to make sure there was not a law that required them.

Barbara Jacobson, Assistant City Attorney, stated she had been involved in the details of this application. Typically, the ADA standards applied to any facility open to the public, but to her knowledge, this was a completely private facility and was membership only. The members in and of themselves might have a discussion about how that access worked and whether they were happy with it, but the ADA accommodation was not for a private facility such as this.

Mr. O'Neil understood if a private building was renovated, it had to be brought into ADA compliance and asked how that difference was distinguished.

Ms. Jacobson believed Mr. O'Neil was thinking of a building with employees or where the public would have to come into the building for some reason. In this case, there would not be anything like that; it was an access only for people who had a boat there. That was the distinction.

Chair Woods confirmed the major difference was that this was not a public facility, but private, so ADA would not be a consideration.

Ms. Jacobson answered yes, ADA would be considered to allow for public access and reasonable accommodations for people who needed to access a place of work, which was why the ramp at the County facility down the road had some access, albeit not the best. The Applicant's plan seemed to rely on the public facility down the road. She assumed it had been designed with some ADA accessibility.

Ms. Knight asked for Staff's input on the Applicant's proposal for a ramp instead of stairs.

Mr. Edmonds replied in his personal opinion, as someone getting older, it would be quite a long haul, but since it belonged to the people who owned the marina, his opinion did not matter.

Mr. O'Neil confirmed the proposal was raised for first time this evening, which was concerning. He asked if Staff had adequate time to assess that as something feasible that fell within the recommendation.

Mr. Edmonds replied he was not familiar with boat ramps, nor did he own a boat, but he understood there were steep boat ramps in different marinas. He did not have any Planning Code that would restrict it.

Cheryl Dorman said that as a boat owner with a long steep ramp to her boat dock, she believed the proposal for a ramp made sense, if there was no reason the permit would be an issue and it was safe, because oftentimes people used wagons to take things to their boats.

Ms. Jacobson suggested the Board agree to leave that open, subject to appropriate building permits and meeting all legal requirements to do so since no building official was present and this was the first time the change had been mentioned.

Mr. O'Neil commented that such last-minute proposed changes did not provide Staff the opportunity to vet them and not having them within Staff's recommendation seemed to be risky for the Board to approve, even though there was a logical reason. He believed it sent the wrong message that the Board was inserting last minute changes when the appropriate people were not able to comment, even though he recognized that some of the changes worked.

Ms. Dorman asked if it would make a difference in the Building Code if the access was stairs or a ramp.

Ms. Jacobson believed the issue was that no one knew the answer to that question, which required input from a Building Code representative or an engineer; neither the Planning nor Legal Staff could answer that question. She agreed it was not helpful to have the request come up at the last minute, but the application could be approved as is and allow Staff to make a decision on the alternative design.

Mr. Altman offered the Applicants were open to allowing the Staff to review it as a Type II change if the ramp was used, which would allow Staff the internal review.

Mr. Edmonds did not believe a Type II was necessary as it required another public notice. A Class I Administrative Review would suffice and Staff would notify the Board of the opinion of the Building Division.

Chair Woods closed the public hearing at 7:02 pm.

Cheryl Dorman moved to approve Resolution No. 317 with findings and recommendations to issue the requested permit for Greenway Conditional Use and approve the Type C Tree Plan and Abbreviated Significant Resource Impact Report (SRIR) with a new condition of approval that the Applicant apply for a Class I Administrative Review for the accessibility of stairs versus a ramp in accordance with the Building Code. Chair Woods seconded the motion.

Ms. Knight asked if Charbonneau residents needed to be notified that ADA accommodations would not be present and if they had the opportunity to consider that.

Mr. Edmonds clarified notification would typically be to property owners identified within 250 ft of the proposal, so not all of Charbonneau was notified. Most of the residents in the Illahee condos would have been notified, as well as ODOT and the City of Wilsonville.

Chair Woods confirmed notification for this public hearing had already been sent within the legal requirements of 250 ft around the property owners identified as part of this application.

Ms. Jacobson believed who got notice of the public hearing was a different issue. The Applicant represented and spoke for the owners of the marina and their guests, who would have access to use it. Therefore, it must be assumed that the Applicant would be acting on behalf of their client when making the request.

Ms. Dorman understood the project would have been approved by the marina owners.

Mr. Edmonds replied he did not know and deferred to the Applicant.

Ms. Jacobson explained that speaking to the Applicant would require that the hearing be reopened. She believed the Board could say the Applicant was the owner, and the owner consisted of all the people in Charbonneau, including fellow DRB member Mr. Martens, who could not comment.

Mr. O'Neil agreed if the Applicants were representing the owners, they would have to be acting within the authority of the owners; otherwise they would not have a place being here tonight. He also agreed with the city attorney that the representation was they must have discussed it; otherwise they would open themselves to being sued and acting outside of their authority to make a representation they did not have. He reiterated his concern about the last minute change, but appreciated Mr. Edmonds' effort to work within the system to try to solve the issue to keep things moving forward. However, if people had a vested interest in submitting things to the Board, it should be in a form that would allow Staff a fair opportunity to look at it and make a recommendation, and the Board to make a clear decision.

Motion passed 3 to 1 with Shawn O'Neil opposed.

Chair Woods read the rules of appeal into the record.

VIII. Board Member Communications None

A. Results of the October 12, 2015 DRB Panel A meeting

IX. Staff Communications

A. Thank you, Dianne Knight and Cheryl Dorman, for your service on the Development Review Board!

Mr. Edmonds announced that Associate Planner Michael Wheeler retired last Friday after 14 years serving the City, adding he would miss his expertise in reading the nuances of the Code as he was good at keeping the City out of trouble with legal support and from being appealed to higher levels, such as the Land Use Board of Appeals (LUBA). He appreciated that Mr. Wheeler helped keep him in check.

- He thanked Board Members Cheryl Dorman and Diane Knight for their service and presented awards of appreciation to Cheryl Dorman and Dianne Knight, who had served since 2010, in recognition of their service. He briefly noted the many applications Ms. Knight and Ms. Dorman had been part of, including Polygon Villebois Phase 6, Fred Meyer's Master Sign Plan, Brenchley Estates, Jory Trail at the Grove, the waste water treatment plant upgrade, the Piazza in the middle of Villebois, Villebois Row Homes, Active Adults at the Grove, Republic Services, and Southern Wine. He reiterated his appreciation for all the good work they had done for the City and thanked them for their service.

Chair Woods stated it had been a pleasure working with both Board members, adding he had enjoyed their input and openness, adding they had done a wonderful job and he was going to miss them.

X. Adjournment

The meeting adjourned at 7:15 pm.

Respectfully submitted,

Paula Pinyerd, ABC Transcription Services, Inc. for
Shelley White, Planning Administrative Assistant

DEVELOPMENT REVIEW BOARD MEETING

MONDAY, JANUARY 25, 2016

6:30 PM

VII. Public Hearing:

A. Resolution No. 322. Universal Health Services: Universal Health Services, Inc., Willamette Valley Behavioral Health– Applicant. The applicant is requesting approval of an Annexation of territory, a Comprehensive Plan Map Amendment from Washington County – Future Development – 20 District (FD-20) designation to City – Industrial designation, a Zone Map Amendment from Washington County – Future Development – 20 District (FD-20) to City – Planned Development Industrial – Regional Significant Industrial Area (PDI-RSIA) zone, a Stage I Preliminary Development Plan, Waivers, Stage II Final Plan, Site Design Review, Type ‘C’ Tree Plan and Signs for an 8.72 acre site. The subject site is located on Tax Lots 400, 500 and 501 of Section 2B, Township 3 South, Range 1 West, Willamette Meridian, City of Wilsonville, Washington County, Oregon.

Case Files: DB15-0091 – Annexation
DB15-0092 – Comprehensive Plan Map Amendment
DB15-0093 – Zone Map Amendment
DB15-0094 – Stage I Preliminary Plan (Master Plan)
DB15-0095 – Two (2) Waivers
DB15-0096 – Stage II Final Plan
DB15-0097 – Site Design Review
DB15-0098 – Type C Tree Plan
DB15-0099 – Class III Signs

The DRB action on the Annexation, Comprehensive Plan Map Amendment and Zone Map Amendment is a recommendation to the City Council.

**DEVELOPMENT REVIEW BOARD
RESOLUTION NO. 322**

A RESOLUTION ADOPTING FINDINGS RECOMMENDING APPROVAL TO CITY COUNCIL OF AN ANNEXATION OF TERRITORY AND APPROVING A COMPREHENSIVE PLAN MAP AMENDMENT FROM WASHINGTON COUNTY – FUTURE DEVELOPMENT 20 DISTRICT (FD-20) DESIGNATION TO CITY – INDUSTRIAL DESIGNATION, APPROVING A ZONE MAP AMENDMENT FROM WASHINGTON COUNTY – FUTURE DEVELOPMENT – 20 DISTRICT (FD-20) TO CITY – PLANNED DEVELOPMENT INDUSTRIAL – REGIONAL SIGNIFICANT INDUSTRIAL AREA (PDI-RSIA) ZONE, AND ADOPTING FINDINGS AND CONDITIONS APPROVING A STAGE I PRELIMINARY DEVELOPMENT PLAN, WAIVERS, STAGE II FINAL PLAN, SITE DESIGN REVIEW, TYPE ‘C’ TREE PLAN AND SIGNS FOR A 9.72 ACRE SITE. THE SUBJECT SITE IS LOCATED ON TAX LOTS 400, 500 AND 501 OF SECTION 2B, TOWNSHIP 3 SOUTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, CITY OF WILSONVILLE, WASHINGTON COUNTY, OREGON. UNIVERSAL HEALTH SERVICES, INC., WILLAMETTE VALLEY BEHAVIORAL HEALTH– APPLICANT.

WHEREAS, an application, together with planning exhibits for the above-captioned development, has been submitted in accordance with the procedures set forth in Section 4.008 of the Wilsonville Code, and

WHEREAS, the Planning Staff has prepared staff report on the above-captioned subject dated January 14, 2016, and

WHEREAS, said planning exhibits and staff report were duly considered by the Development Review Board Panel B at a scheduled meeting conducted on January 25, 2016, at which time exhibits, together with findings and public testimony were entered into the public record, and

WHEREAS, the Development Review Board considered the subject and the recommendations contained in the staff report, and

WHEREAS, interested parties, if any, have had an opportunity to be heard on the subject.

NOW, THEREFORE, BE IT RESOLVED that the Development Review Board of the City of Wilsonville does hereby adopt the staff report dated January 14, 2016, attached hereto as Exhibit A1, with findings and recommendations contained therein, and authorizes the Planning Director to issue permits consistent with said recommendations, subject to, as applicable, City Council approval of the Annexation, Comprehensive Plan Map Amendment and Zone Map Amendment Requests (DB15-0091, DB15-0092 and DB15-0093) for:

- DB15-0094 Stage I Preliminary Plan (Master Plan)
- DB15-0095 Waivers
- DB15-0096 Stage II Final Plan
- DB15-0097 Site Design Review
- DB15-0098 Type ‘C’ Tree Removal Plan
- DB15-0099 Class III Signs

ADOPTED by the Development Review Board of the City of Wilsonville at a regular meeting thereof this 25th day of January, 2016 and filed with the Planning Administrative Assistant on _____. This resolution is final on the 15th calendar day after the postmarked date of the written notice of decision per *WC Sec 4.022(.09)* unless appealed per *WC Sec 4.022(.02)* or called up for review by the council in accordance with *WC Sec 4.022(.03)*.

Aaron Woods, Chair, Panel B
Wilsonville Development Review Board

Attest:

Shelley White, Planning Administrative Assistant

DRB Exhibit A1

**STAFF REPORT
WILSONVILLE PLANNING DIVISION**

**Universal Health Services Inc., Willamette Valley Behavioral Health
Annexation, Comprehensive Plan Map Amendment,
Zone Map Amendment, Stage I Preliminary Plan, Stage II Final Plan,
Waivers, Site Design Review (Day Road Overlay District), Type ‘C’ Tree Removal Pan and
Class III Signs**

**DEVELOPMENT REVIEW BOARD PANEL ‘B’
QUASI-JUDICIAL PUBLIC HEARING
STAFF REPORT**

HEARING DATE	January 25, 2016
DATE OF REPORT:	January 14, 2016

Requests:

Request A: DB15-0091 Annexation
Request B: DB15-0092 Comprehensive Plan Map Amendment
Request C: DB15-0093 Zone Map Amendments (Base Zone)
Request D: DB15-0094 Stage I Preliminary Plan (Master Plan)
Request E: DB15-0095 Two (2) Waivers
Request F: DB15-0096 Stage II Final Plan
Request G: DB15-0097 Site Design Review
Request H: DB15-0098 Type ‘C’ Tree Removal Plan
Request I: DB15-0099 Class III Signs

REQUEST/SUMMARY: The Development Review Board is being asked to review the above referenced application requests for Universal Health Services, Inc., – Willamette Valley Behavioral Health (UHS). Proposed is Annexation of 8.72 acres (right-of-way dedication is expected to reduce the private development area to a total of about 8.4 acres) to the City of Wilsonville, a Comprehensive Plan Map Amendment from Washington County ‘Future Development 20 Acre District’ FD-20 to the City ‘Industrial’ Designation, approve a Zone Map Amendment from Washington County ‘Future Development – 20 District’ (FD-20) Zone to City ‘Planned Development Industrial – Regional Significant Industrial Area’ (PDI-RSIA) Zone, and approve Stage I Preliminary Plan, Stage II Final Plan, Site Design Review, Type ‘C’ Tree Removal Plan and signs to enable development of an approximately 62,000 square foot behavioral health facility with adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women’s programs, substance abuse treatment, behavioral pain management, as well as outpatient services. In addition, the facility will serve a number of veterans with behavioral and mental health needs.

LOCATION: Approximately 8.72 acres located at 9470 SW Day Road and SW Boones Ferry Road. The subject property is more specifically described Tax Lots 400, 500 and 501, Section 2B, Township 3 South, Range 1W, Willamette Meridian, Washington County, Oregon. The subject property and adjacent SW Day Road and SW Boones Ferry Road are within the City UGB.

OWNER: Mr. David C. Brown, of the David C. Brown Revocable Living Trust U/T/A

APPLICANT: Universal Health Services Inc. – Willamette Valley Behavioral Health

PETITIONER FOR ANNEXATION: Mr. David C. Brown

APPLICANT’S REPRESENTATIVE: Mr. Kenneth Sandblast – Westlake Consultants

CURRENT COMPREHENSIVE PLAN MAP DESIGNATION: Future Development 20 Acre District (FD-20, Washington County)

PROPOSED PLAN MAP DESIGNATION: Industrial – Area H (City of Wilsonville)
Area H is bordered by Clay Street and Day Roads on the north and railroad tracks on the west.

CURRENT ZONE MAP CLASSIFICATION: Future Development 20 Acre District (FD-20, Washington County)

PROPOSED ZONE DESIGNATION: Planned Development Industrial (PDI–RSIA), City of Wilsonville). The subject property is within the Day Road Design Overlay District (DOD). DOD is an overlay district within the larger Planned Development Industrial - Regionally Significant Industrial Area (RSIA) Zone.

STAFF REVIEWERS: Blaise Edmonds, Manager of Current Planning, Steve Adams, Development Engineering Manager Don Walters, Plans Examiner, Kerry Rappold, Natural Resources Program Manager and Jason Arn, TVFR.

STAFF RECOMMENDATION: **Recommends approval** of the requested Annexation, Comprehensive Plan Amendment and Zone Map Amendment to City Council. The findings adopted by the Development Review Board in review of the above requests will be forwarded as a recommendation to the City Council.

Approve the Stage I Preliminary Plan (Master Plan), two waivers, Stage II Final Plan, Site Design Review, Type ‘C’ Tree Removal Plan and Class III signs. However, DRB approval of the above requests is contingent upon City Council approval of ordinances for the proposed Annexation, Comprehensive Plan Map Amendment and Zone Map Amendment.

APPLICABLE REVIEW CRITERIA:

<u>DEVELOPMENT CODE</u>	
Section 4.008	Application Procedures-In General
Section 4.009	Who May Initiate Application
Section 4.010	How to Apply
Section 4.011	How Applications are Processed
Section 4.014	Burden of Proof
Section 4.029	Zoning to be consistent with Comp. Plan
Section 4.031	Authority of the Development Review Board
Section 4.033	Authority of the City Council
Section 4.134	Day Road Design Overlay District
Section 4.135 and 4.135.5	Planned Development Industrial (PDI) Zone RSIA
Section 4.140(.07)	Stage I Preliminary Plan (Master Plan)
Section 4.197	Zone Changes and Amendments to Development Code-Procedures
Section 4.700	Annexation
Section 4.198	Comprehensive Plan Map Amendments
<u>OTHER CITY PLANNING DOCUMENTS</u>	
Comprehensive Plan: Policy 4.1.3 Implementation Measure 4.3.1.a. Implementation Measure 4.1.3.b. Implementation Measure 4.1.3.c. Implementation Measure 4.1.3.d. Implementation Measure 4.1.3.e. Implementation Measure 4.1.3.f. Implementation Measure 4.1.3.g. Implementation Measure 4.1.3.h. Implementation Measure 4.1.3.i. Implementation Measure 4.1.3.j.	Industrial
Comprehensive Plan - Annexation and Boundary Changes. Implementation Measure 2.2.1.e. Implementation Measure 2.2.1.a.	Annexation:
<u>REGIONAL AND STATE PLANNING DOCUMENTS</u>	
Metro Code Chapter 3.09	Local Government Boundary Changes
ORS 222.111	Authority and Procedures for Annexation
ORS 222.120	Procedure without Election by City Electors
ORS 222.125	Annexation by Consent of All Land Owners and Majority of Electors
ORS 222.170	Effect of Consent to Annexation by Territory
Statewide Planning Goals	
Transportation Systems Plan Stormwater Master Plan	
State Transportation Planning Rule	TPR 0060, Section 9 to make findings of no significant effect based on consistency with the Comp Plan/TSP.

	OAR 660-012-0060 Transportation Planning Rule for Plan and Land Use Regulation Amendment.
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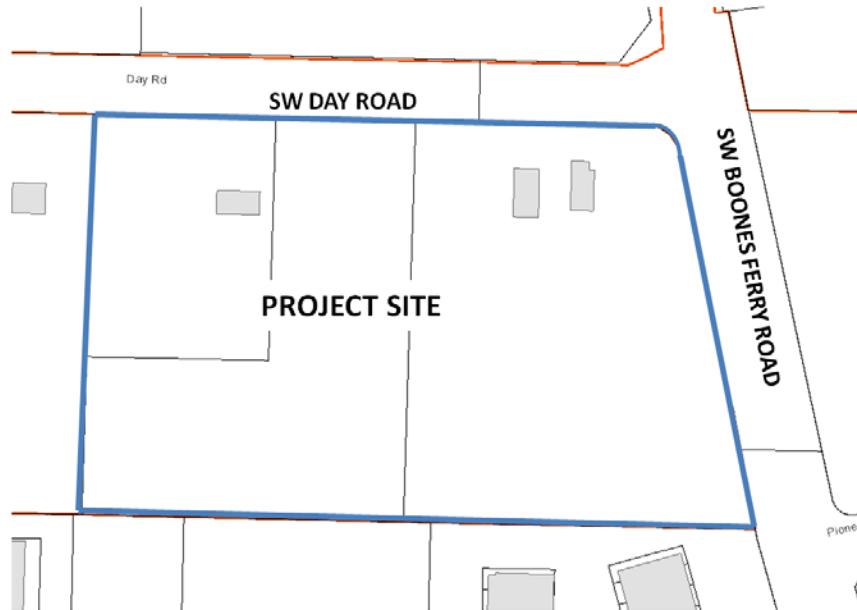
Site Specific Development Standards

Section 4.110	Zones
Section 4.116	Standards Applying to Commercial Development in All Zones
Section 4.118	Standards Applying to Planned Development Zones
Section 4.134	The Day Road Design Overlay District (DOD)
Section 4.135	Planned Development Industrial Zone
Section 4.135.5	Planned Development Industrial – Regional Industrial Significant Area (PDI-RSIA)
Section 4.140	Planned Development Regulations – Stage I Preliminary Plan and Stage II Final Plan.
Section 4.154	On-site Pedestrian Access and Circulation
Section 4.155	Parking, Loading, and Bicycle Parking
Sections 4.156.01 through 4.156.11	Sign Regulations
Section 4.167	Access, Ingress, and Egress
Section 4.171	Protection of Natural Features and Other Resources
Section 4.175	Public Safety and Crime Prevention
Section 4.176	Landscaping, Screening, and Buffering
Section 4.177	Street Improvement Standards
Section 4.179	Mixed Solid Waste and Recyclables Storage
Sections 4.199.20 through 4.199.60	Outdoor Lighting
Sections 4.300 through 4.320	Underground Utilities
Sections 4.400 through 4.440 as applicable	Site Design Review
Sections 4.600-4.640.20	Tree Preservation and Protection

Site description provided by the applicant:

“The site consists of a majority of mowed fields with trees scattered around small stands or around existing structures. There are a large stand of trees running the entire length of the western boundary going into the adjacent parcel. There are gentle slopes on the property from north to south. The western end of the site consists of steeper slopes within the forest stand along the western boundary.”

“The site currently has three existing structures which consist of 2 dwellings and a garage. Prior uses on the site were residential and agriculture.”



Vicinity Map

SUMMARY

Annexation, comprehensive plan mapping and rezoning of the subject property is proposed to begin laying the foundation for development applications for a behavioral health facility. The applicant proposes to construct the project in 2016.

A detailed executive summary and compliance report in support of the application is provided by the applicant found on pages 1 through 4 of Exhibit B1. The applicant's narrative on page adequately describes the requested application components, and compliance findings regarding applicable review criteria. Except where necessary to examine issues identified in this report, staff has relied upon the applicant's submittal documents and compliance findings, rather than repeat their contents again here. The application components are described briefly, below:

Annexation (DB15-0091). Universal Health Services, Inc. – Willamette Valley Behavioral Health (UHS) is seeking to annex the subject 8.72 acre property.

Comprehensive Plan Map Amendment (DB15-0092). The applicant is requesting to change the current Washington County Comprehensive Plan Map designation 'Future Development 20 District' (FD-20) to the City of Wilsonville Comprehensive Plan Map designation 'Industrial' which is the appropriate designation for the site.

Zone Map Amendment (DB15-0093). The applicant is requesting to change the current Washington County zoning designation from 'Future Development 20 District' (FD-20) to the City of Wilsonville zone designation of 'Planned Development Industrial – Regional Significant Industrial Area' (PDI - RSIA) which is the appropriate designation to the site.

Stage I Preliminary Plan (DB15-0094). The applicant is requesting approval of a Stage I Preliminary Plan comprising for a behavioral health facility on 8.4 net acres in one development phase.

Two (2) Waivers (DB15-0095). See Exhibit B1 for the applicant's response findings to support the proposed waivers of which staff recommending approval. Regarding the proposed waivers the applicant has met Section 4.118.03 by listing the following waivers:

1. A waiver to the Day Road Overlay District minimum 48 foot building height to allow 38.4' on one portion of the building and dropping down to 28.4' on the remainder building measured to the top of parapet walls; and
2. Waiver to reduce 20% glazing for building elevations fronting on SW Day Road or on the frontage on corner lots. Proposed is 24% at SW Day Road but 16% at SW Boones Ferry Road.

Stage II Final Plan (DB15-0096). With the exception for proposed parking space numbers that is discussed in Finding F42 the Stage II Final Plan meets the following key approval criteria:

- **Section 4.140.09(J)(1) Land Use.** The location, design, size of the project, both separately and as a whole, are consistent with the proposed PDI - RSIA Zone. See Finding C4 demonstrating compliance of health care use within the PDI-RSIA Zone.
- **Section 4.140.09(J)(2) Traffic.** The location, design, size of the project is such that traffic generated by UHS can be accommodated safely, and without congestion in excess of level of service (LOS) "D" defined in the highway capacity manual published by the National Highway Research Board on existing or immediately planned arterial or collector streets. Thus, there is adequate traffic capacity to serve the project which complies with Subsection 4.140.09(J)(2).
- **Section 4.140.09(J)(3) Public Facilities and Services.** The location, design, size and uses of the proposed project are such that the use to be accommodated will be adequately served by existing or immediately planned facilities and services.

Site Design Review (DB15-0097)

Architectural Design

The building architecture has elements meeting the Day Road Design Overlay District criteria. Key features include a variety of materials and building articulation. Extensive use of glass enhances the building facing SW Day Road.

Landscape Design. The project landscape architect, Walker/Macy, is highly regarded for their landscape designs that respond to the natural environment. Key to this project is to have attractive landscaping along SW Day Road which requires the most attention. Proposed are a variety of narrow bands of ground covers, sedges and shrubs. Retained trees are incorporated into the landscape plan. New landscaping will cover 39% and undisturbed native area at 17% of the site. Proposed new landscaping is better than typically found in other industrial/office parks.

Type ‘C’ Tree Removal Plan (DB15-0098)

146 regulated trees were inventoried on the site and adjoining right-of-way areas. Tree species primary include Douglas fir, London planetree, and bigleaf maple. A number of trees are being preserved as a mature intact stand at the west end and northeast corner of the property. The applicant proposes removing 41 trees and 19 trees are situational. 76 retained trees.

The trees proposed as part of the site landscaping exceed the required mitigation. Up to seventy 70) regulated trees would be removed. (See Arborist’s Report in Exhibit B1).

Class III Signs (DB15-0099)

The applicant proposes an industrial district sign, site ID monument sign, directional signs and parking lot signs meeting code.

DISCUSSION POINTS

Day Road Design Overlay District

The architecture of the building is required to apply the Day Road Design Overlay District (DOD) requirements. The applicant provides a detailed analysis of the standards found on pages 34 through 41 in Exhibit B1. The proposed architecture is modern style similar to other buildings in the Kruse Way Business District of Lake Oswego. The applicant’s design team and staff had several meetings to refine the conceptual building architecture for the purpose of achieving DOD requirements. But given the unique function of health services the applicant is requesting two waivers from the DOD criteria which are discussed in the following “Waiver” discussion point.

Waivers

The applicant is requesting two waivers; 1) to reduce the minimum building height from 48 feet to 38.3 feet, and 2) to reduce the percentage of window glazing at SW Boones Ferry Road. The height waiver supports variation of the parapet and more architectural features supportive of compliance with the Day Road Design Overlay District requirements. Staff supports the proposed waivers with the detailed discussion found in Request F of this staff report.

Parking

How much parking is required? 200 space number based on city code for hospitals may be too much; UHS current site Plan Sheet L100 shows 120 spaces but the applicant’s parking finding indicates 114 spaces. In the professional opinion of planning staff there enough room to add twenty (20) more on site spaces for total 140 spaces. Staff is reluctant to underestimate it because there is no on-street parking in this area, and no nearby offsite parking. See Finding F42 for the detailed parking requirement analysis.

SMART/TriMet Service

According to SMART in Exhibit C5 (Mr. Stephan Lashbrook – SMART Transit Director); “The subject property, being on the south side of Day Road, is not within TriMet territory. However, it occurs to me that we may want to include a finding in the annexation staff report that SMART is willing and able to provide service to the site. It would then follow to include a conclusion that, upon annexation, the site will become part of SMART’s service territory.” Proposed Finding A12 is intended to include the site in the SMART service territory.

Fencing

Proposed along the south side of the UHS building is a 12 – 14 foot high ‘no climb’ security fence. The fence would not be plainly visible to public view but Subsection 4.176(.04) F requires DRB review of any fence over 6 feet high measured from soil surface at the outside of fence line. See Plan Sheet A-300.

CONCLUSIONS and CONDITIONS OF APPROVAL:

Approve the requested Annexation, Comprehensive Plan Amendment and Zone Map Amendment to City Council. **The findings and recommended conditions of approval adopted by the Development Review Board in review of the above requests will be forwarded as a recommendation to the City Council.**

Approve the Stage I Preliminary Plan (Master Plan), two (2) waivers, Stage II Final Plan, Site Design Review, Type ‘C’ Tree Removal Plan and signs. However, the DRB approval of those requests is contingent on City Council approval of ordinances for the proposed Annexation, Comprehensive Plan Map Amendment and Zone Map Amendment.

PD = Planning Division: No conditions of approval are proposed.
PF = Engineering Conditions
NR = Natural Resources Conditions
TVFR Conditions
BD = Building Division Conditions
PW = Public Works Department Conditions

REQUEST A: DB15-0091 ANNEXATION

This action recommends annexation to the City Council for the subject property with no conditions of approval.

REQUEST B: DB15-0092 COMPREHENSIVE PLAN MAP AMENDMENT

This action recommends adoption of the Comprehensive Plan Map Amendment to the City Council for the subject property with no conditions of approval.

REQUEST C: DB15-093_ ZONE MAP AMENDMENT

This action recommends adoption of the Zone Map Amendment to the City Council for the subject property with no conditions of approval.

REQUEST D: DB15-0094 STAGE I PRELIMINARY PLAN

This action approves the Stage I Preliminary Plan with no conditions of approval. Approval of the subject Stage I Preliminary Plan is contingent upon City Council approvals of Case Files DB15-0091 through DB15-0093 involving Annexation, Zone Map Amendment and Comprehensive Plan Map Amendment.

REQUEST E: DB15-0095 STAGE II FINAL PLAN

Approval of the subject Stage II Final Plan is contingent upon City Council approvals of Case Files DB15-0091 through DB15-0093 involving Annexation, Zone Map Amendment and Comprehensive Plan Map Amendment.

PDE 1. The approved Stage II Final Plan shall control the issuance of all building permits and shall restrict the nature, location and design of all uses. Minor changes in an approved Stage II Final Plan may be approved by the Planning Director through the Class I Administrative Review Process if such changes are consistent with the

purposes and general character of the development plan
<p>PDE 2. The Applicant/Owner shall provide 140 total on-site parking spaces. Up to 40% of the parking may be compact car spaces of not less than seven (7) feet, six (6) inches wide and fifteen (15) feet long. The remaining parking spaces shall be standard nine (9) feet wide and eighteen (18) feet long, and including required ADA parking spaces. The revised parking plan shall be reviewed through Class I Administrative Review. See Finding F42.</p>
<p>PDE 3. Interior long-term bicycle parking spaces shall be in a secure or monitored location and meet the spacing, space size, and anchoring requirements in Subsection 4.155 (.04) B. which include:</p> <ul style="list-style-type: none"> • Each space must be at least 2 feet by 6 feet in area and be accessible without moving another bicycle. • An aisle at least 5 feet wide shall be maintained behind all required bicycle parking to allow room for bicycle maneuvering. Where the bicycle parking is adjacent to a sidewalk, the maneuvering area may extend into the right-of-way. • When bicycle parking is provided in racks, there must be enough space between the rack and any obstructions to use the space properly. • Bicycle lockers or racks, when provided, shall be securely anchored.
<p>PDE 4. The Applicant/Owner shall provide ADA accessible path from the gates of the southerly accessible ramp to the concrete basketball courts to the concrete walks to the building entrances serving the recreational yards. See Finding 35.</p>
<p>PDE 5. The Applicant/Owner shall waive right of remonstrance against any local improvement district that may be formed to provide public improvements to serve the subject site. Before the start of construction, a waiver of right to remonstrate shall be submitted to the city attorney.</p>

The following Conditions of Approval are provided by the Engineering, Natural Resources, or Building Divisions of the City’s Community Development Department or Tualatin Valley Fire and Rescue, all of which have authority over development approval. A number of these conditions of approval are not related to land use regulations under the authority of the Development Review Board or Planning Director. Only those conditions of approval related to criteria in Chapter 4 of Wilsonville Code and the Comprehensive Plan, including but not limited to those related to traffic level of service, site vision clearance, recording of plats, and concurrency, are subject to the Land Use review and appeal process defined in Wilsonville Code, Oregon Revised Statutes and Administrative Rules. Other conditions of approval are based on City Code chapters other than Chapter 4, state law, federal law, or other agency rules and regulations. Questions or requests about the applicability, appeal, exemption or non-compliance related to these other conditions of approval should be directed to the City Department, Division, or non-City agency with authority over the relevant portion of the development approval.

Engineering Division PF Conditions: See Exhibit C1 for Public Works Plan requirements and other engineering requirements.

DB15-0096 Stage II Final Plan

PF1.	Public Works Plans and Public Improvements shall conform to the “Public Works Plan Submittal Requirements and Other Engineering Requirements” in Exhibit C1.
PF2.	At the request of Staff, DKS Associates completed a Transportation Impact Study dated January 7, 2016. The project is hereby limited to no more than the following impacts.
	Estimated New PM Peak Hour Trips 107
	Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area 75
	Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area 6
	As part of the Transportation Impact Study DKS Associates looked at a variety of uses allowed under the proposed PDI-RSIA Zone Change. The worst case trip generator for the proposed zone change would be expected to produce the following impacts.
	Estimated New PM Peak Hour Trips 127
	Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area 88
	Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area 7
PF3.	Applicant shall enter into a development agreement with the City of Wilsonville describing construction responsibilities and City SDC credits available with this project.
PF4.	In the 2013 Transportation Systems Plan Day Road is identified as a Major Arterial. Applicant shall dedicate sufficient right-of-way to accommodate Day Road as a Major Arterial; this will require an additional 16.5 feet of right-of-way dedication to the City to accommodate a half-street right-of-way width of 53.5-ft (total right-of-way width of 107 feet), which includes ½ of a 14-ft center turn lane/median, two 12-ft travel lanes, a 6-ft bike lane, an 8.5 foot landscape and irrigation area with street lighting, and an 8-ft sidewalk.
PF5.	Applicant shall demolish existing curb and gutter and construct new roadway in compliance with the 2013 Transportation Systems Plan and the 2014 Public Works Standards, and as outlined in condition of approval PF 4. In addition to the specifications in the 2013 Transportation Systems Plan and the 2014 Public Works Standards, the City requests adding a 2-ft bike buffer lane to the street cross section. The additional costs for the bike buffer on Day Road are Street SDC creditable/reimbursable by the City.
PF6.	The additional cost to construct the Day Road section from a Residential structural section to a Major Arterial structural section is Street SDC creditable/reimbursable by the City.
PF7.	In order to accommodate the additional 2-ft bike buffer within the street profile and maintain a 16.5-ft landscape/sidewalk area the City request a 2-ft sidewalk and public

	access easement on property fronting Day Road. The additional cost for this easement along Day Road is Street SDC creditable/reimbursable by the City.
PF8.	The widening of Day Road to meet Major Arterial requirements will leave the existing signal pole too close to the planned paved roadway. Applicant shall work with City engineering staff and Oregon Department of Transportation in the design and approval of the relocated signal pole, sidewalk and ADA ramps in this area. The additional costs for the relocation/reconstruction of the signal pole are Street SDC creditable/reimbursable by the City.
PF9.	Applicant shall dedicate additional right-of-way for reconstruction of the signal pole at the southwest corner of the Boones Ferry Road / Day Road intersection (northeast corner of the property). Necessary right-of-way will be a diagonal from the tangent radius points of the two intersecting right-of-way lines.
PF10.	In the 2013 Transportation Systems Plan Boones Ferry Road is identified as a Major Arterial. Applicant shall dedicate sufficient right-of-way to accommodate Boones Ferry Road as a Major Arterial; this will require a varying width of right-of-way dedication to the City to accommodate a half-street right-of-way width of 50.0-ft (total right-of-way width of 100 feet).
PF11.	Boones Ferry Road is presently constructed as a Major Arterial and no additional roadway construction is required. However, frontage along Boones Ferry Road is lacking a sidewalk, landscaping and street lighting. Applicant shall construct a 5-foot sidewalk, an approximate 8-ft landscape strip with irrigation, and street lighting within the Boones Ferry Road right-of-way. Existing topography descends away from the curb and Applicant is allowed to construct the sidewalk at a lower elevation than the curb. Applicant shall work with City engineering staff with design, elevation and location of this sidewalk.
PF12.	Applicant shall obtain stormwater service by tying into either the public storm system in Boones Ferry Road or the public storm system in Day Road.
PF13.	The proposed development lies within the Coffee Creek Industrial Area. Both the City Wastewater Master Plan (November 2014) and the Coffee Creek Industrial Master Plan (April 2007) indicate that this land is intended to be serviced via a planned sanitary main line to be installed across the Coffee Creek Industrial Area and extend east under Day Road. Applicant is allowed to obtain temporary sanitary sewer service by tying into the public sanitary sewer system in Boones Ferry Road. However, applicant shall design the system to be able to divert the flow westward and extend a dry pipe to the west property edge such that future sanitary sewer service can be obtained via the future main line extending from the Coffee Creek Industrial Area once that line is constructed and accepted by the City. Applicant shall work with City engineering staff with design and location of this sanitary line.
PF14.	Applicant shall tie into the existing public water main located in Day Road or Boones Ferry Road.
PF15.	Applicant shall bring existing overhead utilities underground on frontages along both Boones Ferry Road and Day Road. Additionally, the City requests these utilities remain underground through the far right-of-way of each roadway. The additional costs to place conduit and extend the underground utilities from the southwest corner of the intersection to the east side of Boones Ferry Road and the north side of Day Road is creditable/reimbursable by the City.

Natural Resources NR Conditions: All Requests

NR1. Natural Resource Division Requirements and Advisories listed in Exhibit C4 apply to the proposed development.

TVF&R Conditions:

1. **FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDING AND TURNAROUNDS:** 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)
2. **DEAD END ROADS:** Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. (OFC 503.2.5 & D103.1)
3. **ADDITIONAL ACCESS ROADS – COMMERCIAL/INDUSTRIAL HEIGHT:** Buildings exceeding 30 feet in height or three stories in height shall have at least two separate means of fire apparatus access. (D104.1)
4. **MULTIPLE ACCESS ROADS SEPARATION:** 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 Code Official), measured in a straight line between accesses. (OFC D104.3) Exception: Buildings equipped throughout with an approved automatic fire sprinkler system (the approval of this alternate method of construction shall be accomplished in accordance with the provisions of ORS 455.610(5)).
5. **AERIAL FIRE APPARATUS ROADS:** 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 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. (OFC D105.1, D105.2)
6. **AERIAL APPARATUS OPERATIONS:** 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 code official. Overhead utility and power lines shall not be located over the aerial access road or between the aerial access road and the building. (D105.3, D105.4)

7. **FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE:** Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. The fire district will approve access roads of 12 feet for up to three dwelling units and accessory buildings. (OFC 503.2.1 & D103.1)
8. **NO PARKING SIGNS:** 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)

NO PARKING: Parking on emergency access roads shall be as follows (OFC D103.6.1-2):
 1. 20-26 feet road width – no parking on either side of roadway (signage to indicate the no parking)
 2. 26-32 feet road width – parking is allowed on one side (signage to indicate the no parking side)
 3. Greater than 32 feet road width – parking is not restricted
9. **PAINTED CURBS:** 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 (or as approved). (OFC 503.3)
10. **FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS:** 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)
11. **SURFACE AND LOAD CAPACITIES:** 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)
12. **TURNING RADIUS:** The inside turning radius and outside turning radius shall be not less than 28 feet and 48 feet respectively, measured from the same center point. (OFC 503.2.4 & D103.3)

13. **GATES:** Gates securing fire apparatus roads shall comply with all of the following (OFC D103.5, and 503.6):
 1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width), or two 10 foot sections.
 2. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
 3. Electric gates shall be equipped with a means for operation by fire department personnel
 4. Electric automatic gates shall comply with ASTM F 2200 and UL 325.
 5. Removable bollards are not an approved alternate to a swinging gate.
14. **TRAFFIC CALMING DEVICES:** Shall be prohibited unless approved by the Fire Code Official. (OFC 503.4.1)
15. **FIRE HYDRANTS – COMMERCIAL BUILDINGS:** Where a portion of the 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)
 - This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.
 - The number and distribution of fire hydrants required for commercial structure(s) is based on Table C105.1, following any fire-flow reductions allowed by section B105.3.1. Additional fire hydrants may be required due to spacing and/or section 507.5 of the Oregon Fire Code.
16. **FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in (OFC Table C105.1)
17. **FIRE DEPARTMENT CONNECTIONS:** A fire hydrant shall be located within 100 feet of a fire department connection (FDC) or as approved. Fire hydrants and FDC's shall be located on the same side of the fire apparatus access roadway or drive aisle. (OFC 912 & NFPA 13)
18. **FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the fire code official. (OFC C102.1)
19. **REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of blue reflective markers. They shall be located adjacent and to the side of the center line of the access roadway that the fire hydrant is located on. In the case that there is no center line, then assume a center line and place the reflectors accordingly. (OFC 507)
20. **EMERGENCY RESPONDER RADIO COVERAGE:** In new buildings where 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&R and Washington County Consolidated Communications Agency shall be provided. (OFC 510.1)

21. **KNOX BOX:** A Knox Box for building access may be required for structures and gates. See Appendix C for further information and detail on required installations. Order via www.tvr.com or contact TVF&R for assistance and instructions regarding installation and placement. (OFC 506.1)
22. **UTILITY IDENTIFICATION:** Rooms containing controls to fire suppression and detection equipment shall be identified as “Fire Control Room.” Signage shall have letters with a minimum of 4 inches high with a minimum stroke width of ½ inch, and be plainly legible, and contrast with its background. (OFC 509.1)

Building Division Conditions:

- | | |
|--------------|---|
| BD 1. | Requirements and Advisories: Building Division Requirements and Advisories listed in Exhibit C2 apply to the proposed development. |
| BD 2. | Accessible Parking. Three accessible parking spaces are shown on the submitted plans. With 120 total parking spaces no less than five accessible parking spaces are required as per Section 1106 of the Oregon Structural Specialty Code. Further discussion will be required to determine if Section 1106.3 also applies to this project. If 1106.3 is found to be applicable additional accessible parking spaces may be required. |
| BD 3. | Property Line. The proposed building is shown as crossing existing property lines. As the building code does not allow structures to cross property lines, the property lines sundering the proposed building shall be removed. |

SMART and TriMet Comments: See Exhibits C5 and C6.

Public Works Department Conditions: No comments.

REQUEST F: DB15-0096 Two (2) Waiver

No conditions for this request

REQUEST G: DB15-0097 Site Design Review

Approval of the subject Site Design Plan is contingent upon City Council approvals of Case Files DB15-0091 through DB15-0093 involving Annexation, Zone Map Amendment and Comprehensive Plan Map Amendment.

PDG 1. Construction, site development, and landscaping shall be carried out in substantial accord with the Development Review Board approved plans, drawings, sketches, and other documents. Minor revisions may be approved by the Planning Director

	through administrative review pursuant to Section 4.030.
PDG 2.	All landscaping required and approved by the Board shall be installed prior to issuance of occupancy permits, unless security equal to 110% of the cost of the landscaping, as determined by the Planning Director, is filed with the City assuring such installation within 6 months of occupancy. "Security" is cash, certified check, time certificates of deposit, assignment of a savings account or such other assurance of completion as shall meet with the approval of the City Attorney. In such cases the developer shall also provide written authorization, to the satisfaction of the City Attorney, for the City or its designees to enter the property and complete the landscaping as approved. If the installation of the landscaping is not completed within the six-month period, or within an extension of time authorized by the Board, the security may be used by the City to complete the installation. Upon completion of the installation, any portion of the remaining security deposited with the City will be returned to the applicant.
PDG 3.	The approved landscape plan is binding upon the Applicant/Owner. Substitution of plant materials, irrigation systems, or other aspects of an approved landscape plan shall not be made without official action of the Planning Director or Development Review Board, pursuant to the applicable sections of Wilsonville's Development Code.
PDG 4.	All landscaping shall be continually maintained, including necessary watering, weeding, pruning, and replacing, in a substantially similar manner as originally approved by the Board, unless altered as allowed by Wilsonville's Development Code.
PDG 5.	<p>The following requirements for planting of shrubs and ground cover shall be met:</p> <ul style="list-style-type: none"> • Non-horticultural plastic sheeting or other impermeable surface shall not be placed under landscaping mulch. • Native topsoil shall be preserved and reused to the extent feasible. • Surface mulch or bark dust shall be fully raked into soil of appropriate depth, sufficient to control erosion, and shall be confined to areas around plantings. • All shrubs shall be well branched and typical of their type as described in current AAN Standards and shall be equal to or better than 2-gallon containers and 10" to 12" spread. • Shrubs shall reach their designed size for screening within three (3) years of planting. • Ground cover shall be equal to or better than the following depending on the type of plant materials used: gallon containers spaced at 4 feet on center minimum, 4" pot spaced 2 feet on center minimum, 2-1/4" pots spaced at 18 inch on center minimum. • No bare root planting shall be permitted. • Ground cover shall be sufficient to cover at least 80% of the bare soil in required landscape areas within three (3) years of planting. • Appropriate plant materials shall be installed beneath the canopies of trees and large shrubs to avoid the appearance of bare ground in those locations. • Compost-amended topsoil shall be integrated in all areas to be landscaped, including lawns.

PDG 6.	Plant materials shall be installed to current industry standards and be properly staked to ensure survival. Plants that die shall be replaced in kind, within one growing season, unless appropriate substitute species are approved by the City.
PDG 7.	Lighting shall be reduced one hour after close, but in no case later than 10 p.m., to 50% of the requirements set forth in the Oregon Energy Efficiency Specialty Code. See Finding G41.
PDG 8.	In the event the overhead electric power lines along the frontage of the project site in SW Boones Ferry Road are installed underground as part of the City Public Works Permit, the Applicant/Owner shall plant 3” caliper, deciduous street trees. See Finding G30.
PDG 9.	The Applicant/Owner shall substitute the Common hornbeam parking lot trees with another parking lot friendly deciduous tree type that has more shading coverage. See Finding F37.

REQUEST H: DB15-0098 Type ‘C’ Tree Removal Plan

Approval of the subject Type ‘C’ Tree Removal Plan is contingent upon City Council approvals of Case Files DB15-0091 through DB15-0093 involving Annexation, Zone Map Amendment and Comprehensive Plan Map Amendment.	
PDH 1.	Prior to removal the Applicant/Owner shall obtain a Type C Tree Permit from the Planning Division through the Class I Administrative review process ensuring compliance with the approved Type C Tree Plan. Replacement trees for each tree removed shall be planted within twelve (12) months of removal.
PDH 2.	Trees planted as replacement of removed trees shall be, state Department of Agriculture Nursery Grade No. 1. or better, shall meet the requirements of the American Association of Nursery Men (AAN) American Standards for Nursery Stock (ANSI Z60.1) for top grade, shall be staked, fertilized and mulched, and shall be guaranteed by the permit grantee or the grantee’s successors-in-interest for two (2) years after the planting date. A “guaranteed” tree that dies or becomes diseased during that time shall be replaced.
PDH 3.	Trees planted as replacement of removed trees shall be staked, fertilized and mulched, and shall be guaranteed by the permit grantee or the grantee’s successors-in-interest for two (2) years after the planting date. A “guaranteed” tree that dies or becomes diseased during that time shall be replaced.
PDH 4.	Solvents, building material, construction equipment, soil, or irrigated landscaping, shall not be placed within the drip line of any preserved tree, unless a plan for such construction activity has been approved by the Planning Director or Development Review Board based upon the recommendations of an arborist.
PDH 5.	Before and during development, land clearing, filling or any land alteration the applicant shall erect and maintain suitable tree protective barriers which shall include the following: <ul style="list-style-type: none"> • 6’ high fence set at tree drip lines. • Fence materials shall consist of 2 inch mesh chain links secured to a minimum of 1 ½ inch diameter steel or aluminum line posts. • Posts shall be set to a depth of no less than 2 feet in native soil. • Protective barriers shall remain in place until the City authorizes their removal

<p>or issues a final certificate of occupancy, whichever occurs first.</p> <ul style="list-style-type: none"> • Tree protection fences shall be maintained in a full upright position. • Fence posts placement within drip lines and root zones of preserved trees shall be hand dug and supervised by the project arborist. If roots are encountered alternative fence post placement is required as determined by the project arborist.
<p>PDH 6. If such issues or situations arise the project arborist shall provide City staff with a written explanation of the measures considered to preserve the trees along with the line of reasoning that makes the preservation of the tree not feasible. Prior to further construction within the tree protection zone, the City will verify the validity of the report through review by an additional arborist to ensure that the tree cannot be preserved. If it is ultimately decided that the tree cannot be preserved by both arborists, then the applicant/property owner may remove the tree and additional trees shall be planted to ensure applicable landscaping tree spacing requirements are met.</p>
<p>PDH 7. The property owner/applicant or their successors in interest shall grant access to the property for authorized City representatives as needed to verify the tree related information provided, to observe tree related site conditions, and to verify, once a removal permit is granted, that the terms and conditions of the permit are followed.</p>
<p>PDH 8. Utilities, including franchise utilities, public utilities, and private utilities and service lines shall be directionally bored as necessary to avoid the root zone of preserved trees.</p>

Request I: DB15-0099 Class III Signs

<p>PDI 1. Approved signs shall be installed in a manner substantially similar to the plans approved by the DRB and stamped approved by the Planning Division.</p>
<p>PDI 2. The site ID monument sign shall have the building address unless written approval from TVF&R to be exempt from the requirement is submitted by the applicant to the Planning Division.</p>

MASTER EXHIBIT LIST:

The following exhibits are hereby entered into the public record by the Development Review Board as confirmation of its consideration of the application as submitted. This is the exhibit list that includes exhibits for Planning Case Files DB15-0091 through DB15-0099.

The following exhibits are hereby entered into the public record by the Development Review Board in consideration of the applications as submitted:

- A1.** Staff Report, findings, recommendations and conditions.
- A2.** Staff PowerPoint presentation.

Applicant's Written and Graphic Materials:

- B1.** Executive summary, narrative and response findings, application, annexation petition and permit application, tax assessor's map, metes and bounds description, ALTA survey and legal description, letter from Republic Services, tax lot map, aerial photograph Comp. Plan and Zoning maps, letter from republic Services, Preliminary Storm Drainage Report, Arborist Report, Wetlands/Natural resources Report. Geotechnical Report, pre-application meeting notes, architectural plan set, civil plan set, landscaping plan set, lighting plan set, site design plan set, technical reports and DKS Transportation Impact Analysis.
- B2.** CD of items listed in Exhibit B1.

Small and Large Plan Sets associated with exhibit B1:

Concept and Utility Plan – Exhibit A
Cover Sheet
Plan Sheet Level 01 - A-101
Plan Sheet Level 02 - A-102
Roof Plan A-103
Schematic Elevations - Exterior Elevations A-300
Perspectives A-310
Site Sections A-320
Site Art A-330
Land Use Site Plan C100
Land Use Tree Removal and Protection Plan C101
Land Use Tree Removal and Protection Table C102
Land Use Grading Plan C200
Land Use Utility Plan C300
Landscape Plan L-100
Landscape Plan Legend and Notes L-101
Landscape Details L-102
Legends, Schedules and Details E100
Specifications E-200
Site Lighting Plan E-300
Property Line Vertical Calculations E-00
Sign Design S-101
Sign Design S-102
Sign Location Plan S-201

B3. Materials Board (*Available at Public Hearing*)

Development Review Team

- C1.** Engineering Division Conditions, dated January 8, 2016
- C2.** Building Division Conditions, date received Dec. 22, 2016
- C3.** Memo, Jason Arn, TVFR, dated Dec. 14, 2015.
- C4.** Natural Resources Conditions, Dated January 8, 2016
- C5.** E-mail, Stephan Lashbrook, SMART dated Nov. 25, 2015
- C6.** Letter, Tri-Met, dated Dec. 16, 2016
- C7.** Memo, Public Works Department, dated Jan. 11, 2016
- C8.** E-mail, Marah Danielson, Senior Planner, ODOT R1 Development Review Planning Lead, dated December 28, 2015.

Public Testimony

Letters (neither For nor Against):
Letters (In Favor): None submitted,
Letters (Opposed): None submitted.

FINDINGS OF FACT

1. The statutory 120-day time limit applies to this application. The application was received on November 16, 2015. On November 30, 2015, staff conducted a completeness review within the statutorily allowed 30-day review period. The applicant submitted new material on January 11, 2016. On January 11, 2015 staff determined the application to be complete. The City must render a final decision for the request, including any appeals, by May 9, 2016.
2. Except for the adoption of the Day Road Design Overlay District (DOD) and the Urban Growth Boundary (UGB) there are no prior land use actions.
3. The applicant has complied with Sections 4.013-4.031 of the Wilsonville Code, said sections pertaining to review procedures and submittal requirements. The required public notices have been sent and all proper notification procedures have been satisfied.

GENERAL INFORMATION

Section 4.008 Application Procedures-In General

Review Criterion: This section lists general application procedures applicable to a number of types of land use applications and also lists unique features of Wilsonville's development review process.

Finding: This criterion is met.

Explanation of Finding: The application is being processed in accordance with the applicable general procedures of this Section.

Section 4.009 Who May Initiate Application

Review Criterion: "Except for a Specific Area Plan (SAP), applications involving specific sites may be filed only by the owner of the subject property, by a unit of government that is in the process of acquiring the property, or by an agent who has been authorized by the owner, in writing, to apply."

Finding: This criterion is satisfied.

Explanation of Finding: The application has been submitted on behalf of Universal Health Services Inc. – Willamette Valley Behavioral Health.

Subsection 4.011 (.02) B. Lien Payment before Application Approval

Review Criterion: "City Council Resolution No. 796 precludes the approval of any development application without the prior payment of all applicable City liens for the subject property. Applicants shall be encouraged to contact the City Finance Department to verify that there are no outstanding liens. If the Planning Director is advised of outstanding liens while an application is under consideration, the Director shall advise the applicant that payments must be made current or the existence of liens will necessitate denial of the application."

Finding: This criterion is satisfied.

Explanation of Finding: No applicable liens exist for the subject property.

CONCLUSIONARY FINDINGS FOR ALL OF THE REQUESTS

NOTE: Pursuant to Section 4.014 the burden of proving that the necessary findings of fact can be made for approval of any land use or development application rests with the applicant in the case.

REQUEST A: ANNEXATION

The applicant's response findings to the applicable land development criteria and Comprehensive Plan goals, policies and implementation measures found in Exhibit B1, are hereby incorporated in this staff report as findings for the recommended action.

Comprehensive Plan

Annexation and Boundary Changes

Implementation Measure 2.2.1.a.

A1. Review Criterion: "Allow annexation when it is consistent with future planned public services and when a need is clearly demonstrated for immediate urban growth."

Finding: This criterion is satisfied.

Explanation of Finding: The subject territory is within the City UGB. Westerly properties are within the City UGB and at the south are within the City Limits and UGB. The adjacent SW Day Road and SW Boones Ferry Road are within Wilsonville City Limits. The subject 8.72 acre site is ready for annexation for development within the City of Wilsonville. Therefore, the subject territory addresses a demonstrated need for the proposed use. Furthermore, the City Comprehensive Plan and the Engineering Division evaluates compliance of planned sanitary sewer, storm drainage, and water systems with the City's Wastewater Collections System Master Plan, Stormwater Master Plan, Water System Master Plan and the City's Transportation Systems Plan.

Implementation Measure 2.2.1.e.

A2. Review Criterion: "Changes in the City boundary will require adherence to the annexation procedures prescribed by State law and Metro standards. Amendments to the City limits shall be based on consideration of:

1. Orderly, economic provision of public facilities and services, i.e., primary urban services are available and adequate to serve additional development or improvements are scheduled through the City's approved Capital Improvements Plan.
2. Availability of sufficient land for the various uses to insure choices in the marketplace for a 3 to 5 year period.
3. Statewide Planning Goals.
4. Applicable Metro Plans;
5. Encouragement of development within the City limits before conversion of urbanizable (UGB) areas.

Finding: These criteria are satisfied.

Explanation of Findings: The requirements are fulfilled by being consistent the City's UGB which recognizes the subject territory described herein as a future site for industrial, office or manufacturing uses, or similar use as determined by the Planning Director. In this

case a behavioral health facility is in compliance with state and regional policies as found in other applicant's and staff findings supporting this request.

Orderly, Economic Provision of Public Facilities and Services: The subject territory is designed for the orderly and economic provision of public facilities and services. Development in the UGB and future urban reserve areas would also bring needed and adequately sized public facilities onto the subject property.

Encouraging Development within City Limits prior to UGB: Development is proposed with this application in request DB15-0096. The subject territory is not currently included in a City Comprehensive Plan Map designation. The applicant is requesting a Comprehensive Plan Map Amendment to apply the Industrial designation. This Implementation Measure establishes precedence for the "Planned Development Industrial (PDI -RSIA)" zone designation to be applied to the subject territory. An application for a Zone Map Amendment to apply the PDI-RSIA zone to the subject territory has also been included. The subject territory must be brought into City limits before the Comprehensive Plan 'Industrial' designation and the PDI-RSIA zone can be applied.

Furthermore, UHS (applicant) is seeking to annex the subject 8.72 acre territory. Annexation will enable review of Site Development Permits for a 62,000 sq. ft. behavioral health facility.

Development Code

Subsections 4.030 (.01) A, 11, 4.031 (.01) K, and 4.033 (.01) F. Authority to Review Annexation

A3. Review Criteria: These subsections prescribe the authority of the Planning Director to determine whether an annexation request is legislative or quasi-judicial. The DRB does the initial review of quasi-judicial annexation, and the City Council takes final local action of quasi-judicial annexation. Both bodies conduct public hearings for the request.

Finding: These criteria are satisfied.

Explanation of Finding: The subject annexation request has been determined to be quasi-judicial this is a site specific, owner/applicant initiated request, its' a quasi-judicial application and is being reviewed by the DRB and City Council consistent with these subsections.

Section 4.700 Annexation

A4. Review Criteria: This section defines the criteria and process for annexation review within the City.

Finding: These criteria are satisfied.

Explanation of Finding: All the necessary materials defined by this section have been submitted for City review. The annexation is being considered as a quasi-judicial application. Staff recommends the City Council, upon the DRB's recommendation, declare the subject territory annexed.

Metro Code

Chapter 3.09 Local Government Boundary Changes

A5. **Review Criteria:** This chapter establishes hearing, notice, and decision requirements as well as review criteria for local government boundary changes in the Metro region.

Finding: These criteria are satisfied.

Explanation of Finding: The subject territory referenced herein is within the UGB, meets the definition of a minor boundary change as an annexation to a city, satisfies the requirements for boundary change petitions as the property owner (there are no electors), and has submitted a petition with the required information consistent with the UGB.

Oregon Revised Statutes

ORS 222.111 Authority and Procedure for Annexation

A6. **Review Criteria:** ORS 222.111 establishes the authority and procedures for annexation by City's within the state of Oregon.

Finding: These criteria are satisfied.

Explanation of Finding: The applicable requirements in state statute are met including the fact the subject territory is within the UGB, is contiguous to the north side of the city, the request has been initiated by the property owner of the land being annexed, and there are no electors in the area to be annexed.

ORS 222.120 Procedure Without Election by City Electors

A7. **Review Criteria:** ORS 222.111 establishes the authority and procedures for annexation by City's within the state of Oregon.

Finding: These criteria are satisfied.

Explanation of Finding: There is no City charter requirement for election for annexation. A public hearing process is being followed as defined in the Development Code, and the applicable requirements in state statute are met including the fact that the single owner of the subject territory is the petitioner and thus have consented in writing to annexation. There is a residential dwelling within the territory to be annexed but is planned to be demolished for the future development of the UHS facility.

ORS 222.125 Annexation by Consent of All Owners of Land and Majority of Electors

A8. **Review Criteria:** "The legislative body of a city need not call or hold an election in the city or in any contiguous territory proposed to be annexed or hold the hearing otherwise required under ORS 222.120 (Procedure without election by city electors) when all of the owners of land in that territory and not less than 50 percent of the electors, if any, residing in the territory consent in writing to the annexation of the land in the territory and file a statement of their consent with the legislative body. Upon receiving written consent to annexation by owners and electors under this section, the legislative body of the city, by

resolution or ordinance, may set the final boundaries of the area to be annexed by a legal description and proclaim the annexation.”

Finding: These criteria are satisfied.

Explanation of Finding: The territory to be annexed is all owned by the current property owner, and he has petitioned and consented to annexation in writing. However, a public hearing process is being followed as prescribed in the City’s Development Code concurrent with a Comprehensive Plan Map and Zone Map Amendment request.

Oregon Statewide Planning Goals

A11. Review Criteria: The goals include: citizen involvement, land use planning, natural resources and open spaces, recreational needs, economic development, housing, public facilities and services, and transportation.

Finding: On pages 21 - 22 of Exhibit B1 the applicant has prepared response findings to Statewide Planning Goals. These criteria are satisfied.

Explanation of Finding: The territory requested to be annexed will be developed consistent with the City’s Comprehensive Plan, which has been found to meet the Statewide Planning Goals.

A12. Transit: SMART is willing and able to provide service to the site. It would then follow to include a conclusion that, upon annexation, the site will become part of SMART’s service territory.

SUMMARY FINDING FOR REQUEST A:

A13. The proposed Annexation meets all applicable requirements and its approval may be recommend to the City Council.

REQUEST B: COMPREHENSIVE PLAN MAP AMENDMENT
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The applicant's response findings to the applicable land development criteria and Comprehensive Plan goals, policies and implementation measures found in Exhibit B1, are hereby incorporated in this staff report as findings for the recommended action.

Comprehensive Plan – Comprehensive Plan Changes

The City of Wilsonville's Comprehensive Plan, provide the following procedure for amending the Comprehensive Plan:

B1. Review Criterion: Who May Initiate Plan Amendments

Finding: This criterion is satisfied.

Explanation of Finding: The owner through their authorized agent (Mr. Kenneth Sandblast AICP) has made application to modify the Comprehensive Plan map designation for the subject property from the Washington County Comprehensive Plan designation FD-20 to City Comprehensive Plan designation 'Industrial'.

Application for Comprehensive Plan Amendment

The applicant has met all applicable filing requirements for a Comprehensive Plan Map amendment.

B2. Review Criterion: Consideration of Plan Amendment

Finding: This criterion is satisfied.

Explanation of Finding: The Planning Division received the application on November 16, 2015. Staff met with the applicant subsequent to the submittal of the application to discuss the completeness of the application and perceived deficiencies of the application. The application was deemed complete on January 11, 2016. The findings and recommended conditions of approval adopted by the Development Review Board in review of the application to modify the Comprehensive Plan Map designation will be forwarded as a recommendation to the City Council.

B3. Review Criterion: Standards for Development Review Board and City Council Approval of Plan Amendments (page 8 of the Comprehensive Plan):

a. The proposed amendment is in conformance with those portions of the Plan that are not being considered for amendment.

Finding: This criterion is satisfied.

Explanation of Finding: Findings B1 through B29, which satisfy these Plan policies.

B4. Review Criterion: b. The granting of the amendment is in the public interest.

Finding: This criterion is satisfied.

Explanation of Finding: The applicant has complied with Sections 4.013-4.031 of the Wilsonville Code, said sections pertaining to review procedures and submittal requirements. The required public notices have been sent and all proper notification

procedures have been satisfied. The public interest is served by providing a behavioral health facility.

B5. Review Criterion: c. The public interest is best served by granting the amendment at this time.

Finding: This criterion is satisfied.

Explanation of Finding: UMS plans to construct the site over 2016 in preparation for opening in 2017. The applicant has satisfied requirements of citizen involvement and public notice requirements.

B6. Review Criterion: d. The following factors have been adequately addressed in the proposed amendment:

Suitability of the various areas for particular land uses and improvements;

B7. Finding: This criterion is satisfied.

Explanation of Finding: The subject 8.72 acre property is has two existing houses and land with moderate slopes at the southerly side but is suitable for the specific planned use and associated improvements. Existing houses and accessory structures will be razed for the development of the UHS facility. The subject property has direct frontage on SW Day Road for temporary access until the westerly adjoining property is developed and a joint permanent access would be required. The City Engineering Division has indicated through Public Facilities (PF) conditions of approval found in this staff report that public utilities, i.e., water, sanitary sewer, storm sewer and street improvements can be accomplished to serve the subject property.

Land uses and improvements in the area;

B8. Finding: This criterion is satisfied.

Explanation of Finding: Adjacent uses to the west are primarily rural residential but for future urban development.

Trends in land improvement;

B9. Finding: This criterion is satisfied.

Explanation of Finding: The proposal is for a behavioral health facility which is responding to a semi-public need.

Density of development;

B10. Finding: This criterion is not applicable.

Explanation of Finding: The proposal does not plan for residential development.

Property values;

B11. Finding: This criterion is satisfied.

Explanation of Finding: A professional analysis of property values has not been shared with staff.

Needs of economic enterprises in the future development of the area;

B12. Finding: This criterion is satisfied.

Explanation of Finding: The subject property is within the City UGB and would involve capital projects for public infrastructure improvements.

Transportation access:

B13. Finding: This criterion is satisfied.

Explanation of Finding: The DKS Transportation Impact Analysis (Exhibit P of Exhibit B1) proposes several transportation mitigation recommendations for the subject property. The City Engineering Division has considered the mitigation recommendations and has factored them in the proposed Public Facilities (PF) conditions of approval for the Stage II Final Plan in this staff report.

Natural resources; and Public need for healthful, safe and aesthetic surroundings and conditions:

B14. Finding: This criterion is satisfied.

Explanation of Finding: The subject property does not have Metro Title 3/13 and Statewide Planning Goal 5 natural resource areas.

Review Criteria: e. Proposed changes or amendments to the Comprehensive Plan do not result in conflicts with applicable Metro requirements.

Wilsonville Development Code (WC) – Comprehensive Plan Changes

Subsection 4.198(.01) of the Development Code stipulates, “Proposals to amend the Comprehensive Plan, or to adopt new elements or sub-elements of the Plan, shall be subject to the procedures and criteria contained in the Comprehensive Plan. Each such amendment shall include findings in support of the following:

Review Criterion: Approval Criterion A: “That the proposed amendment meets a public need that has been identified;”

B15. Finding: This criterion is satisfied.

Explanation of Finding: See the applicant’s response finding on page 9 of the project narrative in Exhibit B1 meeting this criterion. “The proposed use of the site as a behavioral health facility will produce jobs and increase the economics of the state.”

Review Criterion: Approval Criterion B: “That the proposed amendment meets the identified public need at least as well as any other amendment or change that could reasonably be made;”

B16. Finding: This criterion is satisfied.

Explanation of Finding: The current Washington County Zoning Map identifies the subject property as FD-20. It is appropriate to designate these properties as Industrial.

Review Criterion: Approval Criterion C: “That the proposed amendment supports applicable Statewide Planning Goals, or a Goal exception has been found to be appropriate;”

B17. Finding: This criterion is satisfied.

Explanation of Finding: With the implementation of the proposed conditions of approval, the proposed amendment supports the applicable Statewide Planning Goals. Findings to the Statewide Planning Goals were prepared by the applicant in the response findings of Exhibit B1.

Review Criterion: Approval Criterion D: “That the proposed change will not result in conflicts with any portion of the Comprehensive Plan that is not being amended.”

B18. Finding: This criterion is satisfied.

Explanation of Finding: The applicant is requesting an amendment to the Comprehensive Plan Map for the subject property referenced herein. The applicant does not propose to modify or amend any other portion of the City of Wilsonville Comprehensive Plan.

INDUSTRIAL DEVELOPMENT

Policy 4.1.3 City of Wilsonville shall encourage light industry compatible with the residential and urban nature of the City.

Implementation Measure 4.1.3.a Develop an attractive and economically sound community.

B19. Finding: This criterion is satisfied.

Explanation of Finding: The proposed UHS project is being designed by professional architects, engineers and land use planners. Site design must adhere to the Day Road Design Overlay District (DOD) design standards to assure high-quality industrial development that would help develop an attractive and economically sound community.

Implementation Measure 4.1.3.b Maintain high-quality industrial development that enhances the livability of the area and promotes diversified economic growth and a broad tax base.

B20. Finding: This criterion is satisfied.

Explanation of Finding: The proposed UHS project is being designed by professional architects, engineers and land use planners. Site design must adhere to the Day Road Design Overlay District (DOD) design standards to assure high-quality industrial development that would enhance the livability of the area and would promote economic growth and a broad tax base. See request G of this staff report for detailed analysis of the building, site and design plans.

Implementation Measure 4.1.3.c Favor capital intensive, rather than labor intensive, industries within the City.

B21. Finding: This criterion is satisfied.

Explanation of Finding: The proposed project is estimated to cost 25 million dollars and employ people with family wage jobs.

Implementation Measure 4.1.3.d Encourage industries interested in and willing to participate in development and preservation of a high-quality environment. Continue to require adherence to performance standards for all industrial operations within the City.

B22. Finding: This criterion is satisfied.

Explanation of Finding: The proposed UHS project is being designed by professional architects, engineers and land use planners with the goal in mind to preserve as many significant trees along the west side and northeast corner of the property.

Implementation Measure 4.1.3.e Site industries where they can take advantage of existing transportation corridors such as the freeway, river, and railroad.

B23. Finding: This criterion is satisfied.

Explanation of Finding: The subject property is in close proximity to Interstate 5 via SW Day Road and SW Boones Ferry Road to the Stafford Interchange.

Implementation Measure 4.1.3.f Encourage a diversity of industries compatible with the Plan to provide a variety of jobs for the citizens of the City and the local area.

B24. Finding: This criterion is satisfied.

Explanation of Finding: See the applicant's response finding on page 21 of Exhibit B1.

B25. Implementation Measure 4.1.3.g Encourage energy-efficient, low-pollution industries.

Finding: This criterion is satisfied.

Explanation of Finding: The proposed UHS project is being designed by professional architects and engineers including an energy-efficient hospital type building with no pollution.

Implementation Measure 4.1.3.h The City, in accordance with Title 4 of the Metro Urban Growth Management Functional Plan, supports appropriate retail development within Employment and Industrial Areas. Employment and Industrial areas are expected to include some limited retail commercial uses, primarily to serve the needs of people working or living in the immediate Employment or Industrial Areas, as well as office complexes housing technology-based industries. Where the City has already designated land for commercial development within Metro's employment areas, the City has been exempted from Metro development standards.

B26. Finding: This criterion is satisfied.

Explanation of Finding: The proposed UHS project does not include retail uses so this criterion is not applicable.

Implementation Measure 4.1.3.i The City shall limit the maximum amount of square footage of gross leasable retail area per building or business in areas designated for industrial development. In order to assure compliance with Metro's standards for the development of industrial areas, retail uses with more than 60,000 square feet of gross leasable floor area per building or business shall not be permitted in areas designated for industrial development.

B27. Finding: This criterion is satisfied.

Explanation of Finding: The proposed UHS project does not include retail uses so this criterion is not applicable.

Implementation Measure 4.1.3.j All industrial areas will be developed in a manner consistent with industrial planned developments in Wilsonville. Non-industrial uses may be

allowed within a Planned Development Industrial Zone, provided that those non-industrial uses do not limit the industrial development potential of the area.

B28. Finding: This criterion is satisfied.

Explanation of Finding: In Requests D and E of this staff report the proposed UHS facility is being reviewed by the applicable Planned Development Code criteria within the PDI-RSIA zone. The project location at the southwest corner of SW Day Road and SW Boones Ferry Road would not limit industrial development potential of properties west of the UHS property.

OAR 660-012-0060 Transportation Planning Rule for Plan and Land Use Regulation Amendment

Review Criteria: Amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. This shall be accomplished by either:

- (a) Limiting allowed land uses to be consistent with the planned function, capacity, and performance standards of the transportation facility;
 - (b) Amending the TSP to provide transportation facilities adequate to support the proposed land uses consistent with the requirements of this division;
 - (c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes; or
 - (d) Amending the TSP to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided.
- (2). A plan or land use regulation amendment significantly affects a transportation facility if it:
- (a) Changes the functional classification of an existing or planned transportation facility;
 - (b) Changes standards implementing a functional classification system;
 - (c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or
 - (d) Would reduce the performance standards of the facility below the minimum acceptable level identified in the TSP.

B29. Finding: These criteria are satisfied.

Explanation of Finding: The City's TSP was approved by the City Council on June 17, 2013. The applicant's proposal would not significantly affect transportation facilities identified in the City's Transportation System Plan (TSP). The proposed PF conditions of approval would mitigate any impacts in Request F for the Stage II Final Plan. The Comprehensive Plan Amendment and Zone Map Amendment do not propose any new amendments to the TSP. The proposed Comprehensive Plan Map and Zone Map Amendments do not propose to change the functional classification of an existing City street facility or one planned in the TSP. Furthermore the proposed Comprehensive Plan Map and Zone Map Amendments legislative do not propose to change standards implementing a functional classification system. Finally, the City has adopted traffic concurrency standards which will be applied to development in the subject property UGB

area during subsequent development review to ensure levels of travel and access are not inconsistent with the functional classification of a transportation facility and maintain performance standards adopted in the TSP.

DKS Associates has prepared a Transportation Impact Analysis for this application in Exhibit P of Exhibit B1. The on-site circulation system proposed in the Stage II Final Plan, Plan Sheet C100 in Exhibit B1 is designed to reflect the principles of smart growth encouraging alternatives to the automobile while accommodating all travel modes, including car pool, SMART dial-a-ride, bicycles and pedestrians.

TPR 0060: ODOT received the public notice for the Universal Health Services, Inc., application. See Exhibit C8. The property is located at the intersection of SW Day Rd and SW Boones Ferry Rd which is an ODOT intersection. On page 23 of the DKS TIA in Exhibit B1 contains the TPR findings of no significant effect based on consistency with the City Comprehensive Plan and Transportation Systems Plan (TSP).

SUMMARY FINDING FOR REQUEST B:

B30. The proposed Comprehensive Plan Map Amendment meets all applicable requirements and its approval may be recommend to the City Council.

REQUEST C: ZONE MAP AMENDMENT

The applicant's response findings to the applicable land development criteria and Comprehensive Plan goals, policies and implementation measures found in Exhibit B1, are hereby incorporated in this staff report as findings for the recommended action.

Planning and Land Development Ordinance

Section 4.029 Zoning to be Consistent with Comprehensive Plan

C1. Review Criterion: "If a development, other than a short-term temporary use, is proposed on a parcel or lot which is not zoned in accordance with the Comprehensive Plan, the applicant must receive approval of a zone change prior to, or concurrently with the approval of an application for a Planned Development."

Finding: This criterion is satisfied.

Explanation of Finding: The applicant is applying for a zone map amendment concurrently with requests for planned development applications (Requests D - G) which will make the zoning consistent with the Comprehensive Plan.

Subsection 4.110 (.01) Base Zones

C2. Review Criterion: This subsection identifies the base zones established for the City, including the Village Zone.

Finding: This criterion is satisfied.

Explanation of Finding: The requested zoning designation from Washington County zone of Future Development 20 District (FD-20) to the City Planned Development Industrial-Regional Significant Industrial Area (PDI-RSIA) zone is among the base zones identified in this subsection.

Subsection 4.135 and 4.135.5 Planned Development Industrial (PDI-RSIA) Zone Purpose

C3. Review Criteria: The PDI-RSIA Zone

Finding: These criteria are satisfied.

Explanation of Finding: See the applicant's response finding on page 21-22 of Exhibit B1. The applicant, Universal Health Services (UHS), proposes a behavioral health facility in the Coffee Creek Industrial Area, which is designated as a Planned Development Industrial - Regionally Significant Industrial Area (PDI-RSIA). There are many factors to consider when evaluating the compatibility and appropriateness of the proposed use in the RSIA zone including: compatibility with existing and future industrial uses; urban form, design and architecture as expressed in the Day Road Design Overlay Zone (Wilsonville Code Section 4.134) and the draft regulations found in the Coffee Creek Industrial Area Form Based Code; minimization of PM peak hour trip generation; the emerging and evolving nature of industry; job creation and wages; compliance with industrial performance standards; traded and local sector benefits; as well as consistency with the purpose section of the RSIA zone (WC Section 4.135.5).

The applicant's findings state that the application is consistent with the purpose section of the RSIA zone (please refer to pages 21 and 22 of the applicant's narrative), particularly *Section .03(N) Permitted Uses* because the operation is "1) compatible with industrial operations, 2) it provides an employment center consistent with the Wilsonville Comprehensive Plan, 3) it facilitates the redevelopment of under-utilized industrial sites within the Coffee Creek Master Plan area and within the Day Road Design Overlay District, and 4) is a transition point between zoning districts and the Day Road Design Overlay District."

The applicant's narrative goes into detail regarding each of the above issues. The Coffee Creek Industrial Area was added to Wilsonville's UGB in 2004. The Coffee Creek Industrial Area Master Plan was adopted in 2007. The Day Road Design Overlay Zone was adopted in 2008. For the past 11 plus years, there have been no proposals to develop in the Coffee Creek Industrial Area, until this application. This is in large part due to the fact that utilities, particularly sanitary sewer and potable water are not located together in all parts of the project area. The Coffee Creek Urban Renewal District is being created to assist in the installation of critical infrastructure that will benefit the area.

The applicant is proposing what could be a catalytic development for the area, in that it will set the stage for both Coffee Creek and Basalt Creek industrial areas, demonstrating the high quality built form for the employment area that is envisioned to be created. The applicant's proposal is catalytic in that it will provide essential right-of-way necessary to implement the required Transportation System Plan functional classification for Day Road, which ultimately will be a five lane section, as well as has the potential to generate significant tax increment for the planned Coffee Creek Urban Renewal area which was passed on an advisory vote by the citizens of the city this past November.

The applicant's narrative goes on to state that components of the proposed project contain many of the permitted uses listed in the PDI-RSIA zone such as research and training with local educational institutions, accessory storage and warehousing of medical equipment and supplies, non-retail uses and the minimization of PM peak hour traffic impacts by staggering work shifts to avoid these times. While not primary uses, these incidental aspects of the operation are supportive of the PDI-RSIA zone.

Code Linkages:

The Wilsonville Code is unique and contains many linkages between various sections of the Code. *WC Section 4.135 Planned Development Industrial* lists Public Facilities (WC 4.135 .Q) as an outright permitted use. The Public Facilities zone (WC Section 4.136) purpose section states: *The PF zone is intended to be applied to existing public lands and facilities, including quasi-public lands and facilities which serve and benefit the community and its citizens. Typical uses permitted in the PF Zone are schools, churches, public buildings, hospitals, parks and public utilities. Not all of the uses permitted in this zone are expected to be publically owned.*

The PDI and the PDI-RSIA zone contain many of the same objectives and are very similar in nature. It is not unreasonable to assume that since the PDI zone allows public facilities, and

the Public Facility zone permits hospitals, that the PDI-RSIA zone could permit hospitals in a similar manner as the proposed use is not a retail use, does not generate significant traffic during the PM peak hour due to a condition of approval requiring a transportation management plan avoiding shift changes during the PM peak and is compatible with the performance standards of the PDI-RSIA zone (see Finding F13).

Urban Form:

The Day Road Design Overlay zone is applied to all properties that front along Day Road in the Coffee Creek Industrial Area, and include the subject site. The findings in this section augment the findings provided in G1 on page 68 of this staff report. The purpose of this overlay zone is to *establish standards for the design and exterior architecture of all structure located in the Day Road DOD in order to assure high quality design of development and re-development at the Day Road gateway to the City of Wilsonville. These standards are intended to create an aesthetically pleasing aspect for properties abutting Day Road by ensuring:*

A. Coordinated design of building exteriors, additions and accessory structure exteriors.

Response: The applicant's proposal results in coordinated design of building exteriors with buildings located close to the street framing the public realm resulting in an aesthetically pleasing streetscape.

B. Preservation of trees and natural features.

Response: The applicant's site plan proposes to protect large mature native and ornamental trees throughout the site, specifically at the corner of Day Road and Boones Ferry Road as well as along the west property line supporting this criterion.

C. Minimization of adverse impacts on adjacent properties from development that detracts from the character and appearance of the area.

Response: This is the first building to be proposed under the Day Road DOD thus setting the stage for the expectations for the type of lasting architecture and quality materials that will continue along the Day Road frontage. The proposal does not result in the creation of adverse impacts on adjacent properties as all activities will be conducted indoors or in the secure internal courtyard and the site planning and architecture do not detract from the character and appearance of the area. This standard is met.

D. Integration of the design of signage into architectural and site design, and

Response: The proposed site is at a very visible gateway corner to the Coffee Creek Industrial District. The applicant proposes gateway signage that is tasteful and appropriate for this corner location providing identification for the larger Coffee Creek Industrial area. This standard is satisfied by the applicant's proposal.

E. Minimization of the visibility of vehicular parking, circulation and loading areas.

Response: The applicant proposes to locate parking to the west and south of the building and not between the building and the street, masking, screening and minimizing the presence of vehicle parking and loading areas supporting the above design criteria.

It should also be noted that the applicant's proposal contains many of the elements of good design drafted in the Coffee Creek Industrial Area Form Based Code. Specifically, the building is oriented toward the street, attention is paid to connectivity and improved pedestrian circulation on the perimeter of the site, an enhanced public realm with art and landscaping is provided, a building with durable and attractive materials with a base, body and top, tree preservation, parking located away from the public-street as well as façade articulation, building massing, glazing and height along Day Road.

Performance Standards of the PDI-RSIA Zone:

The analysis contained in Finding F13 demonstrates that the proposed use is in conformance with the performance standards of the PDI-RSIA zone and will not have any external impacts that will affect surrounding industrial operations.

Traded and Local Sector:

The traded sector includes industries and employers which produce goods and services that are consumed outside the region where they are made. The local sector, on the other hand, consists of industries and firms that produce goods and services that are consumed locally in the region where they were made.

Both sectors – traded and local – are essential to economic health. Traded-sector employers export products or services, bring in new money into a region. In part, this money gets spent in the local economy, supporting jobs and incomes in the local sector. Local-sector employers provide necessary goods and services that both improve quality of life and contribute to the productivity and competitiveness of the traded sector.

Most forms of manufacturing, specialized design services, advertising and management, and technical consulting are classified as traded in this analysis. Retail trade, construction, **healthcare**, education, real estate and food services are found in all metropolitan areas and mostly fall into the local sector (source: Portland Metro's Traded Sector, 2012).

The applicant's narrative states that there will be approximately 190 new jobs created at the site (average of 29 jobs per acre), many of which are higher paying positions with medical specialization, such as doctors, nurses and psychiatric support services. Higher job densities are desired in today's economy to make more efficient use of the land. One of the many objectives of the RSIA industrial zone is to provide an opportunity to create employment centers with higher wage jobs, which this proposal satisfies.

Conclusion: The applicant has requested a use interpretation by the Director for the proposed behavioral health facility located in the Planned Development Industrial -Regionally Significant Industrial zone. Given the applicant's findings of fact (pages 21 and 22 of the submittal documents), and the above findings, the Director finds that the proposed use:

- Is compatible with the unique nature of the surrounding industrial area.
- Is supportive of many of the objectives of the PDI-RSIA zone including job creation and higher salaries.
- Provides an employment center consistent with the intent of the Comprehensive Plan at job densities that support an employment center.
- Provides quality urban form consistent with the intent and vision established in the Day Road Design Overlay Zone (and the Form Based Code).
- Creates a gateway to the larger Coffee Creek Industrial Area.
- Does not generate traffic that would negatively impact the transportation network in the PM peak hour due to staggered shift changes and a transportation management plan.
- Is supportive of the purpose section of the PDI-RSIA zone.
- Provides many of the primary permitted uses which are ancillary to the primary operation.
- Has the potential to be a catalytic project that facilitates the redevelopment of under-utilized industrial sites within the Coffee Creek Master Plan area and within the Day Road Design Overlay District.

Given the above analysis and findings, staff recommends that the DRB approve the use as consistent with the intent of WC Section 4.135.5 N. *“other similar uses which in the judgment of the Planning Director are consistent with the purpose of the PDI-RSIA zone”*.

Subsection 4.197 (.02) A. Zone Change Procedures

C4. Review Criteria: “That the application before the Commission or Board was submitted in accordance with the procedures set forth in Section 4.008, Section 4.125(.18)(B)(2), or, in the case of a Planned Development, Section 4.140;”

Finding: These criteria are satisfied.

Explanation of Finding: The request for a zone map amendment has been submitted as set forth in the applicable code sections.

Subsection 4.197 (.02) B. Zone Change: Conformance with Comprehensive Plan Map, etc.

C5. Review Criteria: “That the proposed amendment is consistent with the Comprehensive Plan map designation and substantially complies with the applicable goals, policies and objectives, set forth in the Comprehensive Plan text;”

Finding: These criteria are satisfied.

Explanation of Finding: The proposed Zone Map Amendment is consistent with the proposed Comprehensive Map designation of Industrial and as shown in the applicant's response findings in Exhibit B1.

Subsection 4.197 (.02) D. Zone Change: Public Facility Concurrency

- C6. **Review Criterion:** “That the existing primary public facilities, i.e., roads and sidewalks, water, sewer and storm sewer are available and are of adequate size to serve the proposed development; or, that adequate facilities can be provided in conjunction with project development. The Planning Commission and Development Review Board shall utilize any and all means to insure that all primary facilities are available and are adequately sized.”
Finding: With the proposed PF conditions in this staff report, this criterion can be met.
Explanation of Finding: The City Engineering Division has performed an analysis of existing primary public facilities, (i.e., roads and sidewalks, water, sewer and storm sewer) to determine availability and adequacy to serve the subject property. Furthermore, a Transportation Impact Analysis (TIA) was prepared by DKS Associates. See Exhibit P of Exhibit B1.

Subsection 4.197 (.02) E. Zone Change: Impact on SROZ Areas

- C7. **Review Criteria:** “That the proposed development does not have a significant adverse effect upon Significant Resource Overlay Zone areas, an identified natural hazard, or an identified geologic hazard. When Significant Resource Overlay Zone areas or natural hazard, and/ or geologic hazard are located on or about the proposed development, the Planning Commission or Development Review Board shall use appropriate measures to mitigate and significantly reduce conflicts between the development and identified hazard or Significant Resource Overlay Zone;”
Finding: These criteria are satisfied.
Explanation of Finding: The applicant has also conducted a natural resources analysis by Pacific Habitat Services, found in Exhibit O of Exhibit B1 and no significant natural resources were found on the property.

Subsection 4.197 (.02) F. Zone Change: Development within 2 Years

- C8. **Review Criterion:** “That the applicant is committed to a development schedule demonstrating that the development of the property is reasonably expected to commence within two (2) years of the initial approval of the zone change.”
Finding: This criterion is satisfied.
Explanation of Finding: Development on the subject property will begin in 2016.

Subsection 4.197 (.02) G. Zone Change: Development Standards and Conditions of Approval

- C9. **Review Criterion:** “That the proposed development and use(s) can be developed in compliance with the applicable development standards or appropriate conditions are attached to insure that the project development substantially conforms to the applicable development standards.”
Finding: This criterion is satisfied.
Explanation of Finding: Nothing about the zone change would prevent development on the subject property from complying with applicable development standards.

Planned Development Industrial-Regional Significant Industrial Area (PDI-RSIA) Zone

C10. Review Criterion: The purpose of the proposed PDI-RSIA Zone is to provide opportunities for a variety of industrial development.

Finding: This criterion is satisfied.

Details of Finding: See the applicant's response finding on page 21 of Exhibit B1. No commercial uses are proposed.

SUMMARY FINDING FOR REQUEST C:

C11. The proposed Zone Map Amendment meets all applicable requirements and its approval may be recommended to the City Council.

REQUEST D: STAGE I PRELIMINARY PLAN
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Planned Development Regulations

Subsection 4.140 (.01) Purpose of Planned Development Regulations

D1. Review Criterion: The proposed Stage I Master Plan shall be consistent with the Planned Development Regulations purpose statement.

Finding: This criterion is satisfied.

Details of Finding: See the applicant's response finding on page 21 of Exhibit B1.

Subsection 4.140 (.02) Lot Qualifications for Planned Developments

D2. Review Criterion: "Planned Development may be established on lots which are suitable for and of a size to be planned and developed in a manner consistent with the purposes and objectives of Section 4.140."

Finding: This criterion is satisfied.

Details of Finding: Section 4.136(.08)B of the PDI Zone requires approval of a Master Plan (Stage I Preliminary Plan) subject to Section 4.140 (Planned Development Regulations). Thus, the proposed project is of sufficient size to be developed in a manner consistent the purposes and objectives of Section 4.140 where applicable.

D3. Review Criterion: "Any site designated for development in the Comprehensive Plan may be developed as a Planned Development, provided that it is zoned "PD." All sites which are greater than two (2) acres in size, and designated in the Comprehensive Plan for commercial, residential, or industrial use shall be developed as Planned Developments, unless approved for other uses permitted by the Development Code."

Finding: This criterion is satisfied.

Details of Finding: See the applicant's response finding on page 21 of Exhibit B1. The subject 8.4 net acre property will be developed as behavioral health facility. This use is subject to Sections 4.134 through 4.450 WC.

Subsection 4.140 (.03) Ownership Requirements for Submitting Planned Development Application

D4. Review Criterion: "The tract or tracts of land included in a proposed Planned Development must be in one (1) ownership or control or the subject of a joint application by the owners of all the property included."

Finding: This criterion is satisfied.

Details of Finding: The land subject to development is in one ownership.

Subsection 4.140 (.04) Professional Design Team Required for Planned Developments

D5. Review Criterion: "The applicant for all proposed Planned Developments shall certify that the professional services of the appropriate professionals have been utilized in the planning process for development. One of the professional consultants chosen by the

applicant shall be designated to be responsible for conferring with the planning staff with respect to the concept and details of the plan.”

Finding: This criterion is satisfied.

Details of Finding: As can be found in the applicant’s submitted materials, appropriate professionals have been involved in the planning and permitting process. Mr. Kenneth Sandblast AICP, has been designated the coordinator for the planning portion of the project.

Subsection 4.140 (.05) Planned Development Permit Process

D6. Review Criteria: “All parcels of land exceeding two (2) acres in size that are to be used for residential, commercial or industrial development, shall, prior to the issuance of any building permit:

1. Be zoned for planned development;
2. Obtain a planned development permit; and
3. Obtain Development Review Board, or, on appeal, City Council approval.”

Finding: These criteria are satisfied.

Details of Finding: The subject 8.4 net acre property will be developed as a behavioral health facility.

Subsection 4.140 (.06) Stage I Master Plan Consistent with Comprehensive Plan

D7. Review Criterion: “The planning staff shall prepare a report of its findings and conclusions as to whether the use contemplated is consistent with the land use designated on the Comprehensive Plan.” “The applicant may proceed to apply for Stage I - Preliminary Approval - upon determination by either staff or the Development Review Board that the use contemplated is consistent with the Comprehensive Plan.”

Finding: This criterion is satisfied.

Details of Finding: The proposed project, as found elsewhere in this report, with rezoning into the PDI-RSIA Zone, which with the proposed Comprehensive Plan Map Amendment in Request B would implement the Comprehensive Plan designation of Industrial for this property. All other applicable Development Code criteria that implement the Comprehensive Plan would be met with the review of Section 4.140 where applicable and Site Design Review in Sections 4.400 through 4.450 being met with conditions of approval.

Subsection 4.140 (.07) Stage I Master Plan Application Requirements and Hearing Process

D8. Review Criteria: This subsection establishes that the Development Review Board shall consider a Stage I Master Plan after completion or submission of a variety of application requirements.

Finding: These criteria are satisfied.

Details of Finding: Review of the proposed Stage I Master Plan has been scheduled for a public hearing before the Development Review Board in accordance with this subsection and the applicant has met all the applicable submission requirements as follows:

- The property affected by the revised Stage I Master Plan will be under the sole

- ownership of UHS. The application has been signed by the current property owner.
- The application for a Stage I Master Plan has been submitted on a form prescribed by the City.
 - The professional design team and coordinator have been identified on the application form in Exhibit B1.
 - The applicant has stated the public schools and park uses involved in the Master Plan and their locations.
 - In terms of a boundary survey, see Exhibit C (ALTA Survey) of Exhibit B1.
 - Sufficient topographic information has been submitted.
 - A tabulation of the land area to be devoted to various uses has been provided; 8.4 net acre site for a 62,000 sq. ft. building and associated site development.
 - The subject property is undeveloped. The project will be constructed in 1 phase.
 - Any necessary performance bonds will be required.
 - Since the subject property will be re-zoned to PDI-RSIA any deviation from the development standards would require a waiver not a variance.

Section 4.023 Expiration of Development Approvals

D9. Review Criterion: “Except for Specific Area Plans (SAP), land use and development permits and approvals, including both Stage I and Stage II Planned Development approvals, shall be valid for a maximum of two years, unless extended as provided in this Section.”

Finding: This criterion is satisfied.

Details of Finding: It is anticipated that the construction of the project will begin in 2016.

D10. Review Criterion: Wilsonville Transportation System Plan – Chapter 3, Pedestrian and Bicycle Facilities

Finding: This criterion is satisfied.

Details of Finding: Pedestrian Trails: Sidewalks and bike lanes do not currently exist adjacent to the subject property on SW Day Road but not at SW Boones Ferry Road. DKS Associates has prepared a Traffic Study for this application in Exhibit P of Exhibit B1. The report DKS report has recommendations and mitigations measures.

SUMMARY FINDING FOR REQUEST D:

D11. The proposed Stage I Preliminary Plan meets all applicable zoning requirements for DRB approval.

REQUEST E: TWO (2) WAIVERS

The Applicant has provided compliance findings to the applicable criteria (Exhibit B1). Staff concurs with these findings except where otherwise noted.

E1. Review Criteria: *Section 4.118.03 - The Development Review Board, in order to implement the purposes and objectives of Section 4.140, and based on findings of fact supported by the record may approve waivers. The code requires that all waivers be specified at the time of Stage 1 Master Plan and Preliminary Plat approval.*

Waivers - Subsection 4.118.03(B) as applicable to the proposed project: (.03) Notwithstanding the provisions of Section 4.140 to the contrary, the Development Review Board, in order to implement the purposes and objectives of Section 4.140, and based on findings of fact supported by the record may:

A. Waive the following typical development standards:

1. minimum lot area;
2. lot width and frontage;
Proposed: 3. height and yard requirements;
4. lot coverage;
5. lot depth;
6. street widths;
7. sidewalk requirements;
Proposed: 8. height of buildings other than signs;
9. parking space configuration and drive aisle design;
10. minimum number of parking or loading spaces;
11. shade tree islands in parking lots, provided that alternative shading is provided;
12. fence height;
Proposed: 13. architectural design standards;
14. transit facilities; and
15. On-site pedestrian access and circulation standards; and
16. Solar access standards, as provided in section 4.137.

Finding: These criteria are satisfied.

Details of Finding:

Proposed - Two (2) Waivers: See pages 34 through 36 in Exhibit B1 for the applicant's response findings to support the proposed waivers of which staff recommending approval. Regarding the proposed waivers the applicant has met Section 4.118.03 by listing the following waivers:

The following additional waivers are requested:

1. A waiver to the Day Road Overlay District minimum 48 foot building height to allow 38.4' on one portion of the building and dropping down to 28.4' on the remainder building measured to the top of parapet walls; and

2. Waiver to reduce 20% glazing for building elevations fronting on SW Day Road or on the frontage on corner lots. Proposed is 24% at SW Day Road but 16% at SW Boones Ferry Road.

E2. Review Criteria: *Section 4.140. Planned Development Regulations.*

Section 4.140 (.01) Purpose.

A. The provisions of Section 4.140 shall be known as the Planned Development Regulations. The purposes of these regulations are to encourage the development of tracts of land sufficiently large to allow for comprehensive master planning, and to provide flexibility in the application of certain regulations in a manner consistent with the intent of the Comprehensive Plan and general provisions of the zoning regulations and to encourage a harmonious variety of uses through mixed use design within specific developments thereby promoting the economy of shared public services and facilities and a variety of complimentary activities consistent with the land use designation on the Comprehensive Plan and the creation of an attractive, healthful, efficient and stable environment for living, shopping or working.

B. It is the further purpose of the following Section:

1. To take advantage of advances in technology, architectural design, and functional land use design;
2. To recognize the problems of population density, distribution and circulation and to allow a deviation from rigid established patterns of land uses, but controlled by defined policies and objectives detailed in the comprehensive plan;
3. To produce a comprehensive development equal to or better than that resulting from traditional lot land use development.
4. To permit flexibility of design in the placement and uses of buildings and open spaces, circulation facilities and off-street parking areas, and to more efficiently utilize potentials of sites characterized by special features of geography, topography, size or shape or characterized by problems of flood hazard, severe soil limitations, or other hazards;
5. To permit flexibility in the height of buildings while maintaining a ratio of site area to dwelling units that is consistent with the densities established by the Comprehensive Plan and the intent of the Plan to provide open space, outdoor living area and buffering of low-density development.

Section 4.140. Planned Development Regulations.

6. To allow development only where necessary and adequate services and facilities are available or provisions have been made to provide these services and facilities.
7. To permit mixed uses where it can clearly be demonstrated to be of benefit to the users and can be shown to be consistent with the intent of the Comprehensive Plan.
8. To allow flexibility and innovation in adapting to changes in the economic and technological climate.

E3. Finding: These criteria are satisfied.

Details of Finding: The applicant's responses to the proposed setback waiver are found on pages 34 through 36 of the Compliance Narrative in Exhibit B1. This site planning process and the resulting waivers are consistent with Subsection 4.140.01B(4) with respect to

providing flexibility in the placement of buildings through the PD process to address building height and architecture.

Review Criteria: Section 4.134(.05)D Standards Applying to Day Road Overlay District, generally Minimum Building Height: Forty-eight (48) feet fronting SW Day Road, and Section 4.134(.05)B glazing percentage.

Section 4.140.05(C). Development Review Board approval is governed by Sections 4.400 to 4.450. Particularly Section 4.400.02 (A through J). In this case as it relates to the decision criteria for reviewing waivers.

Section 4.140(.04) B. It is the further purpose of the following Section:

Review Criterion 1. To take advantage of advances in technology, architectural design, and functional land use design:

E4. **Finding:** This criterion is satisfied.

Details of Finding: While the applicant has sought to take advantage of advances in functional land use design, the applicant must balance the requirements of the Development Code, e.g. building height and glazing percentage. In order to provide industrial component that is both walk-able and functional, the applicant has sought to reduce the minimum building height at SW Day Road, and reduce energy costs and to provide patient safety by reducing the percentage of glazing at SW Boones Ferry Road. It is necessary to retain the functionality of the project.

Review Criterion 2. To recognize the problems of population density, distribution and circulation and to allow a deviation from rigid established patterns of land uses, but controlled by defined policies and objectives detailed in the comprehensive plan;

E5. **Finding:** This criterion is satisfied.

Details of Finding: The applicant is seeking to develop the property for a Universal Health Services facility and not a residential development.

Review Criterion: 3. To produce a comprehensive development equal to or better than that resulting from traditional lot land use development.

E6. **Finding:** This criterion is satisfied.

Details of Finding: Proposed is the PDI-RSIA zone. Planned developments allow for non-traditional land use development. Planned developments also allow for traditional zoning rules to be waived in order to promote innovation and coordinated development. Rather than approaching development on a lot-by-lot basis, as typically occurs under traditional zoning, the entire parcel is planned in a comprehensive and integrated fashion. In this case it is being developed for a behavioral health facility.

Review Criterion: 4. To permit flexibility of design in the placement and uses of buildings and open spaces, circulation facilities and off-street parking areas, and to more efficiently utilize potentials of sites characterized by special features of geography, topography, size or shape or characterized by problems of flood hazard, severe soil limitations, or other hazards;

E7. **Finding:** This criterion is satisfied.

Details of Finding: The very purpose of the Planned Development Regulations is to permit flexibility of site design. Staff finds that the proposed waivers would allow the applicant the flexibility to utilize the site more efficiently meeting code.

Review Criterion: 5. To permit flexibility in the height of buildings while maintaining a ratio of site area to dwelling units that is consistent with the densities established by the Comprehensive Plan and the intent of the Plan to provide open space, outdoor living area and buffering of low-density development.

E8. **Finding:** This criterion is satisfied.

Details of Finding: Staff concurs with the applicant's findings that the two waivers. Which allows permits flexibility to construct such a development.

Review Criterion: 6. To allow development only where necessary and adequate services and facilities are available or provisions have been made to provide these services and facilities.

E9. **Finding:** This criterion is satisfied.

Details of Finding: Adequate public facilities exist or will be made available.

Review Criterion: 7. To permit mixed uses where it can clearly be demonstrated to be of benefit to the users and can be shown to be consistent with the intent of the Comprehensive Plan.

Finding: This criterion is satisfied.

Details of Finding: Industrial development has been an integral part of the land use for the subject property since the City's first Comprehensive Plan was adopted in 1971. In keeping with that vision, the applicant is proposing to construct a Universal Health Services facility.

Review Criteria: Section 4.118 Standards applying to all Planned Development Zones:

Section 4.118 01. "Height Guidelines: The Development Review Board may regulate heights as follows:

- A. Restrict or regulate the height or building design consistent with adequate provision of fire protection and fire-fighting apparatus height limitations.**
- B. To provide buffering of low density developments by requiring the placement of buildings more than two (2) stories in height away from the property lines abutting a low density zone."**
- C. to regulate building height or design to protect scenic vistas of Mt. Hood or the Willamette River.**

E10. **Finding:** These criteria are satisfied.

Details of Finding: The applicant has provided reasonable rational for a reduced building heights which provides for fire protection access, is not adjacent to a low density residential zone, and does not impact scenic views of Mt. Hood or the Willamette River. Furthermore, TVFR has indicated that building design for the UHS facility is consistent with adequate

provision of fire protection and fire-fighting apparatus height limitations meeting this criterion.

SUMMARY FINDING FOR REQUEST E:

- E11.** Staff concurs with the applicant that reduced building heights and reduced window glazing better implements the purpose and objectives of the Day Road Overlay District especially in regards to functional land use design and flexibility in design. Thus, the proposed waivers is consistent with Subsection 4.140.01B(3) with respect to producing a development equal or better than would be achieved through the strict application of the standard.

REQUEST F: STAGE II FINAL PLAN

Industrial Development in Any Zone

Subsection 4.117 (.01) Standards Applying to Industrial Development in Any Zone

Review Criteria: “All industrial developments, uses, or activities are subject to performance standards. If not otherwise specified in the Planning and Development Code, industrial developments, uses, and activities shall be subject to the performance standards specified in Section 4. 135(.05) (PDI Zone).”

- F1. Finding:** This criterion is satisfied.

Details of Finding: All applicable performance standards are being and will continue to be met.

Standards Applying in All Planned Development Zones

Subsection 4.118 (.01) Additional Height Guidelines

- F2. Finding:** This criterion is satisfied.

Details of Finding: See Request E for the detailed discussion about proposed waivers

Subsection 4.118 (.02) Underground Utilities

Review Criterion: “Underground Utilities shall be governed by Sections 4.300 to 4.320. All utilities above ground shall be located so as to minimize adverse impacts on the site and neighboring properties.”

- F3. Finding:** This criterion is satisfied.

Details of Finding: All additional utilities on the property will be installed underground.

Subsection 4.118 (.03) Waivers

Review Criteria: “Notwithstanding the provisions of Section 4.140 to the contrary, the Development Review Board, in order to implement the purposes and objectives of Section

4.140, and based on findings of fact supported by the record may” waive a number of standards as listed in A. through E.

F4. **Finding:** These criteria are satisfied.

Details of Finding: See Request E for the detailed discussion about proposed waivers.

Subsection 4.118 (.03) E. Other Requirements or Restrictions

Review Criterion: “Notwithstanding the provisions of Section 4.140 to the contrary, the Development Review Board, in order to implement the purposes and objectives of Section 4.140, and based on findings of fact supported by the record may adopt other requirements or restrictions, inclusive of, but not limited to, the following:”

F5. **Finding:** This criterion is satisfied.

Details of Finding: No additional requirements or restrictions are recommended pursuant to this subsection.

Subsection 4.118 (.05) Requirements to Set Aside Tracts for Certain Purposes

Review Criterion: “The Planning Director, Development Review Board, or on appeal, the City Council, may as a condition of approval for any development for which an application is submitted, require that portions of the tract or tracts under consideration be set aside, improved, conveyed or dedicated for the following uses:” Recreational Facilities, Open Space Area, Easements.”

F6. **Finding:** This criterion is satisfied.

Details of Finding: No additional tracts are being required for the purposes given.

Subsection 4.118 (.09) Habitat Friendly Development Practices

Review Criteria: “To the extent practicable, development and construction activities of any lot shall consider the use of habitat-friendly development practices, which include:

A. Minimizing grading, removal of native vegetation, disturbance and removal of native soils, and impervious area;

B. Minimizing adverse hydrological impacts on water resources, such as using the practices described in Part (a) of Table NR-2 in Section 4.139.03, unless their use is prohibited by an applicable and required state or federal permit, such as a permit required under the federal Clean Water Act, 33 U.S.C. §§1251 et seq., or the federal Safe Drinking Water Act, 42 U.S.C. §§300f et seq., and including conditions or plans required by such permit;

C. Minimizing impacts on wildlife corridors and fish passage, such as by using the practices described in Part (b) of Table NR-2 in Section 4.139.03; and

D. Using the practices described in Part (c) of Table NR-2 in Section 4.139.03.”

F7. **Finding:** These criteria are satisfied.

Details of Finding: Where practicable with the proposed building size and necessary parking and circulation area native vegetation and trees is being preserved on the west side of the site and additional native plants are being planted to enhance the area. All storm water will be managed according to the City’s new low impact development storm water standards.

Subsection 4.133.04 (.04) A. Access to Public Streets to be Jointly Reviewed by City and ODOT

Review Criterion: “Approval of access to City streets within the IAMP Overlay Zone shall be granted only after joint review by the City and the Oregon Department of Transportation (ODOT). Coordination of this review will occur pursuant to Section 4.133.05(.02).”

F8. Finding: This criterion is satisfied.

Details of Finding: The proposal has been reviewed by the City’s traffic consultant, see DKS Transportation Impact Analysis in Exhibit B1, the City Engineering staff, and ODOT has been notified and given the opportunity to comment. The primary access is at SW Day Road and secondary emergency vehicle access only at SW Boones Ferry Road.

Planned Development Industrial Zone

Subsection 4.135 (.01) Purpose of Planned Development Industrial Zone

Review Criterion: “The purpose of the PDI zone is to provide opportunities for a variety of industrial operations and associated uses.”

F9. Finding: This criterion is satisfied.

Details of Finding: On the basis of the applicant’s finding found on pages 21 and 22 of Exhibit B1 the proposed behavioral health facility is consistent with the purpose of the PDI-RSIA zone.

Subsection 4.135 (.02) PDI Zone Governed by Planned Development Regulations

Review Criterion: “The PDI Zone shall be governed by Section 4.140, Planned Development Regulations, and as otherwise set forth in this Code.”

F10. Finding: This criterion is satisfied.

Details of Finding: As described in the findings for this request and associated Stage I /II and Site Design Review requests, the proposed behavioral health facility use is being reviewed in accordance with Section 4.140.

Subsection 4.135 (.03) Allowed Uses in PDI Zone

Review Criteria: “Uses that are typically permitted:” Listed A. through T.

F11. Finding: These criteria are satisfied.

Details of Finding: On the basis of the applicant’s finding found on pages 21 and 22 of Exhibit B1 the proposed behavioral health facility is consistent with the purpose of the PDI-RSIA zone.

Subsection 4.135 (.04) Block and Access Standards in PDI Zone

Review Criteria: “The PDI zone shall be subject to the same block and access standards as the PDC zone, Section 4.131(.02) and (.03).”

F12. Finding: These criteria are satisfied.

Details of Finding: This criterion is not relevant to this application. Section 4.131(.03) only applies to residential or mixed-use development – not industrial uses.

Subsection 4.135 (.05) Industrial Performance Standards

Review Criteria: “The following performance standards apply to all industrial properties and sites within the PDI Zone, and are intended to minimize the potential adverse impacts of industrial activities on the general public and on other land uses or activities. They are not intended to prevent conflicts between different uses or activities that may occur on the same property.” Standards listed A. through N.

F13. Finding: These criteria are satisfied.

Details of Finding: The proposed project meets the performance standards of this subsection as follows:

- Pursuant to standard A (enclosure of uses and activities), the proposed behavioral health facility will be enclosed.
- Pursuant to standard B (vibrations), there is no indication that the proposed use of the site will produce vibrations detectable off site without instruments.
- Pursuant to standard C (emissions), the proposed use has given no indication that odorous gas or other odorous matter is or will be produced.
- Pursuant to standard D (open storage), portions of the high security/privacy wings of the UMS facility will be screened with fencing and landscape screening, according to the development code standards.
- Pursuant to standard E (night operations and residential areas), the proposed UHS site is not in the vicinity of any residential areas. The closest residences are located a significant distance to the west.
- Pursuant to standard F (heat and glare), none of the UHS operations would produce any heat or glare.
- Pursuant to standard G (dangerous substances), there are no prohibited dangerous substances expected on the development site.
- Pursuant to standard H (liquid and solid wastes), staff has no evidence to suggest that the standards defined for liquid and solid waste in this subsection would be violated.
- Pursuant to standard I (noise), the proposed UHS use would not violated the City’s Noise Ordinance.
- Pursuant to standard J (electrical disturbances), staff has no evidence to suggest that any prohibited electrical disturbances would be produced by the proposed UHS facility.
- Pursuant to standard K (discharge of air pollutants), staff has no evidence to suggest that any prohibited discharges would be produced by the proposed project.
- Pursuant to standard L (open burning), no open burning is proposed on the development site.
- Pursuant to standard M (outdoor storage), the proposed UHS facility will not have outdoor storage.

Subsection 4.135 (.06) Other PDI Standards

Review Criteria: This section lists other standards of the PDI zone including: minimum individual lot size, maximum lot coverage, front yard setback, rear and side yard setback, corner vision, off street parking and loading, and signs.

F14. Finding: These criteria are satisfied.

Details of Finding: The proposed development meets these standards as follows:

- The property is of sufficient size to allow for the required amount of landscaping, parking, and other applicable site requirements along with lot coverage of the proposed development.
- The required thirty foot (30') front, rear, and side yard requirements are exceeded by the proposed UHS facility.
- The vision clearance standards of Section 4.177 are met.
- Off-street parking and loading requirements are or will be met.
- Signs are proposed. See Request J for detailed analysis of the proposed signs.

Section 4.139.02 Applicability of SROZ Regulations

Review Criteria: This section identifies where the Significant Resource Overlay Zone (SROZ) regulations apply.

F15. Finding: These criteria are satisfied.

Details of Finding: None of the proposed development is within the SROZ or its impact area, thus the SROZ regulations do not apply.

Planned Development Regulations

Subsection 4.140 (.01) Purpose of Planned Development Regulations

Review Criterion: The proposed Stage II Final Plan shall be consistent with the Planned Development Regulations purpose statement.

F16. Finding: This criterion is satisfied.

Details of Finding: Based on the information provided in the application narrative, staff finds that the purpose of the planned development regulations is met by the proposed Stage II Final Plan, based on the findings in this report.

Subsection 4.140 (.02) Lot Qualifications for Planned Developments

Review Criterion: “Planned Development may be established on lots which are suitable for and of a size to be planned and developed in a manner consistent with the purposes and objectives of Section 4.140.”

F17. Finding: This criterion is satisfied.

Details of Finding: The subject development site is of sufficient size to be developed in a manner consistent the purposes and objectives of Section 4.140 as noted in the findings in this report.

Review Criterion: “Any site designated for development in the Comprehensive Plan may be developed as a Planned Development, provided that it is zoned ‘PD.’ All sites which are greater than two (2) acres in size, and designated in the Comprehensive Plan for commercial, residential, or industrial use shall be developed as Planned Developments, unless approved for other uses permitted by the Development Code.”

F18. Finding: This criterion is satisfied.

Details of Finding: The 8.4 net acre site is greater than 2 acres, will be designated ‘Industrial’ on the Comprehensive Plan Map, and is zoned “Planned Development Industrial – Regional Significant Industrial Area” on the Zoning Map. The property will be developed as a component of a planned development in accordance with this subsection.

Subsection 4.140 (.03) Ownership Requirements for Submitting Planned Development Application

Review Criterion: “The tract or tracts of land included in a proposed Planned Development must be in one (1) ownership or control or the subject of a joint application by the owners of all the property included.”

F19. Finding: This criterion is satisfied.

Details of Finding: The 8.4 net acres included in the proposed Stage II Final Plan is under the single ownership and has signed the application.

Subsection 4.140 (.04) Professional Design Team Required for Planned Developments

Review Criterion: “The applicant for all proposed Planned Developments shall certify that the professional services of the appropriate professionals have been utilized in the planning process for development. One of the professional consultants chosen by the applicant shall be designated to be responsible for conferring with the planning staff with respect to the concept and details of the plan.”

F20. Finding: This criterion is satisfied.

Details of Finding: As can be found in the applicant’s submitted materials, appropriate professionals have been involved in the planning and permitting process. Mr. Sandblast has been designated the coordinator for the planning portion of the project.

Subsection 4.140 (.05) Planned Development Permit Process

Review Criteria: “All parcels of land exceeding two (2) acres in size that are to be used for residential, commercial or industrial development, shall, prior to the issuance of any building permit:

1. Be zoned for planned development;
2. Obtain a planned development permit; and
3. Obtain Development Review Board, or, on appeal, City Council approval.”

F21. Finding: These criteria are satisfied.

Details of Finding: The subject 8.4 net acres is greater than 2 acres, is proposed for Industrial on the Comprehensive Plan Map, and will be rezoned to PDI-RSIA. The property will be developed as a planned development in accordance with this subsection.

Stage II Final Plan Submission Requirements and Process

Subsection 4.140 (.09) A. Timing of Submission

Review Criterion: “Unless an extension has been granted by the Development Review Board, within two (2) years after the approval or modified approval of a preliminary development plan (Stage I), the applicant shall file with the City Planning Department a final plan for the entire development or when submission in stages has been authorized pursuant to Section 4.035 for the first unit of the development”

F22. Finding: This criterion is satisfied.

Details of Finding: The applicant has submitted a Stage II Final Plan concurrently with a Stage I Preliminary Plan.

Subsection 4.140 (.09) B. Determination by Development Review Board

Review Criterion: “the Development Review Board shall determine whether the proposal conforms to the permit criteria set forth in this Code, and shall approve, conditionally approve, or disapprove the application”.

F23. Finding: This criterion is satisfied.

Details of Finding: The Development Review Board shall consider all applicable permit criteria set forth in the Planning and Land Development Code, and the staff is recommending the Development Review Board approve the application with conditions of approval.

Subsection 4.140 (.09) C. Conformance with Stage I and Additional Submission Requirements

Review Criteria: “The final plan shall conform in all major respects with the approved preliminary development plan, and shall include all information included in the preliminary plan plus the following:” listed 1. through 6.

F24. Finding: These criteria are satisfied.

Details of Finding: The applicant states, and staff concurs, that the Stage II Final Plan substantially conforms to the proposed Stage I Preliminary Plan. The applicant has provided the required drawings and other documents showing all the additional information required by this subsection.

Subsection 4.140 (.09) D. Stage II Final Plan Detail

Review Criterion: “The final plan shall be sufficiently detailed to indicate fully the ultimate operation and appearance of the development or phase of development.”

F25. Finding: This criterion is satisfied.

Details of Finding: The applicant has provided sufficiently detailed information to indicate fully the ultimate operation and appearance of the proposed UHS facility, including a detailed site plan, elevation drawings, and material information to review the application.

Proposed Stage II Final Plan		
Area 8.4 net acres	Size	% of Total Site
Building area footprint, including courtyards.	85,866 SF	23%
Parking, drive lanes, walkways	48,036SF	13%
New landscaping area	142,962 SF	39%
Undisturbed native area	60,755 SF	17%
Pedestrian hardscape area	19,178 SF	5%
Gravel and access roads	9,584 SF	3%
Total site area:	acres	100%

Subsection 4.140 (.09) E. Submission of Legal Documents

Review Criterion: “Copies of legal documents required by the Development Review Board for dedication or reservation of public facilities, or for the creation of a non-profit homeowner’s association, shall also be submitted.”

F26. Finding: This criterion is satisfied.

Details of Finding: No additional legal documentation is required for dedication or reservation of public facilities.

Subsection 4.140 (.09) I. and Section 4.023 Expiration of Stage II Approval

Review Criterion: This subsection and section identify the period for which Stage II approvals are valid.

F27. Finding: This criterion is satisfied.

Details of Finding: The Stage II Final Plan approval, along other associated applications, will expire two (2) years after approval, unless an extension is approved in accordance with these subsections.

Subsection 4.140 (.09) J. 1. Planned Development Permit Requirements: Conformance with Comprehensive Plan and other Applicable Plans and Ordinances

Review Criterion: “The location, design, size and uses, both separately and as a whole, are consistent with the Comprehensive Plan, and with any other applicable plan, development map or Ordinance adopted by the City Council.”

F28. Finding: This criterion is satisfied.

Details of Finding: In Request C the applicant is seeking rezoning to PDI-RSIA consistent with the proposed Industrial designation the Comprehensive Plan in Request B. As noted in this report, the location, design, size, and use are consistent with other applicable plans, maps, and ordinances, or will be consistent by meeting the recommended conditions of approval.

Subsection 4.140 (.09) J. 2. Planned Development Permit Requirements: Traffic Concurrency

F29. Review Criterion: “That the location, design, size and uses are such that traffic generated by the development at the most probable used intersection(s) can be accommodated safely and without congestion in excess of Level of Service D, as defined in the Highway Capacity Manual published by the National Highway Research Board, on existing or immediately planned arterial or collector streets and will, in the case of commercial or industrial developments, avoid traversing local streets. Immediately planned arterial and collector streets are those listed in the City’s adopted Capital Improvement Program, for which funding has been approved or committed, and that are scheduled for completion within two years of occupancy of the development or four year if they are an associated crossing, interchange, or approach street improvement to Interstate 5.” Additional qualifiers and criteria listed a. through e.

Finding: This criterion is satisfied.

Details of Finding: A Transportation Impact Study for the proposed development was prepared by DKS Associates for the project which can be found in Exhibit B1. Off-site transportation mitigation is necessary.

Estimated New PM Peak Hour Trips	107
Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area	75
Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area	6

As part of the Transportation Impact Study DKS Associates looked at a variety of uses allowed under the proposed PDI-RSIA Zone Change. The worst case trip generator for the proposed zone change would be expected to produce the following impacts.

Estimated New PM Peak Hour Trips	127
Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area	88
Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area	7

Subsection 4.140 (.09) J. 3. Planned Development Permit Requirements: Facilities and Services Concurrency

Review Criterion: “That the location, design, size and uses are such that the residents or establishments to be accommodated will be adequately served by existing or immediately planned facilities and services.”

F30. Finding: This criterion is satisfied.

Details of Finding: Facilities and services, including utilities, are available and sufficient to serve the proposed development.

On-site Pedestrian Access and Circulation

Subsection 4.154 (.01) B. 1. Continuous Pathway System

Review Criterion: “A pedestrian pathway system shall extend throughout the development site and connect to adjacent sidewalks, and to all future phases of the development, as applicable.”

F31. Finding: This criterion is satisfied.

Explanation of Finding: A 5 foot wide sidewalk is at SW Day Road. A five (5) foot wide concrete sidewalk is proposed along the east side of the building at SW Boones Ferry Road.

Subsection 4.154 (.01) B. 2. Safe, Direct, and Convenient Pathways

Review Criteria: “Pathways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent parking areas, recreational areas/playgrounds, and public rights-of-way and crosswalks based on all of the following criteria:

- a. Pedestrian pathways are designed primarily for pedestrian safety and convenience, meaning they are free from hazards and provide a reasonably smooth and consistent surface.
- b. The pathway is reasonably direct. A pathway is reasonably direct when it follows a route between destinations that do not involve a significant amount of unnecessary out-of-direction travel.
- c. The pathway connects to all primary building entrances and is consistent with the Americans with Disabilities Act (ADA) requirements.
- d. All parking lots larger than three acres in size shall provide an internal bicycle and pedestrian pathway pursuant to Section 4.155(.03)(B.)(3.)(d).”

F32. Finding: These criteria are satisfied.

Explanation of Finding:

- All proposed pathways are of smooth and consistent concrete and no hazards are evident on the site plan.
- All proposed pathways are straight and provide direct access to intended destinations.
- The pathways next to the UMS building connect to the primary building entrance.
- Where required, pathways meet ADA requirements or will be required to by the building code.
- No parking area is larger than 3 acres in size.

Subsection 4.154 (.01) B. 3. Vehicle/Pathway Separation

Review Criterion: “Except as required for crosswalks, per subsection 4, below, where a pathway abuts a driveway or street it shall be vertically or horizontally separated from the

vehicular lane. For example, a pathway may be vertically raised six inches above the abutting travel lane, or horizontally separated by a row of bollards.”

F33. Finding: This criterion is satisfied.

Explanation of Finding: All pathways affected by this review are separated consistent with this subsection.

Subsection 4.154 (.01) B. 4. Crosswalks

Review Criterion: “Where a pathway crosses a parking area or driveway, it shall be clearly marked with contrasting paint or paving materials (e.g., pavers, light-color concrete inlay between asphalt, or similar contrast).”

F34. Finding: This criterion is satisfied.

Explanation of Finding: The method of marking the crosswalks is clear from the plans.

Subsection 4.154 (.01) B. 5. Pathway Width and Surface

Review Criterion: “Primary pathways shall be constructed of concrete, asphalt, brick/masonry pavers, or other durable surface, and not less than five (5) feet wide. Secondary pathways and pedestrian trails may have an alternative surface except as otherwise required by the ADA.”

F35. Finding: This criterion is satisfied.

Explanation of Finding: Primary pathways are the required width and will be constructed of concrete or asphalt. However, the Applicant/Owner must provide ADA accessible path from the gates of the southerly accessible ramp to the concrete basketball courts to the concrete walks to the building entrances serving the recreational yards.

Parking and Loading

Subsection 4.155 (.02) General Parking Provisions

Review Criteria: This subsection lists a number of general provisions for parking.

F36. Finding: These criteria are satisfied.

Details of Finding: The applicant has provided sufficient information demonstrating compliance with the provisions in this subsection applicable to Stage II Final Plan review. Among the information provided is Plan Sheet C100. Staff specifically points out the following:

- In relation to provision A no waivers to parking standards have been requested
- In relation to provision B parking areas are accessible and usable for parking.
- In relation to provision D parking is being calculated summing the requirements of different uses.
- Parking will not be used for any other business activity.
- In relation to provision K the parking areas will be paved and provided with adequate drainage.
- In relation to provision L compliance with the outdoor lighting ordinance and vegetative screening will prevent artificial lighting from shining into adjoining structures or affecting passersby

- In relation to provision M all the proposed uses are listed in the Code
- In relation to provision N. 48 parking spaces or 39% of the parking is proposed as compact.
- In relation to provision O all planting areas that vehicles may overhang are seven feet (7') or greater in depth.

Subsection 4.155 (.03) A. Functional Design of Parking, Loading, and Delivery Areas

Review Criteria: “Parking and loading or delivery areas shall be designed with access and maneuvering area adequate to serve the functional needs of the site and shall:

1. Separate loading and delivery areas and circulation from customer and/or employee parking and pedestrian areas. Circulation patterns shall be clearly marked.
2. To the greatest extent possible, separate vehicle and pedestrian traffic.”

F37. Finding: These criteria are satisfied.

Details of Finding: The functional needs of the site for exterior parking and loading include employee and visitor parking of standard passenger vehicles and delivery of vehicles by carrier trucks. The required amount of parking is provided, with drive aisles of widths adequate to accommodate two-way truck and passenger vehicle traffic. All turning radii are adequate. Access is being provided from one driveway access at SW Day Road. Loading berths meeting number of size requirements of the development code are provided and is considered adequate to serve the expected amount of delivery to the site. The needs for Solid Waste and Recycling pick up vehicles and fire apparatus are being reviewed separately and have been approved by Republic Services and TVF&R.

The required loading and delivery berth is located at the west side of the proposed UMS building, separated from the main employee and customer areas. The access drive is shared, but separate access drives are not required or practical with the site design.

Circulation patterns are clearly evident by the standard width of the drive aisles which are equivalent to a local street without pavement markings, and the clear delineation of the edge of the drive aisles by painted parking stalls, landscape planters, and the building. Otherwise the pedestrian circulation system is on raised sidewalks meeting the separation standards of Section 4.154.

Subsection 4.155 (.03) B. 1.-3. Parking Area Landscaping

Review Criteria: “Parking and loading or delivery areas shall be landscaped to minimize the visual dominance of the parking or loading area, as follows:” Listed 1 through 3.

F38. Finding: These criteria are satisfied.

Details of Finding: 39% of the site area will be landscaped. Nearly all of the landscaping is adjacent to the proposed UMS building and parking areas. The proposed landscape includes perimeter landscaping as well as interior landscape islands which would be identified as parking area landscaping. The proposed landscaping strips/areas provide screening from the public right-of-way and off-site.

Furthermore, the Applicant/Owner must substitute the Common hornbeam parking lot trees with another parking lot friendly deciduous tree species that has more shading coverage.

Subsection 4.155 (.03) C. Parking and Loading Areas-Safe and Convenient Access

Review Criterion: “Be designed for safe and convenient access that meets ADA and ODOT standards. All parking areas which contain ten (10) or more parking spaces, shall for every fifty (50) standard spaces., provide one ADA-accessible parking space that is constructed to building code standards, Wilsonville Code 9.000.”

F39. Finding: This criterion is satisfied.

Details of Finding: Nine (9) ADA stalls are proposed, meeting the standard established in this subsection. ADA parking will also be reviewed as part of the review of the Building Code requirements for the Building Permit.

Subsection 4.155 (.03) D. Parking Connectivity and Efficient On-site Circulation

Review Criterion: “Where possible, parking areas shall be designed to connect with parking areas on adjacent sites so as to eliminate the necessity of utilizing the public street for multiple accesses or cross movements. In addition, on-site parking shall be designed for efficient on-site circulation and parking.”

F40. Finding: This criterion is satisfied.

Details of Finding: There are no existing and adjacent parking areas to the project site.

Subsection 4.155 (.03) F. On-Street Parking

Review Criterion: “On-street parking spaces, directly adjoining the frontage of and on the same side of the street as the subject property, may be counted towards meeting the minimum off-street parking standards.”

F41. Finding: This criterion is satisfied.

Details of Finding: No on-street parking spaces are part of the space count to meet the minimum parking standards, SW Day Road and SW Boones Ferry Road would not allow on-street parking.

Subsection 4.155 (.03) G. Parking Minimum and Maximum

Review Criterion: “Tables 5, below, shall be used to determine the minimum and maximum parking standards for various land uses. The minimum number of required parking spaces shown on Tables 5 shall be determined by rounding to the nearest whole parking space.”

Finding: With proposed Condition PDE2 this criterion can be resolved.

F42. Details of Finding: 200 parking spaces based on city code for hospitals may be too much; UHS current site plan sheet L100 shows 120 spaces but the applicant’s parking finding indicates 114 spaces. For PM peak hour traffic trips the DKS traffic consultant used a rate that was 75% of the ITE Code 610 rate. Firm data on what is an acceptable high and low rate for parking for behavioral health hospitals was not available at the time of writing this

staff report. Staff is reluctant to underestimate it because there is no on-street parking in this area, and no nearby offsite parking. Steve Adams, Development Engineering Manager has commented to planning staff; “Key evidence is to find out from UHS is the maximum overlap they anticipate at shift changes, if 90 staff leave the day shift and 50 come on the night shift staff can see a need for at least 140 parking spots just for staff, plus additional for visitors.” **In the professional opinion of planning staff the applicant must provide minimum 140 parking spaces.**

Table 5 of the Parking Code identifies two use groups to determine parking provisions:

Use	Use (as listed in Section 4.155 Table 5)	Parking Min.	Parking Max.	Bicycle Min.
Sanitarium, convalescent hospital, nursing home, rest home, home for the aged.	1 space/2 beds for patients. (100 beds)	50	No limit	1 per 6,000 sq. ft. Min. of 2 =11
Hospital	2 spaces/bed. (100 beds)	200	No limit	1 per 20 parking spaces Min. of 2.
Proposed Parking		120		12 including 6 long term

The applicant’s table shown below, 114 parking spaces are proposed.

The following table was provided by the applicant for proposed parking:

Peak-Hour Parking Need Analysis

Inpatient Parking (100 Beds)	Less than 5% of average inpatient daily census	3.75
Outpatient Parking	Daily therapy visits = 15% of average inpatient census (75%) x 80% drivers	9.00
Visitor & Vendor Parking	20% of average inpatient census split between day and evening visiting hours	7.50
Dedicated UHS Van Parking	2 patient transport vans	2.00
Peak Shift Staff Parking (63 x 80%)	63 day staff x 80% drivers (7 AM to 5 PM)	50.40
Non-Peak Afternoon Staff Parking (38 x 80%)	38 afternoon staff x 80% drivers (3 PM to 11 PM)	30.40
Total		103.05
Peak Factor (10%)		10.31
Total		113.36

use 114

Notes:

This 100-bed facility will operate with an Average Daily Census (ADC) of 75%

Hours of operation is 24 hours a day, 7 days a week.

Total staff is 190, operating in 3 shifts as follows: Day Shift (Peak) = 63, Afternoon Shift (Non-peak) = 38, Night Shift (Off Peak) = 25, Weekend Shift = 63

20% of staff will use alternative means of transportation, on-average

Scheduled Visiting Hours are Noon to 2 PM and 7 to 9 PM.

Peak parking load will occur during the shift-change hours of 3 PM to 5 PM

Inpatients typically are transported by relatives or friends, ambulance or taxi cabs, and are not encouraged to drive.

UHS vans are used for both inpatient and outpatient transport

The applicant’s Plan Sheet L100 shows 120 parking spaces. Three (3) parking spaces for the disabled are proposed.

On pages 19 and 20 of the DKS Transportation Impact Analysis it states:

“The City of Wilsonville code provides a minimum required number of vehicular parking stalls and bicycle parking spaces based on the proposed development and size. However, the code does not include parking requirements based on the proposed Behavioral Health Hospital institution. Two similar land uses that are provided in the City code (“convalescent hospital, nursing home, sanitarium, rest home, home for the aged” and “hospital”) are summarized below in Table 12. Based on discussions with the City, the estimated parking demand of the proposed Behavioral Health Hospital institution is assumed to be within the two ranges (minimum of 50 to 200 parking spaces) of parking requirements in Table 12.”

Table 12: Parking Requirements for Comparable Land Uses

Land Use	Size (Number of Beds)	Vehicle Parking		Bicycle Parking	
		Requirement	Minimum	Requirement	Minimum
Convalescent hospital ^a	100 beds	1 space/ 2 beds	50	1 per 6 KSF ^b	10
Hospital		1 space/1 bed	200	1 per 20 veh. spaces	10

^aConvalescent hospital land use also includes nursing home, sanitarium, rest home, and home for the aged

^bKSF = 1,000 square feet (proposed 62,000 square foot Behavioral Health Hospital)

The two land uses do not include maximum parking requirements

“In order to determine the estimated peak parking demand of the proposed development, UHS provided a breakdown of the staff levels by time of day, estimated number of visitors, outpatient parking, etc. The primary factors considered in the parking evaluation provided was a 20% rate of alternative modes of transportation for the estimated number of staff. Additionally, seven visitor and vendor parking were assumed during each of the scheduled visiting hours (12 pm to 2 pm and 7pm to 9pm). The resulting proposed number of parking stalls provided by UHS was 114, the complete breakdown assumptions and parking needs can be found in the appendix.”

“Although there is a bus stop on the south leg of the Boones Ferry Road/Day Road intersection that serves the Wilsonville, Tualatin, and Portland City Center areas (TriMet Route 96), based on the surrounding study vicinity it is recommended that the alternative modes of transportation means be reduced from 20% to 5%. Additionally, it is recommended that the estimated visitor/vendor parking number be increased from 7.5 to 15. These recommendations would result in a worst case parking demand scenario. Table 13 shows the UHS parking estimation compared to the recommended parking. As shown, with the above recommendations, the parking need analysis would increase by 26 stalls to a total of 140. The 140 stalls would include three ADA stalls (City code requires one ADA stall for every 50 standard stalls).”

Table 13: UHS Peak-Hour Parking Needs Estimation and DKS Recommendation

Parking Needs Scenario	Assumed Alternative Transportation Rate	Estimated Visitors/ Vendors ^a	Total Peak Hour Parking Needs
UHS Proposed Parking	20%	7.5	114 stalls
Recommended (worst case)	5%	15	140 stalls

^aDuring each visitor parking period

The current site plan includes a total of 120 parking spaces and does not show a number of bicycle parking spaces provided. It is recommended that the plan be revised to include a minimum of 140 parking stalls (including a minimum of three ADA stalls). The site should also provide a minimum of seven bicycle spaces.

Subsection 4.155 (.03) H. Electric Vehicle Charging

Review Criteria: “Electrical Vehicle Charging Stations:

1. Parking spaces designed to accommodate and provide one or more electric vehicle charging stations on site may be counted towards meeting the minimum off-street parking standards.
2. Modification of existing parking spaces to accommodate electric vehicle charging stations on site is allowed outright.”

F43. Finding: These criteria are satisfied.

Details of Finding: No electric vehicle charging stations are proposed.

Subsection 4.155 (.03) I. Motorcycle Parking

Review Criteria: “Motorcycle parking:

1. Motorcycle parking may substitute for up to 5 spaces or 5 percent of required automobile parking, whichever is less. For every 4 motorcycle parking spaces provided, the automobile parking requirement is reduced by one space.
2. Each motorcycle space must be at least 4 feet wide and 8 feet deep. Existing parking may be converted to take advantage of this provision.

F44. Finding: These criteria are satisfied.

Details of Finding: No motorcycle parking is proposed.

Subsection 4.155 (.04) Bicycle Parking

Subsection 4.155 (.04) A. Bicycle Parking-General Provisions

Review Criteria: “Required Bicycle Parking - General Provisions.

1. The required minimum number of bicycle parking spaces for each use category is shown in Table 5, Parking Standards.
2. Bicycle parking spaces are not required for accessory buildings. If a primary use is listed in Table 5, bicycle parking is not required for the accessory use.

3. When there are two or more primary uses on a site, the required bicycle parking for the site is the sum of the required bicycle parking for the individual primary uses.

4. Bicycle parking space requirements may be waived by the Development Review Board per Section 4.118(.03)(A.)(9.) and (10.).

F45. Finding: These criteria are satisfied.

Details of Finding: 11 with 6 long term bicycle parking spaces are provided.

Subsection 4.155 (.04) B. Bicycle Parking-Standards

Review Criteria: “Standards for Required Bicycle Parking

1. Each space must be at least 2 feet by 6 feet in area and be accessible without moving another bicycle.

2. An aisle at least 5 feet wide shall be maintained behind all required bicycle parking to allow room for bicycle maneuvering. Where the bicycle parking is adjacent to a sidewalk, the maneuvering area may extend into the right-of-way.

3. When bicycle parking is provided in racks, there must be enough space between the rack and any obstructions to use the space properly.

4. Bicycle lockers or racks, when provided, shall be securely anchored.

5. Bicycle parking shall be located within 30 feet of the main entrance to the building or inside a building, in a location that is easily accessible for bicycles. For multi-tenant developments, with multiple business entrances, bicycle parking may be distributed on-site among more than one main entrance.”

F46. Finding: These criteria are satisfied.

Details of Finding: 12 bicycle parking spaces are provided. 6 are covered near the main building entrance 6 are in the landscape island near the circular drop-off drive. The stalls are 2’ by 6’ and have a 5’ aisle behind them. The covered parking spaces are within 30 feet of a customer entry. The additional 6 required spaced are covered long-term spaces.

Subsection 4.155 (.04) C. 2. Long-term Bicycle Parking Requirements and Standards

Review Criteria: “For a proposed multi-family residential, retail, office, or institutional development, or for a park and ride or transit center, where six (6) or more bicycle parking spaces are required pursuant to Table 5, 50% of the bicycle parking shall be developed as long-term, secure spaces. Required long-term bicycle parking shall meet the following standards:

a. All required spaces shall meet the standards in subsection (B.) above, and must be covered in one of the following ways: inside buildings, under roof overhangs or permanent awnings, in bicycle lockers, or within or under other structures.

b. All spaces must be located in areas that are secure or monitored (e.g., visible to employees, monitored by security guards, or in public view).

c. Spaces are not subject to the locational criterion of (B.)(5).”

F47. Finding: These criteria are satisfied.

Details of Finding: The 6 bicycle parking spaces are long-term spaces provided under a canopy.

Subsection 4.155 (.05) Required Number of Loading Berths

Review Criterion: “Every building that is erected or structurally altered to increase the floor area, and which will require the receipt or distribution of materials or merchandise by truck or similar vehicle, shall provide off-street loading berths on the basis of minimum requirements as follows:” listed 1. through 2. “A loading berth shall contain space twelve (12) feet wide, thirty-five (35) feet long, and have a height clearance of fourteen (14) feet. Where the vehicles generally used for loading and unloading exceed these dimensions, the required length of these berths shall be increased to accommodate the larger vehicles.”

F48. Finding: This criterion is satisfied.

Details of Finding: A minimum of 1 loading berth is required. 1 is provided at the west side of the UMS building.

Subsection 4.155 (.06) Carpool and Vanpool Parking Requirements

Review Criterion: This subsection lists the requirements for carpool and vanpool parking.

F49. Finding: This criterion is satisfied.

Details of Finding: Six (6) signed carpool parking spaces are proposed near the main public and employee building entrance on the west side of the building.

Section 4.167 Access, Ingress, and Egress

Review Criterion: “Each access onto streets or private drives shall be at defined points as approved by the City and shall be consistent with the public's health, safety and general welfare. Such defined points of access shall be approved at the time of issuance of a building permit if not previously determined in the development permit.”

F50. Finding: This criterion is satisfied.

Details of Finding: The one existing access drive at SW Day Road serving the development has been approved by the City.

Natural Features

Section 4.171 Protection of Natural Features and Other Resources

Review Criterion: This section provides for the protection of a number of natural features and other resources including: general terrain preparation, hillsides, trees and wooded areas, high voltage power-line easements and rights of way and petroleum pipeline easements, earth movement hazard areas, soil hazard areas, historic resources, and cultural resources.

F51. Finding: This criterion is satisfied.

Details of Finding: As noted herein, there are no significant natural features or resources on the site. The property has moderate sloping terrain with small tree groves on the west side and northeast corner of the property. Trees have been considered as part of site planning and many of the trees on the westerly side of the property are being retained. No other hillsides, power-line easements, etc. needing protection exist on the site.

Public Safety and Crime Prevention

Subsection 4.175 (.01) Design to Deter Crime and Ensure Public Safety

Review Criterion: “All developments shall be designed to deter crime and insure public safety.”

F52. Finding: This criterion is satisfied.

Details of Finding: The applicant has not provided any summary findings in response to these criteria. Staff finds no evidence and has not received any testimony that the design of the site and buildings would lead to crime or negatively impact public safety.

Subsection 4.175 (.02) Addressing and Directional Signing

Review Criterion: “Addressing and directional signing shall be designed to assure identification of all buildings and structures by emergency response personnel, as well as the general public.”

F53. Finding: This criterion is not satisfied.

Details of Finding: The address is shown on submitted building elevations or signs.

Subsection 4.175 (.03) Surveillance and Police Access

Review Criterion: “Areas vulnerable to crime shall be designed to allow surveillance. Parking and loading areas shall be designed for access by police in the course of routine patrol duties.”

F54. Finding: This criterion is satisfied.

Details of Finding: The parking and loading areas are easily assessable and no areas of particular vulnerability to crime have been identified warranting additional surveillance.

Subsection 4.175 (.04) Lighting to Discourage Crime

Review Criterion: “Exterior lighting shall be designed and oriented to discourage crime.”

F55. Finding: This criterion is satisfied.

Details of Finding: Lighting has been designed in accordance with the City’s outdoor lighting standards, which will provide sufficient lighting to discourage crime.

Subsection 4.177 (.01) B. Curbs, Utility Strips, and Sidewalks Required

Review Criterion: “All streets shall be developed with curbs, utility strips and sidewalks on both sides; or a sidewalk on one side and a bike path on the other side.”

F56. Finding: This criterion is satisfied.

Details of Finding: SW Day Conditions of Approval require the right-of-way dedication to enable full build out of SW Day Road to TSP standards.

Subsection 4.177 (.01) E. Access Drives and Travel Lanes

Review Criterion: This subsection sets standards for access drives and travel lanes.

Finding: This criterion is satisfied.

Details of Finding:

- The existing driveway at SW Day Road provides a clear travel lane, free from obstructions. The driveway may be relocated farther west to provide greater separation from future intersection improvements of SW Day Road and SW Boones Ferry Road. Ultimately the driveway should be combined with an adjacent driveway. Emergency access is proposed at SW Boones Ferry Road.
- The driveway at SW Day Road will have concrete apron and asphalt and capable of carrying a 23-ton load.
- Proposed emergency access lanes must be improved to a minimum of 12 feet and the development has been reviewed and approved by the Fire District.
- The access proposed is sufficient for the intended function of the site.

Subsection 4.177 (.01) F. Corner or Clear Vision Area

Review Criterion: “A clear vision area which meets the Public Works Standards shall be maintained on each corner of property at the intersection of any two streets, a street and a railroad or a street and a driveway. However, the following items shall be exempt from meeting this requirement:” Listed a. through e.

F57. Finding: This criterion is satisfied.

Details of Finding: Clear vision area criteria have been reviewed by Engineering Staff and are met.

SUMMARY FINDING FOR REQUEST F:

F58. The proposed Stage II Final Plan is consistent with:

- **Section 4.140.09(J)(1) Land Use.** With proposed conditions of approval the location, design, size of the project, both separately and as a whole, can be made consistent with the proposed PDI - RSIA Zone. See pages 21 and 22 of Section 2 in Exhibit B1 for the applicant’s detailed finding demonstrating compliance with the PDI-RSIA Zone.
- **Section 4.140.09(J)(2) Traffic.** The location, design, size of the project is such that traffic generated by the townhomes can be accommodated safely, and without congestion in excess of level of service (LOS) "D" defined in the highway capacity manual published by the National Highway Research Board on existing or immediately planned arterial or collector streets. Thus, there is adequate traffic capacity to serve the project which complies with Subsection 4.140.09(J)(2).
- **Section 4.140.09(J)(3) Public Facilities and Services.** The location, design, size and uses of the proposed project are such that the use to be accommodated will be adequately served by existing or immediately planned facilities and services.

REQUEST G: SITE DESIGN REVIEW

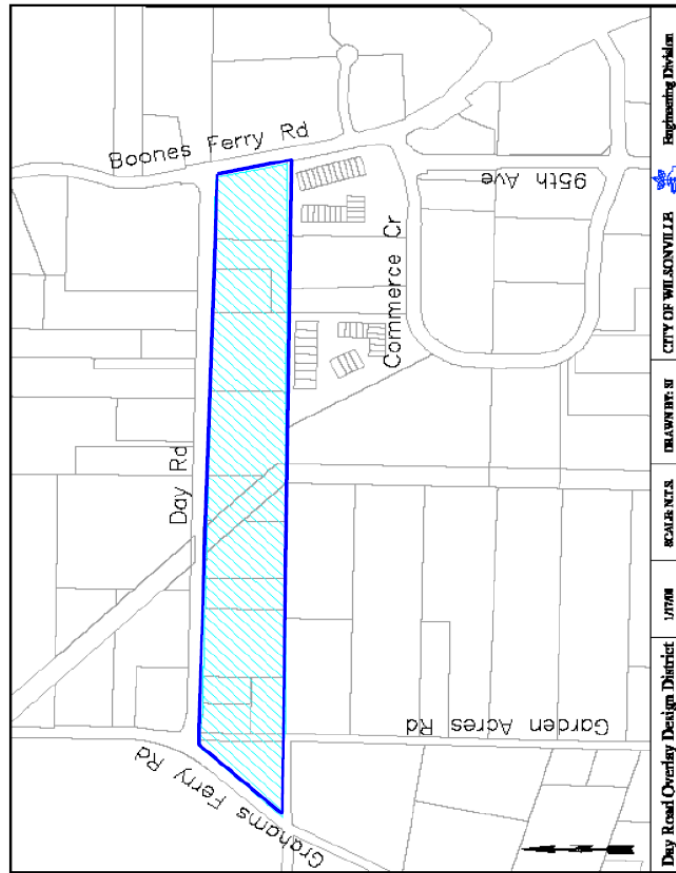


Figure D-1: Day Road Design Overlay District Area Map

Figure D-1: Day Road Overlay District Area Map

Review Criteria: Section 4.134. Day Road Design Overlay District

(.01) Purpose. The Day Road Design Overlay District (DOD) is an overlay district within the larger Planned Development Industrial - Regionally Significant Industrial Area (RSIA) Zone. It is the purpose of the Day Road DOD to establish standards for site design and exterior architecture of all structures located in the Day Road DOD in order to ensure high quality design of development and redevelopment at the Day Road gateway to the City of Wilsonville. These standards are intended to create an aesthetically pleasing aspect for properties abutting Day Road by ensuring:

- A. Coordinated design of building exteriors, additions and accessory structure exteriors
- B. Preservation of trees and natural features
- C. Minimization of adverse impacts on adjacent properties from development that detracts from the character and appearance of the area
- D. Integration of the design of signage into architectural and site design, and
- E. Minimization of the visibility of vehicular parking, circulation and loading areas. It is the intent to create improved pedestrian linkages and to provide for public transit. It is

also the intent of this section to encourage architectural design in relationship to the proposed land use, site characteristics and interior building layout.

G1. Finding: These criteria are satisfied.

Details of Finding: The Universal Health Services facility will be new building construction including associated site improvements. Professional architects, engineers, arborists and land use planners have prepared the land use application and design drawings to meet or exceed the criteria listed above.

Review Criterion: (.02) Applicability. The Day Road DOD shall apply to all properties abutting Day Road.

The provisions of this section shall apply to:

- A. All new building construction
- B. Any exterior modifications to existing, non-residential buildings
- C. All new parking lots
- D. All outdoor storage and display areas
- E. All new signage
- F. All building expansions greater than 1,250 square feet.

G2. Finding: These criteria are satisfied.

Details of Finding: The Universal Health Services facility will be new building construction including associated site improvements and new parking lots. New signs are proposed. Thus Day Road DOD is applicable to this application.

Review Criteria: (.03) Exceptions. This section does not apply to the following activities:

- A. Maintenance of the exterior of an existing industrial/employment structure such as painting to the approved color palette, reroofing, or residing with the same or similar materials
- B. Industrial/employment building expansions less than 1,250 square feet
- C. Interior remodeling
- D. Essential public facilities
- E. Existing dwellings and accessory buildings
- F. Agricultural buildings

G3. Finding: These criteria are satisfied.

Details of Finding: The Universal Health Services facility will be new building construction including site improvements so exceptions to the Day Road DOD are not proposed.

Review Criterion: (.04) Review Process.

A. Compliance with the Day Road DOD shall be reviewed as part of Stage One – Preliminary Plan, Stage Two - Final Approval and Site Design Review. Such review shall be by the Development Review Board. Building expansions less than 2500 square feet and exterior building modifications less than 2500 square feet may be reviewed under Class II Administrative procedures.

G4. Finding: This criterion is satisfied.

Details of Finding: The applicant has prepared response findings to the Day Road DOD criteria found on pages 34 through 41 of Exhibit B1. The applicant has submitted Stage I

Preliminary Plan, Stage II Final Plan and Site Design Review which are discussed in detail in requests E through F of this Staff Report.

Review Criterion: B. Waivers. Under City Code [4.118(.03)], waivers to several development standards may be approved, including waivers to height and yard requirements, and architectural design standards, provided that the proposed development is equal to or better than that proposed under the standards to be waived. For example, a height waiver might be granted on a smaller site if the façade presentation was significantly enhanced, additional landscaping or open space is provided and site modifications are necessary to preserve significant trees. Waivers to the additional front yard setback for future improvements on Day Road may not be granted. [4.134(.05)(C)(1)]

G5. Finding: This criterion is satisfied.

Details of Finding: In Request E the applicant is requesting two waivers to reduce the minimum 48 foot height limit for the subject UMS building facing SW Day Road and to reduce the percentage of glazing at SW Boones Ferry Road. See Request E of this Staff Report for the detailed discussion of the proposed waivers.

Review Criterion: (.05) Design Review Standards. The DRB shall use the standards in this section together with the standards in Sections 4.400 – 4.421 to ensure compliance with the purpose of the Day Road DOD. These standards shall apply on all Day Road frontages, and on the frontage of corner lots abutting both Day Road and either Boones Ferry Road, Kinsman Road, Garden Acres Road or Grahams Ferry Road.

G6. Finding: This criterion is satisfied.

Details of Finding: The subject property is a corner lot located at the southwest corner of SW Day Road and SW Boones Ferry Road. As demonstrated in the following staff findings and in the response findings that were prepared by the applicant in Exhibit B1 the DRB his reviewing this project together with the standards in Sections 4.400 – 4.421 to ensure compliance with the purpose of the Day Road DOD.

Review Criterion: A. Natural Features: Buildings shall be sited in compliance with WC 4.171, Protection of Natural Features and Other Resources and with WC 4.600, Tree Preservation and Protection.

G7. Finding: This criterion is satisfied.

Details of Finding: There are no significant natural features or resources on the site. The property has moderate sloping terrain with small tree groves on the west side and northeast corner of the property. Trees have been considered as part of site planning and many of the trees on the westerly side of the property are proposed to be retained. No other hillsides, power-line easements, etc. needing protection exist on the site. Request H of this staff report provides a detailed analysis of the proposed Type ‘C’ Tree Removal and Preservation Plan addressing Section 4.600WC.

Review Criterion: B. Building Location and Orientation: New buildings shall have at least one principal building entrance oriented towards the Day Road frontage. All building elevations fronting on Day Road or on the frontage on corner lots as described in (.05) above, shall have at least 20% glazing.

G8. Finding: This criterion is satisfied.

Details of Finding: Proposed is one principal door entrance at the east end of the proposed UMS building with a covered canopy. Though it does not face directly to SW Day Road it is easily identified with a canopy and plaza like approach from SW Day Road.

Review Criteria: C. Setbacks:

1. Front Yard: For public health and safety reasons, the front yard setback shall be 30' plus additional setback (15' minimum) to accommodate future improvements to Day Road.
2. Side and rear setbacks shall be 30'. Side and rear yard setbacks may be reduced from the 30' minimum setback requirement where the setback is adjacent to industrial development subject to meeting other requirements of this section and Building Code requirements.

G9. Finding: These criteria are satisfied.

Details of Finding: The front yard distance to the proposed UMS building at SW Day Road is 45 feet. The street side yard at SW Boones Ferry Road is approximately 80 feet. The rear (south) yard is 100'+ Feet. The west side is 100+ feet.

Review Criterion: D. Building Height: A minimum building height of three stories, 48' is required. On the Day Road frontage and on frontages described in (.05) above. Sites may contain a combination of taller building space abutting the identified street frontages together with 1 or 2-story lab, R&D, and/or manufacturing building space on the remainder of the site. The 1 and 2-story portions of the buildings will be designed to be compatible with the taller structure's design, building materials and colors. Increased building height is encouraged, particularly in combination with site amenities such as under-structure parking, preservation of significant trees rated good or better in the arborist's report, and/or provision of trail segments or of open space areas open to the public.

G10. Finding: This criterion is satisfied.

Details of Finding: In the findings in Request E and the applicants findings in Exhibit B1 regarding a waiver to the Day Road Overlay District minimum 48 foot building height to allow 38.4' on one portion of the building and dropping down to 28.4' on the remainder building measured to the top of parapet walls.

Sites may contain a combination of taller building space abutting the SW Boones Ferry Road (Gymnasium) together with 1-story lab and building space on the remainder of the site. The 1-story portion of the building is designed to be compatible with the taller structure's design, building materials and colors. The applicant is proposing site amenities; hard-scape plaza, art sculpture, preservation of significant trees at the northeast corner of the property at SW Day Road and SW Boones Ferry Road.

Review Criterion: E. Building Design:

1. Buildings shall be planned and designed to incorporate green building techniques wherever possible.

G11. Finding: This criterion is satisfied.

Details of Finding: Green building techniques include lighter color roofing to reflect solar heat from the building, extra window glazing for greater R value, solar access at south building elevation and energy efficient HVAC system.

Review Criteria: 2. Exterior Building Design: Buildings with exterior walls greater than 50 feet in horizontal length shall be constructed using a combination of architectural features and a variety of building materials and landscaping near the walls. Walls that can be viewed from public streets or public spaces shall be designed using architectural features for at least 60% of the wall. Other walls shall incorporate architectural features and landscaping for at least 30% of the wall. Possible techniques include:

- a. Vary the planes of the exterior walls in depth and/or direction.
- b. Vary the height of the building, so that it appears to be divided into distinct massing elements.
- c. Articulate the different parts of a building's facade by use of color, arrangement of facade elements, or a change in materials.
- d. Avoid blank walls at the ground-floor levels. Utilize windows, trellises, wall articulation, arcades, change in materials—textured and/or colored block or similar finished surface, landscape, or other features to lessen the impact of an otherwise bulky building.
- e. Define entries within the architecture of the building.
- f. Incorporate, if at all possible, some of the key architectural elements used in the front of the building into rear and side elevations where seen from a main street or residential district.

G12. Finding: These criteria are satisfied.

Details of Finding:

- a. The planes of the proposed exterior walls have depth and/or direction are varied by recessing the center of the dining portion of the building.
- b. The height of the proposed UHS building is divided into two distinct massing elements; 1-story and 2-story.
- c. The proposed building architecture articulates the different parts of a building's facade by use of brick veneer (blends in brick color), arrangement of facade elements, or change in materials from brick veneer to horizontal cedar siding.
- d. To the greatest extent possible the proposed building architecture has avoided blank walls at the ground-floor levels. Large windows will be utilized, wall articulation is proposed, there will be change in materials—blends in brick color, attractive landscaping, and art/sculpture to lessen the impact of an otherwise bulky building.
- e. The proposed primary building entrance will have a substantial structural canopy which would clearly define the entrance of the architecture of the building.
- f. It is not entirely possible to incorporate some of the key architectural elements used on the front of the building facing SW Day Road from what would be viewed from the street side yard at SW Boones Ferry Road. The proposed UHS building has different functions in the north portion of the building facing SW Day Road including administrative, dining gymnasium and support services where the project architect has more architectural freedom with building massing and fenestration. The southerly portion of the building has nursing units and patient beds in a 1-story building layout having much smaller windows for privacy and security reasons.

Review Criterion: 3. Building Color: All colors shall be harmonious and compatible with colors of other structures in the development and the natural surroundings. Concrete finishes must be painted. The general overall atmosphere of color must be natural tones.

Stained wood, natural stone, brick, dark aluminum finishes, etc. shall be used as background colors. The use of corporate colors is permitted provided that such colors are not patterned so as to compete for visual attention. The use of corporate colors shall not create an advertisement of the building itself. Corporate colors shall not violate any other color or design limitations within the Code.

G13. Finding: This criterion is satisfied.

Details of Finding: The proposed brick veneer will have ranges of brick color, stained horizontal cedar siding between floors at window storefronts, painted cement board siding and painted window surrounds. The colors are earth tone and would be harmonious with the natural surroundings comprising of existing trees that will be saved. Corporate colors are not proposed.

Review Criteria: 4. Building façade articulation: Both vertical and horizontal articulation is required. If a building is at a corner, all facades must meet the requirement. Incorporation of several of the techniques is the preferred option. The purpose is not to create a standard rigid solution but rather to break up the mass in creative ways.

a. Horizontal articulation: Horizontal facades shall be articulated into smaller units. Appropriate methods of horizontal façade articulation include two or more of the following elements:

- i. change of façade materials
 - ii. change of color
 - iii. façade planes that are vertical in proportion
 - iv. bays and recesses, breaks in roof elevation, or other methods as approved
- Building facades shall incorporate design features such as offsets, projections, reveals, and/or similar elements to preclude large expanses of uninterrupted building surfaces. Articulation shall extend to the roof.

G14. Finding: These criteria are satisfied.

Details of Finding:

- i. The proposed UHS building will have variety of exterior building materials including concrete masonry units, brick veneer, cedar, cement panels and window glazing.
- ii. The proposed brick veneer will have ranges of brick color, stained horizontal cedar siding between floors at window storefronts, painted cement board siding and painted window surrounds.
- iii. The proposed façade planes (walls and store front windows) are rectangular and vertical in proportion.
- iv. The proposed wall planes are made up of undulating building shapes of various sizes at all elevations. Those forms have breaks in 1-story and 2-story roof elevations. Other methods of building facades include design features such as a main entry canopy and reveals.

Review Criteria: b. Vertical Facade Articulation: The purpose is to provide articulation, interest in design and human scale to the façade of buildings through a variety of building techniques. Multi-story buildings shall express a division between base and top. Appropriate methods of vertical façade articulation for all buildings include two or more of the following elements:

- i. Change of material.
- ii. Change of color, texture, or pattern of similar materials.
- iii. Change of structural expression (for example, pilasters with storefronts spanning between at the base and punched openings above)
- iv. Belt course
- v. The division between base and top shall occur at or near the floor level of programmatic division.
- vi. Base design shall incorporate design features such as recessed entries, shielded lighting, and/or similar elements to preclude long expanses of undistinguished ground level use
- vii. Differentiation of a building's base shall extend to a building's corners but may vary in height

G15. Finding: These criteria are satisfied.

Details of Finding:

b. Vertical Facade Articulation: The purpose is to provide articulation, interest in design and human scale to the façade of buildings through a variety of building techniques. Multi-story buildings shall express a division between base and top. Appropriate methods of vertical façade articulation for all buildings include two or more of the following elements:

- i. The proposed UHS building will have variety of exterior building materials including concrete masonry units, brick veneer, cedar, cement panels and window glazing.
- ii. The proposed brick veneer will have ranges of brick colors, stained horizontal cedar siding between floors at window storefronts, painted cement board siding and painted window surrounds.
- iii. The change of structural expression is accomplished by strong vertical walls in brick veneer flanking large rectangular window store fronts. horizontal cedar siding between floors at window storefronts
- iv. The base or belt course of the proposed UHS building will be concrete masonry units.
- v. The proposed UMS building is proposed at 2 stories and not a multi-story building that would have a division between base and top at or near the floor level of programmatic division.
- vi. The proposed UHS building base design incorporates design features such as a canopy entry, shielded lighting, horizontal and vertical articulation to preclude long expanses of undistinguished ground level use.
- vii. The proposed UHS building has differentiation of a building's base sand it extends to a building's corners but may vary in height.

Review Criteria: 5. Building Materials:

a. No less than 50% of the exterior exposed walls of any new building, or any expansion over 1,250 square feet, shall be constructed of noncombustible, non-degradable and low maintenance construction materials such as face brick, architectural or decorative block, natural stone, specially designed pre-cast concrete panels, concrete masonry units, concrete tilt panels, or other similar materials. Metal roofs may be allowed if compatible with the overall architectural design of the building. Where an elevation of the building is not

currently, or will not likely in the future, be exposed to public view, the above standard does not apply.

b. Accessory structures visible to the public shall be constructed of materials similar to or the same as the principal building(s) on the site.

G16. Finding: These criteria are satisfied.

Details of Finding:

a. More than 50% of the exterior exposed walls of the proposed UHS building will be constructed of noncombustible brick veneer, cement concrete panels and window glazing which are non-degradable and low maintenance construction materials.

b. Accessory structures are not proposed.

Review Criteria: 6. Roof Design:

a. Roofs shall be designed to reduce the apparent exterior mass of a building, add visual interest and be appropriate for the architectural design of the building. Variations within an architectural style are highly encouraged. Visible rooflines and roofs that project over the exterior wall of buildings, and especially over entrances, are highly encouraged.

b. Mechanical Equipment and Service Areas: Mechanical equipment and service areas shall be screened from adjacent properties, from Day Road and on Day Road corner properties abutting SW Boones Ferry Road, Kinsman Road, Garden Acres Road and Grahams Ferry Road. The architectural design of the building shall incorporate design features which screen, contain and conceal all heating, ventilation, air conditioning units, trash enclosures, dumpsters, loading docks and service yards. Such screening shall blend visually with the related structure.

G17. Finding: These criteria are satisfied.

Details of Finding: The UHS roofs are designed to hidden behind moderate to high parapet walls intended to reduce the apparent exterior mass of a building, add a taller building appearance visual interest and be appropriate for the architectural design of the building. There are variations of 1 story and 2 story building heights within. There will be a visible canopy roofline that would project over the exterior wall of building, and especially over the primary building entrance.

b. Mechanical Equipment and Service Areas: Mechanical equipment and service areas will be screened by parapet walls and HVAC fence screening from adjacent properties, from SW Day Road and SW Boones Ferry Road. Such screening must blend visually with the related structure.

Review Criteria: 7. Pedestrian Walkways:

a. A continuous pedestrian walkway shall be provided from the primary entrance to the sidewalk along Day Road for access to building entrances and to transit facilities.

b. Walkways from parking areas to building entrances shall be at least six (6) feet in width, and shall be separated from moving vehicles. Walkways shall be distinguished from vehicular areas through the use of special pavers, bricks, scored concrete or similar materials providing a clear demarcation between pedestrian and vehicular traffic.

c. Buildings shall be connected with onsite walkways at least six (6) feet in width.

G18. Finding: These criteria are satisfied.

Details of Finding: The applicant is proposing pedestrian access from the existing sidewalk at SW Day Road. Proposed is a walkway from parking areas to the westerly primary building entrance. It will be separated from moving vehicles. The walkway will be distinguished from vehicular areas through the use of scored concrete providing a clear demarcation between pedestrian and vehicular traffic.

Review Criterion: 8. Community Amenities: Community amenities such as patio seating, water features, art work or sculpture, clock towers, pedestrian plazas with park benches, connections to area trails, parks and open spaces, and similar amenities are strongly encouraged.

G19. Finding: This criterion is satisfied.

Details of Finding: The proposed development will be on private property and the nature of the use is a behavioral health facility with adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women's programs, substance abuse treatment, behavioral pain management, as well as outpatient services. Thus UHS has high degree of privacy and security protocol to not have unlimited access by the general public. However, the applicant is proposing direct pedestrian access at SW Day Road and from the parking lot to the primary entrance at the west side of the building. At that entrance there will be a court yard with bench seating. Also proposed is a sculpture at the northeast corner of the project site facing the intersection of SW Day Road and SW Boones Ferry Road.

Review Criterion: 9. Lighting and Flag Poles: All lighting shall be shielded and directed interior to the site, including parking lot lighting. Lighting shall not spill over onto adjacent properties. Light poles, light fixtures and flagpoles shall conform to the City's Outdoor Lighting Standards. Flagpoles shall not exceed 40' in height.

G20. Finding: This criterion is satisfied.

Details of Finding: The project site is within Lighting Zone 2 (LZ2) and the proposed outdoor lighting systems are reviewed under the standards of this lighting zone. See the applicant's detailed analysis for exterior lighting in Exhibit B1.

Review Criterion: 10. Signage: Signage shall include a monument sign on the Day Road frontage identifying the industrial/business park and buildings therein. Each building may have wall signage, and such other directional and informational signage as allowed by WC 4.156.05, 4.156.08, and 4.156.09. Pole signs are prohibited. The design of signage must be integrated into the overall architectural and site design for the project.

G21. Finding: This criterion is satisfied.

Details of Finding: See Request I for the detailed analysis of the proposed signs.

Review Criterion: 11. Parking: Employee parking shall be located at the rear of the building, or in courtyard parking areas between buildings. If no other option is available due to site limitations, then employee parking may be located to the side of buildings. Time and number limited visitor parking is allowed at the front of the building. Within a Stage I master plan, employee parking may be combined in a shared facility or facilities with mutual use agreements. Any parking areas visible from Day Road shall be screened from view with broadleaf evergreen or coniferous shrubbery and/or architectural walls or berms.

G22. Finding: This criterion is satisfied.

Details of Finding: Proposed parking would be located at the west side and south sides (rear) of the proposed UHS building which would be partially visible from SW Day Road and SW Boones Ferry Road.

Review Criterion: (.06) Infill construction. The following general rules shall be followed when constructing a new building adjacent to existing industrial/employment buildings built under the Day Road DOD. Adjacent includes buildings north of Day Road built under the Day Road DOD.

G23. Finding: This criterion is not applicable.

Details of Finding: The proposed UHS building is the first site development project to be reviewed under the Day Road DOD design standards so it is not an infill project. Thus, this criterion is not applicable.

Landscaping

Subsection 4.176 (.02) B. Landscape Standards and Compliance with Code

Review Criterion: “All landscaping and screening required by this Code must comply with all of the provisions of this Section, unless specifically waived or granted a Variance as otherwise provided in the Code. The landscaping standards are minimum requirements; higher standards can be substituted as long as fence and vegetation-height limitations are met. Where the standards set a minimum based on square footage or linear footage, they shall be interpreted as applying to each complete or partial increment of area or length”

G24. Finding: This criterion is satisfied.

Details of Finding: The project landscape architect, Walker/Macy, is highly regarded for their landscape designs that respond to the natural environment. Key to this project is to have attractive landscaping along SW Day Road which requires the most attention. Proposed are a variety of narrow bands of ground covers, sedges and shrubs. Retained trees are incorporated into the landscape plan. As shown in their submitted landscape plans (Plan Sheets L-100 and L-101 of Exhibit B1). No waivers or variances to landscape standards have been requested. Thus all landscaping and screening must comply with standards of this section.

Subsections 4.176 (.02) C. through I. Landscape Standards-Intent and Required Materials

Review Criterion: These subsections identify the various landscaping standards, including the intent of where they should be applied, and the required materials.

G25. Finding: This criterion is satisfied.

Details of Finding: The minimum or higher standard has been applied throughout different landscape areas of the site and landscape materials are proposed to meet each standard in the different areas. Site Design Review is being reviewed concurrently with the Stage II Final Plan which includes a thorough analysis of the functional application of the landscaping standards.

Subsection 4.176 (.03) Landscape Area and Locations

Review Criteria: “Not less than fifteen percent (15%) of the total lot area, shall be landscaped with vegetative plant materials. The ten percent (10%) parking area landscaping required by section 4.155.03(B)(1) is included in the fifteen percent (15%) total lot landscaping requirement. Landscaping shall be located in at least three separate and distinct areas of the lot, one of which must be in the contiguous frontage area. Planting areas shall be encouraged adjacent to structures. Landscaping shall be used to define, soften or screen the appearance of buildings and off-street parking areas. Materials to be installed shall achieve a balance between various plant forms, textures, and heights. The installation of native plant materials shall be used whenever practicable.”

G26. Finding: These criteria are satisfied.

Details of Finding: Consistent with the proposed Stage II Final Plan for the site, applicant’s Plan Sheets L-100 and L-101 in Exhibit J of Exhibit B1 indicates new landscaping will cover 39% and undisturbed native area at 17% of the site. Landscaping is proposed in a variety of different areas. Planting areas are provided around the proposed building. A wide variety of plants have been proposed to achieve a professional design. The design includes consideration of using native plants and trees, including use of Western sword fern, Vine Maple, Western red cedar and Douglas-fir.

Subsection 4.176 (.04) Buffering and Screening

Review Criteria: “Additional to the standards of this subsection, the requirements of the Section 4.137.5 (Screening and Buffering Overlay Zone) shall also be applied, where applicable.

- A. All intensive or higher density developments shall be screened and buffered from less intense or lower density developments.
- B. Activity areas on commercial and industrial sites shall be buffered and screened from adjacent residential areas. Multi-family developments shall be screened and buffered from single-family areas.
- C. All exterior, roof and ground mounted, mechanical and utility equipment shall be screened from ground level off-site view from adjacent streets or properties.
- D. All outdoor storage areas shall be screened from public view, unless visible storage has been approved for the site by the Development Review Board or Planning Director acting on a development permit.
- E. In all cases other than for industrial uses in industrial zones, landscaping shall be designed to screen loading areas and docks, and truck parking.
- F. In any zone any fence over six (6) feet high measured from soil surface at the outside of fence-line shall require Development Review Board approval.”

G27. Finding: These criteria are satisfied.

Details of Finding: The project site is not adjacent to residential areas. All exterior, roof and ground mounted, mechanical and utility equipment will be screened from ground level off-site view from adjacent streets or properties. The proposed back-up generators will be in a building attached to the main UHS building. Consistent with the proposed Stage II Final Plan, adequate screening is proposed.

Subsection 4.176 (.06) A. Plant Materials-Shrubs and Groundcover

Review Criteria: This subsection establishes plant material and planting requirements for shrubs and ground cover.

Finding: This criterion is satisfied.

Details of Finding: The condition of approval requires that the detailed requirements of this subsection are met.

Subsection 4.176 (.06) B. Plant Materials-Trees

Review Criteria: This subsection establishes plant material requirements for trees.

G28. Finding: This criterion is satisfied.

Details of Finding: The plants material requirements for trees will be met as follows:

- The applicant’s planting plan (Plan Sheets L-101 of Exhibit B1) shows all trees as B&B (Balled and Burlapped)
- Plant materials installed will conform in size and grade to “American Standard for Nursery Stock” current edition.”
- The applicant’s planting plan lists tree sizes meeting requirements.

Subsection 4.176 (.06) C. Plant Materials-Large Buildings

Review Criterion: “Where a proposed development includes buildings larger than twenty-four (24) feet in height or greater than 50,000 square feet in footprint area, the Development Review Board may require larger or more mature plant materials:” Listed 1.-3.

G29. Finding: This criterion is satisfied.

Details of Finding: Appropriate plant materials are provided for the development no requirements for larger or more mature trees are recommended.

Subsection 4.176 (.06) D. Plant Materials-Street Trees

Review Criterion: This subsection establishes plant material requirements for street trees.

G30. Finding: This criterion is satisfied.

Details of Finding: SW Day Road: Street trees were planted with the reconstruction of SW Day Road when Coffee Creek Prison was built. They are planted within five (5) planting strip. SW Boones Ferry Road: 3” minimum caliper streets trees are required for arterial streets. SW Boones Ferry Road is a major arterial. In the event the overhead electric power lines along the frontage of the project site in SW Boones Ferry Road are installed underground as part of the City Public Works Permit, the Applicant/Owner shall plant 3” caliper, deciduous street trees. See Condition PDG 8.

Subsection 4.176 (.06) E. Types of Plant Species

Review Criterion: This subsection discusses use of existing landscaping or native vegetation, selection of plant materials, and prohibited plant materials.

G31. Finding: This criterion is satisfied.

Details of Finding: The applicant has provided sufficient information in their landscape plan (Plan Sheets L-100 and L-101) showing the proposed landscape design meets the standards of this subsection.

Subsection 4.176 (.06) F. Tree Credit

Review Criteria: “Existing trees that are in good health as certified by an arborist and are not disturbed during construction may count for landscaping tree credit as follows:

Existing trunk diameter	Number of Tree Credits
18 to 24 inches in diameter	3 tree credits
25 to 31 inches in diameter	4 tree credits
32 inches or greater	5 tree credits:”

Maintenance requirements listed 1. through 2.

G32. Finding: These criteria are satisfied.

Details of Finding: The applicant is not requesting any of preserved trees be counted as tree credits pursuant to this subsection.

Subsection 4.176 (.06) G. Exceeding Plant Material Standards

Review Criterion: “Landscape materials that exceed the minimum standards of this Section are encouraged, provided that height and vision clearance requirements are met.”

G33. Finding: This criterion is satisfied.

Details of Finding: The selected landscape materials do not violate any height or visions clearance requirements.

Subsection 4.176 (.07) Installation and Maintenance of Landscaping

Review Criterion: This subsection establishes installation and maintenance standards for landscaping.

G34. Finding: This criterion is satisfied.

Details of Finding: The installation and maintenance standards are or will be met as follows:

- Plant materials are required to be installed to current industry standards and be properly staked to ensure survival
- Plants that die are required to be replaced in kind, within one growing season, unless appropriate substitute species are approved by the City.
- Note 3 on the applicant’s Plan Sheet L-101 states plants will be irrigated by an automatic, underground system.

Subsection 4.176 (.09) Landscape Plans

Review Criterion: “Landscape plans shall be submitted showing all existing and proposed landscape areas. Plans must be drawn to scale and show the type, installation size, number and placement of materials. Plans shall include a plant material list. Plants are to be

identified by both their scientific and common names. The condition of any existing plants and the proposed method of irrigation are also to be indicated.”

G35. Finding: This criterion is satisfied.

Details of Finding: Applicant’s Plan Sheets L-100 and L-101 provides the required information.

Subsection 4.176 (.10) Completion of Landscaping

Review Criterion: “The installation of plant materials may be deferred for a period of time specified by the Board or Planning Director acting on an application, in order to avoid hot summer or cold winter periods, or in response to water shortages. In these cases, a temporary permit shall be issued, following the same procedures specified in subsection (.07)(C)(3), above, regarding temporary irrigation systems. No final Certificate of Occupancy shall be granted until an adequate bond or other security is posted for the completion of the landscaping, and the City is given written authorization to enter the property and install the required landscaping, in the event that the required landscaping has not been installed. The form of such written authorization shall be submitted to the City Attorney for review.”

G36. Finding: This criterion is satisfied.

Details of Finding: The applicant has not requested to defer installation of plant materials.

Section 4.179 Mixed Solid Waste and Recyclables Storage

Review Criterion: This section establishes standards for mixed solid waste and recyclables storage in new multi-family residential and non-residential buildings.

G37. Finding: This criterion is satisfied.

Details of Finding: The required storage area is shown on the Site Plan Exhibit I and the building plan in Exhibit H of Exhibit B1. The standard required for the facility is 258 sq. ft. The site will provide 895 sq. ft.

Outdoor Lighting

Sections 4.199.20 and 4.199.60 Applicability of Outdoor Lighting Standards and Major Additions

Review Criterion: Section 4.199.20 states that the outdoor lighting ordinance is applicable to “Installation of new exterior lighting systems in public facility, commercial, industrial and multi-family housing projects with common areas” and “Major additions or modifications (as defined in this Section) to existing exterior lighting systems in public facility, commercial, industrial and multi-family housing projects with common areas.” In addition the exempt luminaires and lighting systems are listed. Section 4.199.60 identifies the threshold for major additions.

G38. Finding: This criterion is satisfied.

Details of Finding: A new exterior lighting system is being installed for a new development. The Outdoor Lighting standards are thus applicable.

Section 4.199.30 Outdoor Lighting Zones

Review Criterion: “The designated Lighting Zone as indicated on the Lighting Overlay Zone Map for a commercial, industrial, multi-family or public facility parcel or project shall determine the limitations for lighting systems and fixtures as specified in this Ordinance.”

G39. Finding: This criterion is satisfied.

Details of Finding: The project site is within LZ2 and the proposed outdoor lighting systems are reviewed under the standards of this lighting zone.

Subsection 4.199.40 (.01) A. Performance or Prescriptive Option for Compliance

Review Criteria: “All outdoor lighting shall comply with either the Prescriptive Option or the Performance Option.

G40. Finding: These criteria are satisfied.

Details of Finding: The applicant has elected to comply with the Performance Option and is demonstrated in the lighting plans shown in Exhibit K of Exhibit B1.

Subsection 4.199.40 (.02) D. Lighting Curfew

Review Criteria: “All prescriptive or performance based exterior lighting systems shall be controlled by automatic device(s) or system(s) that:

1. Initiate operation at dusk and either extinguish lighting one hour after close or at the curfew times according to Table 10; or
2. Reduce lighting intensity one hour after close or at the curfew time to not more than 50% of the requirements set forth in the Oregon Energy Efficiency Specialty Code unless waived by the DRB due to special circumstances; and
3. Extinguish or reduce lighting consistent with 1. and 2. above on Holidays.

The following are exceptions to curfew:

- a. Exception 1: Building Code required lighting.
- b. Exception 2: Lighting for pedestrian ramps, steps and stairs.
- c. Exception 3: Businesses that operate continuously or periodically after curfew.

G41. Finding: These criteria are satisfied or will be satisfied by Condition of Approval PDG7.

Details of Finding: The applicant did not state that the lighting will be controlled by an automatic device to reduce lighting to not more than 50% of the requirements set forth in the Oregon Energy Efficiency Specialty Code.

Sections 4.199.40 4.199.50 Outdoor Lighting Standards Submittal Requirements

Review Criteria: These sections identify the Outdoor Lighting Standards for Approval and Submittal Requirements.

G42. Finding: These criteria are satisfied.

Details of Finding: The applicant has provided the necessary information consistent with this section.

Site Design Review

Subsections 4.400 (.01) and 4.421 (.03) Excessive Uniformity, Inappropriateness of Design, Etc.

Review Criteria: “The Board shall also be guided by the purpose of Section 4.400, and such objectives shall serve as additional criteria and standards.” “Excessive uniformity, inappropriateness or poor design of the exterior appearance of structures and signs and the lack of proper attention to site development and landscaping in the business, commercial, industrial and certain residential areas of the City hinders the harmonious development of the City, impairs the desirability of residence, investment or occupation in the City, limits the opportunity to attain the optimum use in value and improvements, adversely affects the stability and value of property, produces degeneration of property in such areas and with attendant deterioration of conditions affecting the peace, health and welfare, and destroys a proper relationship between the taxable value of property and the cost of municipal services therefor.”

G43. Finding: These criteria are satisfied.

Explanation of Finding:

Excessive Uniformity: A variety of signs are proposed which do not create excessive uniformity.

Inappropriate or Poor Design of Signs: Signs are typical of the type of development proposed found to be appropriate throughout the City.

Lack of Proper Attention to Site Development: The appropriate professional services have been used to design the site in relation to signs

Lack of Proper Attention to Landscaping: Appropriate landscaping is placed around freestanding and monument signs.

Subsections 4.400 (.02) and 4.421 (.03) Purposes of Objectives of Site Design Review

Review Criteria: “The Board shall also be guided by the purpose of Section 4.400, and such objectives shall serve as additional criteria and standards.” “The City Council declares that the purposes and objectives of site development requirements and the site design review procedure are to:” Listed A through J. including D. which reads “Conserve the City's natural beauty and visual character and charm by assuring that structures, signs and other improvements are properly related to their sites, and to surrounding sites and structures, with due regard to the aesthetic qualities of the natural terrain and landscaping, and that proper attention is given to exterior appearances of structures, signs and other improvements;”

G44. Finding: These criteria are satisfied.

Explanation of Finding: It is staff’s professional opinion that the signs comply with the purposes and objectives of site design review, especially objective D. which specifically mentions signs. The proposed signs are of a scale and design appropriately related to the subject site and the appropriate amount of attention has been given to visual appearance.

Subsection 4.421 (.01) Site Design Review-Design Standards

Review Criteria: This subsection lists the design standards for Site Design Review. Listed A through G is applicable to this application.

G45. Finding: These criteria are satisfied.

Explanation of Finding: There is no indication that the size, location, design, lighting or material of the proposed building would detract from the design of the building and the surrounding properties.

Subsection 4.421 (.02) Applicability of Design Standards to Signs

Review Criteria: “The standards of review outlined in Sections (a) through (g) above shall also apply to all accessory buildings, structures, exterior signs and other site features, however related to the major buildings or structures.”

G46. Finding: These criteria are satisfied.

Explanation of Finding: Design standards have been applied to exterior signs, as applicable.

Subsection 4.421 (.05) Site Design Review-Conditions of Approval

Review Criterion: “The Board may attach certain development or use conditions in granting an approval that are determined necessary to insure the proper and efficient functioning of the development, consistent with the intent of the Comprehensive Plan, allowed densities and the requirements of this Code.”

G47. Finding: This criterion is satisfied.

Explanation of Finding: No additional conditions of approval are recommended to ensure the proper and efficient functioning of the development in relation to signs.

Subsection 4.421 (.06) Color or Materials Requirements

Review Criterion: “The Board or Planning Director may require that certain paints or colors of materials be used in approving applications. Such requirements shall only be applied when site development or other land use applications are being reviewed by the City.”

G48. Finding: This criterion is satisfied.

Explanation of Finding: Staff does not recommend any additional requirements for materials or colors for the proposed signs.

Section 4.430 Design of Trash and Recycling Enclosures

Review Criteria: “The following locations, design and access standards for mixed solid waste and recycling storage areas shall be applicable to the requirements of Section 4.179 of the Wilsonville City Code.” Listed (.02) A. through (.04) C.

G49. Finding: These criteria are satisfied.

Details of Finding: Sheet A002 of Exhibit B1 shows an enclosure meeting all the standards listed in this Section. The enclosure has also been approved by the franchise solid waste hauler. See Exhibit B3.

Section 4.440 Site Design Review-Procedures

Review Criteria: “A prospective applicant for a building or other permit who is subject to site design review shall submit to the Planning Department, in addition to the requirements of Section 4.035, the following:” Listed A through F.

G50. Finding: These criteria are satisfied.

Explanation of Finding: The applicant has submitted a sign plan as required by this section.

Site Design Review

Subsection 4.400 (.01) and Subsection 4.421 (.03) Excessive Uniformity, Inappropriateness of Design, Etc.

Review Criteria: “The Board shall also be guided by the purpose of Section 4.400, and such objectives shall serve as additional criteria and standards.” “Excessive uniformity, inappropriateness or poor design of the exterior appearance of structures and signs and the lack of proper attention to site development and landscaping in the business, commercial, industrial and certain residential areas of the City hinders the harmonious development of the City, impairs the desirability of residence, investment or occupation in the City, limits the opportunity to attain the optimum use in value and improvements, adversely affects the stability and value of property, produces degeneration of property in such areas and with attendant deterioration of conditions affecting the peace, health and welfare, and destroys a proper relationship between the taxable value of property and the cost of municipal services therefor.”

G51. Finding: These criteria are satisfied.

Explanation of Finding: Staff summarizes the compliance with this subsection as follows:
Excessive Uniformity: The UHS building has architectural form to match the Day Road Design Overlay District (DOD) design standards.

Inappropriate or Poor Design of the Exterior Appearance of Structures: The proposed UHS building is professionally designed with attention given meeting the Day Road Design Overlay District (DOD) design standards and building a quality building.

Inappropriate or Poor Design of Signs: Signs have been professionally designed, and has found in Request I, meet the standards for design in relation to architecture and landscaping on the site.

Lack of Proper Attention to Site Development: The appropriate professional services have been used to design the site incorporating unique features of the site including site size and shape and available access, demonstrating appropriate attention being given to site development.

Lack of Proper Attention to Landscaping: Landscaping is provided exceeding the area requirements, has been professionally designed by a landscape architect, and includes a

variety of plant materials, all demonstrating appropriate attention being given to landscaping.

Subsection 4.400 (.02) and Subsection 4.421 (.03) Purposes of Objectives of Site Design Review

Review Criteria: “The Board shall also be guided by the purpose of Section 4.400, and such objectives shall serve as additional criteria and standards.” “The City Council declares that the purposes and objectives of site development requirements and the site design review procedure are to:” Listed A through J.

G52. Finding: These criteria are satisfied.

Explanation of Finding: The applicant has demonstrated compliance with the listed purposes and objectives. In short, the proposal provides a high quality design appropriate for the site and its location in Wilsonville, including meeting the Day Road Design Overlay District (DOD) design standards.

Section 4.420 Site Design Review-Jurisdiction and Power of the Board

Review Criterion: The section states the jurisdiction and power of the Development Review Board in relation to site design review including the application of the section, that development is required in accord with plans, and variance information.

G53. Finding: This criterion is satisfied.

Details of Finding: A condition of approval has been included to ensure construction, site development, and landscaping are carried out in substantial accord with the Development Review Board approved plans, drawings, sketches, and other documents. No building permits will be granted prior to development review board approval. No variances are requested from site development requirements.

Subsection 4.421 (.01) Site Design Review-Design Standards

Review Criteria: “The following standards shall be utilized by the Board in reviewing the plans, drawings, sketches and other documents required for Site Design Review. These standards are intended to provide a frame of reference for the applicant in the development of site and building plans as well as a method of review for the Board. These standards shall not be regarded as inflexible requirements. They are not intended to discourage creativity, invention and innovation. The specifications of one or more particular architectural styles is not included in these standards.”

G54. Finding: These criteria are satisfied.

Details of Finding: The applicant has provided sufficient information demonstrating compliance with the standards of this subsection. Among the information provided is a written response to these standards in the applicant’s notebook, Exhibit B1.

Subsection 4.421 (.02) Applicability of Design Standards to Various Site Features

Review Criteria: “The standards of review outlined in Sections (a) through (g) above shall also apply to all accessory buildings, structures, exterior signs and other site features, however related to the major buildings or structures.”

G55. Finding: These criteria are satisfied.

Details of Finding: Design standards have been applied to the UHS building and other site features.

Subsection 4.421 (.03) Objectives of Section 4.400 Serve as Additional Criteria and Standards

Review Criterion: “The Board shall also be guided by the purpose of Section 4.400, and such objectives shall serve as additional criteria and standards.”

G56. Finding: This criterion is satisfied.

Details of Finding: The purposes and objectives in Section 4.400 are being used as additional criteria and standards.

Subsection 4.421 (.05) Site Design Review-Conditions of Approval

Review Criterion: “The Board may attach certain development or use conditions in granting an approval that are determined necessary to insure the proper and efficient functioning of the development, consistent with the intent of the Comprehensive Plan, allowed densities and the requirements of this Code.”

G57. Finding: This criterion is satisfied.

Details of Finding: No additional conditions of approval are recommended to ensure the proper and efficient functioning of the development.

Subsection 4.421 (.06) Color or Materials Requirements

Review Criterion: “The Board or Planning Director may require that certain paints or colors of materials be used in approving applications. Such requirements shall only be applied when site development or other land use applications are being reviewed by the City.”

G58. Finding: This criterion is satisfied.

Details of Finding: It is the professional opinion of staff that the proposed coloring is appropriate for the proposed UHS building and no additional requirements are necessary.

Section 4.430 Design of Trash and Recycling Enclosures

Review Criteria: “The following locations, design and access standards for mixed solid waste and recycling storage areas shall be applicable to the requirements of Section 4.179 of the Wilsonville City Code.” Listed (.02) A. through (.04) C.

G59. Finding: These criteria are satisfied.

Details of Finding: Trash and mixed solid waste will be inside the building next to a loading area meeting with all the standards listed in this Section and approved by the franchise solid waste hauler.

Section 4.440 Site Design Review-Procedures

Review Criteria: “A prospective applicant for a building or other permit who is subject to site design review shall submit to the Planning Department, in addition to the requirements of Section 4.035, the following:” Listed A through F.

G60. Finding: These criteria are satisfied.

Details of Finding: The applicant has submitted the required additional materials, as applicable.

Section 4.442 Time Limit on Approval

Review Criterion: “Site design review approval shall be void after two (2) years unless a building permit has been issued and substantial development pursuant thereto has taken place; or an extension is granted by motion of the Board.

G61. Finding: This criterion is satisfied.

Details of Finding: The applicant has indicated that they will pursue development within two (2) years and it is understood that the approval will expire after 2 years if a building permit hasn’t been issued unless an extension has been granted by the board.

Subsection 4.450 (.01) Landscape Installation or Bonding

Review Criterion: “All landscaping required by this section and approved by the Board shall be installed prior to issuance of occupancy permits, unless security equal to one hundred and ten percent (110%) of the cost of the landscaping as determined by the Planning Director is filed with the City assuring such installation within six (6) months of occupancy. "Security" is cash, certified check, time certificates of deposit, assignment of a savings account or such other assurance of completion as shall meet with the approval of the City Attorney. In such cases the developer shall also provide written authorization, to the satisfaction of the City Attorney, for the City or its designees to enter the property and complete the landscaping as approved. If the installation of the landscaping is not completed within the six-month period, or within an extension of time authorized by the Board, the security may be used by the City to complete the installation. Upon completion of the installation, any portion of the remaining security deposited with the City shall be returned to the applicant.”

G62. Finding: This criterion can be satisfied.

Details of Finding: The condition of approval will assure installation or appropriate security at the time occupancy is requested.

Subsection 4.450 (.02) Approved Landscape Plan Binding

Review Criterion: “Action by the City approving a proposed landscape plan shall be binding upon the applicant. Substitution of plant materials, irrigation systems, or other aspects of an approved landscape plan shall not be made without official action of the Planning Director or Development Review Board, as specified in this Code.”

G63. Finding: This criterion will be satisfied.

Details of Finding: The condition of approval shall provide ongoing assurance this criterion is met.

Subsection 4.450 (.03) Landscape Maintenance and Watering

Review Criterion: “All landscaping shall be continually maintained, including necessary watering, weeding, pruning, and replacing, in a substantially similar manner as originally approved by the Board, unless altered with Board approval.”

G64. Finding: This criterion will be satisfied.

Details of Finding: The condition of approval will ensure landscaping is continually maintained in accordance with this subsection.

Subsection 4.450 (.04) Addition and Modifications of Landscaping

Review Criterion: “If a property owner wishes to add landscaping for an existing development, in an effort to beautify the property, the Landscape Standards set forth in Section 4.176 shall not apply and no Plan approval or permit shall be required. If the owner wishes to modify or remove landscaping that has been accepted or approved through the City’s development review process, that removal or modification must first be approved through the procedures of Section 4.010.”

G65. Finding: This criterion will be satisfied.

Details of Finding: The condition of approval shall provide ongoing assurance that this criterion is met by preventing modification or removal without the appropriate City review.

SUMMARY FINDING FOR REQUEST G:

G66. The proposed Site Design Review Plan is consistent with Section 4.134 Day Road Design Overlay District.

REQUEST H: TYPE C TREE REMOVAL PLAN

Subsection 4.600.50 (.03) A. Access to Site for Tree Related Observation

Review Criterion: “By submission of an application, the applicant shall be deemed to have authorized City representatives to have access to applicant’s property as may be needed to verify the information provided, to observe site conditions, and if a permit is granted, to verify that terms and conditions of the permit are followed.”

H1. Finding: This criterion is satisfied.

Details of Finding: It is understood the City has access to the property to verify information regarding trees.

Subsection 4.610.00 (.03) B. Type C Tree Removal Review Authority

Review Criterion: “Type C. Where the site is proposed for development necessitating site plan review or plat approval by the Development Review Board, the Development Review Board shall be responsible for granting or denying the application for a Tree Removal Permit, and that decision may be subject to affirmance, reversal or modification by the City Council, if subsequently reviewed by the Council.”

H2. Finding: This criterion is satisfied.

Details of Finding: The requested removal is connected to site plan review by the Development Review Board for new development. The tree removal is thus being reviewed by the DRB.

Subsection 4.610.00 (.06) A. Conditions Attached to Type C Tree Permits

Review Criterion: “Conditions. Attach to the granting of the permit any reasonable conditions considered necessary by the reviewing authority including, but not limited to, the recording of any plan or agreement approved under this subchapter, to ensure that the intent of this Chapter will be fulfilled and to minimize damage to, encroachment on or interference with natural resources and processes within wooded areas;”

H3. Finding: This criterion is satisfied.

Details of Finding: No additional conditions are recommended pursuant to this subsection.

Subsection 4.610.00 (.06) B. Completion of Operation

Review Criterion: “Whenever an application for a Type B, C or D Tree Removal Permit is granted, the reviewing authority shall:” “Fix a reasonable time to complete tree removal operations;”

H4. Finding: This criterion is satisfied.

Details of Finding: It is understood the tree removal will be completed by the time construction of the UHS project is completed, which is a reasonable time frame for tree removal.

Subsection 4.610.00 (.06) C. Security

Review Criterion: “Whenever an application for a Type B, C or D Tree Removal Permit is granted, the reviewing authority shall:” “Require the Type C permit grantee to file with the City a cash or corporate surety bond or irrevocable bank letter of credit in an amount determined necessary by the City to ensure compliance with Tree Removal Permit conditions and this Chapter. 1. This requirement may be waived by the Planning Director if the tree removal must be completed before a plat is recorded, and the applicant has complied with WC 4.264(1) of this Code.”

H5. Finding: This criterion is satisfied.

Details of Finding: No bond is anticipated to be required to ensure compliance with the tree removal plan as a bond is required for overall landscaping.

Subsection 4.610.10 (.01) Standards for Tree Removal, Relocation or Replacement

Review Criteria: “Except where an application is exempt, or where otherwise noted, the following standards shall govern the review of an application for a Type A, B, C or D Tree Removal Permit:” Listed A. through J.

H6. Finding: These criteria are satisfied.

Details of Finding: The standards of this subsection are met as follows:

- The proposed tree removal is not within the Significant Resource Overlay Zone
- The applicant states tree preservation was taken into consideration the preservation of trees on the site.
- Two significant wooded areas or trees would be preserved by practicable design alternatives.
- Land clearing will not exceed the permitted areas.
- It is understood the proposed development will comply with all applicable statutes and ordinances.
- The necessary tree replacement and protection is planned according to the requirements of the tree preservation and protection ordinance.
- Tree removal is limited, either as proposed or by condition of approval, to where it is necessary for construction or to address nuisances or where the health of the trees warrants removal.
- A tree survey has been provided.
- No utilities are proposed to be located where they would cause adverse environmental consequences.

Subsection 4.610.40 (.01) Type C Tree Plan Reviewed with Stage II Final Plan

Review Criteria: “Approval to remove any trees on property as part of a site development application may be granted in a Type C permit. A Type C permit application shall be reviewed by the standards of this subchapter and all applicable review criteria of Chapter 4. Application of the standards of this section shall not result in a reduction of square footage or loss of density, but may require an applicant to modify plans to allow for buildings of greater height. If an applicant proposes to remove trees and submits a

landscaping plan as part of a site development application, an application for a Tree Removal Permit shall be included. The Tree Removal Permit application will be reviewed in the Stage II development review process and any plan changes made that affect trees after Stage II review of a development application shall be subject to review by DRB. Where mitigation is required for tree removal, such mitigation may be considered as part of the landscaping requirements as set forth in this Chapter. Tree removal shall not commence until approval of the required Stage II application and the expiration of the appeal period following that decision. If a decision approving a Type C permit is appealed, no trees shall be removed until the appeal has been settled.”

H7. Finding: These criteria are satisfied.

Details of Finding: The proposed Type C Tree Plan is being reviewed concurrently with the Stage II Final Plan.

Section 4.610.40 (.02) Submission of Tree Maintenance and Protection Plan

Review Criteria: “The applicant must provide ten copies of a Tree Maintenance and Protection Plan completed by an arborist that contains the following information:” Listed A. 1. through A. 7.

H8. Finding: These criteria are satisfied.

Details of Finding: The applicant has submitted the necessary copies of a Tree Maintenance and Protection Plan. See the applicant’s notebook, Exhibit B1. The Arborist Report is in Exhibit B1. Tree locations are shown on Plan Sheet C101, Existing Conditions.

Subsection 4.620.00 (.01) Tree Replacement Requirement

Review Criterion: “A Type B or C Tree Removal Permit grantee shall replace or relocate each removed tree having six (6) inches or greater d.b.h. within one year of removal.”

H9. Finding: This criterion is satisfied.

Details of Finding: 146 regulated trees were inventoried on the site and adjoining right-of-way areas. Tree species primary include Douglas fir, London planetree, and bigleaf maple. A number of trees are being preserved as a mature intact stand at the west end and northeast corner of the property. The applicant proposes removing 41 trees and 19 trees are situational, 76 retained trees.

The trees proposed as part of the site landscaping exceed the required mitigation. Up to seventy (70) regulated trees would be removed. (see Arborist’s Report in Exhibit B1).

Subsection 4.620.00 (.02) Basis for Determining Replacement

Review Criterion: “The permit grantee shall replace removed trees on a basis of one (1) tree replanted for each tree removed. All replacement trees must measure two inches (2”) or more in diameter.”

H9. Finding: This criterion is satisfied.

H10. Details of Finding: Trees are proposed to be planted meeting or exceeding one to one ratio. Trees will meet the minimum caliper requirement or will be required to by Condition of Approval.

Subsection 4.620.00 (.03) Replacement Tree Requirements

Review Criteria: “A mitigation or replacement tree plan shall be reviewed by the City prior to planting and according to the standards of this subsection.

A. Replacement trees shall have shade potential or other characteristics comparable to the removed trees, shall be appropriately chosen for the site from an approved tree species list supplied by the City, and shall be state Department of Agriculture Nursery Grade No. 1 or better.

B. Replacement trees must be staked, fertilized and mulched, and shall be guaranteed by the permit grantee or the grantee’s successors-in-interest for two (2) years after the planting date.

C. A “guaranteed” tree that dies or becomes diseased during that time shall be replaced.

D. Diversity of tree species shall be encouraged where trees will be replaced, and diversity of species shall also be maintained where essential to preserving a wooded area or habitat.”

H11. Finding: These criteria are satisfied.

Details of Finding: The condition of approval will ensure the relevant requirements of this subsection are met.

Subsection 4.620.00 (.04) Replacement Tree Stock Requirements

Review Criterion: “All trees to be planted shall consist of nursery stock that meets requirements of the American Association of Nurserymen (AAN) American Standards for Nursery Stock (ANSI Z60.1) for top grade.”

H12. Finding: This criterion is satisfied.

Details of Finding: The applicant has indicates the appropriate quality of trees will be planted.

Subsection 4.620.00 (.05) Replacement Trees Locations

Review Criterion: “The City shall review tree relocation or replacement plans in order to provide optimum enhancement, preservation and protection of wooded areas. To the extent feasible and desirable, trees shall be relocated or replaced on-site and within the same general area as trees removed.”

H13. Finding: This criterion is satisfied.

Details of Finding: The applicant proposes to mitigate for all removed regulated trees on site and in the appropriate locations for the proposed development.

Section 4.620.10 Tree Protection During Construction

Review Criteria: “Where tree protection is required by a condition of development under Chapter 4 or by a Tree Maintenance and Protection Plan approved under this subchapter, the following standards apply:” Listed A. through D.

H14. Finding: These criteria are satisfied or will be satisfied by Condition of Approvals PDE 3 and PDE 4.

Details of Finding: The conditions of approval assure the applicable requirements of this Section will be met.

SUMMARY FINDING FOR REQUEST H:

H15. The proposed Class C Tree Removal Plan is consistent with Section 4.610.00 (.03).

REQUEST I: CLASS III SIGNS

Subsection 4.031 (.01) M. and Subsection 4.156.02 (.03) Review Process

Review Criterion: These subsections establish that Class III Sign Permits are reviewed by the Development Review Board.

I1. Finding: This criterion is satisfied.

Explanation of Finding: The application qualifies as a Class III Sign Permit and is being reviewed by the Development Review Board.

Subsection 4.156.02 (.06) Class III Sign Permits Generally

Review Criterion: “Sign permit requests shall be processed as a Class III Sign Permit when associated with new development, or redevelopment requiring DRB review, and not requiring a Master Sign Plan; when a sign permit request is associated with a waiver or non-administrative variance; or when the sign permit request involves one or more freestanding or ground mounted signs greater than eight (8) feet in height in a new location.”

I2. Finding: This criterion is satisfied.

Explanation of Finding: The proposal is associated with new development requiring DRB review and does not require a Master Sign Plan as it involves a single tenant.

Subsection 4.156.02 (.06) A. Class III Sign Permit Submission Requirements

Review Criterion: This subsection identifies submission requirements for Class III Sign Permits, which includes the submission requirements for Class II sign permits.

I3. Finding: This criterion is satisfied.

Explanation of Finding: As indicated in the table below the applicant has satisfied the submission requirements:

Requirement	Submitted	Waiver Granted		Condition of Approval	Not Applicable	Additional findings/notes
		Info Already Available to City	Info Not Necessary for Review			
Completed Application Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sign Drawings or Descriptions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Documentation of Building/Tenant Space Lengths	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Drawings of Sign Placement of Building Facades	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Narrative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Information on Any Requested Waivers or Variances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Subsection 4.156.02 (.06) B. Class III Sign Permit Review Criteria

“The review criteria for Class II Sign Permits plus waiver or variance criteria when applicable.”

Subsection 4.156.02 (.05) E. Class II Sign Permit Review Criteria: Generally and Site Design Review

Review Criteria: “Class III Sign Permits shall satisfy the sign regulations for the applicable zoning district and the Site Design Review Criteria in Sections 4.400 through 4.421,”

I4. Finding: These criteria are satisfied.

Explanation of Finding: As indicated in Findings in Request G this criterion is met.

Subsection 4.156.02 (.05) E. 1. Class II Sign Permit Review Criteria: Compatibility with Zone

Review Criterion: “The proposed signage is compatible with developments or uses permitted in the zone in terms of design, materials used, color schemes, proportionality, and location, so that it does not interfere with or detract from the visual appearance of surrounding development;”

I5. Finding: This criterion is satisfied.

Explanation of Finding: The proposed signs are typical of and compatible with development within the PDI zone. This includes a design and colors reflecting corporate identity with non-illuminated letters and logos. The placement of building signs are for direction such as “Main Entrance” on window glazing. No evidence exists nor has testimony been received that the subject signs would detract from the visual appearance of the surrounding development.

Subsection 4.156.02 (.05) E. 2. Class II Sign Permit Review Criteria: Nuisance and Impact on Surrounding Properties

Review Criterion: “The proposed signage will not create a nuisance or result in a significant reduction in the value or usefulness of surrounding development;”

I6. Finding: This criterion is satisfied.

Explanation of Finding: There is no evidence and no testimony has been received that the subject signs would create a nuisance or negatively impact the value of surrounding properties.

Subsection 4.156.02 (.05) E. 3. Class II Sign Permit Review Criteria: Items for Special Attention

Review Criterion: “Special attention is paid to the interface between signs and other site elements including building architecture and landscaping, including trees.”

I7. Finding: This criterion is satisfied.

Explanation of Finding: The proposed signs are within an architectural feature, which demonstrates consideration of the interface between the signs and building architecture. No sign-tree conflicts have been noted.

Section 4.156.03 Sign Measurement

Subsection 4.156.03 (.01) A. Measurement of Cabinet Signs and Similar

Review Criterion: “The area for signs enclosed by cabinet, frame, or other background (including lighted surface) not otherwise part of the architecture of a building or structure shall be the area of a shape drawn around the outer dimension of the cabinet, frame, or background.”

I8. Finding: This criterion is satisfied.

Explanation of Finding: The proposed monument ID and Industrial District signs are measured consistent with this subsection.

Subsection 4.156.03 (.01) B. Measurement of Individual Element Signs

Review Criterion: “The area for signs constructed of individual elements (letters, figures, etc.) attached to a building wall or similar surface or structure shall be the summed area of up to three squares, rectangles, circles, or triangles drawn around all sign elements.”

I9. Finding: This criterion is satisfied.

Explanation of Finding: The proposed building signs have been measured consistent with this subsection using rectangles.

Subsection 4.156.03 (.02) A. Measurement of Sign Height Above Ground

Review Criterion: “The height above ground of a freestanding or ground-mounted sign is measured from the average grade directly below the sign to the highest point of the sign or sign structure except as follows:” Listed 1.-2.

I10. Finding: This criterion is satisfied.

Explanation of Finding: The proposed signs have been measured consistent with this subsection.

Subsection 4.156.03 (.03) A.-B. Measurement of Sign Height and Length

Review Criteria: “Height of a sign is the vertical distance between the lowest and highest points of the sign.”

Length of a sign is the horizontal distance between the furthest left and right points of the sign.”

I11. Finding: These criteria are satisfied.

Explanation of Finding: The proposed signs have been measured consistent with this subsection.

Subsection 4.156.08 (.01) Freestanding and Ground Mounted Signs in the PDC, PDI, and PF Zones, Subsection 4.156.08 (.01) A. General Allowance:

Review Criteria: “One freestanding or ground mounted sign is allowed for the first two-hundred (200) linear feet of site frontage. One additional freestanding or ground mounted sign may be added for through and corner lots having at least two-hundred (200) feet of frontage on one street or right-of-way and one-hundred (100) feet on the other street or right-of-way.”

I12. Finding: These criteria are satisfied.

Explanation of Finding: The subject site has frontage on both SW Day Road and SW Boones Ferry Road, and is eligible for signs on both frontages.

Subsection 4.156.08 (.01) B. Allowed Height

Review Criterion: “The allowed height above ground of a freestanding or ground mounted sign is twenty (20) feet except as noted in 1-2 below.”

I13. Finding: This criterion is satisfied.

Explanation of Finding: The ID sign and the Industrial District sign at 7 feet high, being in the Day Road Overlay Zone and not along I-5 frontage, is limited to 8 feet in height.

Subsection 4.156.08 (.01) C. Allowed Area

Review Criterion: This subsection identifies the allowed area for freestanding signs.

I14. Finding: This criterion is satisfied.

Explanation of Finding: The signs pertain to a single tenant with 62,000 square feet of gross floor area. Thus each freestanding sign is allowed to be up to 64 square feet. The proposed ID sign is 24.5 sq. ft. and the Industrial District sign is 6 sq. ft.

Subsection 4.156.08 (.01) D. Pole or Sign Support Placement

Review Criterion: “Pole or sign support placement shall be installed in a full vertical position.”

I15. Finding: This criterion is satisfied.

Explanation of Finding: The proposed ID monument sign and Industrial District sign support is in a full vertical position.

Subsection 4.156.08 (.01) G. Design of Freestanding Signs to Match or Complement Design of Buildings

Review Criterion: “Freestanding and ground mounted signs shall be designed to match or complement the architectural design of buildings on the site.”

I16. Finding: This criterion is satisfied.

Explanation of Finding: The proposed ID monument sign and Industrial District sign are set on a plain concrete bases. The bases will be partially screened by landscape material. The sign bases are of a coloring and material complementary of the building. The ID monument sign is consistent with the branding appearing in the building signs.

Subsection 4.156.08 (.01) H. Width vs. Height of Signs Over 8 Feet

Review Criterion: “For freestanding and ground mounted signs greater than eight (8) feet in height, the width of the sign shall not exceed the height.”

I17. Finding: This criterion is satisfied.

Explanation of Finding: The ID sign and Industrial District sign are 7 feet high less than 8 feet in height, and are much less in width than in height.

Subsection 4.156.08 (.01) J. Sign Setback

Review Criterion: “Freestanding and ground mounted signs shall be no further than fifteen (15) feet from the property line and no closer than two (2) feet from a sidewalk or other hard surface in the public right-of-way.”

I18. Finding: This criterion is satisfied.

Explanation of Finding: The ID sign at SW Day Road and the Industrial District sign at the corner of SWS Day Road and SW Boones Ferry Road will be field determined with the City Engineering Division.

Subsection 4.156.08 (.01) K. Address Requirement

Review Criterion: “Except for those signs fronting Interstate 5, freestanding and ground mounted signs shall include the address number of associated buildings unless otherwise approved in writing by the City and the Fire District.”

- I19. Finding:** This criterion will be satisfied by Condition of Approval PDI 2.
Explanation of Finding: A condition of approval requires the address unless otherwise approved by TVF&R.

Subsection 4.156.08 (.01) L. Design of Sign Based on Initial Tenant Configuration and Size

Review Criterion: “When a sign is designed based on the number of planned tenant spaces it shall remain a legal, conforming sign regardless of the change in the number of tenants or configuration of tenant spaces.”

- I20. Finding:** This criterion is satisfied.
Explanation of Finding: A development is being designed for a single tenant and the signs are being planned accordingly.

Subsection 4.156.08 (.02) Building Signs in the PDC, PDI, and PF Zones

Subsection 4.156.08 (.02) A. Sign Eligible Facades

Review Criteria: “Building signs are allowed on a facade of a tenant space or single tenant building when one or more of the following criteria are met:

1. The facade has one or more entrances open to the general public;
2. The facade faces a lot line with frontage on a street or private drive with a cross section similar to a public street, and no other buildings on the same lot obstruct the view of the building facade from the street or private drive; or
3. The facade is adjacent to the primary parking area for the building or tenant.”

- I21. Finding:** These criteria are satisfied.

Explanation of Finding: The facades are sign eligible as follows:

Façade	Sign Eligible	Criteria making sign eligible
North	Yes	Entrance open to general public
East	Yes	Entrance open to emergency vehicles.
South	No	No
West	Yes	No

Subsection 4.156.08 (.02) B. Building Sign Area Allowed

Review Criteria: This subsection includes a table identifying the sign area allowed for facades based on the linear length of the façade. Exceptions are listed 2 through 5.

- I22. Finding:** These criteria are satisfied.
Explanation of Finding: The proposed sign area is within the allowance for each façade or waivers have been requested as follows

Façade	Linear Length	Sign Area Allowed	Proposed Sign Area
North	Approx. 257 feet	36 sq. ft. plus 12 sq. ft. for each 24 linear feet or portion thereof greater than 72 up to maximum 200 sq. ft.	24.5 sf
East	Approx. 137 feet	36 sq. ft. plus 12 sq. ft. for each 24 linear feet or portion thereof greater than 72 up to maximum 200 sq. ft. 250 sf	6 sf

Subsection 4.156.08 (.02) B. 6. Calculating Linear Length to Determine Sign Area Allowed.

Review Criteria: “For facades of a single tenant building the length the facade measured at the building line, except as noted in a. and b. below. For multi-tenant buildings the width of the façade of the tenant space shall be measured from the centerline of the party walls or the outer extent of the exterior wall at the building line, as applicable, except as noted in a. and b. below. Applicants shall provide the dimensions needed to calculate the length. Each tenant space or single occupant building shall not be considered to have more than five (5) total facades.”

I23. Finding: These criteria are satisfied.

Explanation of Finding: The applicant has supplied the required measurements used to determine linear lengths according to this subsection.

Subsection 4.156.08 (.02) C. Building Sign Length Allowed

Review Criterion: “The length of individual tenant signs shall not exceed seventy-five (75) percent of the length of the facade of the tenant space.”

I24. Finding: This criterion is satisfied.

Explanation of Finding: None of the facades have signs exceeding seventy-five (75) percent of the length of the façade.

Subsection 4.156.08 (.02) D. Building Sign Height Allowed

Review Criterion: “The height of building signs shall be within a definable sign band, fascia, or architectural feature and allow a definable space between the sign and the top and bottom of the sign band, fascia, or architectural feature.”

I25. Finding: This criterion is satisfied.

Explanation of Finding: The proposed building signs are within a definable architectural feature and have a definable space between the sign and the top and bottom of the architectural feature.

Subsection 4.156.08 (.02) E. Building Sign Types Allowed

Review Criterion: “Types of signs permitted on buildings include wall flat, fascia, projecting, blade, marquee and awning signs. Roof-top signs are prohibited.”

I26. Finding: This criterion is satisfied.

Explanation of Finding: All the proposed buildings signs are wall flat, which is an allowable type.

Subsection 4.156.08 (.03) A. Additional Signs: Directional Signs

127. Review Criteria: “Notwithstanding the signs allowed based on the site in (.01) and (.02) above, the following signs may be permitted, subject to standards and conditions in this Code:” “In addition to exempt directional signs allowed under Subsection 4.156.05 (.02) C. freestanding or ground mounted directional signs six (6) square feet or less in area and four (4) feet or less in height:

1. The signs shall be designed to match or complement the architectural design of buildings on the site;
2. The signs shall only be placed at the intersection of internal circulation drives; and
3. No more than one (1) sign shall be placed per intersection corner with no more than two (2) signs per intersection.”

I28. Finding: These criteria are satisfied.

Explanation of Finding: Directional signs are proposed. Each sign is 5.83 square feet and 2’-6” high. The signs must be placed at the intersection of internal circulation drives.

SUMMARY FINDING FOR REQUEST I:

I29. The proposed signs are consistent with Section 4.156.

Engineering Conditions and Requirements for Proposed Development

From: Steve Adams, PE Development Engineering Manager
To: Blaise Edmonds
Date: January 8, 2016
Proposal: Universal Health Services, Inc.

Engineering Division Conditions:

Request A: DB15-0096 Stage II Final Plan

PFA 1.	Public Works Plans and Public Improvements shall conform to the “Public Works Plan Submittal Requirements and Other Engineering Requirements” in Exhibit C1.												
PFA 2.	<p>At the request of Staff, DKS Associates completed a Transportation Impact Study dated January 7, 2016. The project is hereby limited to no more than the following impacts.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">Estimated New PM Peak Hour Trips</td> <td style="text-align: right; padding-right: 20px;">107</td> </tr> <tr> <td style="padding-left: 20px;">Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area</td> <td style="text-align: right; vertical-align: bottom;">75</td> </tr> <tr> <td style="padding-left: 20px;">Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area</td> <td style="text-align: right; vertical-align: bottom;">6</td> </tr> </table> <p>As part of the Transportation Impact Study DKS Associates looked at a variety of uses allowed under the proposed PDI-RSIA Zone Change. The worst case trip generator for the proposed zone change would be expected to produce the following impacts.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">Estimated New PM Peak Hour Trips</td> <td style="text-align: right; padding-right: 20px;">127</td> </tr> <tr> <td style="padding-left: 20px;">Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area</td> <td style="text-align: right; vertical-align: bottom;">88</td> </tr> <tr> <td style="padding-left: 20px;">Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area</td> <td style="text-align: right; vertical-align: bottom;">7</td> </tr> </table>	Estimated New PM Peak Hour Trips	107	Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area	75	Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area	6	Estimated New PM Peak Hour Trips	127	Estimated Weekday PM Peak Hour Trips Through Elligsen Road Interchange Area	88	Estimated Weekday PM Peak Hour Trips Through Wilsonville Road Interchange Area	7
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PFA 3.	Applicant shall enter into a development agreement with the City of Wilsonville describing construction responsibilities and City SDC credits available with this project.												
PFA 4.	In the 2013 Transportation Systems Plan Day Road is identified as a Major Arterial. Applicant shall dedicate sufficient right-of-way to accommodate Day Road as a Major Arterial; this will require an additional 16.5 feet of right-of-way dedication to the City to accommodate a half-street right-of-way width of 53.5-ft (total right-of-way width of 107 feet), which includes ½ of a 14-ft center turn lane/median, two 12-ft travel lanes, a 6-ft bike lane, an 8.5 foot landscape and irrigation area with street												

	lighting, and an 8-ft sidewalk.
PFA 5.	Applicant shall demolish existing curb and gutter and construct new roadway in compliance with the 2013 Transportation Systems Plan and the 2014 Public Works Standards, and as outlined in condition of approval PF 4. In addition to the specifications in the 2013 Transportation Systems Plan and the 2014 Public Works Standards, the City requests adding a 2-ft bike buffer lane to the street cross section. The additional costs for the bike buffer on Day Road are Street SDC creditable/reimbursable by the City.
PFA 6.	The additional cost to construct the Day Road section from a Residential structural section to a Major Arterial structural section is Street SDC creditable/reimbursable by the City.
PFA 7.	In order to accommodate the additional 2-ft bike buffer within the street profile and maintain a 16.5-ft landscape/sidewalk area the City request a 2-ft sidewalk and public access easement on property fronting Day Road. The additional cost for this easement along Day Road is Street SDC creditable/reimbursable by the City.
PFA 8.	The widening of Day Road to meet Major Arterial requirements will leave the existing signal pole too close to the planned paved roadway. Applicant shall work with City engineering staff and Oregon Department of Transportation in the design and approval of the relocated signal pole, sidewalk and ADA ramps in this area. The additional costs for the relocation/reconstruction of the signal pole are Street SDC creditable/reimbursable by the City.
PFA 9.	Applicant shall dedicate additional right-of-way for reconstruction of the signal pole at the southwest corner of the Boones Ferry Road / Day Road intersection (northeast corner of the property). Necessary right-of-way will be a diagonal from the tangent radius points of the two intersecting right-of-way lines.
PFA 10.	In the 2013 Transportation Systems Plan Boones Ferry Road is identified as a Major Arterial. Applicant shall dedicate sufficient right-of-way to accommodate Boones Ferry Road as a Major Arterial; this will require a varying width of right-of-way dedication to the City to accommodate a half-street right-of-way width of 50.0-ft (total right-of-way width of 100 feet).
PFA 11.	Boones Ferry Road is presently constructed as a Major Arterial and no additional roadway construction is required. However, frontage along Boones Ferry Road is lacking a sidewalk, landscaping and street lighting. Applicant shall construct a 5-foot sidewalk, an approximate 8-ft landscape strip with irrigation, and street lighting within the Boones Ferry Road right-of-way. Existing topography descends away from the curb and Applicant is allowed to construct the sidewalk at a lower elevation than the curb. Applicant shall work with City engineering staff with design, elevation and location of this sidewalk.
PFA 12.	Applicant shall obtain stormwater service by tying into either the public storm system in Boones Ferry Road or the public storm system in Day Road.
PFA 13.	The proposed development lies within the Coffee Creek Industrial Area. Both the City Wastewater Master Plan (November 2014) and the Coffee Creek Industrial Master Plan (April 2007) indicate that this land is intended to be serviced via a

	<p>planned sanitary main line to be installed across the Coffee Creek Industrial Area and extend east under Day Road. Applicant is allowed to obtain temporary sanitary sewer service by tying into the public sanitary sewer system in Boones Ferry Road. However, applicant shall design the system to be able to divert the flow westward and extend a dry pipe to the west property edge such that future sanitary sewer service can be obtained via the future main line extending from the Coffee Creek Industrial Area once that line is constructed and accepted by the City. Applicant shall work with City engineering staff with design and location of this sanitary line.</p>
<p>PFA 14.</p>	<p>Applicant shall tie into the existing public water main located in Day Road or Boones Ferry Road.</p>
<p>PFA 15.</p>	<p>Applicant shall bring existing overhead utilities underground on frontages along both Boones Ferry Road and Day Road. Additionally the City requests these utilities remain underground through the far right-of-way of each roadway. The additional costs to place conduit and extend the underground utilities from the southwest corner of the intersection to the east side of Boones Ferry Road and the north side of Day Road is creditable/reimbursable by the City.</p>

Exhibit C1
Public Works Plan Submittal Requirements
and Other Engineering Requirements

1. All construction or improvements to public works facilities shall be in conformance to the City of Wilsonville Public Works Standards - 2014.
2. Applicant shall submit insurance requirements to the City of Wilsonville in the following amounts:

Coverage (<i>Aggregate, accept where noted</i>)	Limit
Commercial General Liability:	
▪ General Aggregate (per project)	\$3,000,000
▪ General Aggregate (per occurrence)	\$2,000,000
▪ Fire Damage (any one fire)	\$50,000
▪ Medical Expense (any one person)	\$10,000
Business Automobile Liability Insurance:	
▪ Each Occurrence	\$1,000,000
▪ Aggregate	\$2,000,000
Workers Compensation Insurance	\$500,000

3. No construction of, or connection to, any existing or proposed public utility/improvements will be permitted until all plans are approved by Staff, all fees have been paid, all necessary permits, right-of-way and easements have been obtained and Staff is notified a minimum of 24 hours in advance.
4. All public utility/improvement plans submitted for review shall be based upon a 22" x 34" format and shall be prepared in accordance with the City of Wilsonville Public Work's Standards.
5. Plans submitted for review shall meet the following general criteria:
 - a. Utility improvements that shall be maintained by the public and are not contained within a public right-of-way shall be provided a maintenance access acceptable to the City. The public utility improvements shall be centered in a minimum 15-ft. wide public easement for single utilities and a minimum 20-ft wide public easement for two parallel utilities and shall be conveyed to the City on its dedication forms.
 - b. Design of any public utility improvements shall be approved at the time of the issuance of a Public Works Permit. Private utility improvements are subject to review and approval by the City Building Department.
 - c. In the plan set for the PW Permit, existing utilities and features, and proposed new private utilities shall be shown in a lighter, grey print. Proposed public improvements shall be shown in bolder, black print.

- d. All elevations on design plans and record drawings shall be based on NAVD 88 Datum.
 - e. All proposed on and off-site public/private utility improvements shall comply with the State of Oregon and the City of Wilsonville requirements and any other applicable codes.
 - f. Design plans shall identify locations for street lighting, gas service, power lines, telephone poles, cable television, mailboxes and any other public or private utility within the general construction area.
 - g. As per City of Wilsonville Ordinance No. 615, all new gas, telephone, cable, fiber-optic and electric improvements etc. shall be installed underground. Existing overhead utilities shall be undergrounded wherever reasonably possible.
 - h. Any final site landscaping and signing shall not impede any proposed or existing driveway or interior maneuvering sight distance.
 - i. Erosion Control Plan that conforms to City of Wilsonville Ordinance No. 482.
 - j. Existing/proposed right-of-way, easements and adjacent driveways shall be identified.
 - k. All engineering plans shall be printed to PDF, combined to a single file, stamped and digitally signed by a Professional Engineer registered in the State of Oregon.
 - l. All plans submitted for review shall be in sets of a digitally signed PDF and three printed sets.
6. Submit plans in the following general format and order for all public works construction to be maintained by the City:
- a. Cover sheet
 - b. City of Wilsonville construction note sheet
 - c. General construction note sheet
 - d. Existing conditions plan.
 - e. Erosion control and tree protection plan.
 - f. Site plan. Include property line boundaries, water quality pond boundaries, sidewalk improvements, right-of-way (existing/proposed), easements (existing/proposed), and sidewalk and road connections to adjoining properties.
 - g. Grading plan, with 1-foot contours.
 - h. Composite utility plan; identify storm, sanitary, and water lines; identify storm and sanitary manholes.
 - i. Detailed plans; show plan view and either profile view or provide i.e.'s at all utility crossings; include laterals in profile view or provide table with i.e.'s at crossings; vertical scale 1"= 5', horizontal scale 1"= 20' or 1"= 30'.
 - j. Street plans.
 - k. Storm sewer/drainage plans; number all lines, manholes, catch basins, and cleanouts for easier reference
 - l. Water and sanitary sewer plans; plan; number all lines, manholes, and cleanouts for easier reference.
 - m. Detailed plan for storm water detention facility (both plan and profile views), including water quality orifice diameter and manhole rim elevations. Provide detail of inlet structure and energy dissipation device. Provide details of drain inlets, structures, and

- piping for outfall structure. Note that although storm water detention facilities are typically privately maintained they will be inspected by engineering, and the plans must be part of the Public Works Permit set.
- n. Detailed plan for water quality facility (both plan and profile views). Note that although storm water quality facilities are typically privately maintained they will be inspected by Natural Resources, and the plans must be part of the Public Works Permit set.
 - o. Composite franchise utility plan.
 - p. City of Wilsonville detail drawings.
 - q. Illumination plan.
 - r. Striping and signage plan.
 - s. Landscape plan.
7. Design engineer shall coordinate with the City in numbering the sanitary and stormwater sewer systems to reflect the City's numbering system. Video testing and sanitary manhole testing will refer to City's numbering system.
 8. The applicant shall install, operate and maintain adequate erosion control measures in conformance with the standards adopted by the City of Wilsonville Ordinance No. 482 during the construction of any public/private utility and building improvements until such time as approved permanent vegetative materials have been installed.
 9. Applicant shall work with City's Natural Resources office before disturbing any soil on the respective site. If 5 or more acres of the site will be disturbed applicant shall obtain a 1200-C permit from the Oregon Department of Environmental Quality. If 1 to less than 5 acres of the site will be disturbed a 1200-CN permit from the City of Wilsonville is required.
 10. The applicant shall be in conformance with all stormwater and flow control requirements for the proposed development per the Public Works Standards.
 11. A storm water analysis prepared by a Professional Engineer registered in the State of Oregon shall be submitted for review and approval by the City.
 12. The applicant shall be in conformance with all water quality requirements for the proposed development per the Public Works Standards. If a mechanical water quality system is used, prior to City acceptance of the project the applicant shall provide a letter from the system manufacturer stating that the system was installed per specifications and is functioning as designed.
 13. Storm water quality facilities shall have approved landscape planted and/or some other erosion control method installed and approved by the City of Wilsonville prior to streets and/or alleys being paved.
 14. The applicant shall contact the Oregon Water Resources Department and inform them of any existing wells located on the subject site. Any existing well shall be limited to irrigation purposes only. Proper separation, in conformance with applicable State standards, shall be

maintained between irrigation systems, public water systems, and public sanitary systems. Should the project abandon any existing wells, they shall be properly abandoned in conformance with State standards.

15. All survey monuments on the subject site, or that may be subject to disturbance within the construction area, or the construction of any off-site improvements shall be adequately referenced and protected prior to commencement of any construction activity. If the survey monuments are disturbed, moved, relocated or destroyed as a result of any construction, the project shall, at its cost, retain the services of a registered professional land surveyor in the State of Oregon to restore the monument to its original condition and file the necessary surveys as required by Oregon State law. A copy of any recorded survey shall be submitted to Staff.
16. Sidewalks, crosswalks and pedestrian linkages in the public right-of-way shall be in compliance with the requirements of the U.S. Access Board.
17. No surcharging of sanitary or storm water manholes is allowed.
18. The project shall connect to an existing manhole or install a manhole at each connection point to the public storm system and sanitary sewer system.
19. A City approved energy dissipation device shall be installed at all proposed storm system outfalls. Storm outfall facilities shall be designed and constructed in conformance with the Public Works Standards.
20. The applicant shall provide a 'stamped' engineering plan and supporting information that shows the proposed street light locations meet the appropriate AASHTO lighting standards for all proposed streets and pedestrian alleyways.
21. All required pavement markings, in conformance with the Transportation Systems Plan and the Bike and Pedestrian Master Plan, shall be completed in conjunction with any conditioned street improvements.
22. Street and traffic signs shall have a hi-intensity prismatic finish meeting ASTM 4956 Spec Type 4 standards.
23. The applicant shall provide adequate sight distance at all project driveways by driveway placement or vegetation control. Specific designs to be submitted and approved by the City Engineer. Coordinate and align proposed driveways with driveways on the opposite side of the proposed project site.
24. Access requirements, including sight distance, shall conform to the City's Transportation Systems Plan (TSP) or as approved by the City Engineer. Landscaping plantings shall be low enough to provide adequate sight distance at all street intersections and alley/street intersections.

25. Applicant shall design interior streets and alleys to meet specifications of Tualatin Valley Fire & Rescue and Allied Waste Management (United Disposal) for access and use of their vehicles.
26. The applicant shall provide the City with a Stormwater Maintenance and Access Easement (on City approved forms) for City inspection of those portions of the storm system to be privately maintained. Stormwater or rainwater LID facilities may be located within the public right-of-way upon approval of the City Engineer. Applicant shall maintain all LID storm water components and private conventional storm water facilities.
27. The applicant shall “loop” proposed waterlines by connecting to the existing City waterlines where applicable.
28. Applicant shall provide a minimum 6-foot Public Utility Easement on lot frontages to all public right-of-ways. An 8-foot PUE shall be provided along Collectors. A 10-ft PUE shall be provided along Minor and Major Arterials.
29. For any new public easements created with the project the Applicant shall be required to produce the specific survey exhibits establishing the easement and shall provide the City with the appropriate Easement document (on City approved forms).
30. Mylar Record Drawings:

At the completion of the installation of any required public improvements, and before a 'punch list' inspection is scheduled, the Engineer shall perform a record survey. Said survey shall be the basis for the preparation of 'record drawings' which will serve as the physical record of those changes made to the plans and/or specifications, originally approved by Staff, that occurred during construction. Using the record survey as a guide, the appropriate changes will be made to the construction plans and/or specifications and a complete revised 'set' shall be submitted. The 'set' shall consist of drawings on 3 mil. Mylar and an electronic copy in AutoCAD, current version, and a digitally signed PDF.

Building Conditions, Requirements, & Advisories for Proposed Development

From: Don Walters, Plans Examiner, Building Division
To: Blaise Edmonds, Manager of Current Planning.
Date: 12/22/15
Proposal: Universal Health Services Facility
Case File: DB15-0091 through DB15-0099

Building Division Conditions:

BD 1.	Requirements and Advisories: Building Division Requirements and Advisories listed in Exhibit C2 apply to the proposed development.
BD 2.	Accessible Parking. Three accessible parking spaces are shown on the submitted plans. With 120 total parking spaces no less than five accessible parking spaces are required as per Section 1106 of the Oregon Structural Specialty Code. Further discussion will be required to determine if Section 1106.3 also applies to this project. If 1106.3 is found to be applicable additional accessible parking spaces may be required.
BD 3.	Property Line. The proposed building is shown as crossing existing property lines. As the building code does not allow structures to cross property lines, the property lines sundering the proposed building shall be removed.

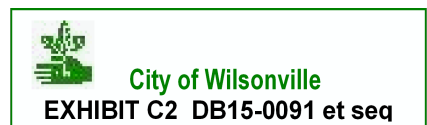


Exhibit C2
Building Division Requirements and Advisories

1. Passenger Loading Zone. The passenger loading zone shall be accessible. Please see the Oregon Structural Specialty Code Section 1106.8.
2. Advisory. Vault
It is recommended - *not required* - that fire line backflow devices be located inside of the building being served and not in an underground vault. This eliminates the continuing maintenance problems with sump pumps and valve monitoring, and saves the project the cost of a vault installation, which can run \$10,000. Where the backflow device is placed in a vault a public utility waterline easement will be required that extends to the upstream edge of the vault. Without a vault the waterline easement will extend to the exterior wall of the building.
3. Fire Department Review
The adequacy of the existing fire hydrants, the location and number of any new hydrants, the proposed fire access and FDC location, any required No Parking Signage, and other fire department items require approval of TVF&R Deputy Fire Marshal Jason Arn. (Ph.503.259.1510) To facilitate that review it is recommended that before submittal for permits to the Engineering or Building Division, these items be discussed with Deputy Arn.
4. Fire-Flow Requirements
Fire calcs shall be submitted as part of the building permit application. Required fire-flow shall be figured using the methodology of the 2014 OFC Section B105. Tualatin Valley Fire & Rescue does not adapt the Occupancy Hazards Modifiers in sections B105.4 and B105.4.1. See the TVF&R *New Construction: Policy Intent Guide*.

From: [Arn, Jason S.](#)
To: [Edmonds, Blaise](#)
Cc: [White, Shelley](#)
Subject: FW: Development Review Team Mailing (DB15-0091 et seq - Universal Health)
Date: Monday, December 14, 2015 11:09:27 AM
Attachments: [DB15-0091 et seq UHS DRT.pdf](#)
[DB15-0092 - 0099, Proposed Willamette Valley Behavioral Health Hospital, 9470 SW Day Road.docx](#)

Blaise,

I have attached the Fire Districts Comments for the UHS project.

Please let me know if you have any questions.

Thanks,

Jason Arn | Deputy Fire Marshal

Tualatin Valley Fire & Rescue

Direct: 503-259-1510

www.tvfr.com

From: White, Shelley [mailto:swhite@ci.wilsonville.or.us]

Sent: Monday, November 23, 2015 3:21 PM

To: Andrew Schafer (Andrew.Schafer@pgn.com); Andrew Young ; Gray, Arnie; Jacobson, Barbara; Ben Baldwin (DevelopmentReview@trimet.org); Bill Rhoades (rhoadesw@wlwv.k12.or.us); Edmonds, Blaise; Bob Ebeling (Robert.W.EBELING@odot.state.or.us); Brian Harper (Brian.Harper@oregonmetro.gov); Brian Kelley (Brian.Kelley@nwnatural.com); Stevenson, Brian; Cosgrove, Bryan; Neamtzu, Chris; Stark, Dan; Pauly, Daniel; Kerber, Delora; Walters, Don; Parent, Gail; Heather Peck (heather.peck@aviation.state.or.us); Miller, Holly; James Rhodes (JRhodes@clackamas.us); Arn, Jason S.; Labrie, Jason; Massa Smith, Jen; Gail, Jon; Stoller, Katherine M.; Kenneth Parris (kenneth_parris@cable.comcast.com); Rappold, Kerry; Lance Cheeley (Lance.Cheeley@nwnatural.com); Bushman, Luke; Ottenad, Mark; Brown, Martin; Baker, Matt; Ward, Mike; Kraushaar, Nancy; Duke, Pat; Watson, Randy; Region 1 Development Review Applications (Region1DEVREVAApplications@odot.state.or.us); Robert Keller ; Simonton, Scott; Sherer, Stan; Lashbrook, Stephan; Adams, Steve; Allen, Steve; Tiffany Ritchey (tiffany.ritchey@pgn.com); Blankenship, Tod; Tom Maier (Thomas.Maier@awin.com)

Subject: Development Review Team Mailing (DB15-0091 et seq - Universal Health)

Development Review Team members,

Please find the attached DRT Mailing for your review:

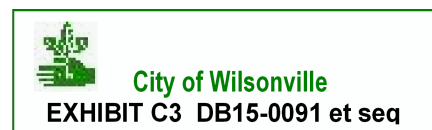
[DB15-0091 et seq](#) [Universal Health Services](#)

*Please note that written comments are due to **Blaise Edmonds** by **4:00 pm on January 11, 2016** for the January 25, 2016 Development Review Board public hearing.*

Have a great day!

Shelley White

Administrative Assistant
City of Wilsonville





August 24, 2015

Blaise Edmonds
Manager of Current Planning
City of Wilsonville
29799 SW Town Center Loop E
Wilsonville, Oregon
97070

Re: DB15-0091 - 0099, Proposed Willamette Valley Behavioral Health Hospital, 9470 SW Day Road

Tax Lot ID: 3S102B000500, 3S102B000501, & 3S102B000400

Blaise,

Thank you for the opportunity to review the Proposed Willamette Valley Behavioral Health Hospital. Tualatin Valley Fire & Rescue endorses this proposal predicated on the following criteria and conditions of approval:

- FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDING AND TURNAROUNDS:** 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)
- DEAD END ROADS:** Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. (OFC 503.2.5 & D103.1)
- ADDITIONAL ACCESS ROADS – COMMERCIAL/INDUSTRIAL HEIGHT:** Buildings exceeding 30 feet in height or three stories in height shall have at least two separate means of fire apparatus access. (D104.1)
- MULTIPLE ACCESS ROADS SEPARATION:** 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 Code Official), measured in a straight line between accesses. (OFC D104.3) Exception: Buildings equipped throughout with an approved automatic fire sprinkler system (the approval of this alternate method of construction shall be accomplished in accordance with the provisions of ORS 455.610(5)).
- AERIAL FIRE APPARATUS ROADS:** 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 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. (OFC D105.1, D105.2)
- AERIAL APPARATUS OPERATIONS:** 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 code

official. Overhead utility and power lines shall not be located over the aerial access road or between the aerial access road and the building. (D105.3, D105.4)

7. **FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE:** Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. The fire district will approve access roads of 12 feet for up to three dwelling units and accessory buildings. (OFC 503.2.1 & D103.1)
8. **NO PARKING SIGNS:** 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)

NO PARKING: Parking on emergency access roads shall be as follows (OFC D103.6.1-2):
 1. 20-26 feet road width – no parking on either side of roadway (signage to indicate the no parking)
 2. 26-32 feet road width – parking is allowed on one side (signage to indicate the no parking side)
 3. Greater than 32 feet road width – parking is not restricted
9. **PAINTED CURBS:** 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 (or as approved). (OFC 503.3)
10. **FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS:** 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)
11. **SURFACE AND LOAD CAPACITIES:** 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)
12. **TURNING RADIUS:** The inside turning radius and outside turning radius shall be not less than 28 feet and 48 feet respectively, measured from the same center point. (OFC 503.2.4 & D103.3)
13. **GATES:** Gates securing fire apparatus roads shall comply with all of the following (OFC D103.5, and 503.6):
 1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width), or two 10 foot sections.
 2. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
 3. Electric gates shall be equipped with a means for operation by fire department personnel
 4. Electric automatic gates shall comply with ASTM F 2200 and UL 325.
 5. Removable bollards are not an approved alternate to a swinging gate.
14. **TRAFFIC CALMING DEVICES:** Shall be prohibited unless approved by the Fire Code Official. (OFC 503.4.1)
15. **FIRE HYDRANTS – COMMERCIAL BUILDINGS:** Where a portion of the 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)
 - This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.
 - The number and distribution of fire hydrants required for commercial structure(s) is based on Table C105.1, following any fire-flow reductions allowed by section B105.3.1. Additional fire hydrants may be required due to spacing and/or section 507.5 of the Oregon Fire Code.

16. **FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in (OFC Table C105.1)
17. **FIRE DEPARTMENT CONNECTIONS:** A fire hydrant shall be located within 100 feet of a fire department connection (FDC) or as approved. Fire hydrants and FDC's shall be located on the same side of the fire apparatus access roadway or drive aisle. (OFC 912 & NFPA 13)
18. **FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the fire code official. (OFC C102.1)
19. **REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of blue reflective markers. They shall be located adjacent and to the side of the center line of the access roadway that the fire hydrant is located on. In the case that there is no center line, then assume a center line and place the reflectors accordingly. (OFC 507)
20. **EMERGENCY RESPONDER RADIO COVERAGE:** 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&R and Washington County Consolidated Communications Agency shall be provided. (OFC 510.1)
21. **KNOX BOX:** A Knox Box for building access may be required for structures and gates. See Appendix C for further information and detail on required installations. Order via www.tvfr.com or contact TVF&R for assistance and instructions regarding installation and placement. (OFC 506.1)
22. **UTILITY IDENTIFICATION:** Rooms containing controls to fire suppression and detection equipment shall be identified as "Fire Control Room." Signage shall have letters with a minimum of 4 inches high with a minimum stroke width of 1/2 inch, and be plainly legible, and contrast with its background. (OFC 509.1)

If you have questions or need further clarification, please feel free to contact me at (503) 259-1510.

Sincerely,

Jason Arn

Jason Arn
Deputy Fire Marshal II

Cc: File

Natural Resource Findings, Conditions, and Requirements for Proposed Development

From: Kerry Rappold, Natural Resources Program Manager
To: Blaise Edmonds, Manager of Current Planning
Date: January 8, 2016
Proposal: DB15-0096 – Universal Health Services

Natural Resources Division Conditions:

All Requests

NR 1. Natural Resource Division Requirements and Advisories listed in Exhibit C3 apply to the proposed development.
--

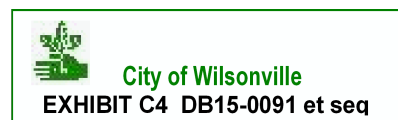


Exhibit C3
Natural Resources Findings & Requirements

Findings for SI1_-00__

(if SRIR include related findings here)

Stormwater Management Requirements

1. Submit a final drainage report and drainage plans. The report and plans shall demonstrate the proposed stormwater facilities satisfy the requirements of the 2014 Public Works Standards. Low Impact Development shall be utilized to the maximum extent practicable to mimic the natural runoff conditions of the pre-developed site (e.g., stormwater facilities directly adjacent to the proposed parking area).
2. Pursuant to the 2014 Public Works Standards, infiltration testing shall be conducted to determine the site's suitability for the proposed stormwater management facilities. Testing shall be conducted or observed by a qualified individual working under the supervision of a Professional Engineer, Registered Geologist, or Certified Engineering Geologist licensed in the State of Oregon.
3. Provide profiles, plan views, landscape information, and specifications for the proposed stormwater facilities consistent with the requirements of the 2014 Public Works Standards.
4. Pursuant to the 2014 Public Works Standards, the applicant shall submit a maintenance plan (including the City's stormwater maintenance and access easement) for the proposed stormwater facilities prior to approval for occupancy of the associated development.
5. Pursuant to the 2014 Public Works Standards, access shall be provided to all areas of the proposed stormwater facilities. At a minimum, at least one access shall be provided for maintenance and inspection.

Other Requirements

6. The applicant shall comply with all applicable state and federal requirements for the proposed construction activities (e.g., DEQ NPDES #1200-CN permit).
7. Pursuant to the City of Wilsonville's Ordinance No. 482, the applicant shall submit an erosion and sedimentation control plan. The following techniques and methods shall be incorporated, where necessary:
 - a. Gravel construction entrance;
 - b. Stockpiles and plastic sheeting;
 - c. Sediment fence;
 - d. Inlet protection (Silt sacks are recommended);
 - e. Dust control;
 - f. Temporary/permanent seeding or wet weather measures (e.g., mulch);
 - g. Limits of construction; and
 - h. Other appropriate erosion and sedimentation control methods.

From: [Lashbrook, Stephan](#)
To: [Edmonds, Blaise](#)
Cc: [Allen, Steve](#); [Jacobson, Barbara](#); [Kohlhoff, Mike](#); [Neamtzu, Chris](#); [Kraushaar, Nancy](#)
Subject: Universal Health Services
Date: Wednesday, November 25, 2015 7:43:26 AM

Blaise:

Thanks for the referral on this. Steve Allen may have some suggestions in terms of future bus access.

I am pondering the overall issue of SMART's service territory. The subject property, being on the south side of Day Road, is not within TriMet territory. However, it occurs to me that we may want to include a finding in the annexation staff report that SMART is willing and able to provide service to the site. It would then follow to include a conclusion that, upon annexation, the site will become part of SMART's service territory.

As you may recall, the Coffee Creek Correctional Facility remains inside TriMet's service territory today, in spite of the fact that it has been within Wilsonville's City limits for almost 15 years.

Thanks.

Stephan

Stephan A. Lashbrook

Transit Director

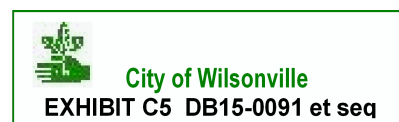
SMART

City of Wilsonville

(503) 570-1576

lashbrook@ridesmart.com

Disclosure Notice: Messages to and from this e-mail address may be subject to the Oregon Public Records Law.



December 16, 2015

Blaise Edmonds, Manager of Current Planning
Planning Division, City of Wilsonville

RE: DB15-0091 et seq - Universal Health

Thank you for the opportunity to comment on the proposed development along SW Boones Ferry Rd. TriMet Bus Line 96 serves the area with a bus stop on the Boones Ferry frontage of the property.

TriMet is interested in maintaining this stop and hopes to safely encourage ridership through supportive development. The purpose of our recommendations is to minimize traffic impacts of new development and maximize ridership by encouraging patterns that are transit, bicycle, and pedestrian supportive.

I have attached a standard drawing appropriate for this streetscape to accommodate a bus stop. This will ensure the frontage meets ADA requirement for bus loading and unloading and prevent damage to landscaping.

Again, thank you for the opportunity to comment. If you have any questions, please contact me at 503-962-6478.

Sincerely,

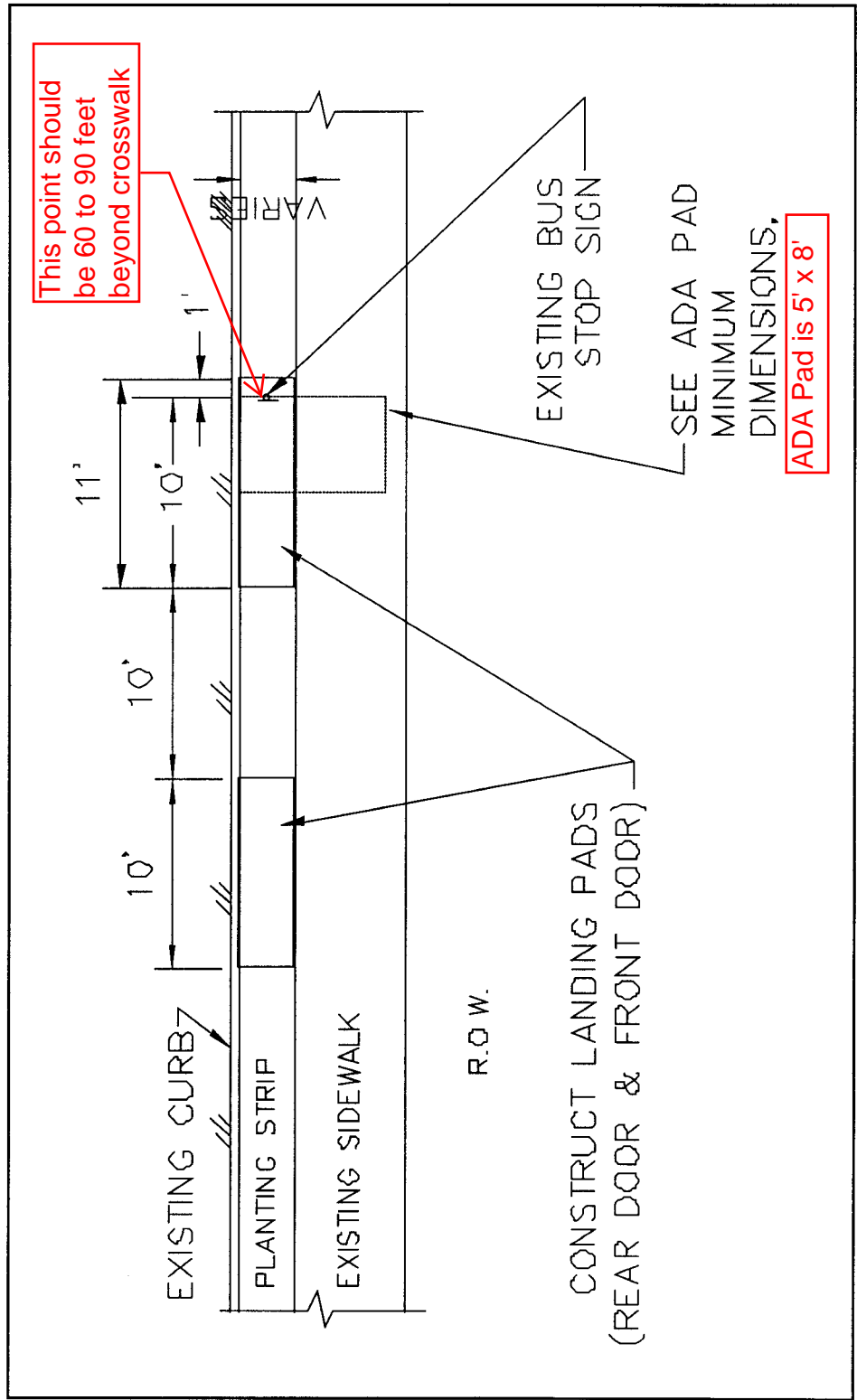


Grant O'Connell, Planner II
Transit Development
Capital Projects



City of Wilsonville

EXHIBIT C6 DB15-0091 et seq



Front & Rear Door Landing Pads
 Figure 20

Public Works Plan Review Comment Form

Plans for Review: DRB: Universal Health Services

Return All Comments To: Blaise Edmonds

Due Date: January 11, 2016

Name	Page No.	Comments	Engineering's Response
Randy Watson Pretreatment		No Comments	
Jason Labrie Water		No Comments	
Folz/Havens Sewer			
Gering Cross Connection			
Arnie Gray Roads			
Ralph Thorp Trees/Irrigation		No Comments	
Blankenship/Reeder Park Maint		No Comments	



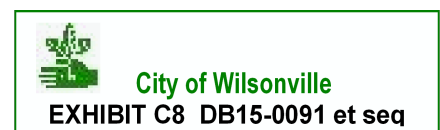
From: DANIELSON Marah B [<mailto:Marah.B.DANIELSON@odot.state.or.us>]
Sent: Monday, December 28, 2015 11:23 AM
To: Edmonds, Blaise
Cc: FISH Gary; BROOKING Joshua C; TAYAR Abraham * Avi
Subject: RE: Universal Health Services, Inc.

Hi Blaise,

ODOT received the notice of annexation DB15-0091 and com plan map amendment DB15-0092 for the Universal Health Services, Inc. The property is located at the intersection of SW Day Rd and SW Boones Ferry Rd which is an ODOT intersection. The property is changing zones from county AF-5 to city PDI-RSIA. Just wanted to find out how you were addressing the TRP 0060. It seems like the city could apply section 9 to make findings of no significant effect based on consistency with the comp plan/TSP.

Thanks.

Marah Danielson, Senior Planner
ODOT R1 Development Review Planning Lead
(503) 731-8258
marah.b.danielson@odot.state.or.us




Universal Health Services

Willamette Valley Behavioral Health Facility

City of Wilsonville, OR



 City of Wilsonville
EXHIBIT B1 DB15-0091 et seq



TOTAL MECHANICAL INC.
Mechanical Engineering and Construction



OUR MISSION:

To provide superior quality healthcare services that: **PATIENTS** recommend to family and friends, **PHYSICIANS** prefer for their patients, **PURCHASERS** select for their clients, **EMPLOYEES** are proud of, and **INVESTORS** seek for long-term returns.

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Comprehensive Plan Amendment	11
Zone Change	14
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Stage II Preliminary Plan Review	20
Site Design Review	35
Type C Tree Removal Plan Review	43

List of Exhibits

Exhibit A City of Wilsonville Application Forms

Development Permit Application
Application for Legislative Action
Petition for Annexation

Exhibit B Tax Assessor Map of Property

Exhibit C ALTA + Legal Description

Exhibit D Aerial Site Location Photograph

Exhibit E City of Wilsonville Comprehensive Plan and Zoning Maps

Exhibit F Letter From Republic Services

Exhibit G Pre-Application Meeting Notes

Exhibit H Architectural Plan Set

Perspective

A310 Perspectives

Building Design & Elevation

A101 Level 01

A102 Level 02

A103 Roof Plan

A300 Exterior Elevations

A330 Site Art

Exhibit I Civil Plan Set

C100 Land Use Site Plan

C101 Land Use Tree Removal And Protection Plan

C102 Land Use Tree Removal And Protection Table

C200 Land Use Grading Plan

C300 Land Use Utility Plan

Exhibit J Landscaping Plan Set

L100 Landscape Plan

L101 Landscape Plan

L102 Landscape Details

Exhibit K Lighting Plan Set

E100 Legends, Schedules, and Details

E200 Specifications

E300 Site Lighting Plan

E400 Property Line Vertical Calculations

Exhibit L Sign Design Plan Set

S101 Sign Design

S102 Sign Design

S201 Sign Location Plan

Exhibit M Preliminary Stormwater Report

Exhibit N Arborist Report

Exhibit O Wetlands / Natural Resources Report

Exhibit P Traffic Study

Exhibit Q Geotechnical Report

Exhibit R Completeness Memo

Exhibit S Additional Parking Site Plan

EXECUTIVE SUMMARY

Universal Health Services, Inc proposes to develop a +/- 62,000 sq. ft. Behavioral Health Facility on land located at 9470 SW Day Road in Washington County, Oregon. The land is bordered by Day Road to the north and Boones Ferry Road to the east. The project site consists of three parcels. The site is located within the Urban Growth Boundary. The North boundary of the City of Wilsonville limits ends at the southern edge of the site, leaving the site just outside of the City of Wilsonville. The site is within the City of Wilsonville's Coffee Creek Master Plan area. During the expansion of the Urban Growth Boundary which included these parcels, Metro required the city to plan for the area as a Regionally Significant Industrial Area. Metro's designation along with the Coffee Creek Master Plan require that any development on the site will need to annex into the city and be zoned Planned Development Industrial – Regionally Significant Industrial Area (PDI-RSIA). In order to develop the site, UHS will need to annex the property into the City of Wilsonville, amend the Comprehensive Plan Map to include the new annexation as an industrial area, and amend the Zoning Map to designate the site as PDI-RSIA.

Universal Health Services has contracted with the project team members for the development of the Behavioral Health Facility. On August 13, 2015, a pre-application meeting was conducted with the City of Wilsonville. Guidance from the City was used in the continued adaption of the original proposal to produce final design addressing the regulations of the City of Wilsonville, Metro, and State of Oregon. UHS will apply for annexation of the property into the City of Wilsonville with zoning designation of PDI-RSIA and a comprehensive plan designation of Industrial. Concurrently with the application, UHS will apply for Planned Development Stage I and II review, Site and Design Review, Sign Plan Review, and a Type C Tree Removal Review.

EXISTING SITE CONDITIONS

The site consists of three parcels of land with a combined area of approximately 8.72 acres. Right-of-way dedication is expected to reduce the private development area to a total of about 8.4 acres. The current zoning of the site within Washington County is Future Development 20 Acre District (FD-20).

A. Surrounding Development

To the North of Day Road, are several properties located within the county in the FD-20 district. The properties directly north of Day Road fall into the scope of the Coffee Creek Master Plan. The majority of the properties consist of rural residential uses. To The east of the site are properties with office uses in a Planned Development Commercial Zone within the City of Wilsonville. South of the site are several industrial uses zoned Planned Development Industrial within the City of Wilsonville. West of the site are properties that lie just outside the City of Wilsonville boundary line that are also zoned FD-20 and fall within the Coffee Creek Master Plan. Uses consist of vacant properties and rural residential.

B. Natural Characteristics

The site consists of a majority of mowed fields with trees scattered around small stands or around existing structures. There is a large stand of trees running the entire length of the western boundary going into the adjacent parcel. There are gentle slopes on the property from the north to the south. The western end of the site consists of steeper slopes within the forest stand along the western boundary. An Arborist report and Natural Resources report were conducted for the site. They are located within this application as Exhibit N and Exhibit O.

C. Existing Development

The site currently has three existing structures which consist of 2 dwellings and a garage. Prior uses on the site were residential and agriculture.

D. Easements

All Existing Easements are identified on the survey submitted with this application as Exhibit C.

E. Streets

The site has street frontage on two sides: Day Road, a City road, to the north; Boones Ferry Road, under ODOT jurisdiction, to the east

F. Utilities

The site is served by public utilities within the rights-of-way of Day Road and Boones Ferry Road. These include the following:

- Water – Available along Day Road
- Sanitary Sewer – Boones Ferry Road
- Storm Sewer – Boones Ferry Road and Day Road
- Power – Available along Boones Ferry Road and Day Road
- Gas – Available along Boones Ferry Road and Day Road
- Phone – Available along Boones Ferry Road and Day Road

DEVELOPMENT PLAN OVERVIEW

A. Building

The building design is intended to have a prominent presence on Day Road as the future gateway to the Day Road district. The building is located right on the set back limit and conveys a lasting impression with quality materials. The use of masonry on the tallest portions of the building reinforce this presence on the street and includes several brick colors in a blended running bond pattern and a ground face concrete base course. The mass of the building is articulated with the gym volume on the corner with Boones Ferry Road and the main building entry off of a pedestrian plaza from Day Road that incorporates a vehicular drop off on the west end. Windows have been sized to create a sense of vitality on the street. The glass is frosted in the patient spaces but is otherwise clear in color.

The building materials are primarily brick and concrete masonry units, with accents of cedar wood siding on Day Road. The remainder of the exterior walls are painted fiber cement lap board. The main entry is intended to be welcoming in its openness and the extent of glass is oriented for views to the existing trees and undisturbed environment on the site.

The proposed height of 38 feet is less than the zoning requirement of 48 feet, but the proposed building will be equal in prominence by its location closest to the street (on the setback line) and the project proposes to increase this prominence by including a site sign for the branding of the district.

The zoning also requires a vitality and life in the building by requiring a 20 percent minimum glazing area on the sides facing the street. The proposed building has 26 percent glazing on the Day Road side and 16% on the Boones Ferry Road side, so that the average of both sides meets the requirement. The appearance of the window area is perceived to be larger with the proposed building colors associated with the window openings on the Boones Ferry Road side. The project is proposing to include a site art installation on Boones Ferry Road to better create the vitality and life sought by the requirement.

B. Site Plan

The building was sited to provide the 30 ft. offset from SW Day Road as required by code, but was angled slightly to preserve and incorporate two mature Douglas Fir trees into the project entry plaza. The parking was designed into the east and south sides of the building so that the smallest visual profile of the parking was seen from the public right of way. The site drops in elevation towards the south, providing an excellent location for the storm water swales and the storm water ponds. On the west side of the facility, 60,000 square feet of native undisturbed landscape has been preserved, and creates a significant buffer from the adjacent property towards the west. On the west side of the facility, a minimum 80 ft. offset from the public right of way has been provided and landscape with native plantings and conifer trees to buffer the facility from SW Boones Ferry Road.

The entry drive to the parking lot and the vehicular drop off was located as far west as possible to provide the greatest set back from the intersection. One mature Douglas Fir tree is centered in the circular drop off along with a second mature Douglas Fir at the north end of the plaza. Here the public sidewalk was aligned toward the street to help in preserving this tree and also announcing the project entry and plaza to the public. The flush curb at the drop off allows for emergency vehicle access, both for fire trucks as requested by the fire marshal and ambulances.

This site design allots 39% of the total site towards new landscaping; 23% towards the building footprint; 17% for undisturbed native landscape and 13% towards parking. The following Table illustrates the square footage and percentage of the site for the proposed improvements.

Proposed Stage II Final Plan

Area	Size	% of Total Site
Building Area Footprint (including courtyards)	85,866 sq. ft.	23%
Parking, drive lanes, walkways	76,798 sq. ft.	21%
Landscape Area	142,962 sq. ft.	39%
Undisturbed Native Area	60,755 sq. ft.	17%
Total Site Area	8.4 Acres	100%

C. Landscaping

The landscape for the UHS Wilsonville Behavioral Health Facility has been designed with three distinct levels of landscape development.

The zone adjacent to SW Day Road and at the corner of SW Day Road and SW Boones Ferry Road has the greatest public visibility and therefore the highest level of landscape design development. Small flowering trees accent the building façade with a ground plane of boldly massed, low, colorful, low maintenance plants with a proven track record. Areas beneath existing trees have a river rock cobble groundcover to avoid disturbance to existing tree roots while also providing added texture and visual interest to the garden. A row of Bradford Pear street trees are planted at 30 ft. on center along SW Day Road with a row of dwarf English laurel shrubs; continuing the existing plant palette along SW Day Road.

A gateway of enhanced landscaping has been provided at the corner of SW Day Road and SW Boones Ferry Road. Here, mature existing London Plane trees have been saved and incorporated into the gateway design feature. A concrete pedestal placed within an angular bed of river rock cobble will provide a base for future sculpture. The cobble bed is backed by a bold planting of ornamental grass. There is also a concrete pad and bench adjacent to the existing bus stop. A 4 ft. poured in place concrete wall is woven into the landscape design to accommodate project signage.

The grades on the west side of SW Boones Ferry Road rise up fifteen feet to the east side of the building. The bank is landscaped with bold massing's of low native plants and groves of Douglas Firs trees and Western Red Cedars, which over time will grow up to sixty feet tall. The plant materials south of the landscaped gateway are all native and are selected for their compatibility with the existing native plants and east facing sun exposure.

The zone between the side and rear of the facility and the parking lot is dominated with native and native adaptive shrubs and groundcovers that will provide 80% coverage of the exposed ground plane in three years. Native conifers and small native deciduous trees are informally grouped in the landscape. The parking lot has three foot tall evergreen flowering shrubs that help to screen the parking stalls. A drought tolerant deciduous tree with golden fall color has been incorporated into the parking planting beds to provide additional visual screening and afternoon shade from the summer sun.

The final landscape zone is located to the west and south of the parking lot. This area also includes storm water treatment swales and storm water ponds. 100% of the plant material in this zone is native and adapted to temporary inundation from seasonal storm water. The plant species were chosen for their low maintenance qualities and compact forms. % percentage of the existing landscape has been preserved on this site and all non-native invasive plant species within the preserved landscape will be removed prior to completion of the project. This area will receive a temporary irrigation system until plant establishment has been achieved.

D. Utilities

Sanitary Sewer

An 8" connection will be made to an existing Public sewer line manhole in Boones Ferry Road near the southeast corner of the site. The new line will connect the proposed building sanitary sewer to the existing public sewer. City staff has indicated that this would be a temporary connection. Ultimately, the proposed building sanitary sewer is expected to connect with a future Public sanitary sewer in Day Road. The proposed project includes provisions for a sanitary sewer stub extended to Day Road for connection to the future sanitary sewer.

Storm Drainage

The proposed storm system on site is all privately owned and will be maintained by UHS. The pipes range in size from 6" to 12", draining to the southeast corner of the site. Storm water will be treated before entering a piped system on SW Boones Ferry Road. Treatment of storm water will include the use of LID, Low Impact Development, facilities including swales and detention ponds. A new storm drain line will be constructed from the southeast corner to a Public storm manhole in SW Boones Ferry Road. A drainage report with calculations to ascertain required facility sizing will be submitted, for approval by the City Engineer. Additional geotechnical analysis will be performed including determination of infiltration rates for use in determination of final stormwater facility sizing.

Water

A 6" fire line to serve the building fire sprinklers will be connected to an existing 18" water line in Day Road. A Fire Department Connection is proposed along Day Road near a fire hydrant that will be relocated to accommodate frontage improvements along Day Road. There are two fire hydrants that will be relocated to accommodate frontage improvements. A 4" domestic water line will be connected to an existing 18" water line in Day Road.

E. Lighting

The site lighting design will consist of Energy Efficient LED fixtures strategically placed to meet the IESNA recommendations and the zoning requirements per the City of Wilsonville. A combination of building and pole mounted fixtures will be used and will be provided with full cut-off/glared protection where applicable. The goal is to provide a well illuminated environment that promotes safety while maintaining the dark-sky impacted of the site surroundings.

F. Signage

The selected sign materials and colors are compatible with the natural tones of the building, with the majority of the sign area painted to resemble the tan brick exterior. The medium bronze sign base is painted to match the building base and the dark accent trim coordinates with the building mullions.

The District ID (type A) consists of 7" high anodized aluminum dimensional letters applied to a cast in place concrete landscape wall. The final message will be provided by the City of Wilsonville.

The Site ID (type B) is a vertical sign with a small footprint to minimize impact to the tree root system, and allow for less disruption in the future if the sign needs to be removed and relocated to a new entry drive. The design includes three layout options to allow for the inclusion of a subtle logo mark (to be designed) and the same message will be applied to both sides of the sign to capture each sightline along Day Road. The sign area and height fall below the maximum allowable, and the sign is located outside the public right-of-way and vision clearance area. The sign will be externally-illuminated with ground-mounted lighting fixtures.

The Building Entry is identified with dimensional letters (type C) painted dark to coordinate with the building mullions. The letters are flush-mounted to the building facade that faces the primary parking area and drop-off zone. The letters will not be directly illuminated but will be visible through ambient light from the building canopy. The Ambulance Entry is identified with subtle vinyl applied to the entry doors to ensure that the entry is not blocked and remains available in the event an ambulance arrives to take patients to and from area hospitals.

There are two Vehicular Directionals (Type D) located within the parking area to direct vehicles to the main entry, patient drop-off, ambulance entry and parking. The signs are not visible from the right-of-way and are located in softscape areas that do not impede vision clearance areas. The signs are double-sided, with the sign area for each face less than the maximum allowed. These signs are non-illuminated.

The parking spaces reserved for Visitors and Carpool and the area for Patient Drop-off are identified with a sign panel bracket-mounted to an aluminum pole (type E). The parking signs are located at the head of each parking space and the Drop-off signs are located in the entry plaza next to the turn-around. Two layout options are included to allow for a logo mark and symbol on the parking signs if desired.

The Turn Around area and the Fire Lane are identified with a sign panel bracket-mounted to an aluminum pole (type F). These signs are located in the area of the turn around zone at the end of the parking lot and at each head of the fire lane.

DESCRIPTION OF THE USE

The proposed use of the Property is a Behavioral Health Facility with adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women’s programs, substance abuse treatment, behavioral pain management, as well as limited outpatient services. In addition, the facility will serve a number of veterans with behavioral and mental health needs through the Patriot Support Program who are unable to obtain timely and efficient services from the VA Behavioral Health Facility. The proposed facility will serve and benefit the general public with behavioral health services, with which there has been a documented unmet need.

The proposed facility will be approximately 62,000 square feet in size and total project costs are estimated at \$32 million. The proposed facility will have 100 beds and will be staffed around the clock in three shifts by a total of 180 employees and 8-9 physicians. Shift changes for employees are planned to be scheduled to begin/end outside of the morning and evening commute peak periods. This means that a shift will begin or end prior to 6:00 am to avoid the morning commute, and that another shift will begin or end after 7:00 pm to avoid the evening commute.

On average, the employees at the proposed facility have higher-based salaries compared to most of the other employees in the PDI-RSIA zone, who occupy family-wage jobs. The salaries at the proposed facility range from \$55,000 - \$60,000 per year, and the median salary is much higher when physician’s salaries are accounted for in the calculation.

APPLICATION REQUESTS

The following outline the Requests that are submitted for review with this application.

Request A: Annexation – This is a request to annex the three parcels of land into the City of Wilsonville to comply with State Regulations, Metro Regulations, and the City of Wilsonville.

Request B: Comprehensive Plan Amendment – The annexation of the parcels into the City of Wilsonville requires that the property be amended in the Comprehensive Plan Map to Industrial. The applicant is requesting to amend the Comprehensive Plan map to include the property as Industrial within the City of Wilsonville.

Request C: Zone Map Amendment – The annexation of the parcels into the City of Wilsonville require that the property be rezoned to a city zoning designation. The applicant is requesting that the designation of Planned Development Industrial – Regionally Significant Industrial Area be applied to the parcels with their annexation into the City of Wilsonville.

Request D: Stage I Preliminary Plan Review – This proposal has submitted the plans for Stage I Preliminary Plan Review and Stage II Final Plan Review. The Stage I Review demonstrates the plans compliance with the Coffee Creek Master Plan and the development procedures set forth in the Wilsonville Planning and Land Development Code.

Request E: Stage II Final Plan Review – This request is for the approval of the final plan. The submittal demonstrates the compliance with Wilsonville Planning and Development Code. Included in this section are the standards for planned developments, Planned Development Industrial districts, and General Development Regulations. General Development Regulations cover parking and site circulation, landscaping, signage, resource protection, safety, and street improvements.

Request F: Site Design Review – This approval is requested for the proposal and its compliance with the Day Road Design Overlay District (DOD), lighting, underground utilities, and the Site Design Review standards. It also includes the requests for waivers regarding the minimum height and glazing requirements for the DOD.

Type C Tree Removal – This request is for a review of the Type C Tree Removal Plan. The arborist report conducted for this site identified existing trees and their conditions along with the impact of the proposed development. Great effort was done in the design of the site plan and building to mitigate the disturbance on the natural environment and preserve as many existing trees. This effort has resulted in the preservation of approximately 2/3 of the existing trees.

REQUEST A: ANNEXATION

This is a request to annex the three parcels of land into the City of Wilsonville to comply with State Regulations, Metro Regulations, and the City of Wilsonville. The following are responses to the applicable land development criteria and Comprehensive Plan goals, policies and implementation measures, Metro regulations, and applicable Oregon State Regulations.

Wilsonville Comprehensive Plan

Annexation and Boundary Changes

Implementation Measure 2.2.1.a. Allow annexation when it is consistent with future planned public services and when a need is clearly demonstrated for immediate urban growth.

Response: The proposed development is within the UGB as shown on Exhibit E. The site also falls within the Coffee Creek Master Plan and the Day Road Design Overlay which plan for the development and annexation of the site into the city as a Planned Development Industrial – Regionally Significant Industrial Area (PDI-RSIA) zone. The subject site is contiguous with the city boundaries and allowing an orderly expansion of development. The City Comprehensive Plan and the Engineering Division evaluates compliance of planned sanitary sewer, storm drainage, and water systems with the City’s Wastewater Collections System Master Plan, Stormwater Master Plan, Parks and Recreation Master Plan, Water System Master Plan and the City’s Transportation Systems Plan.

Implementation Measure 2.2.1.e. Changes in the City boundary will require adherence to the annexation procedures prescribed by State law and Metro standards. Amendments to the City limits shall be based on consideration of:

1. *Orderly, economic provision of public facilities and services, i.e., primary urban services are available and adequate to serve additional development or improvements are scheduled through the City's approved Capital Improvements Plan.*

Response: The Coffee Creek Master Plan identified existing and proposed upgrades to utilities and services for the plan area to accommodate the build out of developments. The annexation is in concert with a proposed development of the site which will include infrastructure upgrades as determined by the city which include improvements to Day Road and undergrounding of utilities. The development of the site with its upgrades to the road will benefit the City of Wilsonville and allows the continuous and orderly expansion of the road network in the area.

2. *Availability of sufficient land for the various uses to insure choices in the marketplace for a 3 to 5 year period.*

Response: The annexation request is included with concurrent site plan reviews to develop the site once approved.

3. *Statewide Planning Goals.*

Response: This is addressed below within the Oregon Planning Goals section.

4. *Applicable Metro Plans;*

Response: This is addressed below within the Metro Plans section.

5. *Encouragement of development within the City limits before conversion of urbanizable (UGB) areas.*

Response: Annexation of the site is being sought to specifically develop this site with the proposed use and will be consistent with the Coffee Creek Master Plan.

Land Use and Development

General Development

GOAL 4.1 To have an attractive, functional, economically vital community with a balance of different types of land uses

Implementation Measure 4.1.1.e The City shall protect existing and planned industrial and commercial lands from incompatible land uses, and will attempt to minimize deterrents to desired industrial and commercial development.

Response: The annexation of the property along with the requested zone change to the Planned Development Industrial – Regionally Significant Industrial Area will ensure that the property is compliant with and allow the City to implement the Coffee Creek Master Plan for the area. Upon documented compliance with applicable Planned Development and Design Overlay standards, the proposed use will be compatible to existing adjacent land uses and for future developments that are encouraged in the master plan.

Wilsonville Planning and Land Development Code

Section 4.0008 Application Procedures – In General

(.01) *The general application procedures listed in Section 4.008 through 4.024 apply to all land use and development applications governed by Chapter 4 of the Wilsonville Code. These include applications for all of the following types of land use or development approvals:*

K. Annexations, pursuant to Section 4.700

Response: The requested application is for an annexation. The application procedures will follow the procedures of the Planning and Land Development Code.

Section 4.030 Jurisdiction and Powers of Planning Director and Community Development Director.

(.01) *Authority of Planning Director. Authority of Planning Director. The Planning Director shall have authority over the daily administration and enforcement of the provisions of this Chapter, including dealing with non-discretionary matters, and shall have specific authority as follows: 11. Determination, based upon consultation with the City Attorney, whether a given development application is quasi-judicial or legislative. Except, however, that the Planning Director may, in*

cases where there is any uncertainty as to the nature of the application, choose to process such determinations through the Class II procedures below.

Section 4.031 Authority of the Development Review Board

(.01) As specified in Chapter 2 of the Wilsonville Code and except as specified herein, the Board shall have authority to act on the following types of applications:

K. Initial review of requests for quasi-judicial annexations to the City of Wilsonville.

(.02) Once an application is determined or deemed to be complete pursuant to Section 4.011, it shall be scheduled for public hearing before the Development Review Board. The City shall provide public notice of the hearing as specified in Section 4.012.

Response: The annexation request is a quasi-judicial process and is subject to initial review before the Development Review Board.

Section 4.033 Authority of City Council

(.01) Upon appeal, the City Council shall have final authority to act on all applications filed pursuant to Chapter 4 of the Wilsonville Code, with the exception of applications for expedited land divisions, as specified in Section 4.232. Additionally, the Council shall have final authority to interpret and enforce the procedures and standards set forth in this Chapter and shall have final decision-making authority on the following:

F. Review of requests for annexations to the City of Wilsonville.

Response: The applicant understands that City Council has the final decision-making authority for the annexation application.

Section 4.700 Annexation Procedures Relating To The Processing Of Requests For Annexation And Urban Growth Boundary Amendments.

(.01) The City of Wilsonville is located within the Portland Metropolitan Area, and is therefore subject to regional government requirements affecting changes to the city limits and changes to the Urban Growth Boundary (UGB) around Wilsonville. The City has the authority to annex properties as prescribed in State law, but the City's role in determining the UGB is primarily advisory to Metro, as provided in Oregon Revised Statutes. The following procedures will be used to aid the City Council in formulating recommendations to those regional entities. [Amended by Ordinance No. 538, 2/21/02.]

A. Proponents of such changes shall provide the Planning Director with all necessary maps and written information to allow for review by city decision-makers. The Planning Director, after consultation with the City Attorney, will determine whether each given request is quasi-judicial or legislative in nature and will make the necessary arrangements for review based upon that determination.

B. Written information submitted with each request shall include an analysis of the relationship between the proposal and the City's Comprehensive Plan, applicable statutes, as well as the Statewide Planning Goals and any officially adopted regional plan that may be applicable.

C. The Planning Director shall review the information submitted by the proponents and will

prepare a written report for the review of the City Council and the Planning Commission or Development Review Board. If the Director determines that the information submitted by the proponents does not adequately support the request, this shall be stated in the Director's staff report.

D. If the Development Review Board, Planning Commission, or City Council determine that the information submitted by the proponents does not adequately support the request, the City Council may oppose the request to the regional entity having the final decision making authority.

(.02) Each quasi-judicial request shall be reviewed by the Development Review Board, which shall make a recommendation to the City Council after concluding a public hearing on the proposal.

(.03) Each legislative request shall be reviewed by the Planning Commission, which shall make a recommendation to the City Council after concluding a public hearing on the proposal.

(.04) The City Council shall consider the information in the record of the Development Review Board or Planning Commission and shall, after concluding a public hearing on the request, determine the appropriate course of action. This course of action may be: A. In the case of a proposed annexation to the City, select from the following as allowed by State law (ORS 222):

1. Take no action;
2. Declare the subject property, or some portion thereof, to be annexed;
3. Set the matter for election of the voters residing within the affected territory; or
4. Set the matter for election of City voters.

(.05) The City Council may adopt a development agreement with owners of property that is proposed for annexation to the City, and such agreement may include an agreement to annex at a future date. A development agreement with an agreement to annex shall be subject to the same procedural requirement as other annexations in terms of staff report preparation, public review, and public hearings.

Response: This application is for an annexation of land that is within the UGB and is within the planning authority of the City of Wilsonville. Documentation and responses in this application confirm the relationship of the proposed annexation the City's Comprehensive Plan, Coffee Creek Master Plan, the City land Use and Development Code, Metro Code, and the Statewide Planning Goals. The annex request is quasi-judicial and will be heard by the DRB and city council.

Metro Code

Chapter 3.09 Local Government Boundary Changes

Section 3.09.020 Definitions

H. "Minor Boundary Change" means an annexation or withdrawal of territory to or from a city or district or from a county to a city. "Minor boundary change" also means an extraterritorial extension of water or sewer service by a city or district. "Minor boundary change" does not mean withdrawal of territory from a district under ORS 222.520.

Response: This annexation request involves territory within Washington County to be transferred to the City of Wilsonville, meeting the definition of a minor boundary change and subject to Metro Code Chapter 3.09.

Section 3.09.040 Requirements For Petitions

- A. A petition for a boundary change must contain the following information:
1. The jurisdiction of the reviewing entity to act on the petition;
 2. A map and legal description of the affected territory in the form prescribed by the reviewing entity;
 3. For minor boundary changes, the names and mailing addresses of all persons owning property and all electors within the affected territory as shown in the records of the tax assessor and county clerk; and
 4. For boundary changes under ORS 198.855(3), 198.857, 222.125 or 222.170, statements of consent to the annexation signed by the requisite number of owners or electors.
- B. A city, county and Metro may charge a fee to recover its reasonable costs to carry out its duties and responsibilities under this chapter.

Response: The petition for the boundary change to add the territory into the City of Wilsonville is included as Exhibit A. A map and legal description have been provided in this application as Exhibits B, C, and D. The sole property owner is listed on the application and Annexation Petition.

Section 3.09.050 Hearing and Decision Requirements For Decisions Other Than Expedited Decisions

- A. The following requirements for hearings on petitions operate in addition to requirements for boundary changes in ORS Chapters 198, 221 and 222 and the reviewing entity's charter, ordinances or resolutions.
- B. Not later than 15 days prior to the date set for a hearing the reviewing entity shall make available to the public a report that addresses the criteria identified in subsection (D) and includes the following information:
1. The extent to which urban services are available to serve the affected territory, including any extra territorial extensions of service;
 2. Whether the proposed boundary change will result from the withdrawal of the affected territory from the legal boundary of any necessary party;
 3. The proposed effective date of the boundary change.
- C. The person or entity proposing the boundary change has the burden to demonstrate that the proposed boundary change meets the applicable criteria.
- D. To approve a boundary change, the reviewing entity shall apply the criteria and consider the factors set forth in subsections (D) and (E) of Section 3.09.045.

Response: The application demonstrates that the proposed annexation meets the applicable criteria for annexation with compliance to Wilsonville Comprehensive Plan, Coffee Creek Master Plan, Wilsonville Planning and Land Development Code, Metro Code, Oregon Revised Statutes, and the State Planning Goals.

Section 3.09.045 Expedited Decisions Subsections (D) and (E)

D. To approve a boundary change through an expedited process, the city shall:

1. Find that the change is consistent with expressly applicable provisions in:

- a. Any applicable urban service agreement adopted pursuant to ORS 195.065;
- b. Any applicable annexation plan adopted pursuant to ORS 195.205;
- c. Any applicable cooperative planning agreement adopted pursuant to ORS 195.020(2) between the affected entity and a necessary party;
- d. Any applicable public facility plan adopted pursuant to a statewide planning goal on public facilities and services;
- e. Any applicable comprehensive plan;

Response: The application shows the compliance with City Comprehensive Plan

f. Any applicable concept plan; and

Response: The application shows the compliance with the Coffee Creek Master Plan

2. Consider whether the boundary change would:

- a. Promote the timely, orderly and economic provision of public facilities and services;
- b. Affect the quality and quantity of urban services; and
- c. Eliminate or avoid unnecessary duplication of facilities or services.

Response: The boundary change and proposed development is contiguous with the existing development and infrastructure. Planned and current improvements in the area will benefit from the annexation of the territory which will allow for the development of the site with infrastructure improvements to the existing area. The Coffee Creek Master Plan for this area includes the provision of public services for this site.

E. A city may not annex territory that lies outside the UGB, except it may annex a lot or parcel that lies partially within and partially outside the UGB.

Response: The territory proposed to be annexed lies with the UGB.

Oregon Revised Statutes

ORS §222.111 Authority and Procedure for Annexation

When a proposal containing the terms of annexation is approved in the manner provided by the charter of the annexing city or by ORS 222.111 (Authority and procedure for annexation) to 222.180 (Effective date of annexation) or 222.840 (Short title) to 222.915 (Application of ORS 222.840 to 222.915), the boundaries of any city may be extended by the annexation of territory that is not within a city and that is contiguous to the city or separated from it only by a public right of way or a stream, bay, lake or other body of water. Such territory may lie either wholly or partially within or without the same county in which the city lies.

Response: The territory to be annexed is contiguous with City of Wilsonville boundaries, is within

Washington County, and is within the UGB.

- (1) *A proposal for annexation of territory to a city may be initiated by the legislative body of the city, on its own motion, or by a petition to the legislative body of the city by owners of real property in the territory to be annexed.*

Response: Exhibit A contains the petition by the real property owners of the territory to annex the property into the City of Wilsonville.

- (2) *The proposal for annexation may provide that, during each of not more than 10 full fiscal years beginning with the first fiscal year after the annexation takes effect, the rate of taxation for city purposes on property in the annexed territory shall be at a specified ratio of the highest rate of taxation applicable that year for city purposes to other property in the city. The proposal may provide for the ratio to increase from fiscal year to fiscal year according to a schedule of increase specified in the proposal; but in no case shall the proposal provide for a rate of taxation for city purposes in the annexed territory which will exceed the highest rate of taxation applicable that year for city purposes to other property in the city. If the annexation takes place on the basis of a proposal providing for taxation at a ratio, the city may not tax property in the annexed territory at a rate other than the ratio which the proposal authorizes for that fiscal year.*
- (3) *When the territory to be annexed includes a part less than the entire area of a district named in ORS 222.510 (Annexation of entire district), the proposal for annexation may provide that if annexation of the territory occurs the part of the district annexed into the city is withdrawn from the district as of the effective date of the annexation. However, if the affected district is a district named in ORS 222.465 (Effective date of withdrawal from domestic water supply district, water control district or sanitary district), the effective date of the withdrawal of territory shall be determined as provided in ORS 222.465 (Effective date of withdrawal from domestic water supply district, water control district or sanitary district).*

Response: The territory to be annexed will be served by the City of Wilsonville for Domestic Water Supply and Sewer.

- (4) *The legislative body of the city shall submit, except when not required under ORS 222.120 (Procedure without election by city electors), 222.170 (Effect of consent to annexation by territory) and 222.840 (Short title) to 222.915 (Application of ORS 222.840 to 222.915) to do so, the proposal for annexation to the electors of the territory proposed for annexation and, except when permitted under ORS 222.120 (Procedure without election by city electors) or 222.840 (Short title) to 222.915 (Application of ORS 222.840 to 222.915) to dispense with submitting the proposal for annexation to the electors of the city, the legislative body of the city shall submit such proposal to the electors of the city. The proposal for annexation may be voted upon at a general election or at a special election to be held for that purpose.*

Response: The requested annexation is requested by all land owners and will not be subject to an election as explained below with compliance of ORS §222.120.

ORS §222.120 Procedure Without Election by City Electors

- (1) *Except when expressly required to do so by the city charter, the legislative body of a city is not required to submit a proposal for annexation of territory to the electors of the city for their approval or rejection.*
- (2) *When the legislative body of the city elects to dispense with submitting the question of the proposed annexation to the electors of the city, the legislative body of the city shall fix a day for a public hearing before the legislative body at which time the electors of the city may appear and be heard on the question of annexation.*
- (3) *The city legislative body shall cause notice of the hearing to be published once each week for two successive weeks prior to the day of hearing, in a newspaper of general circulation in the city, and shall cause notices of the hearing to be posted in four public places in the city for a like period.*
- (4) *After the hearing, the city legislative body may, by an ordinance containing a legal description of the territory in question:*
- Declare that the territory is annexed to the city upon the condition that the majority of the votes cast in the territory is in favor of annexation;*
 - Declare that the territory is annexed to the city where electors or landowners in the contiguous territory consented in writing to such annexation, as provided in ORS 222.125 (Annexation by consent of all owners of land and majority of electors) or 222.170 (Effect of consent to annexation by territory), prior to the public hearing held under subsection (2) of this section; or*
 - Declare that the territory is annexed to the city where the Oregon Health Authority, prior to the public hearing held under subsection (1) of this section, has issued a finding that a danger to public health exists because of conditions within the territory as provided by ORS 222.840 (Short title) to 222.915 (Application of ORS 222.840 to 222.915).*
- (5) *If the territory described in the ordinance issued under subsection (4) of this section is a part less than the entire area of a district named in ORS 222.510 (Annexation of entire district), the ordinance may also declare that the territory is withdrawn from the district on the effective date of the annexation or on any subsequent date specified in the ordinance. However, if the affected district is a district named in ORS 222.465 (Effective date of withdrawal from domestic water supply district, water control district or sanitary district), the effective date of the withdrawal of territory shall be determined as provided in ORS 222.465 (Effective date of withdrawal from domestic water supply district, water control district or sanitary district).*
- (6) *The ordinance referred to in subsection (4) of this section is subject to referendum.*
- (7) *For the purpose of this section, ORS 222.125 (Annexation by consent of all owners of land and majority of electors) and 222.170 (Effect of consent to annexation by territory), owner or landowner means the legal owner of record or, where there is a recorded land contract which is in force, the purchaser thereunder. If there is a multiple ownership in a parcel of land each consenting owner shall be counted as a fraction to the same extent as the interest of the owner in the land bears in*

relation to the interest of the other owners and the same fraction shall be applied to the parcels land mass and assessed value for purposes of the consent petition. If a corporation owns land in territory proposed to be annexed, the corporation shall be considered the individual owner of that land.

Response: The City Charter will not require the annexation request to be submitted for election. The annexation request and proposed development is subject to quasi-judicial process which will require a public hearing with the DRB and City Council following the requirements.

ORS §222.125 Annexation by Consent of All Owners of Land and Majority of Electors

The legislative body of a city need not call or hold an election in the city or in any contiguous territory proposed to be annexed or hold the hearing otherwise required under ORS 222.120 (Procedure without election by city electors) when all of the owners of land in that territory and not less than 50 percent of the electors, if any, residing in the territory consent in writing to the annexation of the land in the territory and file a statement of their consent with the legislative body. Upon receiving written consent to annexation by owners and electors under this section, the legislative body of the city, by resolution or ordinance, may set the final boundaries of the area to be annexed by a legal description and proclaim the annexation.

Response: All owners of the land in the territory of the request have consented to the annexation as shown by the signature of the land owner on the petition for annexation

Oregon Statewide Planning Goals

Goal 1: Citizen Involvement

To develop a citizen involvement program that insures the opportunity for the citizens to be involved in all phases of the planning process.

Response: The review process for the application will be a quasi-judicial and follow the citizen notification and hear procedures as outlined by the City of Wilsonville. This process will allow for citizen involvement throughout the process encourage through goal 1.

Goal 2: Land Use Planning

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 basis for such decisions and actions.

Response: The proposed annexation area falls within the scope of the Coffee Creek Master Plan and City Comprehensive plan. The annexation will be needed to allow the development of the site which will follow the procedures for review and decision making outlined in the City land Use and Development Code.

Goal 3: Agricultural Lands

To preserve and maintain agricultural lands.

Response: This territory to be annexed is included in the UGB. In planning for the region, metro identified the proposed territory as a Regionally Significant Industrial Area. The City Comprehensive Plan follows the designation by having the Coffee Creek Master Plan for the area the plans for the annexation of the lands into the city as industrial uses. In planning for the region, Metro

Goal 4: Forest Lands

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

Response: The territory does not include any land that is part of a forest land area or meet the definition of forest lands. This section does not apply to annexation request.

Goal 5: To protect natural resources and conserve scenic and historic areas and open spaces.

Response: The City of Wilsonville has Significant Resources Overlay Zones (SROZ) which meets the requirements for this goal. The properties to be annexed do not include any lands designated as SROZ.

Goal 6: Air, Water, and Land Resources Quality

To maintain and improve the quality of the air, water and land resources of the state.

Response: The City of Wilsonville has addressed this goal through the Comprehensive Plan, Coffee Creek Master plan, and the Planning and Land Use Code. This application and proposed development is in compliance with these plans and thereby meets the requirements of goal 6.

Goal 7: Areas Subject to Natural Disasters and Hazards

To protect people and property from natural hazards.

Response: The proposed annexation area does not fall into any areas identified as natural hazards.

Goal 8: Recreation Needs

To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Response: The proposed annexation is part of the Coffee Creek Master Plan which outlines the area to serve the needs of the community with industrial type uses. The requirements for open space and recreational amenities on the site will be addressed during the development review of the proposed site plan.

Goal 9: Economic Development

To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

Response: The City Comprehensive Plan, Coffee Creek Master Plan, and UGB expansion agreement have planned for area including the proposed annexation area to be developed as light industrial area provided jobs for the City of Wilsonville and local region. The annexation of this territory will allow for the property to be zoned Planned Development Industrial. The proposed use of the site as a

mental health behavioral facility will produce jobs and increase the economics of the state.

Goal 10: Housing

To provide for the housing needs of citizens of the state.

Response: This land has been designated by Metro and City of Wilsonville through planning efforts to be developed as industrial and employments opportunities. This goal does not apply to this section.

Goal 11: Public Facilities and Services

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Response: The City Comprehensive Plan along with the Coffee Creek Master Plan includes the development of this site in planning for public facilities and services. The annexation will therefore meet the requirements of this goal.

Goal 12: Transportation

To provide and encourage a safe, convenient and economic transportation system.

Response: The City Comprehensive Plan and Coffee Creek Master Plan incorporate transportation sections which meet the needs of this goal. This annexation is in compliance with those plans and therefore meets the requirements of this goal.

Goal 13: Energy Conservation

To conserve energy.

Response: The City Comprehensive Plan and Coffee Creek Master Plan incorporate Energy Conservation within the plans. This annexation is of this area will allow for the type of development that is encouraged by these plans resulting in the efficient and productive use of the land in conjunction with surrounding uses.

Goal 14: Urbanization

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

Response: The City Comprehensive Plan and Coffee Creek Master Plan incorporate Urbanization within the plans designating the planned annexation area to be developed for employment purposes. The annexation of this site will allow for the proposed development to meet the City's plan for urbanizing this area.

REQUEST B: COMPREHENSIVE PLAN MAP AMENDMENT

The annexation of the parcels into the City of Wilsonville requires that the property be amended in the Comprehensive Plan. Below are the responses to the applicable land development criteria and Comprehensive Plan goals, policies and implementation measures, Metro regulations, and Oregon State Regulations.

Wilsonville Comprehensive Plan – Comprehensive Plan Changes

The City of Wilsonville's Comprehensive Plan provides the following procedure for amending the Comprehensive Plan:

Application for Comprehensive Plan Amendment

From the introduction of the Comprehensive Plan pages 7 thru 10

1. *Who May Initiate Plan Amendments? An amendment to the adopted Plan may be initiated by:*

- a. *The City Council*
- b. *The Planning Commission (for legislative amendments) or Development Review Board (for quasi-judicial amendments); or*
- c. *Application of the property owner(s) or contract purchaser(s) affected or their authorized agents, as specified in #2, below.*

2. *Application for Plan Amendments:*

An application for an amendment to the Plan maps or text shall be made on forms provided by the City. The application, except when initiated by the City Council, DRB, or Planning Commission, as noted in #1, above, shall be accompanied by a Plan Amendment Fee.

Response: The property owner through its authorized agent is applying to modify the City of Wilsonville Comprehensive Plan map to include the selected area as shown in Exhibit E from Washington County Future Development District to Wilsonville Industrial. The application has been completed with fees paid according to the fee schedule as shown in Exhibit A.

3. *The Consideration of Plan Amendments:*

- a. *Amendments to the maps or text of the Comprehensive Plan shall only be considered by the City Council after receiving findings and recommendations from the Planning Commission (legislative) or Development Review Board (quasi-judicial) at their regular or special meetings.*
- b. *Amendments must be initiated as provided in this section, sufficiently in advance of the first evidentiary hearing on the proposal to allow adequate time for providing public notice and preparing a staff report on the proposal. The first evidentiary hearing is usually the first public hearing held by the Planning Commission or Development Review Board on the proposal.*
- c. *This Plan, and each of its elements, is always open for amendments that consider compliance with the Statewide Planning Goals and Plans of Metro. Amendment and revision for compliance with the above regional Goals, Objectives, and Plans shall be consistent with any re-opening of local Plans as approved by the Land Conservation and Development Commission (LCDC). This provision is not*

to be construed as waiving any legal rights which the City may have to challenge the legality of a regional Goal, Objective or Plan provision.

- d. *The Planning Commission or City Council may conduct a public hearing at any time to consider an amendment to the Plan text or Plan map when the Commission or Council finds that the consideration of such amendments are necessary to comply with the rules, regulations, goals, guidelines or other legal actions of any governmental agency having jurisdiction over matters contained in said text or Plan map.*

Response: The review process will be quasi-judicial requiring a public hearing with the DRB. The application will be submitted to the City of Wilsonville and follow the amendment process.

4. *Standards for approval of Plan Amendments.*

In order to grant a Plan amendment, the City Council shall, after considering the recommendation of the Development Review Board (quasi-judicial) or Planning Commission (legislative), find that:

- a. *The proposed amendment is in conformance with those portions of the Plan that are not being considered for amendment.*
- b. *The granting of the amendment is in the public interest.*
- c. *The public interest is best served by granting the amendment at this time.*

Response: The map amendment meets the requirements of the Comprehensive Plan and associated plans. The proposed amendment is being sought in conjunction with an annexation of the property into the City of Wilsonville thereby requiring the area to be designated on the City Comprehensive Plan Map. The subject parcels are included in the Coffee Creek Master Plan which outlined the eventual annexation and development of the area as an industrial use that would support the public interest of the City of Wilsonville. This location is contiguous with existing development in the Wilsonville City limits and is consistent with the City adopted planning policy for the Coffee Creek area and this specific location.

d. *The following factors have been adequately addressed in the proposed amendment:*

1. *the suitability of the various areas for particular land uses and improvements;*

Response: As mentioned above, this area is part of the Coffee Creek Master Plan which has identified the properties as being highly suitable to industrial development and improvements.

2. *the land uses and improvements in the area;*

Response: Existing land uses and improvements in the area as stated in the introduction consist of industrial uses on the adjacent southern and eastern properties. The adjacent western and northern properties are currently rural residential uses. Land uses further west of the property include more industrial along with the Coffee Creek Correctional Facility. Recent roadway and infrastructure improvements in the area have been made to accommodate current and future industrial uses in the area.

3. trends in land improvement;

Response: There has been a trend in land improvements in the area to develop as industrial and employment centers in line with the comprehensive plan and Coffee Creek Master Plan.

4. density of development;

Response: While the proposed land use will be industrial and will not have a residential density associated with it, the location and scale of the proposed development does not exceed the adopted site development standards.

5. property values;

Response: The amendment is being applied for in conjunction with a proposed development of a behavioral health center with improvements that will be made on the existing road network. The development of the site along with the roadway improvements will have a positive effect on the development potential of the area and, accordingly, on the property values of the site and surrounding area.

6. the needs of economic enterprises in the future development of the area;

Response: The site development will compliment and encourage future growth in the Coffee Creek Master Plan area providing opportunities for development.

7. transportation access;

Response: Access will be provided to the site off of Day Road. A bus stop for is located at the corner of Day Road and Boones Ferry Road. Service is provided by Trimet on the Line 96 Route providing service to Downtown Portland and links to all other routes on the system.

8. natural resources;

Response: Development of the site has taken into consideration the topography of the site along with existing trees to minimize the amount of disturbance to the area, and otherwise complies with all applicable natural resource standards.

9. and the public need for healthful, safe and aesthetic surroundings and conditions.

Response: The proposed development will follow the Coffee Creek Master Plan, Planning and Development Code, and the Day Road Design Overlay District to ensure the development meets the quality standards and aesthetics sought by the City of Wilsonville.

e. Proposed changes or amendments to the Comprehensive Plan do not result in conflicts with applicable Metro requirements.

Response: The proposed changes are in conformance with Metro requirements by including the land in an industrial designation. With the Coffee Creek Master Plan for the area, Metro required that the city plan for the area for regionally significant industrial purposes.

Wilsonville Comprehensive Plan – Land Use and Development

General Development

GOAL 4.1 To have an attractive, functional, economically vital community with a balance of different types of land uses.

Implementation Measure 4.1.1.e The City shall protect existing and planned industrial and commercial lands from incompatible land uses, and will attempt to minimize deterrents to desired industrial and commercial development.

Response: The map amendment, along with the annexation of the property and requested zone change to the Planned Development Industrial will ensure that the property is compliant with the Coffee Creek Master Plan for the area. The proposed use will be compatible to existing adjacent land uses and for future developments that are encouraged in the master plan.

Industrial Development

Policy 4.1.3 City of Wilsonville shall encourage light industry compatible with the residential and urban nature of the City.

Implementation Measure 4.1.3.b Maintain high-quality industrial development that enhances the livability of the area and promotes diversified economic growth and a broad tax base.

Response: The map amendment allows the property to be zoned Planned Development Industrial – Regionally Significant industrial Area (PDI-RSIA) which will allow that the proposed development of the site with a Behavioral Health Facility adding to the City’s economic base.

Implementation Measure 4.1.3.c Favor capital intensive, rather than labor intensive, industries within the City.

Response: The proposed Behavioral Health Facility will employ an estimated 180 employees with medical/service/administrative/clerical positions providing a mix of job opportunities within the City of Wilsonville.

Implementation Measure 4.1.3.d Encourage industries interested in and willing to participate in development and preservation of a high-quality environment. Continue to require adherence to performance standards for all industrial operations within the City.

Response: The proposed Behavioral Health Facility will be a professional use and maintain high level of quality operations in the area. Building design and site location will maximize conformity with environmental considerations and the development standards of the City of Wilsonville.

Implementation Measure 4.1.3.f Encourage a diversity of industries compatible with the Plan to provide a variety of jobs for the citizens of the City and the local area.

Response: The proposed Behavioral Health Facility will employ an estimated 180 employees with medical/service/administrative/clerical positions providing a mix of job opportunities within the City of Wilsonville.

Implementation Measure 4.1.3.g Encourage energy-efficient, low-pollution industries.

Response: The proposed Behavioral Health Facility will consist of professional/service related uses on the property maximize energy efficiency in its daily operations and will be a low pollution use.

Implementation Measure 4.1.3.j All industrial areas will be developed in a manner consistent with industrial planned developments in Wilsonville. Non-industrial uses may be allowed within a Planned Development Industrial Zone, provided that those non-industrial uses do not limit the industrial development potential of the area.

Response: The proposed development will follow the standards of the Coffee Creek Master Plan and development standards of the City of Wilsonville. The development will provide an environment that compliments the neighboring industrial uses and serve as a catalyst for future developments along Day Road in line with goals of the Comprehensive Plan and Coffee Creek Master Plan.

Wilsonville Planning and Land Development Code

Section 4.198. Comprehensive Plan Changes - Adoption by the City Council.

(.01) Proposals to amend the Comprehensive Plan, or to adopt new elements or sub elements of the Plan, shall be subject to the procedures and criteria contained in the Comprehensive Plan. Each such amendment shall include findings in support of the following:

- A. That the proposed amendment meets a public need that has been identified;*
- B. That the proposed amendment meets the identified public need at least as well as any other amendment or change that could reasonably be made;*
- C. That the proposed amendment supports applicable Statewide Planning Goals, or a Goal exception has been found to be appropriate; and*
- D. That the proposed change will not result in conflicts with any portion of the Comprehensive Plan that is not being amended.*

Response: The Coffee Creek Master Plan identifies the area of the proposed map amendment to be included and developed in the City of Wilsonville as an industrial use area to meet the needs of the community for economic growth and diversification. The Coffee Creek Master Plan meets the requirements by Metro to designate the land of the subject area as a regionally significant industrial area. The plan, along with Comprehensive Plan is consistent with the applicable statewide planning goals. As stated above regarding the Comprehensive Plan criteria, the amendment will not conflict with any portion of the Comprehensive Plan that is not being amended.

OAR 660-012-0060 Transportation Planning Rule for Plan and Land Use Regulation Amendment

Amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. This shall be accomplished by either:

- (a) Limiting allowed land uses to be consistent with the planned function, capacity, and performance standards of the transportation facility;*
 - (b) Amending the TSP to provide transportation facilities adequate to support the proposed land uses consistent with the requirements of this division;*
 - (c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes; or*
 - (d) Amending the TSP to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided.*
- (2). A plan or land use regulation amendment significantly affects a transportation facility if it:*
- (a) Changes the functional classification of an existing or planned transportation facility;*
 - (b) Changes standards implementing a functional classification system;*
 - (c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or*
 - (d) Would reduce the performance standards of the facility below the minimum acceptable level identified in the TSP.*

Response: The requested map amendment does not propose any amendments to the Wilsonville Transportation Systems Plan (TSP). A Traffic Impact Analysis (TIA) shown in Exhibit P stated that the City of Wilsonville's approved (TSP) had accounted for the level of development proposed at the site. The analysis stated that the proposed development would not result in a significant effect on the City of Wilsonville's transportation system.

REQUEST C: ZONE MAP AMENDMENT

The annexation of the parcels into the City of Wilsonville require that the property be rezoned to a city zoning designation. The applicant is requesting that the designation of Planned Development Industrial – Regionally Significant Industrial Area be applied to the parcels with their annexation into the City of Wilsonville. Below are the responses to the applicable land development criteria and Comprehensive Plan goals, policies and implementation measures.

City of Wilsonville Comprehensive Plan

Land use and Development

Implementation Measure 4.1.1.e The City shall protect existing and planned industrial and commercial lands from incompatible land uses, and will attempt to minimize deterrents to desired industrial and commercial development.

Response: The proposed zone amendment to Planned District Industrial - Regionally Specific Industrial Area follows the Coffee Creek Master Plan and Metro designation for the area to be developed with industrial uses.

Implementation Measure 4.1.3.e Site industries where they can take advantage of existing transportation corridors such as the freeway, river, and railroad.

Response: The proposed site is located less than a half mile from the I5/ SW Elligsen Rd Interchange.

Planning and Land Development Ordinance

Section 4.029. Zoning to be Consistent with Comprehensive Plan.

If a development, other than a short-term temporary use, is proposed on a parcel or lot which is not zoned in accordance with the Comprehensive Plan, the applicant must receive approval of a zone change prior to, or concurrently with the approval of an application for a Planned Development.

Response: The application for a zone change is concurrent with an application for annexation, and comprehensive plan map amendment. The requested PDI-RSIA zone will be consistent with the requested Industrial designation for the Comprehensive Plan map amendment. The requested zone is also consistent with the Coffee Creek Master Plan.

Section 4.110. Zoning - Zones.

(.01) The following Base Zones are established by this Code:

E. Planned Development Industrial, which shall be designated "PDI."

Response: The Requested PDI-RSIA is the appropriate Base Zone for the site per the Comprehensive Plan.

Section 4.134. Day Road Design Overlay District

(.01) Purpose. The Day Road Design Overlay District (DOD) is an overlay district within the larger Planned Development Industrial - Regionally Significant Industrial Area (RSIA) Zone. It is the purpose of the Day Road DOD to establish standards for site design and exterior architecture of all structures located in the Day Road DOD in order to ensure high quality design of development and redevelopment at the Day Road gateway to the City of Wilsonville.

(.02) Applicability. The Day Road DOD shall apply to all properties abutting Day Road. The provisions of this section shall apply to:

A. All new building construction

B. Any exterior modifications to existing, non-residential buildings

C. All new parking lots

D. All outdoor storage and display areas

E. All new signage

F. All building expansions greater than 1,250 square feet.

Response: The subject area is located within the Day Road Overlay.

Section 4.135.5: Planned Development Industrial – Regionally Significant Industrial Area

(.01) Purpose. The purpose of the PDI-RSIA Zone is to provide opportunities for regionally significant industrial operations along with a limited and appropriate range of related and compatible uses; to provide the flexibility to accommodate the changing nature of industrial employment centers, to protect industrially zoned lands for industrial uses, primarily in those areas near significant transportation facilities for the movement of freight and to facilitate the redevelopment of under-utilized industrial sites.

(.02) The PDI-RSIA Zone shall be governed by Section 4.140, Planned Development Regulations, and as otherwise set forth in this Code.

Response: The subject areas location requires the PDI-RSIA zoning be applied when annexed and developed into the city. The proposed use should be permitted under the Planning Directors discretion for a use that is consistent with the purpose of the PDI-RSIA zone.

Section 4.197. Zone Changes and Amendments To This Code – Procedures.

(.02) In recommending approval or denial of a proposed zone map amendment, the Planning Commission or Development Review Board shall at a minimum, adopt findings addressing the following criteria:

A. That the application before the Commission or Board was submitted in accordance with the procedures set forth in Section 4.008, Section 4.125 (.18)(B)(2) or, in the case of a Planned Development, Section 4.140; and

Response: The application has been submitted in accordance with the procedures set forth in section 4.008 and 4.140 Planned Development Regulations.

B. That the proposed amendment is consistent with the Comprehensive Plan map designation and substantially complies with the applicable goals, policies and objectives, set forth in the Comprehensive Plan text; and

Response: The proposed zone change is requested concurrently with a Comprehensive Plan map amendment for industrial which will be consistent with the PDI-RSIA.

D. That the existing primary public facilities, i.e., roads and sidewalks, water, sewer and storm sewer are available and are of adequate size to serve the proposed development; or, that adequate facilities can be provided in conjunction with project development. The Planning Commission and Development Review Board shall utilize any and all means to insure that all primary facilities are available and are adequately sized; and

Response: The Stage II Plan narrative and Traffic Impact Analysis conducted by DKS Associates identifies the adequacy of public facilities necessary to serve the site and proposed use.

E. That the proposed development does not have a significant adverse effect upon Significant Resource Overlay Zone areas, an identified natural hazard, or an identified geologic hazard. When Significant Resource Overlay Zone areas or natural hazard, and/or geologic hazard are located on or abut the proposed development, the Planning Commission or Development Review Board shall use appropriate measures to mitigate and significantly reduce conflicts between the development and identified hazard or Significant Resource Overlay Zone and

Response: The proposed development does not fall within a Significant Resource Overlay Zone area. A wetlands / natural resources report shown in Exhibit O did not identify any natural resources on the site.

F. That the applicant is committed to a development schedule demonstrating that the development of the property is reasonably expected to commence within two (2) years of the initial approval of the zone change; and

Response: The application is concurrent with the stage I Preliminary Plan review and stage II Final Plan review. The applicant is committed to starting construction on the project upon all necessary approvals.

G. That the proposed development and use(s) can be developed in compliance with the applicable development standards or appropriate conditions are attached that insure that the project development substantially conforms to the applicable development standards.

Response: The Stage I and II Plan Reports and Site Design Review Reports show that the proposed development can be built with the applicable development standards.

H. Adequate public facilities, services, and transportation networks are in place, or are planned to be provided concurrently with the development of the property. The applicant shall demonstrate compliance with the Transportation Planning Rule, specifically by addressing whether the

proposed amendment has a significant effect on the transportation system pursuant to OAR 660-012-0060. A Traffic Impact Analysis (TIA) shall be prepared pursuant to the requirements in Section 4.133.05.(01).

Response: The requested map amendment does not propose any amendments to the Wilsonville Transportation Systems Plan (TSP). A Traffic Impact Analysis (TIA) is currently being conducted by DKS Associates. Upon completion of the TIA, an amended response to these criteria will be provided as Exhibit P.

REQUEST D: STAGE I PRELIMINARY PLAN REVIEW

The development proposal has combined numerous applications within the request. The stage I Preliminary Plan Review, Stage II Final Plan Review, and Site Design Review are being conducted concurrently. The applicable criteria for the various applications are included throughout the following chapters.

Coffee Creek Master Plan

The subject property lies within the boundaries of the Coffee Creek Master Plan area. The plan was created to plan for land that had been added to the Urban Growth Boundary. Continued growth in the area highlighted the need to create a plan to address growth and the demand for infrastructure improvements. The planning effort evaluated existing conditions and made several recommendations regarding land use and infrastructure needs. The majority of the recommendations and guidelines pertain to the City of Wilsonville creating new polices and capital improvements for the area.

Regarding Land use, the plan recognized the city's zoning district of Planned Development Industrial – Regionally Significant Industrial Area (PDI-RSIA) as setting the standards for land use for the entire area.

“The PDI-RSIA designation will help meet the Region’s documented needs for high wage light industrial development, and provide a land use type that is compatible with surrounding industrial uses, and the Coffee Creek Correctional Facility.”

The plan recommended that a design overlay be created along Day Road to implement specific design standards that were in addition to the criteria in the PDI-RSIA. The Day Road Design Overlay District (DOD) was added to the Planning and Land Development Ordinance in 2008. The purpose of the overlay district is to establish standards for site design and exterior architecture for properties abutting Day Road. The standards of the DOD are addressed in the Site Design Review.

Wilsonville Planning and Land Development Code

The following criteria are those deemed applicable to the proposed development regarding the Stage I and Stage II Master Plan Reviews.

Section 4.140 Planned Development Regulations

(.02) Lot Qualification.

- B. Any site designated for development in the Comprehensive Plan may be developed as a Planned Development, provided that it is zoned “PD.”*

Response: The subject property is proposed to be zoned to PDI-RSIA with the concurrent zoning map amendment request

(.03) Ownership.

- A. The tract or tracts of land included in a proposed Planned Development must be in one (1) ownership or control or the subject of a joint application by the owners of all the property included. The holder of a written option to purchase, with written authorization by the owner to make applications, shall be deemed the owner of such land for the purposes of Section 4.140.*
- B. Unless otherwise provided as a condition for approval of a Planned Development permit, the permittee may divide and transfer units or parcels of any development. The transferee shall use and maintain each such unit or parcel in strict conformance with the approval permit and development plan.*

Response: The subject property consists of three tax lots authorized by the owner for the applicant Universal Health Services, Inc (UHS) to be developed in accordance with the submitted application. UHS is the holder of an option to purchase, and the written authorization of the current landowner is included as the application in Exhibit A.

(.04) Professional Design.

- A. The applicant for all proposed Planned Developments shall certify that the professional services of the appropriate professionals have been utilized in the planning process for development.*
- B. Appropriate professionals shall include, but not be limited to the following to provide the elements of the planning process set out in Section 4.139:*
- 1. An architect licensed by the State of Oregon;*
 - 2. A landscape architect registered by the State of Oregon;*
 - 3. An urban planner holding full membership in the American Institute of Certified Planners, or a professional planner with prior experience representing clients before the Development Review Board, Planning Commission, or City Council; or*
 - 4. A registered engineer or a land surveyor licensed by the State of Oregon.*
- C. One of the professional consultants chosen by the applicant from either 1, 2, or 3, above, shall be designated to be responsible for conferring with the planning staff with respect to the concept and details of the plan.*
- D. The selection of the professional coordinator of the design team will not limit the owner or the developer in consulting with the planning staff.*

Response: The development team includes a number of professionals from various disciplines, including a licensed architect, landscape architect, engineer and land surveyor, and a certified urban planner. The project team information is presented in the Project Summary at the beginning of this application. The primary point of contact is Ken Sandblast of Westlake Consultants, who is a member of the American Institute of Certified Planners.

(.05) Planned Development Permit Process.

- A. All parcels of land exceeding two (2) acres in size that are to be used for residential, commercial or industrial development, shall, prior to the issuance of any building permit:*

1. Be zoned for planned development;
 2. Obtain a planned development permit; and
 3. Obtain Development Review Board, or, on appeal, City Council approval.
- C. Zone change and amendment to the zoning map are governed by the applicable provisions of the Zoning Sections, inclusive of Section 4.197
- D. Development Review Board approval is governed by Sections 4.400 to 4.450
- E. All planned developments require a planned development permit. The planned development permit review and approval process consists of the following multiple stages, the last two or three of which can be combined at the request of the applicant:
1. Pre-application conference with Planning Department;
 2. Preliminary (Stage I) review by the Development Review Board. When a zone change is necessary, application for such change shall be made simultaneously with an application for preliminary approval to the Board; and
 3. Final (Stage II) review by the Development Review Board
 4. In the case of a zone change and zone boundary amendment, City Council approval is required to authorize a Stage I preliminary plan.

Response: This Planned Development proposal involves a number of consolidated applications, including an Annexation Request, Comprehensive Plan Map Amendment Request, Zone Change, Planned Development Stage I and Stage II Review, Site and Design Review, a Type C Tree Removal application, a Master Sign Plan, and associated waiver requests. The applicant has had a formal pre-application conference with the Planning Department, as well as several follow up meetings.

(.06) Staff Report:

Response: This section provides procedural guidance, for which no finding of compliance is necessary at this time.

(.07) Preliminary Approval (Stage One):

- A. Applications for preliminary approval for planned developments shall:
1. Be made by the owner of all affected property or the owner's authorized agent; and
 2. Be filed on a form prescribed by the City Planning Department and filed with said Department.
 3. Set forth the professional coordinator and professional design team as provided in subsection (.04), above.
 4. State whether the development will include mixed land uses, and if so, what uses and in what proportions and locations.

Response: The proposed development will include a single use on the property. The applicant is authorized by the owner of all affected property. The applicant has filed all appropriate City of Wilsonville forms. This application package contains all information required by this section.

- B. The application shall include conceptual and quantitatively accurate representations of the entire development sufficient to judge the scope, size, and impact of the development on the community; and, in addition to the requirements set forth in Section 4.035, shall be accompanied by the following information:

1. A boundary survey or a certified boundary description by a registered engineer or licensed surveyor.
2. Topographic information as set forth in Section 4.035
3. A tabulation of the land area to be devoted to various uses, and a calculation of the average residential density per net acre.
4. A stage development schedule demonstrating that the developer intends receive Stage II approval within two (2) years of receiving Stage I approval, and to commence construction within two (2) years after the approval of the final development plan, and will proceed diligently to completion; unless a phased development schedule has been approved; in which case adherence to that schedule shall be considered to constitute diligent pursuit of project completion.
5. A commitment by the applicant to provide in the Final Approval (Stage II) a performance bond or other acceptable security for the capital improvements required by the project.
6. If it is proposed that the final development plan will be executed in stages, a schedule thereof shall be provided.
7. Statement of anticipated waivers from any of the applicable site development standards.

Response: This proposal includes both a Stage I and a Stage II Planned Development Review. The application package contains all information required by Sections 4.140.08 and 4.140.09 for these two applications, as well as additional information for other applications also consolidated with this proposal.

- C. An application for a Stage I approval shall be considered by the Development Review Board as follows:

Response: This section provides procedural guidance to the staff and Development Review Board, for which no finding of compliance is necessary at this time.

(.09) Final Approval (Stage Two):

- A. Unless an extension has been granted by the Development Review Board, within two (2) years after the approval or modified approval of a preliminary development plan (Stage I), the applicant shall file with the City Planning Department a final plan for the entire development or when submission in stages has been authorized pursuant to Section 4.035 for the first unit of the development, a public hearing shall be held on each such application as provided in Section 4.013.
- B. After such hearing, the Development Review Board shall determine whether the proposal conforms to the permit criteria set forth in this Code, and shall approve, conditionally approve, or disapprove the application.

C. The final plan shall conform in all major respects with the approved preliminary development plan, and shall include all information included in the preliminary plan plus the following:

1. The location of water, sewerage and drainage facilities;
2. Preliminary building and landscaping plans and elevations, sufficient to indicate the general character of the development;
3. The general type and location of signs;
4. Topographic information as set forth in Section 4.035;
5. A map indicating the types and locations of all proposed uses; and
6. A grading plan.

D. The final plan shall be sufficiently detailed to indicate fully the ultimate operation and appearance of the development or phase of development. However, Site Design Review is a separate and more detailed review of proposed design features, subject to the standards of Section 4.400.

E. Copies of legal documents required by the Development Review Board for dedication or reservation of public facilities, or for the creation of a non-profit homeowner's association, shall also be submitted.

Response: This proposal includes both a Stage I and a Stage II Planned Development Review. The application package contains all information required by Sections 4.140.08 and 4.140.09 for these two applications, as well as additional information for other applications also consolidated with this proposal. The Applicant intends to complete all site improvements and building construction within two years of approval of this application.

F. Within thirty (30) days after the filing of the final development plan, the Planning staff shall

Response: This section provides procedural guidance to the Planning Staff, for which no finding of compliance is necessary at this time.

G. Upon receipt of the final development plan, the Development Review Board shall

Response: This section provides procedural guidance to the Development Review Board, for which no finding of compliance is necessary at this time.

H. If the Development Review Board permits the applicant to revise the plan, it shall be resubmitted as a final development plan within sixty (60) days. If the Board approves, disapproves or grants such permission to resubmit, the decision of the Board shall become final at the end of the appeal period for the decision, unless appealed to the City Council, in accordance with Sections 4.022 of this Code.

Response: This section provides procedural guidance for which no finding of compliance is necessary at this time.

I. All Stage II Site Development plan approvals shall expire two years after their approval date, if substantial development has not occurred on the property prior to that time. Provided, however,

that the Development Review Board may extend these expiration times for up to three (3) additional periods of not more than one (1) year each. Applicants seeking time extensions shall....

Response: This section provides procedural guidance for which no finding of compliance is necessary at this time. The applicant acknowledges that the Stage II Site Development approval will expire two years after the approval date, and intends to complete, or substantially complete, site improvements within that two year time period.

J. A planned development permit may be granted by the Development Review Board only if it is found that the development conforms to all the following criteria, as well as to the Planned Development Regulations in Section 4.140:

1. The location, design, size and uses, both separately and as a whole, are consistent with the Comprehensive Plan, and with any other applicable plan, development map or Ordinance adopted by the City Council.

Response: The evidence, including submitted plans and other materials, narrative, and recommended findings of fact and conclusions of law presented by the Applicant, demonstrates that the proposed development is consistent with the Comprehensive Plan and all other applicable ordinances and plans adopted by the City Council.

2. That the location, design, size and uses are such that traffic generated by the development can be accommodated safely and without congestion in excess of level of service "D" defined in the highway capacity manual published by the National Highway Research Board on existing or immediately planned arterial or collector streets and will, in the case of commercial or industrial developments, avoid traversing local streets. Immediately planned arterial and collector streets are those listed in the City's adopted Capital Improvement Program, for which funding has been approved or committed, and that are scheduled for completion within two years of occupancy of the development or four year if they are an associated crossing, interchange, or approach street improvement to Interstate 5.

a. In determining levels of Service D, the City shall hire a traffic engineer at the applicant's expense who shall prepare a written report containing the following minimum information for consideration by the Development Review Board:

- i. An estimate of the amount of traffic generated by the proposed development, the likely routes of travel of the estimated generated traffic, and the source(s) of information of the estimate of the traffic generated and the likely routes of travel; [Added by Ord. 561, adopted 12/15/03.]
- ii. What impact the estimate generated traffic will have on existing level of service including traffic generated by (1) the development itself, (2) all existing developments, (3) Stage II developments approved but not yet built, and (4) all developments that have vested traffic generation rights under section 4.140(.10),

through the most probable used intersection(s), including state and county intersections, at the time of peak level of traffic. This analysis shall be conducted for each direction of travel if backup from other intersections will interfere with intersection operations. [Amended by Ord 561, adopted 12/15/03.]

- b. The following are exempt from meeting the Level of Service D criteria standard:
 - i. A planned development or expansion thereof which generates three (3) new p.m. peak hour traffic trips or less;
 - ii. A planned development or expansion thereof which provides an essential governmental service.
- c. Traffic generated by development exempted under this subsection on or after Ordinance No. 463 was enacted shall not be counted in determining levels of service for any future applicant. [Added by Ord 561, adopted 12/15/03.]
- d. Exemptions under 'b' of this subsection shall not exempt the development or expansion from payment of system development charges or other applicable regulations. [Added by Ord 561, adopted 12/15/03.]
- e. In no case will development be permitted that creates an aggregate level of traffic at LOS "F". ([Added by Ord 561, adopted 12/15/03.]

Response: A traffic impact analysis was conducted by the city contracted engineer as shown in Exhibit P. In order to mitigate the impact on traffic created by the site, employee shift change will be conducted during non peak hours. This will allow the site to have a minimal impact during peak travel times for the area. Right of Way improvements along Day Road and Boones Ferry Road conducted by the applicant will enhance the capabilities of the area roadways. The Traffic Analysis stated that the project was in conformance with planned traffic increases in the area and would not have a negative impact on the transportation system.

- 3. That the location, design, size and uses are such that the residents or establishments to be accommodated will be adequately served by existing or immediately planned facilities and services.

Response: The proposed development plan details how existing/proposed utilities will adequately serve the site. The necessary water, sewer and storm water utilities have been designed to serve the proposed development and accommodate future adjacent development as needed. The existing utilities and proposed utility improvements are shown in the preliminary engineering drawings, Exhibit I.

- K. Mapping: Whenever a Planned Development permit has been granted, and so long as the permit is in effect, the boundary of the Planned Development shall be indicated on the Zoning Map of the City of Wilsonville as the appropriate "PD" Zone.

Response: This section provides procedural guidance to City staff, for which no finding of compliance is necessary at this time.

- L. Adherence to Approved Plan and Modification Thereof: The applicant shall agree in writing to be bound, for her/himself and her/his successors in interest, by the conditions prescribed for approval of a development. The approved final plan and stage development schedule shall control the issuance of all building permits and shall restrict the nature, location and design of all uses. Minor changes in an approved preliminary or final development plan may be approved by the Director of Planning if such changes are consistent with the purposes and general character of the development plan. All other modifications, including extension or revision of the stage development schedule, shall be processed in the same manner as the original application and shall be subject to the same procedural requirements.

Response: Compliance with this standard may be assured through an appropriate condition of approval. The Applicant acknowledges that significant modification to the approved plan may require additional permitting steps.

- M. In the event of a failure to comply with the approved plan or any prescribed condition of approval, including failure to comply with the stage development schedule, the Development Review Board may, after notice and hearing, revoke a Planned Development permit. General economic conditions that affect all in a similar manner may be considered as a basis for an extension of a development schedule. The determination of the Board shall become final thirty (30) days after the date of decision unless appealed to the City Council.

Response: This section provides procedural guidance for which no finding of compliance is necessary at this time.

REQUEST E: STAGE II FINAL PLAN REVIEW

This application requests Stage II Final Plan approval for the entire proposed development. The following identifies the sections of the Wilsonville Planning and Land Development Code applicable to the proposal and addresses how the proposed development meets each:

Wilsonville Planning and Land Development Code

Section 4.117. Standards Applying To Industrial Developments In Any Zone.

(.01) All industrial developments, uses, or activities are subject to performance standards. If not otherwise specified in the Planning and Development Code, industrial developments, uses, and activities shall be subject to the performance standards specified in Section 4.135 (.05) (PDI Zone).

Response: As mentioned in the zone amendment application, the property will be located in the PDI-RSIA zone and the Day Road Overlay Zone. The development will meet the requirements and standards set forth in those sections.

Section 4.118. Standards applying to all Planned Development Zones:

(.02) Underground Utilities shall be governed by Sections 4.300 to 4.320. All utilities above ground shall be located so as to minimize adverse impacts on the site and neighboring properties.

Response: The site has been designed with all utility lines serving the site placed underground, with the exception of those necessary items, such as transformers, that cannot be undergrounded.

(.03) Notwithstanding the provisions of Section 4.140 to the contrary, the Development Review Board, in order to implement the purposes and objectives of Section 4.140, and based on findings of fact supported by the record may:

A. Waive the following typical development standards:

1. Minimum lot area;
2. Lot width and frontage;
3. Height and yard requirements;
4. Lot coverage;
5. Lot depth;
6. Street widths;
7. Sidewalk requirements;
8. Height of buildings other than signs;
9. Parking space configuration;
10. Minimum number of parking or loading spaces;
11. Shade tree islands in parking lots, provided that alternative shading is provided;
12. Fence height;
13. Architectural design standards;
14. Transit facilities;
15. On-site pedestrian access and circulation standards; and
16. Solar access standards, as provided in Section 4.137

Response: This application requests waivers subject to this provision as follows:

- Minimum building height required for the Day Road Overlay; this building is designed with a maximum height of 38'4". This waiver is addressed in greater detail in Request F: Site Plan Review, Day Road Overlay Design Standards.
- Minimum amount of glazing required for the Day Road Overlay; this waiver is addressed in greater detail in Request F: Site Plan Review, Day Road Overlay Design Standards.

B. The following shall not be waived by the Board, unless there is substantial evidence in the whole record to support a finding that the intent and purpose of the standards will be met in alternative ways:

1. Open space requirements in residential areas;
2. Minimum density standards of residential zones;
3. Minimum landscape, buffering, and screening standards.

C. The following shall not be waived by the Board, unless there is substantial evidence in the whole record to support a finding that the intent and purpose of the standards will be met in alternative ways, and the action taken will not violate any applicable federal, state, or regional standards:

1. Maximum number of parking spaces;
2. Standards for mitigation of trees that are removed;
3. Standards for mitigation of wetlands that are filled or damaged; and
4. Trails or pathways shown in the Parks and Recreation Master Plan.

Response: This application does not request waivers of the items listed above

(.08) Wetland Mitigation and other mitigation for lost or damaged resources. The Development Review Board may, after considering the testimony of experts in the field, allow for the replacement of resource areas with newly created or enhanced resource areas. The Board may specify the ratio of lost to created and/or enhanced areas after making findings based on information in the record. As much as possible, mitigation areas shall replicate the beneficial values of the lost or damaged resource areas.

Response: A wetlands report as shown is Exhibit O was conducted on the subject site and did not show any wetlands or significant resources on the site.

(.09) Habitat-Friendly Development Practices. To the extent practicable, development and construction activities of any lot shall consider the use of habitat-friendly development practices, which include:

- A. Minimizing grading, removal of native vegetation, disturbance and removal of native soils, and impervious area;
- B. Minimizing adverse hydrological impacts on water resources, such as using the practices described in Part (a) of Table NR-2 in Section 4.139.03, unless their use is prohibited by an applicable and required state or federal permit, such as a permit required under the federal

Clean Water Act, 33 U.S.C. §§1251 et seq., or the federal Safe Drinking Water Act, 42 U.S.C. §§300f et seq., and including conditions or plans required by such permit;

C. Minimizing impacts on wildlife corridors and fish passage, such as by using the practices described in Part (b) of Table NR-2 in Section 4.139.03; and

D. Using the practices described in Part (c) of Table NR-2 in Section 4.139.03.

Response: The proposed development has incorporated the following environmental and habitat friendly design principles into the plan;

- **Building, infrastructure, and parking areas configured to reduce the amount of grading and disturbance to the natural topography of the site.**
- **Preservation of approximately 2/3 of the existing trees.**
- **Compact development to increase the amount of landscaped areas.**

Section 4.135.5: Planned Development Industrial – Regionally Significant Industrial Area

(.01) Purpose. The purpose of the PDI-RSIA Zone is to provide opportunities for regionally significant industrial operations along with a limited and appropriate range of related and compatible uses; to provide the flexibility to accommodate the changing nature of industrial employment centers, to protect industrially zoned lands for industrial uses, primarily in those areas near significant transportation facilities for the movement of freight and to facilitate the redevelopment of under-utilized industrial sites.

(.02) The PDI-RSIA Zone shall be governed by Section 4.140, Planned Development Regulations, and as otherwise set forth in this Code.

(.03) Uses that are typically permitted:

A. Wholesale houses, storage units, and warehouses.

B. Laboratories, storage buildings, warehouses, and cold storage plants.

C. Assembly of electrical equipment, including the manufacture of small parts.

D. The light manufacturing, simple compounding or processing packaging, assembling and/or treatment of products, cosmetics, drugs, and food products, unless such use is inconsistent with air pollution, excess noise, or water pollution standards.

E. Office Complexes-Technology (as defined in Section 4.001).

F. Experimental, film or testing laboratories.

G. Storage and distribution of grain, livestock feed, provided dust and smell is effectively controlled.

H. Motor vehicle service facilities complementary or incidental to permitted uses.

I. Any use allowed in a PDC Zone or any other light industrial uses provided that any such use is compatible with industrial use and is planned and developed in a manner consistent with the purposes and objectives of Sections 4.130 to 4.140 and is subject to the following criteria:

1. Service Commercial (defined as professional services that cater to daily customers such as financial, insurance, real estate, legal, medical or dental offices) shall not exceed 3000 square feet of floor space in a single building or 20,000 square feet of combined floor area within a multiple building development.

2. Office Use (as defined in Section 4.001) shall not exceed 20% of total floor area within a project site. 3. Retail uses not to exceed 3000 square feet of indoor and outdoor sales, service, or inventory storage area for a single building or 20,000 square feet of indoor and outdoor sales, service or inventory storage area for multiple buildings.

3. Combined uses under I.1 and 3. above shall not exceed a total of 3000 square feet of floor area in a single building or 20,000 square feet of combined floor area within a multi-building development.

J. Residential uses shall not exceed 10% of total floor area.

K. Accessory uses, buildings and structures customarily incidental to any of the aforesaid principal permitted uses.

L. Temporary buildings or structures for uses incidental to construction work, which buildings or structures shall be removed upon completion or abandonment of the construction work.

M. Expansion of a building, structure or use approved prior to October 25, 2004 of up to 20% additional floor area and/or 10% additional land area.

N. Other similar uses which in the judgment of the Planning Director are consistent with the purpose of the PDI-RSIA Zone.

(.04) Prohibited uses.

A. Retail operations exceeding 3,000 square feet of area for sales, service area or storage area for retail inventory in a single building, or 20,000 square feet of sales, service or storage area for multiple buildings, except training facilities whose primary purpose is to provide training to meet industrial needs.

B. Any use or activity that violates the performance standards specified in Subsection 4.135.5(.06), below.

Response: As explained more fully below, the proposed Willamette Behavioral Health Facility is consistent with the purpose of the PDI-RSIA zone, as required under .03(N) above, because 1) it is compatible with industrial operations, 2) it provides an employment center consistent with the Wilsonville Comprehensive Plan, 3) it facilitates the redevelopment of under-utilized industrial sites within the Coffee Creek Master Plan area and within the Day Road Design Overlay District, and 4) is a transition point between zoning districts and the Day Road Design Overlay District.

First, the proposed use is consistent with industrial operations in the area because it contains industrial use elements such as research and training at the facility in coordination with local educational institutions, as well as storing and warehousing of medical equipment and supplies in areas dedicated to such use. Additionally, as with most industrial uses, the proposed facility will generate limited vehicle trips due to its predominate inpatient services and given that shift changes occur during off peak travel times. Contrary to a high vehicle trip-generating retail or office use, the proposed facility is not the type of use that will result in high numbers of pass-by vehicle trips or destination vehicle trips, consistent with traditional commercial uses.

Secondly, the proposed facility is consistent with the Wilsonville Comprehensive Plan for the area which calls for industrial areas to be utilized as employment centers. The Plan designates that industrial areas should have a density of 9 employees per acre with employment centers at 20 employees per acre. The facility will have approximately 190 employees which equate to 29 employees per acre. On average, employees at the facility will have higher-based salaries compared to most other employees in the PDI-RSIA. This is consistent with changing nature in employment areas in the region which have seen higher salary wages with changing types of uses in industrial areas.

Thirdly, the proposed Willamette Behavioral Health Facility will facilitate the redevelopment of under-utilized industrial sites and serve as a catalyst for economic development in the area. The subject Property is largely vacant and underdeveloped with a single family house on 8.67 acres, similar to many of the other industrially-zoned properties within the Coffee Creek Master Plan area and, more specifically, the Day Road Design Overlay District (DOD). A combination of factors have combined to limit development in the Coffee Creek Master Plan and DOD to date, including limited public utility lines, underdeveloped transportation network, and zoning regulations. Development of the proposed Behavioral Health Facility will encourage development of other sites in the DOD. Stated another way, construction and operation of the proposed Behavioral Health Facility will establish and confirm the necessary elements of such development in the area and, in turn, facilitate the redevelopment of other nearby industrial sites.

Finally, the site is located on edge of the Day Road Design Overlay District, Coffee Creek Master Plan Area, and industrial zoning districts to the south. With the Planned Commercial District east of the site, the proposed facility will serve as a transition piece between the commercial and industrial districts. The nature of the use is compatible with developments in both districts. This is also the point where the Day Road Design Overlay District begins, with its standards implemented into the design of the building. As proposed, the building and site layout present a visual and aesthetic transition at a key intersection in the north Wilsonville area, into the DOD from the existing adjacent industrial and commercial developments.

For these reasons, the Planning Director can find that the proposed Willamette Behavioral Health Facility is consistent with the purpose of the PDI-RSIA zone and thus a permitted use, as per 4.135.5.03.N, in the PDI-RSIA zone.

(.05) *Block and Access Standards. The PDI-RSIA Zone shall be subject to the same block and access standards as the PDC Zone [Section 4.131(.02) and (.03)].*

Section 4.131 PDC – Planned Development Commercial

(.03) *Block and access standards:*

1. *The Development Review Board shall determine appropriate conditions of approval to assure that adequate connectivity results for pedestrians, bicyclists, and motor vehicle drivers. Consideration shall be given to the use of public transit as a means of meeting access needs.*
2. *Where a residential development, or mixed-use development including residential development, is proposed in a PDC zone, the Development Review Board shall assure that adequate connectivity is provided meeting the standards of Metro's Urban Growth Management Functional Plan.*
3. *Where a residential development, or mixed-use development including residential development is proposed in a PDC zone, and the application includes a land division, the following standards shall be applied:*
 - a. *Maximum spacing between streets for local access: 530 feet, unless waived by the Development Review Board upon finding that barriers such as railroads, freeways, existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent street extensions meeting this standard. [Amended by Ordinance No. 538, 2/21/02.]*
 - b. *Maximum block length without pedestrian and bicycle crossing: 330 feet, unless waived by buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent pedestrian and bicycle facility extensions meeting this standard.*

Response: The proposed development plan includes pedestrian, bicycle, and motor vehicle connectivity throughout the site. The plan incorporates pedestrian pathways to all main building entrances, and provides connections from all development areas to the streets and surrounding development.

Section 4.135.5: Planned Development Industrial – Regionally Significant Industrial Area

(.06) *Performance Standards. The following performance standards apply to all industrial properties and sites within the PDI-RSIA Zone, and are intended to minimize the potential adverse impacts of industrial activities on the general public and on other land uses or activities. They are not intended to prevent conflicts between different uses or activities that may occur on the same property or site.*

- A. *All uses and operations except storage, off-street parking, loading and unloading shall be confined, contained and conducted wholly within completely enclosed buildings, unless outdoor activities have been approved as part of Stage II, Site Design or Administrative Review.*

Response: Outdoor activities will include activity yards at the rear of the facility as depicted on the building plan Exhibit H. The activity yards are enclosed by the building on three sides with a 15 foot screened wire mesh fence on the rear end.

- B. *Vibration: Every use shall be so operated that the ground vibration inherently and recurrently generated from equipment other than vehicles is not perceptible without instruments at any boundary line of the property or site on which the use is located.*

Response: The use of the site will not have any vibrations.

C. Emission of odorous gases or other odorous matter in quantities detectable at any time and at any point on any boundary line of the property or site on which the use is located are prohibited.

Response: There are no emissions other than the small kitchen exhaust. The kitchen exhaust is not expected to be detectable across the property line.

D. Any open storage shall comply with the provisions of Section 4.176 and this Section.

Response: The only proposed exterior storage is for the solid waste and recycling, which will be enclosed in materials similar to the building. Landscaping is also proposed along the walls. The design is more thoroughly discussed in its section 4.176 of this review describing landscaping along with section 4.430 in the Site design which deals with solid waste and recycling requirements.

E. No building customarily used for night operation, such as a bakery, bottling and distribution plant or other similar use, shall have any opening, other than stationary windows or required fire exits, within one hundred (100) feet of any residential district and any space used for loading or unloading commercial vehicles in connection with such an operation shall not be within one hundred (100) feet of any residential district.

Response: There are no residential districts within 100 feet of any openings to the facility.

F. Heat and Glare.

1. Operations producing heat or glare shall be conducted entirely within an enclosed building.
2. Exterior lighting on private property shall be screened, baffled, or otherwise directed away from adjacent residential properties. This is not intended to apply to street lighting.

Response: There shall be no operations producing heat or glare from the activities on the site. The lighting for the site is in conformance with the city lighting code section 4.199 which is discussed in the Site Design and Review Chapter. New parking lot luminaires are proposed to have Internal Houseside shields and will be directed toward the parking areas and walkways.

G. Dangerous Substances: Any use which involves the presence, storage or handling of any explosive, nuclear waste product or any other substance in a manner which would cause a health or safety hazard on any adjacent land use or site shall be prohibited.

Response: The proposed development will not involve the use of any dangerous substances that would affect adjacent sites.

H. Liquid and Solid Wastes:

1. Any storage of wastes which would attract rodents or insects or otherwise create a health hazard shall be prohibited.

Response: All waste from the proposed development will be handled like any other business and stored in waste bins provided by the franchise hauler for the regularly scheduled pick-up.

2. Waste products which are stored outside shall be concealed from view from any property line by a sight-obscuring fence or planting as required by Section 4.176.

Response: The proposed service entry is screened by a full height concrete masonry unit wall that matches the building wainscot base.

3. No connection with any public sewer shall be made or maintained in violation of applicable City or State standards.

4. No wastes conveyed shall be allowed to or permitted, caused to enter, or allowed to flow into any public sewer in violation of applicable City or State standards.

Response: The proposed sewer connections will be made according to the building code and public works standards.

5. All drainage permitted to discharge into a street gutter, caused to enter or allowed to flow into any pond, lake, stream or other natural water course shall be limited to surface waters or waters having similar characteristics as determined by the City, County, and State Department of Environmental Quality.

Response: All drainage pipes flowing off site will be connected to the public sewer system.

6. All operations shall be conducted in conformance with the city's standards and ordinances applying to sanitary and storm sewer discharges.

Response: The proposed facility will comply with the City standards for discharges.

I. Noise: Noise generated by the use, with the exception of traffic uses from automobiles, trucks and trains, shall not violate any applicable standards adopted by the Oregon Department of Environmental Quality and W.C. 6.204 governing noise control in the same or similar locations. [Amended by Ord. 631, 7/16/07]

Response: The proposed facility will comply with the applicable noise standards. The emergency generator will be enclosed by a 16 foot tall concrete masonry unit wall that is designed to address noise emitting at the property line.

J. Electrical Disturbances. Except for electrical facilities wherein the City is preempted by other governmental entities, electrical disturbances generated by uses within the PDI-RSIA Zone which interfere with the normal operation of equipment or instruments within the PDI-RSIA Zone are prohibited. Electrical disturbances which routinely cause interference with normal activity in abutting residential uses are also prohibited.

Response: The proposed facility will not create electrical disturbances which interfere with the operation of surrounding uses.

K. Discharge Standards: There shall be no emission of smoke, fallout, fly ash, dust, vapors, gases or other forms of air pollution that may cause a nuisance or injury to human, plant or animal life or to property. Plans for construction and operation shall be subject to the recommendations

and regulations of the State Department of Environmental Quality. All measurements of air pollution shall be by the procedures and with equipment approved by the State Department of Environmental Quality or equivalent and acceptable methods of measurement approved by the City. Persons responsible for a suspected source of air pollution upon request of the City shall provide quantitative and qualitative information regarding the discharge that will adequately and accurately describe operation conditions.

Response: A backup generator on the site is enclosed by walls. Construction and operation of the generator will follow the recommendation and regulations of the State Department of Environmental Quality.

L. Open burning is prohibited.

Response: There shall be no open burning on the site.

M. Storage.

1. Outdoor storage must be maintained in an orderly manner at all times.
2. Outdoor storage areas shall be gravel surfaced or better and shall be sufficient for the materials being handled and stored. If a gravel surface is not sufficient to meet the performance standards for the use, the area shall be suitably paved.
3. Any open storage that would otherwise be visible at the property line shall be concealed from view at the abutting property line by a sight obscuring fence or planting not less than 6' in height.

Response: The proposed storage area has a 16 foot tall concrete masonry wall surrounding the area with a secure gate at the access point. The wall will be further screened with landscaping. The proposed facility outdoor storage at the service entry will have an asphalt paved surface.

N. Landscaping.

1. Unused property, or property designated for expansion or other future use shall be landscaped and maintained as approved by the Development Review Board. Landscaping for unused property disturbed during construction shall include such materials as plantings of ornamental shrubs, lawns, native plants, and mowed, seeded field grass.
2. Contiguous unused areas of undisturbed field grass may be maintained in their existing state. Large stands of invasive weeds such as Himalayan blackberry, English ivy, cherry laurel, reed canary grass or other identified invasive species shall be removed and/or mowed at least annually to reduce fire hazard. These unused areas, located with a phased development project or a future expansion cannot be included in the area calculated to meet the landscape requirements for the initial phase(s) of the development.
3. Unused property shall not be left with disturbed soils that are subject to siltation and erosion. Any disturbed soil shall be seeded for complete erosion cover germination and shall be subject to applicable erosion control standards.

Response: A certified landscape plan is submitted with the application as Exhibit J. The plan is in compliance with all landscaping standards regarding this section and section 4.176. The landscaping plan is further discussed in the criteria response of section 4.176 Landscaping, Screening, and Buffering.

(.07) Other Standards.

- C. Front Yard Setback. Thirty (30) feet. Structures on corner or through lots shall observe the minimum front yard setback on both streets. Setbacks shall also be maintained from the planned rights-of-way shown on any adopted City street plan.
- D. Rear and Side Yard Setback. Thirty (30) feet. Structures on corner or through lots shall observe the minimum rear and side yard setback on both streets. Setbacks shall also be maintained from the planned rights-of-way shown on any adopted City street plan.
- E. No setback is required when rear or side yards abut a railroad siding.
- F. Corner Vision. Corner lots shall have no lot obstruction to exceed the vision clearance standards of Section 4.177.
- G. Off-street Parking and Loading. As required in Section 4.155.
- H. Signs. As req As required in Sections 4.156.01 through 4.156.11. [Amended by Ord. No. 704, 6/18/12]

Response: The Day Road Design Overlay District (DOD) section 4.134 has increased standards regarding the setbacks. They are addressed in the Site Design Review Chapter of this application. Section 4.177, 4.155, and 4.156 are addressed below. The proposed development meets all the criteria of the standards.

GENERAL DEVELOPMENT REGULATIONS

Section 4.154. On-site Pedestrian Access and Circulation.

(.01) On-site Pedestrian Access and Circulation

B. Standards. Development shall conform to all of the following standards:

1. Continuous Pathway System. A pedestrian pathway system shall extend throughout the development site and connect to adjacent sidewalks, and to all future phases of the development, as applicable.
2. Safe, Direct, and Convenient. Pathways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent parking areas, recreational areas/playgrounds, and public rights-of-way and crosswalks based on all of the following criteria:
 - a. Pedestrian pathways are designed primarily for pedestrian safety and convenience, meaning they are free from hazards and provide a reasonably smooth and consistent surface.

- b. *The pathway is reasonably direct. A pathway is reasonably direct when it follows a route between destinations that do not involve a significant amount of unnecessary out-of-direction travel.*
- c. *The pathway connects to all primary building entrances and is consistent with the Americans with Disabilities Act (ADA) requirements.*
- d. *All parking lots larger than three acres in size shall provide an internal bicycle and pedestrian pathway pursuant to Section 4.155(.03)(B.)(3.)(d.).*
- 3. *Vehicle/Pathway Separation. Except as required for crosswalks, per subsection 4, below, where a pathway abuts a driveway or street it shall be vertically or horizontally separated from the vehicular lane. For example, a pathway may be vertically raised six inches above the abutting travel lane, or horizontally separated by a row of bollards.*
- 4. *Crosswalks. Where a pathway crosses a parking area or driveway, it shall be clearly marked with contrasting paint or paving materials (e.g., pavers, lightcolor concrete inlay between asphalt, or similar contrast).*
- 5. *Pathway Width and Surface. Primary pathways shall be constructed of concrete, asphalt, brick/masonry pavers, or other durable surface, and not less than five (5) feet wide. Secondary pathways and pedestrian trails may have an alternative surface except as otherwise required by the ADA.*
- 6. *All pathways shall be clearly marked with appropriate standard signs.*

Response: Onsite pedestrian access and circulation is shown on the site plan in Exhibit I and the landscape plan in Exhibit J. The plan shows a continuous concrete pathway system has been incorporated into the site plan with direct access from the parking areas for both visitors and staff. The path connects to the primary building entrance and is ADA compliant. The pathway is a minimum of 5 ft. wide and is 7 ft. wide when bordering parking stalls to allow for car overhang. Exhibit S is an amended site plan section to address the additional visitor parking and pedestrian paths added near the front driveway access to address the recommendations of the Traffic Impact Analysis.

Section 4.155 General Regulations – Parking, Loading, and Bicycle Parking

(.02) General Provisions:

- A. *The provision and maintenance of off-street parking spaces is a continuing obligation of the property owner. The standards set forth herein shall be considered by the Development Review Board as minimum criteria.*
 - 1. *The Board shall have the authority to grant variances or planned development waivers to these standards in keeping with the purposes and objectives set forth in the Comprehensive Plan and this Code.*
 - 2. *Waivers to the parking, loading, or bicycle parking standards shall only be issued upon a findings that the resulting development will have no significant adverse impact on the*

surrounding neighborhood, and the community, and that the development considered as a whole meets the purposes of this section.

Response: There are no waivers requested for the parking requirements. The proposed parking for the site meets the minimum requirements.

- B. *No area shall be considered a parking space unless it can be shown that the area is accessible and usable for that purpose, and has maneuvering area for the vehicles, as determined by the Planning Director.*

Response: The submitted site plan and related drawings demonstrate that all proposed parking spaces are designed to be accessible and usable for that purpose, and that maneuvering areas are sufficient for standard passenger vehicles.

- C. *In cases of enlargement of a building or a change of use from that existing on the effective date of this Code, the number of parking spaces required shall be based on the additional floor area of the enlarged or additional building, or changed use, as set forth in this Section. Current development standards, including parking area landscaping and screening, shall apply only to the additional approved parking area.*

Response: The number of parking spaces provided in the proposed plan is based on the total square footage area of all new buildings for the site and its use.

- G. *The nearest portion of a parking area may be separated from the use or containing structure it serves by a distance not exceeding one hundred (100) feet.*

Response: The site is designed so that the nearest parking to any given use or structure is less than 100' from the entrance to that structure.

- H. *The conducting of any business activity shall not be permitted on the required parking spaces, unless a temporary use permit is approved pursuant to Section 4.163.*

Response: No business activity is proposed within any of the parking spaces as part of this application.

- I. *Where the boundary of a parking lot adjoins or is within a residential district, such parking lot shall be screened by a sight-obscuring fence or planting. The screening shall be continuous along that boundary and shall be at least six (6) feet in height.*

Response: The site is not adjacent to a residential district therefore this standard is not applicable.

- J. *Parking spaces along the boundaries of a parking lot shall be provided with a sturdy bumper guard or curb at least six (6) inches high and located far enough within the boundary to prevent any portion of a car within the lot from extending over the property line or interfering with required screening or sidewalks.*

Response: All parking spaces are configured along the boundaries of the parking areas. The spots along the building will have a 6 inch raised curb. All spots facing away from the building will have curb stops to prevent vehicles from interfering with the required screening or sidewalks.

K. All areas used for parking and maneuvering of cars shall be surfaced with asphalt, concrete, or other surface, such as "grasscrete" in lightly-used areas, that is found by the City Engineer to be suitable for the purpose. In all cases, suitable drainage, meeting standards set by the City Engineer, shall be provided.

Response: The parking lot and other vehicle maneuvering areas are proposed to be surfaced in asphalt. Proper drainage will be ensured through careful grading of the site, with a storm water system to convey and treat storm water prior to releasing it to the public storm drain system, subject to final approval by the City Engineer.

L. Artificial lighting which may be provided shall be so limited or deflected as not to shine into adjoining structures or into the eyes of passers-by.

Response: All lighting along the site is designed to be downward-cast and inward-facing to avoid shining into neighboring structures or the eyes of passers-by. The proposed lighting is fully consistent with the requirements of Section 4.199 Outdoor Lighting.

M. Off-street parking requirements for types of uses and structures not specifically listed in this Code shall be determined by the Development Review Board if an application is pending before the Board. Otherwise, the requirements shall be specified by the Planning Director, based upon consideration of comparable uses.

Response: The off-street parking provided with this plan is based on the parking ratios presented in Section 155.03.B.8 of this Code. The use was compared with Industrial uses identified in the table and, more specifically, to a sanitarium, which is the most similar use to the proposed use for the purposes of parking demand and operation, to determine the required amount of parking spaces. The proposal exceeds the minimum amount of required spaces. A Table below shows the comparison with amount of parking spaces proposed.

N. Up to forty percent (40%) of the off-street spaces may be compact car spaces as identified in Section 4.001 - "Definitions," and shall be appropriately identified.

Response: The applicant proposes to have 49 compact car spaces which will amount to 40% of the total off street parking spaces.

O. Where off-street parking areas are designed for motor vehicles to overhang beyond curbs, planting areas adjacent to said curbs shall be increased to a minimum of seven (7) feet in depth. This standard shall apply to a double row of parking, the net effect of which shall be to create a planted area that is a minimum of seven (7) feet in depth.

Response: The proposed site plan demonstrates that there will be no parking areas where vehicles will overhang into the landscaped areas. All parking stalls fronting a Landscape area have either a curb stop or sidewalk.

(.03) Minimum and Maximum Off-Street Parking Requirements:

A. Parking and loading or delivery areas shall be designed with access and maneuvering area adequate to serve the functional needs of the site and shall:

- 1. Separate loading and delivery areas and circulation from customer and/or employee parking and pedestrian areas. Circulation patterns shall be clearly marked.*
- 2. To the greatest extent possible, separate vehicle and pedestrian traffic.*

Response: Automobile and pedestrian circulation is defined and separated throughout the development. Pedestrian pathways through the site provide designated, protected circulation to main building entrances and the sidewalk along Day Road. Loading and delivery areas for the building are located at the western end of the building as depicted in the site plan on Exhibit I and landscape plan in Exhibit J. The loading and delivery area is separated from the parking and pedestrian circulation areas. The parking area has a sidewalk running the length of the lot on the building side which will separate pedestrian and vehicle traffic.

B. Parking and loading or delivery areas shall be landscaped to minimize the visual dominance of the parking or loading area, as follows:

- 1. Landscaping of at least ten percent (10%) of the parking area designed to be screened from view from the public right-of-way and adjacent properties. This landscaping shall be considered to be part of the fifteen percent (15%) total landscaping required in Section 4.176.03 for the site development.*
- 2. Landscape tree planting areas shall be a minimum of eight (8) feet in width and length and spaced every eight (8) parking spaces or an equivalent aggregated amount.
 - a. Trees shall be planted in a ratio of one (1) tree per eight (8) parking spaces or fraction thereof, except in parking areas of more than two hundred (200) spaces where a ratio of one (1) tree per six (6) spaces shall be applied as noted in subsection (.03)(B.)(3.). A landscape design that includes trees planted in areas based on an aggregated number of parking spaces must provide all area calculations.*
 - b. Except for trees planted for screening, all deciduous interior parking lot trees must be suitably sized, located, and maintained to provide a branching minimum of seven (7) feet clearance at maturity.**

Response: Landscaping has been located to screen the parking areas from the public right of way and adjacent properties view. The parking has been located to the side and rear of the project to further separate the view of the parking from the public right of way. The tree planter beds are a minimum of 8 ft. wide by 18 ft. deep exceeding the code requirement of 8 ft. by 8 ft. A total of 15 trees have been provided in the parking lot as required by the code of 1 tree per every 8 parking spaces. The parking lots have a 120 ft. landscape buffer from the public right of way exceeding the code requirement of 12

ft. landscape buffer. Trees proposed were selected to provide a branching minimum of seven (7) feet clearance at maturity.

C. *Off Street Parking shall be designed for safe and convenient access that meets ADA and ODOT standards. All parking areas which contain ten (10) or more parking spaces, shall for every fifty (50) standard spaces., provide one ADA accessible parking space that is constructed to building code standards, Wilsonville Code 9.000.*

Response: 138 parking spaces are proposed for the site, which include 3 ADA parking stalls meet the UBC standards and City of Wilsonville requirements.

D. *Where possible, parking areas shall be designed to connect with parking areas on adjacent sites so as to eliminate the necessity for any mode of travel of utilizing the public street for multiple accesses or cross movements. In addition, on-site parking shall be designed for efficient on-site circulation and parking.*

Response: The current access to the site is proposed with and an interim driveway onto Day Road. Per direction from the City during the Pre-Application Meeting, the access of the site onto Day Road would be permitted for an interim use until development of the adjacent property to the west occurs. At that point, a new access way would connect to a new driveway on the adjacent property to provide access of the site to Day Road. This will change the circulation pattern of traffic entering the site and allow the properties to be connected for vehicular and pedestrian traffic.

G. *Tables 5 shall be used to determine the minimum and maximum parking standards for various land uses. The minimum number of required parking spaces shown on Tables 5 shall be determined by rounding to the nearest whole parking space. For example, a use containing 500 square feet, in an area where the standard is one space for each 400 square feet of floor area, is required to provide one off-street parking space. If the same use contained more than 600 square feet, a second parking space would be required. Structured parking and on-street parking are exempted from the parking maximums in Table 5. [Amended by Ordinance No. 538, 2/21/02.]*

Response: The following Table has been created with the standards from Table 5 comparing to similar land uses to the proposed land use to determine the number of minimum parking spaces required for the site. The total number required was based on the building total sq. footage at 62,000. The applicant had originally planned for 120 parking spaces based upon the needs of the facility. Upon completion of the Traffic Impact Analysis by the DKS Associates, the applicant has produced a site plan to add an additional 18 parking spaces including 2 spaces for ambulance staging. The additional visitor parking will be located along the driveway access and is aligned with a future connection to the neighboring property.

USE	PARKING MIN	PARKING MAX	BYCYCLE MIN
Industrial	1.6 per 1000 sq. ft. = 100	No Limit	1 per 10,000 sq. ft. Min of 6 = 7
Sanitarium	1 space/2 beds for patients = 50	No Limit	1 per 6000 sq. ft. Min. of 2 = 11
Proposed Use	138	138	11 with 6 long term

(.04) *Bicycle Parking:*

A. *Required Bicycle Parking - General Provisions.*

1. *The required minimum number of bicycle parking spaces for each use category is shown in Table 5, Parking Standards.*
3. *Bicycle parking spaces are not required for accessory buildings. If a primary use is listed in Table 5, bicycle parking is not required for the accessory use.*
4. *When there are two or more primary uses on a site, the required bicycle parking for the site is the sum of the required bicycle parking for the individual primary uses.*
5. *Bicycle parking space requirements may be waived by the Development Review Board per Section 4.118(.03)(A.) (9.) and (10.).*

B. *Standards for Required Bicycle Parking*

1. *Each space must be at least 2 feet by 6 feet in area and be accessible without moving another bicycle.*
2. *An aisle at least 5 feet wide shall be maintained behind all required bicycle parking to allow room for bicycle maneuvering. Where the bicycle parking is adjacent to a sidewalk, the maneuvering area may extend into the right-of-way.*
3. *When bicycle parking is provided in racks, there must be enough space between the rack and any obstructions to use the space properly.*
4. *Bicycle lockers or racks, when provided, shall be securely anchored.*
5. *Bicycle parking shall be located within 30 feet of the main entrance to the building or inside a building, in a location that is easily accessible for bicycles. For multi-tenant developments, with multiple business entrances, bicycle parking may be distributed on-site among more than one main entrance.*

C. *Long-term Bicycle Parking*

1. *Long-term bicycle parking provides employees, students, residents, commuters, and others who generally stay at a site for several hours a weather-protected place to park bicycles.*
2. *For a proposed multi-family residential, retail, office, or institutional development, or for a park and ride or transit center, where six (6) or more bicycle parking spaces are required pursuant to Table 5, 50% of the bicycle parking shall be developed as long-term, secure spaces. Required long-term bicycle parking shall meet the following standards:*
 - a. *All required spaces shall meet the standards in subsection (B.) above, and must be covered in one of the following ways: inside buildings, under roof overhangs or permanent awnings, in bicycle lockers, or within or under other structures.*

- b. All spaces must be located in areas that are secure or monitored (e.g., visible to employees, monitored by security guards, or in public view).
- c. Spaces are not subject to the locational criterion of (B.)(5.).

Response: According to Table 5, the land use that most closely corresponds to the proposed use is a sanitarium. Under Table 5, a sanitarium requires 1 bicycle parking space per 6000 sq. ft. The proposed site will have 61,416 sq. ft. requiring a total of 11 bicycle parking spaces. 50% of the parking spaces are required to be built as long-term, secure spaces. The site will have 11 bicycle parking spaces with 6 spaces built to the long term standards. The bicycle parking spaces are as shown on the Landscape plan in Exhibit J. The spaces are all located near the front entrance to the facility. The long term spaces are located under the covered entrance area within view of the reception desk.

(.05) *Minimum Off-Street Loading Requirements:*

- A. Every building that is erected or structurally altered to increase the floor area, and which will require the receipt or distribution of materials or merchandise by truck or similar vehicle, shall provide off-street loading berths on the basis of minimum requirements as follows:
 - 2. A loading berth shall contain space twelve (12) feet wide, thirty-five (35) feet long, and have a height clearance of fourteen (14) feet. Where the vehicles generally used for loading and unloading exceed these dimensions, the required length of these berths shall be increased to accommodate the larger vehicles.

Response: A designated and signed delivery and loading area has been provided that is separated from the vehicular parking area. The area has been sized and configured to accommodate the anticipated program for the facility with a total of two loading bays. Since the facility will also receive patients by ambulances, parking was provided at the front entrance drop off to accommodate ambulances. The ambulance parking area is shown on the additional parking site plan in Exhibit S.

(.06) *Carpool and Vanpool Parking Requirements:*

- A. Carpool and vanpool parking spaces shall be identified for the following uses:
 - 2. New commercial and industrial developments with seventy-five (75) or more parking spaces,
 - 3. New institutional or public assembly uses, and
 - 4. Transit park-and-ride facilities with fifty (50) or more parking spaces.
- B. Of the total spaces available for employee, student, and commuter parking, at least five percent, but not fewer than two, shall be designated for exclusive carpool and vanpool parking.
- C. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other parking spaces with the exception of ADA parking spaces.
- D. Required carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."

Response: As shown on the site plan Exhibit I and the landscape plan on Exhibit J, 6 carpool parking spaces have been provided meeting the 5% requirement.

Section 4.156 Sign Regulations

(.06) *Class III Sign Permit.* Sign permit requests shall be processed as a Class III Sign Permit when associated with new development, or redevelopment requiring DRB review, and not requiring a Master Sign Plan; when a sign permit request is associated with a waiver or non-administrative variance; or when the sign permit request involves one or more freestanding or ground mounted signs greater than eight (8) feet in height in a new location.

A. *Class III Sign Permit Submission Requirements:* Ten (10) paper and electronic copies of the submission requirements for Class II Sign Permits plus information on any requested waivers or variances in addition to all required fees.

D. *Class II Sign Permit Submission Requirements:* Application for a Class II Sign Permit shall include two (2) paper copies and one (1) electronic copy of the following in addition to all required fees:

1. Completed application form prescribed by the City and signed by the property owner or their authorized representative;
2. Sign drawings or descriptions of all materials, sign area and dimensions used to calculate areas, lighting methods, and other details sufficient to judge the full scale of the signs and related improvements;
3. Documentation of the lengths of building or tenant space facades used in calculating maximum allowed sign area;
4. Drawings of all building facades on which signs are proposed indicating the areas of the facades on which signs will be allowed;
5. Narrative describing the scope of the project, including written findings addressing all applicable review criteria, along with any other information showing how the proposed signage conforms with requirements for the applicable zone;

B. *Class III Sign Permit Review Criteria:* The review criteria for Class II Sign Permits plus waiver or variance criteria when applicable.

E. *Class II Sign Permit Review Criteria:* Class II Sign Permits shall satisfy the sign regulations for the applicable zoning district and the Site Design Review Criteria in Sections 4.400 through 4.421, as well as the following criteria:

1. The proposed signage is compatible with developments or uses permitted in the zone in terms of design, materials used, color schemes, proportionality, and location, so that it does not interfere with or detract from the visual appearance of surrounding development;
2. The proposed signage will not create a nuisance or result in a significant reduction in the value or usefulness of surrounding development; and
3. Special attention is paid to the interface between signs and other site elements including building architecture and landscaping, including trees.

Response: A sign plan has been submitted as part of this application. See Exhibit K for the Sign Plan.

Section 4.156.08. Sign Regulations in the PDC, PDI, and PF Zones.

(.01) Freestanding and Ground Mounted Signs: ...omitted for brevity

Response: As shown in Exhibit K, the proposed signs for the site meet the requirements for the sign regulations. There is one free standing sign located at the driveway that will serve as the UHS building sign. A sign placed at the corner of Day Road and Boones Ferry Road will serve as a gateway sign to the City of Wilsonville for the Industrial area.

Section 4.167 Access, Ingress, and Egress

(.01) Each access onto streets shall be at defined points as approved by the City and shall be consistent with the public's health, safety and general welfare. Such defined points of access shall be approved at the time of issuance of a building permit if not previously determined in the development permit.

Response: The proposed plan includes one access point onto public streets. The main access point will be located on the N.W. end of the property along Day Road as shown in the site plan in Exhibit I. The access point will be an interim until development occurs on the adjacent property to the west of the site. At that point, driveway access will be coordinated and implemented through the adjacent property to enable the main driveway accessing Day Road to be further west of the intersection of Day Road and Boones Ferry Road.

Section 4.171. General Regulations - Protection of Natural Features and Other Resources.

02) General Terrain Preparation:

- A. All developments shall be planned, designed, constructed and maintained with maximum regard to natural terrain features and topography, especially hillside areas, floodplains, and other significant landforms.
- B. All grading, filling and excavating done in connection with any development shall be in accordance with the Uniform Building Code
- C. In addition to any permits required under the Uniform Building Code, all developments shall be planned, designed, constructed and maintained so as to:
 1. Limit the extent of disturbance of soils and site by grading, excavation and other land alterations.
 2. Avoid substantial probabilities of: (1) accelerated erosion; (2) pollution, contamination, or siltation of lakes, rivers, streams and wetlands; (3) damage to vegetation; (4) injury to wildlife and fish habitats.
 3. Minimize the removal of trees and other native vegetation that stabilize hillsides, retain moisture, reduce erosion, siltation and nutrient runoff, and preserve the natural scenic character.

Response: The development plan has been designed to comply with the standards of this section. Proposed development has been designed to recognize and respond to the natural features of the site and to minimize the extent of disturbance of soils and site by grading, excavation, and other land alterations. All grading, filling, and excavating will be in accordance with Chapter 70 of the Uniform Building Code. Industry-standard Best Management Practices (BMP's) will be implemented throughout the site to limit erosion and prevent off-site siltation or damage to vegetation or fish and wildlife habitats.

- 03) *Hillsides: All developments proposed on slopes greater than 25% shall be limited to the extent that:*
- A. An engineering geologic study approved by the City, establishes that the site is stable for the proposed development, and any conditions and recommendations based on the study are incorporated into the plans and construction of the development. The study shall include items specified under subsection 4.171(.07)(A.)(2.)(a-j):
 - B. Slope stabilization and re-vegetation plans shall be included as part of the applicant's landscape plans.
 - C. Buildings shall be clustered to reduce alteration of terrain and provide for preservation of natural features.
 - D. Creation of building sites through mass pad grading and successive padding or terracing of building sites shall be avoided where feasible.
 - E. Roads shall be of minimum width, with grades consistent with the City's Public Works Standards.
 - F. Maintenance, including re-vegetation, of all grading areas is the responsibility of the developer, and shall occur through October 1 of the second growing season following receipt of Certificates of Occupancy unless a longer period is approved by the Development Review Board.
 - G. The applicant shall obtain an erosion and sediment control permit from the City's Building and Environmental Services Division's.

Response: The development plan has been designed to comply with the standards of this section. The western section of the property that contains slopes will be left in its natural state. The site design has been configured to utilize the natural topography of the site to minimize the amount of grading and the impact of the natural conditions. Frontage improvements to Day Road including road widening, landscape planting and a sidewalk at the northwest portion of the site which will be coordinated with the City Engineering Department and designed to minimize impacts to the natural state of this portion of the site.

04) *Trees and Wooded Areas.*

- A. All developments shall be planned, designed, constructed and maintained so that:
 1. Existing vegetation is not disturbed, injured, or removed prior to site development and prior to an approved plan for circulation, parking and structure location.
 2. Existing wooded areas, significant clumps/groves of trees and vegetation, and all trees with a diameter at breast height of six inches or greater shall be incorporated into the development plan and protected wherever feasible.
 3. Existing trees are preserved within any right-of-way when such trees are suitably located, healthy, and when approved grading allows.
- B. Trees and woodland areas to be retained shall be protected during site preparation and construction according to City Public Works design specifications, by:
 1. Avoiding disturbance of the roots by grading and/or compacting activity.
 2. Providing for drainage and water and air filtration to the roots of trees which will be covered with impermeable surfaces.
 3. Requiring, if necessary, the advisory expertise of a registered arborist/horticulturist both during and after site preparation.

4. Requiring, if necessary, a special maintenance, management program to insure survival of specific woodland areas of specimen trees or individual heritage status trees.

Response: An Arborist Report and tree survey was conducted for the site as shown in Exhibit N. Site design focused on the preservation of existing trees and limiting development that would impact those areas. Approximately 2/3 of the existing trees will be preserved and protected with an additional 13% to remain as situational trees during construction. Of special concern were the trees at the NE section of the property with the intersection of Day Road and Boones Ferry Road. The western section of the site also contains a forested stand that the development will not impact. The intersection of Day Road and Boones Ferry Road will serve as the gateway to the area. Site design through landscaping, signage, and preservation of existing trees will enhance this area to highlight the gateway. The applicant acknowledges that existing vegetation is not to be removed or otherwise disturbed until a site development permit has been issued by the City. Tree protection fencing will be installed prior to construction to protect those trees which are to be preserved.

Section 4.175 Public Safety and Crime Prevention

(.01) All developments shall be designed to deter crime and insure public safety.

Response: The development is designed to deter crime and insure public safety. Building entries and walkways will be lighted for pedestrian safety, and landscaping is designed to enhance the development while deterring crime opportunities.

(.02) Addressing and directional signing shall be designed to assure identification of all buildings and structures by emergency response personnel, as well as the general public.

Response: A sign plan has been submitted for review as part of this application package. The submittal includes signage that is designed to be easily identifiable by emergency response personnel and the general public.

(.03) Areas vulnerable to crime shall be designed to allow surveillance. Parking and loading areas shall be designed for access by police in the course of routine patrol duties.

Response: The proposed development allows for surveillance of all areas of the site, and all areas are accessible for routine police patrol.

(.04) Exterior lighting shall be designed and oriented to discourage crime.

Response: An exterior lighting plan is included as Exhibit K to this application. The lighting will illuminate sections of site to deter crime.

Section 4.176 Landscaping, Screening, and Buffering

(.02) Landscaping and Screening Standards.

A. Subsections "C" through "I," below, state the different landscaping and screening standards to be applied throughout the City. The locations where the landscaping and screening are required and the depth of the landscaping and screening is stated in various places in the Code.

Response: The proposed development will meet all the standards set forth by section 4.176. Specific criteria from the section have been addressed in this report to elaborate on site specific details. A landscaping plan is located in Exhibit J. The following points apply to the landscaping plan proposed for the site.

- Over 40% of the proposed landscape plants are native and the remainder of the plants have been selected for their compatibility with a native palette or their limited use of supplemental irrigation. In areas of the site that abut the native undisturbed landscape, 100% of the proposed plant material is native.
- The existing topsoil will be salvaged for use in the new landscape planting beds.
- The trees proposed for the parking lot will aid in shading the parking stalls from the afternoon sun.
- All shrubs proposed adjacent to the public right of way will not exceed three feet in height to create unobstructed sight distances for security surveillance.
- The only use of lawn on the project is limited to the interior courtyard to satisfy the client's program requirement.
- No fertilizers or pesticides will be specified on this project, to promote a healthy sustainable plant community.
- With a landscaped area that is greater than 30 ft. deep, the code requirement of one tree per 800 square feet and three low shrubs for every 400 square feet has been met and exceeded.
- The low screen landscaping standard has been met through the use of distance and low shrubs to screen parking and service areas from the public view.

(.03) Landscape Area. Not less than fifteen percent (15%) of the total lot area, shall be landscaped with vegetative plant materials. The ten percent (10%) parking area landscaping required by section 4.155.03(B)(1) is included in the fifteen percent (15%) total lot landscaping requirement. Landscaping shall be located in at least three separate and distinct areas of the lot, one of which must be in the contiguous frontage area. Planting areas shall be encouraged adjacent to structures. Landscaping shall be used to define, soften or screen the appearance of buildings and off-street parking areas. Materials to be installed shall achieve a balance between various plant forms, textures, and heights. The installation of native plant materials shall be used whenever practicable.

Response: 39% of the total lot area has been landscaped with vegetative plant materials, exceeding the code requirement of 15%. Landscaping has been located in three distinct areas of the lot; the contiguous frontage between the building and the public right of way; the areas between the rear of the building and the parking lot; and the areas between the parking lot and the native undisturbed landscape.

(.04) Buffering and Screening. Additional to the standards of this subsection, the requirements of the Section 4.137.5 (Screening and Buffering Overlay Zone) shall also be applied, where applicable.

A. All intensive or higher density developments shall be screened and buffered from less intense or lower density developments.

- B. Activity areas on commercial and industrial sites shall be buffered and screened from adjacent residential areas. Multi-family developments shall be screened and buffered from single-family areas.
- C. All exterior, roof and ground mounted, mechanical and utility equipment shall be screened from ground level off-site view from adjacent streets or properties.
- D. All outdoor storage areas shall be screened from public view, unless visible storage has been approved for the site by the Development Review Board or Planning Director acting on a development permit.
- E. In all cases other than for industrial uses in industrial zones, landscaping shall be designed to screen loading areas and docks, and truck parking.
- F. In any zone any fence over six (6) feet high measured from soil surface at the outside of fence line shall require Development Review Board approval.

Response: The loading and utility yard is located on the side of the development and is screened from public view through the use of walls with vine plantings and plant materials. There are no property line fences proposed on this project. All exterior ground mounted mechanical and utility equipment is screened from ground level off-site view from adjacent streets or properties through the use of plant materials.

(.05) *Sight-Obscuring Fence or Planting.* The use for which a sight-obscuring fence or planting is required shall not begin operation until the fence or planting is erected or in place and approved by the City. A temporary occupancy permit may be issued upon a posting of a bond or other security equal to one hundred ten percent (110%) of the cost of such fence or planting and its installation. (See Sections 4.400 to 4.470 for additional requirements.)

Response: The site has been designed to minimize the need for sight-obscuring fencing or vegetation. The Solid Waste and Recycling / Storage Access area enclosure will be constructed with a 16 foot high masonry cement wall that incorporates the design of the building along with landscaping in front of the wall.

(.06) *Plant Materials.*

- A. Shrubs and Ground Cover... omitted for brevity
- B. Trees...omitted for brevity
- C. Where a proposed development includes buildings larger than twenty-four (24) feet in height or greater than 50,000 square feet in footprint area, the Development Review Board may require larger or more mature plant materials:
 1. At maturity, proposed trees shall be at least one-half the height of the building to which they are closest, and building walls longer than 50 feet shall require tree groups located no more than fifty (50) feet on center, to break up the length and height of the façade.
 2. Either fully branched deciduous or evergreen trees may be specified depending upon the desired results. Where solar access is to be preserved, only solar friendly deciduous trees are

to be used. Where year-round sight obscuring is the highest priority, evergreen trees are to be used.

3. The following standards are to be applied:

- a. Deciduous trees:
 - i. Minimum height of ten (10) feet; and
 - ii. Minimum trunk diameter (caliper) of 2 inches (measured at four and one-half [4 1/2] feet above grade).
- b. Evergreen trees: Minimum height of twelve (12) feet.

D. *Street Trees.* In order to provide a diversity of species, the Development Review Board may require a mix of street trees throughout a development. Unless the Board waives the requirement for reasons supported by a finding in the record, different types of street trees shall be required for adjoining blocks in a development.

E. *Types of Plant Species...* omitted for brevity

Response: The site has been designed to meet the standards of the landscaping ordinance. Exhibit J contains the landscape plan for the site which details the types, sizes, locations, and quantities of all landscaping that will be included on the site.

F. *Tree Credit.*

Existing trees that are in good health as certified by an arborist and are not disturbed during construction may count for landscaping tree credit as follows (measured at four and one-half feet above grade and rounded to the nearest inch):

Existing trunk diameter	Number of Tree Credits
18 to 24 inches in diameter	3 tree credits
25 to 31 inches in diameter	4 tree credits
32 inches or greater	5 tree credits

1. It shall be the responsibility of the owner to use reasonable care to maintain preserved trees. Trees preserved under this section may only be removed if an application for removal permit under Section 4.610.10(01)(H) has been approved. Required mitigation for removal shall be replacement with the number of trees credited to the preserved and removed tree.

2. Within five years of occupancy and upon notice from the City, the property owner shall replace any preserved tree that cannot be maintained due to disease or damage, or hazard or nuisance as defined in Chapter 6 of this code. The notice shall be based on complete information provided by an arborist Replacement with the number of trees credited shall occur within one (1) growing season of notice.

G. *Exceeding Standards.* Landscape materials that exceed the minimum standards of this Section are encouraged, provided that height and vision clearance requirements are met.

H. *Compliance with Standards.* The burden of proof is on the applicant to show that proposed landscaping materials will comply with the purposes and standards of this Section.

Response: As shown by the landscape plan, the proposed development will exceed the landscaping requirements. The following points describe the landscaping plan. All the shrubs and plant materials have been sized and spaced to meet the coverage standards required within three years' time. Existing topsoil will be salvaged for re-use in the new landscape. Bark mulch will be used and raked into the soil surface to control erosion. River rock cobble has been used in high visibility areas to create aesthetic variety and texture in the landscape.

- All shrubs are 2 gallon containers or better and groundcover is mostly 1 gallon containers with a few species sized at 4 inch pots. The groundcover has been sized and space to achieve 80% coverage of the bare soil in three years' time. No bare root plantings are being used. A hydroseed mix of native grasses and perennials will be used in the transition areas between the developed landscape and the adjacent native undisturbed landscape.
- No lawn is proposed in areas accessible to the public.
- Plant material is shown beneath the canopies of all proposed trees, except in two high visibility zones where river rock cobble is being proposed to add visual interest.
- All salvaged topsoil and backfill soil for the planting pits will be amended with compost.
- All deciduous trees proposed are 2" caliper. All coniferous trees are 8 ft. or taller.
- A combination of conifers, large canopy deciduous trees, and flowering accent trees have been used on the project, with 64% being native trees.
- Street trees are proposed for SW Day Road to replace and match the existing tree species of Bradford Pear. The trees are 2" caliper and will be planted at 30 ft. on center spacing. A gap in the row of street trees was provided along SW Day Road in response to a request from the Fire Marshall to aid in accessing the structure in the event of a fire. Another gap in the row of street trees was provided at the building entry to provide a clear line of sight to the entry plaza and primary building entry.
- Over 40% of the proposed landscape plants are native and the remainder of the plants have been selected for their compatibility with a native palette and their limited use of supplemental irrigation. In areas of the site that abut the native undisturbed landscape, 100% of the proposed plant material is native.
- Numerous existing trees on the site have been preserved and are incorporated into the landscape design. The existing trees will be protected with tree protection fencing during the construction period as required by code.
- Tree and shrubs will be installed to current industry standards as noted by the planting details provided in the submittal package. All trees will be guyed or staked until they have become established but for no greater than two years.
- All new landscaping will be irrigated with a permanent installed irrigation system controlled by an automated computer irrigation controller. The native hydroseed areas will have a temporary irrigation method for use until the hydroseed has become established.

(.07) *Installation and Maintenance.*

- A. *Installation. Plant materials shall be installed to current industry standards and shall be properly staked to assure survival. Support devices (guy wires, etc.) shall not be allowed to interfere with normal pedestrian or vehicular movement.*
- B. *Maintenance. Maintenance of landscaped areas is the on-going responsibility of the property owner. Any landscaping installed to meet the requirements of this Code, or any condition of approval established by a City decision-making body acting on an application, shall be continuously maintained in a healthy, vital and acceptable manner. Plants that die are to be replaced in kind, within one growing season, unless appropriate substitute species are approved by the City. Failure to maintain landscaping as required in this Section shall constitute a violation of this Code for which appropriate legal remedies, including the revocation of any applicable land development permits, may result.*
- C. *Irrigation. The intent of this standard is to assure that plants will survive the critical establishment period when they are most vulnerable due to a lack of watering and also to assure that water is not wasted through unnecessary or inefficient irrigation. Approved irrigation system plans shall specify one of the following: ...omitted for brevity*
- D. *Protection. All required landscape areas, including all trees and shrubs, shall be protected from potential damage by conflicting uses or activities including vehicle parking and the storage of materials.*

Response: As shown by the landscape plan, the landscaping will be installed to industry standards and meet the requirements of the code.

(.08) *Landscaping on Corner Lots. All landscaping on corner lots shall meet the vision clearance standards of Section 4.177. If high screening would ordinarily be required by this Code, low screening shall be substituted within vision clearance areas. Taller screening may be required outside of the vision clearance area to mitigate for the reduced height within it.*

Response: As shown on the landscape plan Exhibit J, the corner area will meet the clearance standards of section 4.177. The landscape plan incorporated several features to enhance this corner as the gateway entrance to the City of Wilsonville.

(.09) *Landscape Plans...* Omitted for brevity

Response: The landscape plan has been designed to comply with the requirements of this section. A detailed landscape plan as shown in Exhibit J is submitted for review. A scaled 22"x34" landscape plans have been submitted with a plant list noting plant type, size and spacing at time of planting. Plants have been identified by both their botanical and common name. Plants have been noted as being either high, moderate, or low water use plants. The hydroseed areas will receive temporary irrigation and is designated as low water use.

Section 4.177. Street Improvement Standards.

This section contains the City's requirements and standards for pedestrian, bicycle, and transit facility improvements to public streets, or within public easements. The purpose of this section is to ensure that development, including redevelopment, provides transportation facilities that are safe, convenient, and adequate in rough proportion to their impacts.

(.01) Development and related public facility improvements shall comply with the standards in this section, the Wilsonville Public Works Standards, and the Transportation System Plan, in rough proportion to the potential impacts of the development. Such improvements shall be constructed at the time of development or as provided by Section 4.140, except as modified or waived by the City Engineer for reasons of safety or traffic operations.

(.02) Street Design Standards.

A. All street improvements and intersections shall provide for the continuation of streets through specific developments to adjoining properties or subdivisions.

1. Development shall be required to provide existing or future connections to adjacent sites through the use of access easements where applicable. Such easements shall be required in addition to required public street dedications as required in Section 4.236(.04).

Response: The current access to the site is proposed with and an interim driveway onto Day Road. Per direction from the City during the Pre-Application Meeting, the access of the site onto Day Road would be permitted for an interim use until development of the adjacent property to the west occurs. At that point, a new access way would connect to a new driveway on the adjacent property to provide access of the site to Day Road. This will change the circulation pattern of traffic entering the site and allow the properties to be connected for vehicular and pedestrian traffic.

B. The City Engineer shall make the final determination regarding right-of-way and street element widths using the ranges provided in Chapter 3 of the Transportation System Plan and the additional street design standards in the Public Works Standards.

Response: The site plan as shown in Exhibit I demonstrates the requirements that are met with the proposal based on the input from the City of Wilsonville, along with the regulations of Chapter 3 of the Transportation System Plan and the additional street design standards of the Public Works Standards.

E. Corner or clear vision area.

1. A clear vision area which meets the Public Works Standards shall be maintained on each corner of property at the intersection of any two streets, a street and a railroad or a street and a driveway. However, the following items shall be exempt from meeting this requirement:

- a. Light and utility poles with a diameter less than 12 inches.
- b. Trees less than 6" d.b.h., approved as a part of the Stage II Site Design, or administrative review.
- c. Except as allowed by b., above, an existing tree, trimmed to the trunk, 10 feet above the curb.

d. Official warning or street sign.

e. Natural contours where the natural elevations are such that there can be no cross-visibility at the intersection and necessary excavation would result in an unreasonable hardship on the property owner or deteriorate the quality of the site.

Response: The site plan as shown in Exhibit I, along with the landscape plan as shown in exhibit J, demonstrates that the standards for the clear vision area have been met. The plan design has focused on enhancing the corner of the lot to serve as the gateway to the City of Wilsonville.

(.03) Sidewalks. Sidewalks shall be provided on the public street frontage of all development. Sidewalks shall generally be constructed within the dedicated public right-of-way, but may be located outside of the right-of-way within a public easement with the approval of the City Engineer.

A. Sidewalk widths shall include a minimum through zone of at least five feet. The through zone may be reduced pursuant to variance procedures in Section 4.196, a waiver pursuant to Section 4.118, or by authority of the City Engineer for reasons of traffic operations, efficiency, or safety.

Response: The site plan as shown in Exhibit I, demonstrates that the standards for the sidewalks have been met. The proposed plan will have sidewalk widths along Day Road with a minimum of 8 ft. The sidewalk along Boones Ferry Road will have a minimum of 5 ft.

(.04) Bicycle Facilities. Bicycle facilities shall be provided to implement the Transportation System Plan, and may include on-street and off-street bike lanes, shared lanes, bike boulevards, and cycle tracks. The design of on-street bicycle facilities will vary according to the functional classification and the average daily traffic of the facility.

Response: The site plan as shown in Exhibit I shows the location of the bike lane that will be added along Day Road as required by the Transportation System Plan. Per request of the City of Wilsonville, The applicant has also dedicated an additional 2 feet in an easement to extend the width of the roadway improvements beyond the R.O.W. to accommodate a protection buffer between the travel lanes and the bike lane.

(.08). Access Drive and Driveway Approach Development Standards....omitted for brevity

Response: The site plan in Exhibit I shows the driveway and access proposed for the site. The design and plan for the access roads meet all requirements of this section.

Section 4.179. Mixed Solid Waste and Recyclables Storage in New Multi-Unit Residential and Non-Residential Buildings.

(.01) All site plans for multi-unit residential and non-residential buildings submitted to the Wilsonville Development Review Board for approval shall include adequate storage space for mixed solid waste and source separated recyclables.

Response: The site is designed with adequate space for the storage of mixed solid waste and recycling. The storage area is shown on the site plan Exhibit I and the building plan shown in Exhibit H. The standard required for the facility was calculated to be 258 sq. ft. The site will provide 895 sq. ft.

meeting the requirement for the storage area. The location and access meets the standards set forth in section 4.179 and 4.430 which is discussed further in the Site Design Review Chapter.

(.07) The applicant shall work with the City's franchised garbage hauler to ensure that site plans provide adequate access for the hauler's equipment and that storage area is adequate for the anticipated volumes, level of service and any other special circumstances which may result in the storage area exceeding its capacity. The hauler shall notify the City by letter of their review of site plans and make recommendations for changes in those plans pursuant to the other provisions of this section.

Response: The storage area was evaluated by Republic Services who sent a letter certifying that the storage area would accommodate their equipment and was acceptable. See Exhibit F for the letter from Republic Services.

REQUEST F: SITE DESIGN REVIEW

This application requests Site Design Review for the entire proposed development. The following identifies the sections of the Zoning Code applicable to Planned Developments, and addresses how the proposed development meets each:

Wilsonville Code Planning and Land Development

Section 4.134. Day Road Design Overlay District

(.01) *Purpose. The Day Road Design Overlay District (DOD) is an overlay district within the larger Planned Development Industrial - Regionally Significant Industrial Area (RSIA) Zone. It is the purpose of the Day Road DOD to establish standards for site design and exterior architecture of all structures located in the Day Road DOD in order to ensure high quality design of development and redevelopment at the Day Road gateway to the City of Wilsonville. These standards are intended to create an aesthetically pleasing aspect for properties abutting Day Road by ensuring:*

- A. *Coordinated design of building exteriors, additions and accessory structure exteriors*
- B. *Preservation of trees and natural features*
- C. *Minimization of adverse impacts on adjacent properties from development that detracts from the character and appearance of the area*
- D. *Integration of the design of signage into architectural and site design, and*
- E. *Minimization of the visibility of vehicular parking, circulation and loading areas. It is the intent to create improved pedestrian linkages and to provide for public transit. It is also the intent of this section to encourage architectural design in relationship to the proposed land use, site characteristics and interior building layout.*

(.02) *Applicability. The Day Road DOD shall apply to all properties abutting Day Road. The provisions of this section shall apply to:*

- A. *All new building construction*
- B. *Any exterior modifications to existing, non-residential buildings*
- C. *All new parking lots*
- D. *All outdoor storage and display areas*
- E. *All new signage*
- F. *All building expansions greater than 1,250 square feet.*

(.04) *Review Process.*

A. *Compliance with the Day Road DOD shall be reviewed as part of Stage One – Preliminary Plan, Stage Two - Final Approval and Site Design Review. Such review shall be by the Development Review Board. Building expansions less than 2500 square feet and exterior building modifications less than 2500 square feet may be reviewed under Class II Administrative procedures.*

B. *Waivers. Under City Code [4.118(.03)], waivers to several development standards may be approved, including waivers to height and yard requirements, and architectural design standards, provided that the proposed development is equal to or better than that proposed under the standards to be waived. For example, a height waiver might be granted on a smaller site if the facade presentation was significantly enhanced, additional landscaping or open space is provided and site modifications*

are necessary to preserve significant trees. Waivers to the additional front yard setback for future improvements on Day Road may not be granted. [4.134(.05)(C)(1)]

Response: **The proposed development is requesting a waiver to the minimum height requirement and the minimum glazing requirements as discussed below in the related sections.**

(.05) *Design Review Standards. The DRB shall use the standards in this section together with the standards in Sections 4.400 – 4.421 to ensure compliance with the purpose of the Day Road DOD. These standards shall apply on all Day Road frontages, and on the frontage of corner lots abutting both Day Road and either Boones Ferry Road, Kinsman Road, Garden Acres Road or Grahams Ferry Road.*

A. *Natural Features. Buildings shall be sited in compliance with WC 4.171, Protection of Natural Features and Other Resources and with WC 4.600, Tree Preservation and Protection.*

Response: **The development plan has been designed to comply with the standards WC 4.171 and WC 4.600. The exact requirements are covered in the Stage II Final Plan Review Section. Proposed development has been designed to recognize and respond to the natural features of the site and to minimize the extent of disturbance of soils and site by grading, excavation, and other land alterations. All grading, filling, and excavating will be in accordance with Chapter 70 of the Uniform Building Code. Industry-standard Best Management Practices (BMP's) will be implemented throughout the site to limit erosion and prevent off-site siltation or damage to vegetation or fish and wildlife habitats.**

B. *Building Location and Orientation: New buildings shall have at least one principal building entrance oriented towards the Day Road frontage. All building elevations fronting on Day Road or on the frontage on corner lots as described in (.05) above, shall have at least 20% glazing.*

Response: **The proposed building entrance door is facing Day Road, and the proposed landscape design includes a pedestrian entry plaza from the Day Road public sidewalk directly to the building entrance door. The building entrance is a two story glass enclosure that is a focal point of the avenue of approach for both vehicular and pedestrian access to the building. The glazing percentage on Day Road is 24%, and the glazing percentage on Boones Ferry Road is 16%. The glazing on Boones Ferry Road is restricted due to patient privacy requirements and a waiver is requested to address how the proposed project achieves the significance of the window area and the vitality on Boones Ferry Road that the glazing percentage was intended to achieve by creating a perceived larger expression with building color associated with the glazing area and by proposing site artwork at the corner of Boones Ferry Road and Day Road. The average of the two sides meets the 20% requirement as well.**

C. *Setbacks:*

1. *Front Yard: For public health and safety reasons, the front yard setback shall be 30' plus additional setback (15' minimum) to accommodate future improvements to Day Road.*
2. *Side and rear setbacks shall be 30'. Side and rear yard setbacks may be reduced from the 30' minimum setback requirement where the setback is adjacent to industrial development subject to meeting other requirements of this section and Building Code requirements.*

Response: The proposed development meets the 30' setback requirements. The additional setback for Day Road was achieved with an additional ROW dedication of 16' 6". An additional 2' easement was added to meet the request from the city for additional room to add a protected bike lane barrier to the roadway. The additional easement will be included in the setback area.

D. Building Height: A minimum building height of three stories, 48' is required on the Day Road frontage and on frontages described in (.05) above. Sites may contain a combination of taller building space abutting the identified street frontages together with 1 or 2-story lab, R&D, and/or manufacturing building space on the remainder of the site. The 1 and 2-story portions of the buildings will be designed to be compatible with the taller structure's design, building materials and colors. Increased building height is encouraged, particularly in combination with site amenities such as under-structure parking, preservation of significant trees rated good or better in the arborist's report, and/or provision of trail segments or of open space areas open to the public.

Response: The proposed building is a two story height of 38 feet 4 inches tall for 168 linear feet (almost 50%) of the 380 foot frontage on Day Road. The building then is articulated per Section 4.134.05.E (4) and drops to 28 feet 4 inches at the middle of the Day Road frontage and includes a 20 foot 4 inch height where it wraps to the Boones Ferry frontage. The lower portions of the building will have compatible materials and colors as the taller portions of the building, such as the concrete masonry unit wainscot and metal coping that wraps the entire building. Further consistency will be all windows will have the same painted aluminum frames for the entire building. The two story portion of the building is for administrative program functions and the patient related program functions are limited to one story for patient safety purposes. Since the building cannot achieve the required height for patient safety reasons, a waiver is requested to address how the proposed project meets the code intent for building prominence in other ways than the height.

In order to enhance the site and engage street, the following enhancements have been made that are beyond the requirements of the City Code. The building design is intended to have a prominent presence on Day Road as the future gateway to the Day Road district. The building is located right on the set back limit and conveys a lasting impression with quality materials. The use of masonry on the tallest portions of the building reinforce this presence on the street and includes several brick colors in a blended running bond pattern and a ground face concrete base course. The mass of the building is articulated with the gym volume on the corner with Boones Ferry Road and the main building entry off of a pedestrian plaza from Day Road that incorporates a vehicular drop off on the west end. Windows have been sized to create a sense of vitality on the street. The glass is frosted in the patient spaces but is otherwise clear in color. The front entrance to the facility engages the street with the covered awning and landscaping.

At the NE corner of the site, at the intersections of SW Day Road and SW Boones Ferry Road, is an area of enhanced landscape that will serve as a welcoming gateway to the Day Road Industrial area. Here, large, mature, existing London Plane trees have been saved and incorporated into the gateway design feature. A concrete pedestal placed within an angular bed of river rock cobble will provide a base for future sculpture. The river rock cobble bed is backed by a bold planting of ornamental grass that will reach 18 inches in height. There is also a concrete pad and bench adjacent to the existing bus

stop. A 4 ft. high poured in place concrete wall is woven into the landscape design to accommodate project signage and signage lighting.

The bold graphic landscape at the gateway contrasts to the native landscape on the east side of the building and the west side of SW Boones Ferry Road. The grades rise up fifteen feet from SW Boones Ferry Road to the east side of the building. The bank is landscaped with bold organic massings of low native plants and groves of Douglas Firs trees and Western Red Cedars, which over time will grow up to sixty feet tall. The fifteen feet in grade change along with the sixty foot tall conifer trees will provide significant height and mass at the gateway to the Day Road Industrial Area.

E. Building Design:

1. Buildings shall be planned and designed to incorporate green building techniques wherever possible.

Response: The proposed building will have energy efficient features that include low emissivity and thermally broken windows, heat reflective roof membrane, and continuous wall insulation. Effective water strategies will include low flow faucets and keeping storm water facilities on the surface where they are visible and appreciated. The heating system will be all electric which has a lower carbon footprint and can utilize renewable power sources.

- 2. Exterior Building Design: Buildings with exterior walls greater than 50 feet in horizontal length shall be constructed using a combination of architectural features and a variety of building materials and landscaping near the walls. Walls that can be viewed from public streets or public spaces shall be designed using architectural features for at least 60% of the wall. Other walls shall incorporate architectural features and landscaping for at least 30% of the wall. Possible techniques include:*
- a. Vary the planes of the exterior walls in depth and/or direction.*
 - b. Vary the height of the building, so that it appears to be divided into distinct massing elements.*
 - c. Articulate the different parts of a building's facade by use of color, arrangement of facade elements, or a change in materials.*
 - d. Avoid blank walls at the ground-floor levels. Utilize windows, trellises, wall articulation, arcades, change in materials—textured and/or colored block or similar finished surface, landscape, or other features to lessen the impact of an otherwise bulky building.*
 - e. Define entries within the architecture of the building.*
 - f. Incorporate, if at all possible, some of the key architectural elements used in the front of the building into rear and side elevations where seen from a main street or residential district.*

Response: The entire perimeter of the proposed building will have landscaping near the walls. The planes of the exterior walls vary in depth from the street at the windows and at the changes in building height. The changes in building height are intended to create distinct massing elements with the parapets and materials wrapping around the corners of each mass. The facades are articulated with different materials and color for the building base, middle and top, and the patient wings to the south have a different material from the support bar that fronts Day Road. Planted trellises are

proposed for the blank screen walls at the generator and service entry enclosures. Blank walls are otherwise avoided.

3. *Building Color: All colors shall be harmonious and compatible with colors of other structures in the development and the natural surroundings. Concrete finishes must be painted. The general overall atmosphere of color must be natural tones. Stained wood, natural stone, brick, dark aluminum finishes, etc. shall be used as background colors. The use of corporate colors is permitted provided that such colors are not patterned so as to compete for visual attention. The use of corporate colors shall not create an advertisement of the building itself. Corporate colors shall not violate any other color or design limitations within the Code.*

Response: The proposed approach to the building color is natural tones, as shown in the exterior elevations in Exhibit H. The use of concrete masonry and brick masonry include natural earthen materials that include dark brown and tan colors. The canopies, window frames, and parapet coping are painted a medium bronze that is consistent with the brown and tan building materials, but provides a slightly darker accent to define those edges with a slender profile elements. Corporate colors are not proposed for use as the building color.

4. *Building façade articulation: Both vertical and horizontal articulation is required. If a building is at a corner, all facades must meet the requirement. Incorporation of several of the techniques is the preferred option. The purpose is not to create a standard rigid solution but rather to break up the mass in creative ways.*
 - a. *Horizontal articulation: Horizontal facades shall be articulated into smaller units. Appropriate methods of horizontal façade articulation include two or more of the following elements:*
 - i. *change of façade materials*
 - ii. *change of color*
 - iii. *façade planes that are vertical in proportion*
 - iv. *bays and recesses*
 - v. *breaks in roof elevation, or other methods as approved**Building facades shall incorporate design features such as offsets, projections, reveals, and/or similar elements to preclude large expanses of uninterrupted building surfaces. Articulation shall extend to the roof.*
 - b. *Vertical Facade Articulation: The purpose is to provide articulation, interest in design and human scale to the façade of buildings through a variety of building techniques. Multi-story buildings shall express a division between base and top. Appropriate methods of vertical façade articulation for all buildings include two or more of the following elements:*
 - i. *Change of material*
 - ii. *Change of color, texture, or pattern of similar materials*
 - iii. *Change of structural expression (for example, pilasters with storefronts spanning between at the base and punched openings above)*
 - iv. *Belt course*

- v. *The division between base and top shall occur at or near the floor level of programmatic division*
- vi. *Base design shall incorporate design features such as recessed entries, shielded lighting, and/or similar elements to preclude long expanses of undistinguished ground level use*
- vii. *Differentiation of a building's base shall extend to a building's corners but may vary in height*

Response: The proposed façade is articulated by breaking up the mass of the building into smaller units that relate to the program functions they contain. For instance the gym and the dining areas are distinct masses with windows into singular spaces. The glazing planes of these masses are vertical in proportion with bays and recesses separated by masonry pilasters. The materials change from the base of the wall with concrete masonry at three feet above the first floor to the top of the wall with brick masonry. The roof parapet elevation is broken into three different heights to further provide interest and articulate the façade, which extends to the roof parapet. A human scale is achieved by wrapping the building in the three foot tall wainscot belt course and the horizontal and the use of brick which is a smaller unit size and material that expresses more interest when viewed by a person up close.

5. *Building Materials:*
 - a. *No less than 50% of the exterior exposed walls of any new building, or any expansion over 1,250 square feet, shall be constructed of noncombustible, non-degradable and low maintenance construction materials such as face brick, architectural or decorative block, natural stone, specially designed pre-cast concrete panels, concrete masonry units, concrete tilt panels, or other similar materials. Metal roofs may be allowed if compatible with the overall architectural design of the building. Where an elevation of the building is not currently, or will not likely in the future, be exposed to public view, the above standard does not apply.*
 - b. *Accessory structures visible to the public shall be constructed of materials similar to or the same as the principal building(s) on the site.*

Response: The exterior walls on the public side of the building are primarily brick and concrete masonry units, with a small accent of cedar wood siding on the Day Road elevation. The remainder of the exterior walls are noncombustible and low maintenance fiber cement lap board. The roof is screened from view by parapets. No accessory structures are proposed for this development.

6. *Roof Design:*
 - a. *Roofs shall be designed to reduce the apparent exterior mass of a building, add visual interest and be appropriate for the architectural design of the building. Variations within an architectural style are highly encouraged. Visible rooflines and roofs that project over the exterior wall of buildings, and especially over entrances, are highly encouraged.*

Response: The proposed main entry includes a canopy roof for weather protection and for the focal point of the building approach. This location is the most visible and visited by the public on the site.

The roof is otherwise screened from view by parapets that are articulated in height per Section 4.134.05.E.4.

- b. *Mechanical Equipment and Service Areas: Mechanical equipment and service areas shall be screened from adjacent properties, from Day Road and on Day Road corner properties abutting SW Boones Ferry Road, Kinsman Road, Garden Acres Road and Grahams Ferry Road. The architectural design of the building shall incorporate design features which screen, contain and conceal all heating, ventilation, air conditioning units, trash enclosures, dumpsters, loading docks and service yards. Such screening shall blend visually with the related structure.*

Response: In the locations that the roof top equipment is visible above the roof parapets, the proposal is to screen them with the same fiber cement lap board as the building façade. The service entry is proposed to be screened with the same concrete masonry units as the wainscot base that wraps the entire building. The use of these similar materials will blend with the overall building.

7. *Pedestrian Walkways:*

- a. *A continuous pedestrian walkway shall be provided from the primary entrance to the sidewalk along Day Road for access to building entrances and to transit facilities.*
- b. *Walkways from parking areas to building entrances shall be at least six (6) feet in width, and shall be separated from moving vehicles. Walkways shall be distinguished from vehicular areas through the use of special pavers, bricks, scored concrete or similar materials providing a clear demarcation between pedestrian and vehicular traffic.*
- c. *Buildings shall be connected with onsite walkways at least six (6) feet in width.*

Response: The Site Plan as shown in Exhibit I and Landscape Plan shown in Exhibit J shows the pedestrian walkways. A pedestrian walkway has been provided from the primary entry to the public sidewalk along SW Day Road. There are direct walkway connections between the primary entry and the public parking stalls.

8. *Community Amenities: Community amenities such as patio seating, water features, art work or sculpture, clock towers, pedestrian plazas with park benches, connections to area trails, parks and open spaces, and similar amenities are strongly encouraged.*

Response: The NE section of the site will include the gateway area amenities of the design. The concept is to greatly enhance this section to provide a landmark to the gateway entrance of the City of Wilsonville and Industrial area. A concrete pad with a bench has been provided at the current bus stop at the corner of SW Day Road and SW Boones Ferry Road. A location for art with a concrete pedestal (still to be determined) has been incorporated into an enhanced landscape zone adjacent to the bus stop and prominently located at the corner of the site. A grove of existing mature London Plane trees has been preserved and incorporated into the landscape design. A 4 ft. concrete cast in place wall is included in the landscape design to accommodate project signage. The grades at SW Boones Ferry Road rise up fifteen feet to the east side of the building. The bank is landscaped with bold massing of native plants and groves of Douglas Firs trees and Western Red Cedars, which over time will grow up to sixty feet tall.

9. *Lighting and Flag Poles: All lighting shall be shielded and directed interior to the site, including parking lot lighting. Lighting shall not spill over onto adjacent properties. Light poles, light fixtures and flagpoles shall conform to the City's Outdoor Lighting Standards. Flagpoles shall not exceed 40' in height.*

Response: Site lighting will be shielded and directed towards the site in conformance with lighting regulations.

10. *Signage: Signage shall include a monument sign on the Day Road frontage identifying the industrial/business park and buildings therein. Each building may have wall signage, and such other directional and informational signage as allowed by WC 4.156.05, 4.156.08, and 4.156.09. Pole signs are prohibited. The design of signage must be integrated into the overall architectural and site design for the project. [Amended by Ord. No. 704,6/18/12]*

Response: The Sign Plan as shown in Exhibit L includes a monument sign located near the driveway to the parking lot of the facility along Day Road that has integrated the elements of the building into the sign design. The plan also includes a gateway sign at the NE corner of the site at Day Road and Boones Ferry Road. The gateway sign will implement the message to be determined by the city. The sign has been designed to enhance the corner area to serve gateway entrance for the City of Wilsonville.

11. *Parking: Employee parking shall be located at the rear of the building, or in courtyard parking areas between buildings. If no other option is available due to site limitations, then employee parking may be located to the side of buildings. Time and number limited visitor parking is allowed at the front of the building. Within a Stage I master plan, employee parking may be combined in a shared facility or facilities with mutual use agreements. Any parking areas visible from Day Road shall be screened from view with broadleaf evergreen or coniferous shrubbery and/or architectural walls or berms.*

Response: Employee parking has been located to the rear of the building, with ADA accessible, visitor, and car pool parking given preference closest to the primary entry.

Section 4.199 Outdoor Lighting

Section 4.199.20. Applicability.

(.01) *This Ordinance is applicable to:*

- A. *Installation of new exterior lighting systems in public facility, commercial, industrial and multi-family housing projects with common areas.*

Response: The proposed development will meet the requirements of the 4.199. Exhibit K contains the lighting plan with fixture details.

Section 4.199.30. Lighting Overlay Zones.

(.01) *The designated Lighting Zone as indicated on the Lighting Overlay Zone Map for a commercial, industrial, multi-family or public facility parcel or project shall determine the limitations for lighting systems and fixtures as specified in this Ordinance.*

A. Property may contain more than one lighting zone depending on site conditions and natural resource characteristics.

(.02) The Lighting Zones shall be:

A. LZ 1. Developed areas in City and State parks, recreation areas, SROZ wetland and wildlife habitat areas; developed areas in natural settings; sensitive night environments; and rural areas. This zone is intended to be the default condition for rural areas within the City.

B. LZ 2. Low-density suburban neighborhoods and suburban commercial districts, industrial parks and districts. This zone is intended to be the default condition for the majority of the City.

C. LZ 3. Medium to high-density suburban neighborhoods and districts, major shopping and commercial districts as depicted on the Lighting Overlay Zone Map.

D. LZ 4. Reserved for limited applications with special lighting requirements. This zone is appropriate for users who have unique site or operating circumstances that warrant additional light. This zone shall not be applied to residential or agricultural areas.

Response: The proposed development will be located in the LZ 2 Zone.

Section 4.199.40. Lighting Systems Standards for Approval.

(.01) Non-Residential Uses and Common Residential Areas.

A. All outdoor lighting shall comply with either the Prescriptive Option or the Performance Option below.

Response: The lighting plan will use Performance Option.

C. Performance Option. If the lighting is to comply with the Performance Option, the proposed lighting design shall be submitted by the applicant for approval by the City meeting all of the following:

1. The weighted average percentage of direct uplight lumens shall be less than the allowed amount per Table 9.

2. The maximum light level at any property line shall be less than the values in Table 9, as evidenced by a complete photometric analysis including horizontal illuminance of the site and vertical illuminance on the plane facing the site up to the mounting height of the luminaire mounted highest above grade. The Building Official or designee may accept a photometric test report, demonstration or sample, or other satisfactory confirmation that the luminaire meets the shielding requirements of Table 7. Luminaires shall not be mounted so as to permit aiming or use in any way other than the manner maintaining the shielding classification required herein:

a. Exception 1. If the property line abuts a public right-of-way, including a sidewalk or street, the analysis may be performed across the street at the adjacent property line to the right-of-way.

b. Exception 2. If, in the opinion of the Building Official or designee, compliance is impractical due to unique site circumstances such as lot size or shape, topography, or size or shape of building, which are circumstances not typical of the general conditions

of the surrounding area. The Building Official may impose conditions of approval to avoid light trespass to the maximum extent possible and minimize any additional negative impacts resulting to abutting and adjacent parcels, as well as public rights-of-way, based on best lighting practices and available lighting technology.

3. The maximum pole or mounting height shall comply with Table 8.

Response: The site lighting design meets all the requirements of the Performance Option and is demonstrated in the lighting plan shown in Exhibit K.

Section 4.199.50. Submittal Requirements.

(.01) Applicants shall submit the following information as part of DRB review or administrative review of new commercial, industrial, multi-family or public facility projects:

A. A statement regarding which of the lighting methods will be utilized, prescriptive or performance, and a map depicting the lighting zone(s) for the property.

B. A site lighting plan that clearly indicates intended lighting by type and location. For adjustable luminaires, the aiming angles or coordinates shall be shown.

C. For each luminaire type, Drawings[sic], cut sheets or other documents containing specifications for the intended lighting including but not limited to, luminaire description, mounting, mounting height, lamp type and manufacturer, lamp watts, ballast, optical system/distribution, and accessories such as shields.

D. Calculations demonstrating compliance with Oregon Energy Efficiency Specialty Code, Exterior Lighting, as modified by Section 4.199.40(.01)(B.)(2.) [Amended by Ord. 688, 11/15/10]

E. Lighting plans shall be coordinated with landscaping plans so that pole lights and trees are not placed in conflict with one another. The location of lights shall be shown on the landscape plan. Generally, pole lights should not be placed within one pole length of landscape and parking lot trees.

Response: The site lighting design will consist of Energy Efficient LED fixtures strategically placed to meet the IESNA recommendations and the zoning requirements per the City of Wilsonville. A combination of building and pole mounted fixtures will be used and will be provided with full cut-off/glared protection where applicable. The goal is to provide a well illuminated environment that promotes safety while maintaining the dark-sky impacted of the site surroundings. The lighting plan is shown in Exhibit K. The lighting plan is also incorporated into the landscaping plan as shown in Exhibit J.

Section 4.300 – 4.320 Underground Utilities

Section 4.300. General.

(.01) The City Council deems it reasonable and necessary in order to accomplish the orderly and desirable development of land within the corporate limits of the City, to require the underground installation of utilities in all new developments.

(.02) After the effective date of this Code, the approval of any development of land within the City will be upon the express condition that all new utility lines, including but not limited to those required for

power, communication, street lighting, gas, cable television services and related facilities, shall be placed underground.

(.03) The construction of underground utilities shall be subject to the City's Public Works Standards and shall meet applicable requirements for erosion control and other environmental protection.

Section 4.310 Exceptions.

Section 4.300 of this Code shall not apply to surface-mounted transformers, surface-mounted connection boxes, wireless communication facilities, and meter cabinets and other appurtenances which are reasonably necessary to be placed above ground, or to temporary utility service facilities during construction, or to high capacity electric and communication feeder lines, or to utility transmission lines operating at 50,000 volts or more.

Section 4.320. Requirements.

(.01) The developer or subdivider shall be responsible for and make all necessary arrangements with the serving utility to provide the underground services (including cost of rearranging any existing overhead facilities). All such underground facilities as described shall be constructed in compliance with the rules and regulations of the Public Utility Commission of the State of Oregon relating to the installation and safety of underground lines, plant, system, equipment and apparatus.

(.02) The location of the buried facilities shall conform to standards supplied to the subdivider by the City. The City also reserves the right to approve location of all surface-mounted transformers.

(.03) Interior easements (back lot lines) will only be used for storm or sanitary sewers, and front easements will be used for other utilities unless different locations are approved by the City Engineer. Easements satisfactory to the serving utilities shall be provided by the developer and shall be set forth on the plat.

Response: Undergrounding of utilities along the Day Road frontage is included in the UHS WVBH project preliminary plans included with the Land Use application. The civil Land Use plans, Exhibit I, show the relocation of utility poles near the west and east ends of the Day Road Frontage. The pole relocations are required to accommodate widening of Day Road. Undergrounding of the affected overhead utilities is needed to allow fire department aerial ladder truck access from Day Road to portions of the building over 30-feet in height.

SITE DESIGN REVIEW

Section 4.421. Criteria and Application of Design Standards.

(.01) The following standards shall be utilized by the Board in reviewing the plans, drawings, sketches and other documents required for Site Design Review. These standards are intended to provide a frame of reference for the applicant in the development of site and building plans as well as a method of review for the Board. These standards shall not be regarded as inflexible requirements. They are not intended to discourage creativity, invention and innovation. The specifications of one or more particular architectural styles is not included in these standards. (Even in the Boones Ferry Overlay Zone, a range of architectural styles will be encouraged.)

A. *Preservation of Landscape.* The landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree and soils removal, and any grade changes shall be in keeping with the general appearance of neighboring developed areas.

Response: The site development plan preserves as many existing trees as possible on the site. The parking area and access roads along with stormwater facilities were designed around the existing topography to minimize the impact on the landscape. As discussed in the Section 4.176 Site Landscaping Requirements is Final Plan Review, maximum effort was taken to preserve the native vegetation and trees existing on the site. The Arborist report in Exhibit N shows the existing conditions of the landscape and trees. The tree plan in Exhibit I shows extent of the tree preservation plan that was possible due to the careful siting of the building and infrastructure. The landscape plan shown in Exhibit J highlights the use of native plants in the overall plan and blending of the design into the existing conditions.

B. *Relation of Proposed Buildings to Environment.* Proposed structures shall be located and designed to assure harmony with the natural environment, including protection of steep slopes, vegetation and other naturally sensitive areas for wildlife habitat and shall provide proper buffering from less intensive uses in accordance with Sections 4.171 and 4.139 and 4.139.5. The achievement of such relationship may include the enclosure of space in conjunction with other existing buildings or other proposed buildings and the creation of focal points with respect to avenues of approach, street access or relationships to natural features such as vegetation or topography.

Response: The proposed building location is on the most level portion of the site which is on the north and east sides of the parcel. The western and southern portions of the site are the steepest and are proposed to be not developed in this application. The most significant stand of existing trees is also in this western sloped area that is planned to be not developed in this application. The proposed developed portions of the site include a building type that encloses space with multiple interior courtyards which provide a connection to the environment from the inside of the building. The proposed main building entry is promptly located at the site entrance as a focal point along the avenue of approach and has direct line of sight to the west significant stand of existing trees. The primary avenue of approach is along the west significant stand of existing trees and the proposed building location and thus has a direct relationship to the natural environment.

C. *Drives, Parking and Circulation.* With respect to vehicular and pedestrian circulation, including walkways, interior drives and parking, special attention shall be given to location and number of access points, general interior circulation, separation of pedestrian and vehicular traffic, and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not detract from the design of proposed buildings and structures and the neighboring properties.

Response: Parking areas and pedestrian paths are designed to lead to building main entry points, while internal circulation meets or exceeds pedestrian standards and ADA requirements. The driveway entrance to the site is cut into the terrain which, along with landscaping, will screen the driveway and parking areas from the street and neighboring properties. The main entrance to the building has a vehicular drop off that incorporates a circular drive oriented around a large existing

Cedar Tree. The pedestrian entrance has a sidewalk and canopy that engage the sidewalk from Day Road and incorporate existing trees into the design.

D. Surface Water Drainage. Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties of the public storm drainage system.

Response: All surface drainage from impervious area will be treated for water quality. Storm drainage improvements will be designed and coordinated with the City Engineering Department. Drainage from the site will be detained in a manner to reduce any impacts to neighboring properties.

E. Utility Service. Any utility installations above ground shall be located so as to have a harmonious relation to neighboring properties and site. The proposed method of sanitary and storm sewage disposal from all buildings shall be indicated.

Response: All proposed utilities – power, gas, water, sewer and stormwater infrastructure - will be installed underground as required by this section. Any above ground utility structures required by code or utility provider requirements will be located or screened to be harmonious with the site and neighboring properties.

F. Advertising Features. In addition to the requirements of the City's sign regulations, the following criteria should be included: the size, location, design, color, texture, lighting and materials of all exterior signs and outdoor advertising structures or features shall not detract from the design of proposed buildings and structures and the surrounding properties.

Response: The signs for the site meet the City's sign regulations. A sign plan review is submitted with this application as shown in Exhibit L.

G. Special Features. Exposed storage areas, exposed machinery installations, surface areas, truck loading areas, utility buildings and structures and similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall be required to prevent their being incongruous with the existing or contemplated environment and its surrounding properties. Standards for screening and buffering are contained in Section 4.176.

Response: The exterior storage enclosure along with the generator enclosure are shown on the building plans in Exhibit H, the site plan in Exhibit I, and the Landscape Plan in Exhibit J. All the areas are enclosed with a masonry wall and screened with landscaping in a harmonious manner. The solid waste storage area is further discussed below. Exposed infrastructure structures on the site have been screened with landscaping.

Section 4.430. Location, Design and Access Standards for mixed Solid Waste and Recycling Areas

(.02) Location Standards:

A. To encourage its use, the storage area for source separated recyclables shall be co-located with the storage area for residual mixed solid waste.

B. Indoor and outdoor storage areas shall comply with Uniform Building and Fire Code requirements.

C. Storage area space requirements can be satisfied with a single location or multiple locations and can combine with both interior and exterior locations.

D. Exterior storage areas can be located within interior side yard or rear yard areas. Minimum setback shall be three (3) feet. Exterior storage areas shall not be located within a required front yard setback, including double frontage lots.

E. Exterior storage areas shall be located in central and visible locations on a site to enhance security for users.

F. Exterior storage areas can be located in a parking area if the proposed use provides at least the minimum number of parking spaces required for the use after deducting the area used for storage. Storage areas shall be appropriately screened according to the provisions of Section 4.430 (.03), below.

G. The storage area shall be accessible for collection vehicles and located so that the storage area will not obstruct pedestrian or vehicle traffic movement on the site or on public streets adjacent to the site.

Response: The recycling bins are co-located with the waste bins. All trash recycling and storage areas are within the required setbacks, and meet building and fire code requirements. The storage area is located on the western side of the building and is accessible for collection. It does not obstruct vehicle or pedestrian traffic.

(.03) Design Standards.

A. The dimensions of the storage area shall accommodate containers consistent with current methods of local collection.

B. Storage containers shall meet Uniform Fire Code standards and be made of or covered with waterproof materials or situated in a covered area.

C. Exterior storage areas shall be enclosed by a sight obscuring fence, wall or hedge at least six (6) feet in height. Gate openings for haulers shall be a minimum of ten (10) feet wide and shall be capable of being secured in a closed or open position. In no case shall exterior storage areas be located in conflict with the vision clearance requirements of Section 4.177.

D. Storage area(s) and containers shall be clearly labeled to indicate the type of materials accepted.

Response The storage area was reviewed by the local hauler and certified that it will meet the requirements for their containers and collection vehicles as shown in the letter from Republic Services in Exhibit F. The proposed exterior storage area is obscured by a 16 foot tall concrete masonry unit wall. It will have a ten foot wide gate that can be secured open or closed. Hauler will provide containers with approved labeling.

(.04) Access Standards.

A. Access to storage areas can be limited for security reasons. However, the storage area shall be accessible to users at convenient times of the day and to collect service personnel on the day and approximate time they are scheduled to provide collection service.

- B. Storage areas shall be designed to be easily accessible to collection trucks and equipment, considering paving, grade and vehicle access. A minimum of ten (10) feet horizontal clearance and eight feet of vertical clearance is required if the storage area is covered.
- C. Storage areas shall be accessible to collection vehicles without requiring backing out of a driveway onto a public street. If only a single access point is available to the storage area, adequate turning radius shall be provided to allow collection vehicles to safely exit the site in a forward motion. (Added by Ordinance #426, April 4, 1994.)

Response The proposed exterior storage area is accessible directly from the building by the occupants and the gated exterior opening will be accessible to the collection service at the appropriate times. The proposed storage area will have a ten foot wide gate and fourteen feet of overhead clearance. The proposed storage area is located such that it's dedicated drive way is apart from the parking lot with adequate maneuvering clearances with hammerhead design and is separated from the public street by the proposed parking lot.

Section 4.440. *Procedure.*

(.01) *Submission of Documents.* A prospective applicant for a building or other permit who is subject to site design review shall submit to the Planning Department, in addition to the requirements of Section 4.035, the following:

- A. A site plan, drawn to scale, showing the proposed layout of all structures and other improvements including, where appropriate, driveways, pedestrian walks, landscaped areas, fences, walls, off-street parking and loading areas, and railroad tracks. The site plan shall indicate the location of entrances and exits and direction of traffic flow into and out of off-street parking and loading areas, the location of each parking space and each loading berth and areas of turning and maneuvering vehicles. The site plan shall indicate how utility service and drainage are to be provided.

Response: This application package contains all requested information for the Site Plan as shown in Exhibit I and Exhibit J.

- B. A Landscape Plan, drawn to scale, showing the location and design of landscaped areas, the variety and sizes of trees and plant materials to be planted on the site, the location and design of landscaped areas, the varieties, by scientific and common name, and sizes of trees and plant materials to be retained or planted on the site, other pertinent landscape features, and irrigation systems required to maintain trees and plant materials. An inventory, drawn at the same scale as the Site Plan, of existing trees of 4" caliper or more is required. However, when large areas of trees are proposed to be retained undisturbed, only a survey identifying the location and size of all perimeter trees in the mass in necessary.

Response: This application package contains all requested information for the Landscape Plan shown in Exhibit J.

- C. Architectural drawings or sketches, drawn to scale, including floor plans, in sufficient detail to permit computation of yard requirements and showing all elevations of the proposed structures and other improvements as they will appear on completion of construction. Floor plans shall

also be provided in sufficient detail to permit computation of yard requirements based on the relationship of indoor versus outdoor living area, and to evaluate the floor plan's effect on the exterior design of the building through the placement and configuration of windows and doors.

Response: This application package contains all requested information for the Architectural Drawings as shown in Exhibit H.

- D. A Color Board displaying specifications as to type, color, and texture of exterior surfaces of proposed structures. Also, a phased development schedule if the development is constructed in stages.

Response: This application package contains all requested information for the Color Board with the type, color, and texture of exterior surfaces as shown in the elevation views of Exhibit H.

- E. A sign Plan, drawn to scale, showing the location, size, design, material, color and methods of illumination of all exterior signs.

Response: This application package contains all requested information for the Sign Plan shown in Exhibit L.

- F. The required application fee.

Response: Exhibit A shows the check that was submitted with the application for the fees.

TYPE C TREE REMOVAL PLAN REVIEW

This request is for a review of the Type C Tree Removal Plan. The arborist report conducted for this site identified existing trees and their conditions along with the impact of the proposed development. Great effort was done in the design of the site plan and building to mitigate the disturbance on the natural environment and preserve as many existing trees. This effort has resulted in the preservation of 2/3 of the existing trees.

Section 4.610.40. Type C Permit

(.01) *Approval to remove any trees on property as part of a site development application may be granted in a Type C permit. A Type C permit application shall be reviewed by the standards of this subchapter and all applicable review criteria of Chapter 4. Application of the standards of this section shall not result in a reduction of square footage or loss of density, but may require an applicant to modify plans to allow for buildings of greater height. If an applicant proposes to remove trees and submits a landscaping plan as part of a site development application, an application for a Tree Removal Permit shall be included. The Tree Removal Permit application will be reviewed in the Stage II development review process, and any plan changes made that affect trees after Stage II review of a development application shall be subject to review by DRB. Where mitigation is required for tree removal, such mitigation may be considered as part of the landscaping requirements as set forth in this Chapter. Tree removal shall not commence until approval of the required Stage II application and the expiration of the appeal period following that decision. If a decision approving a Type C permit is appealed, no trees shall be removed until the appeal has been settled.*

(.02) *The applicant must provide ten copies of a Tree Maintenance and Protection Plan completed by an arborist that contains the following information:*

A. A plan, including a topographical survey bearing the stamp and signature of a qualified, registered professional containing all the following information:

1. Property Dimensions. The shape and dimensions of the property, and the location of any existing and proposed structure or improvement.

2. Tree survey. The survey must include:

a. An accurate drawing of the site based on accurate survey techniques at a minimum scale of one inch (1") equals one hundred feet (100') and which provides a) the location of all trees having six inches (6") or greater d.b.h. likely to be impacted, b) the spread of canopy of those trees, (c) the common and botanical name of those trees, and d) the approximate location and name of any other trees on the property.

b. A description of the health and condition of all trees likely to be impacted on the site property. In addition, for trees in a present or proposed public street or road right-of-way that are described as unhealthy, the description shall include recommended actions to restore such trees to full health. Trees proposed to remain, to be transplanted or to be removed shall be so designated. All trees to remain on the site are to be designated with metal tags that are to remain in place throughout the development. Those tags shall be

numbered, with the numbers keyed to the tree survey map that is provided with the application.

c. Where a stand of twenty (20) or more contiguous trees exist on a site and the applicant does not propose to remove any of those trees, the required tree survey may be simplified to accurately show only the perimeter area of that stand of trees, including its drip line. Only those trees on the perimeter of the stand shall be tagged, as provided in "b," above.

d. All Oregon white oaks, native yews, and any species listed by either the state or federal government as rare or endangered shall be shown in the tree survey.

3. Tree Protection. A statement describing how trees intended to remain will be protected during development, and where protective barriers are necessary, that they will be erected before work starts. Barriers shall be sufficiently substantial to withstand nearby construction activities. Plastic tape or similar forms of markers do not constitute "barriers."

4. Easements and Setbacks. Location and dimension of existing and proposed easements, as well as all setbacks required by existing zoning requirements.

5. Grade Changes. Designation of grade changes proposed for the property that may impact trees.

6. Cost of Replacement. A cost estimate for the proposed tree replacement program with a detailed explanation including the number, size and species.

7. Tree Identification. A statement that all trees being retained will be identified by numbered metal tags, as specified in subsection "A," above in addition to clear identification on construction documents.

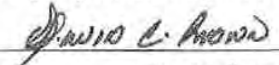
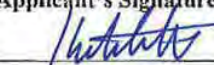
Response: The Tree Plan as shown in Exhibit I demonstrates all requirements of this section. The Arborist Report is shown in Exhibit N. Approximately 2/3 of the existing trees will be preserved with another 13 percent as situational pending changes to the development plan based on City guidance for the current proposal.

Exhibit A-B

City of Wilsonville Application Forms Tax Assessor Map of Property

Exhibit A: Development Permit Application

Exhibit A: Application for Legislative Action

<p>CITY OF WILSONVILLE 29799 SW Town Center Loop East Wilsonville, OR 97070 Phone: 503.682.4960 Fax: 503.682.7025 Web: www.ci.wilsonville.or.us Pre-Application meeting date: _____</p> <p>TO BE COMPLETED BY APPLICANT: Please PRINT legibly</p>	<p style="text-align: center;">Planning Division <i>Development Permit Application</i></p> <p><i>Final action on development application or zone change is required within 120 days in accordance with provisions of ORS 227.175</i></p> <p><i>A pre application conference is normally required prior to submittal of an application. Please visit the City's website for submittal requirements</i></p> <p><i>Incomplete applications will not be scheduled for public hearing until all of the required materials are submitted.</i></p>																																
<p>Applicant: Universal Health Services, Inc. - Willamette Valley Behavioral Health</p> <p>Address: <u>367 S. Gulph Road, King of Prussia, PA 19406</u></p> <p>Phone: <u>760-985-1670 - Alan Schulz</u></p> <p>Fax: _____</p> <p>E-mail: _____</p>	<p>Authorized Representative: Kenneth L. Sandblast - Westlake Consultants, Inc</p> <p>Address: <u>15115 SW Sequoia Parkway, Suite 150, Tigard, OR 97224</u></p> <p>Phone: <u>503-684-0652</u></p> <p>Fax: <u>503-624-0157</u></p> <p>E-mail: <u>ksandblast@westlakeconsultants.com</u></p>																																
<p>Property Owner: David C. Brown, Trustee, of the David C. Brown Revocable Living Trust U/T/A</p> <p>Address: <u>P.O. Box 1997, Wilsonville, OR 97070</u></p> <p>Phone: _____</p> <p>Fax: _____</p> <p>E-mail: <u>dbrown@mitchellewis.com</u></p>	<p>Property Owner's Signature:  Printed Name: <u>David C. Brown, Trustee</u> Date: <u>11/11/15</u></p> <p>Applicant's Signature (if different from Property Owner):  Printed Name: <u>KENNETH SANDBLAST</u> Date: <u>11/11/15</u></p>																																
<p>Site Location and Description: Project Address if Available: <u>9470 SW Day Rd</u> Suite/Unit _____ Project Location: <u>T3S-R1W</u> Tax Map #(s): <u>2B</u> Tax Lot #(s): <u>400, 500, 501</u> County: <input checked="" type="checkbox"/> Washington <input type="checkbox"/> Clackamas</p>																																	
<p>Request: <u>Request for Annexation, Comprehensive Plan Map Amendment, Zone Change, Stage I Master Plan, Site Design Review, Stage II Final Plan, Type C Tree Removal, and Class III Sign Approval for a proposed Behavioral Health Facility, Waiver to the minimum glazing requirement of section 4.134.(05) B., Waiver to the minimum height requirement of section 4.134.(05) D.</u></p>																																	
<p>Project Type: Class I <input type="checkbox"/> Class II <input checked="" type="checkbox"/> Class III <input checked="" type="checkbox"/></p> <p><input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Other (describe below)</p>																																	
<p>Application Type:</p> <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> Annexation</td> <td><input type="checkbox"/> Appeal</td> <td><input checked="" type="checkbox"/> Comp Plan Map Amend</td> <td><input type="checkbox"/> Conditional Use</td> </tr> <tr> <td><input type="checkbox"/> Final Plat</td> <td><input type="checkbox"/> Major Partition</td> <td><input type="checkbox"/> Minor Partition</td> <td><input type="checkbox"/> Parks Plan Review</td> </tr> <tr> <td><input type="checkbox"/> Plan Amendment</td> <td><input type="checkbox"/> Planned Development</td> <td><input type="checkbox"/> Preliminary Plat</td> <td><input type="checkbox"/> Request to Modify Conditions</td> </tr> <tr> <td><input type="checkbox"/> Request for Special Meeting</td> <td><input type="checkbox"/> Request for Time Extension</td> <td><input checked="" type="checkbox"/> Signs</td> <td><input checked="" type="checkbox"/> Site Design Review</td> </tr> <tr> <td><input type="checkbox"/> SROZ/SRIR Review</td> <td><input type="checkbox"/> Staff Interpretation</td> <td><input checked="" type="checkbox"/> Stage I Master Plan</td> <td><input checked="" type="checkbox"/> Stage II Final Plan</td> </tr> <tr> <td><input checked="" type="checkbox"/> Type C Tree Removal Plan</td> <td><input type="checkbox"/> Tree Removal Permit (B or C)</td> <td><input type="checkbox"/> Temporary Use</td> <td><input type="checkbox"/> Variance</td> </tr> <tr> <td><input type="checkbox"/> Villebois SAP</td> <td><input type="checkbox"/> Villebois PDP</td> <td><input type="checkbox"/> Villebois PDP</td> <td><input checked="" type="checkbox"/> Waiver</td> </tr> <tr> <td><input checked="" type="checkbox"/> Zone Map Amendment</td> <td><input type="checkbox"/> Other</td> <td></td> <td></td> </tr> </table>		<input checked="" type="checkbox"/> Annexation	<input type="checkbox"/> Appeal	<input checked="" type="checkbox"/> Comp Plan Map Amend	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Final Plat	<input type="checkbox"/> Major Partition	<input type="checkbox"/> Minor Partition	<input type="checkbox"/> Parks Plan Review	<input type="checkbox"/> Plan Amendment	<input type="checkbox"/> Planned Development	<input type="checkbox"/> Preliminary Plat	<input type="checkbox"/> Request to Modify Conditions	<input type="checkbox"/> Request for Special Meeting	<input type="checkbox"/> Request for Time Extension	<input checked="" type="checkbox"/> Signs	<input checked="" type="checkbox"/> Site Design Review	<input type="checkbox"/> SROZ/SRIR Review	<input type="checkbox"/> Staff Interpretation	<input checked="" type="checkbox"/> Stage I Master Plan	<input checked="" type="checkbox"/> Stage II Final Plan	<input checked="" type="checkbox"/> Type C Tree Removal Plan	<input type="checkbox"/> Tree Removal Permit (B or C)	<input type="checkbox"/> Temporary Use	<input type="checkbox"/> Variance	<input type="checkbox"/> Villebois SAP	<input type="checkbox"/> Villebois PDP	<input type="checkbox"/> Villebois PDP	<input checked="" type="checkbox"/> Waiver	<input checked="" type="checkbox"/> Zone Map Amendment	<input type="checkbox"/> Other		
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<input checked="" type="checkbox"/> Zone Map Amendment	<input type="checkbox"/> Other																																

PLANNING DIVISION
 Application for Legislative Action

CITY OF WILSONVILLE
 8445 SW Elligsen Road
 Mail: 30000 SW Town Center Loop East
 Wilsonville OR 97070
 Ph: 503/682-4960
 FAX: 503/682-7025
 Web: www.ci.wilsonville.or.us

Date Filed: _____
 File No. _____
 File Name: _____

APPLICANT


Name: Kenneth L. Sandblast, AICP

City Department or Company: Westlake Consultants, Inc

Address: 1511 SW Sequoia Parkway, Suite 150 Tigard, OR 97224

Telephone: 503-684-0652 FAX: 503-624-0157

Email Address: ksandblast@westlakeconsultants.com

Signature of Responsible Person: 

Request/Project Description: Annexation, Comprehensive Plan Map Amendment, and Zone Change for a proposed Behavioral Health Facility.

Property or Area Affected: 9470 SW Day Road

Office Use Only

DLCD Notification Y/N Date City Wide (BM 56) Notification Y/N Date

Planning Commission Hearing Date(s) _____ City Council Hearing Date(s) _____

Planning Commission Action (recommendation to City Council)
 Yes No Date: _____ Planning Commission Resolution No. _____

City Council Adoption:
 Yes No Date: _____ City Council Resolution/Ordinance No. _____

Fee amount paid \$ _____ Check No. _____ Cash

Signature for receipt of money _____ Date: _____

Exhibit A: Petition For Annexation

PETITION FOR ANNEXATION TO THE CITY OF WILSONVILLE, OREGON

To the City Council of the City of Wilsonville:

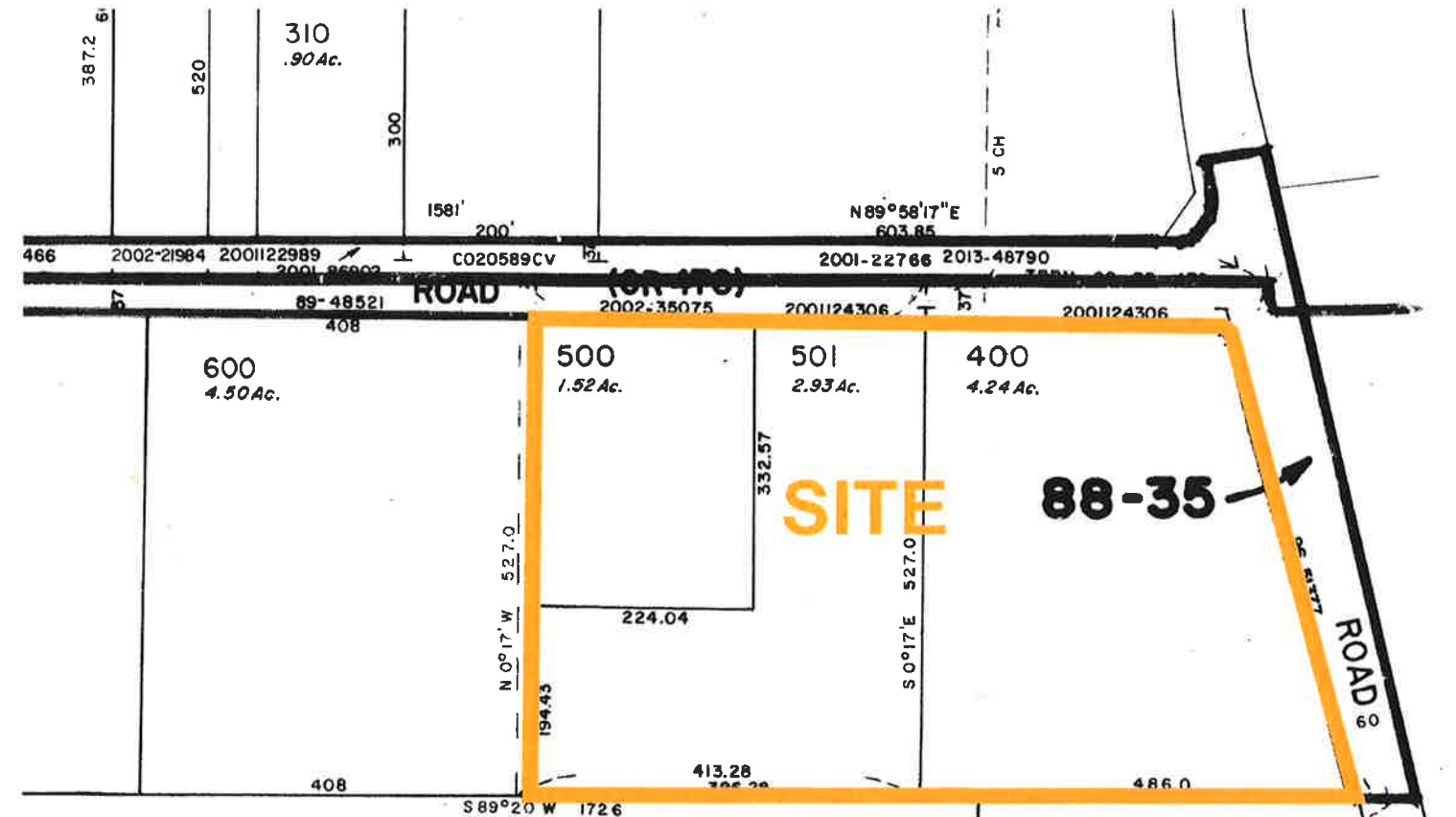
We, the undersigned owners and/or electors, petition and consent to be annexed to the City of Wilsonville

PETITION SIGNERS						
Signature	Printed Name	I Am A* (check both if applicable)		Owner's /Elector's Mailing Address	Property Description	Date**
		PO	RV			
<i>David C. Brown</i>	David C. Brown	X		P.O. Box 1997 Wilsonville, OR 97070	2B 400, 500, 501	11/11/15

* PO = Property Owner, RV = Registered Voter

** Within 1 year from the date of filing petition with City

Exhibit B: Tax Assessor Map



SEE MAP
3S 1 2CA

WILSONVILLE
3S 1 2B

Exhibit C

ALTA + Legal Description

EXHIBIT "A"

Annexation to the City of Wilsonville
 Washington County, Oregon
 Portion of Tax Lots 400, 500 and 501, 3S 1 2B
 December 2, 2015
 Project No. 2542-001

PROPERTY DESCRIPTION

Real property lying in Washington County, Oregon being a portion of Section 2, Township 3 South, Range 1 West of the Willamette Meridian described as follows:

Beginning at a 5/8 inch iron rod with yellow plastic cap marked "PLS 53760" set in Washington County Survey Number 29,223 on the west right of way line of S.W. Boone's Ferry Road 50.00 feet from the centerline thereof measured at a right angle, said point also being 63.42 feet southerly of the centerline of S.W. Day Road measured at a right angle;
 thence along said west right of way line as conveyed to the State of Oregon by Document Number 96053177 through the following three courses:
 South 13°53'24" East, 134.77 feet, South 16°12'41" East, 247.33 feet, and South 13°53'39" East, 96.96 feet to the easterly extension of the north line of the plat "Riverwood Industrial Campus Condominium";
 thence along said north line and the north line of that property conveyed to "R & R Property Holdings Inc" by Document Number 2013-104658, South 89°36'39" West, 841.93 feet;
 thence along the east line of that property conveyed to "Hill" by Document Number 2005-130325, North 00°13'04" West, 489.97 feet to the south right of way line of S.W. Day Road being 37.00 feet from the centerline thereof measured at a right angle;
 thence along said south right of way line as conveyed to the State of Oregon by Document Numbers 2002-035075 and 2001-124306, North 89°37'54" East, 691.58 feet to a 5/8 inch iron rod with yellow plastic cap marked "PLS 53760" set in Washington County Survey Number 29,223;
 thence along the right of way lines at the southwest corner of the intersection of S.W. Day Road and S.W. Boones Ferry Road for the following two courses: South 58°21'35" East, 18.34 feet, and South 35°36'46" East, 20.45 feet to the Point of Beginning.

Containing 8.728 acres more or less.

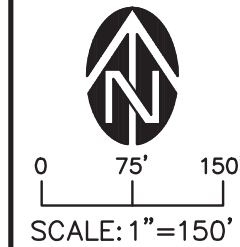
Bearings shown per Washington County Survey Number 17,450.

**REGISTERED
 PROFESSIONAL
 LAND SURVEYOR**

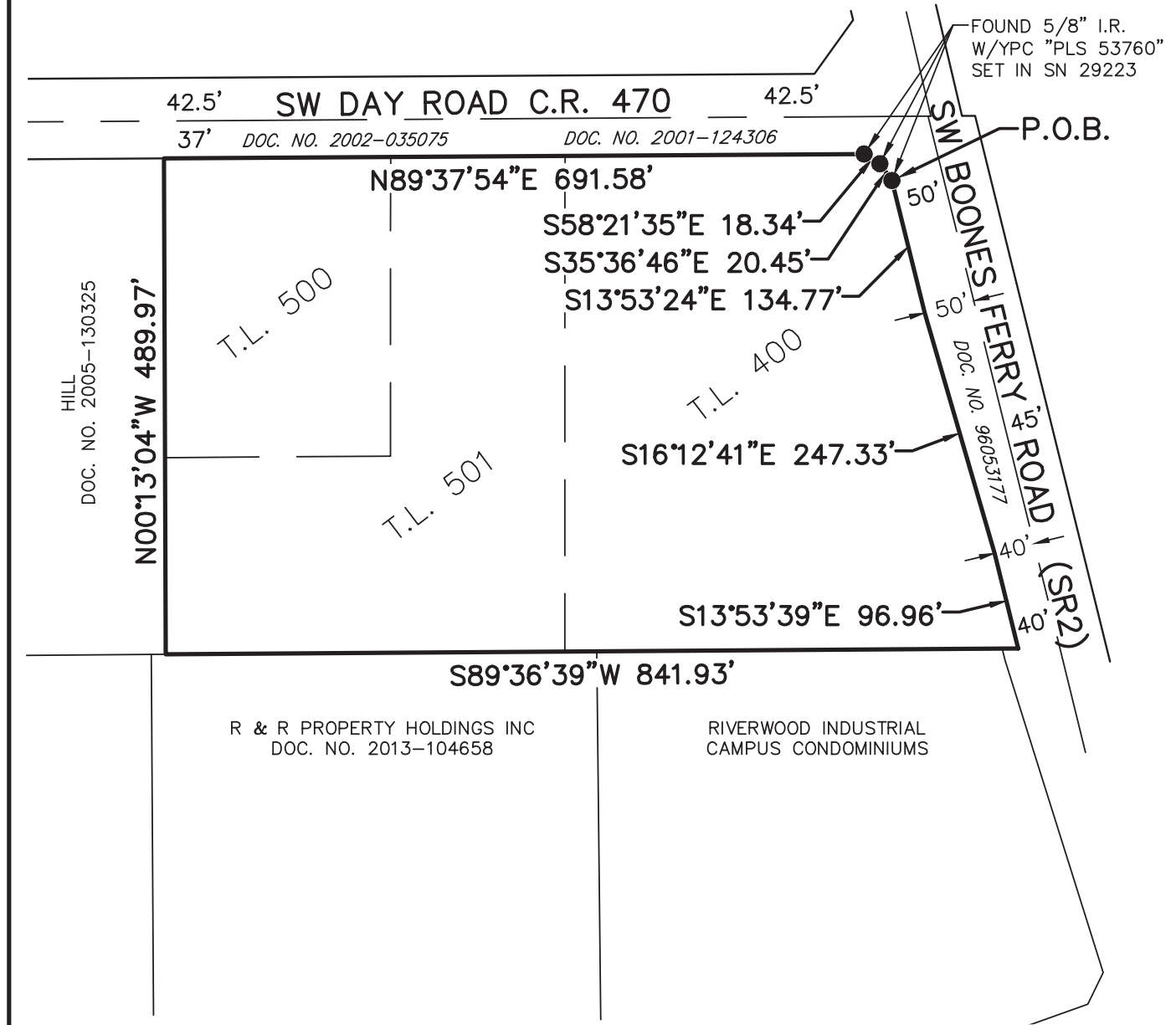
Michael D. Spelts

**OREGON
 NOVEMBER 12, 2013
 MICHAEL D. SPELTS
 87475PLS**

RENEWS: 06-30-2016



DRAWING NAME: J:\2542-001.15\Survey\CAD\DWG\2542-001E.DWG DEC 03, 2015 - 7:30AM - MDS



**EXHIBIT B
 PAGE 1 OF 1**

SECTION 2, TOWNSHIP 3 SOUTH,
 RANGE 1 WEST, W.M.
 WASHINGTON COUNTY, OREGON

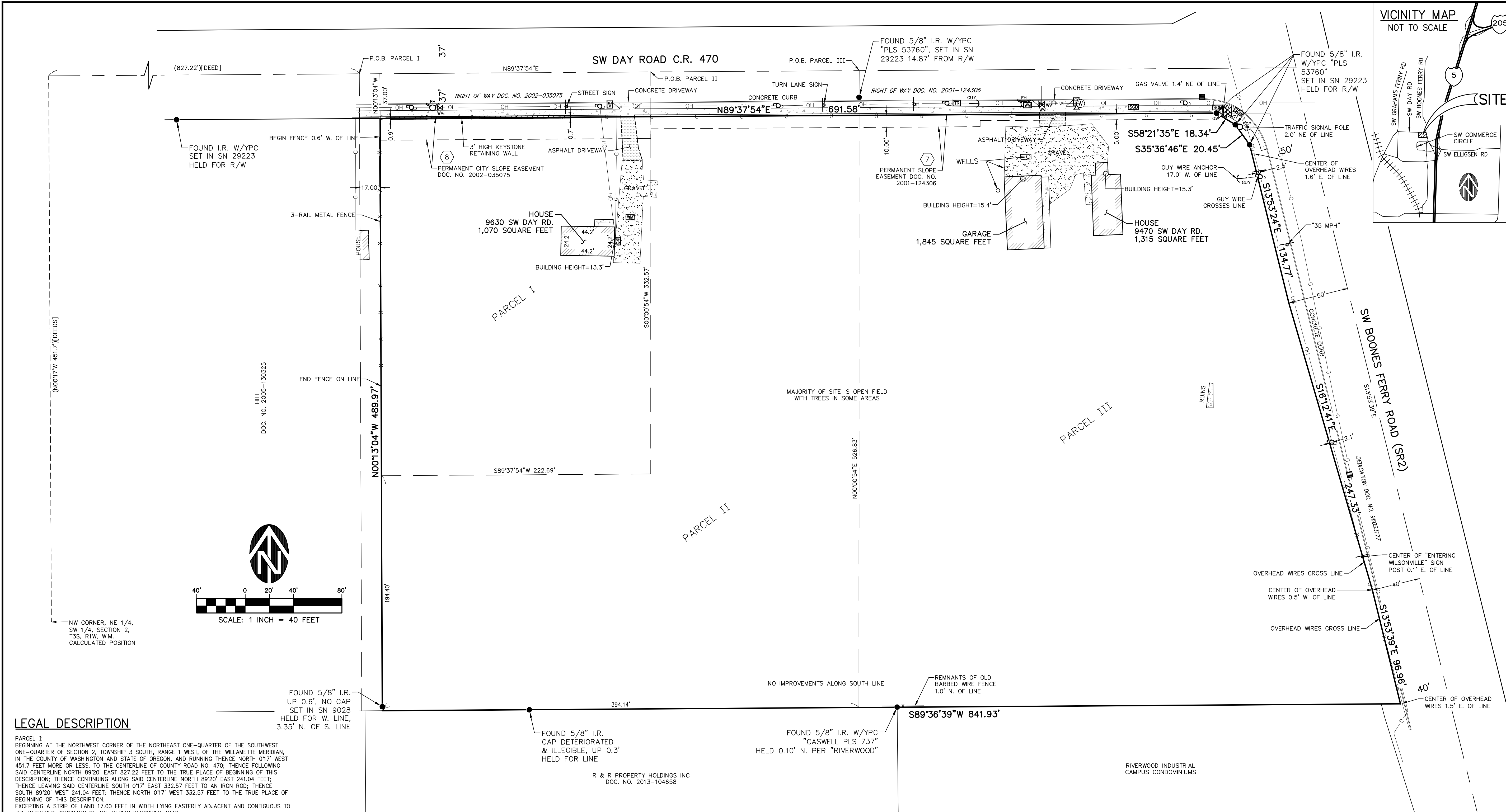
DATE	12/03/2015
DRAWN BY	MDS
CHECKED BY	GRA
REVISION	0
JOB NO.	2542-001

WESTLAKE
 CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

PACIFIC CORPORATE CENTER
 15115 S.W. SEQUOIA PARKWAY, SUITE 150 (503) 684-0652
 TIGARD, OREGON 97224 FAX (503) 624-0157

Exhibit C: ALTA Survey



WESTLAKE CONSULTANTS INC.

ENGINEERING • SURVEYING • PLANNING

PACIFIC CORPORATE CENTER
1500 S.W. 3RD AVENUE, SUITE 150
TIGARD, OREGON 97224
(503) 884-0852
FAX (503) 824-0157

A.L.T.A. / A.C.S.M. LAND TITLE SURVEY

FOR: UNIVERSAL HEALTH SERVICES, INC.

SECTION 2, TOWNSHIP 3 SOUTH, RANGE 1 WEST, W.M.
WASHINGTON COUNTY, OREGON

REGISTERED PROFESSIONAL LAND SURVEYOR

Mich Speltis

OREGON
NOVEMBER 12, 2013
MICHAEL D. SPELTIS
87479PLS
RENEWALS: 06-30-2016

THESE DRAWINGS ARE THE PROPERTY OF WESTLAKE CONSULTANTS INC. AND ARE NOT TO BE REPRODUCED IN ANY MANNER EXCEPT WITH THE WRITTEN PERMISSION OF THE FIRM.

REVISIONS	DESCRIPTION	DATE	NO.	NO.	NO.

1 OF 1

JOB NO. **2542-001**

LEGAL DESCRIPTION

PARCEL I:
BEGINNING AT THE NORTHWEST CORNER OF THE NORTHEAST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 2, TOWNSHIP 3 SOUTH, RANGE 1 WEST, OF THE WILLAMETTE MERIDIAN, IN THE COUNTY OF WASHINGTON AND STATE OF OREGON, AND RUNNING THENCE NORTH 01°17' WEST 451.7 FEET MORE OR LESS, TO THE CENTERLINE OF COUNTY ROAD NO. 470; THENCE FOLLOWING SAID CENTERLINE NORTH 89°20' EAST 927.22 FEET TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING ALONG SAID CENTERLINE NORTH 89°20' EAST 241.04 FEET; THENCE LEAVING SAID CENTERLINE SOUTH 01°17' EAST 332.57 FEET TO AN IRON ROD; THENCE SOUTH 89°20' WEST 241.04 FEET; THENCE NORTH 01°17' WEST 332.57 FEET TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION.
EXCEPTING A STRIP OF LAND 17.00 FEET IN WIDTH LYING EASTERLY ADJACENT AND CONTIGUOUS TO THE WESTERLY BOUNDARY OF THE HEREIN DESCRIBED TRACT;
ALSO EXCEPTING THAT PORTION OF LAND LYING PARALLEL AND ADJACENT TO THE NORTHERLY BOUNDARY LINE OF SAID TRACT AND CONTAINED WITHIN THE LIMITS OF RIGHT OF WAY SAID COUNTY ROAD NO. 470, ALL IN WASHINGTON COUNTY, OREGON.
FURTHER EXCEPTING THEREFROM THAT PORTION GRANTED TO THE STATE OF OREGON, BY AND THROUGH ITS DEPARTMENT OF CORRECTIONS AN EXCLUSIVE EASEMENT FOR TRANSPORTATION RIGHT OF WAY PURPOSES, CONVEYED IN DOCUMENT RECORDED MARCH 26, 2002, RECORDER'S NO. 2002-035075, AND CONVEYED TO THE CITY OF WILSONVILLE, A MUNICIPAL CORPORATION OF THE STATE OF OREGON, BY DEED RECORDED JUNE 7, 2004, RECORDER'S NO. 2004-063726.

PARCEL II:
BEGINNING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 3 SOUTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN, IN THE COUNTY OF WASHINGTON AND STATE OF OREGON; RUNNING THENCE NORTH 01°17' WEST 451.7 FEET, MORE OR LESS, TO THE CENTERLINE OF COUNTY ROAD NO. 470; THENCE FOLLOWING SAID CENTERLINE NORTH 89°20' EAST 1088.26 FEET TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING ALONG SAID CENTERLINE NORTH 89°20' EAST 172.24 FEET TO THE NORTHWEST CORNER OF THAT CERTAIN TRACT OF LAND DEEDED TO JAMES VAUGHAN, ET AL, AND RECORDED IN BOOK 221, PAGE 523, DEED RECORDS; THENCE LEAVING SAID ROAD CENTERLINE SOUTH 01°17' EAST ALONG THE WESTERLY LINE OF SAID VAUGHAN TRACT, 527.00 FEET; THENCE SOUTH 89°20' WEST PARALLEL WITH SAID ROAD CENTERLINE 396.28 FEET TO AN IRON ROD; THENCE NORTH 01°17' WEST 194.43 FEET; THENCE NORTH 89°20' EAST 224.04 FEET; THENCE NORTH 01°17' WEST 332.57 FEET TO THE TRUE PLACE OF BEGINNING.
EXCEPTING THAT PORTION OF LAND LYING PARALLEL AND ADJACENT TO THE NORTHERLY BOUNDARY LINE OF SAID TRACT AND CONTAINED WITHIN THE LIMITS OF RIGHT-OF-WAY OF SAID COUNTY ROAD NO. 470, ALL IN THE COUNTY OF WASHINGTON AND STATE OF OREGON.

PARCEL III:
BEGINNING AT A POINT WHICH IS REACHED BY RUNNING FROM THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 3 SOUTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, IN THE COUNTY OF WASHINGTON AND STATE OF OREGON, NORTH 0°17' WEST 451.7 FEET; AND THENCE NORTH 89°20' EAST 1240 FEET TO THE NORTHWEST CORNER OF THE TRACT HEREIN DESCRIBED; THENCE CONTINUING NORTH 89°20' EAST 341.0 FEET TO THE CENTER OF BOONE'S FERRY ROAD; THENCE WITH SAID CENTER OF ROAD, SOUTH 15°46' EAST 546 FEET; THENCE SOUTH 89°20' WEST 486 FEET; THENCE WITH SAID CENTER OF ROAD, SOUTH 15°46' EAST 546 FEET; THENCE SOUTH 89°20' WEST 486 FEET; THENCE NORTH 01°17' WEST 527 FEET TO SAID PLACE OF BEGINNING.
EXCEPTING THEREFROM THAT PORTION LYING WITHIN THE BOUNDARIES OF BOONE'S FERRY ROAD, AND ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF OREGON, BY AND THROUGH ITS DEPARTMENT OF TRANSPORTATION BY WARRANTY DEED RECORDED JUNE 13, 1996 AS RECORDED NO. 9605317.

EASEMENTS & EXCEPTIONS

PLEASE REFER TO THE SUBJECT TITLE REPORT CITED IN OUR NOTE 1 FOR ALL ITEMS CONCERNING AGREEMENTS, LIENS, WAIVERS, ASSESSMENTS, LEASES, TAXES AND OTHER MATTERS OF RECORD WHICH DO NOT REFLECT ANY SURVEY MATTERS AND NOT LISTED BELOW. NUMBERS LISTED REFLECT EXCEPTIONS IN SUBJECT REPORT.

(7) EASEMENT FOR TRANSPORTATION RIGHT OF WAY AND SLOPES TO THE STATE OF OREGON, BY AND THROUGH ITS DEPARTMENT OF CORRECTIONS, RECORDED NOVEMBER 30, 2001 AS RECORDED NO. 2001-124306, AFFECTS THE NORTHERLY PORTION OF PARCELS II AND III AS PLOTTED.

(8) EASEMENT FOR TRANSPORTATION RIGHT OF WAY, SLOPES, RETAINING WALL AND FOOTINGS TO THE STATE OF OREGON, BY AND THROUGH ITS DEPARTMENT OF CORRECTIONS, RECORDED MARCH 26, 2002 AS RECORDED NO. 2002-035075, AFFECTS THE NORTHERLY PORTION OF PARCEL I AS PLOTTED.

EASEMENT INTEREST TRANSFERRED TO THE CITY OF WILSONVILLE BY DOCUMENT NO. 2004-063726 RECORDED JUNE 7, 2004.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN MAPPED FROM FIELD SURVEY INFORMATION, OBSERVED ABOVE, GROUND EVIDENCE, AND GROUND MARKINGS BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

NOTES

- THIS IS AN ALTA SURVEY OF TAX LOTS 400, 500 AND 501 OF MAP 3S 1 2B, IN THE CITY OF WILSONVILLE, WASHINGTON COUNTY, OREGON. OWNERSHIP IS VESTED IN: "DAVID CHARLES BROWN REVOCABLE LIVING TRUST DATED JANUARY 29, 2014". SURVEY AS SHOWN WAS PREPARED FROM A LEGAL DESCRIPTION, TOGETHER WITH THE EXCEPTIONS FOR THE PROPERTY CONTAINED IN THE PRELIMINARY TITLE REPORT FROM FIRST AMERICAN TITLE COMPANY, FILE NO. NCS-740082-ORI DATED JUNE 26, 2015. THE DESCRIPTION OF THE SUBJECT PROPERTY IN SAID REPORT DOES CONFORM TO THE BOUNDARIES SHOWN ON THIS SURVEY.
- THERE ARE TWO RESIDENCES ON THE SITE ADDRESSED 9470 AND 9630 S.W. DAY ROAD, WILSONVILLE, OREGON 97070 ACCORDING TO THE WASHINGTON COUNTY "SPIRITS" WEBSITE. ACCORDING TO THE U.S.P.S. WEBSITE, THE MAILING ADDRESSES ARE 9470 AND 9630 S.W. DAY ROAD, SHERWOOD, OREGON 97140.
- SAID SURVEYED PROPERTY IS LOCATED WITHIN AN AREA HAVING FLOOD ZONE DESIGNATIONS OF: "X" OTHER AREAS (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO FLOOD INSURANCE RATE MAP NO. 41005C02340 PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITH AN EFFECTIVE DATE OF JUNE 17, 2008.
- AREA OF SUBJECT PROPERTY: 380,187 SQUARE FEET = 8.728 ACRES
- A ZONING REPORT WAS NOT PROVIDED TO THE SURVEYOR, HOWEVER THE SUBJECT PROPERTY IS IN THE JURISDICTION OF WASHINGTON COUNTY AND HAS THE ZONING DESIGNATION "R20" (FUTURE DEVELOPMENT, 20 ACRE MINIMUM LOT SIZE) ACCORDING TO THE COUNTY WEBSITE.
- THERE ARE NO MARKED PARKING SPACES OF THE SITE.
- THERE WAS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
- THERE WAS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS AND NO INDICATIONS OF PROPOSED CHANGES TO STREET RIGHT OF WAY LINES PROVIDED TO OR DISCOVERED BY THE SURVEYOR DURING RESEARCH FOR THE SURVEY.
- THERE WAS NO OBSERVED EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
- BEARINGS BASED ON WASHINGTON COUNTY SURVEY NUMBER 17,450.
- THERE WAS NO OBSERVED EVIDENCE OF ANY CEMETERIES ON THE SUBJECT PROPERTY.

LEGEND

---	PROPERTY BOUNDARY	⊗	BLOW-OFF OR AIR-VAC VALVE
---	EASEMENT LINE	⊗	CATCH BASIN
SS	UNDERGROUND SANITARY SEWER	⊗	GAS VALVE
SD	UNDERGROUND STORM DRAIN PIPE	⊗	GAS METER
W	UNDERGROUND WATER LINE	⊗	GUY ANCHOR
G	UNDERGROUND GAS LINE	⊗	FIRE HYDRANT
E	UNDERGROUND ELECTRICAL LINE	⊗	MAILBOX
X-X	FENCE AS NOTED	⊗	TRAFFIC SIGNAL BOX
---	CONCRETE CURB	⊗	TRAFFIC SIGNAL POLE
█	BLOCK WALL	⊗	SIGN ON POST
█	CONCRETE	⊗	SURVEY MONUMENT
█	ASPHALT PAVEMENT	⊗	TELECOMMUNICATIONS RISER
█	GRAVEL	⊗	UTILITY POLE
█	PEDESTRIAN TRAIL (WOOD CHIPS OVER GRAVEL)	⊗	WATER METER
		⊗	WATER MANHOLE
		⊗	HCR HANDICAP RAMP
		⊗	I.R. IRON ROD
		⊗	W/YPC WITH YELLOW PLASTIC CAP

SURVEYOR'S CERTIFICATE

TO UNIVERSAL HEALTH SERVICES, INC. AND FIRST AMERICAN TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA, AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 6(A), 7(A, B1 & C), 8, 9, 11(A), 13, 14, 16, 17 & 18 OF TABLE "A" THEREOF. THE FIELD WORK WAS COMPLETE ON SEPTEMBER 11, 2015.

Mich Speltis
MICHAEL D. SPELTIS
MSPELTIS@WESTLAKECONSULTANTS.COM

DATE: 9/11/2015
JOB NO. 2542-001

DRAWING NAME: PLS-2542-COULDSKREV-CD-DIVS-NOV11-2015-1000AM - NSD

Exhibit D-E

Aerial Site Location Photograph

City of Wilsonville Comprehensive Plan and Zoning Maps

Exhibit D: Aerial Photograph

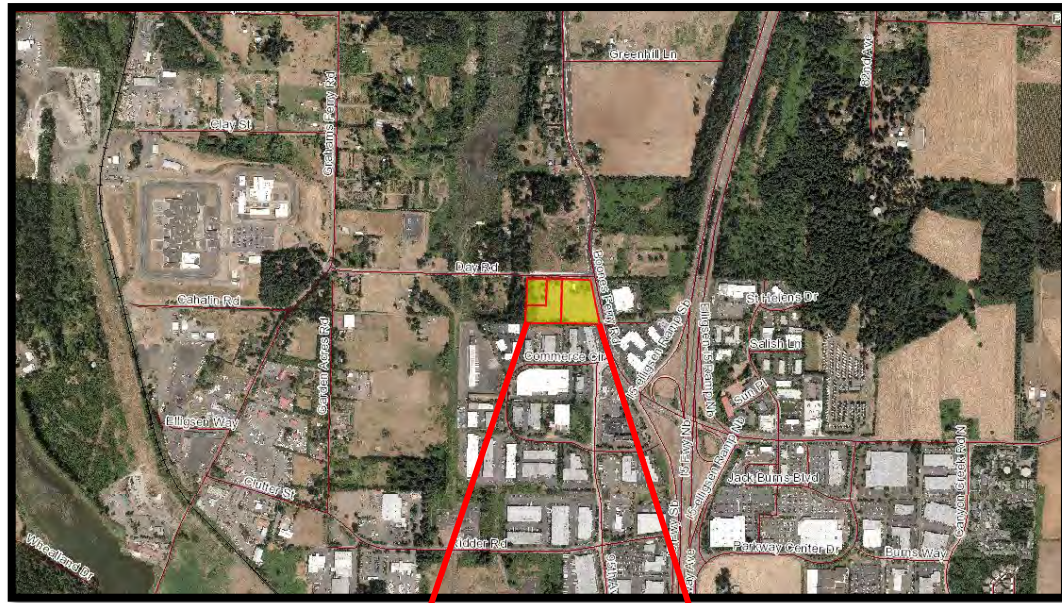


Exhibit E: Comp Plan and Zoning Map

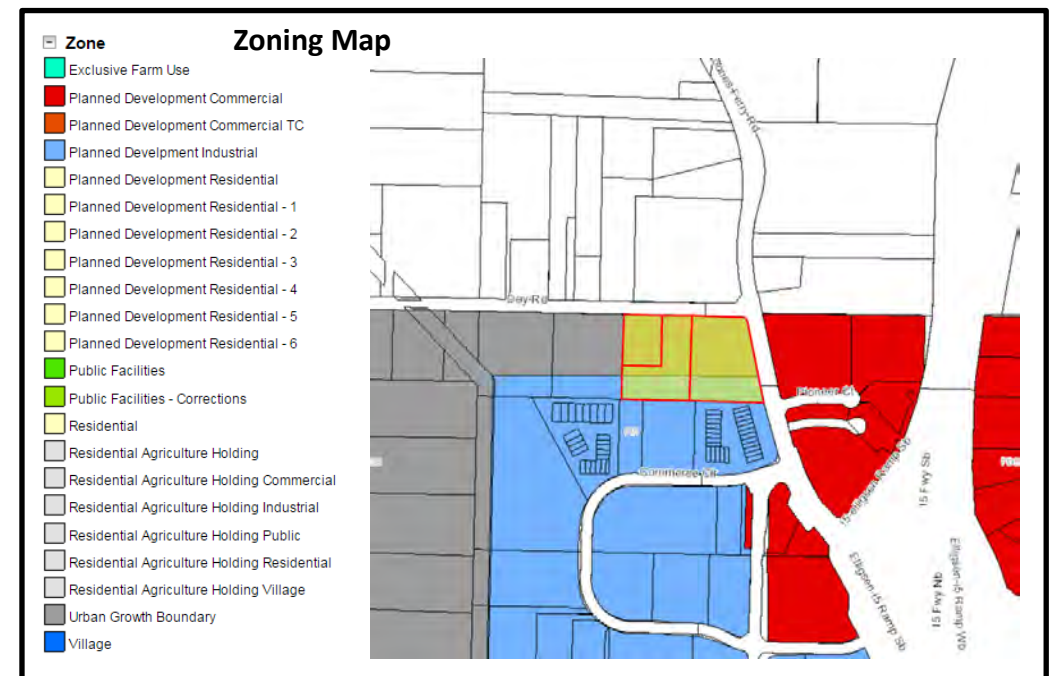
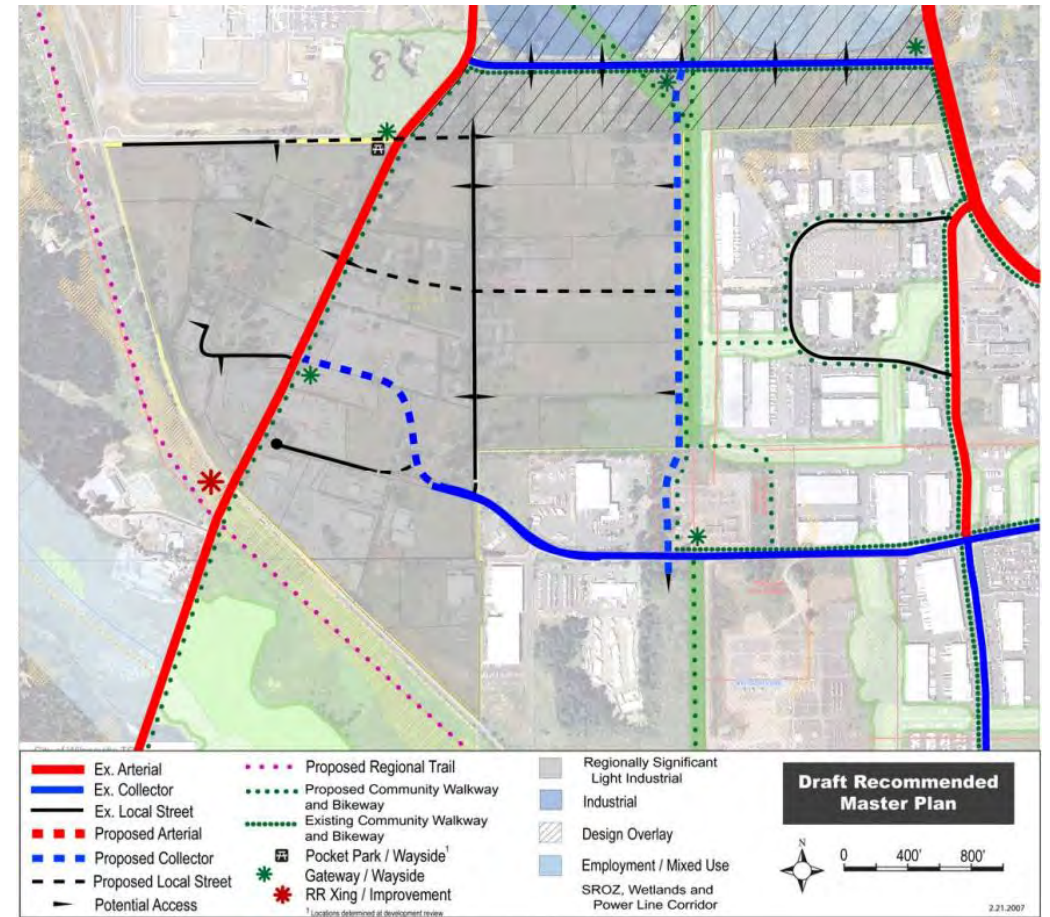


Exhibit F

Letter From Republic Services

Exhibit F: Letter From Republic Services



11712 SW Forest Road, Portland, OR 97224
 or 503.419.2100 or 800.451.2262 republicservices.com

October 30, 2015

Susan Gust, AIA
 Associate
 LEED AP ID+C
 SRG Partnership, Inc.

Re: Behavioral Health Facility - Day road

Dear Susan;

Thank you, for sending me the site plans for the medical facility that will be located along Day road.

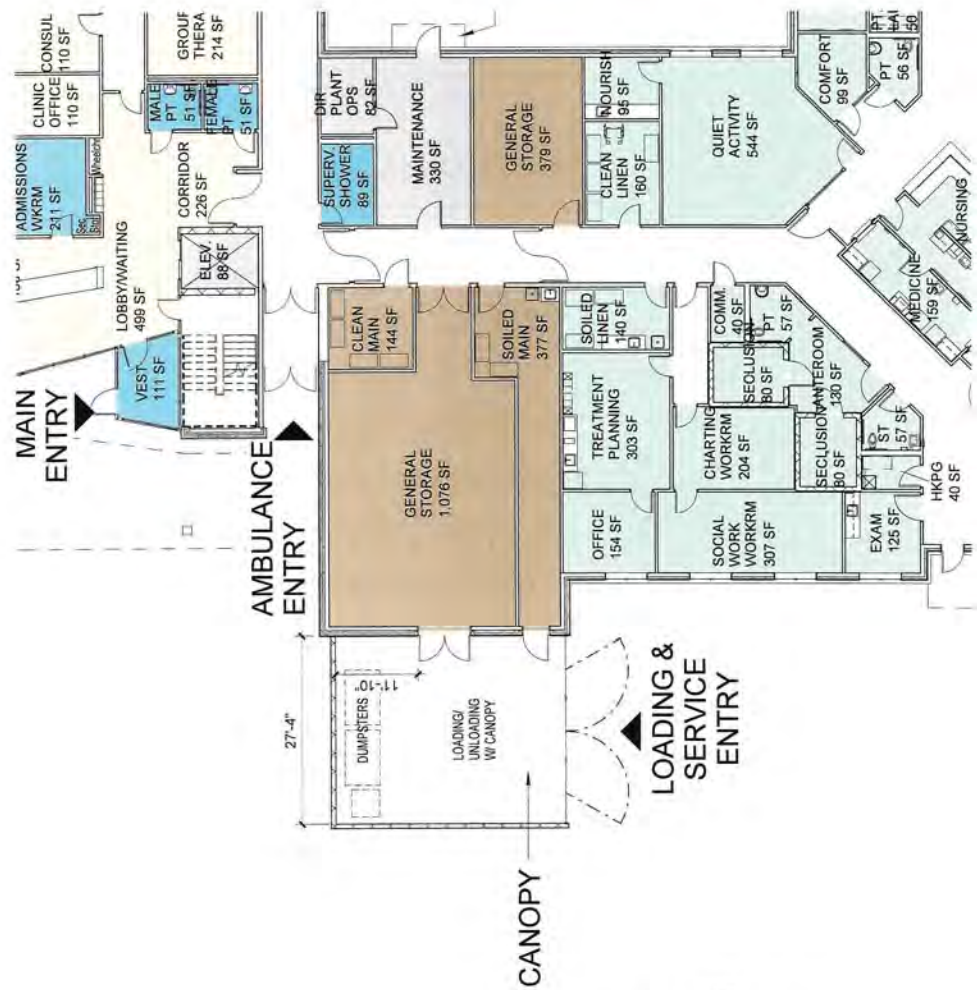
My Company: Republic Services of Clackamas & Washington Counties has the franchise agreement to service this area with the City of Wilsonville. We can provide complete commercial waste removal services and recycling services as needed on a weekly basis for this location.

I do not see any issues of where the buildings are going to be placed next to the enclosure that will interfere with our services, as long as vehicles are not allowed to park in front of the service area. The enclosure size is adequate for entry of my trucks for service. Servicing your site off of Day Road looks good for access for my trucks. Thank you for the adjustments that you have made.

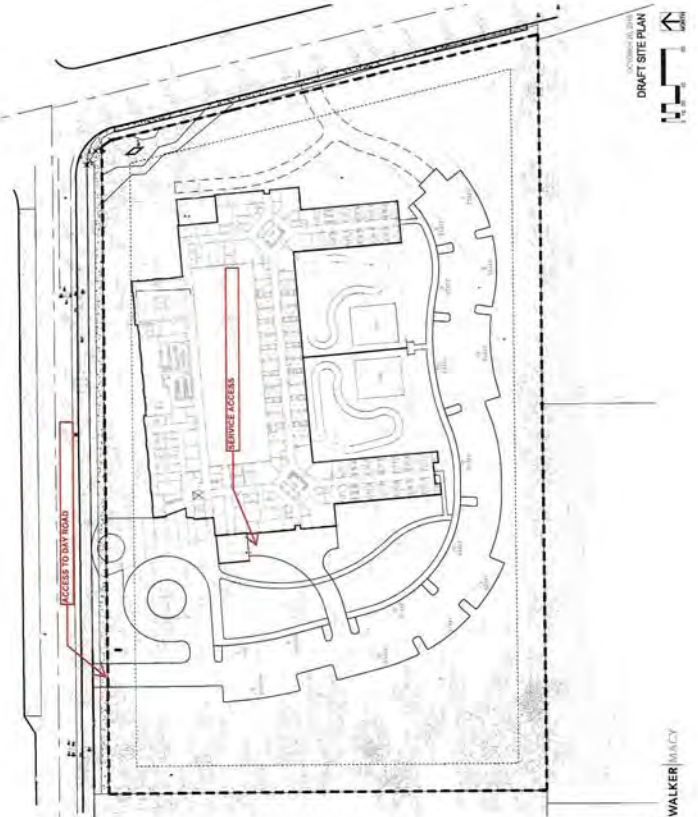
Susan, thanks for your help and concerns for our services prior to this project being developed.

Sincerely,

Frank J. Lonigan
 Frank J. Lonigan
 Operations Manager
 Republic Services Inc.



ALL DIMENSIONS IN FEET
UNLESS OTHERWISE NOTED
SEE FINISHED FLOOR PLAN FOR
EXACT DIMENSIONS



FJ Longyear
10/30/15

WALKER | MACY

Exhibit G

Pre-Application Meeting Notes

Exhibit G: Pre-Application Meeting Notes

<p>CITY OF WILSONVILLE Mail: 29799 S.W. Town Center Loop East Wilsonville, OR 97070 Phone: 503.682.4960 Fax: 503.682.7025 Web: www.ci.wilsonville.or.us</p>	<p style="text-align: center;">Planning Division <i>Pre-Application Meeting Request</i></p> <p>File No. _____</p> <p style="text-align: center; font-size: small;">NOTE: Pre-application meeting will not be scheduled until the Planning Division staff receives the required fee and plans</p>
TO BE COMPLETED BY APPLICANT	
Property Owner's Name: <u>David C. Brown, Trustee</u> David C. Brown Revocable Living Trust U/T/A	Authorized Representative: <u>Steven Pfeiffer</u>
Authorized Signature: _____	<u>Perkins Coie</u>
Address: <u>P.O. Box 1997</u> Wilsonville, OR 97070	Address: <u>1120 N.W. Couch Street, 10th Floor</u> Portland, OR 97209-4128
Phone: _____	Phone: <u>503-727-2177</u>
Fax: _____	Fax: <u>503-346-2177</u>
E-mail: <u>dbrown@mitchellewis.com</u>	E-mail: <u>SPfeiffer@perkinscoie.com</u>
Property Description: T3S-R1W Map <u>2B</u> Tax Lot(s) <u>400, 500, 501</u> County: Clackamas (<u>Washington</u>)	
Project address if available: <u>9470 SW Day Road</u>	
Project Type:	
<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Other (describe below)	
Planning Permit Type:	
<input checked="" type="checkbox"/> Stage I Master Plan <input checked="" type="checkbox"/> Stage II Final Plan <input checked="" type="checkbox"/> Site Design Review <input checked="" type="checkbox"/> Tree Removal <input checked="" type="checkbox"/> Signs <input checked="" type="checkbox"/> Traffic Study <input type="checkbox"/> Transit Analysis <input checked="" type="checkbox"/> Other	
Project Description:	
Annexation, Comprehensive Plan Amendment, Zone Change, Stage I Master Plan, Stage II Final Plan, and Site Design Review, including Type C tree removal and signage approvals for a hospital upon the Property. See attached submittal materials for details on proposed use, building elevations and site plans. Included is a list of specific questions and issues the applicant requests to be provided written responses from City staff at the preapplication meeting. Further, the applicant requests this preapplication be treated confidentially.	



PROJECT NAME:

Universal Health Services, Inc
 Willamette Valley Behavioral Health

DATE:

July 29, 2015

SUBJECT:

PreApplication Meeting Request

PREPARED BY:

Westlake Consultants, Inc.

INCLUDED SUBMITTAL ATTACHMENTS:

1. Conceptual Site Plan and Utility Plan Sheet labelled Exhibit A
 Prepared by Westlake Consultants
2. Schematic Building Elevations and Exterior Materials
 Prepared by SRG Architects

Introduction

This preapplication is submitted by the applicant UHS of Delaware, Inc. ("UHS"), a subsidiary of Universal Health Services and the prospective purchaser of a parcel of land located at 9470 SW Day Road.

Specifically, the subject site is combined 3S-1-2B Tax Lots 400, 500, & 501 totaling approximately 8.75 acres in Washington County, Oregon (the "Property"). The Assessor's Map showing the Property is attached as Exhibit 1. The Property lies within the urban growth boundary, but outside the incorporated limits of the City of Wilsonville and is currently vacant. It is located within the Coffee Creek Master Plan area and within the City's Day Road Design Overlay District. Upon annexation, the Property will be located within the Planned Development Industrial - Regionally Significant Industrial Area (PDI-RSIA) zone

Proposed Use

The proposed use of the Property is a behavioral health facility with adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women's programs, substance abuse treatment, behavioral pain management, as well as limited outpatient services. In addition, the facility will serve a number of veterans with behavioral and mental health needs through the Patriot Support Program who are unable to obtain timely and efficient services from the VA Behavioral health facility. The proposed facility will serve and benefit the general public with behavioral health services, with which there has been a documented unmet need.

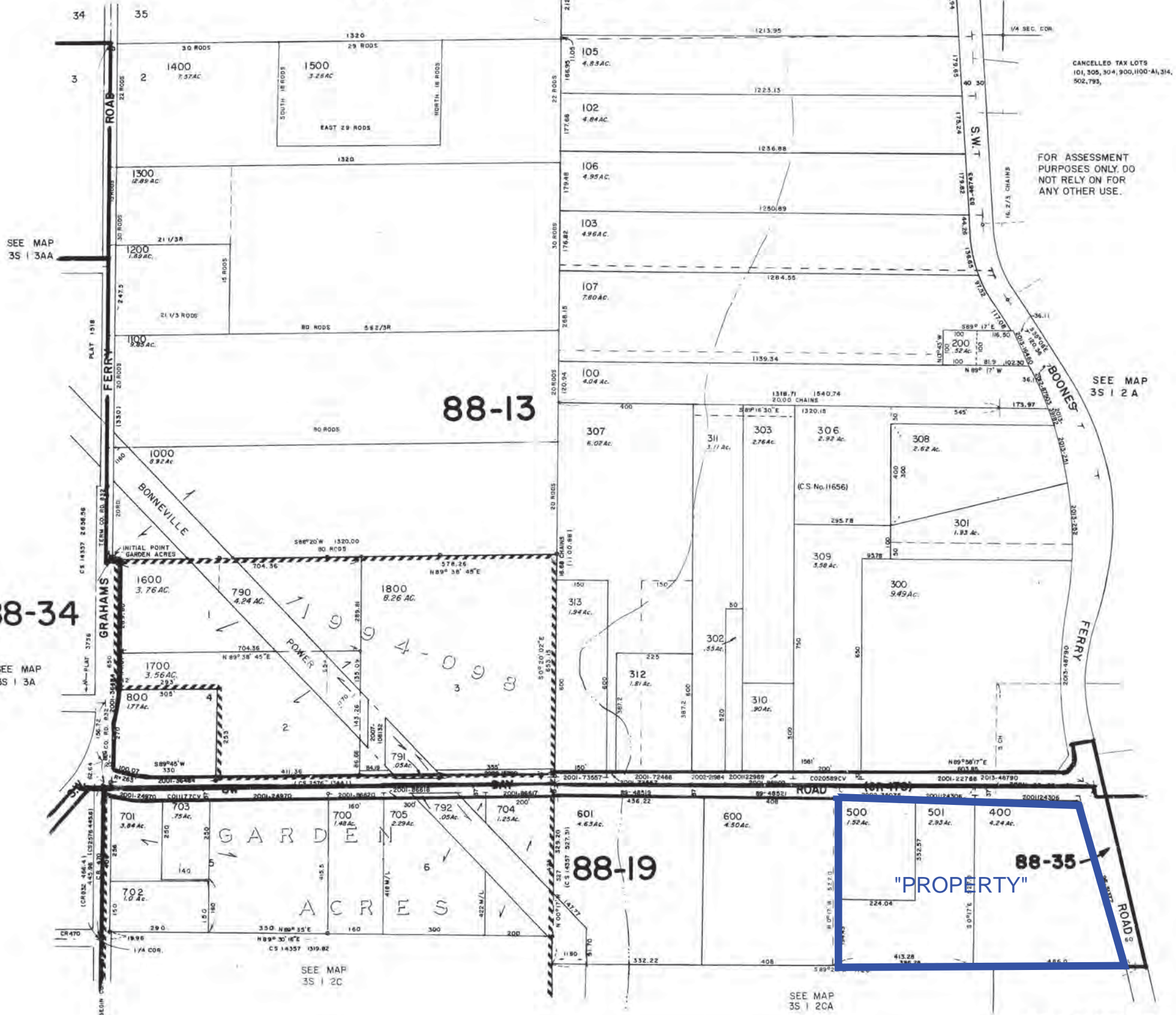
NW1/4 SECTION 2 T3S R1W W.M.

3S | 2B

WASHINGTON COUNTY OREGON

SCALE 1"=200'

SEE MAP
2S | 35CC



SEE MAP
3S | 3AA

CANCELLED TAX LOTS
101, 305, 304, 900, 1100-A1, 314,
902, 795.

FOR ASSESSMENT
PURPOSES ONLY. DO
NOT RELY ON FOR
ANY OTHER USE.

SEE MAP
3S | 2A

88-34

SEE MAP
3S | 3A

88-13

88-19

88-35

"PROPERTY"

SEE MAP
3S | 2C

SEE MAP
3S | 2CA

WILSONVILLE
3S | 2B

Notably, the proposed facility includes elements that are typically allowed outright in the PDI-RSIA zone, such as a research and laboratory component, in addition to storage and warehousing components. More specifically, UHS will partner with local educational institutions to offer research and training opportunities throughout the entire proposed facility. Additionally, the proposed facility will include the storing and warehousing of medical equipment and supplies in an approximately 3,392 square foot area specially designated for this purpose.

The proposed facility will be approximately 67,000 square feet in size, and total project costs are estimated at \$30 million. The proposed facility will have 100 beds, have approximately 160 employees, in addition to 6-7 physicians, and will be staffed around the clock in shifts that will avoid AM and PM peak commute times. This means that a shift will begin or end prior to 6:00 am to avoid the morning commute, and that another shift will begin or end after 7:00 pm to avoid the evening commute.

Pre-Application Issues and Questions

Included with this submittal herein below is a list of issues and questions organized by related topic areas that UHS would like to have City of Wilsonville staff provide written replies for at the pre-application meeting and which written replies will be for future use and reference by UHS and their project team to finalize site planning and building design. In addition, it is our expectation that most all of the below items will be covered for discussion purposes at the preapplication meeting.

Environmental Considerations

Based on a preliminary environmental assessment by a Pacific Habitat Services, the presence of wetlands at this site is unlikely. A geotechnical soils, including soils infiltration determination, is planned to be completed for the property.

The easterly 2/3 of the existing site has sparse trees, while the remaining westerly 1/3 or less of the site has denser tree cover. The southern boundary of the site is lined with trees. A preliminary arborist reconnaissance report has been completed. As depicted on the submitted Site Plan, the majority of trees on this site will need to be removed in order to constructed retaining walls, site grading operations and construction of the finished building and parking lots.

1. **Are any wetlands identified on the property through City Goal 5 Inventory or Coffee Creek master planning?**
2. **Please provide requirements for submittal of a Type C Tree Removal Permit and the applicable approval criteria.**
3. **Please provide any specific City requirements for geotechnical site analysis and report content, including specific engineering stamps required.**
4. **Confirm the applicable jurisdictional requirements for grading permits.**

Site Parking, Access and Circulation

The number of parking spaces designed is currently proposed as 80 and 60 between two parking lots with the potential of 60 additional spaces to the 80 space lot. These lots will be designed to accommodate ADA parking and accessible route requirements provided by others. A traffic engineer's report is expected to be required to provide a traffic flow report in order to reduce conflicts and optimize driveway locations due to access spacing requirements on SW Day Road. The curbs and ramps will be designed per ADA and on-site emergency vehicle access/fire lanes will be designed per local fire authority requirements.

1. **Please provide the minimum and maximum parking requirements based upon the proposed use and operations information provided by UHS with this submittal.**
2. **Confirm if City code provides for site specific parking study to be submitted and approved, based upon specific use, for less than minimum required parking.**
3. **Provide specific fire service provider access requirements for use of Property as a Behavioral health facility**

Preliminary notes from the traffic consultant indicate that the site frontage is not adequate for a driveway onto Day Road that meets minimum access spacing standards. The City may allow a temporary access to Day Road and require provisions for a future connection to a shared access with the adjacent property to the west. Sidewalk designs on the site will be provided around the building, which will increase site grading difficulties due to the size of the building and site topography.

1. **Provide specific site driveway access requirements serving the Property from its Day Road frontage.**
2. **Will internal private drive aisle access be required to be designed and constructed providing interconnectivity to the adjacent property to the West? If so, does a single connection at the northwestern area of the common property line satisfy applicable standards?**

Roadway Design Considerations (Offsite/Frontage Improvements)

The adopted Coffee Creek Master Plan calls for a repave of SW Day Road with concrete sections due to the heavy truck traffic from nearby quarrying operations. The preliminary traffic consultant notes also indicate that there are sight distance issues along Day Road near the site and that the future cross section plan for Day Road includes approximately 12-feet of widening along the site frontage.

1. **What frontage improvements (e.g. right-of-way dedication, pavement width, cross section, horizontal/vertical design, signage and signaling) will be required, if any, to either Day Road or Boones Ferry Road for use of the Property as a behavioral health facility?**
2. **Do currently adopted Transportation Plans for the City include additional signalization and/or additional transportation capacity improvements at the intersection of Day Road and Boones Ferry?**
3. **Please confirm the minimum City design standards for driveway access spacing standards onto Day Road. Please confirm an exception is available if minimum spacing is not met and what does the exception process involve?**
4. **Given the Property location at the intersection of Day Road and Boones Ferry Road, will the Washington County and/or OR Department of Transportation be involved in the engineering design and plan approvals for use of the Property as a behavioral health facility by UHS?**

Potable Water, Fire Service and Irrigation Considerations

Potable water lines near the site exist on SW Day Road (18") and SW Boones Ferry Road (8"). These same existing lines appear available and adequate to provide fire flow protection for the Property Jurisdiction may require upgrades based on the fire flow test.

1. **Verify that existing public lines in Day Road and Boones Ferry are available to tap for connections necessary to serve use of the Property as a behavioral health facility.**
2. **Confirm existing pressure and flow in public waterline in Day Road is available and adequate for potable water and fire flow to serve us of the Property as a behavioral health facility.**
3. **Provide any applicable requirements for fire service vault and Fire Department connection locations upon the Property.**

Storm Drainage

Due to site topography, some storm drainage may need to travel southerly toward existing storm lines. Storm sewers near the site exist on SW Commerce Circle (15" and 10") and SW Day Road (12"). Potential connections to the SW Commerce Circle line would need to cross properties between the line and the site, and would require easements. A connection to the SW Day Road line would not require an easement. Any proposed connection will be analyzed for impacts to the downstream system. As depicted on the Concept Site and Utility Plan, water quality and detention facilities will be designed and constructed on-site.

1. **Are there any currently identified stormwater capacity issues in the existing public system within the area serving the Property?**
2. **Please confirm the applicable City design standards for storm water for use of the Property as a behavioral health facility.**
3. **Please confirm the access requirements (e.g. width, length, when a turnaround is needed, fencing, etc.) for maintenance of on-site storm facilities.**
4. **What specific City standards are applicable to connecting on-site storm facilities to the existing public storm lines in Day Road and in Boones Ferry Road?**
5. **Please provide copies of any as-built plans for existing storm system in Day Road and in Boones Ferry Road.**

Sanitary Sewer

Sanitary sewers near the site exist in SW Commerce Circle (existing 10" and 8") and in SW Boones Ferry Road (existing 8"). There are no existing sanitary sewers along the site frontages. Potential connections to the SW Commerce Circle line would need to cross properties between the line and the site, and would require easements. A connection to the SW Boones Ferry Road line would not require an easement. No existing sanitary sewer exists along the site frontage within either Boones Ferry Road or Day Road.

The selection of the connection point will be in part influenced by future connection points to the building provided by the MEP consultant, the elevation required for a gravity line and jurisdictional requirements. The jurisdiction may require extension of the public sewer line and/or upgrades to the downstream system if there are any existing deficiencies. Future City/ Master Plan extensions may be required for a SW Boones Ferry Road sewer connection option. The City may require that connection to a future sewer extension along Day Road be incorporated into development plans for this site.

1. **Confirm the current status of Coffee Creek and/or Basalt Creek master planning for sanitary sewer service and any specific requirements from either upon development of the Property by UHS for a behavior health facility.**
2. **Will use of the Property as a behavioral health facility be dependent upon the Coffee Creek sanitary sewer extension masterplan?**
3. **What is the current status of design plans for the future sanitary line in Day Road? What is the projected depth of the future sanitary line within the Day Road right-of-way along the Property frontage?**
4. **What specific City standards are applicable to connecting to the existing public sanitary line in Boones Ferry Road and in Commerce Circle?**
5. **Please provide copies of any as-built plans for existing sanitary lines in Boones Ferry Road and in Commerce Circle south of the Property.**

Land Use Approvals and Zoning

As part of initial land use site research, it has been found that an estimated 25% portion of the Property along the entire southern boundary is currently located within the City of Wilsonville Planned Development Industrial zone and the remaining area of the Property is currently located in Washington County, Oregon, within the urban growth boundary and outside the incorporated Wilsonville City

Limits. This land use research further finds that upon annexation and comprehensive plan/zone change approvals, the Property will be located within: (i) the Coffee Creek Master Plan, (ii) the Day Road Overlay District and (iii) zoned Planned Development Industrial Regionally Significant Industrial Area ("PDI-RSIA").

For use of the Property as a behavioral health facility by UHS, the following land use approvals have been identified as applicable: (i) annexation, (ii) comprehensive plan amendment and zone change, (iii) Stage I Preliminary Plan, (iv) Stage II Final Plan, (v) Site Design Review, (vi) Type C tree removal, (vi) sign review. Further, use of the Property by UHS for a behavioral health facility will also include submittal of a Planning Director Interpretation as provided for in City Code Section 4.135.5.03.N

1. **Verify the above land use related land use approvals are applicable and needed, include any other necessary additional approvals that may be involved.**
2. **Provide an estimated length of time (e.g. 1 month or 3-4 months) for City review and final decision, assuming no significant opposition or appeals, for each of the above listed land use application approvals.**
3. **Confirm which of the above land use approvals that the City will accept for concurrent review and approval decision making.**
4. **Confirm the current application total City fee amounts for each of the above listed land use approvals.**

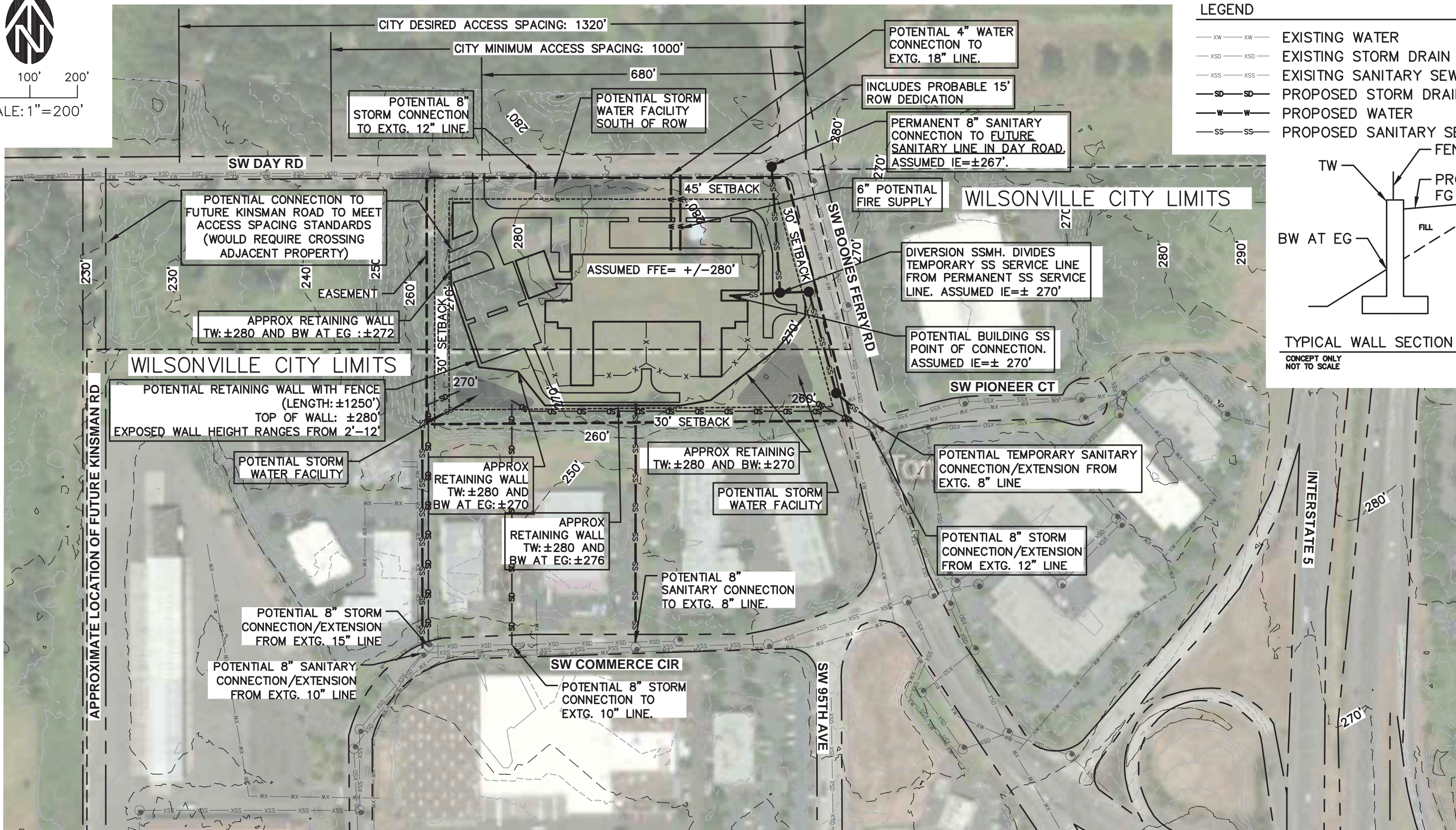
As depicted on the Conceptual Site and Utility Plan sheet, this UHS preapplication submittal depicts the conceptual building footprint, parking/drive aisle and storm facility locations upon the Property. Further the Schematic Elevation sheet depicts conceptual building elevations and materials for the behavioral health facility as viewed from both the Day Road and Boones Ferry Road frontages of the Property. At the highest point the proposed building will be approximately 28 feet in height which is the gymnasium elevation of the facility. Applicable code research completed to date finds that the development of the Property by UHS for a behavioral health facility will be a Planned Development Review and further, finds the schematic building height depicted is less than the minimum height stated in applicable Day Road Overlay District code. Lastly, this code research finds that Section 4.134.01.B is applicable which provides for waivers to development standards being approved by the Design Review Board as provided through Section 4.118.03.

1. **Assuming the behavioral health facility is found to be a permitted use as per Section 4.135.5.03.N, please confirm the conceptual building footprint, parking lot, drive aisle and on-site stormwater facility locations depicted on the submitted Conceptual Site plan are in compliance with underlying applicable Site Design Review, PDI-RSIA and Day Road Design District Overlay zoning standards (e.g. setbacks, lot coverage, height, minimum landscaping, etc.)**
2. **Please confirm the conceptual building elevations depicted on the Schematic Elevation sheet comply with applicable Section 4.400 Site Design Review, PDI-RSIA and Day Road Design District Overlay zoning standards (e.g. exterior materials/colors, main entrance orientation, building height, etc.)**
3. **Please confirm the minimum and maximum parking spaces required, including bicycle and loading spaces, for 100-bed behavioral health facility.**
4. **Please confirm that a land use specific parking study is allowed to be submitted by City code for review and approval of total vehicle parking spaces for a behavioral health facility that can operate at less than required minimum parking.**
5. **Assuming approval of annexation and application of the PDI-RSIA zone, please confirm that Planned Development Section 4.118 and Section 4.140 are applicable to a UHS behavioral health facility land use review upon the Property.**

Drawing Name: J:\2542-001.15\Engin\CAD\Dwg\Exhibits\2542-001-Concept Site and Utility Plan 2015-07-17.dwg Jul 17, 2015 - 4:06pm - bem

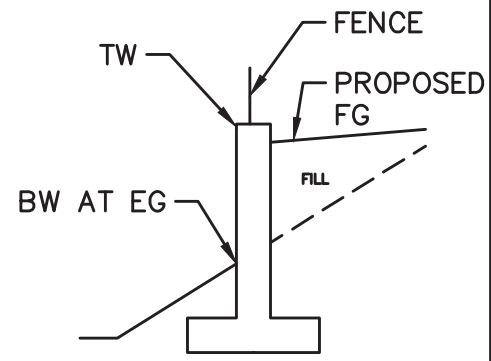


0 100' 200'
SCALE: 1"=200'



LEGEND

— XW — XW —	EXISTING WATER
— XSD — XSD —	EXISTING STORM DRAIN
— XSS — XSS —	EXISTING SANITARY SEWER
— SD — SD —	PROPOSED STORM DRAIN
— W — W —	PROPOSED WATER
— SS — SS —	PROPOSED SANITARY SEWER



TYPICAL WALL SECTION
CONCEPT ONLY
NOT TO SCALE

CONCEPT SITE AND UTILITY EXHIBIT A

SW DAY RD & SW BOONES FERRY RD
WILLSONVILLE, OR

NOTES

1. SITE BOUNDRY SHOWN IS APPROXIMATE AND SUBJECT TO CHANGE UPON RECEIPT OF A SURVEYED PROPERTY BOUNDARY.
2. EXISTING UTILITIES SHOWN ARE FROM AVAILABLE CITY INFO. LOCATING AND ROUTING ARE APPROX.
3. PROPOSED UTILITIES SHOW THE CURRENT CONCEPT TO SERVE THE PROPOSED BUILDING.

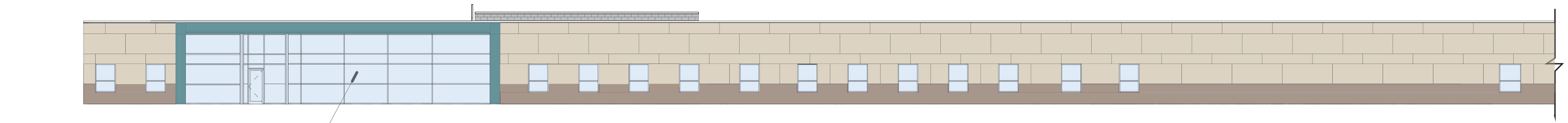
DATE	07-17-15
DRAWN BY	CMH
CHECKED BY	BEM
REVISION	-
JOB NO.	2542-01

WESTLAKE
CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

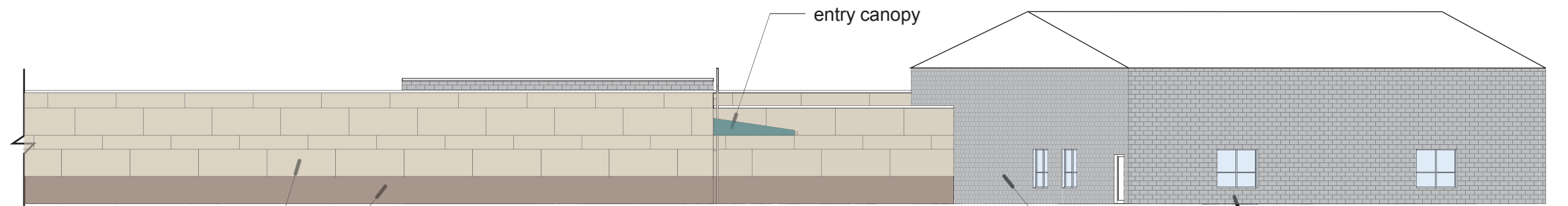
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150 (503) 684-0652
TIGARD, OREGON 97224 FAX (503) 624-0157

Wilsonville Schematic Elevations



aluminum framed double glazed security glass

Day Road Elevation - East



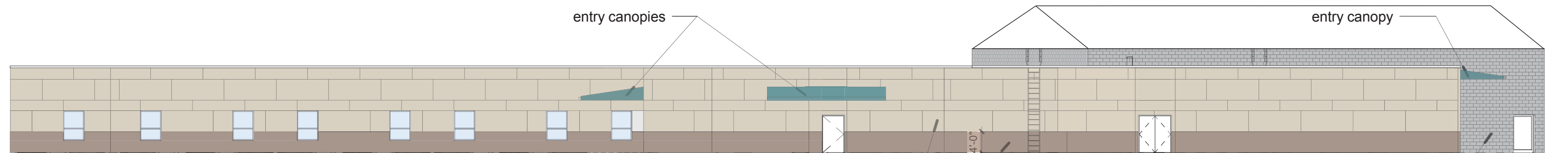
entry canopy

wood fiber cement panels

brick veneer

painted CMU bearing wall

- Glazing
- Brick
- Fiber cement panels
- Painted concrete block
- Entry Canopy



entry canopies

entry canopy

wood fiber cement panels

brick veneer

painted CMU bearing wall

4'-0"

Boones Ferry Road Elevation - North

Exhibit H

Architectural Plan Set

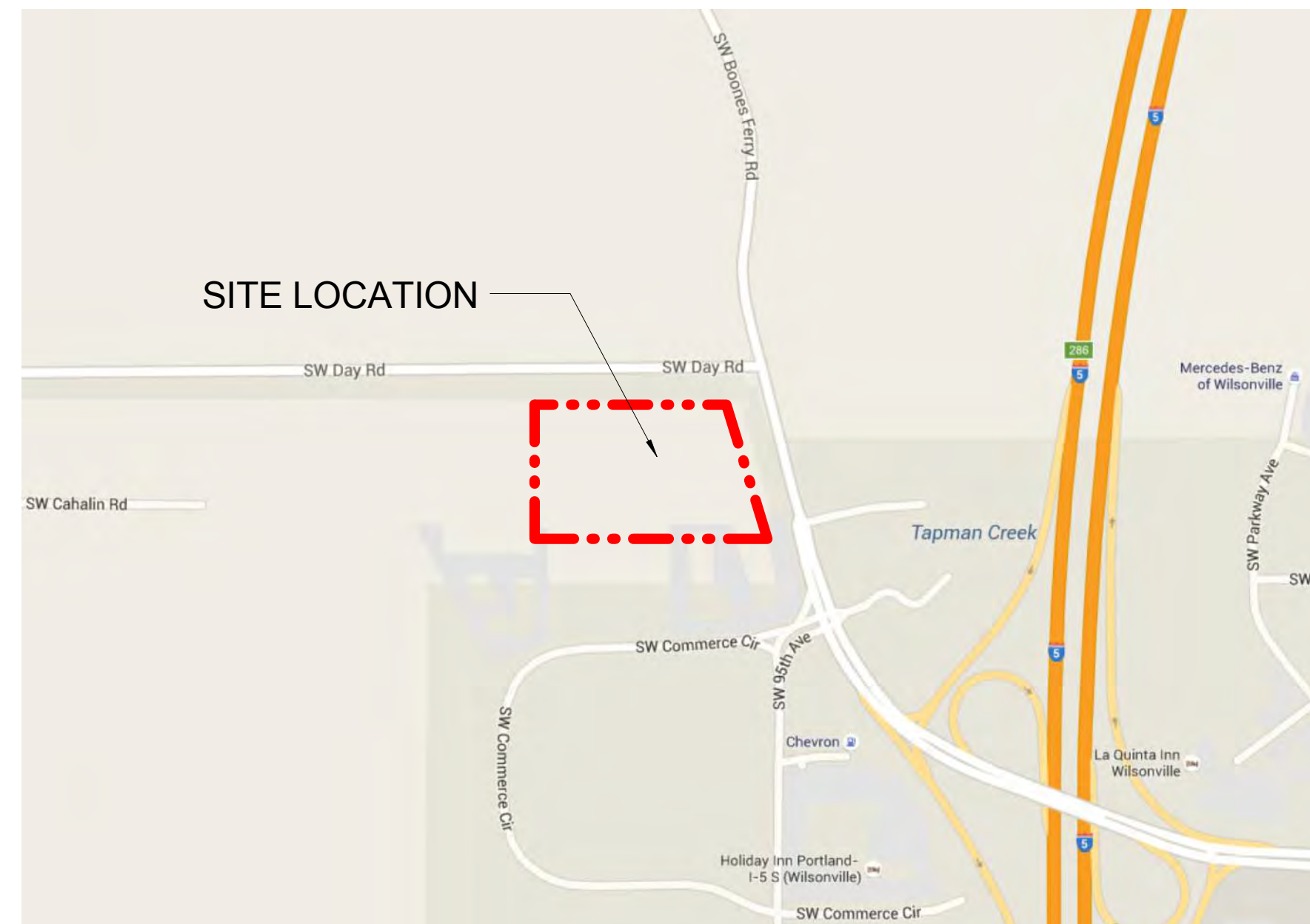
PRELIMINARY PLANS FOR WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY

WILSONVILLE, OR 97070

List of Exhibits

Exhibit A	City of Wilsonville Application Forms Development Permit Application Application for Legislative Action Petition for Annexation
Exhibit B	Tax Assessor Map of Property
Exhibit C	ALTA + Legal Description
Exhibit D	Aerial Site Location Photograph
Exhibit E	City of Wilsonville Comprehensive Plan and Zoning Maps
Exhibit F	Letter from Republic Services
Exhibit G	Pre-Application Meeting Notes
Exhibit H	Architectural Plan Set Perspective A310 Perspectives Building Design & Elevation A101 Level 01 A102 Level 02 A103 Roof Plan A300 Exterior Elevations A330 Site Art
Exhibit I	Civil Plan Set C100 Land Use Site Plan C101 Land Use Tree Removal and Protection Plan C102 Land Use Tree Removal and Protection Table C200 Land Use Grading Plan C300 Land Use Utility Plan
Exhibit J	Landscaping Plan Set L100 Landscape Plan L101 Landscape Plan L102 Landscape Details
Exhibit K	Lighting Plan Set E100 Legends, Schedules, and Details E200 Specifications E300 Site Lighting Plan E400 Property Line Vertical Calculations
Exhibit L	Sign Design Plan Set S101 Sign Design S102 Sign Design S201 Sign Location Plan
Exhibit M	Preliminary Stormwater Report
Exhibit N	Arborist Report
Exhibit O	Wetlands / Natural Resources Report
Exhibit P	Traffic Study
Exhibit Q	Geotechnical Report

Vicinity Map



Street Address

9470 SW Day Road
Wilsonville, OR 97070

Property Owner

UHS of Delaware, Inc.
367 South Gulph Road
PO Box 61558
King of Prussia, PA 19406
Phone: (610) 768-3300
Contact: Pamela Brink

CMGC

Hoffman Construction
805 SW Broadway, Suite 2100
Portland, OR 97205
Phone: (503) 221-8811
Contact: Kevin Sund

Mechanical Trade Partner

Total Mechanical
1498 SE Tech Center Place, Suite 180
Vancouver, WA 98683
Phone: (360) 896-3848
Contact: Dan Carlson

Electrical Trade Partner

Huges Electrical
10490 NW Jackson Quarry Road
Hillsboro, OR 97124
Phone: (503) 647-2221
Contact: Gabe Hughes

Geotech

GeoDesign, Inc.
15575 SW Sequoia Parkway, Suite 100
Portland, OR 97224
Phone: (503) 968-8787

Arborist

Morgan Holen and Associates
3 Monroe Parkway, Suite P 220
Lake Oswego, OR 97035
Phone: (971) 409-9354
Contact: Morgan Holen

Applicant

UHS of Delaware, Inc.
367 South Gulph Road
PO Box 61558
King of Prussia, PA 19406
Phone: (610) 768-3300
Contact: Pamela Brink

Architect

SRG Partnership, Inc.
621 SW Morrison Street, Suite 200
Portland, OR 97205
Phone: (503) 548-2443
Contact: Jon Mehlschau, AIA

Civil Engineer / Surveyor

Westlake Consultants, Inc.
Pacific Corporate Center
15115 S.W. Sequoia Parkway, Suite 150
Tigard, Oregon 97224
Phone: (503) 684-0652
Fax: (503) 624-0157
Contact: Ken Sandblast, AICP
Contact: Brett Musick

Landscape Architect

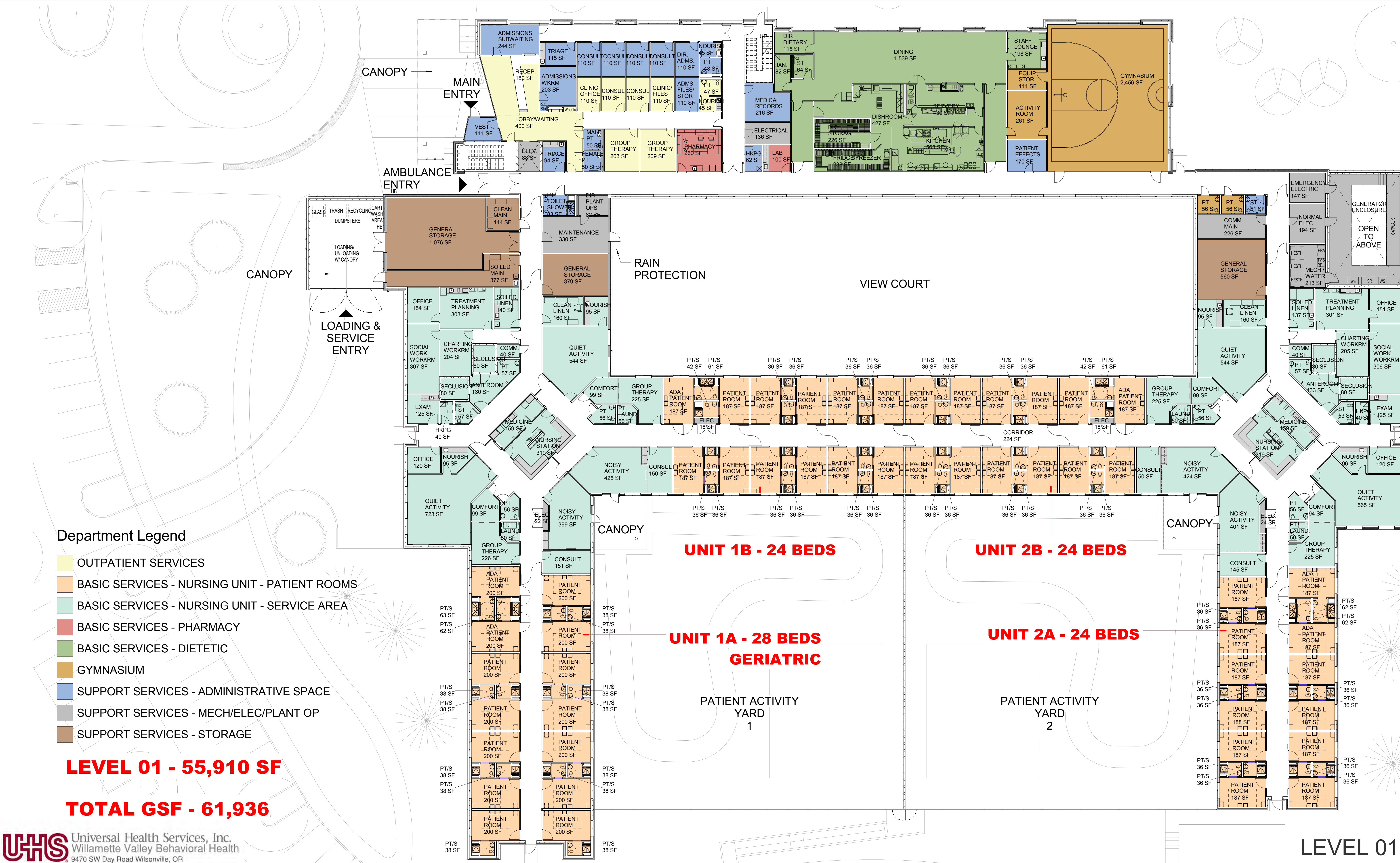
Walker Macy
111 SW Oak Street, Suite 200
Portland, OR 97204
Phone: (503) 228-3122
Contact: Jarvis Payne

MEPT Engineers

Mazzetti & Associates
520 SW Sixth Ave., Suite 500
Portland, OR 97204
Phone: (503) 620-3232
Contact: Thinh Nguyen

Signage

Anderson Krygier
820 NW 12th Avenue, Suite 106
Portland, OR 97209
Phone: (503) 243-2060
Contact: Abby-Sophia Always



Department Legend

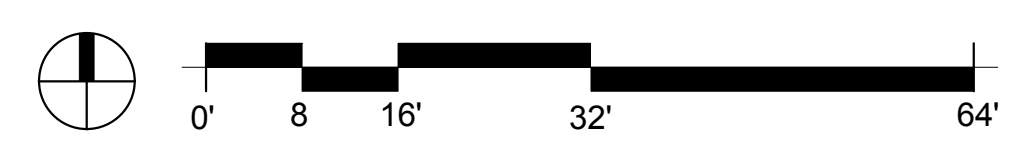
- OUTPATIENT SERVICES
- BASIC SERVICES - NURSING UNIT - PATIENT ROOMS
- BASIC SERVICES - NURSING UNIT - SERVICE AREA
- BASIC SERVICES - PHARMACY
- BASIC SERVICES - DIETETIC
- GYMNASIUM
- SUPPORT SERVICES - ADMINISTRATIVE SPACE
- SUPPORT SERVICES - MECH/ELEC/PLANT OP
- SUPPORT SERVICES - STORAGE

LEVEL 01 - 55,910 SF

TOTAL GSF - 61,936

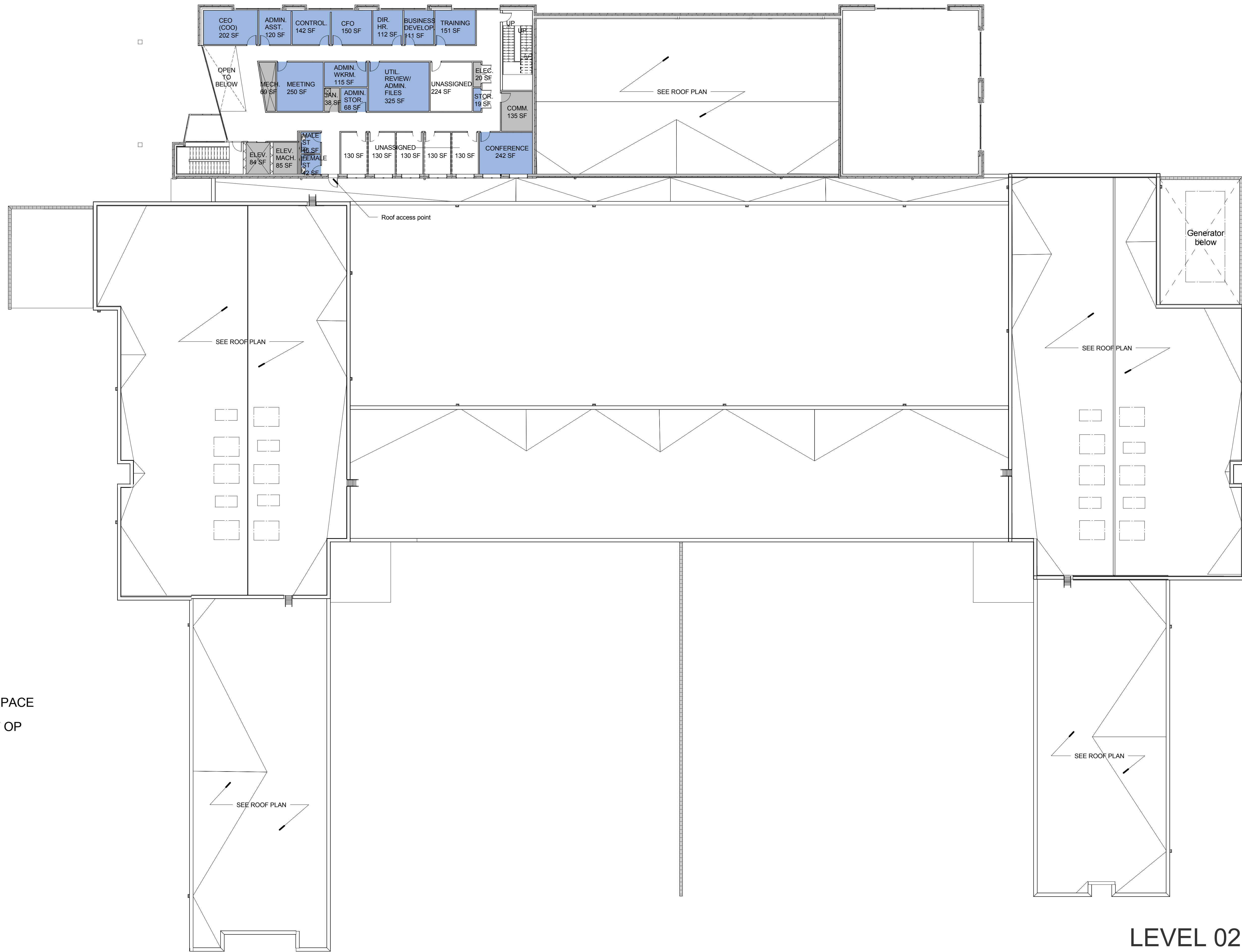
UHS Universal Health Services, Inc.
Willamette Valley Behavioral Health
9470 SW Day Road Wilsonville, OR

LAND USE APPLICATION - JANUARY 11, 2016



LEVEL 01

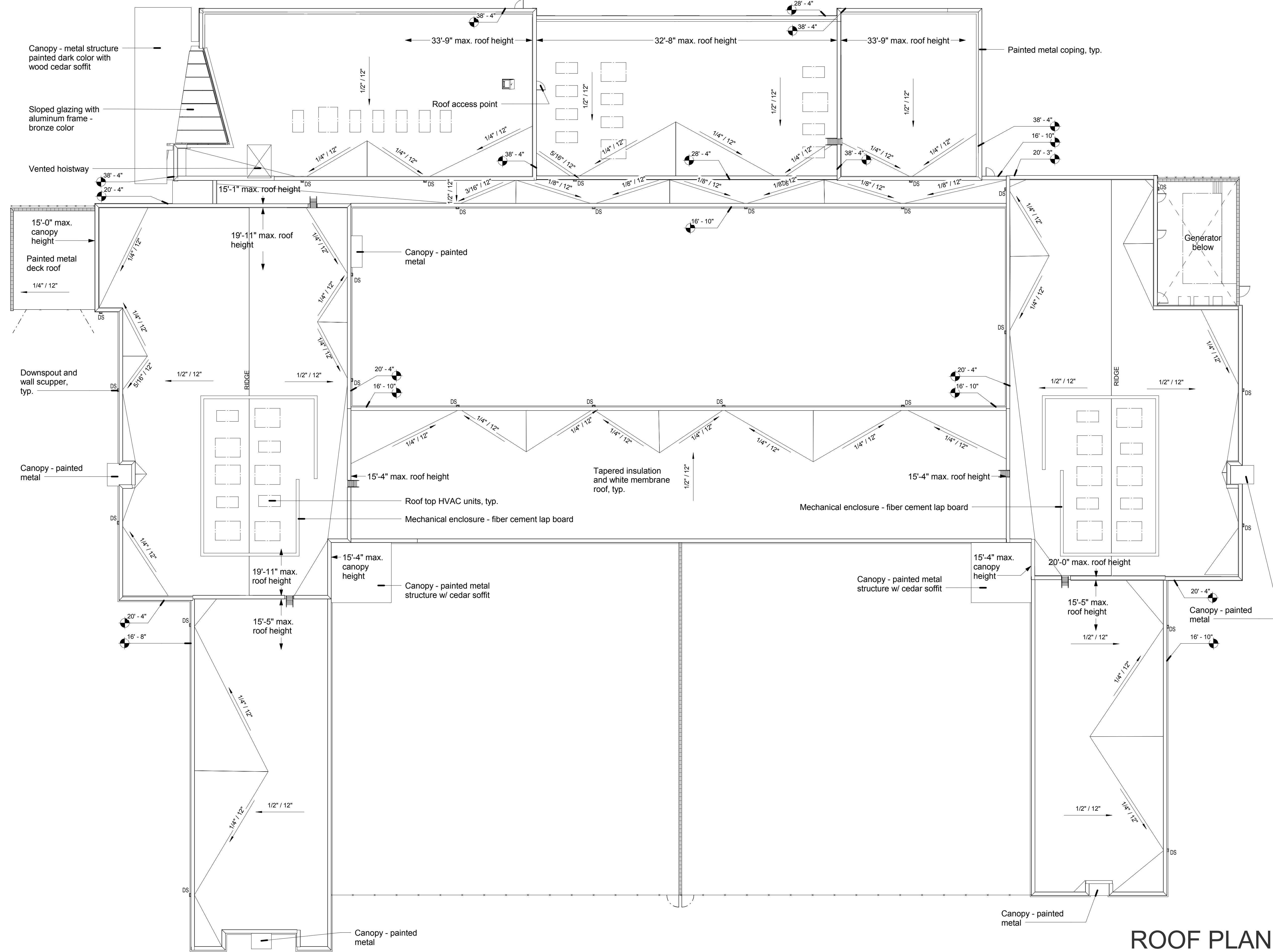
SRG
A-101



Department Legend

- SUPPORT SERVICES - ADMINISTRATIVE SPACE
- SUPPORT SERVICES - MECH/ELEC/PLANT OP

LEVEL 02 - 6,026 SF





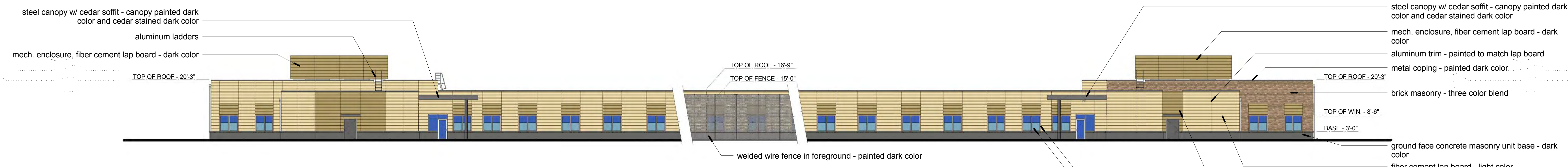
NORTH ELEVATION - DAY ROAD



EAST ELEVATION - BOONES FERRY



WEST ELEVATION



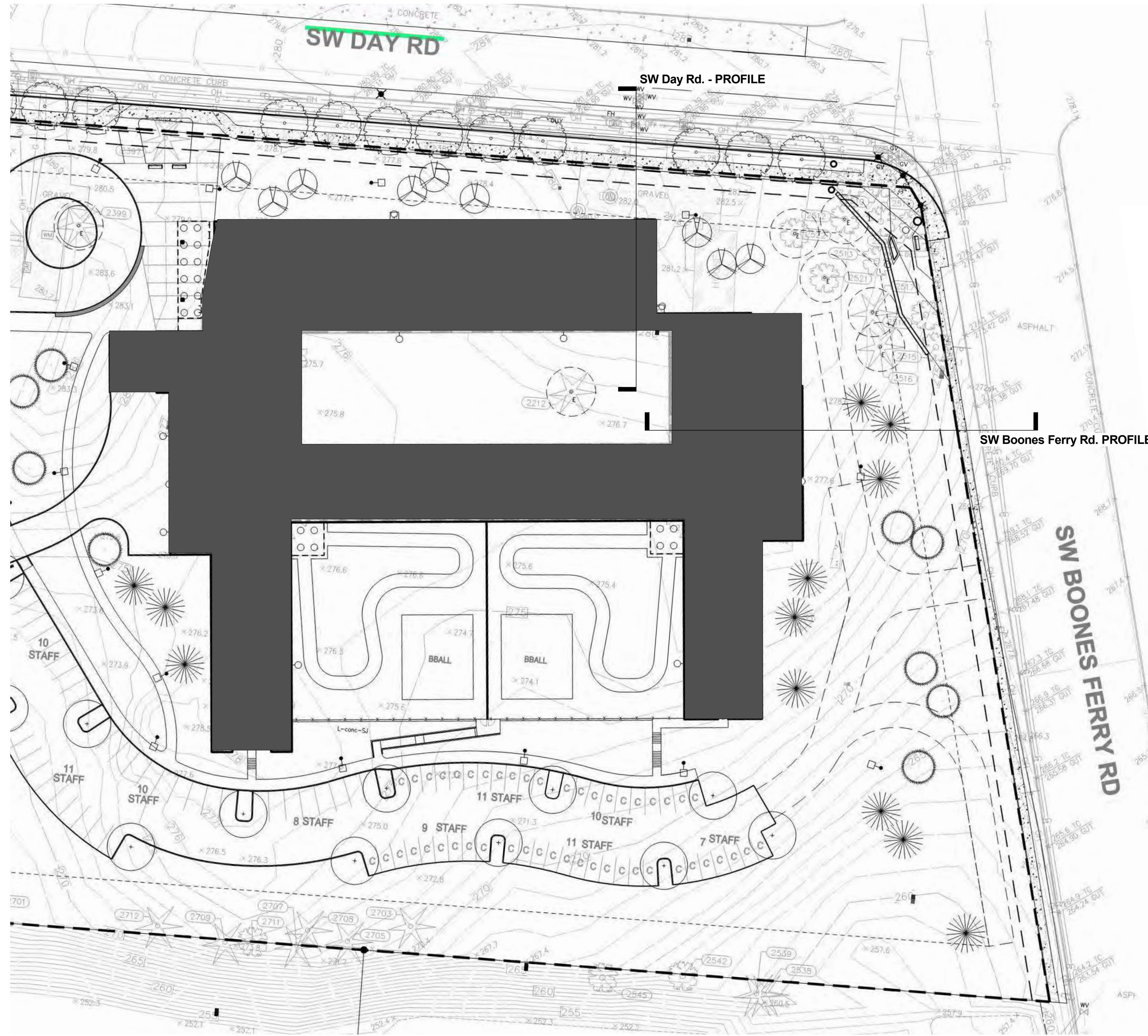
SOUTH ELEVATION



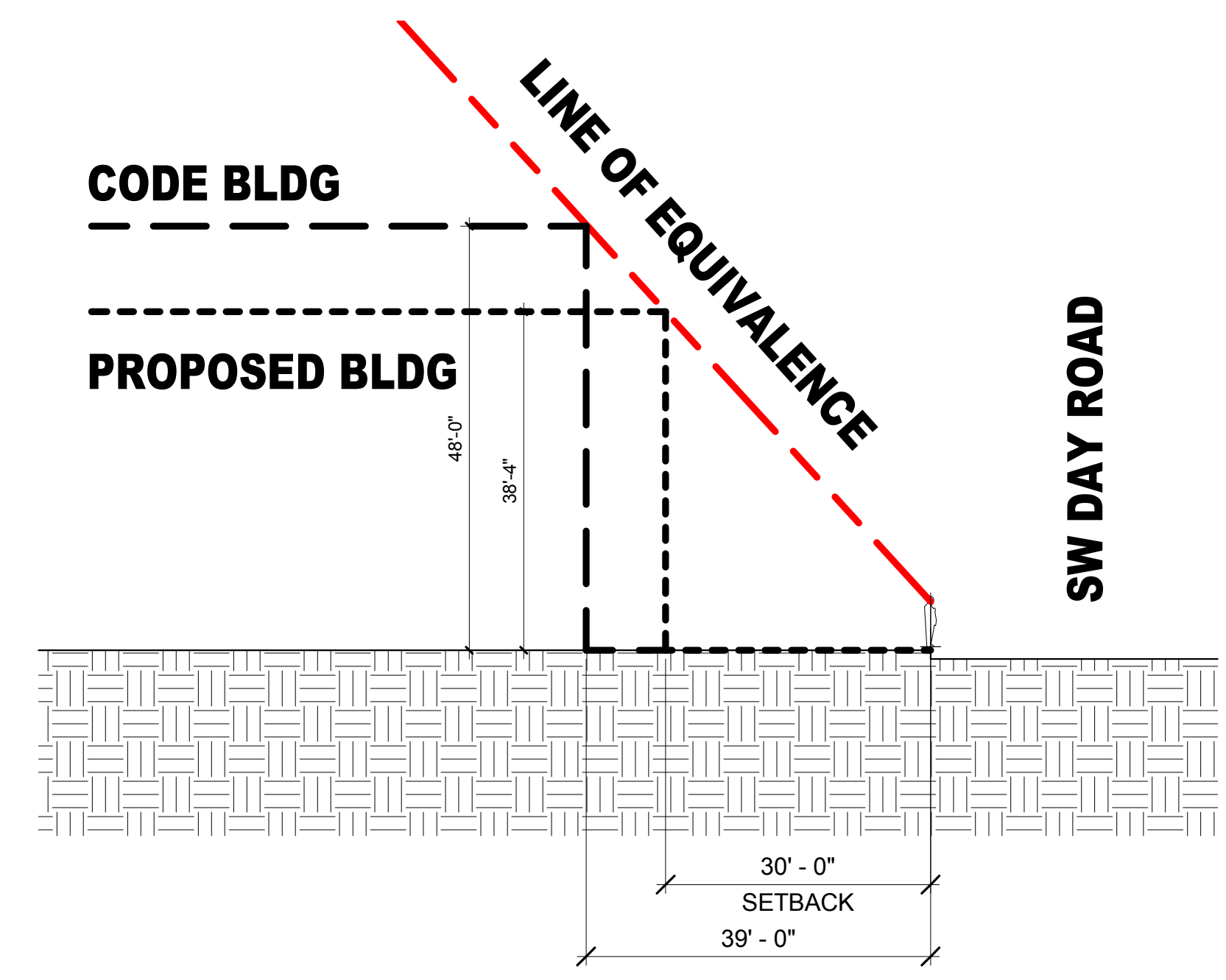
NORTHWEST



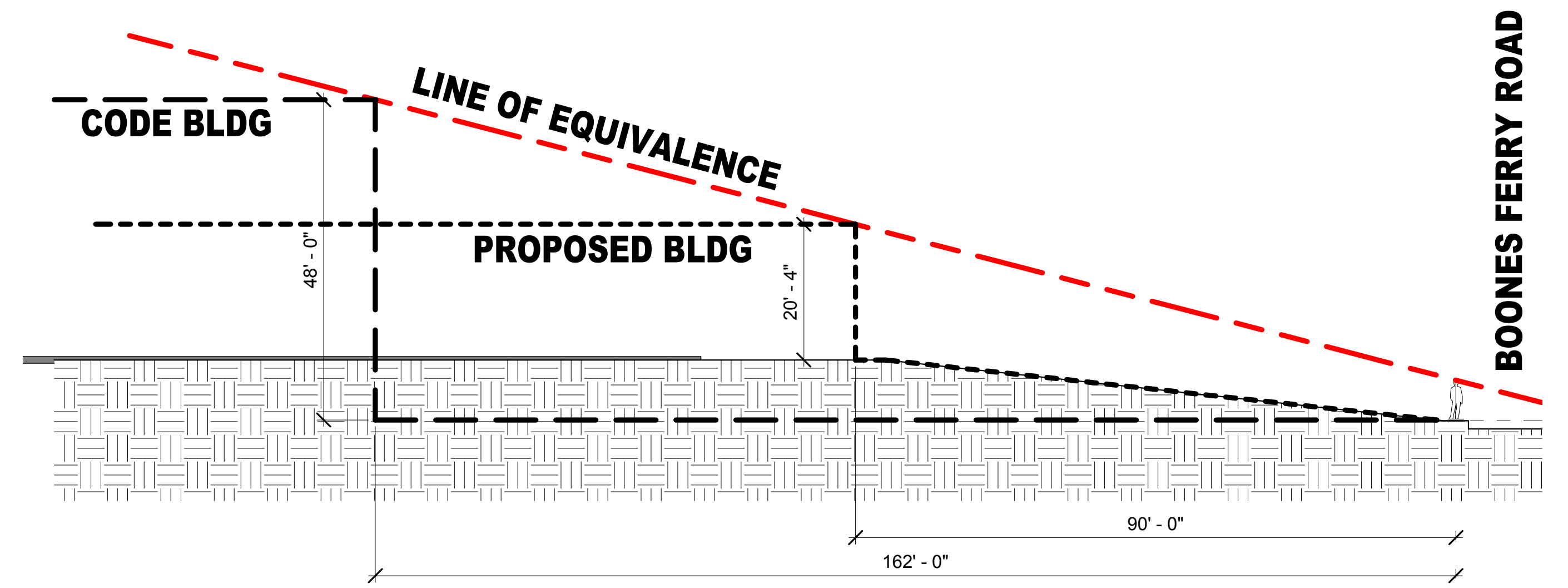
NORTHEAST



SITE BUILDING HEIGHT PROFILES



SW DAY ROAD BUILDING HEIGHT PROFILE



BOONES FERRY ROAD BUILDING HEIGHT PROFILE



Seljuk by Lee Kelly



Akbar by Lee Kelly



Aksary by Lee Kelly



Urumqi One by Devin Laurence Field



Origami Industry by Devin Laurence Field



Caliz by Devin Laurence Field



Salmon River by Lee Kelly



Art in front of Wilsonville Library



Papalotl by Devin Laurence Field



Living Vessel by Devin Laurence Field



Rajasthan III by Lee Kelly



Snowball by Devin Laurence Field



Propform by Brian Borrello



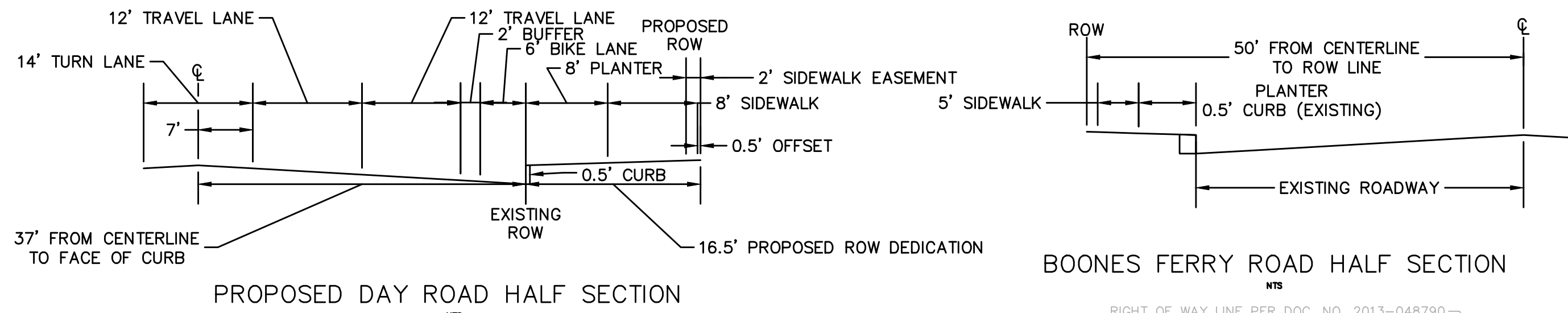
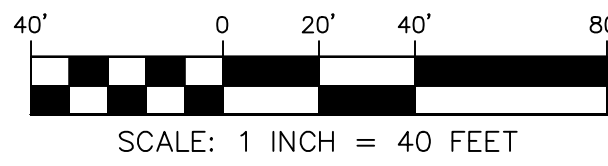
Prow by Brian Borrello

Proposed Site Art

- Local Artist to be selected
- Images shown are examples of intent
- Metal sculpture with concrete footing
- 6 to 10 feet tall
- \$50,000 budget
- Procured by Property Owner

Exhibit I

Civil Plan Set



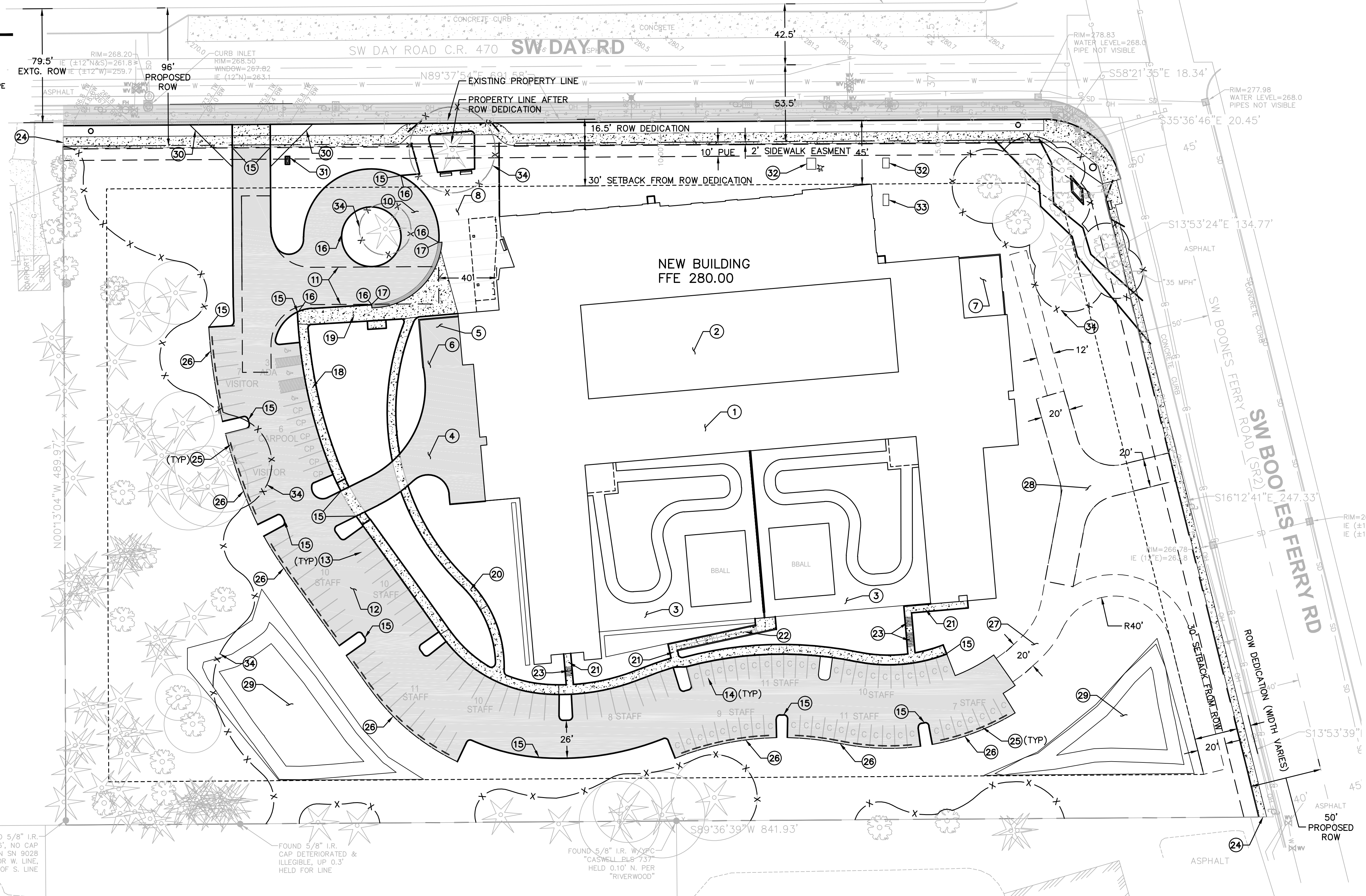
NOTE:
TAPERED ROW DEDICATION REQUIRED ALONG A PORTION OF THE BOONES FERRY FRONTAGE TO ACCOMMODATE SIDEWALK INDICATED AT CITY PRE-APP MEETING

KEYNOTES:

- 1 PROPOSED BUILDING: TOTAL GSF=62,000 SF SEE ARCHITECTURAL PLANS
- 2 INTERIOR BUILDING VIEW COURTYARD SEE ARCHITECTURAL AND LANDSCAPING PLANS
- 3 EXTERIOR BUILDING PATIENT ACTIVITY COURTYARD SEE ARCHITECTURAL AND LANDSCAPE PLANS
- 4 SERVICE DRIVE
- 5 WATER MANAGEMENT DUMPSTERS WITH CANOPY SEE ARCHITECTURAL PLANS
- 6 LOADING/UNLOADING WITH CANOPY SEE ARCHITECTURAL PLANS
- 7 GENERATOR ENCLOSURE (OPEN TO ABOVE) SEE ARCHITECTURAL PLANS
- 8 BUILDING ENTRY PLAZA SEE ARCHITECTURAL PLANS
- 9 SITE ACCESS ENTRY DRIVE
- 10 DROP OFF ENTRY, LOADING/UNLOADING
- 11 EMERGENCY ACCESS, FIRE TRUCK AERIAL ACCESS, AMBULANCE ACCESS DRIVE
- 12 PARKING DRIVE AISLE, EMERGENCY ACCESS
- 13 STANDARD PARKING STALL 9'X19'
- 14 COMPACT PARKING STALL 8'X16'
- 15 VERTICAL CURB
- 16 FLUSH CURB
- 17 FLUSH CURB - FIRE TRUCK AND AMBULANCE ACCESS
- 18 7' WIDE PEDESTRIAN PATH
- 19 11' WIDE PEDESTRIAN PATH
- 20 6' WIDE PEDESTRIAN PATH
- 21 5' WIDE PEDESTRIAN PATH
- 22 5' WIDE PEDESTRIAN PATH WITH RAMP, HANDRAIL AND RETAINING WALL
- 23 STAIRS
- 24 STREET SIDEWALK BARRICADE
- 25 6' WHEEL STOP
- 26 EDGE OF PAVEMENT
- 27 EMERGENCY/MAINTENANCE ACCESS ROAD
- 28 EMERGENCY FIRE TRUCK TURN AROUND
- 29 STORMWATER QUALITY FACILITY AND DETENTION POND
- 30 VISION TRIANGLE
- 31 ENTRY SIGN. SEE SIGNING PLANS
- 32 BELOW GROUND SITE UTILITY VAULT. SEE UTILITY PLAN.
- 33 ABOVE GROUND SITE UTILITY VAULT. SEE UTILITY PLAN.
- 34 ADJUSTMENTS TO TREE PROTECTION FENCING TO ALLOW FOR INSTALLATION OF SITE IMPROVEMENTS AND GRADING TO BE COORDINATED WITH THE PROJECT ARBORIST

TOPOGRAPHIC LEGEND

- PROPERTY BOUNDARY
- EASEMENT LINE
- SS — UNDERGROUND SANITARY SEWER
- SD — UNDERGROUND STORM DRAIN PIPE
- W — UNDERGROUND WATER LINE
- G — UNDERGROUND GAS LINE
- E — UNDERGROUND ELECTRICAL LINE
- X — FENCE AS NOTED
- CONCRETE CURB
- BLOCK WALL
- OH — OVERHEAD LINES
- EDGE OF PAVEMENT
- BUILDING FOOTPRINT LINE
- CONCRETE
- GRAVEL
- ⊙ — BLOW-OFF OR AIR-VAC VALVE
- ⊠ — CATCH BASIN
- ⊞ — CURB INLET (NO GRATE)
- GV — GAS VALVE
- GM — GAS METER
- GA — GUY ANCHOR
- FH — FIRE HYDRANT
- MB — MAILBOX
- TSB — TRAFFIC SIGNAL BOX
- SCP — TRAFFIC SIGNAL POLE
- SM — SANITARY MANHOLE
- SDM — STORM DRAIN MANHOLE
- SP — SIGN ON POST
- SM — SURVEY MONUMENT AS NOTED
- W/YP — FOUND 5/8" I.R. W/YP C PL 53760, SET IN SN 29223
- TR — TELECOMMUNICATIONS RISER
- UP — UTILITY POLE
- WM — WATER METER
- WMH — WATER MANHOLE
- WV — WATER VALVE
- WW — WATER WELL
- HCR — HANDICAP RAMP
- I.R. — IRON ROD
- W/YP — WITH YELLOW PLASTIC CAP
- TS — TREE STUMP
- DT — DECIDUOUS TREE
- ET — EVERGREEN TREE



LEGEND - PROPOSED

- CURB
- ASPHALT
- CONC

GENERAL NOTES:

1. ELEVATIONS BASED ON WASHINGTON COUNTY BENCHMARK 455, OSHD BRASS DISC AT NW CORNER ELLIGSEN ROAD BRIDGE OVER I-5, ELEVATION 281.548, NGVD 1929.
2. STORMWATER WATER QUALITY AND DETENTION FACILITY WILL EVOLVE AS FINAL DESIGNS PROGRESS DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS AND PERMITTING FOR THIS PROJECT.
3. SEE LANDSCAPE PLANS FOR ADDITIONAL SITE INFORMATION.

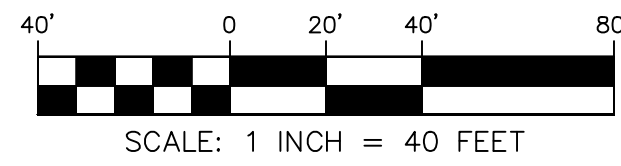
UHS Universal Health Services, Inc.
Willamette Valley Behavioral Health
9470 SW Day Road Wilsonville, OR

LAND USE APPLICATION - JANUARY 11, 2016

WESTLAKE
CONSULTANTS INC.
ENGINEERING ♦ SURVEYING ♦ PLANNING

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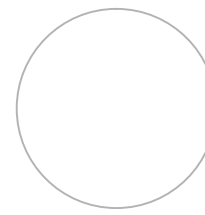
LAND USE SITE PLAN



LEGEND



TREE TO BE REMOVED

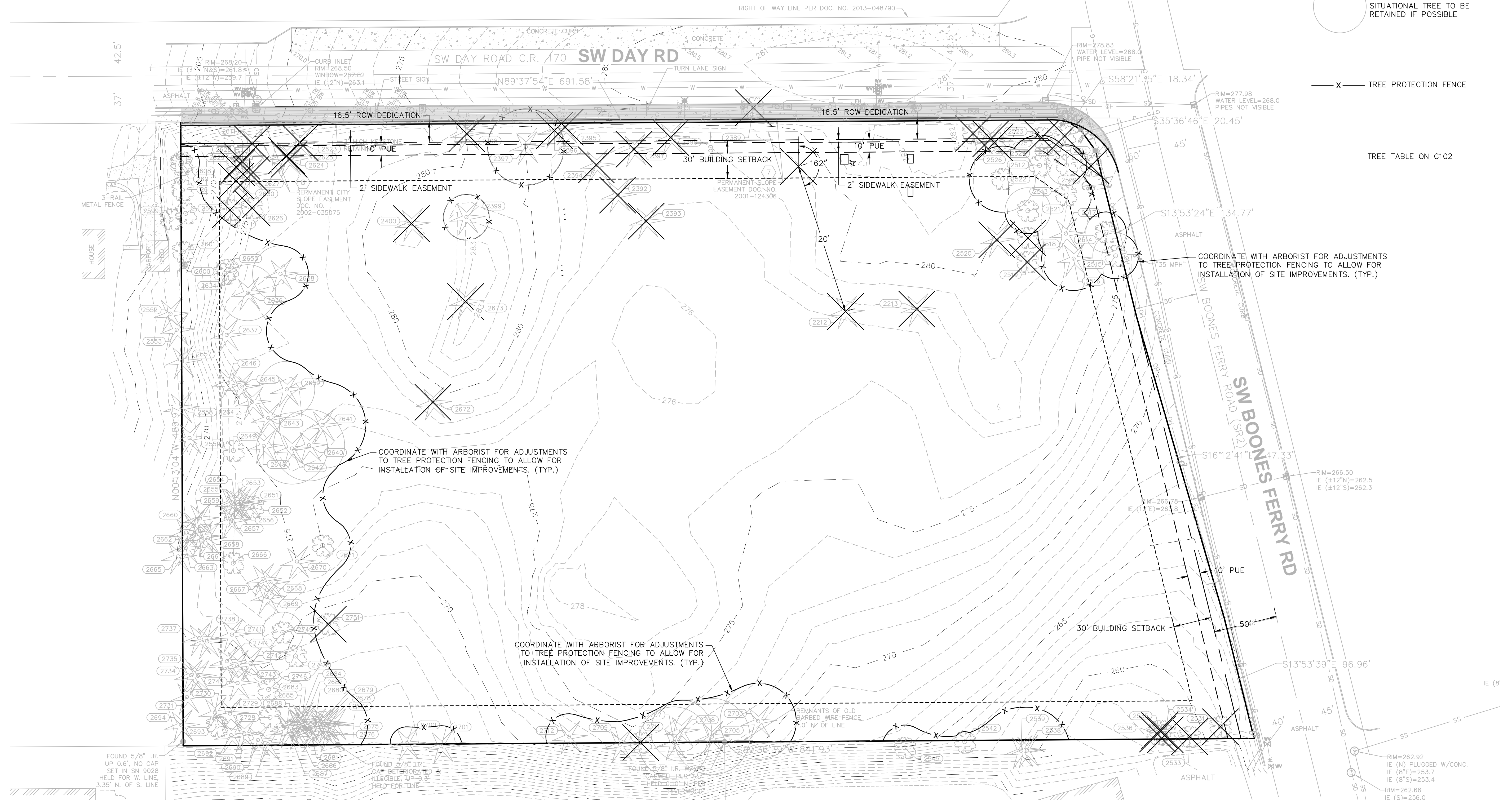


SITUATIONAL TREE TO BE RETAINED IF POSSIBLE



TREE PROTECTION FENCE

TREE TABLE ON C102



No.	Common Name	DBH ¹	C-Rad ²	Cond ³	Treatment
2212	Douglas-fir	26,36	26	G	Situational
2213	incense cedar	34	16	G	Remove - Construction
2389	Callery pear	6	8	G	Remove - Construction
2390	Douglas-fir	32	28	G	Remove - Construction
2391	Douglas-fir	30	24	G	Remove - Construction
2392	Douglas-fir	34	26	G	Remove - Construction
2393	Douglas-fir	8	9	G	Remove - Construction
2394	Douglas-fir	24	24	F	Remove - Construction
2395	Douglas-fir	22	22	F	Remove - Construction
2396	Douglas-fir	16	15	F	Remove - Construction
2397	Douglas-fir	52	30	G	Situational
2398	deodar cedar	11	10	G	Remove - Construction
2399	deodar cedar	24	18	G	Situational
2400	Douglas-fir	32	22	F	Remove - Construction
2509	London planetree	12	15	G	Remove - Construction
2510	London planetree	12	16	G	Remove - Construction
2511	London planetree	12	16	F	Situational
2512	London planetree	14	24	G	Retain
2513	London planetree	12	20	G	Retain
2514	London planetree	12	16	G	Situational
2515	London planetree	14	18	G	Situational
2516	Douglas-fir	36	25	G	Retain
2517	Douglas-fir	24	22	G	Retain
2518	European white birch	14	0	D	Remove - Condition
2519	London planetree	16	22	F	Remove - Construction
2520	Douglas-fir	38	24	G	Remove - Construction
2521	London planetree	14	18	G	Situational
2522	London planetree	24	26	G	Situational
2523	London planetree	14	15	G	Remove - Construction
2524	red oak	8	12	F	Remove - Construction
2525	spruce	8	8	P	Remove - Condition
2526	Norway maple	12	12	F	Remove - Construction
2531	sweet cherry	12	20	F	Remove - Condition
2533	sweet cherry	2x15	20	F	Remove - Condition
2534	sweet cherry	12	6	P	Remove - Condition
2535	sweet cherry	12	16	P	Remove - Condition
2536	sweet cherry	12	6	P	Remove - Condition
2538	Douglas-fir	24	34		Protect - Offsite
2539	Douglas-fir	24	34		Protect - Offsite
2542	sweet cherry	8	8		Protect - Offsite
2545	sweet cherry	12	18		Protect - Offsite
2552	Douglas-fir	14			Protect - Offsite
2553	Douglas-fir	36			Protect - Offsite
2557	Douglas-fir	15			Retain
2558	Douglas-fir	30			Retain
2559	Douglas-fir	30			Retain
2599	deciduous	6			Protect - Offsite
2601	deciduous	10			Retain
2603	deciduous	14			Retain
2606	deciduous	6			Retain

No.	Common Name	DBH ¹	C-Rad ²	Cond ³	Treatment
2607	deciduous	12			Retain
2608	deciduous	10		F	Retain
2611	Douglas-fir	12	14	G	Remove - Construction
2623	Douglas-fir	20	22	G	Remove - Construction
2624	Douglas-fir	20	22	G	Remove - Construction
2625	Douglas-fir	14		G	Remove - Construction
2626	Pacific madrone	10		P	Remove - Construction
2627	Douglas-fir	18	18	F	Remove - Construction
2628	Pacific madrone	10		F	Remove - Construction
2629	Pacific madrone	8		D	Remove - Construction
2630	Douglas-fir	12		P	Remove - Construction
2631	Pacific madrone	8		F	Remove - Construction
2634	bigleaf maple	8		F	Retain
2635	bigleaf maple	12		G	Retain
2636	Douglas-fir	24	22	G	Situational
2637	Douglas-fir	28	22	G	Retain
2638	Douglas-fir	28	22	G	Situational
2639	Douglas-fir	18	22	G	Situational
2640	Douglas-fir	30	28	G	Situational
2641	Douglas-fir	50	34	G	Situational
2642	Douglas-fir	32	28		Situational
2643	Douglas-fir	24			Retain
2644	Douglas-fir	12			Retain
2645	Douglas-fir	15			Retain
2646	Douglas-fir	18			Retain
2648	Douglas-fir	24			Retain
2649	bigleaf maple	22			Retain
2651	Douglas-fir	18		F	Retain
2652	bigleaf maple	12			Retain
2653	Douglas-fir	14			Retain
2654	Douglas-fir	12			Retain
2655	Douglas-fir	8			Retain
2656	Douglas-fir	8			Retain
2657	Douglas-fir	8			Retain
2658	Douglas-fir	14			Retain
2659	Douglas-fir	10			Retain
2660	Douglas-fir	14			Retain
2661	Douglas-fir	8			Retain
2662	Douglas-fir	12			Retain
2663	Douglas-fir	12			Retain
2665	Douglas-fir	12			Protect - Offsite
2666	bigleaf maple	10			Retain
2667	Douglas-fir	8			Retain
2668	Douglas-fir	15			Retain
2669	Douglas-fir	17		G	Retain
2670	Douglas-fir	17		G	Retain
2671	bigleaf maple	18	22	G	Retain
2672	Douglas-fir	44	32	G	Remove - Construction
2673	Douglas-fir	30	24	G	Remove - Construction
2675	Douglas-fir	32	26		Retain

No.	Common Name	DBH ¹	C-Rad ²	Cond ³	Treatment
2676	Douglas-fir	12			Retain
2677	Douglas-fir	12			Retain
2678	Douglas-fir	17			Retain
2679	Douglas-fir	14			Retain
2680	Douglas-fir	8			Retain
2681	Douglas-fir	12			Retain
2682	Douglas-fir	8			Retain
2683	Douglas-fir	13			Retain
2684	Douglas-fir	6			Retain
2685	Douglas-fir	6			Retain
2686	Douglas-fir	14			Retain
2687	Douglas-fir	10			Retain
2688	Douglas-fir	10			Retain
2689	Douglas-fir	14			Retain
2690	Douglas-fir	14			Retain
2691	Douglas-fir	12			Retain
2692	Douglas-fir	18			Retain
2693	bigleaf maple	10		G	Retain
2694	Douglas-fir	16		F	Protect - Offsite
2700	Douglas-fir	18	13	G	Retain
2701	Douglas-fir	20	16	G	Retain
2703	Douglas-fir	40	30	G	Situational
2705	Douglas-fir	32	30	G	Situational
2707	Douglas-fir	32	28	G	Situational**
2708	Douglas-fir	20	24	F	Situational
2709	Douglas-fir	24	18	G	Protect - Offsite
2711	sweet cherry	10	14		Remove - Condition*
2712	Douglas-fir	24	18		Retain
2728	bigleaf maple	4x6			Retain
2729	Douglas-fir	10			Retain
2730	Douglas-fir	15			Retain
2731	Douglas-fir	20			Retain
2734	Douglas-fir	15			Retain
2735	Douglas-fir	14			Retain
2737	Douglas-fir	14			Retain
2738	Douglas-fir	12			Retain
2741	Douglas-fir	18			Retain
2742	Douglas-fir	14			Retain
2743	Douglas-fir	20			Retain
2744	Douglas-fir	10			Retain
2745	Douglas-fir	22		F	Retain
2746	bigleaf maple	2x6		F	Retain
2748	bigleaf maple	4x6	20	F	Situational
2749	bigleaf maple	3x8	16	G	Situational
2751	sweet cherry	2x8	16		Remove - Condition
2752	Pacific madrone	6x10	18		Remove - Construction

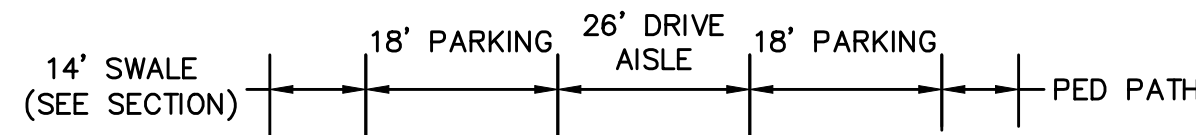
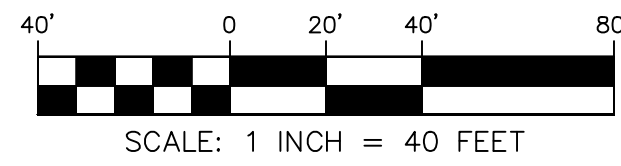
*On property line. Coordinate with neighboring property owner to remove.
 **On property line. Coordinate with neighboring property should removal become necessary

Treatment	Qty.
Remove - Condition	9
Remove - Construction	32
Situational	19
Retain	76
Protect - Offsite	10
Total	146

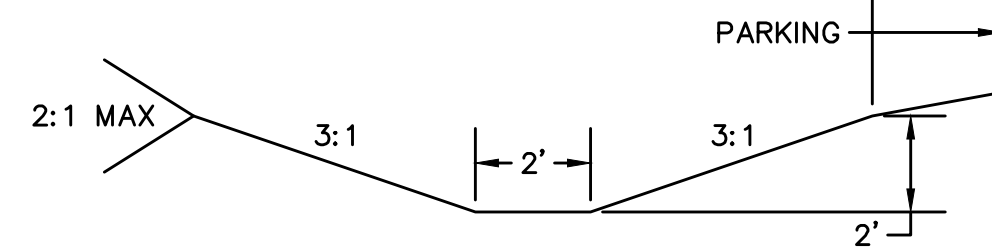
¹DBH is tree diameter measured at 4.5-feet above the ground level in inches; multiple trunks of the same size are indicated with an asterisk (quantity x size).

²C-Rad is the average crown radius measured in feet;

³Cond is an arborist assigned rating to generally describe the condition of individual trees as follows - Dead; Poor; Moderate; or Good.



ACCESS DRIVE AISLE/PARKING TYPICAL SECTION



SWALE TYPICAL SECTION

RIGHT OF WAY LINE PER DOC. NO. 2013-048790

GENERAL NOTES:

- ELEVATIONS BASED ON WASHINGTON COUNTY BENCHMARK 455, OSHD BRASS DISC AT NW CORNER ELLIGSEN ROAD BRIDGE OVER I-5, ELEVATION 281.548, NGVD 1929.
- STORMWATER WATER QUALITY AND DETENTION FACILITY WILL EVOLVE AS FINAL DESIGNS PROGRESS DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS AND PERMITTING FOR THIS PROJECT.
- SEE LANDSCAPE PLANS FOR ADDITIONAL SITE INFORMATION.

GRADING KEYNOTES:

- ADJUSTMENTS TO TREE PROTECTION FENCING TO ALLOW FOR INSTALLATION OF SITE IMPROVEMENTS AN GRADING TO BE COORDINATED WITH THE PROJECT ARBORIST.
- STORMWATER FACILITY FOR WATER QUALITY AND DETENTION.
- STORMWATER SWALE.

TOPOGRAPHIC LEGEND

	PROPERTY BOUNDARY
	EASEMENT LINE
	UNDERGROUND SANITARY SEWER
	UNDERGROUND STORM DRAIN PIPE
	UNDERGROUND WATER LINE
	UNDERGROUND GAS LINE
	UNDERGROUND ELECTRICAL LINE
	FENCE AS NOTED
	CONCRETE CURB
	BLOCK WALL
	OVERHEAD LINES
	EDGE OF PAVEMENT
	BUILDING FOOTPRINT LINE
	CONCRETE
	GRAVEL
	BLOW-OFF OR AIR-VAC VALVE
	CATCH BASIN
	CURB INLET (NO GRATE)
	GAS VALVE
	GAS METER
	GUY ANCHOR
	FIRE HYDRANT
	MAILBOX
	TRAFFIC SIGNAL BOX
	TRAFFIC SIGNAL POLE
	SANITARY MANHOLE
	STORM DRAIN MANHOLE
	SIGN ON POST
	SURVEY MONUMENT AS NOTED
	FOUND 5/8" I.R. W/ YPC PLS 53760", SET IN SN 29223
	TELECOMMUNICATIONS RISER
	UTILITY POLE
	WATER METER
	WATER MANHOLE
	WATER VALVE
	WATER WELL
	HANDICAP RAMP
	IRON ROD
	WITH YELLOW PLASTIC CAP
	TREE STUMP
	DECIDUOUS TREE
	EVERGREEN TREE

GRADING LEGEND

	UTILITY EASEMENT LINE
	PROPERTY LINE
	ROW LINE
	EXISTING 5' CONTOUR
	EXISTING 1' CONTOUR
	PROPOSED 5' CONTOUR
	PROPOSED 1' CONTOUR

FOUND 5/8" I.R. UP 0.6", NO CAP SET IN SN 9028 HELD FOR W. LINE, 3.35' N. OF S. LINE

FOUND 5/8" I.R. CAP & C. HORIZONTAL, HELD FOR W. LINE, HELD TO 1" PLS RIVERWOOD

FOUND 5/8" I.R. W/ YPC PLS 53760", SET IN SN 29223

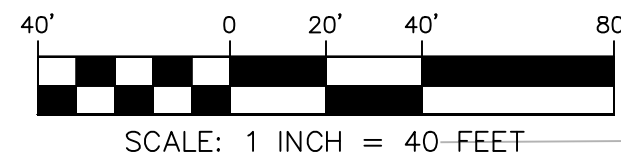


LAND USE APPLICATION - JANUARY 11, 2016

LAND USE GRADING PLAN

WESTLAKE CONSULTANTS INC.
ENGINEERING ♦ SURVEYING ♦ PLANNING

SRG
C200



GENERAL NOTES:

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- SEE LANDSCAPE PLANS FOR ADDITIONAL SITE INFORMATION.

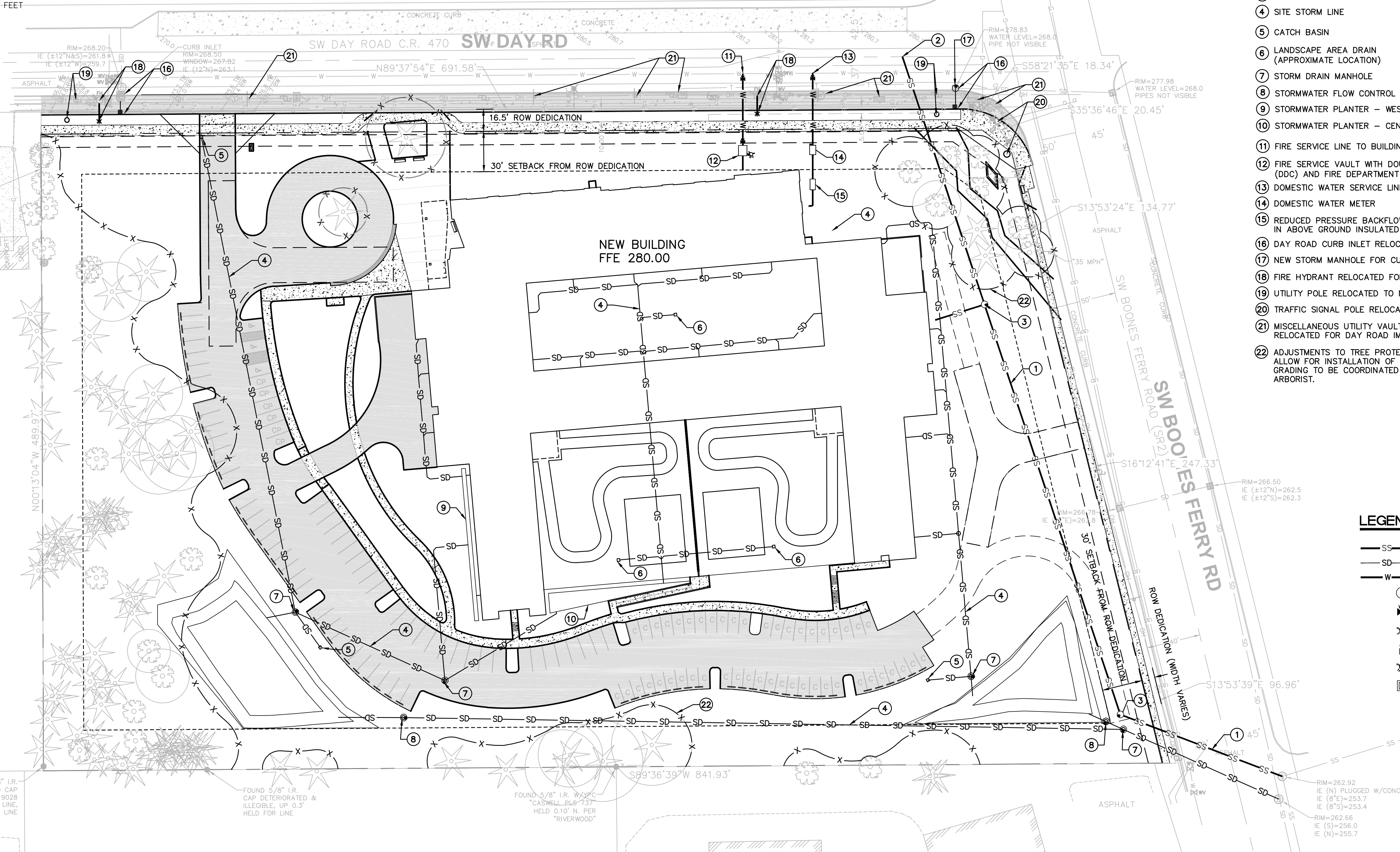
RIGHT OF WAY LINE PER DOC. NO. 2013-048790

TOPOGRAPHIC LEGEND

- PROPERTY BOUNDARY
- EASEMENT LINE
- SS UNDERGROUND SANITARY SEWER
- SD UNDERGROUND STORM DRAIN PIPE
- W UNDERGROUND WATER LINE
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- CATCH BASIN
- CURB INLET (NO GRATE)
- GV GAS VALVE
- GM GAS METER
- GA GUY ANCHOR
- FH FIRE HYDRANT
- MB MAILBOX
- TSB TRAFFIC SIGNAL BOX
- TSP TRAFFIC SIGNAL POLE
- SM SANITARY MANHOLE
- SDM STORM DRAIN MANHOLE
- SOP SIGN ON POST
- SMON SURVEY MONUMENT AS NOTED
- FOUND 5/8" I.R. W/YPC *PLS 53760*, SET IN SN 29223
- TELECOMMUNICATIONS RISER
- UP UTILITY POLE
- WM WATER METER
- WMH WATER MANHOLE
- WV WATER VALVE
- WW WATER WELL
- HCR HANDICAP RAMP
- I.R. IRON ROD
- W/YPC WITH YELLOW PLASTIC CAP
- TS TREE STUMP
- DT DECIDUOUS TREE
- ET EVERGREEN TREE

UTILITY KEYNOTES:

- TEMPORARY SANITARY SEWER SERVICE LINE. CONNECTION TO EXISTING SEWER MAIN IN BOONES FERRY ROAD.
- SANITARY SEWER SERVICE LINE STUB FOR FUTURE CONNECTION TO SEWER MAIN TO BE CONSTRUCTED IN DAY ROAD. FUTURE DAY ROAD SEWER LINE NOT PART OF THIS PROJECT
- SANITARY SEWER MANHOLE
- SITE STORM LINE
- CATCH BASIN
- LANDSCAPE AREA DRAIN (APPROXIMATE LOCATION)
- STORM DRAIN MANHOLE
- STORMWATER FLOW CONTROL STRUCTURE/MANHOLE
- STORMWATER PLANTER - WEST
- STORMWATER PLANTER - CENTRAL
- FIRE SERVICE LINE TO BUILDING
- FIRE SERVICE VAULT WITH DOUBLE DETECTOR CHECK (DDC) AND FIRE DEPARTMENT CONNECTION (FDC).
- DOMESTIC WATER SERVICE LINE
- DOMESTIC WATER METER
- REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY (RPA) IN ABOVE GROUND INSULATED ENCLOSURE.
- DAY ROAD CURB INLET RELOCATED TO NEW CURB LOCATION.
- NEW STORM MANHOLE FOR CURB INLET RELOCATION.
- FIRE HYDRANT RELOCATED FOR DAY ROAD IMPROVEMENTS.
- UTILITY POLE RELOCATED TO NEW STREET PLANTER.
- TRAFFIC SIGNAL POLE RELOCATED FOR DAY ROAD IMPROVEMENTS.
- MISCELLANEOUS UTILITY VAULTS, SIGNS ETC. TO BE RELOCATED FOR DAY ROAD IMPROVEMENTS.
- ADJUSTMENTS TO TREE PROTECTION FENCING TO ALLOW FOR INSTALLATION OF SITE IMPROVEMENTS AN GRADING TO BE COORDINATED WITH THE PROJECT ARBORIST.



LEGEND - PROPOSED

- SS SS SANITARY SEWER LINE
- SD SD STORM LINE
- W W WATER LINE
- MANHOLE
- WATER VALVE
- FIRE DEPARTMENT CONNECTION
- WATER METER
- FIRE HYDRANT
- CATCH BASIN

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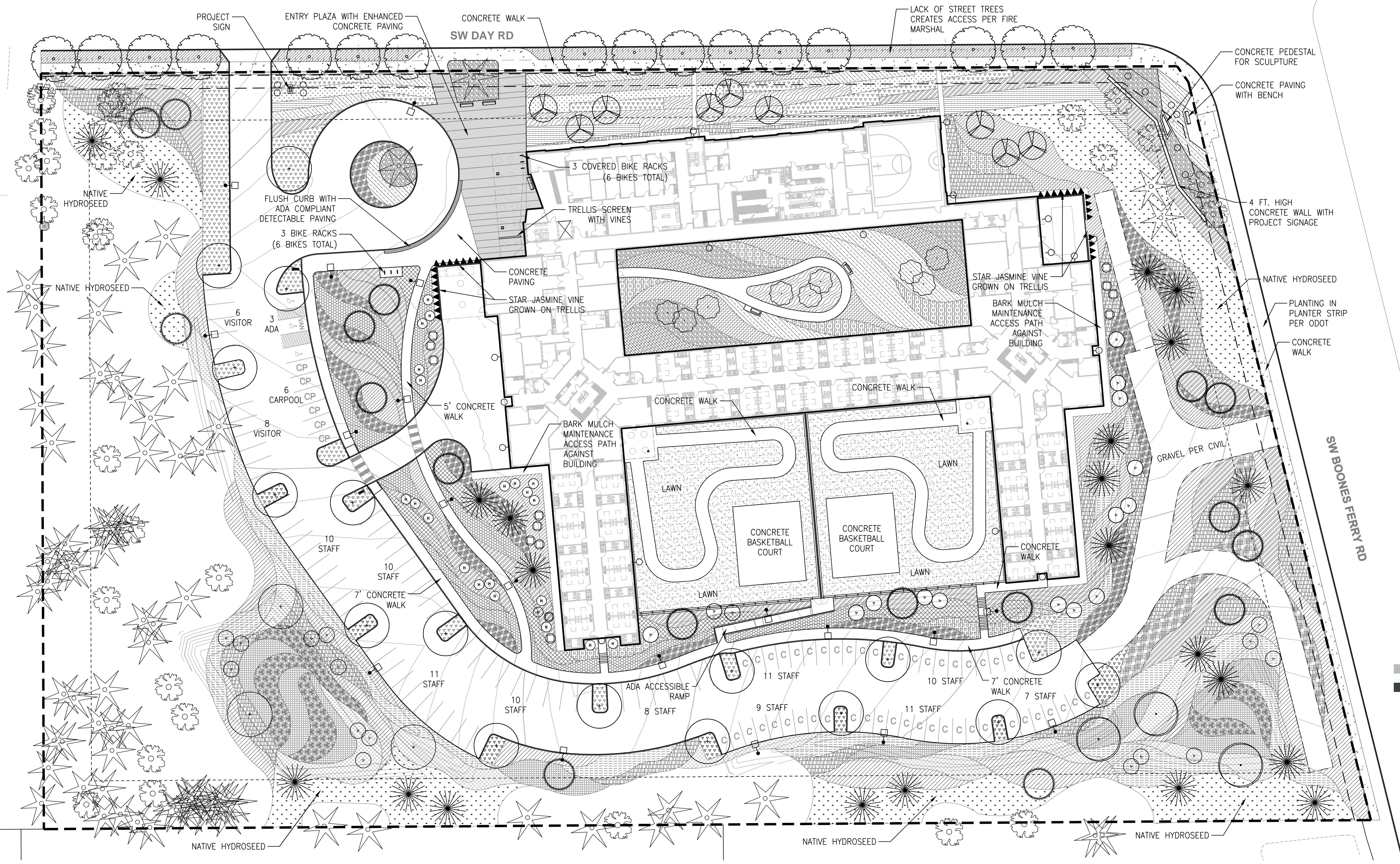


Exhibit J

Landscaping Plan Set

SITE CALCS

TOTAL SITE: 366,382 SF (8.4 AC)

UNDISTURBED NATIVE AREA: 60,755 SF (17%)

PARKING AREA: 48,036 SF (13%)

GRAVEL ACCESS ROADS: 9,584 SF (3%)

PEDESTRIAN HARDSCAPE AREA: 19,178 SF (5%)

BUILDING AREA (INCLUDING COURTYARDS): 85,866 SF (23%)

NEW LANDSCAPING AREA: 142,962 SF (39%)

PARKING QUANTITIES

ADA PARKING = 3

CARPOOL = 6 (5% OF TOTAL)

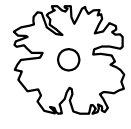
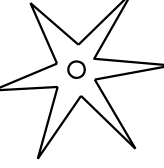
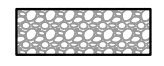


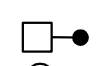
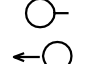
VISITOR PARKING = 14

STAFF PARKING - STANDARD STALL = 49

STAFF PARKING - COMPACT = 48 (40% OF TOTAL)

TOTAL PARKING = 120

LEGEND

	EXISTING DECIDUOUS TREE TO REMAIN
	EXISTING EVERGREEN TREE TO REMAIN
	RIVER ROCK COBBLE
	BENCH
	BIKE RACK
	SITE LIGHTING
	- SEE ELECTRICAL

LANDSCAPE NOTES

- EXISTING TOPSOIL WILL BE SALVAGED AND REUSED FOR NEW LANDSCAPE PLANTING.
- A 2" LAYER OF FIR BARK MULCH WILL BE APPLIED AND RAKED INTO SOIL SURFACE IN ALL PLANTING AREAS.
- ALL NEW PLANTING WILL BE IRRIGATED WITH A PERMANENT IRRIGATION SYSTEM CONTROLLED BY AN AUTOMATED IRRIGATION CONTROLLER. NATIVE HYDROSEED AREAS WILL BE IRRIGATED WITH A TEMPORARY IRRIGATION SYSTEM.

PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USAGE
TREES				
ACER CIRCINATUM-31 TOTAL	VINE MAPLE	2" CAL.	AS SHOWN	MODERATE
CARPINUS BETULUS 'FASTIGIATA'-20 TOTAL	COMMON HORNBEAM	2" CAL.	AS SHOWN	LOW
CHAMAECYPARIS OBTUSA 'GRACILIS'-9 TOTAL	SLENDER HINOKI FALSE CYPRESS	8 FT.	AS SHOWN	MODERATE ONCE ESTABLISHED
PSEUDOTSUGA MENZIESII-22 TOTAL	DOUGLAS FIR	8 FT.	AS SHOWN	LOW ONCE ESTABLISHED
PYRUS CALLERYANA 'CHANTICLEER'-16 TOTAL	CALLERY PEAR	2" CAL.	AS SHOWN	MODERATE
STEWARTIA PSEUDOCAMELLIA -9 TOTAL	JAPANESE STEWARTIA	2" CAL.	AS SHOWN	MODERATE
THUJA PLICATA-17 TOTAL	WESTERN RED CEDAR	8 FT.	AS SHOWN	LOW ONCE ESTABLISHED

SHRUBS					
CHPI	CHAMAECYPARIS PISIFERA 'FILIFERA' NANA	SAWARA FALSE CYPRESS	#3	36" OC	MODERATE
CISU	CISTUS 'SUNSET'	SUNSET ROCKROSE	#3	36" OC	LOW
ESCO	ESCALLONIA COMPACTA	COMPACT ESCALLONIA	#5	30" OC	LOW
GASH	GAULTHERIA SHALLON	SALAL	#3	AS SHOWN	LOW
HYQU	HYDRANGEA QUERCIFOLIA 'PEE WEE'	DWARF OAKLEAF HYDRANGEA	#3	AS SHOWN	MODERATE
MANE	MAHONIA NERVOSA	LONGLEAF MAHONIA	#3	30" OC	LOW
NADO	NANDINA DOMESTICA 'GULFSTREAM'	GULFSTREAM HEAVENLY BAMBOO	#5	36" OC	MODERATE
POMU	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1	24" OC	MODERATE
POPO	POLYSTICHUM POLYBLEPHARUM	TASSEL FERN	#1	24" OC	MODERATE
PRLA	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	#5	36" OC	MODERATE
SPLU	SPIRAEA BETULIFOLIA VAR. LUCIDA	BIRCHLEAF SPIRAEA	#3	36" OC	MODERATE
VIDA	VIBURNUM DAVIDII	DAVID'S VIBURNUM	#3	36" OC	MODERATE
TRJA	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	#3	3' OC STAKED AS SHOWN	HIGH

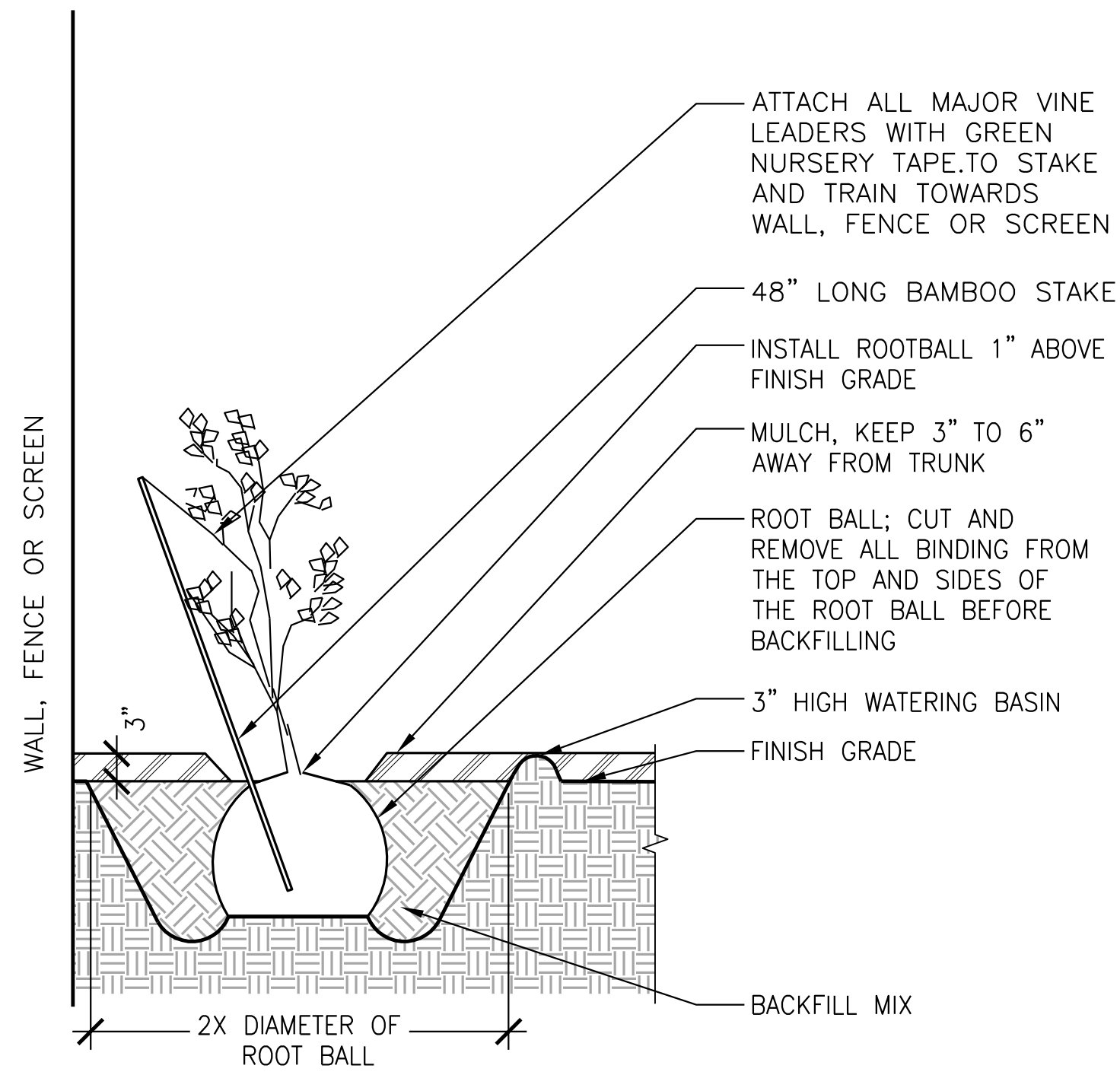
GROUNDCOVER / PERENNIALS					
ACGR	ACORUS GRAMINEUS 'OGON'	SWEET FLAG	#1	24" OC	HIGH
ARUV	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	#1	18" OC	LOW
CAMO	CAREX MORROWII 'VARIEGATA'	VARIEGATED JAPANESE SEDGE	#1	24" OC	MODERATE
GECA	GERANIUM x CANTABRIGIENSE 'BIOKOVO'	BIOKOVO GERANIUM	#1	30" OC	MODERATE
HEUC	HEUCHERA 'APPLE CRISP'	APPLE CRISP CORAL BELLS	#1	18" OC	MODERATE
LIMU	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILY TURF	#1	24" OC	MODERATE
PATE	PACHYSANDRA TERMINALIS 'GREEN CARPET'	GREEN CARPET PACHYSANDRA	4" POT	12" OC	HIGH
SEAV	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	#1	24" OC	MODERATE

STORM WATER FACILITY PLANTS

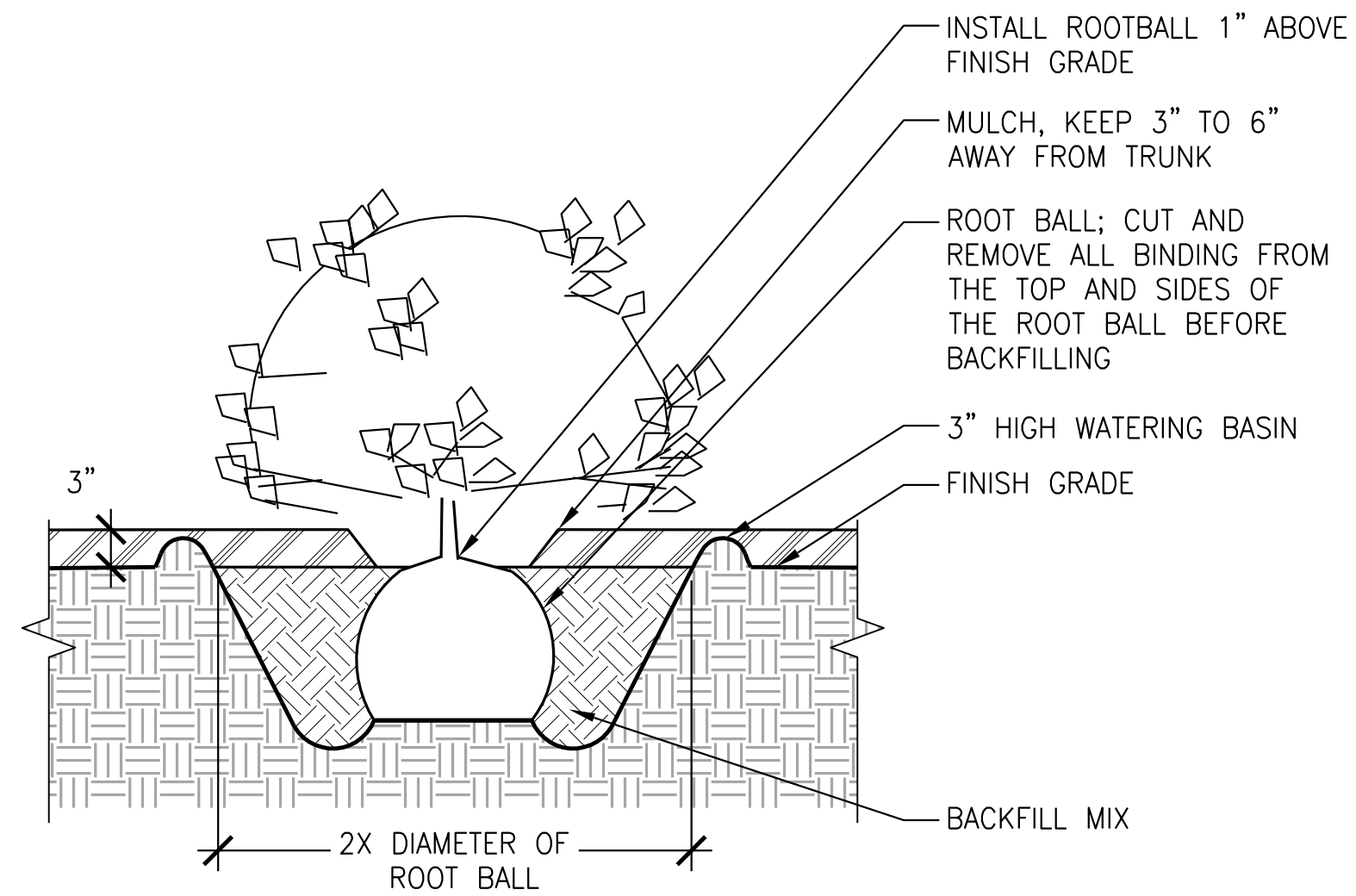
TREES					
ACER CIRCINATUM-15 TOTAL	VINE MAPLE	2" CAL.	AS SHOWN	MODERATE	
FRAXINUS LATIFOLIA-3 TOTAL	OREGON ASH	2" CAL.	AS SHOWN	LOW	
THUJA PLICATA-10 TOTAL	WESTERN RED CEDAR	6 FT.	AS SHOWN	LOW ONCE ESTABLISHED	
SHRUBS					
COSE	CORNUS SERICEA 'KELSEYI'	KELSEY DOGWOOD	#1	36" OC	LOW
MAAQ	MAHONIA AQUAFOLIUM 'COMPACTA'	COMPACT OREGON GRAPE	#1	36" OC	LOW
POMU	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1	24" OC	MODERATE
SPBE	SPIRAEA BETULIFOLIA	BIRCH LEAF SPIREA	#2	36" OC	MODERATE
GROUNDCOVERS					
CAOB	CAREX OBNUPTA	SLOUGH SEDGE	4" POT	12" OC	LOW
JUPA	JUNCUS PATENS	SPREADING RUSH	#1	18" OC	LOW
SCMI	SCIRPUS MICROCARPUS	SMALL FRUITED BULRUSH	4" POT	12" OC	LOW

LANDSCAPE PLAN LEGEND AND NOTES

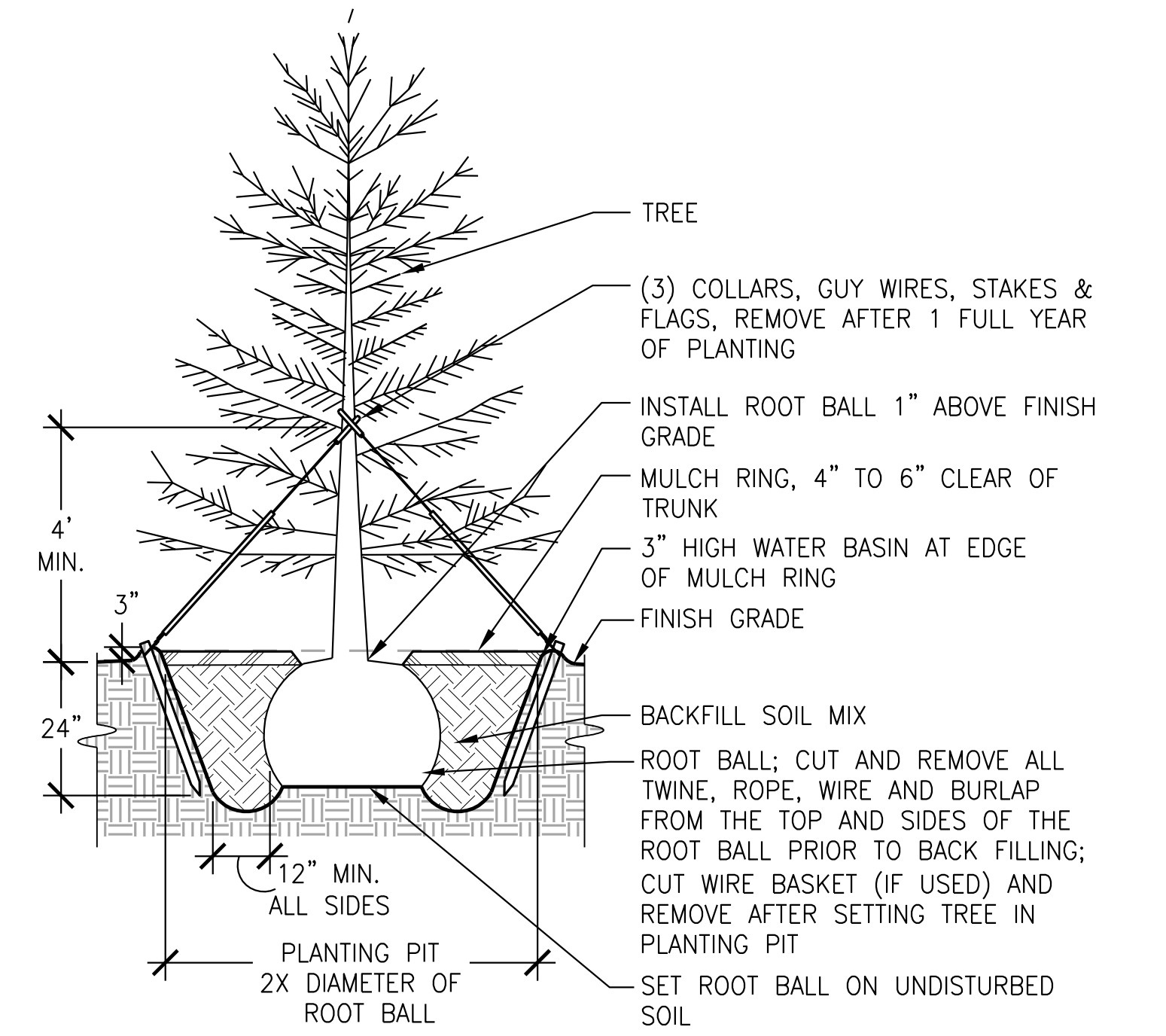
L-101



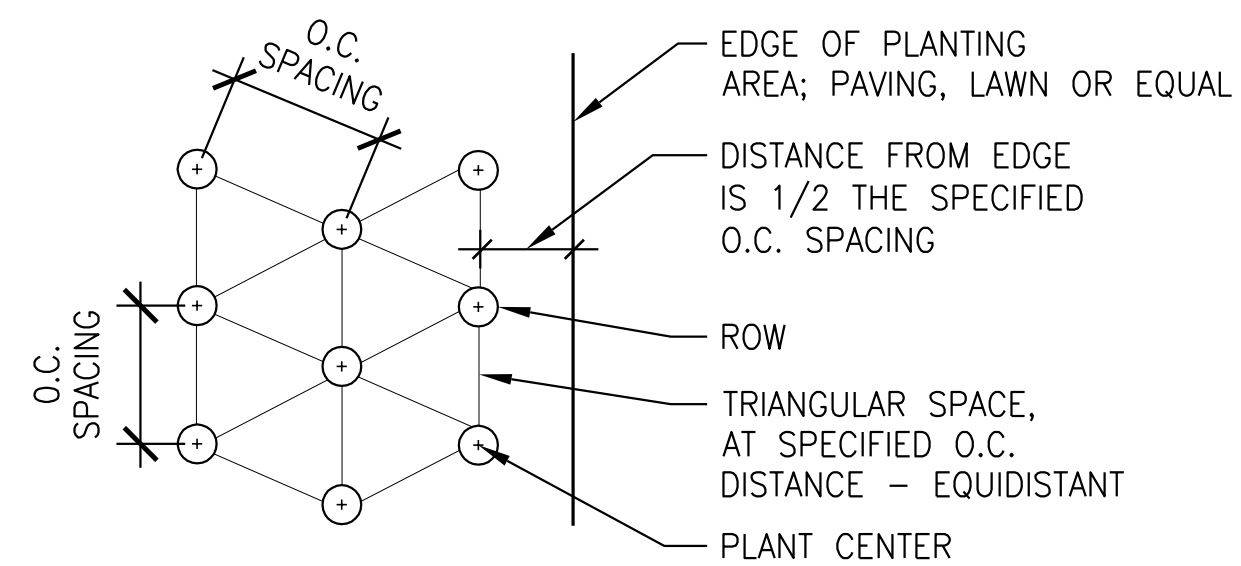
5 VINE PLANTING
SCALE: 3/4" = 1'-0"
SECTION



3 SHRUB AND GROUNDCOVER PLANTING
SCALE: 3/4" = 1'-0"
SECTION

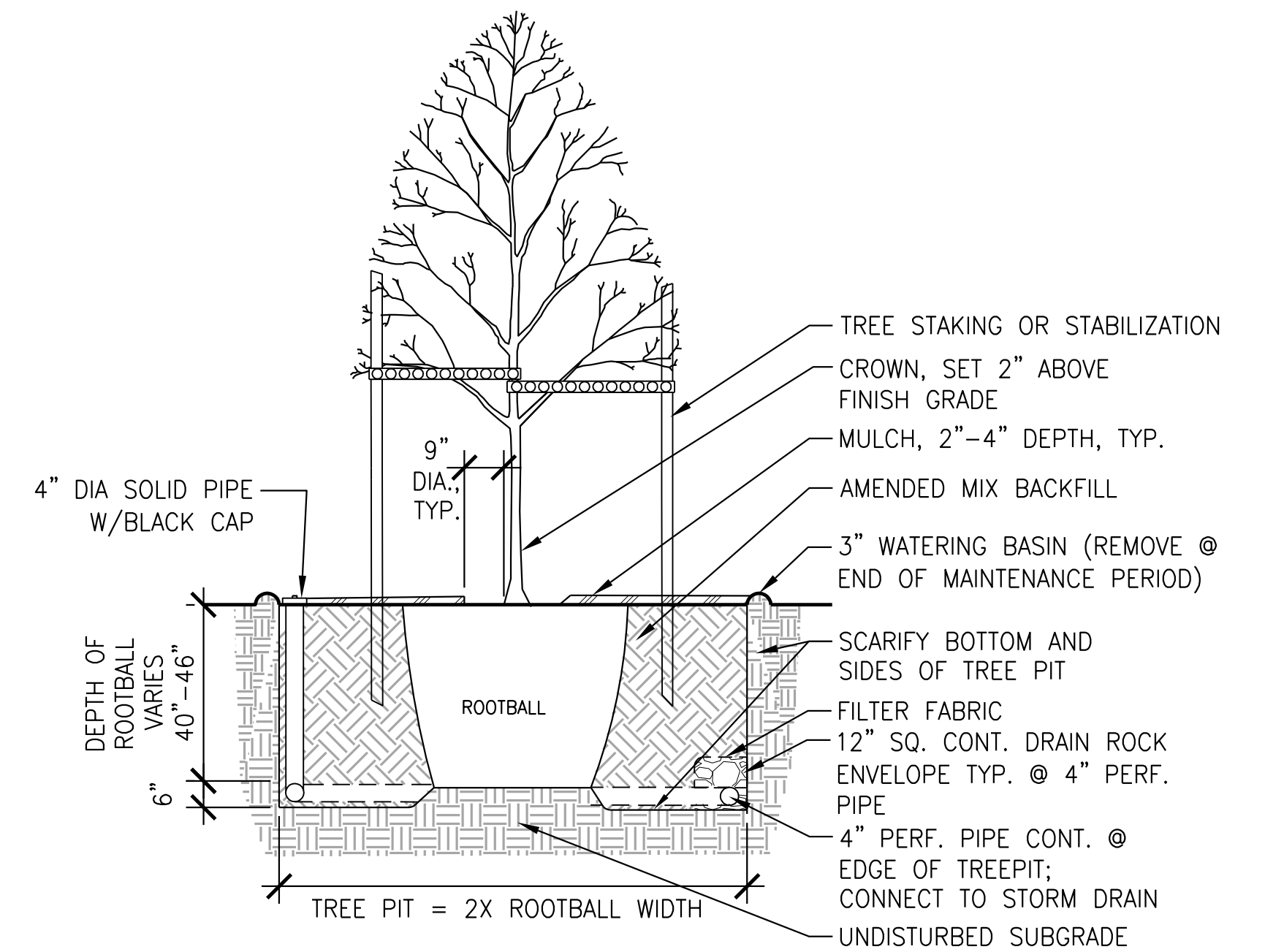


1 CONIFEROUS TREE PLANTING
SCALE: 3/8" = 1'-0"
SECTION



NOTE:
- SEE PLANT SCHEDULE FOR EACH PLANT'S APPROPRIATE O.C. SPACING.
- PLANTING PLAN SHOWING INDIVIDUAL LOCATION OF A SHRUB AND OR GROUND COVER TAKE PRECEDENT OVER THIS DETAIL.

4 SHRUB AND GROUNDCOVER SPACING
SCALE: X" = 1'-0"
SECTION



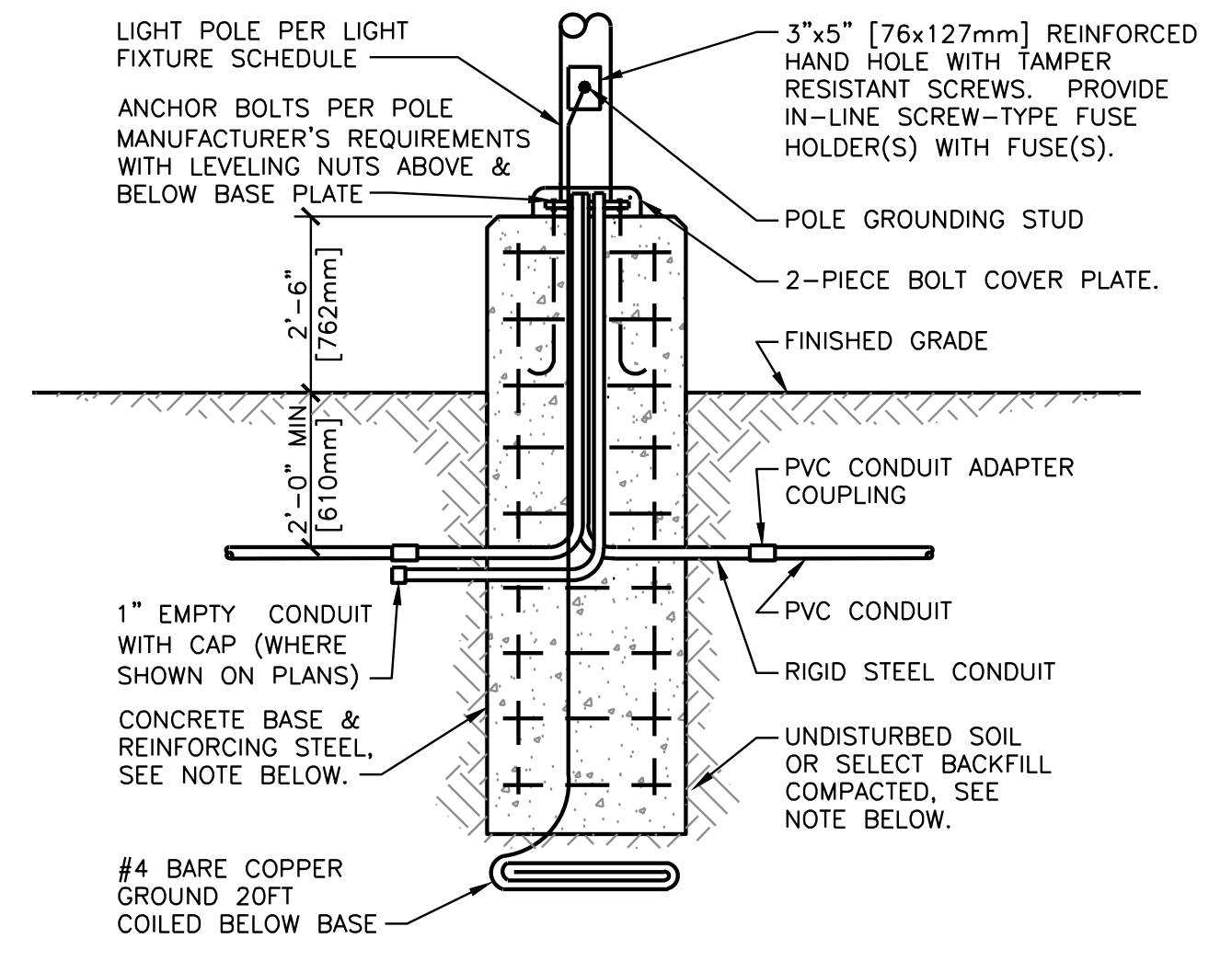
2 DECIDUOUS TREE PLANTING
SCALE: 3/8" = 1'-0"
SECTION

Exhibit K

Lighting Plan Set

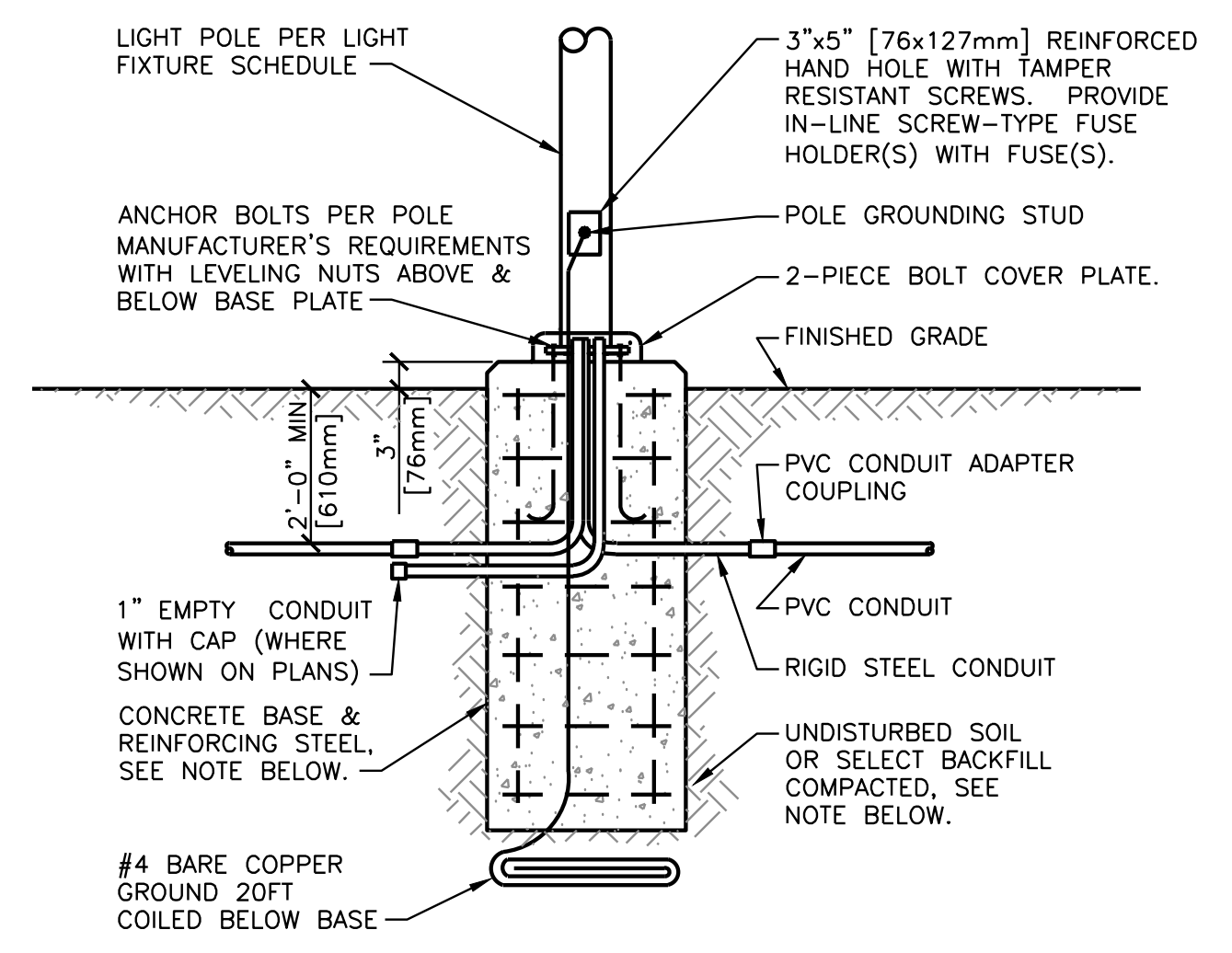
LIGHTING FIXTURE SCHEDULE			
TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION
S1	PHILIPS GARDCO OR APPROVED EQUAL	GL18	TYPE: POLE MOUNTED LED DESCRIPTION: TYPE III DISTRIBUTION, 4000K LAMP: LED LUMENS: 26,843 LUMENS LLF: 0.8 WATTS: 310W MOUNTING: OUTDOOR POLE MOUNTED - 30FT FINISH: BLACK PAINT VOLTAGE: MVOLT
S1A			SAME AS TYPE 'S1' EXCEPT WITH INTERNAL SHIELDING (HHS)
S1B			SAME AS TYPE 'S1A' EXCEPT MOUNTED AT 25'
S2	PHILIPS GARDCO OR APPROVED EQUAL	LED WALL SCONCE 161	TYPE: LED WALL SCONCE DESCRIPTION: TYPE III DISTRIBUTION, 4000K LAMP: LED LUMENS: 9300 LUMENS LLF: 0.8 WATTS: 110W MOUNTING: WALL/SURFACE MOUNT FINISH: BLACK VOLTAGE: MVOLT
S3	PHILIPS GARDCO OR APPROVED EQUAL	GL13	TYPE: POLE MOUNTED LED DESCRIPTION: TYPE III DISTRIBUTION, 4000K LAMP: LED LUMENS: 4900 LUMENS LLF: 0.8 WATTS: 70W MOUNTING: OUTDOOR POLE MOUNTED - 15FT FINISH: BLACK PAINT VOLTAGE: MVOLT
S4	PHILIPS LIGHTOLIER OR APPROVED EQUAL	CALCULITE LED 7" DOWNLIGHT	TYPE: LED DOWNLIGHT DESCRIPTION: WIDE BEAM 70 DEGREE, 4000K LAMP: LED LUMENS: 3500 LUMENS LLF: 0.8 WATTS: 52W MOUNTING: CEILING/SOFFIT RECESSED FINISH: POLISHED METAL FLANGE VOLTAGE: MVOLT
S5	WE-EF	SERIES 611	TYPE: INGRADE LED DESCRIPTION: LINEAR SPREAD LENS, 4000K LAMP: LED LLF: 0.8 WATTS: 18W MOUNTING: INGRADE FINISH: NATURAL STAINLESS STEEL VOLTAGE: MVOLT

ELECTRICAL SYMBOL SCHEDULE		
SYMBOLS	LIGHTING SYMBOLS	NOTES
♀	WALL MOUNTED LIGHT FIXTURE	
•-□	AREA LIGHTING POLE WITH FIXTURE(S)	
○→	IN-GROUND FIXTURE	



NOTE:
BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.

A **PARKING LOT POLE BASE DETAIL**
E-100 SCALE: N.T.S.



NOTE:
BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.

B **PEDESTRIAN WALK POLE BASE DETAIL**
E-100 SCALE: N.T.S.



PHILIPS GARDCO
Site & Area
Gullwing LED
Large GL18

Philips Gardco Gullwing LED luminaires combine LED performance excellence and advanced Gardco LED thermal management technology with the distinct Gullwing style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing.

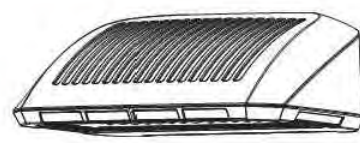
Ordering guide

Profile	Controls	Mounting	Optics	LED Wattage	LED Color	Voltage	Finish	Options
GL18							BRP	
GL18-DM	Gullwing Standard Luminaire	1 Single	2 Type 2	300A-4835	NW Neutral White	120V	BRP Black	47 Pin: Single-Phase Fusing (Specify specific voltage)
GL18-APD	Gullwing LED with Auto-Dimming	2 2-1/8" x 3/4"	2 Type 2	300A-4835	NW Neutral White	240V	BRP Black	PCB Photocell and Photocell (PC)
GL18-APD-MR	Gullwing LED with Auto-Dimming and Motion Sensor	3 3/8" x 1/2"	3 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming
GL18-APD-MR-M	Gullwing LED with Auto-Dimming, Motion Sensor and Manual Override	4 1/2" x 1/2"	4 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming and Manual Override
GL18-APD-MR-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override and Manual Override	5 1/2" x 1/2"	5 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override and Manual Override
GL18-APD-MR-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override and Manual Override	6 1/2" x 1/2"	6 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override and Manual Override
GL18-APD-MR-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override and Manual Override	7 1/2" x 1/2"	7 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override and Manual Override
GL18-APD-MR-M-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override	8 1/2" x 1/2"	8 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override and Manual Override
GL18-APD-MR-M-M-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override	9 1/2" x 1/2"	9 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override
GL18-APD-MR-M-M-M-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override	10 1/2" x 1/2"	10 Type 1	300A-4835	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override

1. Available 120-277V only.
2. Available 120 or 277V only.
3. MR16 and MR11 LED luminaires include one motion sensor per luminaire. See page 2 for Accessories.
4. Not available with 120V (GL18-DM).
5. Luminaire color frame and color consistency provided standard without glass lens. Specify CLX location for other options.
6. Works with 3-pin or 5-pin NEMA photovoltaic dimming device and auxiliary connections are connected for frame voltage.
7. Works with 3-pin or 5-pin NEMA photovoltaic dimming device and auxiliary connections are connected for frame voltage.
8. Not available in 120V mounting configurations.
9. D1 Speedy Dimming (1, 2, 2000, 3 or 4 only).

High performance and integrated style, all in one luminaire

LED Wall Scone 161



PHILIPS GARDCO LED WALL SCONCE 161

The Philips Gardco LED Wall Scone 161 is an enlarged and enhanced version of the 121, providing performance capability up to that of a 400W metal halide luminaire, while using considerably less energy.

Ordering guide

Profile	Distribution	Wattage	LED Type	Voltage	Finish	Options
161-CWL	Source 141 LED	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-MR	161 with motion response (20% or 27% only)	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-DCC	161 with dim control	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-DIM	161 with 0-10V dimming controlled by either 0-10V dimmer or DALI (DALI 2, 3 or 4) distribution	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD	161 with automatic profile dimming (120V or 277V ONLY)	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR	161 with automatic profile dimming and motion response	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR-M	161 with automatic profile dimming and motion response with manual override	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR-M-M	161 with automatic profile dimming and motion response with manual override and manual override	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR-M-M-M	161 with automatic profile dimming and motion response with manual override, manual override and manual override	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR-M-M-M-M	161 with automatic profile dimming and motion response with manual override, manual override, manual override and manual override	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR-M-M-M-M-M	161 with automatic profile dimming and motion response with manual override, manual override, manual override, manual override and manual override	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)
161-APD-MR-M-M-M-M-M-M	161 with automatic profile dimming and motion response with manual override, manual override, manual override, manual override, manual override and manual override	350mA	CW 5000K	120V	BRP Black	PCB Photocell and Photocell (PC)

1. Available 120-277V only.
2. Available 120 or 277V only.
3. MR16 and MR11 LED luminaires include one motion sensor per luminaire. See page 2 for Accessories.
4. Not available with 120V (GL18-DM).
5. Luminaire color frame and color consistency provided standard without glass lens. Specify CLX location for other options.
6. Works with 3-pin or 5-pin NEMA photovoltaic dimming device and auxiliary connections are connected for frame voltage.
7. Works with 3-pin or 5-pin NEMA photovoltaic dimming device and auxiliary connections are connected for frame voltage.
8. Not available in 120V mounting configurations.
9. D1 Speedy Dimming (1, 2, 2000, 3 or 4 only).



PHILIPS GARDCO
Site & Area
Gullwing LED
Small GL13

Philips Gardco Gullwing LED GL13 area luminaires combine LED performance excellence and advanced Gardco LED thermal management technology with the distinct Gullwing style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing.

Ordering guide

Profile	Controls	Mounting	Optical System	Wattage	LED Color	Voltage	Finish	Options
GL13							BRP	
GL13-DM	Gullwing Standard Luminaire	1 Single	2 Type 2	300A-6415	NW Neutral White	120V	BRP Black	47 Pin: Single-Phase Fusing (Specify specific voltage)
GL13-APD	Gullwing LED with Auto-Dimming	2 2-1/8" x 3/4"	2 Type 2	300A-6415	NW Neutral White	240V	BRP Black	PCB Photocell and Photocell (PC)
GL13-APD-MR	Gullwing LED with Auto-Dimming and Motion Sensor	3 3/8" x 1/2"	3 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming
GL13-APD-MR-M	Gullwing LED with Auto-Dimming, Motion Sensor and Manual Override	4 1/2" x 1/2"	4 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming and Manual Override
GL13-APD-MR-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override and Manual Override	5 1/2" x 1/2"	5 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override and Manual Override
GL13-APD-MR-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override and Manual Override	6 1/2" x 1/2"	6 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override and Manual Override
GL13-APD-MR-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override and Manual Override	7 1/2" x 1/2"	7 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override and Manual Override
GL13-APD-MR-M-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override	8 1/2" x 1/2"	8 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override and Manual Override
GL13-APD-MR-M-M-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override	9 1/2" x 1/2"	9 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override
GL13-APD-MR-M-M-M-M-M-M-M	Gullwing LED with Auto-Dimming, Motion Sensor, Manual Override, Manual Override, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override	10 1/2" x 1/2"	10 Type 1	300A-6415	NW Neutral White	277V	BRP Black	PCB** Photocell and Photocell (PC) with 2-Step Dimming, Manual Override, Manual Override, Manual Override, Manual Override and Manual Override

1. Available 120-277V only.
2. Available 120 or 277V only.
3. MR16 and MR11 LED luminaires include one motion sensor per luminaire. See page 2 for Accessories.
4. Not available with 120V (GL18-DM).
5. Luminaire color frame and color consistency provided standard without glass lens. Specify CLX location for other options.
6. Works with 3-pin or 5-pin NEMA photovoltaic dimming device and auxiliary connections are connected for frame voltage.
7. Works with 3-pin or 5-pin NEMA photovoltaic dimming device and auxiliary connections are connected for frame voltage.
8. Not available in 120V mounting configurations.
9. D1 Speedy Dimming (1, 2, 2000, 3 or 4 only).

A SPECIFICATION SHEET - TYPE S1

E-200 SCALE: N.T.S.

B SPECIFICATION SHEET - TYPE S2

E-200 SCALE: N.T.S.

C SPECIFICATION SHEET - TYPE S3

E-200 SCALE: N.T.S.

Calculte LED 7' Downlight

Calculte LED 7' features an LED array of high brightness white light LEDs. The new LED boards in Calculte LED ensure a less than 2-step SDCM color variation between luminaires.

Complete product = Frame-in kit + Trim kit
Lumen package for the frame-in kit must match the trim kit.

example: CL150LW20V

Series	Lumens	Installation	Input voltage	Version	Dimming	Options*
CTL	15 1500lm	N New construction R Remodel	1 120V 2 277V	VB Version B	Z10V 0-10V dimming LD Lutron driver	EM Emergency LC Chicago Plenum
CTL	20 2000lm 35 3500lm	N New construction R Remodel	1 120V 2 277V	VB Version B	Z10V 0-10V dimming LD Lutron driver	EM Emergency LC Chicago Plenum
CTL	15 1500lm 20 2000lm 35 3500lm	N New construction R Remodel	1 120V 2 277V	VB Version B	Z10V 0-10V dimming	-347 347V (for Canada)
CTL	15 1500lm	J J-box mount retrofit	1 120V	VB Version B	Z10V 0-10V dimming	-347 347V (for Canada)
CTL	20 2000lm	J J-box mount retrofit	1 120V	VB Version B	Z10V 0-10V dimming	-347 347V (for Canada)
CTL	15 1500lm 20 2000lm	S Screw-in base retrofit	1 120V	VB Version B	Z10V 0-10V dimming	-347 347V (for Canada)

example: CL1520LWCCPVB

Series	Lumens	Style	CCT	Beam	Reflector	Flange	Version*
CTL	1520 1500/2000/3500lm	DL Downlight	27K 2700K 30K 3000K 35K 3500K 40K 4000K	N Narrow 20° M Medium 35° W Wide 30°	CL Clear CCL Combustion color CCF Combustion color CCP Combustion color FT Fluorescent WH White (standard)	Z10V 0-10V dimming LD Lutron driver	EM Emergency LC Chicago Plenum

1. Consult LED-84 spec sheet for Emergency EM option details and restrictions.
2. Not available with Lutron driver 400 dimming.
3. Consult factory for availability of other 347V (347) option configurations.
4. Not available for 3000 (30) lumens frame-in kit.
5. Accessory **CASTR** required for gasket applications and (Emergency FT) beam (beam) "C" reflector (large).
6. Available for non-construction. R remodels only.
7. Available for 4000 (40) lumens frame-in kit only.
8. Available for 4000 (40) lumens frame-in kit only.
9. Available for 4000 (40) lumens frame-in kit only.
10. See page 3 for Energy Star compatibility.
Calculte LED-7m Downlight, CTL-DL-VB 04/15 page 1 of 9

ETC130-GB LED
611-3041
1/3

we-ef

example: ETC130-GB LED

Series	Lumens	Style	CCT	Beam	Reflector	Flange	Version*
ETC	130 1300lm	DL Downlight	27K 2700K 30K 3000K 35K 3500K 40K 4000K	N Narrow 20° M Medium 35° W Wide 30°	CL Clear CCL Combustion color CCF Combustion color CCP Combustion color FT Fluorescent WH White (standard)	Z10V 0-10V dimming LD Lutron driver	EM Emergency LC Chicago Plenum

1. Consult LED-84 spec sheet for Emergency EM option details and restrictions.
2. Not available with Lutron driver 400 dimming.
3. Consult factory for availability of other 347V (347) option configurations.
4. Not available for 3000 (30) lumens frame-in kit.
5. Accessory **CASTR** required for gasket applications and (Emergency FT) beam (beam) "C" reflector (large).
6. Available for non-construction. R remodels only.
7. Available for 4000 (40) lumens frame-in kit only.
8. Available for 4000 (40) lumens frame-in kit only.
9. Available for 4000 (40) lumens frame-in kit only.
10. See page 3 for Energy Star compatibility.
ETC130-GB LED, ETC-DL-VB 04/15 page 1 of 9

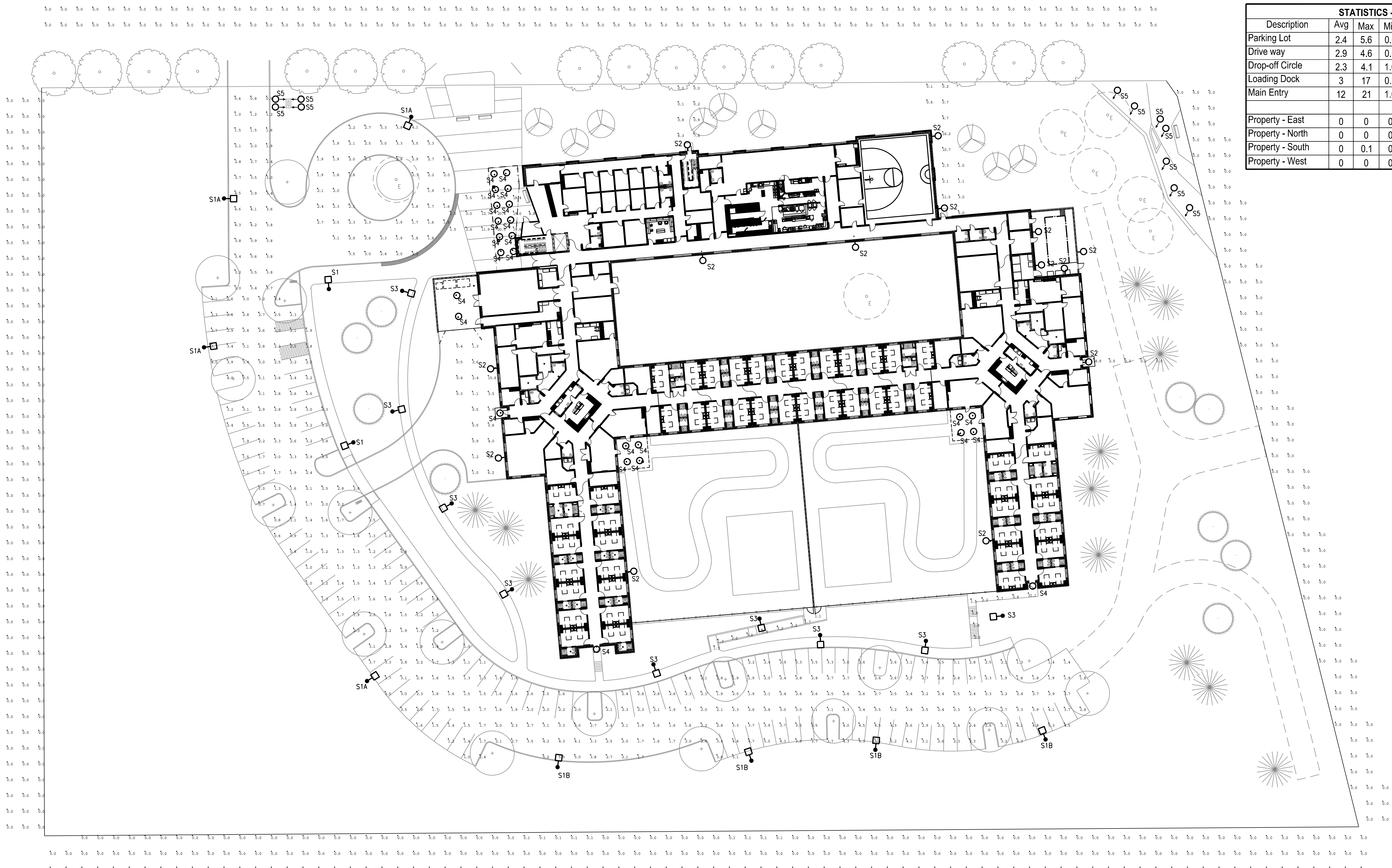
D SPECIFICATION SHEET - TYPE S4

E-200 SCALE: N.T.S.

E SPECIFICATION SHEET - TYPE S5

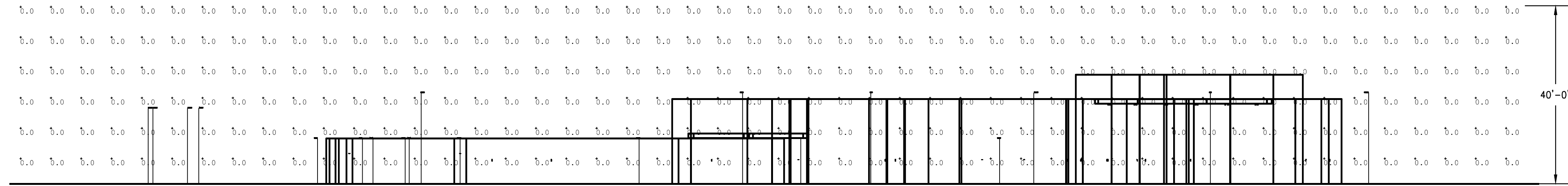
E-200 SCALE: N.T.S.

STATISTICS - FOOT CANDLE CALCS						
Description	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Parking Lot	2.4	5.6	0.6	9.33	4.05	2.3
Drive way	2.9	4.6	0.6	7.67	4.85	1.58
Drop-off Circle	2.3	4.1	1.6	2.56	1.48	1.73
Loading Dock	3	17	0.5	34.8	6.06	5.74
Main Entry	12	21	1.6	13.31	7.69	1.73
Property - East	0	0	0	0	0	0
Property - North	0	0	0	0	0	0
Property - South	0	0.1	0	0	0	0
Property - West	0	0	0	0	0	0

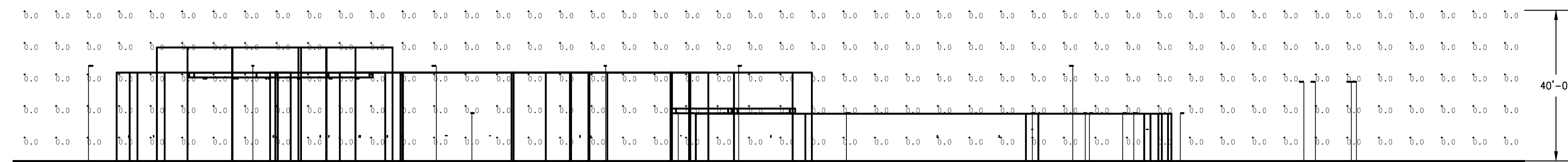


A SITE LIGHTING PLAN
 E-300 SCALE: 1/32" = 1'-0"

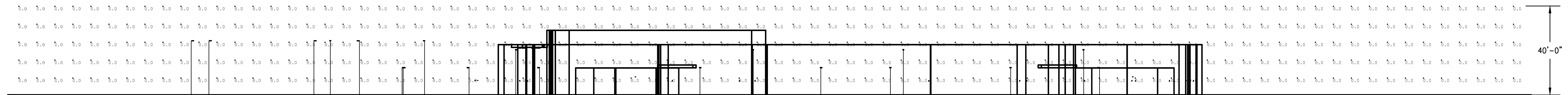
STATISTICS - FOOT CANDLE CALCS						
Description	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Property Line - North Elevation	0	0	0	0	0	0
Property Line - South Elevation	0	0	0	0	0	0
Property Line - East Elevation	0	0	0	0	0	0
Property Line - West Elevation	0	0	0	0	0	0



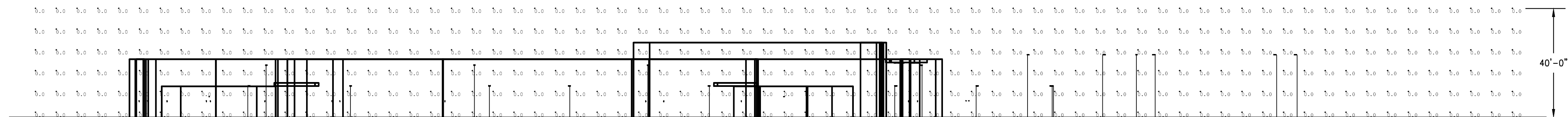
A PROPERTY LINE - EAST - VERTICAL CALCULATION
E-400 SCALE: N.T.S.



B PROPERTY LINE - WEST - VERTICAL CALCULATION
E-400 SCALE: N.T.S.



C PROPERTY LINE - SOUTH - VERTICAL CALCULATION
E-400 SCALE: N.T.S.



D PROPERTY LINE - NORTH - VERTICAL CALCULATION
E-400 SCALE: N.T.S.

Exhibit L

Sign Design Plan Set



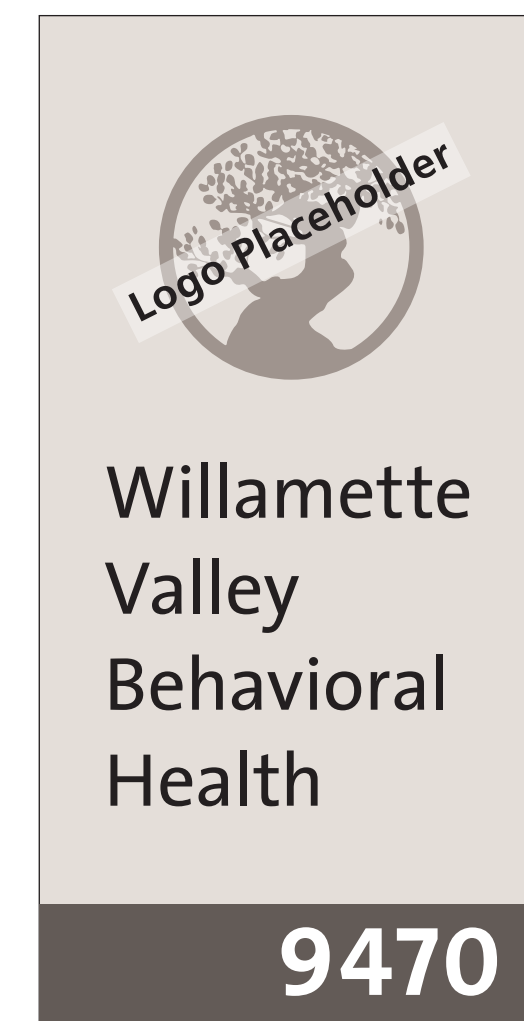
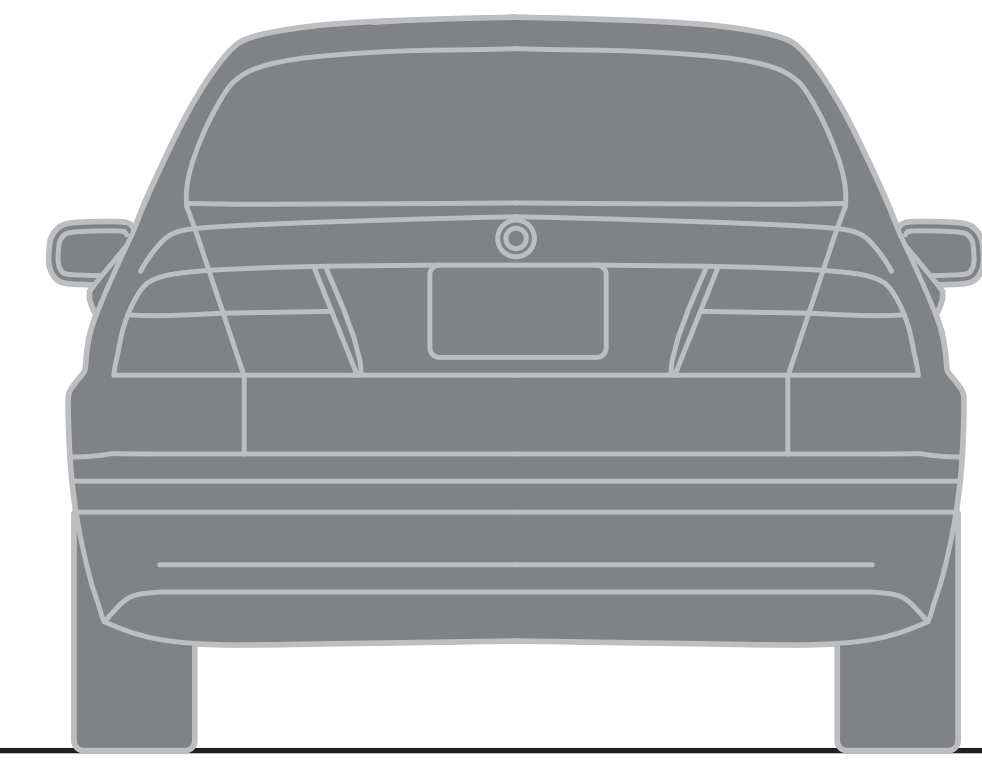
Type A

District ID

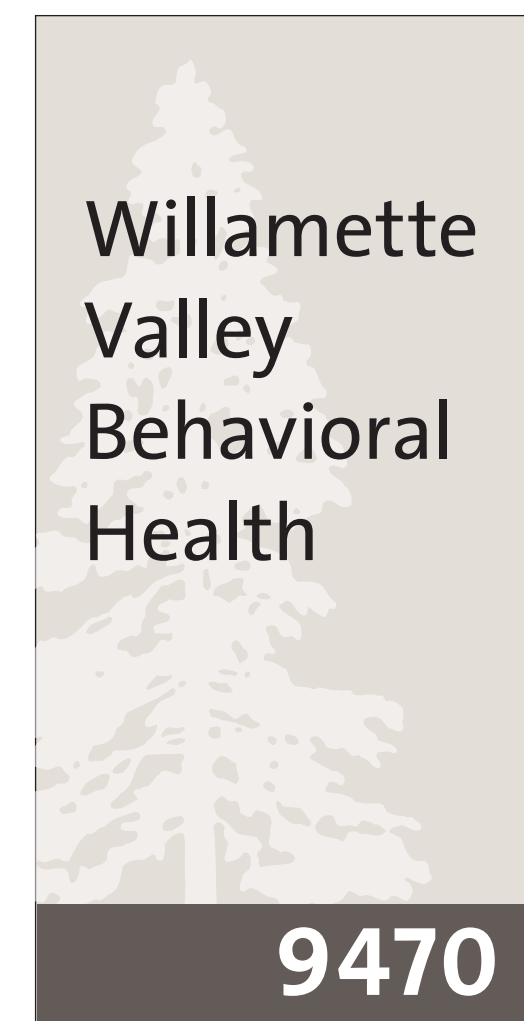
Sign Area: 7" high (based on letter "I") (6 sf).

Non-illuminated. Anodized aluminum. Flush-mount to cast in place concrete site wall.

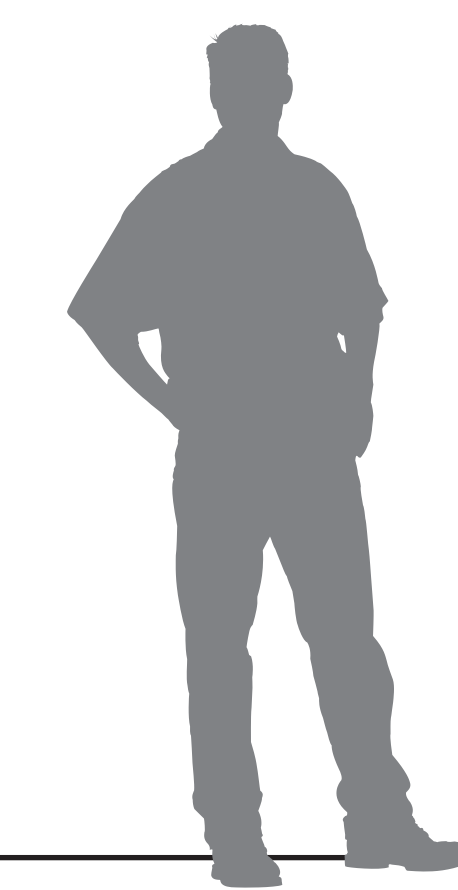
Message to be confirmed by the City of Wilsonville.



Option 1



Option 2



Type B

Site ID

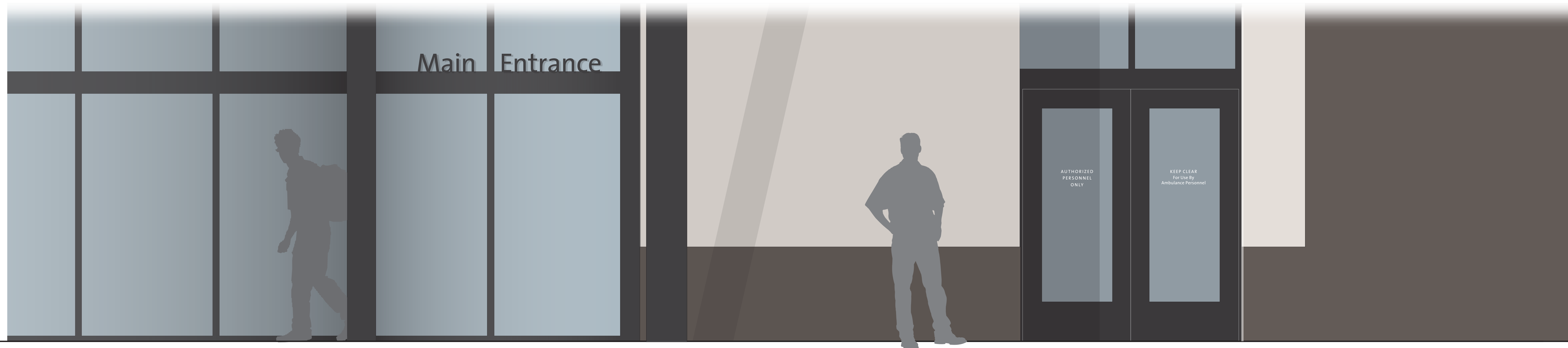
Sign Area: 3'-6" wide x 7'-0" high, OA (24.5 sf)

External ground-mounted illumination; double-sided.

Sign is shorter than maximum allowable sign height. Sign area is smaller than maximum allowed sign area.

Painted aluminum panels completely enclose an aluminum frame. Concrete base is clad in painted aluminum.

Sign is located in softscape. Sign is not located in the public right of way and does not conflict with the vision clearance triangle.

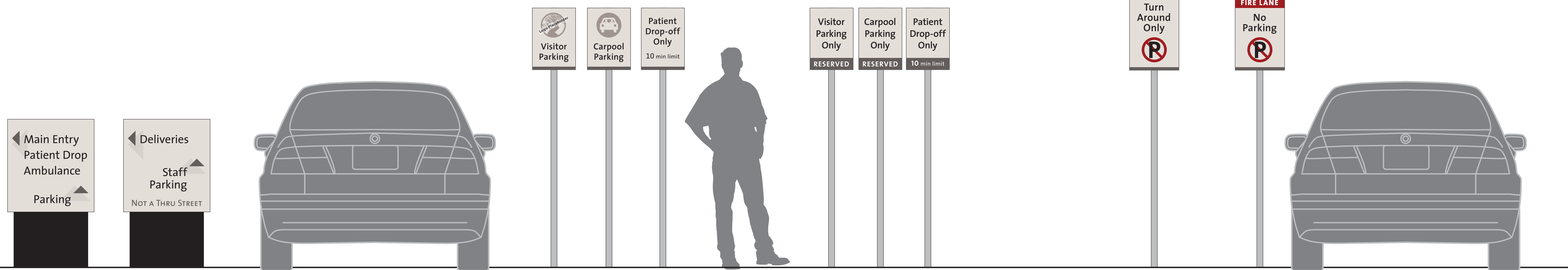


Type C.1
Building Entry ID

Sign Area: 6" high (based on letter "M") (1.8 sf). Sign area is less than maximum allowed.
Non-illuminated. Painted aluminum. Flush-mount.
Sign is located on facade that is adjacent to the primary parking area.

Type C.2
Ambulance Entry ID

Applied vinyl operational message; non-illuminated.
Vinyl is located on first surface of glass doors.



Type D
Vehicular Directional

Sign Area: 2'-4" wide x 2'-6" high, OA (5.83 sf). Sign area is less than maximum allowed per Section 4.156.08 (.03) A. Non-illuminated; double-sided. Painted aluminum panels completely enclose an aluminum frame. Concrete base is clad in painted aluminum. Sign is located in softscape.

Option 1

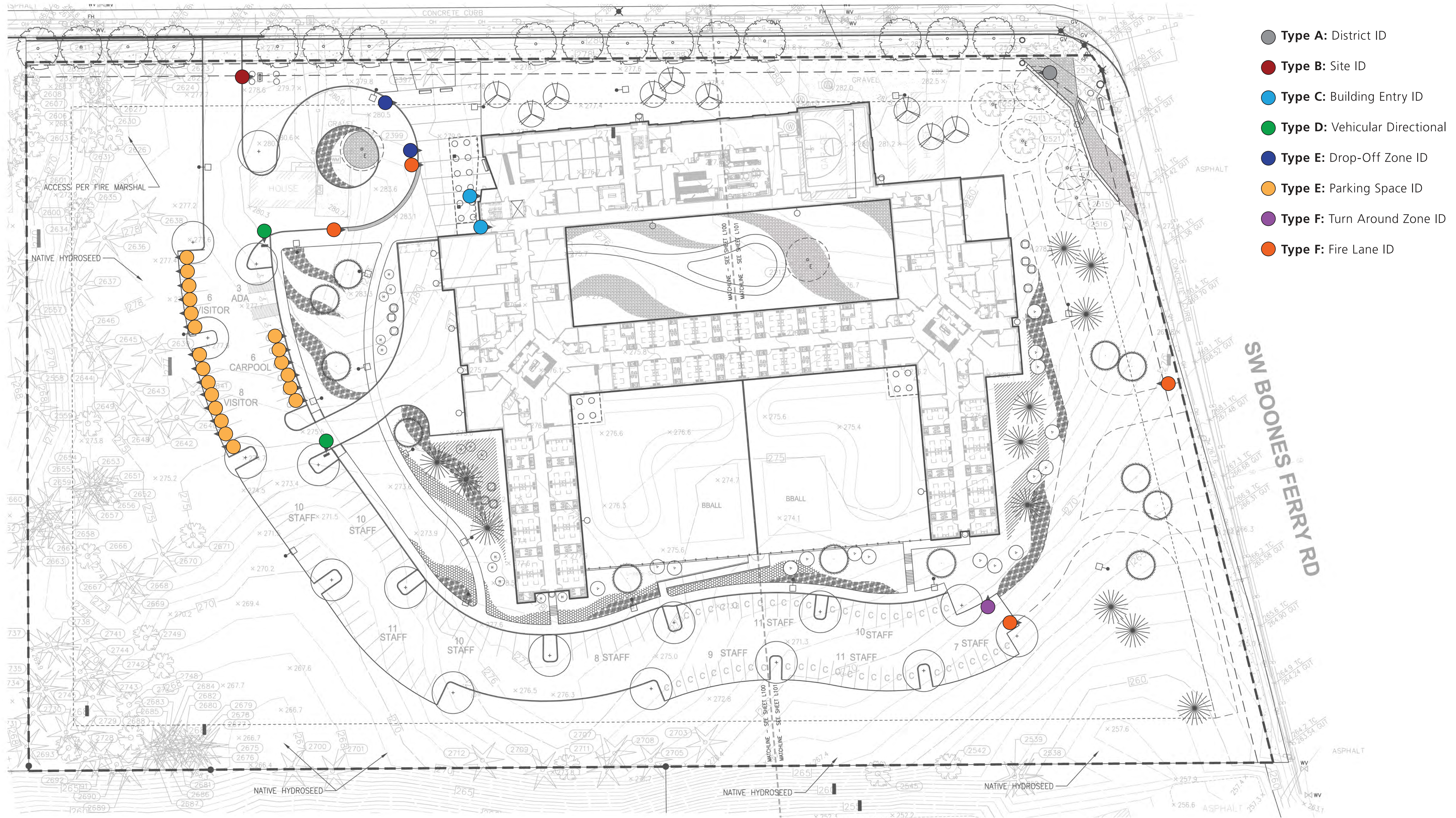
Type E
Drop-off Zone + Parking Space ID

14" wide x 20" high sign panel; 2.375" diameter x 7'-0" high post
Painted aluminum panel bracket-mounted to aluminum post.
Post is mounted in hardscape or softscape.

Option 2

Type F
Turn Around Zone + Fire Lane ID

16" wide x 24" high sign panel; 2.375" diameter x 7'-0" high post
Painted aluminum panel bracket-mounted to aluminum post.
Post is mounted in hardscape or softscape.



- **Type A:** District ID
- **Type B:** Site ID
- **Type C:** Building Entry ID
- **Type D:** Vehicular Directional
- **Type E:** Drop-Off Zone ID
- **Type E:** Parking Space ID
- **Type F:** Turn Around Zone ID
- **Type F:** Fire Lane ID

Exhibit M

Preliminary Stormwater Report

Preliminary Stormwater Management Plan

Prepared by:



For

UHS Willamette Valley Behavioral Health City of Wilsonville, Oregon

November 16, 2015

Prepared for

Universal Health Services, Inc.

(WCI Project Number 2542-001)

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3.0	WATER QUALITY ANALYSIS
3.1	Water Quality Calculations
4.0	STORMWATER DETENTION
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5.0	STORMWATER CONVEYANCE
5.1	Building Runoff Conveyance
5.2	Parking Runoff Conveyance
5.3	Pipe Conveyance
6.0	OVERALL SUMMARY
6.1	Storm Summary
	APPENDIX
A.	Basin Maps
1.	Pre-development – BM1
2.	Post-development – BM2
B.	Soils Map – NRCS Report
C.	BMP Sizing Report
D.	HydroCAD Report

1.0 PROJECT OVERVIEW

1.1 Introduction

This report analyzes the surface water runoff from the property located at the intersection of SW Boones Ferry Road and SW Day Road in Wilsonville, Oregon. The site consists of two abandoned houses with lots that have become overgrown with long grasses. The site is hilly, with high elevations on the northeastern corner of the site. The property gradually slopes to the south and west. There are no onsite wetlands.

Development of the site will include the building and parking as well as access roads for maintenance. The focus of this report is on stormwater management of stormwater runoff from the building and parking.

The purpose of the analysis is to determine the following:

1. Stormwater analysis
2. Water quality analysis
3. Stormwater detention analysis

2.0 STORMWATER ANALYSIS

2.1 Storm Analysis Approach

The SBUH method was used to determine the peak runoff rate per City of Wilsonville Standard 301.1.05.h. This method uses the NCRS Type 1A rainfall distribution and 24 hour storm duration. The storm events are provided by City Standard 301.5.03.Table3.3.

The United States Department of Agriculture Natural Resources Conservation Service website “*Web Soil Survey*” was used to determine the soil type. The soils consist primarily of Saum silty loam and fall within hydrologic group ‘C’. The soils in the southeast corner are Briedwell stony silt loam and are within hydrologic group ‘B’. For pre developed site conditions a weighted Curve Number (CN) of 79 was used, for post developed site conditions a weighted Curve Number (CN) was determined for the sub-basins. See Appendix A for pre- and post-development basin maps. See Appendix B for soils map and descriptions.

2.2 Area Summary

Total site area used in calculations 8.40 acres (365,856 sf)

Pre-developed			
On Site Pervious		Total	8.17 acres (355,735 sf)
On Site Impervious		Total	0.23 acres (10,121 sf)
	(Roof)	0.10 acres (4,230 sf)	
	(Concrete)	0.01 acres (492 sf)	
	(Asphalt)	0.01 acres (269 sf)	
	(Gravel)	0.12 acres (5,130 sf)	
Post-developed			
On Site Pervious		Total	5.27 acres (229,355 sf)
On Site Impervious		Total	3.13 acres (136,501 sf)
	(Roof)	1.34 acres (58,576 sf)	
	(Concrete)	1.27 acres (55,168 sf)	
	(Asphalt)	0.30 acres (13,071 sf)	
	(Gravel)	0.22 acres (9,686 sf)	

UHS AREA CALCS FOR HYDROCAD INPUT

WCI 2542-001
11/16/2015

All Basins - Developed

Sub-basin Number	Sub-basin ID	Area Description	Total Area (SF)	Pervious Area (SF)	Impervious Area (SF)
1	1	Parking North	31,129	12,747	18,382
2	2A	Parking West	52,125	28,776	23,349
3	2B	Parking West	11,373	3,859	7,514
4	3	Parking East	30,019	11,024	18,995
5	4	Access Roads	39,422	29,736	9,686
6	5	Roof West	11,446	0	11,446
7	6	Roof Center	74,131	39,641	34,490
8	7	Roof East	14,335	0	14,335
9	8	Remaining NW	39,439	39,439	0
10	9	Remaining SE	62,440	62,440	0
Totals (SF) =			365,859	227,662	138,197
Totals (Acres) =			8.40	5.23	3.17

2.3 Flow Calculations Summary

A time of concentration of 25.2 minutes was used for the pre-development conditions for the northwest portion of the site and 45.8 minutes was used for the rest of the site. Post-development times of concentrations were determined for each of the sub basins.

The peak Pre-development and Developed flow rates for the design storm intervals are as follows:

Storm Event	Pre-Developed Flowrate (cfs)	Developed Flowrate (cfs)	Developed Released Flowrate (cfs)
42% of 2 year	0.06	0.37	0.06
2 year	0.77	2.31	0.98
10 year	1.69	3.93	2.10
25 year	2.18	4.74	2.72

3.0 WATER QUALITY ANALYSIS

3.1 Water Quality Calculations

Stormwater treatment for the site consists of two planters, three vegetated swales, and two detention ponds. Water quality facilities are sized based on the BMP Sizing Tool provided by City of Wilsonville. The report from the BMP Sizing Tool is provided in Appendix C.

4.0 STORMWATER DISCHARGE

4.1 Detention Analysis

A downstream analysis is not part of this preliminary report. Further coordination with City Engineering Department is expected to confirm requirements for this site.

Infiltration tests for this site are not currently available. Once available, site specific infiltration rates will be used in refining stormwater facility sizing to meet City requirements.

Detention for this site is expected to be achieved utilizing the proposed ponds with flow control structures. Post-development release rates will meet the City Standard 301.11.02.d.10. Refinements of the stormwater facility designs are expected to continue through final design during preparation of construction documents. Current design flows are shown in the HydroCAD Report in Appendix D.

5.0 STORMWATER CONVEYANCE

5.1 Building Runoff Conveyance

The site’s building was divided into 3 sub basins based on roof patterns. The west and center roof networks are piped to stormwater planters. The planters are 3’ wide and lengthened as needed for treatment, per the BMP Sizing Tool. The runoff is then piped to the west pond for detention. The east roof network is piped directly to the east pond.

5.2 Parking Runoff Conveyance

The north parking runoff is piped directly to the west pond; the west and east parking runoff flows into stormwater swales. The swales are 12’ wide and are the length of the adjacent parking lane. After the swale’s treatment, the runoff is piped to the respective ponds.

5.3 Pipe Conveyance

The pipe system that connects the various portions of the conveyance system and ponds will be sized with final design based on the contributing upstream sub basins.

6.0 OVERALL SUMMARY

6.1 Storm Summary

The requirements for the project site set forth by the City of Wilsonville will be met, both water quality and flow control. Water quality for runoff from the roof is being addressed by the stormwater planters, the parking is being addressed by the stormwater swales, and the remaining developed areas is being addressed by the stormwater ponds. Detention and flow control of the stormwater runoff will be accommodated by the ponds as well.

Appendix

- A. Basin Maps**
1. Pre-Developed – BM1
2. Post-Developed – BM2

Appendix (cont.)

- B. Soils Map – NRCS Report**



MAP LEGEND

Area of Interest (AOI)	C
Soils	C/D
Soil Rating Polygons	D
	Not rated or not available
Soil Rating Lines	Water Features
A	Streams and Canals
A/D	Transportation
B	Rails
B/D	Interstate Highways
C	US Routes
C/D	Major Roads
D	Local Roads
Not rated or not available	Background
A	Aerial Photography
A/D	
B	
B/D	
C	
C/D	
D	
Not rated or not available	
Soil Rating Points	
A	
A/D	
B	
B/D	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Washington County, Oregon
 Survey Area Data: Version 13, Sep 18, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 8, 2010—Sep 4, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Washington County, Oregon (OR067)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
5B	Briedwell stony silt loam, 0 to 7 percent slopes	B	0.9	6.5%
38B	Saum silt loam, 2 to 7 percent slopes	C	11.6	88.3%
38C	Saum silt loam, 7 to 12 percent slopes	C	0.1	0.5%
38D	Saum silt loam, 12 to 20 percent slopes	C	0.6	4.8%
Totals for Area of Interest			13.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

WES BMP Sizing Report

Appendix (cont.)
C. BMP Sizing Report

Project Information

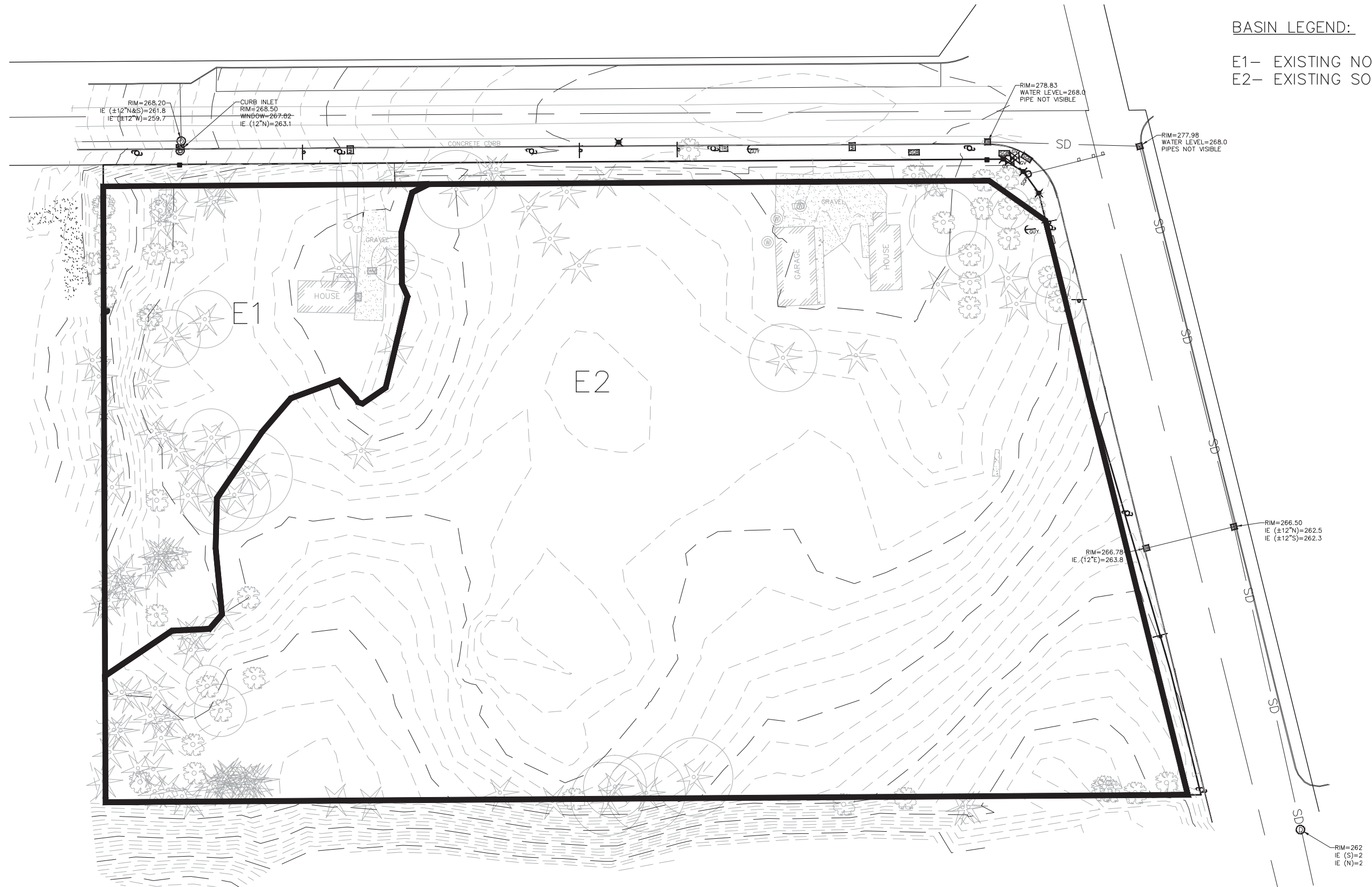
Project Name	UHS WILLAMETTE VALLEY BEHAVIORAL HEALTH
Project Type	Industrial
Location	9470 SW DAY ROAD
Stormwater Management Area	365856
Project Applicant	
Jurisdiction	OutofDistrict

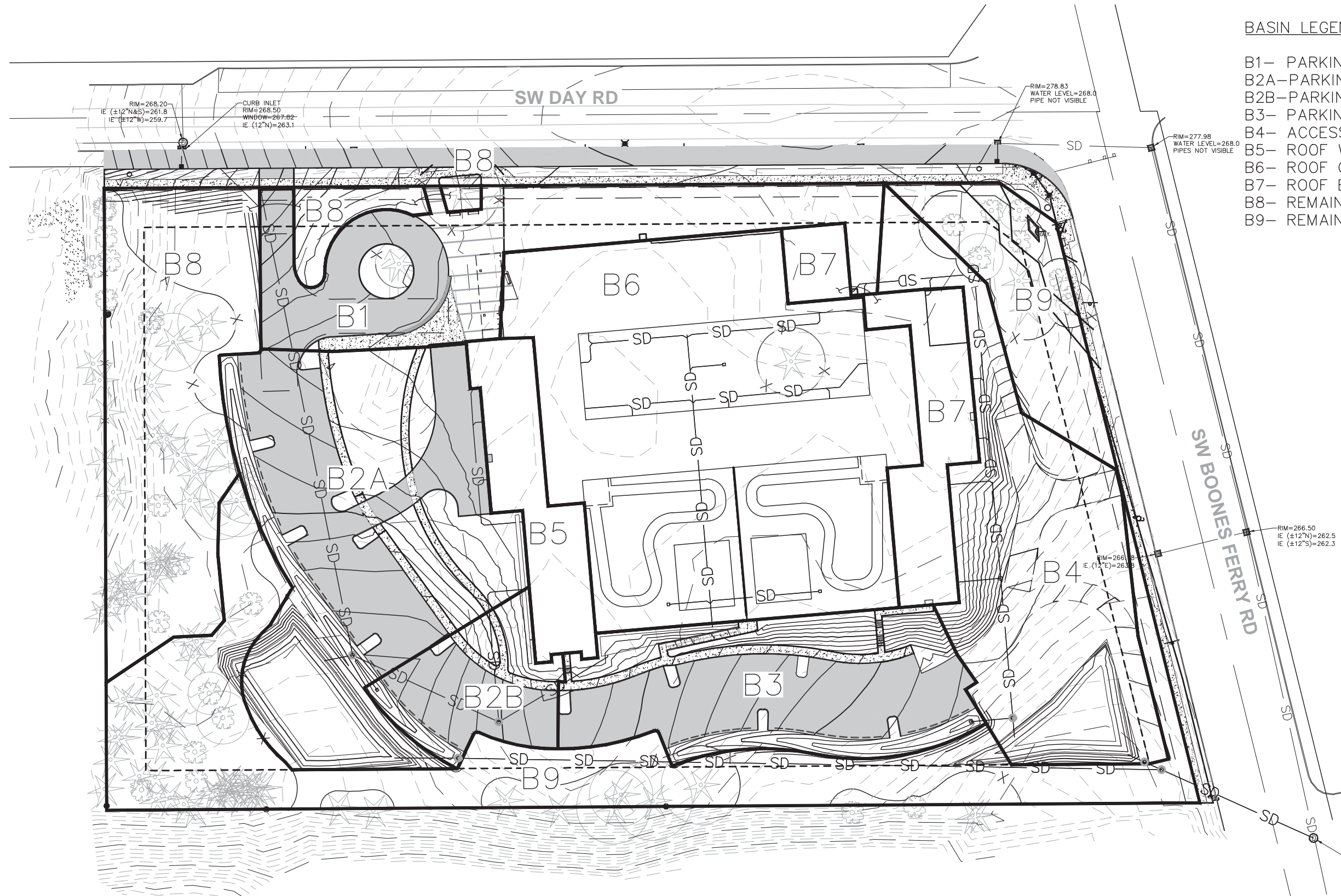
Drainage Management Area

Name	Area (sq-ft)	Pre-Project Cover	Post-Project Cover	DMA Soil Type	BMP
ACCESS PER	25,007	Grass	LandscapeCsoil	C	POND EAST
ACCESS IMPER	9,686	Grass	ConventionalConcrete	C	POND EAST
PARK E PER	7,241	Grass	LandscapeCsoil	C	PARKING EAST
PARK E IMPER	18,995	Grass	ConventionalConcrete	C	PARKING EAST
PARK W A PER	18,017	Grass	LandscapeCsoil	C	PARKING WEST A
PARK W A IMPER	23,349	Grass	ConventionalConcrete	C	PARKING WEST A
PARK N PER	12,747	Grass	LandscapeCsoil	C	POND WEST
PARK N IMPER	18,382	Grass	ConventionalConcrete	C	POND WEST
ROOF W IMPER	11,446	Grass	Roofs	C	ROOF WEST
ROOF C IMPER	34,490	Grass	Roofs	C	ROOF CENTER
ROOF C PER	39,641	Grass	LandscapeCsoil	C	ROOF CENTER
ROOF E IMPER	14,335	Grass	Roofs	C	POND EAST
PARK W B IMPER	7,514	Grass	ConventionalConcrete	C	PARKING WEST B
PARK W B PER	2,851	Grass	LandscapeCsoil	C	PARKING WEST B
REM NW	39,439	Grass	LandscapeCsoil	C	NA
REM SE	62,437	Grass	LandscapeCsoil	C	NA

BASIN LEGEND:

- E1- EXISTING NORTHWEST
- E2- EXISTING SOUTHEAST





- BASIN LEGEND:**
- B1- PARKING NORTH
 - B2A- PARKING WEST
 - B2B- PARKING WEST
 - B3- PARKING EAST
 - B4- ACCESS
 - B5- ROOF WEST
 - B6- ROOF CENTER
 - B7- ROOF EAST
 - B8- REMAINING NORTHWEST
 - B9- REMAINING SOUTHEAST

LID Facility Sizing Details

LID ID	Design Criteria	BMP Type	Facility Soil Type	Minimum Area (sq-ft)	Planned Areas (sq-ft)	Orifice Diameter (in)
ROOF CENTER	WaterQuality	Stormwater Planter - Filtration	C1	814.7	855.0	1.3
ROOF WEST	WaterQuality	Stormwater Planter - Filtration	C1	171.7	341.0	0.6
PARKING EAST	WaterQuality	Vegetated Swale - Filtration	C1	339.2	2,928.0	0.8
PARKING WEST B	WaterQuality	Vegetated Swale - Filtration	C1	134.1	1,008.0	0.5
PARKING WEST A	WaterQuality	Vegetated Swale - Filtration	C1	485.4	3,408.0	1.0

Pond Sizing Details

Pond ID	Design Criteria(1)	Facility Soil Type	Max Depth (ft)(2)	Top Area (sq-ft)	Side Slope (1:H)	Facility Vol. (cu-ft)(3)	Water Storage Vol. (cu-ft)(4)	Adequate Size?
POND WEST	FCWQT	C1	4.00	7,010.0	4	18,689.5	11,292.8	Yes
POND EAST	FCWQT	C1	4.00	4,729.0	4	11,479.4	7,111.9	Yes

1. FCWQT = Flow control and water quality treatment, WQT = Water quality treatment only
2. Depth is measured from the bottom of the facility and includes the three feet of media (drain rock, separation layer and growing media).
3. Maximum volume of the facility. Includes the volume occupied by the media at the bottom of the facility.
4. Maximum water storage volume of the facility. Includes water storage in the three feet of soil media assuming a 40 percent porosity.

Simple Pond Geometry Configuration

Pond ID: POND WEST
Design: FlowControlAndTreatment

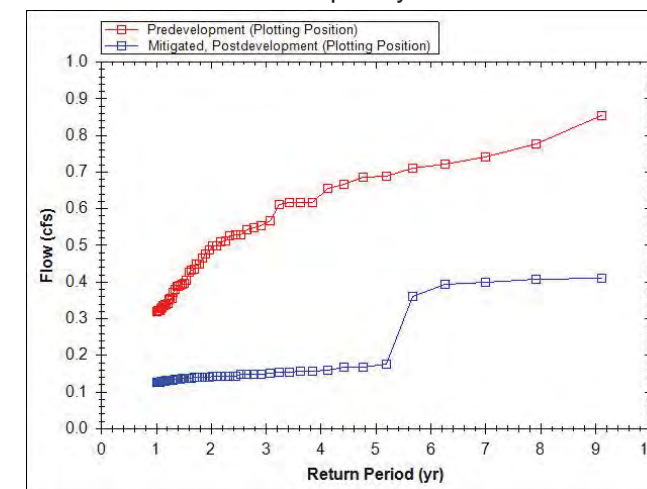
Shape Curve

Depth (ft)	Area (sq ft)
4.0	7,010.0

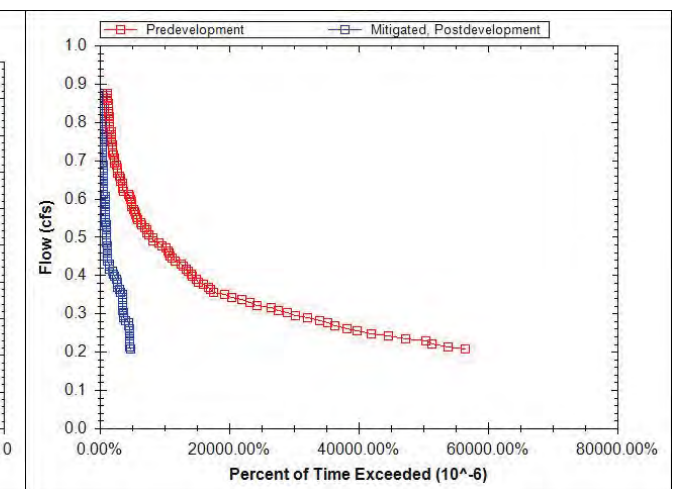
Outlet Structure Details

Lower Orifice Invert (ft)	0.0
Lower Orifice Dia (in)	2.0
Upper Orifice Invert(ft)	2.7
Upper Orifice Dia (in)	4.7
Overflow Weir Invert(ft)	3.0
Overflow Weir Length (ft)	6.3

Flow Frequency Chart



Flow Duration Chart



Simple Pond Geometry Configuration

Pond ID: POND EAST

Design: FlowControlAndTreatment

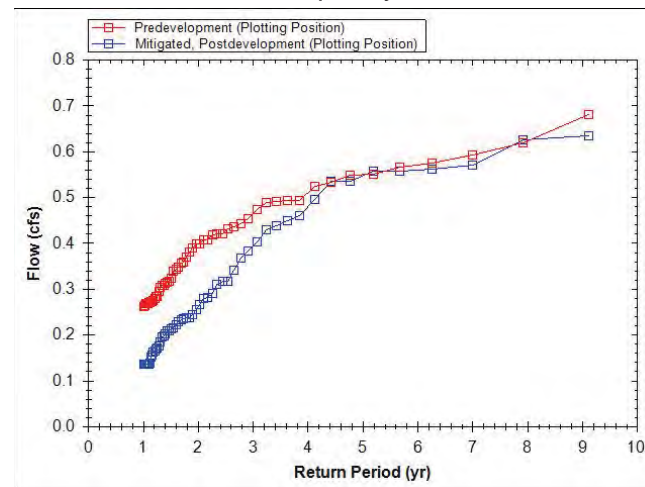
Shape Curve

Depth (ft)	Area (sq ft)
4.0	4,729.0

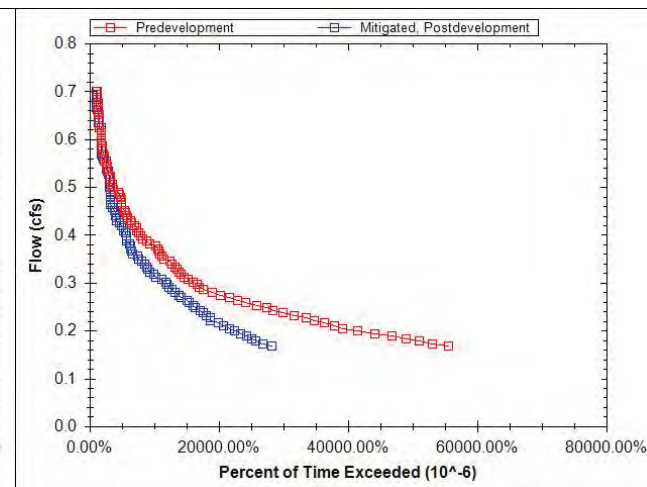
Outlet Structure Details

Lower Orifice Invert (ft)	0.0
Lower Orifice Dia (in)	1.8
Upper Orifice Invert(ft)	2.7
Upper Orifice Dia (in)	4.2
Overflow Weir Invert(ft)	3.0
Overflow Weir Length (ft)	6.3

Flow Frequency Chart



Flow Duration Chart



UHS WVBH Part 1

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Type IA 24-hr 2YR Rainfall=2.50"

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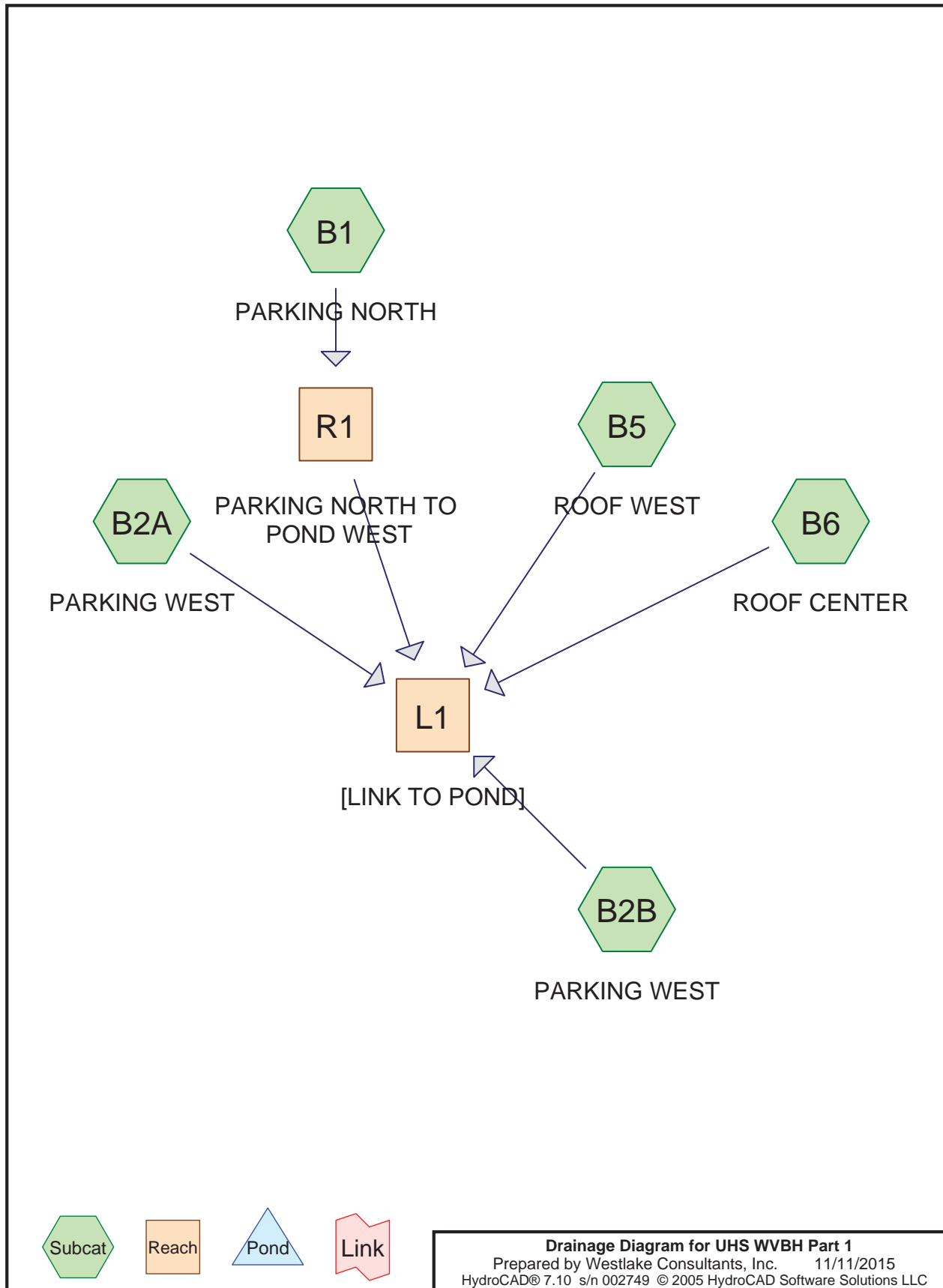
Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: PARKING NORTH	Runoff Area=31,129 sf Runoff Depth>1.14" Flow Length=512' Tc=61.4 min CN=88 Runoff=0.12 cfs 0.068 af
Subcatchment B2A: PARKING WEST	Runoff Area=52,125 sf Runoff Depth>1.00" Flow Length=360' Tc=10.5 min CN=85 Runoff=0.30 cfs 0.100 af
Subcatchment B2B: PARKING WEST	Runoff Area=11,373 sf Runoff Depth>1.31" Flow Length=135' Tc=5.0 min CN=90 Runoff=0.10 cfs 0.029 af
Subcatchment B5: ROOF WEST	Runoff Area=11,446 sf Runoff Depth>1.84" Flow Length=380' Tc=5.0 min CN=98 Runoff=0.15 cfs 0.040 af
Subcatchment B6: ROOF CENTER	Runoff Area=74,131 sf Runoff Depth>1.45" Flow Length=532' Tc=13.6 min CN=92 Runoff=0.66 cfs 0.205 af
Reach L1: [LINK TO POND]	Inflow=1.30 cfs 0.441 af Outflow=1.30 cfs 0.441 af
Reach R1: PARKING NORTH TO POND WEST	Peak Depth=0.13' Max Vel=2.0 fps Inflow=0.12 cfs 0.068 af D=12.0" n=0.010 L=380.0' S=0.0054 '/' Capacity=3.42 cfs Outflow=0.12 cfs 0.067 af

Total Runoff Area = 4.137 ac Runoff Volume = 0.441 af Average Runoff Depth = 1.28"



UHS WVBH Part 1

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HydroCAD® 7.10 s/n 002749 © 2005 HydroCAD Software Solutions LLC

Type IA 24-hr 2YR Rainfall=2.50"

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Subcatchment B1: PARKING NORTH

Runoff = 0.12 cfs @ 8.28 hrs, Volume= 0.068 af, Depth> 1.14"

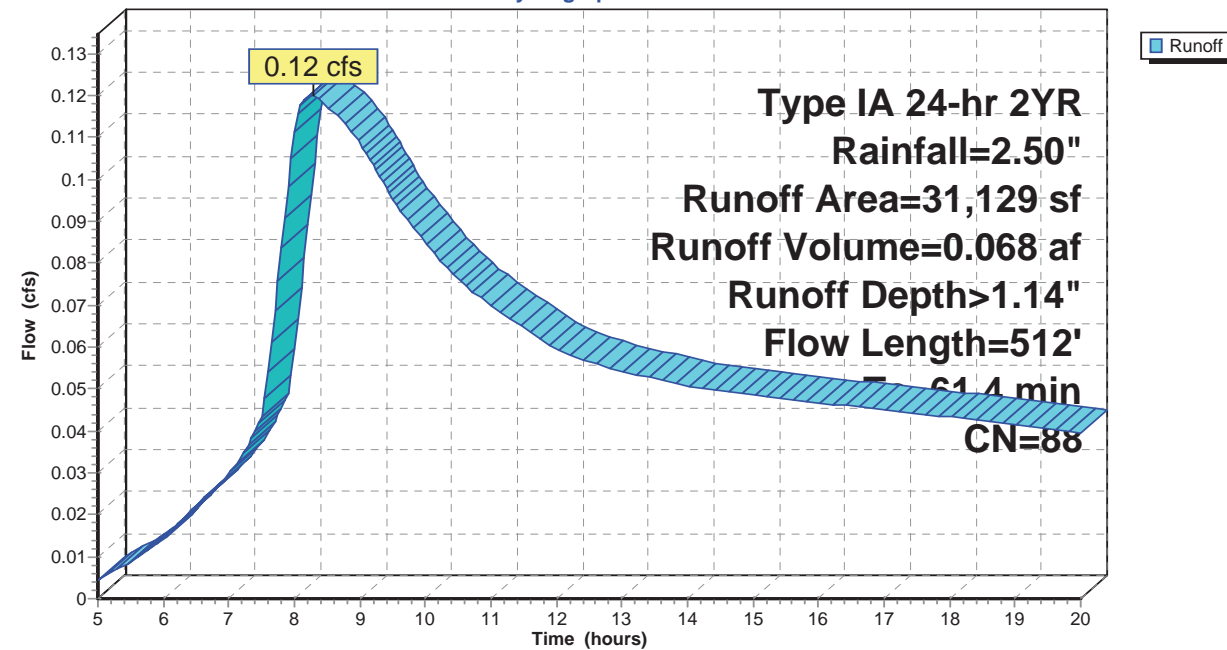
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
18,382	98	Paved roads w/curbs & sewers
12,747	74	>75% Grass cover, Good, HSG C
31,129	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
60.4	300	0.0026	0.1		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.0	212	0.0318	3.6		Shallow Concentrated Flow, Paved Kv= 20.3 fps
61.4	512	Total			

Subcatchment B1: PARKING NORTH

Hydrograph



UHS WVBH Part 1

Prepared by Westlake Consultants, Inc.
HydroCAD® 7.10 s/n 002749 © 2005 HydroCAD Software Solutions LLC

Type IA 24-hr 2YR Rainfall=2.50"

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Subcatchment B2A: PARKING WEST

Runoff = 0.30 cfs @ 8.00 hrs, Volume= 0.100 af, Depth> 1.00"

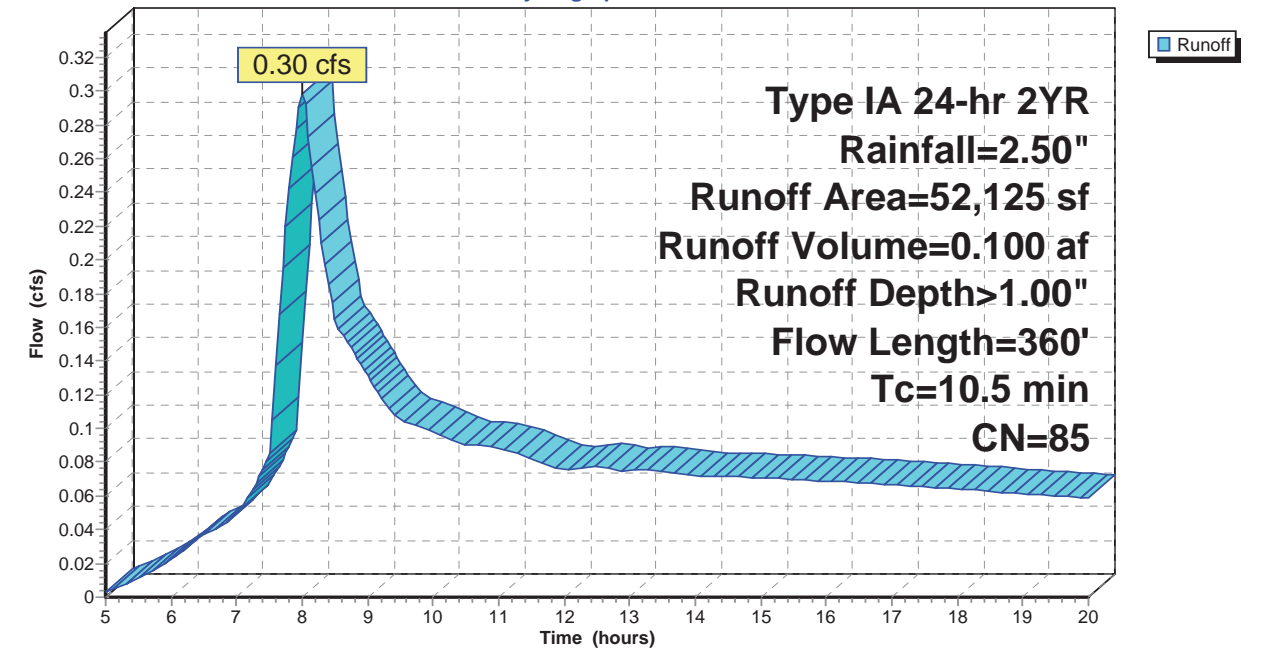
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
23,349	98	Paved roads w/curbs & sewers
14,388	74	>75% Grass cover, Good, HSG C
14,388	74	>75% Grass cover, Good, HSG C
52,125	85	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	20	0.0015	0.0		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.5	110	0.0200	1.2		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.2	175	0.0287	12.5	200.13	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
0.2	55	0.0050	4.2	3.28	Circular Channel (pipe), Diam= 12.0\" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
10.5	360	Total			

Subcatchment B2A: PARKING WEST

Hydrograph



Subcatchment B2B: PARKING WEST

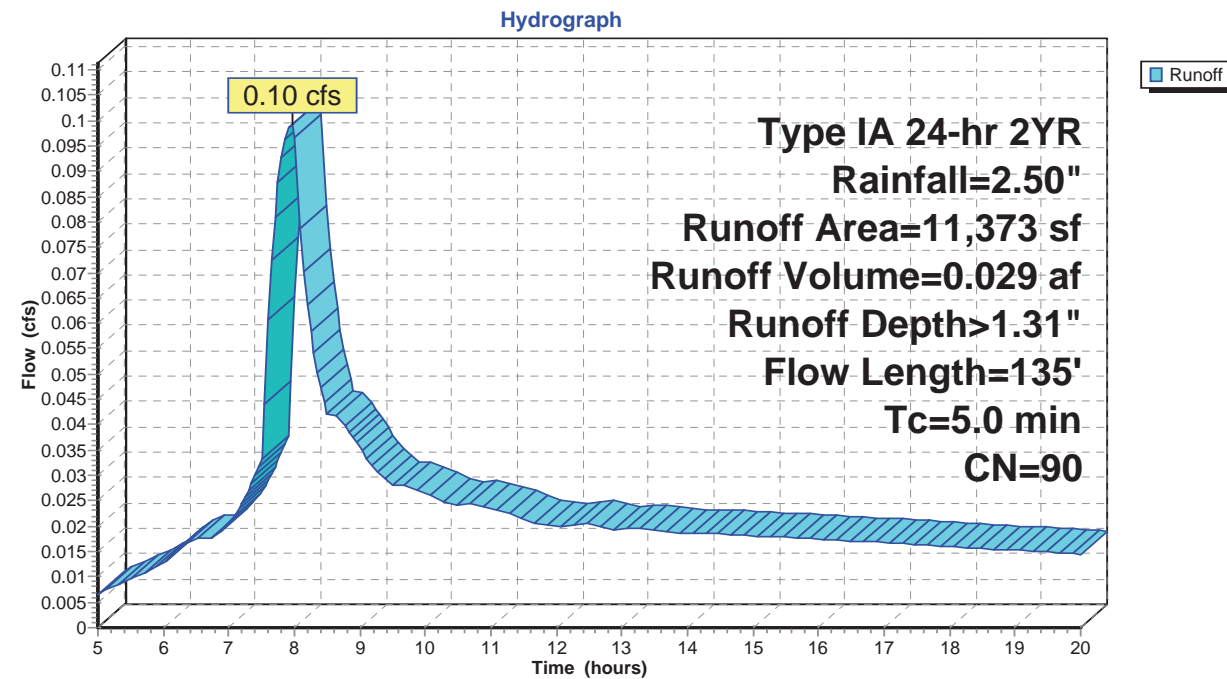
Runoff = 0.10 cfs @ 7.96 hrs, Volume= 0.029 af, Depth> 1.31"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
7,514	98	Paved roads w/curbs & sewers
3,859	74	>75% Grass cover, Good, HSG C
11,373	90	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	60	0.1280	0.3		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.1	75	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
4.6	135	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B2B: PARKING WEST



Subcatchment B5: ROOF WEST

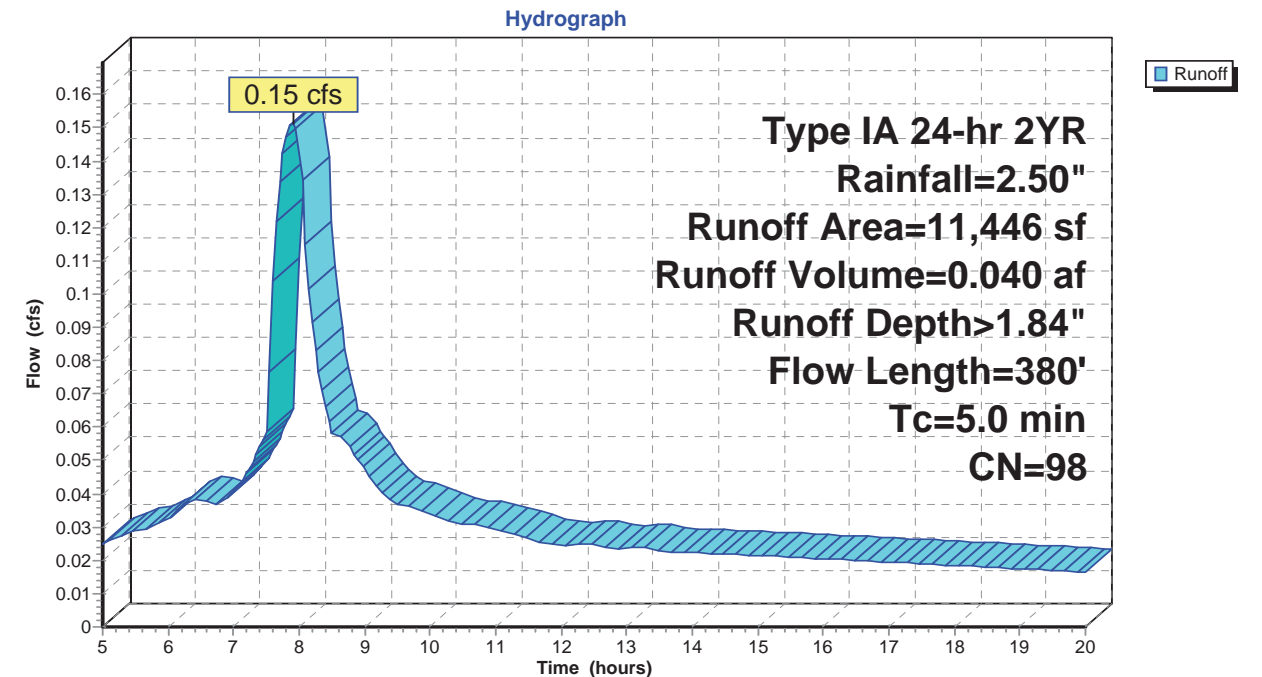
Runoff = 0.15 cfs @ 7.90 hrs, Volume= 0.040 af, Depth> 1.84"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
11,446	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	60	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.8	320	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.7	380	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B5: ROOF WEST



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Type IA 24-hr 2YR Rainfall=2.50"

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Subcatchment B6: ROOF CENTER

Runoff = 0.66 cfs @ 8.00 hrs, Volume= 0.205 af, Depth> 1.45"

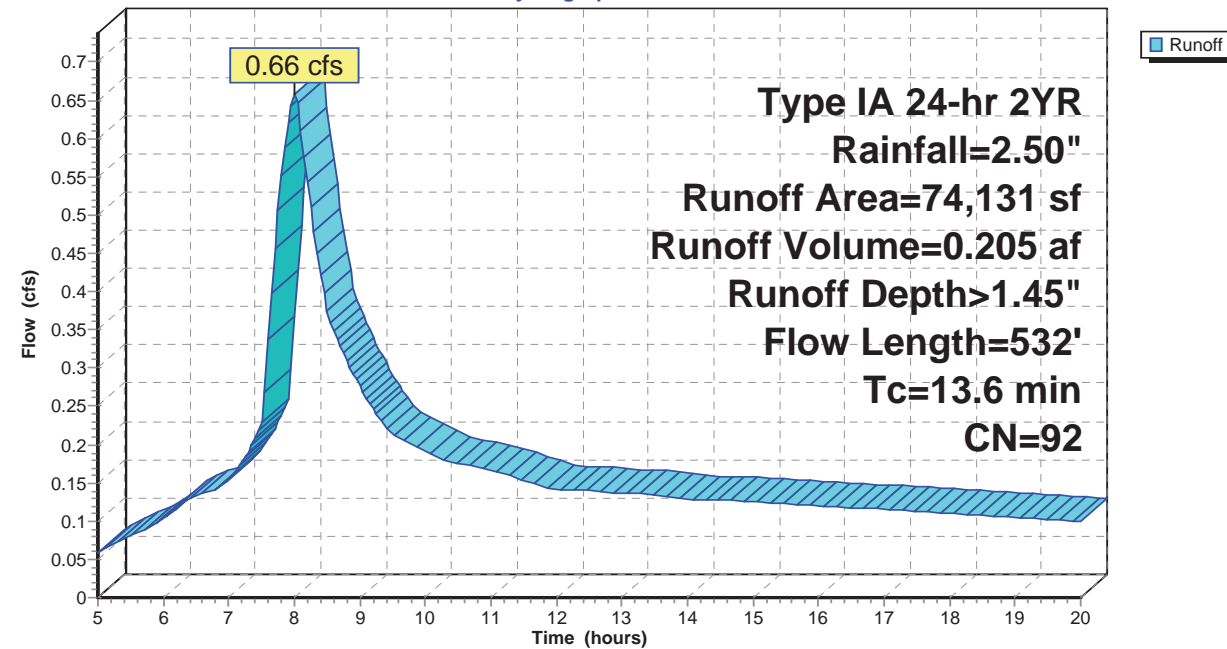
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
34,490	98	Paved parking & roofs
14,228	86	<50% Grass cover, Poor, HSG C
25,413	86	<50% Grass cover, Poor, HSG C
74,131	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	110	0.0200	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
0.6	222	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.0	200	0.0050	3.2	1.11	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
13.6	532	Total			

Subcatchment B6: ROOF CENTER

Hydrograph



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Type IA 24-hr 2YR Rainfall=2.50"

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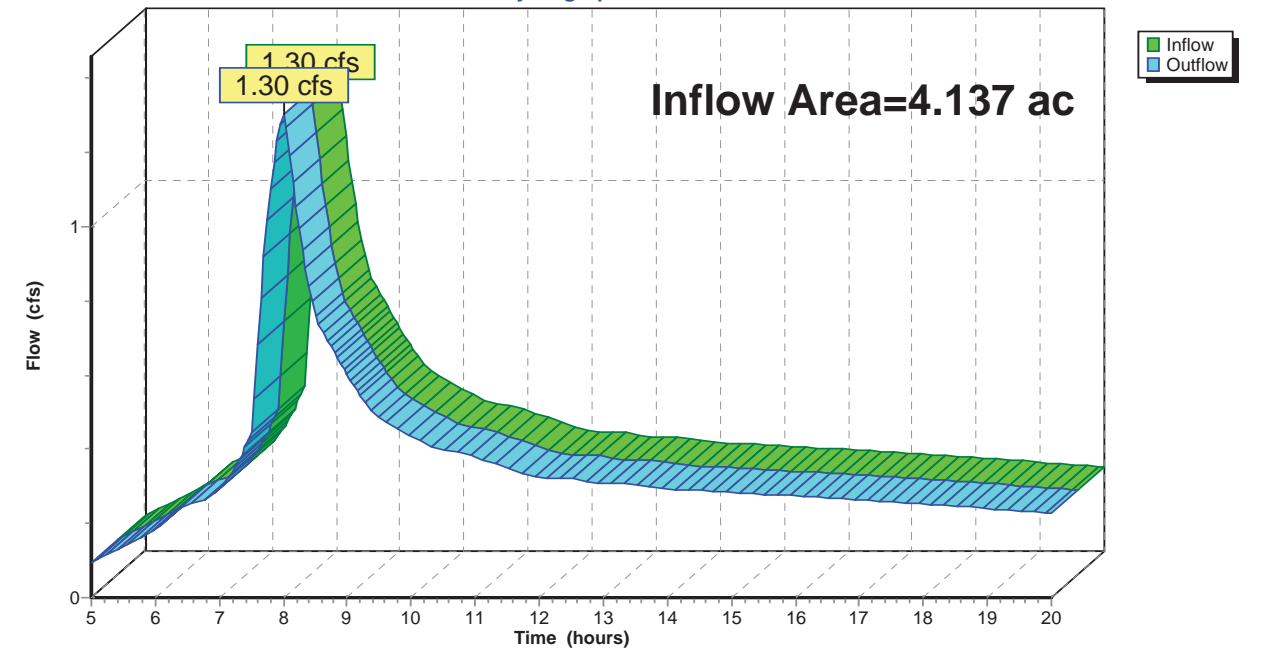
Reach L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 1.28" for 2YR event
Inflow = 1.30 cfs @ 8.00 hrs, Volume= 0.441 af
Outflow = 1.30 cfs @ 8.00 hrs, Volume= 0.441 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach L1: [LINK TO POND]

Hydrograph



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Type IA 24-hr 2YR Rainfall=2.50"

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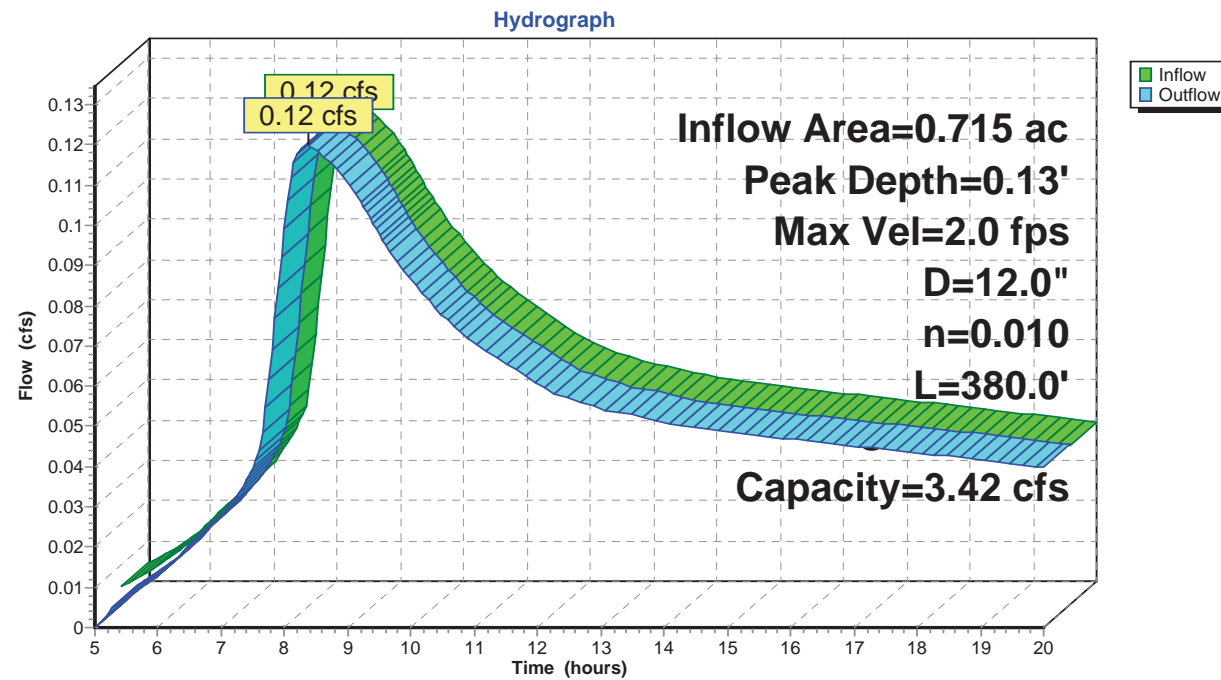
Reach R1: PARKING NORTH TO POND WEST

Inflow Area = 0.715 ac, Inflow Depth > 1.14" for 2YR event
 Inflow = 0.12 cfs @ 8.28 hrs, Volume= 0.068 af
 Outflow = 0.12 cfs @ 8.37 hrs, Volume= 0.067 af, Atten= 0%, Lag= 5.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.0 fps, Min. Travel Time= 3.1 min
 Avg. Velocity = 1.6 fps, Avg. Travel Time= 4.1 min

Peak Depth= 0.13' @ 8.32 hrs
 Capacity at bank full= 3.42 cfs
 Inlet Invert= 272.47', Outlet Invert= 270.40'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 380.0' Slope= 0.0054 '/'

Reach R1: PARKING NORTH TO POND WEST



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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: PARKING NORTH

Runoff Area=31,129 sf Runoff Depth>0.21"
 Flow Length=512' Tc=61.4 min CN=88 Runoff=0.02 cfs 0.013 af

Subcatchment B2A: PARKING WEST

Runoff Area=52,125 sf Runoff Depth>0.15"
 Flow Length=360' Tc=10.5 min CN=85 Runoff=0.02 cfs 0.015 af

Subcatchment B2B: PARKING WEST

Runoff Area=11,373 sf Runoff Depth>0.29"
 Flow Length=135' Tc=5.0 min CN=90 Runoff=0.02 cfs 0.006 af

Subcatchment B5: ROOF WEST

Runoff Area=11,446 sf Runoff Depth>0.71"
 Flow Length=380' Tc=5.0 min CN=98 Runoff=0.06 cfs 0.015 af

Subcatchment B6: ROOF CENTER

Runoff Area=74,131 sf Runoff Depth>0.37"
 Flow Length=532' Tc=13.6 min CN=92 Runoff=0.14 cfs 0.052 af

Reach L1: [LINK TO POND]

Inflow=0.24 cfs 0.102 af
 Outflow=0.24 cfs 0.102 af

Reach R1: PARKING NORTH TO POND WEST Peak Depth=0.05' Max Vel=1.1 fps Inflow=0.02 cfs 0.013 af
 D=12.0" n=0.010 L=380.0' S=0.0054 '/ Capacity=3.42 cfs Outflow=0.02 cfs 0.013 af

Total Runoff Area = 4.137 ac Runoff Volume = 0.102 af Average Runoff Depth = 0.30"

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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Subcatchment B1: PARKING NORTH

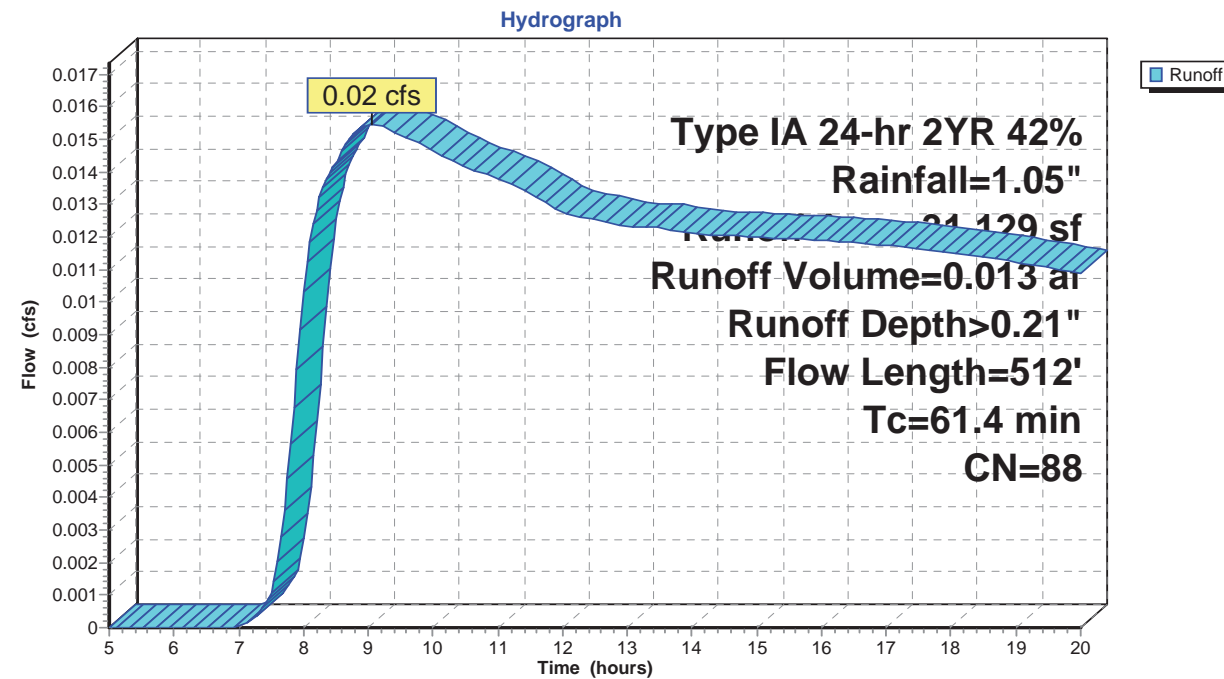
Runoff = 0.02 cfs @ 9.06 hrs, Volume= 0.013 af, Depth> 0.21"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
18,382	98	Paved roads w/curbs & sewers
12,747	74	>75% Grass cover, Good, HSG C
31,129	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
60.4	300	0.0026	0.1		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.0	212	0.0318	3.6		Shallow Concentrated Flow, Paved Kv= 20.3 fps
61.4	512	Total			

Subcatchment B1: PARKING NORTH



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Subcatchment B2A: PARKING WEST

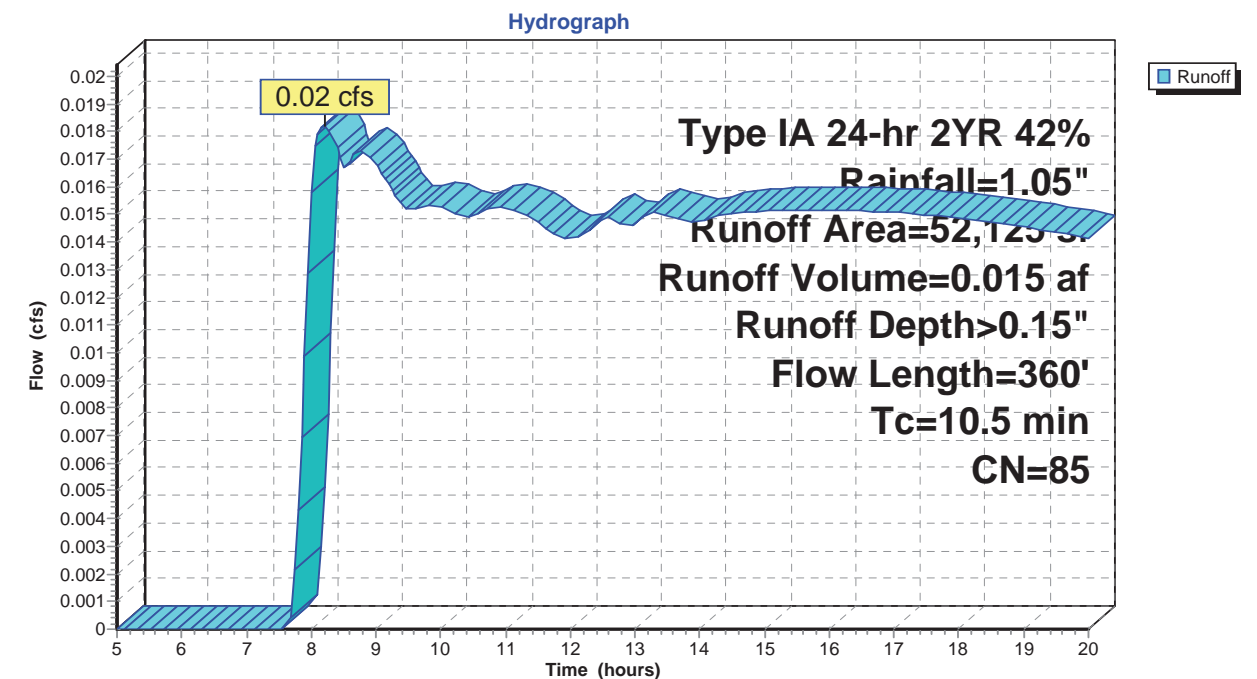
Runoff = 0.02 cfs @ 8.21 hrs, Volume= 0.015 af, Depth> 0.15"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
23,349	98	Paved roads w/curbs & sewers
14,388	74	>75% Grass cover, Good, HSG C
14,388	74	>75% Grass cover, Good, HSG C
52,125	85	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	20	0.0015	0.0		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.5	110	0.0200	1.2		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.2	175	0.0287	12.5	200.13	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
0.2	55	0.0050	4.2	3.28	Circular Channel (pipe), Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
10.5	360	Total			

Subcatchment B2A: PARKING WEST



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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Subcatchment B2B: PARKING WEST

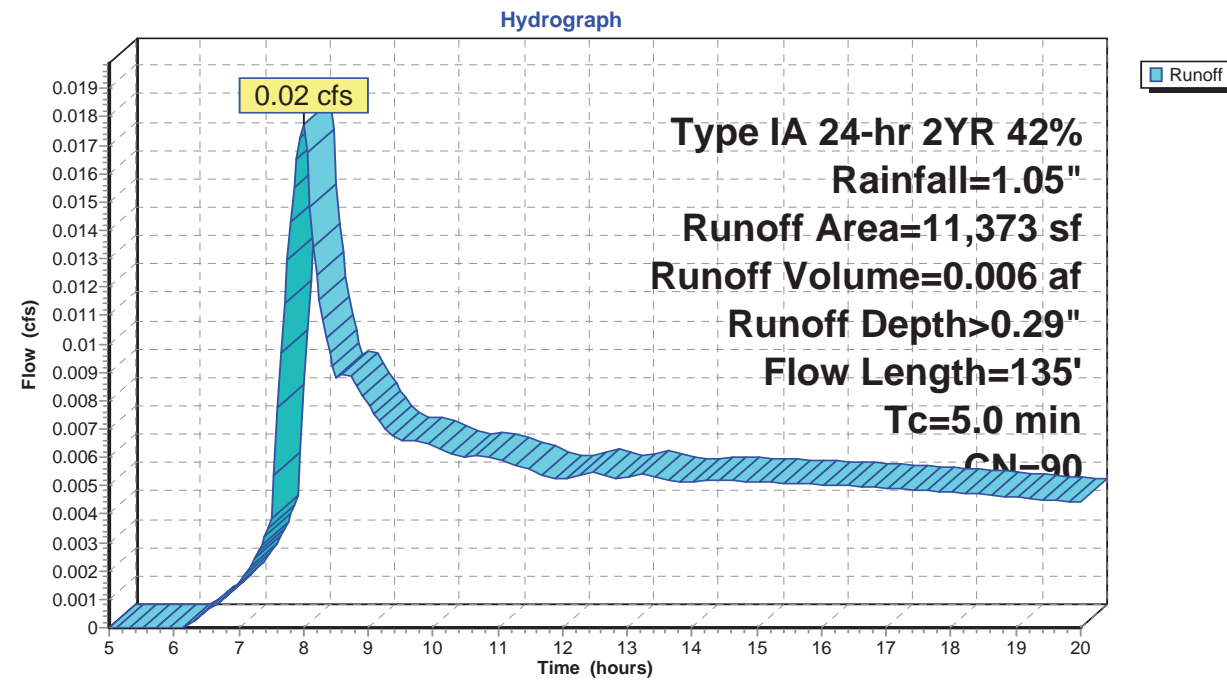
Runoff = 0.02 cfs @ 7.99 hrs, Volume= 0.006 af, Depth> 0.29"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
7,514	98	Paved roads w/curbs & sewers
3,859	74	>75% Grass cover, Good, HSG C
11,373	90	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	60	0.1280	0.3		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.1	75	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
4.6	135	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B2B: PARKING WEST



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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Subcatchment B5: ROOF WEST

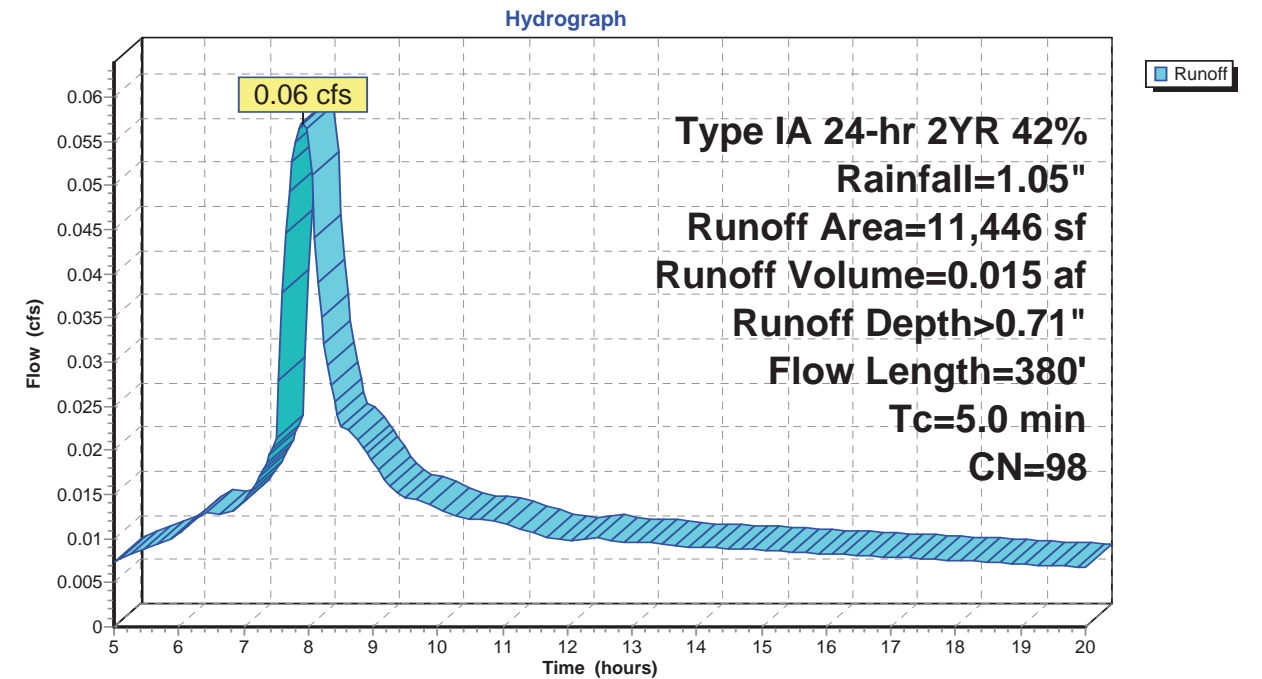
Runoff = 0.06 cfs @ 7.92 hrs, Volume= 0.015 af, Depth> 0.71"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
11,446	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	60	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.8	320	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.7	380	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B5: ROOF WEST



Subcatchment B6: ROOF CENTER

Runoff = 0.14 cfs @ 8.02 hrs, Volume= 0.052 af, Depth> 0.37"

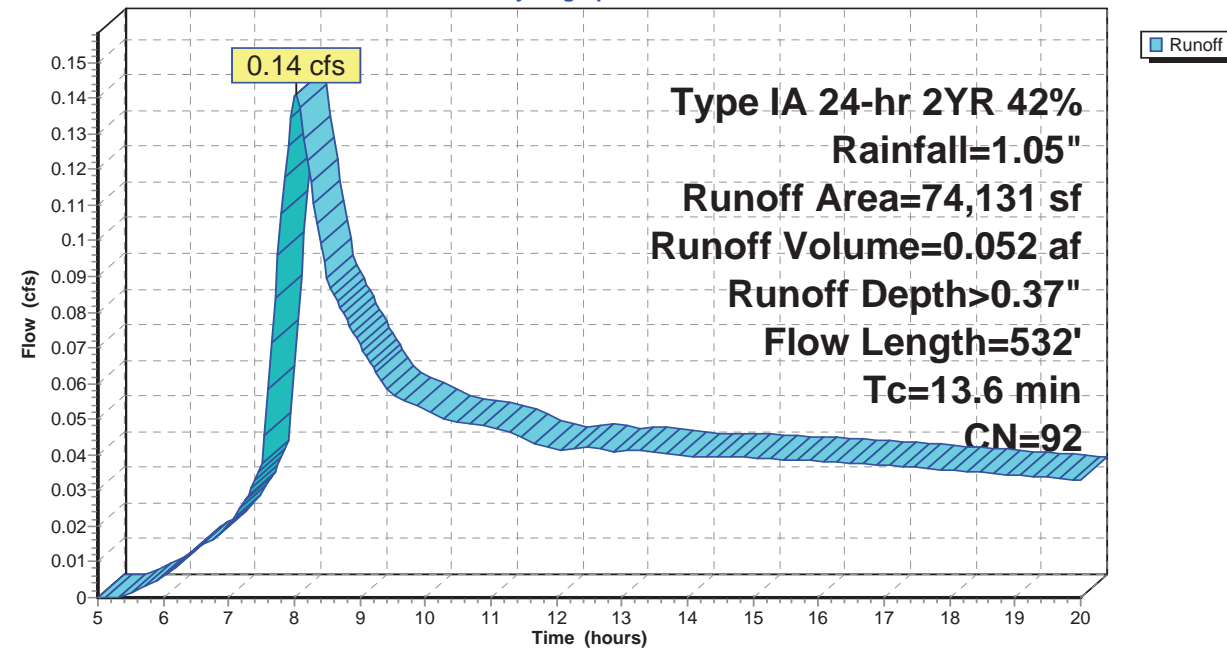
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
34,490	98	Paved parking & roofs
14,228	86	<50% Grass cover, Poor, HSG C
25,413	86	<50% Grass cover, Poor, HSG C
74,131	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	110	0.0200	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
0.6	222	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.0	200	0.0050	3.2	1.11	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
13.6	532	Total			

Subcatchment B6: ROOF CENTER

Hydrograph



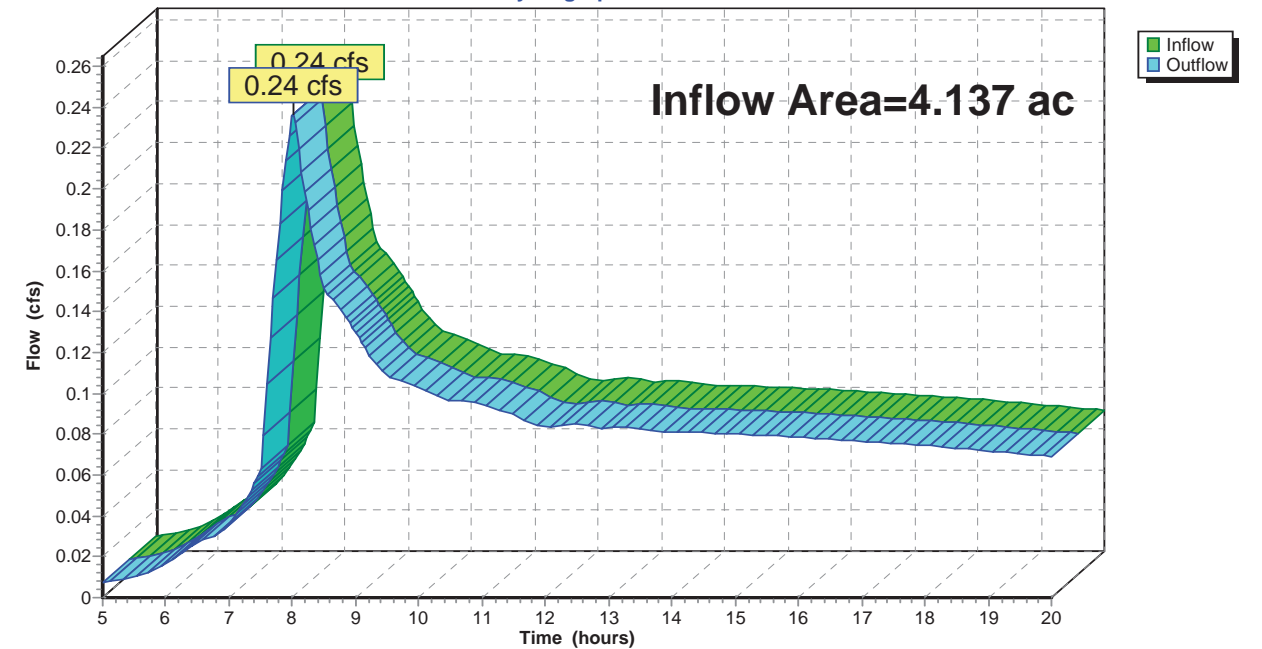
Reach L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 0.30" for 2YR 42% event
Inflow = 0.24 cfs @ 8.01 hrs, Volume= 0.102 af
Outflow = 0.24 cfs @ 8.01 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach L1: [LINK TO POND]

Hydrograph



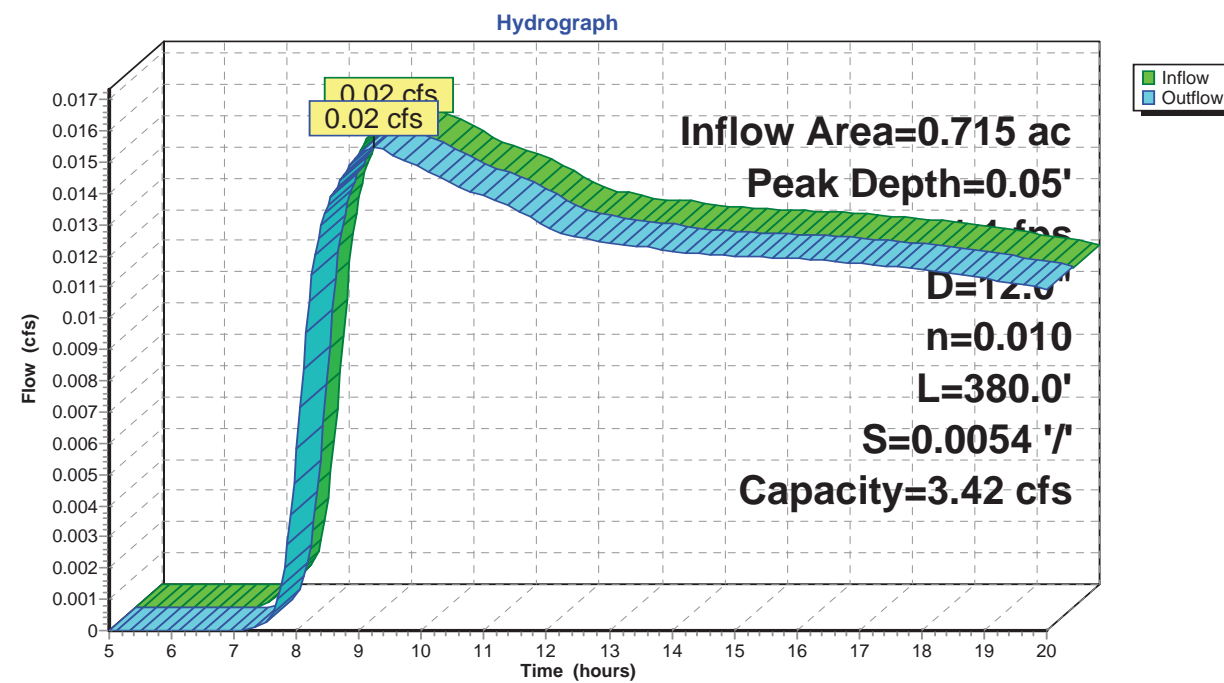
Reach R1: PARKING NORTH TO POND WEST

Inflow Area = 0.715 ac, Inflow Depth > 0.21" for 2YR 42% event
 Inflow = 0.02 cfs @ 9.06 hrs, Volume= 0.013 af
 Outflow = 0.02 cfs @ 9.24 hrs, Volume= 0.013 af, Atten= 0%, Lag= 10.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.1 fps, Min. Travel Time= 5.8 min
 Avg. Velocity = 1.0 fps, Avg. Travel Time= 6.3 min

Peak Depth= 0.05' @ 9.14 hrs
 Capacity at bank full= 3.42 cfs
 Inlet Invert= 272.47', Outlet Invert= 270.40'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 380.0' Slope= 0.0054 '/'

Reach R1: PARKING NORTH TO POND WEST



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: PARKING NORTH Runoff Area=31,129 sf Runoff Depth>1.85"
 Flow Length=512' Tc=61.4 min CN=88 Runoff=0.21 cfs 0.110 af

Subcatchment B2A: PARKING WEST Runoff Area=52,125 sf Runoff Depth>1.69"
 Flow Length=360' Tc=10.5 min CN=85 Runoff=0.54 cfs 0.168 af

Subcatchment B2B: PARKING WEST Runoff Area=11,373 sf Runoff Depth>2.05"
 Flow Length=135' Tc=5.0 min CN=90 Runoff=0.16 cfs 0.045 af

Subcatchment B5: ROOF WEST Runoff Area=11,446 sf Runoff Depth>2.57"
 Flow Length=380' Tc=5.0 min CN=98 Runoff=0.21 cfs 0.056 af

Subcatchment B6: ROOF CENTER Runoff Area=74,131 sf Runoff Depth>2.19"
 Flow Length=532' Tc=13.6 min CN=92 Runoff=1.03 cfs 0.311 af

Reach L1: [LINK TO POND] Inflow=2.11 cfs 0.690 af
 Outflow=2.11 cfs 0.690 af

Reach R1: PARKING NORTH TO POND WEST Peak Depth=0.17' Max Vel=2.4 fps Inflow=0.21 cfs 0.110 af
 D=12.0" n=0.010 L=380.0' S=0.0054 '/ Capacity=3.42 cfs Outflow=0.21 cfs 0.110 af

Total Runoff Area = 4.137 ac Runoff Volume = 0.691 af Average Runoff Depth = 2.00"

Subcatchment B1: PARKING NORTH

Runoff = 0.21 cfs @ 8.23 hrs, Volume= 0.110 af, Depth> 1.85"

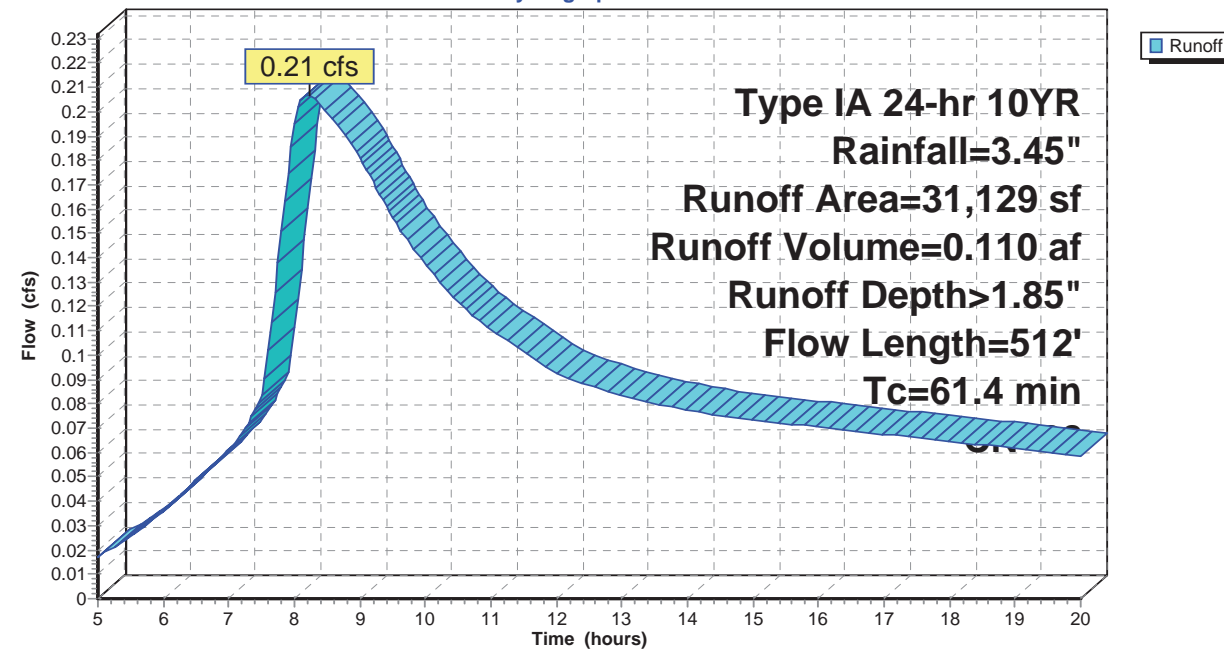
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
18,382	98	Paved roads w/curbs & sewers
12,747	74	>75% Grass cover, Good, HSG C
31,129	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
60.4	300	0.0026	0.1		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.0	212	0.0318	3.6		Shallow Concentrated Flow, Paved Kv= 20.3 fps
61.4	512	Total			

Subcatchment B1: PARKING NORTH

Hydrograph



Subcatchment B2A: PARKING WEST

Runoff = 0.54 cfs @ 8.00 hrs, Volume= 0.168 af, Depth> 1.69"

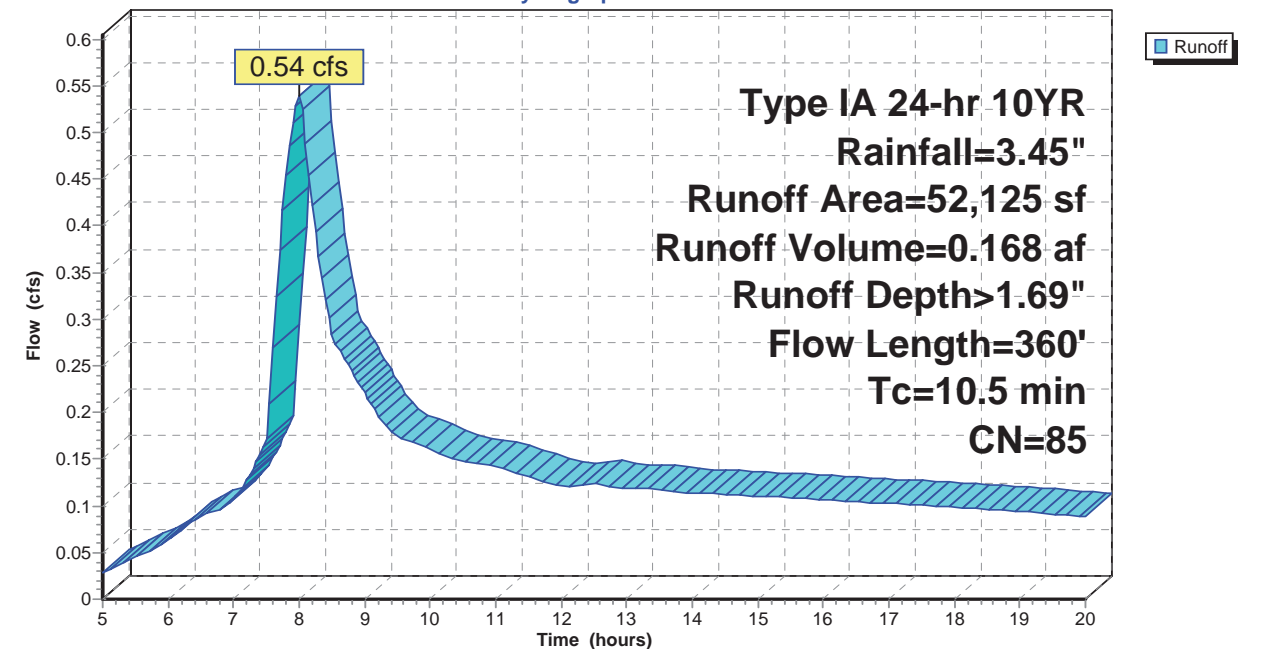
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
23,349	98	Paved roads w/curbs & sewers
14,388	74	>75% Grass cover, Good, HSG C
14,388	74	>75% Grass cover, Good, HSG C
52,125	85	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	20	0.0015	0.0		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.5	110	0.0200	1.2		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.2	175	0.0287	12.5	200.13	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
0.2	55	0.0050	4.2	3.28	Circular Channel (pipe), Diam= 12.0\" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
10.5	360	Total			

Subcatchment B2A: PARKING WEST

Hydrograph



Subcatchment B2B: PARKING WEST

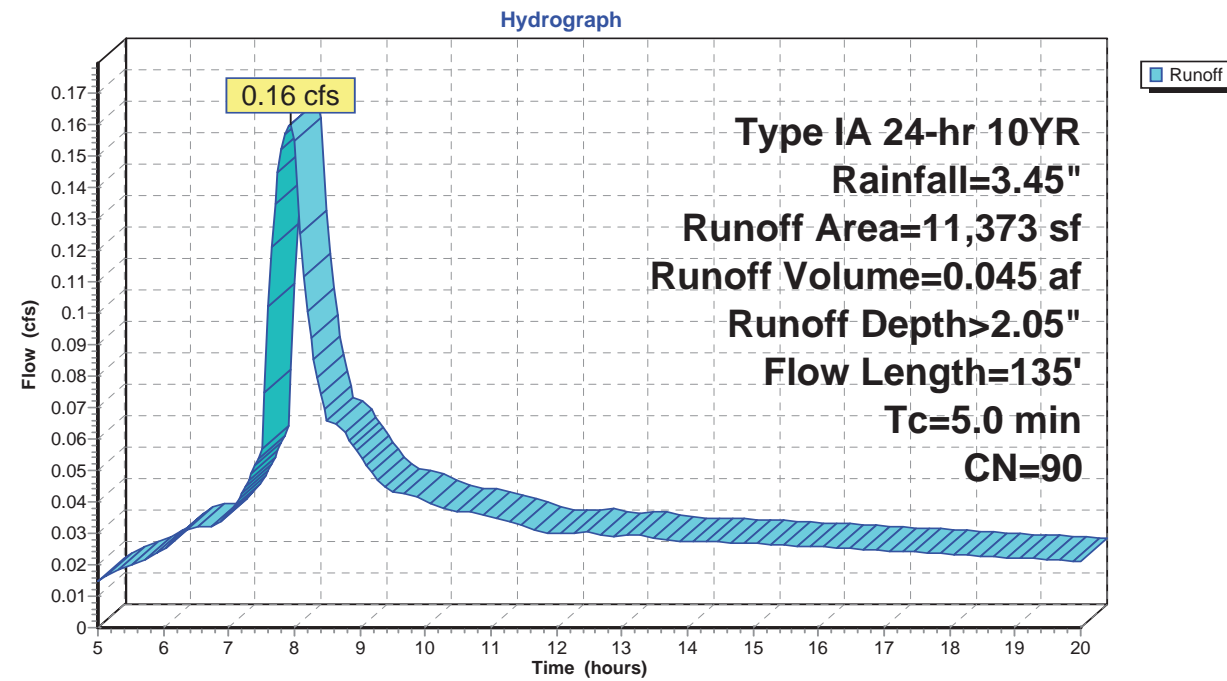
Runoff = 0.16 cfs @ 7.94 hrs, Volume= 0.045 af, Depth> 2.05"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
7,514	98	Paved roads w/curbs & sewers
3,859	74	>75% Grass cover, Good, HSG C
11,373	90	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	60	0.1280	0.3		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.1	75	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
4.6	135	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B2B: PARKING WEST



Subcatchment B5: ROOF WEST

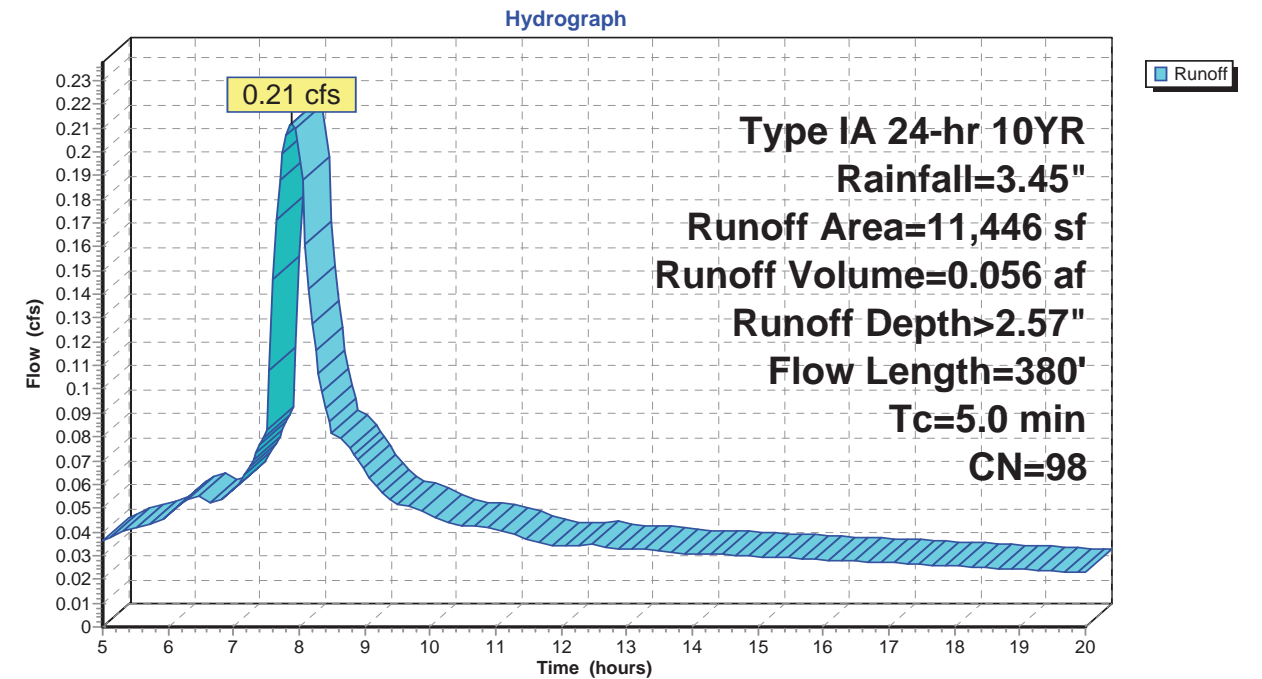
Runoff = 0.21 cfs @ 7.90 hrs, Volume= 0.056 af, Depth> 2.57"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
11,446	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	60	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.8	320	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0\" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.7	380	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B5: ROOF WEST



Subcatchment B6: ROOF CENTER

Runoff = 1.03 cfs @ 8.00 hrs, Volume= 0.311 af, Depth> 2.19"

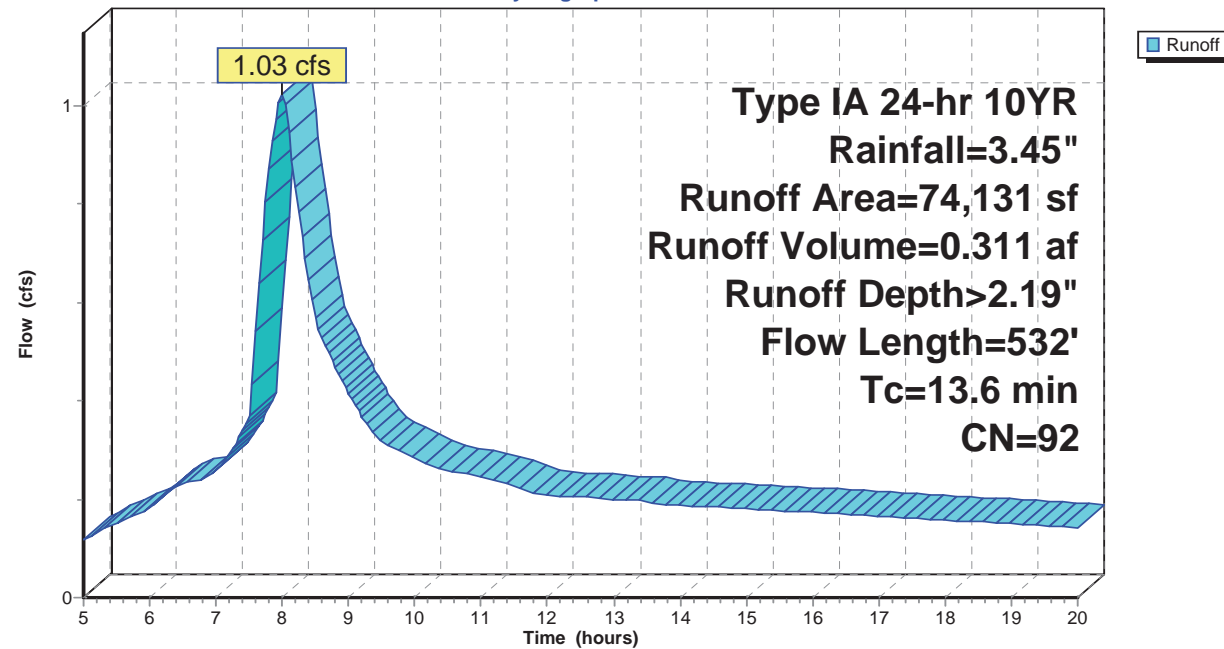
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
34,490	98	Paved parking & roofs
14,228	86	<50% Grass cover, Poor, HSG C
25,413	86	<50% Grass cover, Poor, HSG C
74,131	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	110	0.0200	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
0.6	222	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.0	200	0.0050	3.2	1.11	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
13.6	532	Total			

Subcatchment B6: ROOF CENTER

Hydrograph



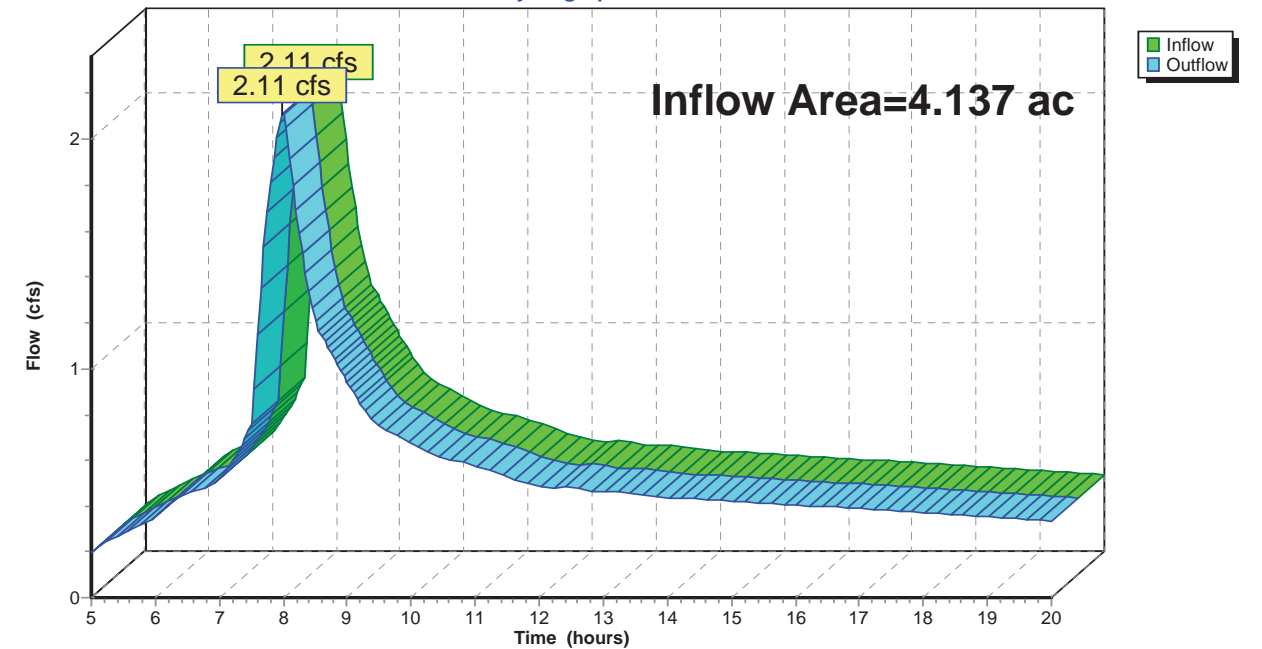
Reach L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 2.00" for 10YR event
Inflow = 2.11 cfs @ 7.99 hrs, Volume= 0.690 af
Outflow = 2.11 cfs @ 7.99 hrs, Volume= 0.690 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach L1: [LINK TO POND]

Hydrograph



UHS WVBH Part 1

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Type IA 24-hr 10YR Rainfall=3.45"

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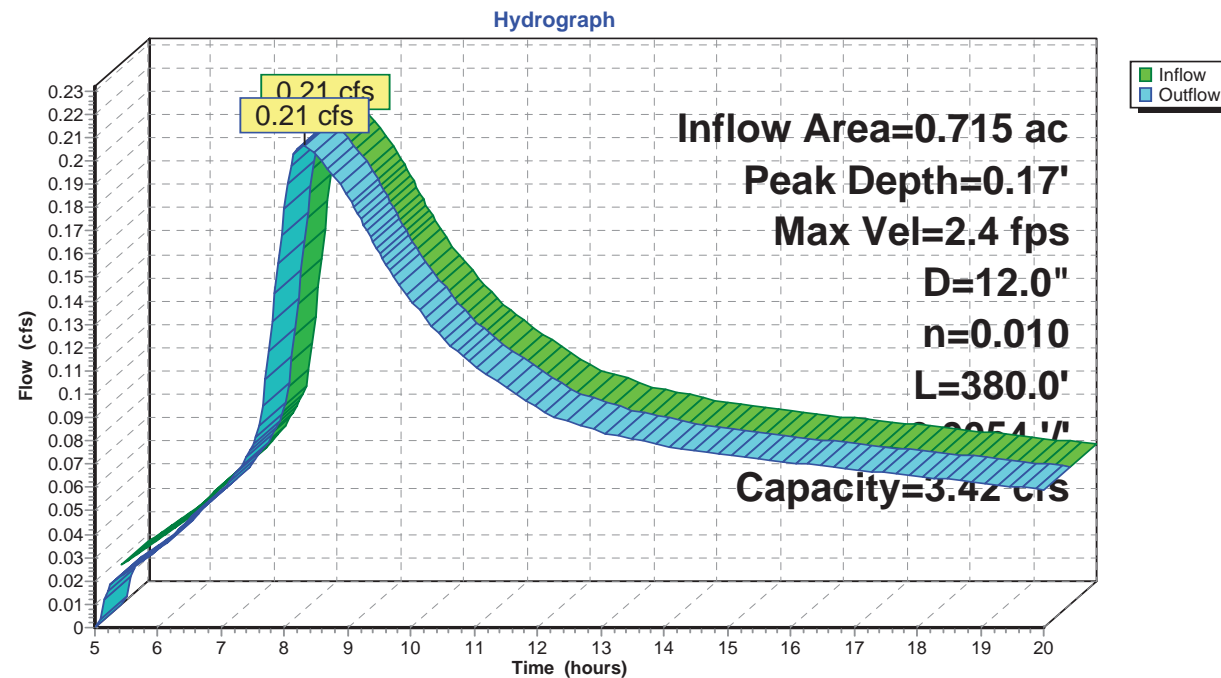
Reach R1: PARKING NORTH TO POND WEST

Inflow Area = 0.715 ac, Inflow Depth > 1.85" for 10YR event
 Inflow = 0.21 cfs @ 8.23 hrs, Volume= 0.110 af
 Outflow = 0.21 cfs @ 8.31 hrs, Volume= 0.110 af, Atten= 0%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.4 fps, Min. Travel Time= 2.6 min
 Avg. Velocity = 1.8 fps, Avg. Travel Time= 3.5 min

Peak Depth= 0.17' @ 8.27 hrs
 Capacity at bank full= 3.42 cfs
 Inlet Invert= 272.47', Outlet Invert= 270.40'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 380.0' Slope= 0.0054 '/'

Reach R1: PARKING NORTH TO POND WEST



UHS WVBH Part 1

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Type IA 24-hr 25YR Rainfall=3.90"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: PARKING NORTH

Runoff Area=31,129 sf Runoff Depth>2.20"
 Flow Length=512' Tc=61.4 min CN=88 Runoff=0.25 cfs 0.131 af

Subcatchment B2A: PARKING WEST

Runoff Area=52,125 sf Runoff Depth>2.03"
 Flow Length=360' Tc=10.5 min CN=85 Runoff=0.66 cfs 0.202 af

Subcatchment B2B: PARKING WEST

Runoff Area=11,373 sf Runoff Depth>2.41"
 Flow Length=135' Tc=5.0 min CN=90 Runoff=0.19 cfs 0.052 af

Subcatchment B5: ROOF WEST

Runoff Area=11,446 sf Runoff Depth>2.92"
 Flow Length=380' Tc=5.0 min CN=98 Runoff=0.24 cfs 0.064 af

Subcatchment B6: ROOF CENTER

Runoff Area=74,131 sf Runoff Depth>2.55"
 Flow Length=532' Tc=13.6 min CN=92 Runoff=1.20 cfs 0.362 af

Reach L1: [LINK TO POND]

Inflow=2.50 cfs 0.811 af
 Outflow=2.50 cfs 0.811 af

Reach R1: PARKING NORTH TO POND WEST Peak Depth=0.18' Max Vel=2.5 fps Inflow=0.25 cfs 0.131 af
 D=12.0" n=0.010 L=380.0' S=0.0054 '/ Capacity=3.42 cfs Outflow=0.25 cfs 0.130 af

Total Runoff Area = 4.137 ac Runoff Volume = 0.811 af Average Runoff Depth = 2.35"

Subcatchment B1: PARKING NORTH

Runoff = 0.25 cfs @ 8.22 hrs, Volume= 0.131 af, Depth> 2.20"

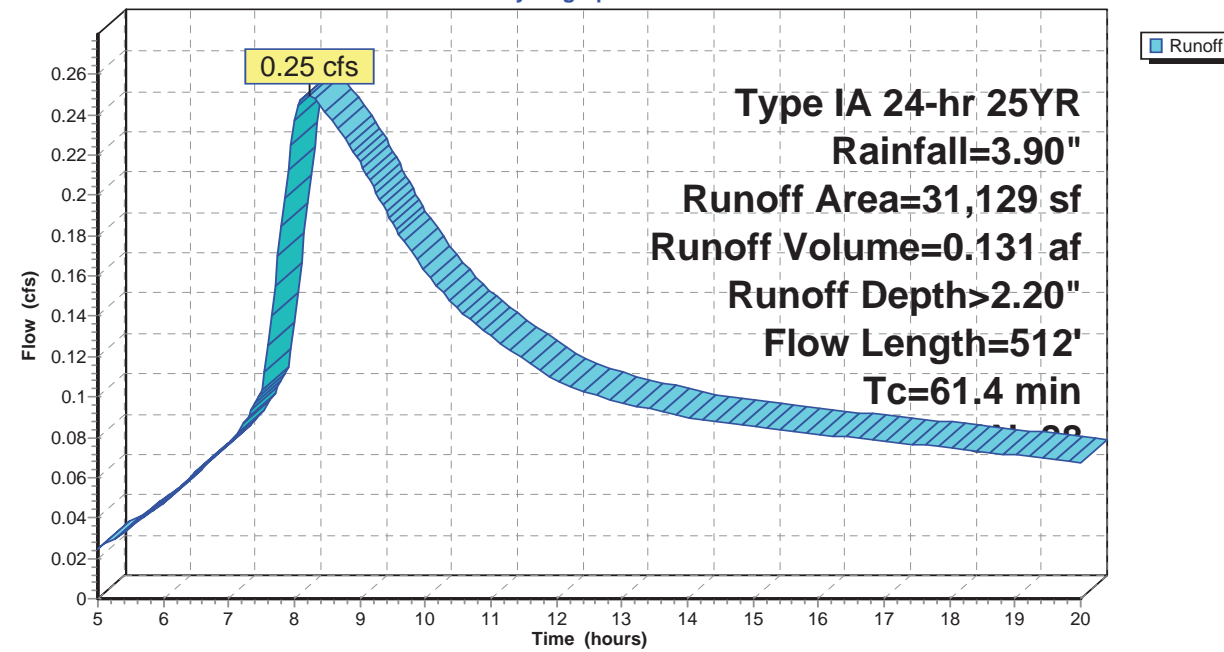
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
18,382	98	Paved roads w/curbs & sewers
12,747	74	>75% Grass cover, Good, HSG C
31,129	88	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
60.4	300	0.0026	0.1		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.0	212	0.0318	3.6		Shallow Concentrated Flow, Paved Kv= 20.3 fps
61.4	512	Total			

Subcatchment B1: PARKING NORTH

Hydrograph



Subcatchment B2A: PARKING WEST

Runoff = 0.66 cfs @ 7.99 hrs, Volume= 0.202 af, Depth> 2.03"

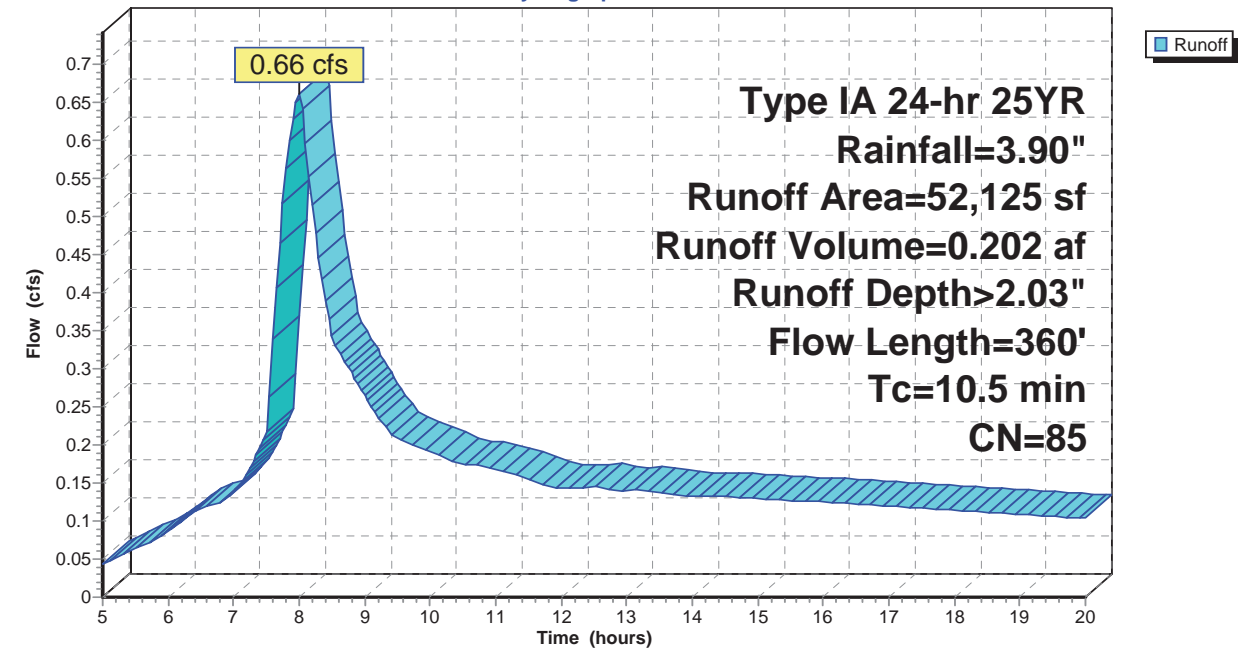
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
23,349	98	Paved roads w/curbs & sewers
14,388	74	>75% Grass cover, Good, HSG C
14,388	74	>75% Grass cover, Good, HSG C
52,125	85	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	20	0.0015	0.0		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.5	110	0.0200	1.2		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.2	175	0.0287	12.5	200.13	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
0.2	55	0.0050	4.2	3.28	Circular Channel (pipe), Diam= 12.0\" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
10.5	360	Total			

Subcatchment B2A: PARKING WEST

Hydrograph



Subcatchment B2B: PARKING WEST

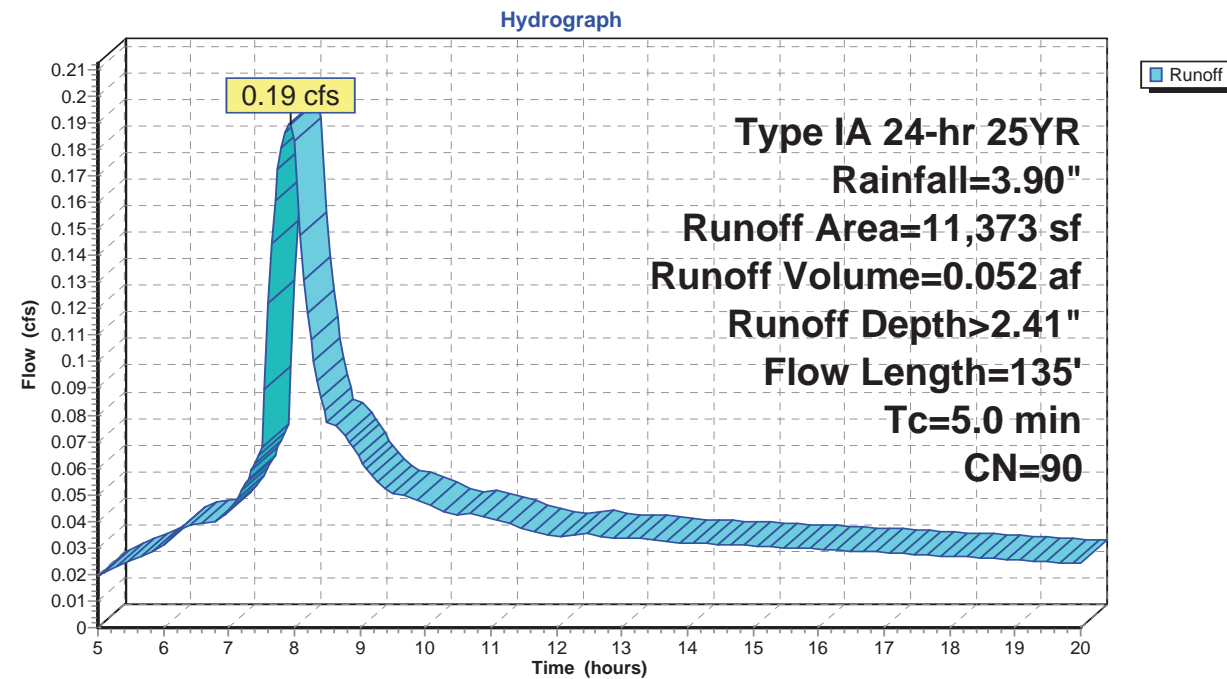
Runoff = 0.19 cfs @ 7.93 hrs, Volume= 0.052 af, Depth> 2.41"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
7,514	98	Paved roads w/curbs & sewers
3,859	74	>75% Grass cover, Good, HSG C
11,373	90	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	60	0.1280	0.3		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.1	75	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
4.6	135	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B2B: PARKING WEST



Subcatchment B5: ROOF WEST

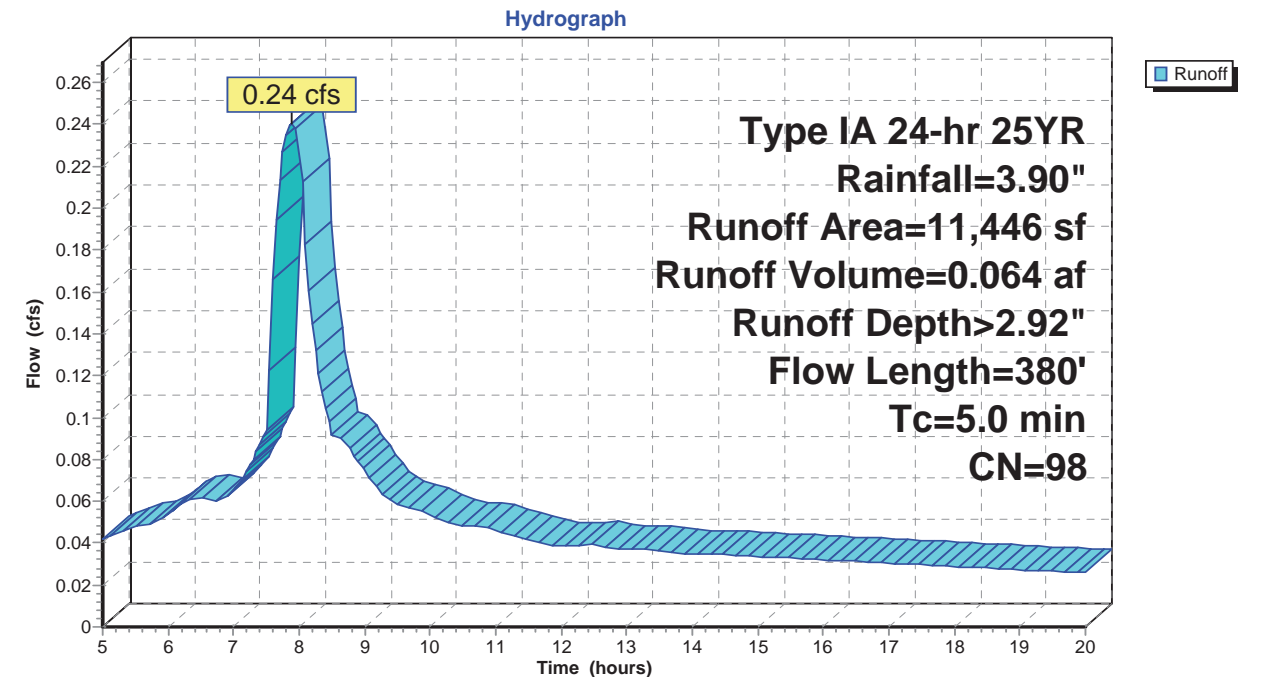
Runoff = 0.24 cfs @ 7.90 hrs, Volume= 0.064 af, Depth> 2.92"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
11,446	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	60	0.0200	1.1		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.8	320	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.7	380	Total, Increased to minimum Tc = 5.0 min			

Subcatchment B5: ROOF WEST



Subcatchment B6: ROOF CENTER

Runoff = 1.20 cfs @ 8.00 hrs, Volume= 0.362 af, Depth> 2.55"

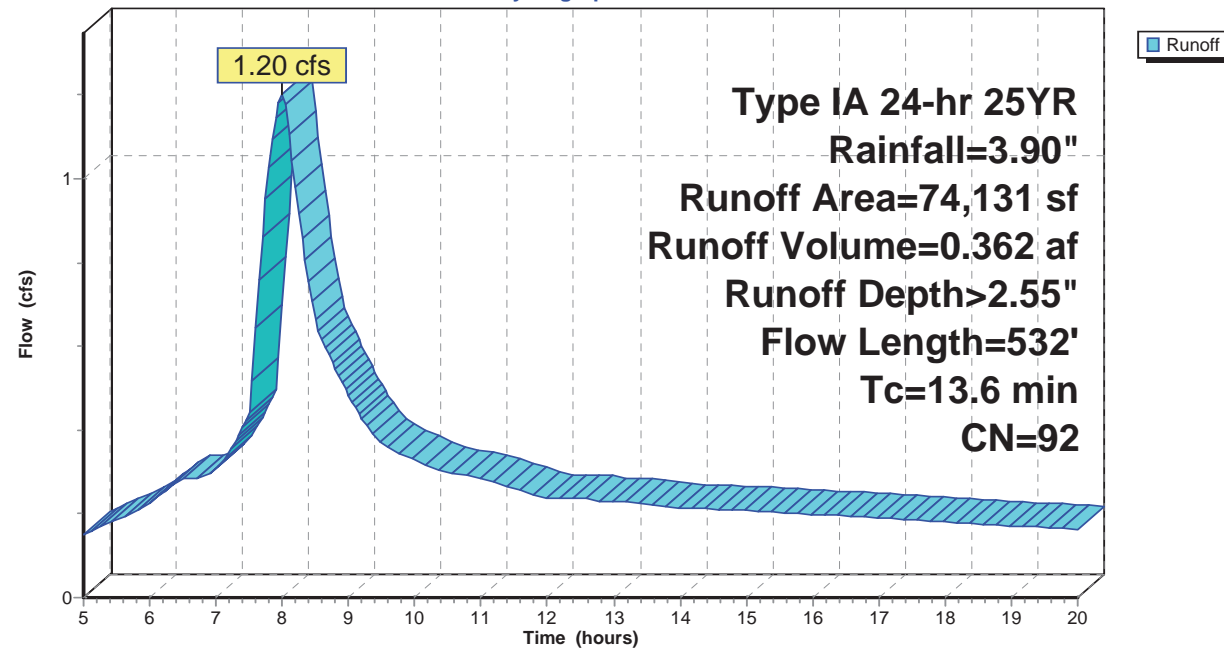
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
34,490	98	Paved parking & roofs
14,228	86	<50% Grass cover, Poor, HSG C
25,413	86	<50% Grass cover, Poor, HSG C
74,131	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0	110	0.0200	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
0.6	222	0.0200	6.4	2.22	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
1.0	200	0.0050	3.2	1.11	Circular Channel (pipe), Diam= 8.0" Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
13.6	532	Total			

Subcatchment B6: ROOF CENTER

Hydrograph



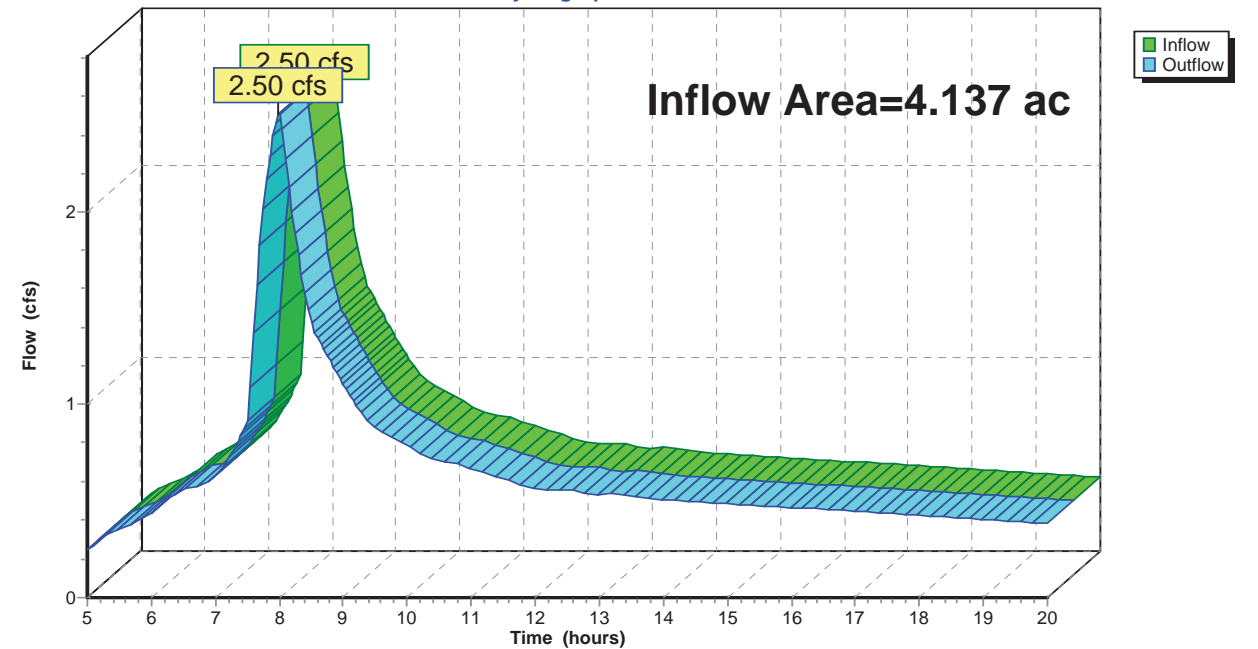
Reach L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 2.35" for 25YR event
Inflow = 2.50 cfs @ 7.99 hrs, Volume= 0.811 af
Outflow = 2.50 cfs @ 7.99 hrs, Volume= 0.811 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach L1: [LINK TO POND]

Hydrograph



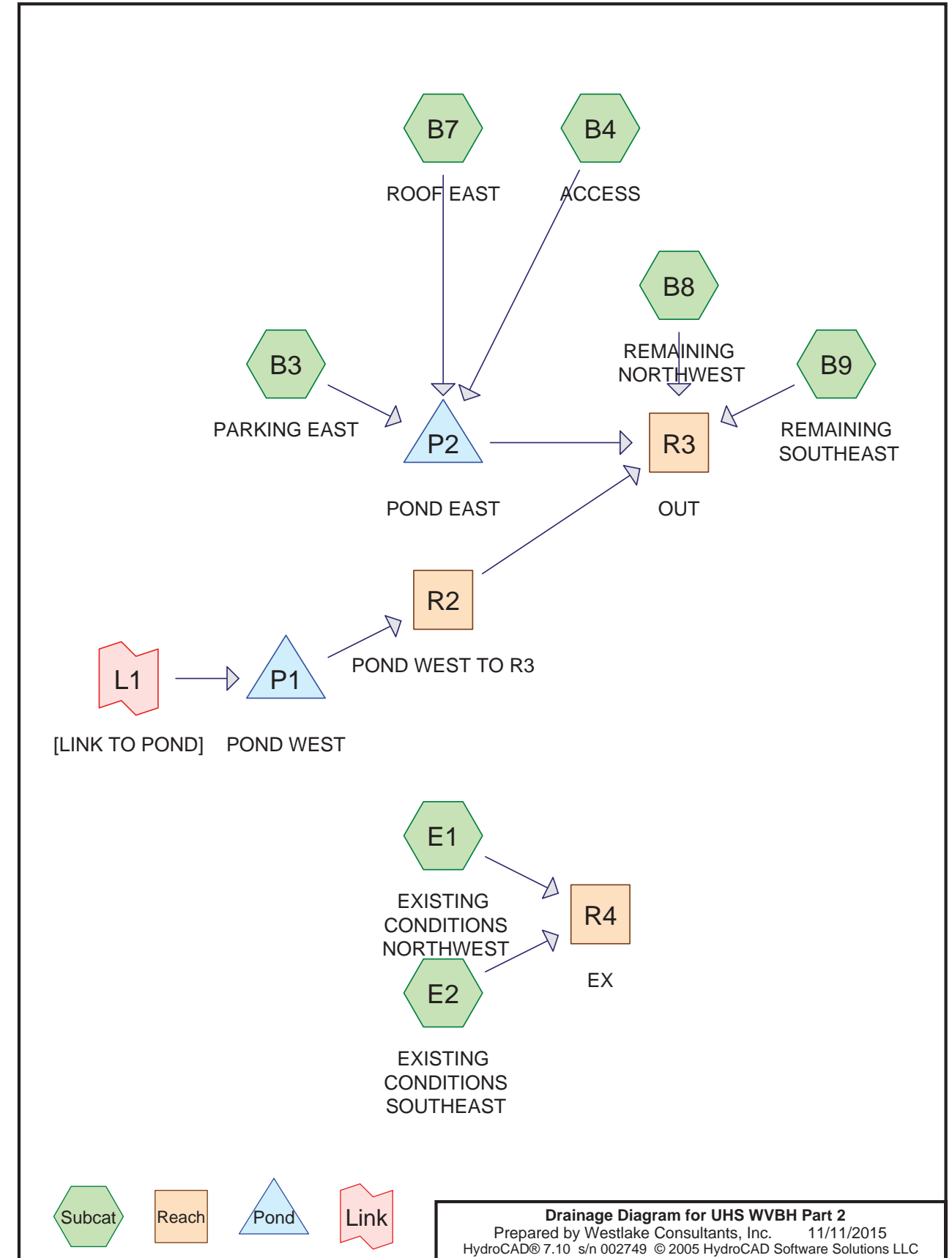
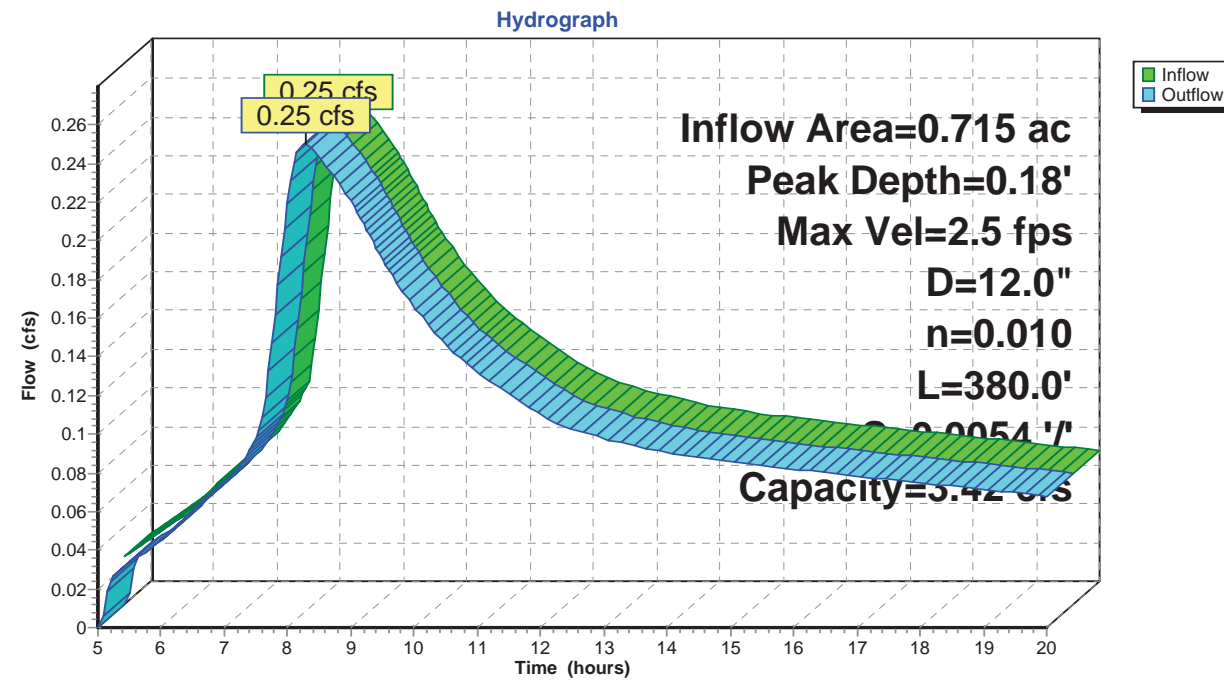
Reach R1: PARKING NORTH TO POND WEST

Inflow Area = 0.715 ac, Inflow Depth > 2.20" for 25YR event
 Inflow = 0.25 cfs @ 8.22 hrs, Volume= 0.131 af
 Outflow = 0.25 cfs @ 8.29 hrs, Volume= 0.130 af, Atten= 0%, Lag= 4.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.5 fps, Min. Travel Time= 2.5 min
 Avg. Velocity = 1.9 fps, Avg. Travel Time= 3.3 min

Peak Depth= 0.18' @ 8.25 hrs
 Capacity at bank full= 3.42 cfs
 Inlet Invert= 272.47', Outlet Invert= 270.40'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 380.0' Slope= 0.0054 1'

Reach R1: PARKING NORTH TO POND WEST



UHS WVBH Part 2

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Type IA 24-hr 2YR Rainfall=2.50"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B3: PARKING EAST Runoff Area=30,019 sf Runoff Depth>1.25"
Flow Length=376' Tc=3.2 min CN=89 Runoff=0.25 cfs 0.072 af

Subcatchment B4: ACCESS Runoff Area=39,422 sf Runoff Depth>0.74"
Tc=0.0 min CN=80 Runoff=0.16 cfs 0.056 af

Subcatchment B7: ROOF EAST Runoff Area=14,335 sf Runoff Depth>1.84"
Tc=0.0 min CN=98 Runoff=0.19 cfs 0.050 af

Subcatchment B8: REMAINING NORTHWEST Runoff Area=39,439 sf Runoff Depth>0.69"
Tc=0.0 min CN=79 Runoff=0.16 cfs 0.052 af

Subcatchment B9: REMAINING SOUTHEAST Runoff Area=62,440 sf Runoff Depth>0.69"
Tc=0.0 min CN=79 Runoff=0.25 cfs 0.083 af

Subcatchment E1: EXISTING CONDITIONS NORTHWEST Runoff Area=55,398 sf Runoff Depth>0.77"
Flow Length=275' Tc=25.2 min CN=81 Runoff=0.17 cfs 0.082 af

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST Runoff Area=310,458 sf Runoff Depth>0.66"
Flow Length=698' Tc=45.8 min CN=79 Runoff=0.60 cfs 0.394 af

Link L1: [LINK TO POND] 2YR Outflow Imported from UHS WVBH Part 1~Reach L1 Inflow=1.30 cfs 0.441 af
Primary=1.30 cfs 0.441 af

Pond P1: POND WEST Peak Elev=269.53' Storage=4,417 cf Inflow=1.30 cfs 0.441 af
Outflow=0.62 cfs 0.367 af

Pond P2: POND EAST Peak Elev=260.60' Storage=2,266 cf Inflow=0.60 cfs 0.178 af
Outflow=0.20 cfs 0.133 af

Reach R2: POND WEST TO R3 Peak Depth=0.24' Max Vel=4.2 fps Inflow=0.62 cfs 0.367 af
D=12.0" n=0.010 L=480.0' S=0.0108 '/' Capacity=4.82 cfs Outflow=0.62 cfs 0.366 af

Reach R3: OUT Inflow=0.98 cfs 0.635 af
Outflow=0.98 cfs 0.635 af

Reach R4: EX Inflow=0.77 cfs 0.476 af
Outflow=0.77 cfs 0.476 af

Total Runoff Area = 12.661 ac Runoff Volume = 0.789 af Average Runoff Depth = 0.75"

UHS WVBH Part 2

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Type IA 24-hr 2YR Rainfall=2.50"

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Subcatchment B3: PARKING EAST

Runoff = 0.25 cfs @ 7.94 hrs, Volume= 0.072 af, Depth> 1.25"

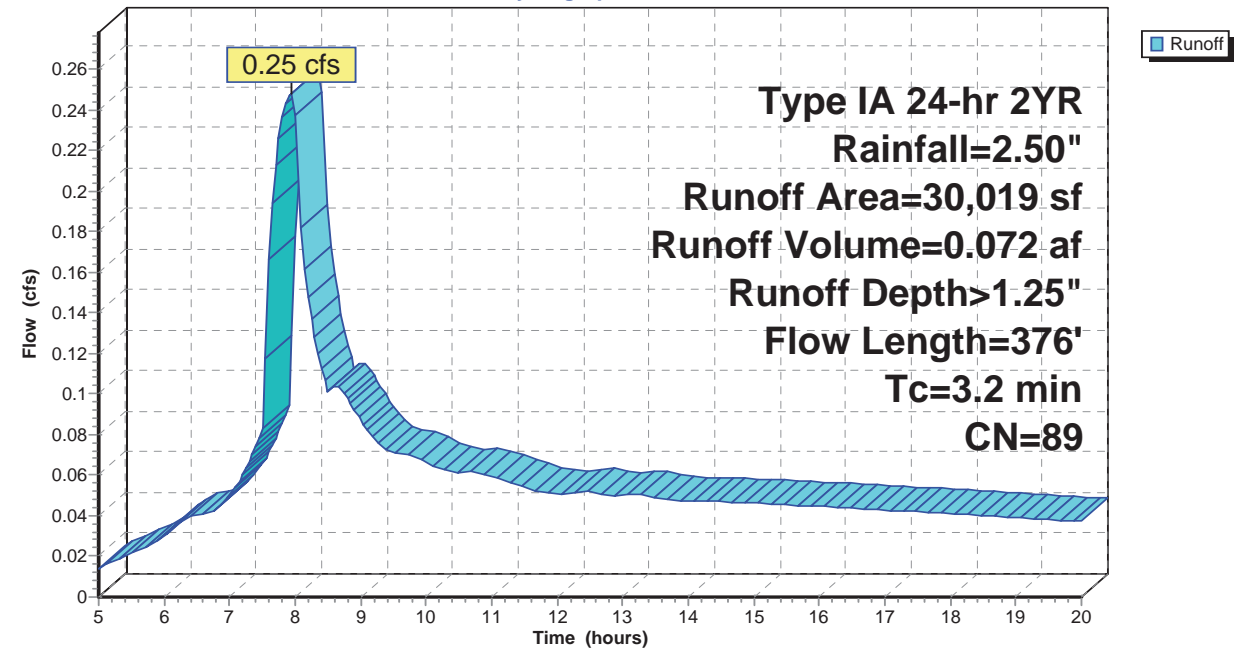
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
18,995	98	Paved roads w/curbs & sewers
11,024	74	>75% Grass cover, Good, HSG C
30,019	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	15	0.1587	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.7	130	0.0200	1.3		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.4	231	0.0201	10.5	167.48	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
3.2	376	Total			

Subcatchment B3: PARKING EAST

Hydrograph



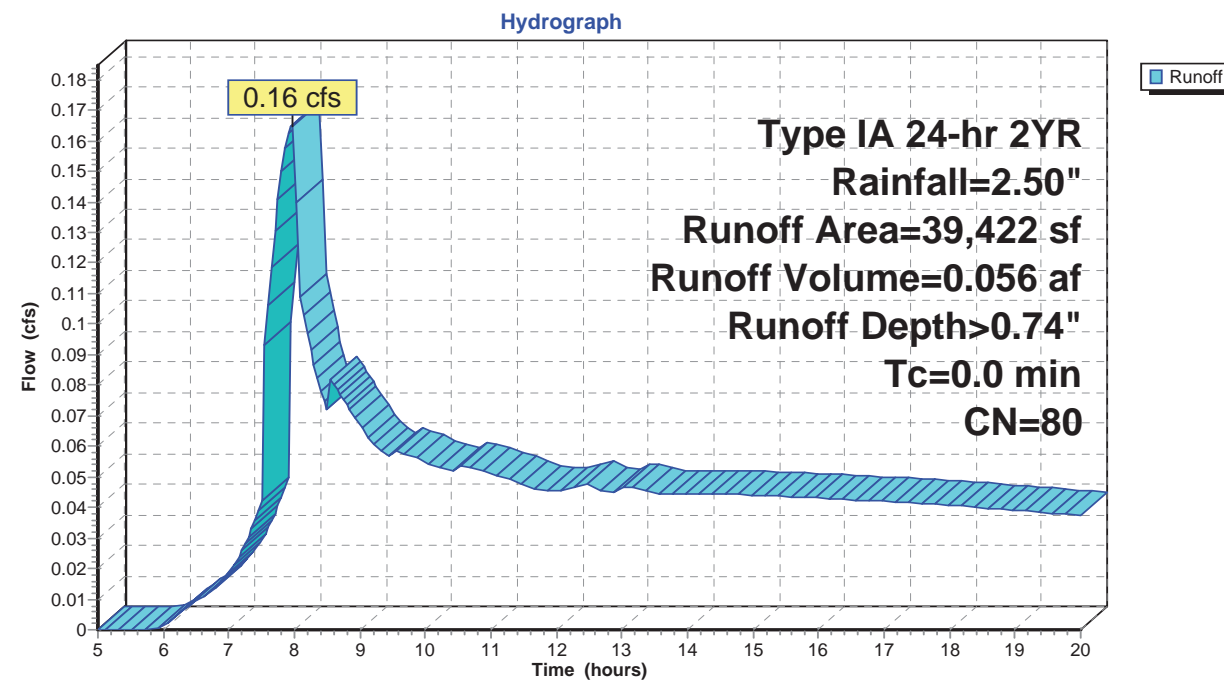
Subcatchment B4: ACCESS

Runoff = 0.16 cfs @ 7.97 hrs, Volume= 0.056 af, Depth> 0.74"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
9,686	98	Paved parking & roofs
29,736	74	>75% Grass cover, Good, HSG C
39,422	80	Weighted Average

Subcatchment B4: ACCESS



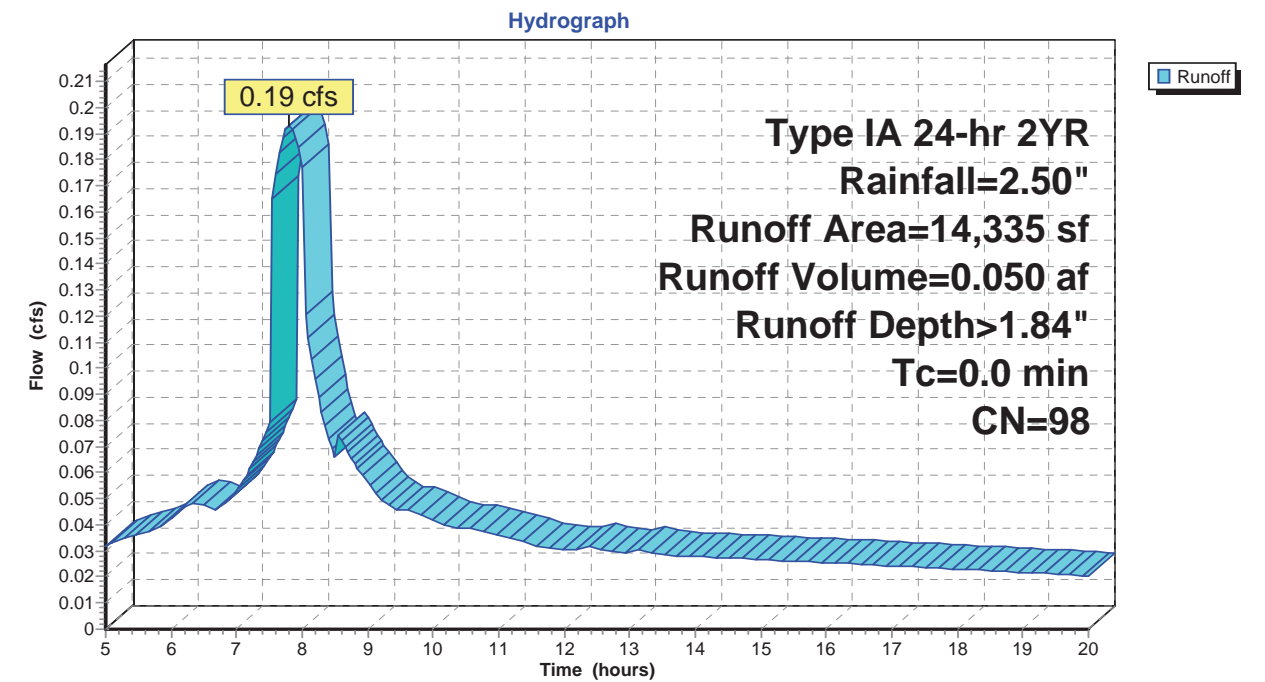
Subcatchment B7: ROOF EAST

Runoff = 0.19 cfs @ 7.81 hrs, Volume= 0.050 af, Depth> 1.84"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
14,335	98	Paved parking & roofs

Subcatchment B7: ROOF EAST



Subcatchment B8: REMAINING NORTHWEST

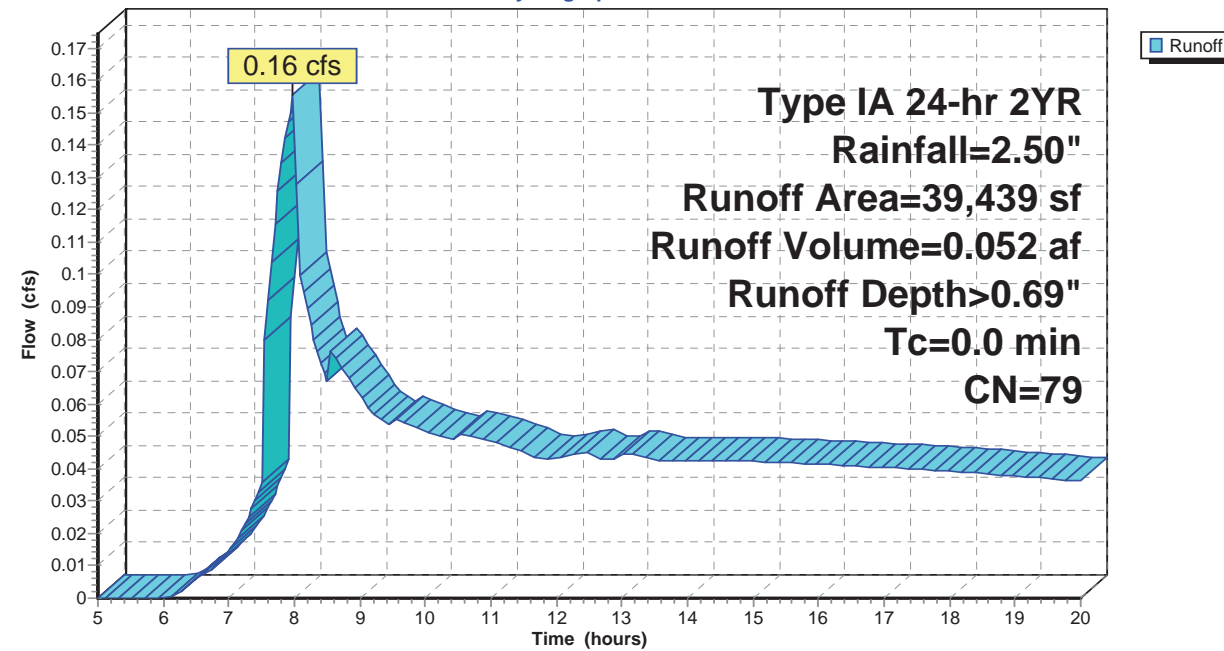
Runoff = 0.16 cfs @ 7.98 hrs, Volume= 0.052 af, Depth> 0.69"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
39,439	79	50-75% Grass cover, Fair, HSG C

Subcatchment B8: REMAINING NORTHWEST

Hydrograph



Subcatchment B9: REMAINING SOUTHEAST

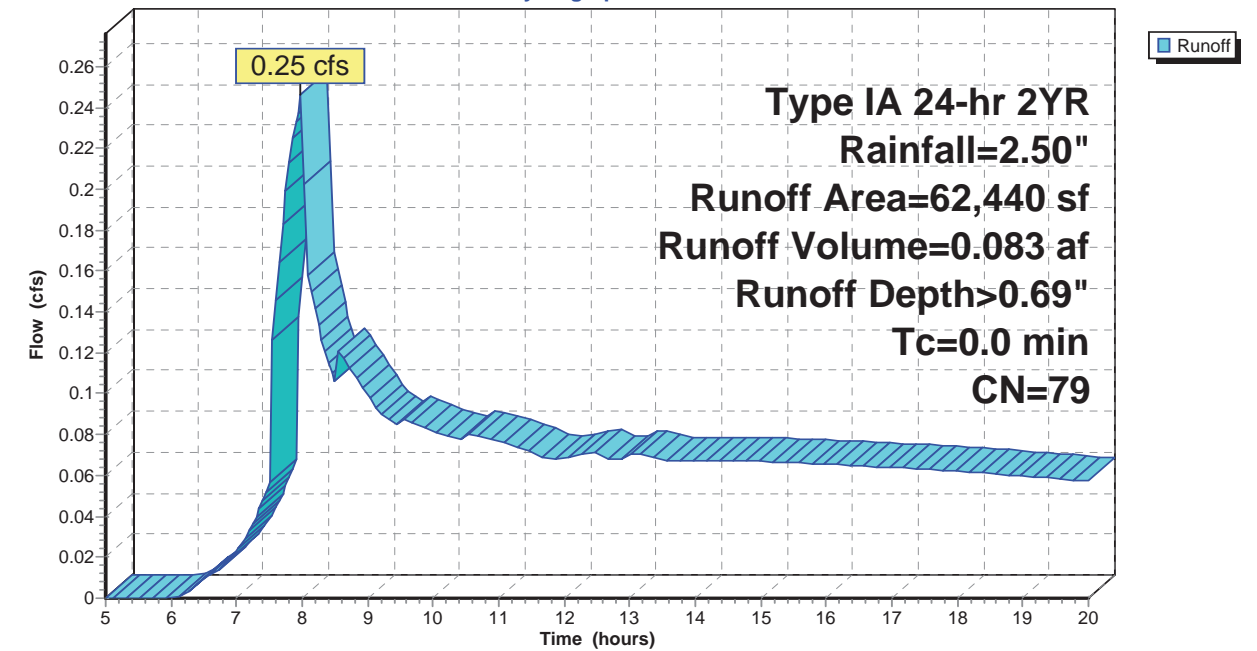
Runoff = 0.25 cfs @ 7.98 hrs, Volume= 0.083 af, Depth> 0.69"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
62,440	79	50-75% Grass cover, Fair, HSG C

Subcatchment B9: REMAINING SOUTHEAST

Hydrograph



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Type IA 24-hr 2YR Rainfall=2.50"

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Subcatchment E1: EXISTING CONDITIONS NORTHWEST

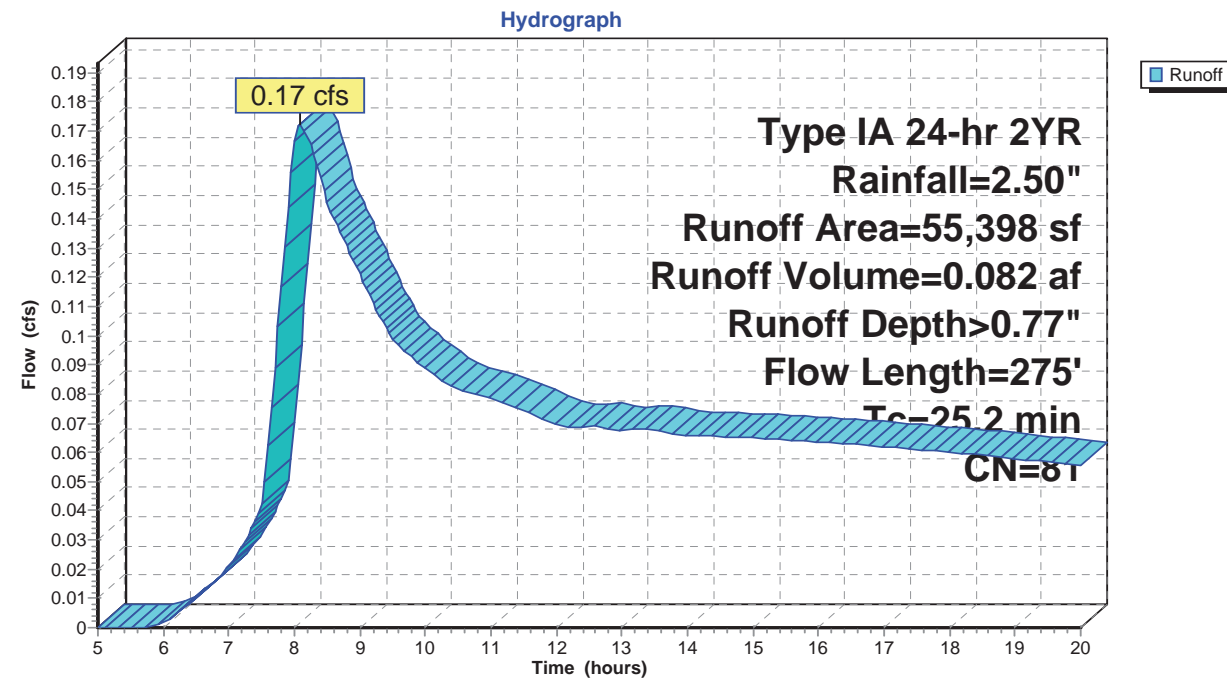
Runoff = 0.17 cfs @ 8.07 hrs, Volume= 0.082 af, Depth> 0.77"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
50,337	79	50-75% Grass cover, Fair, HSG C
5,061	98	Paved parking & roofs
55,398	81	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	216	0.0326	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
0.6	59	0.1200	1.7		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.2	275	Total			

Subcatchment E1: EXISTING CONDITIONS NORTHWEST



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Type IA 24-hr 2YR Rainfall=2.50"

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Subcatchment E2: EXISTING CONDITIONS SOUTHEAST

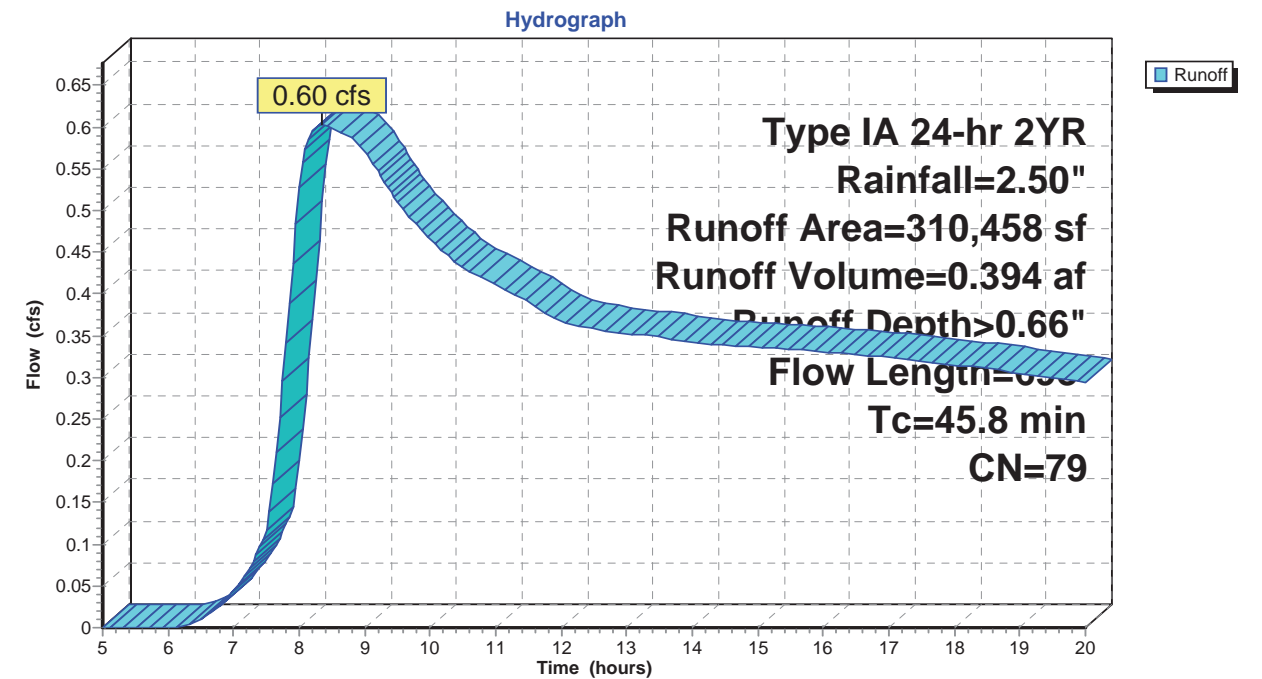
Runoff = 0.60 cfs @ 8.34 hrs, Volume= 0.394 af, Depth> 0.66"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR Rainfall=2.50"

Area (sf)	CN	Description
305,398	79	50-75% Grass cover, Fair, HSG C
5,060	98	Paved parking & roofs
310,458	79	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.6	300	0.0217	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
8.2	398	0.0259	0.8		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
45.8	698	Total			

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST



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Type IA 24-hr 2YR Rainfall=2.50"

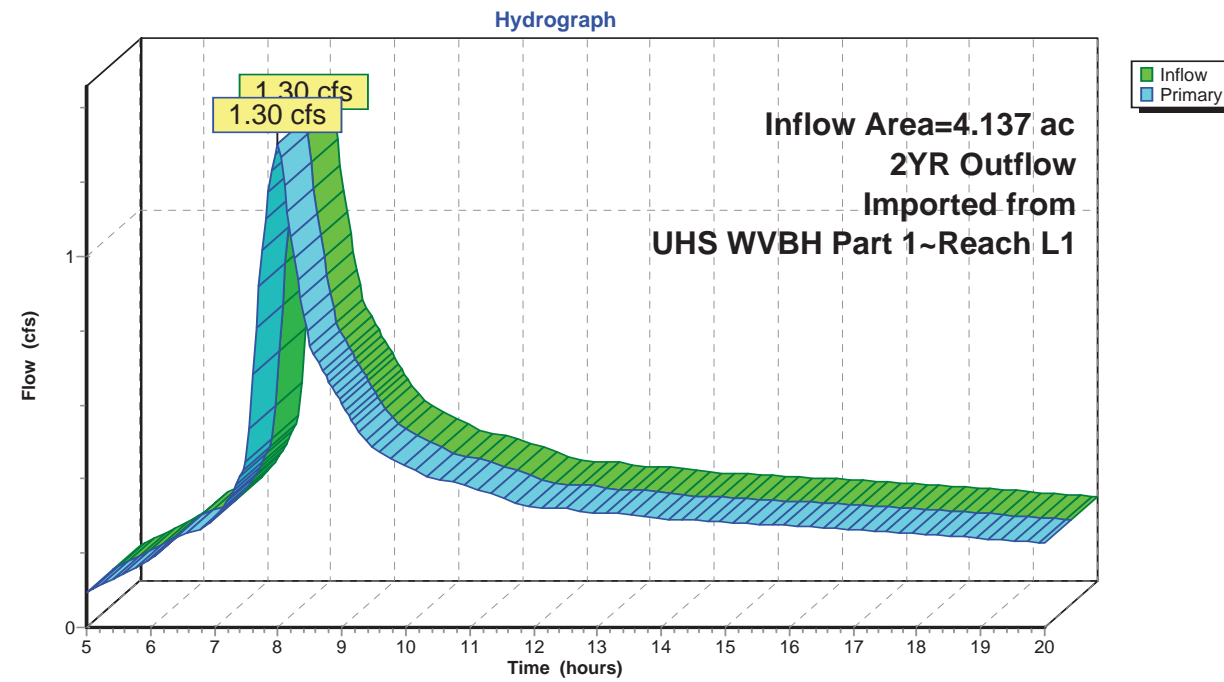
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Link L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 1.28" for 2YR event
 Inflow = 1.30 cfs @ 8.00 hrs, Volume= 0.441 af
 Primary = 1.30 cfs @ 8.00 hrs, Volume= 0.441 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 2YR Outflow Imported from UHS WVBH Part 1~Reach L1

Link L1: [LINK TO POND]



UHS WVBH Part 2

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Type IA 24-hr 2YR Rainfall=2.50"

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Pond P1: POND WEST

Inflow Area = 4.137 ac, Inflow Depth > 1.28" for 2YR event
 Inflow = 1.30 cfs @ 8.00 hrs, Volume= 0.441 af
 Outflow = 0.62 cfs @ 8.95 hrs, Volume= 0.367 af, Atten= 53%, Lag= 56.9 min
 Primary = 0.62 cfs @ 8.95 hrs, Volume= 0.367 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 269.53' @ 8.95 hrs Surf.Area= 4,551 sf Storage= 4,417 cf
 Plug-Flow detention time= 148.0 min calculated for 0.367 af (83% of inflow)
 Center-of-Mass det. time= 69.1 min (768.6 - 699.5)

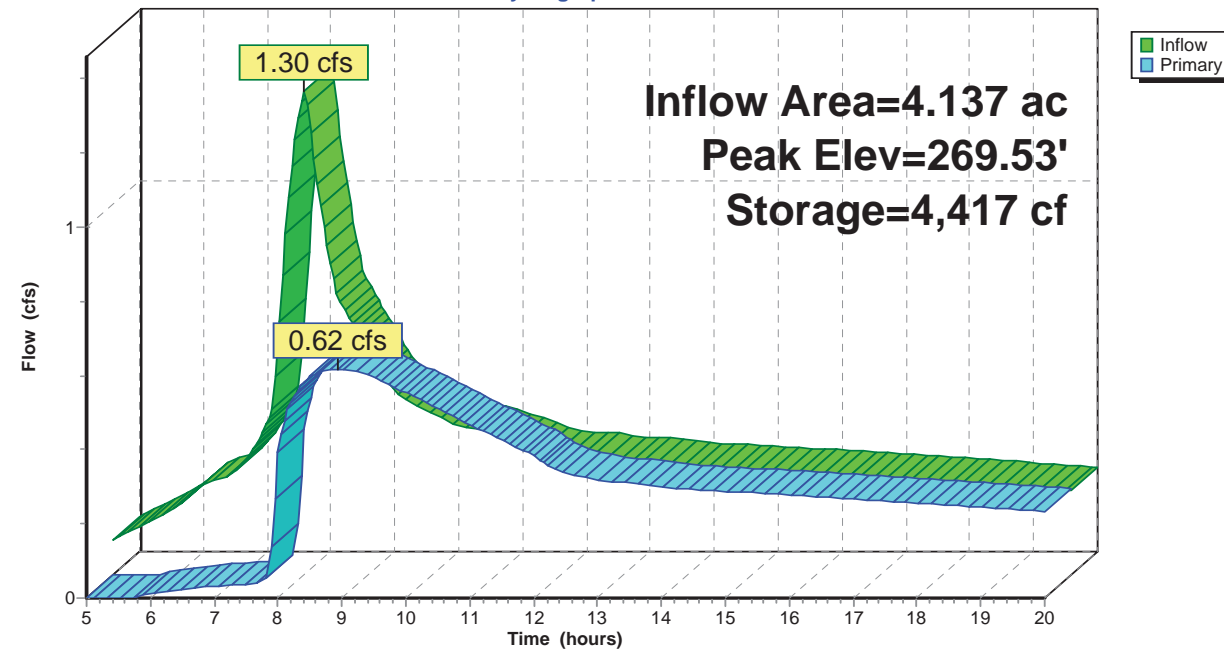
Volume	Invert	Avail.Storage	Storage Description	
#1	266.30'	14,038 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
266.30	1,349	40.0	0	0
267.30	2,341	40.0	738	738
268.30	3,333	40.0	1,135	1,873
269.30	4,325	40.0	1,532	3,404
270.30	5,317	100.0	4,821	8,225
271.30	6,309	100.0	5,813	14,038

Device	Routing	Invert	Outlet Devices	
#1	Primary	270.40'	6.0" Horiz. Orifice/Grate	Limited to weir flow C= 0.600
#2	Primary	266.80'	1.1" Vert. Orifice/Grate	C= 0.600
#3	Primary	268.92'	6.0" Vert. Orifice/Grate	C= 0.600
#4	Primary	269.53'	7.3" Vert. Orifice/Grate	C= 0.600

Primary OutFlow Max=0.62 cfs @ 8.95 hrs HW=269.53' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.05 cfs @ 7.9 fps)
 3=Orifice/Grate (Orifice Controls 0.57 cfs @ 2.9 fps)
 4=Orifice/Grate (Controls 0.00 cfs)

Pond P1: POND WEST

Hydrograph



Pond P2: POND EAST

Inflow Area = 1.923 ac, Inflow Depth > 1.11" for 2YR event
 Inflow = 0.60 cfs @ 7.91 hrs, Volume= 0.178 af
 Outflow = 0.20 cfs @ 9.10 hrs, Volume= 0.133 af, Atten= 67%, Lag= 71.3 min
 Primary = 0.20 cfs @ 9.10 hrs, Volume= 0.133 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 260.60' @ 9.10 hrs Surf.Area= 3,051 sf Storage= 2,266 cf
 Plug-Flow detention time= 218.6 min calculated for 0.133 af (75% of inflow)
 Center-of-Mass det. time= 102.6 min (802.8 - 700.2)

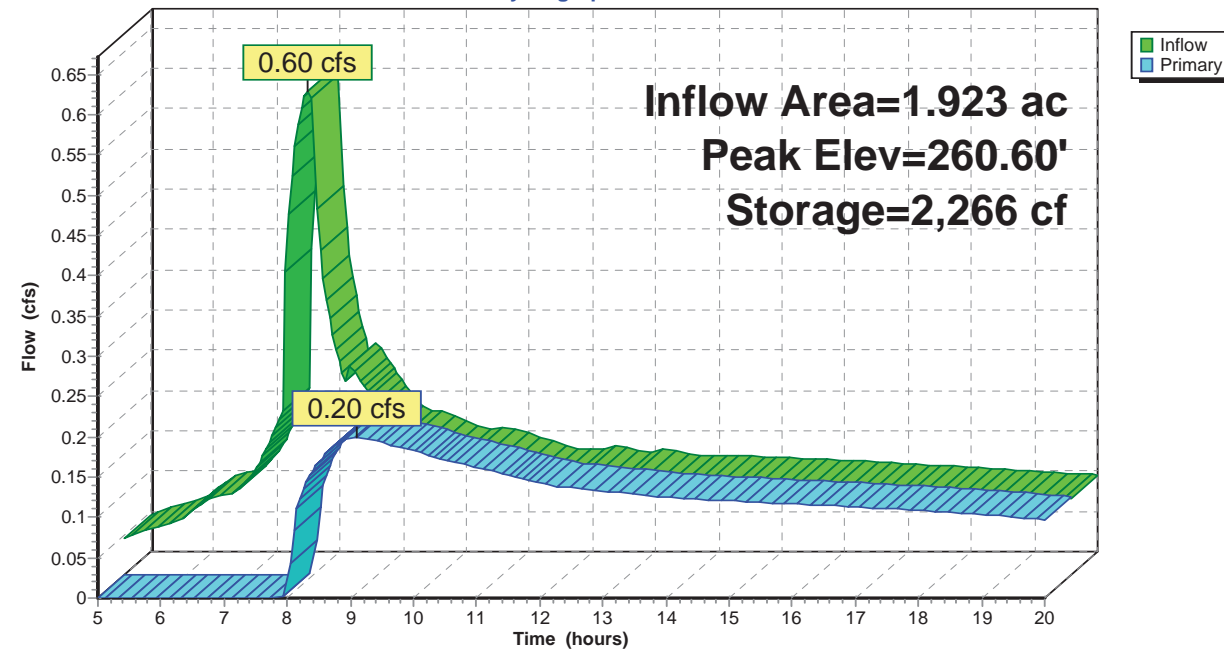
Volume	Invert	Avail.Storage	Storage Description	
#1	257.50'	9,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
257.50	310	0.0	0	0
258.50	1,194	40.0	301	301
259.50	2,078	40.0	654	955
260.50	2,962	40.0	1,008	1,963
261.50	3,846	100.0	3,404	5,367
262.50	4,729	100.0	4,288	9,655

Device	Routing	Invert	Outlet Devices
#1	Primary	261.60'	6.0" Horiz. Orifice/Grate Limited to weir flow C= 0.600
#2	Primary	260.29'	4.8" Vert. Orifice/Grate C= 0.600
#3	Primary	260.60'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.20 cfs @ 9.10 hrs HW=260.60' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 1.9 fps)
 3=Orifice/Grate (Orifice Controls 0.00 cfs @ 0.1 fps)

Pond P2: POND EAST

Hydrograph



Reach R2: POND WEST TO R3

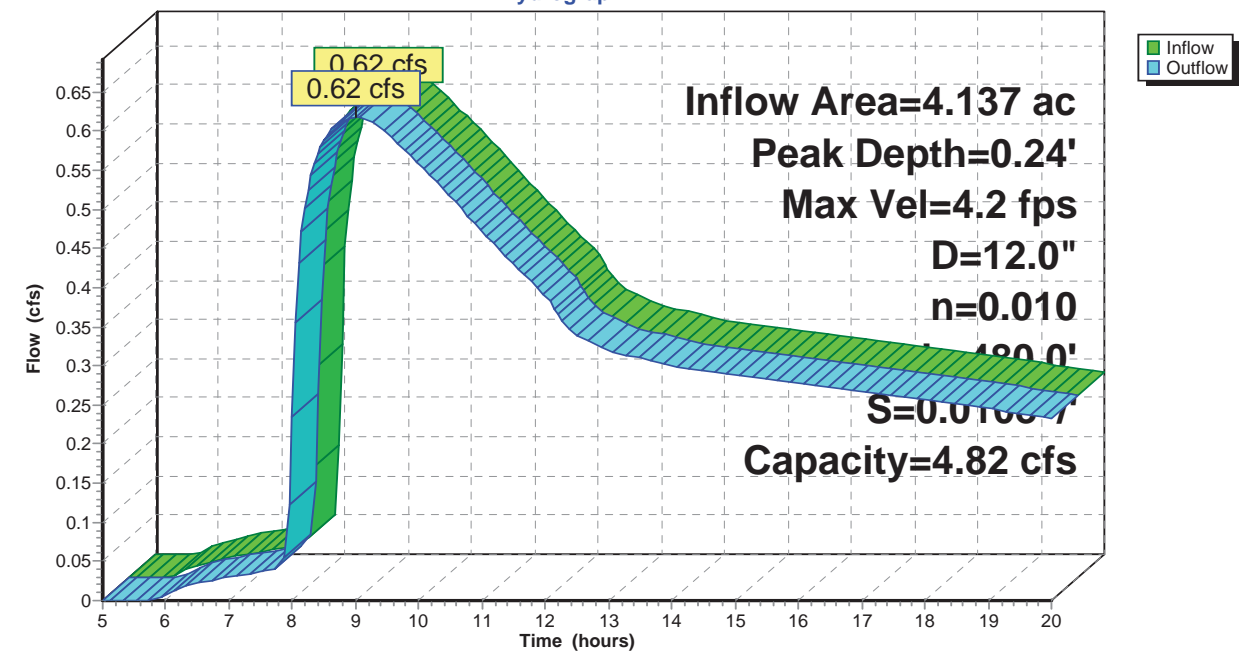
Inflow Area = 4.137 ac, Inflow Depth > 1.07" for 2YR event
 Inflow = 0.62 cfs @ 8.95 hrs, Volume= 0.367 af
 Outflow = 0.62 cfs @ 9.00 hrs, Volume= 0.366 af, Atten= 0%, Lag= 3.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.2 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 3.3 fps, Avg. Travel Time= 2.5 min

Peak Depth= 0.24' @ 8.97 hrs
 Capacity at bank full= 4.82 cfs
 Inlet Invert= 266.80', Outlet Invert= 261.60'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 480.0' Slope= 0.0108 '/

Reach R2: POND WEST TO R3

Hydrograph



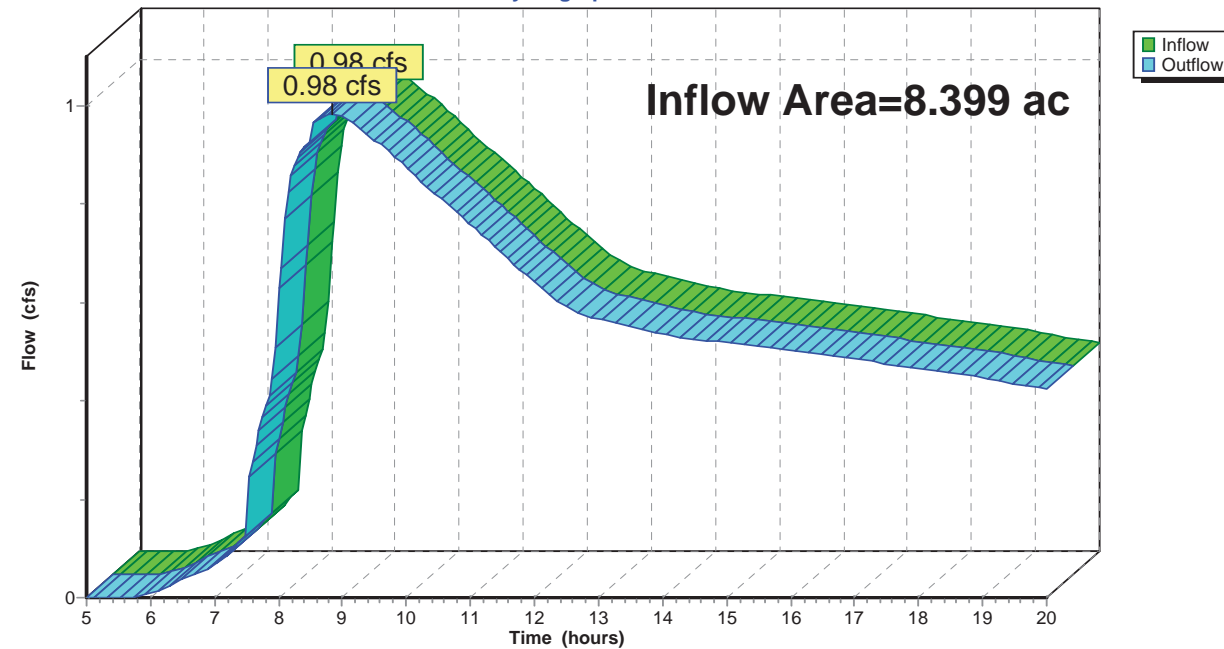
Reach R3: OUT

Inflow Area = 8.399 ac, Inflow Depth > 0.91" for 2YR event
Inflow = 0.98 cfs @ 8.83 hrs, Volume= 0.635 af
Outflow = 0.98 cfs @ 8.83 hrs, Volume= 0.635 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R3: OUT

Hydrograph



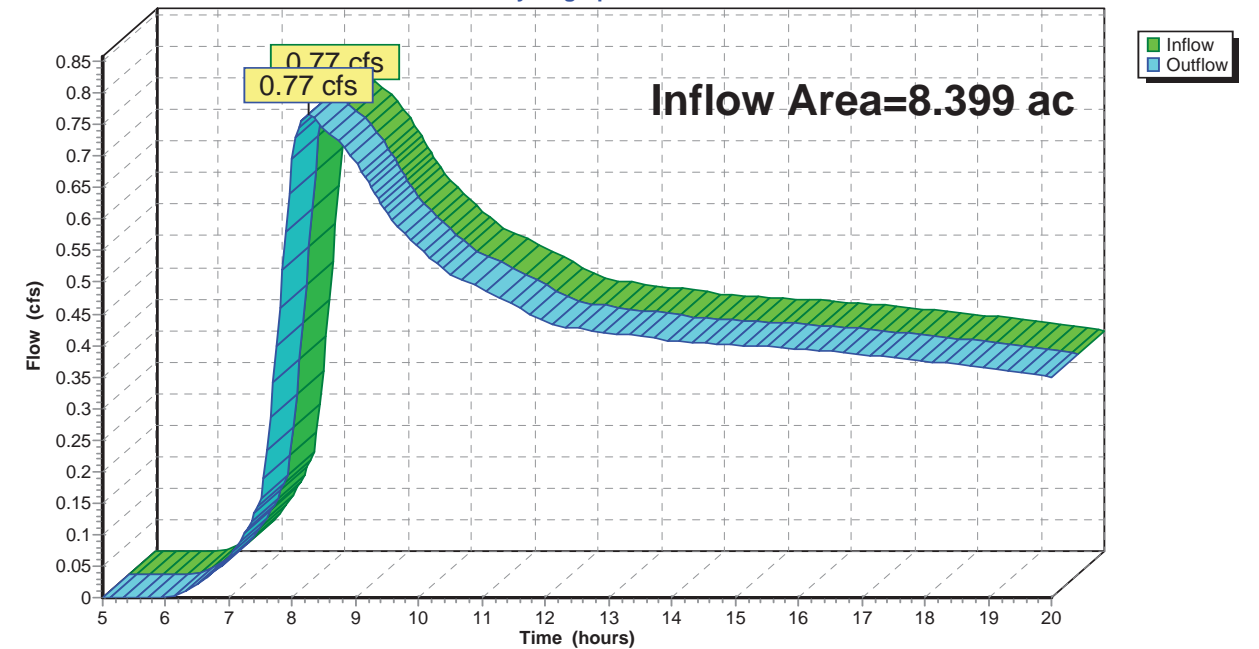
Reach R4: EX

Inflow Area = 8.399 ac, Inflow Depth > 0.68" for 2YR event
Inflow = 0.77 cfs @ 8.27 hrs, Volume= 0.476 af
Outflow = 0.77 cfs @ 8.27 hrs, Volume= 0.476 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R4: EX

Hydrograph



UHS WVBH Part 2

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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B3: PARKING EAST Runoff Area=30,019 sf Runoff Depth>0.26"
Flow Length=376' Tc=3.2 min CN=89 Runoff=0.04 cfs 0.015 af

Subcatchment B4: ACCESS Runoff Area=39,422 sf Runoff Depth>0.07"
Tc=0.0 min CN=80 Runoff=0.01 cfs 0.005 af

Subcatchment B7: ROOF EAST Runoff Area=14,335 sf Runoff Depth>0.71"
Tc=0.0 min CN=98 Runoff=0.07 cfs 0.019 af

Subcatchment B8: REMAINING NORTHWEST Runoff Area=39,439 sf Runoff Depth>0.06"
Tc=0.0 min CN=79 Runoff=0.01 cfs 0.004 af

Subcatchment B9: REMAINING SOUTHEAST Runoff Area=62,440 sf Runoff Depth>0.06"
Tc=0.0 min CN=79 Runoff=0.01 cfs 0.007 af

Subcatchment E1: EXISTING CONDITIONS NORTHWEST Runoff Area=55,398 sf Runoff Depth>0.08"
Flow Length=275' Tc=25.2 min CN=81 Runoff=0.01 cfs 0.009 af

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST Runoff Area=310,458 sf Runoff Depth>0.05"
Flow Length=698' Tc=45.8 min CN=79 Runoff=0.05 cfs 0.032 af

Link L1: [LINK TO P 2YR 42% Outflow Imported from UHS WVBH Part 1~Reach L1 Inflow=0.24 cfs 0.102 af
Primary=0.24 cfs 0.102 af

Pond P1: POND WEST Peak Elev=268.92' Storage=2,768 cf Inflow=0.24 cfs 0.102 af
Outflow=0.05 cfs 0.038 af

Pond P2: POND EAST Peak Elev=260.29' Storage=1,721 cf Inflow=0.11 cfs 0.040 af
Outflow=0.00 cfs 0.000 af

Reach R2: POND WEST TO R3 Peak Depth=0.07' Max Vel=1.9 fps Inflow=0.05 cfs 0.038 af
D=12.0" n=0.010 L=480.0' S=0.0108 '/' Capacity=4.82 cfs Outflow=0.05 cfs 0.038 af

Reach R3: OUT Inflow=0.06 cfs 0.049 af
Outflow=0.06 cfs 0.049 af

Reach R4: EX Inflow=0.06 cfs 0.041 af
Outflow=0.06 cfs 0.041 af

Total Runoff Area = 12.661 ac Runoff Volume = 0.092 af Average Runoff Depth = 0.09"

UHS WVBH Part 2

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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Subcatchment B3: PARKING EAST

Runoff = 0.04 cfs @ 7.99 hrs, Volume= 0.015 af, Depth> 0.26"

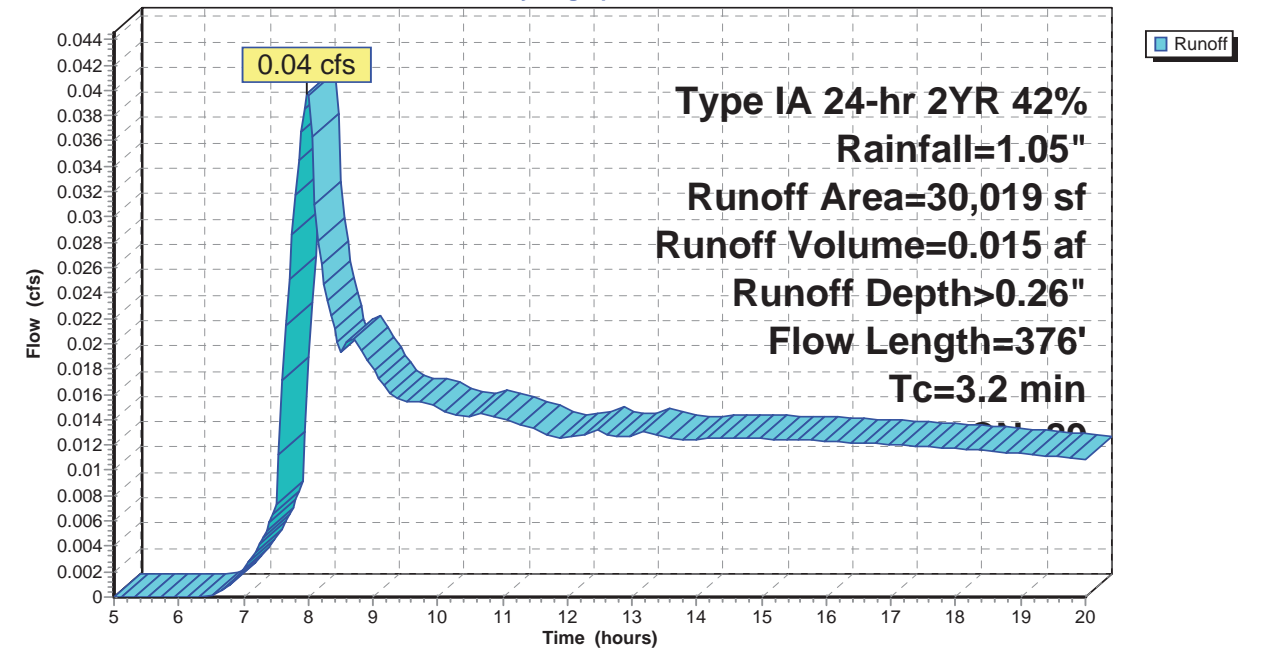
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
18,995	98	Paved roads w/curbs & sewers
11,024	74	>75% Grass cover, Good, HSG C
30,019	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	15	0.1587	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.7	130	0.0200	1.3		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.4	231	0.0201	10.5	167.48	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
3.2	376	Total			

Subcatchment B3: PARKING EAST

Hydrograph



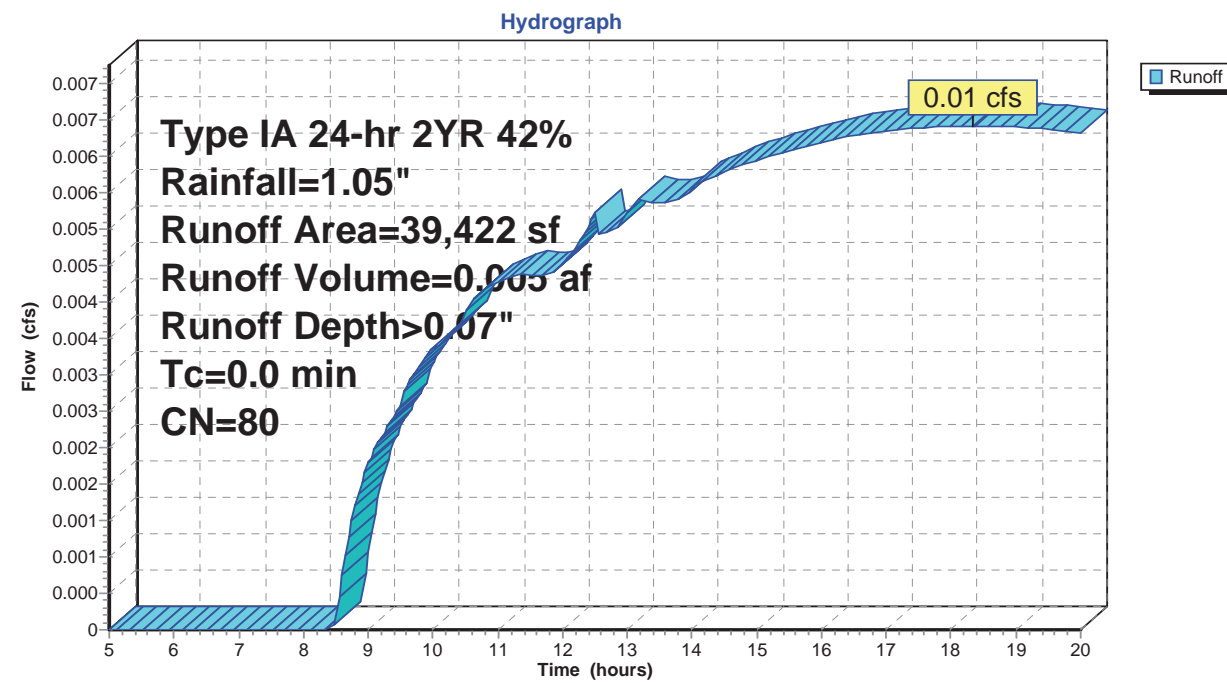
Subcatchment B4: ACCESS

Runoff = 0.01 cfs @ 18.35 hrs, Volume= 0.005 af, Depth> 0.07"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
9,686	98	Paved parking & roofs
29,736	74	>75% Grass cover, Good, HSG C
39,422	80	Weighted Average

Subcatchment B4: ACCESS



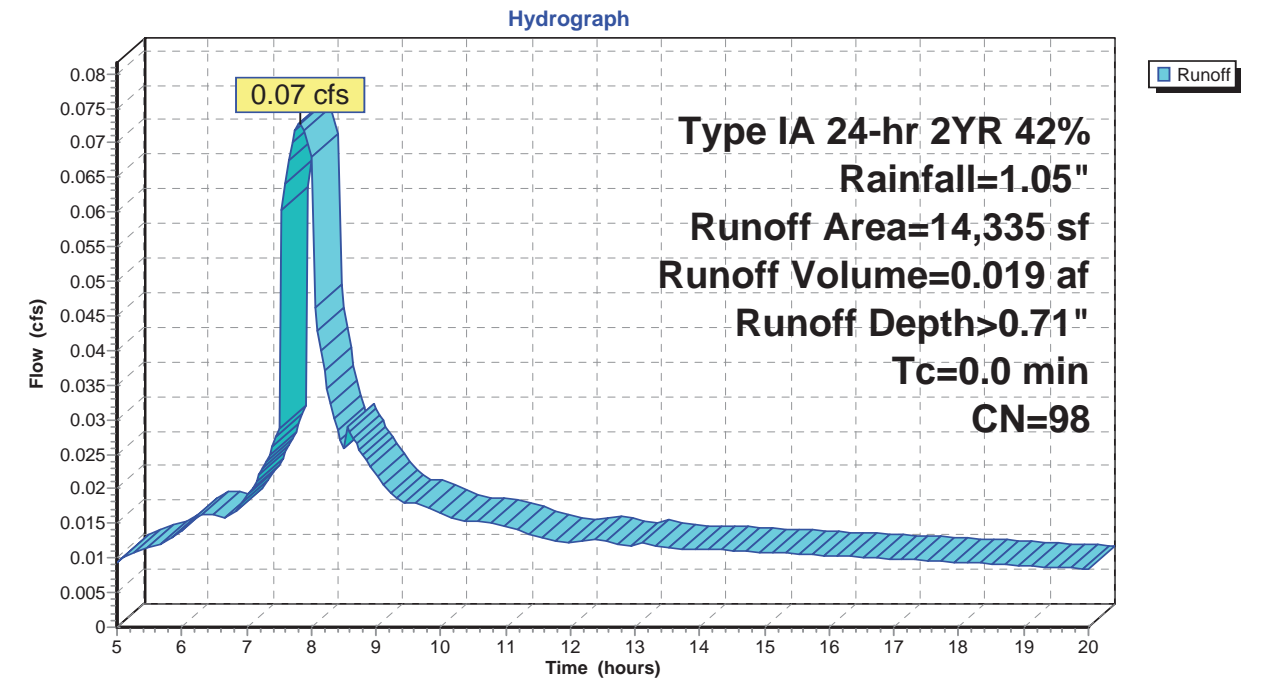
Subcatchment B7: ROOF EAST

Runoff = 0.07 cfs @ 7.83 hrs, Volume= 0.019 af, Depth> 0.71"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
14,335	98	Paved parking & roofs

Subcatchment B7: ROOF EAST



Subcatchment B8: REMAINING NORTHWEST

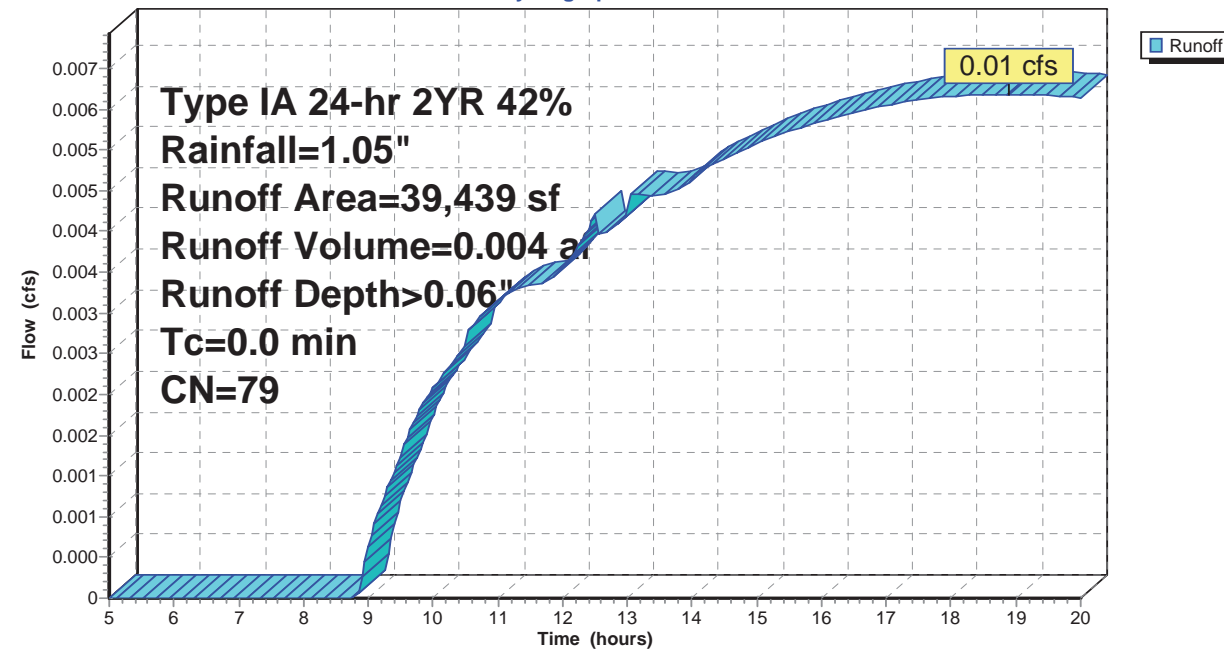
Runoff = 0.01 cfs @ 18.89 hrs, Volume= 0.004 af, Depth> 0.06"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
39,439	79	50-75% Grass cover, Fair, HSG C

Subcatchment B8: REMAINING NORTHWEST

Hydrograph



Subcatchment B9: REMAINING SOUTHEAST

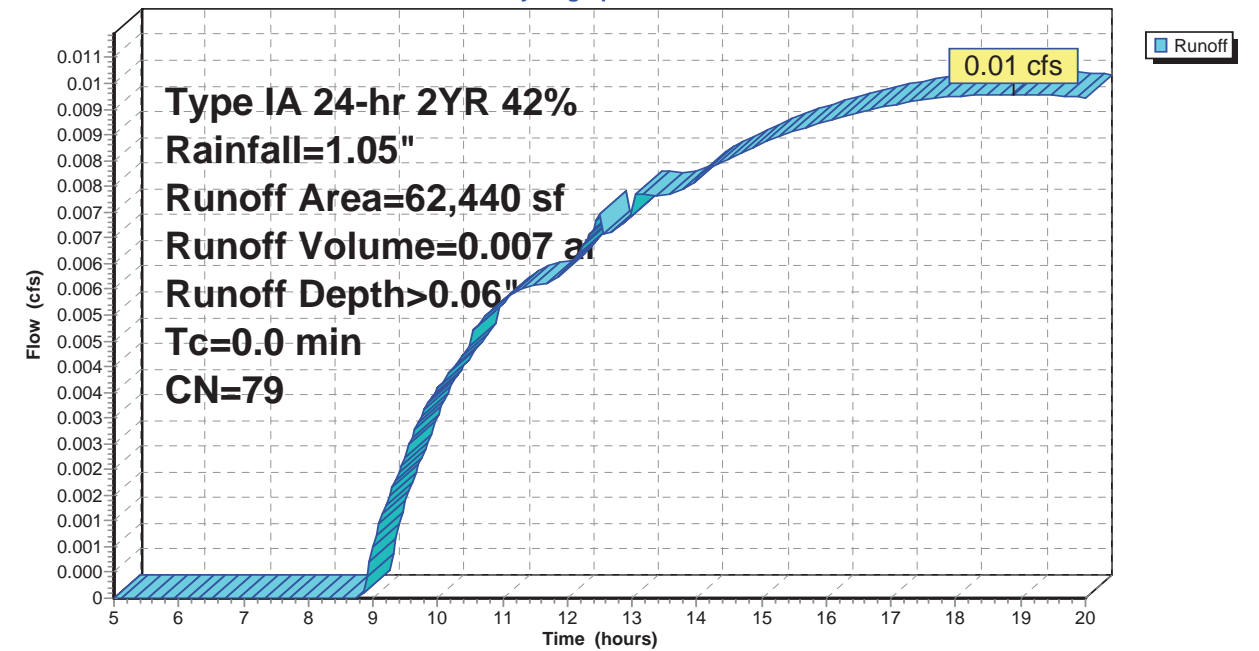
Runoff = 0.01 cfs @ 18.89 hrs, Volume= 0.007 af, Depth> 0.06"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
62,440	79	50-75% Grass cover, Fair, HSG C

Subcatchment B9: REMAINING SOUTHEAST

Hydrograph



Subcatchment E1: EXISTING CONDITIONS NORTHWEST

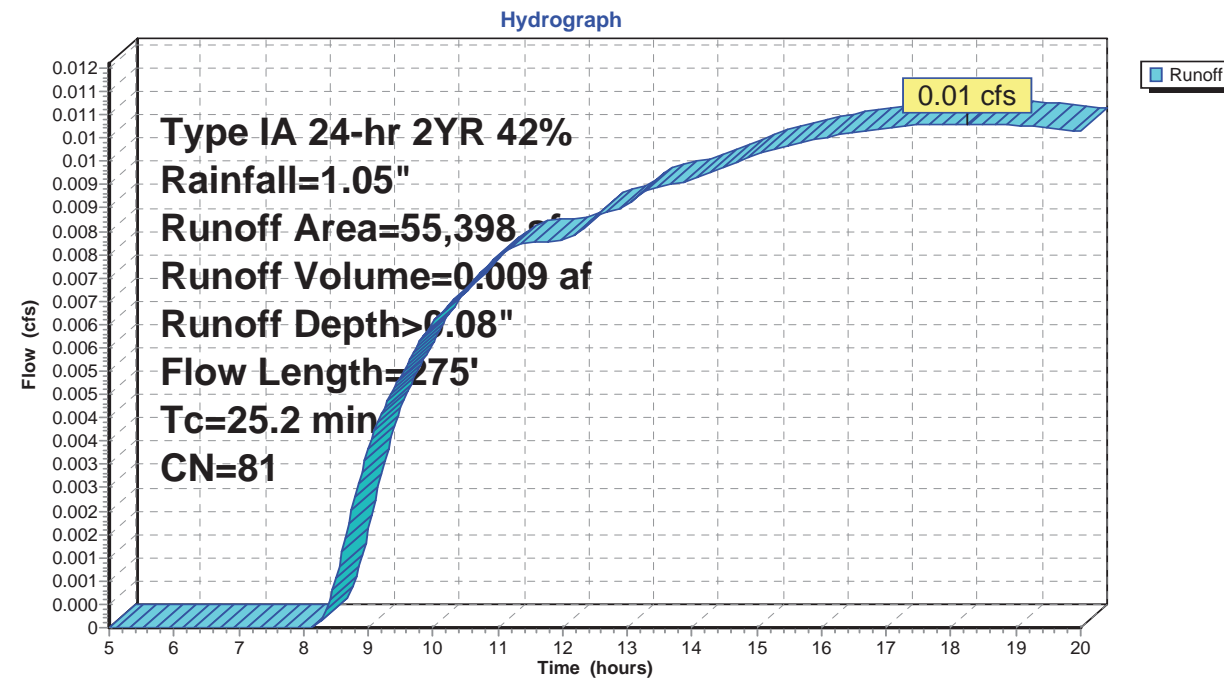
Runoff = 0.01 cfs @ 18.24 hrs, Volume= 0.009 af, Depth> 0.08"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
50,337	79	50-75% Grass cover, Fair, HSG C
5,061	98	Paved parking & roofs
55,398	81	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	216	0.0326	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
0.6	59	0.1200	1.7		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.2	275	Total			

Subcatchment E1: EXISTING CONDITIONS NORTHWEST



Subcatchment E2: EXISTING CONDITIONS SOUTHEAST

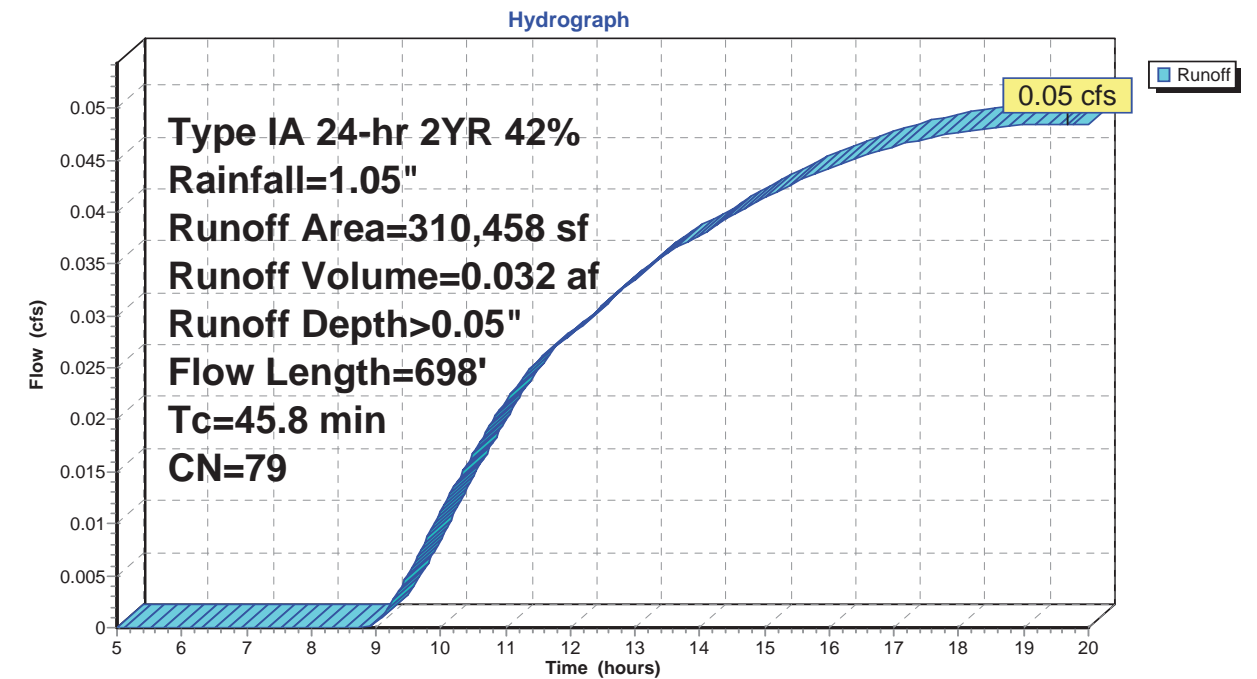
Runoff = 0.05 cfs @ 19.69 hrs, Volume= 0.032 af, Depth> 0.05"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 2YR 42% Rainfall=1.05"

Area (sf)	CN	Description
305,398	79	50-75% Grass cover, Fair, HSG C
5,060	98	Paved parking & roofs
310,458	79	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.6	300	0.0217	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
8.2	398	0.0259	0.8		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
45.8	698	Total			

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST



UHS WVBH Part 2

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Type IA 24-hr 2YR 42% Rainfall=1.05"

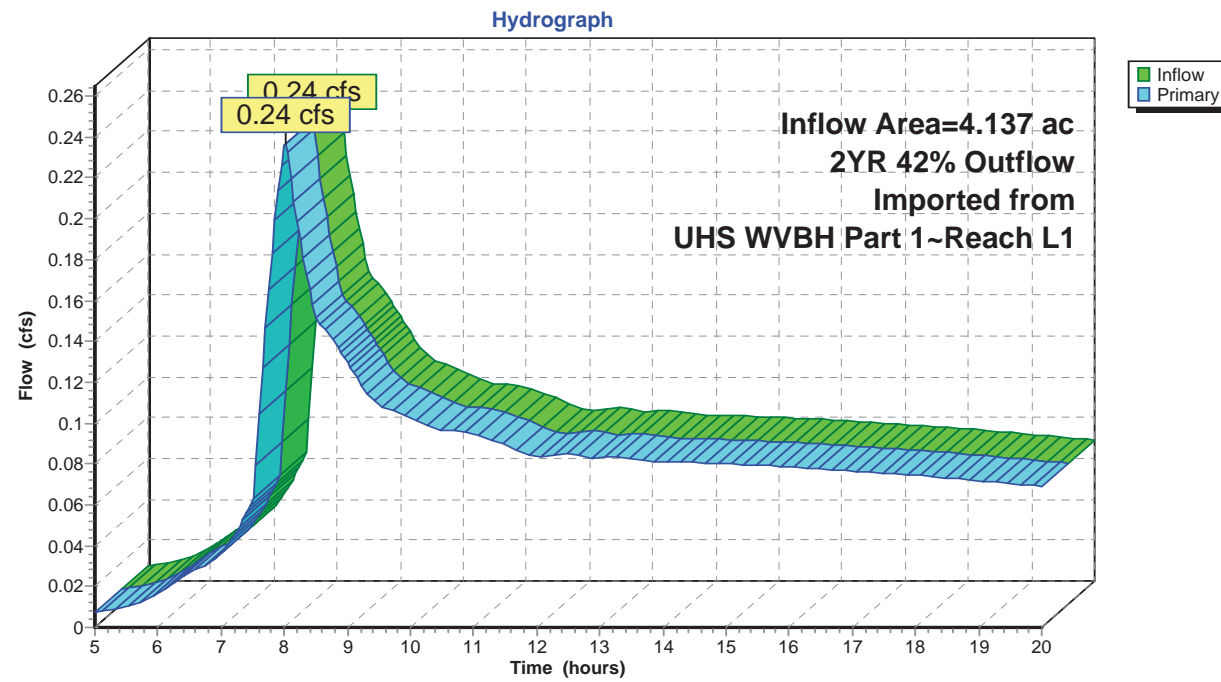
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Link L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 0.30" for 2YR 42% event
 Inflow = 0.24 cfs @ 8.01 hrs, Volume= 0.102 af
 Primary = 0.24 cfs @ 8.01 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 2YR 42% Outflow Imported from UHS WVBH Part 1~Reach L1

Link L1: [LINK TO POND]



UHS WVBH Part 2

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Type IA 24-hr 2YR 42% Rainfall=1.05"

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Pond P1: POND WEST

Inflow Area = 4.137 ac, Inflow Depth > 0.30" for 2YR 42% event
 Inflow = 0.24 cfs @ 8.01 hrs, Volume= 0.102 af
 Outflow = 0.05 cfs @ 20.00 hrs, Volume= 0.038 af, Atten= 81%, Lag= 719.2 min
 Primary = 0.05 cfs @ 20.00 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 268.92' @ 20.00 hrs Surf.Area= 3,943 sf Storage= 2,768 cf
 Plug-Flow detention time= 361.8 min calculated for 0.038 af (37% of inflow)
 Center-of-Mass det. time= 118.8 min (872.9 - 754.1)

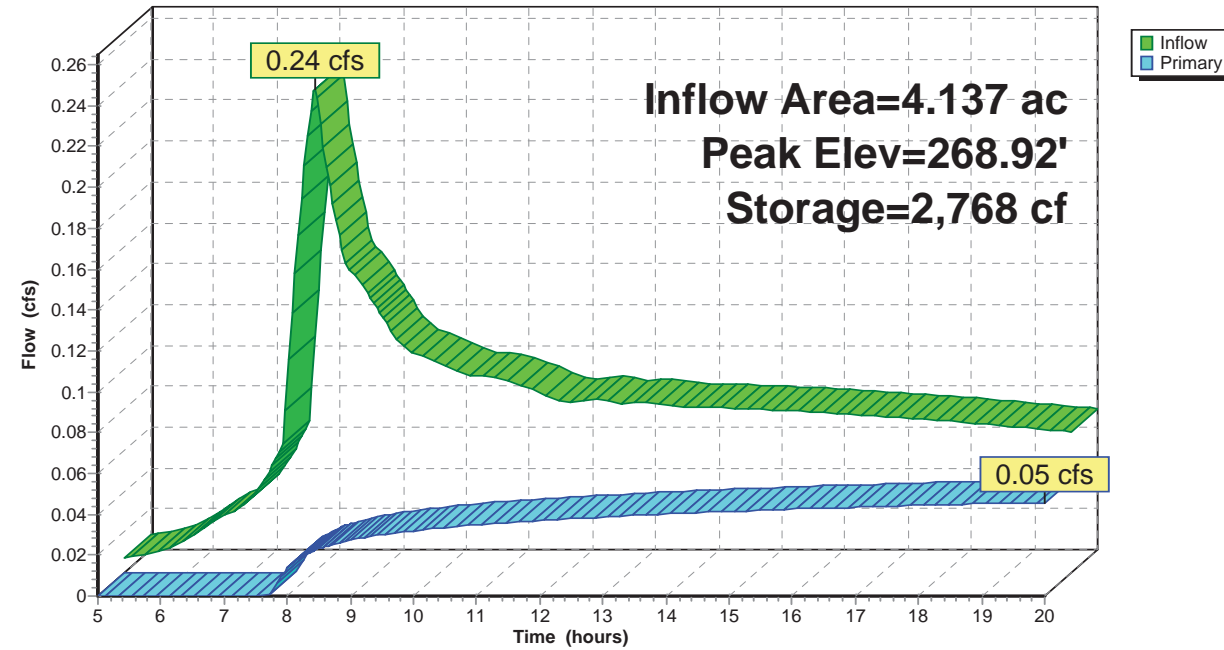
Volume	Invert	Avail.Storage	Storage Description	
#1	266.30'	14,038 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
266.30	1,349	40.0	0	0
267.30	2,341	40.0	738	738
268.30	3,333	40.0	1,135	1,873
269.30	4,325	40.0	1,532	3,404
270.30	5,317	100.0	4,821	8,225
271.30	6,309	100.0	5,813	14,038

Device	Routing	Invert	Outlet Devices
#1	Primary	270.40'	6.0" Horiz. Orifice/Grate Limited to weir flow C= 0.600
#2	Primary	266.80'	1.1" Vert. Orifice/Grate C= 0.600
#3	Primary	268.92'	6.0" Vert. Orifice/Grate C= 0.600
#4	Primary	269.53'	7.3" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.05 cfs @ 20.00 hrs HW=268.92' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.05 cfs @ 6.9 fps)
 3=Orifice/Grate (Controls 0.00 cfs)
 4=Orifice/Grate (Controls 0.00 cfs)

Pond P1: POND WEST

Hydrograph



Pond P2: POND EAST

Inflow Area = 1.923 ac, Inflow Depth > 0.25" for 2YR 42% event
 Inflow = 0.11 cfs @ 7.93 hrs, Volume= 0.040 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 260.29' @ 20.00 hrs Surf.Area= 2,776 sf Storage= 1,721 cf
 Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

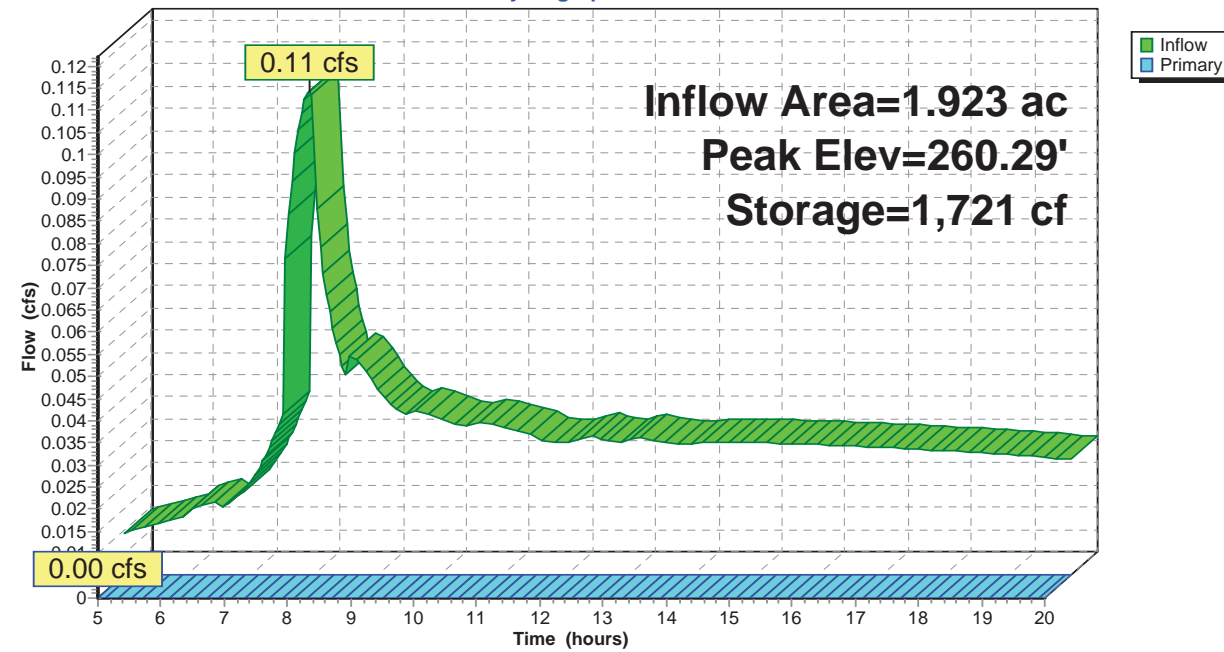
Volume	Invert	Avail.Storage	Storage Description	
#1	257.50'	9,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
257.50	310	0.0	0	0
258.50	1,194	40.0	301	301
259.50	2,078	40.0	654	955
260.50	2,962	40.0	1,008	1,963
261.50	3,846	100.0	3,404	5,367
262.50	4,729	100.0	4,288	9,655

Device	Routing	Invert	Outlet Devices
#1	Primary	261.60'	6.0" Horiz. Orifice/Grate Limited to weir flow C= 0.600
#2	Primary	260.29'	4.8" Vert. Orifice/Grate C= 0.600
#3	Primary	260.60'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=257.51' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Orifice/Grate (Controls 0.00 cfs)

Pond P2: POND EAST

Hydrograph



Reach R2: POND WEST TO R3

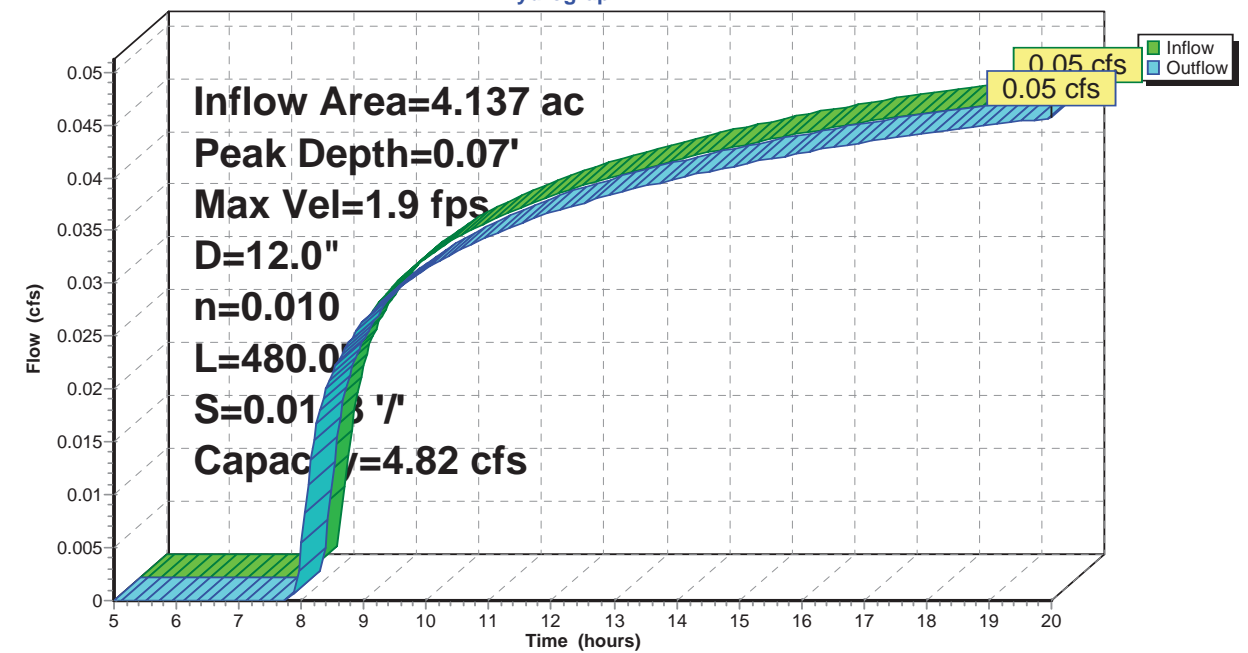
Inflow Area = 4.137 ac, Inflow Depth > 0.11" for 2YR 42% event
 Inflow = 0.05 cfs @ 20.00 hrs, Volume= 0.038 af
 Outflow = 0.05 cfs @ 20.00 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.9 fps, Min. Travel Time= 4.1 min
 Avg. Velocity = 1.8 fps, Avg. Travel Time= 4.4 min

Peak Depth= 0.07' @ 20.00 hrs
 Capacity at bank full= 4.82 cfs
 Inlet Invert= 266.80', Outlet Invert= 261.60'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 480.0' Slope= 0.0108 '/'

Reach R2: POND WEST TO R3

Hydrograph



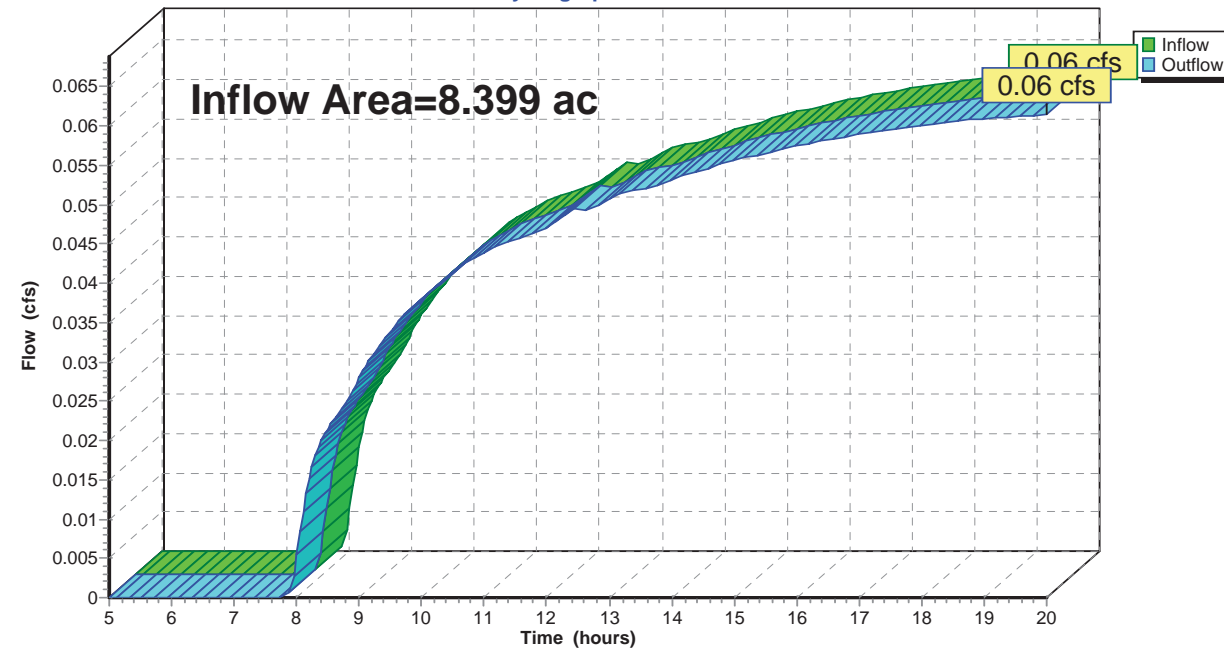
Reach R3: OUT

Inflow Area = 8.399 ac, Inflow Depth > 0.07" for 2YR 42% event
Inflow = 0.06 cfs @ 20.00 hrs, Volume= 0.049 af
Outflow = 0.06 cfs @ 20.00 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R3: OUT

Hydrograph



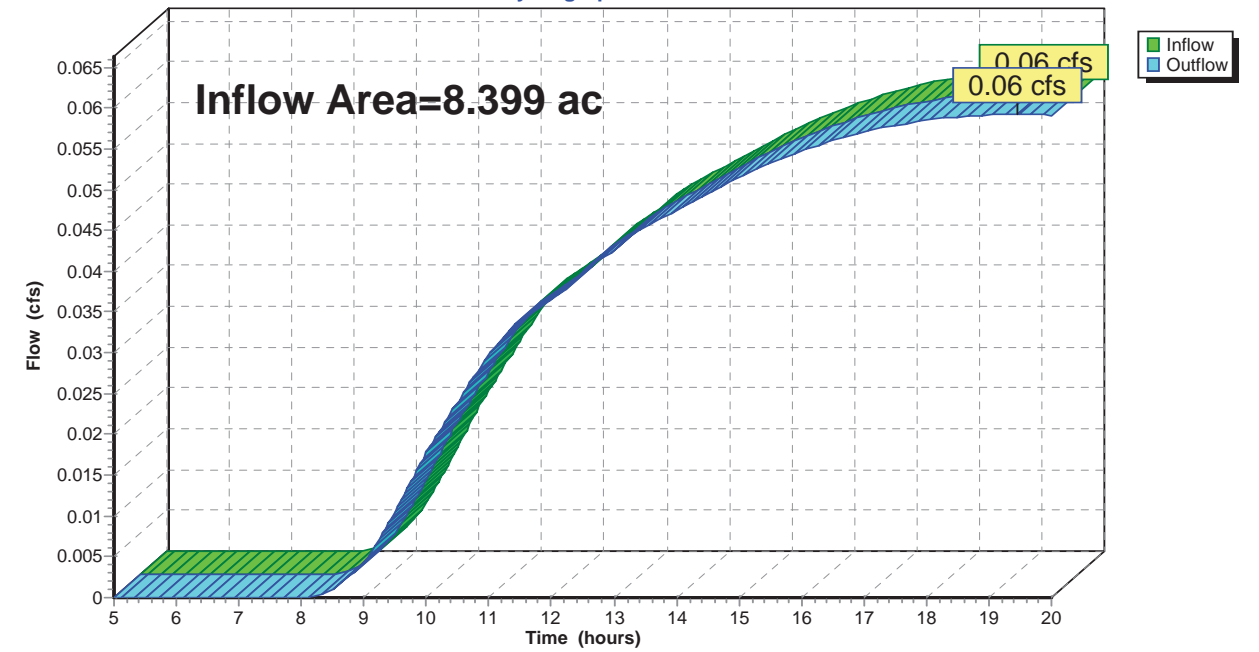
Reach R4: EX

Inflow Area = 8.399 ac, Inflow Depth > 0.06" for 2YR 42% event
Inflow = 0.06 cfs @ 19.46 hrs, Volume= 0.041 af
Outflow = 0.06 cfs @ 19.46 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R4: EX

Hydrograph



UHS WVBH Part 2

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Type IA 24-hr 10YR Rainfall=3.45"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B3: PARKING EAST Runoff Area=30,019 sf Runoff Depth>1.98"
Flow Length=376' Tc=3.2 min CN=89 Runoff=0.41 cfs 0.114 af

Subcatchment B4: ACCESS Runoff Area=39,422 sf Runoff Depth>1.36"
Tc=0.0 min CN=80 Runoff=0.33 cfs 0.103 af

Subcatchment B7: ROOF EAST Runoff Area=14,335 sf Runoff Depth>2.57"
Tc=0.0 min CN=98 Runoff=0.27 cfs 0.070 af

Subcatchment B8: REMAINING NORTHWEST Runoff Area=39,439 sf Runoff Depth>1.30"
Tc=0.0 min CN=79 Runoff=0.31 cfs 0.098 af

Subcatchment B9: REMAINING SOUTHEAST Runoff Area=62,440 sf Runoff Depth>1.30"
Tc=0.0 min CN=79 Runoff=0.50 cfs 0.155 af

Subcatchment E1: EXISTING CONDITIONS NORTHWEST Runoff Area=55,398 sf Runoff Depth>1.40"
Flow Length=275' Tc=25.2 min CN=81 Runoff=0.36 cfs 0.148 af

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST Runoff Area=310,458 sf Runoff Depth>1.25"
Flow Length=698' Tc=45.8 min CN=79 Runoff=1.35 cfs 0.741 af

Link L1: [LINK TO POND] 10YR Outflow Imported from UHS WVBH Part 1~Reach L1 Inflow=2.11 cfs 0.690 af
Primary=2.11 cfs 0.690 af

Pond P1: POND WEST Peak Elev=269.89' Storage=6,133 cf Inflow=2.11 cfs 0.690 af
Outflow=1.23 cfs 0.614 af

Pond P2: POND EAST Peak Elev=260.82' Storage=2,954 cf Inflow=1.01 cfs 0.287 af
Outflow=0.55 cfs 0.239 af

Reach R2: POND WEST TO R3 Peak Depth=0.34' Max Vel=5.1 fps Inflow=1.23 cfs 0.614 af
D=12.0" n=0.010 L=480.0' S=0.0108 '/' Capacity=4.82 cfs Outflow=1.22 cfs 0.612 af

Reach R3: OUT Inflow=2.10 cfs 1.103 af
Outflow=2.10 cfs 1.103 af

Reach R4: EX Inflow=1.69 cfs 0.889 af
Outflow=1.69 cfs 0.889 af

Total Runoff Area = 12.661 ac Runoff Volume = 1.429 af Average Runoff Depth = 1.35"

UHS WVBH Part 2

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Type IA 24-hr 10YR Rainfall=3.45"

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Subcatchment B3: PARKING EAST

Runoff = 0.41 cfs @ 7.91 hrs, Volume= 0.114 af, Depth> 1.98"

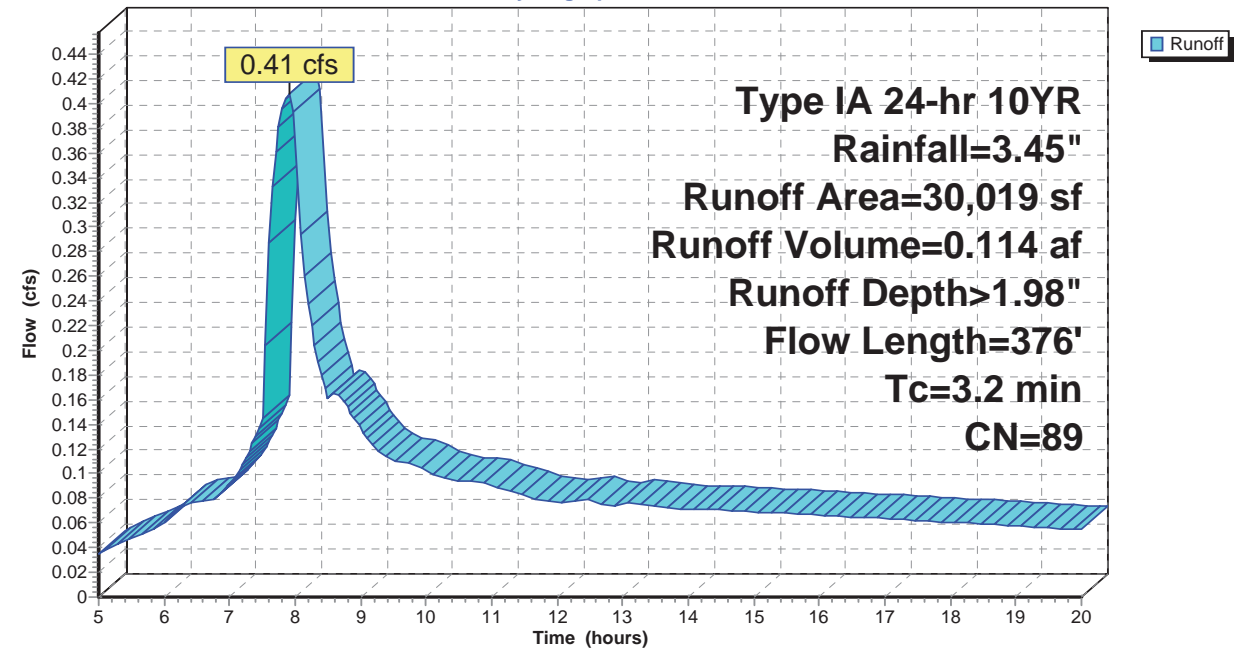
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
18,995	98	Paved roads w/curbs & sewers
11,024	74	>75% Grass cover, Good, HSG C
30,019	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	15	0.1587	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.7	130	0.0200	1.3		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.4	231	0.0201	10.5	167.48	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
3.2	376	Total			

Subcatchment B3: PARKING EAST

Hydrograph



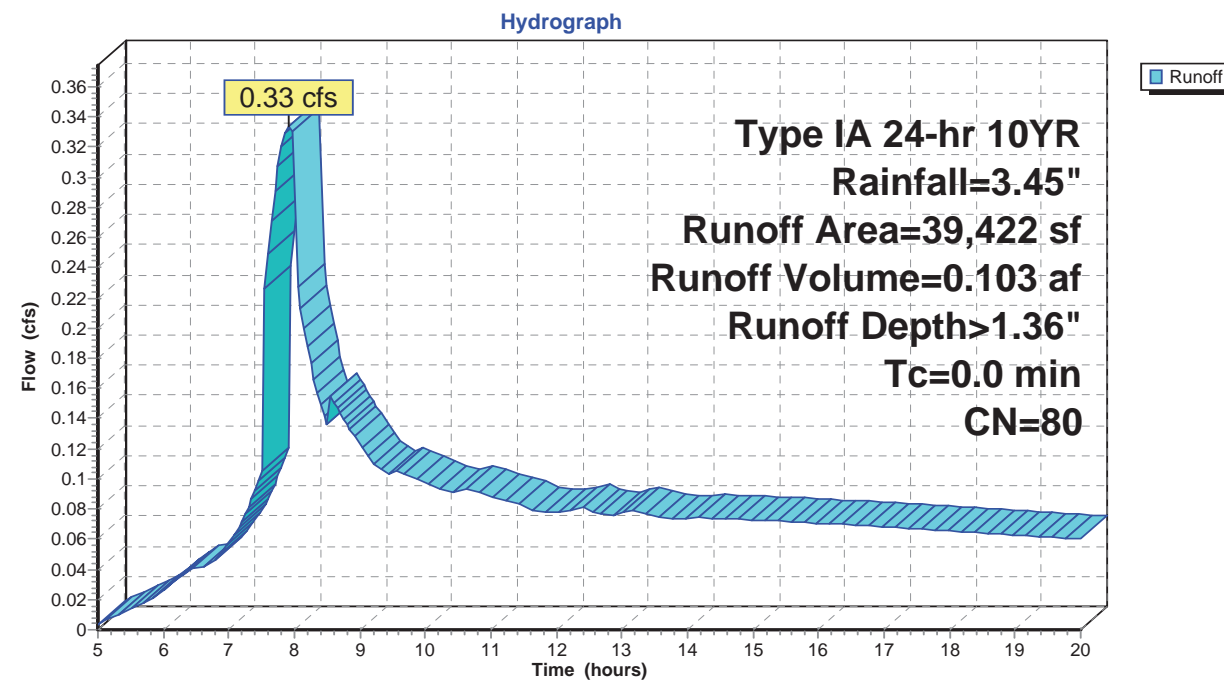
Subcatchment B4: ACCESS

Runoff = 0.33 cfs @ 7.92 hrs, Volume= 0.103 af, Depth> 1.36"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
9,686	98	Paved parking & roofs
29,736	74	>75% Grass cover, Good, HSG C
39,422	80	Weighted Average

Subcatchment B4: ACCESS



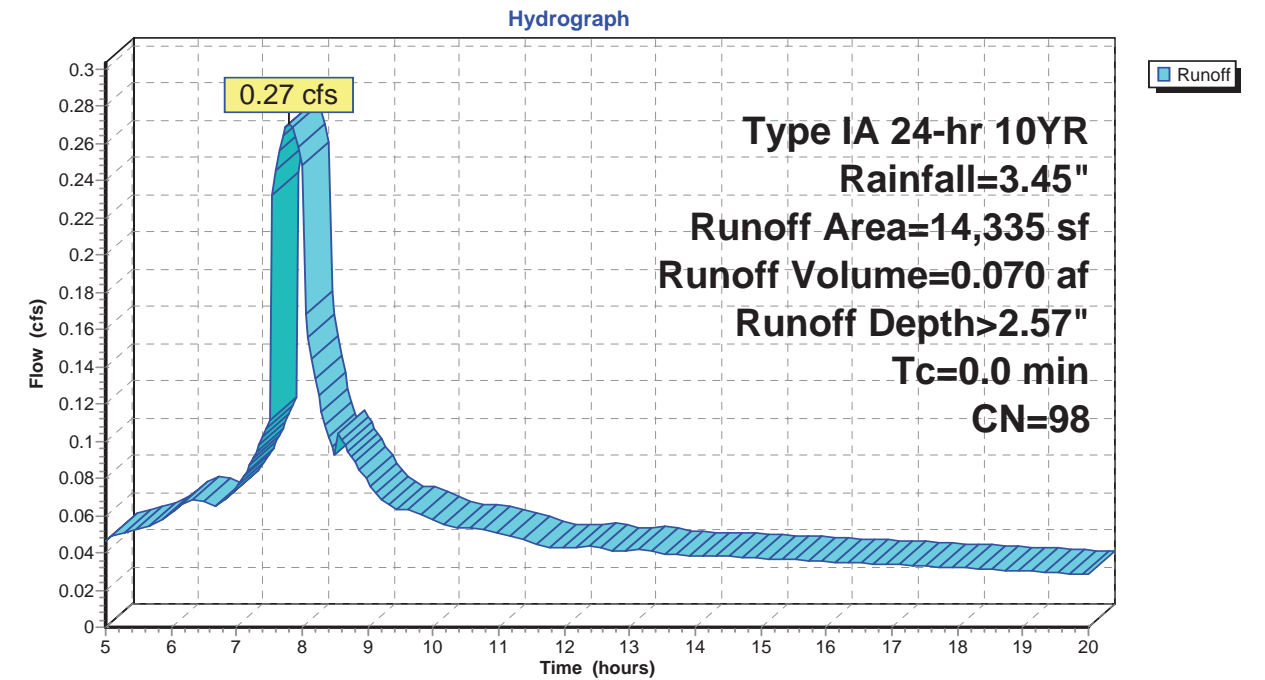
Subcatchment B7: ROOF EAST

Runoff = 0.27 cfs @ 7.80 hrs, Volume= 0.070 af, Depth> 2.57"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
14,335	98	Paved parking & roofs

Subcatchment B7: ROOF EAST



Subcatchment B8: REMAINING NORTHWEST

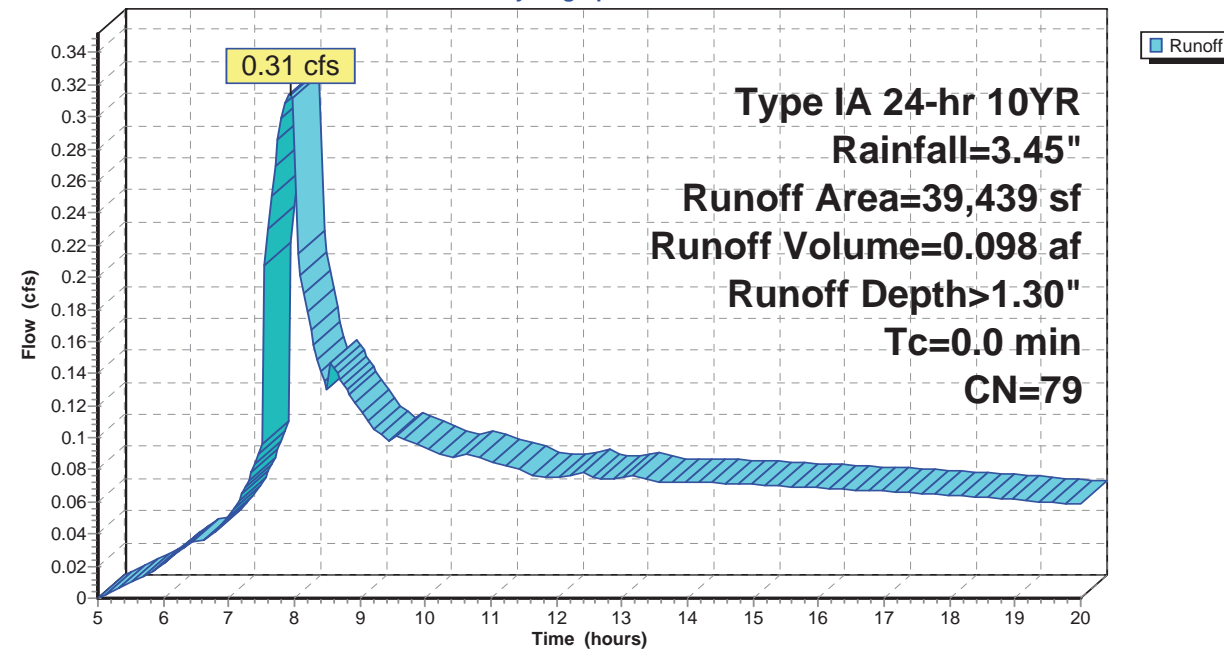
Runoff = 0.31 cfs @ 7.93 hrs, Volume= 0.098 af, Depth> 1.30"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
39,439	79	50-75% Grass cover, Fair, HSG C

Subcatchment B8: REMAINING NORTHWEST

Hydrograph



Subcatchment B9: REMAINING SOUTHEAST

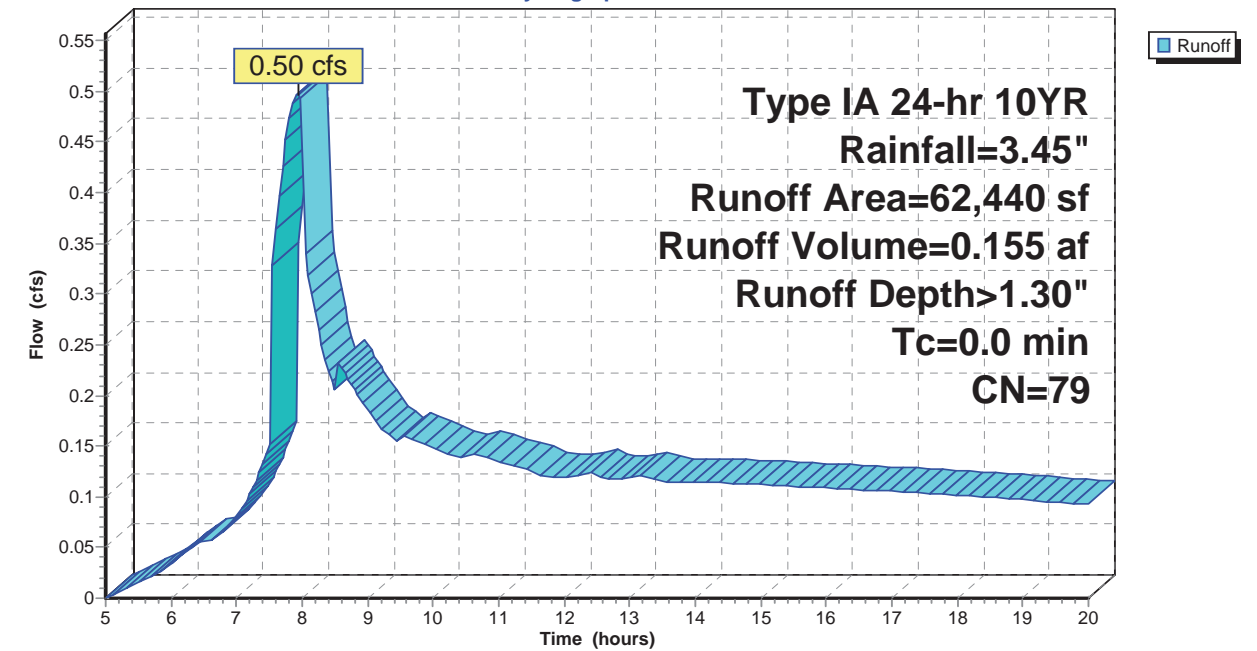
Runoff = 0.50 cfs @ 7.93 hrs, Volume= 0.155 af, Depth> 1.30"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
62,440	79	50-75% Grass cover, Fair, HSG C

Subcatchment B9: REMAINING SOUTHEAST

Hydrograph



Subcatchment E1: EXISTING CONDITIONS NORTHWEST

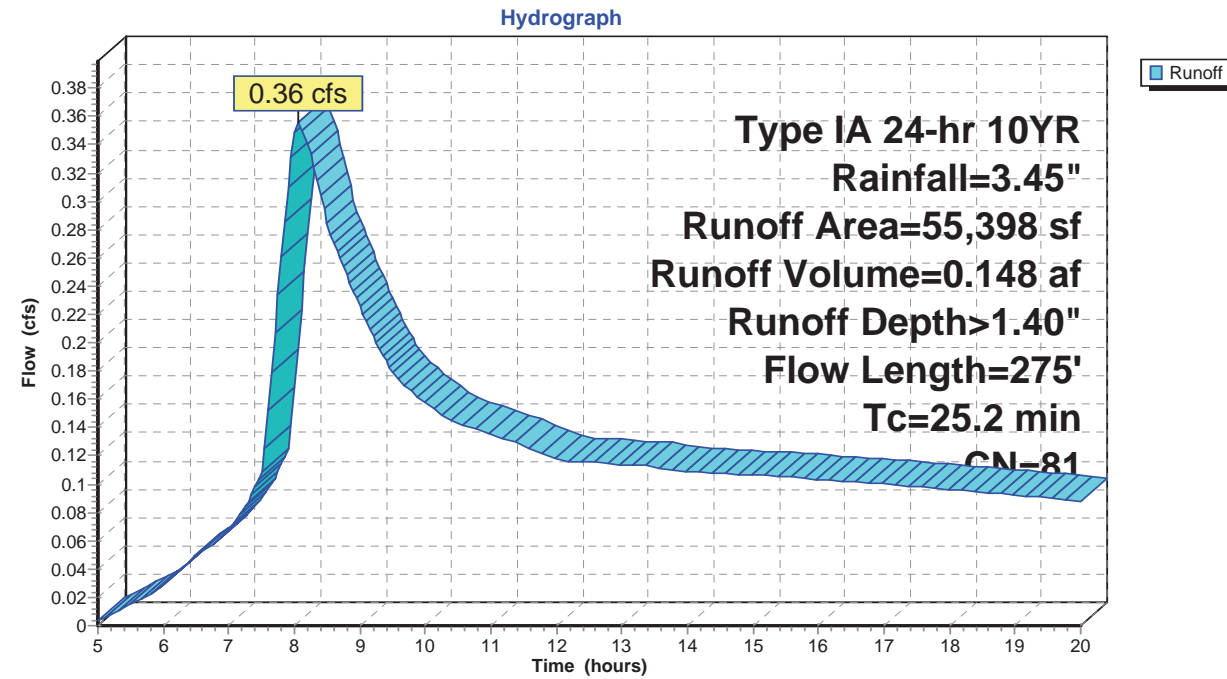
Runoff = 0.36 cfs @ 8.06 hrs, Volume= 0.148 af, Depth> 1.40"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
50,337	79	50-75% Grass cover, Fair, HSG C
5,061	98	Paved parking & roofs
55,398	81	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	216	0.0326	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
0.6	59	0.1200	1.7		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.2	275	Total			

Subcatchment E1: EXISTING CONDITIONS NORTHWEST



Subcatchment E2: EXISTING CONDITIONS SOUTHEAST

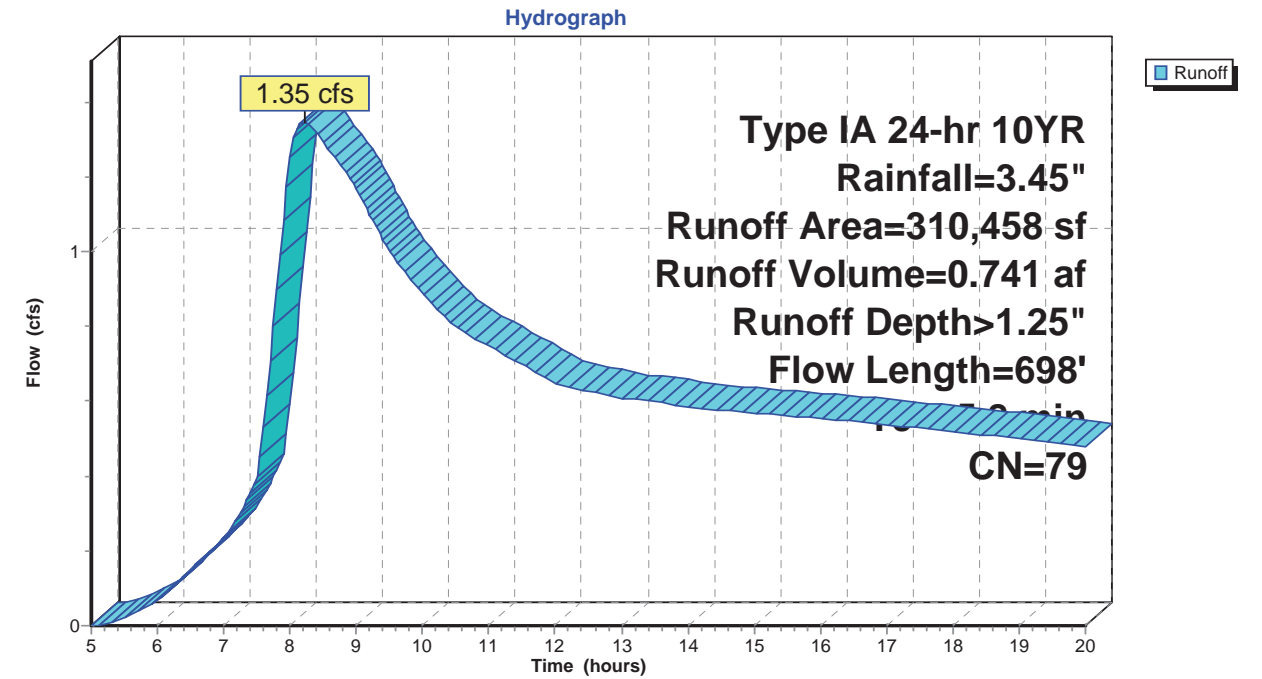
Runoff = 1.35 cfs @ 8.23 hrs, Volume= 0.741 af, Depth> 1.25"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10YR Rainfall=3.45"

Area (sf)	CN	Description
305,398	79	50-75% Grass cover, Fair, HSG C
5,060	98	Paved parking & roofs
310,458	79	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.6	300	0.0217	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
8.2	398	0.0259	0.8		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
45.8	698	Total			

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST



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Type IA 24-hr 10YR Rainfall=3.45"

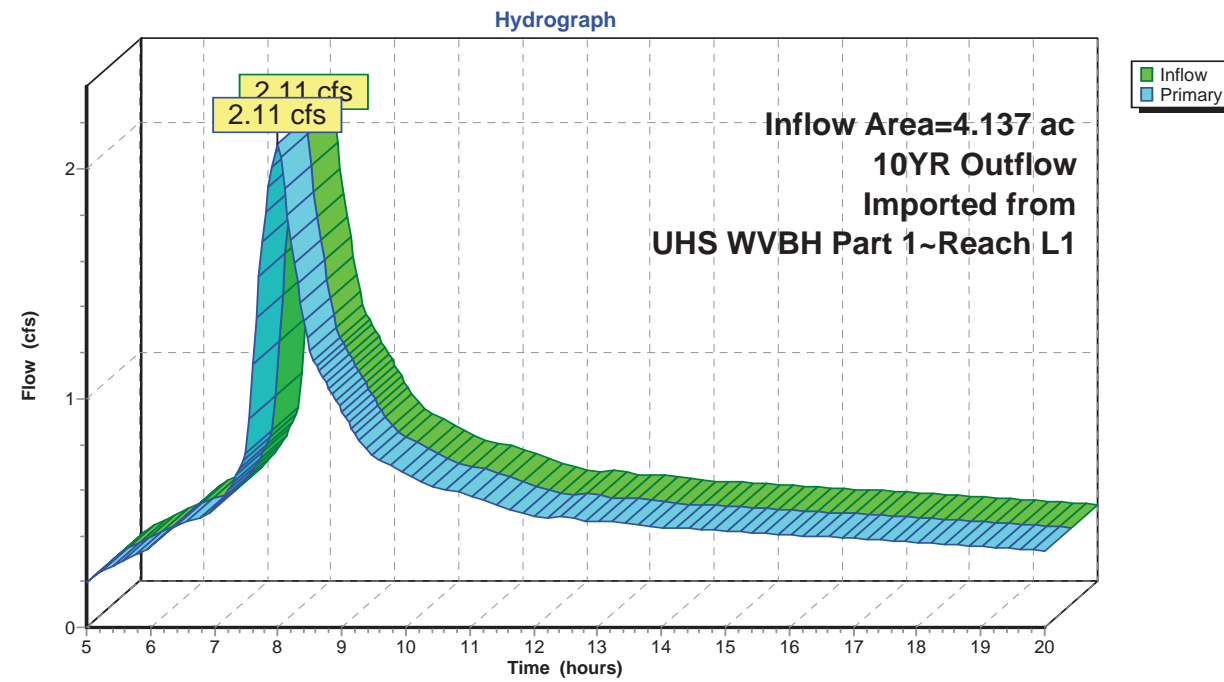
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Link L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 2.00" for 10YR event
 Inflow = 2.11 cfs @ 7.99 hrs, Volume= 0.690 af
 Primary = 2.11 cfs @ 7.99 hrs, Volume= 0.690 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 10YR Outflow Imported from UHS WVBH Part 1~Reach L1

Link L1: [LINK TO POND]



UHS WVBH Part 2

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Type IA 24-hr 10YR Rainfall=3.45"

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Pond P1: POND WEST

Inflow Area = 4.137 ac, Inflow Depth > 2.00" for 10YR event
 Inflow = 2.11 cfs @ 7.99 hrs, Volume= 0.690 af
 Outflow = 1.23 cfs @ 8.49 hrs, Volume= 0.614 af, Atten= 42%, Lag= 29.6 min
 Primary = 1.23 cfs @ 8.49 hrs, Volume= 0.614 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 269.89' @ 8.49 hrs Surf.Area= 4,911 sf Storage= 6,133 cf
 Plug-Flow detention time= 115.5 min calculated for 0.611 af (89% of inflow)
 Center-of-Mass det. time= 60.5 min (746.3 - 685.8)

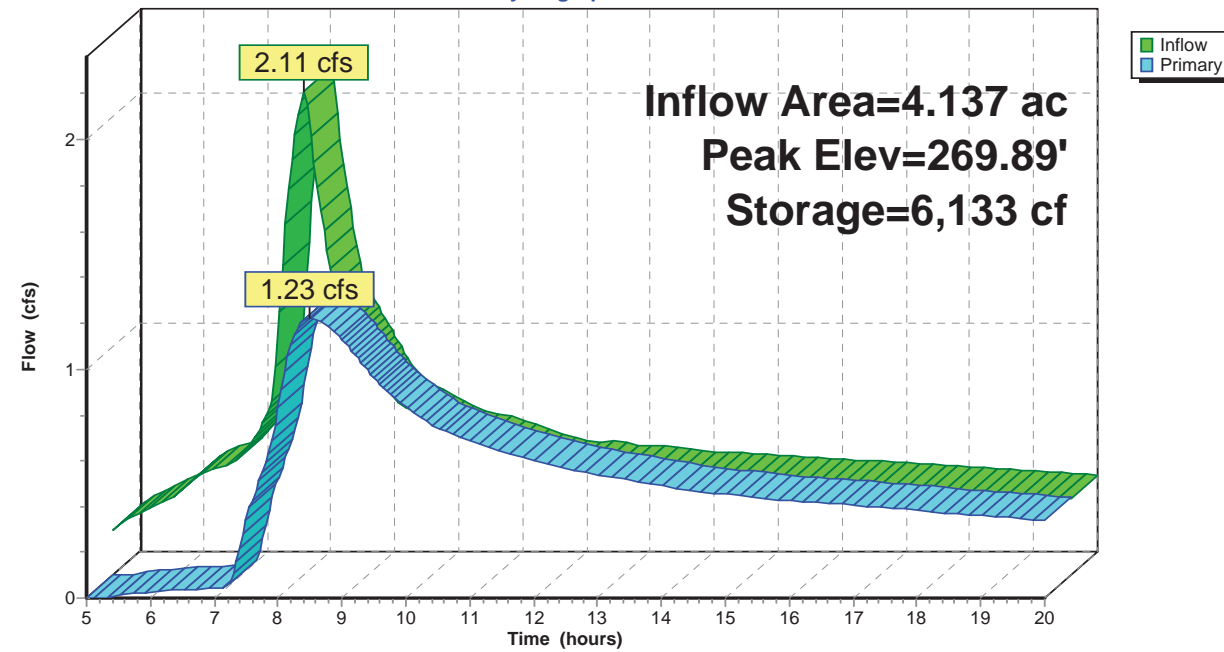
Volume	Invert	Avail.Storage	Storage Description	
#1	266.30'	14,038 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
266.30	1,349	40.0	0	0
267.30	2,341	40.0	738	738
268.30	3,333	40.0	1,135	1,873
269.30	4,325	40.0	1,532	3,404
270.30	5,317	100.0	4,821	8,225
271.30	6,309	100.0	5,813	14,038

Device	Routing	Invert	Outlet Devices	
#1	Primary	270.40'	6.0" Horiz. Orifice/Grate	Limited to weir flow C= 0.600
#2	Primary	266.80'	1.1" Vert. Orifice/Grate	C= 0.600
#3	Primary	268.92'	6.0" Vert. Orifice/Grate	C= 0.600
#4	Primary	269.53'	7.3" Vert. Orifice/Grate	C= 0.600

Primary OutFlow Max=1.22 cfs @ 8.49 hrs HW=269.89' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.06 cfs @ 8.4 fps)
 3=Orifice/Grate (Orifice Controls 0.80 cfs @ 4.1 fps)
 4=Orifice/Grate (Orifice Controls 0.37 cfs @ 2.0 fps)

Pond P1: POND WEST

Hydrograph



Pond P2: POND EAST

Inflow Area = 1.923 ac, Inflow Depth > 1.79" for 10YR event
 Inflow = 1.01 cfs @ 7.89 hrs, Volume= 0.287 af
 Outflow = 0.55 cfs @ 8.21 hrs, Volume= 0.239 af, Atten= 45%, Lag= 19.1 min
 Primary = 0.55 cfs @ 8.21 hrs, Volume= 0.239 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 260.82' @ 8.21 hrs Surf.Area= 3,244 sf Storage= 2,954 cf
 Plug-Flow detention time= 154.1 min calculated for 0.238 af (83% of inflow)
 Center-of-Mass det. time= 72.7 min (759.1 - 686.4)

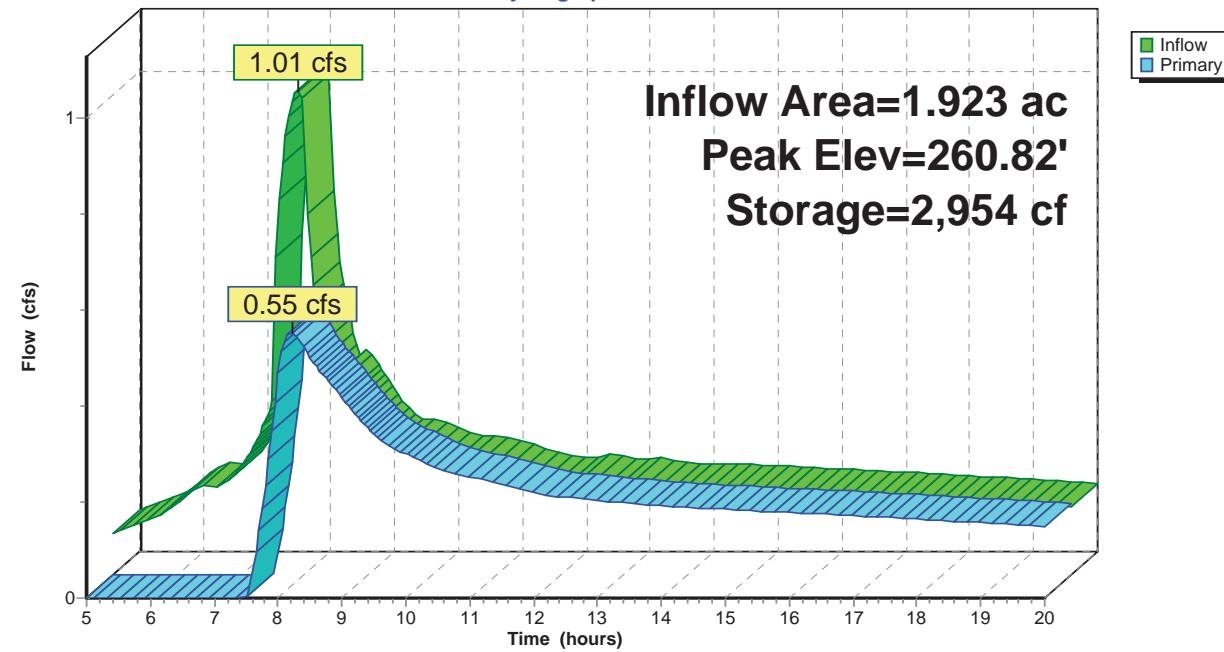
Volume	Invert	Avail.Storage	Storage Description	
#1	257.50'	9,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
257.50	310	0.0	0	0
258.50	1,194	40.0	301	301
259.50	2,078	40.0	654	955
260.50	2,962	40.0	1,008	1,963
261.50	3,846	100.0	3,404	5,367
262.50	4,729	100.0	4,288	9,655

Device	Routing	Invert	Outlet Devices
#1	Primary	261.60'	6.0" Horiz. Orifice/Grate Limited to weir flow C= 0.600
#2	Primary	260.29'	4.8" Vert. Orifice/Grate C= 0.600
#3	Primary	260.60'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.55 cfs @ 8.21 hrs HW=260.82' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.35 cfs @ 2.8 fps)
 3=Orifice/Grate (Orifice Controls 0.20 cfs @ 1.6 fps)

Pond P2: POND EAST

Hydrograph



Reach R2: POND WEST TO R3

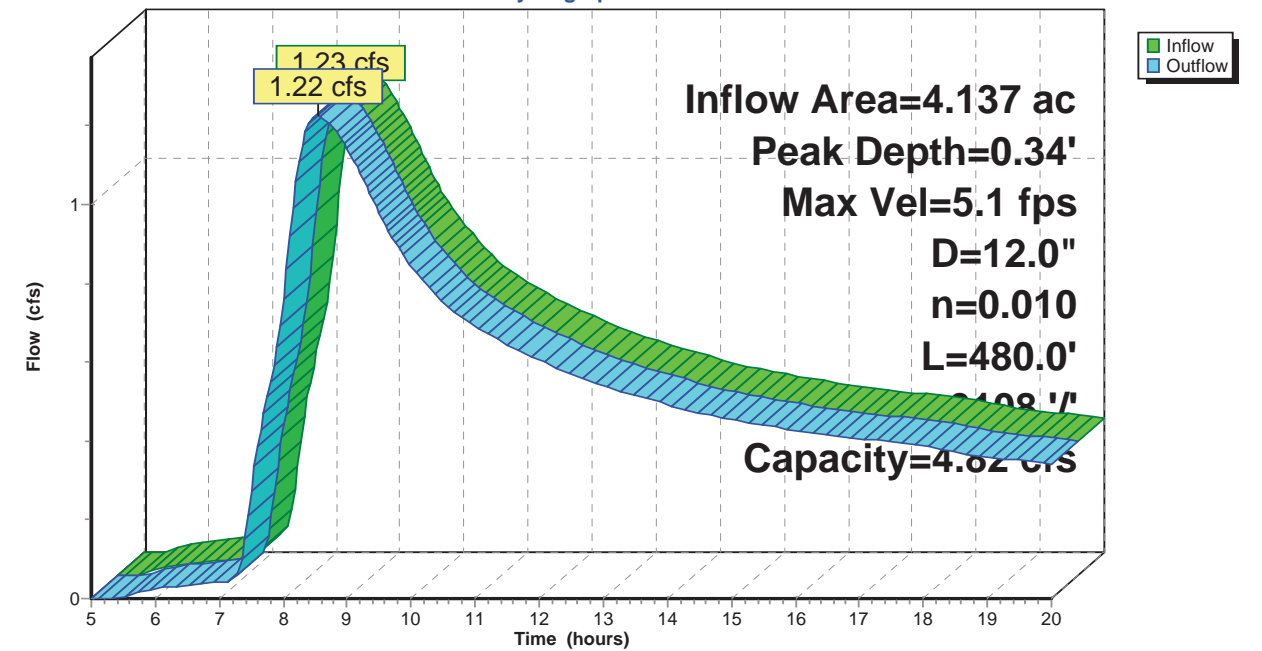
Inflow Area = 4.137 ac, Inflow Depth > 1.78" for 10YR event
 Inflow = 1.23 cfs @ 8.49 hrs, Volume= 0.614 af
 Outflow = 1.22 cfs @ 8.54 hrs, Volume= 0.612 af, Atten= 0%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 5.1 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 3.7 fps, Avg. Travel Time= 2.1 min

Peak Depth= 0.34' @ 8.51 hrs
 Capacity at bank full= 4.82 cfs
 Inlet Invert= 266.80', Outlet Invert= 261.60'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 480.0' Slope= 0.0108 '/'

Reach R2: POND WEST TO R3

Hydrograph



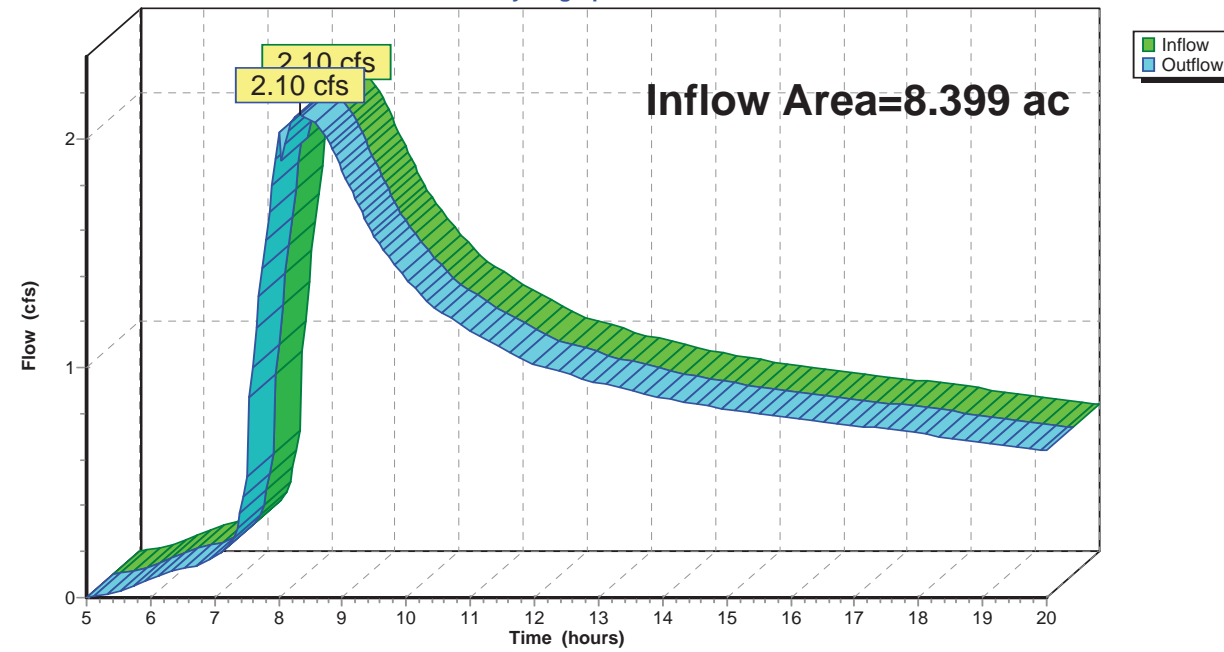
Reach R3: OUT

Inflow Area = 8.399 ac, Inflow Depth > 1.58" for 10YR event
 Inflow = 2.10 cfs @ 8.32 hrs, Volume= 1.103 af
 Outflow = 2.10 cfs @ 8.32 hrs, Volume= 1.103 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R3: OUT

Hydrograph



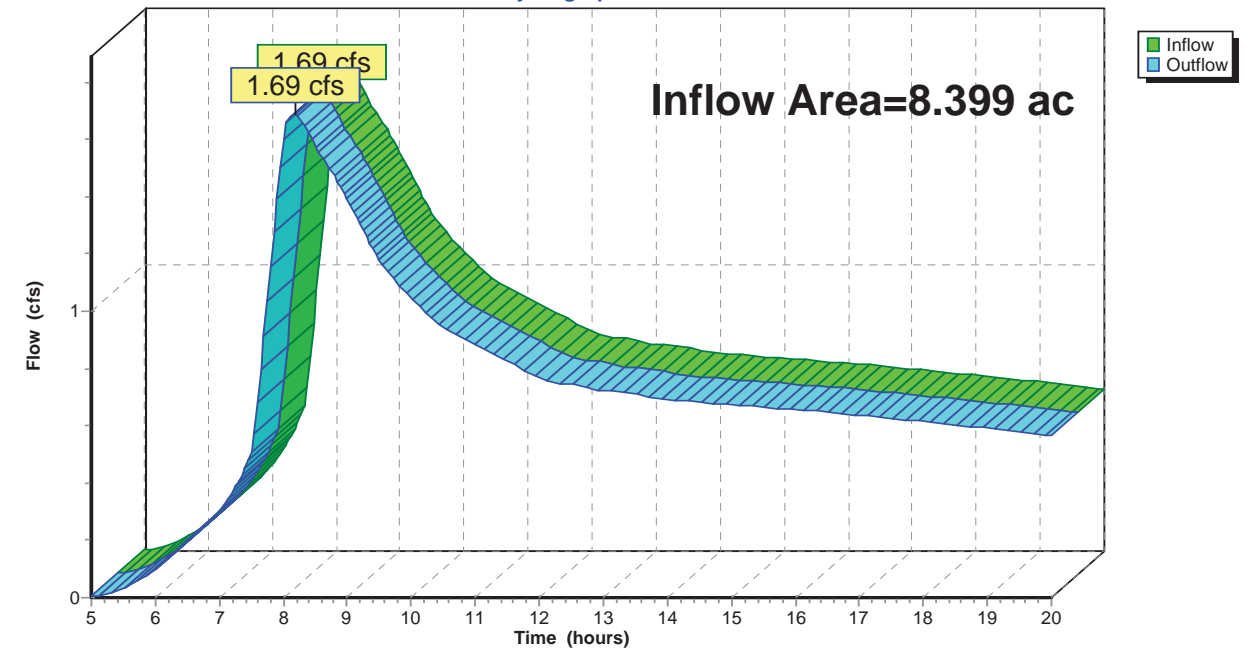
Reach R4: EX

Inflow Area = 8.399 ac, Inflow Depth > 1.27" for 10YR event
 Inflow = 1.69 cfs @ 8.18 hrs, Volume= 0.889 af
 Outflow = 1.69 cfs @ 8.18 hrs, Volume= 0.889 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R4: EX

Hydrograph



UHS WVBH Part 2

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Type IA 24-hr 25YR Rainfall=3.90"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B3: PARKING EAST Runoff Area=30,019 sf Runoff Depth>2.33"
Flow Length=376' Tc=3.2 min CN=89 Runoff=0.49 cfs 0.134 af

Subcatchment B4: ACCESS Runoff Area=39,422 sf Runoff Depth>1.68"
Tc=0.0 min CN=80 Runoff=0.42 cfs 0.127 af

Subcatchment B7: ROOF EAST Runoff Area=14,335 sf Runoff Depth>2.92"
Tc=0.0 min CN=98 Runoff=0.31 cfs 0.080 af

Subcatchment B8: REMAINING NORTHWEST Runoff Area=39,439 sf Runoff Depth>1.61"
Tc=0.0 min CN=79 Runoff=0.40 cfs 0.122 af

Subcatchment B9: REMAINING SOUTHEAST Runoff Area=62,440 sf Runoff Depth>1.61"
Tc=0.0 min CN=79 Runoff=0.63 cfs 0.192 af

Subcatchment E1: EXISTING CONDITIONS NORTHWEST Runoff Area=55,398 sf Runoff Depth>1.72"
Flow Length=275' Tc=25.2 min CN=81 Runoff=0.45 cfs 0.182 af

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST Runoff Area=310,458 sf Runoff Depth>1.55"
Flow Length=698' Tc=45.8 min CN=79 Runoff=1.74 cfs 0.922 af

Link L1: [LINK TO POND] 25YR Outflow Imported from UHS WVBH Part 1~Reach L1 Inflow=2.50 cfs 0.811 af
Primary=2.50 cfs 0.811 af

Pond P1: POND WEST Peak Elev=270.02' Storage=6,799 cf Inflow=2.50 cfs 0.811 af
Outflow=1.54 cfs 0.731 af

Pond P2: POND EAST Peak Elev=260.91' Storage=3,261 cf Inflow=1.21 cfs 0.341 af
Outflow=0.79 cfs 0.290 af

Reach R2: POND WEST TO R3 Peak Depth=0.39' Max Vel=5.5 fps Inflow=1.54 cfs 0.731 af
D=12.0" n=0.010 L=480.0' S=0.0108 '/' Capacity=4.82 cfs Outflow=1.53 cfs 0.729 af

Reach R3: OUT Inflow=2.78 cfs 1.334 af
Outflow=2.78 cfs 1.334 af

Reach R4: EX Inflow=2.18 cfs 1.104 af
Outflow=2.18 cfs 1.104 af

Total Runoff Area = 12.661 ac Runoff Volume = 1.758 af Average Runoff Depth = 1.67"

UHS WVBH Part 2

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Type IA 24-hr 25YR Rainfall=3.90"

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Subcatchment B3: PARKING EAST

Runoff = 0.49 cfs @ 7.91 hrs, Volume= 0.134 af, Depth> 2.33"

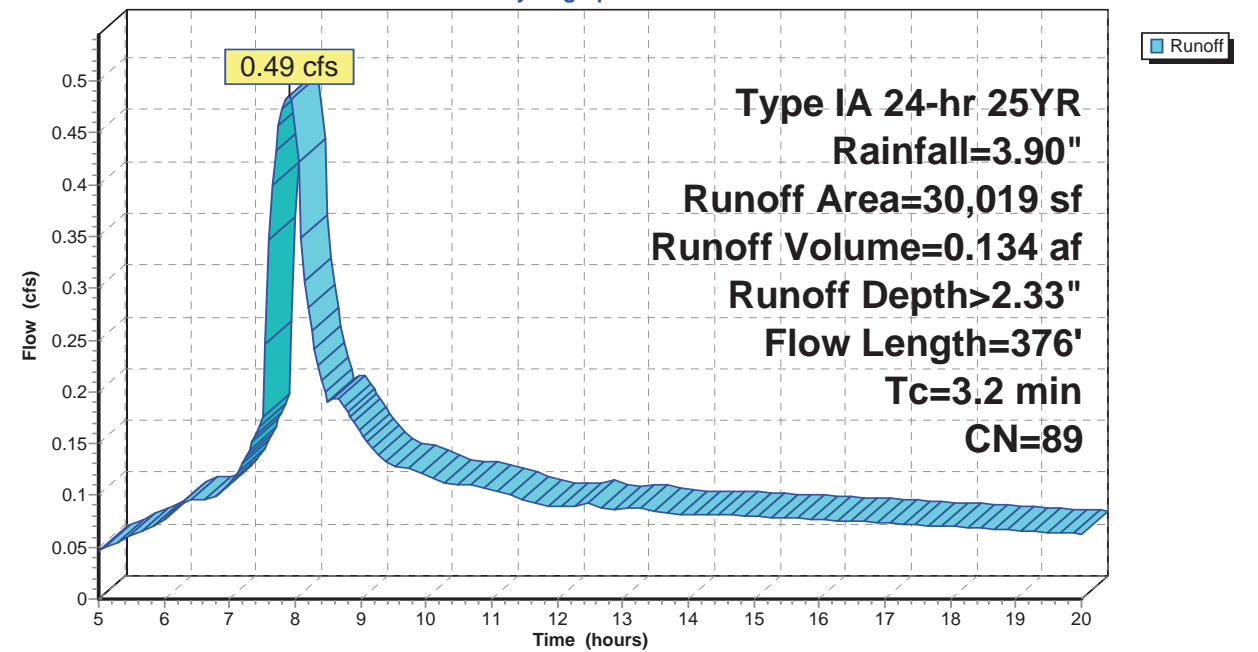
Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
18,995	98	Paved roads w/curbs & sewers
11,024	74	>75% Grass cover, Good, HSG C
30,019	89	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	15	0.1587	0.2		Sheet Flow, Grass: Short n= 0.150 P2= 2.50"
1.7	130	0.0200	1.3		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.50"
0.4	231	0.0201	10.5	167.48	Channel Flow, Area= 16.0 sf Perim= 14.0' r= 1.14' n= 0.022 Earth, clean & straight
3.2	376	Total			

Subcatchment B3: PARKING EAST

Hydrograph



Subcatchment B4: ACCESS

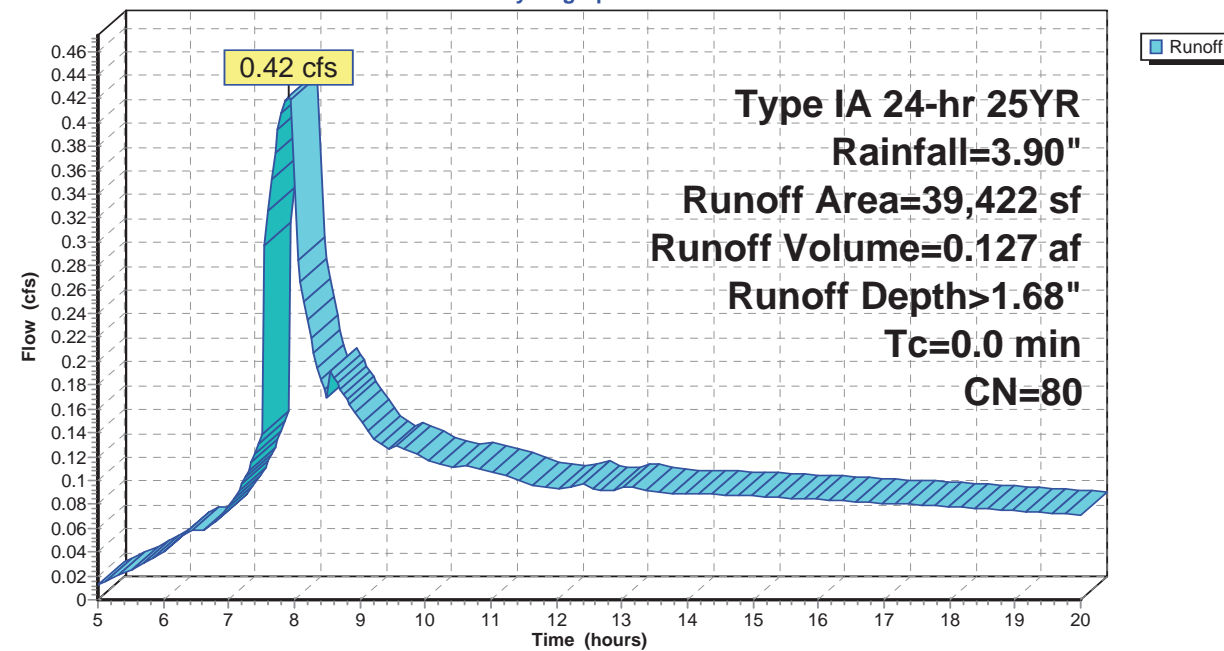
Runoff = 0.42 cfs @ 7.91 hrs, Volume= 0.127 af, Depth> 1.68"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
9,686	98	Paved parking & roofs
29,736	74	>75% Grass cover, Good, HSG C
39,422	80	Weighted Average

Subcatchment B4: ACCESS

Hydrograph



Subcatchment B7: ROOF EAST

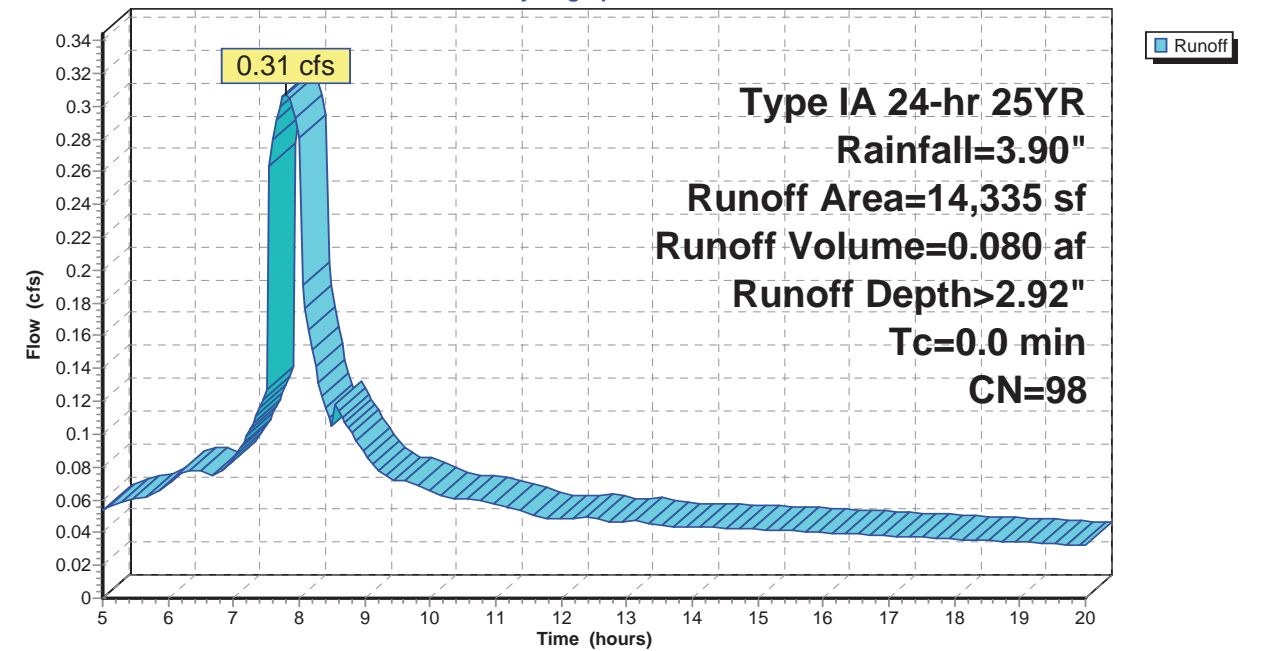
Runoff = 0.31 cfs @ 7.80 hrs, Volume= 0.080 af, Depth> 2.92"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
14,335	98	Paved parking & roofs

Subcatchment B7: ROOF EAST

Hydrograph



Subcatchment B8: REMAINING NORTHWEST

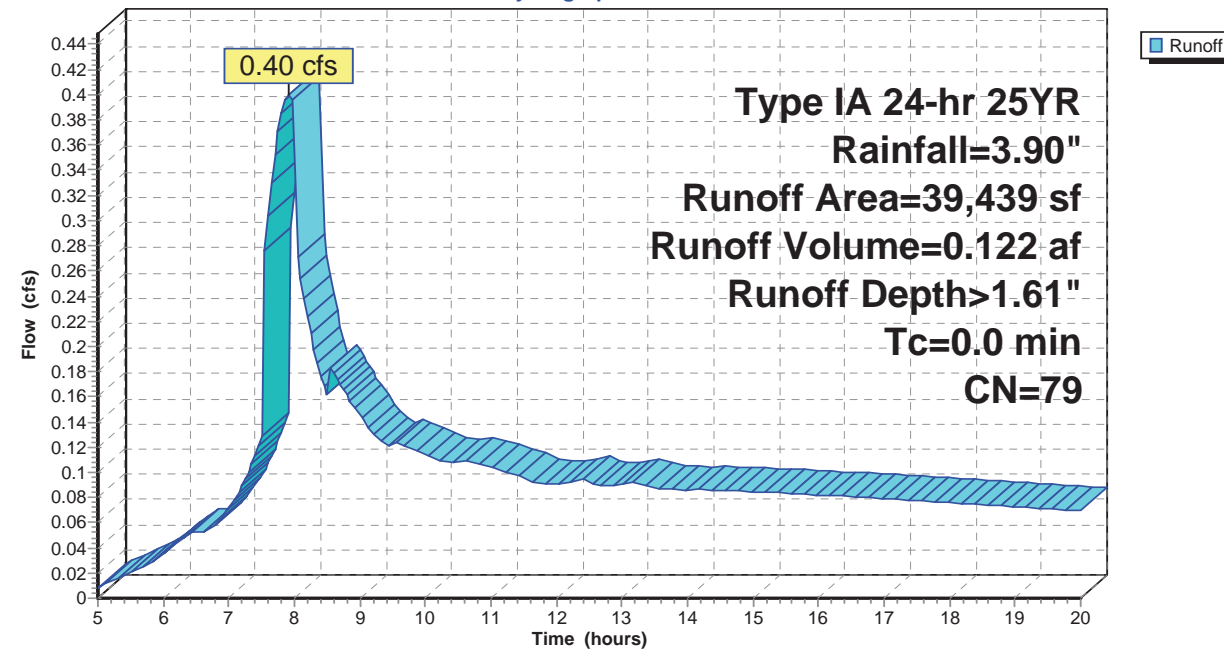
Runoff = 0.40 cfs @ 7.92 hrs, Volume= 0.122 af, Depth> 1.61"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
39,439	79	50-75% Grass cover, Fair, HSG C

Subcatchment B8: REMAINING NORTHWEST

Hydrograph



Subcatchment B9: REMAINING SOUTHEAST

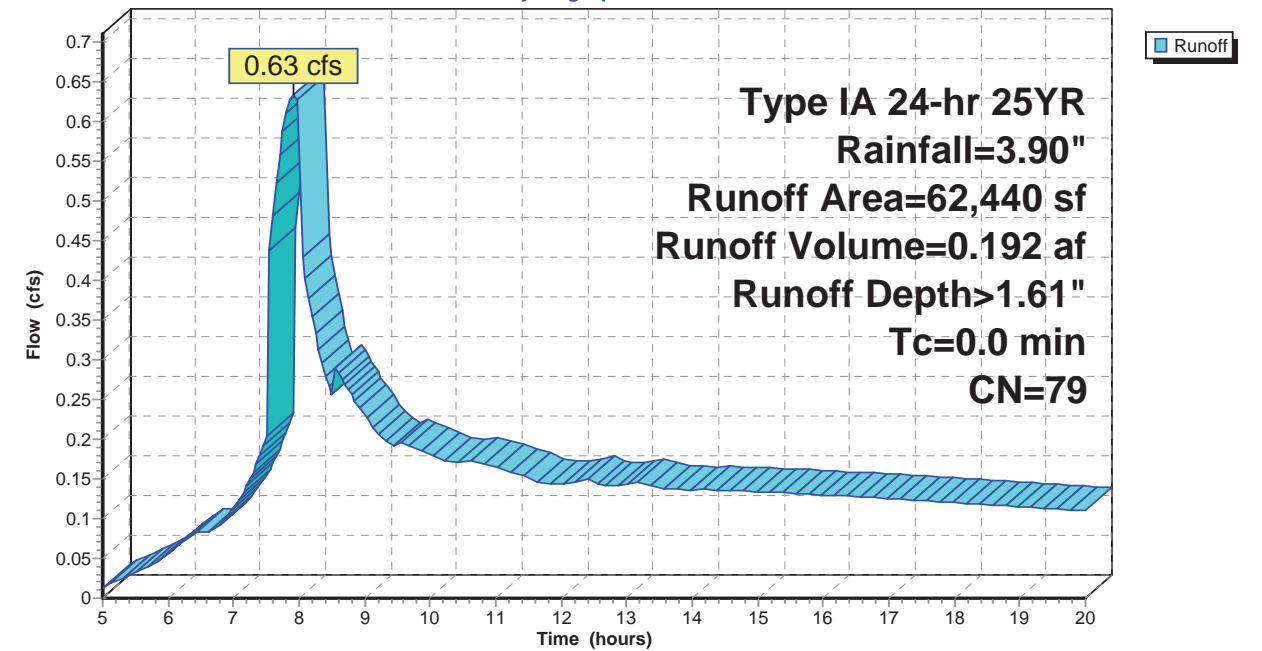
Runoff = 0.63 cfs @ 7.92 hrs, Volume= 0.192 af, Depth> 1.61"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
62,440	79	50-75% Grass cover, Fair, HSG C

Subcatchment B9: REMAINING SOUTHEAST

Hydrograph



Subcatchment E1: EXISTING CONDITIONS NORTHWEST

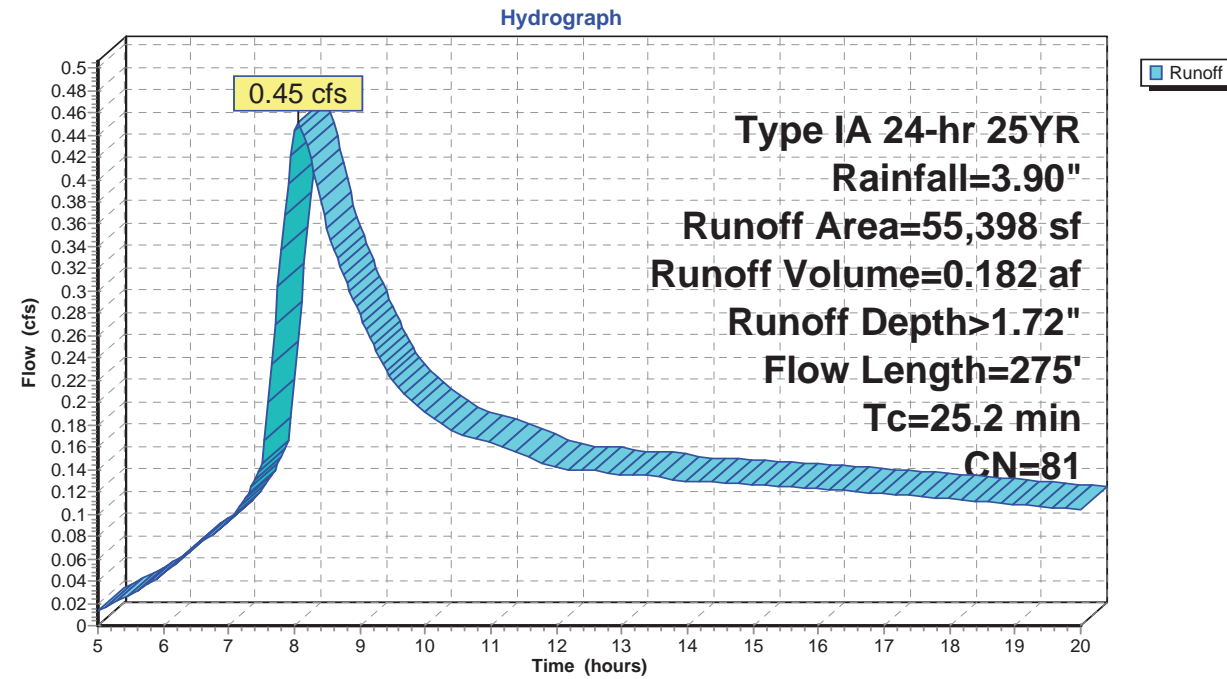
Runoff = 0.45 cfs @ 8.06 hrs, Volume= 0.182 af, Depth> 1.72"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
50,337	79	50-75% Grass cover, Fair, HSG C
5,061	98	Paved parking & roofs
55,398	81	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	216	0.0326	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
0.6	59	0.1200	1.7		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.2	275	Total			

Subcatchment E1: EXISTING CONDITIONS NORTHWEST



Subcatchment E2: EXISTING CONDITIONS SOUTHEAST

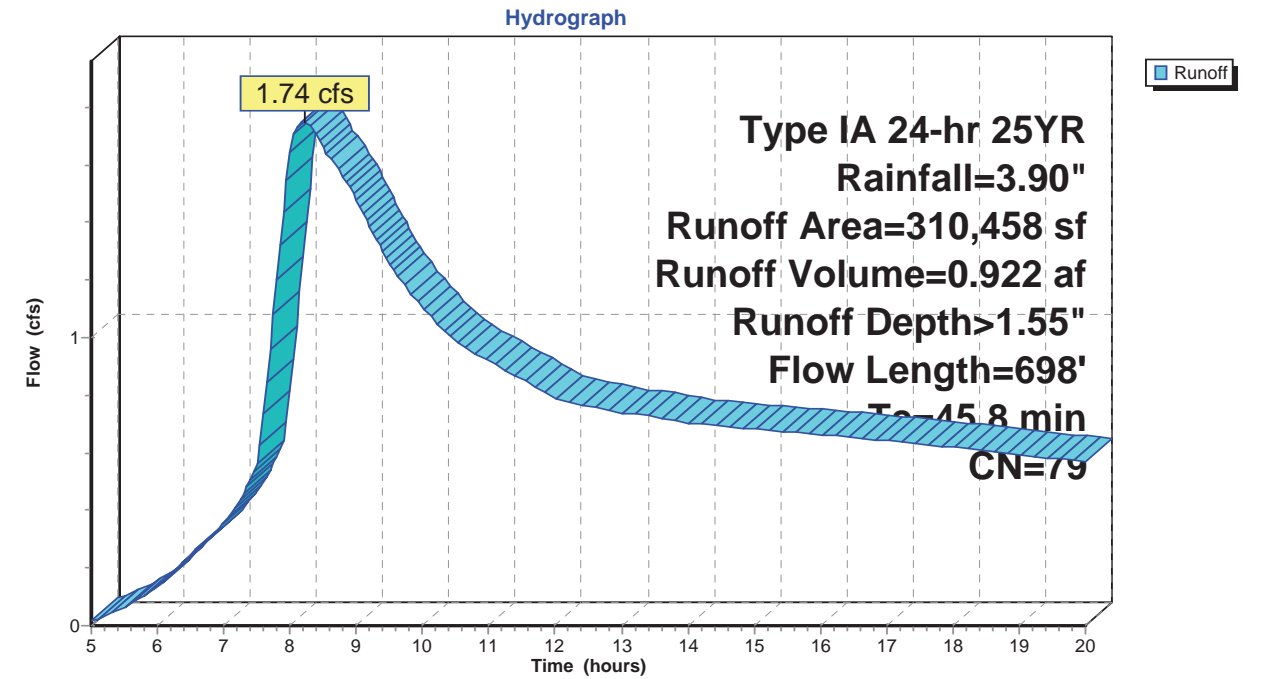
Runoff = 1.74 cfs @ 8.21 hrs, Volume= 0.922 af, Depth> 1.55"

Runoff by SBUH method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25YR Rainfall=3.90"

Area (sf)	CN	Description
305,398	79	50-75% Grass cover, Fair, HSG C
5,060	98	Paved parking & roofs
310,458	79	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.6	300	0.0217	0.1		Sheet Flow, Grass: Dense n= 0.240 P2= 2.50"
8.2	398	0.0259	0.8		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
45.8	698	Total			

Subcatchment E2: EXISTING CONDITIONS SOUTHEAST



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Type IA 24-hr 25YR Rainfall=3.90"

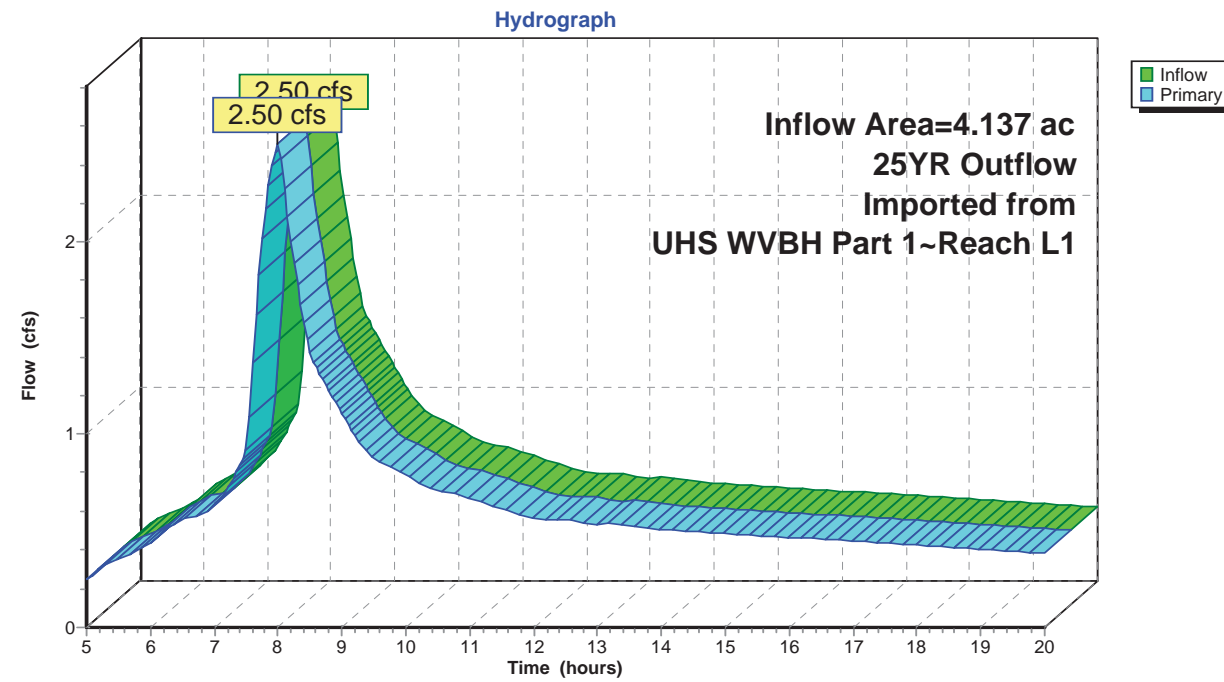
Page 58
11/11/2015

Link L1: [LINK TO POND]

Inflow Area = 4.137 ac, Inflow Depth > 2.35" for 25YR event
 Inflow = 2.50 cfs @ 7.99 hrs, Volume= 0.811 af
 Primary = 2.50 cfs @ 7.99 hrs, Volume= 0.811 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 25YR Outflow Imported from UHS WVBH Part 1~Reach L1

Link L1: [LINK TO POND]



UHS WVBH Part 2

Prepared by Westlake Consultants, Inc.
HydroCAD® 7.10 s/n 002749 © 2005 HydroCAD Software Solutions LLC

Type IA 24-hr 25YR Rainfall=3.90"

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11/11/2015

Pond P1: POND WEST

Inflow Area = 4.137 ac, Inflow Depth > 2.35" for 25YR event
 Inflow = 2.50 cfs @ 7.99 hrs, Volume= 0.811 af
 Outflow = 1.54 cfs @ 8.43 hrs, Volume= 0.731 af, Atten= 39%, Lag= 26.0 min
 Primary = 1.54 cfs @ 8.43 hrs, Volume= 0.731 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 270.02' @ 8.43 hrs Surf.Area= 5,044 sf Storage= 6,799 cf
 Plug-Flow detention time= 106.9 min calculated for 0.728 af (90% of inflow)
 Center-of-Mass det. time= 57.7 min (739.2 - 681.5)

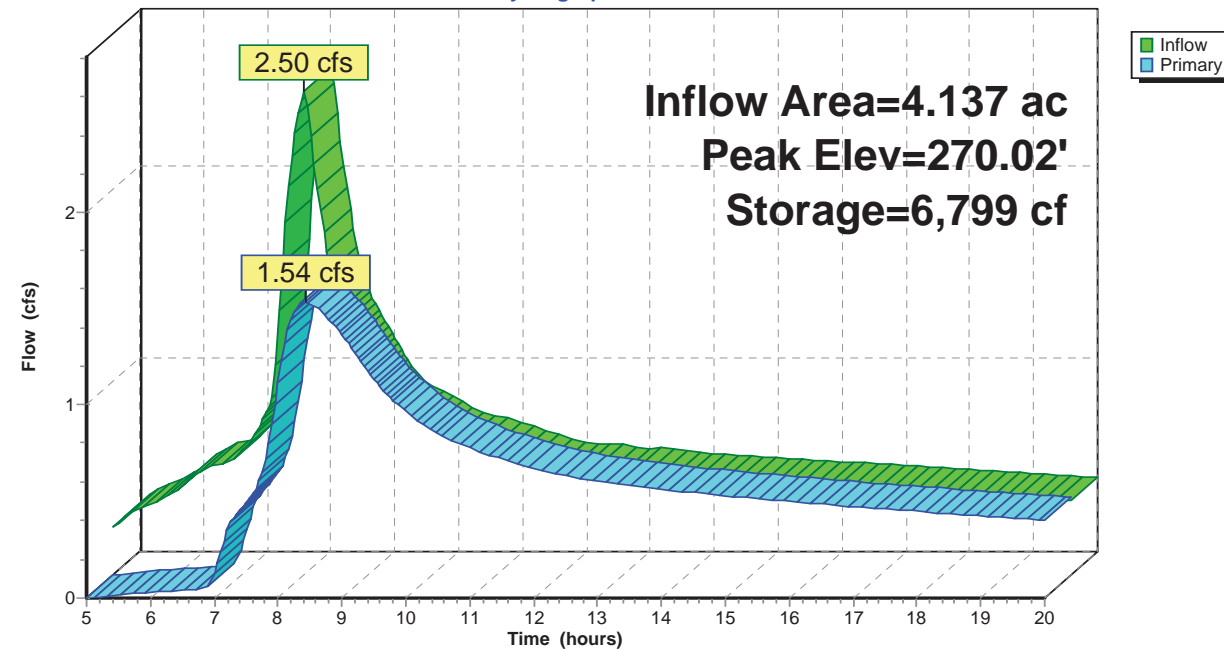
Volume	Invert	Avail.Storage	Storage Description	
#1	266.30'	14,038 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
266.30	1,349	40.0	0	0
267.30	2,341	40.0	738	738
268.30	3,333	40.0	1,135	1,873
269.30	4,325	40.0	1,532	3,404
270.30	5,317	100.0	4,821	8,225
271.30	6,309	100.0	5,813	14,038

Device	Routing	Invert	Outlet Devices	
#1	Primary	270.40'	6.0" Horiz. Orifice/Grate	Limited to weir flow C= 0.600
#2	Primary	266.80'	1.1" Vert. Orifice/Grate	C= 0.600
#3	Primary	268.92'	6.0" Vert. Orifice/Grate	C= 0.600
#4	Primary	269.53'	7.3" Vert. Orifice/Grate	C= 0.600

Primary OutFlow Max=1.54 cfs @ 8.43 hrs HW=270.02' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.06 cfs @ 8.6 fps)
 3=Orifice/Grate (Orifice Controls 0.87 cfs @ 4.5 fps)
 4=Orifice/Grate (Orifice Controls 0.61 cfs @ 2.4 fps)

Pond P1: POND WEST

Hydrograph



Pond P2: POND EAST

Inflow Area = 1.923 ac, Inflow Depth > 2.13" for 25YR event
 Inflow = 1.21 cfs @ 7.89 hrs, Volume= 0.341 af
 Outflow = 0.79 cfs @ 8.11 hrs, Volume= 0.290 af, Atten= 34%, Lag= 13.2 min
 Primary = 0.79 cfs @ 8.11 hrs, Volume= 0.290 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 260.91' @ 8.11 hrs Surf.Area= 3,327 sf Storage= 3,261 cf
 Plug-Flow detention time= 136.6 min calculated for 0.289 af (85% of inflow)
 Center-of-Mass det. time= 64.4 min (746.1 - 681.7)

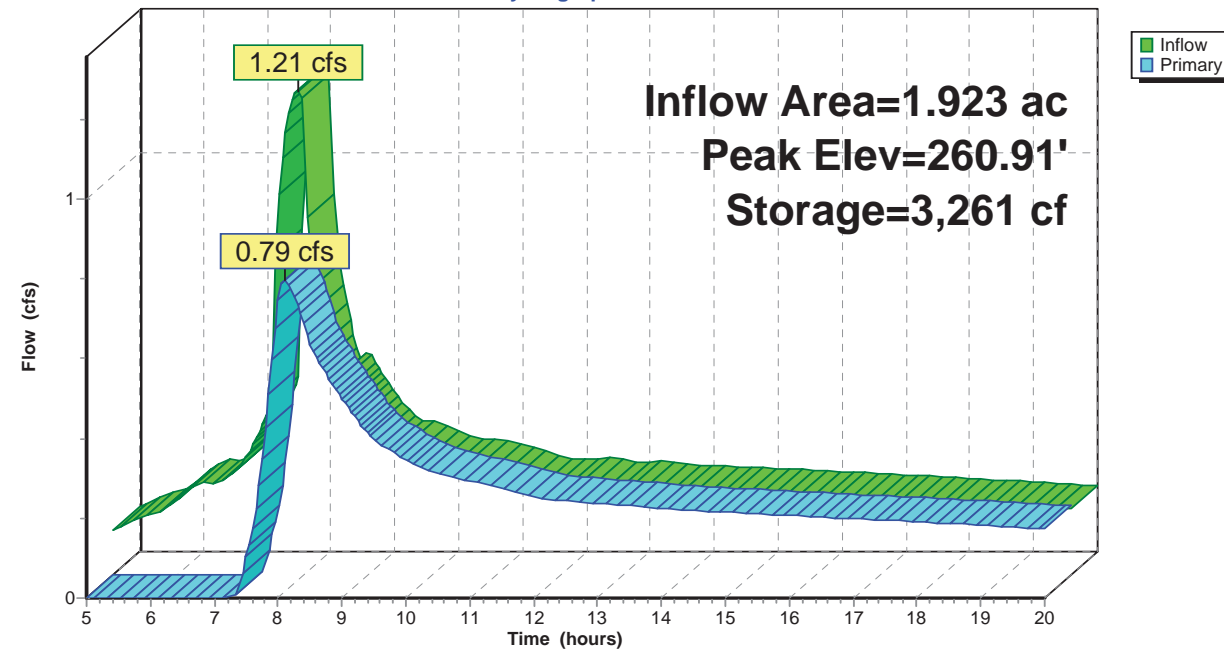
Volume	Invert	Avail.Storage	Storage Description	
#1	257.50'	9,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
257.50	310	0.0	0	0
258.50	1,194	40.0	301	301
259.50	2,078	40.0	654	955
260.50	2,962	40.0	1,008	1,963
261.50	3,846	100.0	3,404	5,367
262.50	4,729	100.0	4,288	9,655

Device	Routing	Invert	Outlet Devices
#1	Primary	261.60'	6.0" Horiz. Orifice/Grate Limited to weir flow C= 0.600
#2	Primary	260.29'	4.8" Vert. Orifice/Grate C= 0.600
#3	Primary	260.60'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.79 cfs @ 8.11 hrs HW=260.91' (Free Discharge)
 1=Orifice/Grate (Controls 0.00 cfs)
 2=Orifice/Grate (Orifice Controls 0.39 cfs @ 3.1 fps)
 3=Orifice/Grate (Orifice Controls 0.40 cfs @ 1.9 fps)

Pond P2: POND EAST

Hydrograph



Reach R2: POND WEST TO R3

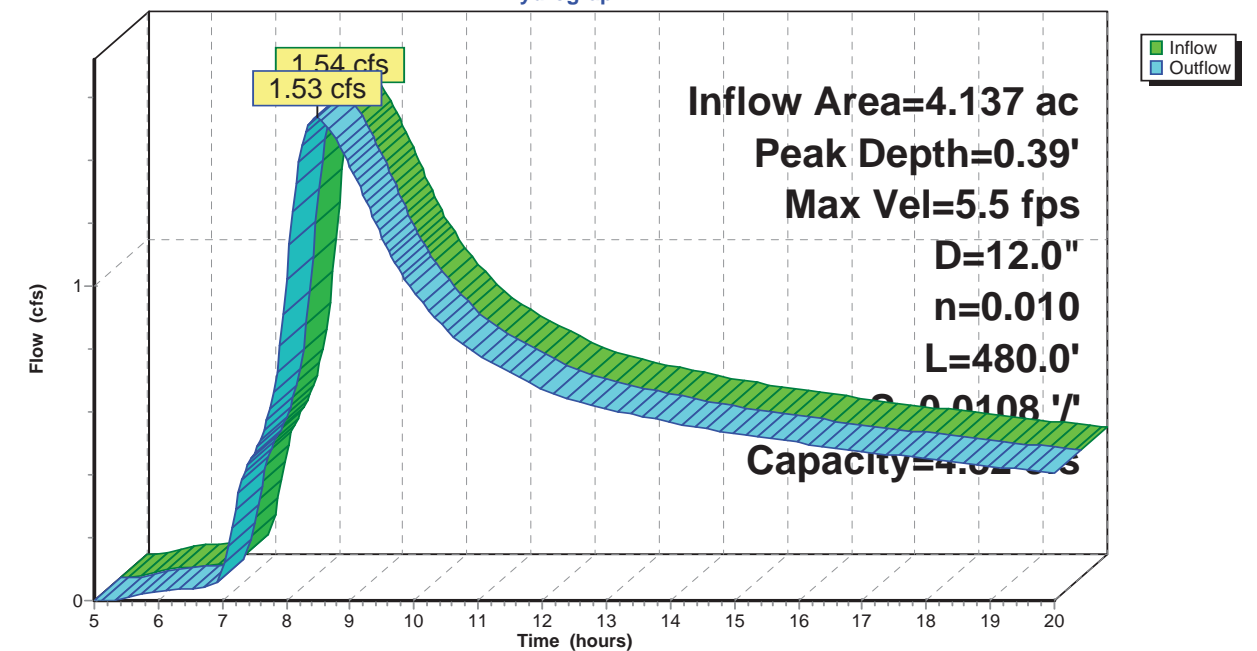
Inflow Area = 4.137 ac, Inflow Depth > 2.12" for 25YR event
 Inflow = 1.54 cfs @ 8.43 hrs, Volume= 0.731 af
 Outflow = 1.53 cfs @ 8.47 hrs, Volume= 0.729 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 5.5 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 3.9 fps, Avg. Travel Time= 2.0 min

Peak Depth= 0.39' @ 8.45 hrs
 Capacity at bank full= 4.82 cfs
 Inlet Invert= 266.80', Outlet Invert= 261.60'
 12.0" Diameter Pipe, n= 0.010 PVC, smooth interior
 Length= 480.0' Slope= 0.0108 '/'

Reach R2: POND WEST TO R3

Hydrograph



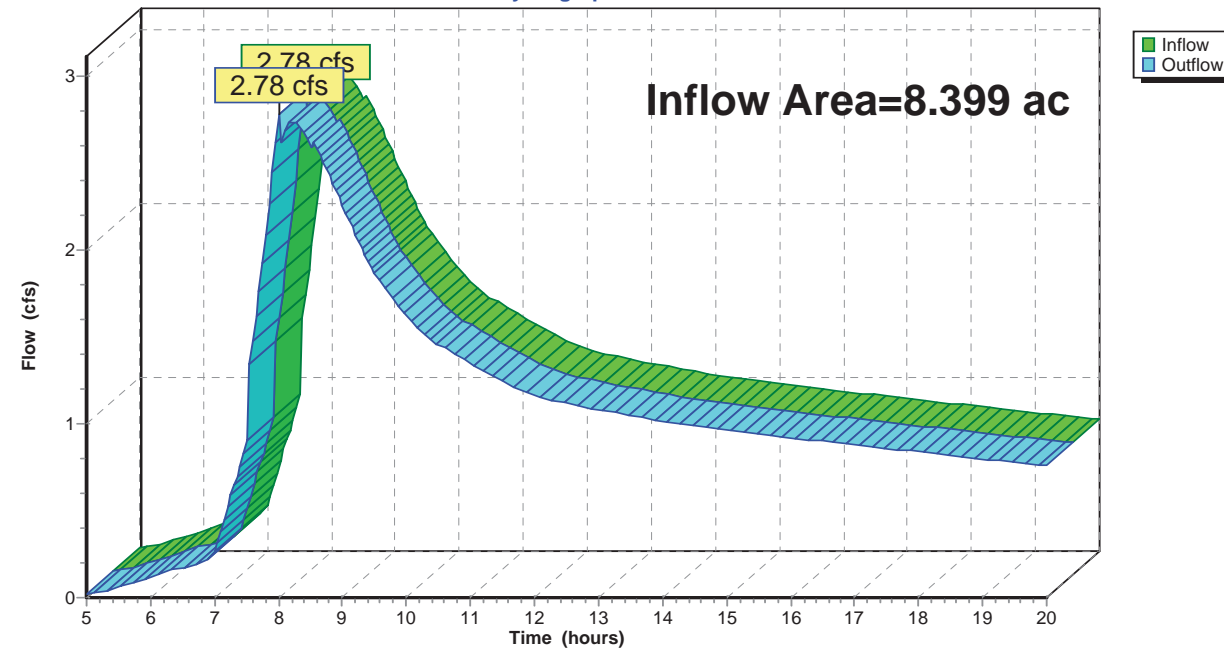
Reach R3: OUT

Inflow Area = 8.399 ac, Inflow Depth > 1.91" for 25YR event
Inflow = 2.78 cfs @ 8.00 hrs, Volume= 1.334 af
Outflow = 2.78 cfs @ 8.00 hrs, Volume= 1.334 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R3: OUT

Hydrograph



Reach R4: EX

Inflow Area = 8.399 ac, Inflow Depth > 1.58" for 25YR event
Inflow = 2.18 cfs @ 8.15 hrs, Volume= 1.104 af
Outflow = 2.18 cfs @ 8.15 hrs, Volume= 1.104 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach R4: EX

Hydrograph

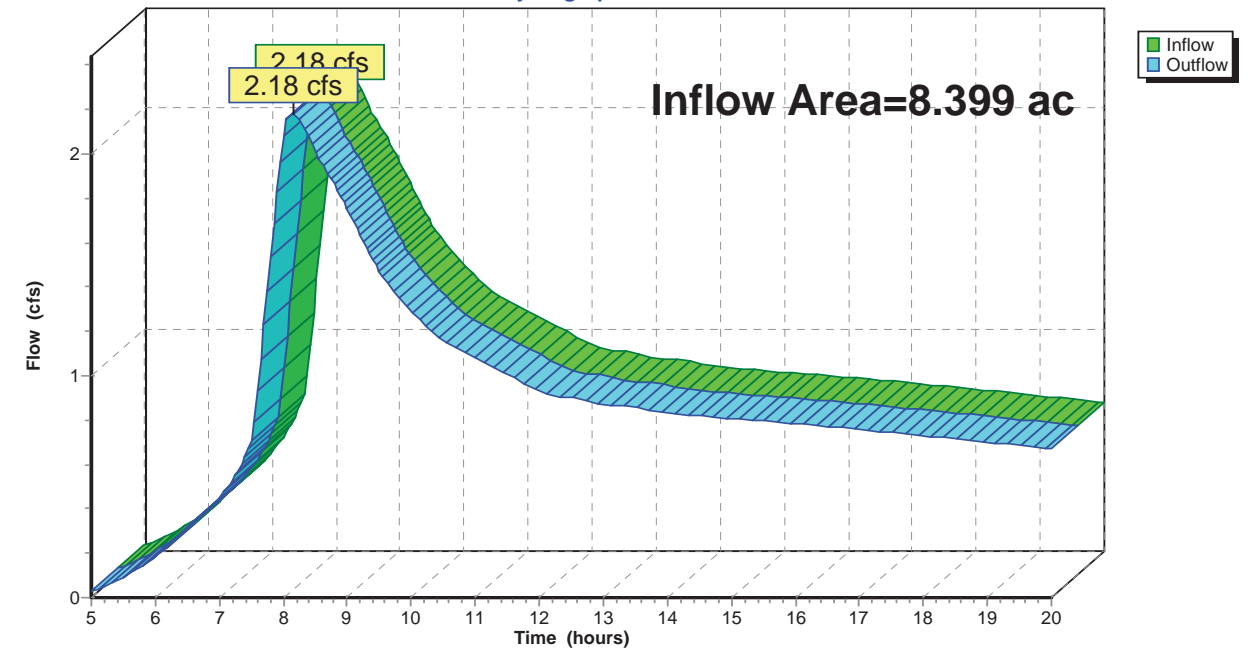


Exhibit N

Arborist Report

**Universal Health Services – Wilsonville, Oregon
Tree Maintenance and Protection Plan
November 6, 2015**

MHA15029

Purpose

This Tree Maintenance and Protection Plan for the Universal Health Services project located in Wilsonville, Oregon, is provided pursuant to City of Wilsonville Development Code, Section 4.610.40. This arborist report describes the existing trees located on and directly adjacent to the project site, as well as recommendations for tree removal, retention, mitigation, and protection. This report is based on observations made by International Society of Arboriculture (ISA) Certified Arborist and Qualified Tree Risk Assessor Morgan Holen (PN-6145A) during a site visit conducted on October 21, 2015.

Scope of Work and Limitations

Morgan Holen & Associates, LLC, was contracted by Universal Health Services to visually assess existing trees measuring six inches in diameter and larger in terms of general condition and suitability for preservation with development, and to develop a tree maintenance and protection plan for the project. The site is planned for commercial development. A site plan was provided by Westlake Consultants illustrating the location of trees and tree survey point numbers, and potential construction impacts.

Visual Tree Assessment (VTA¹) was performed on individual trees located on and directly adjacent to the site, except for trees located in the interior of the forested stand which is planned for preservation along the western property boundary as authorized by City of Wilsonville Current Planning Manager Blaise Edmonds on October 15, 2015. Trees were evaluated in terms species, size, general condition, and potential construction impacts, and treatment recommendations include: retain (for on-site trees planned for preservation); protect (for off-site trees adjacent to proposed construction); remove, either for construction or because of poor or hazardous condition; or as situational, for trees that are likely to be retained but require special protection measures and on-site arborist supervision during construction to determine whether or not adequate protection is possible—situational trees are described in further detail in the “Tree Plan Recommendations” section of this report. Following the inventory fieldwork, we coordinated with Westlake Consultants to discuss and finalize treatment recommendations based on the proposed site plan.

The client may choose to accept or disregard the recommendations contained herein, or seek additional advice. Neither this author nor Morgan Holen & Associates, LLC, have assumed any responsibility for liability associated with the trees on or adjacent to this site.

General Description

The Universal Health Services project site includes three tax lots located in the southwest corner of the intersection between SW Day Road and SW Boones Ferry Road. The existing trees are scattered across the tax lots, but primarily located around existing structures, across the southern boundary, and in a dense and relatively natural stand of trees along the western boundary. The forested stand is dominated by Douglas-fir (*Pseudotsuga menziesii*), but also includes bigleaf maple (*Acer macrophyllum*) and some madrone (*Arbutus menziesii*) and invasive sweet cherry (*Prunus avium*).

The eastern tax lot includes a grove of planted London planetrees (*Platanus x acerifolia*), several Douglas-fir, an incense cedar (*Calocedrus decurrens*), a madrone, and non-native and invasive Norway maple (*Acer platanoides*), sweet cherry, and European white birch (*Betula pendula*).

The central tax lot includes a small stand of Douglas-fir along the northern boundary and a row of Douglas-fir along the southern boundary which extends onto the eastern tax lot. In addition, a portion of the forested stand is located along the southwest side of this tax lot.

The western tax lot includes three deodar cedars (*Cedrus deodara*) around the existing home and a Douglas-fir near the southeast corner of the property. A portion of the forested stand is also located along the west side of this tax lot.

Overall, the existing trees generally appear in generally good condition and the forested stand along the western boundary is the most significant tree feature. In all, 146 trees measuring 6-inches and larger in diameter were located on and directly adjacent to the site including 13 tree species. No Oregon white oaks (*Quercus garryana*), native yews (*Taxus spp.*) or any species listed by either the state or federal government as rare or endangered were found on the site. Table 1 provides a summary of the count of trees by species and location. A complete description of individual trees is provided in the enclosed tree data.

Table 1. Count of Trees by Species and Location – Universal Health Services, Wilsonville, OR.

Common Name	Species Name	On-Site	Off-Site	Total	%
bigleaf maple	<i>Acer macrophyllum</i>	11		11	7.5%
Callery pear	<i>Pyrus calleryana</i>	1		1	0.7%
deciduous	unknown	5	1	6	4.1%
deodar cedar	<i>Cedrus deodara</i>	2		2	1.4%
Douglas-fir	<i>Pseudotsuga menziesii</i>	89	7	96	65.8%
European white	<i>Betula pendula</i>	1		1	0.7%
incense cedar	<i>Calocedrus decurrens</i>	1		1	0.7%
London planetree	<i>Platanus x acerifolia</i>	11		11	7.5%
Norway maple	<i>Acer platanoides</i>	1		1	0.7%
Pacific madrone	<i>Arbutus menziesii</i>	5		5	3.4%
red oak	<i>Quercus rubra</i>	1		1	0.7%
spruce	<i>Picea spp.</i>	1		1	0.7%
sweet cherry	<i>Prunus avium</i>	7	2	9	6.2%
Total		136 (93%)	10 (7%)	146	100%

Tree Plan Recommendations

As described in the enclosed tree data, individual trees were assigned a general condition rating as follows:

- D: Dead
- P: Poor Condition
- F: Fair Condition
- G: Good Condition

¹ Visual Tree Assessment (VTA): The standard process of visual tree inspection whereby the inspector visually assesses the tree from a distance and up close, looking for defect symptoms and evaluating overall condition and vitality.

While all individual trees are noted by species and diameter, trees within the interior of the forested stand were not assigned a general condition rating and crown radius measurements were noted for trees along the edges of the stand only. General condition ratings were also not assigned for off-site trees because complete VTA was inhibited by site access being limited to the project site only.

Of the 146 inventoried trees, 10 are located off-site including five trees along the western boundary of the forested stand; the off-site trees will be protected during construction. The 136 on-site trees include 88 trees located within the forested stand and 48 individual trees located outside of the forested stand.

The forested stand is generally in good condition when kept intact and undisturbed. Within the stand, 69 trees are planned for preservation, eight are classified as situational, one invasive sweet cherry located along the edge of the stand in the southern portion of the site (tree 2751) is planned for removal because of condition, and a group of 10 trees located near the northwest corner of the project site are planned for removal because of construction.

The 48 individual trees located outside of the forested stand are primarily in good condition (65%), with 25% in fair condition, 8% in poor condition, and just one tree noted as dead (2%). Of the 48 individual trees located outside of the forested stand, seven are planned for retention, 12 are classified as situational, eight are planned for removal because of condition, and 21 are planned for removal because of construction.

An aerial inspection is recommended as soon as possible to fully assess tree 2701 in terms of risk potential to verify that this tree is suitable for retention as planned; tree 2701 is a 20-inch diameter Douglas-fir in fair condition located on the southern property boundary with codominant leaders in a tight V-shaped attached and some included bark.

One of the trees planned for removal because of condition (tree 2711) is located on the property boundary and removal will require authorization from the adjacent property owner.

In addition, one of the situational trees (tree 2707) is also located on the property boundary; this tree is not expected to be impacted by construction, however it is codominant in crown class with situational tree 2708 which is located in close proximity to proposed construction. If removal of tree 2708 becomes necessary during construction, tree 2707 should be re-assessed in terms of the potential for increased risk with removal of the adjacent tree. There is some possibility that tree 2707 would be recommended for removal if tree 2708 must be removed. Special consideration should be given to avoid impacts to tree 2708 in order to provide sufficient protection for both trees.

Table 2 provides a summary of the count of trees by general condition rating and treatment.

Table 2. Count of Trees by Treatment Recommendation and General Condition Rating.

Treatment	General Condition Rating					Total
	Blank*	D	P	M	G	
Protect (Off-Site Tree)	10	-	-	-	-	10 (7%)
Retain	62	-	-	4	10	76 (52%)
Remove - Condition	-	1	4	4	-	9 (6%)
Remove – Construction	-	1	2	10	18	31 (21%)
Situational	-	-	-	3	17	20 (14%)
Total	71 (49%)	2 (1%)	6 (4%)	21 (14%)	46 (32%)	146 (100%)

*No general condition rating was assigned for off-site trees or trees located within the interior of the forested stand.

In all, 86 (59%) of the 146 inventoried trees are planned for preservation, including all 10 off-site trees. These trees will require tree protection measures during construction and recommendations are provided in the “Tree Protection Standards” section of this report. Forty (27%) trees are planned for removal, including nine trees to be removed because of condition and 31 trees to be removed for the purposes of construction because adequate protection is not possible.

The remaining 20 (14%) trees are classified as situational, meaning that they are likely to be retained with construction, but arborist oversight is recommended during construction in order to evaluate root impacts on-the-ground and determine whether or not adequate protection is possible. These trees should be protected with tree protection fencing initially established at the dripline at a minimum. During construction, the contractor should coordinate with the project arborist prior to opening or making adjustments to the tree protection fencing. The project arborist should document changes to the location of tree protection fencing and monitor work beneath protected tree driplines. The project arborist should supervise necessary excavation and provide on-the-ground recommendations for alternative construction techniques to minimize impacts to protected trees. If the project arborist determines that necessary construction impacts are likely to result in detrimental harm to the health or structural stability of a tree, the arborist should submit a brief memorandum to the City documenting the change in treatment recommendation to seek written authorization to proceed with removal and mitigation before the impacts occur. Situational trees include:

- Tree 2212, a Douglas-fir in good condition with codominant stems measuring 26- and 36-inches in diameter each. This tree is proposed for preservation in a courtyard area in the center of the new building. Any grading that is required beneath the dripline area should be monitored by the project arborist. Pruning to raise the crown for building clearance may also be needed.
- Tree 2397, a 52-inch diameter Douglas-fir located along the south side of Day Road in close proximity to required street improvements. This tree is in good condition, but has large diameter codominant leaders that were difficult to evaluate from the ground because of the dense canopy. An aerial inspection is recommended as soon as possible to fully assess the codominant leader juncture in terms of risk potential and verify that this tree is suitable for preservation. The project arborist should monitor excavation that is necessary for street improvements and the new sidewalk should be built up from existing grade as it passes beneath the dripline in order to minimize the encroachment of required cut towards the trunk. Refer to the “Excavation” and “Surfacing” recommendations in the “Tree Protection Standards” section of this report for additional information.

- Tree 2399, a 24-inch diameter deodar cedar in good condition. This tree is planned for preservation in a landscape island near the main entrance to the site, but it is not located in the center of the island. A cut of approximately 1.5-feet is necessary in the northeast quadrant of the dripline. The project arborist should monitor excavation to evaluate exposed roots; roots determined by the arborist to be non-critical may be pruned and still allow for this tree to be retained. However, this tree may need to be removed if critical roots are encountered.
- Trees 2511, 2514, 2515, 2521 and 2522, five London planetrees located in the northeast corner of the site. This group of trees could be impacted by grading for required street improvements and installation of underground utilities. The project arborist should monitor excavation that is necessary for street improvements and boring a minimum of four feet below grade is recommended to avoid trench excavation for utility installation. The trees planned for preservation adjacent to these trees would not be impacted by their removal, if necessary.
- Trees 2636 and 2638-2642, six Douglas-firs located along the eastern edge of the forested stand could potentially be impacted by grading for parking lot and stormwater swale construction. Where feasible, the parking lot should be built up from the existing grade adjacent to protected trees to avoid root pruning. Otherwise, the project arborist should monitor excavation that is necessary for site improvements to evaluate exposed roots; roots determined by the arborist to be non-critical may be pruned and still allow for these tree to be retained. However, some or all of these trees may need to be removed if critical roots are encountered.
- Trees 2703, 2705, 2707 and 2708, mature Douglas-firs in good condition located along the southern property boundary could potentially be impacted by grading for parking lot construction and installation of underground utilities. The project arborist should monitor grading that is necessary beneath protected tree driplines and boring a minimum of four feet below grade is recommended to avoid trench excavation for utility installation. Tree 2703 is a 40-inch diameter Douglas-fir in good condition but with codominant leaders in a tight V-shaped attached with some included bark; an aerial inspection is recommended as soon as possible to fully assess the codominant leader juncture in terms of risk potential and verify that this tree is suitable for preservation. As previously described, tree 2707 is not likely to be impacted by construction, but removal of this tree could be recommended if codominant tree 2708 must be removed.
- Trees 2748 and 2749, two bigleaf maples in fair condition with moderate structure located along the eastern edge of the forested stand near the southern portion of the site. These trees have some potential to be impacted by potential stormwater facility construction. If grading is necessary beneath the dripline of these trees, it should be performed in coordination with the project arborist to provide recommendations to minimize impacts.

Mitigation Requirements

All 146 inventoried trees are 6-inches or larger in diameter, including 86 trees planned for retention with protection throughout construction, 40 trees planned for removal because of condition and/or construction, and 20 situational trees that are likely to be retained but may require removal during construction based on actual impacts. The 40 trees planned for removal will require mitigation per Section 4.620.00; removed trees shall be replaced on a basis of one tree planted for each tree removed. Therefore, 40 trees measuring at least 2-inch in diameter shall be planted as mitigation for tree removal.

If a situational tree is removed, additional tree-for-tree mitigation will be required, so up to 60 trees total could be required as mitigation. If a situational tree is successfully protected throughout construction, no mitigation will be required for that tree.

Tree Protection Standards

Trees designated for retention and classified as situational will need special consideration to assure their protection during construction. As previously stated, an aerial inspection to evaluate risk potential and verify that trees are suitable for preservation is recommended for trees 2397, 2701 and 2703; this advanced assessment should be performed by a Qualified Arborist who is also an ISA Qualified Tree Risk Assessor. We highly recommend a preconstruction meeting with the owner, contractors, and project arborist to review tree protection measures and address questions or concerns on site. Tree protection measures include:

- **Fencing.** Trees to remain on site shall be protected by installation of tree protection fencing to prevent injury to tree trunks or roots, or soil compaction within the root protection area, which generally coincides with tree driplines. Fences shall be 6-foot high steel on concrete blocks or orange plastic construction fencing on metal stakes. The project arborist shall determine the exact location and type of tree protection fencing. Trees located more than 30-feet from construction activity shall not require fencing. The contractor is responsible for coordinating with the project arborist prior to opening or making adjustments to tree protection fencing.
- **Tree Protection Zone.** Without authorization from the Project Arborist, none of the following shall occur beneath the dripline of any protected tree:
 1. Grade change or cut and fill;
 2. New impervious surfaces;
 3. Utility or drainage field placement;
 4. Staging or storage of materials and equipment; or
 5. Vehicle maneuvering.

Root protection zones may be entered for tasks like surveying, measuring, and, sampling. Fences must be closed upon completion of these tasks.

- **Pruning.** Pruning may be needed to provide for overhead clearance and to remove dead and defective branches for safety. The project arborist can help identify where pruning is necessary once trees recommended for removal have been removed and the site is staked and prepared for construction. Tree removal and pruning shall be performed by a Qualified Tree Service.
- **Excavation.** Excavation beneath the dripline of protected trees shall be avoided if alternatives are feasible. Boring a minimum of four feet deep is recommended where utility trenches are located within tree protection zones. Otherwise, the project arborist shall provide on-site consultation during all excavation activities beneath the dripline of protected trees. Excavation immediately adjacent to roots larger than 2-inches in diameter within the root protection zone of retained trees shall be by hand or other non-invasive techniques to ensure that roots are not damaged. Where feasible, major roots shall be protected by tunneling or other means to avoid destruction or damage. Exceptions can be made if, in the opinion of the project arborist, unacceptable damage will not occur to the tree. Where soil grade changes affect the root protection area, the grade line should be meandered wherever practicable. This will require on-site coordination to ensure a reasonable balance between engineering, construction, and the need for tree protection.

- **Surfacing.** If surfacing is proposed beneath the dripline of protected trees, coordinate with the project arborist to provide recommendations for adjustments to protection fencing and to monitor construction in the tree protection zone. Avoid excavation and use a modified profile to build up from existing grade (Figure 1). The profile includes a layer of permeable geotextile fabric on the ground surface and crushed rock to raise the grade as needed. Surfacing may include asphalt, concrete, or other materials. Where curb tight sidewalks are built up from native grade within tree protection zones, a handrail may need to be installed for public safety.

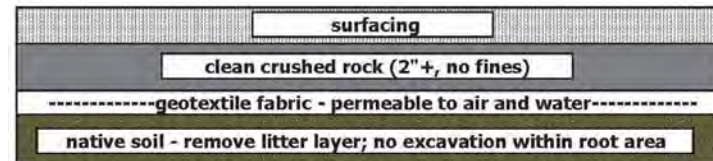


Figure 1. Sample profile for areas within Critical Root Zones. Depth of rock is dependent on grading. Technique based on best management practices.

- **Landscaping.** Following construction and where landscaping is desired, apply approximately 3-inches of mulch beneath the dripline of protected trees, but not directly against tree trunks. Shrubs and ground covers may be planted within tree protection areas. If irrigation is used, use drip irrigation only beneath the driplines of protected trees.
- **Quality Assurance.** The project arborist should supervise proper execution of this plan during construction activities that could encroach on retained trees. Tree protection site inspection monitoring reports should be provided to the Client and City on a regular basis throughout construction.

Summary

In summary, 86 trees are planned for retention with construction, an additional 20 situational trees will be protected but could possibly be removed during construction, and 40 trees are planned for removal either because of condition or for the purposes of construction. The 40 trees planned for removal and any situational trees that are authorized by the City for removal during the construction phase will require mitigation on a tree-for-tree basis.

Thank you for choosing Morgan Holen & Associates, LLC, to provide consulting arborist services for the Universal Health Services project in Wilsonville, Oregon. Please contact us if you have questions or need any additional information.

Thank you,
Morgan Holen & Associates, LLC

Morgan E. Holen, Owner
ISA Certified Arborist, PN-6145A
ISA Tree Risk Assessment Qualified
Forest Biologist

Enclosures: MHA15029 Universal Health Services – Tree Data 10-21-15

No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2212	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	26,36	26	G	codominant stem at ~5', some included bark	situational*
2213	No	incense cedar	<i>Calocedrus decurrens</i>	34	16	G	large diameter upright scaffold branches	remove - construction
2389	No	Callery pear	<i>Pyrus calleryana</i>	6	8	G	moderate structure, crown in powerlines	remove - construction
2390	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	28	G	some history of lateral branch failure	remove - construction
2391	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	30	24	G	no major defects	remove - construction
2392	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	34	26	G	active resin flow north face at ~6'	remove - construction
2393	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	8	9	G	no major defects, young tree	remove - construction
2394	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	24	F	thin crown, dieback, dead branches, forked leaders	remove - construction
2395	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	22	22	F	poor later branch distribution	remove - construction
2396	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	16	15	F	somewhat suppressed	remove - construction
2397	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	52	30	G	large diameter codominant leaders, aerial inspection recommended if retained	situational*
2398	No	deodar cedar	<i>Cedrus deodara</i>	11	10	G	minor sweep in lower trunk	remove - construction
2399	No	deodar cedar	<i>Cedrus deodara</i>	24	18	G	upright scaffold branches, moderate structure	situational*
2400	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	22	F	codominant leaders, included bark, moderate structure	remove - construction
2509	No	London planetree	<i>Platanus x acerifolia</i>	12	15	G	14-degree self-correcting lean to south	remove - construction
2510	No	London planetree	<i>Platanus x acerifolia</i>	12	16	G	some crown asymmetry, north edge of group	remove - construction
2511	No	London planetree	<i>Platanus x acerifolia</i>	12	16	F	interior of group	situational*
2512	No	London planetree	<i>Platanus x acerifolia</i>	14	24	G	codominant leaders, remove widow maker	retain
2513	No	London planetree	<i>Platanus x acerifolia</i>	12	20	G	codominant leaders	retain
2514	No	London planetree	<i>Platanus x acerifolia</i>	12	16	G	no major defects	situational*
2515	No	London planetree	<i>Platanus x acerifolia</i>	14	18	G	codominant leaders	situational*
2516	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	36	25	G	no major defects, some ivy at base	retain
2517	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	22	G	codominant leaders at old topping cut, some ivy	retain

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No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2518	No	European white birch	<i>Betula pendula</i>	14	0	D	dead	remove - condition
2519	No	London planetree	<i>Platanus x acerifolia</i>	16	22	F	one-sided crown to south, codominant leaders	remove - construction
2520	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	38	24	G	ivy up trunk	remove - construction
2521	No	London planetree	<i>Platanus x acerifolia</i>	14	18	G	codominant leaders, interior of group	situational*
2522	No	London planetree	<i>Platanus x acerifolia</i>	24	26	G	ivy up trunk	situational*
2523	No	London planetree	<i>Platanus x acerifolia</i>	14	15	G	some crown asymmetry, north edge of group, lower trunk surrounded by laurel shrub	remove - construction
2524	No	red oak	<i>Quercus rubra</i>	8	12	F	moderate structure, some crown asymmetry	remove - construction
2525	No	spruce	<i>Picea</i> spp.	8	8	P	poor structure, dead branches	remove - condition
2526	No	Norway maple	<i>Acer platanoides</i>	12	12	F	'Crimson King' variety, branch dieback, ivy up trunk	remove - construction
2531	No	sweet cherry	<i>Prunus avium</i>	12	20	F	invasive species, ivy	remove - condition
2533	No	sweet cherry	<i>Prunus avium</i>	2x15	20	F	invasive species, ivy	remove - condition
2534	No	sweet cherry	<i>Prunus avium</i>	12	6	P	invasive species, very poor structure, overtaken with ivy	remove - condition
2535	No	sweet cherry	<i>Prunus avium</i>	12	16	P	invasive species, very poor structure, overtaken with ivy	remove - condition
2536	No	sweet cherry	<i>Prunus avium</i>	12	6	P	invasive species, very poor structure, overtaken with ivy	remove - condition
2538	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	34		off-site	protect
2539	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	34		off-site	protect
2542	No	sweet cherry	<i>Prunus avium</i>	8	8		off-site	protect
2545	No	sweet cherry	<i>Prunus avium</i>	12	18		off-site	protect
2552	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			off-site, located within western stand	protect
2553	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	36			off-site, located within western stand	protect
2557	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	15			located within western stand	retain
2558	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	30			located within western stand	retain
2559	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	30			located within western stand	retain

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No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2599	Yes	deciduous	unknown	6			off-site, located within western stand	protect
2601	Yes	deciduous	unknown	10			located within western stand	retain
2603	Yes	deciduous	unknown	14			located within western stand	retain
2606	Yes	deciduous	unknown	6			located within western stand	retain
2607	Yes	deciduous	unknown	12			located within western stand	retain
2608	Yes	deciduous	unknown	10			located within western stand	retain
2611	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12	14	F	thin crown, ivy up lower trunk	remove - construction
2623	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	22	G	crown asymmetry, codominant crown class	remove - construction
2624	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	22	G	codominant crown class	remove - construction
2625	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14		G	codominant crown class	remove - construction
2626	Yes	Pacific madrone	<i>Arbutus menziesii</i>	10		G	codominant crown class	remove - construction
2627	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	18	P	severe dieback, increased risk potential	remove - construction
2628	Yes	Pacific madrone	<i>Arbutus menziesii</i>	10		F	extensive ivy	remove - construction
2629	Yes	Pacific madrone	<i>Arbutus menziesii</i>	8		F	extensive ivy	remove - construction
2630	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12		D	dead, leave snag within intact stand	remove - construction
2631	Yes	Pacific madrone	<i>Arbutus menziesii</i>	8		P	severe dieback	remove - construction
2634	Yes	bigleaf maple	<i>Acer macrophyllum</i>	8		F	located within western stand	retain
2635	Yes	bigleaf maple	<i>Acer macrophyllum</i>	12		F	located within western stand	retain
2636	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	22	G	no major defects	situational*
2637	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	28	22	G	no major defects	retain
2638	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	28	22	G	no major defects	situational*
2639	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	22	G	some twig dieback	situational*
2640	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	30	28	G	some ivy on lower trunk, codominant crown class, one-sided crown	situational*

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No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2641	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	50	34	G	ivy up lower trunk	situational*
2642	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	28	G	codominant crown class, one-sided crown	situational*
2643	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	24			located within western stand	retain
2644	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2645	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	15			located within western stand	retain
2646	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	18			located within western stand	retain
2648	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	24			located within western stand	retain
2649	Yes	bigleaf maple	<i>Acer macrophyllum</i>	22			located within western stand	retain
2651	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	18			located within western stand	retain
2652	Yes	bigleaf maple	<i>Acer macrophyllum</i>	12		F	located within western stand	retain
2653	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2654	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2655	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain
2656	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain
2657	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain
2658	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2659	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	10			located within western stand	retain
2660	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2661	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain
2662	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2663	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2665	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			off-site, located within western stand	protect
2666	Yes	bigleaf maple	<i>Acer macrophyllum</i>	10			located within western stand	retain
2667	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain

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No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2668	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	15			located within western stand	retain
2669	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	17			located within western stand	retain
2670	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	17		G	located within western stand	retain
2671	Yes	bigleaf maple	<i>Acer macrophyllum</i>	18	22	G	located within western stand	retain
2672	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	44	32	G	some history of lateral branch failure	remove - construction
2673	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	30	24	G	likely old topping cut at ~8'	remove - construction
2675	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	26	G	located within western stand	retain
2676	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2677	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2678	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	17			located within western stand	retain
2679	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2680	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain
2681	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2682	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	8			located within western stand	retain
2683	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	13			located within western stand	retain
2684	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	6			located within western stand	retain
2685	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	6			located within western stand	retain
2686	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2687	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	10			located within western stand	retain
2688	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	10			located within western stand	retain
2689	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2690	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2691	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2692	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	18			located within western stand	retain

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No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2693	Yes	bigleaf maple	<i>Acer macrophyllum</i>	10			located within western stand	retain
2694	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	16			off-site, located within western stand	protect
2700	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	13	G	no major defects	retain
2701	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	16	F	codominant leaders with included bark and tight 'V' shaped juncture, on property line, aerial inspection recommended if retained	retain
2703	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	40	30	G	codominant leaders with some included bark and 'V' shaped juncture, aerial inspection recommended if retained	situational*
2705	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	30	G	some ivy on lower trunk	situational*
2707	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	32	28	G	only suitable for preservation with 2708	situational**^
2708	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	24	G	only suitable for preservation with 2707	situational*
2709	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	18		off-site	protect
2711	No	sweet cherry	<i>Prunus avium</i>	10	14	F	invasive species, on property line	remove - condition^
2712	No	Douglas-fir	<i>Pseudotsuga menziesii</i>	24	18	G	no major defects	retain
2728	Yes	bigleaf maple	<i>Acer macrophyllum</i>	4x6			located within western stand	retain
2729	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	10			located within western stand	retain
2730	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	15			located within western stand	retain
2731	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	20			located within western stand	retain
2734	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	15			located within western stand	retain
2735	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2737	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain
2738	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	12			located within western stand	retain
2741	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	18			located within western stand	retain
2742	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	14			located within western stand	retain

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No.	Stand	Common Name	Species Name	DBH ¹	C-Rad ²	Cond ³	Comments	Treatment
2743	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	20			located within western stand	retain
2744	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	10			located within western stand	retain
2745	Yes	Douglas-fir	<i>Pseudotsuga menziesii</i>	22			located within western stand	retain
2746	Yes	bigleaf maple	<i>Acer macrophyllum</i>	2x6			located within western stand	retain
2748	Yes	bigleaf maple	<i>Acer macrophyllum</i>	4x6	20	F	moderate structure	situational*
2749	Yes	bigleaf maple	<i>Acer macrophyllum</i>	3x8	16	F	moderate structure	situational*
2751	Yes	sweet cherry	<i>Prunus avium</i>	2x8	16	F	invasive species, poor structure	remove - condition
2752	No	Pacific madrone	<i>Arbutus menziesii</i>	6x10	18	G	base on east side	remove - construction

¹DBH is tree diameter measured at 4.5-feet above the ground level in inches; multiple trunks of the same size are indicated with an asterisk (quantity x size).

²C-Rad is the average crown radius measured in feet;

³Cond is an arborist assigned rating to generally describe the condition of individual trees as follows- **Dead**; **Poor**; **Moderate**; or **Good**.

*Situational trees are likely to be retained but removal may be necessary if adequate protection is not possible during construction. Construction activity beneath the dripline of these trees shall be performed under the on-site supervision of a Qualified Arborist; if the arborist determines that detrimental impacts are likely to occur, a report recommending removal of the tree shall be submitted to the City for approval before construction impacts the tree. See the 11-6-15 Arborist Report for additional information.

^Tree located on property line; coordinate with neighboring property owner for authorization to remove.

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Exhibit O

Wetlands / Natural Resources Report



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
Oregon General Contractor: CCB# 94379

Telephone number: (503) 570-0800 Fax number: (503) 570-0855

MEMORANDUM

Date: October 28, 2015

To: Alan Schultz, Untied Health Services
Kenneth Sandblast, AICP, Westlake Consultants, Inc.

From: Craig Tumer, PWS, PWD
John van Staveren, PWS

Re: Description of Existing Conditions, SW Day Rd & SW Boones Ferry Rd,
Wilsonville, Oregon
PHS #5808

At your request, Pacific Habitat Services, Inc. (PHS) visited the proposed United Health Services site located southwest of the intersection of SW Day Road and SW Boones Ferry Road in Wilsonville to characterize existing site conditions and to determine if jurisdictional wetlands or other potential constraints to development are present on the site. In addition to wetlands, PHS examined the site for potential habitat for threatened and endangered species and for areas designated by the City of Wilsonville as significant resources. The site visit was conducted on October 22, 2015, by Craig Tumer, PWS. Prior to conducting the site visit, PHS reviewed available sources of online materials related to wetlands and other resources. The findings of the site visit are described below. Figures documenting onsite conditions are provided in Attachment A. Photographs depicting existing conditions are provided in Attachment B.

Project Site

The project site is comprised of three parcels (Tax Lots 400, 500, and 501, Washington County) located southwest of the intersection of SW Day Road and SW Boones Ferry Road in Wilsonville, Oregon (Figure 1). The City of Wilsonville's municipal boundary crosses the southern part of the site such that the southernmost portion is within the City of Wilsonville and the remainder of the site is within unincorporated Washington County. The total area of the project site is approximately 8.69 acres as described on the tax lot map for the site (Figure 2).

Alan Schultz, United Health Services
Description of Existing Conditions, SW Day Rd & SW Boones Ferry Rd, Wilsonville, OR
Pacific Habitat Services / PHS #5808
October 28, 2015
Page 2

Two houses and associated structures are present near the northeastern and northwestern corners of the site. The majority of the site is regularly mowed fields dominated by non-native grasses and forbs. Common species in the open fields include tall fescue (*Schedonorus arundinaceus*), colonial bentgrass (*Agrostis capillaris*), common velvetgrass (*Holcus lanatus*), oxeye daisy (*Leucanthemum vulgare*), hairy cats-ear (*Hypochaeris radicata*), English plantain (*Plantago lanceolata*), Queen Anne's lace (*Daucus carota*), heal-all (*Prunella vulgaris*), sheep sorrel (*Rumex acetosella*), and Himalayan blackberry (*Rubus armeniacus*). Scattered trees, including Douglas-fir (*Pseudotsuga menziesii*) are present in the northern portion of the site. Ornamental species such as planetree (*Platanus* sp.), English laurel (*Prunus laurocerasus*), Portuguese laurel (*Prunus lusitanica*), English ivy (*Hedera helix*), and periwinkle (*Vinca minor*) are planted in the vicinity of the existing residences. A small woodland community with a forest canopy dominated by Douglas-fir, bigleaf maple (*Acer macrophyllum*) and sweet cherry (*Prunus avium*) is present along the western edge of the project site. A wooded hedgerow dominated by Douglas-fir, sweet cherry, Himalayan blackberry, hazelnut (*Corylus cornuta*), Scotch-broom (*Cytisus scoparius*) and other species extends along the southern boundary of the site. Areas of exposed boulders occur throughout the site.

Much of the site slopes generally from north to the south, with broad, gently sloping drainage features in the southeastern and southwestern portions of the site. The westernmost portion of the site slopes steeply to the west. A copy of the USGS quadrangle showing the general topography is provided as Figure 1.

Jurisdictional Wetlands and other Waters of the State/U.S.

Review of USGS topographic mapping and aerial photographs do not indicate the presence of any streams or other water features on the site. The Saum silt loam soil series is mapped across much of the site, with Briedwell stony silt loam mapped on the southeastern-most corner of the site (Figure 3). Neither soil series is a hydric soil. National Wetlands Inventory (NWI) mapping does not map any wetlands on site or on adjacent properties (Figure 4).

PHS examined the project site for the presence of wetlands based on indicators of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y-87-1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. During the site investigation, PHS did not identify any areas on the site that meet wetland criteria or support all three of the indicators required for jurisdictional wetlands. PHS documented hydrology, soils, and vegetation characteristics in the lowest areas of the two broad, gently sloping drainage features in the southeastern and southwestern portions of the site, as these are the areas most likely to contain jurisdictional wetlands if they are present. Data sheets documenting observed soils, hydrology, and vegetation characteristics that confirm the absence of wetlands in these drainage features are provided in Attachment C.

Based on review of available mapping and PHS’s site investigation, it is PHS’s opinion that jurisdictional wetlands or other non-wetland waters of the State/U.S. (i.e., streams) are not present on site, and permits from the Oregon Department of State Lands (DSL) or U.S. Army Corps of Engineers (Corps) will not be required for proposed development of the site.

Endangered and Threatened Species

Review of the U.S. Fish and Wildlife Services’s (USFWS) IPaC website, indicates that eight federally listed endangered or threatened plants and animals are known to occur in Washington County, Oregon and could occur in the project vicinity if suitable habitat is present. These eight species, along with their listing statuses at the federal and state levels, are listed in Table 1.

Table 1. Endangered and Threatened Species Known to Occur in Washington County, Oregon

Common Name	Scientific Name	Federal Status	State Status
Northern Spotted Owl	<i>Strix occidentalis caurina</i>	Threatened	Threatened
Streaked Horned Lark	<i>Eremophila alpestris strigata</i>	Threatened	Special Concern
Bradshaw’s Lomatium	<i>Lomatium bradshawii</i>	Endangered	Endangered
Kincaid’s Lupine	<i>Lupinus sulphureus ssp. kincaidii</i>	Threatened	Threatened
Nelson’s checkermallow	<i>Sidalcea nelsoniana</i>	Threatened	Threatened
Water Howellia	<i>Howellia aquatilis</i>	Threatened	Threatened
Willamette Daisy	<i>Erigeron decumbens</i>	Endangered	Endangered
Fender’s Blue Butterfly	<i>Icaricia icarioides fenderi</i>	Endangered	Not listed

Based on our review of existing site conditions and the habitat requirements of each of the listed species, it is PHS’s opinion that listed endangered or threatened species are not likely to occur on the project site, as discussed below.

Northern spotted owls live in forests characterized by dense canopy closure of mature and old-growth trees, abundant logs, standing snags, and live trees with broken tops. Although they are known to nest, roost, and feed in a wide variety of habitat types, spotted owls prefer older, structurally diverse forest stands. Although a small forested area is present in the westernmost portion of the site, this forest area is small and relatively young, and it does not provide the type of habitat favored by northern spotted owls.

Streaked horned larks nest in a broad range of habitats, including native prairies, coastal dunes, fallow and active agricultural fields, wetland mudflats, sparsely-vegetated edges of grass fields, recently planted Christmas tree farms with extensive bare ground, moderately- to heavily-grazed pastures, gravel roads or gravel shoulders of lightly-traveled roads, airports, and dredge deposition sites in the lower Columbia River. While a grassy field habitat covers much of the site, the herbaceous vegetation in the field is too dense and lacks sufficient areas of bare, open ground where streaked horned larks nest. Furthermore, the field on the site is much too small to support nesting horned larks, which require extensive areas of open habitats.

Bradshaw’s lomatium is found in seasonally saturated or flooded prairies, adjacent to creeks and small rivers in the southern Willamette Valley. Bradshaw’s lomatium occurs on alluvial (deposited

by flowing water) soils, typically in the Wapto, Bashaw and McAlpin Series. The project site does not contain streams, wetlands, or the mapped soil series on which Bradshaw’s lomatium is typically found; therefore, this species is not likely to occur on the project site.

Kincaid’s Lupine is typically found in native upland prairie with the dominant species being red fescue (*Festuca rubra*) and/or Idaho fescue (*Festuca idahoensis*). The open field habitat on the project site is dominated by non-native grasses and forbs, and native prairie habitat is not present on the project site. Therefore, Kincaid’s lupine is not likely to occur on the project site.

Nelson’s checkermallow most frequently occurs in wetland swales dominated by Oregon ash (*Fraxinus latifolia*) and meadows with wet depressions, or along streams. The species also grows in wetlands within remnant prairie grasslands. The project site does not contain streams, wetlands, or native prairie habitat; therefore, this species is not likely to occur on the project site.

Water howellia is restricted to small, vernal, freshwater wetlands, glacial pothole ponds, or former river oxbows that have an annual cycle of filling with water over the fall, winter and early spring, followed by drying during the summer months. Most locations were surrounded by deciduous trees and howellia was found in shallow water or around the edges of deep ponds. Associated species include duckweed (*Lemna* spp.), water starworts (*Callitriche* spp.), water buttercup (*Ranunculus aquatilis*), yellow water-lily (*Nuphar polysepalum*), bladderwort (*Utricularia vulgaris*), and pondweeds (*Potamogeton* spp.). The project site does not contain vernal wetland habitats; therefore, this species is not likely to occur on the project site.

Willamette Daisy occurs primarily on alluvial soils in bottomland landscapes; however, one population is known from a remnant upland prairie habitat. The project site is not located in a bottomland situation and does not contain native upland prairie habitat; therefore, this species is not likely to occur on the project site.

Fender’s blue butterfly is typically found in native upland prairies, dominated by red fescue (*Festuca rubra*) and/or Idaho fescue (*F. idahoensis*). Fender’s blue butterfly caterpillars feed on three species of lupine, including Kincaid’s lupine, and the presence of these lupine’s is a key habitat component for this butterfly. Native upland prairie habitat is not present, and no lupines were observed on the site; therefore, Fender’s blue butterfly is not likely to occur on the project site.

City of Wilsonville Significant Resource Overlay Zone

PHS examined the City of Wilsonville’s Development Code and the City’s online mapping system to determine if other natural resources that might pose constraints to site development are present. The City’s Significant Resource Overlay Zone (SROZ) Map (Figure 5), which shows the outer boundary of all inventoried significant natural resources (including significant wetlands, riparian corridors, and significant wildlife habitats) does not show any mapped resources on the site. The City’s online GIS mapping indicates there are no 100-year floodplains or mapped SROZ on the site.

Summary

In summary, investigation of available sources of mapping and PHS's examination of existing site conditions indicate that jurisdictional wetlands and non-wetland waters (i.e., streams), 100-year floodplains, and City-mapped Significant Resource Overlay Zone are not present on the project site. Additionally, existing conditions on the site do not provide potential habitat for listed endangered or threatened species known to occur within Washington County.

REFERENCES

- City of Wilsonville. 2009. SROZ, *Significant Resource Overlay Zone Map*. April 29, 2009. <http://www.ci.wilsonville.or.us/DocumentCenter/View/636>. Accessed October 2015.
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Attachment A

Figures





Project # 5808

Date 10/27/15

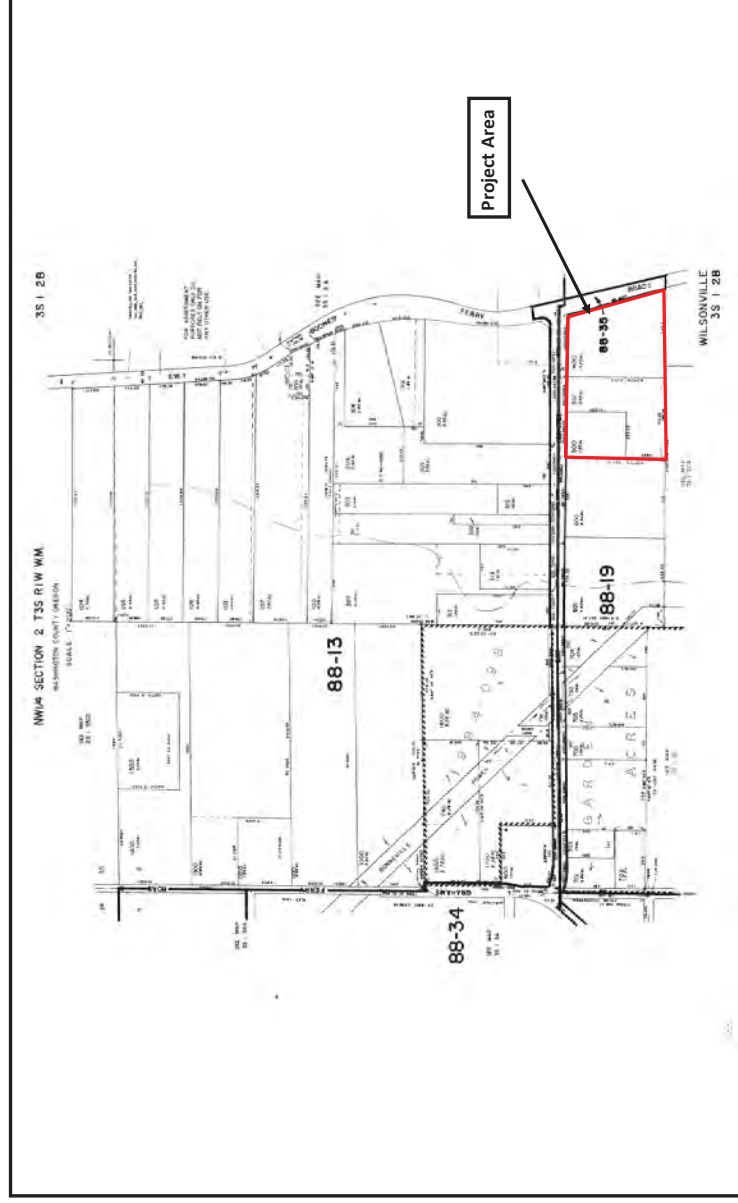


Pacific Habitat Services, Inc.
9459 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

FIGURE

1

General Location and Topography
SW Day Road and SW Boones Ferry Road in Wilsonville, Oregon
United States Geographical Survey (USGS), 2015



Project # 5808

Date 10/27/15



Pacific Habitat Services, Inc.
9459 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

FIGURE

2

Tax Lot Map, Section 2B, Township 3 South, Range 1 West
SW Day Road and SW Boones Ferry Road in Wilsonville, Oregon
OrMap.net, 2015



Project #5808
 Date 10/27/15

 Pacific Habitat Services, Inc.
 9459 SW Commerce Circle, Suite 180
 Wilsonville, OR 97070

Natural Resources Wetland Inventory
 SW Day Road and SW Boones Ferry Road in Wilsonville, Oregon
 United States Fish and Wildlife Service, Wetland Mapper, 2015

FIGURE
 3



Project # 5808
 Date 10/27/15

 Pacific Habitat Services, Inc.
 9459 SW Commerce Circle, Suite 180
 Wilsonville, OR 97070

Soils map
 SW Day Road and SW Boones Ferry Road in Wilsonville, Oregon
 National Resources Conservation Service, Web Soil Survey, 2015

FIGURE
 4



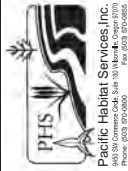
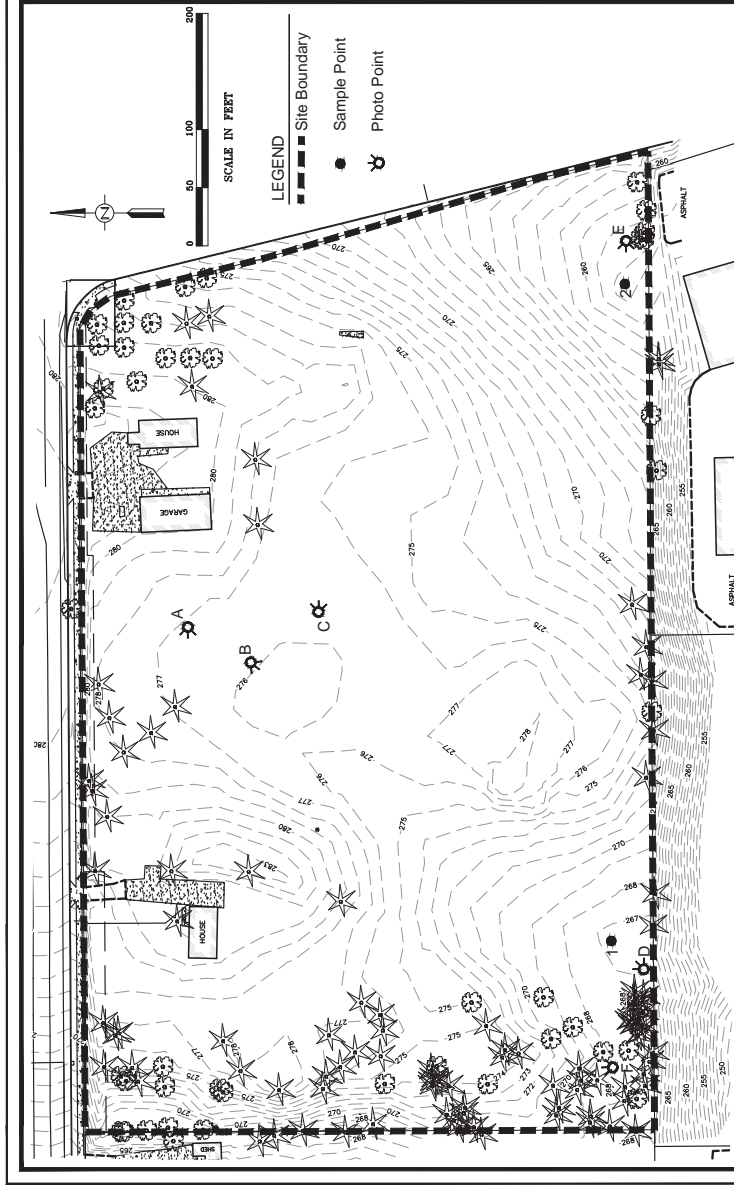
Project # 5808
Date 10/27/15



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Significant Resource Overlay Zone Map, 4/29/09
SW Day Road and SW Boones Ferry Road in Wilsonville, Oregon
City of Wilsonville GIS Online, 2015

FIGURE
5



Pacific Habitat Services, Inc.
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Wilsonville, OR 97070
Phone: 503.930.0000
Fax: 503.930.0585

Plans Provided by Westlake
Consultants, Inc.

Existing Conditions
SW Day Road and SW Boones Ferry Road, Wilsonville, Oregon

FIGURE
6
10/28/2015

Attachment B

Site Photographs



Photo A:
Looking west across the mowed field in the northern portion of the project site.

Photo B:
Looking southwest at the mowed field community that comprises much of the project site.



Project #5808
10/27/2015



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photos of Existing Site Conditions
SW Day Road and SW Boones Ferry Road, Wilsonville, Oregon
All Photos taken on October 22, 2015



Photo C:
Looking east across the central portion of the project site. Outcrops of large boulders are scattered throughout the project site.

Photo D:
Looking northeast at Data Point 1 in the southwestern portion of the project site. This data point demonstrates that wetlands are not present in this broad, gently sloping swale.



Photo E:
Looking west at Data Point 2 in the southeastern portion of the project site. This data point demonstrates that wetlands are not present in this broad, gently sloping swale.

Photo F
Looking north within the forested westernmost portion of the project site.



Attachment C

Data Sheets

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

PHS # 5808

Project/Site: UHS Site City/County: Wilsonville/Washington Co. Sampling Date: 10/22/2015
 Applicant/Owner: United Health Services State: OR Sampling Point: 1
 Investigator(s): C. Tumer Section, Township, Range: Sect. 2, T3S, R1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR): LRR A Lat: 45.3396 Long: -122.775 Datum: _____
 Soil Map Unit Name: Saum silt loam NWI Classification: UPL
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)
 Are vegetation N Soil N or Hydrology N significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation n Soil N or Hydrology N naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum (plot size: _____)				Number of Dominant Species
1	_____	_____	_____	That are OBL, FACW, or FAC: <u>1</u> (A)
2	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3	_____	_____	_____	
4	_____	_____	_____	
	<u>0</u>		= Total Cover	
Sapling/Shrub Stratum (plot size: _____)				Percent of Dominant Species
1	_____	_____	_____	That are OBL, FACW, or FAC: <u>33%</u> (A/B)
2	_____	_____	_____	Prevalence Index Worksheet:
3	_____	_____	_____	
4	_____	_____	_____	
5	_____	_____	_____	
	<u>0</u>		= Total Cover	
Herb Stratum (plot size: _____)				Total % Cover of _____ Multiply by: _____
1	<u>30</u>	<u>X</u>	<u>FACU</u>	OBL Species _____ x 1 = <u>0</u>
2	<u>25</u>	<u>X</u>	<u>FAC</u>	FACW species _____ x 2 = <u>0</u>
3	<u>25</u>	<u>X</u>	<u>FACU</u>	FAC Species _____ x 3 = <u>0</u>
4	<u>10</u>		<u>FACU</u>	FACU Species _____ x 4 = <u>0</u>
5	<u>10</u>		<u>FACU</u>	UPL Species _____ x 5 = <u>0</u>
6	<u>10</u>		<u>FAC</u>	Column Totals <u>0</u> (A) <u>0</u> (B)
7	<u>2</u>		<u>FACU</u>	Prevalence Index =B/A = <u>#DIV/0!</u>
8				
	<u>112</u>		= Total Cover	
Woody Vine Stratum (plot size: _____)				Hydrophytic Vegetation Indicators:
1	_____	_____	_____	1- Rapid Test for Hydrophytic Vegetation
2	_____	_____	_____	2- Dominance Test is >50%
	<u>0</u>		= Total Cover	3-Prevalence Index is ≤ 3.0 ¹
% Bare Ground in Herb Stratum <u>0</u>				4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)
Remarks:				5- Wetland Non-Vascular Plants ¹
				Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>



SOIL PHS # 5808 Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (Inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-6	7.5YR 3/4	100				Silt Loam	
6-16	7.5YR 4/6	100				Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
_____ Histosol (A1)	_____ Sandy Redox (S5)	_____ 2 cm Muck (A10)	
_____ Histic Epipedon (A2)	_____ Stripped Matrix (S6)	_____ Red Parent Material (TF2)	
_____ Black Histic (A3)	_____ Loamy Mucky Mineral (F1) (except MLRA 1)	_____ Very Shallow Dark Surface (TF12)	
_____ Hydrogen Sulfide (A4)	_____ Loamy Gleyed Matrix (F2)	_____ Other (explain in Remarks)	
_____ Depleted Below Dark Surface (A11)	_____ Depleted Matrix (F3)		
_____ Thick Dark Surface (A12)	_____ Redox Dark Surface (F6)		
_____ Sandy Mucky Mineral (S1)	_____ Depleted Dark Surface (F7)		
_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Remarks: _____

Hydric Soil Present? Yes _____ No X

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
_____ Surface Water (A1)	_____ Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)
_____ High Water Table (A2)	_____ Salt Crust (B11)
_____ Saturation (A3)	_____ Drainage Patterns (B10)
_____ Water Marks (B1)	_____ Aquatic Invertebrates (B13)
_____ Sediment Deposits (B2)	_____ Hydrogen Sulfide Odor (C1)
_____ Drift Deposits (B3)	_____ Oxidized Rhizospheres along Living Roots (C3)
_____ Algal Mat or Crust (B4)	_____ Presence of Reduced Iron (C4)
_____ Iron Deposits (B5)	_____ Recent Iron Reduction in Plowed Soils (C6)
_____ Surface Soil Cracks (B6)	_____ Stunted or Stressed Plants (D1) (LRR A)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)
_____ Sparsely Vegetated Concave Surface (B8)	_____ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): n/a

Water Table Present? Yes _____ No X Depth (inches): >16

Saturation Present? Yes _____ No X Depth (inches): >16

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: UHS Site City/County: Wilsonville/Washington Co. Sampling Date: 10/22/2015

Applicant/Owner: United Health Services State: OR Sampling Point: 2

Investigator(s): C. Tumer Section, Township, Range: Sect. 2, T3S, R1W

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): concave Slope (%): _____

Subregion (LRR): LRR A Lat: 45.3396 Long: -122.775 Datum: _____

Soil Map Unit Name: Saum silt loam NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)

Are vegetation N Soil N or Hydrology N significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation n Soil N or Hydrology N naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: _____	

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum (plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1 _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2 _____				
3 _____				
4 _____				
	<u>0</u>		= Total Cover	
Sapling/Shrub Stratum (plot size: _____)				Percent of Dominant Species That are OBL, FACW, or FAC: <u>0%</u> (A/B)
1 _____				Prevalence Index Worksheet: Total % Cover of _____ Multiply by: _____ OBL Species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC Species _____ x 3 = <u>0</u> FACU Species _____ x 4 = <u>0</u> UPL Species _____ x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
2 _____				
3 _____				
4 _____				
5 _____				
Herb Stratum (plot size: _____)				Hydrophytic Vegetation Indicators: _____ 1- Rapid Test for Hydrophytic Vegetation _____ 2- Dominance Test is >50% _____ 3-Prevalence Index is ≤ 3.0 ¹ _____ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) _____ 5- Wetland Non-Vascular Plants ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1 <u>Prunella vulgaris</u>	<u>25</u>	<u>X</u>	<u>FACU</u>	
2 <u>Leucanthemum vulgare</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
3 <u>Festuca arundinacea</u>	<u>15</u>		<u>FAC</u>	
4 <u>Daucus carota</u>	<u>10</u>		<u>FACU</u>	
5 <u>Taraxacum officinale</u>	<u>5</u>		<u>FACU</u>	
6 <u>Hypochaeris radicata</u>	<u>5</u>		<u>FACU</u>	
7 <u>Plantago major</u>	<u>2</u>		<u>FAC</u>	
8 _____				
	<u>82</u>		= Total Cover	
Woody Vine Stratum (plot size: _____)				
1 _____				
2 _____				
	<u>0</u>		= Total Cover	
% Bare Ground in Herb Stratum	<u>18</u>			
Remarks: _____				

SOIL

PHS # 5808

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 3/3	100					Silt loam	
6-16	7.5YR 4/3	100					Silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9)	<input type="checkbox"/> (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): n/a

Water Table Present? Yes _____ No Depth (inches): >16

Saturation Present? Yes _____ No Depth (inches): >16
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Exhibit P

Traffic Study



City of Wilsonville

UHS Behavioral Health Hospital Transportation Impact Analysis

Prepared by



January 2016



117 Commercial Street NE
Suite 310
Salem, OR 97301
503.391.8773
www.dksassociates.com

January 7, 2016

Steve Adams
City of Wilsonville
29799 Town Center Loop East
Wilsonville, OR 97070

Subject: UHS Willamette Valley Behavioral Health Hospital Transportation Impact Analysis

Dear Steve:

DKS Associates is pleased to submit this transportation impact study for the proposed UHS Behavioral Health Hospital south of SW Day Road and west of SW Boones Ferry Road in Wilsonville. Please feel free to call if you have any questions or comments regarding this study.

Sincerely,
DKS Associates

Scott Mansur, P.E., PTOE
Transportation Engineer





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CHAPTER 1: INTRODUCTION AND SUMMARY

This study evaluates the transportation impacts associated with a proposed zone change of tax lots 400, 500, and 501 in Washington County. It is our understanding that the applicant desires to change the current Washington County Future Development (FD-20) to City Planned Development Industrial-Regionally Significant Industrial Area (PDI-RSIA). The total acreage of the area is 8.75 acres. The current plan for the proposed property includes the development of a 100-bed Universal Health Services (UHS) Behavioral Health Hospital at 9470 SW Day Road in Wilsonville, Oregon.

The purpose of this transportation impact analysis is to identify potential mitigation measures needed to offset transportation impacts that the proposed rezone and desired Behavioral Health Hospital may have on the nearby transportation network. The impact analysis is focused on the following study intersections, which were selected for evaluation in coordination with City staff¹ and are shown in Figure 1:

- Boones Ferry Road/I-5 Southbound Ramp
- Boones Ferry Road/95th Avenue
- Boones Ferry Road/Day Road
- Grahams Ferry Road/Day Road
- Day Road/Proposed Site Access



Figure 1: Study Area

¹ Email from Steve Adams, City of Wilsonville, October 13, 2015.

This chapter provides an introduction to the proposed development and the steps taken to analyze the associated impacts on the transportation network. It highlights important elements of the remaining chapters, including a description of the project site and development and the findings of the transportation analysis. Table 1 lists important characteristics of the study area and proposed project.

Table 1: Key Study Area and Proposed Development Characteristics

Characteristics	Information
Study Area	
Number of Study Intersections	5 (4 existing and 1 proposed)
Analysis Period	Weekday PM Peak Hour (Peak Hour between 4-6 p.m.)
Project Site	
Existing Land Use	Vacant
Proposed Development	Zone change of tax lots 400, 500, and 501 (8.75 acres total) from County Future Development (FD-20) to City Planned Development Industrial-Regionally Significant Industrial Area (PDI-RSIA). Current plan for the lot includes the development of a Behavioral Health Hospital on the property.
Project Access	Proposed interim access to Day Road along the northwest frontage of the property while requiring provision for a future connection to a shared access with adjacent property to the west.

Existing Intersection Operations

Existing traffic operations at the study intersections were determined for the p.m. peak hour based on the 2000 Highway Capacity Manual methodology for signalized intersections² and the 2010 Highway Capacity Manual for unsignalized intersections.³ The estimated delay, LOS, and V/C ratio of each study intersection is shown in Table 2. As shown, all four existing study intersections currently meet the City's operating standards.

Table 2: Existing Study Intersection Operations

Intersection	Jurisdiction	Operating Standard	Existing		
			Delay	LOS	V/C
Boones Ferry Road/I-5 SB Ramp	ODOT	0.85 V/C	19.9	B	0.72
Boones Ferry Road/95 th Avenue	City of Wilsonville	LOS D	26.5	C	0.71
Boones Ferry Road/Day Road			18.2	B	0.63
Grahams Ferry Road/Day Road			15.8	B	0.63
Signalized Intersections: LOS = Level of Service of Intersection V/C = Volume-to-Capacity Ratio of Intersection					

² Highway Capacity Manual 2000, Transportation Research Board, Washington DC, 2000.

³ 2010 Highway Capacity Manual, Transportation Research Board, Washington DC, 2010.



Proposed Development and Rezone

The proposed use of the 8.75 acre property is a Universal Health Services (UHS) Behavioral Health Hospital facility that includes adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women’s programs, substance abuse treatment, behavioral pain management, as well as limited outpatient services. The proposed facility will be approximately 62,000 square feet in size and will have 100 beds. The facility will include three shifts, with a total of 180 employees and 8-9 physicians.

The project site is 8.75 acres of tax lots 400, 500, & 501 in Washington County. The property lies within the urban growth boundary, but outside the incorporated limits of the City of Wilsonville. It is located within the Coffee Creek Master Plan area and within the City’s Day Road Design Overlay District. Upon annexation, the property will be located within the Planned Development Industrial – Regionally Significant Industrial Area (PDI-RSIA) zone from the existing current County Future Development zone (FD-20). As part of this study the worst case trip generation land use from the rezone will be used for analysis.

Proposed Zoning Trip Generation

Trip generation is the method used to estimate the number of vehicles added to site driveways and the adjacent roadway network by a development during a specified period (i.e., such as the p.m. peak hour). The trip generation for the proposed rezone was based on data provided by the Institute of Transportation Engineers (ITE) for the proposed Planned Development Industrial-Regionally Significant Industrial Area (PDI-RSIA) zone. Table 3 lists the primary applicable land uses for the proposed Zone PDI-RSIA based on typical industrial land use trip rates. The land uses considered include Research & Development (ITE Code 760), General Light Industrial (110), and Manufacturing (140). DKS used an assumed floor-to-area (FAR) ratio of 0.30 for industrial and 0.25 for research & development/technology land uses. As shown, the Research & Development land use provided the worst case project trip scenario with an estimated 126 total (19 in, 107 out) p.m. peak hour trips.

Table 3: Trip Generation Summary for Proposed PDI-RSIA Zone Change

Land Use (ITE Code)	FAR ^a	Size (KSF ^b)	PM Peak Hour Trip Rate	PM Peak Hour Trips		
				In	Out	Total
Research & Development (760)	0.25	95.0	1.34 trips/KSF	19	107	126
General Light Industrial (110)	0.30	114.0	0.97 trips/KSF	13	98	111
Manufacturing (140)	0.30	114.0	0.73 trips/KSF	30	53	83

^a FAR = Floor-to-Area Ratio
^b KSF = Thousand Square Feet

Bold worst case land use trip generation for the proposed PDI-RSIA Zone Change

Project Traffic Impact

The worst case traffic impacts for the proposed zone change were evaluated at the study intersections for the weekday p.m. peak hour. As discussed later in the report, the proposed use generates slightly lower trip generation than the worst case zone change assumptions. The impact analysis includes trip generation, trip distribution, p.m. peak hour project trips through the two City of Wilsonville I-5 interchange areas, and future traffic operating conditions at the study intersections. The analysis also includes scenarios that account for Stage II approved developments in the area, including those under construction or built but not yet occupied. Due to the proximity of the project site in relation to Washington County, DKS also coordinated with Washington County and determined that there are no significant approved developments in the study vicinity.⁴ The scenarios include:

- Existing + Project (worst case zoning trip assumptions)
- Existing + Stage II (includes traffic from other developments that have Stage II approval or are under construction)
- Existing + Project + Stage II

The intersection operating conditions for the three future scenarios are listed in Table 4. All intersections meet the City’s operating standards; therefore, the development does not require off-site mitigations to the study area transportation network.

Table 4: Future Project and Stage II Intersection Operations Comparison

Intersection	Operating Standard	Existing + Project			Existing + Stage II			Existing + Stage II + Project		
		Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
Signalized										
Boones Ferry Road/I-5 SB Ramp	0.85 V/C	20.0	B	0.74	28.8	C	0.84	29.6	C	0.86
Boones Ferry Road/95 th Avenue	LOS D	26.1	C	0.73	29.3	C	0.76	29.1	C	0.78
Boones Ferry Road/Day Road		19.4	B	0.68	18.5	B	0.64	19.8	B	0.68
Grahams Ferry Road/Day Road		15.9	B	0.63	17.4	B	0.68	17.4	B	0.68
Two-Way Stop Controlled										
Day Road/Proposed Access	LOS D	14.4	A/B	0.23	-	-	-	14.4	A/B	0.23
<u>Signalized Intersections/Roundabouts:</u>					<u>Unsignalized Intersections:</u>					
LOS = Level of Service of Intersection					LOS = Level of Service of Major Street/Minor Street					
V/C = Volume-to-Capacity Ratio of Intersection					V/C = Volume-to-Capacity Ratio of Worst Movement					

Site Plan Evaluation

A site plan showing the proposed UHS Behavioral Hospital development and site layout was provided by the project sponsor and is included in the appendix. This site plan was evaluated with consideration for pedestrian and bicycle facilities, and vehicular access and circulation, and explanations are provided in Chapter 3 of this report.

⁴ Phone conversation, Stacy Shetler, Washington County Traffic Engineer, January 7, 2016.



Project Impact Summary

To preserve the operations of the study area roadways and provide safe access to the proposed Behavioral Health Hospital site and surrounding land uses, it is recommended that a series of transportation mitigation measures be performed. The following project related measures would typically be required as conditions of approval if the project were approved:

Vehicular Access and Circulation

- The planned Day Road access driveway would not meet the City's 1000-foot minimum Major Arterial access spacing standard specified in the *Wilsonville Transportation System Plan (TSP)*.⁵ The proposed development will require a temporary full access on Day Road, as shown in the current site plan, until a future connection to a shared access with the adjacent property to the west is constructed.
- All existing and proposed site driveways should meet American Association of State Highway and Transportation Officials (AASHTO) intersection sight distance requirements⁶ as measured from 14.5 feet back from the edge of pavement. Prior to occupancy, intersection sight distance at the site driveways will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

Parking

- The proposed site plan should include a minimum of 140 parking spaces (including a minimum 3 ADA stalls) and 7 bicycle stalls.

Pedestrian Facilities

- Sidewalks and/or pedestrian pathways should be provided between the main doors, parking areas, and the sidewalks along the site frontage to reduce conflicts between pedestrians and vehicle traffic within the site and increase safety for employees and visitors.
- All sidewalks within the site should conform to ADA requirements.⁷

Wilsonville TSP Project Accommodations

- Coordination should be performed with City of Wilsonville staff to ensure adequate accommodations are provided on the project site for projects identified in the *Wilsonville Transportation System Plan (TSP)*.⁸ These include the Day Road Widening project (RW-02).
- Coordination should be performed with City of Wilsonville staff to determine frontage improvements to Day Road and Boones Ferry Road.

Transportation Planning Rule Findings

- The City of Wilsonville travel demand forecast model (built upon regional growth assumptions) used in the City's adopted TSP⁹ assumed significant industrial growth within the proposed

project Transportation Analysis Zone (TAZ 4142 and 4143) through the year 2035. The land use in the model was consistent with the land use assumptions adopted in the Coffee Creek Master Plan; therefore, industrial growth assumed in the future TSP model accounts for the worst case build out of the proposed 8.75-acre PDI-RSIA zoning for the proposed project. The proposed zone change would not result in a significant effect on the City of Wilsonville or ODOT's transportation system.

⁵ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

⁶ *Geometric Design of Highways and Streets*, AASHTO, 2004; Case B1, p. 661.

⁷ *ADA Accessibility Guidelines for Buildings and Facilities*, Department of Justice, January 2004.

⁸ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

⁹ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

CHAPTER 2: EXISTING CONDITIONS

This chapter provides documentation of existing study area conditions, including the study area roadway network, pedestrian and bicycle facilities, and existing traffic volumes and operations. Supporting details are provided in the appendix.

Project Site

The proposed use of the 8.75 acre property is a Universal Health Services (UHS) Behavioral Health Hospital facility that includes adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women’s programs, substance abuse treatment, behavioral pain management, as well as limited outpatient services. The proposed facility will be approximately 62,000 square feet in size and will have 100 beds. The facility will include three shifts, with a total of 180 employees and 8-9 physicians.

The project site is 8.75 acres of tax lots 400, 500, & 501 in Washington County. The property lies within the urban growth boundary, but outside the incorporated limits of the City of Wilsonville. It is located within the Coffee Creek Master Plan area and within the City’s Day Road Design Overlay District. Upon annexation, the property will be located within the Planned Development Industrial – Regionally Significant Industrial Area (PDI-RSIA) zone.

Study Area Roadway, Pedestrian, and Bicycle Network

The study area was selected in conjunction with City staff and is intended to capture any transportation impacts related to the proposed rezone. Key roadways in the study area are summarized in Table 5 along with their existing (or proposed) roadway characteristics.

Table 5: Study Area Roadway Characteristics

Roadway	Classification	Number of Lanes	Posted Speed	Sidewalks	Bike Lanes	On-Street Parking
Boones Ferry Road	Major Arterial	5	35 mph	Some	Yes	No
95 th Avenue	Minor Arterial	3	35 mph	Yes	Yes	No
Day Road	Major Arterial	3	45 mph	South Side	Yes	No
Grahams Ferry Road (north of Day Road)	Major Arterial	2	45 mph	West Side	No	No
Grahams Ferry Road (south of Day Road)	Minor Arterial	2	45 mph	West Side	No	No

Near the project site, Day Road has sidewalks and curbs on the south side with bike lanes on both sides. The Boones Ferry Road frontage of the site does not include sidewalks, however sidewalks are present on the opposite (east) side, and bike lanes are present on both sides.

The *Wilsonville Transportation System Plan (TSP)*¹⁰ identifies applicable cross-section standards based on roadway classification. Day Road does not currently meet City of Wilsonville Major Arterial standards. However, the TSP identifies a roadway widening project of Day Road (RW-02) that will widen Day Road from Boones Ferry Road to Grahams Ferry Road to include additional travel lanes in both directions

¹⁰ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

along with bike lanes and sidewalks on both sides. The future project will also include improvements at the Boones Ferry Road/Day Road and Grahams Ferry Road/Day Road signalized intersections.

Existing Traffic Volumes and Operations

Existing p.m. peak hour traffic operations were analyzed at the following study intersections:

- Boones Ferry Road/1-5 Southbound Ramp
- Boones Ferry Road/95th Avenue
- Boones Ferry Road/Day Road
- Grahams Ferry Road/Day Road
- Day Road/Proposed Site Access

To perform the intersection analysis, p.m. peak hour traffic counts were collected on Tuesday, October 27, 2015 for all study intersection except for Boones Ferry Road/95th Avenue which was collected for a prior study on Tuesday, September 29, 2015.¹¹ Figure 2 shows the peak hour traffic volumes analyzed under existing conditions, with the detailed two-hour traffic counts included in the appendix.

The purpose of intersection analysis is to ensure that the transportation network remains within desired performance levels as required by the City of Wilsonville, Washington County, and Oregon Department of Transportation (ODOT) code. Intersections are the focus of the analysis because they are the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is nearly always diminished in their vicinity.

Before the analysis results of the study intersections are presented, discussion is provided for two important analysis issues: intersection performance measures (definitions of typical measures) and required operating standards (as specified by the agency with roadway jurisdiction).

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (V/C) ratios are two commonly used performance measures that provide a good picture of intersection operations. In addition, they are often incorporated into agency mobility standards.

- **Level of service (LOS):** A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection.¹² LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity.
- **Volume-to-capacity (V/C) ratio:** A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If the ratio is greater

¹¹ Where differences were noted in traffic volumes between intersections, volume balancing was conducted to ensure worst case operations.

¹² A description of Level of Service (LOS) is provided in the appendix and includes a list of the delay values (in seconds) that correspond to each LOS designation.



than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Required Operating Standards

The City of Wilsonville requires all study intersections of public streets to meet its minimum acceptable level of service (LOS) standard, which is LOS D for peak periods.¹³ While private driveway approaches, such as the proposed future access, are not required by City code to meet the City’s LOS standard, safety and operations is still considered. ODOT has a Mobility Target of 0.85 V/C for the Boones Ferry Road/I-5 Southbound ramp.

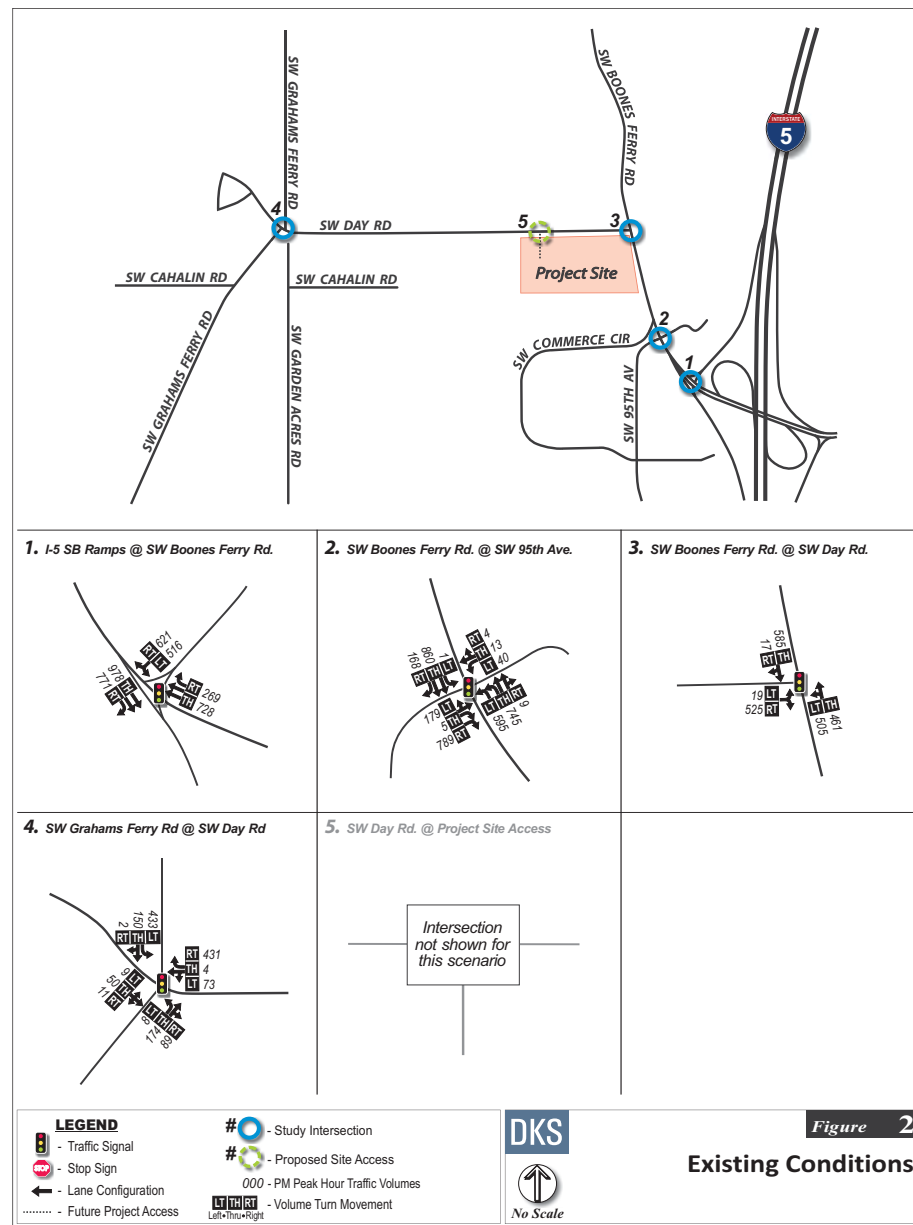
Existing Operating Conditions

Existing traffic operations at the study intersections were determined for the p.m. peak hour based on the 2000 Highway Capacity Manual methodology¹⁴ and compared with the City of Wilsonville’s minimum acceptable level of service (LOS) operating standard, which is LOS D.¹⁵ Table 6 lists the estimated delay, LOS, and V/C ratio of each study intersection. All existing study intersections currently meet their applicable operating standards (City of Wilsonville) and mobility targets (ODOT).

Table 6: Existing Study Intersection Operations

Intersection	Jurisdiction	Operating Standard	Existing		
			Delay	LOS	V/C
Boones Ferry Road/I-5 SB Ramp	ODOT	0.85 V/C	19.9	B	0.72
Boones Ferry Road/95 th Avenue	City of Wilsonville	LOS D	26.5	C	0.71
Boones Ferry Road/Day Road			18.2	B	0.63
Grahams Ferry Road/Day Road			15.8	B	0.63

Signalized Intersections:
 LOS = Level of Service of Intersection
 V/C = Volume-to-Capacity Ratio of Intersection



¹³ City of Wilsonville Code, City of Wilsonville Section 4.140, p.163.

¹⁴ 2000 Highway Capacity Manual, Transportation Research Board, Washington DC, 2000.

¹⁵ City of Wilsonville Code, City of Wilsonville Section 4.140, p.163.



Field Observations

Additionally, the signalized intersections on Boones Ferry Road at Day Road, 95th Avenue, and the I-5 southbound ramp was observed during the p.m. peak hour on a weekday. Southbound Boones Ferry Road was found to have some peak queuing with the queue at 95th Avenue failing to clear during each cycle during the peak 15 minutes of activity. This movement also had significantly unbalanced lane utilization with more drivers using the outside lane to access I-5 south of the intersection. During the peak, this queue typically extended to Day Road and beyond. Queuing was also observed on 95th Avenue making the right turn onto Boones Ferry Road. This queue typically backed to the driveway going to the Holiday Inn and gas station; however, this queue typically cleared each cycle. There was significant lane utilization imbalance with the outside lane seeing more significant volumes to access the freeway south of the intersection. There were no pedestrians or cyclists observed during peak period.

Collision Analysis

Five years of collision records (2010-2014) for the study intersections were obtained from Oregon Department of Transportation (ODOT)'s online database and are included in the appendix. The data identified 65 total collisions, with Boones Ferry Road/I-5 Southbound Ramp and Boones Ferry Road/95th Avenue experiencing the most with 26 and 21 collisions respectively. No fatalities or injury A collisions were reported at the study intersections.

Observed crash rates at the four existing study intersections were calculated to identify problem areas in need of safety mitigation. The total number of crashes experienced at an intersection is typically proportional to the number of vehicles entering it. Therefore, a crash rate describing the frequency of crashes per million entering vehicles (MEV) is used to evaluate the intersection. This recorded crash rate at each site was then compared to a critical crash rate that is unique to each site and based on the critical crash rate procedure in the Highway Safety Manual (HSM) Network Screening chapter.¹⁶ Due to the reference population (study intersections) being under five total sites, a calculated critical crash rate would not apply, therefore the individual intersection crash rates need to be compared to the published statewide 90th percentile crash rates found in the ODOT Analysis Procedures Manual (APM).¹⁷ Intersections that exceed their respective critical crash rate are flagged for further review.

Table 7 shows total reported collisions at each study intersection as well as the calculated recorded and critical crash rates. As shown, the recorded collision rates at each study intersection do not exceed their respective critical crash rate found in the ODOT APM. Therefore, no safety issues have been identified.

Table 7: Collision History (2010 to 2014)

Intersection	Collisions (by Severity)				Recorded Collision Rate ^b	Critical Collision Rate ^c
	Fatal	Injury	PDO ^a	Total		
Boones Ferry Road/I-5 SB Ramp	0	11	15	26	0.38	0.86
Boones Ferry Road/95 th Avenue	0	5	9	14	0.23	0.86
Boones Ferry Road/Day Road	0	5	16	21	0.54	0.86
Grahams Ferry Road/Day Road	0	1	3	4	0.15	0.86

^a PDO = Property damage only.

^b Collision rate for intersections= average annual collisions per million entering vehicles (MEV); MEV estimates based on p.m. peak-hour traffic count and applicable factors.

^c Critical Collision Rates from Exhibit 4-1 in the ODOT APM. Rate based on traffic control (4-leg urban signalized intersections).

¹⁶ 2010 Highway Safety Manual (HSM), Chapter 4, Page 4-11: The critical crash rate is a threshold value that allows for relative comparison among site with similar characteristics. The critical crash rate depends on the average crash rate at similar sites, traffic volume, and a statistical constant that represents a desired level of significance.

¹⁷ Exhibit 4-1: Intersections Crash Rates per MEV by Land Type and Traffic Control. Analysis Procedures Manual, Oregon Department of Transportation, November 2015.

CHAPTER 3: PROJECT IMPACTS

This chapter reviews the impacts that the proposed rezone may have on the study area transportation system. This analysis includes trip generation, trip distribution, and future year traffic volumes and operating conditions. The focus of the impact analysis is on the study intersections identified by City of Wilsonville staff.¹⁸ These study intersections include the following:

- Boones Ferry Road/I-5 Southbound Ramp
- Boones Ferry Road/95th Avenue
- Boones Ferry Road/Day Road
- Grahams Ferry Road/Day Road
- Day Road/Proposed Access

Proposed Development and Rezone

The proposed use of the 8.75 acre property is a Universal Health Services (UHS) Behavioral Health Hospital facility that includes adult inpatient crisis stabilization services and mental health programs, inpatient child and adolescent services, inpatient geriatric services, autism programs, women’s programs, substance abuse treatment, behavioral pain management, as well as limited outpatient services. The proposed facility will be approximately 62,000 square feet in size and will have 100 beds. The facility will include three shifts, with a total of 180 employees and 8-9 physicians.

The project site is 8.75 acres of tax lots 400, 500, & 501 in Washington County. The property lies within the urban growth boundary, but outside the incorporated limits of the City of Wilsonville. It is located within the Coffee Creek Master Plan area and within the City’s Day Road Design Overlay District. Upon annexation, the property will be located within the Planned Development Industrial – Regionally Significant Industrial Area (PDI-RSIA) zone from the existing current County Future Development zone (FD-20). As part of this study the worst case trip generation land use from the rezone will be used for analysis.

Trip Generation

Trip generation is the method used to estimate the number of vehicles added to site driveways and the adjacent roadway network by a development during a specified period (i.e., such as the p.m. peak hour). The trip generation for the proposed rezone was based on data provided by the Institute of Transportation Engineers (ITE) for the proposed Planned Development Industrial-Regionally Significant Industrial Area (PDI-RSIA) zone.

The City of Wilsonville zoning code states that uses that are typically permitted for the PDI-RSIA Zone is warehouses, storage units, light manufacturing, office complexes-technology (defined as high technology settings such as research and development), laboratories, and motor vehicle service facilities. The ITE Trip Generation Manual was used to compare these land uses, with an assumed floor-to-area (FAR) ratio of 0.30 for industrial and 0.25 for research & development/technology land uses, to determine the worst case traffic impact of the zone change.

Table 8 lists the primary applicable industrial land uses for the proposed Zone PDI-RSIA. The industrial land uses include Research & Development (ITE Code 760), General Light Industrial (110), and

¹⁸ Email from Steve Adams, City of Wilsonville, October 13, 2015.

Manufacturing (140). The respective FARs were applied to the total square footage of the property, 8.75 acres (381,150 square feet), to determine the size of each land use. As shown, the Research & Development land use provided the worst case project trip scenario with an estimated 126 total (19 in, 107 out) p.m. peak hour trips.

Table 8: Trip Generation Summary for Proposed PDI-RSIA Zone Change

Land Use (ITE Code)	FAR ^a	Size (KSF ^b)	PM Peak Hour Trip Rate	PM Peak Hour Trips		
				In	Out	Total
Research & Development (760)	0.25	95.3	1.34 trips/KSF	19	108	127
General Light Industrial (110)	0.30	114.4	0.97 trips/KSF	13	98	111
Manufacturing (140)	0.30	114.4	0.73 trips/KSF	30	53	83

^a FAR = Floor-to-Area Ratio

^b KSF = Thousand Square Feet

Bold worst case land use trip generation for the proposed PDI-RSIA Zone Change

The planned Behavioral Health Hospital is estimated to generate slightly lower peak hour trips than the worst case industrial use (Research & Development) allowed under the desired zoning. To account for particular vehicle trip generation characteristics specific to local inpatient facilities similar to the proposed behavioral health facility and ensure more accurate trip generation rates, trip survey results from two existing Oregon State Hospitals, in Salem¹⁹ and Junction City²⁰, were used. Table 9 summarizes the results of the p.m. peak hour vehicle trip generation surveys. As shown, the resulting average trip rate of 1.07 trips per bed will be used to determine the estimated number of trips generated by the proposed behavioral health facility.

Table 9: Trip Survey Summary for Oregon State Hospital Locations

Land Use	Beds	PM Peak Hour Vehicle Trips	Trips per Bed
Surveyed Locations			
Oregon State Hospital – Salem	620	703	1.13
Oregon State Hospital – Junction City	360	350	0.97
Oregon State Hospital – Combined	980	1053	1.07

Table 10 provides the trip generation estimates for the proposed Behavioral Health Hospital . As shown, the facility is estimated to generate approximately 107 total p.m. peak hour trips. The resulting p.m. peak hour trips confirm that the proposed facility is estimated to generate 19 fewer peak hour trips (107 trips) than the worst case industrial use (Research & Development with 126 total trips).

¹⁹ Salem Oregon State Hospital Transportation Impact Analysis, DKS Associates, October 2008.

²⁰ Junction City State Hospital/Correctional facility Transportation Impact Analysis, DKS Associates, March 2009.



Table 10: Trip Generation Summary for Proposed Behavioral Health Facility

Land Use	Beds	PM Peak Hour Trip Rate	PM Peak Hour Trips
UHS Behavioral Health Hospital	100	1.07	107

Trip Distribution

Trip distribution provides an estimation of where project trips would be coming from and going to. It is given as percentages at key gateways to the study area and is used to route project trips through the study intersections. Figure 3 shows the trip distribution and project trip routing for the proposed zone change traffic volumes. The trip distribution for the proposed project site was estimated based on existing traffic patterns and the City of Wilsonville transportation model.

Project Trips Through City of Wilsonville Interchange Areas

The project trips through the two City of Wilsonville I-5 interchange areas were estimated based on the trip generation and distribution assumptions. The worst case trip generator for the proposed zone change (see Table 8) is expected to generate 88 p.m. peak hour trips through the I-5/Elligsen Road interchange area (includes the Boones Ferry Road/95th Avenue intersection) and 7 p.m. peak hour trips through the I-5/Wilsonville Road interchange area. The proposed Behavioral Health Facility is expected to generate 75 p.m. peak hour trips through the I-5/Elligsen Road interchange area and 6 p.m. peak hour trips through the I-5/Wilsonville Road interchange area.

Future Traffic Volumes and Operating Conditions

Future operating conditions were analyzed at the study intersections for the following future traffic scenarios. The comparison of these scenarios enables the assessment of project impacts:

- Existing + Project (Rezone)
- Existing + Stage II
- Existing + Stage II + Project (Rezone)

Future traffic volumes were estimated at the study intersections for each scenario. The future operating scenarios include various combinations of three types of traffic: existing, project (estimated zone change traffic from the worst case land use trip generation), and Stage II. Existing and project traffic have been explained previously in this report. Stage II traffic is estimated based on the list of currently approved Stage II developments, which was provided by City staff.²¹ The Stage II list and the corresponding p.m. peak hour trip generation estimates for these developments are included in the appendix.

Figure 4 shows the p.m. peak hour traffic volumes used to analyze the “Existing plus Project” scenario, “Existing plus Stage II” and “Existing plus Stage II plus Project” scenarios.

²¹ Email from Blaise Edmonds, City of Wilsonville, October 2, 2015 (see appendix for Stage II list).

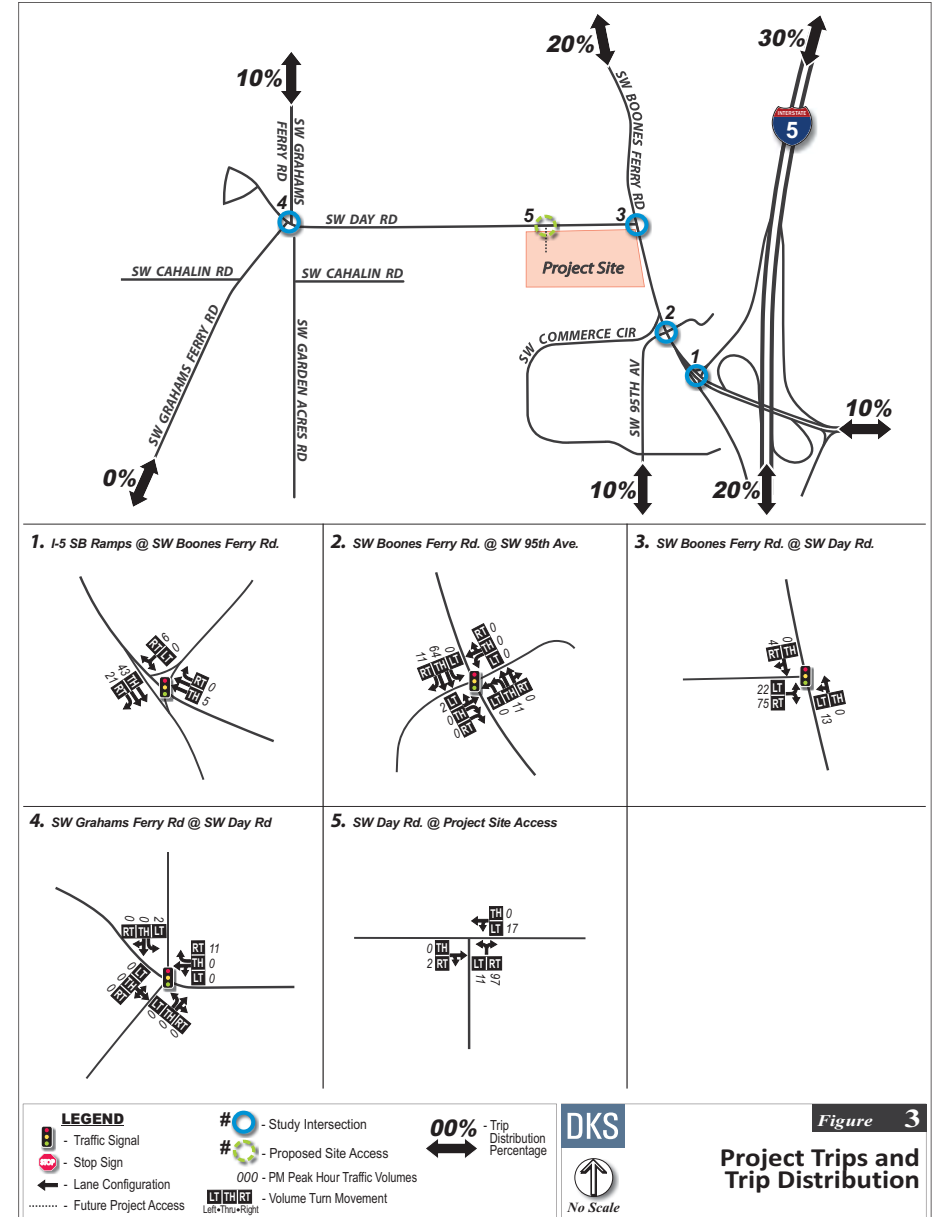
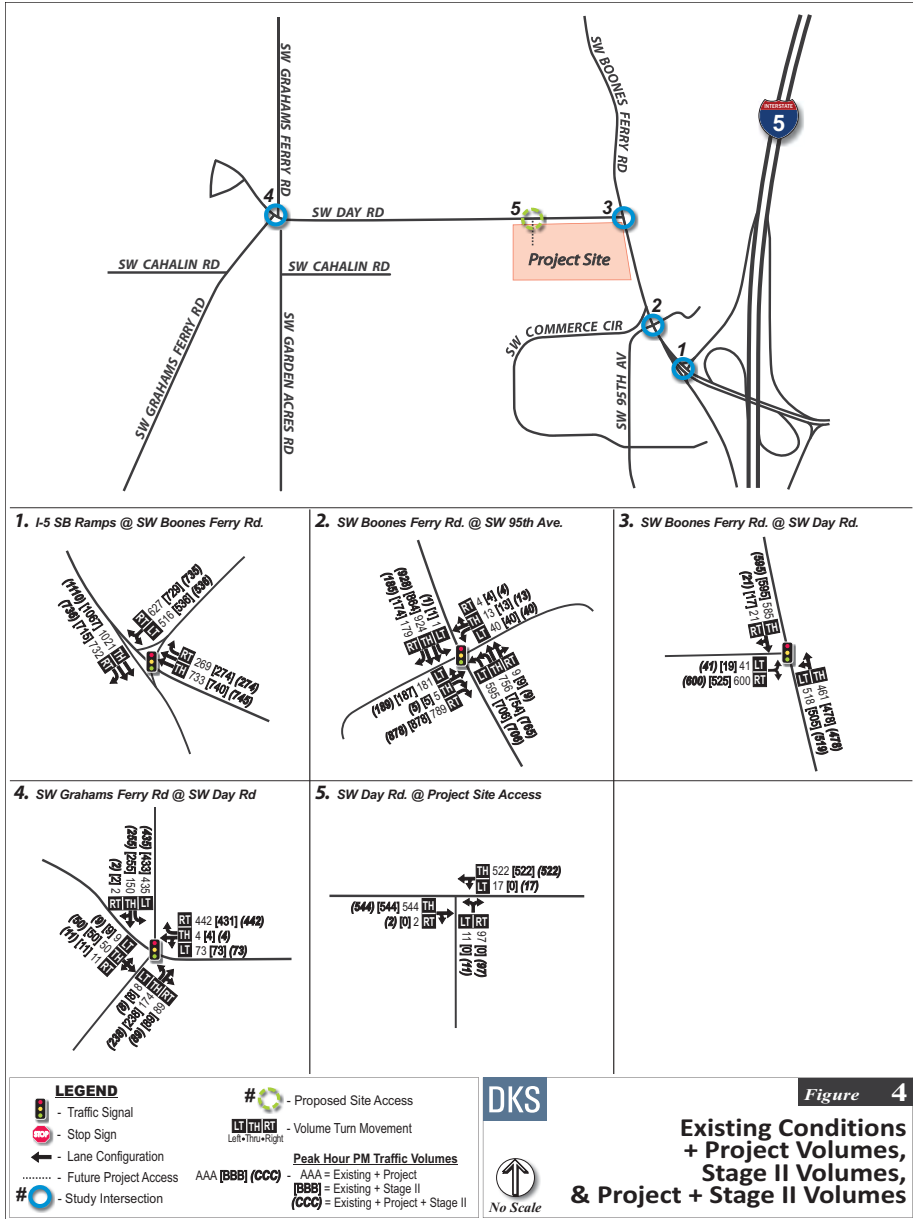


Figure 3
Project Trips and Trip Distribution



Intersection Operations

To determine project impact at the study intersections, traffic operating conditions were analyzed during the weekday p.m. peak hour. Table 11 lists the analysis results for the three future scenarios for the study intersections. As previously indicated in Chapter 2, all study intersections currently meet their applicable operating standards and mobility targets. As shown, the study intersections are expected to continue to meet their jurisdictions standards and targets; therefore, the development does not require off-site mitigations to the study area transportation network.

Table 11: Future Project and Stage II Intersection Operations Comparison

Intersection	Operating Standard	Existing + Project			Existing + Stage II			Existing + Stage II + Project		
		Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
Signalized										
Boones Ferry Road/I-5 SB Ramp	0.85 V/C	20.0	B	0.74	28.8	C	0.84	29.6	C	0.86
Boones Ferry Road/95 th Avenue	LOS D	26.1	C	0.73	29.3	C	0.76	29.1	C	0.78
Boones Ferry Road/Day Road		19.4	B	0.68	18.5	B	0.64	19.8	B	0.68
Grahams Ferry Road/Day Road		15.9	B	0.63	17.4	B	0.68	17.4	B	0.68
Two-Way Stop Controlled										
Day Road/Proposed Access	LOS D	14.4	A/B	0.23	-	-	-	14.4	A/B	0.23
<u>Signalized Intersections/Roundabouts:</u> LOS = Level of Service of Intersection V/C = Volume-to-Capacity Ratio of Intersection						<u>Unsignalized Intersections:</u> LOS = Level of Service of Major Street/Minor Street V/C = Volume-to-Capacity Ratio of Worst Movement				

Site Plan Evaluation

A site plan showing the proposed UHS Behavioral Health Hospital facility was provided by the project sponsor and is included in the appendix. This site plan was evaluated with consideration for pedestrian and bicycle facilities, and vehicular access and circulation.

Pedestrian and Bicycle Facilities

The site plan provided by the project sponsor shows sidewalk improvements on the west side of Boones Ferry Road (project frontage) with a pedestrian access on Day Road. It is recommended that the site plan provide additional sidewalks or pedestrian paths between the main doors of the building, the parking areas, and the sidewalks along both the Day Road and Boones Ferry Road site frontages. These connections will reduce conflicts between pedestrians and vehicle traffic within the site and increase safety for employees and visitors.

Vehicular Access and Circulation

The project proposes one full access driveway from Day Road at the northwest corner of the site. In addition, a gravel fire lane access with chain gate is proposed on Boones Ferry Road assumed to be used during emergency situations only. The site plan also shows the potential for a future entry west of the site for flexibility with future adjacent developments including the future Kinsman Road extension.



The planned Day Road access driveway would not meet the City's 1000-foot minimum Major Arterial access spacing standard specified in the *Wilsonville Transportation System Plan (TSP)*.²² However, it is the understanding of DKS that the City of Wilsonville will allow an interim access to Day Road, location as shown in the current site plan, while requiring provision for a future connection to a shared access with the adjacent property to the west (discussed above).

At the time that the project site is built but prior to occupancy, sight distance at all project access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon. Because of the presence of trucks on the site, the applicant may also find it beneficial to perform turn templates to ensure all movements can be made around the site.

Parking

The City of Wilsonville code provides a minimum required number of vehicular parking stalls and bicycle parking spaces based on the proposed development and size. However, the code does not include parking requirements based on the proposed Behavioral Health Hospital institution. Two similar land uses that are provided in the City code ("convalescent hospital, nursing home, sanitarium, rest home, home for the aged" and "hospital") are summarized below in Table 12. Based on discussions with the City, the estimated parking demand of the proposed Behavioral Health Hospital institution is assumed to be within the two ranges (minimum of 50 to 200 parking spaces) of parking requirements in Table 12.

Table 12: Parking Requirements for Comparable Land Uses

Land Use	Size (Number of Beds)	Vehicle Parking		Bicycle Parking	
		Requirement	Minimum	Requirement	Minimum
Convalescent hospital ^a	100 beds	1 space/ 2 beds	50	1 per 6 KSF ^b	10
Hospital		1 space/ 1 bed	200	1 per 20 veh. spaces	10

^aConvalescent hospital land use also includes nursing home, sanitarium, rest home, and home for the aged
^bKSF = 1,000 square feet (proposed 62,000 square foot Behavioral Health Hospital)
 The two land uses do not include maximum parking requirements

In order to determine the estimated peak parking demand of the proposed development, UHS provided a breakdown of the staff levels by time of day, estimated number of visitors, outpatient parking, etc. The primary factors considered in the parking evaluation provided was a 20% rate of alternative modes of transportation for the estimated number of staff. Additionally, seven visitor and vendor parking was assumed during each of the scheduled visiting hours (12 pm to 2 pm and 7pm to 9pm). The resulting proposed number of parking stalls provided by UHS was 114, the complete breakdown assumptions and parking needs can be found in the appendix.

Although there is a bus stop on the south leg of the Boones Ferry Road/Day Road intersection that serves the Wilsonville, Tualatin, and Portland City Center areas (TriMet Route 96), based on the surrounding study vicinity it is recommended that the alternative modes of transportation means be reduced from 20% to 5%. Additionally, it is recommended that the estimated visitor/vendor parking number be increased from 7.5 to 15. These recommendations would result in a worst case parking demand scenario. Table 13 shows the UHS parking estimation compared to the recommended parking. As shown, with the above recommendations, the parking need analysis would increase by 26 stalls to a

total of 140. The 140 stalls would include three ADA stalls (City code requires one ADA stall for every 50 standard stalls).

Table 13: UHS Peak-Hour Parking Needs Estimation and DKS Recommendation

Parking Needs Scenario	Assumed Alternative Transportation Rate	Estimated Visitors/ Vendors ^a	Total Peak Hour Parking Needs
UHS Proposed Parking	20%	7.5	114 stalls
Recommended (worst case)	5%	15	140 stalls

^aDuring each visitor parking period

The current site plan includes a total of 120 parking spaces and does not show a number of bicycle parking spaces provided. It is recommended that the plan be revised to include a minimum of 140 parking stalls (including a minimum of three ADA stalls). The site should also provide a minimum of seven bicycle spaces.

²² *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

CHAPTER 4: ZONE CHANGE/TPR IMPACTS

The proposed development requires a zone change of Tax Lots 400, 500, and 501. These properties are currently within the Metro Urban Growth Boundary (UGB), but are not within Wilsonville City Limits. They are currently zoned Future Development (FD-20), by Washington County. Upon the proposed annexation of the lots to the City of Wilsonville, the properties will be designated Planned Development Industrial- Regionally Significant Industrial Area (PDI-RSIA). The proposed behavioral health facility is a permitted use in the PDI-RSIA zone. The following sections summarize the trip generation estimated from the current and proposed zoning as well as the impacts to the City of Wilsonville’s Transportation System as required in the Transportation Planning Rule (TPR).

Existing and Proposed Zoning Trip Generation

Trip generation was estimated based on the current and proposed zoning for comparison purposes. The existing FD-20 zoning would allow one single family detached unit and 1 p.m. peak hour trip. The desired zone for the site is Planned Development Industrial-Regionally Significant Industrial Area (PDI-RSIA) that would allow industrial uses. Table 14 summarizes the trip generation associated with the existing zoning and the worst case land use assumption for the proposed PDI-RSIA zone. As shown, the worst case Research & Development land use was estimated to generate 126 total (19 in, 107 out) p.m. peak hour trips.

Table 14: Trip Generation Summary for Existing FD-20 and Proposed PDI-RSIA Zoning

Land Use (ITE Code)	Size	PM Peak Hour Trip Rate	Total PM Peak Hour Trips
Existing FD-20 Zoning			
Single Family Residential (210)	1 Unit	1.00 Trip/Unit	1
Proposed PDI-RSIA Zoning			
Research & Development (760)	95.0 KSF	1.34 trips/KSF	126

^b KSF = Thousand Square Feet

Consistency with City’s Transportation System Plan

The City of Wilsonville 2035 travel demand forecast model (built upon regional growth assumptions) used in the City’s adopted Transportation System Plan (TSP)²³ assumed significant industrial growth within the proposed project Transportation Analysis Zones (TAZ’s 4142 and 4143) through the year 2035. The land use in the model was consistent with the land use assumptions adopted in the Coffee Creek Master Plan²⁴; therefore, industrial growth assumed in the future TSP model accounts for the worst case build out of the proposed 8.75-acre PDI-RSIA zoning for the proposed project. Furthermore, the TSP model growth not only includes adequate land use for the proposed zone change but also provides significant industrial growth for adjacent developable land within TAZ 4142 and 4143 (north of the proposed project). These assumptions are consistent within the analysis of the City of Wilsonville TSP that also included analysis of the ODOT I-5 interchange facilities. The proposed zone change would not result in a significant effect on the City of Wilsonville or ODOT’s transportation system. The proposed model TAZ map is attached in the appendix.

²³ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

CHAPTER 5: PROJECT IMPACT SUMMARY

To preserve the operations of the study area roadways and provide safe access to the proposed Behavioral Health Hospital site and surrounding land uses, it is recommended that a series of transportation mitigation measures be performed. The following project related measures would typically be required as conditions of approval if the project were approved:

Vehicular Access and Circulation

- The planned Day Road access driveway would not meet the City’s 1000-foot minimum Major Arterial access spacing standard specified in the *Wilsonville Transportation System Plan* (TSP).²⁵ The proposed development will require a temporary full access on Day Road, as shown in the current site plan, until a future connection to a shared access with the adjacent property to the west is constructed.
- All existing and proposed site driveways should meet American Association of State Highway and Transportation Officials (AASHTO) intersection sight distance requirements²⁶ as measured from 14.5 feet back from the edge of pavement. Prior to occupancy, intersection sight distance at the site driveways will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

Parking

- The proposed site plan should include a minimum of 140 parking spaces (including a minimum 3 ADA stalls) and 7 bicycle stalls.

Pedestrian Facilities

- Sidewalks and/or pedestrian pathways should be provided between the main doors, parking areas, and the sidewalks along the site frontage to reduce conflicts between pedestrians and vehicle traffic within the site and increase safety for employees and visitors.
- All sidewalks within the site should conform to ADA requirements.²⁷

Wilsonville TSP Project Accommodations

- Coordination should be performed with City of Wilsonville staff to ensure adequate accommodations are provided on the project site for projects identified in the *Wilsonville Transportation System Plan* (TSP).²⁸ This includes the Day Road Widening project (RW-02).
- Coordination should be performed with City of Wilsonville staff to determine frontage improvements to Day Road and Boones Ferry Road.

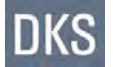
²⁴ Coffee Creek Master Plan, City of Wilsonville, Adopted October 15, 2007.

²⁵ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.

²⁶ *Geometric Design of Highways and Streets*, AASHTO, 2004; Case B1, p. 661.

²⁷ *ADA Accessibility Guidelines for Buildings and Facilities*, Department of Justice, January 2004.

²⁸ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.



Transportation Planning Rule Findings

- The City of Wilsonville travel demand forecast model (built upon regional growth assumptions) used in the City's adopted TSP²⁹ assumed significant industrial growth within the proposed project Transportation Analysis Zone (TAZ 4142 and 4143) through the year 2035. The land use in the model was consistent with the land use assumptions adopted in the Coffee Creek Master Plan; therefore, industrial growth assumed in the future TSP model accounts for the worst case build out of the proposed 8.75-acre PDI-RSIA zoning for the proposed project. The proposed zone change would not result in a significant effect on the City of Wilsonville or ODOT's transportation system.

Appendix

Site Information and UGB Transportation Analysis Zones (TAZ)

Wilsonville Stage II Project List

Parking Needs Breakdown

Existing PM Peak Hour Traffic Counts

Level of Service Descriptions

HCM Analysis – Existing PM Peak Hour

HCM Analysis – Existing + Project PM Peak Hour

HCM Analysis – Existing + Stage II PM Peak Hour

HCM Analysis – Existing + Stage II + Project PM Peak Hour

Collision Data

²⁹ *Wilsonville Transportation System Plan*, Adopted by Council, June 2013.



Site Information and UGB Transportation Analysis Zones (TAZ)



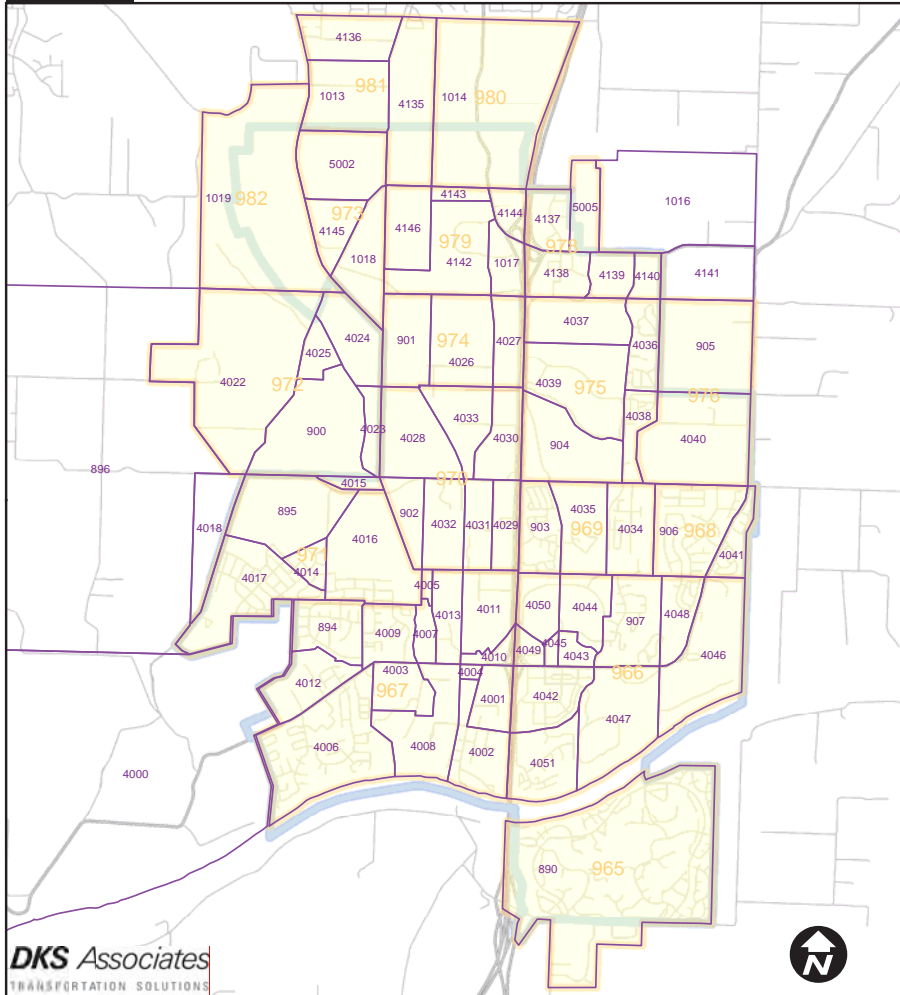
UHS Universal Health Services, Inc.
Willamette Valley Behavioral Health
14270 SW Day Road Wilsonville, OR

Site Plan



FIGURE 1

URBAN GROWTH BOUNDARY & PROPOSED TRANSPORTATION ANALYSIS ZONES



DKS Associates
TRANSPORTATION SOLUTIONS



- Legend:
- TAZ_WilsonvilleTSP
 - TAZ_Metro
 - UGB
 - streets



Wilsonville Stage II Project List

Wilsonville Planning Division
Stage II Approved, Vested, and Other Projects

Updated May 22, 2015

Stage II Approved									
Project	Land Use	Status	Size	Total PM Peak Trips	Trip Allocation Percentage		Net New (Primary + Diverted) PM Peak Hour Trips		
					Internal	Pass-By	In	Out	Total
Artistic Auto Body Expansion	Auto Body	Not built	4,995 SF				6	4	10
Ash Meadows	MFDU	Not built	22 14 units				44	7	24
Brenchley Estates - North <i>*Prior approval given for different mix of land uses, which would generate 267 p.m. peak hour trips. New land uses generate less, but prior amount still used in case development plans change.</i>	Residential (Terrene apartments) Lot 1	Built and occupied	288 units				44	62	479
	Private Clubhouse	Built	5.4 KSF				N/A	N/A	N/A
	Portera at Grove (senior housing-attached)	Built (45% occupancy)	112 units				15	13	28
	Residential (SF)	85% Built	27 Lots				12	10	22
	Total						174	93	267
Chad Ward building on Kinsman	Manuf., warehouse, office & 5 KSF retail	Not built	24.5 KSF				11	41	52
Chrysler/Jeep Dealership at Parkway Center Drive	Auto Dealership (using existing warehouse)	Tenant improvement Built and occupied	103,593 SF				58	88	446
Copper Creek <i>Previously analyzed for 26 units (sufficiently close to new unit count; therefore, used original trips)</i>	Residential	Built (19 of 21 homes built, not-occupied)	21 units				15	8	23
							1	1	2
Fox Center Townhomes	Residential	Under construction	15 units				9	4	13
Hydro-Temp: Recent agreement with the City, the project is vested and so are the traffic trips	Office/Flex-Space	Not built	60.8 KSF				44	46	90
Mercedes Benz (Phase 2)	Auto Dealership	Not built					20	26	46

Wilsonville Planning Division
Stage II Approved, Vested, and Other Projects

Updated May 22, 2015

Stage II Approved									
Project	Land Use	Status	Size	Total PM Peak Trips	Trip Allocation Percentage		Net New (Primary + Diverted) PM Peak Hour Trips		
					Internal	Pass-By	In	Out	Total
Renaissance Boat Club (Abele Zone Change TIS)	Residential (Single Family)	2045% with houses.	33 Lots				24	12	22
							11	7	18
Renaissance at Canyon Creek II Subdivision	Residential	Built	8 lots				5	3	8
Republic Services Expansion (Shop Improvements)	Waste Services	Built					42	46	28
Shredding Systems (SQFT does not including paint canopy and another canopy)	Industrial/Commercial	Not built	66.8 KSF				20	46	66
Town Center Ph III and trip dedication to Miller Paint store <i>Uses marked with "*" have not been built and PM peak hr trip sum exceeds remaining vested trip level by 2 trips. It has yet to be determined how to allocate trips between remaining buildings.</i>	Wilsonville Town Center Office (Pad 5)	Built, 50% occupied	44.0 KSF				48	86	464
	*Fast Food (Pad 2)	Not built	2.5 KSF				9	43	52
	High Turnover Restaurant (Pad 1)	Not built	7.5 KSF				18	16	34
	Miller Paint store	Not built	5.0 KSF				24	17	41
	Remaining Approved Total								489
									137
Rivergreen (Phase 3)	SFDU	2 lots left	4 units				4	2	6
W3 Building I-5 Corporate Park	Office	Built, not occupied	34,415 SF				8	27	35
Wilsonville Greens Townhouses	Residential (Town houses)	Under construction	12 Apt. units				7	4	11
Fox Center Town Homes	Residential (Town houses)	Under construction	15 Apt. units				9	4	13
Wilsonville Road Business Park <i>Land use sizes are slightly</i>	Phase 1: Industrial, office, service/retail (4 buildings on east parcel)	Built (90% occupied)	89.8 KSF				43	82	460
							1	9	10

Wilsonville Planning Division
 Stage II Approved, Vested, and Other Projects

Updated May 22, 2015

Stage II Approved									
Project	Land Use	Status	Size	Total PM Peak Trips	Trip Allocation Percentage		Net New (Primary + Diverted) PM Peak Hour Trips		
					Internal	Pass-By	In	Out	Total
<i>lower than analyzed in TIS. Applicant is requesting Stage I and Stage II approval for both phases and Site Design Review for Phase 1 only.</i>	Phase 2 - office (2-story building on west parcel)	Not built	21.7 KSF				15	71	86
	Total		111.5 KSF	186			28	158	186
CNG Fueling Station at Republic Services		Not built		0			0	0	0
A Storage Place	Commercial self-storage	Not built	79.9K	21			10	11	21
Clackamas Community College Pole Training Yard Expansion	Educational	No built		0					
Subaru	Commercial auto dealership	Under construction	94.6K	107			43	64	107
Audi service expansion	Commercial	No built	7K	20			8	12	20

Wilsonville Planning Division
 Stage II Approved, Vested, and Other Projects

Updated May 22, 2015

Stage II Approved – Villebois Urban Village														
SAP	Phase	Status	Land Use					Total PM Peak Trips	Trip Allocation Percentage		Net New PM Peak Hour Trips			
			SF	Town.	Apt.	Retail	School		Internal	Pass-By	In	Out	Total	
North	Tonquin Woods 2 & 3	89 of 142 units built	142											
	Calais	Under construction 2490% built	84											
	Tonquin Woods 4	Under construction	36											
	Tonquin Woods 5	Under construction	32											
	Total	47% Built and Occupied (218 of 464)	423 units	31 units	10 units	-	-	449	14			227	147	458
South	SAP South (except Grande Pointe)	100% Built and Occupied	358 units	103 units	21 units	-	-	428	12			265	151	446
	Grande Pointe Phases 1 and 2	Under Construction (100 lots available)	100 units	-	-	-	-	114	4			70	40	110
East	Legend at Villebois	444 150 of 190 units built												
	Tonquin Meadows Phase 1	Under construction (132 lots available)	132											
	Tonquin Meadows Phase 2	Under construction (99 lots available)	99											
	Tonquin Meadows Ph. 3a	Under construction (56 lots available)	56											
	Retherford Meadows	88 units built	88											
Total Residential	41% Units Built and Occupied (238 of 576)	534 units	42 units	-	-	(See Below)	636	54			367	215	582	343

Stage II Approved – Villebois Urban Village																			
SAP	Phase	Status	Land Use					Total PM Peak Trips	Trip Allocation Percentage		Net New PM Peak Hour Trips								
			SF	Town.	Apt.	Retail	School		Internal	Pass-By	In	Out	Total						
	Lowrie Primary	Built and occupied					500 stu.												
Central	PDP -2C	DRB			6														
	6 Carriage Homes	Under construction																	
	Miraval Apt. and MU building IF	Built 274 units			274	3 KSF (Bldg. 1F)													
	Charleston apartments	Built 52 units			52														
	Raingarden apartments	Built 30 units			30														
	Beausodell row houses	Built 13 units	13																
	Le Bois row houses	Built 20 units	20																
	Toulouse row houses	Built 4 units	4																
	Polygon and Villebois 2	Not built	21																
	Trafalgar	Not built			39														
	Carvalho Condos Row houses	17 row houses built (3 condos built)			22 20														
	Sevilles Condos Row houses	Not built			8 7														
PDP 6 Central	DRB approved July 13 th not built			31 row houses															
PDP 7 Central	DRB approved July 13 th not built			68 row houses															

Stage II Approved – Villebois Urban Village																		
SAP	Phase	Status	Land Use					Total PM Peak Trips	Trip Allocation Percentage		Net New PM Peak Hour Trips							
			SF	Town.	Apt.	Retail	School		Internal	Pass-By	In	Out	Total					
	Total	39% Built and Occupied (393 of 1014) 39% Built and Occupied (396 of 997)	58 units	452 units	501 units	3 KSF	-	449	14				423 258	248 146	663 404			



Wilsonville Planning Division
 Stage II Approved, Vested, and Other Projects

Updated May 22, 2015

Projects Without Stage II Approval										
Project	Land Use	Status	Size	Total PM Peak Trips	Trip Allocation Percentage			Net New (Primary) PM Peak Hour Trips		
					Internal	Pass-By	Diverted	In	Out	Total
Joe Angelo's Retail (Boomer Ferry Retail) on Boomer Ferry Rd	Retail (North Bldg)	Land use expired	11.2 KSF			26%	44%	66	65	131
	Bank (South Bldg)	Land use expired	3.2 KSF			26%	58%	53	58	111
	Total							119	123	242
Southern Wine Warehouse Expansion. Move to Stage II approved. (old Joe's Site)	Industrial	Stage II Not built DRR Review Nov-2015	89 KSF							
Subaru	Auto-Dealership Commercial	No Stage II Application Submitted	94.6 KSF							
West Linn - Wilsonville middle and primary schools										
Town Center/Wilsonville mini-storage facility.										
Athey Creek Church TUP has expired	Convert existing Diatron Bldg to Church	5 year Temporary Use Permit (TUP) Expired, church moved to a location outside the city	39.6 KSF							

Parking Needs Breakdown

Peak-Hour Parking Need Analysis

Inpatient Parking (100 Beds)	Less than 5% of average inpatient daily census	3.75
Outpatient Parking	Daily therapy visits = 15% of average inpatient census (75%) x 80% drivers	9.00
Visitor & Vendor Parking	20% of average inpatient census split between day and evening visiting hours	7.50
Dedicated UHS Van Parking	2 patient transport vans	2.00
Peak Shift Staff Parking (63 x 80%)	63 day staff x 80% drivers (7 AM to 5 PM)	50.40
Non-Peak Afternoon Staff Parking (38 x 80%)	38 afternoon staff x 80% drivers (3 PM to 11 PM)	30.40
Total		103.05
Peak Factor (10%)		10.31
Total		113.36

use 114

Notes:

This 100-bed facility will operate with an Average Daily Census (ADC) of 75%
Hours of operation is 24 hours a day, 7 days a week.
Total staff is 190, operating in 3 shifts as follows: Day Shift (Peak) = 63, Afternoon Shift (Non-peak) = 38, Night Shift (Off Peak) = 25, Weekend Shift = 63
20% of staff will use alternative means of transportation, on-average
Scheduled Visiting Hours are Noon to 2 PM and 7 to 9 PM.
Peak parking load will occur during the shift-change hours of 3 PM to 5 PM
Inpatients typically are transported by relatives or friends, ambulance or taxi cabs, and are not encouraged to drive.
UHS vans are used for both inpatient and outpatient transport

Peak-Hour Parking Need Analysis DKS Recommendations

Inpatient Parking (100 Beds)	Less than 5% of average inpatient daily census	3.75
Outpatient Parking	Daily therapy visits = 15% of average inpatient census (75%) x 95% drivers	10.70
Visitor & Vendor Parking	40% of average inpatient census split between day and evening visiting hours	15.00
Dedicated UHS Van Parking	2 patient transport vans	2.00
Peak Shift Staff Parking (63 x 80%)	63 day staff x 95% drivers (7 AM to 5 PM)	59.90
Non-Peak Afternoon Staff Parking (38 x 80%)	38 afternoon staff x 95% drivers (3 PM to 11 PM)	36.10
Total		127
Peak Factor (10%)		13
Total		140

Notes:

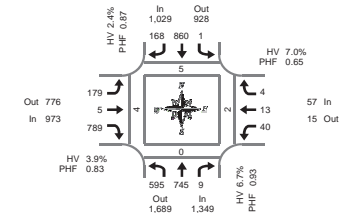
This 100-bed facility will operate with an Average Daily Census (ADC) of 75%
Hours of operation is 24 hours a day, 7 days a week.
Total staff is 190, operating in 3 shifts as follows: Day Shift (Peak) = 63, Afternoon Shift (Non-peak) = 38, Night Shift (Off Peak) = 25, Weekend Shift = 63
5% of staff will use alternative means of transportation, on-average
Scheduled Visiting Hours are Noon to 2 PM and 7 to 9 PM.
Peak parking load will occur during the shift-change hours of 3 PM to 5 PM
Inpatients typically are transported by relatives or friends, ambulance or taxi cabs, and are not encouraged to drive.
UHS vans are used for both inpatient and outpatient transport



Total Vehicle Summary



Clay Carney
(503) 833-2740



SW Boones Ferry Rd & SW 95th Ave

Tuesday, September 29, 2015
4:00 PM to 6:00 PM

Peak Hour Summary
4:25 PM to 5:25 PM

**5-Minute Interval Summary
4:00 PM to 6:00 PM**

Interval Start	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	40	52	0	0	0	78	14	0	17	0	61	0	5	2	0	0	289	0	0	0	0
4:05 PM	57	56	0	0	0	72	19	0	16	2	71	0	4	1	0	0	298	0	0	0	0
4:10 PM	37	49	0	0	0	84	20	0	15	0	64	0	1	1	0	0	271	0	0	0	0
4:15 PM	57	41	0	0	0	87	13	2	18	0	59	0	0	1	1	0	277	0	0	0	0
4:20 PM	40	48	2	0	0	89	24	0	11	0	45	1	3	0	0	0	262	0	0	0	0
4:25 PM	47	59	1	0	1	81	11	0	16	0	50	1	1	0	2	0	269	0	0	0	0
4:30 PM	55	52	1	0	0	44	12	0	13	0	82	0	3	1	1	0	264	2	0	0	0
4:35 PM	63	61	2	0	0	58	17	0	15	0	87	0	2	2	0	0	307	0	0	0	2
4:40 PM	59	69	0	0	0	70	7	0	16	0	81	0	4	1	0	0	307	0	0	0	0
4:45 PM	36	66	2	0	0	102	15	0	14	0	53	0	0	0	0	0	285	0	0	0	0
4:50 PM	39	64	1	0	0	81	16	0	6	1	53	0	2	0	0	0	263	0	0	0	0
4:55 PM	47	55	0	1	0	67	14	0	13	0	54	0	3	0	1	0	254	0	0	0	0
5:00 PM	38	64	0	0	0	58	15	0	13	2	76	1	4	1	0	0	271	1	0	0	1
5:05 PM	60	71	0	0	0	69	12	2	17	0	77	1	5	3	0	0	314	0	0	0	0
5:10 PM	52	58	2	0	0	72	12	0	23	2	71	0	2	2	0	0	296	2	0	1	1
5:15 PM	57	62	0	0	0	87	23	0	16	0	57	1	8	2	0	0	312	0	0	0	0
5:20 PM	42	74	0	0	0	71	14	0	17	0	48	0	4	1	0	0	271	0	0	0	0
5:25 PM	46	47	0	0	0	62	22	1	12	1	45	1	5	0	0	0	240	0	0	0	0
5:30 PM	50	65	0	0	0	61	14	1	26	0	57	1	3	1	0	0	277	0	0	0	0
5:35 PM	44	73	0	0	0	62	17	0	18	0	53	0	1	1	0	0	269	0	0	0	0
5:40 PM	30	62	0	0	0	41	14	0	11	0	46	0	1	0	0	0	205	0	0	0	0
5:45 PM	41	55	0	0	0	69	14	0	6	0	43	0	3	0	0	0	231	0	0	0	1
5:50 PM	29	39	0	1	1	65	19	0	10	0	45	0	1	0	0	0	206	1	0	0	0
5:55 PM	36	66	0	0	0	52	6	0	13	0	41	0	1	0	0	0	215	0	0	0	0
Total Survey	1,099	1,398	11	2	2	1,682	364	6	352	8	1,419	7	68	20	5	0	6,428	5	0	2	5

Existing PM Peak Hour Traffic Counts

**15-Minute Interval Summary
4:00 PM to 6:00 PM**

Interval Start	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	134	157	0	0	0	224	53	0	48	2	198	0	10	4	0	0	535	0	0	0	0
4:15 PM	144	148	3	0	1	257	48	2	45	0	154	2	4	1	3	0	808	0	0	0	0
4:30 PM	177	182	3	0	0	172	36	0	44	0	250	0	9	4	1	0	878	2	0	0	2
4:45 PM	122	175	3	1	0	250	45	0	33	1	160	0	2	0	1	0	797	0	0	0	0
5:00 PM	150	193	2	0	0	199	39	2	53	4	224	2	11	6	0	0	881	3	0	2	2
5:15 PM	145	183	0	0	0	220	59	1	45	1	150	2	17	3	0	0	823	0	0	0	0
5:30 PM	124	200	0	0	0	164	45	1	55	0	158	1	5	2	0	0	751	0	0	0	0
5:45 PM	103	160	0	1	1	186	39	0	29	0	129	0	5	0	0	0	652	0	0	0	1
Total Survey	1,099	1,398	11	2	2	1,682	364	6	352	8	1,419	7	68	20	5	0	6,428	5	0	2	5

**Peak Hour Summary
4:25 PM to 5:25 PM**

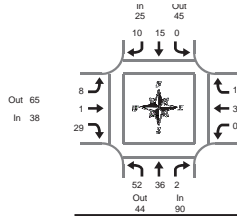
By Approach	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,349	1,689	3,038	1	1,029	928	1,957	2	973	776	1,749	4	57	15	72	0	3,408	5	0	2	4
%HV	6.7%	6.2%	6.4%	0.0%	2.4%	2.4%	3.9%	0.0%	3.9%	3.9%	3.9%	0.0%	7.0%	7.0%	7.0%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%
PHF	0.93	0.87	0.90	0.00	0.87	0.83	0.86	0.00	0.83	0.83	0.83	0.00	0.65	0.65	0.65	0.00	0.92	0.00	0.00	0.00	0.00

By Movement	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	595	745	1	1,349	80	168	1,029	1,197	5	789	973	40	13	4	57	3,408	
%HV	8.7%	4.5%	22.2%	6.7%	0.0%	1.7%	6.0%	2.4%	4.5%	20.0%	3.7%	3.9%	0.0%	23.1%	25.0%	17.0%	4.6%
PHF	0.84	0.95	0.56	0.93	0.25	0.85	0.86	0.87	0.80	0.31	0.79	0.83	0.67	0.46	0.33	0.65	0.92

**Rolling Hour Summary
4:00 PM to 6:00 PM**

Interval Start	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	577	662	0	1	1	913	182	2	170	3	760	2	30	9	5	0	3,321	2	0	0	2
4:15 PM	593	698	11	1	1	878	168	4	175	5	788	4	31	11	5	0	3,364	5	0	2	4
4:30 PM	594	733	0	1	0	841	179	3	175	6	784	4	44	13	2	0	3,379	5	0	2	4
4:45 PM	541	751	5	1	0	833	168	4	166	6	690	5	40	11	5	0	3,252	3	0	2	2
5:00 PM	522	736	2	1	1	789	182	4	182	5	659	5	38	11	0	0	3,107	3	0	2	3

Heavy Vehicle Summary



SW Boones Ferry Rd & SW 95th Ave

Tuesday, September 29, 2015
4:00 PM to 6:00 PM

Peak Hour Summary
4:25 PM to 5:25 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	4	3	0	7	0	4	1	5	1	0	5	6	0	1	0	1	18
4:05 PM	8	8	0	16	0	5	1	6	0	0	4	4	0	0	0	0	26
4:10 PM	4	1	0	5	0	2	2	4	1	0	5	6	0	0	0	0	15
4:15 PM	2	3	0	5	0	2	2	4	0	0	4	4	0	0	0	0	13
4:20 PM	4	2	0	6	0	2	3	5	1	0	2	3	0	0	0	0	14
4:25 PM	4	2	0	6	0	1	1	2	1	0	3	4	0	0	0	0	12
4:30 PM	6	2	1	9	0	1	1	2	0	0	5	5	0	0	1	1	17
4:35 PM	7	2	0	9	0	1	1	2	1	0	3	4	0	0	0	0	15
4:40 PM	4	6	0	10	0	2	0	2	2	0	4	6	0	1	0	1	19
4:45 PM	4	4	0	8	0	2	2	4	1	0	4	5	0	0	0	0	17
4:50 PM	3	7	1	11	0	0	1	1	0	0	2	2	0	0	0	0	14
4:55 PM	4	3	0	7	0	1	0	1	0	0	1	1	0	0	0	0	9
5:00 PM	3	0	0	3	0	2	1	3	0	1	2	3	0	0	0	0	9
5:05 PM	2	5	0	7	0	1	1	2	0	0	3	3	0	1	0	1	13
5:10 PM	5	2	0	7	0	3	1	4	2	0	0	2	0	0	0	0	13
5:15 PM	5	2	0	7	0	0	0	1	0	0	0	0	0	0	0	0	9
5:20 PM	6	1	0	7	0	0	0	1	0	0	0	0	0	0	0	0	10
5:25 PM	5	0	0	5	0	1	1	2	0	0	2	2	0	0	0	0	9
5:30 PM	5	5	0	10	0	2	2	4	2	0	3	5	0	0	0	0	16
5:35 PM	1	4	0	5	0	3	2	5	1	0	2	3	0	0	0	0	13
5:40 PM	2	2	0	4	0	0	0	0	1	0	3	4	0	0	0	0	8
5:45 PM	4	3	0	7	0	2	0	2	0	0	3	3	0	0	0	0	12
5:50 PM	1	2	0	3	0	3	2	5	0	0	0	0	0	0	0	0	10
5:55 PM	5	1	0	6	0	2	0	2	0	0	1	1	0	0	0	0	9
Total Survey	94	70	2	166	0	43	26	69	17	1	63	81	0	4	1	5	321

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	16	12	0	28	0	11	4	15	2	0	14	18	0	1	0	1	60
4:15 PM	10	7	0	17	0	5	6	11	2	0	9	11	0	0	0	0	39
4:30 PM	17	10	1	28	0	4	2	6	3	0	12	15	0	1	2	2	51
4:45 PM	11	14	1	26	0	3	3	6	1	0	7	8	0	0	0	0	40
5:00 PM	10	7	0	17	0	6	3	9	2	1	5	8	0	1	0	1	35
5:15 PM	15	3	0	18	0	2	2	4	1	0	4	5	0	1	0	1	28
5:30 PM	5	11	0	16	0	5	4	9	4	0	8	12	0	0	0	0	37
5:45 PM	10	6	0	16	0	7	2	9	2	0	4	6	0	0	0	0	31
Total Survey	94	70	2	166	0	43	26	69	17	1	63	81	0	4	1	5	321

Heavy Vehicle Peak Hour Summary 4:25 PM to 5:25 PM

By Approach	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW 95th Ave			Westbound SW 95th Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	90	44	134	25	45	70	38	65	103	4	3	7	157
PHF	0.76			0.69			0.63			0.50			0.77

By Movement	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW 95th Ave			Westbound SW 95th Ave			Total			
	L	T	R	L	T	R	L	T	R	L	T	R				
Volume	52	36	9	15	19	25	0	1	29	38	0	2	157			
PHF	0.76	0.53	0.50	0.78	0.00	0.63	0.83	0.69	0.50	0.25	0.80	0.63	0.00	0.38	0.25	0.50

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

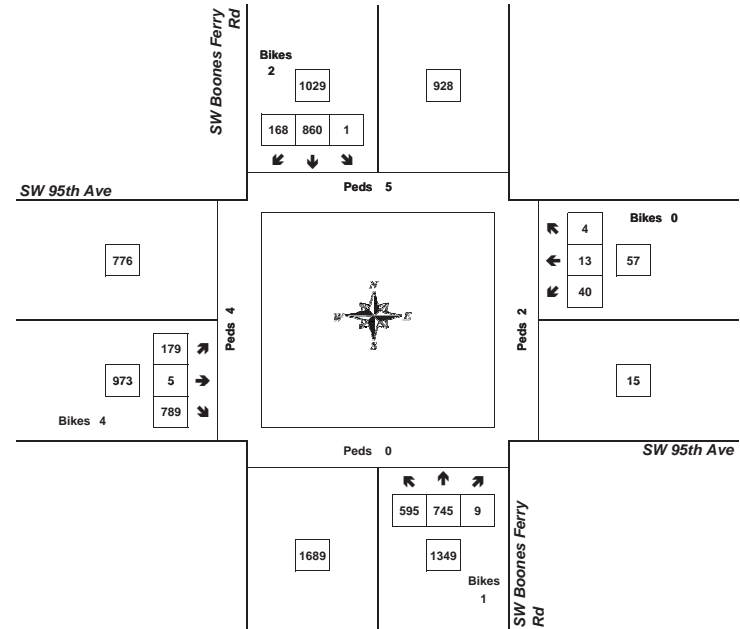
Interval Start Time	Northbound SW Boones Ferry Rd				Southbound SW Boones Ferry Rd				Eastbound SW 95th Ave				Westbound SW 95th Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	54	43	2	99	0	23	15	38	8	0	42	50	0	2	1	3	190
4:15 PM	48	38	2	88	0	18	14	32	8	1	33	42	0	2	1	3	165
4:30 PM	53	34	2	89	0	15	10	25	7	1	28	36	0	3	1	4	154
4:45 PM	41	35	1	77	0	16	12	28	8	1	24	33	0	2	0	2	140
5:00 PM	40	27	0	67	0	20	11	31	9	1	21	31	0	2	0	2	131

Peak Hour Summary



SW Boones Ferry Rd & SW 95th Ave

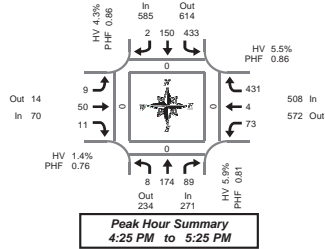
4:25 PM to 5:25 PM
Tuesday, September 29, 2015



Approach	PHF	HV%	Volume
EB	0.83	3.9%	973
WB	0.65	7.0%	57
NB	0.93	6.7%	1,349
SB	0.87	2.4%	1,029
Intersection	0.92	4.6%	3,408

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Peak Hour Summary
4:25 PM to 5:25 PM

SW Grahams Ferry Rd & SW Day Rd

Tuesday, October 27, 2015
4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Grahams Ferry Rd				Southbound SW Grahams Ferry Rd				Eastbound SW Day Rd				Westbound SW Day Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	21	5	0	30	16	0	0	4	20	0	0	7	2	39	0	144	0	0	0	0
4:05 PM	2	19	9	0	25	13	0	0	1	11	1	0	10	0	20	0	111	0	0	0	0
4:10 PM	0	16	9	0	42	7	0	0	0	9	1	0	9	0	28	0	121	0	0	0	0
4:15 PM	1	13	8	0	33	13	1	0	0	1	0	0	8	0	30	0	105	0	0	0	0
4:20 PM	0	8	4	0	32	15	0	0	1	4	1	0	9	0	25	0	99	0	0	0	0
4:25 PM	0	9	6	0	31	12	0	0	0	7	2	0	3	0	32	0	102	0	0	0	0
4:30 PM	0	13	8	0	31	10	1	0	1	5	2	0	4	0	30	0	106	0	0	0	0
4:35 PM	1	8	6	0	38	9	0	0	1	3	2	0	8	0	44	0	120	0	0	0	0
4:40 PM	0	30	10	0	35	10	0	1	1	5	0	0	8	0	42	0	141	0	0	0	0
4:45 PM	0	13	8	0	40	14	0	0	2	7	1	0	7	0	39	0	128	0	0	0	0
4:50 PM	1	17	8	0	28	11	0	0	0	0	0	0	8	0	31	0	104	0	0	0	0
4:55 PM	2	12	8	0	39	15	0	0	1	2	0	0	4	0	36	0	119	0	0	0	0
5:00 PM	1	8	0	0	33	10	0	0	0	3	2	0	0	0	108	0	108	0	0	0	0
5:05 PM	0	15	9	0	36	11	0	0	1	2	1	0	9	0	28	0	112	0	0	0	0
5:10 PM	0	16	5	0	41	13	0	0	1	5	1	0	5	2	39	0	128	0	0	0	0
5:15 PM	1	13	8	0	42	17	0	0	0	6	0	0	7	0	29	0	123	0	0	0	0
5:20 PM	2	22	8	0	39	18	1	0	1	5	0	0	5	2	39	0	142	0	0	0	0
5:25 PM	1	12	3	0	18	10	1	0	1	3	1	0	3	1	39	0	93	0	0	0	0
5:30 PM	0	10	6	1	18	3	0	0	0	4	1	0	4	5	38	0	89	0	0	0	0
5:35 PM	2	9	6	0	28	14	0	0	0	0	0	0	9	1	38	0	107	0	0	0	0
5:40 PM	0	12	4	0	24	8	0	0	0	1	0	0	2	0	35	0	86	0	0	0	0
5:45 PM	0	10	7	0	15	11	0	0	0	0	1	0	3	0	21	0	88	0	0	0	0
5:50 PM	0	6	2	0	30	6	1	0	0	1	0	0	15	6	111	0	86	0	0	0	0
5:55 PM	0	8	3	0	21	6	1	0	0	2	1	0	1	1	34	0	78	0	0	0	0
Total Survey	14	318	155	2	746	272	6	2	16	106	18	0	140	15	815	0	2,621	0	1	0	0

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Grahams Ferry Rd				Southbound SW Grahams Ferry Rd				Eastbound SW Day Rd				Westbound SW Day Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	2	55	23	0	57	36	0	0	5	40	2	0	26	2	67	0	376	0	0	0	0
4:15 PM	1	30	18	0	93	40	1	0	1	12	3	0	20	0	87	0	306	0	0	0	0
4:30 PM	1	52	21	0	104	29	1	0	1	13	4	0	20	0	119	0	367	0	0	0	0
4:45 PM	3	39	24	1	107	40	0	0	3	9	1	0	19	0	108	0	351	0	0	0	0
5:00 PM	1	39	22	0	110	34	0	0	2	10	4	0	19	2	108	0	349	0	0	0	0
5:15 PM	4	47	19	0	99	45	2	0	2	14	1	0	15	3	107	0	356	0	0	0	0
5:30 PM	2	31	16	1	70	25	0	0	0	5	1	0	15	6	111	0	282	0	0	0	0
5:45 PM	0	24	12	0	66	23	2	1	0	3	2	0	6	2	92	0	232	0	0	0	0
Total Survey	14	318	155	2	746	272	6	2	16	106	18	0	140	15	815	0	2,621	0	1	0	0

Peak Hour Summary 4:25 PM to 5:25 PM

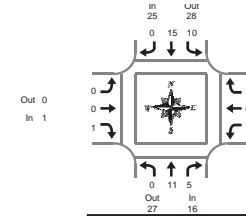
By Approach	Northbound SW Grahams Ferry Rd				Southbound SW Grahams Ferry Rd				Eastbound SW Day Rd				Westbound SW Day Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	271	234	505	1	585	614	1,199	1	70	14	84	0	508	572	1,080	0	1,434	0	0	0	0
%HV	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
PHF	0.81	0.81	0.81	0.81	0.86	0.86	0.86	0.86	0.76	0.76	0.76	0.76	0.79	0.79	0.79	0.79	0.86	0.86	0.86	0.86	0.86

By Movement	Northbound SW Grahams Ferry Rd				Southbound SW Grahams Ferry Rd				Eastbound SW Day Rd				Westbound SW Day Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	6	174	89	271	433	159	592	9	50	11	70	73	5	431	508	4,334	
%HV	0.0%	6.3%	5.6%	6.5%	2.3%	10.0%	0.0%	4.3%	0.0%	0.0%	9.1%	1.4%	15.1%	0.0%	3.9%	5.5%	4.9%
PHF	0.50	0.76	0.86	0.81	0.89	0.78	0.50	0.86	0.56	0.78	0.46	0.76	0.79	0.25	0.86	0.86	0.91

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Grahams Ferry Rd				Southbound SW Grahams Ferry Rd				Eastbound SW Day Rd				Westbound SW Day Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	7	177	86	1	401	145	2	1	12	74	10	0	85	2	399	0	1,400	0	0	0	0
4:15 PM	6	160	85	1	414	143	2	1	9	44	12	0	78	2	418	0	1,373	0	0	0	0
4:30 PM	9	177	86	1	430	148	3	1	10	46	10	0	73	5	438	0	1,425	0	0	0	0
4:45 PM	10	156	81	2	386	144	2	0	7	38	7	0	68	11	430	0	1,340	0	0	0	0
5:00 PM	7	141	89	1	345	127	4	1	4	32	8	0	55	13	416	0	1,221	0	0	0	0

Heavy Vehicle Summary



Peak Hour Summary
4:25 PM to 5:25 PM

SW Grahams Ferry Rd & SW Day Rd

Tuesday, October 27, 2015
4:00 PM to 6:00 PM

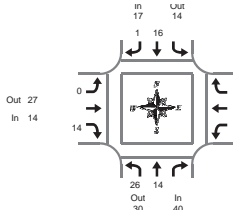
Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Grahams Ferry Rd				Southbound SW Grahams Ferry Rd				Eastbound SW Day Rd				Westbound SW Day Rd				Interval Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	2	4	6
4:20 PM	0	0	1	1	1	0	0	2	0	2	0	0	0	0	0	0	2	0	1	3	6
4:25 PM	0	2	2	4	0	3	0	3	0	0	0	0	0	0	0	1	0	0	1	8	
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	2	4	6
4:35 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	4	6	7
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	3	3
4:45 PM	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	2	0	2	4	6
4:50 PM	0	1	0	1	1	2	0	3	0	0	0	0	0	0	0	0	2	0	2	6	6
4:55 PM	0	1	0	1	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	1	1	6
5:05 PM	0	2	1	3	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	6
5:10 PM	0	2	0	2	1	1	0	2	0	0	0	0	0	0	0	0	2	2	2	2	6
5:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	2	0	0	2	5
5:20 PM	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
5:35 PM	0	0	1	1	1	1	0	2	0	0	0	0	0	0	0	0	2	0	3	5	8
5:40 PM	0</																				

Heavy Vehicle Summary



Clay Carney
(603) 833-2740



Peak Hour Summary
4:35 PM to 5:35 PM

SW Boones Ferry Rd & SW Day Rd

Tuesday, October 27, 2015

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW Day Rd			Westbound SW Day Rd			Interval Total
	L	T	Total	T	R	Total	L	R	Total	L	R	Total	
4:00 PM	5	0	5	0	0	0	4	4	1	1	0	0	9
4:05 PM	3	1	4	0	0	0	0	1	1	0	0	0	5
4:10 PM	2	2	4	1	0	1	0	0	0	0	0	0	5
4:15 PM	4	1	5	2	0	2	1	1	2	0	0	0	9
4:20 PM	3	1	4	1	0	1	0	2	2	0	0	0	7
4:25 PM	0	0	0	1	0	1	0	1	1	0	0	0	2
4:30 PM	7	1	8	2	0	2	0	2	2	0	0	0	12
4:35 PM	7	1	8	1	0	1	0	2	2	0	0	0	11
4:40 PM	1	0	1	0	0	0	0	0	0	0	0	0	1
4:45 PM	3	3	6	1	1	2	0	1	1	0	0	0	9
4:50 PM	0	0	0	3	0	3	0	1	1	0	0	0	4
4:55 PM	1	1	2	0	0	0	0	2	2	0	0	0	4
5:00 PM	2	0	2	4	0	4	0	3	3	0	0	0	9
5:05 PM	1	4	5	0	0	0	0	1	1	0	0	0	6
5:10 PM	2	1	3	2	0	2	0	1	1	0	0	0	6
5:15 PM	1	0	1	1	0	1	0	0	0	0	0	0	2
5:20 PM	2	2	4	2	0	2	0	1	1	0	0	0	7
5:25 PM	2	1	3	1	0	1	0	0	0	0	0	0	4
5:30 PM	4	1	5	1	0	1	0	2	2	0	0	0	8
5:35 PM	1	1	2	1	0	1	0	1	1	0	0	0	4
5:40 PM	1	1	2	1	0	1	0	3	3	0	0	0	6
5:45 PM	1	0	1	2	0	2	1	1	2	0	0	0	5
5:50 PM	2	2	4	0	0	0	0	1	1	0	0	0	5
5:55 PM	2	1	3	2	0	2	0	0	0	0	0	0	5
Total Survey	57	25	82	29	1	30	2	31	33	0	0	0	145

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW Day Rd			Westbound SW Day Rd			Interval Total
	L	T	Total	T	R	Total	L	R	Total	L	R	Total	
4:00 PM	10	3	13	1	0	1	0	5	5	0	0	0	19
4:15 PM	7	2	9	4	0	4	1	4	5	0	0	0	18
4:30 PM	15	2	17	3	0	3	0	4	4	0	0	0	24
4:45 PM	4	4	8	4	1	5	0	4	4	0	0	0	17
5:00 PM	5	5	10	6	0	6	0	5	5	0	0	0	21
5:15 PM	5	3	8	4	0	4	0	1	1	0	0	0	13
5:30 PM	6	3	9	3	0	3	0	6	6	0	0	0	18
5:45 PM	5	3	8	4	0	4	1	2	3	0	0	0	15
Total Survey	57	25	82	29	1	30	2	31	33	0	0	0	145

Heavy Vehicle Peak Hour Summary

4:35 PM to 5:35 PM

By Approach	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW Day Rd			Westbound SW Day Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	40	30	70	17	14	31	14	27	41	0	0	0	71
PHF	0.67			0.61			0.58			0.00			0.85

By Movement	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW Day Rd			Westbound SW Day Rd			Total
	L	T	Total	T	R	Total	L	R	Total	L	R	Total	
Volume	25	14	40	17	14	31	14	14	28	0	0	0	71
PHF	0.59	0.70	0.67	0.57	0.25	0.61	0.00	0.58	0.58	0.00	0.00	0.00	0.85

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW Boones Ferry Rd			Southbound SW Boones Ferry Rd			Eastbound SW Day Rd			Westbound SW Day Rd			Interval Total
	L	T	Total	T	R	Total	L	R	Total	L	R	Total	
4:00 PM	36	11	47	12	1	13	1	17	18	0	0	0	78
4:15 PM	31	13	44	17	1	18	1	17	18	0	0	0	80
4:30 PM	29	14	43	17	1	18	0	14	14	0	0	0	75
4:45 PM	20	15	35	17	1	18	0	16	16	0	0	0	69
5:00 PM	21	14	35	17	0	17	1	14	15	0	0	0	67

Peak Hour Summary

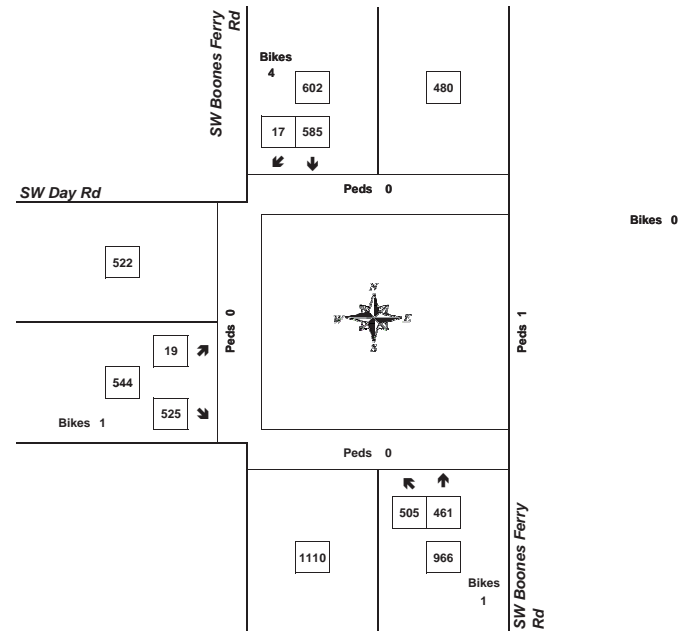


Clay Carney
(603) 833-2740

SW Boones Ferry Rd & SW Day Rd

4:35 PM to 5:35 PM

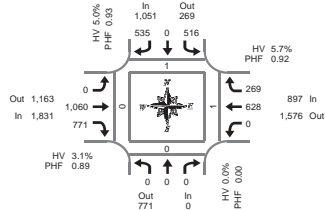
Tuesday, October 27, 2015



Approach	PHF	HV%	Volume
EB	0.86	2.6%	544
WB	0.00	0.0%	0
NB	0.88	4.1%	966
SB	0.91	2.8%	602
Intersection	0.93	3.4%	2,112

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Peak Hour Summary
4:25 PM to 5:25 PM

I-5 SB Ramps & SW Boones Ferry Rd

Tuesday, October 27, 2015
4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Interval Total	Pedestrians Crosswalk						
	L	T	R	L	T	R	L	T	R	L	T	R		North	South	East	West			
4:00 PM	0	0	0	0	44	0	0	92	65	0	37	23	0	365	0	1	0	0		
4:05 PM	0	0	0	0	30	0	47	0	105	65	0	54	32	1	333	0	0	0		
4:10 PM	0	0	0	0	39	0	38	0	97	59	0	39	25	0	297	0	0	0		
4:15 PM	0	0	0	0	44	0	41	0	73	73	0	53	28	0	305	0	1	0		
4:20 PM	0	0	0	0	30	0	47	0	56	54	0	40	22	0	249	0	1	0		
4:25 PM	0	0	0	0	44	0	45	0	89	57	0	43	20	0	298	1	0	0		
4:30 PM	0	0	0	0	44	0	43	0	68	60	0	50	28	0	300	0	0	0		
4:35 PM	0	0	0	0	46	0	57	0	92	73	0	49	33	0	350	0	0	1		
4:40 PM	0	0	0	0	41	0	40	0	104	59	0	42	24	0	310	0	0	0		
4:45 PM	0	0	0	0	46	0	53	0	85	57	0	61	28	0	335	0	0	0		
4:50 PM	0	0	0	0	45	0	46	0	75	64	0	59	21	1	310	0	0	0		
4:55 PM	0	0	0	0	29	0	38	0	81	59	0	57	19	0	283	0	0	0		
5:00 PM	0	0	0	0	43	0	49	0	123	60	0	54	27	0	347	0	0	0		
5:05 PM	0	0	0	0	34	0	38	0	95	66	0	52	22	1	307	0	0	0		
5:10 PM	0	0	0	0	35	0	44	0	91	78	0	49	19	2	316	0	0	0		
5:15 PM	0	0	0	0	55	0	46	0	78	70	0	37	21	0	307	0	0	0		
5:20 PM	0	0	0	0	49	0	36	0	79	68	0	72	27	0	337	0	0	0		
5:25 PM	0	0	0	0	37	0	43	0	65	57	0	61	26	0	289	0	1	0		
5:30 PM	0	0	0	0	27	0	56	0	66	54	0	58	27	0	288	0	0	0		
5:35 PM	0	0	0	0	38	0	42	0	80	56	1	52	32	0	300	0	0	0		
5:40 PM	0	0	0	0	52	0	36	0	65	47	0	30	19	0	249	0	2	0		
5:45 PM	0	0	0	0	47	0	56	0	59	39	0	37	22	0	260	0	0	0		
5:50 PM	0	0	0	0	45	0	45	0	45	34	0	40	22	0	237	0	0	0		
5:55 PM	0	0	0	0	46	0	38	0	43	33	1	45	17	0	222	0	0	0		
Total Survey	0	0	0	0	1,001	0	1,068	0	1,903	1,407	2	0	1,171	564	5	7,114	1	6	1	0

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Interval Total	Pedestrians Crosswalk						
	L	T	R	L	T	R	L	T	R	L	T	R		North	South	East	West			
4:00 PM	0	0	0	0	115	0	129	0	294	169	0	130	60	0	595	0	1	0	0	
4:15 PM	0	0	0	0	118	0	133	0	215	184	0	133	70	0	653	0	2	0	0	
4:30 PM	0	0	0	0	136	0	140	0	264	192	0	144	75	0	851	0	0	1	0	
4:45 PM	0	0	0	0	120	0	137	0	241	150	0	177	68	1	523	0	0	0	0	
5:00 PM	0	0	0	0	112	0	131	0	309	204	0	155	58	3	869	0	0	0	0	
5:15 PM	0	0	0	0	141	0	125	0	222	195	0	170	74	0	927	0	1	0	0	
5:30 PM	0	0	0	0	117	0	134	0	211	157	1	140	78	0	837	0	2	0	0	
5:45 PM	0	0	0	0	144	0	139	0	147	106	1	122	61	0	719	0	0	0	0	
Total Survey	0	0	0	0	1,001	0	1,068	0	1,903	1,407	2	0	1,171	564	5	7,114	1	6	1	0

Peak Hour Summary 4:25 PM to 5:25 PM

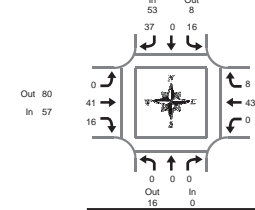
By Approach	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Total	Pedestrians Crosswalk						
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total		North	South	East	West			
Volume	0	771	771	0	1,051	1,320	0	1,831	1,163	2,994	0	897	1,576	2,473	4	3,779	1	0	1	0
Volume PHF	0.00	0.77	0.77	0.00	1.05	1.32	0.00	1.83	1.16	3.00	0.00	0.90	1.58	2.47	0.04	3.78	0.01	0.00	0.01	0.00
PHF	0.00	0.93	0.93	0.00	0.93	0.89	0.00	0.86	0.89	0.89	0.00	0.89	0.79	0.92	0.95	0.95	0.00	0.00	0.00	0.00

By Movement	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Total	
	L	T	R	L	T	R	L	T	R	L	T	R		
Volume	0	0	0	0	516	0	505	1,051	0	1,690	771	1,831	0	3,779
Volume PHF	0.00	0.00	0.00	0.00	0.51	0.00	0.50	1.05	0.00	1.69	0.77	1.83	0.00	3.78
PHF	0.00	0.00	0.00	0.00	0.93	0.00	0.89	0.93	0.00	0.86	0.89	0.89	0.00	0.89

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Interval Total	Pedestrians Crosswalk					
	L	T	R	L	T	R	L	T	R	L	T	R		North	South	East	West		
4:00 PM	0	0	0	0	487	0	539	0	1,014	745	0	584	293	2	3,662	1	3	0	0
4:15 PM	0	0	0	0	486	0	541	0	1,029	760	0	609	271	4	3,696	1	2	1	0
4:30 PM	0	0	0	0	509	0	533	0	1,038	771	0	646	275	4	3,770	0	1	1	0
4:45 PM	0	0	0	0	490	0	527	0	1,017	736	1	642	278	4	3,696	0	3	0	0
5:00 PM	0	0	0	0	514	0	529	0	1,043	762	2	587	271	3	3,452	0	3	0	0

Heavy Vehicle Summary



Peak Hour Summary
4:25 PM to 5:25 PM

I-5 SB Ramps & SW Boones Ferry Rd

Tuesday, October 27, 2015
4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

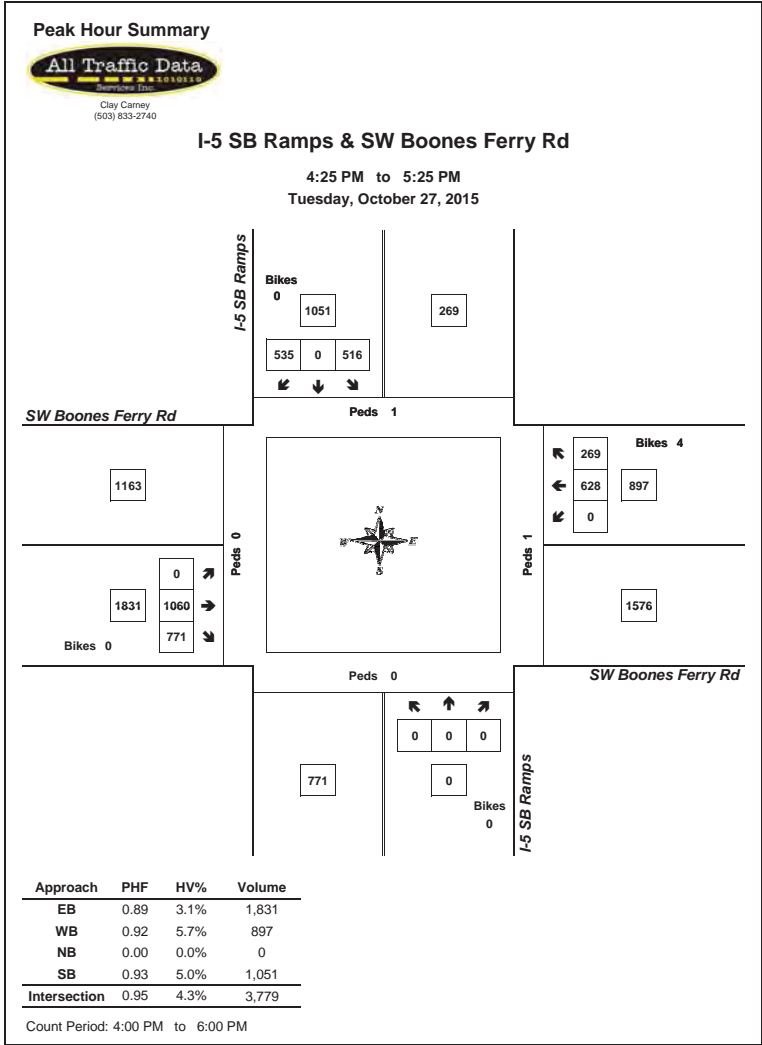
Interval Start Time	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Interval Total
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	0	0	0	0

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Interval Total
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	0	0	0	0

Heavy Vehicle Peak Hour Summary 4:25 PM to 5:25 PM

By Approach	Northbound I-5 SB Ramps			Southbound I-5 SB Ramps			Eastbound SW Boones Ferry Rd			Westbound SW Boones Ferry Rd			Total
	In	Out	Total	In	Out	Total							



Level of Service Descriptions

TRAFFIC LEVELS OF SERVICE

Analysis of traffic volumes is useful in understanding the general nature of traffic in an area, but by itself indicates neither the ability of the street network to carry additional traffic nor the quality of service afforded by the street facilities. For this, the concept of *level of service* has been developed to subjectively describe traffic performance. Level of service can be measured at intersections and along key roadway segments.

Level of service categories are similar to report card ratings for traffic performance. Intersections are typically the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is generally diminished in their vicinities. Levels of Service A, B and C indicate conditions where traffic moves without significant delays over periods of peak travel demand. Level of service D and E are progressively worse peak hour operating conditions and F conditions represent where demand exceeds the capacity of an intersection. Most urban communities set level of service D as the minimum acceptable level of service for peak hour operation and plan for level of service C or better for all other times of the day. The *Highway Capacity Manual* provides level of service calculation methodology for both intersections and arterials.¹ The following two sections provide interpretations of the analysis approaches.

UNSIGNALIZED INTERSECTIONS (Two-Way Stop Controlled)

Unsignalized intersection level of service is reported for the major street and minor street (generally, left turn movements). The method assesses available and critical gaps in the traffic stream which make it possible for side street traffic to enter the main street flow. The *2000 Highway Capacity Manual* describes the detailed methodology. It is not unusual for an intersection to experience level of service E or F conditions for the minor street left turn movement. It should be understood that, often, a poor level of service is experienced by only a few vehicles and the intersection as a whole operates acceptably.

Unsignalized intersection levels of service are described in the following table.

Level of Service	Expected Delay	(Sec/Veh)
A	Little or no delay	0-10.0
B	Short traffic delay	>10.1-15.0
C	Average traffic delays	>15.1-25.0
D	Long traffic delays	>25.1-35.0
E	Very long traffic delays	>35.1-50.0
F	Extreme delays potentially affecting other traffic movements in the intersection	> 50

Source: 2000 *Highway Capacity Manual*, Transportation Research Board Washington, D.C.

¹ 2000 *Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000, Chapters 16 and 17.

SIGNALIZED INTERSECTIONS

For signalized intersections, level of service is evaluated based upon average vehicle delay experienced by vehicles entering an intersection. Control delay (or signal delay) includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. In previous versions of this chapter of the HCM (1994 and earlier), delay included only stopped delay. As delay increases, the level of service decreases. Calculations for signalized and unsignalized intersections are different due to the variation in traffic control. The *2000 Highway Capacity Manual* provides the basis for these calculations.

Level of Service	Delay (secs.)	Description
A	≤10.00	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Most vehicles do not stop at all. Progression is extremely favorable and most vehicles arrive during the green phase.
B	10.1-20.0	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. This level generally occurs with good progression, short cycle lengths, or both.
C	20.1-35.0	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted. Higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, and the number of vehicles stopping is significant.
D	35.1-55.0	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Drivers may have to wait through more than one red signal indication. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. The proportion of vehicles not stopping declines, and individual cycle failures are noticeable.
E	55.1-80.0	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
F	≥80.0	Forced Flow/Excessive Delays: Represents jammed conditions. Queues may block upstream intersections. This level occurs when arrival flow rates exceed intersection capacity, and is considered to be unacceptable to most drivers. Poor progression, long cycle lengths, and v/c ratios approaching 1.0 may contribute to these high delay levels.

Source: *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C.

HCM Analysis – Existing PM Peak Hour

HCM Signalized Intersection Capacity Analysis
 1: I-5 SB On Ramp/I-5 SB Off Ramp & Boones Ferry Road/SW Elgin Road

2015 Existing PM Peak Hour

Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑				↓	↓	↓
Traffic Volume (vph)	0	978	711	0	728	269	0	0	0	516	0	621
Future Volume (vph)	0	978	711	0	728	269	0	0	0	516	0	621
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				4.0	4.0	4.0
Lane Util. Factor	0.95	1.00		0.95	1.00		0.95	0.95	1.00			
Frpb, ped/bikes	1.00	1.00		1.00	0.98		1.00	1.00	1.00			
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00			
Frt	1.00	0.85		1.00	0.85		1.00	1.00	0.85			
Flt Protected	1.00	1.00		1.00	1.00		0.95	0.95	1.00			
Satd. Flow (prot)	3471	1583		3374	1534		1665	1665	1509			
Flt Permitted	1.00	1.00		1.00	1.00		0.95	0.95	1.00			
Satd. Flow (perm)	3471	1583		3374	1534		1665	1665	1509			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1029	748	0	766	283	0	0	0	543	0	654
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	93
Lane Group Flow (vph)	0	1029	748	0	766	283	0	0	0	271	272	561
Confl. Peds. (#/hr)	1					1				1	1	
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	4%	2%	0%	7%	3%	0%	0%	0%	3%	0%	7%
Turn Type	NA	Free		NA	Free					Split	NA	Prot
Protected Phases	2			6						4	4	4
Permitted Phases		Free		Free								
Actuated Green, G (s)	55.1	105.0		55.1	105.0					40.9	40.9	40.9
Effective Green, g (s)	56.1	105.0		56.1	105.0					40.9	40.9	40.9
Actuated g/C Ratio	0.53	1.00		0.53	1.00					0.39	0.39	0.39
Clearance Time (s)	5.0			5.0						4.0	4.0	4.0
Vehicle Extension (s)	3.0			3.0						3.0	3.0	3.0
Lane Grp Cap (vph)	1854	1583		1802	1534					648	648	587
v/s Ratio Prot	c0.30			0.23						0.16	0.16	c0.37
v/s Ratio Perm		0.47			0.18							
v/c Ratio	0.56	0.47		0.43	0.18					0.42	0.42	0.96
Uniform Delay, d1	16.2	0.0		14.7	0.0					23.4	23.4	31.2
Progression Factor	0.97	1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2	0.9	0.8		0.7	0.3					0.4	0.4	26.1
Delay (s)	16.7	0.8		15.5	0.3					23.8	23.8	57.3
Level of Service	B	A		B	A					C	C	E
Approach Delay (s)	10.0			11.4				0.0			42.1	
Approach LOS	A			B				A			D	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 2: Boones Ferry Road & 95th Avenue

2015 Existing PM Peak Hour

Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↓	↓	↓	↓	↓				↓	↓	↓
Traffic Volume (vph)	179	5	789	40	13	4	595	745	9	1	860	168
Future Volume (vph)	179	5	789	40	13	4	595	745	9	1	860	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1724	2704	1805	1482	3213	3424	1805	3539	1477			
Flt Permitted	0.72	1.00	0.44	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1299	2704	827	1482	3213	3424	1805	3539	1477			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	5	858	43	14	4	647	810	10	1	935	183
RTOR Reduction (vph)	0	0	56	0	3	0	0	1	0	0	0	61
Lane Group Flow (vph)	0	200	802	43	15	0	647	819	0	1	935	122
Confl. Peds. (#/hr)	5					5	4		2	2		4
Confl. Bikes (#/hr)						4			1			2
Heavy Vehicles (%)	4%	20%	4%	0%	23%	25%	9%	5%	22%	0%	2%	6%
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	8	1		4			1	6		5	2	
Permitted Phases	8			4								2
Actuated Green, G (s)	20.9	45.3	20.9	20.9			24.4	70.9		1.2	47.7	47.7
Effective Green, g (s)	20.9	45.3	20.9	20.9			24.4	70.9		1.2	47.7	47.7
Actuated g/C Ratio	0.20	0.43	0.20	0.20			0.23	0.68		0.01	0.45	0.45
Clearance Time (s)	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	258	1269	164	294			746	2312		20	1607	670
v/s Ratio Prot		c0.15		0.01			c0.20	0.24		0.00	c0.26	
v/s Ratio Perm	c0.15	0.15	0.05									0.08
v/c Ratio	0.78	0.63	0.26	0.05			0.87	0.35		0.05	0.58	0.18
Uniform Delay, d1	39.8	23.3	35.5	34.0			38.7	7.3		51.3	21.3	17.1
Progression Factor	1.00	1.00	1.00	1.00			1.01	1.48		1.52	1.00	0.93
Incremental Delay, d2	13.5	1.0	0.9	0.1			10.4	0.3		0.9	0.5	0.1
Delay (s)	53.4	24.4	36.4	34.1			49.7	11.1		78.8	21.7	16.0
Level of Service	D	C	D	C			D	B		E	C	B
Approach Delay (s)	29.9			35.7			28.1				20.8	
Approach LOS	C			D			C				C	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Boones Ferry Road & SW Day Rd

2015 Existing PM Peak Hour
USHS Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	
Traffic Volume (vph)	19	0	525	0	0	0	505	461	0	0	585	17
Future Volume (vph)	19	0	525	0	0	0	505	461	0	0	585	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0				4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00					1.00	0.95			0.95	
Frbp, ped/bikes	1.00	1.00					1.00	1.00			1.00	
Flpb, ped/bikes	1.00	1.00					1.00	1.00			1.00	
Frt	1.00	0.85					1.00	1.00			1.00	
Flt Protected	0.95	1.00					0.95	1.00			1.00	
Satd. Flow (prot)	1805	1568					1719	3505			3485	
Flt Permitted	0.76	1.00					0.95	1.00			1.00	
Satd. Flow (perm)	1439	1568					1719	3505			3485	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	20	0	565	0	0	0	543	496	0	0	629	18
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	20	534	0	0	0	543	496	0	0	645	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			1						1	1		
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	5%	3%	0%	0%	3%	6%
Turn Type	Perm	NA	pl+ov				Prot	NA		Prot	NA	
Protected Phases	8	8	8.1		4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)		10.0	71.0				57.0	86.0			25.0	
Effective Green, g (s)		10.0	71.0				57.0	87.0			26.0	
Actuated g/C Ratio		0.10	0.68				0.54	0.83			0.25	
Clearance Time (s)		4.0					4.0	5.0			5.0	
Vehicle Extension (s)		3.0					3.0	3.0			3.0	
Lane Grp Cap (vph)		137	1060				933	2904			862	
v/s Ratio Prot			c0.34				c0.32	0.14			c0.19	
v/s Ratio Perm		0.01										
v/c Ratio		0.15	0.50				0.58	0.17			0.75	
Uniform Delay, d1		43.6	8.3				16.0	1.8			36.5	
Progression Factor		1.00	1.00				0.86	0.70			1.00	
Incremental Delay, d2		0.5	0.4				2.5	0.1			3.6	
Delay (s)		44.1	8.7				16.3	1.4			40.1	
Level of Service		D	A				B	A			D	
Approach Delay (s)		9.9			0.0			9.2			40.1	
Approach LOS		A			A		A				D	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
4: Grahams Ferry Rd & SW Day Rd

2015 Existing PM Peak Hour
USHS Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (vph)	9	50	11	73	4	431	8	174	89	433	150	2
Future Volume (vph)	9	50	11	73	4	431	8	174	89	433	150	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00			1.00	1.00	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98			1.00	0.85	1.00	0.95		1.00	1.00	
Flt Protected	0.99	0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1822				1587	1553	1805	1689		1770	1726	
Flt Permitted	0.94	0.94			0.93	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1723				1553	1553	1805	1689		1770	1726	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	10	55	12	80	4	474	9	191	98	476	165	2
RTOR Reduction (vph)	0	9	0	0	0	270	0	29	0	0	0	0
Lane Group Flow (vph)	0	68	0	0	84	204	9	260	0	476	167	0
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	9%	15%	0%	4%	0%	6%	6%	2%	10%	0%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	4				8	1	5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		5.2			5.2	21.3	1.0	16.3		16.1	31.4	
Effective Green, g (s)		5.2			5.2	21.3	1.0	16.3		16.1	31.4	
Actuated g/C Ratio		0.10			0.10	0.43	0.02	0.33		0.32	0.63	
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		180			162	792	36	555		574	1092	
v/s Ratio Prot						0.08	0.00	c0.15		c0.27	0.10	
v/s Ratio Perm		0.04			c0.05	0.05						
v/c Ratio		0.38			0.52	0.26	0.25	0.47		0.83	0.15	
Uniform Delay, d1		20.7			21.0	9.1	23.9	13.2		15.5	3.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3			2.8	0.2	3.6	0.6		9.6	0.1	
Delay (s)		22.0			23.8	9.2	27.6	13.8		25.1	3.8	
Level of Service		C			C	A	C	B		C	A	
Approach Delay (s)		22.0			11.4			14.3			19.6	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	49.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group




HCM Analysis – Existing + Project PM Peak Hour

HCM Signalized Intersection Capacity Analysis 1: I-5 SB On Ramp/I-5 SB Off Ramp & Boones Ferry Road/SWE Higgenbotham Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SEB
Lane Configurations		↑↑	↑		↑↑	↑				↓	↓	↓
Traffic Volume (vph)	0	1021	733	0	734	269	0	0	0	516	0	627
Future Volume (vph)	0	1021	733	0	734	269	0	0	0	516	0	627
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				4.0	4.0	4.0
Lane Util. Factor		0.95	1.00		0.95	1.00				0.95	0.95	1.00
Frb, ped/bikes		1.00	1.00		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		1.00	0.85		1.00	0.85				1.00	1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.95	1.00
Satd. Flow (prot)		3471	1583		3374	1534				1665	1665	1509
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.95	1.00
Satd. Flow (perm)		3471	1583		3374	1534				1665	1665	1509
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1075	772	0	773	283	0	0	0	543	0	660
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	91
Lane Group Flow (vph)	0	1075	772	0	773	283	0	0	0	271	272	569
Confl. Peds. (#/hr)		1				1				1		
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	4%	2%	0%	7%	3%	0%	0%	0%	3%	0%	7%
Turn Type		NA	Free		NA	Free				Split	NA	Prot
Protected Phases		2			6					4	4	4
Permitted Phases			Free			Free						
Actuated Green, G (s)		54.6	105.0		54.6	105.0				41.4	41.4	41.4
Effective Green, g (s)		55.6	105.0		55.6	105.0				41.4	41.4	41.4
Actuated g/C Ratio		0.53	1.00		0.53	1.00				0.39	0.39	0.39
Clearance Time (s)		5.0			5.0					4.0	4.0	4.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1837	1583		1786	1534				656	656	594
v/s Ratio Prot		c0.31			0.23					0.16	0.16	c0.38
v/s Ratio Perm			0.49			0.18						
v/c Ratio		0.59	0.49		0.43	0.18				0.41	0.41	0.96
Uniform Delay, d1		16.8	0.0		15.1	0.0				23.0	23.0	31.0
Progression Factor		0.96	1.00		1.00	1.00				1.00	1.00	1.00
Incremental Delay, d2		1.0	0.8		0.8	0.3				0.4	0.4	26.5
Delay (s)		17.2	0.8		15.8	0.3				23.4	23.5	57.5
Level of Service		B	A		B	A				C	C	E
Approach Delay (s)		10.3			11.7			0.0			42.1	
Approach LOS		B			B			A			D	
Intersection Summary												
HCM 2000 Control Delay			20.0								B	
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			105.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			65.8%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
2: Boones Ferry Road & 95th Avenue

2015 Existing PM Peak Hour
USH Willamette Valley Behavioral Health Hospital




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
Traffic Volume (vph)	181	5	789	40	13	4	595	757	9	1	925	179
Future Volume (vph)	181	5	789	40	13	4	595	757	9	1	925	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00
Frbp, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1725	2703	1805	1482	3213	3424	1805	3539	1477			
Flt Permitted	0.72	1.00	0.43	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1299	2703	821	1482	3213	3424	1805	3539	1477			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	197	5	858	43	14	4	647	823	10	1	1005	195
RTOR Reduction (vph)	0	0	44	0	3	0	0	1	0	0	0	60
Lane Group Flow (vph)	0	202	814	43	15	0	647	832	0	1	1005	135
Confl. Peds. (#/hr)	5					5	4		2	2		4
Confl. Bikes (#/hr)			4						1			2
Heavy Vehicles (%)	4%	20%	4%	0%	23%	25%	9%	5%	22%	0%	2%	6%
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	8	1		4		1	6		5	2		
Permitted Phases	8	8	4									2
Actuated Green, G (s)	21.0	45.3	21.0	21.0		24.3	70.8		1.2	47.7		47.7
Effective Green, g (s)	21.0	45.3	21.0	21.0		24.3	70.8		1.2	47.7		47.7
Actuated g/C Ratio	0.20	0.43	0.20	0.20		0.23	0.67		0.01	0.45		0.45
Clearance Time (s)	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	259	1269	164	296		743	2308		20	1607		670
v/s Ratio Prot		c0.15		0.01		c0.20	0.24		0.00	c0.28		
v/s Ratio Perm	c0.16	0.15	0.05									0.09
v/c Ratio	0.78	0.64	0.26	0.05		0.87	0.36		0.05	0.63		0.20
Uniform Delay, d1	39.8	23.5	35.5	33.9		38.8	7.4		51.3	21.8		17.2
Progression Factor	1.00	1.00	1.00	1.00		1.01	1.49		1.29	0.92		0.76
Incremental Delay, d2	13.8	1.1	0.9	0.1		10.5	0.3		0.9	0.7		0.1
Delay (s)	53.6	24.6	36.3	34.0		49.8	11.3		67.0	20.8		13.2
Level of Service	D	C	D	C		D	B		E	C		B
Approach Delay (s)	30.1			35.6		28.1				19.6		
Approach LOS	C			D		C				B		

Intersection Summary			
HCM 2000 Control Delay	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Boones Ferry Road & SW Day Rd

2015 Existing PM Peak Hour
USH Willamette Valley Behavioral Health Hospital



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	
Traffic Volume (vph)	41	0	601	0	0	0	519	461	0	0	585	21
Future Volume (vph)	41	0	601	0	0	0	519	461	0	0	585	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1805	1568	1719	3505	3480							
Flt Permitted	0.76	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1439	1568	1719	3505	3480							
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	44	0	646	0	0	0	558	496	0	0	629	23
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	44	615	0	0	0	558	496	0	0	649	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			1						1			4
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	5%	3%	0%	0%	3%	6%
Turn Type	Perm	NA	pt+ov			Prot	NA	Prot	NA	Prot	NA	
Protected Phases	8	8	8.1		4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)	13.3	70.9					53.6	82.7				25.1
Effective Green, g (s)	13.3	70.9					53.6	83.7				26.1
Actuated g/C Ratio	0.13	0.68					0.51	0.80				0.25
Clearance Time (s)	4.0	4.0	4.0	5.0	5.0		4.0	5.0				5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0				3.0
Lane Grp Cap (vph)	182	1058					877	2793				865
v/s Ratio Prot		c0.39					c0.32	0.14				c0.19
v/s Ratio Perm	0.03											
v/c Ratio	0.24	0.58					0.64	0.18				0.75
Uniform Delay, d1	41.3	9.1					18.6	2.5				36.4
Progression Factor	1.00	1.00					0.90	0.67				1.00
Incremental Delay, d2	0.7	0.8					3.3	0.1				3.7
Delay (s)	42.0	9.9					20.0	1.8				40.1
Level of Service	D	A					C	A				D
Approach Delay (s)	12.0				0.0			11.5				40.1
Approach LOS	B				A			B				D

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: Grahams Ferry Rd & SW Day Rd

2015 Existing PM Peak Hour
UHS Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	9	50	11	73	4	442	8	174	89	435	150	2
Future Volume (vph)	9	50	11	73	4	442	8	174	89	435	150	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0		4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00		1.00
Frpb, ped/bikes		1.00			1.00	1.00	1.00	0.99		1.00		1.00
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00		1.00
Frt		0.98			1.00	0.85	1.00	0.95		1.00		1.00
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95		1.00
Satd. Flow (prot)		1822			1587	1553	1805	1689		1770		1726
Flt Permitted		0.94			0.93	1.00	0.95	1.00		0.95		1.00
Satd. Flow (perm)		1723			1553	1553	1805	1689		1770		1726
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	10	55	12	80	4	486	9	191	98	478	165	2
RTOR Reduction (vph)	0	9	0	0	0	277	0	29	0	0	0	0
Lane Group Flow (vph)	0	68	0	0	84	209	9	260	0	478	167	0
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	9%	15%	0%	4%	0%	6%	6%	2%	10%	0%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1		6
Permitted Phases	4			8			8					
Actuated Green, G (s)		5.2			5.2	21.3	1.0	16.3		16.1		31.4
Effective Green, g (s)		5.2			5.2	21.3	1.0	16.3		16.1		31.4
Actuated g/C Ratio		0.10			0.10	0.43	0.02	0.33		0.32		0.63
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0		4.0
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0		3.0
Lane Grp Cap (vph)		180			162	792	36	555		574		1092
v/s Ratio Prot						0.09	0.00	c0.15		c0.27		0.10
v/s Ratio Perm		0.04			c0.05	0.05						
v/c Ratio		0.38			0.52	0.26	0.25	0.47		0.83		0.15
Uniform Delay, d1		20.7			21.0	9.1	23.9	13.2		15.5		3.7
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2		1.3			2.8	0.2	3.6	0.6		10.0		0.1
Delay (s)		22.0			23.8	9.3	27.6	13.8		25.5		3.8
Level of Service		C			C	A	C	B		C		A
Approach Delay (s)		22.0			11.4			14.3				19.9
Approach LOS		C			B			B				B

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	49.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 TWSC
5: SW Day Rd

2015 Existing PM Peak Hour
UHS Willamette Valley Behavioral Health Hospital

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	544	2	18	522	11	98
Future Vol, veh/h	544	2	18	522	11	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	573	2	19	549	12	103

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	575	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1008	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1008	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	497	-	-	1008	-
HCM Lane V/C Ratio	0.231	-	-	0.019	-
HCM Control Delay (s)	14.4	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-



HCM Analysis – Existing + Stage II PM Peak Hour

HCM Signalized Intersection Capacity Analysis 1: I-5 SB On Ramp/I-5 SB Off Ramp & Boones Ferry Road/SW Elgin Road

2015 Existing PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑	↑		↑↑	↑				↓	↓	↓	
Traffic Volume (vph)	0	1067	715	0	740	274	0	0	0	536	0	729	
Future Volume (vph)	0	1067	715	0	740	274	0	0	0	536	0	729	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0	4.0		4.0	4.0				4.0	4.0	4.0	
Lane Util. Factor		0.95	1.00		0.95	1.00				0.95	0.95	1.00	
Frbp, ped/bikes		1.00	1.00		1.00	0.98				1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85				1.00	1.00	0.85	
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.95	1.00	
Satd. Flow (prot)		3471	1583		3374	1534				1665	1665	1509	
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.95	1.00	
Satd. Flow (perm)		3471	1583		3374	1534				1665	1665	1509	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	0	1123	753	0	779	288	0	0	0	564	0	767	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	87	
Lane Group Flow (vph)	0	1123	753	0	779	288	0	0	0	282	282	680	
Confl. Peds. (#/hr)		1				1				1	1		
Confl. Bikes (#/hr)						4							
Heavy Vehicles (%)		0%	4%	2%	0%	7%	3%	0%	0%	0%	3%	0%	7%
Turn Type		NA	Free		NA	Free				Split	NA	Prot	
Protected Phases		2			6					4	4	4	
Permitted Phases			Free			Free							
Actuated Green, G (s)		53.0	105.0		53.0	105.0				43.0	43.0	43.0	
Effective Green, g (s)		54.0	105.0		54.0	105.0				43.0	43.0	43.0	
Actuated g/C Ratio		0.51	1.00		0.51	1.00				0.41	0.41	0.41	
Clearance Time (s)		5.0			5.0					4.0	4.0	4.0	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0	
Lane Grp Cap (vph)		1785	1583		1735	1534				681	681	617	
v/s Ratio Prot		c0.32			0.23					0.17	0.17	c0.45	
v/s Ratio Perm			0.48			0.19							
v/c Ratio		0.63	0.48		0.45	0.19				0.41	0.41	1.10	
Uniform Delay, d1		18.3	0.0		16.1	0.0				22.0	22.0	31.0	
Progression Factor		0.96	1.00		1.00	1.00				1.00	1.00	1.00	
Incremental Delay, d2		1.2	0.8		0.8	0.3				0.4	0.4	67.2	
Delay (s)		18.9	0.8		16.9	0.3				22.5	22.5	98.2	
Level of Service		B	A		B	A				C	C	F	
Approach Delay (s)		11.6			12.4			0.0			66.1		
Approach LOS		B			B			A			E		
Intersection Summary													
HCM 2000 Control Delay			28.8				HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.84										
Actuated Cycle Length (s)			105.0			Sum of lost time (s)				8.0			
Intersection Capacity Utilization			72.3%			ICU Level of Service				C			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
2: Boones Ferry Road & 95th Avenue

2015 Existing PM Peak Hour
USH Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
Traffic Volume (vph)	187	5	878	40	13	4	706	754	9	1	864	174
Future Volume (vph)	187	5	878	40	13	4	706	754	9	1	864	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1725	2704	1805	1482	3213	3424	1805	3539	1477			
Flt Permitted	0.72	1.00	0.42	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1299	2704	807	1482	3213	3424	1805	3539	1477			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	5	954	43	14	4	767	820	10	1	939	189
RTOR Reduction (vph)	0	0	46	0	3	0	0	1	0	0	0	62
Lane Group Flow (vph)	0	208	908	43	15	0	767	829	0	1	939	127
Confl. Peds. (#/hr)	5					5	4		2	2		4
Confl. Bikes (#/hr)			4					1				2
Heavy Vehicles (%)	4%	20%	4%	0%	23%	25%	9%	5%	22%	0%	2%	6%
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	8	1	4	4	1	6	5	2				
Permitted Phases	8	8	4									2
Actuated Green, G (s)	21.4	47.3	21.4	21.4	25.9	70.4	1.2	45.7	45.7			
Effective Green, g (s)	21.4	47.3	21.4	21.4	25.9	70.4	1.2	45.7	45.7			
Actuated g/C Ratio	0.20	0.45	0.20	0.20	0.25	0.67	0.01	0.44	0.44			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	264	1321	164	302	792	2295	20	1540	642			
v/s Ratio Prot		c0.17		0.01	c0.24	0.24	0.00	c0.27				
v/s Ratio Perm	c0.16	0.17	0.05						0.09			
v/c Ratio	0.79	0.69	0.26	0.05	0.97	0.36	0.05	0.61	0.20			
Uniform Delay, d1	39.6	23.0	35.2	33.6	39.1	7.5	51.3	22.8	18.3			
Progression Factor	1.00	1.00	1.00	1.00	1.03	1.37	1.41	0.97	0.89			
Incremental Delay, d2	14.4	1.5	0.9	0.1	19.3	0.3	0.9	0.6	0.1			
Delay (s)	54.0	24.5	36.0	33.7	59.6	10.6	73.1	22.7	16.4			
Level of Service	D	C	D	C	E	B	E	C	B			
Approach Delay (s)	29.8			35.3	34.1		21.7					
Approach LOS	C			D	C		C					
Intersection Summary												
HCM 2000 Control Delay	29.3		HCM 2000 Level of Service				C					
HCM 2000 Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	105.0		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	71.3%		ICU Level of Service				C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
3: Boones Ferry Road & SW Day Rd

2015 Existing PM Peak Hour
USH Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕	↕	↕	↕	↕
Traffic Volume (vph)	19	0	525	0	0	0	505	478	0	0	595	17
Future Volume (vph)	19	0	525	0	0	0	505	478	0	0	595	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1805	1568	1719	3505	3485							
Flt Permitted	0.76	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1439	1568	1719	3505	3485							
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	20	0	565	0	0	0	543	514	0	0	640	18
RTOR Reduction (vph)	0	0	30	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	20	535	0	0	0	543	514	0	0	656	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			1						1			4
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	5%	3%	0%	0%	3%	6%
Turn Type	Perm	NA	pt+ov				Prot	NA		Prot	NA	
Protected Phases	8	8	8	4	4	1	6	5	2			
Permitted Phases	8											
Actuated Green, G (s)	10.1	70.6	56.5	85.9	25.4							
Effective Green, g (s)	10.1	70.6	56.5	86.9	26.4							
Actuated g/C Ratio	0.10	0.67	0.54	0.83	0.25							
Clearance Time (s)	4.0	4.0	4.0	5.0	5.0							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0							
Lane Grp Cap (vph)	138	1054	924	2900	876							
v/s Ratio Prot		c0.34	c0.32	0.15	c0.19							
v/s Ratio Perm	0.01											
v/c Ratio	0.14	0.51	0.59	0.18	0.75							
Uniform Delay, d1	43.5	8.6	16.4	1.8	36.2							
Progression Factor	1.00	1.00	0.92	0.75	1.00							
Incremental Delay, d2	0.5	0.4	2.6	0.1	3.5							
Delay (s)	44.0	8.9	17.7	1.5	39.8							
Level of Service	D	A	B	A	D							
Approach Delay (s)	10.1		0.0	9.8	39.8							
Approach LOS	B		A	A	D							
Intersection Summary												
HCM 2000 Control Delay	18.5		HCM 2000 Level of Service				B					
HCM 2000 Volume to Capacity ratio	0.64											
Actuated Cycle Length (s)	105.0		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	58.3%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 4: Grahams Ferry Rd & SW Day Rd

2015 Existing PM Peak Hour
 UHS Willamette Valley Behavioral Health Hospital



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	9	50	11	73	4	431	8	238	89	433	255	2
Future Volume (vph)	9	50	11	73	4	431	8	238	89	433	255	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	1.00		1.00		0.99	1.00	1.00
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.98			1.00	0.85		1.00		0.96	1.00	1.00
Flt Protected		0.99			0.95	1.00		0.95		1.00	0.95	1.00
Satd. Flow (prot)		1822			1587	1553		1805		1709	1770	1726
Flt Permitted		0.94			0.91	1.00		0.95		1.00	0.95	1.00
Satd. Flow (perm)		1725			1515	1553		1805		1709	1770	1726
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	10	55	12	80	4	474	9	262	98	476	280	2
RTOR Reduction (vph)	0	9	0	0	0	279	0	20	0	0	0	0
Lane Group Flow (vph)	0	68	0	0	84	195	9	340	0	476	282	0
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	9%	15%	0%	4%	0%	6%	6%	2%	10%	0%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2			1	6
Permitted Phases	4			8		8						
Actuated Green, G (s)		5.4			5.4	21.6		1.0	19.0		16.2	34.2
Effective Green, g (s)		5.4			5.4	21.6		1.0	19.0		16.2	34.2
Actuated g/C Ratio		0.10			0.10	0.41		0.02	0.36		0.31	0.65
Clearance Time (s)		4.0			4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		177			155	755		34	617		545	1122
v/s Ratio Prot						0.08		0.00	c0.20		c0.27	0.16
v/s Ratio Perm		0.04			c0.06	0.05						
v/c Ratio		0.38			0.54	0.26		0.26	0.55		0.87	0.25
Uniform Delay, d1		22.0			22.4	10.2		25.4	13.4		17.2	3.8
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		1.4			3.8	0.2		4.1	1.1		14.4	0.1
Delay (s)		23.4			26.3	10.4		29.6	14.5		31.6	4.0
Level of Service		C			C	B		C	B		C	A
Approach Delay (s)		23.4			12.8			14.8			21.3	
Approach LOS		C			B			B			C	
Intersection Summary												
HCM 2000 Control Delay			17.4		HCM 2000 Level of Service						B	
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			52.6		Sum of lost time (s)						12.0	
Intersection Capacity Utilization			62.9%		ICU Level of Service						B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Analysis – Existing + Stage II + Project PM Peak Hour

HCM Signalized Intersection Capacity Analysis
 1: I-5 SB On Ramp/I-5 SB Off Ramp & Boones Ferry Road/SW Elmer Road

2015 Existing PM Peak Hour
 Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑				↓	↓	↓
Traffic Volume (vph)	0	1110	737	0	746	274	0	0	0	536	0	735
Future Volume (vph)	0	1110	737	0	746	274	0	0	0	536	0	735
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				4.0	4.0	4.0
Lane Util. Factor	0.95	1.00		0.95	1.00					0.95	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	0.98					1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	1.00
Frt	1.00	0.85		1.00	0.85					1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	1.00					0.95	0.95	1.00
Satd. Flow (prot)	3471	1583		3374	1534					1665	1665	1509
Flt Permitted	1.00	1.00		1.00	1.00					0.95	0.95	1.00
Satd. Flow (perm)	3471	1583		3374	1534					1665	1665	1509
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1168	776	0	785	288	0	0	0	564	0	774
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	86
Lane Group Flow (vph)	0	1168	776	0	785	288	0	0	0	282	282	688
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	4%	2%	0%	7%	3%	0%	0%	0%	3%	0%	7%
Turn Type	NA	Free		NA	Free					Split	NA	Prot
Protected Phases	2			6						4	4	4
Permitted Phases		Free		Free								
Actuated Green, G (s)	53.0	105.0		53.0	105.0					43.0	43.0	43.0
Effective Green, g (s)	54.0	105.0		54.0	105.0					43.0	43.0	43.0
Actuated g/C Ratio	0.51	1.00		0.51	1.00					0.41	0.41	0.41
Clearance Time (s)	5.0			5.0						4.0	4.0	4.0
Vehicle Extension (s)	3.0			3.0						3.0	3.0	3.0
Lane Grp Cap (vph)	1785	1583		1735	1534					681	681	617
v/s Ratio Prot	c0.34			0.23						0.17	0.17	c0.46
v/s Ratio Perm		0.49			0.19							
v/c Ratio	0.65	0.49		0.45	0.19					0.41	0.41	1.12
Uniform Delay, d1	18.7	0.0		16.1	0.0					22.0	22.0	31.0
Progression Factor	0.96	1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2	1.3	0.8		0.9	0.3					0.4	0.4	72.3
Delay (s)	19.2	0.8		17.0	0.3					22.5	22.5	103.3
Level of Service	B	A		B	A					C	C	F
Approach Delay (s)	11.8			12.5				0.0		69.2		
Approach LOS	B			B				A		E		
Intersection Summary												
HCM 2000 Control Delay		29.6										C
HCM 2000 Volume to Capacity ratio		0.86										
Actuated Cycle Length (s)		105.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		72.8%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 2: Boones Ferry Road & 95th Avenue

2015 Existing PM Peak Hour
 US Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↓	↓	↓	↓	↓				↑	↑	↑
Traffic Volume (vph)	189	5	878	40	13	4	706	766	9	1	929	185
Future Volume (vph)	189	5	878	40	13	4	706	766	9	1	929	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00		0.97	0.95		1.00	0.95	1.00
Frbp, ped/bikes	1.00	0.99	1.00	1.00	1.00		1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.97			1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00			0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1725	2704	1805	1482			3213	3424		1805	3539	1477
Flt Permitted	0.72	1.00	0.42	1.00			0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1299	2704	801	1482			3213	3424		1805	3539	1477
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	205	5	954	43	14	4	767	833	10	1	1010	201
RTOR Reduction (vph)	0	0	36	0	3	0	0	0	0	0	0	62
Lane Group Flow (vph)	0	210	918	43	15	0	767	843	0	1	1010	139
Confl. Peds. (#/hr)	5						5	4		2	2	4
Confl. Bikes (#/hr)										1		2
Heavy Vehicles (%)	4%	20%	4%	0%	23%	25%	9%	5%	22%	0%	2%	6%
Turn Type	Perm	NA	pm+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	8	1		4			1	6		5	2	
Permitted Phases	8			4								2
Actuated Green, G (s)	21.5	47.3	21.5	21.5			25.8	70.3		1.2	45.7	45.7
Effective Green, g (s)	21.5	47.3	21.5	21.5			25.8	70.3		1.2	45.7	45.7
Actuated g/C Ratio	0.20	0.45	0.20	0.20			0.25	0.67		0.01	0.44	0.44
Clearance Time (s)	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	265	1321	164	303			789	2292		20	1540	642
v/s Ratio Prot		c0.17		0.01			c0.24	0.25		0.00	c0.29	
v/s Ratio Perm	c0.16	0.17	0.05									0.09
v/c Ratio	0.79	0.70	0.26	0.05			0.97	0.37		0.05	0.66	0.22
Uniform Delay, d1	39.6	23.1	35.1	33.5			39.2	7.6		51.3	23.4	18.5
Progression Factor	1.00	1.00	1.00	1.00			1.03	1.37		1.31	0.91	0.77
Incremental Delay, d2	14.9	1.6	0.9	0.1			19.8	0.3		0.9	0.9	0.1
Delay (s)	54.5	24.7	35.9	33.6			60.2	10.7		67.9	22.3	14.4
Level of Service	D	C	D	C			E	B		E	C	B
Approach Delay (s)	30.1			35.3			34.3				21.0	
Approach LOS	C			D			C				C	
Intersection Summary												
HCM 2000 Control Delay		29.1										C
HCM 2000 Volume to Capacity ratio		0.78										
Actuated Cycle Length (s)		105.0			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		73.2%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
3: Boones Ferry Road & SW Day Rd

2015 Existing PM Peak Hour
USHS Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	
Traffic Volume (vph)	41	0	601	0	0	0	519	478	0	0	595	21
Future Volume (vph)	41	0	601	0	0	0	519	478	0	0	595	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0				4.0	4.0			4.0	
Lane Util. Factor	1.00	1.00					1.00	0.95			0.95	
Frbp, ped/bikes	1.00	1.00					1.00	1.00			1.00	
Flpb, ped/bikes	1.00	1.00					1.00	1.00			1.00	
Frt	1.00	0.85					1.00	1.00			0.99	
Flt Protected	0.95	1.00					0.95	1.00			1.00	
Satd. Flow (prot)	1805	1568					1719	3505			3480	
Flt Permitted	0.76	1.00					0.95	1.00			1.00	
Satd. Flow (perm)	1439	1568					1719	3505			3480	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	44	0	646	0	0	0	558	514	0	0	640	23
RTOR Reduction (vph)	0	0	30	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	44	616	0	0	0	558	514	0	0	660	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			1						1	1		
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	5%	3%	0%	0%	3%	6%
Turn Type	Perm	NA	pl+ov				Prot	NA		Prot	NA	
Protected Phases	8	8	8	4	4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)		13.5	70.4				52.9	82.5			25.6	
Effective Green, g (s)		13.5	70.4				52.9	83.5			26.6	
Actuated g/C Ratio		0.13	0.67				0.50	0.80			0.25	
Clearance Time (s)		4.0					4.0	5.0			5.0	
Vehicle Extension (s)		3.0					3.0	3.0			3.0	
Lane Grp Cap (vph)	185	1051					866	2787			881	
v/s Ratio Prot			c0.39				c0.32	0.15			c0.19	
v/s Ratio Perm	0.03											
v/c Ratio	0.24	0.59					0.64	0.18			0.75	
Uniform Delay, d1	41.1	9.4					19.1	2.6			36.1	
Progression Factor	1.00	1.00					0.96	0.73			1.00	
Incremental Delay, d2	0.7	0.8					3.5	0.1			3.5	
Delay (s)	41.8	10.2					21.8	2.0			39.7	
Level of Service	D	B					C	A			D	
Approach Delay (s)	12.2			0.0			12.3				39.7	
Approach LOS	B			A			B				D	

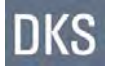
Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: Grahams Ferry Rd & SW Day Rd

2015 Existing PM Peak Hour
USHS Willamette Valley Behavioral Health Hospital

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (vph)	9	50	11	73	4	442	8	238	89	435	255	2
Future Volume (vph)	9	50	11	73	4	442	8	238	89	435	255	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00				1.00	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00				1.00	1.00	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00				1.00	1.00	1.00	1.00		1.00	1.00	
Frt	0.98				1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected	0.99				0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1822				1587	1553	1805	1709		1770	1726	
Flt Permitted	0.94				0.91	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1725				1515	1553	1805	1709		1770	1726	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	10	55	12	80	4	486	9	262	98	478	280	2
RTOR Reduction (vph)	0	9	0	0	0	286	0	20	0	0	0	0
Lane Group Flow (vph)	0	68	0	0	84	200	9	340	0	478	282	0
Confl. Peds. (#/hr)									1			1
Confl. Bikes (#/hr)									1			4
Heavy Vehicles (%)	0%	0%	9%	15%	0%	4%	0%	6%	6%	2%	10%	0%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8			8					
Actuated Green, G (s)		5.4			5.4	21.6	1.0	19.0		16.2	34.2	
Effective Green, g (s)		5.4			5.4	21.6	1.0	19.0		16.2	34.2	
Actuated g/C Ratio		0.10			0.10	0.41	0.02	0.36		0.31	0.65	
Clearance Time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	177				155	755	34	617		545	1122	
v/s Ratio Prot						0.08	0.00	c0.20		c0.27	0.16	
v/s Ratio Perm	0.04				c0.06	0.05						
v/c Ratio	0.38				0.54	0.26	0.26	0.55		0.88	0.25	
Uniform Delay, d1	22.0				22.4	10.2	25.4	13.4		17.3	3.8	
Progression Factor	1.00				1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4				3.8	0.2	4.1	1.1		14.7	0.1	
Delay (s)	23.4				26.3	10.4	29.6	14.5		32.0	4.0	
Level of Service	C				C	B	C	B		C	A	
Approach Delay (s)	23.4				12.8			14.8			21.6	
Approach LOS	C				B			B			C	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	52.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	544	2	18	522	11	98
Future Vol, veh/h	544	2	18	522	11	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	573	2	19	549	12	103
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	575	0	1161	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	587	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1008	-	218	522
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	560	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1008	-	212	522
Mov Cap-2 Maneuver	-	-	-	-	350	-
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	545	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		14.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	497	-	-	1008	-	
HCM Lane V/C Ratio	0.231	-	-	0.019	-	
HCM Control Delay (s)	14.4	-	-	8.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-	

Collision Data

Exhibit Q

Geotechnical Report

REPORT OF GEOTECHNICAL ENGINEERING SERVICES

Proposed Universal Health Services
Willamette Valley Behavioral Health Facility
SW Boone Ferry Road and SW Day Road
Wilsonville, Oregon

For
KPFF Consulting Engineers
December 17, 2015

GeoDesign Project: KPFF-60-02

December 17, 2015

KPFF Consulting Engineers
111 SW 5th Avenue, Suite 2500
Portland, OR 97204

Attention: Mr. Aaron Burkhardt and Mr. Jerry Abdie


Report of Geotechnical Engineering Services
Proposed Universal Health Services
Willamette Valley Behavioral Health Facility
SW Boone Ferry Road and SW Day Road
Wilsonville, Oregon
GeoDesign Project: KPFF-60-02

GeoDesign, Inc. is pleased to submit our geotechnical engineering report for the proposed Universal Health Services, Inc. Willamette Valley Behavioral Health facility in Wilsonville, Oregon. Our services for this project were conducted in accordance with our revised proposal dated October 22, 2015.

We appreciate the opportunity to be of service to you. Please contact us if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.



Brett A. Shipton, P.E., G.E.
Principal Engineer

cc: Mr. Brett Musick, Westlake Consultants (via email only)

TCM:BAS:kt

Attachments

One copy submitted (via email only)

Document ID: KPFF-60-02-121715-geor.docx

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ACRONYMS

1.0 INTRODUCTION

GeoDesign, Inc. is pleased to submit this geotechnical engineering report for the proposed Universal Health Services, Inc. Willamette Valley Behavioral Health facility in Wilsonville, Oregon.

Figure 1 shows the site relative to existing topographic and physical features. Figure 2 shows the proposed site layout and the approximate locations of our explorations. Acronyms used herein are defined at the end of this document.

2.0 PROJECT UNDERSTANDING

The site consists of an approximately 9.8-acre vacant lot and gently slopes to the east toward SW Boones Ferry Road. The new facility will be located southwest of the intersection of SW Boones Ferry Road and SW Day Road and will include one-story buildings that will house support and administration services, 100 patient beds, and a gym. In addition, the facility will include paved parking and drive aisles. Based on information provided by KPFF Consulting Engineers, we understand that the maximum column loads will be 50 kips and maximum wall loads will be 5 kips per foot. We have assumed that cuts and fills will be minimal and less than approximately 5 feet each.

3.0 PURPOSE AND SCOPE

The purpose of our geotechnical services was to characterize subsurface conditions and develop geotechnical recommendations for use in design and construction of the proposed development. The specific scope of our services is summarized as follows:

- Reviewed readily available published geologic data and our in-house files for existing information on subsurface conditions in the site vicinity.
- Coordinated and managed the field investigation, including locating utilities, coordination with existing tenants, and scheduling subcontractors.
- Explored subsurface conditions within the footprint of the proposed buildings, parking areas, and infiltration facilities by excavating ten test pits to depths of up to 13.0 feet BGS. The test pit locations were backfill upon completion.
- Conducted infiltration testing in three test pit explorations at depths of 4.0 to 5.0 feet BGS as directed by Westlake Consultants. Infiltration testing was conducted in general accordance with City of Wilsonville requirements.
- Maintained continuous logs of the explorations and collected samples at representative intervals.
- Performed a laboratory testing program consisting of the following:
 - Ten moisture content determinations in accordance with ASTM D 2216
 - One particle-size analysis in accordance with ASTM D 1140
- Provided recommendations for site preparation and grading, including demolition, temporary and permanent slopes, fill placement criteria, suitability of on-site soil for fill, subgrade preparation, and recommendations for wet weather construction.

- Provided foundation support recommendations for the proposed structures. Our recommendations include allowable bearing capacity and lateral resistance parameters.
- Provided general recommendations for use in design of conventional retaining walls, including backfill and drainage requirements and lateral earth pressures.
- Evaluated groundwater conditions at the site.
- Provided recommendations for AC pavement design and pavement subgrade preparation. Traffic volumes were unknown at the time of this report and reasonable assumptions were made for our evaluation.
- Conducted a site-specific seismic hazard evaluation in accordance with the procedures outlined in the 2012 IBC and 2014 SOSSC.
- Prepared this geotechnical engineering report that presents our findings, conclusions, and recommendations.

4.0 SITE CONDITIONS

4.1 SURFACE CONDITIONS

The site is located southwest of the intersection of SW Boones Ferry Road and SW Day Road. Two houses and a garage with associated gravel parking areas are located on the northern edge of the site along SW Day Road. The remainder of the site is generally vacant; several areas are present that contain piles of boulders. With the exception of the residences, the site is lightly vegetated and grass covered. The site topography slopes moderately upwards to the northeast with site elevations ranging from 267 feet above MSL at the southwest to 280 feet above MSL at the northeast corner.

4.2 SUBSURFACE CONDITIONS

4.2.1 General

Subsurface conditions were explored by excavating ten test pits (TP-1 through TP-10) to depths of up to 13.0 feet BGS within parking areas, drive aisles, and infiltration facilities. The approximate exploration locations are shown on Figure 2. The exploration logs and laboratory test results are presented in Appendix A.

Explorations at the site generally encountered silt with varying proportions of sand. Sandy gravel with cobbles and boulders underlie the silt to the maximum depth explored. The following sections provide a summary of the soil units encountered.

4.2.2 Root and Tilled Zone

In general, a root zone and tilled zone were observed at the surface of the site in most of the test pits. The root zone extends to depths of approximately 2 to 2.5 inches BGS at the test pit locations. It appears that the tilled zone generally extends to depths of approximately 9 to 16 inches BGS.

4.2.3 Fill

Fill was encountered in test pit TP-9 located on the southeastern portion of the site. The fill extends to a depth of approximately 2 feet BGS and consists of soft to medium stiff silt with minor gravel and sand and trace organics. Fill was not encountered in any of the other explorations at the site.

4.2.4 Silt

In general, we observed soft to medium stiff silt with varying proportions of sand extending to depths of approximately 0.8 foot to 4 feet BGS. Laboratory testing indicates that the silt had a moisture content ranging from 27 to 32 percent at the time of our exploration.

4.2.5 Gravel, Cobbles, and Boulders

The silt is underlain by dense to very dense gravel with varying proportions of clay, silt, and sand to the total depth explored (up to 13.0 feet BGS) or refusal in underlying boulders. Cobbles and boulders were observed in this unit. An approximately 4-foot-thick silt zone was encountered in test pit TP-2 at a depth of approximately 8 feet BGS. This unit appears to be weathered bedrock. Based on review of a log for a well located approximately 0.75 mile southwest of the site, the weathered bedrock unit potentially extends to a depth of at least 100 feet BGS.

Laboratory testing indicates that the soil had a moisture content ranging from 14 to 43 percent at the time of our explorations.

4.2.6 Groundwater

Slow to rapid groundwater seepage was encountered in test pits TP-2, TP-3, and TP-8 at depths of 4 to 12.5 feet BGS. Groundwater was not encountered in any of the other test pits completed at the site.

4.2.7 Infiltration Testing

An infiltration test was conducted in test pits TP-1, TP-2, and TP-3 located within the proposed infiltration pond areas of the site. Infiltration testing was conducted in general accordance with the City of Wilsonville requirements (Public Works Standards – 2014, Appendix B).

Where feasible, a representative sample was collected below the infiltration test depth for sieve analysis. A summary of the infiltration test results and fines content determination are presented in Table 1. Due to the presence of cobbles and boulders, grain-size testing was not conducted on the in situ soil. The exploration logs are presented in Appendix A.

Table 1. Infiltration Test Results

Location	Depth (feet BGS)	Soil Type at Test Depth	Measured Infiltration Rate ¹ (inches/hour)	Notes
TP-1	4.5	Decomposed Basalt	9	--
TP-2	5	Silty Gravel with cobbles	20	--
TP-3	4	Gravel to Cobbles with silt	9	Perched water observed in decomposed basalt

Infiltration rates are anticipated to be highly variable due to the presence of the boulder-sized particles. We recommend that verification testing be conducted on the infiltration facilities to verify the design infiltration rates.

5.0 CONCLUSIONS

Based on the results of our subsurface exploration and engineering analyses, it is our opinion that the site can be developed as proposed provided the recommendations in this report are incorporated into design and implemented during construction. The following factors will have an impact on design and construction of the proposed development:

- The proposed structures can be supported by conventional shallow foundations bearing on undisturbed native soil.
- Fill was encountered in one of the test pit explorations located on the southeastern portion of the site in the area of a proposed infiltration facility. If encountered, fill material should be completely removed beneath footings.
- An approximately 9- to 16-inch-thick tilled zone was encountered in most explorations. The tilled zone material should either be removed or scarified and compacted within all structural areas.
- The near-surface soil is primarily fine grained. This fine-grained soil is easily disturbed during wet weather or when at a moisture content that is above optimum. If not carefully executed, site preparation, grading, utility trench work, and roadway excavation in this soil can create extensive soft areas. Significant subgrade repair costs can result.
- Boulders and cobbles were encountered in the gravel formation. When encountered, cobbles and especially boulders will result in difficult excavation conditions and may require special equipment and procedures for removal.

The following sections present specific recommendations for use in design and construction of the proposed development.

6.0 SITE DEVELOPMENT RECOMMENDATIONS

6.1 SITE PREPARATION

6.1.1 Grubbing and Stripping

The existing root zone should be stripped and removed from the site in all proposed building and pavement areas. Based on our explorations, the depth of stripping will be approximately 2 to 2.5 inches. Greater stripping depths may be required to remove localized zones of loose or organic soil. The actual stripping depth should be based on field observations at the time of construction. Stripped material should be transported off site for disposal or used in landscaped areas.

6.1.2 Subgrade Preparation and Evaluation

An approximately 9- to 16-inch-thick tilled zone was observed in most of the explorations. We recommend removing or scarifying the stripped ground surface to the depth of the tilled zone within all building and paved fill areas prior to placing structural fill. The scarified soil should be compacted as recommended for structural fill. The on-site silty material is sensitive to small

changes in moisture content and will be difficult, if not impossible, to compact adequately during wet weather. Scarification and compaction of the subgrade will likely only be possible during extended dry periods and following moisture conditioning of the soil.

Following stripping and prior to placing fill, pavement, or building improvements, the exposed subgrade should be evaluated by proof rolling. The subgrade should be proof rolled with a fully loaded dump truck or similar heavy, rubber-tired construction equipment to identify soft, loose, or unsuitable areas. A member of our geotechnical staff should observe the proof rolling to evaluate yielding of the ground surface. Soft or loose zones identified during proof rolling should be excavated and replaced with compacted structural fill. Areas that appear too wet or soft to support proof rolling equipment should be prepared in accordance with recommendations for wet weather construction provided in the "Construction Considerations" section of this report.

6.1.3 Test Pit Locations

The test pit excavations were backfilled using the relatively minimal compactive effort of the excavator bucket. Soft spots can be expected at these locations. We recommend that this relatively uncompacted soil be removed from the test pits to a depth of 3 feet below finished subgrade. If a test pit is located within 10 feet of a footing, we recommend full-depth removal of the uncompacted soil. The resulting excavation should be brought back to grade with structural fill.

6.2 CONSTRUCTION CONSIDERATIONS

Fine-grained soil present on this site is easily disturbed during the wet season. If not carefully executed, site preparation, utility trench work, and roadway excavation can create extensive soft areas and significant repair costs can result. Earthwork planning should include considerations for minimizing subgrade disturbance.

If construction occurs during the wet season, or if the moisture content of the surficial soil is more than a few percentage points above the optimum, site stripping and cutting may need to be accomplished using track-mounted equipment, loading removed material into trucks supported on granular haul roads.

The thickness of the granular material for haul roads and staging areas will depend on the amount and type of construction traffic and should be the responsibility of the contractor. Generally, a 12- to 18-inch-thick mat of granular material is sufficient for light staging areas and the basic building pad but is generally not expected to be adequate to support heavy equipment or truck traffic. The granular mat for haul roads and areas with repeated heavy construction traffic typically needs to be increased to between 18 to 24 inches. The actual thickness of haul roads and staging areas should be based on the contractor's approach to site development and the amount and type of construction traffic. The material used to construct haul roads and staging area should also be selected by the contractor.

6.3 TEMPORARY SLOPES

Construction of temporary slopes 10 feet high or less should be no steeper than 1½H:1V. If slopes greater than 10 feet high are required, GeoDesign should be contacted to make additional

recommendations. All cut slopes should be protected from erosion by covering them during wet weather. If sloughing or instability is observed, the slope should be flattened or the cut supported by shoring.

6.4 EROSION CONTROL

The on-site soil is moderately susceptible to erosion. Consequently, we recommend that slopes be covered with an appropriate erosion control product if construction occurs during periods of wet weather. We recommend that all slope surfaces be planted as soon as practical to minimize erosion. Surface water runoff should be collected and directed away from slopes to prevent water from running down the slope face. Erosion control measures such as straw bales, sediment fences, and temporary detention and settling basins should be used in accordance with local and state ordinances.

6.5 STRUCTURAL FILL

Structural fill includes fill beneath foundations, slabs, pavements, any other areas intended to support structures or within the influence zones of structures. Structural fill should be free of organic matter and other deleterious material and, in general, should consist of particles no larger than 3 inches in diameter. Recommendations for suitable fill material are provided in the following sections.

6.5.1 On-Site Native Soil

The on-site native soil will be suitable for use as structural fill only if it can be moisture conditioned. The on-site silty soil is sensitive to small changes in moisture content and may be difficult, if not impossible, to compact adequately during wet weather or when its moisture content is more than a few percentage points above optimum. Laboratory tests indicate that the moisture content of the native silt unit is significantly greater than the anticipated optimum moisture content required for satisfactory compaction. Therefore, this soil may require extensive drying if it is used as structural fill. We recommend using imported granular material for structural fill if the moisture content of the on-site soil cannot be reduced. Native soil should be placed in lifts with a maximum uncompacted thickness of 8 inches and compacted to not less than 92 percent of the maximum dry density, as determined by ASTM D 1557.

6.5.2 Imported Granular Material

Imported granular material should be pit- or quarry-run rock, crushed rock, or crushed gravel and sand that is fairly well graded between coarse and fine and has less than 5 percent by dry weight passing the U.S. Standard No. 200 Sieve. All granular material must be durable such that there is no degradation of the material during and after installation as structural fill. The percentage of fines can be increased to 12 percent if the fill is placed during dry weather and provided the fill material is moisture conditioned, as necessary, for proper compaction. The material should be placed in lifts with a maximum uncompacted thickness of 12 inches and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557. During the wet season or when wet subgrade conditions exist, the initial lift should have a maximum thickness of 15 inches and should be compacted with a smooth-drum roller without the use of vibratory action.

6.5.3 Floor Slab Base Rock

Imported durable granular material placed beneath building floor slabs should be clean crushed rock or crushed gravel and sand that is fairly well graded between coarse and fine. The granular material should have a maximum particle size of 1½ inches, have less than 5 percent by dry weight passing the U.S. Standard No. 200 Sieve, and have at least two mechanically fractured surfaces. The imported base rock should be placed in one lift and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557.

6.5.4 Recycled Concrete

Recycled concrete can be used for structural fill, provided the concrete is processed to a relatively well-graded material with maximum particle size of 3 inches. This material can be used as trench backfill and general structural fill if it meets the requirements for imported granular material, which would require a smaller maximum particle size. The material should be placed in lifts with a maximum uncompacted thickness of 12 inches and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557.

6.5.5 Trench Backfill

Trench backfill for the utility pipe base and pipe zone should consist of durable well-graded granular material containing no organic or other deleterious material, have a maximum particle size of ¾ inch, and have less than 8 percent by dry weight passing the U.S. Standard No. 200 Sieve.

Backfill for the pipe base and to the springline of the pipe should be placed in maximum 12-inch-thick lifts and compacted to not less than 90 percent of the maximum dry density, as determined by ASTM D 1557, or as recommended by the pipe manufacturer. Backfill above the springline of the pipe should be placed in maximum 12-inch-thick lifts and compacted to not less than 92 percent of the maximum dry density, as determined by ASTM D 1557. Trench backfill located within 2 feet of finish subgrade elevation should be placed in maximum 12-inch-thick lifts and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557.

6.5.6 Stabilization Material

If groundwater is present at the base of utility excavations, we recommend placing trench stabilization material at the base of the excavation consisting of at least 2 feet of well-graded gravel, crushed gravel, or crushed rock with a minimum particle size of 4 inches and less than 5 percent by dry weight passing the U.S. Standard No. 4 Sieve. The material should be free of organic matter and other deleterious material and should be placed in one lift and compacted until "well keyed."

6.5.7 Soil Amendment with Cement

As an alternative to the use of imported granular material for wet weather structural fill, an experienced contractor may be able to amend the on-site silt soil with portland cement or with limekiln dust and portland cement to obtain suitable support properties. Successful use of soil amendment depends on the use of correct mixing techniques, soil moisture content, and amendment quantities. Soil amending should be conducted in accordance with the specifications provided in OSSC 00344 (Treated Subgrade). Removal of oversized material may

be required in some areas to prevent damage to the tilling equipment required for cement amendment. Amendment of the existing gravel surfacing material is not recommended.

Specific recommendations for soil amending can be provided based on exposed site conditions, if necessary. However, for preliminary design purposes, we recommend a target strength for cement-amended soils of 80 psi. The amount of cement used to achieve this target generally varies with moisture content and soil type. It is difficult to predict field performance of soil to cement amendment due to variability in soil response, and we recommend laboratory testing to confirm expectations. Generally, 4 percent cement by weight of dry soil can be used when the soil moisture content does not exceed approximately 20 percent. If the soil moisture content is in the range of 25 to 35 percent, 5 to 7 percent by weight of dry soil is recommended. The amount of cement added to the soil may need to be adjusted based on field observations and performance. Moreover, depending on the time of year and moisture content levels during amendment, water may need to be applied during tilling to appropriately condition the soil moisture content.

Portland cement-amended soil is hard and has low permeability; therefore, this soil does not drain well, nor is it suitable for planting. Future planted areas should not be cement amended, if practical, or accommodations should be planned for drainage and planting.

7.0 FOUNDATION SUPPORT RECOMMENDATIONS

The planned structures may be supported by continuous wall and isolated column footings founded on the underlying native medium stiff silt or medium dense to very dense gravel with cobbles and boulders or on structural fill overlying firm native soil. Our recommendations for use in foundation design and construction are provided in the following sections.

7.1 SPREAD FOOTINGS

Continuous wall and isolated spread footings should be at least 18 and 24 inches wide, respectively. The bottom of exterior footings should be at least 18 inches below the lowest adjacent exterior grade. The bottom of interior footings should be established at least 12 inches below the base of the slab.

7.1.1 Bearing Capacity

The proposed structures can be supported on conventional spread footings bearing on firm, undisturbed native medium stiff silt or on structural fill underlain by firm, undisturbed native soil. Undocumented fill, if encountered, should be removed from footing subgrades and backfilled with structural fill. The structural fill should extend a minimum of 6 inches beyond the footing perimeter for every foot excavated below the base grade of the footings. Due to the potential undocumented fill at the site, we recommend that we be retained to observe the footing subgrades and replacement of undocumented fill with structural fill.

We recommend that footings be sized based on an allowable bearing pressure of 3,500 psf. This is a net bearing pressure; the weight of the footing and overlying backfill can be ignored in calculating footing sizes. The recommended allowable bearing pressure applies to the total of dead plus long-term live loads. We recommend an allowable bearing capacity of 5,000 psf for

short-term loads such as those resulting from wind or seismic forces. Continuous wall and spread footings should be at least 18 and 24 inches wide, respectively. The bottom of exterior footings should be at least 18 inches below the lowest adjacent final grade. The bottom of interior footings should be placed at least 12 inches below the base of the floor slab.

7.1.2 Lateral Resistance

Lateral loads can be resisted by passive earth pressure on sides of the footings and by friction on the base of the footings. We recommend a friction coefficient of 0.45 for computing the friction capacity of building foundations that bear on granular pads or native gravel. This should be reduced to 0.35 if the footings are in contact with the shallower fine-grained soil. The passive earth pressure for footings confined by native soil and structural fill is 350 pcf modeled as an equivalent fluid pressure. Adjacent floor slabs, pavements, or the upper 12-inch depth of adjacent unpaved areas should not be considered when calculating passive resistance. In addition, in order to rely on passive resistance, a minimum of 10 feet of horizontal clearance must exist between the face of the footings and any adjacent downslopes.

7.1.3 Settlement

Shallow foundations designed in accordance with the recommendations in this report should experience post-construction settlement of less than 1 inch. Differential settlement that approaches one-half of the total settlement should be expected between adjacent footings with similar loads. We expect that the majority of the settlement will occur after construction is complete.

8.0 SLABS ON GRADE

A minimum 6-inch-thick layer of base rock should be placed and compacted over the prepared subgrade to assist as a capillary break. The base rock should be crushed rock or crushed gravel and sand meeting the requirements outlined in the “Structural Fill” section of this report. The imported granular material should be placed in one lift and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557. A subgrade modulus of 120 pci can be used to design the floor slab. Floor slab base rock should be replaced if it becomes contaminated with excessive fines (greater than 5 percent by dry weight passing the U.S. Standard No. 200 Sieve).

Vapor barriers are often required by flooring manufacturers to protect flooring and flooring adhesives. Many flooring manufacturers will warrant their product only if a vapor barrier is installed according to their recommendations. Selection and design of an appropriate vapor barrier (if needed) should be based on discussions among members of the design team. We can provide additional information to assist you with your decision.

9.0 PERMANENT RETAINING STRUCTURES

Permanent retaining structures free to rotate slightly around the base should be designed for active earth pressures using an equivalent fluid unit pressure of 35 pcf. If retaining walls are restrained against rotation during backfilling, they should be designed for an at-rest earth pressure of 55 pcf. These values are based on the assumption that (1) the retained soil is level,

(2) adequate drainage is provided behind the wall, and (3) the wall is less than 12 feet in height. Lateral pressures induced by surcharge loads can be computed using the methods presented on Figure 3. Seismic lateral forces can be calculated using a dynamic force equal to $7H^2$ pounds per linear foot of wall, where H is the wall height. The seismic force should be applied as a distributed load with the centroid located at 0.6H from the wall base. Footings for retaining walls should be designed in as recommended for shallow foundations.

Drains consisting of a perforated drainpipe wrapped in a geotextile filter should be installed behind retaining walls. The pipe should be embedded in a zone of coarse sand or gravel containing less than 2 percent by dry weight passing the U.S. Standard No. 200 Sieve and should outlet to a suitable discharge.

10.0 DRAINAGE CONSIDERATIONS

We recommend that roof drains be connected to a tightline leading to storm drain facilities. Pavement surfaces and open space areas should be sloped such that surface water runoff is collected and routed to suitable discharge points. We also recommend that ground surfaces adjacent to buildings be sloped to facilitate positive drainage away from the buildings.

The infiltration values provided in the “Infiltration Testing” section of this report has not been factored to account for potential site variability and other factors. These values should be factored by the civil designer to account for the system size, the degree of long-term maintenance, and the potential for long-term clogging due to siltation and bio-buildup.

11.0 SEISMIC DESIGN CRITERIA

Seismic design is prescribed by the 2014 SOSSC and the 2012 IBC. Table 2 presents the site design parameters prescribed by the 2012 IBC for the site. A site-specific seismic evaluation is presented in Appendix B.

Table 2. IBC Seismic Design Parameters

Parameter	Short Period ($T_s = 0.2$ second)	1 Second Period ($T_1 = 1.0$ second)
MCE Spectral Acceleration, S	$S_s = 0.936$ g	$S_1 = 0.413$ g
Site Class	C	
Site Coefficient, F	$F_a = 1.026$	$F_v = 1.387$
Adjusted Spectral Acceleration, S_M	$S_{MS} = 0.960$ g	$S_{M1} = 0.573$ g
Design Spectral Response Acceleration Parameters, S_D	$S_{DS} = 0.640$ g	$S_{D1} = 0.382$ g

12.0 PAVEMENT RECOMMENDATIONS

12.1 PAVEMENT DESIGN

The pavement subgrade should be prepared in accordance with the previously described site preparation, wet weather construction, and structural fill recommendations. These recommendations result in a subgrade that consists of silt or sandy material that is either scarified and compacted to structural fill requirements or cement amended. Our pavement recommendations are based on a soil resilient modulus value of 3,500 psi for unimproved subgrade, which is consistent with results from our previous studies in the site vicinity. Our pavement recommendations are based on the following additional assumptions:

- The tilled zone has been improved in pavement areas.
- A resilient modulus of 20,000 psi was estimated for the aggregate base.
- Initial and terminal serviceability indices of 4.2 and 2.5, respectively.
- Reliability and standard deviations of 75 percent and 0.45, respectively.
- Structural coefficients of 0.42 for the asphalt, 0.10 for the aggregate base, and 0.08 for cement-treated subgrade.

If any of these assumptions are incorrect, our office should be contacted with the appropriate information so that the pavement designs can be revised. We have assumed, traffic will consist of up to 30 to 40 passenger cars and 3 large trucks per day.

Our pavement design recommendations for the assumptions and loadings provided above are summarized in Table 3.

Table 3. Pavement Design Recommendations

Design Criteria	AC Thickness (inches)	Base Rock Thickness (inches) Crushed Base Rock	Base Rock Thickness (inches) CTB ¹
Moderate Truck Areas (3 to 5 trucks per day)	4.0	10.0	4.0
Automobile Areas	3.0	8.0	4.0

1. Base rock requirements assume 12 inches of CTB with a minimum seven-day unconfined compressive strength of 80 psi.

In addition, we recommend that a geotextile separation layer be placed between the subgrade and crushed base rock in areas exposed to truck traffic to prevent migration of the silt up into the crushed base rock. All thicknesses are intended to be the minimum acceptable. The design of the recommended pavement section is based on the assumption that construction will be completed during an extended period of dry weather. Wet weather construction will likely require an increased thickness of crushed base rock.

12.2 CONVENTIONAL PAVEMENT MATERIAL REQUIREMENTS

The AC should be Level 3, ½-inch, dense ACP as described in OSSC 00744 (Asphalt Concrete Pavement) and compacted to 91 percent of the specific gravity of the mix, as determined by ASTM D 2041. Minimum lift thickness for ½-inch, dense ACP is 2.0 inches. Asphalt binder should be performance graded and conform to PG 70-22.

The crushed base rock should consist of ¾- or 1½-inch-minus material meeting the requirements in OSSC 00641 (Aggregate Subbase, Base, and Shoulders), with the exception that the crushed base rock should have less than 5 percent by dry weight passing the U.S. Standard No. 200 Sieve. The crushed base rock should be compacted in one lift to at least 95 percent of the maximum dry density, as determined by ASTM D 1557.

12.3 CONCRETE PAVEMENT MATERIAL REQUIREMENTS

Where rigid concrete pavement sections are to be utilized, the concrete shall have a minimum thickness of 9 inches and shall be underlain by 6 inches of aggregate base to be utilized as a leveling course. The PCC should be ODOT Class 4000 paving concrete with a 28-day modulus of rupture of at least 600 psi. PCC sections assume dowel bar load transfer at maximum 14-foot joints. Dowel bars should be rounded, 1¼ inches in diameter, 18 inches long, and placed at 12 inches on-centers.

13.0 OBSERVATION OF CONSTRUCTION

Satisfactory earthwork and foundation performance depends to a large degree on the quality of construction. Subsurface conditions observed during construction should be compared with those encountered during the subsurface explorations. Recognition of changed conditions often requires experience; therefore, qualified personnel should visit the site with sufficient frequency to detect whether subsurface conditions change significantly from those anticipated. In addition, sufficient observation of the contractor's activities is a key part of determining that the work is completed in accordance with the construction drawings and specifications.

14.0 LIMITATIONS

We have prepared this report for use by Universal Health Services, Inc., KPFF Consulting Engineers, and their consultants. The data and report can be used for estimating purposes, but our report, conclusions, and interpretations should not be construed as a warranty of the subsurface conditions and are not applicable to other sites.

Soil explorations indicate soil conditions only at specific locations and only to the depths penetrated. They do not necessarily reflect soil strata or water level variations that may exist between exploration locations. If subsurface conditions differing from those described are noted during the course of excavation and construction, re-evaluation will be necessary.

The site development plans and design details were not finalized at the time this report was prepared. When the design has been finalized and if there are changes in the site grades or location, configuration, design loads or type of construction for the buildings, the conclusions

and recommendations presented may not be applicable. If design changes are made, we should be retained to review our conclusions and recommendations and to provide a written evaluation or modification.

The scope of our services does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences or procedures, except as specifically described in our report for consideration in design.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with the generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

◆ ◆ ◆

We appreciate the opportunity to be of service to you. Please contact us if you have questions regarding this report.

Sincerely,

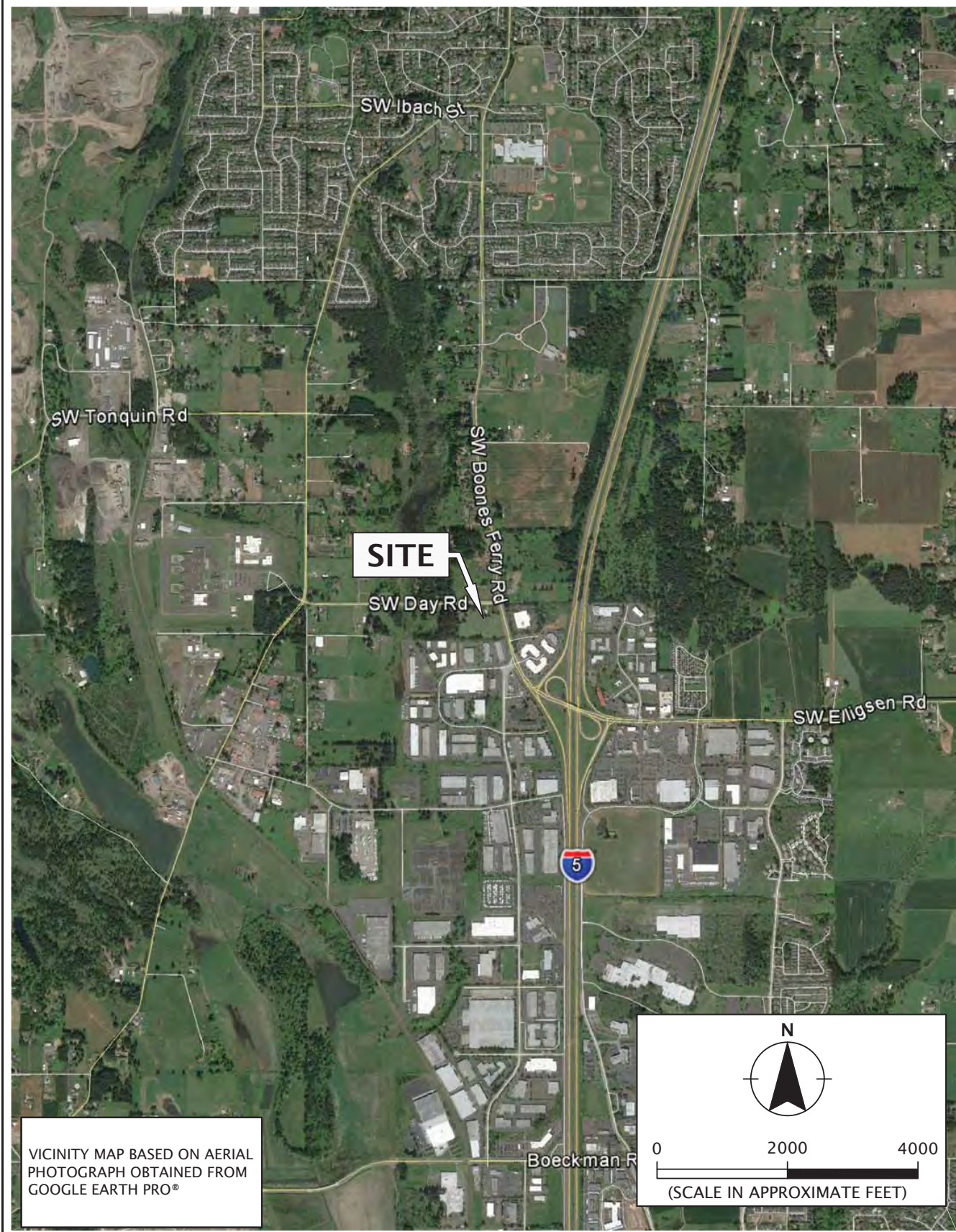
GeoDesign, Inc.

Tacia C. Miller, P.E., G.E.
Senior Associate Engineer

Brett A. Shipton, P.E., G.E.
Principal Engineer



FIGURES



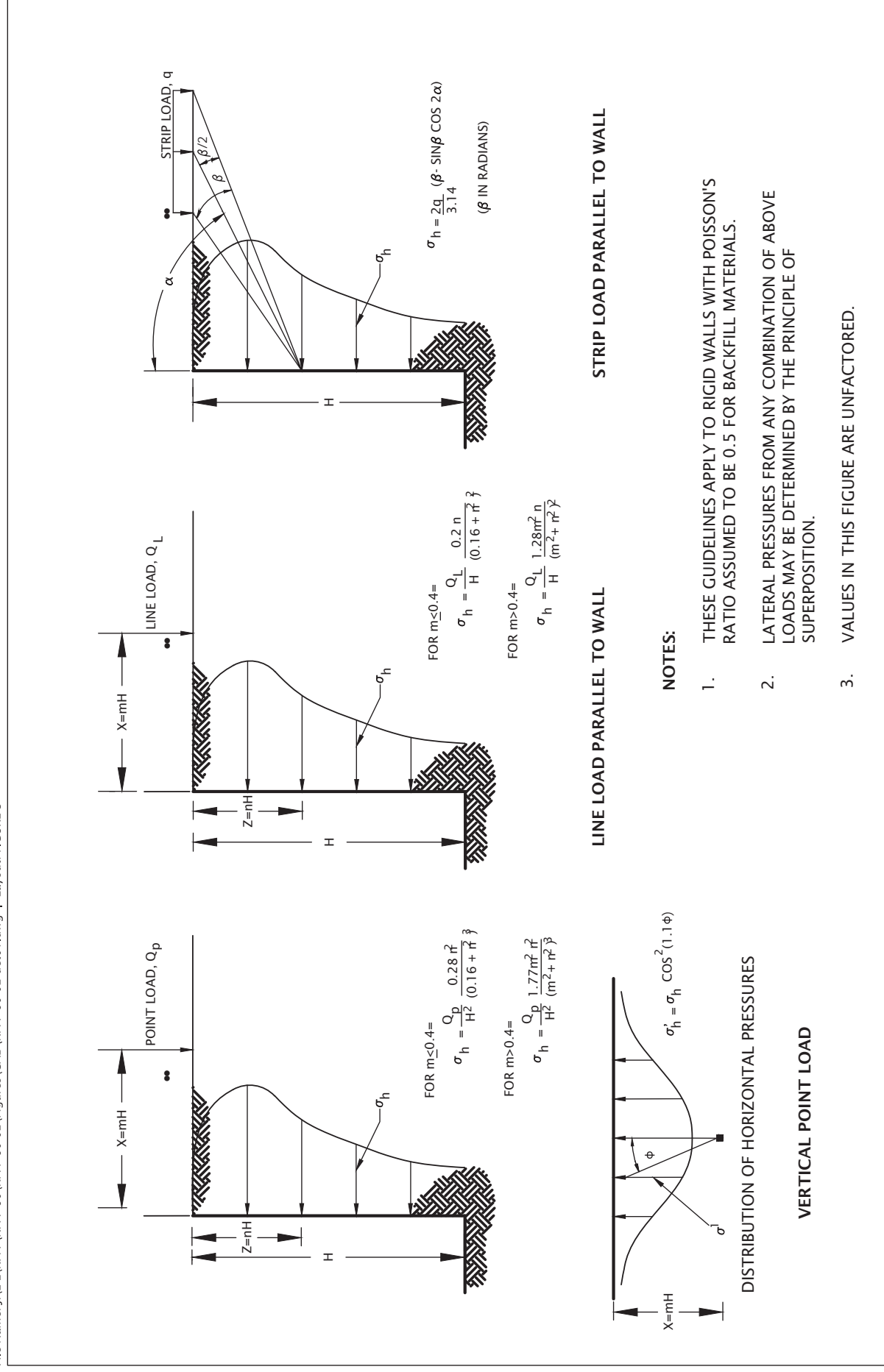
VICINITY MAP BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®

GEO DESIGN
 15575 SW Sequoia Parkway - Suite 100
 Portland OR 97224
 Off 503.968.8787 Fax 503.968.3068

KPF-60-02
 DECEMBER 2015

VICINITY MAP
 WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
 WILSONVILLE, OR

FIGURE 1



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 Portland OR 97224
 Off 503.968.8787 Fax 503.968.3068

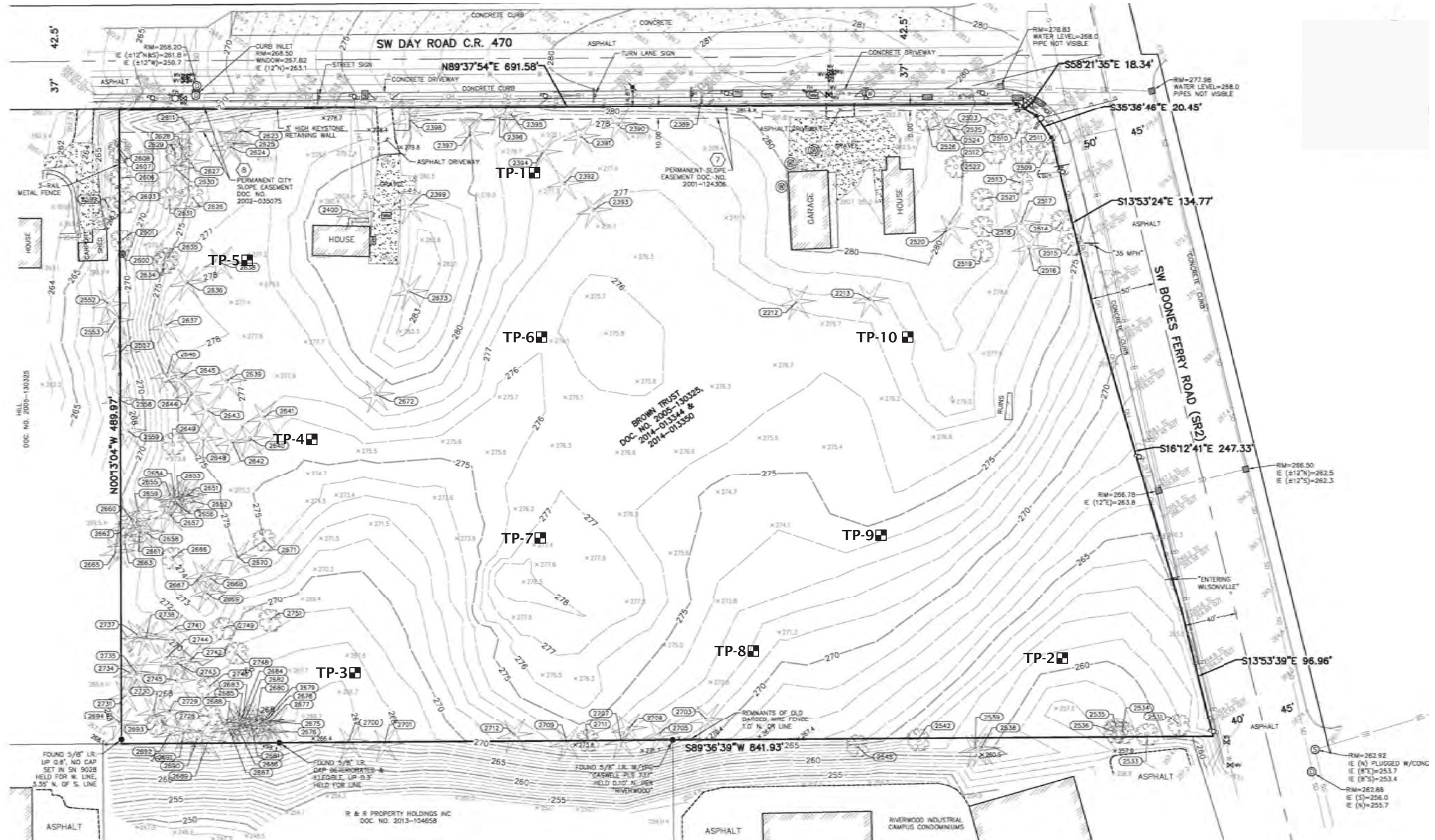
KPF-60-02

DECEMBER 2015

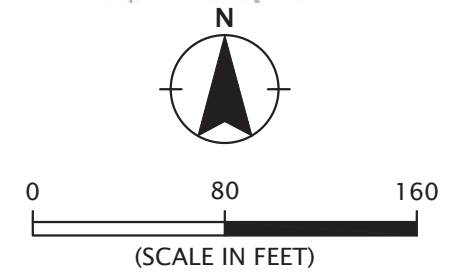
SURCHARGE-INDUCED LATERAL EARTH PRESSURES

WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
 WILSONVILLE, OR

FIGURE 3



LEGEND:
 TP-1 TEST PIT



SITE PLAN BASED ON IMAGE OBTAINED FROM WESTLAKE CONSULTANTS

<p>15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068</p>	KPF-60-02 DECEMBER 2015	WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY WILSONVILLE, OR	SITE PLAN FIGURE 2
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APPENDIX A

APPENDIX A

FIELD EXPLORATIONS

GENERAL

Subsurface conditions at the site were explored by excavating ten test pits (TP-1 through TP-10) to depths of up to 13.0 feet BGS. Excavation services were provided by Dan J. Fischer Excavating, Inc. of Forest Grove, Oregon, on November 20, 2015 utilizing a tracked excavator. The explorations were observed by a member of our geology staff.

Our exploration locations were chosen based on preliminary site plans provided to our office by the design team. The locations of the explorations were determined in the field by pacing from site features. This information should be considered accurate to the degree implied by the methods used.

SOIL CLASSIFICATION

We obtained representative samples of the soil encountered at representative intervals. The soil samples were classified in accordance with the "Exploration Key" (Table A-1) and "Soil Classification System" (Table A-2), which are presented in this appendix. The exploration logs indicate the depths at which the soils or their characteristics change, although the change actually could be gradual. If the change occurred between sample locations, the depth was interpreted. Detailed exploration logs are presented in this appendix.

SOIL SAMPLING

We obtained representative samples of the various soil encountered in the explorations for geotechnical laboratory testing. Representative grab samples of the soil observed in the test pit explorations were obtained from the walls and/or base of the test pits using the excavator bucket. Sampling locations are shown on the exploration logs presented in this appendix.

LABORATORY TESTING

CLASSIFICATION

The soil samples were classified in the laboratory to confirm field classifications. The laboratory classifications are shown on the exploration logs if those classifications differed from the field classifications.

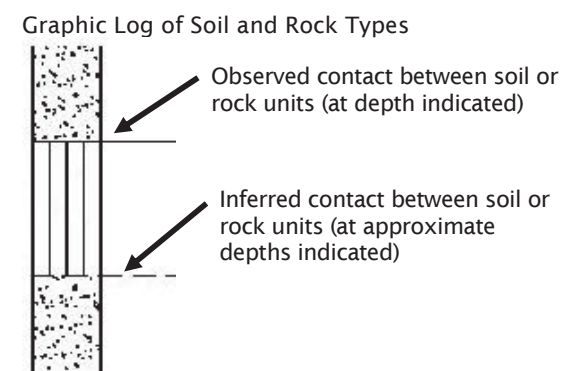
MOISTURE CONTENT

We determined the natural moisture content of selected soil samples in general accordance with ASTM D 2216. The natural moisture content is a ratio of the weight of the water to soil in a test sample and is expressed as a percentage. The test results are presented in this appendix.

PARTICLE-SIZE ANALYSIS

Particle-size analyses were performed on selected samples in general accordance with ASTM D 1140. This test determines of the amount of material finer than a 75- μm (No. 200) sieve expressed as a percentage of the dry weight of soil. The test results are presented in this appendix.

SYMBOL	SAMPLING DESCRIPTION
	Location of sample obtained in general accordance with ASTM D 1586 Standard Penetration Test with recovery
	Location of sample obtained using thin-wall Shelby tube or Geoprobe® sampler in general accordance with ASTM D 1587 with recovery
	Location of sample obtained using Dames & Moore sampler and 300-pound hammer or pushed with recovery
	Location of sample obtained using Dames & Moore and 140-pound hammer or pushed with recovery
	Location of sample obtained using 3-inch-O.D. California split-spoon sampler and 140-pound hammer
	Location of grab sample
	Rock coring interval
	Water level during drilling
	Water level taken on date shown



GEOTECHNICAL TESTING EXPLANATIONS

ATT	Atterberg Limits	PP	Pocket Penetrometer
CBR	California Bearing Ratio	P200	Percent Passing U.S. Standard No. 200 Sieve
CON	Consolidation		
DD	Dry Density	RES	Resilient Modulus
DS	Direct Shear	SIEV	Sieve Gradation
HYD	Hydrometer Gradation	TOR	Torvane
MC	Moisture Content	UC	Unconfined Compressive Strength
MD	Moisture-Density Relationship	VS	Vane Shear
OC	Organic Content	kPa	Kilopascal
P	Pushed Sample		

ENVIRONMENTAL TESTING EXPLANATIONS

CA	Sample Submitted for Chemical Analysis	ND	Not Detected
P	Pushed Sample	NS	No Visible Sheen
PID	Photoionization Detector Headspace Analysis	SS	Slight Sheen
		MS	Moderate Sheen
ppm	Parts per Million	HS	Heavy Sheen

RELATIVE DENSITY - COARSE-GRAINED SOILS			
Relative Density	Standard Penetration Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)
Very Loose	0 - 4	0 - 11	0 - 4
Loose	4 - 10	11 - 26	4 - 10
Medium Dense	10 - 30	26 - 74	10 - 30
Dense	30 - 50	74 - 120	30 - 47
Very Dense	More than 50	More than 120	More than 47

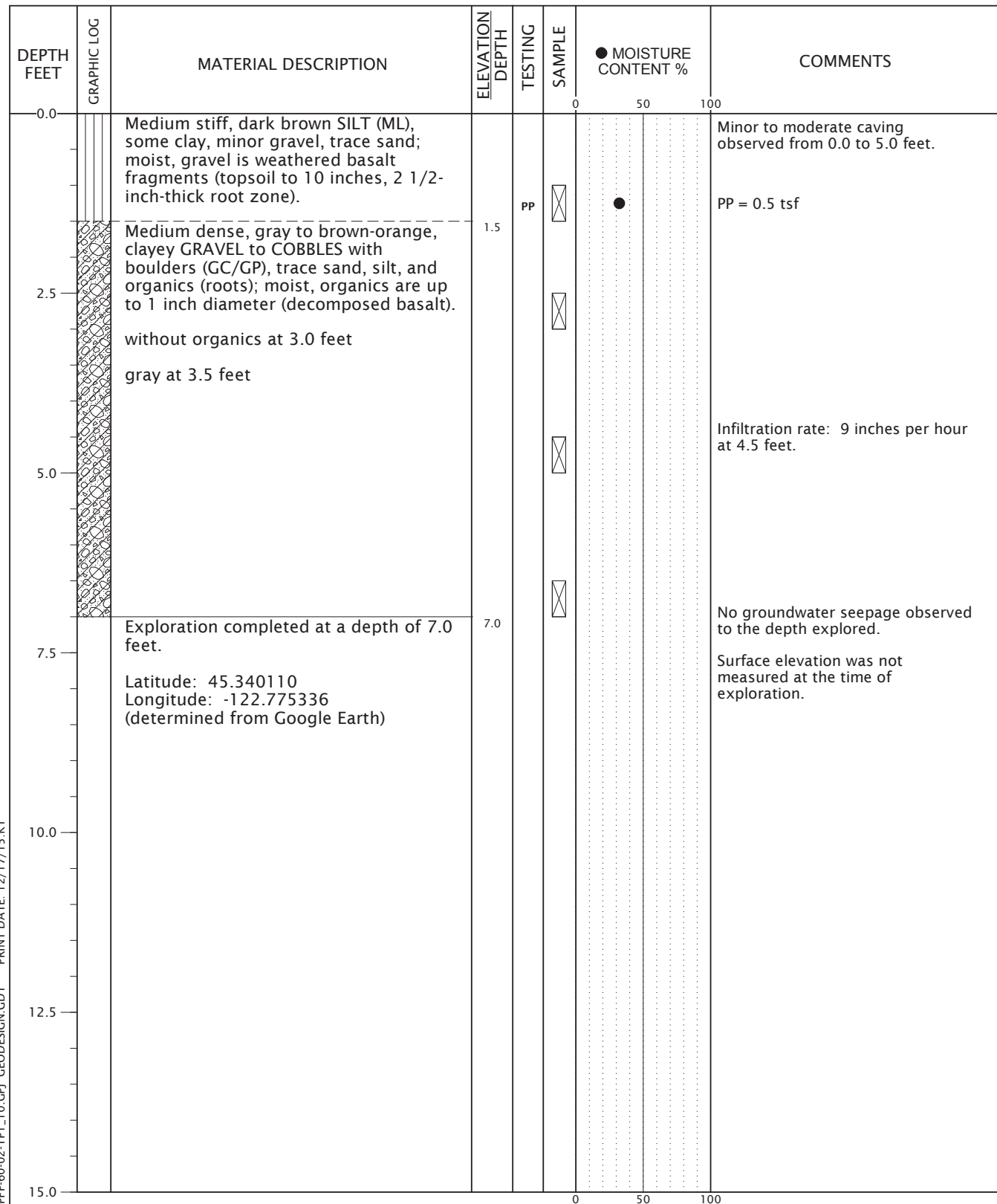
CONSISTENCY - FINE-GRAINED SOILS

Consistency	Standard Penetration Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)	Unconfined Compressive Strength (tsf)
Very Soft	Less than 2	Less than 3	Less than 2	Less than 0.25
Soft	2 - 4	3 - 6	2 - 5	0.25 - 0.50
Medium Stiff	4 - 8	6 - 12	5 - 9	0.50 - 1.0
Stiff	8 - 15	12 - 25	9 - 19	1.0 - 2.0
Very Stiff	15 - 30	25 - 65	19 - 31	2.0 - 4.0
Hard	More than 30	More than 65	More than 31	More than 4.0

PRIMARY SOIL DIVISIONS		GROUP SYMBOL	GROUP NAME		
COARSE-GRAINED SOILS (more than 50% retained on No. 200 sieve)	GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVELS (< 5% fines)	GW or GP GRAVEL		
		GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)	GW-GM or GP-GM GRAVEL with silt GW-GC or GP-GC GRAVEL with clay		
		GRAVELS WITH FINES (> 12% fines)	GM silty GRAVEL GC clayey GRAVEL GC-GM silty, clayey GRAVEL		
	SAND (50% or more of coarse fraction passing No. 4 sieve)	CLEAN SANDS (<5% fines)	SW or SP SAND		
		SANDS WITH FINES (≥ 5% and ≤ 12% fines)	SW-SM or SP-SM SAND with silt SW-SC or SP-SC SAND with clay		
			SM silty SAND SC clayey SAND SC-SM silty, clayey SAND		
		FINE-GRAINED SOILS (50% or more passing No. 200 sieve)	SILT AND CLAY	Liquid limit less than 50	ML SILT CL CLAY CL-ML silty CLAY
				Liquid limit 50 or greater	OL ORGANIC SILT or ORGANIC CLAY MH SILT CH CLAY OH ORGANIC SILT or ORGANIC CLAY
			HIGHLY ORGANIC SOILS		PT PEAT

MOISTURE CLASSIFICATION		ADDITIONAL CONSTITUENTS					
Term	Field Test	Secondary granular components or other materials such as organics, man-made debris, etc.					
		Percent	Silt and Clay In:		Percent	Sand and Gravel In:	
Fine-Grained Soils	Coarse-Grained Soils		Fine-Grained Soils	Coarse-Grained Soils			
dry	very low moisture, dry to touch	< 5	trace	trace	< 5	trace	trace
moist	damp, without visible moisture	5 - 12	minor	with	5 - 15	minor	minor
wet	visible free water, usually saturated	> 12	some	silty/clayey	15 - 30	with	with
					> 30	sandy/gravelly	Indicate %

TEST PIT LOG - 1 PER PAGE KPFF-60-02-TPI_10.GPJ GEODESIGN.GDT PRINT DATE: 12/17/15:KT



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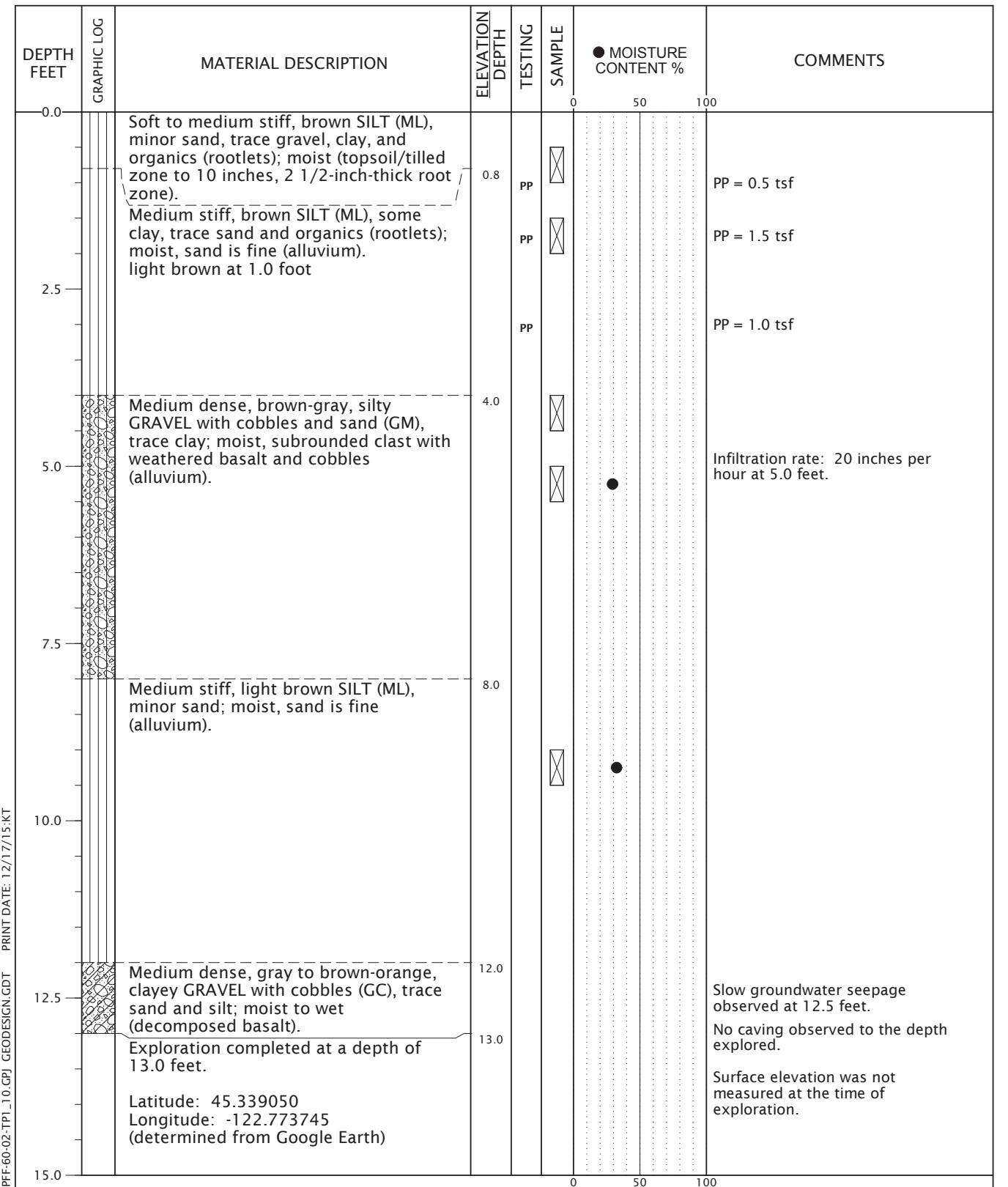
TEST PIT TP-1

DECEMBER 2015

WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-1

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TEST PIT TP-2

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FIGURE A-2

TEST PIT LOG - 1 PER PAGE KPFF-60-02-TPI_10.GPJ GEODESIGN.GDT PRINT DATE: 12/17/15:KT

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	MOISTURE CONTENT %	COMMENTS
0.0		Soft to medium stiff, brown-dark brown SILT (ML), some clay, minor gravel, trace sand and organics (rootlets); moist (topsoil/tilled zone to 10 inches, 2 1/4-inch-thick root zone).	0.8				Minor caving observed from 0.0 to 3.0 feet.
		Medium stiff, brown SILT (ML), some clay, minor gravel, trace sand and organics (rootlets); moist.				●	
2.5		Medium dense, gray to brown-orange GRAVEL to COBBLES with silt (GP-GM), trace sand and clay; moist.	2.5				Slow groundwater seepage observed at 4.0 feet. Infiltration rate: 9 inches per hour at 4.0 feet.
							Moderate to rapid groundwater seepage observed at 6.5 feet.
7.5		Exploration terminated at a depth of 7.5 feet due to refusal.	7.5				Surface elevation was not measured at the time of exploration.
		Latitude: 45.339049 Longitude: -122.775790 (determined from Google Earth)					

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EXCAVATION METHOD: backhoe (see document text)



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TEST PIT TP-3

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WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
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FIGURE A-3

TEST PIT LOG - 1 PER PAGE KPFF-60-02-TPI_10.GPJ GEODESIGN.GDT PRINT DATE: 12/17/15:KT

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	MOISTURE CONTENT %	COMMENTS
0.0		Soft to medium stiff, dark brown SILT (ML), some clay, minor gravel, trace sand and organics (roots); moist, organics are <1/4-inch diameter (topsoil to 11 inches).	0.9				
		Medium stiff, brown-orange SILT (ML), some clay, minor sand and gravel; moist.		PP			PP = 0.25 tsf PP = 0.5 tsf
2.5		Very dense, gray GRAVEL with silt (GP-GM); moist (basalt).	2.5				Exploration terminated at a depth of 2.5 feet due to refusal on basalt.
							No groundwater seepage observed to the depth explored. No caving observed to the depth explored.
		Latitude: 45.339553 Longitude: -122.775852 (determined from Google Earth)					Surface elevation was not measured at the time of exploration.

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EXCAVATION METHOD: backhoe (see document text)



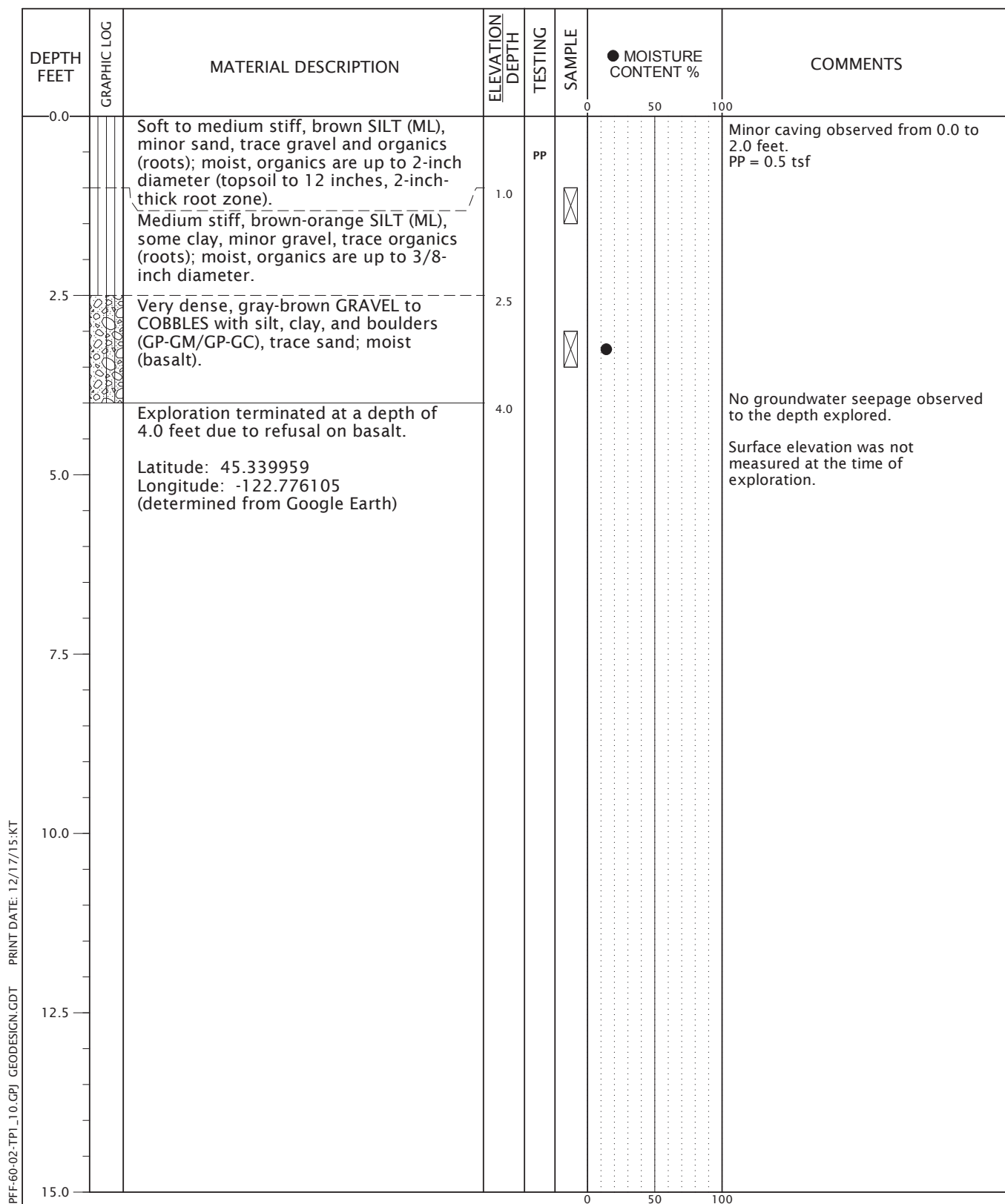
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TEST PIT TP-4

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WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-4



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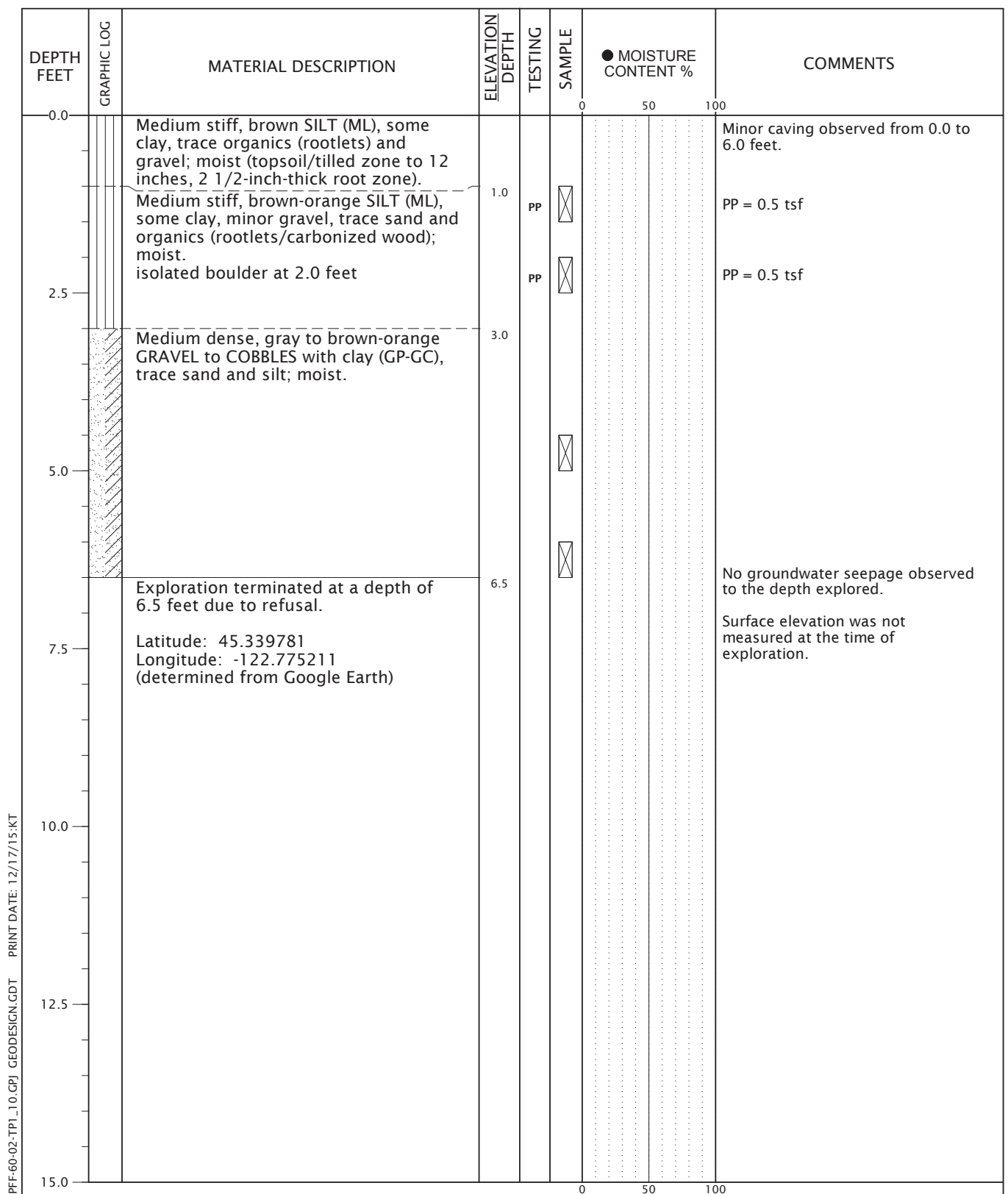
TEST PIT TP-5

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WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-5

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TEST PIT TP-6

DECEMBER 2015

WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-6

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DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	● MOISTURE CONTENT %		COMMENTS
						0	50	
0.0		Medium stiff, dark brown SILT (ML), minor sand and gravel, trace clay and organics (rootlets/roots); moist, organics are up to 1/2-inch diameter (topsoil/tilled zone to 9 inches, 2-inch-thick root zone).			☒			Minor to moderate caving observed from 0.0 to 5.0 feet.
0.8		Medium dense, brown-orange, silty GRAVEL to COBBLES (GM/GP), minor sand, trace clay; moist (decomposed basalt).			☒			
2.5		with boulders at 3.5 feet			☒			
5.0					☒		●	
5.5		Exploration terminated at a depth of 5.5 feet due to refusal. Latitude: 45.339264 Longitude: -122.775124 (determined from Google Earth)						No groundwater seepage observed to the depth explored. Surface elevation was not measured at the time of exploration.

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COMPLETED: 11/20/15

EXCAVATION METHOD: backhoe (see document text)



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TEST PIT TP-7

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WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-7

TEST PIT LOG - 1 PER PAGE KPFF-60-02-TPI_10.GPJ GEODESIGN.GDT PRINT DATE: 12/17/15:KT

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	● MOISTURE CONTENT %		COMMENTS
						0	50	
0.0		Stiff, dark brown SILT (ML), trace sand, clay, gravel, and organics (roots); moist, organics are up to 1/2-inch diameter (topsoil to 1.3 feet, 2 1/2-inch-thick root zone).			☒			Minor to moderate caving observed from 0.0 to 5.0 feet.
1.3		Medium stiff, brown-orange SILT (ML), minor gravel, trace sand and organics (roots); moist, organics are up to 1 inch diameter.			☒			
2.5		with boulders at 2.5 feet			PP			PP = 0.5 tsf
3.0		Medium dense, brown GRAVEL to COBBLES with silt and sand (GP-GM); wet (alluvium).						
4.5		with boulders at 4.5 feet			P200		●	Moderate to rapid groundwater seepage observed at 4.0 feet. P200 = 40%
5.5		Medium dense, brown-gray GRAVEL to COBBLES with boulders (GP), minor sand, trace silt and clay; moist wet (basalt).						
7.0		Exploration terminated at a depth of 7.0 feet due to refusal. Latitude: 45.339051 Longitude: -122.774652 (determined from Google Earth)						Surface elevation was not measured at the time of exploration.

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LOGGED BY: JGH

COMPLETED: 11/20/15

EXCAVATION METHOD: backhoe (see document text)



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TEST PIT TP-8

DECEMBER 2015

WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-8

TEST PIT LOG - 1 PER PAGE KPFF-60-02-TPI_10.GPJ GEODESIGN.GDT PRINT DATE: 12/17/15:KT

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	● MOISTURE CONTENT %		COMMENTS
						0	50	
0.0		Soft to medium stiff, brown-orange to gray SILT (ML), minor gravel and sand, trace organics (rootlets); moist (1 3/4- to 2 1/4-inch-thick root zone) - FILL.						Minor caving observed from 0.0 to 8.0 feet.
2.0		Medium stiff, brown SILT with boulders (ML), minor sand and gravel, trace clay and organics (roots); moist, organics are up to 3/4-inch diameter (alluvium).	2.0	PP				Possible old topsoil at 1.7 feet.
2.5		Medium dense, brown-gray GRAVEL to COBBLES with silt and boulders (GP-GM), minor sand, trace clay; moist (decomposed basalt).	3.0					PP = 0.5 tsf
5.0								
7.5								
10.0								
12.0		Exploration completed at a depth of 12.0 feet. Latitude: 45.339333 Longitude: -122.774292 (determined from Google Earth)	12.0					No groundwater seepage observed to the depth explored. Surface elevation was not measured at the time of exploration.
15.0								

EXCAVATED BY: Dan J. Fischer Excavating, Inc.

LOGGED BY: JGH

COMPLETED: 11/20/15

EXCAVATION METHOD: backhoe (see document text)



KPFF-60-02

TEST PIT TP-9

DECEMBER 2015

WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-9

TEST PIT LOG - 1 PER PAGE KPFF-60-02-TPI_10.GPJ GEODESIGN.GDT PRINT DATE: 12/17/15:KT

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	● MOISTURE CONTENT %		COMMENTS
						0	50	
0.0		Soft to medium stiff, dark brown SILT (ML), some clay, minor sand and gravel, trace organics (roots); moist, organics are 1/2-inch diameter (topsoil to 12 inches, 2-inch-thick root zone).						Minor to moderate caving observed from 0.0 to 5.0 feet.
1.0		Medium stiff, brown SILT with gravel and boulders (ML), minor sand, trace organics (rootlets); moist (decomposed basalt).	1.8	PP				PP = 0.5 tsf
2.5		Medium dense, light gray to brown-orange, silty GRAVEL to COBBLES (GM/GP), minor sand, trace clay; moist (decomposed basalt).						
5.0		with boulders at 4.0 feet						
7.5								
10.0								
12.0		Exploration completed at a depth of 12.0 feet. Latitude: 45.339738 Longitude: -122.774199 (determined from Google Earth)	12.0					No groundwater seepage observed to the depth explored. Surface elevation was not measured at the time of exploration.
15.0								

EXCAVATED BY: Dan J. Fischer Excavating, Inc.

LOGGED BY: JGH

COMPLETED: 11/20/15

EXCAVATION METHOD: backhoe (see document text)



KPFF-60-02

TEST PIT TP-10

DECEMBER 2015


WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY
WILSONVILLE, OR

FIGURE A-10

SAMPLE INFORMATION			MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	SIEVE			ATTERBERG LIMITS		
EXPLORATION NUMBER	SAMPLE DEPTH (FEET)	ELEVATION (FEET)			GRAVEL (PERCENT)	SAND (PERCENT)	P200 (PERCENT)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
TP-1	1.0		32							
TP-2	5.0		29							
TP-2	9.0		32							
TP-3	1.5		27							
TP-5	3.0		14							
TP-7	5.0		21							
TP-8	4.0		43			40				
TP-9	3.5		24							
TP-9	11.5		37							
TP-10	1.5		31							

APPENDIX B

LAB SUMMARY KPFF-60-02-TP1_10.GPJ GEODESIGN.GDT PRINT DATE: 12/7/15:KT

 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	KPFF-60-02	SUMMARY OF LABORATORY DATA	
	DECEMBER 2015	WILLAMETTE VALLEY BEHAVIORAL HEALTH FACILITY WILSONVILLE, OR	FIGURE A-11

APPENDIX B

SITE-SPECIFIC SEISMIC HAZARD EVALUATION

INTRODUCTION

The information in this appendix summarizes the results of a site-specific seismic hazard evaluation for the proposed development located southwest of the intersection of SW Boones Ferry Road and SW Day Road in Wilsonville, Oregon. This seismic hazard evaluation was performed in accordance with the requirements in the 2014 SOSSC and the 2012 IBC.

SITE CONDITIONS

REGIONAL GEOLOGY

The Portland-Vancouver metropolitan area is situated within the Puget-Willamette Trough physiographic province, a north-south structural basin lying between the Coast Ranges to the west and the Cascade Range to the east. The Portland Basin, a major component of the Willamette Trough, is a subsided lowland formed through northeast-directed compression due to large-scale plate movement and subduction and right-lateral extension along a series of faults reaching from central Oregon, across the Cascades, and into the lower Willamette Valley (for general discussion see Burns, 1998; Orr and Orr, 1999).

The site lies on the eastern flank of the Portland Hills, which is a southeast to northwest-trending anticline associated with local faulting. In general, the site geology consists of fine-grained Pleistocene-aged silt and sand overlying Pliocene-aged Troutdale Formation. The Troutdale Formation consists primarily of cemented gravel and sand and is approximately 150 feet thick in the site area. Sandy River Mudstone and Columbia River Basalt underlie the Troutdale Formation.

SUBSURFACE CONDITIONS

A detailed description of site subsurface conditions is presented in the main report.

SEISMIC SETTING

Earthquake Source Zones

Three scenario earthquakes were considered for this study consistent with the local seismic setting. Two of the possible earthquake sources are associated with the CSZ, and the third event is a shallow local crustal earthquake that could occur in the North American plate. The three earthquake scenarios are discussed below.

Regional Events

The CSZ is the region where the Juan de Fuca Plate is being subducted beneath the North American Plate. This subduction is occurring in the coastal region between Vancouver Island and northern California. Evidence has accumulated suggesting that this subduction zone has generated eight great earthquakes in the last 4,000 years, with the most recent event occurring approximately 300 years ago (Weaver and Shedlock, 1991). The fault trace is mapped approximately 50 to 120 km off the Washington Coast.

Two types of subduction zone earthquakes are possible and considered in this study:

1. An interface event earthquake on the seismogenic part of the interface between the Juan de Fuca Plate and the North American Plate on the CSZ. This source is reportedly capable of generating earthquakes with a moment magnitude of between 8.5 and 9.0.
2. A deep intraplate earthquake on the seismogenic part of the subducting Juan de Fuca Plate. These events typically occur at depths of between 30 and 60 km. This source is capable of generating an event with a moment magnitude of up to 7.5.

Local Events

A significant earthquake could occur on a local fault near the site within the design life of the facility. Such an event would cause ground shaking at the site that could be more intense than the CSZ events, though the duration would be shorter. Figure B-1 shows the locations of faults with potential Quaternary movement within a 20-mile radius of the site. Figure B-2 shows the interpreted locations of seismic events that occurred between 1833 and 1993 (Johnson, et al., 1994). The closest mapped faults to the site that contribute to the seismic hazard are the Bolton fault, Newberg fault, and Portland Hills fault (USGS, 2014). Table B-1 presents a summary of the fault characteristics.

Table B-1. Closest Mapped Crustal Faults

Source	Closest Mapped Distance ¹ (km)	Mapped Length ¹ (km)	Dip (degrees)	Dip Direction	Sense of Slip	Slip Rate (mm/year)
Bolton fault	10.1	9	60	SW	reverse	0.02
Newberg fault	13.5	34	90	Vertical	strike slip	0.02
Portland Hills fault	16	50	60	SW	reverse	0.12

1. Reported by USGS (USGS, 2014)

SEISMIC RESPONSE ANALYSIS

We determined a probabilistic acceleration response spectra that incorporates the postulated scenarios discussed above using the NSHMP Hazard Curve Application¹. The NSHMP Hazard Curve Application provides access to all pre-computed hazard curves for the conterminous United States. The following sections provide a description of our analyses.

RISK TARGETED SITE RESPONSE SPECTRUM

We determined the hazard curve for the site assuming a shear wave velocity equal to 360 m/s in the upper 30 meters of the soil profile beneath the buildings.

¹ <http://geohazards.usgs.gov/hazardtool/application.php>

ASCE 7-10 requires that the ground motions be defined in terms of the maximum direction of horizontal response. The maximum direction was adopted as the ground motion intensity parameter for use in lieu of explicit consideration of directional effects. The maximum horizontal response may reasonably be estimated by factoring the average response period by period-dependent factors. ASCE 7-10 recommends a factor of 1.1 at short periods and 1.3 at a period of 1 second and greater.

The risk targeted bedrock spectrum, MCE_R , target spectrum was computed using Method 1 outlined in ASCE 7-10 Section 21.2.1.2. A risk coefficient of $C_{RS} = 0.898$ was applied to the spectrum at periods of 0.2 second or less and a risk coefficient of $C_{R1} = 0.871$ was applied to the spectrum at periods greater than 1 second. Linear interpolation was used to compute risk coefficients between periods of 0.2 and 1.0 second. The intent of this is to achieve a 1 percent collapse of the structure in a 50-year period. Table B-2 presents a summary of values used to compute the MCE_R response spectrum.

Table B-3. Risk Targeted Bedrock Spectrum

Period (seconds)	MCE Response Spectrum (360 m/s)	Maximum Direction Factor	C_R	MCE_R Response Spectrum (360 m/s)
0.0	0.435	1.1	0.898	0.390
0.1	0.794	1.1	0.898	0.713
0.2	0.980	1.1	0.898	0.880
0.3	1.072	1.1	0.895	0.959
0.5	0.798	1.1	0.888	0.709
0.8	0.597	1.3	0.879	0.525
1.0	0.453	1.3	0.871	0.394
2.0	0.215	1.3	0.871	0.187
3.0	0.120	1.3	0.871	0.104
4.0	0.082	1.3	0.871	0.071
5.0	0.055	1.3	0.871	0.048

Figure B-3 shows the site-specific risk targeted response spectrum. For comparison we have also plotted the response spectrum prescribed by ASCE-7-10 Section 11.4.3 for site class C, consistent with the site soil profile observed in the explorations.

DETERMINISTIC MCE RESPONSE SPECTRUM

The deterministic response spectrum as prescribed by ASCE-7-10 Section 21.2.2 is controlled by the deterministic lower limit. Figure B-4 shows the deterministic lower bound.

SITE-SPECIFIC MCE RESPONSE SPECTRUM

As outlined in ASCE-7-10 Section 21.2.3, the site-specific MCE shall be taken as the lesser of the probabilistic MCE and the deterministic MCE. Figure B-4 shows the site-specific design response spectrum.

DESIGN RESPONSE SPECTRUM

ASCE-7-10 Section 21.3 prescribes that the site-specific MCE response spectrum to be reduced to two-thirds of the acceleration at any period. However, the lower bound for design ground motions is 80 percent of the generalized response spectrum as outlined in ASCE 7-10 Section 11.4.5.

DESIGN ACCELERATION PARAMETERS

To develop the final design response spectrum, the lesser of the values obtained from the probabilistic MCE and the deterministic MCE are taken at each period. The parameter S_{DS} is taken from the site-specific response spectrum at a period of 0.2 second but shall not be smaller than 90 percent of the peak spectral acceleration taken at any period larger than 0.2 second. The parameter S_{D1} is taken as the greater of the spectral acceleration at 1 second or two times the acceleration at 2 seconds. Figure B-5 shows the design response spectrum.

GEOLOGIC HAZARDS

In addition to ground shaking, site-specific geologic conditions can influence the potential for earthquake damage. Deep deposits of loose or soft alluvium can amplify ground motions, resulting in increased seismic loads on structures. Other geologic hazards are related to soil failure and permanent ground deformation. Permanent ground deformation could result from liquefaction, lateral spreading, landsliding, and fault rupture. The following sections provide additional discussion regarding potential seismic hazards that could affect the planned recreation facility.

FAULT SURFACE RUPTURE

There are no mapped faults beneath the site. Consequently, the probability of surface fault rupture beneath the site is considered low.

LIQUEFACTION AND LATERAL SPREADING

Liquefaction is caused by a rapid increase in pore water pressure that reduces the effective stress between soil particles to near zero. Granular soil, which relies on interparticle friction for strength, is susceptible to liquefaction until the excess pore pressure can dissipate. In general, loose, saturated sand soil with low silt and clay content is the most susceptible to liquefaction. Soil susceptible to liquefaction was not encountered in the explorations. Consequently, liquefaction and lateral spreading are not considered site hazards.

GROUND MOTION AMPLIFICATION

Soil capable of significantly amplifying ground motions beyond the levels determined by our site-specific seismic study were not encountered during the subsurface investigation program. The main report provides a detailed description of the subsurface conditions encountered.

LANDSLIDE

Earthquake-induced landsliding generally occurs in steeper slopes comprised of relatively weak soil deposits. The site and surrounding area are relatively flat, and seismically induced landslides are not considered a site hazard.

SETTLEMENT

Settlement due to earthquakes is most prevalent in relatively deep deposits of dry, clean sand. We do not anticipate that seismic-induced settlement in addition to liquefaction-induced settlement will occur during design levels of ground shaking.

SUBSIDENCE/UPLIFT

Subduction zone earthquakes can cause vertical tectonic movements. The movements reflect coseismic strain release accumulation associated with interplate coupling in the subduction zone. Based on our review of the literature, the locked zone of the CSZ is located in excess of 60 miles from the site. Consequently, we do not anticipate that subsidence or uplift is a significant design concern.

LURCHING

Lurching is a phenomenon generally associated with very high levels of ground shaking, which cause localized failures and distortion of the soil. The anticipated ground accelerations shown on Figure B-3 are below the threshold required to induce lurching of the site soil.

SEICHE AND TSUNAMI

The site is inland and elevated away from tsunami inundation zones and away from large bodies of water that may develop seiches. Seiche and tsunamis are not considered a hazard in the site vicinity.

REFERENCES

Burns, Scott (1998). Geologic and physiographic provinces of Oregon: p 3-14 in Scott Burns, editor, Environmental, Groundwater and Engineering Geology: Applications from Oregon. Association of Engineering Geologists, Special Publication 11: 689 p.

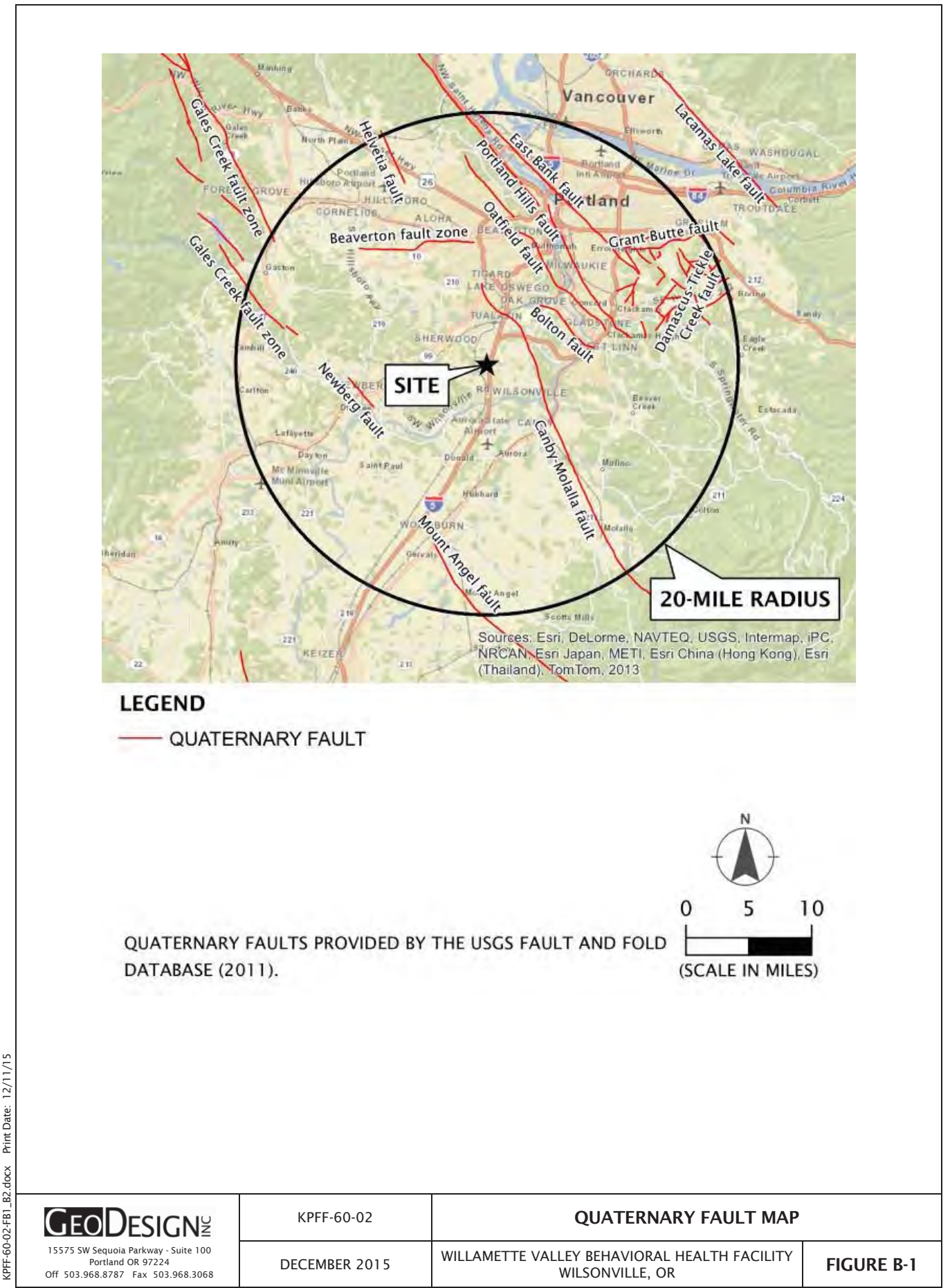
Johnson, A.J., Scofield, D.H., and Madin, I.P. (1994). Earthquake Database for Oregon, 1833-October 25, 1993, Oregon Department of Geology and Mineral Industries, Open-File Report O-94-04.

Orr, E.L. and Orr, W.N. (1999), *Geology of Oregon*. Kendall/Hunt Publishing, Iowa: 254 p.

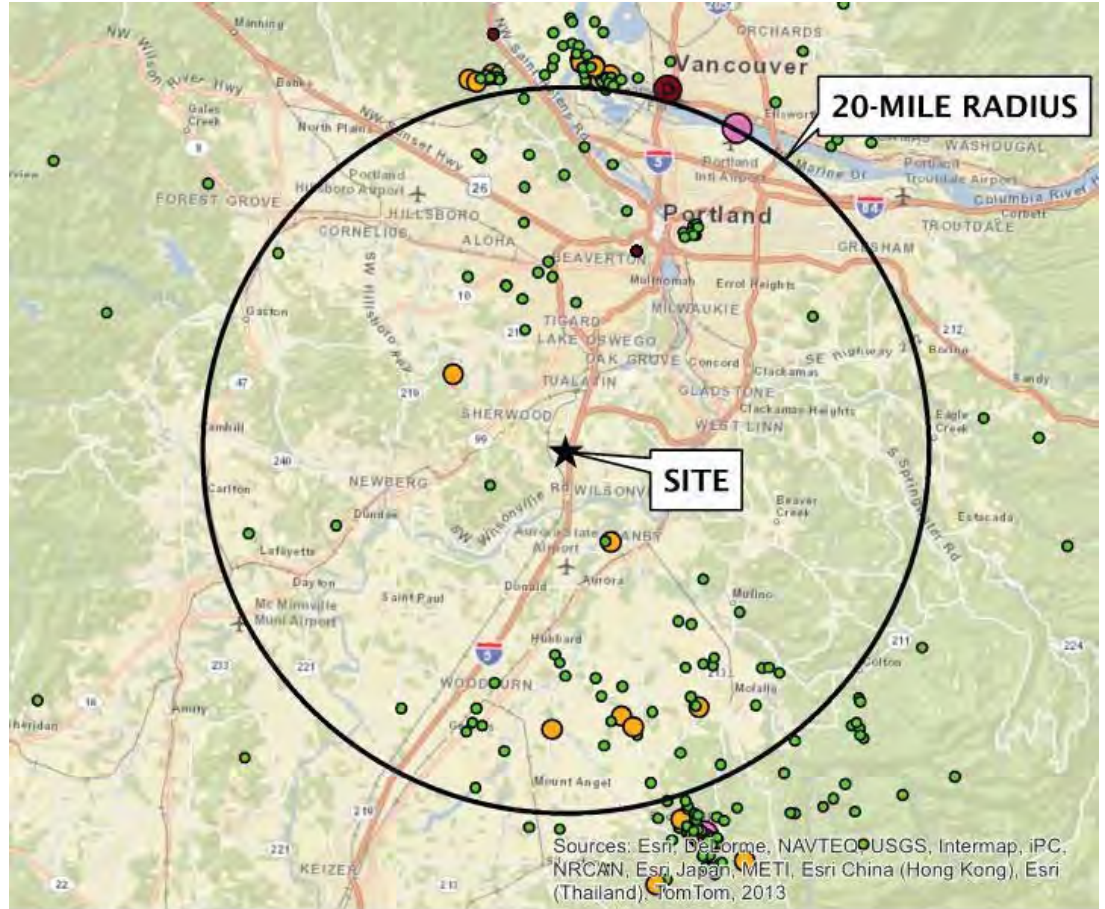
Personius, S.F., compiler, 2002, Fault number 877, Portland Hills fault, in Quaternary fault and fold database of the United States: U.S. Geological Survey website

U.S. Geologic Survey (2014), United States Earthquake Hazard Program, United States National Seismic Hazard Maps, 2014, <http://earthquake.usgs.gov/hazards/qfaults/map/hazfault2014.html>.

Weaver, C.S. and Shedlock, K.M. (1991), Program for earthquake hazards assessment in the Pacific Northwest: U.S. Geological Survey Circular 1067, 29 pgs.



KPFF-60-02-FB1_B2.docx Print Date: 12/11/15

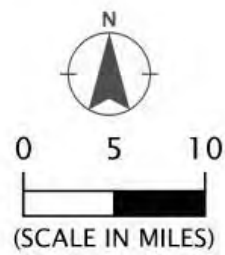


LEGEND

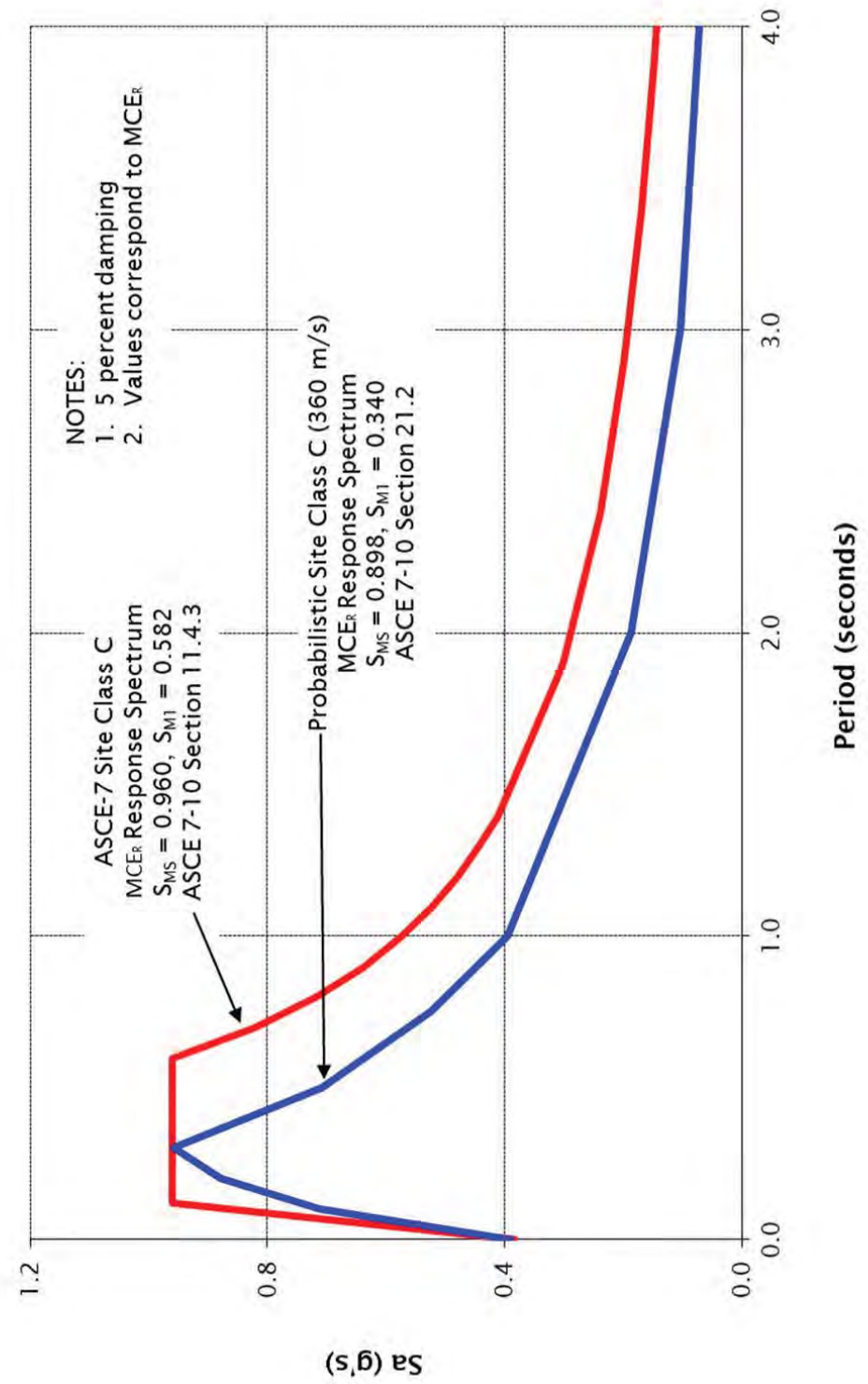
EARTHQUAKE MAG MAXIMUM MODIFIED MERCALLI INTENSITY (MMI)

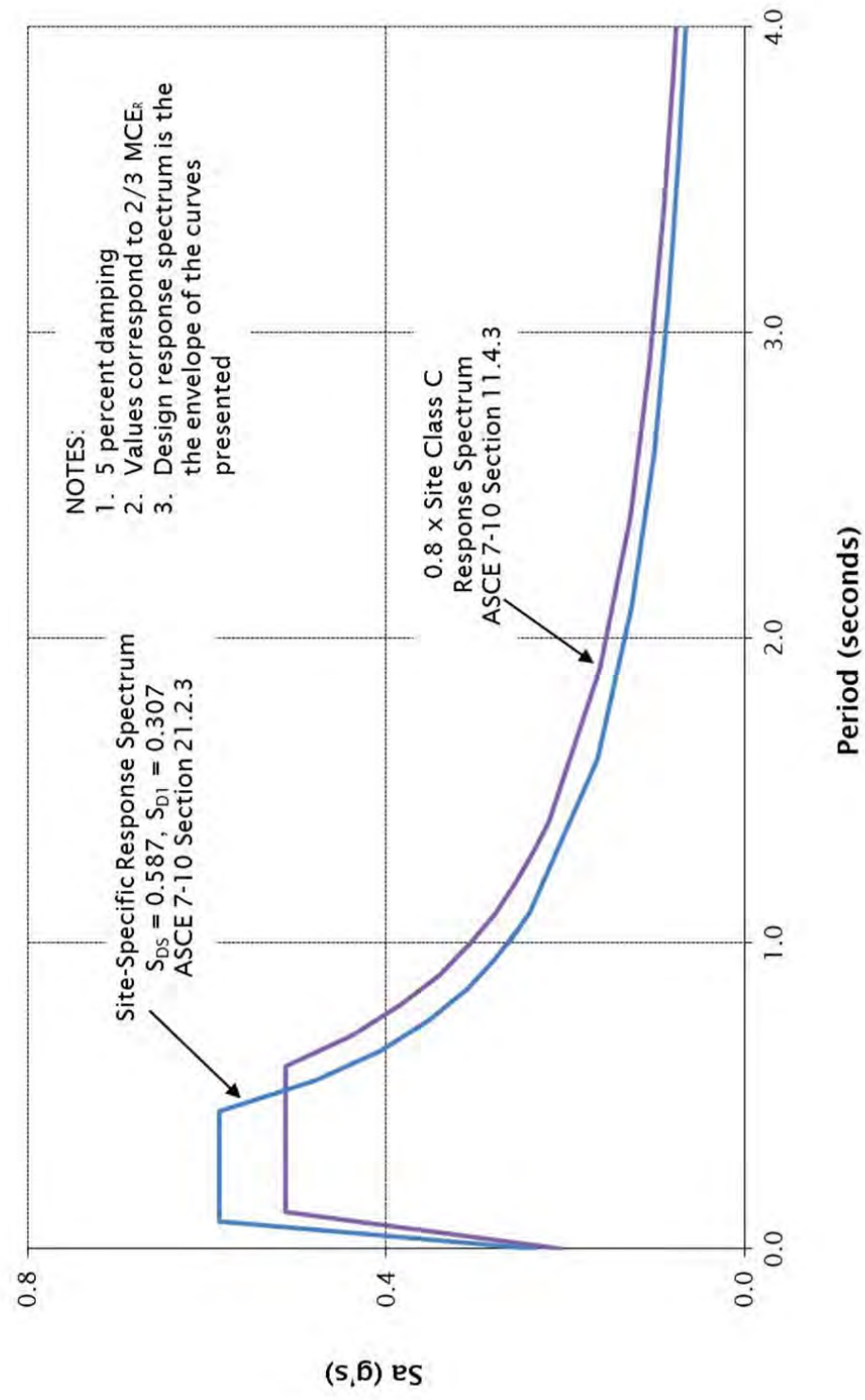
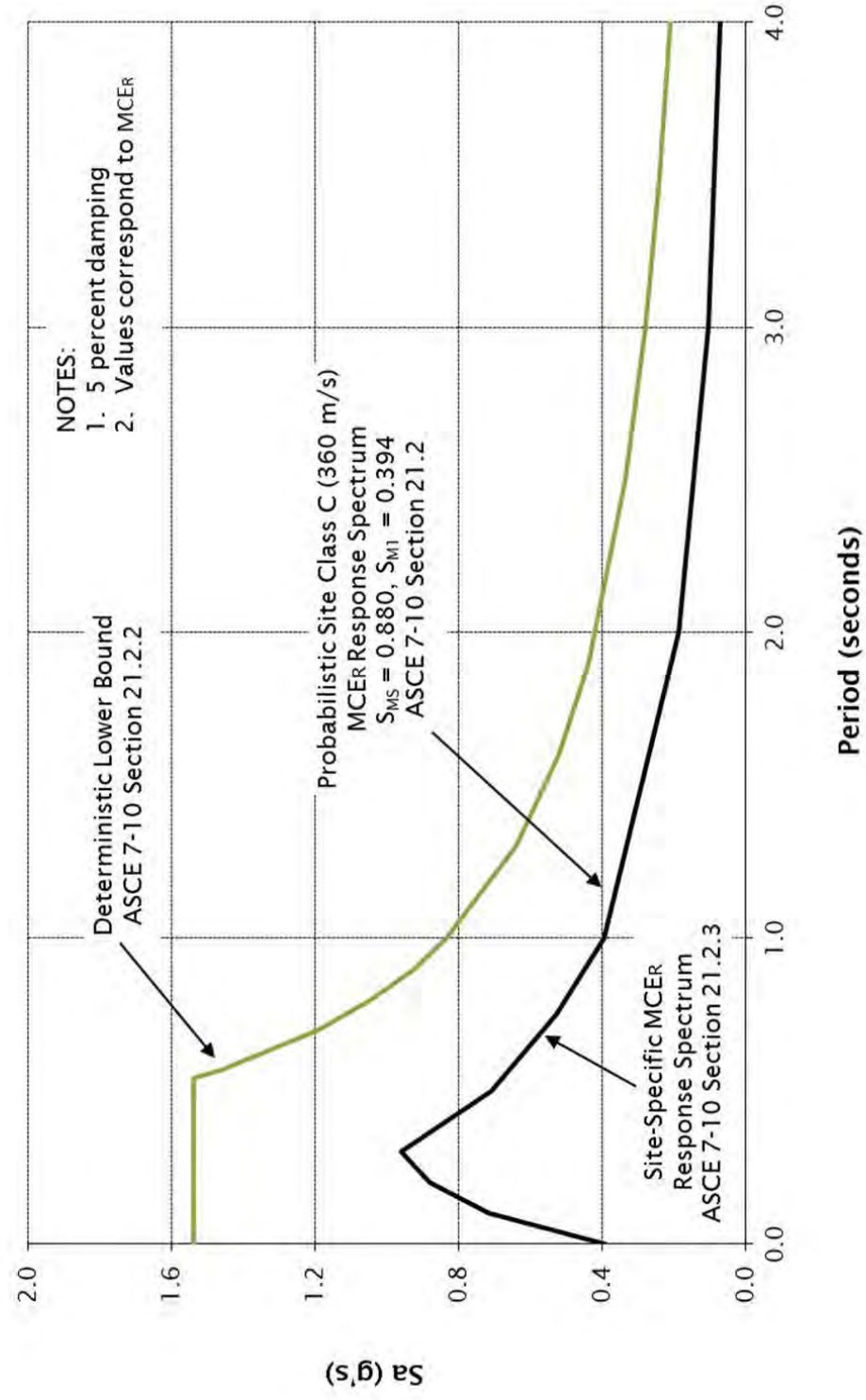
- 2.0 - 3.0
- 3.0 - 4.0
- 4.0 - 5.0
- > 6.0
- VI
- VII
- VIII

HISTORICAL MMI DATA FROM NGDG (2010)
 INSTRUMENTAL MAGNITUDE FROM USGS (2009), PNSN (2015)



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013





ACRONYMS

ACRONYMS

AC	asphalt concrete
ACP	asphalt concrete pavement
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
BGS	below ground surface
CSZ	Cascadia Subduction Zone
CTB	cement-treated base
g	gravitational acceleration (32.2 feet/second ²)
H:V	horizontal to vertical
IBC	International Building Code
km	kilometers
MCE	maximum considered earthquake
MCE _r	risk-targeted maximum considered earthquake
m/s	meters per second
mm/yr	millimeters per year
MSL	mean sea level
NSHMP	National Seismic Hazard Mapping Program
ODOT	Oregon Department of Transportation
OSSC	Oregon Standard Specifications for Construction (2015)
PCC	portland cement concrete
pcf	pounds per cubic foot
pci	pounds per cubic inch
PG	performance grade
psf	pounds per square foot
psi	pounds per square inch
SOSSC	State of Oregon Structural Specialty Code
µm	micrometer

Exhibit R

Completeness Memo



PROJECT NAME:

Universal Health Services, Inc
Willamette Valley Behavioral Health

DATE:

January 11, 2016

SUBJECT:

Response for additional information
for completeness of application

PREPARED BY:

Westlake Consultants, Inc.

INCLUDED SUBMITTAL ATTACHMENTS:

1. Completeness Letter of Acknowledgement.

The following memo addresses the items deemed not complete by the City of Wilsonville in a notice letter dated November 30, 2015. This memo is a summary response to those items. All applicable plans, narrative responses, and supporting exhibits have been updated to address the requests for additional information from the City of Wilsonville.

General

1. Requested verification that the current zoning designation of the site by Washington County was FD-20.

Response: According to the Washington County Planning Department, the current zoning of all three parcels that make up the site is FD-20. This was verified on the Washington County GIS and by staff with the Washington County Planning Department.

2. The Traffic Impact Study needed to be included with report.

Response: The initial application was submitted while still pending the completion of the Traffic impact Study by DKS associates. The completed traffic study is included with this submittal as Exhibit P.

3. The materials board for the proposed building needs to be brought to the DRB meeting.

Response: The materials board will be presented at the DRB meeting.

4. The metes and bounds of the proposed Annexation Area, Comprehensive Plan Map Amendment, and Zone Map Amendment with included adjacent right-of-ways needs to be included in the report.

Response: The metes and bounds of the proposed Annexation Area, Comprehensive Plan Map Amendment, and Zone Map Amendment with included adjacent right-of-ways have been included in the report and are shown in Exhibit B.

5. A simple table with the area calculations needs to be provided.

Response: The area calculations table is shown on the landscape site plan in Exhibit J, sheet L-101. The table has also been added to the site plan description within Development Plan Overview section of the report Introduction.

RESPONSE TO
COMPLETENESS
INFORMATION
REQUEST

6. Clarification was needed on a discrepancy within the report regarding the amount of parking spaces. The site plan also needed to identify which parking spots would be marked as the carpool spots. Development Engineering with the City of Wilsonville also necessitated the need to work with UHS and DKS in formulating an accurate demand for parking due to the lack of on street parking in the area.

Response: The carpool parking locations are identified on the landscape plan in exhibit J and the civil site plan in exhibit I. Upon the recommendation of the Traffic Impact Analysis, an additional site plan Exhibit is presented with the memorandum to illustrate additional parking spaces. The TIA recommended additional visitor and vendor parking spaces. As depicted on the site plan, a total of 18 spaces have been proposed. 16 additional visitor spaces were added near the front driveway access along with 2 ambulance parking stalls. The visitor parking is oriented around a drive isle designed for an extension to the neighboring property upon its development. The ambulance staging bays were added to the circular drop off drive.

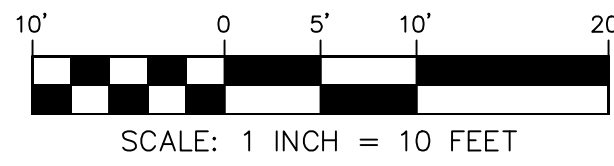
Sincerely,

Westlake Consultants, Inc.

Kenneth L. Sandblast, AICP
Director of Planning

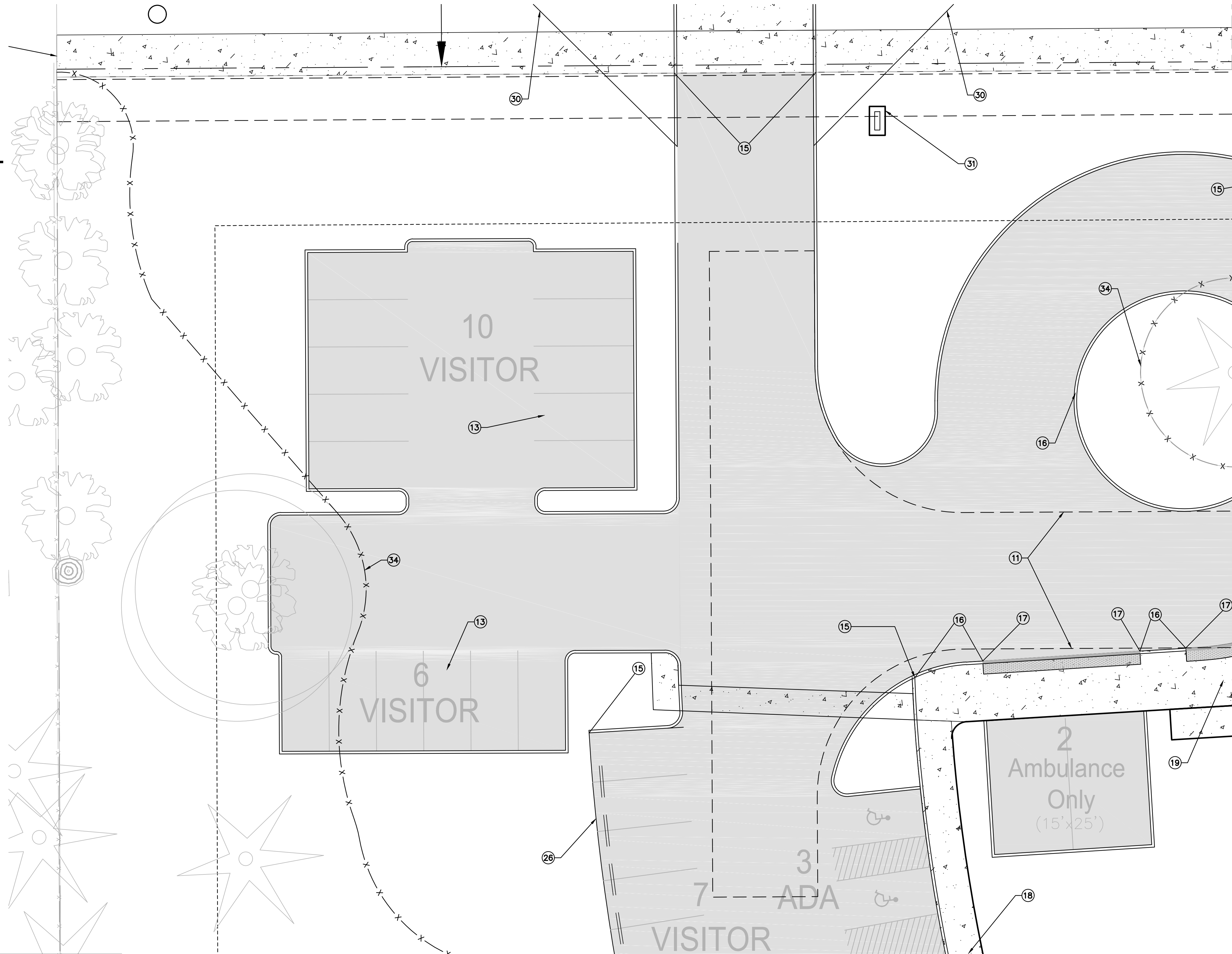
Exhibit S

Additional Parking Site Plan



TOPOGRAPHIC LEGEND

- PROPERTY BOUNDARY
- - - EASEMENT LINE
- SS UNDERGROUND SANITARY SEWER
- SD UNDERGROUND STORM DRAIN PIPE
- W UNDERGROUND WATER LINE
- G UNDERGROUND GAS LINE
- E UNDERGROUND ELECTRICAL LINE
- X - X - FENCE AS NOTED
- CONCRETE CURB
- BLOCK WALL
- OH OVERHEAD LINES
- - - EDGE OF PAVEMENT
- BUILDING FOOTPRINT LINE
- CONCRETE
- GRAVEL
- ⊙ BLOW-OFF OR AIR-VAC VALVE
- ⊙ CATCH BASIN
- ⊙ CURB INLET (NO GRATE)
- ⊙ GAS VALVE
- ⊙ GAS METER
- ⊙ GUY ANCHOR
- ⊙ FIRE HYDRANT
- ⊙ MAILBOX
- ⊙ TRAFFIC SIGNAL BOX
- ⊙ TRAFFIC SIGNAL POLE
- ⊙ SANITARY MANHOLE
- ⊙ STORM DRAIN MANHOLE
- ⊙ SIGN ON POST
- ⊙ SURVEY MONUMENT AS NOTED
- ⊙ FOUND 5/8" I.R. W/YPC *PLS 53760*, SET IN SN 29223
- ⊙ TELECOMMUNICATIONS RISER
- ⊙ UTILITY POLE
- ⊙ WATER METER
- ⊙ WATER MANHOLE
- ⊙ WATER VALVE
- ⊙ WATER WELL
- ⊙ HCR HANDICAP RAMP
- ⊙ I.R. IRON ROD
- ⊙ W/YPC WITH YELLOW PLASTIC CAP
- ⊙ TREE STUMP
- ⊙ DECIDUOUS TREE
- ⊙ EVERGREEN TREE



KEYNOTES:

- 1 PROPOSED BUILDING: TOTAL GSF=62,000 SF SEE ARCHITECTURAL PLANS
- 2 INTERIOR BUILDING VIEW COURTYARD SEE ARCHITECTURAL AND LANDSCAPING PLANS
- 3 EXTERIOR BUILDING PATIENT ACTIVITY COURTYARD SEE ARCHITECTURAL AND LANDSCAPE PLANS
- 4 SERVICE DRIVE
- 5 WATER MANAGEMENT DUMPSTERS WITH CANOPY SEE ARCHITECTURAL PLANS
- 6 LOADING/UNLOADING WITH CANOPY SEE ARCHITECTURAL PLANS
- 7 GENERATOR ENCLOSURE (OPEN TO ABOVE) SEE ARCHITECTURAL PLANS
- 8 BUILDING ENTRY PLAZA SEE ARCHITECTURAL PLANS
- 9 SITE ACCESS ENTRY DRIVE
- 10 DROP OFF ENTRY, LOADING/UNLOADING
- 11 EMERGENCY ACCESS, FIRE TRUCK AERIAL ACCESS, AMBULANCE ACCESS DRIVE
- 12 PARKING DRIVE AISLE, EMERGENCY ACCESS
- 13 STANDARD PARKING STALL 9'X19'
- 14 COMPACT PARKING STALL 8'X16'
- 15 VERTICAL CURB
- 16 FLUSH CURB
- 17 FLUSH CURB - FIRE TRUCK AND AMBULANCE ACCESS
- 18 7' WIDE PEDESTRIAN PATH
- 19 11' WIDE PEDESTRIAN PATH
- 20 6' WIDE PEDESTRIAN PATH
- 21 5' WIDE PEDESTRIAN PATH
- 22 5' WIDE PEDESTRIAN PATH WITH RAMP, HANDRAIL AND RETAINING WALL
- 23 STAIRS
- 24 STREET SIDEWALK BARRICADE
- 25 6' WHEEL STOP
- 26 EDGE OF PAVEMENT
- 27 EMERGENCY/MAINTENANCE ACCESS ROAD
- 28 EMERGENCY FIRE TRUCK TURN AROUND
- 29 STORMWATER QUALITY FACILITY AND DETENTION POND
- 30 VISION TRIANGLE
- 31 ENTRY SIGN. SEE SIGNING PLANS
- 32 BELOW GROUND SITE UTILITY VAULT. SEE UTILITY PLAN.
- 33 ABOVE GROUND SITE UTILITY VAULT. SEE UTILITY PLAN.
- 34 ADJUSTMENTS TO TREE PROTECTION FENCING TO ALLOW FOR INSTALLATION OF SITE IMPROVEMENTS AND GRADING TO BE COORDINATED WITH THE PROJECT ARBORIST

LEGEND - PROPOSED

- CURB
- ASPHALT
- CONC

GENERAL NOTES:

1. ELEVATIONS BASED ON WASHINGTON COUNTY BENCHMARK 455, OSHD BRASS DISC AT NW CORNER ELLIGSEN ROAD BRIDGE OVER I-5, ELEVATION 281.548, NGVD 1929.
2. STORMWATER WATER QUALITY AND DETENTION FACILITY WILL EVOLVE AS FINAL DESIGNS PROGRESS DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS AND PERMITTING FOR THIS PROJECT.
3. SEE LANDSCAPE PLANS FOR ADDITIONAL SITE INFORMATION.

UHS Universal Health Services, Inc.
 Willamette Valley Behavioral Health
 9470 SW Day Road Wilsonville, OR

LAND USE APPLICATION - JANUARY 11, 2016

ADDITIONAL PARKING EXHIBIT

WESTLAKE
 CONSULTANTS inc.
 ENGINEERING ♦ SURVEYING ♦ PLANNING

SRG
 EXH S

DEVELOPMENT REVIEW BOARD MEETING

MONDAY, JANUARY 25, 2016

6:30 PM

VIII. Board Member Communications:

**A. Agenda Results of the December 14, 2015 DRB
Panel A meeting**

City of Wilsonville

Development Review Board Panel A Meeting Meeting Results

DATE:	DECEMBER 14, 2015	
LOCATION:	29799 SW TOWN CENTER LOOP EAST, WILSONVILLE, OR	
TIME START:	6:32 P.M.	TIME END: 10:50 P.M.

ATTENDANCE LOG

BOARD MEMBERS	STAFF
Kristin Akervall	Barbara Jacobson
Ronald Heberlein	Blaise Edmonds
James Frinell	Steve Adams
	Kristin Retherford
	Daniel Pauly
City Council Liaison: Julie Fitzgerald	Jennifer Scola

AGENDA RESULTS

AGENDA	ACTIONS
CITIZENS' INPUT	None.
CONSENT AGENDA	
A. Approval of minutes of October 12, 2015 DRB Panel A meeting	A. Unanimously approved as presented.
PUBLIC HEARING	
<p>A. Resolution No. 318. Brookside Terrace – Villebois Phase 8 Central: Polygon WLH, LLC – Applicant. The applicant is requesting approval of a Zone Map Amendment from Public Facility (PF) Zone to Village (V) Zone, a Specific Area Plan – Central Amendment, Preliminary Development Plan, Final Development Plan and Tentative Subdivision Plat for the development of row houses in Phase 8 of SAP-Central. The subject property is located on Tax Lot 3200 of Section 15AC, T3S, R1W, Clackamas County, Oregon. Staff: Daniel Pauly.</p> <p style="margin-left: 40px;">Case Files: DB15-0063 Zone Map Amendment DB15-0064 SAP Central Amendment DB15-0065 Preliminary Development Plan DB15-0066 Final Development Plan DB15-0067 Tentative Subdivision Plat</p> <p style="margin-left: 40px;"><i>The DRB action on the Zone Map Amendment is a recommendation to the City Council.</i></p>	<p>A. Unanimously approved with the addition of Exhibit A3 and added language to revised Condition PDE 4 in Exhibit A3.</p>
<p>B. Resolution No. 319. Camden Square and Royal Crescent at Villebois – Villebois Phase 9 Central: Polygon WLH, LLC – Applicant. The applicant is requesting approval of a Zone Map Amendment from Public Facility (PF) Zone to Village (V) Zone, a Specific Area Plan – Central Amendment, Preliminary Development Plan, Final Development Plan, Tentative Subdivision Plat and Type C Tree Plan</p>	<p>B. Unanimously approved with corrections, the addition of Exhibit A3, and added language to Condition PFA 4 and revised Condition PDE 9 in Exhibit A3.</p>

for the development of row houses in Phase 9 of SAP-Central. The subject property is located on Tax Lots 3000 and 3400 of Section 15AC, T3S, R1W, Clackamas County, Oregon. Staff: Daniel Pauly.

Case Files: DB15-0068 Zone Map Amendment
 DB15-0069 SAP Central Amendment
 DB15-0070 Preliminary Development Plan
 DB15-0071 Final Development Plan
 DB15-0072 Tentative Subdivision Plat
 DB15-0073 Type C Tree Plan

The DRB action on the Zone Map Amendment is a recommendation to the City Council.

C. **Resolution No. 320. Grahams Ferry Road right-of-way, Tooze Road right-of-way and Chang Property Annexation: City of Wilsonville and Allen T. Chang – Owners.** The applicants are requesting approval of an Annexation of public right-of-way and territory located at the northern edge of Villebois of the city of Wilsonville, Oregon. The public right of way and territory is more particularly described as SW Grahams Ferry Road, SW Tooze Road and Tax Lots 700, 800, 900 and 1000, of Section 15, 3S, Range 1W, Willamette Meridian, Clackamas County. Staff: Blaise Edmonds

Case Files: DB15-0083 Annexation

The DRB action on the Zone Map Amendment is a recommendation to the City Council.

D. **Resolution No. 316. Old Town Site Design Review for 2 Houses: Mark Britcliffe – Applicant for Diane Ferris – Owner.** The applicant is requesting approval of a Site Design Review for two single-family dwellings in Old Town. The site is located at 30580 SW Boones Ferry Road on Tax Lots 3801 and 3802 of Section 23AC, T3S, R1W, City of Wilsonville, Clackamas County, Oregon. Staff: Jennifer Scola

Case Files: DB15-0074 – Site Design Review

This item was moved to this date and time certain, per the applicant's request, at the November 23, 2015 DRB Panel B meeting.

C. Unanimously approved with the addition of Exhibits A3, A4, C1, D1, and D2.

D. Unanimously approved with the addition of Exhibit B6, inclusion of Condition PDA 4 as presented in the December 7, 2015 Staff report, modifying condition PDA 2 requiring a more detailed landscape plan to be reviewed through a Class I administrative review.

BOARD MEMBER COMUNICATIONS

A. Results of the November 23, 2015 DRB Panel B meeting

Staff responded to inquiries about potential new DRB-A members and including specific elevations to better evaluate projects with regard to the rules of adjacency in Villebois.

STAFF COMMUNICATIONS

- A. Thank you, Lenka Keith, for your service on the Development Review Board!
- B. Mike Wheeler and Linda Straessle retirements

Mr. Edmonds conveyed Lenka Keith's comments

DEVELOPMENT REVIEW BOARD MEETING

MONDAY, JANUARY 25, 2016

6:30 PM

VIII. Board Member Communications:

**B. Agenda Results of the January 11, 2016 DRB
Panel A meeting**

City of Wilsonville

Development Review Board Panel A Meeting Meeting Results

DATE: JANUARY 11, 2016		TIME END: 6:46 P.M.
LOCATION: 29799 SW TOWN CENTER LOOP EAST, WILSONVILLE, OR		
TIME START: 6:30 P.M.		

ATTENDANCE LOG

BOARD MEMBERS	STAFF
Mary Fierros Bower	Barbara Jacobson
Kristin Akervall	Blaise Edmonds
Ronald Heberlein	
James Frinell	
City Council Liaison: Julie Fitzgerald	

AGENDA RESULTS

AGENDA	ACTIONS
CITIZENS' INPUT	None.
CONSENT AGENDA	
A. Approval of minutes of December 14, 2015 DRB Panel A meeting	A. Approved 3-0-0, with Mary Fierros Bower abstaining
PUBLIC HEARING	
<p>A. Resolution No. 321. Villebois Phase 4 North – Calais East at Villebois: Stacy Connery, AICP, Pacific Community Design, Inc. – representative for Fred Gast, Polygon NW Company- applicant. The applicant is requesting approval of an Annexation and Zone Map Amendment from Rural Residential Farm Forest 5-Acre (RRFF-5) to Village (V), an Amendment to SAP North, a Preliminary Development Plan, Tentative Subdivision Plat, Type C Tree Plan, and Final Development Plan for a 64-lot single family subdivision in Villebois and associated improvements. The subject site is located on Tax Lots 1100, 1101 and 1203 of Section 15, Township 3 South, Range 1 West, Willamette Meridian, City of Wilsonville, Clackamas County, Oregon. Staff: Daniel Pauly</p> <p>Case Files: DB15-0084 – Annexation (<i>Tax Lot 1203 only</i>) DB15-0085 – Zone Map Amendment (<i>Tax Lot 1203 only</i>) DB15-0086 – SAP North Amendment DB15-0087 – Preliminary Development Plan DB15-0088 – Tentative Subdivision Plat DB15-0089 – Type C Tree Plan DB15-0090 – Final Development Plan</p> <p><i>The DRB action on the Annexation and Zone Map Amendment is a recommendation to the City Council.</i></p>	A. This item was continued to a date and time certain of February 8, 2016.

<i>Staff has asked that this item be continued to a date and time certain of February 8, 2016.</i>	
BOARD MEMBER COMUNICATIONS	Staff responded to inquiries about progress on the Old Town Overlay project and potential new board members.
STAFF COMMUNICATIONS	None.