OREGON CITY

Community Development – Planning

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LAND USE APPLICATION FORM

Type I (OCMC 17.50.030.A)
- ☐ Compatibility Review
- ☐ Lot Line Adjustment
- ☐ Non-Conforming Use Review
- ☐ Natural Resource (NROD) Verification
- ☐ Site Plan and Design Review

Type II (OCMC 17.50.030.B)
- ☐ Extension
- ☐ Detailed Development Review
- ☐ Geotechnical Hazards
- ☐ Minor Partition (<4 lots)
- ☐ Minor Site Plan & Design Review
- ☐ Non-Conforming Use Review
- ☐ Site Plan and Design Review
- ☐ Subdivision (4+ lots)
- ☐ Minor Variance
- ☐ Natural Resource (NROD) Review

Type III-/ IV (OCMC 17.50.030.C)
- ☐ Annexation
- ☐ Code Interpretation / Similar Use
- ☒ Concept Development Plan (Amendment/Type II)
- ☐ Conditional Use
- ☐ Comprehensive Plan Amendment (Text/Map)
- ☒ Detailed Development Plan (Type II)
- ☐ Historic Review
- ☐ Municipal Code Amendment
- ☐ Variance
- ☐ Zone Change

File Number(s): CP 18-01, DP 18-01

Proposed Land Use or Activity: Construct 23,250 sq.ft. addition to DeTarolin Hall at CCC. Build new campus transit center and adjacent parking. Amend 2007 concept master plan. (CP 07-0001)

Project Name: _____ Number of Lots Proposed (If Applicable): _____

Physical Address of Site: 19600 Molalla Ave.

Clackamas County Map and Tax Lot Number(s): 3-2E-09C-00800

Applicant(s):

Applicant(s) Signature: [signature]

Applicant(s) Name Printed: Bob Cochran, P.E., CCC Dean of Campus Services Date: _____

Mailing Address: 19600 Molalla Ave., Oregon City, OR 97045

Phone: 503-594-6790 Fax: — Email: BobC@clackamas.edu

Property Owner(s):

Property Owner(s) Signature: _____

Property Owner(s) Name Printed: Clackamas Community College Date: _____

Mailing Address: 19600 Molalla Ave Oregon City, OR 97045

Phone: _____ Fax: _____ Email: _____

Representative(s):

Representative(s) Signature: [signature]

Representative (s) Name Printed: Ben Schonberger, Winterbrook Planning Date: _____

Mailing Address: 310 SW 4th Ave. Portland, OR 97204

Phone: 503-827-4422 Fax: 503-827-4350 Email: ben@winterbrookplanning.com

All signatures represented must have the full legal capacity and hereby authorize the filing of this application and certify that the information and exhibits herewith are correct and indicate the parties willingness to comply with all code requirements.

CLACKAMAS COMMUNITY COLLEGE

DeJardin Hall Expansion, Transit Hub, Amendment to Concept Master Plan

Prepared by:
Winterbrook Planning

In Collaboration with:
Mahlum Architects
Lancaster Engineering
Walker Macy
KPFF

January 2018

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A. Project Drawings
B. Transportation Analysis
C. Drainage Report
D. Neighborhood Meeting Documents

General Information

Applicant:	Clackamas Community College 19600 Molalla Ave. Oregon City, OR 97045 (Contact: Bob Cochran, 503-594-6790)
Representative:	Winterbrook Planning 310 SW 4th Avenue, Suite 1100 Portland, Oregon 97204 (Contact: Ben Schonberger, 503-827-4422)
Owner:	Clackamas Community College
Site Address:	19600 Molalla Ave., Oregon City (Main Campus)
State ID No.:	3-2E-09C TL 800
Neighborhood:	Caufield
Zoning:	Institutional (INST)
Case Type:	Detailed development plan review General development plan amendment
Procedure:	Type II
Proposal:	Construct addition to DeJardin Hall, construct new Transit Center and associated parking area. Amend concept master plan.

SECTION 1: PROJECT NARRATIVE

Existing Conditions

Clackamas Community College sits on 164 acres of land in Oregon City between Oregon State Highway 213 and Beavercreek Road. The built environment contains approximately 20 buildings, providing 537,000 square feet of floor space. The primary campus node is 15 buildings within the campus core, which is within Douglas Loop, CCC's primary circulation system for vehicular traffic. A secondary cluster of buildings is at the northeast edge of the property, between the loop and Beavercreek Road. Outside the two clusters, development on campus is dispersed, including a small group of buildings at the Environmental Learning Center and maintenance buildings at the north edge of campus.

The college's newest building is currently under construction at the edge of the campus core. The Industrial Technical Center is a 44,523 square foot building to support manufacturing, technology and machining programs. Also, the college is completely rebuilding the adjacent Barlow Lot to improve circulation and bring it to current standards for landscaping and storm water management.

Wooded areas and wetlands are part of the CCC campus, specifically the stream and woods around the Environmental Learning Center area in the northeast corner of campus. Open space on the CCC campus is devoted to athletic fields—softball and soccer—which are used by students and by members of the wider community. Bonneville Power Authority high-voltage lines run diagonally across the southeast corner of the college property.

CCC's mission is "to serve the people of the college district with high quality education and training opportunities that are accessible to all students, adaptable to changing needs, and accountable to the community it serves." The CCC District covers nearly all of Clackamas County. The college serves approximately 28,000 students from this district (7,000 full-time equivalent) whose average age is 32 years old. The college offers a wide variety of classes under four core themes: lifelong learning, academic transfer, career technical, and essential skills.

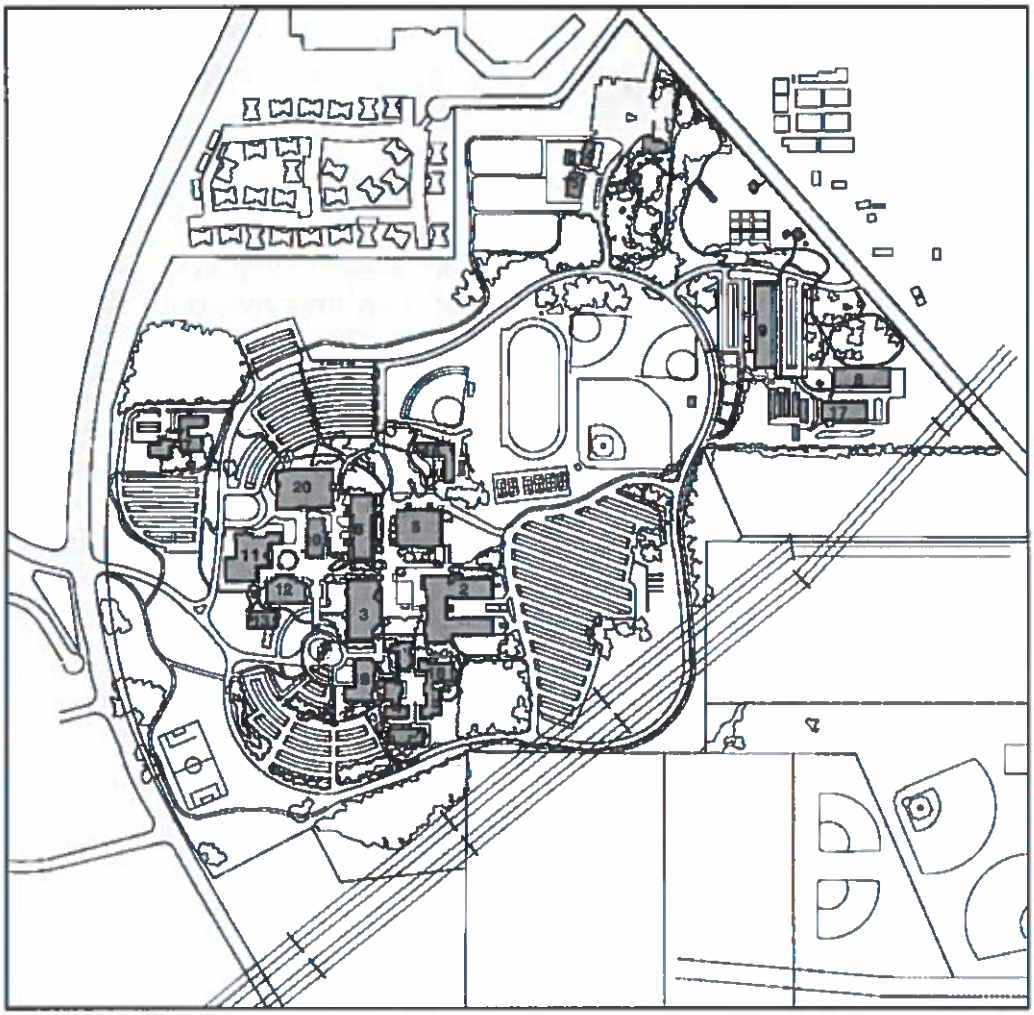

Figure 1. Existing site

Project Summary

In November 2014, voters within the Clackamas Community College district approved a $90 million bond measure to update and expand college facilities. The proposal described in this application represents another project outlined in that bond program. Specifically, the college proposes two adjacent projects as part of this development application. These are: an addition to DeJardin Hall, and the construction of a new Transit Center and parking area to serve the campus. These projects are proposed on the west side of the campus core, on land currently occupied by an existing parking lot.

Figure 2. Overall proposed site plan

The DeJardin Hall addition will be a two-story, 23,250 square foot addition to the existing science building, and will be devoted to laboratory and classroom space. The much-needed new space will offer modern equipment for programs like biology, chemistry and other natural sciences. Programs benefitting from the expansion include water and environmental technology, chemistry, biology, zoology, anatomy and physiology, and engineering.

Figure 3. DeJardin Hall, First Floor Plan.

Figure 4. DeJardin addition from Douglas Loop.

Concurrent with the construction of the DeJardin addition is the building of a new campus transit center and adjacent parking lot. This transit center will provide 12 bus bays, giving the area capacity for additional service identified by TriMet over the next

25 years. Better transit increases student access to education and improves access to jobs and social services for rural Clackamas County residents. The project includes a paved path from the transit center to Oregon City High School, and complements the expansion of college development. This center provides previously unavailable "last-mile" connections to the high school and to Beavercreek Road sites. The center is made possible in part by a $1.7 million grant from the Oregon Transportation Commission.

A new parking lot for the DeJardin and Transit Center projects will serve the campus core and will be integrated with the transit center. Parking will be brought up to current city codes for stormwater treatment, landscaping, pedestrian circulation and lighting.

Existing circulation connections through the pedestrianized campus core will serve the DeJardin addition and will link to new paths around the structure. The DeJardin Hall main entrance will be toward the campus core, opening to students and staff approaching from Roger Rook Hall, Pauling Center and other campus buildings. A second main entrance will be on the west side of the addition, facing the transit center and parking area. The rebuilt parking lot and transit center will provide pedestrian connections that create a friendlier and safer experience for users coming into and leaving the center of campus.

Landscape, Infrastructure, Utilities

The site design for the new transit center and parking lot aims to create a safe, cultivating setting in a sustainable and aesthetic manner. Multiple sidewalks make visual and pedestrian connections to campus from the parking lot. The main campus entry from the lot and transit center will be a large raised concrete plaza, lined with safety bollards. Personal vehicle drop-off is accommodated to the east of the plaza, and a bus/shuttle drop-off to the west. Traffic on the road north of the transit center runs one-way, from east to west, *i.e.*, counter-clockwise as viewed on plans. This 20 foot wide road is accessed from the Douglas Loop and Meyers Road intersection by personal vehicles, service vehicles, and will serve as a fire route.

The parking lot provides more than 300 parking stalls, including park and ride and ADA spaces. The lot features vegetated islands for stormwater treatment. Parking lot landscaping will include shrubs, trees and groundcovers, and will be irrigated. Deciduous trees selected for the parking lots and plaza areas will be drought-tolerant, hardy in urban conditions, and easily maintained. Water quality swales will be planted with rushes, sedges, shrubs, and trees. Plantings will be aesthetically pleasing and will provide safe visual access within the lot.

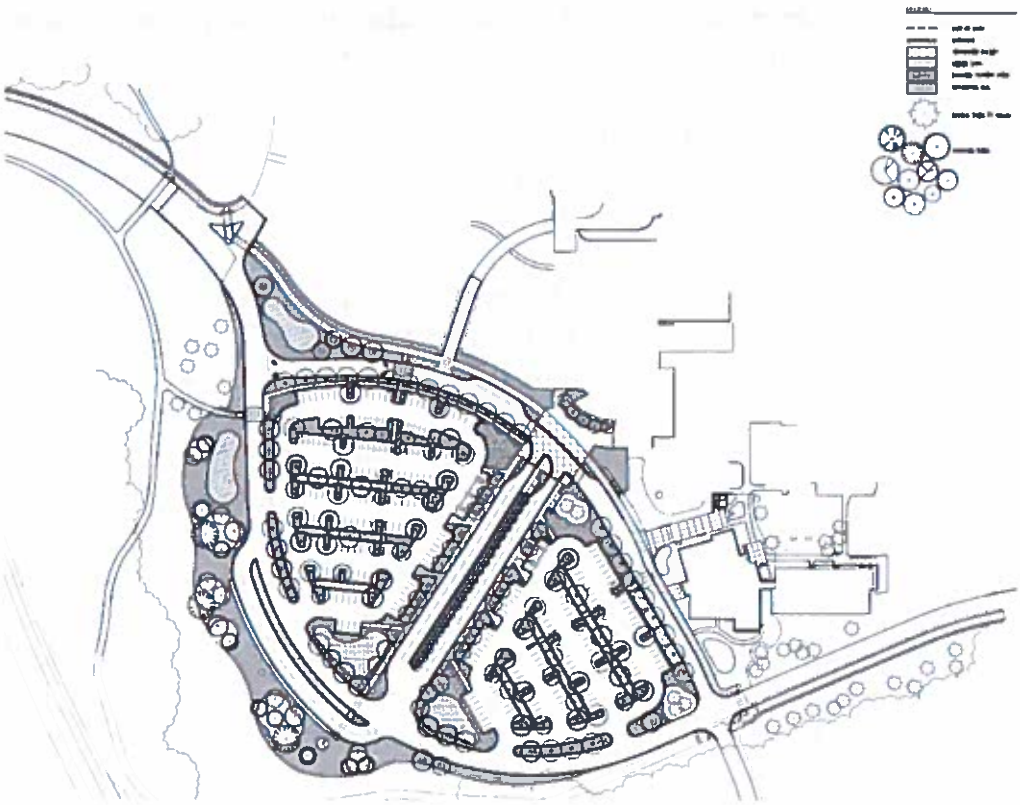

Figure 5. Proposed landscape diagram

Stormwater facilities in the parking lot will have capacity to handle the new impervious surface from the parking lot hardscape. The DeJardin addition will include stormwater facilities for its impervious surfaces including one immediately south of the new structure. Facilities that capture stormwater runoff from newly built areas will be consistent with the overall campus stormwater plan, and in compliance with city standards. A stormwater report from KPFF confirms the feasibility of this method of stormwater management.

For all other utilities, the building will tap into the fully developed, available connections--for electricity, sanitary sewer, and water. These connections are located in the existing campus system and can be extended to serve the new structure. Existing infrastructure was identified in the 2008 master plan.

Transportation

The proposed DeJardin Hall addition will add 23,250 square feet of new area to the campus. Since this project is replacing existing, aging science facilities located in the Pauling Building, anticipated trip generation and new parking demand from the development will be minor, especially with the anticipated transit improvements.

Parking for college uses is shared campus wide. New parking within the reconstructed transit center lot will be folded into the overall campus inventory of 2150 spaces. Parking is managed by the college as part of its transportation program.

The transit center project reconfigures, upgrades, and expands an area currently occupied by parking. This improvement was identified in the concept master plan as part of the "Phase 2" expansion of the campus. Expansion beyond the addition to campus already completed for the ITC building requires compliance with several transportation-related conditions, and a new traffic impact analysis. The transportation planning horizon in the concept master plan was only through 2015, even though the plan nominally runs through 2020. For that reason, staff determined that a master plan amendment is required both to update to the transportation analysis and extend the timeframe for master planned development. Lancaster Engineering is providing transportation analysis as part of this application. One major difference in the nine years since the concept plan was approved is that a Meyers Road extension south of the campus is now a certainty rather than one possible option. This will enable a third major access point into CCC's campus, on to Douglas Loop

The key features of the revised and updated transportation analysis are:

- to determine impacts of proposed and near-term future development
- to determine a proportional share calculation for public improvements
- to extend the timeline of the analysis through 2022, by which time approval of master-planned campus development will be complete.

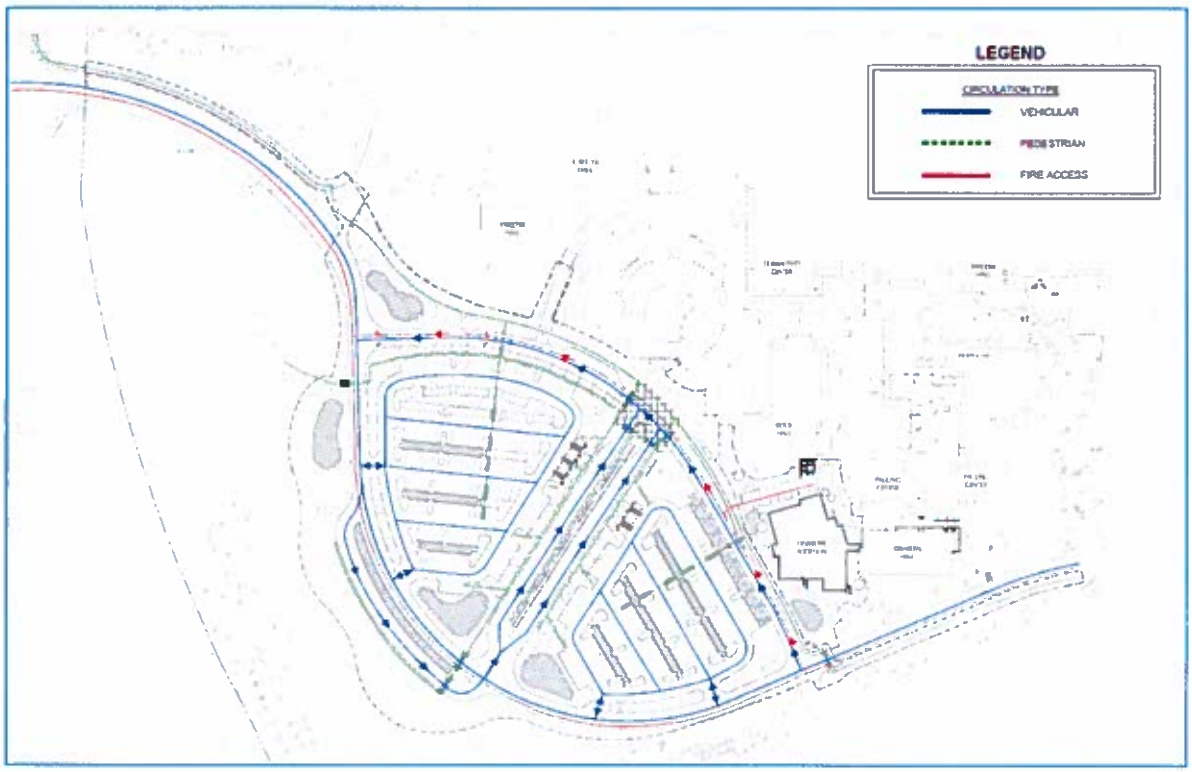

Figure 6. Circulation Plan

Vehicular circulation within the campus will remain largely the same as outlined in the concept master plan. An internal drive along the north side of the new transit center parking lot will provide vehicle circulation close to the DeJardin addition as well as Roger Rook Hall and future Phase 3 development. The driveway will provide personal vehicle and bus shuttle drop off, one on each side of a campus entry area. The entry plaza is the landing point for pedestrians coming in from Transit Center buses and vehicles in the surrounding lot. Where this driveway meets Douglas Loop to the south, it will align with an extension to the future Meyers Road access to campus.

The campus pedestrian circulation system will be improved as a result of new development proposed in this application. In addition to connections in and through the proposed transit center lot and around DeJardin Hall, a multi-use pedestrian and bicycle path will be extended around an adjacent section of Douglas Loop. This section of multi-use path will run along the outside of the Loop, linking to another section of the path to the east that was constructed as part of the Barlow Lot project. This segment creates pedestrian and bike access between the campus core and the trail connection to Oregon City High School.

Transit service to the campus consists of numerous buses that stop directly on campus. Currently, these include TriMet Lines 32, 33, and 99, South Clackamas Transportation

District's Molalla to CCC line. The CCC Xpress Shuttle Service also connects students to campus from nearby areas and other CCC campuses. All of the transit and bus connections will be moved to the new campus transit center, centralizing operations and vastly improving the availability and comfort of connections to the center of campus. A transit center was shown conceptually in the 2008 master plan, though at that time it was envisioned on the other side of the campus core, in the Barlow lot. The transit center includes a location for a potential future layover area outside of Douglas Loop, at the southwest edge of campus. This would allow a place for bus drivers to lay over, away from the center of student activity.

Parking

The proposed Transit Center lot replaces existing parking areas and will provide 300-plus parking spaces to serve the new DeJardin addition and the southwest area of the campus. After the project is complete, the campus will have an inventory of 2138 spaces. This quantity easily meets Oregon City's zoning code standard for minimum parking space provision for colleges. In addition, the new parking areas will be brought up to current standards for landscaping, lighting, stormwater treatment, and pedestrian circulation.

Table 1. Campus Parking

Parking Lot	Phase 2	Description of Bond work
Barlow	610	Completed 2017
Indust. Tech. Ctr.	65	Under construction
Transit Center	302	proposed lot
Family Res. Ctr., Large	260	
Family Res. Ctr., Small	48	
McLoughlin/Niemeyer	360	
Orchard	94	
ELC/Lewelling.	84	
Clairmont/Douglas Loop	58	
Clairmont West	139	
Clairmont East	106	
Training Center	12	
Total Campus Parking	**2138**	

Land Use History

On June 23, 2008 the Oregon City Planning Commission approved CP 07-01, a Concept Development Plan for the college. This land use review went through a Type III public process, and was to extend through 2020. The approved CCC master plan forecasts new buildings and infrastructure and establishes standards for gaining necessary approvals. The plan outlined 300,000 square feet of new building area to be constructed through 2020.

Under that concept plan, the college committed to submitting detailed development plans for individual projects. The first detailed plan was for a new Industrial Technical Center and a revamped Barlow parking lot. That plan was approved in March 2017 (DP-16-0004). This application represents the second detailed plan, "Phase 2," under the approved concept plan. Detailed plans must be consistent with the approved concept plan. Nine conditions of approval were part of the concept plan. How the college complies with each of them in this submittal is shown in a table following this narrative.

A future phase of development, "Phase 3," was identified in the concept master plan, and consists of a new Student Services Community Center (SSCC) building, located in the campus core. This building has not been designed yet, so this application does not show it on drawings or request detailed development plan approval for it. That future request will come as a separate land use application. Nevertheless, the revised transportation study does includes a discussion of impacts from both Phase 2 and Phase 3 traffic, because the traffic study is partly an amendment to the concept master plan, and so that the analysis can be used, in the future, to support a Phase 3 (i.e., SSCC building) application.

Detailed development plans may be reviewed under the land use regulations that were in place at the time the concept plan was submitted, or under the current regulations (17.65.090). As with the recently approved detailed development plan for ITC/Barlow lot, the applicant requests to use the current 2018 Oregon City code to process this detailed development plan request.

Previous Conditions of Approval (CP 07-01)

Table 2. Conditions of Approval from CCC Master Plan (CP 07-01)

Condition of Approval	How addressed
"1. As part of any future Detailed Development Plan, Clackamas Community College shall provide a Traffic	A Traffic Impact Analysis is provided with this application. This analysis substitutes for the

Impact Analysis that demonstrates compliance with the Concept Mater Plan. Clackamas Community College, Oregon City, Oregon Department of Transportation and Clackamas· County, shall mutually agree to the scope of the Traffic Impact Analysis as appropriate."	concept master plan analysis because it is also part of a proposed Type II amendment to the master plan.
"2. As part of any Detailed Development Plan, Oregon City and Clackamas Community College shall determine a fee that addresses Clackamas Community College's proportional share of the necessary transportation system improvements. This fee shall be based on the anticipated impacts of the proposed development on the transportation system and the charges will be assessed prior to the issuance of a building permit."	As part of the current transportation analysis, Oregon City and CCC have determined a proportional share calculation for anticipated development. This applies to both Phase 2 and Phase 3 development at the college.
"3. The Oregon City level-of-service standards will be used to determine the adequacy of the transportation system, appropriate mitigation measures and proportional share calculations. Oregon Department of Transportation and Clackamas County transportation standards will be utilized when applicable to determine the adequacy of the transportation system."	The traffic impact analysis addresses these standards.
"4. A Detailed Development Plan for Phase 2 development shall include the dedication and construction of Meyers Road from Highway 213 to the eastern property line of the campus and the local street connection to 19842 Molalla Avenue (Clackamas County Map 3-2E-9C, tax lot 700), which is located directly south of the campus. . If the Detailed Development Plan for Phase 2 is approved, Clackamas Community College shall dedicate the Meyers Road and local street right-of-way prior to the issuance of a building permit for Phase 2. The local street connection shall be constructed when Meyers Road is constructed. Until the ROW is dedicated, the alignment of the roads will not be guaranteed as it relates to connections to adjacent parcels to the east and south."	The proposed detailed development plan includes dedication of all the necessary right of way to enable construction of the Meyers Road connection.
"5. Clackamas Community College shall mitigate any site-related transportation impacts identified through the Detailed Development Plan Traffic Impact Analysis at the site driveway on Beavercreek Road, to the intersection performance standards established by the City of Oregon City."	No improvements to the Beavercreek entrance of CCC are identified or necessary with this phase of development.
"6. Parking lot landscaping shall be upgraded	The parking lot landscaping for the entirety of

concurrently with the approved Concept Master Plan development. A mitigation plan for upgrading the non-conforming parking lots shall be submitted by the applicant with each phase of development. The non-conforming parking areas shall be upgraded proportionally to the percent of new campus building square-footage being constructed (*i.e.*, if 30% of the approved building square-footage is being constructed, then 30% of the non-conforming parking areas must be upgraded)."	the Community Center/DeJardin/Roger Rook/Visitor lot is being upgraded concurrent with this phase. The 23,250 s.f. DeJardin addition is 8% of the 300,000 s.f. of new development approved in the master plan. This lot represents more than 8% of campus parking that is non-conforming.
"7. The Master Plan shall be updated, as necessary, to reflect the changes that will be made by addressing the 11 City comments on the Water, Sanitary Sewer, and Stormwater systems report. (Concept Development Plan Review, dated 8/31/07: Exhibit 10)."	Utility infrastructure proposed with this development is consistent with the master plan and the city comments.
"8. The applicant shall update the Concept Master Plan narrative, mitigation standards and thresholds to reflect the conditions of approval that have been approved and attached to this decision."	The applicant submitted a revised and final narrative that incorporated the conditions of approval. That version was dated August 11, 2008.
"9. The applicant shall either leave the level-of-service (LOS) standards in the Site Plan and Design Review regulations (17.62.050.A.16) or the they shall be incorporated into the Clackamas Community College Transportation Plan as a reference to the LOS the City requires development to meet and as the standards that were utilized in the review of the master plan to determine adequacy of the transportation system. This standard will be utilized in determining appropriate mitigation measures and in the calculation of the proportional share required to be paid by the applicant for transportation infrastructure deficiencies."	The traffic impact analysis addresses these standards and the adequacy of the system. Because performance standards have changed significantly since 2008, the city and CCC will use current performance standards to determine appropriate mitigation and proportional share contributions.

Concept Plan Amendment

In addition to the detailed development plan proposal for an addition to DeJardin Hall and a new transit center, this plan also includes a request to amend the approved concept development plan. There are three master plan amendments proposed:

1. Update the concept plan's transportation analysis
2. Extend the date of the master plan through 2022
3. Change the minimum parking standard to be consistent with city code

The amendments are reviewable under a Type II process, concurrent with the detailed development plan review for DeJardin/Transit Center. None of the amendments meet the thresholds for a Type III review (17.65.80.B), or a Type I review (17.65.80.D).

New Transportation Analysis

The first concept plan amendment is needed because forecasting in the original transportation analysis only ran through 2015. Assumptions from that analysis have changed, in part because the city has decided to develop a Meyers Road connection from Oregon 213 to Beavercreek Road, which was not a certainty in 2008. Likewise, the city's performance standards have changed since the approval of the concept plan nearly 10 years ago. As part of this plan update, CCC and Oregon City will come to an agreement on the proportional share of public improvements for CCC master planned development. This will address Conditions 1, 2, and 3 from the concept master plan, and clarify/replace the ambiguous Condition 9.

Extended Timeline for Master Plan

The second amendment extends the date of the master plan through 2022, which will allow the construction of both Phase 2 and Phase 3 buildings, within the existing master plan. The current plan nominally extends through 2020, although because the transportation analysis ends 2015, an amendment to the master plan timeline is needed for the current proposal as well. Despite the longer timeline, overall development and related impacts will be substantially less than originally anticipated. The existing approval accounted for 300,000 square feet of new campus building area in three phases. The three phases now anticipated will comprise approximately 98,000 square feet.

Parking Minimums

For reasons that are unclear, the 2008 master plan based parking requirements on square feet of building area, rather than number of students and staff. To make the requirements for CCC the same as for any other institution and consistent with current city code, this application proposes an amendment to instead use the city's parking standard. Student enrollment is a better indicator of demand for campus parking, and the existing standard would result, over time, in an over-supply of parking and impervious surface.

The city's zoning standard for automobile parking (17.52.020.A) requires a minimum of "0.2 spaces per staff and students." However, the applicable minimum standard in the

CCC master plan is square-footage based: 3.6 spaces per 1,000 square feet of campus buildings. There was no explanation in CCC's application, transportation analysis, or Oregon City's final decision on the concept master plan about why the city decided to apply this square footage standard instead of the ordinary students/staff standard, or what the math was for converting from one to the other. In reality, students drive demand for parking; buildings are just a proxy for students. Over time, the master plan standard has created a problem because campus square footage is higher, but enrollment numbers are down as compared to the mid-2000s when the plan was approved. A gap has opened up between the requirements of the two standards, one that grows with every new college building. CCC's on-the-ground experience is that parking demand is highly localized depending on the campus lot, and that adequate supply exists campus-wide.

To avoid excessive impervious surfaces and under-utilized campus parking, this application proposes an amendment to the concept master plan that all master planned development through the end of Phase 3 use the city's current code standard for minimum parking, 0.2 spaces per students and staff. This would cover both DeJardin/Transit Center and Phase 3 development projects. Our proposal shows 2138 spaces for both phases, which will exceed the minimum city requirement.

Public Process

As described in the ITC/Barlow Lot application, a citizen oversight committee has been helping to oversee the implementation of bond measure 3-447, approved by voters on Nov. 4, 2014. The committee has and will:

- Receive regular reports on all bond-related projects
- Ensure the bond projects reflect the community's input and needs
- Advise on and help implement public engagement strategies
- Inform and engage constituencies, communities, businesses and civic organizations

Committee membership is made up of local stakeholders, elected officials, community members and business partners, including members of the CCC Board of Education, students, local residents, civic officials, and public safety leaders. The committee will be in place for five years or until the bond is fully implemented. All committee meetings are held according to public meeting law.

As required by the zoning code, CCC met with the neighborhood association in which the college property is located: the Caufield neighborhood. This meeting was held on

November 28, 2017. At the meeting, Bob Cochran, CCC's Dean of Campus Services, discussed the bond-financed development plans at the school. He informed neighbors about the DeJardin addition and transit center projects, and gave a construction update on the ITC and Barlow Lot. Notes from this meeting are included as an exhibit to this application.

SECTION 2: LAND USE REVIEW FINDINGS

This section provides the findings to support approval of the new development. Quotes from County code and plans are included in *italics*, the applicant response is shown in plain text. Text omitted from the application findings, for brevity's sake, is indicated by ellipses: […].

Concept Plan Amendment – Chapter 17.65.080

A. When Required. An amendment to an approved General Development Plan or detailed development plan is required for any use or development that is not in conformance with the applicable plan, as provided below. The approval criteria contained in Section 17.65.050 will apply to general development plan amendments, the approval criteria contained in Section 17.65.060 will apply to detailed development plan amendments. The thresholds and procedures for amendments are stated below.

Response: This amendment affects the transportation analysis, timeline, and parking standards of the approved Concept Development Plan. These are not in conformance with the approved plan and therefore require a master plan amendment. The approval criteria of 17.65.050 apply. Findings for that section are listed later in this document

B. Type III Procedure. Unless the approved general development plan or detailed development plan specifically provides differently, amendments to either plan that require a Type III procedure are:
1. Any proposed development on the site that is within one hundred feet of the master plan boundaries, unless a greater distance is stated in the master plan;
2. A proposed expansion of the approved boundary;
3. A proposed reduction in the approved boundary that affects a condition of approval, or takes the site out of conformance, or further out of conformance, with a development standard;
4. Proposals that increase the amount, frequency, or scale of a use over ten percent of what was approved (examples include the number of students, patients or members; the number of helicopter flights; the number or size of special events);
5. New uses not covered in the plan that will increase vehicle transportation to the site, except for those that are replacing another use so that there is no net increase in vehicles drawn to the site;
6. Increases in overall floor area of development on the site of over ten percent;
7. A increases/decrease greater than ten percent in the amount of approved or required parking; and
8. Proposed uses or development which were reviewed, but were denied because they were found not to be in conformance with an approved plan.

Response: This proposed amendment does not meet any of the thresholds stated above that would trigger a Type III review. The purpose of the concept plan amendment is to: update the transportation analysis, extend the timeline for master plan development, and change the minimum parking requirement.

The concept plan does not proposed new development within 100 feet of master plan boundaries. No expansion or reduction of the boundary is proposed. The proposal includes development already approved in the concept development plan, and does not increase the amount, frequency or scale of the use. The proposal does not propose any new uses, nor does it increase overall floor area of the development above what was anticipated in the concept plan. No additional uses are proposed.

Parking will be affected, but as described in subsection (7) a Type III review is not triggered because it does not increase or decrease required parking by more than 10 percent. The existing standard would require 2184 and 2276 spaces campus-wide for the DeJardin and SSCC buildings, respectively, based on cumulative campus square footages of 607,000 and 632,000 square feet. The proposal to use the city zoning standard (enrollment-based, rather than square footage based) would allow the proposed 2138 spaces for both phases. Compared with the existing standard, the proposed standard reduces the inventory of parking by only two percent for Phase 2/DeJardin and six percent for Phase 3/SSCC. Therefore, a Type III amendment is not triggered for either project.

C. Type II Procedure. Unless an approved plan specifically provides otherwise, amendments to a general development plan or detailed development plan not specifically stated in Subsection B or D are processed through a Type II procedure.

Response: Because none of the Type III thresholds are met, the proposed concept plan amendment is a Type II review.

D. Type I Procedure. Unless an approved plan specifically provides otherwise, the following amendments to a general development plan or detailed development plan shall be processed through a Type I procedure:
1. Accessory uses and structures that meet applicable development regulations;
2. Reconfiguration of approved parking or landscape designs that do not alter the points of ingress or egress, and do not change the number of parking spaces required, so long as the reconfiguration meets applicable development regulations; and
3. Structures for approved uses that do not exceed one thousand five hundred square feet in size and that meet applicable development regulations.

Response: The proposed development is for a 23,250 square foot addition to DeJardin Hall. This exceeds 1,500 square feet in size per subsection (3), so the proposal is not

eligible for a Type I review. The amendments likewise are for a transportation analysis update, timeline extension, and parking standard change. As noted above, the amendment is processed through a Type II review.

Concept Plan Amendment Criteria – 17.65.050

17.65.050 - General Development Plan.

C. Approval Criteria for a General Development Plan. The planning commission shall approve an application for general development plan approval only upon finding that the following approval criteria are met.
1. The proposed General Development Plan is consistent with the purposes of Section 17.65

Response: The proposed amendment has three components, all consistent with the original approval for the campus master plan and the purposes of Section 17.65. The three components of the amendment are:

1. Update the concept plan's transportation analysis
2. Extend the date of the master plan through 2022
3. Change the minimum parking standard to be consistent with city code

Both the original plan and the proposed amendment are consistent with the purpose of the master plan code to foster the growth of large-scale development that is most efficiently expanded in phases, over time. The Concept Master Plan presents a long-term plan for the college's development, which allows the community to consider its impacts. The plan mitigates these impacts throughout its phased development. The proposal meets the purpose of Section 17.65 by showing a concept for the facility throughout the plan's duration as originally approved. The proposed amendments update the transportation assumptions and trip analysis in the now 10-year-old transportation analysis, extend the date of the master plan to include development that was already accounted for in the master plan, and changes the minimum parking standard to be consistent with current city zoning code.

2. Development shall demonstrate compliance with Chapter 12.04, Streets, Sidewalks and Public Places.

Response: The timeline extension and change to parking space quantities have no impact on issues in related to the provision of public streets, sidewalks, or other public places. The public facility requirements of the existing concept master plan will remain the same after this amendment is approved. The included update to the master plan's transportation analysis clarifies CCC's contributions to the surrounding public system, including improvements to the new Meyers Road extension and the college's new entrance from that street. The amendments to the concept plan do not, in themselves,

generate any additional beyond what was previously approved in the concept master plan.

3. Public services for water supply, police, fire, sanitary waste disposal, and storm-water disposal are capable of serving the proposed development, or will be made capable by the time each phase of the development is completed.

Response: Existing public services for water, police, and fire will not need to be expanded to accommodate the proposed amendment. All the public facilities impacts identified and addressed in the 2008 plan still apply. The changes to the transportation analysis, master plan timeline, and parking space standard do not change any of the public facilities analysis in the 2008 plan.

4. The proposed General Development Plan protects any inventoried Goal 5 natural, historic or cultural resources within the proposed development boundary consistent with the provisions of applicable overlay districts.

Response: Two Goal 5 natural resources are within the proposed development boundary: a large wetland area around the Environmental Learning Center, and the edge of a larger wetland resource to the southeast of the property. None of the proposed amendments to the plan have any impact on these resources. The concept plan, after approval of the proposed amendments, will still protect these resources at least as well as it does currently. Because the overall condition of the natural resource will be improved as a result of this plan in excess of current NROD requirements, this concept development plan protects the Goal 5 resource, in compliance with this standard.

5. The proposed General Development Plan, including development standards and impact mitigation thresholds and improvements adequately mitigates identified impacts from each phase of development. For needed housing, as defined in ORS 197.303(1), the development standards and mitigation thresholds shall contain clear and objective standards.

Response: The applicant has proposed an amendment to the general development plan that adequately mitigates the identified impacts associated with the development. The proposed amendment modifies the timeline that was approved in the 2008 plan, updates the transportation analysis, and changes the parking standard to be consistent with current city code. The identifiable change to the parking development standard and impacts are consistent with city code. Maintaining minimum parking consistent with city code as new development is constructed "adequately mitigates" identified impacts almost by definition. All other impacts are unchanged from the originally approved 2008 plan.

6. The proposed general development plan is consistent with the Oregon City Comprehensive Plan and its ancillary documents.

Response: The proposed amendment to the general development plan is to extend the master plan timeline consistent with the phasing described in the 2008 plan. Additionally, the amendment proposes an update to the transportation analysis to reflect current conditions and to change the parking standard to comply with the current zoning code standard. Both of these actions are entirely consistent with the 2008 plan. Consequently, the findings in that document of how the overall general development plan is consistent with the Oregon City Comprehensive Plan are still applicable, and this amendment likewise is consistent with it.

Detailed Development Plan – Chapter 17.65.060

A. Submittal Requirements.
1. A transportation impact study documenting the on- and off-site transportation impacts, as specified in Section 17.65.050.B.1.h(1). If such an analysis was submitted as part of the general development plan process, the scope of the report may be limited to any changes which have occurred during the interim and any information listed below which was not a part of the initial study.
The on-site portion of the analysis shall include the location, dimensions and names of all proposed streets, alleys, other public ways, sidewalks, bike routes and bikeways, pedestrian/bicycle access ways and other pedestrian and bicycle ways, transit streets and facilities, neighborhood activity centers, and easements on and within two hundred fifty feet of the boundaries of the site. The map shall identify existing subdivisions and development and un-subdivided or unpartitioned land ownerships adjacent to the proposed development site and show how existing streets, alleys, sidewalks, bike routes, pedestrian/bicycle access ways and utilities within two hundred fifty feet may be extended to and/or through the proposed development.

Response: An updated transportation analysis by Lancaster Engineering is provided with this application. The transportation impact study documents impacts as listed above. This analysis is for the detailed development plan as identified above, but also includes an amendment to the earlier analysis that was approved as part of the general development plan in 2008. This represents an amendment to the general development plan as discussed previously and allowed under 17.65.080. Both the current proposal for the DeJardin addition and the overall plan for all future development within the proposed planning horizon at the campus shows that the existing transportation system is capable of operating acceptably.

2. The location within the development and in the adjoining streets of existing and proposed sewers, water mains, culverts, drain pipes, underground electric, cable television and telephone

distribution lines, gas lines, and the location of existing aerial electric, telephone and television cable lines, if any, to be relocated within the development.

Response: A utility plan is included as an Exhibit to this application narrative. Except as shown in this plan, all the utility infrastructure shown in the approved concept plan will remain the same.

3. A site plan or plans, to scale, containing the information identified in:
a. Chapter 17.62.040.A.(8), (10), (11), (12), (13), (14), and (15);
b. Chapter 17.62.040.B;
c. Chapter 17.62.040.C;
d. Chapter 17.62.040.D;
e. Chapter 17.62.040.E;
f. Chapter 17.62.040.G;
g. Chapter 17.62.040.H; and
h. Chapter 17.62.040.J.
4. Any other information the community development director deems necessary to show that the proposed development will comply with all of the applicable Chapter 17 requirements.

Response: The information listed above is included in the submittal for this application. Where the information is not shown, normally for other areas of the campus outside the DeJardin addition and transit center area, no changes are proposed.

B. Approval Criteria. The community development director shall approve an application for a detailed development plan approval only upon findings that:

1. All development standards and impact mitigation meet the requirements of the approved concept plan, including conditions of approval.

Response: The development standards listed in the CCC Master Plan are met by the proposed application. These development standards, which are in the approved concept plan, are as follows:

Table 3. CCC Development Standards

Standard	CCC Standard (from CP 07-01)	How met by proposed development
Dimensional		
Maximum Height	70 feet; 35 feet if within 100 feet of Master Plan boundary.	DeJardin addition is 39.5 feet tall. Not within 35 feet of plan boundary.
Minimum Setback	25 feet from any	DeJardin addition is 335 feet

	property line	from nearest property line.
Minimum Campus Landscaped Area	15 percent	Campus landscaped area in excess of 40 percent. Proposed buildings and parking lot redevelopment increases total amount of landscaping.
Parking and Transportation		
Required Vehicular Parking	Maintain parking supply at a rate of 3.6 spaces per 1,000 square feet of total campus building area. [Concept plan amendment proposed to change standard to city code requirement: minimum 0.2 spaces per staff and students.	2,138 parking spaces provided. Campus enrollment is 6,319 and staff is 600. 6,919 * 0.2 = 1384 spaces required.
Required Bicycle Parking	2 spaces per new classroom	12 new bike parking spaces proposed for 6 new classrooms in DeJardin addition.
Vehicular, Pedestrian, and Bicycle Connectivity	Entrances to new buildings must provide direct, convenient access to existing campus circulation system as shown on CCC Circulation Plan map.	Main entrance to DeJardin building will open to northeast, into existing campus pedestrian circulation system. Secondary main entrance on west side of building opens to ped and vehicular circulation system via sidewalk and road. All connections connect to system shown on CCC Circulation Plan.
Pedestrian Lighting	High Activity Pathways: min level of 0.5 foot-candles, a 1.5 fc average, and a max to min ratio of 7:1. Low Activity Pathways and ped routes through parking lots: 0.5 fc	Lighting to meet this standard as shown on Lighting Plan included with application materials.

	average and a max to min ratio of 10:1.	
Water Quality Resource Area		
Structural Footprint within ELC WQRA water resource	0 square feet	No development proposed in ELC area with this application. Does not apply.
Structural Footprint within ELC WQRA vegetated buffer	Less than 38,460 square feet	No development proposed in ELC area with this application. Does not apply.
Overall Condition of WQRA	Upgrade from "degraded" to "good"	No development proposed in ELC area with this application. Does not apply.
Stormwater		
Stormwater Flows to the Public System	Overall flows less than conditions identified in CP 07-01 for the 2, 10, and 25 year storm events.	Per pre-application meeting, stormwater must meet current code. Included stormwater memo shows application meets all city requirements.

The mitigation requirements of the Master Plan have been met by this detailed development plan proposal as follows:

Table 4. Mitigation Requirements

Category	Required Mitigation (from CP 07-01)	How met by proposed development
Traffic	Install dual left at existing Molalla Ave college entrance OR new college entrance from Meyers Road extension	Plans show new college entrance at Meyers Road. Details in traffic analysis document.
Parking	*Old standard*: Maintain campus parking at 3.6 per 1000 square feet of campus buildings. *Proposed standard (if concept plan amendment is approved)*: Maintain campus parking at 0.2 spaces per staff and students	Total parking provided = 2138 Parking required under proposed standard = 1384; (6,319 students + 600 staff = 6,919 students/staff * 0.2 spaces)
Water	None required.	Not applicable
Sanitary Sewer	None required.	Not applicable
Stormwater	No net increase in flow to public system for 2, 10, and 25 year events. New development follow master plan guidelines	Per pre-application meeting, stormwater must meet current code. See stormwater report.

2. Any other applicable zoning regulations that are not addressed in the concept development plan are met, unless an adjustment to those regulations has been applied for and is approved. The approval standards applicable to adjustments required as part of a master plan are contained in Section 17.65.070.

Response: All the other applicable requirements of the zoning code are met.

3. The detailed development plan conforms with the standards contained in Chapter 17.62, unless adjusted as provided in Section 17.65.070.

Response: The Site Plan and Design Review Standards are addressed below in their own section of the findings. All of them are met by the proposed plan.

C. Duration of Detailed Development Plan. Unless substantial expenditures have been made to implement the approved detailed development plan, defined as the submittal to the city of

engineered plans for approval, a detailed development plan shall expire twenty-four months from the notice of decision date. The date of final approval includes the resolution of all appeals. Upon the receipt from the applicant of a written request and payment of the required fee prior to the expiration dated of the detailed development plan, the community development director may, on a one-time basis, grant a twelve-month extension.

Response: CCC anticipates beginning construction of the DeJardin addition and the transit center immediately upon approval of land use and building permits. This would be within the two-year window of the detailed development plan approval. The transportation study includes consideration of Phase 3 development impacts, but that project must go through a separate detailed development plan prior to approval.

Site Plan and Design Review – Section 17.62

17.62.040 – Plans required.
[…]
Response: The requirements listed in this section are a subset of the requirements for a detailed development plan. They are listed in 17.65.060(A)(3), and are provided as exhibits to this application.

17.62.050 - Standards.
A. All development shall comply with the following standards:
1. Landscaping. A minimum of fifteen percent of the lot shall be landscaped. Existing native vegetation shall be retained to the maximum extent practicable. All plants listed on the Oregon City Nuisance Plant List shall be removed from the site prior to issuance of a final occupancy permit for the building.
a. Except as allowed elsewhere in the zoning and land division chapters of this Code, all areas to be credited towards landscaping must be installed with growing plant materials. A reduction of up to twenty-five percent of the overall required landscaping may be approved by the community development director if the same or greater amount of pervious material is incorporated in the non-parking lot portion of the site plan (pervious material within parking lots are regulated in OCMC 17.52.070.
b. Pursuant to Chapter 17.49, landscaping requirements within the Natural Resource Overlay District, other than landscaping required for parking lots, may be met by preserving, restoring and permanently protecting native vegetation and habitat on development sites.
c. The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.) that within three years will cover one hundred percent of the Landscape area. No mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. The community development department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping.

d. For properties within the Downtown Design District, or for major remodeling in all zones subject to this chapter, landscaping shall be required to the extent practicable up to the ten percent requirement.
e. Landscaping shall be visible from public thoroughfares to the extent practicable.
f. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum, unless otherwise permitted by the dimensional standards of the underlying zone district.

Response: The amount of the 164-acre campus that is landscaped is approximately 65 percent. As shown in aerial photos included with the drawings, the campus character is defined by large open areas, playing fields, and tree groves. The site is far in excess of minimum compliance with this standard. A preliminary landscape plan, prepared by a registered landscape architect, has been prepared for the development of areas in the proposal and is part of this submittal.

2. Vehicular Access and Connectivity.
a. Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.
b. Ingress and egress locations on thoroughfares shall be located in the interest of public safety. Access for emergency services (fire and police) shall be provided.
c. Alleys or vehicular access easements shall be provided in the following Districts: R-2, MUC-1, MUC-2, MUD and NC zones unless other permanent provisions for access to off-street parking and loading facilities are approved by the decision-maker. The corners of alley intersections shall have a radius of not less than ten feet.
d. Sites abutting an alley shall be required to gain vehicular access from the alley unless deemed impracticable by the community development director.
e. Where no alley access is available, the development shall be configured to allow only one driveway per frontage. On corner lots, the driveway(s) shall be located off of the side street (unless the side street is an arterial) and away from the street intersection. Shared driveways shall be required as needed to accomplish the requirements of this section. The location and design of pedestrian access from the sidewalk shall be emphasized so as to be clearly visible and distinguishable from the vehicular access to the site. Special landscaping, paving, lighting, and architectural treatments may be required to accomplish this requirement.
f. Driveways that are at least twenty-four feet wide shall align with existing or planned streets on adjacent sites.
g. Development shall be required to provide existing or future connections to adjacent sites through the use of vehicular and pedestrian access easements where applicable. Such easements shall be required in addition to applicable street dedications as required in Chapter 12.04.
h. Vehicle and pedestrian access easements may serve in lieu of streets when approved by the decision maker only where dedication of a street is deemed impracticable by the city.
i. Vehicular and pedestrian easements shall allow for public access and shall comply with all applicable pedestrian access requirements.
j. In the case of dead-end stub streets that will connect to streets on adjacent sites in the future, notification that the street is planned for future extension shall be posted on the stub street until

the street is extended and shall inform the public that the dead-end street may be extended in the future.
k. Parcels larger than three acres shall provide streets as required in Chapter 12.04. The streets shall connect with existing or planned streets adjacent to the site.
l. Parking garage entries shall not dominate the streetscape. They shall be designed and situated to be ancillary to the use and architecture of the ground floor. This standard applies to both public garages and any individual private garages, whether they front on a street or private interior access road.
m. Buildings containing above-grade structured parking shall screen such parking areas with landscaping or landscaped berms, or incorporate contextual architectural elements that complement adjacent buildings or buildings in the area. Upper level parking garages shall use articulation or fenestration treatments that break up the massing of the garage and/or add visual interest.

Response: The site plan for the DeJardin addition and transit center shows access to the new addition from Douglas Loop. These connections are similar to existing connections to this part of campus. The transit center and parking area reconfigures this area of the property to provide access to the southwest side of the campus core via foot, bike, bus, and personal vehicles. Parking areas for the DeJardin addition are folded into larger transit center lot which also serves the rest of the campus core. The building addition has its main entrance facing northeast, toward the pedestrianized campus core, and a secondary main entrance, facing the parking lot and transit center. No direct access to the building from a public street is provided, since the nearest public street is Molalla Avenue, 800 feet away from the addition. Instead, access is indirect, from existing connections at college entrances on Molalla to the west, Beavercreek to the east, and a future access from the south at Meyers Road.

3. Building structures shall be complimentary to the surrounding area. All exterior surfaces shall present a finished appearance. All sides of the building shall include materials and design characteristics consistent with those on the front. Use of inferior or lesser quality materials for side or rear facades or decking shall be prohibited.
a. Alterations, additions and new construction located within the McLoughlin Conservation District, Canemah National Register District, and the Downtown Design District and when abutting a designated Historic Landmark shall [...].
b. In historic areas and where development could have a significant visual impact, the review authority may request the advisory opinions of appropriate experts designated by the community development director from the design fields of architecture, landscaping and urban planning. The applicant shall pay the costs associated with obtaining such independent professional advice; provided, however, that the review authority shall seek to minimize those costs to the extent practicable.

Response: The proposed development is compatible with surrounding college development as shown in drawings and renderings of the new building and parking

areas. All sides of the two-story DeJardin addition present a finished appearance. The "front façade" is not clearly defined, but the two most architecturally significant sides of the building are the east and west elevations. The north and south elevations are consistent with either of these, and the building presents a unified appearance with the existing structure. DeJardin and its proposed addition are part of the cluster of academic and services buildings at the center of campus. The addition has been designed to fit in with the rest of the facilities in that area. The dual orientation of the building, both to the campus core on the east and the driveway and parking area to the west, creates a transition from the highly pedestrianized core to the vehicle-oriented parking areas that ring around it. The color and materials, as shown in the drawings, are common to other buildings on campus and complement the existing DeJardin Hall. Overall, the features of new development proposed with this application are complimentary with existing and planned development at CCC.

The development area is not in a historic area or design district.

4. Grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.

Response: A preliminary grading plan is included in the application materials. The proposed development site is generally flat and currently occupied by an existing parking area. The stormwater plan for DeJardin and the transit center is consistent with the CCC Stormwater Plan.

5. Development subject to the requirements of the Geologic Hazard overlay district shall comply with the requirements of that district.

Response: The proposed development site is not within the Geologic Hazard overlay district.

6. Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.

Response: The proposed development is consistent with the city's plans for stormwater management. Drainage and grading has been addressed in a plan and memo from KPFF, the college's civil engineering consultant..

7. Parking, including carpool, vanpool and bicycle parking, shall comply with city off-street parking standards, Chapter 17.52.

Response: Parking is provided for both the DeJardin addition and the transit center as part of the overall project. The drawings included with the application show the layout

and arrangement of the parking areas. The CCC Parking Plan requires certain standards be met. A key difference is that the applicant has requested an amendment to the master plan to line up the master plan with current 17.52 requirements for automobile parking, as follows:

Standard	CCC Standard	How met by this application
Required Vehicular Parking	*Old standard*: Maintain campus parking at 3.6 per 1000 square feet of campus buildings. *Proposed standard (if concept plan amendment is approved)*: Maintain campus parking at 0.2 spaces per staff and students	Total parking provided = 2138 Parking required under proposed standard = 1384; (6,319 students + 600 staff = 6,919 students/staff * 0.2 spaces)
Required Carpool or Vanpool Parking	At least 5% of new spaces	5% of new spaces will be signed for carpool/vanpool use.
Required Bicycle Parking	2 spaces per classroom	12 spaces provided, 6 new classrooms in DeJardin = 12 spaces required.
Dimensional Standards for all Vehicular and Bicycle Parking (Surfacing, Lighting, Landscaping, Width, Orientation, etc.)	Per Oregon City requirements, Chapter 17.52	All 17.52 standards met.

8. Sidewalks and curbs shall be provided in accordance with the city's transportation master plan and street design standards. Upon application, the community development director may waive this requirement in whole or in part in those locations where there is no probable need, or comparable alternative location provisions for pedestrians are made.

Response: The proposed DeJardin building and transit center does not abut any public street, as Douglas Loop is entirely internal to CCC property. Sidewalks and curbs will be provided along the pedestrian connections indicated on the plans, including the driveway to the west of the building and the pedestrian connections to the campus core on the north and east sides of the building. Sidewalks and curbs along public street

frontages consistent with Oregon City plans have been improved as part of previous land use reviews.

9. A well-marked, continuous and protected on-site pedestrian circulation system meeting the following standards shall be provided:
a. Pathways between all building entrances and the street are required. Pathways between the street and buildings fronting on the street shall be direct. Exceptions may be allowed by the director where steep slopes or protected natural resources prevent a direct connection or where an indirect route would enhance the design and/or use of a common open space.
b. The pedestrian circulation system shall connect all main entrances on the site. For buildings fronting on the street, the sidewalk may be used to meet this standard. Pedestrian connections to other areas of the site, such as parking areas, recreational areas, common outdoor areas, and any pedestrian amenities shall be required.
c. Elevated external stairways or walkways, that provide pedestrian access to multiple dwelling units located above the ground floor of any building are prohibited. The community development director may allow exceptions for external stairways or walkways located in, or facing interior courtyard areas provided they do not compromise visual access from dwelling units into the courtyard.
d. The pedestrian circulation system shall connect the main entrances of adjacent buildings on the same site.
e. The pedestrian circulation system shall connect the principal building entrance to those of buildings on adjacent commercial and residential sites where practicable. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially-zoned land.
f. On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be a minimum of seven feet in width unless curb stops are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the walkway shall be raised or separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel. Pedestrian walkways that cross drive isles or other vehicular circulation areas shall utilize a change in textual material or height to alert the driver of the pedestrian crossing area.

Response: The campus pedestrian circulation system will be improved as a result of new development proposed in this application. Internally, sidewalks with adjacent planting strips will be established around the north and east sides of the DeJardin addition. A sidewalk along the west side of the new DeJardin addition will form connections from Douglas Loop to the main campus entry plaza. This sidewalk also provides access to the secondary main entrance to the DeJardin addition. Improved pedestrian connections through the new transit center parking lot will be established, allowing better connections into the campus core.

Another key element of this project is construction of a multi-use pedestrian and bicycle path around the adjacent section of Douglas Loop, east of a future college entrance at Meyers Road. An ADA-accessible path will be installed on the outside of the Loop to improve circulation for users on bike and foot. This will allow better access between the campus and the properties to the west, specifically the trail connection to Oregon City High School.

10. There shall be provided adequate means to ensure continued maintenance and necessary normal replacement of private common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agency.

Response: CCC has maintained college facilities in good condition since its founding at this site in 1968. The design of the proposed facilities will allow for continued maintenance and necessary normal replacement of the items listed above.

11. Site planning shall conform to the requirements of OCMC Chapter 17.41 Tree Protection.

Response: Trees have been protected in accordance with Section 17.41. A tree removal and mitigation plan is included with the drawings for this application. Specific findings for chapter 17.41 are found later in this document. The tree plan includes an inventory of trees removed (80) and trees planted (212) in association with new development.

12. Development shall be planned, designed, constructed and maintained to protect water resources and habitat conservation areas in accordance with the requirements of the city's Natural Resources Overlay District, Chapter 17.49, as applicable.

Response: As shown in the map excerpt below, college property that is affected by the Natural Resources Overlay District is around the Environmental Learning Center at the north edge of campus and a very small section of at the extreme southeast corner of campus, outside Douglas Loop.

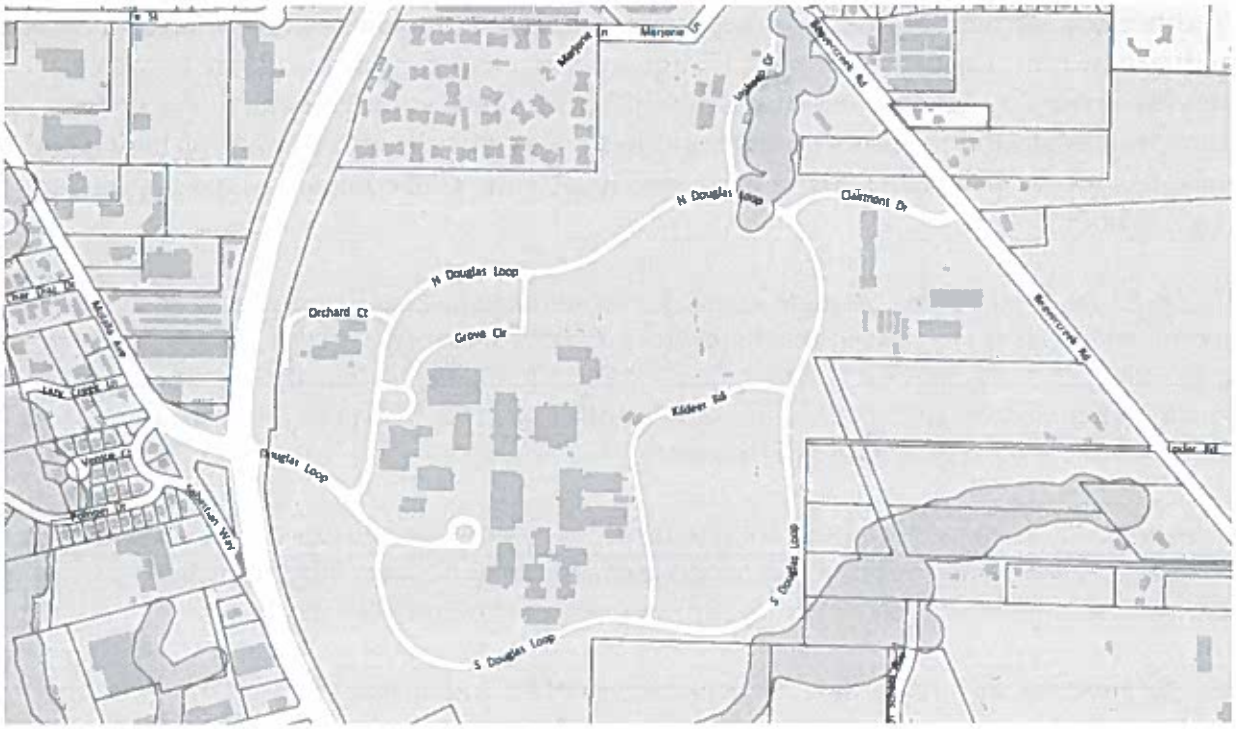

Figure 7. NROD locations (in pink) on CCC Campus

The proposed area of work for the DeJardin addition the transit center does not touch these two areas, no natural resources are impacted, and the requirements of the NROD chapter are not directly applicable.

13. All development shall maintain continuous compliance with applicable federal, state, and city standards pertaining to air and water quality, odor, heat, glare, noise and vibrations, outdoor storage, radioactive materials, toxic or noxious matter, and electromagnetic interference. Prior to issuance of a building permit, the community development director or building official may require submission of evidence demonstrating compliance with such standards and receipt of necessary permits. The review authority may regulate the hours of construction or operation to minimize adverse impacts on adjoining residences, businesses or neighborhoods. The emission of odorous gases or other matter in such quantity as to be readily detectable at any point beyond the property line of the use creating the odors or matter is prohibited.

Response: The college is proposing a new campus building for student instruction and the replacement of an existing parking area with a transit center and parking area. Both of these facilities will maintain compliance with all applicable standards for the nuisance impacts listed in this standard. The DeJardin building is located approximately 335 feet from the nearest adjacent property line (to the southeast) where it is also buffered by a berm and a dense grove of trees.

14. Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing offsite systems if necessary to provide adequate public facilities. The city may require over sizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where over sizing is required, the developer may request reimbursement from the city for over sizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.

Response:

Water:

The existing water distribution system on campus is a private system, served from two large master meter connections to the public water system. The site appears to be well served by the existing adjacent water main west of the proposed building. The proposed building footprint will require the relocation of this water main and an existing water service loop that serves the existing DeJardin Hall, including a hydrant and fire department connections.

The existing fire service for DeJardin Hall will be maintained, and the sprinkler system will be extended internally to serve the new addition. No new fire service will be required for the addition. The existing FDC will have to be relocated in coordination with the new fire hydrant along the new drive in front of the addition.
A new domestic water service will be provided for the addition off the relocated water main.

CCC tested its water system in 2003 to verify flow capacity for future development. The approximate static pressure available near the project site is 70 psi. A significant system improvement was recently completed with the ITC and Barlow Parking Lot projects where approximately 900 linear feet of 6 inch water main was replaced with 8 inch diameter pipe. This improvement should enhance the capacity of the distribution system.

Sanitary Sewer

Existing gravity sewer serves the DeJardin Hall. The proposed addition will be located above this existing sanitary sewer lateral, flowing to the main. This service lateral will be rerouted around the addition, or picked up and conveyed in the new plumbing system to maintain a similar connection point to the sewer main at the west end of the addition.

Storm Water

Surface runoff from the newly improved impervious areas will be managed in accordance with the Oregon City Stormwater and Grading Design Standards. Drainage from all new and improved impervious surfaces must be routed through storm facilities that provide water quality treatment and flow control.

The storm facility that serves the current DeJardin site to the east of the existing building will be maintained, and runoff from the new building addition and associated plazas will be managed in a different facility. Roof areas from the addition and new plaza paving will be collected and conveyed to a storm facility. The design will locate a vegetated storm facility to the south of the addition. The sizing of the facility will be approximately 14 percent of the contributing impervious area, or about 2,100 square feet.

An existing storm main flowing west passes south of DeJardin Hall, and is part of the Caufield Basin that discharges at the southwest corner of campus. Proposed improvements will require a portion of the existing storm main to be rerouted around the south side of the addition. Existing laterals serving Rook Hall and Pauling Science Center to the north of DeJardin will also need to be relocated and routed south between the existing and new addition to reconnect to the storm main.

15. Adequate right-of-way and improvements to streets, pedestrian ways, bike routes and bikeways, and transit facilities shall be provided and be consistent with the city's transportation master plan and design standards and this title. Consideration shall be given to the need for street widening and other improvements in the area of the proposed development impacted by traffic generated by the proposed development. This shall include, but not be limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, median and parking strips, traffic islands, paving, curbs and gutters, sidewalks, bikeways, street drainage facilities and other facilities needed because of anticipated vehicular and pedestrian traffic generation. Compliance with [Chapter] 12.04, Streets, Sidewalks and Public Places shall be sufficient to achieve right-of-way and improvement adequacy.

Response: The proposed development of a new addition to DeJardin Hall and transit center is not anticipated to trigger any immediate public improvements on the surrounding street system. Improvements to S. Molalla Avenue and S. Beavercreek Road were required and have already been constructed in tandem with previous college development, as acknowledged in the 2008 concept master plan. A proportional share of future public improvements (*e.g.*, to the Meyers Road construction costs) will be provided according to calculations shown in the transportation study.

16. If a transit agency, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, accessible bus

landing pad, lighting, or transit stop connection be constructed, or that an easement or dedication be provided for one of these uses, consistent with an agency adopted or approved plan at the time of development, the review authority shall require such improvement, using designs supportive of transit use. Improvements at a major transit stop may include intersection or mid-block traffic management improvements to allow for crossings at major transit stops, as identified in the transportation system plan.

Response: Transit service to the campus consists of numerous buses that stop directly on campus. The transit center proposed as a major component of this application will provide 12 bus bays, giving the area capacity for additional service identified by TriMet over the next 25 years. CCC and the TriMet worked together on the design of this transit center.

17. All utility lines shall be placed underground.

Response: All utility lines will be placed underground. This is consistent with the campus standard.

18. Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.

Response: The proposed DeJardin addition is consistent with ADA standards both inside and out. CCC is committed to full access on its campus facilities, and the new DeJardin addition is no exception. Likewise, the pathways to and through the transit center and adjacent parking meet the minimum requirements for ADA access. Dimensions are shown on included drawings of the new building and transit center.

19. For a residential development, site layout shall achieve at least eighty percent of the maximum density of the base zone for the net developable area. Net developable area excludes all areas for required right-of-way dedication, land protected from development through Natural Resource or Geologic Hazards protection, and required open space or park dedication.

Response: The proposed development is not residential. This standard is not applicable.

20. Screening of Mechanical Equipment:
a. Rooftop mechanical equipment, including HVAC equipment and utility equipment that serves the structure, shall be screened. Screening shall be accomplished through the use of parapet walls or a sight-obscuring enclosure around the equipment constructed of one of the primary materials used on the primary facades of the structure, and that is an integral part of the building's architectural design. The parapet or screen shall completely surround the rooftop mechanical equipment to an elevation equal to or greater than the highest portion of the rooftop mechanical

equipment being screened. In the event such parapet wall does not fully screen all rooftop equipment, then the rooftop equipment shall be enclosed by a screen constructed of one of the primary materials used on the primary facade of the building so as to achieve complete screening.
b. Wall-mounted mechanical equipment shall not be placed on the front facade of a building or on a facade that faces a right-of-way. Wall-mounted mechanical equipment, including air conditioning or HVAC equipment and groups of multiple utility meters, that extends six inches or more from the outer building wall shall be screened from view from streets; from residential, public, and institutional properties; and from public areas of the site or adjacent sites through the use of (a) sight-obscuring enclosures constructed of one of the primary materials used on the primary facade of the structure, (b) sight-obscuring fences, or (c) trees or shrubs that block at least eighty percent of the equipment from view or (d) painting the units to match the building. Wall-mounted mechanical equipment that extends six inches or less from the outer building wall shall be designed to blend in with the color and architectural design of the subject building.
c. Ground-mounted above-grade mechanical equipment shall be screened by ornamental fences, screening enclosures, trees, or shrubs that block at least eighty percent of the view. Placement and type of screening shall be determined by the community development director.
d. All mechanical equipment shall comply with the standards in this section. If mechanical equipment is installed outside of the site plan and design review process, planning staff shall review the plans to determine if additional screening is required. If the proposed screening meets this section, no additional planning review is required.
e. This section shall not apply to the installation of solar energy panels, photovoltaic equipment or wind power generating equipment.

Response: Rooftop mechanical equipment on the DeJardin addition building is screened from view with a parapet wall, as shown on the building elevation drawings. The wall is made from the same material as constitutes the exterior of the building in that area.

21. Building Materials.
a. Preferred building materials. Building exteriors shall be constructed from high quality, durable materials. Preferred exterior building materials that reflect the city's desired traditional character are as follows:
i. Brick.
ii. Basalt stone or basalt veneer.
iii. Narrow horizontal wood or composite siding (generally five inches wide or less); wider siding will be considered where there is a historic precedent.
iv. Board and baton siding.
v. Other materials subject to approval by the community development director.
vi. Plywood with battens or fiber/composite panels with concealed fasteners and contagious aluminum sections at each joint that are either horizontally or vertically aligned.
vii. Stucco shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.

b. Prohibited materials. The following materials shall be prohibited in visible locations unless an exception is granted by the community development director based on the integration of the material into the overall design of the structure.
i. Vinyl or plywood siding (including T-111 or similar plywood).
ii. Glass block or highly tinted, reflected, translucent or mirrored glass (except stained glass) as more than ten percent of the building facade.
iii. Corrugated fiberglass.
iv. Chain link fencing (except for temporary purposes such as a construction site or as a gate for a refuse enclosure).
[v.] Crushed colored rock/crushed tumbled glass.
[vi.] Non-corrugated and highly reflective sheet metal.
c. Special material standards: The following materials are allowed if they comply with the requirements found below:
1. Concrete block. When used for the front facade of any building, concrete blocks shall be split, rock- or ground-faced and shall not be the prominent material of the elevation. Plain concrete block or plain concrete may be used as foundation material if the foundation material is not revealed more than three feet above the finished grade level adjacent to the foundation wall.
2. Metal siding. Metal siding shall have visible corner moldings and trim and incorporate masonry or other similar durable/permanent material near the ground level.
3. Exterior Insulation and Finish System (EIFS) and similar toweled finishes shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.
4. Building surfaces shall be maintained in a clean condition and painted surfaces shall be maintained to prevent or repair peeling, blistered or cracking paint.

Response: The exterior finish materials for the DeJardin addition comply with the standards listed above as shown in the renderings for the buildings and on the included list of materials. The materials are consistent with and complementary to the existing DeJardin Hall.The predominant materials on the exterior are brick and metal panels. These are durable, high-quality materials that are consistent with those on the exteriors of other buildings on campus that were built in recent years. They indicate a sense of permanence and durability that reflects the longstanding presence of CCC in Oregon City. More details about the color and texture of these exterior materials can be found on the drawings.

22. Conditions of Approval. The review authority may impose such conditions as it deems necessary to ensure compliance with these standards and other applicable review criteria, including standards set out in city overlay districts, the city's master plans, and city public works design standards. Such conditions shall apply as described in Sections 17.50.310, 17.50.320 and 17.50.330. The review authority may require a property owner to sign a waiver of remonstrance against the formation of and participation in a local improvement district where it deems such a waiver necessary to provide needed improvements reasonably related to the impacts created by the proposed development. To ensure compliance with this chapter, the review

authority may require an applicant to sign or accept a legal and enforceable covenant, contract, dedication, easement, performance guarantee, or other document, which shall be approved in form by the city attorney.

Response: The city may apply conditions of approval as it deems necessary to comply with these review criteria.

17.62.055 - Institutional and commercial building standards.
A. Purpose. The primary objective of the regulations contained in this section is to provide a range of design choices that promote creative, functional, and cohesive development that is compatible with surrounding areas. Buildings approved through this process are intended to serve multiple tenants over the life of the building, and are not intended for a one-time occupant. The standards encourage people to spend time in the area, which also provides safety though informal surveillance. Finally, this section is intended to promote the design of an urban environment that is built to human scale by creating buildings and streets that are attractive to pedestrians, create a sense of enclosure, provide activity and interest at the intersection of the public and private spaces, while also accommodating vehicular movement.
B. Applicability. In addition to Section 17.62.050 requirements, institutional and commercial buildings shall comply with design standards contained in this section.

Response: The building standards of this section are applicable because they are implemented by the requirements of a detailed development plan.

However, CCC and the proposed DeJardin addition is a special case. The new building addition is located in a campus setting, clustered with other college buildings in a pedestrianized core, and not close to any public streets or adjacent property. In that sense, the new building does not have the same imperatives for facing a street, maximizing transparency on only one of its facades, being close to a public sidewalk, or complying with several other standards. As will be identified in the individual standards, some of these building standards are simply not applicable, or it would be completely unreasonable to apply them to a campus setting.

C. Relationship between zoning district design standards and requirements of this section.
1. Building design shall contribute to the uniqueness of the underlying zoning district by applying appropriate materials, elements, features, color range and activity areas tailored specifically to the site and its context.
2. A standardized prototype or franchise design shall be modified if necessary to meet the provisions of this section.
3. In the case of a multiple building development, each individual building shall include predominant characteristics, architectural vocabulary and massing shared by all buildings in the development so that the development forms a cohesive place within the underlying zoning district or community.

4. With the exception of standards for building orientation and building front setbacks, in the event of a conflict between a design standard in this section and a standard or requirement contained in the underlying zoning district, the standard in the zoning district shall prevail.
5. On sites with one hundred feet or more of frontage at least sixty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line, unless a greater setback is accepted under the provisions of Section 17.62.055.D. For sites with less than one hundred feet of street frontage, at least fifty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line unless a greater setback is accepted under the provisions of Section 17.62.055D.

Response: The proposed DeJardin addition meets the design standards of this section and is consistent with other campus development. In that sense, it provides a cohesive sense of a campus and high quality design. Recent campus development has been approved by the city following these zoning standards. The 164-acre campus has more than 100 feet of frontage, but in the context of an existing college campus with a longstanding cluster of buildings at the center of the property, subsection (5) is not applicable.

D. Relationship of Buildings to Streets and Parking.
1. Buildings shall be placed no farther than 5 feet from the front prop. line. A larger front yard setback may be approved through site plan and design review if the setback area incorporates at least 1 element from the following list for every 5 feet of increased setback requested:
a. Tables, benches or other approved seating area.
b. Cobbled, patterned or paved stone or enhanced concrete.
c. Pedestrian scale lighting.
d. Sculpture/public art.
e. Fountains/Water feature.
f. At least 20 square feet of landscaping or planter boxes for each tenant façade[…].
g. Outdoor café.
h. Enhanced landscaping or additional landscaping.
i. Other elements, as approved by the community development director, that can meet the intent of this section.

Response: The proposed DeJardin addition located immediately adjacent to an internal access drive that connects the campus core to two entry points on Douglas Loop. To some degree, this access drive behaves like a "front property line," even though it does not meet the zoning definition. The southwest corner of the new building is eight feet from the back of the (private) sidewalk along this access route. The actual nearest "front property line" is approximately 800 feet to the west. It would be impractical and unreasonable to force all new campus development to be within five feet of Molalla Avenue, or Beavercreek Road, and contrary to the historic pattern of an existing campus. Development is consistent with the approved master plan CP 07-01 which

envisioned that new buildings would fit the context of an existing campus with a longstanding cluster of buildings at its center surrounded by open space and fields.

2. The front most architecturally significant facade shall be oriented toward the street and shall be accessed from a public sidewalk. Primary building entrances shall be clearly defined and recessed or framed by a sheltering element such as an awning, arcade or portico in order to provide shelter from the summer sun and winter weather.

Response: The DeJardin building and this proposed addition, like most campus buildings, is mostly oriented inward, toward a pedestrianized campus core. This is the historic form of Clackamas Community College, responds to existing patterns of student use, and is appropriate for a large-scale college campus use. As noted above, no streets or public sidewalks are adjacent to the building, *per se*. The nearest public street, Molalla Avenue, is approximately 800 feet from the proposed addition. The buildings facades may be indirectly accessed from public sidewalks via the campus circulation system, and its connections to the edge of the property.

The building offers visual interest on all four sides, since it will be viewed and approached in a variety of different ways by its users. The "front-most architecturally significant façade" may be the east side of the new structure, which faces a pedestrian plaza and the Pauling Center. This will be the first step in creating a new "Science Courtyard" between DeJardin, with its new addition, and the adjacent Pauling Center. Alternatively, the west side of the building is also "architecturally significant." The sidewalk along the west side of building at this location provides direct access to: Douglas Loop, the secondary main entrance on the west side of the building, and the new campus entry plaza northwest of the building. The secondary entry is clearly defined, projects from the main face of the building, and will be sheltered from the weather.

3. Entryways. The primary entranceway for each commercial or retail establishment shall face the major street. The entrance may be recessed behind the property line a maximum of five feet unless a larger setback is approved pursuant to Section 17.62.055.D.1 and shall be accessed from a public sidewalk. Primary building entrances shall be clearly defined, highly visible and recessed or framed by a sheltering element including at least four of the following elements, listed below.
a. Canopies or porticos;
b. Overhangs;
c. Recesses/projections;
d. Arcades;
e. Raised corniced parapets over the door;
f. Peaked roof forms;
g. Arches;
h. Outdoor patios;

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b. Overhangs;
c. Recesses/projections;
d. Arcades;
e. Raised corniced parapets over the door;
f. Peaked roof forms;
g. Arches;
h. Outdoor patios;

i. Display windows;
j. Architectural details such as tile work and moldings which are integrated into the building structure and design;
k. Integral planters or wing walls that incorporate landscaped areas and/or places for sitting.
l. Planter boxes and street furniture placed in the right-of-way shall be approved for use according to materials, scale and type.

Response: Main entries to the DeJardin addition have clearly defined, highly visible user entrances. The determination and relevance of which of those entries are "primary" and which face the "major street" was discussed in the previous finding. The west entry projects from the main face of the building. The entry door is flanked by two stories of display windows, into a vestibule. An elevation is shown below.

Figure 8. DeJardin Hall addition, west elevation

On the east side of the new structure, the main entry is even more clearly defined. It opens onto a "Science Courtyard" between the expanded DeJardin and Pauling Center buildings.

Figure 9. DeJardin Hall, showing main entrance on east side of structure

4. Where additional stores will be located in the large retail establishment, each such store shall have at least one exterior customer entrance, which shall conform to the same requirements.
5. Trellises, canopies and fabric awnings may project up to five feet into front setbacks and public rights-of-way, provided that the base is not less than eight feet at the lowest point and no higher than ten feet above the sidewalk. Awnings shall be no longer than a single storefront.

E. Corner Lots.[…]
F. Commercial First Floor Frontage.[…]

Response: The proposed DeJardin addition is neither on a corner lot or a commercial building. These standards do not apply.

G. Variation in Massing.
1. A single, large, dominant building mass shall be avoided in new buildings and, to the extent reasonably feasible, in development projects involving changes to the mass of existing buildings.
2. Horizontal masses shall not exceed a height: width ratio of one-to-three without substantial variation in massing that includes a change in height and projecting or recessed elements.
3. Changes in mass shall be related to entrances, the integral structure and/or the organization of interior spaces and activities and not merely for cosmetic effect.

Response: The proposed DeJardin addition varies its massing as a function of how interior spaces, laboratories and classrooms in particular, are organized. The building is

broken up by changes to the work areas inside the building, and not merely for cosmetic effect. For example, in relation to a continuous east-west hallway through both the addition and the original building, the north section of the addition is oriented at a diagonal. This provides space for the zoology lab and associated rooms, brings the building closer to a pedestrian connection into the campus core, and provides variation in the massing of the structure. The entries also are either projected or recessed from the structure to provide visibility and interest to users. The renderings of the building included with the drawings shows how building design uses different projections, recesses, and rooflines to break up the overall building mass.

H. Minimum Wall Articulation.
1. Facades shall add architectural interest and variety and avoid the effect of a single, long or massive wall with no relation to human size. No wall that faces a street or connecting walkway shall have a blank, uninterrupted length exceeding thirty feet without including, but not be limited to, at least two of the following:
i. Change in plane,
ii. Change in texture or masonry pattern or color,
iii. Windows, treillage with landscaping appropriate for establishment on a trellis.
iv. An equivalent element that subdivides the wall into human scale proportions.
2. Facades greater than one hundred feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth of at least three percent of the length of the facade and extending at least twenty percent of the length of the facade. No uninterrupted length of any facade shall exceed one hundred horizontal feet.

Response: Technically, none of the building façades face a "street or connecting walkway." Rather, the building is internal to the campus, far from the nearest public street. As shown on the elevation drawings, there are abundant changes in materiality along all four building façades. Windows, brickwork, main entrances, and changes in plane break up façades to provide architectural interest.

3. Ground floor facades that face public streets shall have arcades, display windows, entry areas, awnings or other such features along no less than sixty percent of their horizontal length.
4. Building facades must include a repeating pattern that includes any one or more of the following elements:
a. Color change;
b. Texture change;
c. Material module change.
5. Facades shall have an expression of architectural or structural bays through a change in plane no less than twelve inches in width, such as an offset, reveal or projecting rib.
6. Facades shall have at least one of elements subsections H.4. or H.5. of this section repeat horizontally. All elements shall repeat at intervals of no more than thirty feet, either horizontally or vertically.

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6. Facades shall have at least one of elements subsections H.4. or H.5. of this section repeat horizontally. All elements shall repeat at intervals of no more than thirty feet, either horizontally or vertically.

Response: Technically, no façade of the DeJardin building faces a "public street." This standard is not entirely appropriate for a campus setting. The building is internal to the campus, far from the nearest public street. The west façade of the buildings, which is nearest to a public street at 800 feet, but not visible from it, nevertheless has multiple changes of depth and plan, the most notable of which are a projecting two-story entrance, a major change in building plane to the diagonal, textural changes between brick and metal, and numerous windows into the new building on two stories. The unity of design comes from the repeating pattern of exterior materials and glazing, as shown in the elevations and defined in the list of proposed materials.

I. Facade Transparency.
1. Transparent windows or doors facing the street are required. The main front elevation shall provide at least sixty percent windows or transparency at the pedestrian level. Facades on corner lots shall provide at least sixty percent windows or transparency on all corner-side facades. All other side elevations shall provide at least thirty percent transparency. The transparency is measured in lineal fashion. For example, a one hundred-foot long building elevation shall have at least sixty feet (sixty percent of one hundred feet) of transparency in length. Reflective, glazed, mirrored or tinted glass is limited to ten percent of the lineal footage of windows on the street facing facade. Highly reflective or glare-producing glass with a reflective factor of one-quarter or greater is prohibited on all building facades. Any glazing materials shall have a maximum fifteen percent outside visual light reflectivity value. No exception shall be made for reflective glass styles that appear transparent when internally illuminated.
2. Side or rear walls that face walkways may include false windows and door openings only when actual doors and windows are not feasible because of the nature of the use of the interior use of the building. False windows located within twenty feet of a right-of-way shall be utilized as display windows with a minimum display depth of thirty-six inches.

Response: Technically, no façade of the DeJardin addition (or existing building) faces a "public street." The building is internal to the campus and 800 feet from Molalla Avenue, the nearest public street. A dense grove of trees and an earthen berm blocks any pedestrian views of the building from Molalla Avenue. DeJardin adds to the central building cluster of the campus where other college buildings are located. The transparency of this building is appropriate to a laboratory and classroom structure and consistent with its inner workings. The lab and academic uses of the building are unique and the city does not typically apply the same transparency standard to these uses as it does to a commercial building in an urban setting. All four elevations of the building have transparent windows into classroom space, as shown in project drawings. The degree of transparency is compatible with other structures inside the campus core.

The unity of design comes from the repeating pattern of exterior materials and glazing, as shown in the elevations and defined in the list of proposed materials. A recurring

pattern in the building is expansive windows at both the first and second stories to allow light into classroom and laboratory space. These also permit views into the structure for pedestrians around the outside of the building. There is no specific definition of "side elevation" in this standard or in the definitions section that provides clarity for how to apply that term in a campus context, where a building is far from a public street. Insofar as the standard applies at all, and considering that the north and south sides of the building may not be a "side elevation" strictly speaking, the building overall has sufficient transparency to provide an excellent pedestrian experience.

J. Roof Treatments.
1. All facades shall have a recognizable "top" consisting of, but not limited to:
a. Cornice treatments, other than just colored "stripes" or "bands," with integrally textured materials such as stone or other masonry or differently colored materials; or
b. Sloping roof with overhangs and brackets; or
c. Stepped parapets;
d. Special architectural features, such as bay windows, decorative roofs and entry features may project up to three feet into street rights-of-way, provided that they are not less than nine feet above the sidewalk.
2. Mixed use buildings: For flat roofs or facades with a horizontal eave, fascia, or parapet, the minimum vertical dimension of roofline modulation is the greater of two feet or 0.1 multiplied by the wall height (finish grade to top of wall). The maximum length of any continuous roofline shall be seventy-five feet.
3. Other roof forms consistent with the design standards herein may satisfy this standard if the individual segments of the roof with no change in slope or discontinuity are less than forty feet in width (measured horizontally).

Response: The roof of the proposed structure is shown on project drawings and has a minor stepped parapet. Around the main part of the structure, a parapet wall extends above the roof surface and is separate from the main building mass. On the exterior, the roof creates architectural interest and distinguishes the top of the building from the rest of the building mass. This creates a recognizable "top" of the building which is also suitable to its architectural style and that of the building to which it is an addition.

K. Drive-through facilities shall:
1. Be located at the side or rear of the building.
2. Be designed to maximize queue storage on site.

Response: The proposed building is not a drive through. This standard does not apply.

17.62.056 - Additional standards for large retail establishments.
17.62.057 - Multi-family standards.
17.62.059 - Cottage housing.

Response: The proposed DeJardin/Transit Center project is not a retail, multi-family, or cottage housing development. These standards do not apply.

17.62.065 - Outdoor lighting.
A. Purpose. The general purpose of this section is to require outdoor lighting that is adequate for safety and convenience; in scale with the activity to be illuminated and its surroundings; directed to the surface or activity to be illuminated; and designed to clearly render people and objects and contribute to a pleasant nighttime environment. Additional specific purposes are to:
1. Provide safety and personal security as well as convenience and utility in areas of public use or traverse, for uses where there is outdoor public activity during hours of darkness;
2. Control glare and excessive brightness to improve visual performance, allow better visibility with relatively less light, and protect residents from nuisance and discomfort;
3. Control trespass light onto neighboring properties to protect inhabitants from the consequences of stray light shining in inhabitants' eyes or onto neighboring properties;
4. Result in cost and energy savings to establishments by carefully directing light at the surface area or activity to be illuminated, using only the amount of light necessary; and
5. Control light pollution to minimize the negative effects of misdirected light and recapture views to the night sky.
B. Applicability.
1. General.
a. All exterior lighting for any type of commercial, mixed-use, industrial or multi-family development shall comply with the standards of this section, unless excepted in subsection B.3.
b. The city engineer/public works director shall have the authority to enforce these regulations on private property if any outdoor illumination is determined to present an immediate threat to the public health, safety and welfare.

Response: The proposed DeJardin/Transit Center project is institutional development, not a "commercial, mixed-use, industrial, or multi-family development." Technically, these requirements do not apply. Nevertheless the proposed development complies with these regulations.

2. Lighting Plan Requirement.
All commercial, industrial, mixed-use, cottage housing and multi-family developments shall submit a proposed exterior lighting plan. The plan must be submitted concurrently with the site plan. The exterior lighting plan shall include plans and specifications for streetlights, parking lot lights, and exterior building lights. The specifications shall include details of the pole, fixture height and design, lamp type, wattage, and spacing of lights.

Response: A lighting plan has been submitted as part of the application materials.

3. Excepted Lighting.
The following types of lighting are excepted from the requirements of this section.
a. Residential lighting for single-family attached and detached homes, and duplexes.

b. Public street and right-of-way lighting.
c. Temporary decorative seasonal lighting provided that individual lamps have a light output of sixty watts or less.
d. Temporary lighting for emergency or nighttime work and construction.
e. Temporary lighting for theatrical, television, and performance areas, or for special public events.
f. Lighting for a special district, street, or building that, according to an adopted municipal plan or ordinance, is determined to require special lighting aesthetics as part of its physical character.
g. Lighting required and regulated by the Federal Aviation Administration.

Response: Lighting proposed with the new DeJardin addition and Transit Center does not meet any of these exceptions. As noted, the proposed project is institutional development, not a "commercial, mixed-use, industrial, or multi-family development."

C. General Review Standard. If installed, all exterior lighting shall meet the functional security needs of the proposed land use without adversely affecting adjacent properties or the community. For purposes of this section, properties that comply with the design standards of subsection D. below shall be deemed to not adversely affect adjacent properties or the community.

Response: A photometric lighting plan has been submitted that shows parking lot and building lighting in the Transit Center, adjacent parking area, and around the DeJardin addition. The plan shows that lighting will not adversely affect adjacent properties or the community. The site is buffered from adjacent property in every direction by hundreds of feet of distance, or dense vegetation, as in the case of the trees to the east, south, and west of the construction area.

D. Design and Illumination Standards.
General Outdoor Lighting Standard and Glare Prohibition.
1. Outdoor lighting, if provided, shall be provided in a manner that enhances security, is appropriate for the use, avoids adverse impacts on surrounding properties, and the night sky through appropriate shielding as defined in this section. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 footcandles of light as measured at the property line. In no case shall exterior lighting add more than 0.5 footcandle to illumination levels at any point off-site. Exterior lighting is not required except for purposes of public safety. However, if installed, all exterior lighting shall meet the following design standards:
2. Any light source or lamp that emits more than nine hundred lumens (thirteen watt compact fluorescent or sixty watt incandescent) shall be concealed or shielded with a full cut-off style fixture in order to minimize the potential for glare and unnecessary diffusion on adjacent property. All fixtures shall utilize one of the following bulb types: metal halide, induction lamp, compact fluorescent, incandescent (including tungsten-halogen), or high pressure sodium with a color rendering index above seventy.
3. The maximum height of any lighting pole serving a multi-family residential use shall be twenty feet. The maximum height serving any other type of use shall be twenty-five feet, except

in parking lots larger than five acres, the maximum height shall be thirty-five feet if the pole is located at least one hundred feet from any residential use.
4. Lighting levels:
Table 1-17.62.065. Foot-candle Levels
5. Parking lots and other background spaces shall be illuminated as unobtrusively as possible while meeting the functional needs of safe circulation and protection of people and property. Foreground spaces, such as building entrances and outside seating areas, shall utilize pedestrian scale lighting that defines the space without glare.
6. Any on-site pedestrian circulation system shall be lighted to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be lighted to light the walkway and enhance pedestrian safety pursuant to Table 1.
7. Pedestrian Accessways. To enhance pedestrian and bicycle safety, pedestrian accessways required pursuant to OCMC 12.28 shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances. Lamps shall include a high-pressure sodium bulb with an unbreakable lens.
8. Floodlights shall not be utilized to light all or any portion of a building facade between ten p.m. and six a.m.
9. Lighting on automobile service station, convenience store, and other outdoor canopies shall be fully recessed into the canopy and shall not protrude downward beyond the ceiling of the canopy.
10. The style of light standards and fixtures shall be consistent with the style and character of architecture proposed on the site.
11. In no case shall exterior lighting add more than one foot-candle to illumination levels at any point off-site.
12. All outdoor light not necessary for security purposes shall be reduced, activated by motion sensor detectors, or turned off during non-operating hours.
13. Light fixtures used to illuminate flags, statues, or any other objects mounted on a pole, pedestal, or platform shall use a narrow cone beam of light that will not extend beyond the illuminated object.
14. For upward-directed architectural, landscape, and decorative lighting, direct light emissions shall not be visible above the building roofline.
15. No flickering or flashing lights shall be permitted, except for temporary decorative seasonal lighting.
16. Wireless Sites. Unless required by the Federal Aviation Administration or the Oregon Aeronautics Division, artificial lighting of wireless communication towers and antennas shall be prohibited. Strobe lighting of wireless communication facilities is prohibited unless required by the Federal Aviation Administration. Security lighting for equipment shelters or cabinets and other on-the-ground auxiliary equipment on wireless communication facilities shall be initiated by motion detecting lighting.
17. Lighting for outdoor recreational uses such as ball fields, playing fields, tennis courts, and similar uses, provided that such uses comply with the following standards:

i. Maximum permitted light post height: eighty feet.
ii. Maximum permitted illumination at the property line: 0.5 foot-candles.

Response: These lighting standards are essentially the same as the master plan standard that was approved as part of CP 07-01, the concept master plan. That standard is:

> *"High Activity Pathways: min level of 0.5 foot-candles, a 1.5 fc average, and a max to min ratio of 7:1.*
>
> *Low Activity Pathways and ped routes through parking lots: 0.5 fc average and a max to min ratio of 10:1."*

The site plan and photometric analysis shows that this standard is met for lighting along pathways around the new DeJardin addition and in Transit Center parking lot pedestrian routes. Building lighting on the exterior of the DeJardin building will meet current building code and ADA accessibility requirements. New lighting will be a significant upgrade parking area at the southwest side of campus, which is not currently compliant with this standard. No wireless communications or playing field lighting is proposed.

17.62.080 - Special development standards along transit streets.
A. Purpose. This section is intended to provide direct and convenient pedestrian access to retail, office and institutional buildings from public sidewalks and transit facilities and to promote pedestrian and transit travel to commercial and institutional facilities.
B. Applicability. Except as otherwise provide in this section, the requirements of this section shall apply to the construction of new retail, office and institutional buildings which front on a transit street. [...]

Response: The proposed development does not front on a transit street. This standard is not applicable.

17.62.085 - Refuse and recycling standards for commercial, industrial, and multi-family developments.
The purpose and intent of these provisions is to provide an efficient, safe and convenient refuse and recycling enclosure for the public as well as the local collection firm. All new development, change in property use, expansions or exterior alterations to uses other than single-family or duplex residences shall include a refuse and recycling enclosure. The area(s) shall be:
A. Sized appropriately to meet the needs of current and expected tenants, including an expansion area if necessary;
B. Designed with sturdy materials, which are compatible to the primary structure(s);
C. Fully enclosed and visually screened;
D. Located in a manner easily and safely accessible by collection vehicles;
E. Located in a manner so as not to hinder travel lanes, walkways, streets or adjacent properties;

F. On a level, hard surface designed to discharge surface water runoff and avoid ponding;
G. Maintained by the property owner;
H. Used only for purposes of storing solid waste and recyclable materials;
I. Designed in accordance with applicable sections of the Oregon City Municipal Code (including Chapter 8.20 – Solid Waste Collection and Disposal) and city adopted policies.

Response: The refuse and recycling area for the new DeJardin addition will be shared with Roger Rook Hall to the north. This area is located at the southeast corner of the Roger Rook Hall building. The area is fully enclosed, accessible by collection trucks, and sufficient to meet the needs of the proposed building.

Other Code Requirements

Institutional District – Chapter 17.39

17.39.010 - Designated.
The purpose of this district is designed to facilitate the development of major public institutions, government facilities and parks and ensure the compatibility of these developments with surrounding areas. The I – Institutional zone is consistent with the public/quasi public and park designations on the comprehensive plan map.
17.39.020 - Permitted uses.
Permitted uses in the institutional district are:
A. Private and/or public educational or training facilities;
B. Parks, playgrounds, playfields and community or neighborhood community centers;
C. Public facilities and services including courts, libraries and general government offices and maintenance facilities;
D. Stadiums and arenas;
E. Banquet, conference facilities and meeting rooms;
F. Government offices;
G. Transportation facilities.

Response: The proposed development is for a new laboratory and classroom building, and parking associated with college uses. These are both "public educational or training facilities" under section B.

17.39.050 - Dimensional standards.
Dimensional standards in the I district are:
A. Maximum building height: Within one hundred feet of any district boundary, not to exceed thirty-five feet; elsewhere, not to exceed seventy feet.
B. Minimum required setbacks: Twenty-five feet from property line except when the development is adjacent to a public right-of-way. When adjacent to a public right-of-way, the minimum setback is zero feet and the maximum setback is five feet.

Response: The proposed DeJardin addition is located 335 feet at its closest point from the nearest district boundary. Therefore, its allowable height limit is 70 feet. The actual proposed height of the building is 39.5 feet, 31.5 feet lower than the limit. This standard is met.

Likewise, the proposed building is 335 feet from the nearest property line, and therefore exceeds the 25 foot minimum setback.

Figure 10. Closest property line to DeJardin addition = 335 feet.

17.39.060 - Relationship to master plan.
A. A master plan is required for any development within the I district on a site over ten acres in size that:
1. Is for a new development on a vacant property;
2. Is for the redevelopment of a property previously used an a non-institutional use; or
3. Increases the floor area of the existing development by ten thousand square feet over existing conditions
B. Master plan dimensional standards that are less restrictive than those of the Institutional district require adjustments. Adjustments will address the criteria of Section 17.65.70 and will be processed concurrently with the master plan application.
C. Modifications to other development standards in the code may be made as part of the phased master plan adjustment process. All modifications must be in accordance with the requirements of the master plan adjustment process identified in Section 17.65.070.

Response: A master plan is in place for Clackamas Community College, approved in 2008. This proposal is for a detailed development plan that is consistent with that approval. This application also requests an amendment to the master plan.

Tree Protection – Chapter 17.41

17.41.060 - Tree removal and replanting – Mitigation (Option 1).
A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in Chapter 17.04 to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arborculture. At the applicant's expense, the city may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under section 12.08 - Community Forest and Street Trees.
B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees six inch DBH (minimum four and one-half feet from the ground) or larger on the entire site and either:
1. Trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2; or
2. Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in Section 17.04.1360, may be removed from the tree replacement calculation. Regulated healthy trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.
Table 17.41.060-1
Tree Replacement Requirements
All replacement trees shall be either: Two-inch caliper deciduous, or Six-foot high conifer

Size of tree removed	*# of trees planted if removed outside of construction area*	*# of trees to be planted if removed within the construction area*
6 - 12 inch	*3*	*1*
13 – 18 inch	*6*	*2*
19 – 24 inch	*9*	*3*
25 – 30 inch	*12*	*4*
31 inch and over	*15*	*5*

Steps for calculating the number of replacement trees:
1. Count all trees measuring six inches DBH (minimum four and one-half feet from the ground) or larger on the entire development site.
2. Designate (in certified arborists report) the condition and size (DBH) of all trees pursuant to accepted industry standards.
3. Document any trees that are currently diseased or hazardous.
4. Subtract the number of diseased or hazardous trees in step 3. from the total number of trees on the development site in step 1. The remaining number is the number of healthy trees on the site. Use this number to determine the number of replacement trees in steps 5. through 8.
5. Define the construction area (as defined in Chapter 17.04).
6. Determine the number and diameter of trees to be removed within the construction area. Based on the size of each tree, use Column 2 to determine the number of replacement trees required.
7. Determine the number and diameter of trees to be removed outside of the construction area. Based on the size of each tree, use Column 1 to determine the number of replacement trees required.
8. Determine the total number of replacement trees from steps 6. and 7.

Response: The applicant has included a tree removal and mitigation plan that follows the methods and requirements of the section quoted above. The plan is based on the findings of an arborist, who surveyed the site.

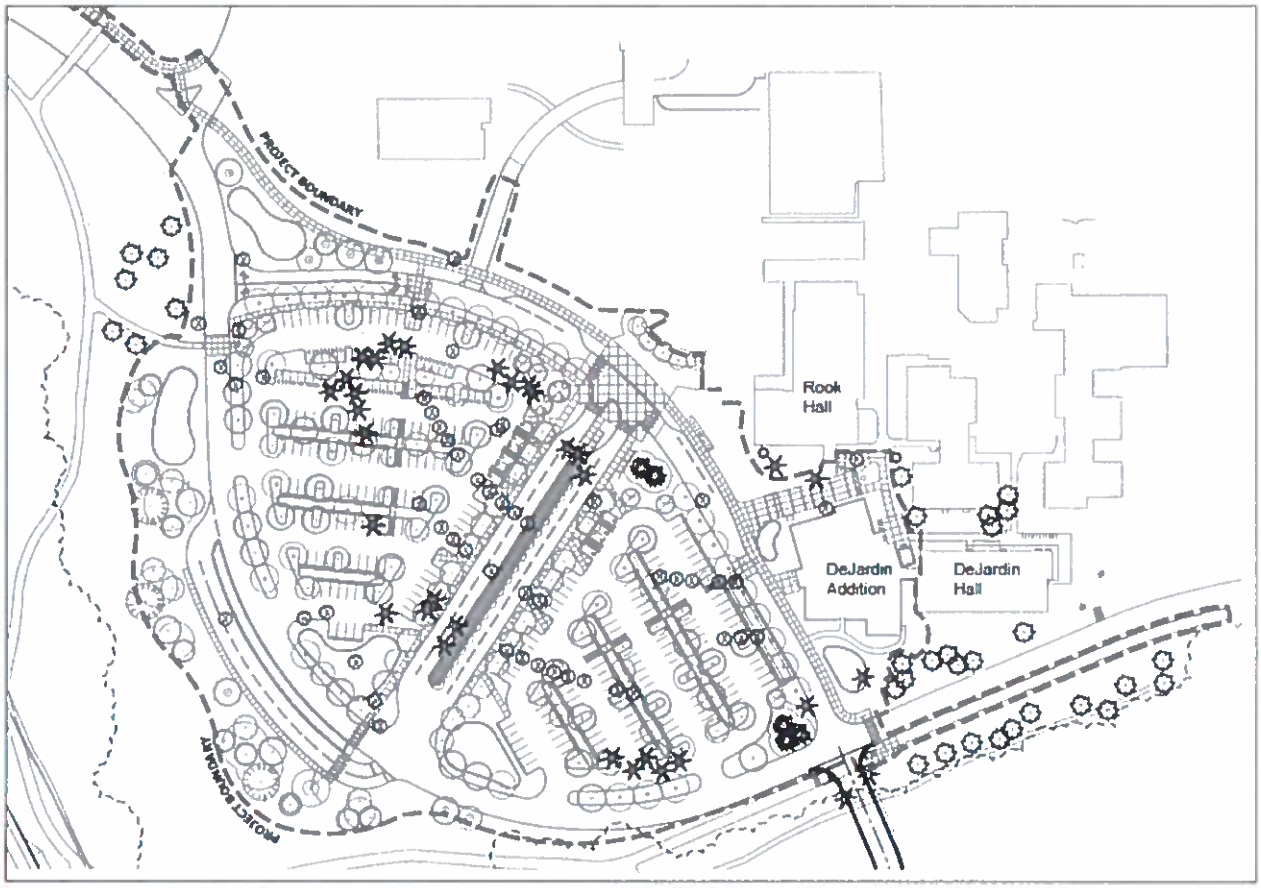


Figure 11. Tree Mitigation Plan

To the extent practicable, the site design preserves existing trees. Nevertheless, the new DeJardin addition and construction of the Transit Center requires removal of 80 trees. Based on the replacement requirements, 172 trees must be planted. The applicant proposes to plant 212 trees, 40 more trees than is required.

Table 5. Tree removal and mitigation summary

Trees removed	80
Replacement trees required	172
Mitigation trees proposed	212
Surplus	+40

The "construction area," for the purposes of this project, includes the entire development site where major construction and campus development will occur. Concept master plan drawings show campus buildings and parking in these locations. These plans were approved in concept in 2008 as part of that land use review.

Condition 6 of the master plan required that non-conforming upgrades to parking lots occur in tandem with new building construction. The entire parking lot that will be replaced by the transit center is non-conforming because it does not have enough trees, landscape area, or storm water facilities. The most efficient and reasonable approach to was for CCC to completely rebuild the lot. This requires significant site preparation which results in the necessary removal of 89 trees—which will be replaced with three times that many mitigation trees. Consequently, the "construction area" in terms of tree impacts can be defined as the limits of the development area for both the DeJardin addition and the transit center lot. This is represented by the area within the dashed line in Figure 15.

Project designers made a significant effort to preserve existing trees throughout the site. Trees have been preserved where it was practicable to do so and still have a code-compliant, efficient parking area. Overall, the proposed tree plan has preserved trees within the construction area where it is practicable, and replaced trees according to city mitigation ratios where preservation is not feasible.

Erosion and Sediment Control – Chapter 17.47

17.47.070 Erosion and sediment control plans.
A. An application for an erosion and sediment control permit shall include an erosion and sediment control plan, which contains methods and interim measures to be used during and following construction to prevent or control erosion prepared in compliance with City of Oregon City public works standards for erosion and sediment control. These standards are incorporated herein and made a part of this title and are on file in the office of the city recorder.

Response: The application contains a preliminary erosion and sediment control plan prepared by the college's civil engineer. This document is included with the application materials.

Administration and Procedures – Chapter 17.50

17.50.030 Summary of the city's decision-making processes.
B. Type II decisions involve the exercise of limited interpretation and discretion in evaluating approval criteria, similar to the limited land use decision-making process under state law. Applications evaluated through this process are assumed to be allowable in the underlying zone, and the inquiry typically focuses on what form the use will take or how it will look and include partitions, preliminary subdivision plats, site plan and design review. Notice of application and an invitation to comment is mailed to the applicant, recognized neighborhood association and property owners within three hundred feet. Planning manager accepts comments

for fourteen days and renders a decision. The planning manager's decision is appealable to the city commission with notice to the planning commission, by any party with standing (i.e., applicant and any party who submitted comments during the fourteen-day period). The city commission decision is the city's final decision and is appealable to the land use board of appeals (LUBA) within twenty-one days of when it becomes final.

Response: The applicant anticipates that the detailed development plan will be reviewed through at Type II process.

17.50.050 Preapplication conference and neighborhood meeting.
A. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with city staff to discuss the proposal. For proposals of a conditional use permit, subdivision, or a commercial, office, or industrial use of over 10,000 square feet, the applicant shall also schedule and attend a meeting with the city-recognized neighborhood association in whose territory the application is proposed. Although not required for other projects than those identified above, a meeting with the neighborhood association is highly recommended. The applicant shall send, by certified mail, return receipt requested, a letter to the Chairperson of the Neighborhood Association and the Citizen Involvement Committee Council describing the proposed project. A meeting shall be scheduled within 30 days of the notice. If the Neighborhood Association does not want to, or cannot meet within 30 days, the applicant shall hold a meeting after 6pm or on the weekend. The meeting shall be noticed to the Neighborhood Association and the Citizen Involvement Committee and shall be held within the boundaries of the Neighborhood Association or in a City facility. An application shall not be deemed complete until a copy of the certified letter is provided.
B. Preapplication Conference. To schedule a preapplication conference, the applicant shall contact the Community Development Director, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the city, which identifies the proposed land uses, traffic circulation, and public rights-of-way. The purpose of the preapplication conference is to provide staff from all affected city departments with a summary of the applicant's development proposal and an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Community Development Director shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations. Following the conference, the Community Development Director shall provide the applicant with a written summary of the preapplication conference.
C. Affected Neighborhood Association Meeting. The purpose of the meeting with the recognized neighborhood association is to inform the affected neighborhood association about the proposed development and to receive the preliminary responses and suggestions from the neighborhood association and the member residents.
D. Notwithstanding any representations by city staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to

recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the city of any standard or requirement.
E. A preapplication conference shall be valid for a period of six months from the date it is held. If no application is filed within six months of the conference or meeting, the applicant must schedule and attend another conference before the city will accept a permit application. The Community Development Director may waive the preapplication requirement if, in the manager's opinion, the development does not warrant this step. (Ord. 98-1008 §1(part), 1998)

Response: A pre-application meeting with Oregon City was held on September 28, 2017. A meeting with the Caufield neighborhood association to discuss the project was held on November 28, 2017.

17.50.060 Application requirements.
A permit application may only be initiated by the record property owner or contract purchaser, the city commission or planning commission. If there is more than one record owner, then the city will not accept an application without signed authorization from all record owners. All permit applications must be submitted on the form provided by the city, along with the appropriate fee and all necessary supporting documentation and information, sufficient to demonstrate compliance with all applicable approval criteria. The applicant has the burden of demonstrating, with evidence, that all applicable approval criteria are, or can be, met.

17.50.070 Completeness review and 120-day rule.

Response: The applicant has provided all the necessary application elements and is familiar with the timelines for completeness and review.

17.50.080 Complete application--Required information.
Unless stated elsewhere in city code Titles 16 or 17, a complete application includes all the materials listed in this subsection. The planning manager may waive the submission of any of these materials if not deemed to be applicable to the specific review sought. Likewise, within thirty days of when the application is first submitted, the planning manager may require additional information, beyond that listed in this subsection or elsewhere in Titles 16 or 17, such as a traffic study or other report prepared by an appropriate expert. In any event, the applicant is responsible for the completeness and accuracy of the application and all of the supporting documentation, and the city will not deem the application complete until all information required by the planning manager is submitted. At a minimum, the applicant must submit the following:
A. One copy of a completed city application form that includes the following information:
1. An accurate legal description, tax account number(s), map and location of all properties that are the subject of the application,
2. Name, address, telephone number and authorization signature of all record property owners or contract owners, and the name, address and telephone number of the applicant, if different from the property owner(s);

B. A complete list of the permit approvals sought by the applicant;
C. A current preliminary title report for the subject property(ies);
D. A complete and detailed narrative description of the proposed development that describes existing site conditions, existing buildings, public facilities and services, presence of wetlands, steep slopes and other natural features, a discussion of the approval criteria for all permits required for approval of the development proposal that explains how the criteria are or can be met, and any other information indicated by staff at the preapplication conference as being required;
E. The identity and contact person for the affected city-recognized neighborhood association(s);
F. Up to twenty-one copies of all reports, plans, site plans and other documents required by the section of this code corresponding to the specific approval(s) sought;
G. At least one copy of the site plan and all related drawings shall be in a readable/legible eight and one-half by eleven inch format for inclusion into the city's bound record of the application;
H. Mailing labels for notice to all parties entitled under Section 17.50.090 to receive mailed notice of the application. The applicant shall use the names and addresses of property owners within the notice area indicated on the most recent property tax rolls;
I. All required application fees.

Response: All of the above listed items are included in the application materials for this detailed development plan.

17.50.140 Performance guarantees.
When conditions of permit approval require the applicant to construct certain improvements, the city may allow the applicant to submit a financial guarantee in lieu of actual construction of the improvement. Financial guarantees shall be governed by this section.
[...]

Response: CCC does not anticipate that the proposed development will trigger any public improvements. In the event that it does, the applicant will follow the regulations related to performance guarantees.

Off Street Parking and Loading – Chapter 17.52

17.52.010 - Applicability.
The construction of a new structure or parking lot, or alterations to the size or use of an existing structure, parking lot or property use shall require site plan review approval and compliance with this chapter. This chapter does not apply to single- and two-family residential dwellings.

Response: The chapter is applicable per master plan requirements, the CCC Parking Plan, and because it involves reconstruction of a parking lot.

17.52.015 - Planning commission adjustment of parking standards.[...]

Response: The applicant seeks no adjustments to standards from the planning commission. This section does not apply.

17.52.020 - Number of automobile spaces required.
A. The number of parking spaces shall comply with the minimum and maximum standards listed in Table 17.52.020. The parking requirements are based on spaces per one thousand square feet net leasable area unless otherwise stated.
1. Multiple Uses. In the event several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately.
2. Requirements for types of buildings and uses not specifically listed herein shall be determined by the community development director, based upon the requirements of comparable uses listed.
3. Where calculation in accordance with the above list results in a fractional space, any fraction less than one-half shall be disregarded and any fraction of one-half or more shall require one space.
4. The minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of vehicles used in conducting the business or use.
5. A change in use within an existing habitable building located in the MUD Design District or the Willamette Falls Downtown District is exempt from additional parking requirements. Additions to an existing building and new construction are required to meet the minimum parking requirements for the areas as specified in Table 17.52.020 for the increased square footage.

Response: The city's zoning standard for automobile parking requires a minimum of "0.2 spaces per staff and students." Campus enrollment is 6,319 and staffing is 600. Students and staff equals 6,919. That figure times 0.2 equals a minimum requirement of 1384 parking spaces. Campus-wide, CCC will have 2138 parking spaces. The city zoning requirement is met.

However, the applicable minimum standard in the CCC master plan supersedes the zoning requirement, and is square-footage based: 3.6 spaces per 1,000 square feet of campus buildings. To make the requirements for CCC the same as for any other institution and consistent with current city code, this application proposes an amendment to instead use the city's minimum parking standard. Findings for the concept plan amendment are found earlier in this document. Student enrollment is a better indicator of demand for campus parking, and the existing standard would result, over time, in an over-supply of parking and impervious surface.

B. Parking requirements can be met either onsite, or offsite by meeting the following conditions:
1. Mixed Uses. [...]

2. Shared Parking.[…]
3. On-Street Parking. […]
C. Reduction of the Number of Automobile Spaces Required. […]

Response: CCC meets its parking requirements on-site. Therefore, it does not need to invoke the mixed use, shared parking, or on-street parking standards of this section. Likewise, CCC does not seek a reduction of the number of spaces required, assuming the amendment to the concept plan is approved. This proposal meets the minimum standard.

17.52.030 - Standards for automobile parking.
A. Access. Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways so that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.

Response: The access and egress locations for the proposed DeJardin addition and transit center areas will occur indirectly via the main college entrances on S. Molalla and S. Beavercreek Roads, and a future access point from Meyers Road. Thereupon, access is via S. Douglas Loop, which is not a "public thoroughfare."

B. Surfacing. Required off-street parking spaces and access aisles shall have paved surfaces adequately maintained. The use of pervious asphalt/concrete and alternative designs that reduce storm water runoff and improve water quality pursuant to the city's stormwater and low impact development design standards are encouraged.

Response: As shown on the site plan, all parking areas and access aisles will be hard-surface paved surfaces and adequately maintained.

C. Drainage. Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city public works stormwater and grading design standards.

Response: The proposed site plan for the transit center parking area shows integrated storm water planter areas that will be used to manage the runoff. This is one reason for the wholesale reconstruction of the lot, which is currently non-conforming with regard to storm water. A drainage plan prepared by the college's civil engineering consultant demonstrates the feasibility of this approach.

D. Dimensional Standards.
1. Requirements for parking developed at varying angles are according to the table included in this section. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all-weather surface to a street or alley. Parking stalls in

compliance with the American with Disabilities Act may vary in size in order to comply with the building division requirements. Up to thirty-five percent of the minimum required parking may be compact, while the remaining required parking stalls are designed to standard dimensions. The community development director may approve alternative dimensions for parking stalls in excess of the minimum requirement which comply with the intent of this chapter.

Response: Parking spaces within the transit center lot is consistent with these dimensions, as shown on the site plan. The plan shows 41 compact spaces. This represents 14 percent of the 302-space transit center lot.

2. Alternative parking/plan. Any applicant may propose an alternative parking plan. Such plans are often proposed to address physically constrained or smaller sites, however innovative designs for larger sites may also be considered. In such situations, the community development director may approve an alternative parking lot plan with variations to parking dimensions of this section. The alternative shall be consistent with the intent of this chapter and shall create a safe space for automobiles and pedestrians while providing landscaping to the quantity and quality found within parking lot landscaping requirements.

PARKING STANDARD

PARKING ANGLE SPACE DIMENSIONS

A Parking Angle		*B Stall Width*	*C Stall to Curb*	*D Aisle Width*	*E Curb Length*	*F Overhang*
90 degrees	*Standard* *Compact*	*9'* *8'*	*19.0'* *16.0'*	*24'* *22'*	*9'* *8'*	*1.5*

TYPICAL PARKING LAYOUT ENTRY A

NOTE: SPACE 1 CONTINGENT UPON ENTRY B

NOTE: Overhang dimensions are intended to indicate possible location from parking area edge for location of bumpers.

Response: Parking stalls, aisles, and curbs within the transit center lot is consistent with the dimensions in the table above, as shown on the site plan. The landscaping requirements are met for the parking area, as shown on the landscape plan.

E. Carpool and Vanpool Parking. New developments with seventy-five or more parking spaces, and new hospitals, government offices, group homes, nursing and retirement homes, schools and transit park-and-ride facilities with fifty or more parking spaces, shall identify the spaces available for employee, student and commuter parking and designate at least five percent, but not fewer than two, of those spaces for exclusive carpool and vanpool parking. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other employee, student or commuter parking spaces with the exception of

ADA accessible parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."

Response: Carpool and vanpool parking that complies with this standard will be provided in the transit center lot, and will be signed for that use..

17.52.040 - Bicycle parking standards.
A. Purpose-Applicability. To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all uses other than single-family dwellings or duplexes.
B. Number of Bicycle Spaces Required. For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the community development director, is most similar to the use not specifically mentioned. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in 17.52.020 for determining automobile parking space requirements. Modifications to bicycle parking requirements may be made through the site plan and design, conditional use, or master plan review process.
*TABLE A Required Bicycle Parking Spaces**
Where two options for a requirement are provided, the option resulting in more bicycle parking applies. Where a calculation results in a fraction, the result is rounded up to the nearest whole number. [...]
C. Security of Bicycle Parking. Bicycle parking facilities shall be secured. Acceptable secured bicycle parking area shall be in the form of a lockable enclosure onsite, secure room in a building onsite, a covered or uncovered rack onsite, bicycle parking within the adjacent right-of-way or another form of secure parking where the bicycle can be stored, as approved by the decision maker. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience and, when in the right-of-way shall comply with clearance and ADA requirements.
D. Bicycle parking facilities shall offer security in the form of either a lockable enclosure or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience.
Location of Bicycle Parking:
1. Bicycle parking shall be located on-site, in one or more convenient, secure and accessible location. The city engineer and the community development Director may permit the bicycle parking to be provided within the right-of-way provided adequate clear zone and ADA requirements are met. If sites have more than one building, bicycle parking shall be distributed as appropriate to serve all buildings. If a building has two or more main building entrances, the review authority may require bicycle parking to be distributed to serve all main building entrances, as it deems appropriate.
2. Bicycle parking areas shall be clearly marked or visible from on-site buildings or the street. If a bicycle parking area is not plainly visible from the street or main building entrance, a sign must

be posted indicating the location of the bicycle parking area. Indoor bicycle parking areas shall not require stairs to access the space unless approved by the community development director.
3. All bicycle parking areas shall be located to avoid conflicts with pedestrian and motor vehicle movement.
a. Bicycle parking areas shall be separated from motor vehicle parking and maneuvering areas and from arterial streets by a barrier or a minimum of five feet.
b. Bicycle parking areas shall not obstruct pedestrian walkways; provided, however, that the review authority may allow bicycle parking in the right-of-way where this does not conflict with pedestrian accessibility.
4. Accessibility.
a. Outdoor bicycle areas shall be connected to main building entrances by pedestrian accessible walkways.
b. Outdoor bicycle parking areas shall have direct access to a right-of-way.
c. Outdoor bicycle parking should be no farther from the main building entrance than the distance to the closest vehicle space, or fifty feet, whichever is less, unless otherwise determined by the community development director, city engineer, or planning commission.

Response: The quantity of bike parking will be provided consistent with the CCC Parking Plan, which was approved in the concept master plan in 2008. This master plan requirement is for two spaces per new classroom constructed. The new DeJardin addition has six classrooms, therefore, 12 spaces are required. The DeJardin addition will have provide the required amount of bike parking required, location shown on the site plans. The bike parking, as shown, meets the dimensional and accessibility standards listed above.

17.52.060 - Parking lot landscaping.
Purpose. The purpose of this code section includes the following:
1. To enhance and soften the appearance of parking lots;
2. To limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas;
3. To shade and cool parking areas;
4. To reduce air and water pollution;
5. To reduce storm water impacts and improve water quality; and
6. To establish parking lots that are more inviting to pedestrians and bicyclists.
A. Development Standards.
1. The landscaping shall be located in defined landscaped areas that are uniformly distributed throughout the parking or loading area.
2. All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.
3. Parking lot trees shall be a mix of deciduous shade trees and coniferous trees. The trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.

4. Required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper), planted according to American Nurseryman Standards, and selected from the Oregon City Street Tree List;
5. Landscaped areas shall include irrigation systems unless an alternate plan is submitted, and approved by the community development director, that can demonstrate adequate maintenance;
6. All plant materials, including trees, shrubbery and ground cover should be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City Native Plant List are strongly encouraged and species found on the Oregon City Nuisance Plant List are prohibited.
7. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.
8. Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.

Response: A proposed parking lot landscape plan is included with the application and has been prepared by a landscape architect. This plan meets all the development standards identified above.

B. Perimeter Parking Lot Landscaping and Parking Lot Entryway/Right-of-Way Screening. Parking lots shall include a five-foot wide landscaped buffer where the parking lot abuts the right-of-way and/or adjoining properties. In order to provide connectivity between non-single-family sites, the community development director may approve an interruption in the perimeter parking lot landscaping for a single driveway where the parking lot abuts property designated as multi-family, commercial or industrial. Shared driveways and parking aisles that straddle a lot line do not need to meet perimeter landscaping requirements.
1. The perimeter parking lot are[a] shall include:
[…]

Response: Neither the DeJardin addition nor the new transit center and parking area abuts public right of way or adjoining property. Both parking areas are internal to campus and buffered by landscaping and trees on the outer edges of the CCC property. This regulation does not apply, strictly speaking. Nevertheless, the south and west sides of the transit center lot is buffered by a grove of existing trees outside of Douglas Loop that will be preserved, as shown on the tree plan.

C. Parking Area/Building Buffer. Parking areas shall be separated from the exterior wall of a structure, exclusive of pedestrian entranceways or loading areas, by one of the following:
1. Minimum five-foot wide landscaped planter strip (excluding areas for pedestrian connection) abutting either side of a parking lot sidewalk with:
a. Trees spaced a maximum of thirty-five feet apart;
b. Ground cover such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

c. An evergreen hedge of thirty to forty-two inches or shrubs placed no more than four feet apart on average; or
2. Seven-foot sidewalks with shade trees spaced a maximum of thirty-five feet apart in three-foot by five-foot tree wells.

Response: As shown on project drawings, the transit center lot is buffered from buildings by an internal vehicle circulation route and pedestrian walkway and a planting zone lined with trees. This complies with the standard of C.2 above.

D. Interior Parking Lot Landscaping. Surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum total site landscaping required by17.62.050 (1) unless otherwise permitted by the dimensional standards of the underlying zone district. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. Interior parking lot landscaping shall include:
a. A minimum of one tree per six parking spaces.
b. Ground cover, such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.
c. Shrubs spaced no more than four feet apart on average.
d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of ten feet in length.
e. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in a minimum three-foot by five-foot tree wells; or
Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

Response: As shown and tabulated on the landscape plans included with this application, the transit center lot has 39 percent interior landscaping. Landscape islands and the pedestrian walkways along the edges of the parking lots meet or exceed the planting standards of all the sections above.

E. Installation.
1. All landscaping shall be installed according to accepted planting procedures, according to American Nurseryman Standards.
2. The site, soils and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the proposed plant species.
3. Certificates of occupancy shall not be issued unless the landscaping req. have been met or other arrangements have been made and approved by the city, such as the posting of a surety.

Response: All landscaping will be installed with accepted standards of this section.

17.52.070 - Alternative landscaping plan.
Any applicant may propose an alternative landscaping plan. Such plans are often proposed to address physically constrained or smaller sites, however innovative designs for larger sites may also be considered. Alternative plans may include the use of low impact development techniques and minimized landscaping requirements. In such situations, the community development director may approve variations to the landscaping standards of Section 17.52.060.
A. General Review Standard. The alternative shall be meet or exceed the intent of this chapter and shall create a safe space for automobiles and pedestrians. The alternative landscaping plan shall be prepared by a licensed landscape architect.
B. Credit for Pervious/Low Impact Development. The community development director may count up to fifty percent of the square footage of any pervious hardscaped landscape material within a parking lot that is designed and approved pursuant to the city's adopted stormwater and low impact development design standards toward minimum landscaping requirements for the site. (This includes porous pavement detention, open celled block pavers, porous asphalt, porous concrete pavement, porous turf, porous gravel, etc).

Response: No alternative landscaping plan is needed or requested. This section does not apply.

17.52.080 - Maintenance.
The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of the site including but not limited to the off-street parking and loading spaces, bicycle parking and all landscaping which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.
All plant growth in interior landscaped areas shall be controlled by pruning, trimming, or otherwise so that:
a. It will not interfere with the maintenance or repair of any public utility;
b. It will not restrict pedestrian or vehicular access; and
c. It will not constitute a traffic hazard due to reduced visibility.

Response: CCC will maintain the landscaping with a dedicated crew of grounds keepers, as it has done with all college facilities for many decades. This includes parking areas.

17.52.090 - Loading areas.
A. Purpose.
1. The purpose of this section is to provide adequate loading areas for commercial, office, retail and industrial uses that do not interfere with the operation of adjacent streets.
B. Applicability.
1. Section 17.52.090 applies to uses that are expected to have service or delivery truck visits with a forty-foot or longer wheelbase, at a frequency of one or more vehicles per week. The city

engineer and decision maker shall determine through site plan and design review the number, size, and location of required loading areas, if any.
C. Standards.
1. The off-street loading space shall be large enough to accommodate the largest vehicle that is expected to serve the use without obstructing vehicles or pedestrian traffic on adjacent streets and driveways. Applicants are advised to provide complete and accurate information about the potential need for loading spaces because the city engineer or decision maker may restrict the use of other public right-of-way to ensure efficient loading areas and reduce interference with other uses.
2. Where parking areas are prohibited between a building and the street, loading areas are also prohibited.
3. The city engineer and decision maker, through site plan and design review, may approve a loading area adjacent to or within a street right-of-way when all of the following loading and unloading operations conditions are met:
a. Short in duration (i.e., less than one hour);
b. Infrequent (less than three operations daily between 5:00 a.m. and 12:00 a.m. or all operations between 12:00 a.m. and 5:00 a.m. at a location that is not adjacent to a residential zone);
c. Does not obstruct traffic during peak traffic hours;
d. Does not interfere with emergency response services; and
e. Is acceptable to the applicable roadway authority.

Response: The design of circulation patterns through and around the DeJardin building will enable loading and allow access. Service to the addition will follow the patterns of other buildings in the cluster of structures at the campus core. Vehicular access is shown on a circulation plan that is part of this submittal. The plan shows that delivery trucks will have suitable locations for loading and access to the new building, and existing buildings will maintain the same level of access.

Streets, Sidewalks, and Public Places (12.04)

12.04.003 - Applicability.
A. Compliance with this chapter is required for all land divisions, site plan and design review, master plan, detailed development plan and conditional use applications and all public improvements.
B. Compliance with this chapter is also required for new construction or additions which exceed fifty percent of the existing square footage, of all single and two-family dwellings. All applicable single and two-family dwellings shall provide any necessary dedications, easements or agreements as identified in the transportation system plan and this chapter. In addition, the frontage of the site shall comply with the following prioritized standards identified in this chapter:
1. Improve street pavement, construct curbs, gutters, sidewalks and planter strips; and
2. Plant street trees.

The cost of compliance with the standards identified in 12.04.003.B.1 and 12.04.003.B.2 is limited to ten percent of the total construction costs. The value of the alterations and improvements as determined by the community development director is based on the entire project and not individual building permits. It is the responsibility of the applicant to submit to the community development director the value of the required improvements. Additional costs may be required to comply with other applicable requirements associated with the proposal such as access or landscaping requirements.

12.04.005 - Jurisdiction and management of the public rights-of-way.

A. The city has jurisdiction and exercises regulatory management over all public rights-of-way within the city under authority of the City Charter and state law by issuing separate public works right-of-way permits or permits as part of issued public infrastructure construction plans. No work in the public right-of-way shall be done without the proper permit. Some public rights-of-way within the city are regulated by the State of Oregon Department of Transportation (ODOT) or Clackamas County and as such, any work in these streets shall conform to their respective permitting requirements.

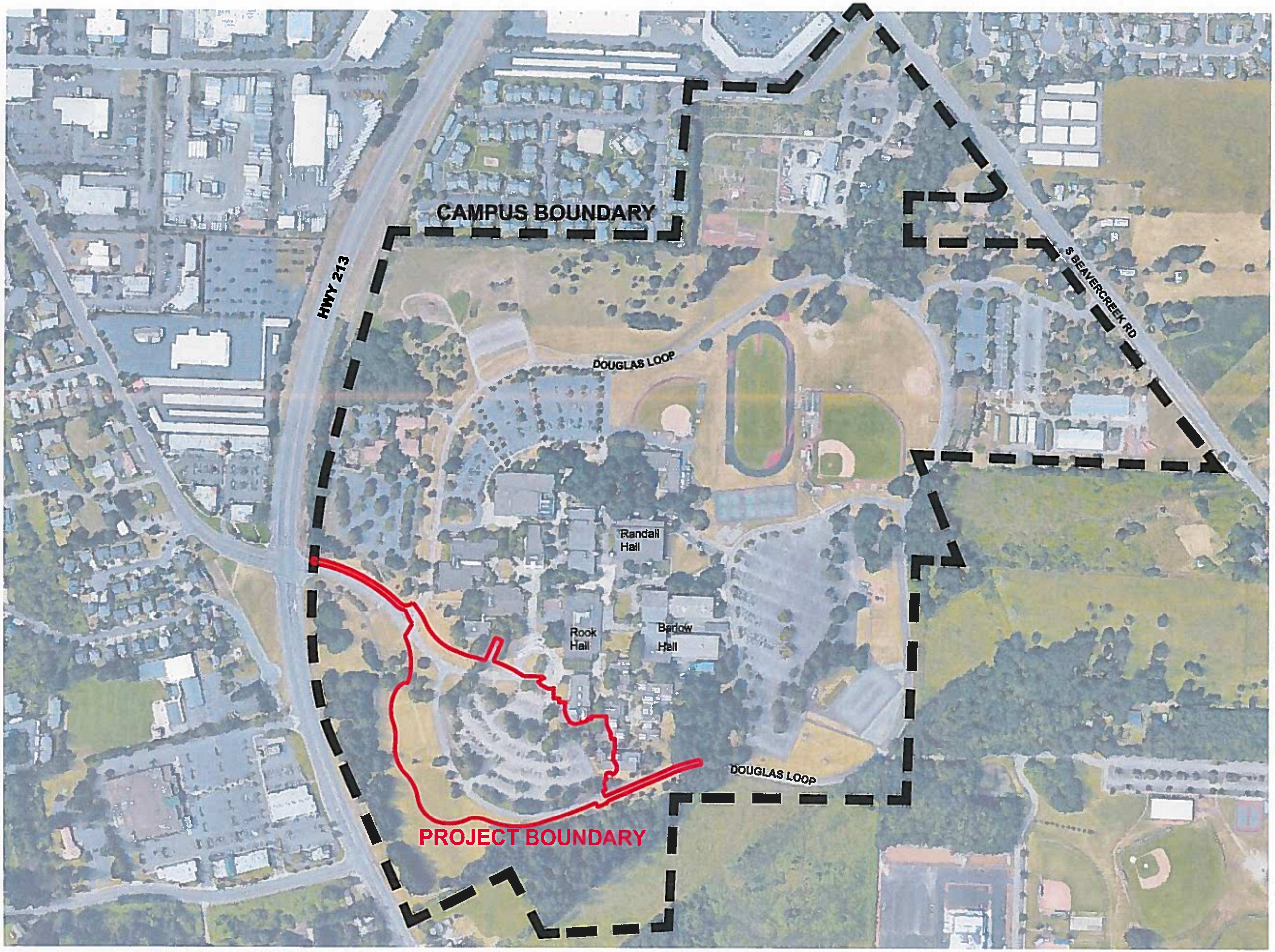
B. Public rights-of-way include, but are not limited to, streets, roads, highways, bridges, alleys, sidewalks, trails, paths, public easements and all other public ways or areas, including the subsurface under and air space over these areas.

C. The city has jurisdiction and exercises regulatory management over each public right-of-way whether the city has a fee, easement, or other legal interest in the right-of-way. The city has jurisdiction and regulatory management of each right-of-way whether the legal interest in the right-of-way was obtained by grant, dedication, prescription, reservation, condemnation, annexation, foreclosure or other means.

D. No person may occupy or encroach on a public right-of-way without the permission of the city. The city grants permission to use rights-of-way by franchises, licenses and permits.

E. The exercise of jurisdiction and regulatory management of a public right-of-way by the city is not official acceptance of the right-of-way, and does not obligate the city to maintain or repair any part of the right-of-way.

Response: The proposed development of a new campus building and reconstruction of the Barlow parking lot is not anticipated to trigger any public improvements on the surrounding street system. Improvements to S. Molalla Avenue and S. Beavercreek Road were required with previous college development as acknowledged in the previous concept master plan application. Proportional share contributions toward future improvement (e.g., Meyers Road) will be provided according to a methodology explained in the transportation report.



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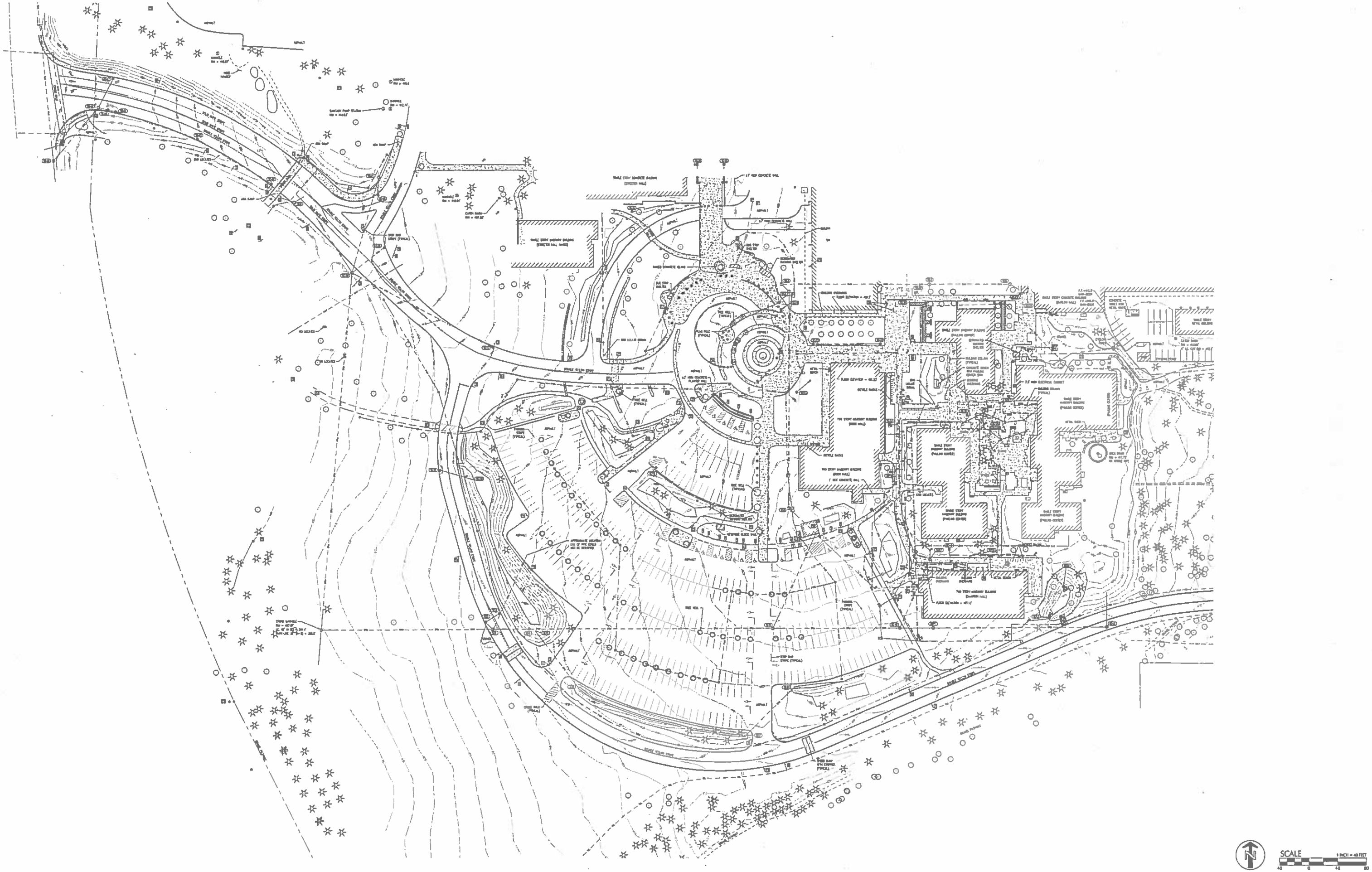
N

Vicinity Map

DeJardin Science Addition and Transit Center

mahlum



DeJardin Science Addition and Transit Center

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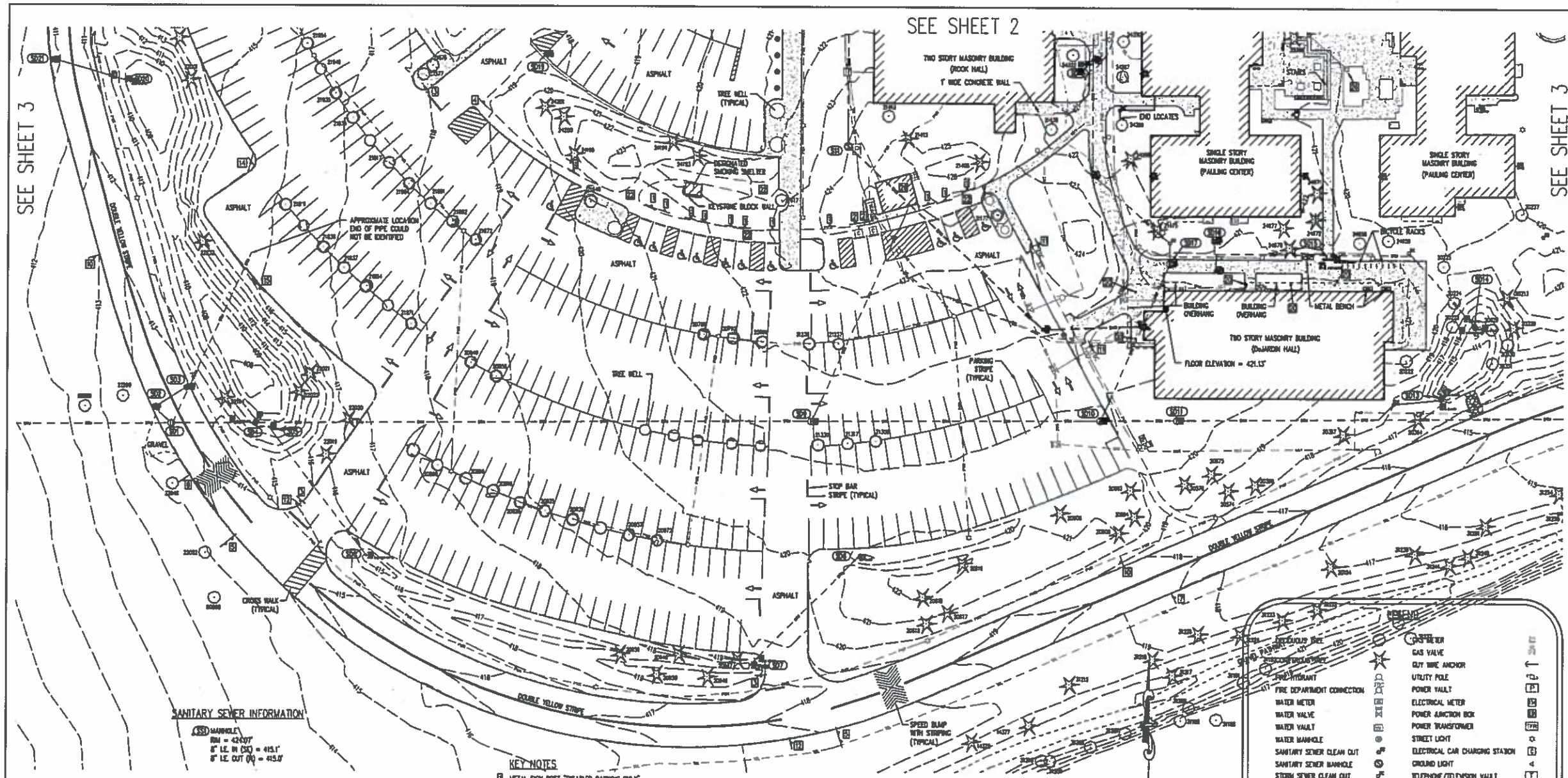
EXISTING CONDITIONS PLAN

kpff



SANITARY SEWER INFORMATION

(SS1) MANHOLE
RIM = 424.97'
8" I.E. IN (SE) = 415.1'
8" I.E. OUT (N) = 415.0'

STORM SEWER INFORMATION

(SD1) MANHOLE
RIM = 413.58'
8" I.E. IN (NW) = 407.8'
18" I.E. IN (NE) = 403.6'
24" I.E. IN (E) = 403.5'
24" I.E. OUT (W) = 403.4'

(SD2) CATCH BASIN
RIM = 413.27'
8" IN (NE)
8" OUT (SW)
FLOWLINE I.E. = 408.3'

(SD3) CATCH BASIN
RIM = 413.21'
8" I.E. OUT (SW) = 410.3'

(SD4) DITCH INLET
VERTICAL 10" PIPE = 408.56'
24" IN (E)
24" OUT (W)
FLOWLINE I.E. = 401.07'

(SD5) CONCRETE STORM OUTFALL
12" I.E. = 408.71'

(SD6) CONCRETE STORM INLET
12" I.E. = 413.35'

(SD7) CONC. STM INLET
10" I.E. = 416.95'

(SD8) 12" CONCRETE PIPE
FULL OF SEDIMENT

(SD9) MANHOLE
RIM = 421.37'
12" I.E. IN (W) = 404.1'
18" I.E. IN (E) = 403.9'
24" I.E. OUT (W) = 403.8'

(SD10) MANHOLE
RIM = 420.67'
12" I.E. IN (NE) = 407.5'
18" IN (E)
18" OUT (W)
FLOWLINE I.E. = 405.7'

(SD11) MANHOLE
RIM = 420.61'
18" IN (E)
18" OUT (W)
FLOWLINE I.E. = 408.4'

(SD12) MANHOLE
RIM = 413.93'
15" IN (W)
18" OUT (W)
FLOWLINE I.E. = 408.6'

(SD13) DITCH INLET
LOW POINT RIM = 416.5'
12" I.E. OUT (SW) = 411.4'
W/ WATER QUALITY TRAP

(SD14) DITCH OUTLET
LOW POINT RIM = 414.3'
12" I.E. IN (NW) = 414.2'

(SD15) SLOT DRAIN
RIM = 420.75'
NO VISIBLE PIPES

(SD16) LYNCH STYLE CATCH BASIN
RIM = 419.83'
TRAP OUT (S)

(SD17) MANHOLE
RIM = 420.82'
12" IN (W)
12" OUT (SW)
FLOWLINE I.E. = 411.5'

(SD18) CATCH BASIN
RIM = 420.15'
OUT (E)

(SD19) CATCH BASIN
RIM = 417.53'
OUT (SW)
FULL OF DEBRIS

(SD20) PVC STORM OUTFALL
8" I.E. = 408.06'

(SD21) LYNCH STYLE CATCH BASIN
RIM = 410.68'
TRAP OUT (SE)

KEY NOTES

1. METAL SIGN POST "DISABLED PARKING ONLY"
2. METAL SIGN POST "ELECTRIC VEHICLE CHARGING"
3. METAL SIGN POST "STOP"
4. METAL SIGN POST "DO NOT ENTER"
5. METAL SIGN WITH CAMPUS DIRECTORY
6. WOOD SIGN POST WITH TRAFFIC LANE DIRECTION ARROWS
7. METAL SIGN POST "SPEED 20 MPH"
8. METAL SIGN POST WITH PEDESTRIAN CROSSING SYMBOL
9. METAL SIGN POST WITH CAMPUS RULES
10. METAL SIGN POST "BUMP"
11. METAL SIGN POST "TDC"
12. METAL SIGN POST WITH NO SIGN
13. METAL SIGN POST "ONE WAY"
14. METAL SIGN POST "EXIT" WITH ARROW
15. METAL SIGN POST "PARK AND RIDE"
16. METAL SIGN POST "BUS ONLY"
17. METAL SIGN WITH BUS STOP INFORMATION
18. METAL SIGN "SERVICE VEHICLES ONLY"
19. METAL SIGN POST "2 HOUR RED PARKING"
20. BUILDING COLUMN (TYPICAL)
21. ADA RAMP
22. ASPHALT PATHWAY
23. WOOD BENCH WITH CONCRETE SUPPORTS
24. CONCRETE ART SCULPTURE
25. METAL ART SCULPTURE
26. 3' HIGH BOLLARD TYPE AREA LIGHT (TYPICAL)
27. METAL SIGN POST WITH SOLAR ENERGY INFORMATION
28. 7' HIGH CONCRETE BLOCK WALLS FOR TRASH ENCLOSURE AND GENERATOR PAD

NOTES

1) THE FIELD SURVEY FOR THIS MAP WAS COMPLETED IN JULY OF 2017.

2) ELEVATIONS AND CONTOURS ARE PER GPS MEASUREMENTS BASED ON THE NAVD 1988 DATUM.

3) THE BASIS OF BEARINGS FOR THIS SURVEY IS THE SOUTHEASTERLY PROPERTY LINE HOLDING THE RECORD BEARING PER CLACKAMAS COUNTY SURVEY NUMBER 27672.

4) EASEMENTS HAVE NOT BEEN MAPPED.

5) THE UNDERGROUND UTILITIES ARE BASED ON THE MARKINGS PER LOCATE TICKET NUMBER 17119648 AND A PRIVATE LOCATING COMPANY.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. 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.

SEE SHEET 3 FOR TREE INFORMATION

LEGEND

- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER METER
- WATER VALVE
- WATER VAULT
- WATER MANHOLE
- SANITARY SEWER CLEAN OUT
- SANITARY SEWER MANHOLE
- STORM SEWER CLEAN OUT
- STORM SEWER CATCH BASIN
- STORM SEWER MANHOLE
- MAILBOX
- BOLLARD
- GAS METER
- GAS VALVE
- GUY WIRE ANCHOR
- UTILITY POLE
- POWER VAULT
- ELECTRICAL METER
- POWER JUNCTION BOX
- POWER TRANSFORMER
- STREET LIGHT
- ELECTRICAL CAR CHARGING STATION
- GROUND LIGHT
- TELEPHONE/TELEVISION VAULT
- TELEPHONE/TELEVISION RISER
- SIGNAL JUNCTION BOX
- SIGN
- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- PROPERTY LINE
- CENTERLINE
- CURB
- EDGE OF PAVEMENT
- EASEMENT
- FENCE LINE
- GRAVEL EDGE
- POWER LINE
- OVERHEAD WIRE
- TELEPHONE LINE
- GAS LINE
- STORM SEWER LINE
- SANITARY SEWER LINE
- WATER LINE
- TRAFFIC SIGNAL WIRE

NORTHWEST SURVEYING, INC.
1815 NW 169th PLACE, SUITE 2090
BEAVERTON, OR 97006
PH:(503) 848-2127 FAX:(503) 848-2179
EMAIL: mail@nwsurvey.com

LOCATED IN THE WEST 1/2 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 2 EAST, W.M., CITY OF OREGON CITY, CLACKAMAS COUNTY, OREGON

TOPOGRAPHIC SURVEY
CLACKAMAS COMMUNITY COLLEGE
OREGON CITY, OREGON

DRAWING NO.: 1477 TOPO
SCALE: AS NOTED
DRAWING GENERATED BY: LEDGER
DRAWN BY: CDW
CHECKED BY: CHS

PREPARED FOR:
WCI GROUP, INC.
5100 SW MACADAM, SUITE 330
PORTLAND, OR 97239

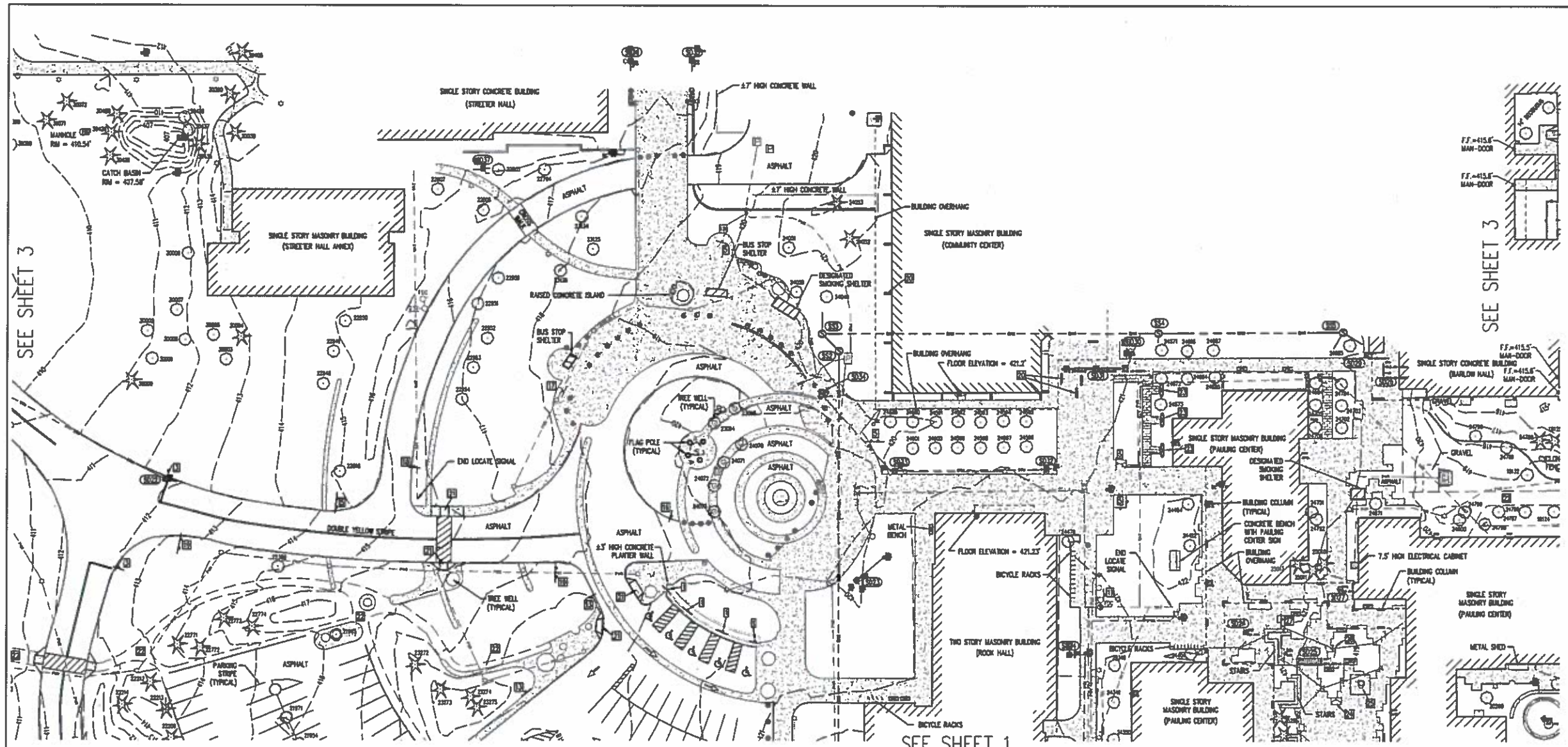
REVISIONS:
INITIAL RELEASE: JULY 31, 2017

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
CLINTON H. STUBBS JR.
35485LS
RENEWAL DATE: 06/30/18

JOB NUMBER
1477

SHEET
1 OF 3

EXISTING CONDITIONS PLAN



STORM SEWER INFORMATION

(5622) CATCH BASIN
RIM = 411.80'
FULL OF DEBRIS

(5623) CATCH BASIN
RIM = 419.55'
6" LE. OUT (NE) = 418.8'

(5624) CATCH BASIN
RIM = 419.82'
6" LE. OUT (E) = 418.0'

(5625) AREA DRAIN
RIM (E) = 419.85'
RIM (W) = 419.97'
NO VISIBLE PIPE

(5628) AREA DRAIN
RIM = 421.65'
NO VISIBLE PIPE

(5627) AREA DRAIN
RIM = 419.64'
NO VISIBLE PIPE

(5629) SLOT DRAIN
RIM (S) = 420.33'
RIM (N) = 420.30'
NO VISIBLE PIPE

(5629) LYNCH STYLE CATCH BASIN
RIM = 420.56'
TRAP (S)

(5630) CATCH BASIN
RIM = 420.78'
OUT (S)
NO VISIBLE PIPE

(5631) SLOT DRAIN
RIM (E) = 420.74'
RIM (W) = 420.67'
NO VISIBLE PIPE

(5632) CATCH BASIN
RIM = 420.45'
NO VISIBLE PIPE

(5633) CATCH BASIN
RIM = 419.78'
NO VISIBLE PIPE

(5634) AREA DRAIN
RIM = 418.77'
NO VISIBLE PIPE

(5635) CATCH BASIN
RIM = 416.01'
4" LE. OUT (S) = 415.5'

(5636) CATCH BASIN
RIM = 415.99'
4" LE. OUT (S) = 415.5'

SANITARY SEWER INFORMATION

(553) MANHOLE
RIM = 420.55'
8" LE. IN (S) = 412.8'
8" LE. OUT (NW) = 411.9'

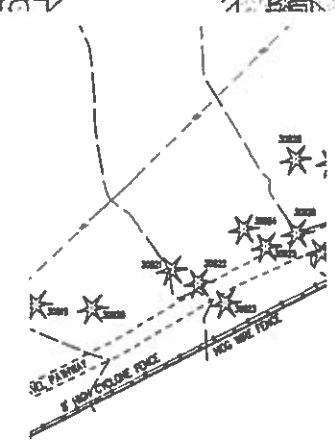
(553) MANHOLE
RIM = 420.40'
8" LE. IN (SE) = 411.2'
8" LE. IN (E) = 402.8'
8" LE. OUT (N) = 402.7'

(554) MANHOLE
RIM = 421.20'
8" LE. IN (E) = 405.4'
8" LE. IN (S) = 411.8'
8" LE. IN (S) = 405.5'
8" LE. OUT (W) = 405.3'

(555) MANHOLE
RIM = 421.70'
8" LE. IN (SW) = 407.8'
8" LE. IN (SE) = 407.0'
8" LE. OUT (W) = 407.0'

TREE INFORMATION

18124	16" DECIDUOUS	23125	16" OAK	24598	SPLIT 7", 8", 9", & 14"
18125	24" FIR	23126	13" OAK	24597	19" DECIDUOUS
18132	27" ELM	23273	24" FIR	24588	SPLIT 7" & 11" DECIDUOUS
20260	20" CHERRY	23273	14" FIR	24589	12" DECIDUOUS
21954	8" DECIDUOUS	23274	18" FIR	24600	11" DECIDUOUS
21971	11" DECIDUOUS	23275	25" FIR	24601	10" DECIDUOUS
21995	SPLIT 6" & (2) 7" DECIDUOUS	24048	22" OAK	24685	16" CHERRY
22208	28" FIR	24050	24" OAK	24686	5" CHERRY
22212	25" FIR	24051	21" OAK	24687	13" CHERRY
22213	27" FIR	24052	20" FIR	24694	15" CHERRY
22214	22" FIR	24053	19" FIR	24702	23" CHERRY
22389	27" OAK	24070	17" DECIDUOUS	24703	15" CHERRY
22771	13" CEDAR	24071	15" DECIDUOUS	24704	20" CHERRY
22772	16" FIR	24072	17" DECIDUOUS	24705	12" CHERRY
22773	21" FIR	24073	17" DECIDUOUS	24708	18" CHERRY
22774	26" FIR	24348	8" ELM	24751	SPLIT (2) 3", 4", & (2) 5" MAPLE
22794	17" OAK	24349	16" ELM	24752	SPLIT (2) 5" & 6" MAPLE
22803	12" DECIDUOUS	24350	6" ELM	24788	13" PINE
22806	18" OAK	24451	9" OAK	24789	22" OAK
22807	14" DECIDUOUS	24452	23" ELM	24790	SPLIT 6" & 7" DECIDUOUS
22816	22" OAK	24454	27" ELM	24796	15" DECIDUOUS
22848	25" OAK	24476	SPLIT 3" & (2) 6" DECIDUOUS	24797	SPLIT 5", 6", & 12" DECIDUOUS
22849	21" OAK	24571	13" CHERRY	24798	SPLIT (2) 3" MAPLE
22850	24" OAK	24572	12" CHERRY	24799	4" MAPLE
22950	15" OAK	24573	12" CHERRY	24800	4" MAPLE
22951	14" OAK	24589	SPLIT 9" & 14" DECIDUOUS	24871	15" DECIDUOUS
22952	16" OAK	24590	SPLIT 6", 7", 8", & 12" DECIDUOUS	24885	25" OAK
22953	16" OAK	24591	SPLIT 7" & 8" DECIDUOUS	25010	9" PINE
22954	17" OAK	24592	SPLIT 8" & (2) 10" DECIDUOUS	25011	8" PINE
23093	14" DECIDUOUS	24593	SPLIT 10" & 12" DECIDUOUS	25013	9" PINE
23094	17" DECIDUOUS	24594	SPLIT 6", 9", 10", 11" DECIDUOUS	25285	11" PINE
23124	15" OAK	24595	SPLIT (2) 8", 9", & 15" DECIDUOUS	25286	11" PINE



SCALE 1" = 30 FEET

NORTHWEST SURVEYING, INC.
1815 NW 169th PLACE, SUITE 2090
BEAVERTON, OR 97006
PH: (503) 848-2127 FAX: (503) 848-2179
E-MAIL: mail@nwsurveying.com

LOCATED IN THE WEST 1/2 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 2 EAST, W.M., CITY OF OREGON CITY, CLACKAMAS COUNTY, OREGON

TOPOGRAPHIC SURVEY
CLACKAMAS COMMUNITY COLLEGE
OREGON CITY, OREGON

DRAWING NO.: 1477 TOPO
SCALE: AS NOTED
DRAWING GENERATED BY MBOOM
DRAWN BY: CDW
CHECKED BY: CHS

PREPARED FOR:
NICI GROUP, INC.
5100 SW MACADAM, SUITE 330
PORTLAND, OR 97239

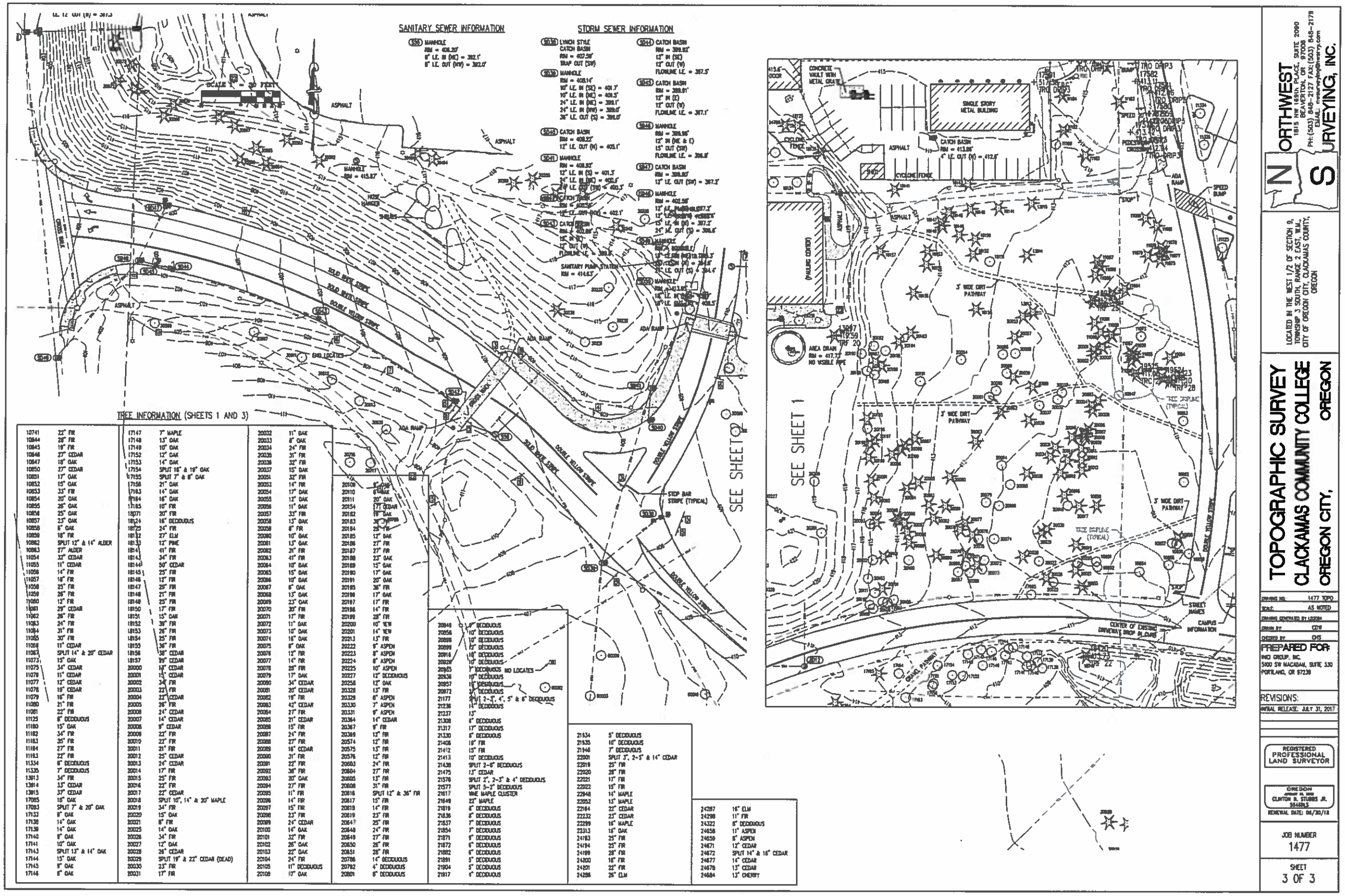
REVISIONS:
INITIAL RELEASE: JULY 31, 2017

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
CLINTON E. STUBBS JR.
RENEWAL DATE: 06/30/16

JOB NUMBER
1477

SHEET
2 OF 3

EXISTING CONDITIONS PLAN



DeJardin Science Addition and Transit Center

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EXISTING CONDITIONS PLAN

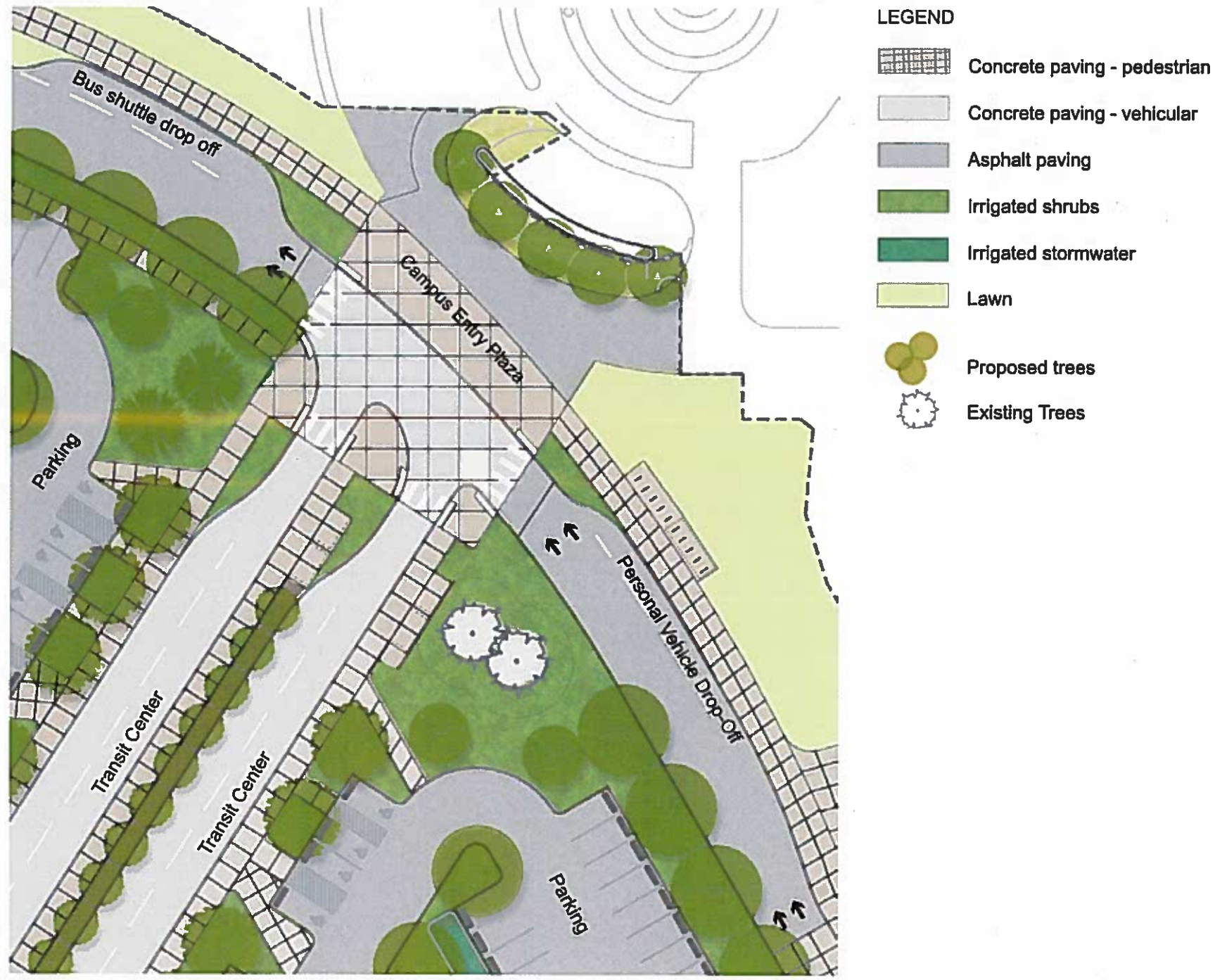
kpff

LEGEND

- Concrete paving - pedestrian
- Concrete paving - vehicular
- Asphalt paving - vehicular
- Irrigated shrubs
- Irrigated stormwater
- Lawn
- Proposed trees
- Existing Trees

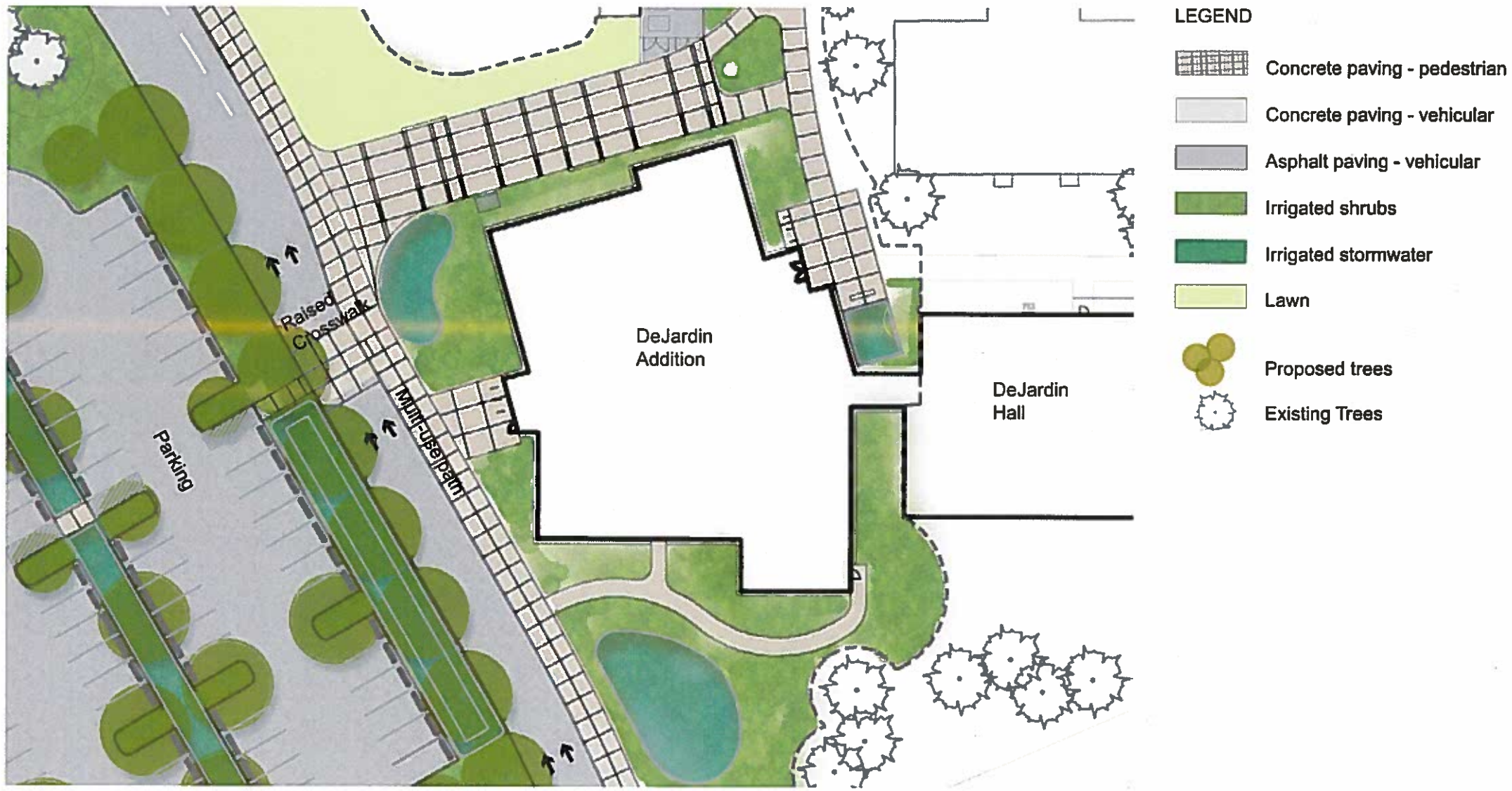
0 100 200 ft

Site Plan Overview



0 25 50 ft

Transit Enlargement



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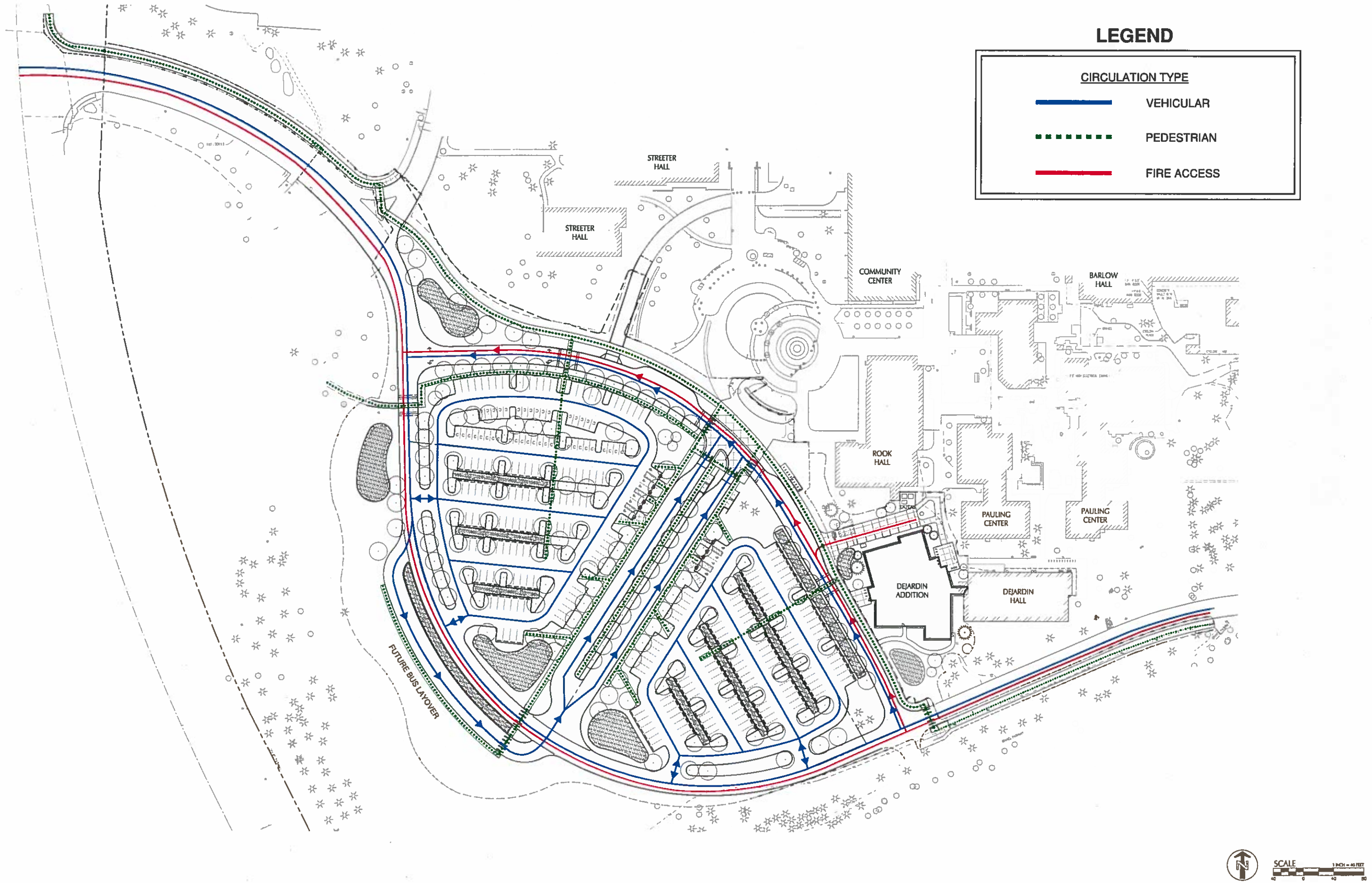
DeJardin Enlargement



DeJardin Science Addition and Transit Center

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CIRCULATION MAP

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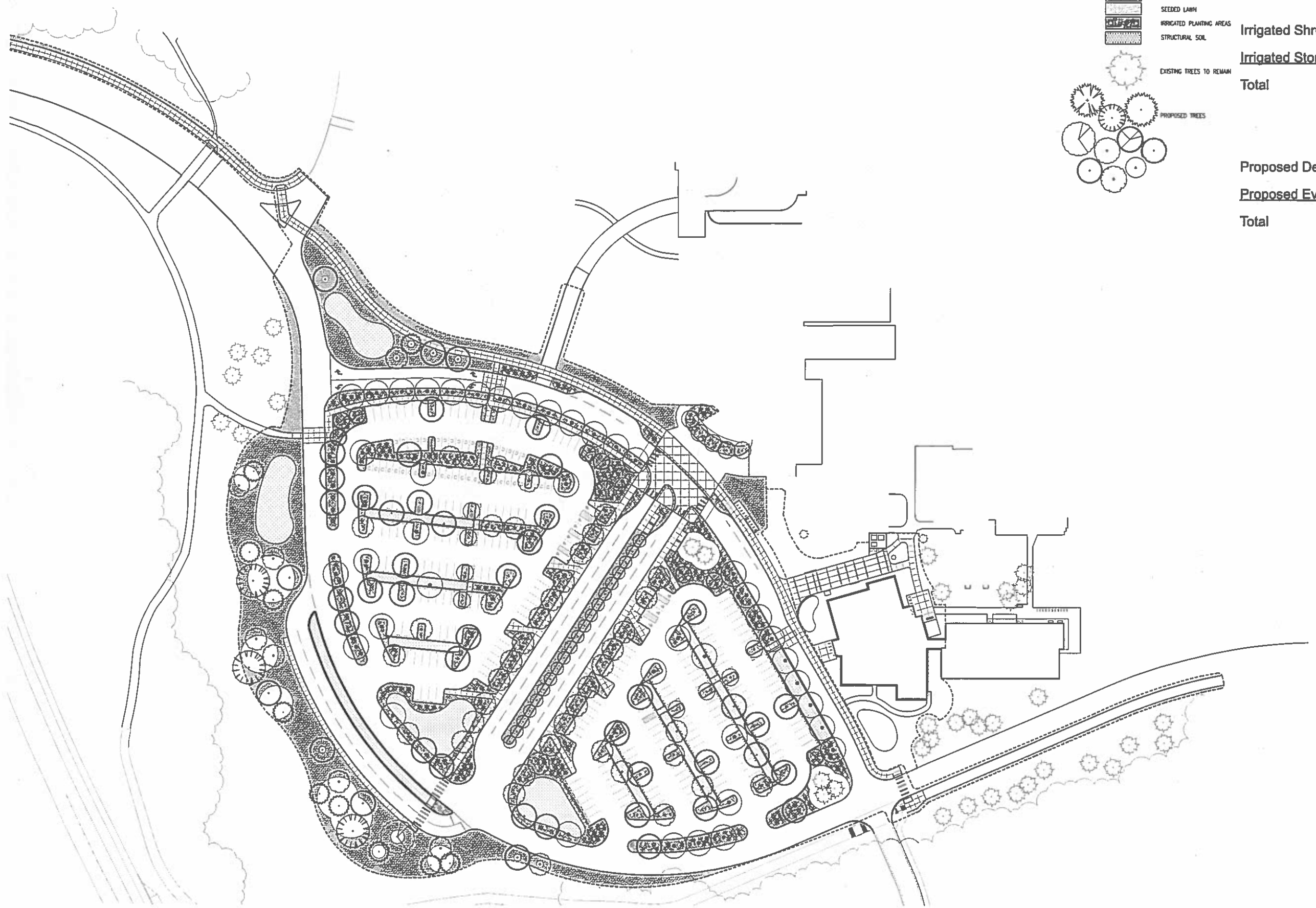

LEGEND

- LIMIT OF WORK
- MATCHLINE
- STORMWATER FACILITY
- SEEDED LAWN
- IRRIGATED PLANTING AREAS
- STRUCTURAL SOIL
- EXISTING TREES TO REMAIN
- PROPOSED TREES

PARKING LOT AREA TAKE OFFS

Total Interior Parking Area	63,200 sq.ft
Irrigated Shrubs & Groundcovers	16,900 sq.ft
Irrigated Stormwater planting	8,200 sq.ft
Total	25,100 sq ft / 39%

Proposed Deciduous Trees	193
Proposed Evergreen Trees	19
Total	212

0 40 80 ft

N

Landscape Plan

DeJardin Science Addition and Transit Center

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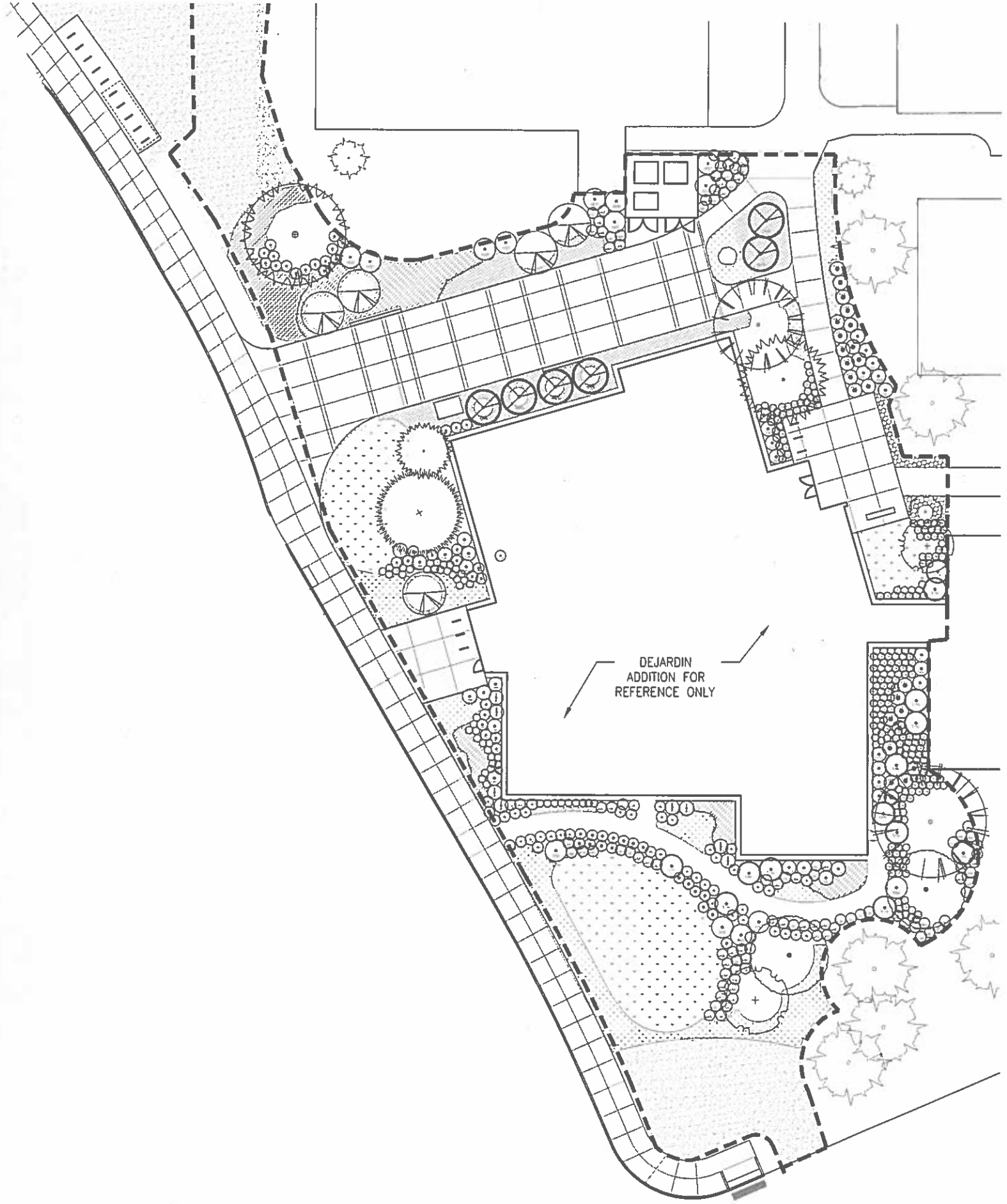

PLANT SCHEDULE – DEJARDIN ADDITION

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME
EVERGREEN TREES			
	ABPR	ABIES PROCERA	
	PIPO	PINUS PONDEROSA	PONDEROSA PINE
	THPL	THUJA PLICATA	WESTERN RED CEDAR
	PSME	PSEUDOTSUGA MENZIESII	DOUGLAS FIR
DECIDUOUS TREES			
	ACCI	ACER CIRCINATUM	VINE MAPLE
	ALRU	ALNUS RUBRA	RED ALDER
	CEOC	CERCIS OCCIDENTALIS	WESTERN REDBUD
SHRUBS/GRASSES			
	AMAL	AMELANCHIER ALNIFOLIA	SERVICEBERRY
	CAMO	CAREX MORROWII 'VARIEGATA'	VARIEGATED JAPANESE SED
	COSE	CORNUS SERICEA	REDTWIG DOGWOOD
	FESI	FESTUCA SISKIYOU BLUE	IDAHO FESCUE GRASS
	GASH	GAULTHERIA SHALLON	SALAL
	HODI	HOLODISCUS DISCOLOR	WESTERN SERVICEBERRY
	LP	LUPINUS POLYPHYLLUS 'MINARETTE'	MINARETTE DWARF LUPINE
	MAAQ	MAHONIA AQUIFOLIUM COMPACTA	OREGON GRAPE
	MANE	MAHONIA NERVOSA	LOW OREGON GRAPE
	PAMY	PAXISTIMA MYRSINITES	OREGON BOXWOOD
	PINU	PINUS MUGO VAR. PUMILIO	DWARF MUGO PINE
	PM	POLYSTICHUM MUNITUM	WESTERN SWORD FERN
	SYAL	SYMPHORICARPOS ALBA	SNOWBERRY
	VIDA	VIBURNUM DAVIDII	DAVID VIBURNUM
GROUND COVER			
		ARCTOSTAPHYLOS UVA URSI	KINNIKINNICK
		CAREX OBNUPTA	SLOUGH SEDGE
		PACHYSANDRA TERMINALIS 'GREEN CARPET'	GREEN CARPET

STORM WATER FACILITY PLANT SCHEDULE

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME
SHRUBS/GRASSES			
		ARCTOSTAPHYLOS UVA URSI	KINNIKINNICK
		CAREX OBNUPTA	SLOUGH SEDGE
		CAREX TESTACEA	ORANGE NEW ZEALAND SE
		CORNUS SERICEA	RED TWIG DOGWOOD
		CORNUS SERICEA 'KELSEYI'	KELSEY DOGWOOD
		ELYMUS GLAUCUS	BLUE WILD RYE
		JUNCUS PATENS	SPREADING RUSH
		MAHONIA AQUIFOLIUM COMPACTA	OREGON GRAPE
		PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK
		POLYSTICHUM MUNITUM	WESTERN SWORD FERN
		SPIREA BETULIFOLIA	BIRCHLEAF SPIRAEA
		SYMPHORICARPOS ALBA	SNOWBERRY
		RIBES SANGUINEUM	RED FLOWERING CURRANT

0 40 80 ft

DeJardin Planting Plan Enlargement

DeJardin Science Addition and Transit Center

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SUMMARY

Tree Removal and Mitigation

Trees removed	80
Replacement trees required	172
Mitigation trees proposed	212
Deficit/surplus	+40

Interior Parking Lot Trees

Parking Spaces	302
Required Parking Lot Trees	51
New Trees Proposed	64
Deficit/Surplus	+14

Tree requirements per 17.52.060 and 17.41.060

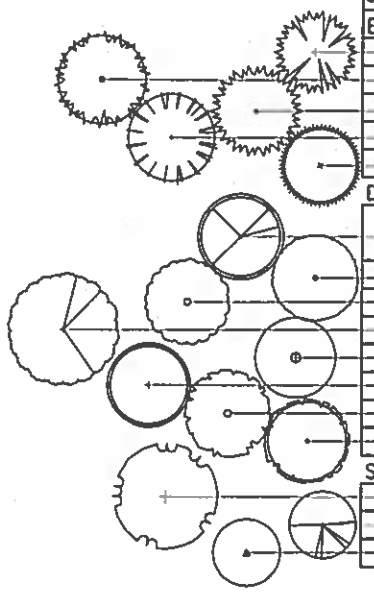
LEGEND

- x Remove
- Preserve
- Coniferous
- Deciduous

0 100 200 ft

N

Tree Mitigation Plan



PLANT SCHEDULE

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	SIZE/CONDITION	SPACING
EVERGREEN TREES					
	ABCO	ABIES CONCOLOR	WHITE FIR	06'-08'	AS SHOWN
	ABPR	ABIES PROCERA	NOBLE FIR		AS SHOWN
	THPL	THUJA PLICATA 'VIRESCENS'	WESTERN RED CEDAR	06'-08'	AS SHOWN
	PSME	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	15'-20'	AS SHOWN
	PIPO	PINUS PONDEROSA	PONDEROSA PINE		AS SHOWN
DECIDUOUS TREES					
	AAGA	ALMELANCHIER ALNIFOLIA X GRANDIFLORA AUTUMN BRILLIANCE	SASKATOON SERVICEBERRY	MULTI STEM	AS SHOWN
	ALRU	ALNUS RUBRA	RED ALDER		AS SHOWN
	CABE	CARPINUS BETULUS 'FASTIGIATA'	COLUMNAR HORNBEAM	2" CAL	AS SHOWN
	FRPE	FRAXINUS PENNSYLVANICA 'URBANITE'	URBANITE GREEN ASH	2" CAL	AS SHOWN
	GLTR	GLEDITSIA TRIACANTHOS 'SUNBURST'	STREET KEEPER HONEYLOCUST	1-3/4" CAL	AS SHOWN
	NYSY	NYSSA SYLVATICA 'RED RAGE'	AFTERBURNER TUPELO	2" CAL	AS SHOWN
	QUCO	QUERCUS COCCINEA	SCARLET OAK	2" CAL	AS SHOWN
	ROPS	ROBINIA PSEUDOACACIA	BLACK LOCUST	2" CAL	AS SHOWN
SMALL DECIDUOUS TREES					
	ACCI	ACER CIRCINATUM	VINE MAPLE		AS SHOWN
	CEOC	CERCIS OCCIDENTALIS	WESTERN REDBUD		AS SHOWN
	LAIN	LAGERSTROEMIA INDICA 'CATAWBA'	PURPLE CRAPE MYRTLE	2" CAL	AS SHOWN

SHRUBS/GRASSES					
	BETHU	BERBERIS THUNBERGII "GOLDEN RUBY"	GOLDEN RUBY BARBERRY		
	CAMO	CAREX MORROWII 'VARIEGATA'	VARIEGATED JAPANESE SEDGE		
	COSE	CORNUS SERICEA	REDTWIG DOGWOOD		
	ESCO	ESCALLONIA COMPACTA	COMPACT ESCALLONIA		
	FESI	FESTUCA SISKIYOU BLUE	IDAHO FESCUE GRASS		
	GASH	GAULTHERIA SHALLON	SALAL		
	HODI	HOLODISCUS DISCOLOR	WESTERN SERVICEBERRY		
	LP	LUPINUS POLYPHYLLUS 'MINARETTE'	MINARETTE DWARF LUPINE		
	MAAQ	MAHONIA AQUIFOLIUM COMPACTA	OREGON GRAPE		
	MANE	MAHONIA NERVOSA	LOW OREGON GRAPE		
	PAMY	PAXISTIMA MYRSINITES	OREGON BOXWOOD		
	PINU	PINUS MUGO VAR. PUMILIO	DWARF MUGO PINE		
	PM	POLYSTICHUM MUNITUM	WESTERN SWORD FERN		
	SPBE	SPIREA BETULIFOLIA VAR LUCIDA	BIRCHLEAF SPIRAEA		
	SYAL	SYMPHORICARPOS ALBA	SNOWBERRY		
	VIDA	VIBURNUM DAVIDII	DAVID VIBURNUM		
	VITI	VIBURNUM TINUS 'SPRING BOUQUET'	SPRING BOUQUET LAURUSTINUS		

GROUND COVER					
		ARCTOSTAPHYLOS UVA URSI	KINNIKINNICK		
		CAREX OBNUPTA	SLOUGH SEDGE		
		ERIC DARLEYENENSIS 'MED PINK'	WINTER SEDGE		
		PACHYSANDRA TERMINALIS 'GREEN CARPET'	GREEN CARPET PACHYSANDRA		

STORM WATER FACILITY PLANT SCHEDULE

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	SIZE/CONDITION	SPACING
SHRUBS/GRASSES					
		ARCTOSTAPHYLOS UVA URSI	KINNIKINNICK		
		CAREX OBNUPTA	SLOUGH SEDGE		18" O.C.
		CAREX TESTACEA	ORANGE NEW ZEALAND SEDGE		18" O.C.
		CORNUS SERICEA	RED TWIG DOGWOOD		
		CORNUS SERICEA 'KELSEYI'	KELSEY DOGWOOD		
		ELYMUS GLAUCUS	BLUE WILD RYE		
		JUNCUS PATENS	SPREADING RUSH		
		MAHONIA AQUIFOLIUM COMPACTA	OREGON GRAPE		AS SHOWN
		MAHONIA REPENS	CREEPING MAHONIA		AS SHOWN
		POLYSTICHUM MUNITUM	WESTERN SWORD FERN		AS SHOWN
		SPIREA X BUMALDA ' GOLD FLAME'	BUMALD SPIREA		AS SHOWN
		SPIREA DOUGLASII	DOUGLAS SPIREA		AS SHOWN

Preliminary Tree and Plant Schedule

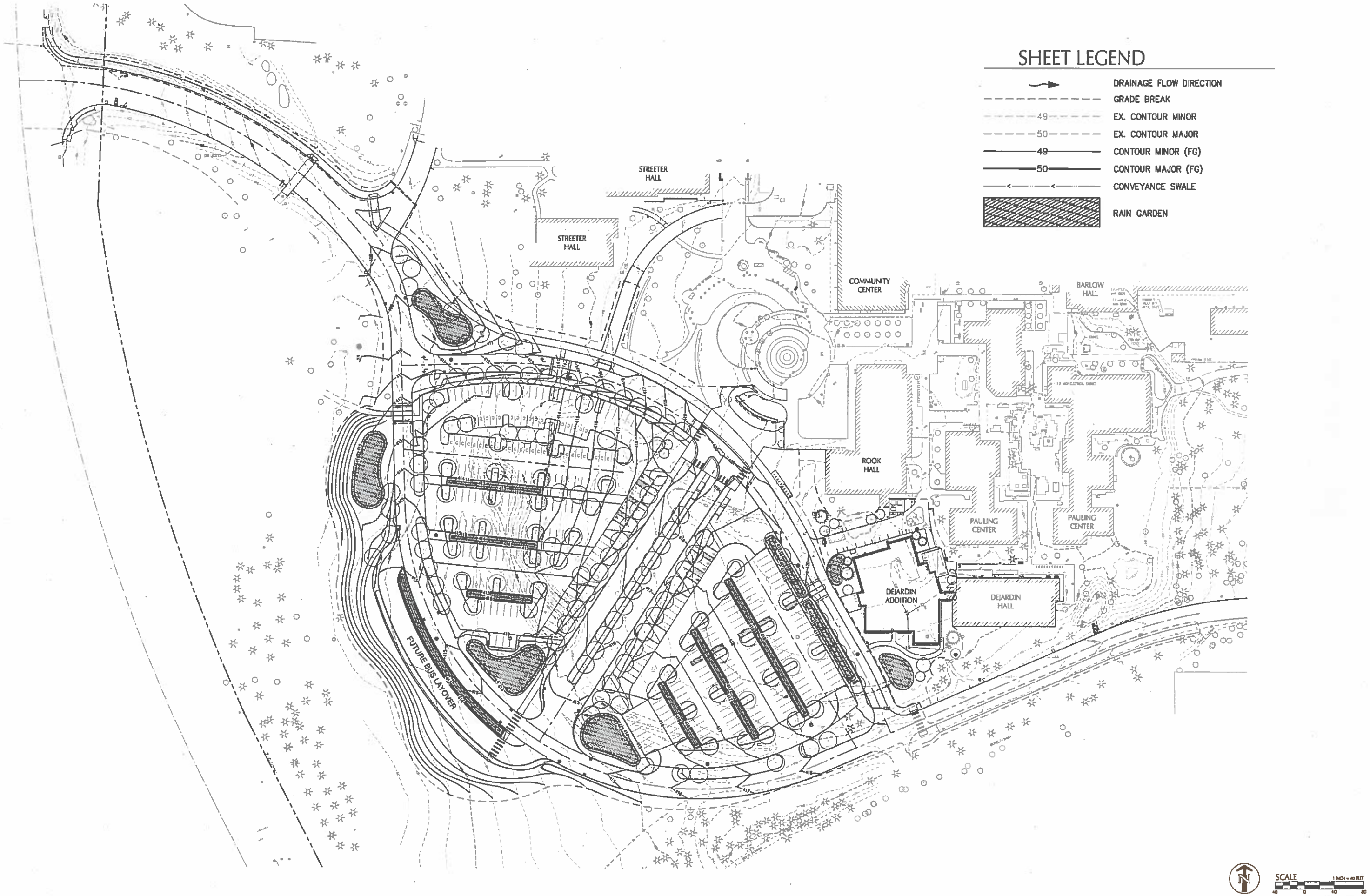
TREES REMOVED				REPLACEMENT CATEGORY				
ID	SIZE	SPECIES		6" -12"	13" -18"	19" -24"	25" -30"	31"+
20616	12"& 36"	FIR		1				5
20647	25"	FIR					4	
20648	24"	FIR				3		
20649	27"	FIR					4	
20650	26"	FIR					4	
20651	28"	FIR					4	
20786	14"	DECIDUOUS			2			
20792	4"	DECIDUOUS						
20801	8"	DECIDUOUS		1				
20849	9"	DECIDUOUS		1				
20858	10"	DECIDUOUS		1				
20898	10"	DECIDUOUS		1				
20899	12"	DECIDUOUS		1				
20916	10"	DECIDUOUS		1				
20926	10"	DECIDUOUS		1				
20935	7"	DECIDUOUS		1				
20936	10"	DECIDUOUS		1				
20957	19"	DECIDUOUS				3		
20972	21"	DECIDUOUS				3		
21236	14"	DECIDUOUS			2			
21237	13"				2			
21308	6"	DECIDUOUS		1				
21317	17"	DECIDUOUS			2			
21330	8"	DECIDUOUS		1				
21576	2",2-3"&4"	DECIDUOUS						
21577	5-2"	DECIDUOUS						
21617		VINE MAPLE						
21649	22"	MAPLE				3		
21819	8"	DECIDUOUS		1				
21836	8"	DECIDUOUS		1				
21837	7"	DECIDUOUS		1				
21854	7"	DECIDUOUS		1				
21871	9"	DECIDUOUS		1				
21872	6"	DECIDUOUS		1				
21882	6"	DECIDUOUS		1				
21891	5"	DECIDUOUS						
21904	5"	DECIDUOUS						
21917	4"	DECIDUOUS						
21934	5"	DECIDUOUS						
21935	10"	DECIDUOUS		1				

TREES REMOVED				REPLACEMENT CATEGORY				
ID	SIZE	SPECIES		6" -12"	13" -18"	19" -24"	25" -30"	31"+
21946	7"	DECIDUOUS		1				
21954	8"	DECIDUOUS		1				
21971	11"	DECIDUOUS		1				
21995	6"& 2-7"	DECIDUOUS		3				
22001	3",2-5",14"	CEDAR			2			
22019	25"	FIR					4	
22020	28"	FIR					4	
22021	17"	FIR			2			
22022	15"	FIR			2			
22048	14"	MAPLE			2			
22052	13"	MAPLE			2			
22164	22"	CEDAR				3		
22206	26"	FIR					4	
22212	28"	FIR					4	
22213	27"	FIR					4	
22214	22"	FIR				3		
22232	23"	CEDAR				3		
22299	16"	MAPLE			2			
22313	16"	OAK			2			
24199	28"	FIR					4	
24200	18"	FIR			2			
24201	22"	FIR				3		
22389	27"	OAK					4	
22771	13"	CEDAR			2			
22772	16"	FIR			2			
22773	21"	FIR				3		
22774	26"	FIR					4	
60010	12"&13"	DECIDUOUS		1	2			
60014	18"	OAK			2			
60016	21"	OAK				3		
60031	19"	OAK				3		
60032	23"	OAK				3		
60066	15"	MAPLE			2			
60070	15",18",22"	CEDAR			4	3		
60095	14"	MAPLE			2			
20608	31"	FIR						5
21177	2-3",4",5"6"	DECIDUOUS		1				
21406	19"	FIR				3		
21412	15"	FIR			2			
21438	15"	FIR			2			

Total Trees Required 172

NOTE: See existing conditions survey for tree locations.

Tree Mitigation Schedule



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GRADING PLAN

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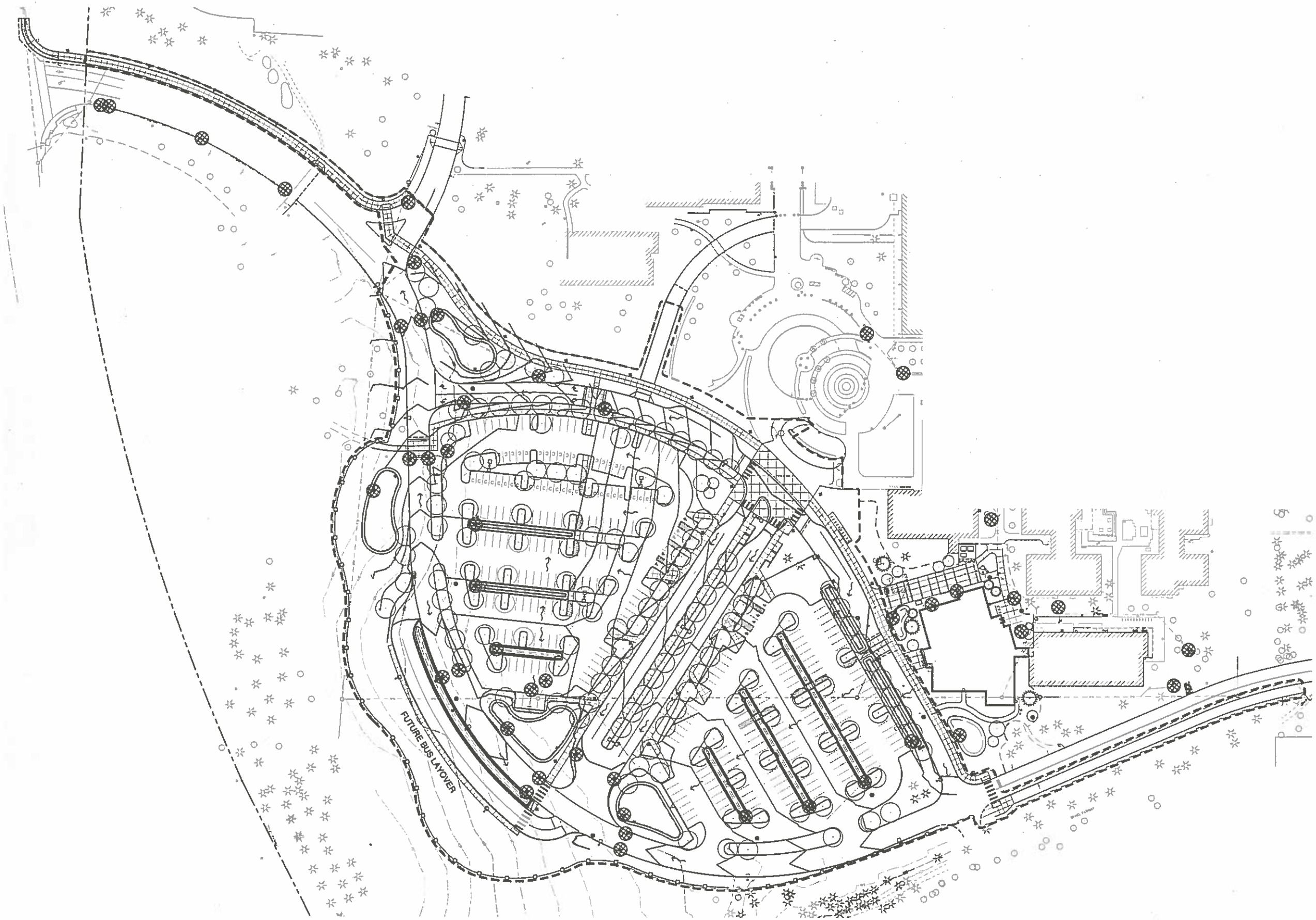


CITY OF OREGON CITY ESC NOTES

1. WHEN RAINFALL AND RUNOFF OCCURS DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS MUST BE PROVIDED BY SOME ONE KNOWLEDGEABLE AND EXPERIENCED IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE.
2. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31 EACH YEAR.
3. DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT TI END OF EACH WORK DAY.
4. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL ESTABLISHED.
5. ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. UNLESS OTHERWISE APPROVED, A SURFACE MOUNTED AND ATTACHABLE, U-SHAPED FILTER BAG IS REQUIRED FOR ALL CURB INLET CATCH BASINS.
6. SIGNIFICANT AMOUNTS OF SEDIMENT WHICH LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.
7. SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.
8. SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HA REACHED A HEIGHT OF 1/3RD THE BARRIER HEIGHT, AND PRIOR TO THE CONTROL MEASURES REMOVAL.
9. CLEANING OF ALL STRUCTURES WITH SUMPS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.
10. ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
11. THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
12. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.
13. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE, AND FEDERAL REGULATIONS.
14. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARL DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FC THE DURATION OF THE PROJECT. (NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.)
15. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPS THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPS MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
16. IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST; THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.
17. WATER-TIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPS; SOIL MUST BE DRAINED SUFFICIENTLY FC MINIMAL SPILLAGE.
18. ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (I.E. FILTER BAG)
19. THE ESC PLAN MUST BE KEPT ONSITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
20. THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHAL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.
21. WRITTEN ESC LOGS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRIC INSPECTORS UPON REQUEST.
22. IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPS MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
23. ALL EXPOSED SOILS MUST BE COVERED DURING WET WEATHER PERIOD.

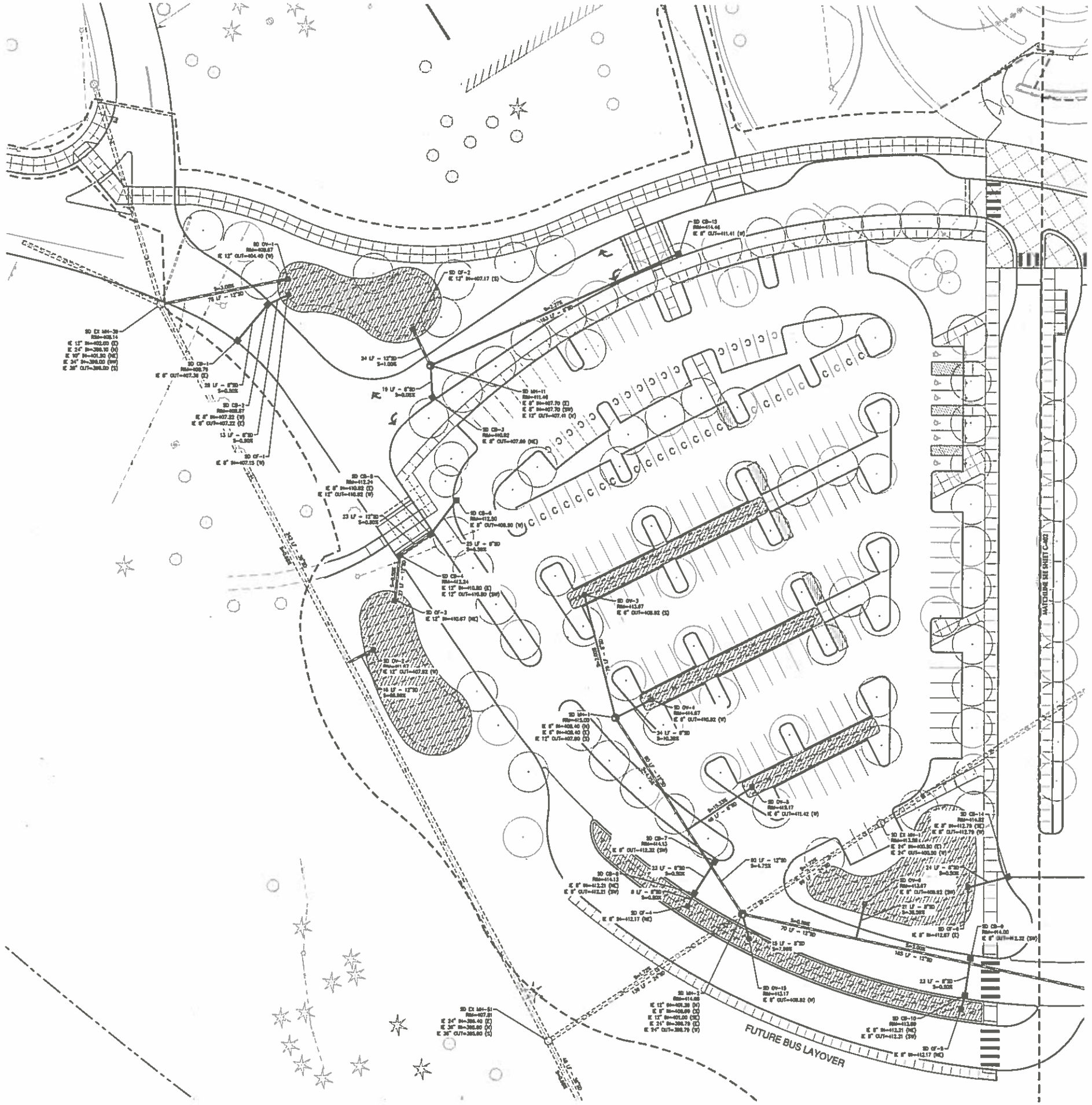
SCALE

DeJardin Science Addition and Transit Center

mahlum

EROSION AND SEDIMENT CONTROL PLAN

kpff



UTILITY LABEL LEGEND

STRUCTURE LABEL

- UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
- STRUCTURE TYPE CALLOUT
- ID NUMBER (WHERE APPLICABLE)
- LOCATION (WHERE APPLICABLE)
- STRUCTURE INFO (WHERE APPLICABLE)

PIPE LABEL

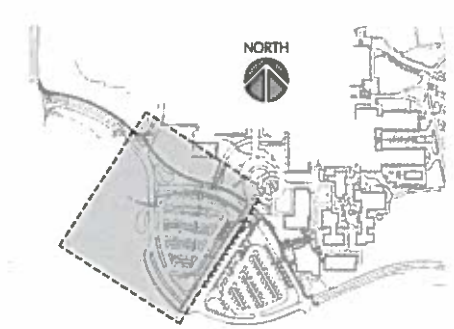
- UTILITY LENGTH
- UTILITY SIZE
- UTILITY TYPE
- SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN	10/C-501
CB	CATCH BASIN	6/C-501
MH	MANHOLE	4/C-501
OF	OUTFALL	3/C-501
OV	OVERFLOW INLET	7/C-501

SD STRUCTURE TABLE

STRUCTURE ID	NORTHING	EASTING
CB-1	5207.85	5247.29
CB-2	5208.27	5274.14
CB-3	5286.13	5327.90
CB-4	5197.03	5280.30
CB-5	5197.53	5292.91
CB-6	5206.40	5308.84
CB-7	4940.00	5321.30
CB-8	4831.27	5300.71
CB-9	4838.61	5419.43
CB-10	4792.80	5404.88
CB-14	4838.27	5464.80
CB-13	5229.99	5408.89
MH-1	5046.38	5397.33
MH-2	4925.99	5318.24
MH-11	5202.77	5337.13
OF-1	5364.47	5287.29
OF-2	5308.28	5338.61
OF-3	5176.27	5243.34
OF-4	4927.44	5293.63
OF-6	4940.79	5441.72
OV-2	5138.18	5216.47
OV-3	5117.29	5341.29
OV-4	5042.98	5341.48
OV-5	4998.75	5383.67
OV-6	4970.95	5383.83
OV-13	4980.53	5313.81



KEY MAP

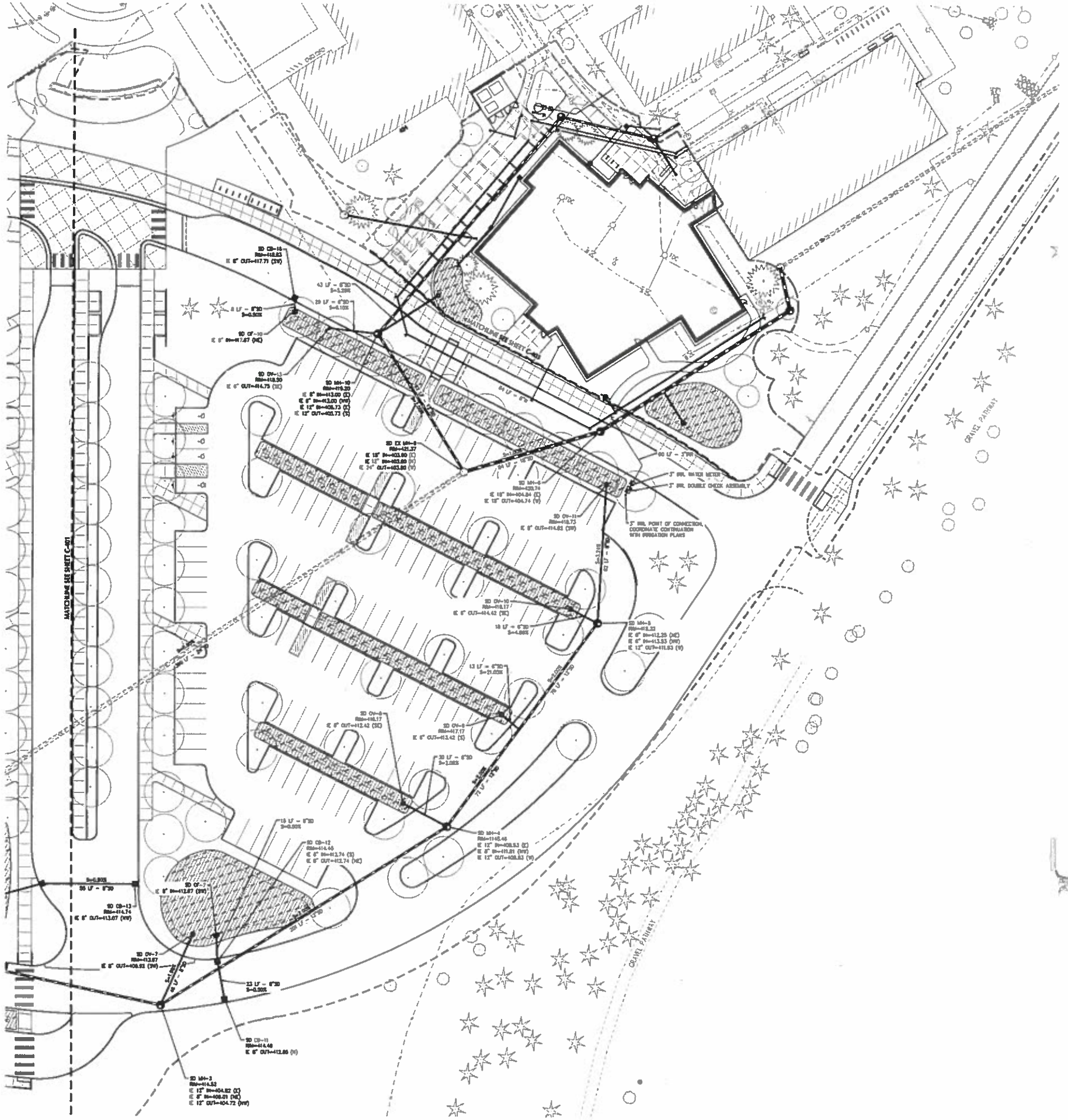
SCALE

DeJardin Science Addition and Transit Center

mahlum

UTILITY PLAN - WEST

kpff



UTILITY LABEL LEGEND

STRUCTURE LABEL

- UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
- STRUCTURE TYPE CALLOUT
- ID NUMBER (WHERE APPLICABLE)
- LOCATION (WHERE APPLICABLE)
- STRUCTURE INFO (WHERE APPLICABLE)

SD CB-10
N=XXXXLXX
E=XXXXLXX
RIM=
IE IN = XXLX
IE OUT = XXLX

PIPE LABEL

- UTILITY LENGTH
- UTILITY SIZE
- UTILITY TYPE
- SLOPE (WHERE APPLICABLE)

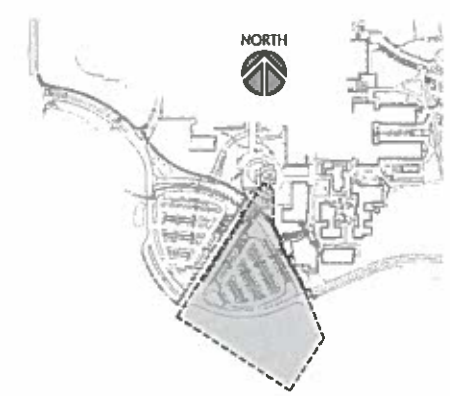
XXLF - XX" XX
S=X.XXX

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN	XX/C-501
CB	CATCH BASIN	1/C-501
MH	MANHOLE	4/C-501
OF	OUTFALL	3/C-501
OV	OVERFLOW INLET	7/C-501

SD STRUCTURE TABLE

STRUCTURE ID	NORTHING	EASTING
CB-11	4722.09	8219.16
CB-12	4743.21	8227.79
CB-13	4828.46	8241.07
CB-16	5049.84	6779.15
MH-3	4739.89	8485.12
MH-4	4736.91	8885.98
MH-8	4793.30	8838.21
MH-9	4883.24	8888.87
MH-10	5003.35	8808.45
OF-7	4723.98	8535.32
OF-10	5043.48	6774.10
OV-7	4764.57	8524.02
OV-8	4762.73	8571.16
OV-9	4773.25	8748.12
OV-10	4805.09	8817.19
OV-11	4854.70	8874.90
OV-13	5023.39	6788.21



KEY MAP

SCALE 1 INCH = 20 FEET

DeJardin Science Addition and Transit Center

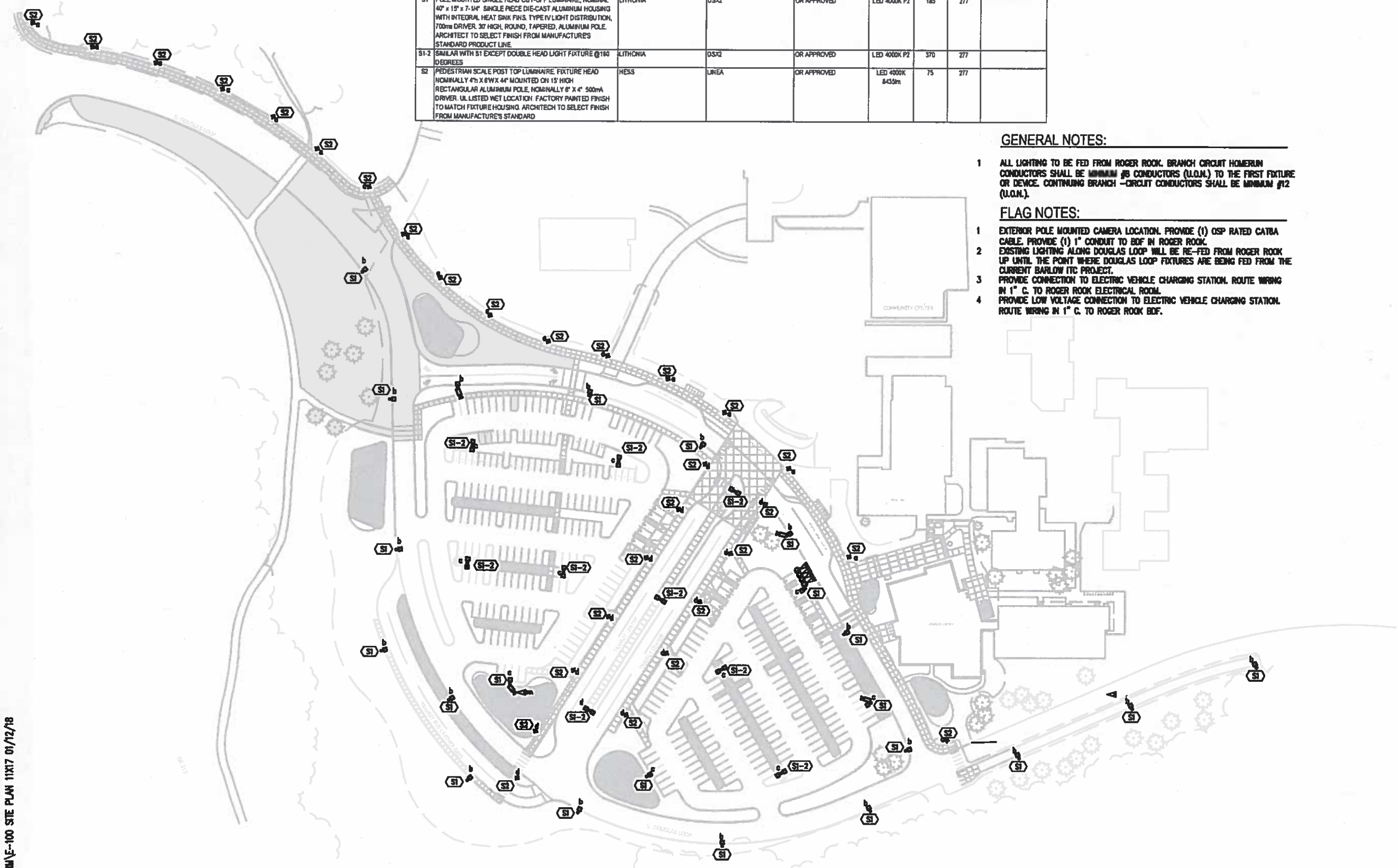
mahlum

UTILITY PLAN - EAST

kpff

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL	ALTERNATE MANUFACTURERS	LIGHT SOURCE	INPUT WATTS	INPUT VOLT	COMMENTS
S1	POLE MOUNTED SINGLE HEAD CUT-OFF LUMINAIRE, NOMINAL 40" x 15" x 7-1/4" SINGLE PIECE DIE-CAST ALUMINUM HOUSING WITH INTEGRAL HEAT SINK FINS. TYPE IV LIGHT DISTRIBUTION, 700ma DRIVER. 30' HIGH, ROUND, TAPERED, ALUMINUM POLE. ARCHITECT TO SELECT FINISH FROM MANUFACTURE'S STANDARD PRODUCT LINE.	LITHONIA	OSX2	OR APPROVED	LED 4000K P2	185	277	
S1-2	SIMILAR WITH S1 EXCEPT DOUBLE HEAD LIGHT FIXTURE @180 DEGREES	LITHONIA	OSX2	OR APPROVED	LED 4000K P2	370	277	
S2	PEDESTRIAN SCALE POST TOP LUMINAIRE. FIXTURE HEAD NOMINALLY 4"h X 6"W X 44" MOUNTED ON 15' HIGH RECTANGULAR ALUMINUM POLE. NOMINALLY 6" X 4" 500mA DRIVER. UL LISTED WET LOCATION. FACTORY PAINTED FINISH TO MATCH FIXTURE HOUSING. ARCHITECH TO SELECT FINISH FROM MANUFACTURE'S STANDARD	HESS	LINEA	OR APPROVED	LED 4000K 8435lm	75	277	



GENERAL NOTES:

1. ALL LIGHTING TO BE FED FROM ROGER ROOK. BRANCH CIRCUIT HOMERUN CONDUCTORS SHALL BE MINIMUM #8 CONDUCTORS (U.O.N.) TO THE FIRST FIXTURE OR DEVICE. CONTINUING BRANCH –CIRCUIT CONDUCTORS SHALL BE MINIMUM #12 (U.O.N.).

FLAG NOTES:

1. EXTERIOR POLE MOUNTED CAMERA LOCATION. PROVIDE (1) OSP RATED CAT6A CABLE. PROVIDE (1) 1" CONDUIT TO BDF IN ROGER ROOK.
2. EXISTING LIGHTING ALONG DOUGLAS LOOP WILL BE RE-FED FROM ROGER ROOK UP UNTIL THE POINT WHERE DOUGLAS LOOP FIXTURES ARE BEING FED FROM THE CURRENT BARLOW ITC PROJECT.
3. PROVIDE CONNECTION TO ELECTRIC VEHICLE CHARGING STATION. ROUTE WIRING IN 1" C. TO ROGER ROOK ELECTRICAL ROOM.
4. PROVIDE LOW VOLTAGE CONNECTION TO ELECTRIC VEHICLE CHARGING STATION. ROUTE WIRING IN 1" C. TO ROGER ROOK BDF.

20462031\4\CAD-BIM\E-100 SITE PLAN 11X17 01/12/18

DeJardin Science Addition and Transit Center

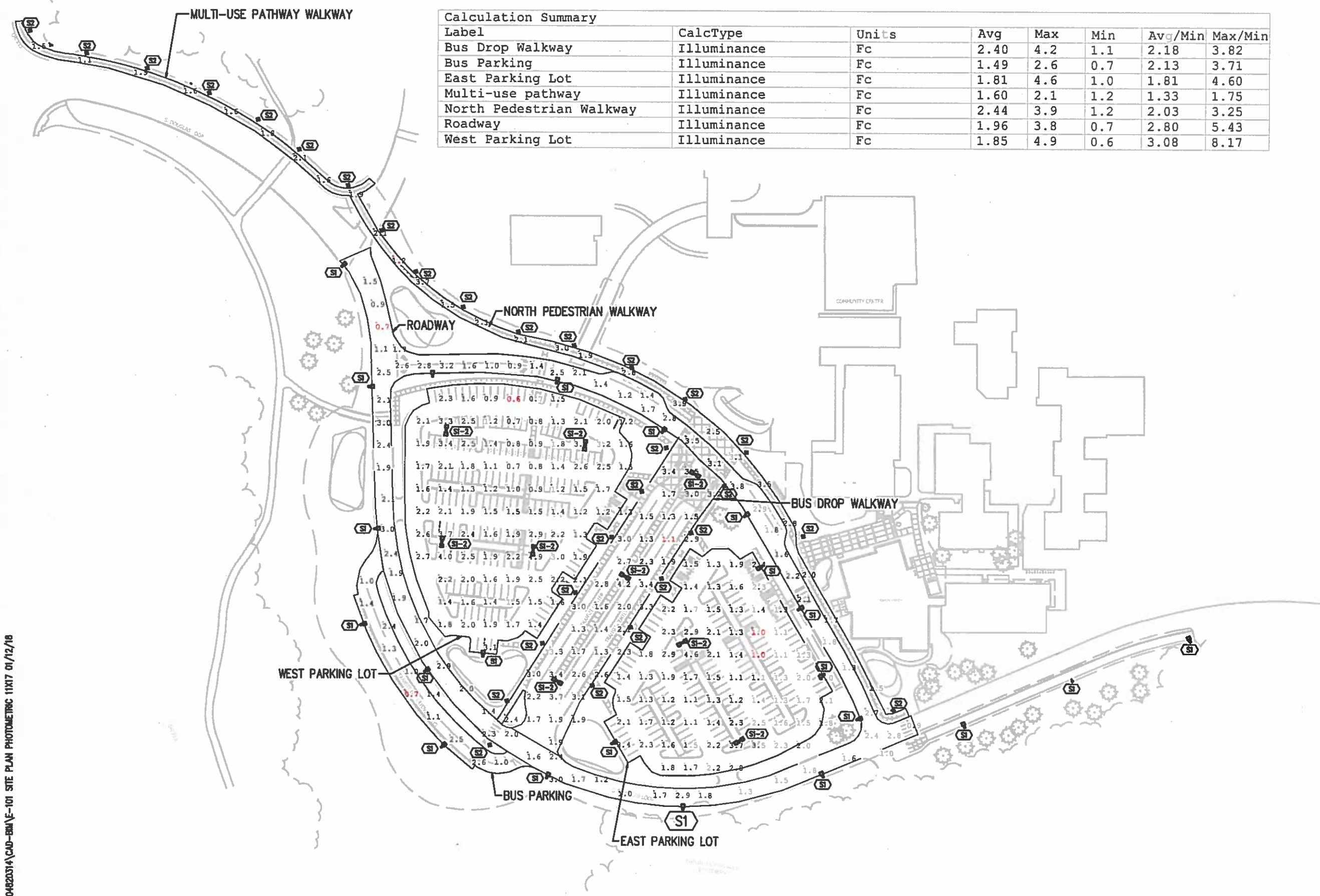
nahlum

LIGHTING FIXTURE PLAN

Stantec

733 SW Oak Street Suite 200
Portland Oregon 97205-3710

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Bus Drop Walkway	Illuminance	Fc	2.40	4.2	1.1	2.18	3.82
Bus Parking	Illuminance	Fc	1.49	2.6	0.7	2.13	3.71
East Parking Lot	Illuminance	Fc	1.81	4.6	1.0	1.81	4.60
Multi-use pathway	Illuminance	Fc	1.60	2.1	1.2	1.33	1.75
North Pedestrian Walkway	Illuminance	Fc	2.44	3.9	1.2	2.03	3.25
Roadway	Illuminance	Fc	1.96	3.8	0.7	2.80	5.43
West Parking Lot	Illuminance	Fc	1.85	4.9	0.6	3.08	8.17



\20482031\4\CAD-BIM\E-101 SITE PLAN PHOTOMETRIC 11X17 01/12/18

DeJardin Science Addition and Transit Center

mahlum

PHOTOMETRIC ANALYSIS PLAN

Stantec

7331 SW Oak Street Suite 200

DeJardin Science Addition and Transit Center

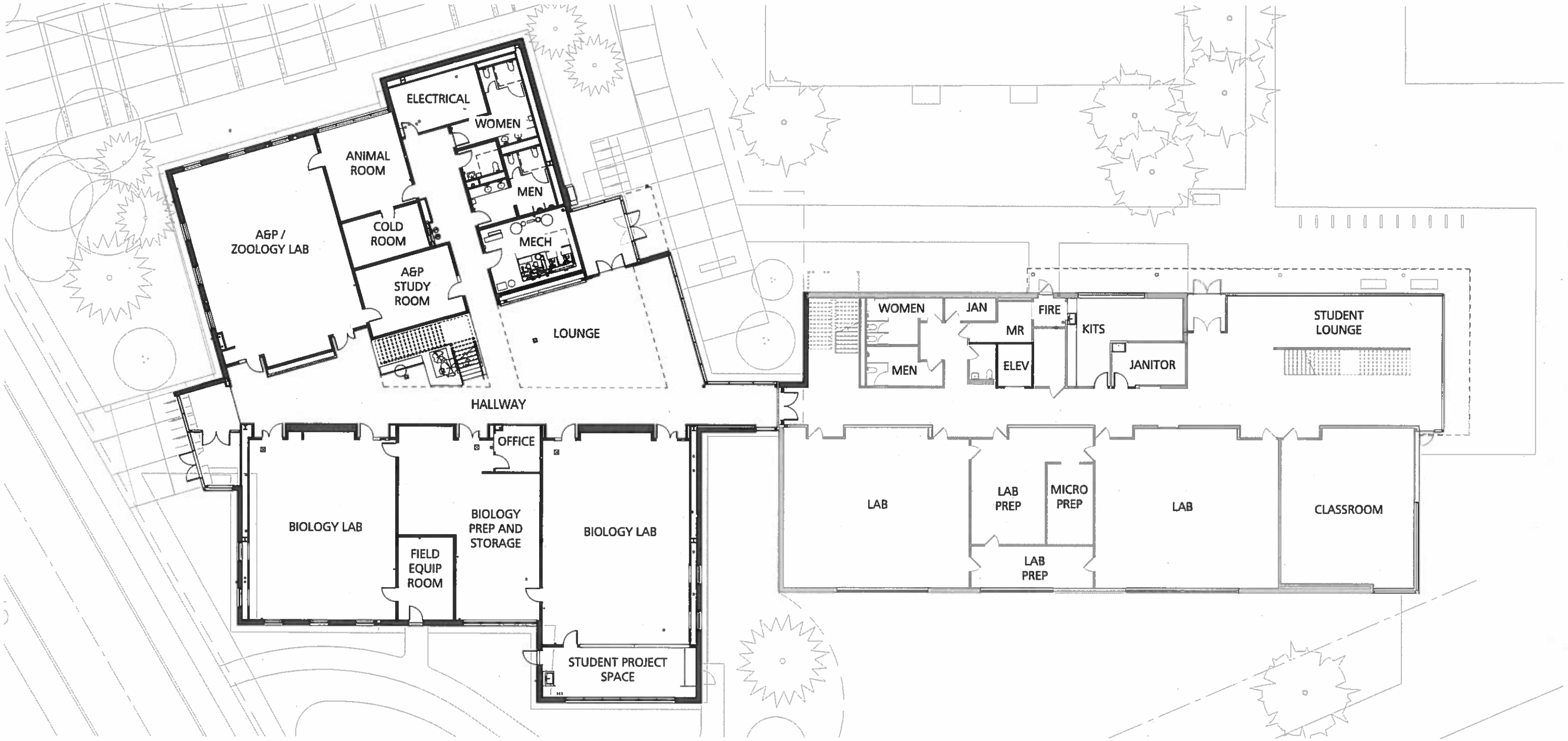
mahlum

RENDERING AT NORTH EAST ENTRY

DeJardin Science Addition and Transit Center

mahlum

RENDERING FROM DOUGLAS LOOP



SCALE

0' 10' 20' 40'

N

DeJardin Science Addition and Transit Center

mahlum

FIRST FLOOR PLAN

SCALE

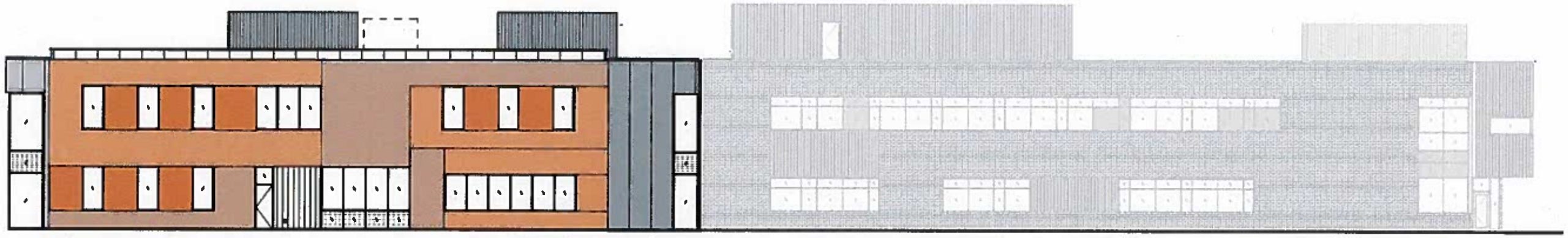
0' 10' 20' 40'

N

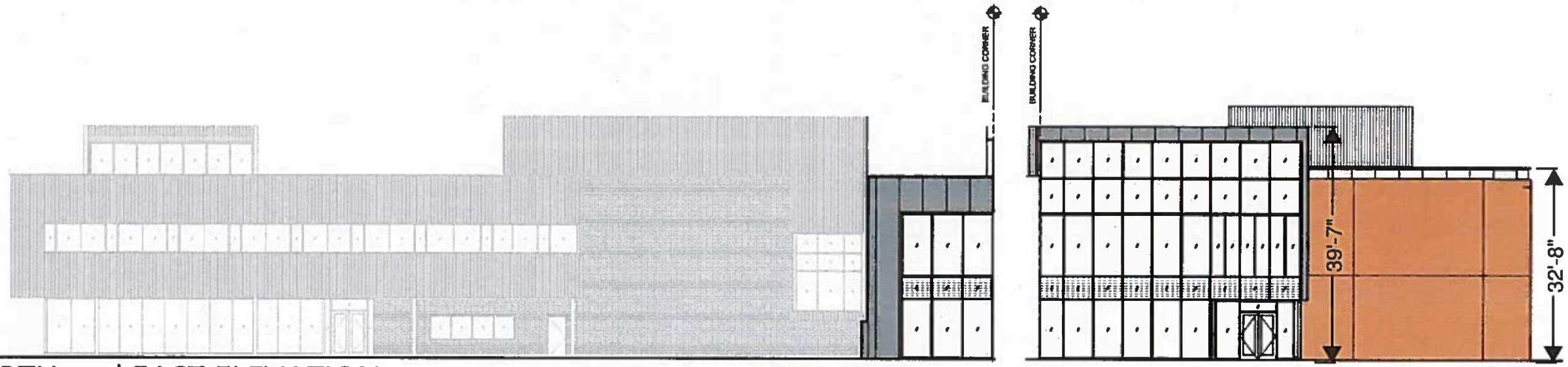
DeJardin Science Addition and Transit Center

mahlum

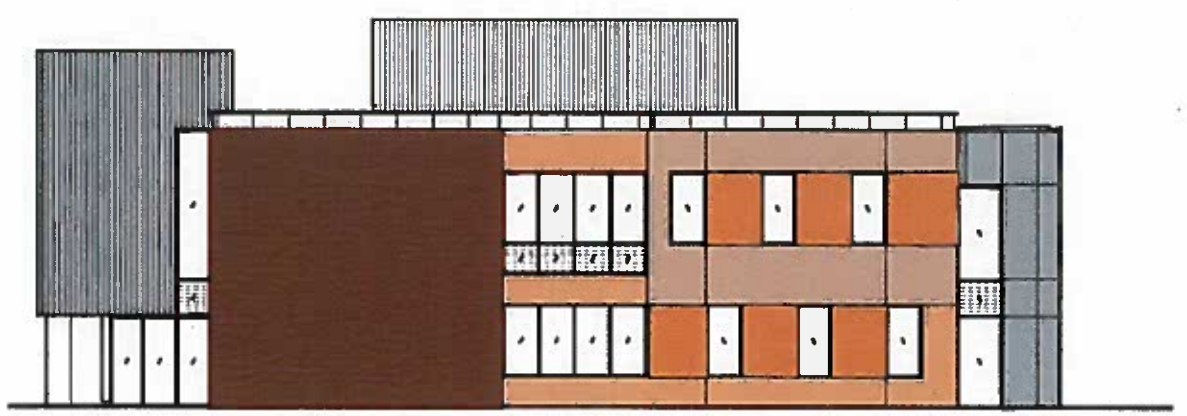
SECOND FLOOR PLAN



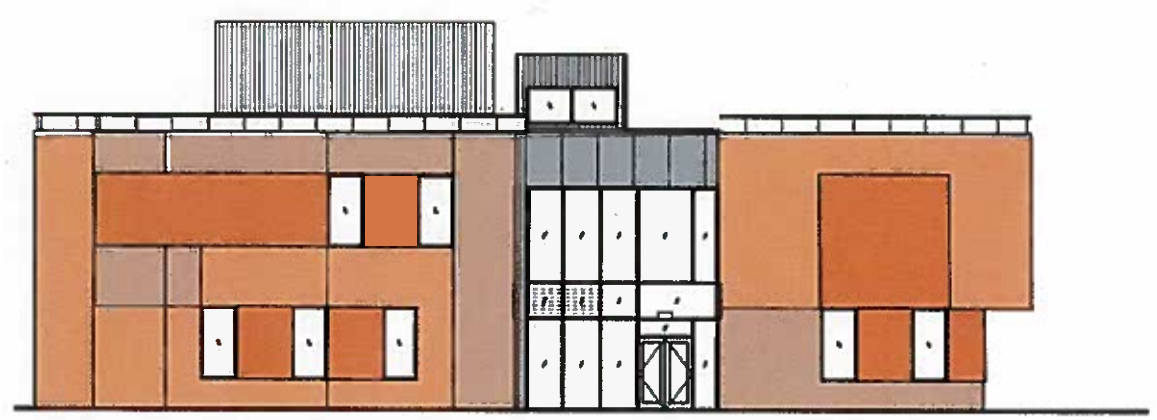
1- SOUTH ELEVATION



2 - NORTH and EAST ELEVATION



3 - NORTH ELEVATION



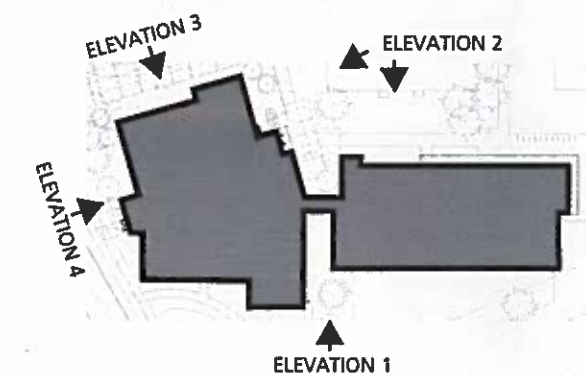
4 - WEST ELEVATION

LEGEND

- METAL PANEL, BOX RIB OR FLAT PROFILE, IN GRAY TO COORDINATE WITH EXISTING BUILDING
- BRICK PATTERN 1 - RUNNING BOND IN BRICK COLORS TO COMPLEMENT EXISTING BUILDING
- BRICK PATTERN 2 - RUNNING BOND IN SAME COLOR AS BRICK PATTERN 1, BUT DIFFERENT TEXTURE
- BRICK PATTERN 3, RUNNING BOND, MIX OF BRICK PATTERN 1 AND 2, DIFFERENT SIZE
- "DNA" WALL - STACK BOND, SEE RENDERINGS

NOTE:
EXACT LOCATIONS OF MATERIALS, TEXTURE, AND COLOR VARIATIONS ARE IN DEVELOPMENT AND SUBJECT TO MINOR CHANGES.

KEY PLAN



SCALE
0' 10' 20' 40'

ELEVATIONS

Memorandum

kpff

DATE:	December 21, 2017		
PROJECT:	315239-CCC DeJardin Addition & Transit Center	**SUBJECT:**	Stormwater Drainage Technical Memo
TO:	Kim Olson Mahlum Architects, Inc.	**FROM:**	Paul Dedyo KPFF Consulting Engineers
PHONE:	(503) 224-4032	**PHONE:**	503-542-3859
EMAIL:	kolson@mahlum.com	**EMAIL:**	Paul.dedyo@kpff.com

The report outlines the stormwater management and treatment of runoff from new impervious surfaces associated with the Clackamas Community College (CCC) DeJardin Addition & Transit Center project in accordance with the 2014 Oregon City Stormwater and Grading Design Manual (Oregon City Stormwater Manual).

I. Project Overview and Description

The site is located toward the west end of the CCC campus and is bordered by Douglas Loop to the south and west, DeJardin Hall to the east, and Rook Hall to the north. The project is part of the improvements identified in the approved CCC Master Plan and is funded by a recent bond measure. The total project site is approximately 12 acres and includes development of a new 16,000 SF science building addition along with associated fire access paving, pedestrian circulation and plaza paving. The existing south campus parking lot will also be completely reconstructed and reconfigured to integrate a new transit center within the parking lot. The new transit center will replace the existing roundabout facility north of this project. A portion of Douglas Loop will be realigned to enlarge the space allocated for parking. The project also includes pavement repair and a new 10' wide concrete sidewalk along the west entry drive off of Trails End Highway 213, and construction of a new 10' wide shared-use asphalt path alongside Douglas Loop that extends east to the recently constructed Barlow Lot path improvements. See Exhibit A – Site Plan for an overview of the proposed site improvements. A completed Site Assessment and Planning Checklist is attached in Appendix A

II. Existing Conditions

As noted above, the total project site is approximately 12 acres and consists of primarily impervious surfaces in the form of asphalt parking lots and concrete sidewalks. An open lawn area outside of Douglas Loop slopes gently to the south and west and is used as a sports field. There are a number of trees within landscape islands throughout the parking lot, and more significant stands of trees along the south boundary of Douglas Loop.

The site generally slopes from northeast to southwest, with surface runoff collected by a network of catch basins and pipes that convey drainage to a 24 to 36-inch storm main flowing west under proposed building addition and parking lot. There is an existing storm facility along the inside edge of Douglas Loop that manages runoff from the existing parking lot before tying into this storm line. This storm main also caries

runoff from upstream portions of the basin located on campus and ultimately ties into the public storm system at the intersection of S Meyers Road and Hwy 213.

Drainage Basin

The overall campus drainage runoff is split into two major basins, the Newell Creek Basin to the east and the Caufield Basin to the west. The DeJardin Addition and Transit Center project site falls within the Caufield Basin. This drainage basin extends well beyond the campus, but the catchment area upstream of the project site is limited to a few buildings and plaza areas to the east and north.

Site Soils

According to the Natural Resource Conservation Service (NRCS) Soil Survey, the site soils are Bornstedt Silt Loams with fine textured soils. The soil's hydrologic group is class "C", with a relatively low hydraulic conductivity. These native soil types typically have a very low permeability and a high runoff potential. A geotechnical investigation was completed by GRI to evaluate the site soils and provide recommendations for the proposed improvements. Their findings indicate the depth to groundwater about 15 feet below existing grade and is expected to fluctuate seasonally. Site soil infiltration rates were not included in the preliminary geotechnical investigation. Poor soil infiltration rates were instead inferred from the results of the NRCS soil survey.

III. Proposed Onsite Improvements

The proposed grading and drainage systems have been coordinated with the site improvements to collect and convey site runoff from new impervious surfaces to stormwater management facilities. The proposed improvements will maintain existing drainage patterns and enhance water quality prior to discharge to the existing storm main.

The proposed site plan introduces new and improved access roads and connections to the campus and the surrounding transportation infrastructure. Exhibit A shows the proposed site plan. The site improvements and vehicular circulation were coordinated with the Meyers Road project led by others that will extend S Meyers Road east from Hwy 213. This Meyers Road extension project includes a new entry drive connection to Douglas Loop for both passenger and transit vehicles, and the intersection will align with the drive aisle passing in front of the DeJardin addition.

A portion of Douglas Loop west of this intersection has been realigned over the sports field to encompass a larger area for parking and the transit center improvements. The transit center improvements include a layover area along the outside edge of Douglas Loop that will also facilitate turning movements for buses accessing the site from Hwy 213.

A number of existing trees will be preserved along Douglas Loop and near the DeJardin addition. The existing trees within the current parking lot are not compatible with the layout and grading needs to support the transit and parking program and will be removed.

There is an existing storm main that flows west under the proposed DeJardin addition that will have to be rerouted. The realigned pipe will tie back into the downstream system under the new parking lot. The project proposes to tie back into this existing conveyance system where applicable, after providing stormwater

treatment and detention through the rain gardens. Portions of the parking lot storm collection and conveyance system will be removed during demolition and preparation of the building site.

And finally, there will be roadway maintenance and repair work and a 10' wide shared use path added along the main entry drive between Hwy 213 and the project site, and extending east from the site along Douglas Loop. The entry drive improvements will construct a new 10' wide concrete walk behind the north curb to link the campus with the existing sidewalk at Hwy 213. The new shared use path extending east will be behind the curb on the south side of Douglas Loop and tie into the recent trail improvements installed with the Barlow Lot. The roadway work includes grind & inlay, overlay, and full replacement.

The project results in a net increased impervious area as summarized in Table 1 below.

TABLE 1: Summary of impervious areas

SITE CONDITION	IMPERVIOUS AREA (SF)
Existing	209,500
Proposed	280,000
Net	70,500

Storm Water Management Methodology

Surface runoff from the newly improved or reconstructed impervious areas will be managed and conveyed in accordance with the Oregon City Stormwater and Grading Design Standards. Drainage from all new and improved impervious surfaces must be routed through storm facilities that provide water quality treatment and flow control. Portions of Douglas Loop and the entry road will receive an overlay or a grind and inlay rather than be reconstructed. These improvements to the pavement are considered as maintenance and will be exempt from water quality and detention standards.

There are various drainage catchment areas within the DeJardin addition site and within the new parking lot which are outlined in the basin map in Exhibit B. Vegetated rain garden filtration storm facilities will be sized in accordance with the Oregon City standards. Stormwater management facility sizing analysis using the Water Environment Services (WES) Best Management Practice (BMP) Sizing Tool results in an 11% sizing ratio for vegetated rain garden filtration facilities relative to the impervious area of the catchment. The sizing ratio is based on an input of the existing Type C on-site soils and a pre-existing forested condition. Figure 1 below shows a snapshot of the WES BMP Sizing Tool outlining the sizing ratio for Rain Garden – Filtration facilities. The numbers shown in the figure below are meant to be representative of the sizing ratio required, and are not actual values from the project analysis. Figure 2 below shows the typical section for the rain gardens that will be constructed. This detail is consistent with the Oregon City standard details.

kpff

WES BMP Sizing Report

Project Information

Project Name	CCC - ITC
Project Type	Commercial
Location	
Stormwater Management Area	1500
Project Applicant	Clackamas Community College
Jurisdiction	CCSD1NCSA

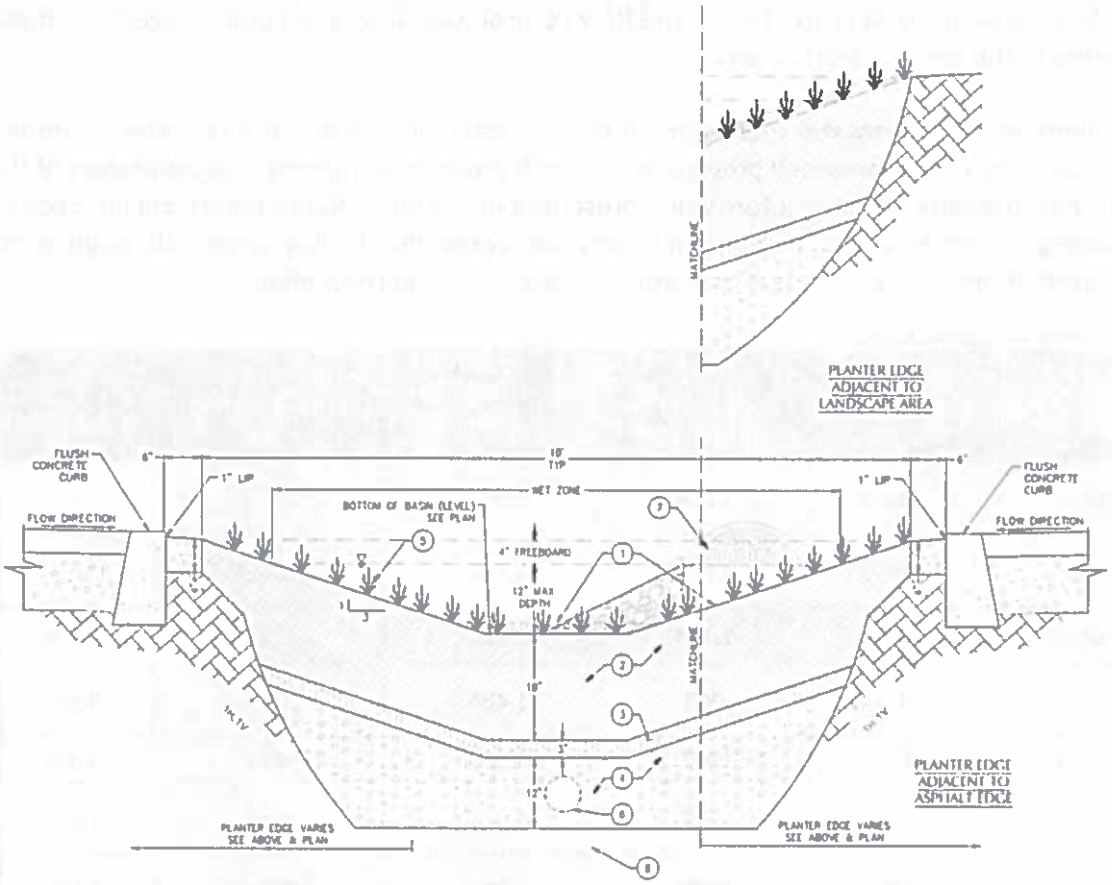
Drainage Management Area

Name	Area (sq-ft)	Pre-Project Cover	Post-Project Cover	DMA Soil Type	BMP
Parking	10,000	Forested	ConventionalConcrete	C	Parking Rain Garden

LID Facility Sizing Details

LID ID	Design Criteria	BMP Type	Facility Soil Type	Minimum Area (sq-ft)	Planned Areas (sq-ft)	Orifice Diameter (in)
Parking Rain Garden	FlowControlAndTreatment	Rain Garden - Filtration	C3	1,100 0	1,100 0	0 6

FIGURE 1: Snapshot of WES BMP Sizing Tool



KEY NOTES

1. INSTALL GEOJUTE PLUS OR COCONUT FIBER MATTING ON SIDE SLOPES, AND 2" THICK LAYER OF PEA GRAVEL OR OTHER NON-FLOATING MULCH AT BOTTOM OF FACILITY AS APPROVED BY LANDSCAPE ARCHITECT
2. STORMWATER FACILITY GROWING MEDIA PER SPECIFICATION SECTION 31 20 00 – EARTH MOVING, IN ACCORDANCE WITH APPENDIX A OF THE OREGON CITY STORMWATER AND GRADING DESIGN STANDARDS.
3. DRAINAGE LENS COURSE (3/4" – NO. 4 OPEN GRADED AGGREGATE).
4. DRAINAGE FILL PER SPECIFICATION SECTION 31 20 00 – EARTH MOVING, IN ACCORDANCE WITH APPENDIX A OF THE OREGON CITY STORMWATER AND GRADING DESIGN STANDARDS
5. PLANTING SEE LANDSCAPE PLANS
6. 20 LF SEGMENT OF 6" PVC PERF. PIPE UPSTREAM OF OVERFLOW INLET CAP END AND ORIENT WITH HOLES FACING DOWN
7. OVERFLOW INLET
8. RIP AND SCARIFY TOP 12" OF NATIVE SUBGRADE AT BOTTOM OF FACILITY PRIOR TO PLACEMENT OF DRAINAGE FILL

FIGURE 2: Rain Garden - filtration typical section

Stormwater runoff generated from the roof of the proposed DeJardin addition will be piped through roof drains that outfall in rain gardens located adjacent to the building. A number of area drains located around the perimeter of the building will collect runoff from landscaped pervious area (grass) and will convey the runoff to the proposed storm facilities.

Runoff from new impervious areas will be conveyed as sheet flow to vegetated stormwater facilities where feasible, to mitigate the depth required to accommodate piped outfalls. Runoff from the new parking lot areas will be conveyed by sheet flow to a vegetated stormwater facility incorporated into the landscape island between the parking bays. Building and sidewalk areas will drain to facilities integrated with the site plan. Runoff from Douglas Loop will be collected in new catch basin structures and will be piped to the

proposed rain gardens for water quality treatment and flow control. Overflow and subdrainage from these facilities will discharge to the existing storm main.

Table 2 below summarizes the stormwater management basins used in design and the required treatment area based on the 11% sizing ratio mentioned previously. Exhibit B provides a graphical representation of the basins and rain gardens to supplement the information presented in the table. Refinements will be made to the layout and grading to better correlate the catchment and respective facility areas. Although some facilities are undersized, there is a net excess facility area allocated in the current plan.

TABLE 2: Summary of stormwater management basins

BASIN/ AREA	IMPERVIOUS AREA (SF)	DRAINS TO	MIN. FACILITY AREA (11%)	FACILITY AREA PER PLAN (SF)	DIFFERENCE (MIN-PLANNED, SF)	% OVERSIZED
1	29,400	RG-1	3,234	3,051	-183	-6%
2	41,034	RG-2	4,514	3,774	-740	-16%
3	15,680	RG-3	1,725	1,491	-234	-14%
4	8,664	RG-4	953	1,406	453	48%
5	10,723	RG-5	1,180	1,023	-157	-13%
6	34,525	RG-6	3,798	4,361	563	15%
7	26,291	RG-7	2,892	3,854	962	33%
8	27,751	RG-8	3,053	3,530	477	16%
9	11,194	RG-9	1,231	1,172	-59	-5%
10	14,913	RG-10	1,640	1,968	328	20%
11	13,398	RG-11	1,474	2,563	1,089	74%
12	5,823	RG-12	641	1,987	1,346	210%
13	10,192	RG-13	1,121	1,058	-63	-68%
14	7,272	RG-14	800	665	-135	-17%
15	8,401	RG-15	924	1,516	592	64%
		Total	29,179	32,716	4,240	15%

Exhibit C details the proposed stormwater network and how it connects to the existing storm laterals and storm main for the project.

Conveyance

Conveyance calculations will be prepared with the final permit application and will be based on computer modeling of the storm sewer network and storm events outlined by the city code.

Downstream Analysis

The project results in a net increase of impervious area, but use of filtration rain garden facilities to provide water quality and detention should not have any negative impacts on the downstream conveyance system. There are currently no known problems with the downstream system and the improvements outlined in this project should not create any deficiencies.

ATTACHMENTS:
Exhibit A – Site Plan
Exhibit B – Basin Map
Exhibit C - Stormwater Utility Plan
Appendix A – Site Assessment and Planning Checklist

1700028- pk

Exhibits

A – Site Plan

B – Basin Map

C –Utility Plan

Appendix A

Site Assessment and Planning Checklist

SITE ASSESSMENT AND PLANNING CHECKLIST		
✓	**Information needed**	**Attach supporting materials as needed**
2.2.1 Site Information		
	Applicant contact information	Applicant name: Bob Cochran Business name: Clackamas Community College (CCC) Contact address, phone number, and e-mail: 19600 Molalla Ave, Oregon City, OR 97045 503-594-6790, bobc@clackamas.edu
	Project location	Site address: 19600 Molalla Ave, Oregon City, OR 97045 Site description: The site contains the existing Clackamas Community College. The area of improvements are located near the parking lot on the SW quadrant of campus. Major drainage basin: Caufield Drainage Basin Is the project site located with the WQRA as defined in OCMC 17.49? N (Y/N) *Include a vicinity map of the site (including location of property in relation to adjacent properties, roads, and pedestrian/bike facilities).* (attached)
	Project type	Identify types of development planned for the site such as commercial, industrial, single-family residential, multi-family residential, or other (describe): The project will construct a new DeJardin Science Building addition, replace the existing parking lot, build a new transit center and re-establish connections to existing roadways and trails
	Size of site	Size of site: 12 (acres) Number of existing/proposed tax lots: 1 Amount of new and replaced impervious area: 280,000 (SF)
2.2.2 Site Assessment		
Note: Site assessment information may be available from the OCMaps online tool available through the City's website.		
	Site Assessment Map	*Attach engineered scale Site Assessment Map, showing items below.*
	Topography Evaluate site and map slopes: *Flat: 0-10%* *Moderate: 10-25%* *Steep: 25% and greater*	*Surveyed or aerial-based mapping with 2-foot intervals for slopes 0-25% slope and 10-foot intervals for steeper. Indicate Geologic Hazard Areas as defined by OCMC 17.04.510 and Geologic Hazards Overlay Zone as defined by OCMC 17.04.515.* (attached)
	Soils and Groundwater Research and map site soil hydrologic group, depth to groundwater	NRCS Hydrologic Soil Type (show on map if more than one type present): *Attach seasonal groundwater depth evaluation if available or required (site has floodplain and/or wetland). Groundwater depth information is available from the City.* (attached)
	Infiltration Assessment Determine soil capacity for onsite infiltration	If an infiltration test is performed, attach the documentation. Report the test type (Basic/Professional) performed and results. See **Appendix D** for the approved infiltration testing methods. Test type: N/A N/A (inches/hour)

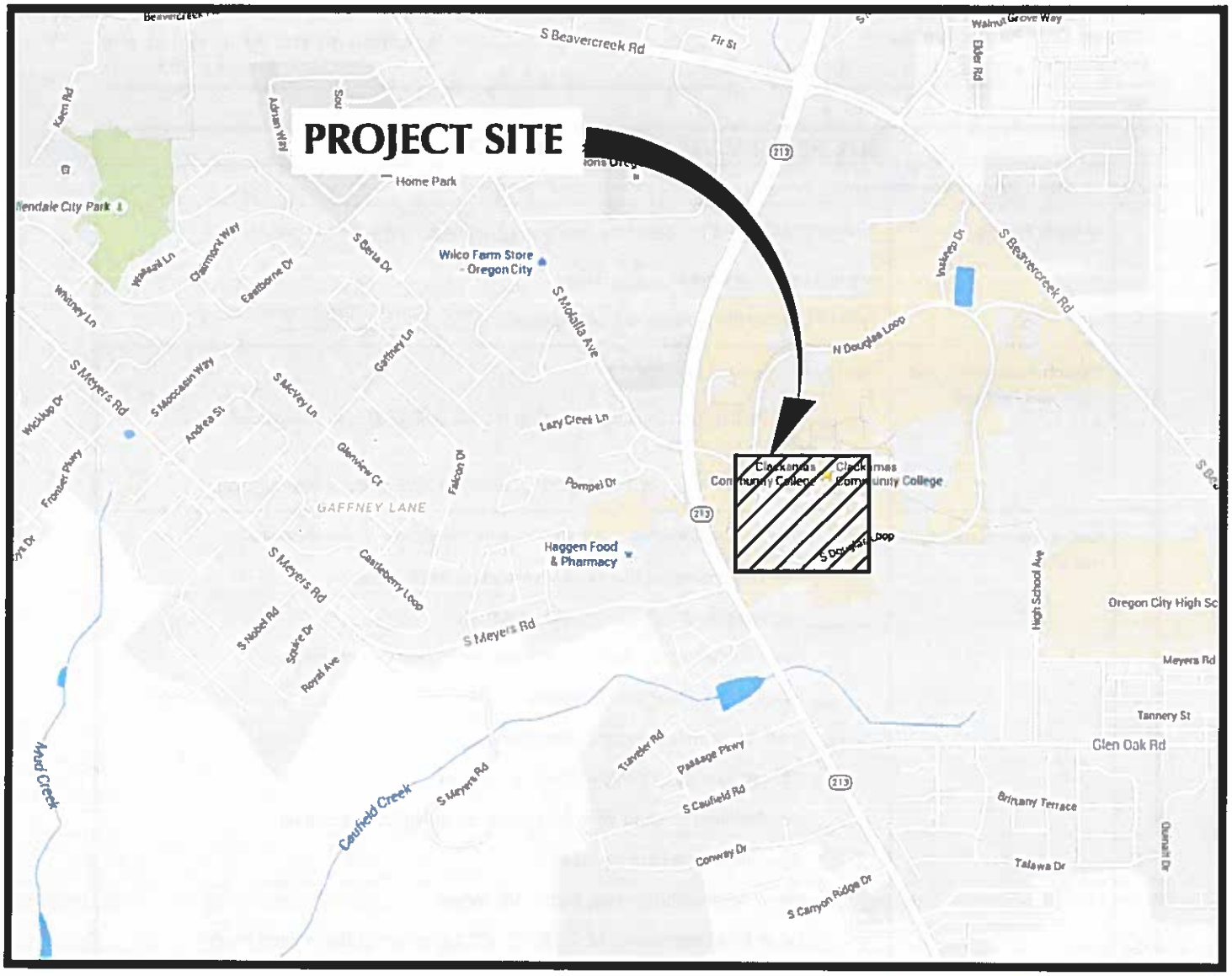
SITE ASSESSMENT AND PLANNING CHECKLIST		
	Hydrology – Conditions and Natural Features Map site floodplains, wetlands, streams, and location of outfalls	Clearly label on map all intermittent and perennial creeks/streams/rivers and wetlands, FEMA floodplains, and existing drainage systems (pipes, ditches, outfalls). Check here if present on site: _____ (See Drainage Memo) Sensitive area(s) _____ Floodplain _____
	Downstream Conveyance	Indicate the proposed point of discharge on the site plan. (See Drainage Memo) *Prepare and attach a Downstream Analysis as required by Chapter 5.* Check here to verify that adequate downstream capacity is available: _____
	Existing Vegetation Map trees and vegetation	Using aerial photos or survey, map all trees and vegetation. Note all existing trees 6-inch caliper and greater (DBH) on map. Delineate and identify other areas and types of existing vegetation. (Included in Land Use submittal) The local planning authority may require a formal tree survey.
	Required Vegetated Buffers and Setbacks Assess and map buffers	Identify required vegetated buffer areas and other setback limits as defined by OCMC Title 17.
	Land Use and Zoning	Existing Land Use Zoning designation(s): Institutional (INST)
	Access and Parking	Delineate proposed access points for all transportation modes on map. Indicate amount and area of required parking onsite if applicable, *attach documentation as needed.*
	Utilities to Site and Surrounding Area	Map existing utilities including stormwater facilities, storm conveyance, sewer, water, electricity, phone/cable, gas, and any public storm system/facility downstream.
2.2.3 Site Planning Design Objectives *(attach engineered scale Preliminary Site Plan)*		
	1. Preserve existing resources	**Required:** Show sensitive areas and buffers on site plan. Denote buffer areas that require enhancement. Show any proposed areas of encroachment and associated buffer mitigation areas.
	2. Minimize site disturbance	**Required:** Delineate protection areas on site plan for areas to remain undisturbed during construction. N/A
	3. Minimize soil compaction	**Required:** Delineate and note temporary fencing on site plan for proposed infiltration facilities, vegetated stormwater management facilities, and re-vegetation areas.
	4. Minimize imperviousness	**Required:** Delineate proposed impervious areas and proposed impervious area reduction methods on the site plan. A. Total proposed new/replaced impervious area: 280,000 (SF) B. Area of proposed Green Roofs: 0 (SF) C. Area of proposed pervious pavements: 0 (SF) D. Describe type of pavers or pavement proposed: N/A E. Impervious area requiring management [A-(B+C)]: 280,000 (SF)

SITE ASSESSMENT AND PLANNING CHECKLIST

2.2.4 Proposed Stormwater Management Strategy

	Proposed Stormwater Management Strategy	_____ Infiltration facilities _____ Surface Infiltration facilities to the MEP _____ Full onsite retention/infiltration up to the 10-year storm event _____ Infiltration facilities are limited by the following conditions *(include documentation to demonstrate the limiting condition and choose an alternate strategy below)*: _____ Stormwater management facility to be located on fill _____ Steep slopes _____ High groundwater _____ Contaminated soils _____ Conflict with required Source Controls (Chapter 6) __X__ Onsite Stormwater management facilities (indicate below) _____ Offsite stormwater management facilities/regional facilities _____ Fee in Lieu, as determined by the City
	Preliminary Facility Selection/Sizing	Check all that apply, *attach output from BMP Sizing Tool*, and show proposed Stormwater Management Facilities on Preliminary Site Plan. LID facilities: _____ Infiltration Stormwater Planter _____ Filtration Stormwater Planter _____ Infiltration Rain Garden __X__ Filtration Rain Garden _____ Vegetated Swale _____ Detention Pond _____ Infiltration Trench _____ Manufactured Treatment Technology _____ Other: _____
	Verify Minimum Facility Size	A. Required surface area of onsite surface infiltration facilities: 11% of contributing impervious area As determined by BMP sizing tool or engineered method: _____ (SF) B. Calculate MEP surface area of surface infiltration facilities for sites with limiting conditions: Total new/replaced impervious area (SF) x 0.10 = _____ (SF) C. Calculate required surface area of onsite LID facilities: Smaller of [A] or [B]: _____ (SF) D. Proposed surface infiltration facility size(s): From site plan: _____ (SF) *must be larger than [C]* See attached basin map exhibit and Drainage Memo

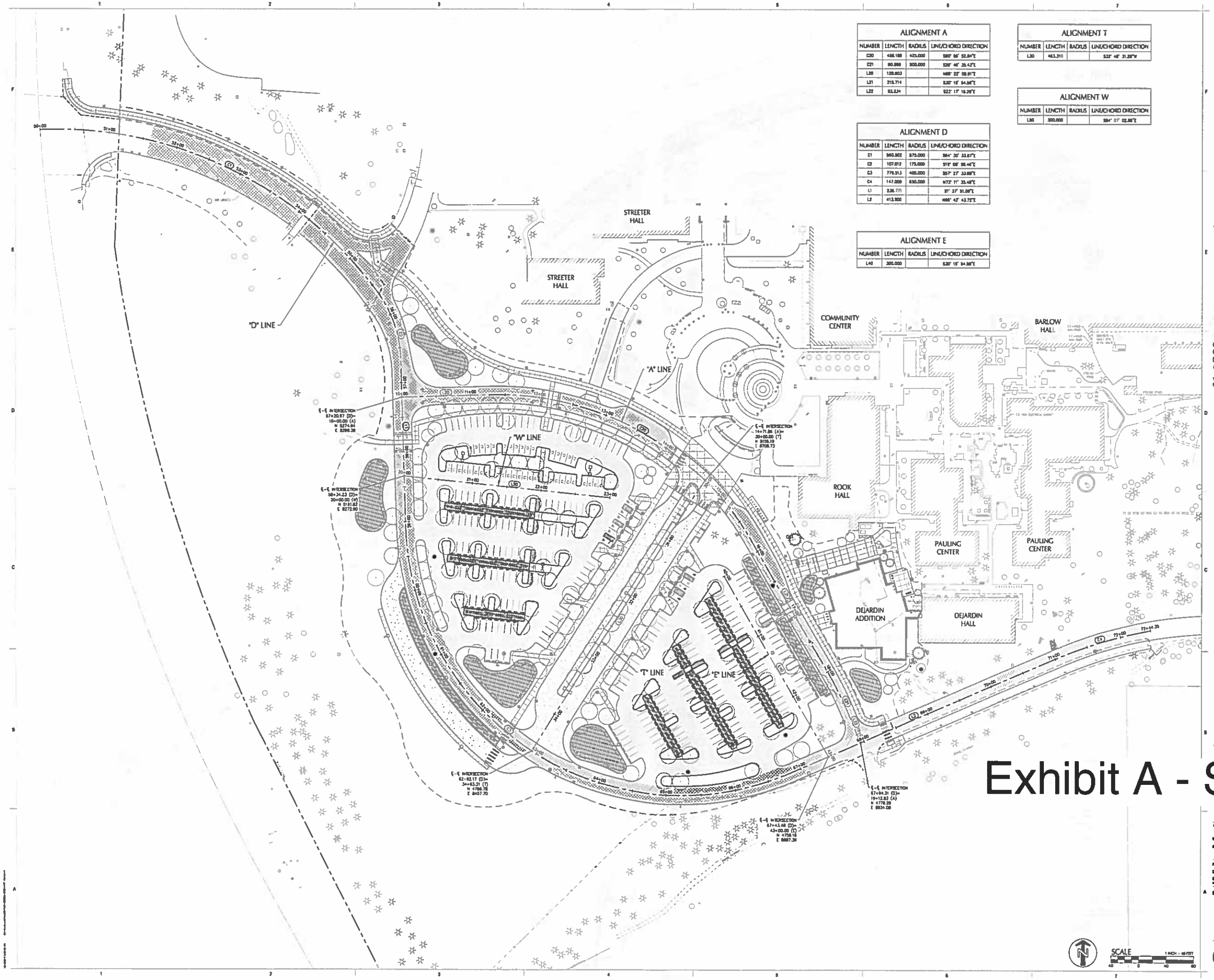
SITE ASSESSMENT AND PLANNING CHECKLIST		
2.2.5	**Other Project Requirements**	
	Grading Permit	Review OCMC 15.48 to determine whether a grading permit will be required. Grading permit required? __Y__ (Y/N) Type of Grading Plan proposed (see **Chapter 3**): Engineered Grading Plan
	Erosion Prevention and Sediment Control	Identify the required permits: __X__ ESC Permit from the City *(sites that include 1,000+ SF new or replaced impervious area)* __X__ 1200-C Permit from DEQ *(sites that disturb 1 acre or more land surface)*
	Source Control for High Use Sites N/A	Identify whether the proposed development will include any of the following: _____ Fuel Dispensing Facilities and Surrounding Traffic Areas _____ Above-Ground Storage of Liquid Materials _____ Solid Waste Storage Areas, Containers, and Trash Compactors _____ Exterior Storage of Bulk Materials _____ Material Transfer Areas/Loading Docks _____ Equipment and/or Vehicle Washing Facilities _____ Development on Land With Suspected or Known Contamination _____ Covered Vehicle Parking Areas _____ Industrial and Commercial High Traffic Areas _____ Other land uses subject to the ODEQ 1200-Z Industrial Stormwater Permit
	Other Permits	Identify other natural resources related permits from local, state, or federal agencies that may be required as part of the proposed development activity. It is the responsibility of the applicant to identify and obtain required permits prior to project approval. List other anticipated permits: N/A



MAP FROM: MAPS.GOOGLE.COM

VICINITY MAP

SCALE: NTS



ALIGNMENT A			
NUMBER	LENGTH	RADIUS	LINE/CHORD DIRECTION
C20	436.189	425.000	S80° 36' 52.84"E
C21	90.899	300.000	S39° 46' 35.42"E
L20	129.803		N88° 23' 08.91"E
L21	213.714		S30° 15' 54.36"E
L22	93.234		S23° 17' 16.39"E

ALIGNMENT T			
NUMBER	LENGTH	RADIUS	LINE/CHORD DIRECTION
L30	463.310		S33° 48' 31.28"W

ALIGNMENT W			
NUMBER	LENGTH	RADIUS	LINE/CHORD DIRECTION
L30	300.000		S84° 07' 02.88"E

ALIGNMENT D			
NUMBER	LENGTH	RADIUS	LINE/CHORD DIRECTION
C1	960.902	575.000	S64° 35' 33.87"E
C2	107.012	175.000	S19° 05' 56.46"E
C3	776.313	400.000	S57° 27' 33.88"E
C4	147.000	650.000	N73° 11' 35.48"E
L1	236.771		S1° 37' 51.28"E
L2	413.920		N88° 42' 43.72"E

ALIGNMENT E			
NUMBER	LENGTH	RADIUS	LINE/CHORD DIRECTION
L40	300.000		S30° 15' 54.36"E

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MARK	DATE	DESCRIPTION

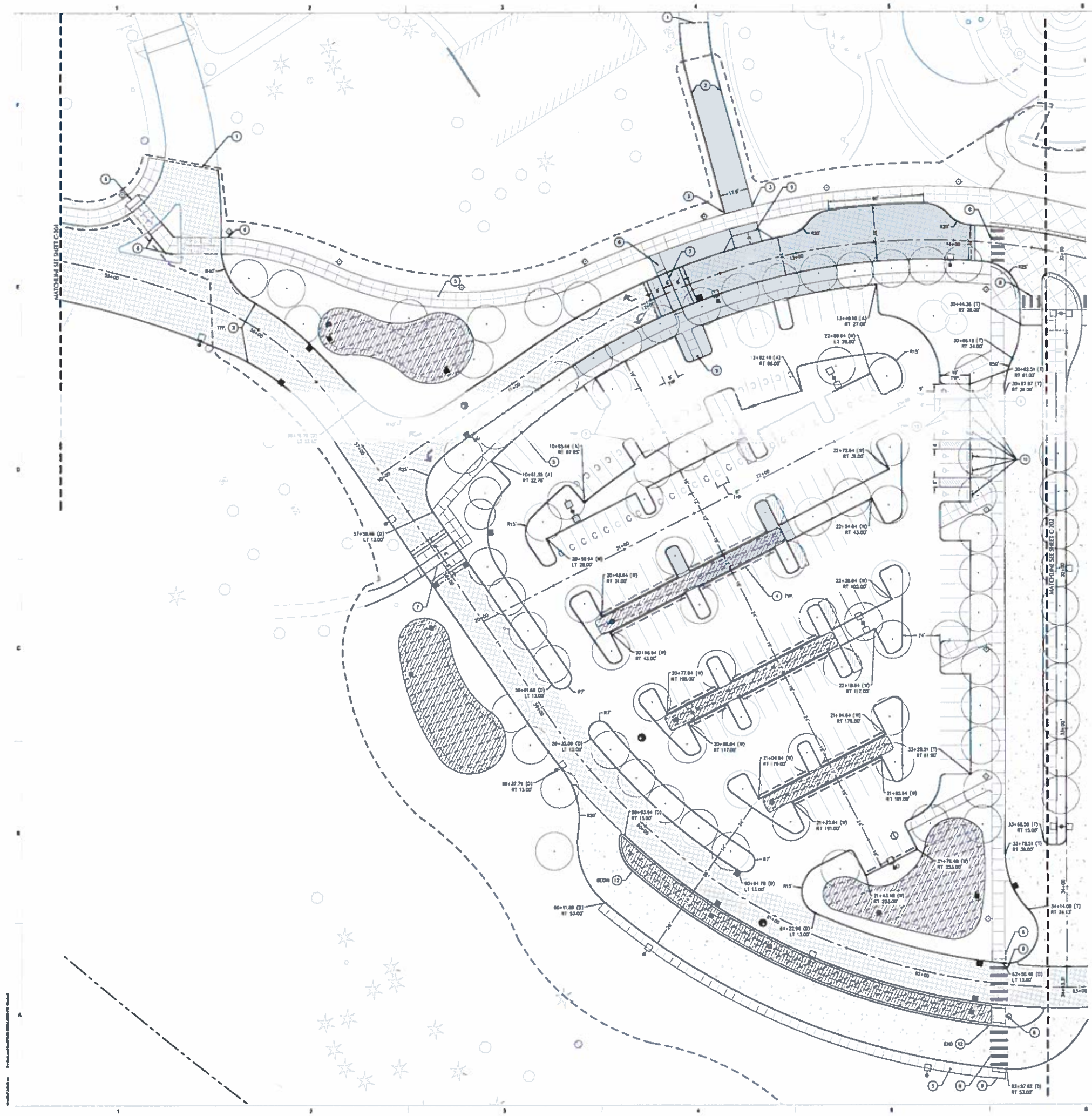
ISSUE DATE: DECEMBER 22, 2017
ISSUE: DESIGN DEVELOPMENT

PROJECT NO: 2017421
DRAWN BY: TK
CHECKED BY: PD

A SITE PLAN

C-200

Exhibit A - Site Plan



SHEET NOTES

1. REFER TO SHEET C-200 FOR CENTERLINE ALIGNMENT DATA AND PROJECT CONTROL POINTS.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL, UNLESS NOTED OTHERWISE.
3. REFER TO LANDSCAPE PLANS FOR ALL NON-VEHICULAR SIDEWALK AND PLAZA PAVING SECTIONS.
4. COORDINATE LAYOUT OF ADA RAMPS TO ALIGN WITH NON-MOTORIZED CONCRETE SIDEWALKS WHERE APPLICABLE.
5. SITE LIGHTING SHOWN FOR REFERENCE. SEE ELECTRICAL PLANS FOR DETAILS.

KEY NOTES

#	DESCRIPTION	DETAIL REF.
1	ALIGN IMPROVEMENTS WITH SAWCUT LINE	
2	STANDARD CONCRETE CURB	3/C-300
3	CURB ENDING	4/C-300
4	PRECAST CONCRETE WHEEL STOP	6/C-300
5	CONCRETE SIDEWALK. SEE LANDSCAPE PLANS FOR SECTION AND SCORING DETAILS.	
6	CURB RAMP	12/C-300
7	CONCRETE RAMP	10/C-300
8	CROSSWALK STRIPING	9/C-300
9	CONCRETE DRIVEWAY	14/C-300
10	ADA PARKING LAYOUT	8/C-300
11	ADA PARKING SIGN	7/C-300
12	CURB SPILLWAY AT 12" S.E.	13/C-300
13	CONCRETE RAIN GARDEN CROSSING	13/C-301

SHEET LEGEND

- PROPERTY LINE
- LIGHT ASPHALT PAVEMENT
- HEAVY ASPHALT PAVEMENT
- CONCRETE PAVEMENT (REGULAR)
- CONCRETE SIDEWALK (SEE LANDSCAPE PLANS FOR TYP. SECTION AND SCORING DETAILS)
- RAIN GARDEN
- 2" GRIND AND INLAY SEE DETAIL 1/C-302
- 2" OVERLAY
- COMPACT STRIPING

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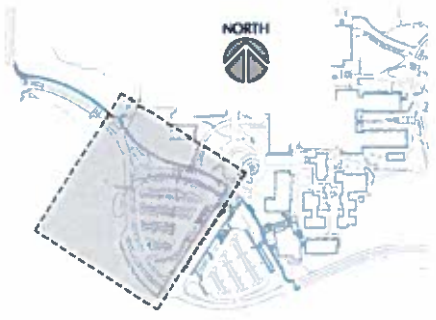
Exhibit A - Site Plan



KEY MAP

SCALE 1 INCH = 20 FEET

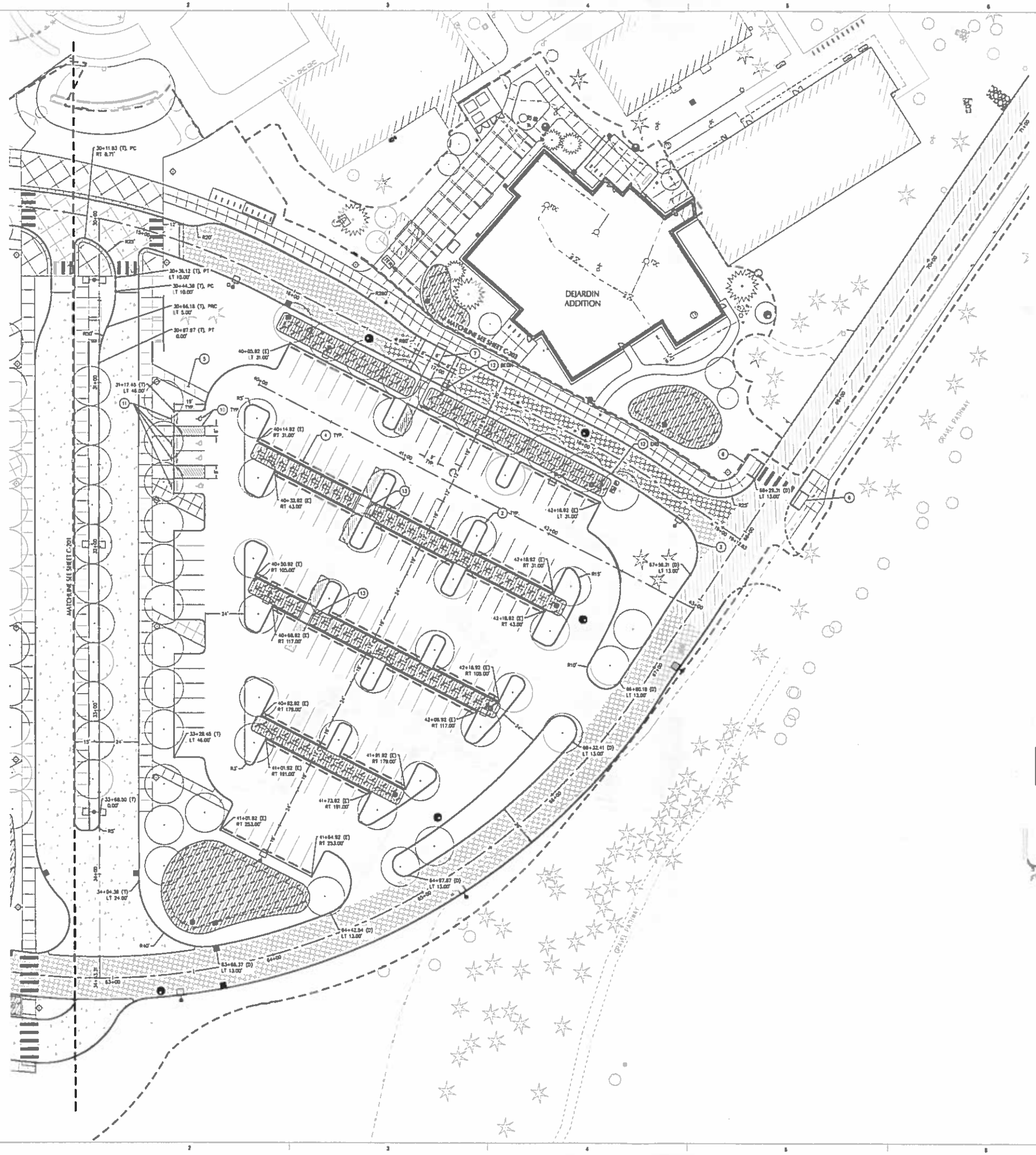
MARK	DATE	DESCRIPTION

ISSUE DATE: DECEMBER 22, 2017
ISSUE: DESIGN DEVELOPMENT

PROJECT NO: 2017401
DRAWN BY: TK
CHECKED BY: PD

SITE PLAN

C-201



SHEET NOTES

1. REFER TO SHEET C-300 FOR CENTERLINE ALIGNMENT DATA AND PROJECT CONTROL POINTS.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL, UNLESS NOTED OTHERWISE.
3. REFER TO LANDSCAPE PLANS FOR ALL NON-VEHICULAR SIDEWALK AND PLAZA PAVING SECTIONS.
4. COORDINATE LAYOUT OF ADA RAMPS TO ALIGN WITH NON-VEHICULAR CONCRETE SIDEWALKS WHERE APPLICABLE.
5. SITE LIGHTING SHOWN FOR REFERENCE. SEE ELECTRICAL PLANS FOR DETAILS.

KEY NOTES

#	DESCRIPTION	DETAIL REF.
1	ALIGN IMPROVEMENTS WITH SAWCUT LINE	
2	STANDARD CONCRETE CURB	3/C-500
3	CURB CHOKE	4/C-500
4	PRECAST CONCRETE WHEEL STOP	5/C-500
5	CONCRETE SIDEWALK. SEE LANDSCAPE PLANS FOR SECTION AND SCORING DETAILS.	
6	CURB RAMP	12/C-500
7	CONCRETE RAMP	10/C-500
8	CROSSWALK STRIPING	9/C-500
9	CONCRETE DRIVEWAY	14/C-500
10	ADA PARKING LAYOUT	6/C-500
11	ADA PARKING SIGN	7/C-500
12	CURB SPILLWAY AT 18" O.C.	13/C-500
13	CONCRETE RAIN GARDEN CROSSING	12/C-501

SHEET LEGEND

- PROPERTY LINE
- LIGHT ASPHALT PAVEMENT
- HEAVY ASPHALT PAVEMENT
- CONCRETE PAVEMENT VEHICULAR
- CONCRETE SIDEWALK (SEE LANDSCAPE PLANS FOR TYP. SECTION AND SCORING DETAILS)
- RAIN GARDEN
- 6" GRIND AND PAVE SEE DETAIL 1/C-502
- 2" OVERLAY
- COMPACT STRIPING

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Exhibit A - Site Plan

KEY MAP

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ISSUE DATE	DESCRIPTION

ISSUE DATE: DECEMBER 22, 2017
ISSUE: DESIGN DEVELOPMENT

PROJECT NO: 2017401
DRAWN BY: TK
CHECKED BY: PO

SITE PLAN

C-202

SHEET NOTES

1. REFER TO SHEET C-200 FOR CENTERLINE ALIGNMENT DATA AND PROJECT CONTROL POINTS.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL UNLESS NOTED OTHERWISE.
3. REFER TO LANDSCAPE PLANS FOR ALL NON-VEHICULAR SIDEWALK AND PLAZA PAVING SECTIONS.
4. COORDINATE LAYOUT OF ADA RAMPS TO ALIGN WITH NON-VEHICULAR CONCRETE SIDEWALKS WHERE APPLICABLE.
5. SITE LIGHTING SHOWN FOR REFERENCE. SEE ELECTRICAL PLANS FOR DETAILS.

KEY NOTES

#	DESCRIPTION	DETAIL REF.
1	ALIGN IMPROVEMENTS WITH SAWCUT LINE	
2	STANDARD CONCRETE CURB	3/C-500
3	CURB ENDING	4/C-500
4	PRECAST CONCRETE WHEEL STOP	5/C-500
5	CONCRETE SIDEWALK, SEE LANDSCAPE PLANS FOR SECTION AND SCORING DETAILS.	
6	CURB RAMP	12/C-500
7	CONCRETE RAMP	10/C-500
8	CROSSWALK STRIPING	9/C-500
9	CONCRETE DRIVEWAY	14/C-500
10	ADA PARKING LAYOUT	8/C-500
11	ADA PARKING SIGN	7/C-500
12	CURB SPILLWAY AT 15' O.C.	13/C-500
13	CONCRETE RAIN GARDEN CROSSING	12/C-501

SHEET LEGEND

- PROPERTY LINE
- LIGHT ASPHALT PAVEMENT
- HEAVY ASPHALT PAVEMENT
- CONCRETE PAVEMENT, VEHICULAR
- CONCRETE SIDEWALK (SEE LANDSCAPE PLANS FOR TYP. SECTION AND SCORING DETAILS)
- RAIN GARDEN
- 2" GRIND AND INLAY SEE DETAIL 1/C-502
- 2" OVERLAY
- COMPACT STRIPING

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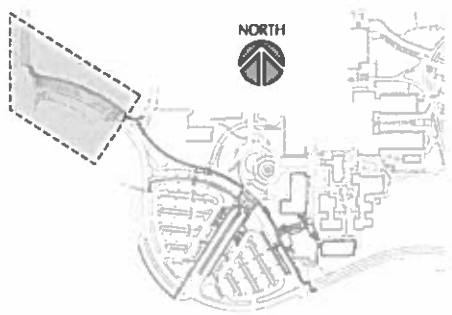
Exhibit A - Site Plan



KEY MAP

SCALE

MARK	DATE	DESCRIPTION
ISSUE DATE:		DECEMBER 22, 2017
ISSUE:		DESIGN DEVELOPMENT

PROJECT NO 2017401
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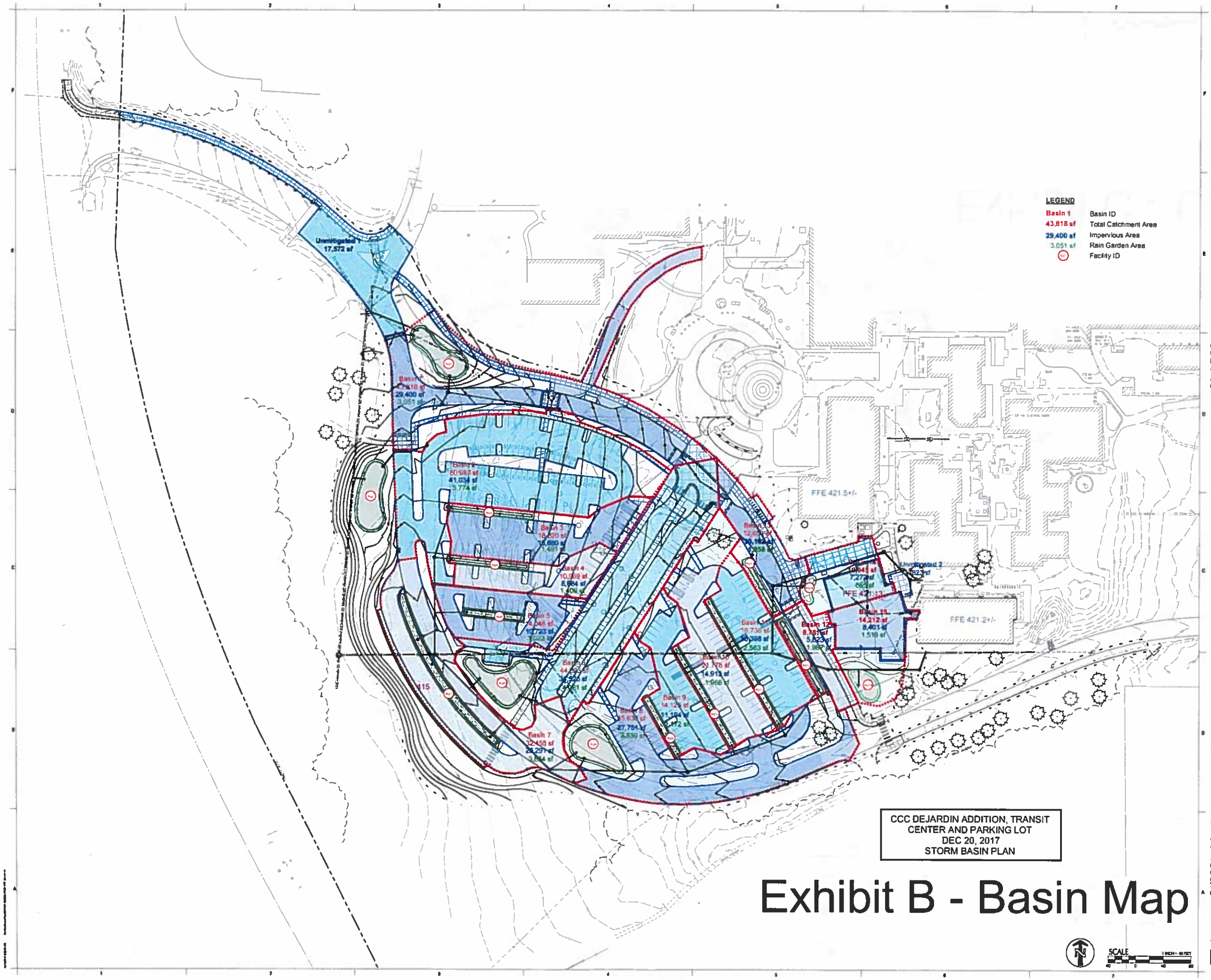
CHECKED BY: FD

SITE PLAN

C-204



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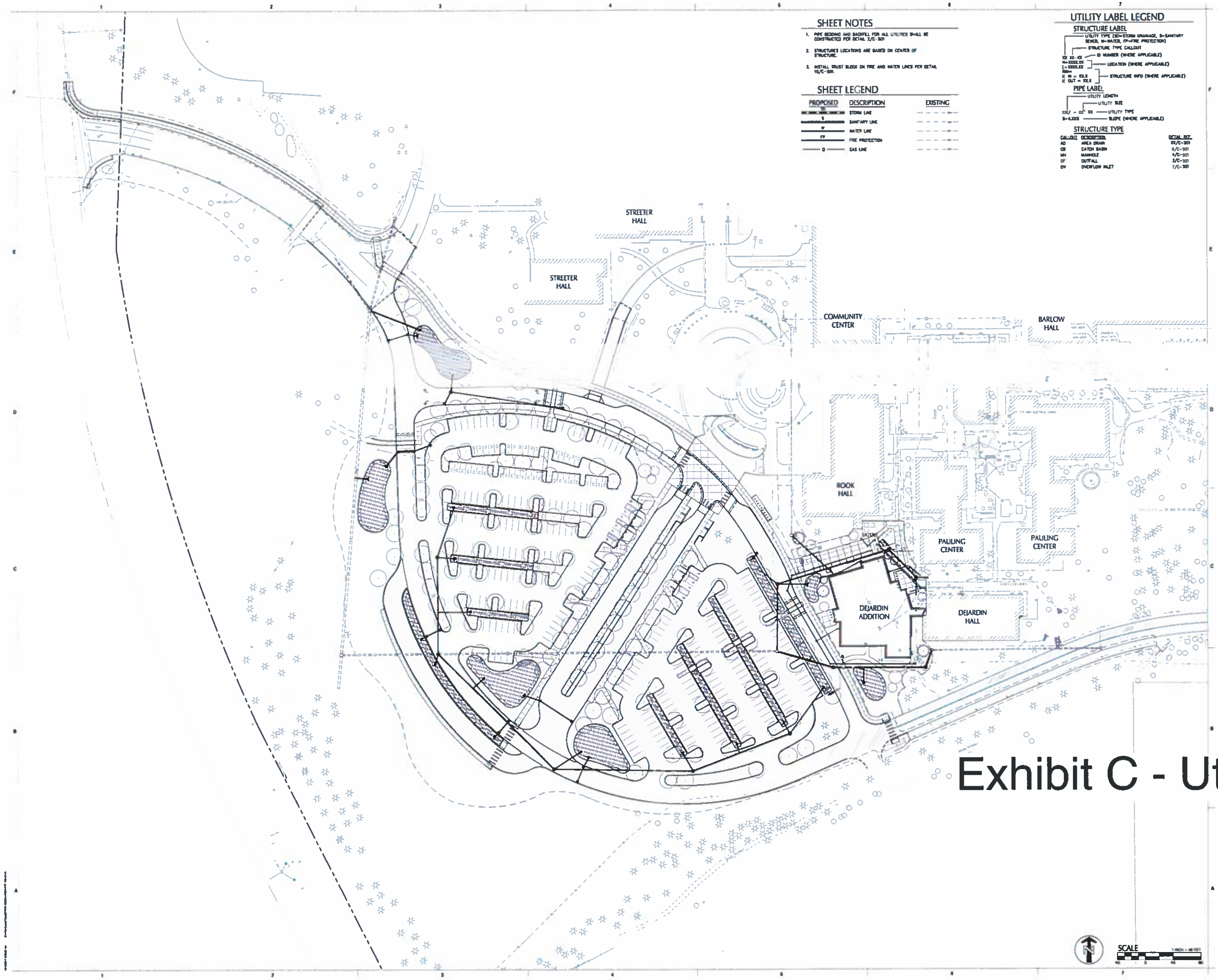
DECEMBER 22, 2017

DESIGN DEVELOPMENT

UTILITY PLAN



SHEET NOTES

1. PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE CONSTRUCTED PER DETAIL 2/C-501
2. STRUCTURE'S LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
3. INSTALL THRUST BLOCK ON FIRE AND WATER LINES PER DETAIL 10/C-501.

SHEET LEGEND

PROPOSED	DESCRIPTION	EXISTING
	STORM LINE	
S	SANITARY LINE	
W	WATER LINE	
FP	FIRE PROTECTION	
G	GAS LINE	

UTILITY LABEL LEGEND

STRUCTURE LABEL

UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)

STRUCTURE TYPE CALLOUT

ID NUMBER (WHERE APPLICABLE)

LOCATION (WHERE APPLICABLE)

STRUCTURE INFO (WHERE APPLICABLE)

PIPE LABEL

UTILITY LENGTH

UTILITY SIZE

UTILITY TYPE

SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN	XX/C-501
CB	CATCH BASIN	5/C-501
MH	MANHOLE	4/C-501
OF	OUTFALL	3/C-501
OV	OVERFLOW INLET	7/C-501

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MARK	DATE	DESCRIPTION

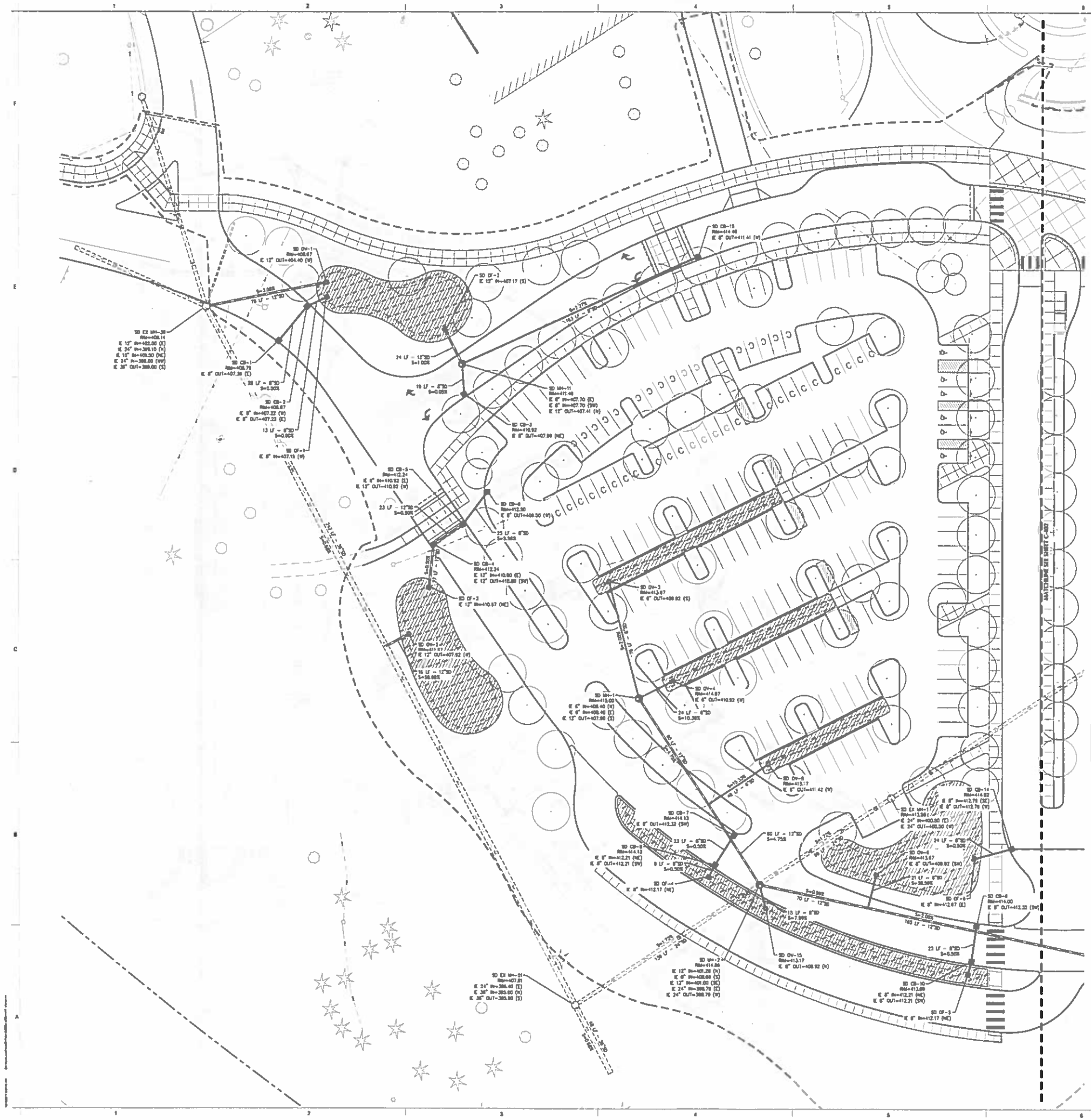
ISSUE DATE: DECEMBER 22, 2017
ISSUE: DESIGN DEVELOPMENT

PROJECT NO: 2017401
DRAWN BY: TK
CHECKED BY: PD

UTILITY PLAN

C-400

Exhibit C - Utility Pla



UTILITY LABEL LEGEND

STRUCTURE LABEL

- UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
- STRUCTURE TYPE CALLOUT
- ID NUMBER (WHERE APPLICABLE)
- LOCATION (WHERE APPLICABLE): N=XXXXX.XX, E=XXXXX.XX, RIM=
- STRUCTURE INFO (WHERE APPLICABLE): IE IN = XX.X, IE OUT = XX.X

PIPE LABEL

- UTILITY LENGTH
- UTILITY SIZE
- UTILITY TYPE: XXLF - XX" XX
- SLOPE (WHERE APPLICABLE): S=X.XXX

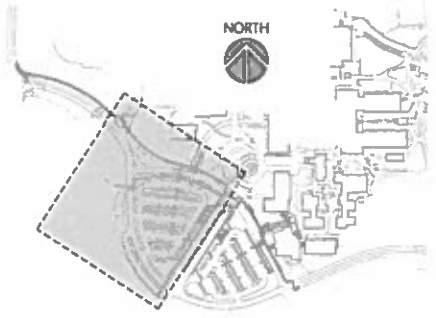
STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN	XX/C-501
CB	CATCH BASIN	8/C-501
MH	MANHOLE	4/C-501
OF	OUTFALL	3/C-501
DV	OVERFLOW INLET	7/C-501

SD STRUCTURE TABLE

STRUCTURE ID	NORTHING	EASTING
CB-1	5367.85	6347.36
CB-2	5386.27	6274.14
CB-3	5288.13	6337.80
CB-4	5197.53	6280.30
CB-5	5197.53	6262.69
CB-6	5306.40	6306.84
CB-7	4940.69	6321.30
CB-8	4831.27	6300.71
CB-9	4808.81	6418.46
CB-10	4792.60	6404.88
CB-14	4639.37	6464.90
CB-15	5258.96	6485.81
MH-1	5048.32	6317.33
MH-2	4805.99	6312.24
MH-11	5283.77	6337.13
OF-1	5384.47	6287.38
OF-2	5308.28	6338.91
OF-3	5179.27	6243.84
OF-4	4827.44	6292.63
OF-6	4843.75	6441.72
DV-2	5136.18	6216.47
DV-3	5117.29	6341.28
DV-4	5043.88	6341.46
DV-5	4888.23	6363.67
DV-8	4870.05	6363.53
DV-15	4885.93	6312.81

Exhibit C - Utility Plan



KEY MAP

SCALE 1 INCH = 20 FEET

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DEJARDIN ADDITION/RENOVATION

19600 MOLALLA AVE.
OREGON CITY, OR 97045

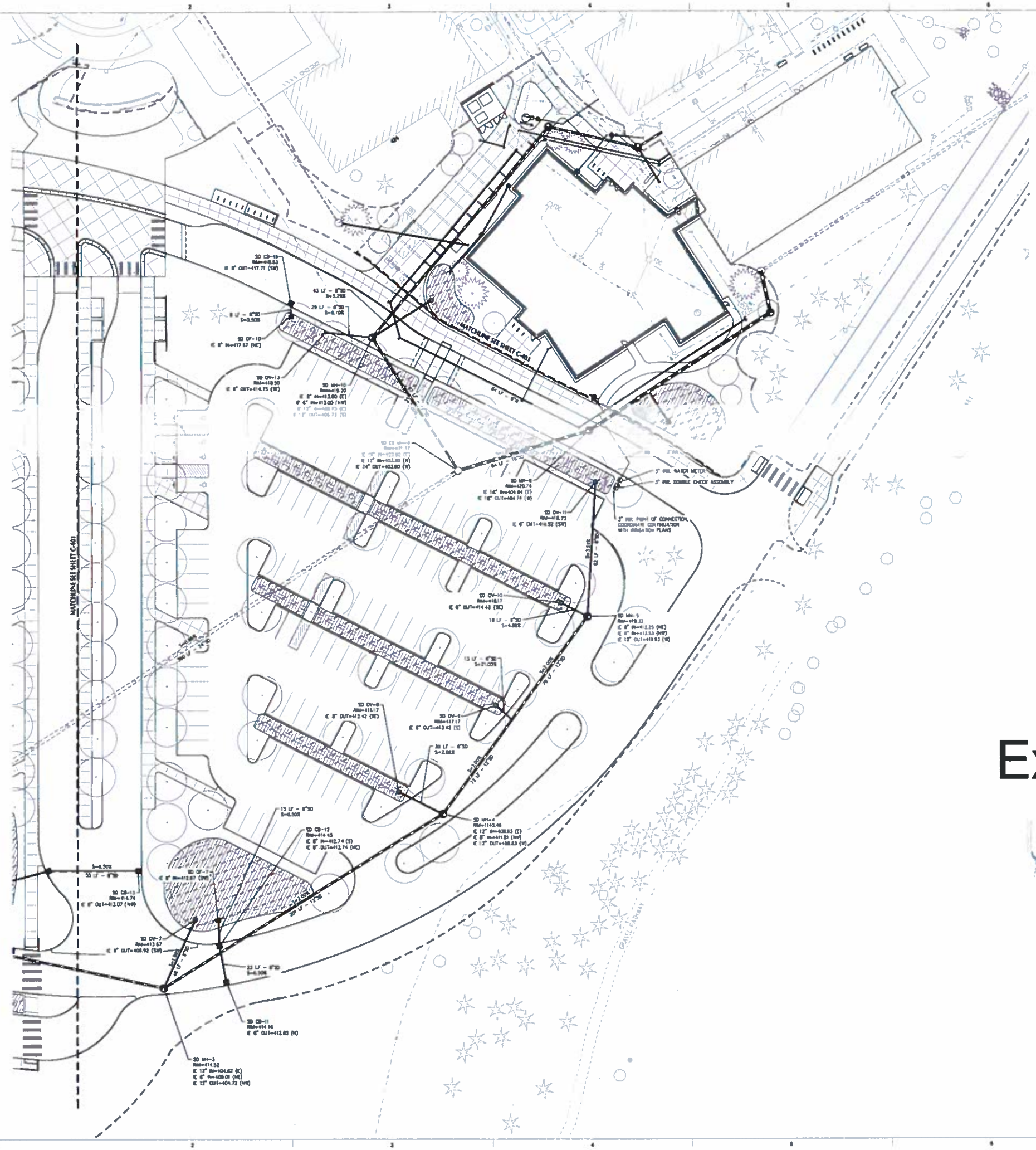
MARK	DATE	DESCRIPTION

ISSUE DATE: DECEMBER 22, 2017
ISSUE: DESIGN DEVELOPMENT

PROJECT NO: 2017421
DRAWN BY: TK
CHECKED BY: PD

UTILITY PLAN

C-401



UTILITY LABEL LEGEND

STRUCTURE LABEL

- UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
- STRUCTURE TYPE CALLOUT
- ID NUMBER (WHERE APPLICABLE)
- LOCATION (WHERE APPLICABLE)
- STRUCTURE INFO (WHERE APPLICABLE)

PIPE LABEL

- UTILITY LENGTH
- UTILITY SIZE
- UTILITY TYPE
- SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN	XX/C-301
CB	CATCH BASIN	6/C-301
MH	MANHOLE	4/C-301
OF	OUTFALL	3/C-301
DV	DROPFLOW INLET	7/C-301

SD STRUCTURE TABLE

STRUCTURE ID	NORTHING	EASTING
CB-11	4722.86	8819.16
CB-12	4743.27	8877.79
CB-13	4806.46	881[illegible]
CB-14	3896.84	8776.13
MH-2	4136.89	8486.12
MH-4	4736.91	8883.86
MH-5	4780.30	8826.21
MH-6	4883.24	8888.87
MH-10	3003.30	8808.43
OF-7	4735.96	8530.33
OF-10	3043.48	8774.10
DV-7	4764.87	8534.02
DV-8	4762.73	8671.16
DV-9	4773.25	8746.12
DV-10	4808.08	8817.19
DV-11	4898.70	8874.90
DV-13	3023.38	8786.31

Exhibit C - Utility Plan

KEY MAP

SCALE

mahlum
71 COLUMBIA | FLOOR 4
SEATTLE WA 98104
(206) 467-6151 OFFICE
(206) 461-0478 FAX
1233 NW HOYT | SUITE 102
PORTLAND OR 97209
(503) 224-4032 OFFICE
(503) 224-0918 FAX
MAHLUM ARCHITECTS INC

kpff
121 SW Morrison Ave., Suite 2400
Portland, OR 97204
P: 503.274.1851
F: 503.274.1853
www.kpff.com

FOR REFERENCE ONLY

Clackamas Community College

CLACKAMAS COMMUNITY COLLEGE
DEJARDIN ADDITION/RENOVATION
19600 MOLALLA AVE
OREGON CITY OR 97045

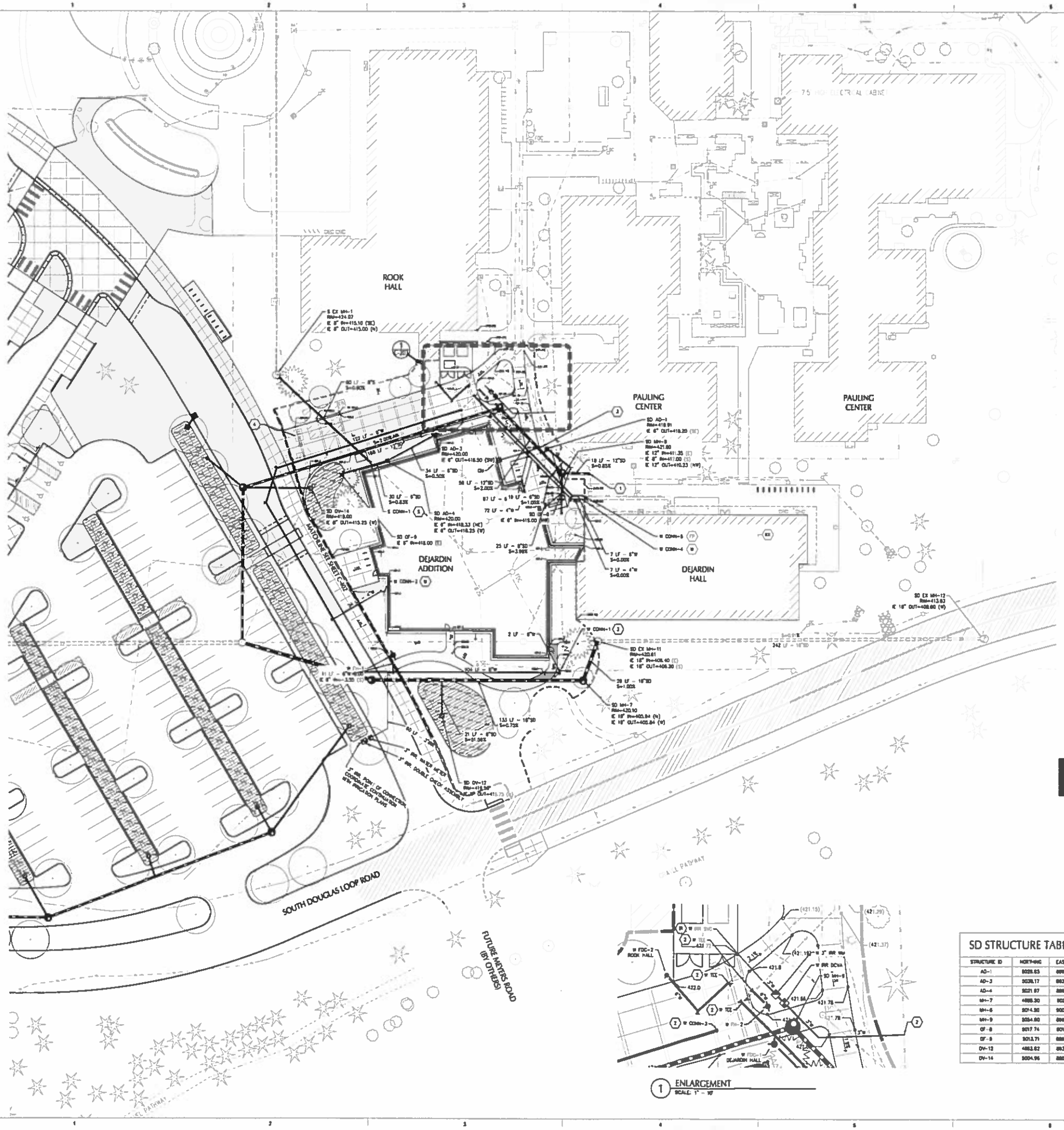
MARK	DATE	DESCRIPTION

ISSUE DATE: DECEMBER 22, 2017
ISSUE: DESIGN DEVELOPMENT

PROJECT NO: 2017401
DRAWN BY: TK
CHECKED BY: PD

UTILITY PLAN

C-402



SHEET NOTES

1. PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE CONSTRUCTED PER DETAIL X/XXX.
2. STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
3. INSTALL THRUST BLOCK ON FIRE AND WATER LINES PER DETAIL X & X/XXX.
4. APPROXIMATE GAS LINE ALIGNMENT SHOWN FOR COORDINATION WITH OTHER PROPOSED IMPROVEMENTS. CONTRACTOR SHALL CONTACT NW NATURAL TO SCHEDULE INSTALLATION OF GAS SERVICE AND METER BY NW NATURAL CONSTRUCTION CREW.

(X) UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
1	CONNECT TO EXISTING STORM SEWER. CONTRACTOR TO VERIFY LOCATION AND INVERT.	
2	CONNECT TO EXISTING WATER. CONTRACTOR TO VERIFY LOCATION AND INVERT.	
3	CONNECT TO EXISTING GAS MAIN. CONTRACTOR TO VERIFY LOCATION AND INVERT. SEE SHEET NOTE 4.	
4	TRANSFORMER TO BE RELOCATED. SEE LANDSCAPE PLANS L310 AND L310A FOR ADDITIONAL DETAILS.	
BWV	BACKFLOW PREVENTION VAULT	XX/XX.XX
DC	DOUBLE CHECK VAULT	
DCD	DOUBLE CHECK DETECTOR VAULT	
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.	
FTP	STORMWATER FLOW-THROUGH PLANTER. ID AS SHOWN.	
IR	IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.	
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.	
S	CONNECT TO WASTE LINE. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.	
SD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AND IE AS NOTED.	
WB	VEGETATED INFILTRATION BASIN. ID AS SHOWN.	
WLT	COMBINATION FIRE AND WATER VAULT	
W	CONNECT TO COLD WATER SYSTEM. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.	
//	UTILITY CROSSING PROVIDE 12" MIN. CLEARANCE, U.N.O.	

UTILITY LABEL LEGEND

STRUCTURE LABEL

- UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
- STRUCTURE TYPE CALLOUT
- ID NUMBER (WHERE APPLICABLE)
- LOCATION (WHERE APPLICABLE)
- STRUCTURE INFO (WHERE APPLICABLE)

XX XX-XX
N=XXXX.XX
E=XXXX.XX
RIM=
IE IN = XX.X
IE OUT = XX.X

PIPE LABEL

- UTILITY LENGTH
- UTILITY SIZE
- UTILITY TYPE
- SLOPE (WHERE APPLICABLE)

XXLF XX" XX
S=X.XX%

STRUCTURE TYPE

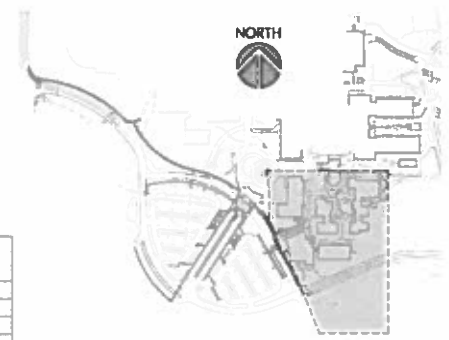
CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN TYPE 1	XX/XX.XX
BAV	AIR RELEASE VALVE	
BFV	BUTTERFLY VALVE	
CB	CATCH BASIN	
CO	CLEANOUT TO DRAIN	
DCVA	DOUBLE CHECK VALVE ASSEMBLY	
DDCV	DOUBLE DETECTOR CHECK VALVE	
FD	FOUNDATION DRAINAGE	
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
GM	GAS METER	
GV	GATE VALVE	
HB	HORIZONTAL BEND	
MH	MANHOLE	
OF	OUTFALL	
OV	OVERFLOW INLET	
PIV	POST INDICATOR VALVE	
PLUG	PLUG	
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY	
STUB	STUB	
TB	THRUST BLOCK	
TD	TRENCH DRAIN	
TEE	TEE CONNECTION	
VB	VERTICAL BEND	
WM	WATER METER	
WYE	WYE CONNECTION	

SHEET LEGEND

- LIMIT OF WORK
- RAIN GARDEN

SD STRUCTURE TABLE

STRUCTURE ID	NORTHING	EASTING
AD-1	3028.63	6896.07
AD-3	3038.17	6825.04
AD-4	3021.87	6886.76
MH-7	4888.30	6023.01
MH-8	3074.30	6008.35
MH-9	3054.80	6006.27
OF-8	3017.74	6014.22
OF-9	3013.71	6886.84
DV-12	4883.62	6831.96
DV-14	3004.96	6880.96



KEY MAP

SCALE 1 INCH = 20 FEET

mahlum

SEATTLE

PORTLAND

kpff

FOR REFERENCE ONLY

Clackamas Community College

CLACKAMAS COMMUNITY COLLEGE
DEJARDIN ADDITION/RENOVATION

19600 MOLALLA AVE.
OREGON CITY, OR 97045

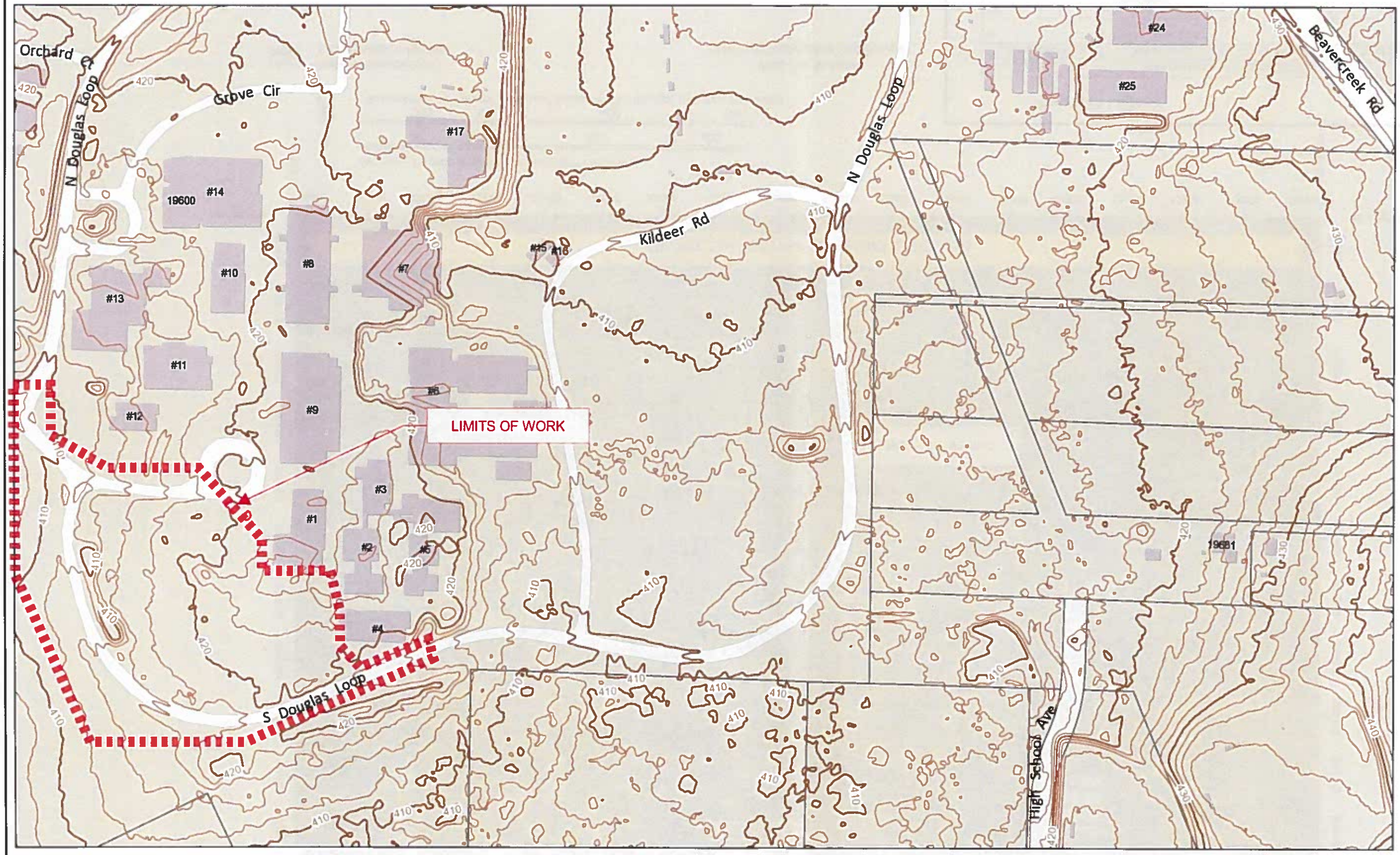
ISSUE DATE:	DECEMBER 22, 2017
ISSUE:	DESIGN DEVELOPMENT
PROJECT NO:	2017401
DRAWN BY:	TK
CHECKED BY:	PP

UTILITY PLAN

C-403

Exhibit C - Utility Plan

Oregon City GIS Map



Legend

Contours (2ft) - 1:3,600 and closer

- 10 foot
- 2 foot
- Taxlots
- Taxlots (Outside UGB)
- Unimproved ROW
- City Limits
- UGB
- Basemap

Notes

Overview Map

The City of Oregon City makes no representations, express or implied, as to the accuracy, completeness and timeliness of the information displayed. This map is not suitable for legal, engineering, surveying or navigation purposes. Notification of any errors is appreciated.

Map created 11/2/2016

N

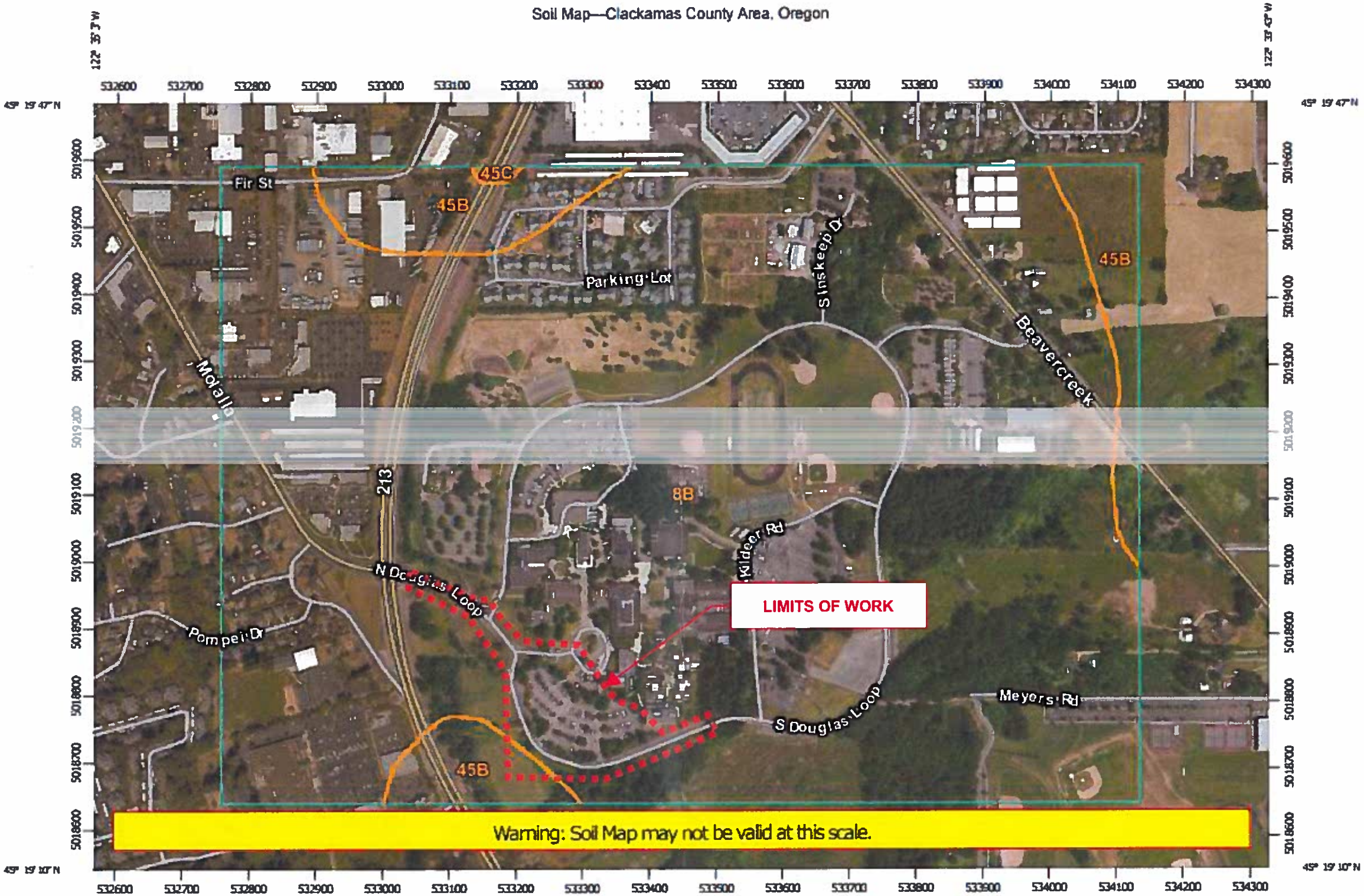
0 467 935 Feet

1: 2,804

City of Oregon City
PO Box 3040
625 Center St
Oregon City
OR 97045
(503) 657-0891
www.orcity.org

OREGON CITY

Soil Map—Clackamas County Area, Oregon



Map Scale: 1:8,040 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

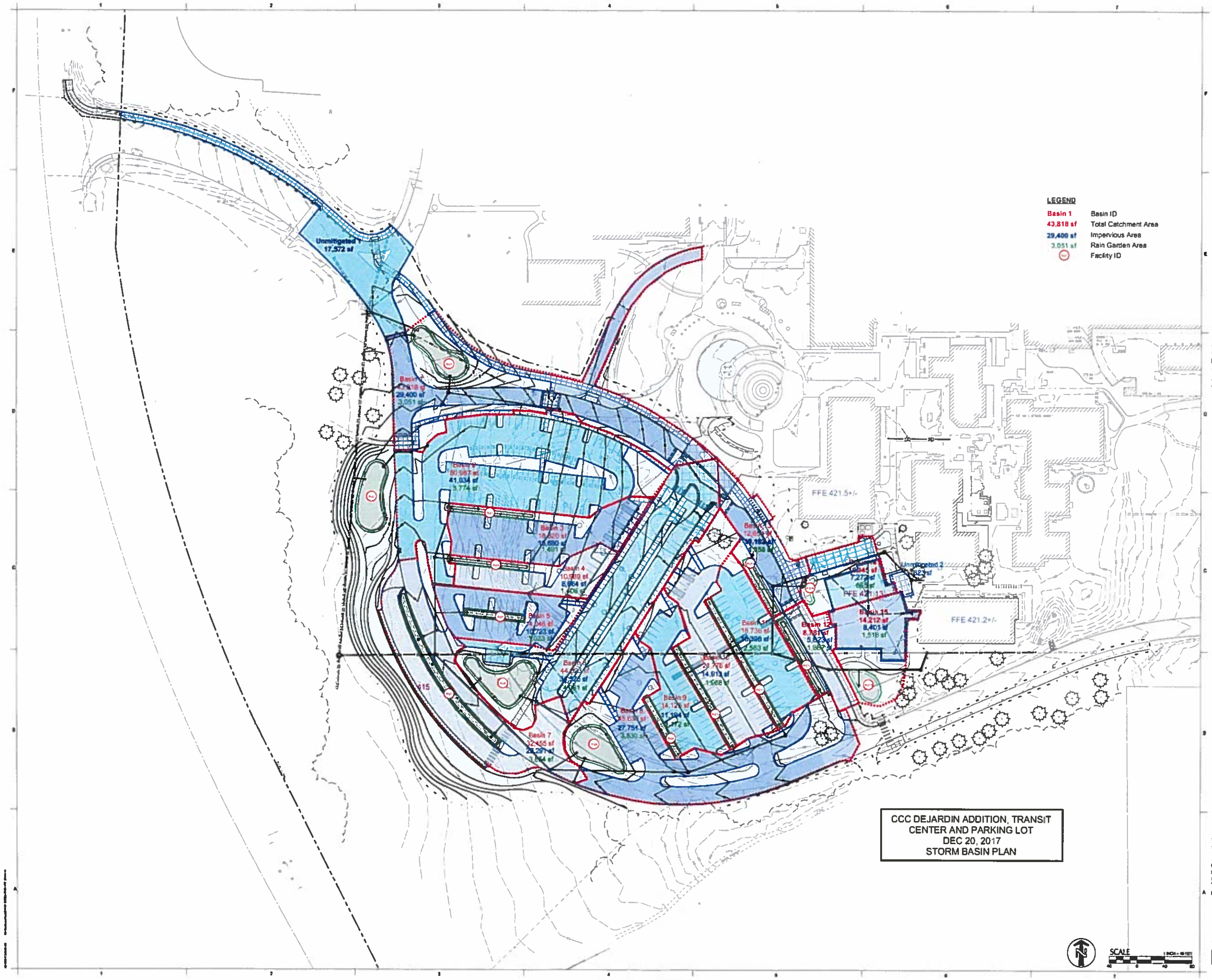
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Map Unit Legend

Clackamas County Area, Oregon (OR610)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
8B	Bornstedt silt loam, 0 to 8 percent slopes	298.9	92.1%
45B	Jory silty clay loam, 2 to 8 percent slopes	25.3	7.8%
45C	Jory silty clay loam, 8 to 15 percent slopes	0.4	0.1%
Totals for Area of Interest		324.5	100.0%



CCC DEJARDIN ADDITION, TRANSIT CENTER AND PARKING LOT
DEC 20, 2017
STORM BASIN PLAN

SCALE 1 INCH = 40 FEET

mahlum

kpff

FOR REFERENCE ONLY

Clackamas Community College

CLACKAMAS COMMUNITY COLLEGE
DEJARDIN ADDITION/RENOVATION

DECEMBER 22, 2017
DESIGN DEVELOPMENT

UTILITY PLAN

EXH

Clackamas Community College
Master Plan Update

Transportation Impact Study

Oregon City, Oregon

Date:
January 16, 2018

Prepared for:
Bob Cochran
Clackamas Community College

Prepared by:
Daniel Stumpf, EI
Todd Mobley, PE

LANCASTER
ENGINEERING

321 SW 4th Ave., Suite 400 | Portland, OR 97204 | 503.248.0313 | lancasterengineering.com

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Executive Summary

1. This Transportation Impact Study (TIS) serves as an update to the *Clackamas Community College* (CCC) *Master Plan*, previously prepared in January 2007, and addresses the impacts for an expansion of the college campus, which is located at 19600 S Mollala Avenue in Oregon City, Oregon. The proposed expansion will include the construction of a 46,150 square-foot Industrial Technology Center (previously approved and under construction), a 22,000 square-foot addition to DeJardin Hall, a 1,500 square-foot addition to Barlow Hall, and a new 54,500 square-foot student center, which will replace the existing 29,000 square-foot Community Center. In addition, the expansion will include the renovations of Barlow Hall, McLoughlin Hall, and the Pauling Science Center.
2. The trip generation calculations based on student enrollment show that the proposed expansion is projected to generate a total of 85 additional site trips during the morning peak hour, 101 additional site trips during the evening peak hour, and 1,106 additional total site trips on a typical weekday.
3. Based on the detailed review of crash history, the intersection of S Beavercreek Road at OR-213 was found to be among the top ten percent of high-crash intersections in the State of Oregon, with the vast majority of the reported crashes being rear-end collisions. One potential safety mitigation would be to install flashing warning signs that alert drivers to the potential for stopped queues ahead. These warning signs are most appropriate for the high-speed approaches on OR-213, and particularly the southbound approach which has uninterrupted flow for 2.5 miles. This project is already included as a "Likely To Be Funded" project for near-term implementation in the city's Transportation System Plan.
4. All other study intersections are currently operating acceptably with respect to safety.
5. The intersection of S Beavercreek Road at OR-213 is currently and projected to operate in excess of available intersection capacity during the morning peak hour. However, until the city adopts new performance measures that identify alternative mobility targets, the proposed CCC campus expansion is exempt from meeting current mobility standards.
6. All other study intersections are currently and projected to operate acceptably per Oregon City, Clackamas County, and ODOT standards through year 2020 with build-out of the proposed campus expansion. No operational mitigation is necessary or recommended.

Project Description and Location

Introduction

This Transportation Impact Study (TIS) serves as an update to the *Clackamas Community College* (CCC) *Master Plan*, previously prepared in January 2007, and addresses the impacts for an expansion of the college campus, which is located at 19600 S Mollala Avenue in Oregon City, Oregon. The proposed expansion will include the construction of a 46,150 square-foot Industrial Technology Center (previously approved and under construction), a 22,000 square-foot addition to DeJardin Hall, a 1,500 square-foot addition to Barlow Hall, and a new 54,500 square-foot student center, which will replace the existing 29,000 square-foot Community Center. In addition, the expansion will include the renovations of Barlow Hall, McLoughlin Hall, and the Pauling Science Center.

This report addresses the impacts of the proposed development on the nearby street system. The report conducts safety and capacity/level of service analyses at the following intersections:

- S Beavercreek Road at Trails End Highway (OR-213);
- S Beavercreek Road at S Maple Lane Road;
- S Beavercreek Road at Clairmont Drive;
- S Molalla Avenue/S Douglas Loop at OR-213; and
- Meyers Road at OR-213.

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the existing and proposed uses and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level-of-service calculations is included in the appendix to this report.

Project and Location Description

The project site is located north of Glen Oak Road, east of OR-213, and southwest of S Beavercreek Road in Oregon City, Oregon. The subject site is located within the southeastern edge of the city limits, with a mix of commercial retail/service and residential uses to the north and west; low-density residential and rural lands to the east; residential uses to the south; and Oregon City High School to the southeast.

The site includes a single tax lot, lot 800, which encompasses an approximate total of 157.84 acres. Access to the site is currently provided via the intersections of S Beavercreek Road at Clairmont Drive and S Molalla Avenue/S Douglas Loop at OR-213. Upon extending and connecting Meyers Road between High School Avenue and OR-213, access along the south side of the campus will be provided.

Vicinity Streets

The CCC campus is expected to predominately impact the following seven nearby vicinity roadways: S Beavercreek Road, S Molalla Avenue, S Douglas Loop, Meyers Road, OR-213, S Maple Lane Road, and Clairmont Drive. Table 1 provides a description of each of the vicinity roadways.

Table 1 – Vicinity Roadway Descriptions

Roadway	Jurisdiction	Functional Classification	Cross-Section	Speed	On-street Parking	Bicycle Lanes	Curbs	Sidewalks
S Beavercreek Road	Oregon City/ Clackamas County	Major Arterial	2 to 5 Lanes	35 to 40 mph Posted	Not Permitted	Both Sides	Partial Both Sides	Partial Both Sides
S Molalla Avenue	Oregon City	Major Arterial	3 Lanes	35 mph Posted	Not Permitted	Both Sides	Partial Both Sides	Partial Both Sides
S Douglas Loop	Private	Local Street	2 Lanes	20 mph Posted	Not Permitted	None	Both Sides	Partial Both Sides
Meyers Road	Oregon City	Minor Arterial	2 to 3 Lanes	35 mph Posted	Not Permitted	Both Sides	Both Sides	Partial Both Sides
OR-213	ODOT	Expressway/ Major Arterial	3 to 5 Lanes	45 to 55 mph Posted	Not Permitted	Partial Both Sides	Partial Both Sides	Partial Both Sides
S Maple Lane Road	Clackamas County	Minor Arterial	2 Lanes	45 mph Posted	Partially Permitted East Side	Partial Both Sides	Partial East Side	Partial East Side
Clairmont Drive	Private	Local Street	2 Lanes	20 mph Posted	Not Permitted	None	Both Sides	Partial North Side

Note: Functional Classification and Jurisdiction based on Oregon City's Transportation System Plan.

Study Intersections

A majority of site trips generated by the proposed expansion of the CCC campus are expected to impact five nearby intersections. A summarized description of these intersections is provided in Table 2.

Table 2 – Study Intersection Descriptions

Number	Name	Geometry	Traffic Control	Phasing/Stopped Approaches
1	S Beavercreek Road at OR-213	Four-Legged	Signalized	Protected N/S & E/W Left-turns, Yield Control NB/SB/WB Right-turns
2	S Beavercreek Road at S Maple Hill Lane	Four-Legged	Signalized	Protected NW/SE & NE/SW Left-turns, Permitted/Overlap SWB Right-turn, NE/SW Split Phasing
3	S Beavercreek Road at Clairmont Drive	Three-Legged	Signalized	FYA NWB Left-turn, Permitted/Overlap SEB Right-turn,
4	S Molalla Avenue/S Douglas Loop at OR-213	Four-Legged	Signalized	Protected N/S & E/W Left-turns, Permitted/Overlap EB Right-turn
5	Meyers Road at OR-213	Three-Legged	Signalized	FYA NB Left-turn

Note: Flashing Yellow Arrow denoted as FYA.

A vicinity map displaying the project site, vicinity streets, and the study intersections with their associated lane configurations is shown in Figure 1 on page 6.

Transit

The CCC campus is served by three transit lines, bus lines *#32 – Oatfield*, *#33 – McLoughlin/King Rd*, and *#99 – Macadam/McLoughlin*, with stops located on campus.

TriMet bus line *#32 – Oatfield* provides service between Milwaukie City Center and the CCC campus, with notable stops near Oregon City Transit Center, Oregon City High School, and Willamette Falls Hospital. Weekday service is scheduled from approximately 4:50 AM to 9:50 AM and has headways of approximately 15 to 65 minutes. Saturday service is scheduled from approximately 9:45 AM to 5:30 PM and has headways of approximately 60 minutes.

TriMet bus line *#33 – McLoughlin/King Rd* provides frequent service between Clackamas Town Center Transit Center and the CCC campus, with notable stops near Milwaukie City Center, Oregon City Shopping Center, Oregon City Transit Center, McLoughlin House, Clackamas County Historic Museum, and Oregon City Health Center. Weekday service is scheduled from approximately 4:15 AM to 1:50 AM and has headways of approximately 15 to 60 minutes. Weekend service is scheduled from approximately 5:30 AM to 1:50 AM and has headways of approximately 15 to 70 minutes.

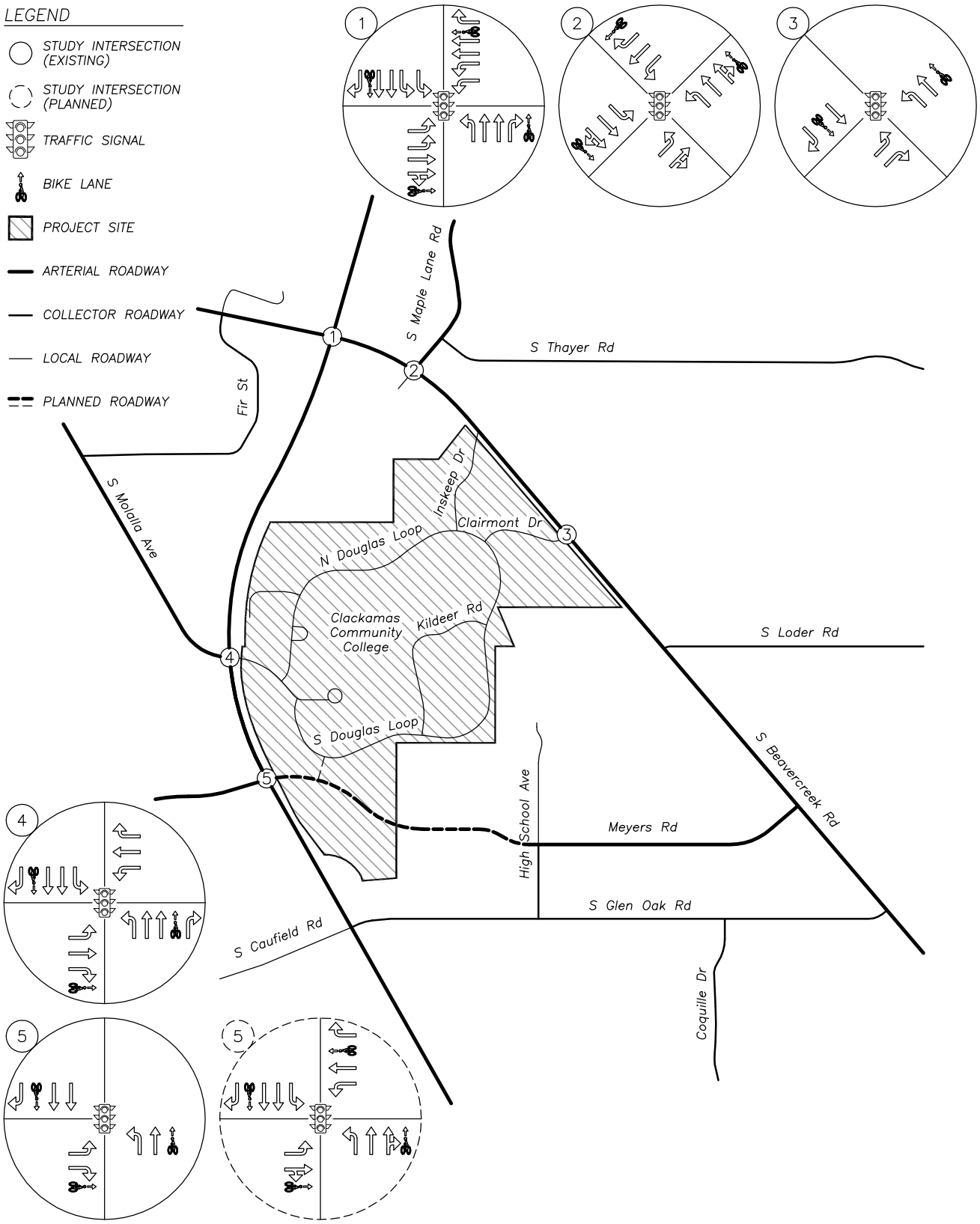
TriMet bus line #*99 – Macadam/McLoughlin* provides service between Portland City Center and the CCC campus, with notable stops near Milwaukie City Center, and Oregon City Transit Center. Weekday morning service is scheduled from approximately 5:15 AM to 9:00 AM and has headways of approximately 10 to 25 minutes. Weekday afternoon/evening service is scheduled from approximately 3:00 PM to 7:15 PM and has headways of approximately 15 to 30 minutes.

Traffic Counts

Traffic counts were conducted at the study intersections on Tuesday, April 12th, 2016 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Data was used from each intersection's respective morning and evening peak hours.

To reflect existing year 2018 traffic volumes, the year 2016 volume data was grown using a compounded growth rate of two percent per year over a two-year period for non-Oregon Department of Transportation (ODOT) facilities. For ODOT intersections, a linear growth rate of 2.19 percent per year was calculated for the traffic volumes along OR-213 using ODOT's 2036 Future Volume Tables. This growth rate was applied to the through volumes along OR-213 over a two-year period. A compounded growth rate of two percent per year over a two-year period was applied at all other turning movements.

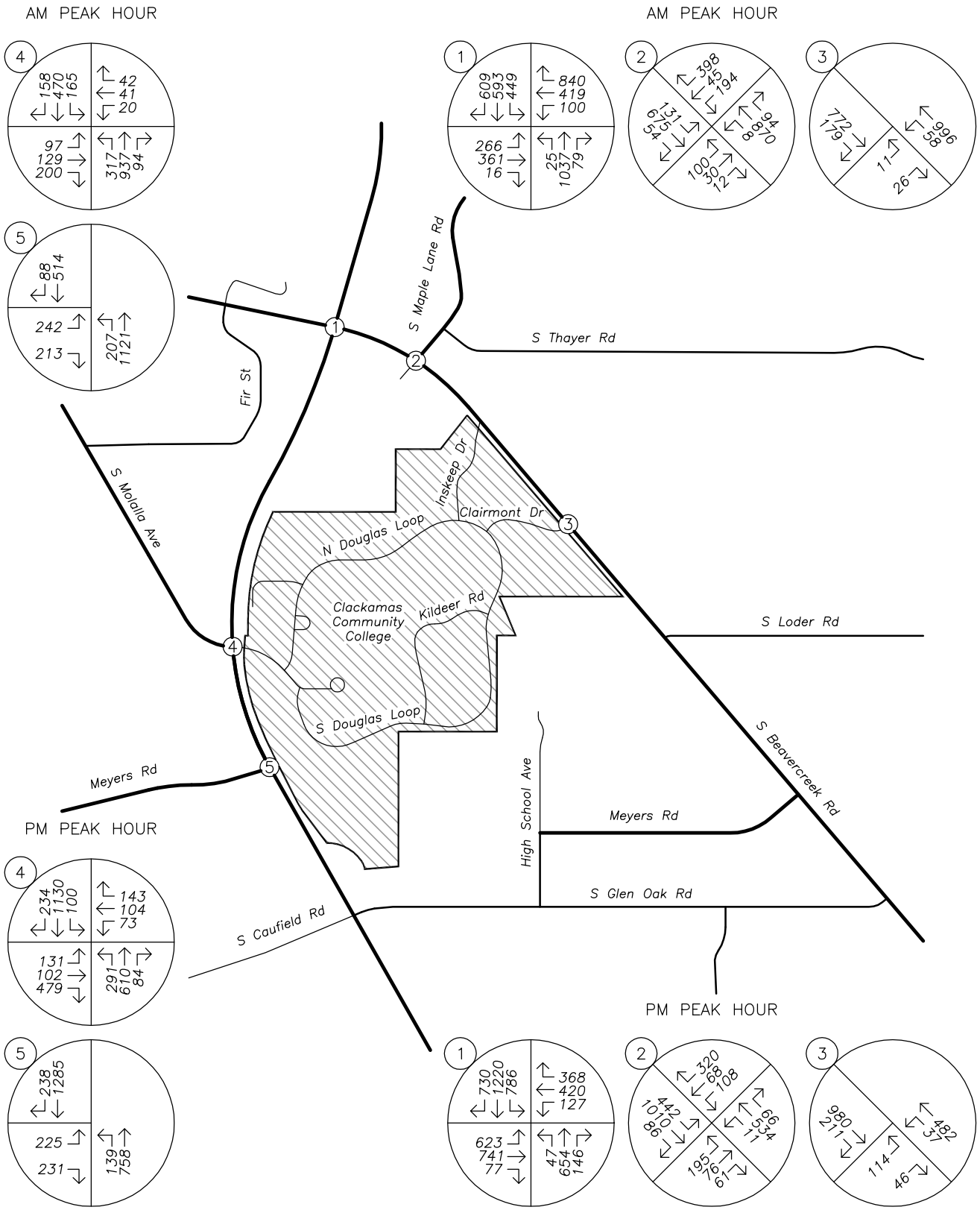
Figure 2 on page 7 shows the existing morning and evening peak hour traffic volumes at the study intersections.



VICINITY MAP

no scale

FIGURE 1



TRAFFIC VOLUMES
Existing Conditions
AM & PM Peak Hours

no scale

FIGURE 2

Site Trips

Trip Generation

The proposed expansion to the CCC campus will include the construction of a 46,150 square-foot Industrial Technology Center, a 22,000 square-foot addition to DeJardin Hall, a 1,500 square-foot addition to Barlow Hall, and a new 54,500 square-foot student center, which will replace the existing 29,000 square-foot Community Center. In addition, the expansion will include the renovations of Barlow Hall, McLoughlin Hall, and the Pauling Science Center. To estimate the number of trips that will be generated by the proposed expansion, traffic counts were conducted at the campus access locations so that CCC-specific trip rates could be determined. Trip rates were derived based on student enrollment.

Traffic counts were conducted on Tuesday, April 12th, 2016 and Wednesday, April 13th, 2016 at the site accesses of S Douglas Loop and Clairmont Drive for the full 24 hours each day. Based on these counts, the college campus generated a maximum of 830 morning peak hour trips, 977 evening peak hour trips, and 10,904 weekday trips. Using these observed counts, trip rates were determined based on the 5,892 enrolled students as of April 11th, 2016[1]. Table 3 presents a summary of the calculated trip generation rates based on the observed data.

Table 3 - Trip Generation Rates

	Morning Peak Hour			Evening Peak Hour			Weekday
	Total	**Entering**	**Exiting**	**Total**	**Enter**	**Exiting**	**Rate**
Observed Volumes	830	695	135	977	524	453	10,904
Student Enrollment	5,892	-	-	5,892	-	-	5,892
Calculated Rates	**0.14**	**84%**	**16%**	**0.17**	**54%**	**46%**	**1.85**

To estimate trip generation based on student enrollment, an inventory of existing and proposed classrooms/laboratories was conducted for the proposed ITC building, the addition to DeJardin Hall, and the new student center, as well as the proposed renovations of Barlow Hall, McLoughlin Hall, and the Pauling Science Center. Based on correspondence with OPSIS Architecture, the project architect, a standard-size classroom is assumed to have a reasonable maximum capacity of 26 students. The trip generation calculations

[1] Oregon City campus headcount, provided by Clackamas Community College Institutional Research & Reporting

based on student enrollment show that the proposed expansion is projected to generate a total of 85 additional site trips during the morning peak hour, 101 additional site trips during the evening peak hour, and 1,106 additional total site trips on a typical weekday. The trip generation estimates are summarized in Table 4.

Table 4 - Trip Generation Summary

	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
		Enter	Exit	Total	Enter	Exit	Total	
Industrial Technology Center	312 students (12 classrooms)	37	7	44	29	24	53	577
DeJardin Hall addition	156 students (6 classrooms)	18	4	22	15	12	27	289
Barlow Hall addition	26 students (1 classroom)	3	1	4	2	2	4	48
Student Center	26 students (1 classroom)	3	1	4	2	2	4	48
McLoughlin Hall addition	78 students (3 classrooms)	9	2	11	7	6	13	144
Pauling Science Center addition	0 students (0 classrooms)	0	0	0	0	0	0	0
Total	**598 students (23 classrooms)**	**70**	**15**	**85**	**55**	**46**	**101**	**1,106**

Trip Distribution

The trip distribution patterns identified in the 2007 study were updated to conform to existing traffic conditions based on the collected 2016 traffic counts. The directional distribution of site trips to/from the project site was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study intersections.

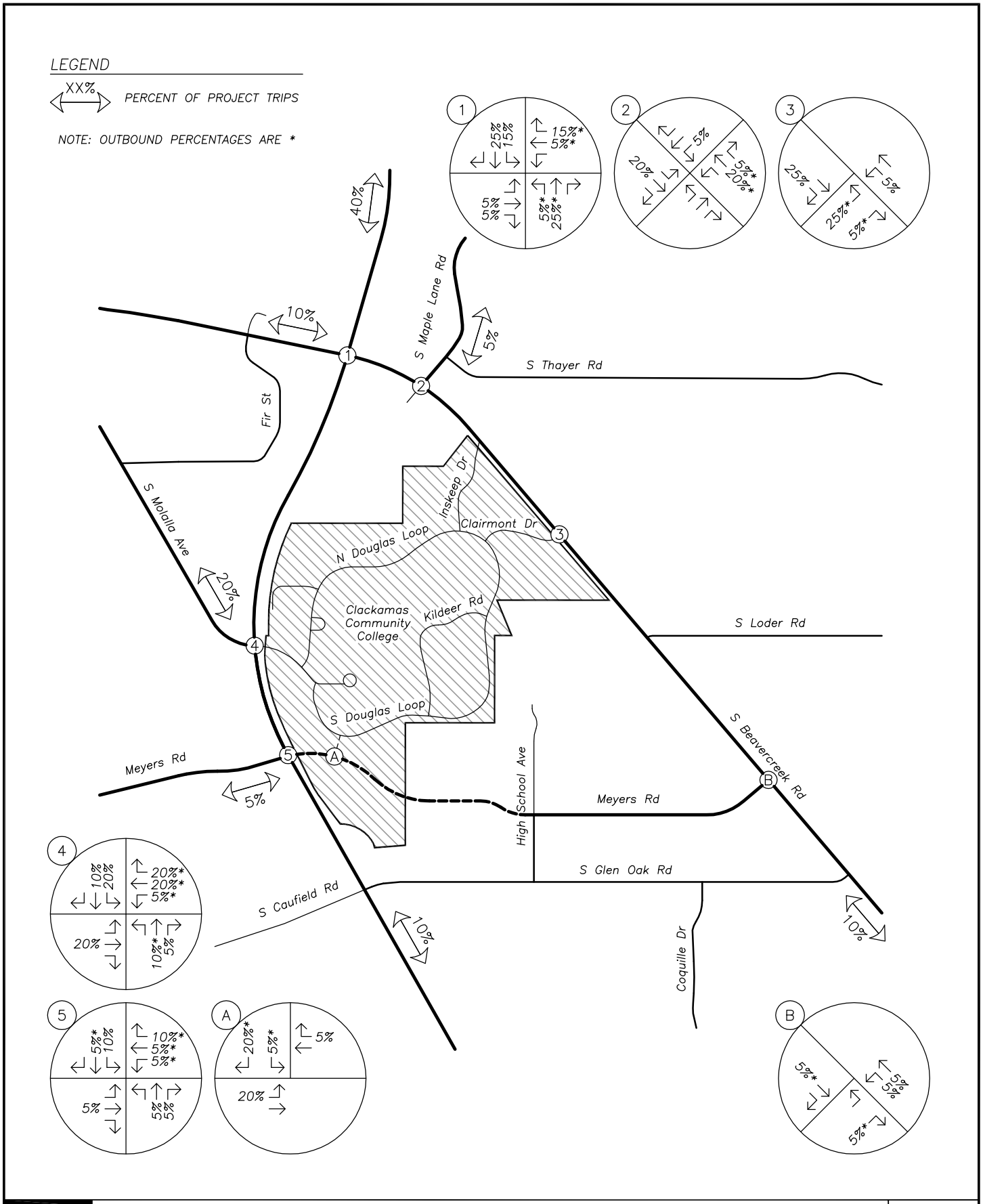
The following trip distribution was estimated and used for analysis:

- Approximately 40 percent of site trips will travel to/from the north along OR-213;
- Approximately 20 percent of site trips will travel to/from the west along S Molalla Avenue;
- Approximately 10 percent of site trips will travel to/from the south along OR-213;
- Approximately 10 percent of site trips will travel to/from the west along S Beavercreek Road;
- Approximately 10 percent of site trips will travel to/from the southeast along S Beavercreek Road;
- Approximately 5 percent of site trips will travel to/from the west along Meyers Road; and
- Approximately 5 percent of site trips will travel to/from the north along S Maple Hill Lane.

According to Oregon City's Transportation System Plan (TSP), Meyers Road is planned for extension, connecting OR-213 to High School Avenue. Clackamas Community College is proposing to take access to this extended section of Meyers Road by the build-out year of the proposed expansion. Based on existing site access utilization as well as the assumed construction of the proposed site access onto Meyers Road, the following distribution of trips through these accesses was estimated and used for analysis:

- Approximately 45 percent of site trips will utilize the S Douglas Loop site access;
- Approximately 30 percent of site trips will utilize the Clairmont Drive site access; and
- Approximately 25 percent of site trips will utilize the proposed site access on Meyers Road.

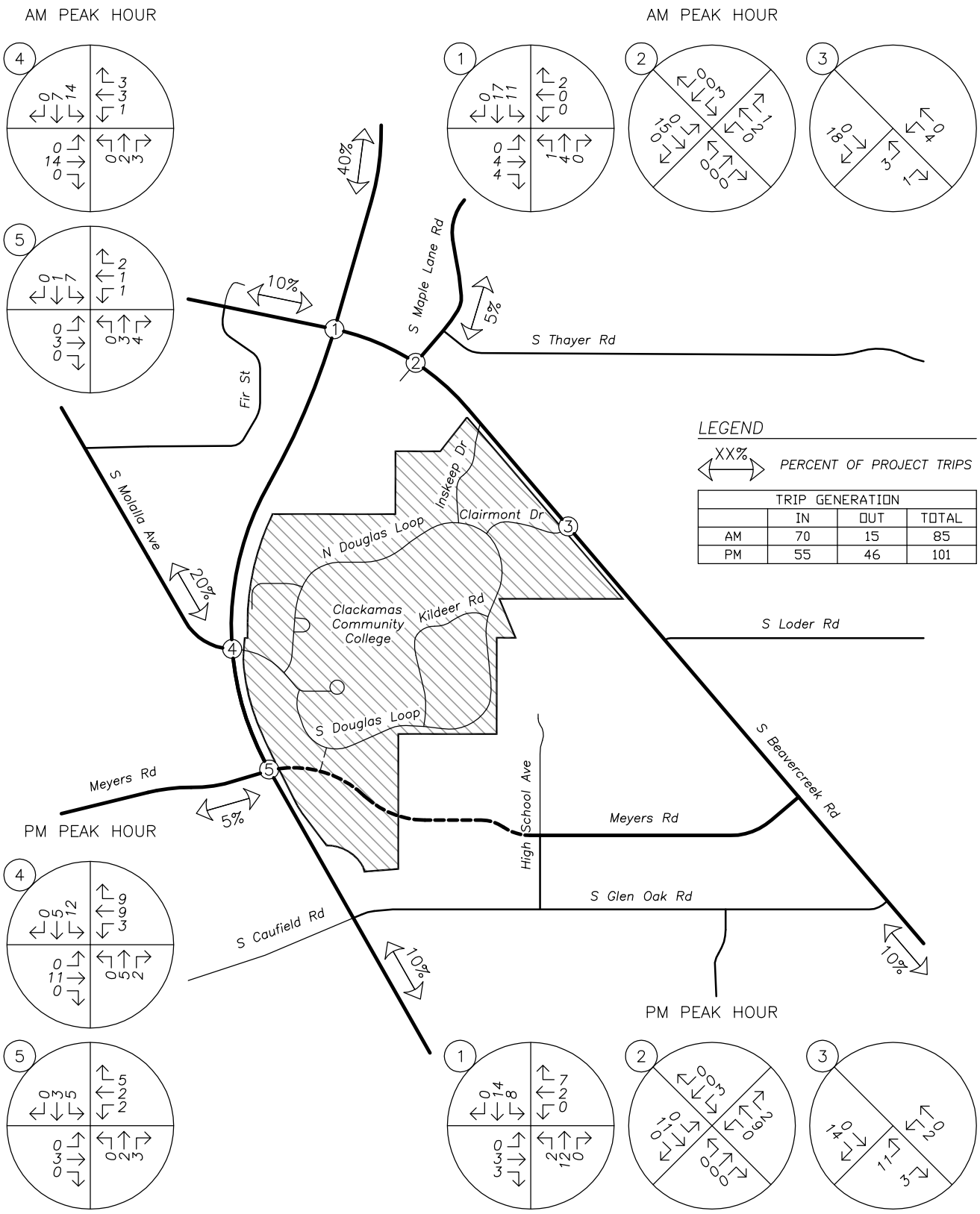
The trip distribution percentages utilized for the site trips generated by the proposed development are shown in Figure 3 on page 11. The trip assignment for the site trips generated by the proposed expansion during the morning and evening peak hours are shown in Figure 4 on page 12.



SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages – Site Trips
AM & PM Peak Hours

no scale

FIGURE 3



TRIP GENERATION			
	IN	OUT	TOTAL
AM	70	15	85
PM	55	46	101

SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
AM & PM Peak Hours

no scale

FIGURE 4

Future Traffic Volumes

Year 2020 Background Volumes (without Meyers Road Extension)

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required.

To calculate the future traffic volumes for non-ODOT facilities, a compounded growth rate of two percent per year for an assumed build-out condition of two years was applied to the measured existing traffic volumes to approximate year 2020 background conditions.

To estimate the future traffic volumes for ODOT facilities, a linear growth rate of 2.19 percent per year was calculated for the traffic volumes along OR-213 using ODOT's 2036 Future Volume Tables. This growth rate was applied to the existing traffic volumes over a two-year period to determine year 2020 background traffic volumes for the through traffic traveling along OR-213. A compounded growth rate of two percent per year for an assumed build-out condition of two years was applied to all other turning movement traffic volumes.

Figure 5 on page 15 shows the projected year 2020 background traffic volumes without the Meyer Road extension at the study intersections during the morning and evening peak hours.

Year 2020 Background Volumes (with Meyers Road Extension)

In addition to the increase in traffic volumes within the site vicinity, completion of the Meyer Road extension between OR-213 and High School Avenue is expected to result in some rerouting of traffic volumes along vicinity roadways. Specifically, it is expected that a traffic would predominately reroute from Glen Oak Road to Meyers Road since both roadways will generally align parallel to each (roadways will be offset from each other by approximately 600 feet to 1,500 feet) and will connect the two north/south roadways of OR-213 and S Beavercreek Road. Based on a comparison of volume data provided by John Replinger, the City's consulting transportation engineer, and data provided within the *Meyers Road Extension Concept Plan*, it is assumed that approximately 1/3 of vehicles turning to/from Glen Oak Road and OR-213 to the north would reroute and utilize the Meyers Road extension. Data from the *Meyers Road Extension Concept Plan* was collected in year 2015; therefore, to reflect year 2020 background conditions rerouted volumes were grown utilizing a compounded growth rate of two percent per year over a five-year period.

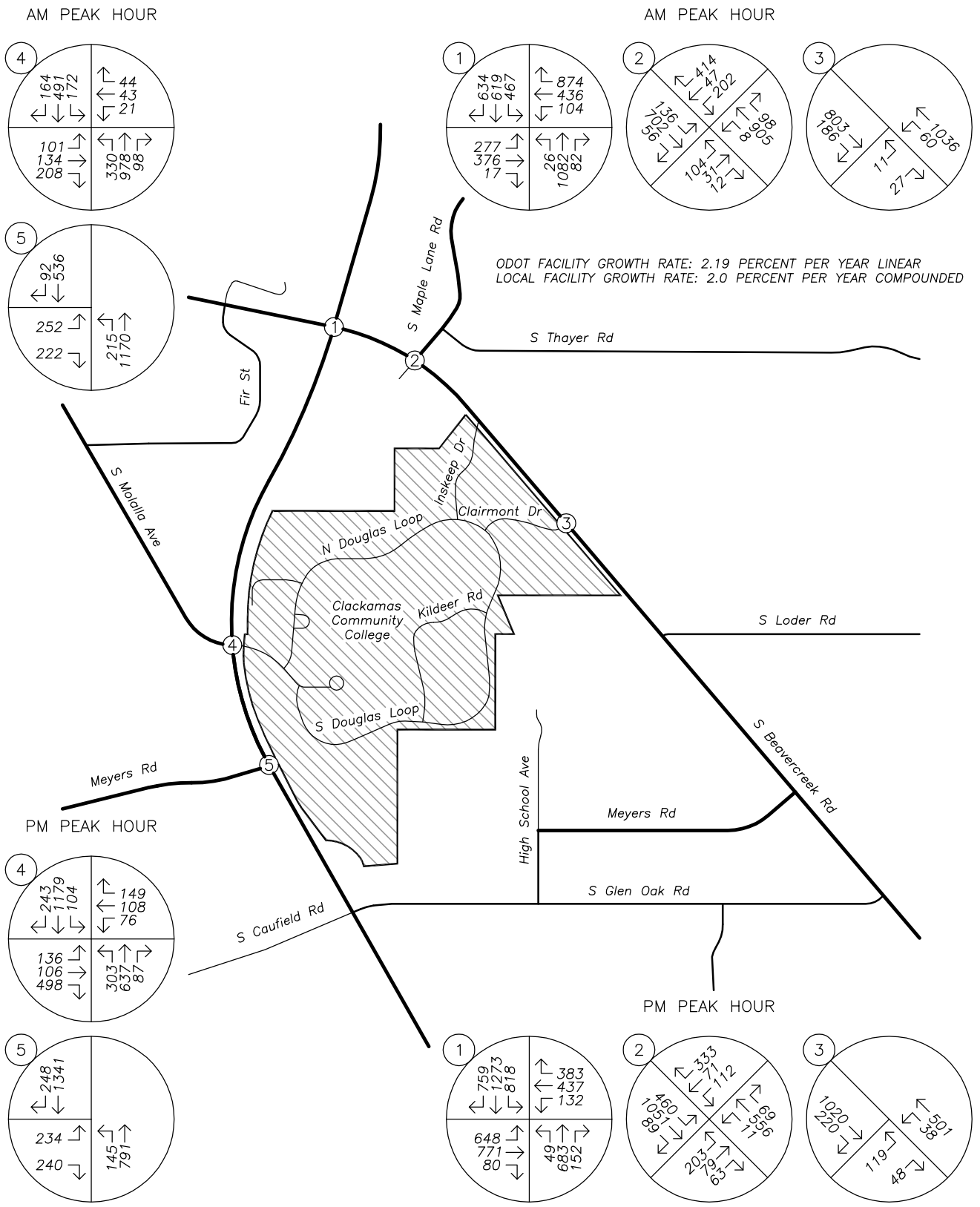
With build-out of the planned extension of Meyers Road, a third access from the CCC campus will be constructed along Meyers Road. Its is expected that some existing site trips from the Clairmont Drive and S Douglas Loop accesses will reroute to the access along Meyer's Road. Therefore, site trips were rerouted utilizing trip distribution assumptions presented in the *Trip Distribution* section of this report.

Figure 6 on page 16 shows the projected year 2020 background traffic volumes without the Meyer Road extension at the study intersections during the morning and evening peak hours.

Year 2020 Background Volumes plus Site Trips

Peak hour trips calculated to be generated by the proposed CCC campus expansion, as described earlier within the *Site Trips* section, were added to the projected year 2020 background traffic volumes with the Meyers Road extension to obtain the expected 2020 background volumes plus site trips.

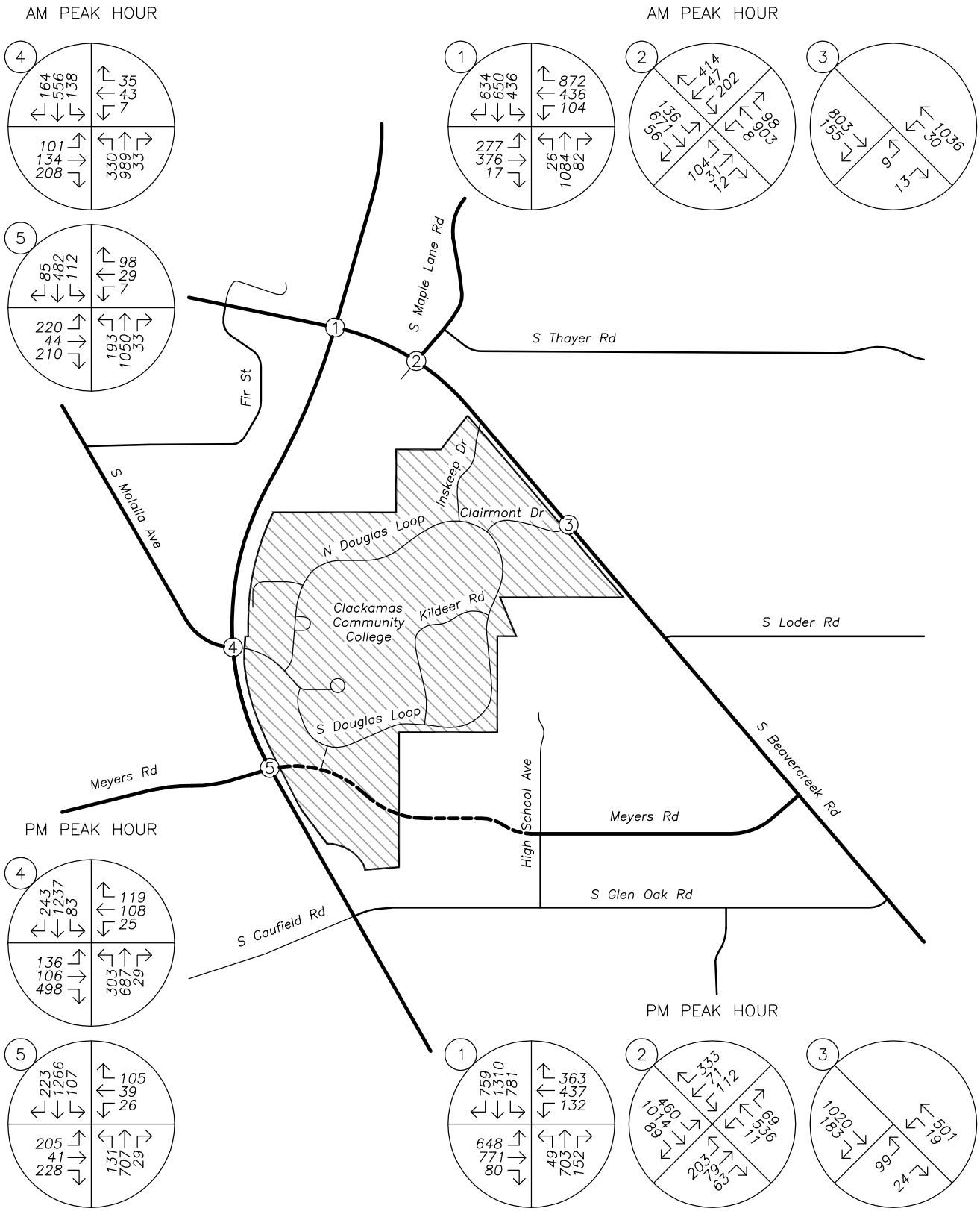
Figure 7 on page 17 shows the projected year 2020 peak hour background traffic volumes plus site trips (with the Meyers Road extension) at the study intersections during the morning and evening peak hours.



TRAFFIC VOLUMES
Year 2020 Background Conditions w/o Meyers Road Extension
AM & PM Peak Hours

no scale

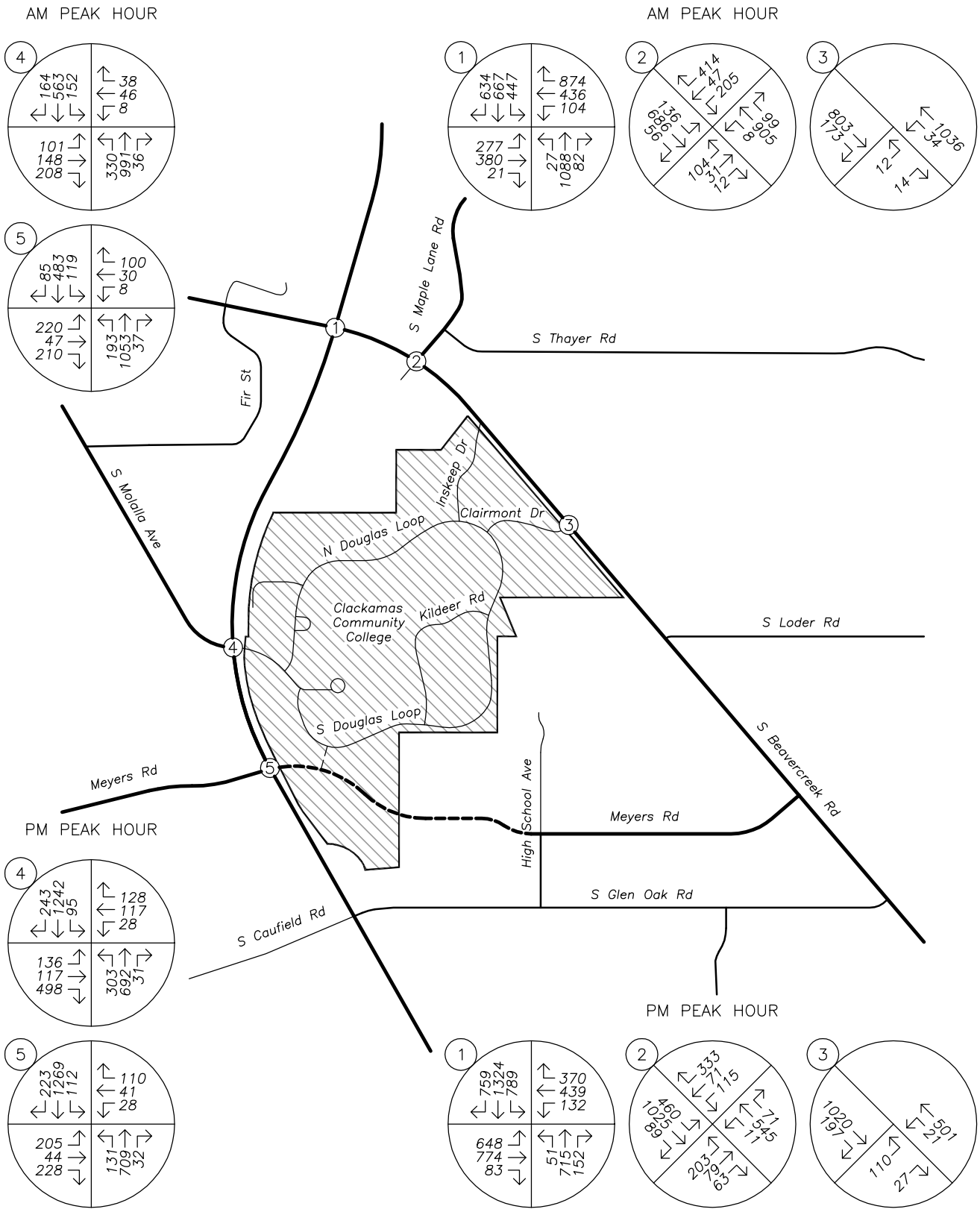
FIGURE 5



TRAFFIC VOLUMES
Year 2020 Background Conditions w/ Meyers Road Extension
AM & PM Peak Hours

no scale

FIGURE 6



TRAFFIC VOLUMES
Year 2020 Background Conditions plus Site Trips w/ Extension
AM & PM Peak Hours

no scale

FIGURE 7

Safety Analysis

Crash Data Analysis

Using data obtained from the ODOT's Crash Analysis and Reporting Unit, a review of the most recent available five years of crash history (January 2011 to December 2015) at the study intersections was performed. The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection. Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak period represents 10 percent of average daily traffic (ADT) at the intersection. Crash rates in excess of one to two crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

S Beavercreek Road at OR-213

The intersection of S Beavercreek Road at OR-213 had 143 reported crashes during the analysis period. The crashes consisted of 124 rear-end collisions, 9 turning-movement collisions, 5 angle-type collisions, 3 sideswipe collisions, 1 fixed-object collision, and 1 collision involving a pedestrian. Of the crashes reported, 66 were classified as "Property Damage Only" (*PDO*), 64 were classified as "Possible Injury – Complaint of Pain" (*Injury C*), 11 were classified as "Non-Incapacitating Injury" (*Injury B*), 1 was classified as "Incapacitating Injury – Bleeding, Broken Bones" (*Injury A*), and 1 resulted in a fatality. The crash rate at the intersection was calculated to be 1.32 CMEV.

Two of the crashes at the intersection either involved a pedestrian or was classified as an *Injury A* collision. The crash that involved a pedestrian occurred when an east/west traveling pedestrian disregarded the traffic signal, entered the intersection illegally, and was struck by a southbound passenger car. The pedestrian sustained injuries consistent with *Injury B* classification while the driver of the passenger car was uninjured. The *Injury A* collision occurred when the driver of a northbound passenger car disregarded the traffic signal and collided with a southbound left-turning passenger car. The passenger in the southbound vehicle sustained injuries consistent with *Injury A* classification while the vehicle's driver sustained injuries consistent with *Injury C* classification. The driver of the northbound vehicle sustained no injuries.

Over the five-year analysis period, one of the crashes at the intersection resulted in a fatality. The crash was classified as an angle-type collision which occurred at 1:00 AM on Sunday, September 18th, 2011. Driving conditions were during night hours with streetlight, rain, and wet roadways present. The crash occurred when the driver of an eastbound passenger car disregarded the traffic signal and collided with southbound passenger car. The driver of the eastbound vehicle sustained fatal injuries while a passenger of the vehicle sustained injuries consistent with *Injury B* classification. The driver of the southbound vehicle sustained injuries consistent with *Injury C* classification. Although not reported within the crash data, Oregon State police had indicated alcohol was a contributing factor in the collision.

Based on the detailed review of crash history at the intersection, the number of crashes occurring at the intersection is higher than would be expected for a typical intersection with similar characteristics. The vast majority of the reported crashes (86.7 percent of total intersection crashes) were rear-end collisions. However, the rear-end collisions were distributed somewhat evenly among each of the intersection approaches, with 31 on the northbound approach, 29 on the southbound approach, 14 on the eastbound approach, 48 on the westbound approach. The two remaining rear-end collisions were reported as "unknown" with respect to travel direction. Since the rear-end collisions are occurring with relatively similar frequency on each of the approaches, it is unlikely that the crashes result from any specific design deficiency.

It is recommended that consideration be given to installing flashing warning signs that alert drivers to the potential for stopped queues ahead. These warning signs are most appropriate for the high-speed approaches on OR-213, and particularly the southbound approach since the nearest traffic signal to the north is approximately 2.5 miles away at Redland Road. It should be noted that such a system is included in the city's Transportation System Plan (project D14), which will install a queue warning system for southbound drivers on OR-213, which includes a variable message sign. The project is listed as "Likely To Be Funded" and is designated for near-term implementation.

S Beavercreek Road at S Maple Lane Road

The intersection of S Beaver Creek Road at S Maple Lane Road had 44 reported crashes during the analysis period. The crashes consisted of 30 turning-movement collisions, 10 rear-end collisions, 2 angle-type collisions, 1 side-swipe collision, and 1 pedestrian related collision. Of the reported crashes, 14 were classified as *PDO*, 18 were classified as *Injury C*, 11 were classified as *Injury B*, and 1 was classified as *Injury A*. The crash rate at the intersection was calculated to be 0.81 CMEV.

Two of the crashes at the intersection either involved a pedestrian or was classified as an *Injury A* collision. The crash that involved a pedestrian occurred when a northeast/southwest traveling pedestrian entered the intersection illegally and was struck by a northwest-bound passenger car. The pedestrian sustained injuries consistent with *Injury C* classification while the driver of the passenger car was uninjured. The *Injury A* collision occurred when the driver of a northwest-bound, left-turning passenger car failed to yield right-of-way to a southeast-bound passenger car. The driver of the southeast-bound vehicle sustained injuries while the other driver sustained no injuries.

S Beavercreek Road at Clairmont Drive

The intersection of S Beavercreek Road at Clairmont Drive had three reported crashes during the analysis period. All three crashes were rear-end collisions, one of which was classified as *PDO* and two were classified as *Injury C*. The crash rate at the intersection was calculated to be 0.09.

S Molalla Avenue/S Douglas Loop at OR-213

The intersection of S Molalla Avenue/S Douglas Loop at OR-213 had 33 reported crashes during the analysis period. The crashes consisted of 21 rear-end collisions, 7 turning-movement collisions, 3 angle-type collisions, 1 non-collision crash, and 1 pedestrian related collision. Of the reported crashes, 12 were classified as *PDO*,

14 were classified as *Injury C*, 6 were classified as *Injury B*, and 1 was classified as *Injury A*. The crash rate at the intersection was calculated to be 0.52.

One of the crashes at the intersection involved a pedestrian and was classified as an *Injury A* collision. The crash occurred when a north/south traveling pedestrian disregarded the traffic signal, entered the intersection illegally, and was struck by a westbound passenger car. The pedestrian sustained injuries while the driver of the passenger car was uninjured.

Meyers Road at OR-213

The intersection of Meyers Road at OR-213 had 22 reported crashes during the analysis period. The crashes consisted of 19 rear-end collisions and 3 turning-movement collisions. Of the reported crashes, 9 were classified as *PDO*, 9 were classified as *Injury C*, and 4 were classified as *Injury B*. The crash rate at the intersection was calculated to be 0.42 CMEV.

Due to the high crash rate at the intersection of S Beavercreek Road at OR-213, it is recommended that consideration be given to install warning signs that alert drivers to the potential for stopped queues ahead. No significant trends or crash patterns were identified at any of the other study intersections. Accordingly, no other specific safety mitigation is necessary or recommended.

Operational Analysis

Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the intersection analysis methodologies in the *HIGHWAY CAPACITY MANUAL* (HCM)[2]. The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

Per Section 12.04.205 of the *Oregon City Municipal Code*, the following minimum acceptable operation standards apply when evaluating traffic impacts associated with the proposed campus expansion.

- For intersections within the Regional Center (Downtown Community Plan), a maximum v/c ratio of 1.10 is permissible during the peak hour, provided that during the second hour the v/c ratio is 0.99 or less. For signalized intersections, these standards apply to the intersection as a whole. For unsignalized intersections, these standards apply to the major-street approaches only. There is no performance standard for unsignalized minor-street approaches.
- For intersections outside the Regional Center but designated on the Arterial and Throughway Network, a maximum v/c ratio of 0.99 shall be maintained. This standard applies to signalized intersections as a whole, and to the major-street approaches at unsignalized intersections. There is no performance standard for unsignalized minor-street approaches.
- Signalized intersections located outside the Regional Center boundaries and not designated on the Arterial and Throughway Network shall operate at LOS D or better for the intersection as a whole, no approach shall operate worse than LOS E, and the intersection shall operate with a v/c ratio no higher than 1.0 for the sum of critical movements.
- Unsignalized intersections located outside the Regional Center boundaries and not designated on the Arterial and Throughway Network shall operate at LOS E or better for all approaches serving more than 20 peak hour vehicles. LOS F will be tolerated at movements serving no more than 20 vehicles during the peak hour.
- Until the city adopts new performance measures that identify alternative mobility targets, the city exempts proposed developments that are permitted, either conditionally, outright, or through a detailed development master plan approval from compliance with the above mobility standards for identified intersections, including the intersections of McLoughlin Boulevard (OR-99E) at the Interstate 205 (I-205) northbound and southbound ramp terminals, and the intersection of S Beavercreek Road at OR-213.

According to *Oregon City's Downtown Community Plan*, none of the study intersections are located within the Regional Center, while per Metro's *Regional Transportation Plan 2014*, Figure 2.7 – *Arterial and Throughway*

[2] Transportation Research Board, *HIGHWAY CAPACITY MANUAL*, 2000.

Network, all study intersections are designated on the Arterial and Throughway network. Therefore, all study intersections are required to operate with a v/c ratio no greater than 0.99 during the morning and evening peak hours, except for the intersection of S Beavercreek Road at OR-213 which is currently exempt from compliance with adopted operational standards.

The intersection of S Beavercreek Road at OR-213 operates at LOS F with v/c ratios in excess of 1.00 during the morning peak hour and at LOS D with v/c ratios of 0.94 or less during the evening peak hour for all analysis scenarios.

The intersection of S Beavercreek Road at S Maple Lane Road operates at LOS C with v/c ratios of 0.82 or less during the morning and evening peak hours for all analysis scenarios.

The intersection of S Beavercreek Road at Clairmont Drive operates at LOS B with v/c ratios of 0.88 or less during the morning and evening peak hours through year 2020 without the Meyers Road extension. With the Meyers Road extension, the intersection is projected to operate at LOS A with a v/c ratio of 0.87 during the morning peak hour and at LOS B with a v/c ratio of 0.77 during the evening peak hour through year 2020, regardless of the addition of proposed expansion site trips.

The intersection of S Molalla Avenue/S Douglas Loop at OR-213 operates at LOS D with v/c ratios of 0.67 or less during the morning peak hour and at LOS C with v/c ratios of 0.86 or less during the evening peak hour for all analysis scenarios.

The intersection of Meyers Road at OR-213 operates at LOS C with v/c ratios of 0.96 or less during the morning peak hour and at LOS B with v/c ratios of 0.66 or less during the evening peak hour through year 2020 without the Meyers Road extension. With the Meyers Road extension, the intersection is projected to operate at LOS C with v/c ratios of 0.71 or less during the morning and evening peak hours through year 2020, regardless of the addition of proposed expansion site trips.

The v/c, delay, and LOS results of the capacity analysis are shown in Table 5 for the morning and evening peak hours. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

Table 5 – Intersection Capacity Analysis Summary

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
S Beavercreek Road at OR-213						
2018 Existing Conditions	F	>80	1.23	D	50	0.90
2020 Background Conditions	F	>80	1.28	D	52	0.93
2020 Background Conditions*	F	>80	1.25	D	52	0.93
2020 Background plus Site Conditions*	F	>80	1.28	D	53	0.94
S Beavercreek Road at S Maple Lane Road						
2018 Existing Conditions	C	33	0.79	C	31	0.73
2020 Background Conditions	C	35	0.82	C	32	0.76
2020 Background Conditions*	C	35	0.82	C	32	0.75
2020 Background plus Site Conditions*	C	35	0.82	C	32	0.76
S Beavercreek Road at Clairmont Drive						
2018 Existing Conditions	B	11	0.87	B	12	0.75
2020 Background Conditions	B	11	0.88	B	13	0.77
2020 Background Conditions*	A	9	0.87	B	12	0.77
2020 Background plus Site Conditions*	A	10	0.87	B	12	0.77
S Molalla Avenue/S Douglas Loop at OR-213						
2018 Existing Conditions	D	42	0.65	C	34	0.80
2020 Background Conditions	D	42	0.67	C	35	0.84
2020 Background Conditions*	D	44	0.65	C	34	0.85
2020 Background plus Site Conditions*	D	44	0.67	C	35	0.86
S Meyers Road at OR-213						
2018 Existing Conditions	C	22	0.92	B	16	0.63
2020 Background Conditions	C	25	0.96	B	16	0.66
2020 Background Conditions*	C	28	0.70	C	24	0.69
2020 Background plus Site Conditions*	C	28	0.71	C	24	0.69

* Analysis scenario includes the Meyers Road Extension and site access onto Meyers Road.

Based on the results of the operational analysis, the intersection of S Beavercreek Road at OR-213 is currently and projected to operate in excess of available intersection capacity during the morning peak hour. However, until the city adopts new performance measures that identify alternative mobility targets, the proposed CCC campus expansion is exempt from meeting current mobility standards.

All other study intersections are currently and projected to operate acceptably per Oregon City, Clackamas County, and ODOT standards through year 2020 with build-out of the proposed campus expansion. No operational mitigation is necessary or recommended.

Master Plan Conditions of Approval

This Transportation Impact Study is prepared to update the prior 2007 Master Plan for the college. As such, it will also update the transportation-related conditions of approval. The relevant conditions from the 2007 approval are listed below in *italics*, with a response immediately following.

"2. As part of any Detailed Development Plan, Oregon City and Clackamas Community College shall determine a fee that addresses Clackamas Community College's proportional share of the necessary transportation system improvements. This fee shall be based on the anticipated impacts of the proposed development on the transportation system and the charges will be assessed prior to the issuance of a building permit."

There are two regionally-significant transportation facilities that have been identified as needing mitigation or improvements, even without the proposed Master Plan. Those are the intersection of Highway 213 at Beavercreek Road and completing the extension of Meyers Road east of Highway 213. This report identifies the need for implementation of the advance warning system for excessive queuing on high speed approaches at the Beavercreek Road intersection, which is a project identified in the City of Oregon City as a near-term project that is likely to be funded. The City of Oregon City is presently in the later stages of design for the Meyers Road extension project.

Clackamas Community College is currently working with the City of Oregon City to determine appropriate contributions for the Meyers Road extension through right-of-way dedication and transportation SDC credits for the portion of the road that crosses college-owned property. It is recommended that the college participate in both improvements through proportional share contributions.

"3. The Oregon City level-of-service standards will be used to determine the adequacy of the transportation system, appropriate mitigation measures and proportional share calculations. Oregon Department of Transportation and Clackamas County transportation standards will be utilized when applicable to determine the adequacy of the transportation system."

It is recommended that this condition be removed. This Transportation Impact Study is prepared using current performance standards for the City of Oregon City, ODOT, and Clackamas County. As detailed in the Intersection Capacity Analysis section on page 21 of this report, Oregon City performance standards now involve both level of service and volume-to-capacity (v/c) ratios.

"9. The applicant shall either leave the level-of-service (LOS) standards in the Site Plan and Design Review regulations (17.62.050.A.16) or the they shall be incorporated into the Clackamas Community College Transportation Plan as a reference to the LOS the City requires development to meet and as the standards that were utilized in the review of the master plan to determine adequacy of the transportation system. This standard will be utilized in determining appropriate mitigation measures and in the calculation of the proportional share required to be paid by the applicant for transportation infrastructure deficiencies."

Performance standards have changed significantly since this condition was imposed in 2007. It is recommend that current performance standards, at the time of this application, be used to determine appropriate mitigation and proportional share contributions.

Conclusions

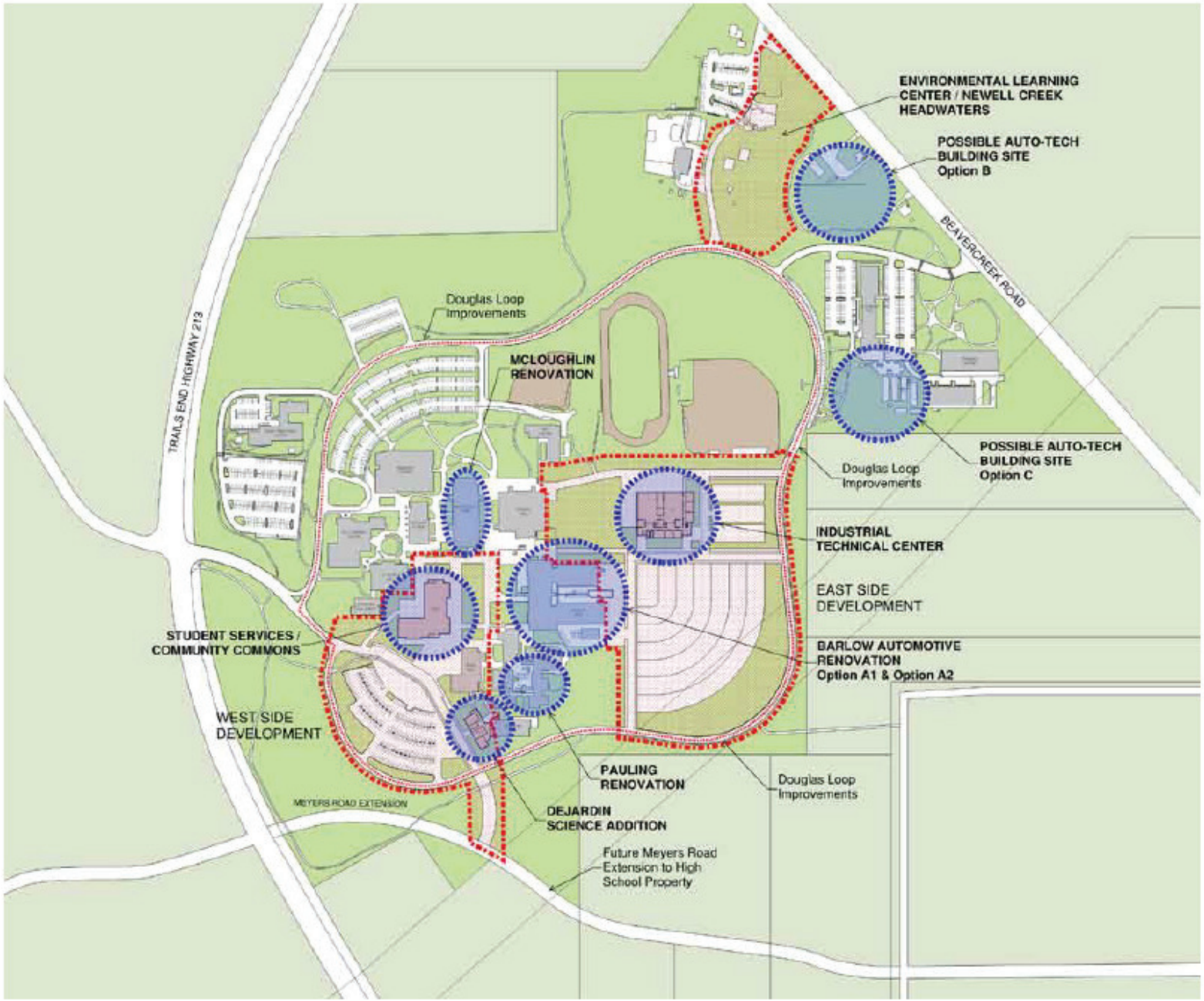
Based on the detailed review of crash history, the intersection of S Beavercreek Road at OR-213 was found to be among the top ten percent of high-crash intersections in the State of Oregon, with the vast majority of the reported crashes being rear-end collisions. One potential safety mitigation would be to install flashing warning signs that alert drivers to the potential for stopped queues ahead. These warning signs are most appropriate for the high-speed approaches on OR-213, and particularly the southbound approach which has uninterrupted flow for 2.5 miles. This project is already included as a "Likely To Be Funded" project for near-term implementation in the city's Transportation System Plan.

All other study intersections are currently operating acceptably with respect to safety.

The intersection of S Beavercreek Road at OR-213 is currently and projected to operate in excess of available intersection capacity during the morning peak hour. However, until the city adopts new performance measures that identify alternative mobility targets, the proposed CCC campus expansion is exempt from meeting current mobility standards.

All other study intersections are currently and projected to operate acceptably per Oregon City, Clackamas County, and ODOT standards through year 2020 with build-out of the proposed campus expansion. No operational mitigation is necessary or recommended.

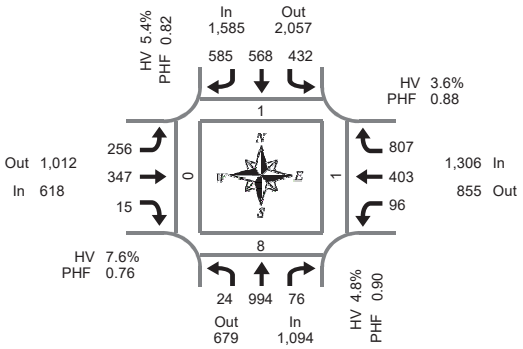
Appendix



Project Area Plan

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:00 AM to 8:00 AM

Hwy 213 & Beavercreek Rd

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek 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
7:00 AM	1	106	10	0	18	29	45	0	22	19	1	0	7	29	66	0	353	0	1	0	0
7:05 AM	2	100	6	0	20	26	39	0	13	27	1	0	11	39	71	0	355	1	0	0	0
7:10 AM	4	69	7	0	44	44	31	0	32	25	0	0	4	16	76	0	352	0	0	0	0
7:15 AM	3	80	4	0	43	43	58	0	13	34	1	0	6	29	73	0	387	0	2	0	0
7:20 AM	2	85	2	0	35	43	36	0	24	39	0	0	8	24	66	0	364	0	0	0	0
7:25 AM	0	83	5	0	51	60	52	0	15	53	0	0	9	38	61	0	427	0	0	1	0
7:30 AM	2	85	7	0	38	38	47	0	29	41	2	0	5	35	71	0	400	0	0	0	0
7:35 AM	3	74	5	0	30	47	39	0	26	31	0	0	12	42	77	0	386	0	2	0	0
7:40 AM	2	89	7	0	32	58	56	0	16	27	6	0	14	32	70	0	409	0	1	0	0
7:45 AM	0	76	3	0	48	58	59	0	20	17	2	0	11	41	72	0	407	0	0	0	0
7:50 AM	1	59	8	0	31	45	50	0	25	19	2	0	7	53	57	0	357	0	1	0	0
7:55 AM	4	88	12	0	42	77	73	0	21	15	0	0	2	25	47	0	406	0	1	0	0
8:00 AM	0	53	8	0	19	44	43	0	26	24	0	0	19	29	52	0	317	0	0	0	0
8:05 AM	4	58	9	0	28	48	43	0	23	14	4	0	5	14	68	0	318	0	0	0	0
8:10 AM	4	109	14	0	15	52	53	0	23	14	2	0	14	30	61	0	391	0	1	0	0
8:15 AM	4	72	10	0	12	33	47	0	34	14	2	0	12	39	48	0	327	0	0	0	0
8:20 AM	3	52	13	0	20	47	38	0	27	23	1	0	5	28	58	0	315	0	1	0	0
8:25 AM	0	88	7	0	13	49	50	0	37	12	1	0	10	28	56	0	351	0	0	0	0
8:30 AM	3	71	4	0	32	66	40	0	18	18	6	0	9	28	40	0	335	0	0	0	0
8:35 AM	2	55	7	0	23	42	39	0	27	25	4	0	6	33	45	0	308	0	0	0	0
8:40 AM	3	41	6	0	40	54	52	0	35	30	5	0	8	44	49	0	367	0	0	0	0
8:45 AM	6	72	7	0	33	84	40	0	18	17	2	0	8	47	35	0	369	0	0	0	0
8:50 AM	3	73	9	0	36	70	45	0	40	23	3	0	6	37	26	0	371	0	0	0	0
8:55 AM	1	52	6	0	31	64	56	0	21	10	3	0	10	46	37	0	337	2	1	2	0
Total Survey	57	1,790	176	0	734	1,221	1,131	0	585	571	48	0	208	806	1,382	0	8,709	3	11	3	0

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek 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
7:00 AM	7	275	23	0	82	99	115	0	67	71	2	0	22	84	213	0	1,060	1	1	0	0
7:15 AM	5	248	11	0	129	146	146	0	52	126	1	0	23	91	200	0	1,178	0	2	1	0
7:30 AM	7	248	19	0	100	143	142	0	71	99	8	0	31	109	218	0	1,195	0	3	0	0
7:45 AM	5	223	23	0	121	180	182	0	66	51	4	0	20	119	176	0	1,170	0	2	0	0
8:00 AM	8	220	31	0	62	144	139	0	72	52	6	0	38	73	181	0	1,026	0	1	0	0
8:15 AM	7	212	30	0	45	129	135	0	98	49	4	0	27	95	162	0	993	0	1	0	0
8:30 AM	8	167	17	0	95	162	131	0	80	73	15	0	23	105	134	0	1,010	0	0	0	0
8:45 AM	10	197	22	0	100	218	141	0	79	50	8	0	24	130	98	0	1,077	2	1	2	0
Total Survey	57	1,790	176	0	734	1,221	1,131	0	585	571	48	0	208	806	1,382	0	8,709	3	11	3	0

Peak Hour Summary
7:00 AM to 8:00 AM

By Approach	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	1,094	679	1,773	0	1,585	2,057	3,642	0	618	1,012	1,630	0	1,306	855	2,161	0	4,603
%HV	4.8%				5.4%				7.6%				3.6%				5.0%
PHF	0.90				0.82				0.76				0.88				0.95

Pedestrians Crosswalk			
North	South	East	West
1	8	1	0

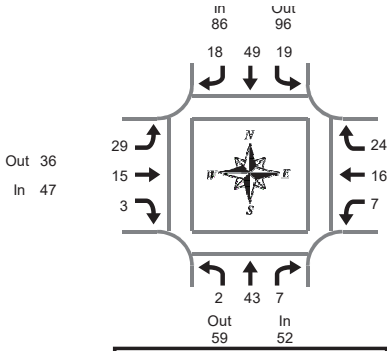
By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	24	994	76	1,094	432	568	585	1,585	256	347	15	618	96	403	807	1,306	4,603
%HV	8.3%	4.3%	9.2%	4.8%	4.4%	8.6%	3.1%	5.4%	11.3%	4.3%	20.0%	7.6%	7.3%	4.0%	3.0%	3.6%	5.0%
PHF	0.67	0.90	0.83	0.90	0.84	0.79	0.80	0.82	0.90	0.65	0.38	0.76	0.65	0.80	0.92	0.88	0.95

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek 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
7:00 AM	24	994	76	0	432	568	585	0	256	347	15	0	96	403	807	0	4,603	1	8	1	0
7:15 AM	25	939	84	0	412	613	609	0	261	328	19	0	112	392	775	0	4,569	0	8	1	0
7:30 AM	27	903	103	0	328	596	598	0	307	251	22	0	116	396	737	0	4,384	0	7	0	0
7:45 AM	28	822	101	0	323	615	587	0	316	225	29	0	108	392	653	0	4,199	0	4	0	0
8:00 AM	33	796	100	0	302	653	546	0	329	224	33	0	112	403	575	0	4,106	2	3	2	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:00 AM to 8:00 AM

Hwy 213 & Beavercreek Rd

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	1	8	3	12	0	2	0	2	1	6	0	7	2	1	6	9	30
7:05 AM	0	4	1	5	1	3	1	5	0	3	0	3	1	3	2	6	19
7:10 AM	0	4	0	4	2	8	0	10	1	1	0	2	0	0	2	2	18
7:15 AM	0	3	0	3	4	5	1	10	1	1	0	2	1	5	2	8	23
7:20 AM	0	2	1	3	1	2	2	5	1	0	0	1	1	1	3	5	14
7:25 AM	0	0	0	0	1	4	2	7	1	2	0	3	0	3	1	4	14
7:30 AM	0	2	0	2	3	2	1	6	5	0	0	5	0	0	2	2	15
7:35 AM	1	3	0	4	4	3	1	8	4	1	0	5	1	1	0	2	19
7:40 AM	0	2	0	2	1	7	2	10	5	0	1	6	0	0	1	1	19
7:45 AM	0	5	0	5	1	5	2	8	4	0	1	5	1	1	1	3	21
7:50 AM	0	3	1	4	0	2	1	3	6	0	1	7	0	1	2	3	17
7:55 AM	0	7	1	8	1	6	5	12	0	1	0	1	0	0	2	2	23
8:00 AM	0	4	0	4	2	4	3	9	2	0	0	2	0	0	3	3	18
8:05 AM	1	4	0	5	3	4	1	8	1	0	1	2	0	2	3	5	20
8:10 AM	1	4	0	5	1	7	4	12	2	0	1	3	0	2	2	4	24
8:15 AM	0	4	0	4	1	2	2	5	2	2	0	4	1	1	1	3	16
8:20 AM	1	2	2	5	1	11	1	13	4	1	0	5	0	0	2	2	25
8:25 AM	0	4	0	4	0	7	1	8	5	2	0	7	0	1	0	1	20
8:30 AM	1	4	0	5	1	5	4	10	4	2	0	6	0	0	1	1	22
8:35 AM	1	6	0	7	1	1	1	3	0	5	0	5	0	2	1	3	18
8:40 AM	0	1	0	1	0	9	2	11	5	6	1	12	0	1	1	2	26
8:45 AM	0	5	1	6	2	2	0	4	3	3	0	6	0	3	2	5	21
8:50 AM	0	3	0	3	1	9	2	12	3	1	0	4	0	1	1	2	21
8:55 AM	0	3	0	3	2	6	1	9	1	0	1	2	0	2	2	4	18
Total Survey	7	87	10	104	34	116	40	190	61	37	7	105	8	31	43	82	481

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	1	16	4	21	3	13	1	17	2	10	0	12	3	4	10	17	67
7:15 AM	0	5	1	6	6	11	5	22	3	3	0	6	2	9	6	17	51
7:30 AM	1	7	0	8	8	12	4	24	14	1	1	16	1	1	3	5	53
7:45 AM	0	15	2	17	2	13	8	23	10	1	2	13	1	2	5	8	61
8:00 AM	2	12	0	14	6	15	8	29	5	0	2	7	0	4	8	12	62
8:15 AM	1	10	2	13	2	20	4	26	11	5	0	16	1	2	3	6	61
8:30 AM	2	11	0	13	2	15	7	24	9	13	1	23	0	3	3	6	66
8:45 AM	0	11	1	12	5	17	3	25	7	4	1	12	0	6	5	11	60
Total Survey	7	87	10	104	34	116	40	190	61	37	7	105	8	31	43	82	481

Heavy Vehicle Peak Hour Summary
7:00 AM to 8:00 AM

By Approach	Northbound Hwy 213			Southbound Hwy 213			Eastbound Beavercreek Rd			Westbound Beavercreek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	52	59	111	86	96	182	47	36	83	47	41	88	232
PHF	0.62			0.83			0.65			0.69			0.87

By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	43	7	52	19	49	18	86	29	15	3	47	7	16	24	47	232
PHF	0.50	0.67	0.44	0.62	0.59	0.77	0.56	0.83	0.48	0.38	0.25	0.65	0.58	0.44	0.60	0.69	0.87

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	2	43	7	52	19	49	18	86	29	15	3	47	7	16	24	47	232
7:15 AM	3	39	3	45	22	51	25	98	32	5	5	42	4	16	22	42	227
7:30 AM	4	44	4	52	18	60	24	102	40	7	5	52	3	9	19	31	237
7:45 AM	5	48	4	57	12	63	27	102	35	19	5	59	2	11	19	32	250
8:00 AM	5	44	3	52	15	67	22	104	32	22	4	58	1	15	19	35	249

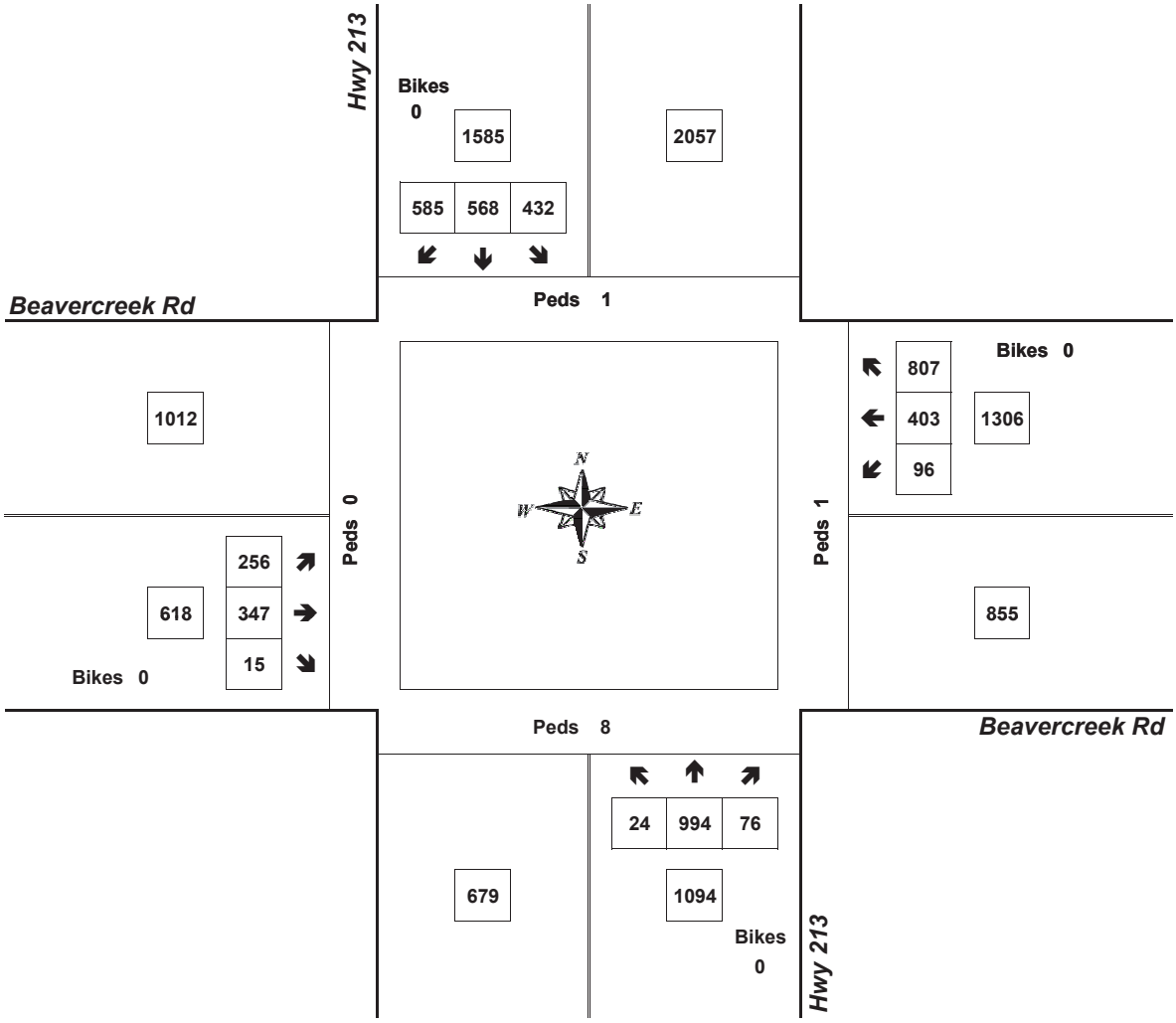
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Hwy 213 & Beavercreek Rd

7:00 AM to 8:00 AM
Tuesday, April 12, 2016

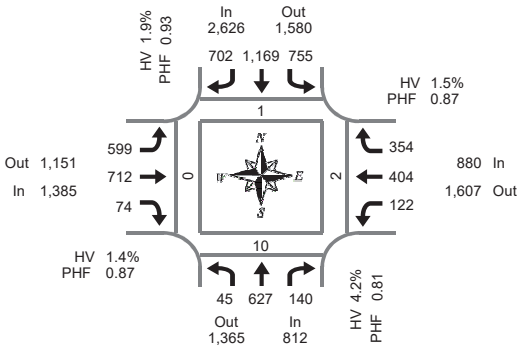


Approach	PHF	HV%	Volume
EB	0.76	7.6%	618
WB	0.88	3.6%	1,306
NB	0.90	4.8%	1,094
SB	0.82	5.4%	1,585
Intersection	0.95	5.0%	4,603

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
4:25 PM to 5:25 PM

Hwy 213 & Beavercreek Rd

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek 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	1	69	14	0	63	102	56	0	47	47	5	0	3	34	37	0	478	0	0	0	0
4:05 PM	3	43	16	0	66	88	62	1	53	66	8	0	7	38	30	0	480	0	1	0	0
4:10 PM	3	76	10	0	46	91	48	0	55	55	6	2	11	30	23	0	454	0	0	0	0
4:15 PM	4	52	10	0	53	90	85	0	49	47	4	0	10	36	37	0	477	0	2	0	0
4:20 PM	6	54	11	0	52	94	54	0	43	34	7	0	13	32	31	0	431	0	1	0	1
4:25 PM	8	52	12	0	70	107	69	0	49	47	1	0	9	30	23	0	477	0	1	0	0
4:30 PM	1	57	11	0	71	81	71	0	45	56	10	0	8	34	29	0	474	0	0	0	0
4:35 PM	4	60	9	0	67	106	59	0	45	45	6	0	12	34	34	0	481	0	1	0	0
4:40 PM	4	53	9	0	83	99	68	0	59	70	6	0	11	28	27	0	517	0	3	0	0
4:45 PM	5	52	5	0	30	92	55	0	47	58	9	0	10	41	25	0	429	0	2	0	0
4:50 PM	4	67	12	0	65	95	53	0	37	63	7	0	7	37	24	0	471	0	0	0	0
4:55 PM	3	71	13	0	59	86	55	0	41	65	6	0	12	34	27	0	472	0	0	0	0
5:00 PM	5	57	20	0	75	81	51	0	49	38	4	0	13	32	36	0	461	0	0	0	0
5:05 PM	1	46	15	0	65	99	50	0	64	59	3	0	5	18	27	0	452	1	1	1	0
5:10 PM	5	38	8	0	64	94	54	0	69	71	9	0	21	39	34	0	506	0	0	0	0
5:15 PM	1	37	11	0	54	118	62	0	48	60	6	0	7	35	32	0	471	0	1	0	0
5:20 PM	4	37	15	0	52	111	55	0	46	80	7	0	7	42	36	0	492	0	1	1	0
5:25 PM	2	47	9	0	51	94	58	0	45	47	3	0	18	40	28	0	442	0	0	0	0
5:30 PM	2	33	9	0	66	101	56	0	64	64	8	0	13	38	33	0	487	0	0	0	0
5:35 PM	2	35	13	0	68	100	54	0	39	60	6	0	11	30	33	0	451	0	2	0	0
5:40 PM	2	38	6	0	68	92	56	0	59	67	8	0	10	38	33	0	477	1	1	0	0
5:45 PM	3	54	21	0	62	114	46	0	41	49	9	0	8	30	37	0	474	0	0	0	0
5:50 PM	3	30	20	0	75	77	41	0	25	57	7	0	14	36	32	0	417	1	2	0	2
5:55 PM	4	39	18	0	54	88	41	0	55	44	9	0	13	36	34	0	435	0	0	0	0
Total Survey	80	1,197	297	0	1,479	2,300	1,359	1	1,174	1,349	154	2	253	822	742	0	11,206	3	19	2	3

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek 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	188	40	0	175	281	166	1	155	168	19	2	21	102	90	0	1,412	0	1	0	0
4:15 PM	18	158	33	0	175	291	208	0	141	128	12	0	32	98	91	0	1,385	0	4	0	1
4:30 PM	9	170	29	0	221	286	198	0	149	171	22	0	31	96	90	0	1,472	0	4	0	0
4:45 PM	12	190	30	0	154	273	163	0	125	186	22	0	29	112	76	0	1,372	0	2	0	0
5:00 PM	11	141	43	0	204	274	155	0	182	168	16	0	39	89	97	0	1,419	1	1	1	0
5:15 PM	7	121	35	0	157	323	175	0	139	187	16	0	32	117	96	0	1,405	0	2	1	0
5:30 PM	6	106	28	0	202	293	166	0	162	191	22	0	34	106	99	0	1,415	1	3	0	0
5:45 PM	10	123	59	0	191	279	128	0	121	150	25	0	35	102	103	0	1,326	1	2	0	2
Total Survey	80	1,197	297	0	1,479	2,300	1,359	1	1,174	1,349	154	2	253	822	742	0	11,206	3	19	2	3

Peak Hour Summary
4:25 PM to 5:25 PM

By Approach	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	812	1,365	2,177	0	2,626	1,580	4,206	0	1,385	1,151	2,536	0	880	1,607	2,487	0	5,703
%HV	4.2%				1.9%				1.4%				1.5%				2.1%
PHF	0.81				0.93				0.87				0.87				0.97

Pedestrians Crosswalk			
North	South	East	West
1	10	2	0

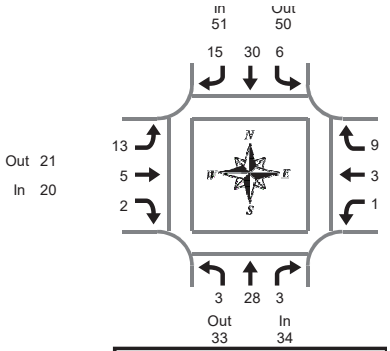
By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	45	627	140	812	755	1,169	702	2,626	599	712	74	1,385	122	404	354	880	5,703
%HV	6.7%	4.5%	2.1%	4.2%	0.8%	2.6%	2.1%	1.9%	2.2%	0.7%	2.7%	1.4%	0.8%	0.7%	2.5%	1.5%	2.1%
PHF	0.87	0.80	0.73	0.81	0.85	0.90	0.88	0.93	0.82	0.84	0.84	0.87	0.78	0.87	0.87	0.87	0.97

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek 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	46	706	132	0	725	1,131	735	1	570	653	75	2	113	408	347	0	5,641	0	11	0	1
4:15 PM	50	659	135	0	754	1,124	724	0	597	653	72	0	131	395	354	0	5,648	1	11	1	1
4:30 PM	39	622	137	0	736	1,156	691	0	595	712	76	0	131	414	359	0	5,668	1	9	2	0
4:45 PM	36	558	136	0	717	1,163	659	0	608	732	76	0	134	424	368	0	5,611	2	8	2	0
5:00 PM	34	491	165	0	754	1,169	624	0	604	696	79	0	140	414	395	0	5,565	3	8	2	2

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Hwy 213 & Beavercreek Rd

Tuesday, April 12, 2016
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 Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	2	0	2	1	5	0	6	2	1	0	3	0	1	0	1	12
4:05 PM	0	2	4	6	1	3	4	8	1	5	0	6	0	2	2	4	24
4:10 PM	0	2	1	3	0	1	1	2	2	1	0	3	0	0	0	0	8
4:15 PM	1	2	0	3	0	4	2	6	1	0	1	2	0	0	1	1	12
4:20 PM	0	4	0	4	2	3	4	9	0	1	0	1	0	1	1	2	16
4:25 PM	0	3	2	5	2	3	1	6	0	1	0	1	0	1	1	2	14
4:30 PM	0	4	0	4	2	3	3	8	2	0	0	2	0	0	0	0	14
4:35 PM	0	2	0	2	0	1	2	3	1	0	1	2	0	0	1	1	8
4:40 PM	0	1	1	2	0	4	2	6	3	1	0	4	0	0	1	1	13
4:45 PM	1	2	0	3	0	4	1	5	0	0	0	0	1	0	0	1	9
4:50 PM	0	4	0	4	0	3	2	5	0	0	0	0	0	1	1	2	11
4:55 PM	0	2	0	2	0	4	0	4	2	1	1	4	0	0	0	0	10
5:00 PM	0	1	0	1	0	2	1	3	1	0	0	1	0	0	1	1	6
5:05 PM	1	3	0	4	0	1	0	1	1	0	0	1	0	0	0	0	6
5:10 PM	0	3	0	3	1	1	2	4	1	0	0	1	0	0	2	2	10
5:15 PM	0	1	0	1	1	3	1	5	2	1	0	3	0	0	1	1	10
5:20 PM	1	2	0	3	0	1	0	1	0	1	0	1	0	1	1	2	7
5:25 PM	0	3	0	3	1	6	2	9	0	1	0	1	0	0	0	0	13
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	2	3
5:35 PM	0	3	0	3	0	0	0	0	0	0	1	1	0	0	2	2	6
5:40 PM	0	2	0	2	0	1	1	2	3	0	1	4	0	0	0	0	8
5:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	1	1	3
5:50 PM	0	1	0	1	0	1	2	3	1	0	0	1	0	0	0	0	5
5:55 PM	0	3	0	3	1	2	0	3	0	0	0	0	0	0	0	0	6
Total Survey	4	54	8	66	12	57	31	100	23	14	5	42	1	8	17	26	234

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	6	5	11	2	9	5	16	5	7	0	12	0	3	2	5	44
4:15 PM	1	9	2	12	4	10	7	21	1	2	1	4	0	2	3	5	42
4:30 PM	0	7	1	8	2	8	7	17	6	1	1	8	0	0	2	2	35
4:45 PM	1	8	0	9	0	11	3	14	2	1	1	4	1	1	1	3	30
5:00 PM	1	7	0	8	1	4	3	8	3	0	0	3	0	0	3	3	22
5:15 PM	1	6	0	7	2	10	3	15	2	3	0	5	0	1	2	3	30
5:30 PM	0	6	0	6	0	1	1	2	3	0	2	5	0	1	3	4	17
5:45 PM	0	5	0	5	1	4	2	7	1	0	0	1	0	0	1	1	14
Total Survey	4	54	8	66	12	57	31	100	23	14	5	42	1	8	17	26	234

Heavy Vehicle Peak Hour Summary
4:25 PM to 5:25 PM

By Approach	Northbound Hwy 213			Southbound Hwy 213			Eastbound Beavercreek Rd			Westbound Beavercreek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	34	33	67	51	50	101	20	21	41	13	14	27	118
PHF	0.77			0.75			0.63			0.65			0.82

By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	28	3	34	6	30	15	51	13	5	2	20	1	3	9	13	118
PHF	0.75	0.78	0.38	0.77	0.38	0.68	0.54	0.75	0.54	0.63	0.50	0.63	0.25	0.75	0.56	0.65	0.82

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	2	30	8	40	8	38	22	68	14	11	3	28	1	6	8	15	151
4:15 PM	3	31	3	37	7	33	20	60	12	4	3	19	1	3	9	13	129
4:30 PM	3	28	1	32	5	33	16	54	13	5	2	20	1	2	8	11	117
4:45 PM	3	27	0	30	3	26	10	39	10	4	3	17	1	3	9	13	99
5:00 PM	2	24	0	26	4	19	9	32	9	3	2	14	0	2	9	11	83

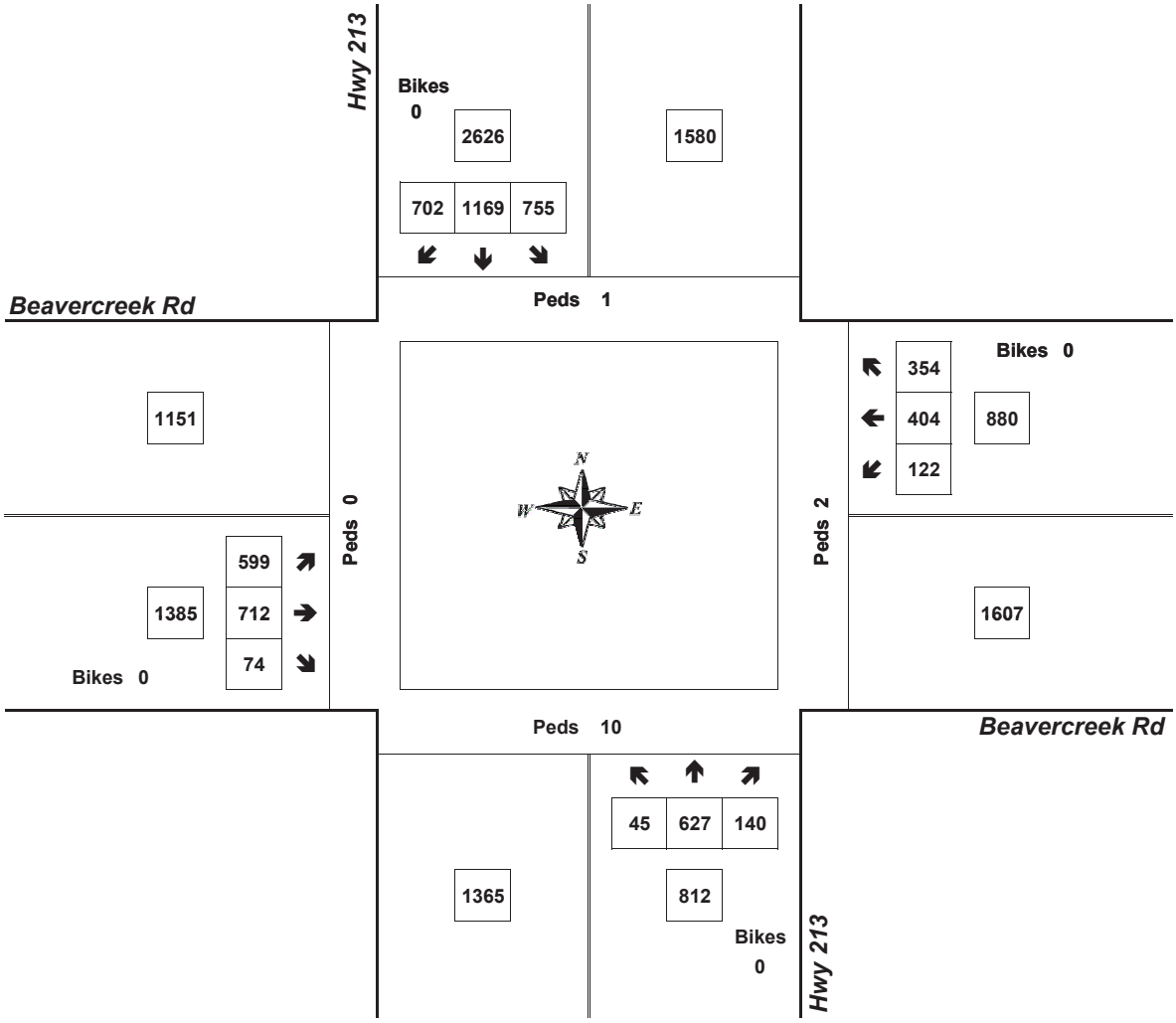
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Hwy 213 & Beavercreek Rd

4:25 PM to 5:25 PM
Tuesday, April 12, 2016

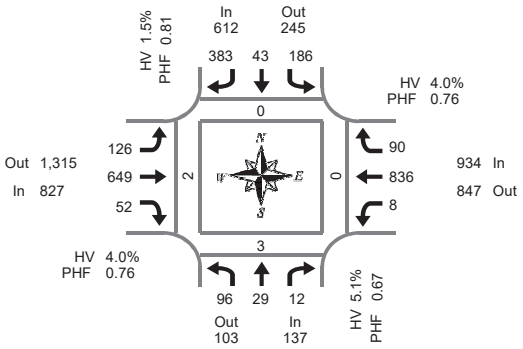


Approach	PHF	HV%	Volume
EB	0.87	1.4%	1,385
WB	0.87	1.5%	880
NB	0.81	4.2%	812
SB	0.93	1.9%	2,626
Intersection	0.97	2.1%	5,703

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:05 AM to 8:05 AM

Maple Lane Rd & Beavercreek Rd

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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
7:00 AM	6	0	0	0	6	4	29	0	7	35	1	0	0	62	6	0	156	0	0	0	0
7:05 AM	11	0	1	0	12	4	36	0	10	40	5	0	0	55	7	0	181	0	0	0	0
7:10 AM	15	4	0	0	14	4	28	0	5	50	6	0	1	61	1	0	189	0	0	0	0
7:15 AM	12	3	5	0	17	4	23	0	8	65	5	0	1	70	10	0	223	0	0	0	0
7:20 AM	5	1	0	0	28	7	32	0	10	72	5	0	1	80	8	0	249	0	0	0	0
7:25 AM	8	1	1	0	34	4	33	0	8	80	3	0	2	63	5	0	242	0	1	0	1
7:30 AM	3	2	1	0	17	2	31	0	7	82	4	0	1	97	15	0	262	0	0	0	0
7:35 AM	8	1	0	0	9	4	32	0	9	49	5	0	1	89	13	0	220	0	0	0	0
7:40 AM	5	1	1	0	18	2	38	0	9	46	1	0	0	80	13	0	214	0	1	0	0
7:45 AM	10	3	1	0	7	2	33	0	13	55	3	0	0	84	6	0	217	0	0	0	0
7:50 AM	9	6	0	0	10	2	37	0	10	40	4	0	0	50	8	0	176	0	0	0	0
7:55 AM	7	2	2	0	12	7	22	0	15	47	3	0	0	48	4	0	169	0	1	0	1
8:00 AM	3	5	0	0	8	1	38	0	22	23	8	0	1	59	0	0	168	0	0	0	0
8:05 AM	10	0	0	0	8	4	25	0	15	27	6	0	1	69	5	0	170	0	0	1	0
8:10 AM	9	3	1	0	5	0	25	0	15	22	4	0	2	74	5	0	165	0	0	0	0
8:15 AM	10	5	0	0	5	5	20	0	12	20	4	0	0	49	9	0	139	0	0	0	0
8:20 AM	20	0	1	0	5	2	25	0	15	27	9	0	1	56	7	0	168	0	0	0	1
8:25 AM	14	2	0	0	4	3	18	0	10	21	5	0	0	55	15	0	147	0	0	0	0
8:30 AM	8	1	0	0	13	3	34	0	15	33	5	0	1	35	5	0	153	0	0	0	0
8:35 AM	6	5	0	0	10	4	34	0	21	27	6	0	0	50	8	0	171	0	0	1	0
8:40 AM	11	4	2	0	14	6	33	0	19	32	4	0	0	51	9	0	185	0	0	2	0
8:45 AM	8	1	1	0	18	3	43	0	17	56	2	0	2	58	4	0	213	0	0	0	0
8:50 AM	8	3	3	0	16	5	36	0	16	44	4	0	1	29	7	0	172	0	0	0	0
8:55 AM	11	2	3	0	7	3	24	0	5	43	6	0	1	57	5	0	167	0	0	0	0
Total Survey	217	55	23	0	297	85	729	0	293	1,036	108	0	17	1,481	175	0	4,516	0	3	4	3

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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
7:00 AM	32	4	1	0	32	12	93	0	22	125	12	0	1	178	14	0	526	0	0	0	0
7:15 AM	25	5	6	0	79	15	88	0	26	217	13	0	4	213	23	0	714	0	1	0	1
7:30 AM	16	4	2	0	44	8	101	0	25	177	10	0	2	266	41	0	696	0	1	0	0
7:45 AM	26	11	3	0	29	11	92	0	38	142	10	0	0	182	18	0	562	0	1	0	1
8:00 AM	22	8	1	0	21	5	88	0	52	72	18	0	4	202	10	0	503	0	0	1	0
8:15 AM	44	7	1	0	14	10	63	0	37	68	18	0	1	160	31	0	454	0	0	0	1
8:30 AM	25	10	2	0	37	13	101	0	55	92	15	0	1	136	22	0	509	0	0	3	0
8:45 AM	27	6	7	0	41	11	103	0	38	143	12	0	4	144	16	0	552	0	0	0	0
Total Survey	217	55	23	0	297	85	729	0	293	1,036	108	0	17	1,481	175	0	4,516	0	3	4	3

Peak Hour Summary
7:05 AM to 8:05 AM

By Approach	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	137	103	240	0	612	245	857	0	827	1,315	2,142	0	934	847	1,781	0	2,510
%HV	5.1%				1.5%				4.0%				4.0%				3.4%
PHF	0.67				0.81				0.76				0.76				0.83

Pedestrians Crosswalk			
North	South	East	West
0	3	0	2

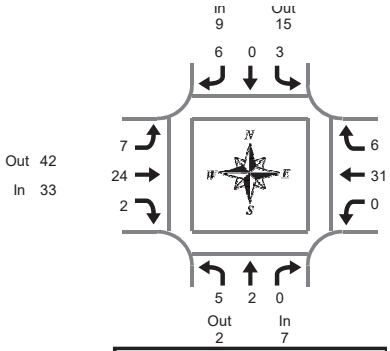
By Movement	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	96	29	12	137	186	43	383	612	126	649	52	827	8	836	90	934	2,510
%HV	5.2%	6.9%	0.0%	5.1%	1.6%	0.0%	1.6%	1.5%	5.6%	3.7%	3.8%	4.0%	0.0%	3.7%	6.7%	4.0%	3.4%
PHF	0.63	0.56	0.50	0.67	0.59	0.72	0.89	0.81	0.67	0.69	0.81	0.76	0.50	0.79	0.55	0.76	0.83

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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
7:00 AM	99	24	12	0	184	46	374	0	111	661	45	0	7	839	96	0	2,498	0	3	0	2
7:15 AM	89	28	12	0	173	39	369	0	141	608	51	0	10	863	92	0	2,475	0	3	1	2
7:30 AM	108	30	7	0	108	34	344	0	152	459	56	0	7	810	100	0	2,215	0	2	1	2
7:45 AM	117	36	7	0	101	39	344	0	182	374	61	0	6	680	81	0	2,028	0	1	4	2
8:00 AM	118	31	11	0	113	39	355	0	182	375	63	0	10	642	79	0	2,018	0	0	4	1

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Maple Lane Rd & Beavercreek Rd

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

Peak Hour Summary
7:05 AM to 8:05 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	2	0	3	5	0	9	0	9	0	2	1	3	17
7:05 AM	0	0	0	0	0	0	1	1	0	6	0	6	0	4	2	6	13
7:10 AM	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
7:15 AM	1	0	0	1	0	0	0	0	0	4	0	4	0	9	1	10	15
7:20 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	4	1	5	8
7:25 AM	1	0	0	1	1	0	1	2	0	3	0	3	0	2	1	3	9
7:30 AM	0	1	0	1	0	0	2	2	1	1	0	2	0	1	0	1	6
7:35 AM	1	0	0	1	0	0	0	0	0	5	1	6	0	0	0	0	7
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:45 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	1	0	1	3
7:50 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	4	1	5	6
7:55 AM	0	1	0	1	1	0	0	1	2	1	0	3	0	1	0	1	6
8:00 AM	0	0	0	0	1	0	0	1	3	1	1	5	0	3	0	3	9
8:05 AM	1	0	0	1	1	0	1	2	2	2	0	4	0	3	0	3	10
8:10 AM	0	0	0	0	0	0	1	1	1	0	0	1	0	2	0	2	4
8:15 AM	0	0	0	0	0	0	1	1	0	2	0	2	0	1	2	3	6
8:20 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	2	2	4	6
8:25 AM	0	0	0	0	1	0	0	1	3	0	0	3	0	2	3	5	9
8:30 AM	0	0	0	0	0	0	0	0	4	1	1	6	0	1	1	2	8
8:35 AM	0	1	0	1	0	0	2	2	6	0	0	6	0	1	1	2	11
8:40 AM	0	0	0	0	0	0	0	0	5	1	0	6	0	3	1	4	10
8:45 AM	1	0	0	1	0	0	1	1	4	0	1	5	0	6	1	7	14
8:50 AM	0	0	0	0	1	0	1	2	1	1	0	2	0	1	1	2	6
8:55 AM	1	1	0	2	1	0	0	1	0	1	0	1	0	1	0	1	5
Total Survey	8	4	0	12	9	0	16	25	34	42	4	80	0	56	19	75	192

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	1	0	0	1	2	0	5	7	0	15	0	15	0	6	3	9	32
7:15 AM	2	0	0	2	1	0	1	2	1	9	0	10	0	15	3	18	32
7:30 AM	1	1	0	2	0	0	2	2	1	6	1	8	0	3	0	3	15
7:45 AM	1	1	0	2	1	0	1	2	2	2	0	4	0	6	1	7	15
8:00 AM	1	0	0	1	2	0	2	4	6	3	1	10	0	8	0	8	23
8:15 AM	0	0	0	0	1	0	1	2	4	3	0	7	0	5	7	12	21
8:30 AM	0	1	0	1	0	0	2	2	15	2	1	18	0	5	3	8	29
8:45 AM	2	1	0	3	2	0	2	4	5	2	1	8	0	8	2	10	25
Total Survey	8	4	0	12	9	0	16	25	34	42	4	80	0	56	19	75	192

Heavy Vehicle Peak Hour Summary
7:05 AM to 8:05 AM

By Approach	Northbound Maple Lane Rd			Southbound Maple Lane Rd			Eastbound Beavercreek Rd			Westbound Beavercreek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	7	2	9	9	15	24	33	42	75	37	27	64	86
PHF	0.58			0.56			0.75			0.51			0.67

By Movement	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	5	2	0	7	3	0	6	9	7	24	2	33	0	31	6	37	86
PHF	0.63	0.50	0.00	0.58	0.38	0.00	0.50	0.56	0.35	0.60	0.50	0.75	0.00	0.52	0.50	0.51	0.67

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	5	2	0	7	4	0	9	13	4	32	1	37	0	30	7	37	94
7:15 AM	5	2	0	7	4	0	6	10	10	20	2	32	0	32	4	36	85
7:30 AM	3	2	0	5	4	0	6	10	13	14	2	29	0	22	8	30	74
7:45 AM	2	2	0	4	4	0	6	10	27	10	2	39	0	24	11	35	88
8:00 AM	3	2	0	5	5	0	7	12	30	10	3	43	0	26	12	38	98

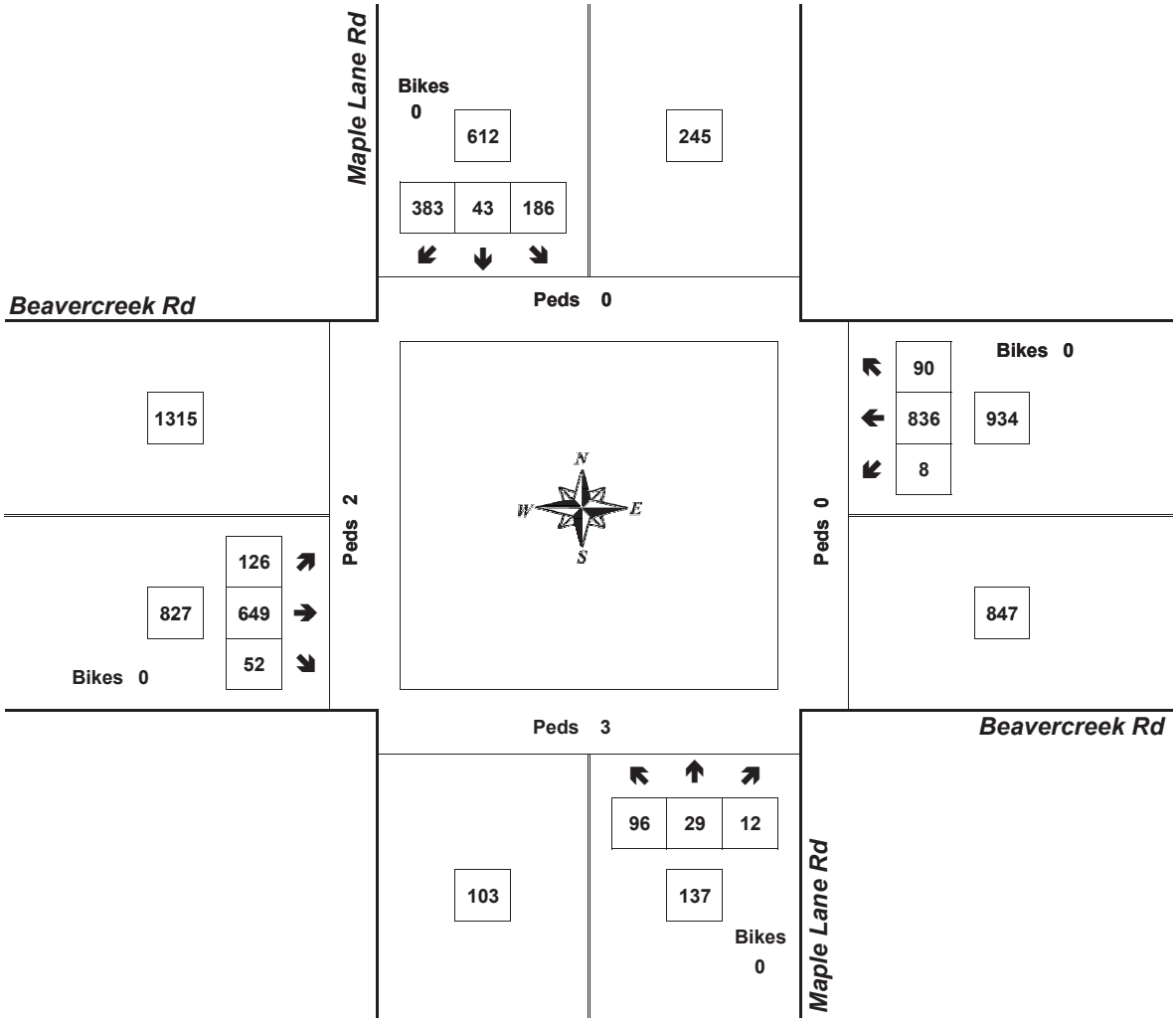
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Maple Lane Rd & Beavercreek Rd

7:05 AM to 8:05 AM
Tuesday, April 12, 2016

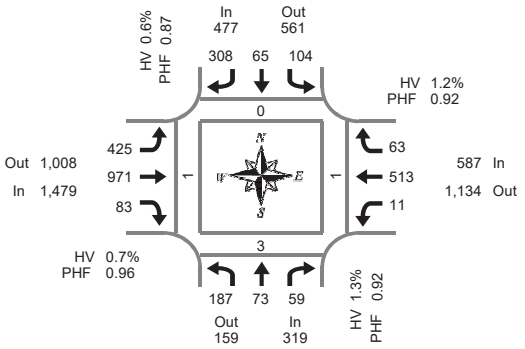


Approach	PHF	HV%	Volume
EB	0.76	4.0%	827
WB	0.76	4.0%	934
NB	0.67	5.1%	137
SB	0.81	1.5%	612
Intersection	0.83	3.4%	2,510

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
5:00 PM to 6:00 PM

Maple Lane Rd & Beavercreek Rd

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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	14	5	2	0	5	3	25	0	40	73	9	0	1	45	7	0	229	0	0	0	0
4:05 PM	16	12	3	0	9	3	21	1	38	70	8	0	0	39	2	0	221	0	0	0	0
4:10 PM	13	4	3	0	4	2	22	0	37	67	5	2	1	27	6	0	191	0	0	0	0
4:15 PM	15	2	3	0	5	1	19	0	39	57	3	0	0	43	9	0	196	0	0	0	0
4:20 PM	9	4	4	0	9	5	27	0	33	57	6	0	0	37	4	0	195	0	0	0	0
4:25 PM	8	3	2	1	4	9	21	0	32	73	10	0	2	42	6	0	212	0	0	0	0
4:30 PM	16	9	2	0	5	0	19	0	41	51	7	0	1	41	4	0	196	0	0	0	0
4:35 PM	18	5	4	0	4	5	23	0	29	77	8	0	3	43	9	0	228	0	0	0	0
4:40 PM	10	7	2	0	4	2	24	0	40	96	10	0	2	36	3	0	236	0	0	0	0
4:45 PM	12	8	7	0	6	5	30	0	32	74	7	0	0	35	10	1	226	0	1	1	0
4:50 PM	3	6	6	0	2	3	24	0	34	67	13	0	1	41	10	0	210	0	0	0	0
4:55 PM	13	7	4	0	6	5	26	0	47	70	5	0	1	39	5	0	228	0	0	3	0
5:00 PM	16	6	6	0	7	8	25	0	37	77	7	0	2	46	7	0	244	0	0	0	0
5:05 PM	20	4	6	0	9	3	31	0	32	91	7	0	1	36	2	0	242	0	1	1	0
5:10 PM	13	10	6	0	14	10	25	0	39	62	5	0	1	41	3	0	229	0	1	0	0
5:15 PM	17	4	3	0	9	4	32	0	44	93	4	0	2	35	9	0	256	0	1	0	0
5:20 PM	17	5	3	0	7	7	16	0	32	74	8	0	1	47	4	0	221	0	0	0	0
5:25 PM	9	6	8	0	5	2	35	0	35	80	9	0	1	48	7	0	245	0	0	0	0
5:30 PM	18	8	3	0	3	2	27	0	22	78	7	0	1	36	4	0	209	0	0	0	0
5:35 PM	10	7	2	0	9	6	29	0	40	93	7	0	1	42	4	0	250	0	0	0	0
5:40 PM	22	6	2	0	15	3	17	0	28	83	7	0	0	42	5	0	230	0	0	0	0
5:45 PM	14	6	4	0	7	9	18	0	34	79	5	0	0	52	2	0	230	0	0	0	1
5:50 PM	11	5	5	0	7	6	28	0	54	85	9	0	1	34	4	0	249	0	0	0	0
5:55 PM	20	6	11	0	12	5	25	0	28	76	8	0	0	54	12	0	257	0	0	0	0
Total Survey	334	145	101	1	167	108	589	1	867	1,803	174	2	23	981	138	1	5,430	0	4	5	1

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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	43	21	8	0	18	8	68	1	115	210	22	2	2	111	15	0	641	0	0	0	0
4:15 PM	32	9	9	1	18	15	67	0	104	187	19	0	2	122	19	0	603	0	0	0	0
4:30 PM	44	21	8	0	13	7	66	0	110	224	25	0	6	120	16	0	660	0	0	0	0
4:45 PM	28	21	17	0	14	13	80	0	113	211	25	0	2	115	25	1	664	0	1	4	0
5:00 PM	49	20	18	0	30	21	81	0	108	230	19	0	4	123	12	0	715	0	2	1	0
5:15 PM	43	15	14	0	21	13	83	0	111	247	21	0	4	130	20	0	722	0	1	0	0
5:30 PM	50	21	7	0	27	11	73	0	90	254	21	0	2	120	13	0	689	0	0	0	0
5:45 PM	45	17	20	0	26	20	71	0	116	240	22	0	1	140	18	0	736	0	0	0	1
Total Survey	334	145	101	1	167	108	589	1	867	1,803	174	2	23	981	138	1	5,430	0	4	5	1

Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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	319	159	478	0	477	561	1,038	0	1,479	1,008	2,487	0	587	1,134	1,721	0	2,862	0	3	1	1
%HV	1.3%				0.6%				0.7%				1.2%				0.8%				
PHF	0.92				0.87				0.96				0.92				0.97				

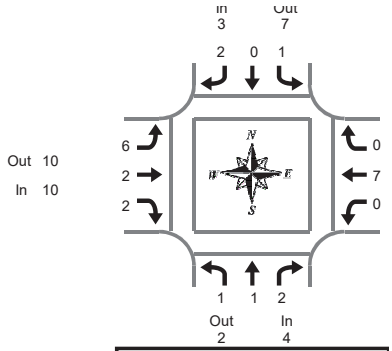
By Movement	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	187	73	59	319	104	65	308	477	425	971	83	1,479	11	513	63	587	2,862
%HV	0.5%	1.4%	3.4%	1.3%	1.0%	0.0%	0.6%	0.6%	1.4%	0.2%	2.4%	0.7%	0.0%	1.4%	0.0%	1.2%	0.8%
PHF	0.94	0.87	0.74	0.92	0.81	0.77	0.85	0.87	0.92	0.95	0.86	0.96	0.69	0.92	0.79	0.92	0.97

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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	147	72	42	1	63	43	281	1	442	832	91	2	12	468	75	1	2,568	0	1	4	0
4:15 PM	153	71	52	1	75	56	294	0	435	852	88	0	14	480	72	1	2,642	0	3	5	0
4:30 PM	164	77	57	0	78	54	310	0	442	912	90	0	16	488	73	1	2,761	0	4	5	0
4:45 PM	170	77	56	0	92	58	317	0	422	942	86	0	12	488	70	1	2,790	0	4	5	0
5:00 PM	187	73	59	0	104	65	308	0	425	971	83	0	11	513	63	0	2,862	0	3	1	1

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Maple Lane Rd & Beavercreek Rd

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

Peak Hour Summary
5:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek 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	1	1	1	2	0	3	0	0	2	2	6
4:05 PM	0	0	0	0	0	0	0	0	7	4	0	11	0	3	0	3	14
4:10 PM	0	1	0	1	1	0	0	1	1	0	1	2	1	0	2	3	7
4:15 PM	1	0	0	1	0	0	2	2	0	0	0	0	0	0	3	3	6
4:20 PM	0	0	0	0	0	1	0	1	2	2	0	4	0	2	2	4	9
4:25 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	1	1	2	6
4:30 PM	1	0	0	1	0	0	0	0	1	1	0	2	0	0	0	0	3
4:35 PM	1	0	1	2	0	0	0	0	1	0	0	1	0	0	4	4	7
4:40 PM	1	0	0	1	0	0	0	0	0	2	0	2	0	1	0	1	4
4:45 PM	0	0	0	0	0	0	1	1	1	1	0	2	0	0	1	1	4
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:05 PM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:10 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	1	1	2	0	0	2	0	0	0	0	3
5:20 PM	0	0	0	0	1	0	1	2	0	0	1	1	0	1	0	1	4
5:25 PM	0	0	0	0	0	0	0	0	1	0	1	2	0	1	0	1	3
5:30 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
5:55 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	1	3
Total Survey	5	2	3	10	2	1	6	9	25	14	3	42	1	14	15	30	91

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	1	0	1	1	0	1	2	9	6	1	16	1	3	4	8	27
4:15 PM	1	0	0	1	0	1	2	3	6	2	0	8	0	3	6	9	21
4:30 PM	3	0	1	4	0	0	0	0	2	3	0	5	0	1	4	5	14
4:45 PM	0	0	0	0	0	0	1	1	2	1	0	3	0	0	1	1	5
5:00 PM	0	0	2	2	0	0	0	0	1	0	0	1	0	1	0	1	4
5:15 PM	0	0	0	0	1	0	2	3	3	0	2	5	0	2	0	2	10
5:30 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	3	0	3	5
5:45 PM	0	0	0	0	0	0	0	0	2	2	0	4	0	1	0	1	5
Total Survey	5	2	3	10	2	1	6	9	25	14	3	42	1	14	15	30	91

Heavy Vehicle Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound Maple Lane Rd			Southbound Maple Lane Rd			Eastbound Beavercreek Rd			Westbound Beavercreek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	4	2	6	3	7	10	10	10	20	7	5	12	24
PHF	0.50			0.25			0.50			0.58			0.60

By Movement	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	1	2	4	1	0	2	3	6	2	2	10	0	7	0	7	24
PHF	0.25	0.25	0.25	0.50	0.25	0.00	0.25	0.25	0.50	0.25	0.25	0.50	0.00	0.58	0.00	0.58	0.60

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Maple Lane Rd				Southbound Maple Lane Rd				Eastbound Beavercreek Rd				Westbound Beavercreek Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	4	1	1	6	1	1	4	6	19	12	1	32	1	7	15	23	67
4:15 PM	4	0	3	7	0	1	3	4	11	6	0	17	0	5	11	16	44
4:30 PM	3	0	3	6	1	0	3	4	8	4	2	14	0	4	5	9	33
4:45 PM	1	1	2	4	1	0	3	4	6	1	2	9	0	6	1	7	24
5:00 PM	1	1	2	4	1	0	2	3	6	2	2	10	0	7	0	7	24

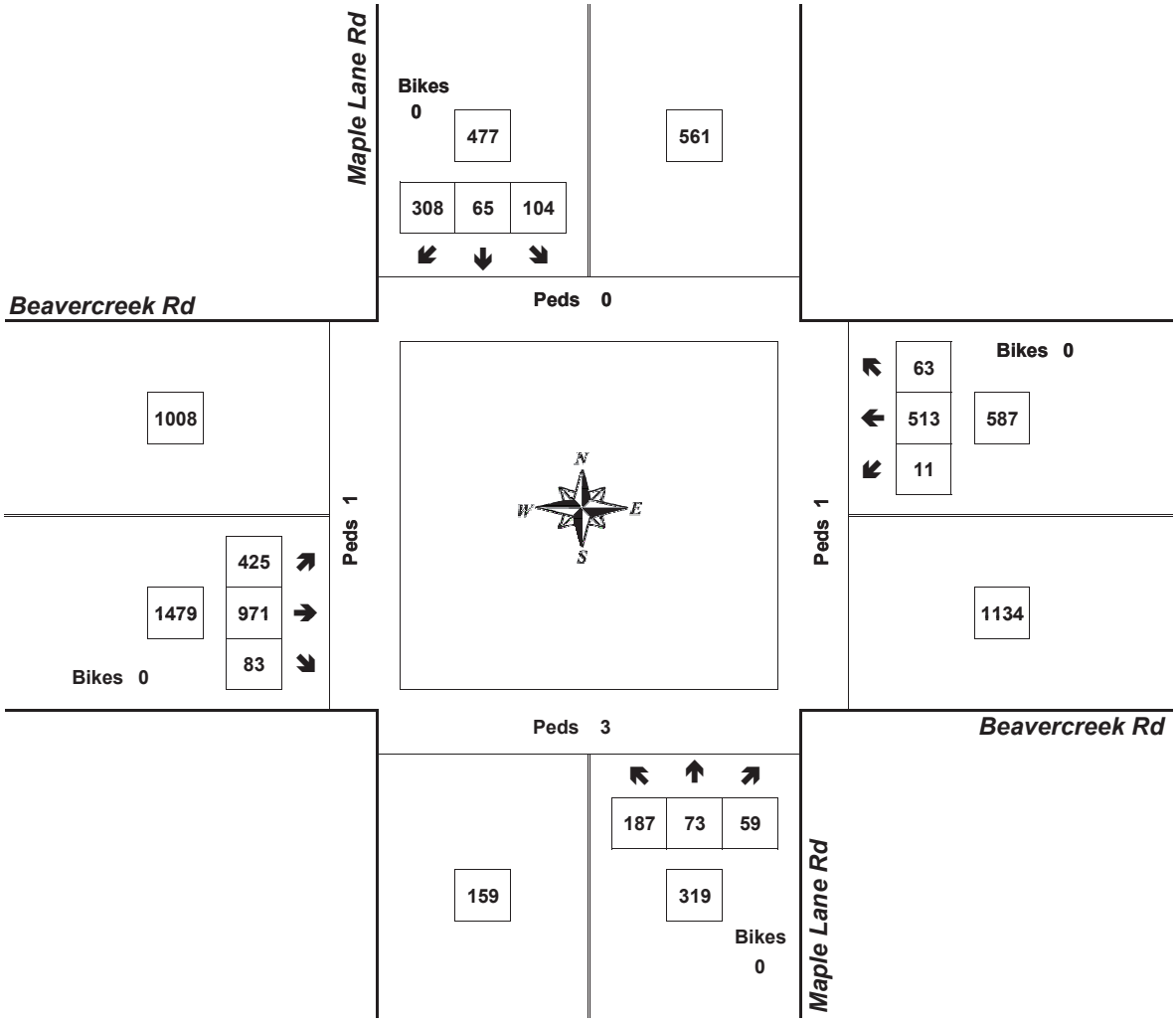
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Maple Lane Rd & Beavercreek Rd

5:00 PM to 6:00 PM
Tuesday, April 12, 2016

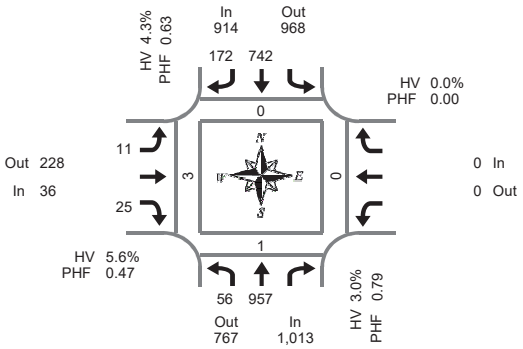


Approach	PHF	HV%	Volume
EB	0.96	0.7%	1,479
WB	0.92	1.2%	587
NB	0.92	1.3%	319
SB	0.87	0.6%	477
Intersection	0.97	0.8%	2,862

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:00 AM to 8:00 AM

Beavercreek Rd & Clairmont Dr

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
7:00 AM	4	66		0		40	2	0	0		2	0				0	114	0	0	0	0
7:05 AM	5	76		0		48	4	0	0		2	0				0	135	0	0	0	0
7:10 AM	2	85		0		55	2	0	1		1	0				0	146	0	0	0	0
7:15 AM	3	90		0		66	13	0	0		0	0				0	172	0	0	0	0
7:20 AM	0	82		0		108	4	0	2		4	0				0	200	0	1	0	2
7:25 AM	2	72		0		106	12	0	3		5	0				0	200	0	0	0	0
7:30 AM	5	101		0		119	12	0	0		2	0				0	239	0	0	0	0
7:35 AM	4	111		0		58	15	0	3		6	0				0	197	0	0	0	0
7:40 AM	9	90		0		37	18	0	2		2	0				0	158	0	0	0	1
7:45 AM	6	76		0		41	24	0	0		0	0				0	147	0	0	0	0
7:50 AM	7	60		0		36	33	0	0		1	0				0	137	0	0	0	0
7:55 AM	9	48		0		28	33	0	0		0	0				0	118	0	0	0	0
8:00 AM	6	59		0		13	18	0	0		1	0				0	97	0	0	0	0
8:05 AM	7	78		0		20	12	0	0		1	0				0	118	0	0	0	1
8:10 AM	2	56		0		15	12	0	0		2	0				0	87	0	0	0	0
8:15 AM	0	59		0		10	8	0	0		1	0				0	78	0	0	0	0
8:20 AM	2	64		0		15	8	0	0		1	0				0	90	0	0	0	0
8:25 AM	4	58		0		15	11	0	1		0	0				0	89	0	0	0	0
8:30 AM	1	37		0		23	18	0	2		0	0				0	81	0	0	0	0
8:35 AM	4	64		0		22	9	0	3		1	0				0	103	0	0	0	0
8:40 AM	3	57		0		35	21	0	2		0	0				0	118	0	0	0	0
8:45 AM	2	55		0		40	21	0	3		2	0				0	123	0	0	0	0
8:50 AM	2	37		0		46	24	0	2		1	0				0	112	0	0	0	0
8:55 AM	7	42		0		27	26	0	1		0	0				0	103	0	0	0	0
Total Survey	96	1,623		0		1,023	360	0	25		35	0				0	3,162	0	1	0	4

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
7:00 AM	11	227		0		143	8	0	1		5	0				0	395	0	0	0	0
7:15 AM	5	244		0		280	29	0	5		9	0				0	572	0	1	0	2
7:30 AM	18	302		0		214	45	0	5		10	0				0	594	0	0	0	1
7:45 AM	22	184		0		105	90	0	0		1	0				0	402	0	0	0	0
8:00 AM	15	193		0		48	42	0	0		4	0				0	302	0	0	0	1
8:15 AM	6	181		0		40	27	0	1		2	0				0	257	0	0	0	0
8:30 AM	8	158		0		80	48	0	7		1	0				0	302	0	0	0	0
8:45 AM	11	134		0		113	71	0	6		3	0				0	338	0	0	0	0
Total Survey	96	1,623		0		1,023	360	0	25		35	0				0	3,162	0	1	0	4

Peak Hour Summary
7:00 AM to 8:00 AM

By Approach	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	1,013	767	1,780	0	914	968	1,882	0	36	228	264	0	0	0	0	0	1,963
%HV	3.0%				4.3%				5.6%				0.0%				3.6%
PHF	0.79				0.63				0.47				0.00				0.77

Pedestrians Crosswalk			
North	South	East	West
0	1	0	3

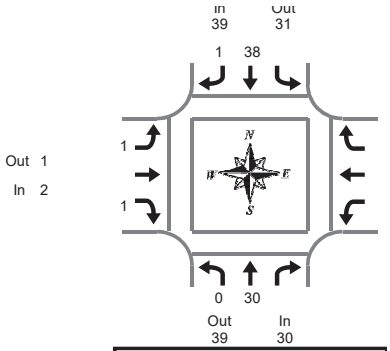
By Movement	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	56	957		1,013		742	172	914	11		25	36				0	1,963
%HV	0.0%	3.1%	NA	3.0%	NA	5.1%	0.6%	4.3%	9.1%	NA	4.0%	5.6%	NA	NA	NA	0.0%	3.6%
PHF	0.64	0.79		0.79		0.56	0.48	0.63	0.46		0.48	0.47				0.00	0.77

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
7:00 AM	56	957		0		742	172	0	11		25	0				0	1,963	0	1	0	3
7:15 AM	60	923		0		647	206	0	10		24	0				0	1,870	0	1	0	4
7:30 AM	61	860		0		407	204	0	6		17	0				0	1,555	0	0	0	2
7:45 AM	51	716		0		273	207	0	8		8	0				0	1,263	0	0	0	1
8:00 AM	40	666		0		281	188	0	14		10	0				0	1,199	0	0	0	1

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:00 AM to 8:00 AM

Beavercreek Rd & Clairmont Dr

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
7:00 AM	0	3		3	12	0	12	0		0	0				0	15
7:05 AM	0	5		5	5	0	5	0		0	0				0	10
7:10 AM	0	6		6	2	0	2	0		0	0				0	8
7:15 AM	0	5		5	3	0	3	0		0	0				0	8
7:20 AM	0	4		4	3	0	3	0		0	0				0	7
7:25 AM	0	0		0	3	0	3	1		1	2				0	5
7:30 AM	0	1		1	2	0	2	0		0	0				0	3
7:35 AM	0	0		0	4	1	5	0		0	0				0	5
7:40 AM	0	2		2	1	0	1	0		0	0				0	3
7:45 AM	0	0		0	1	0	1	0		0	0				0	1
7:50 AM	0	3		3	1	0	1	0		0	0				0	4
7:55 AM	0	1		1	1	0	1	0		0	0				0	2
8:00 AM	0	2		2	1	0	1	0		0	0				0	3
8:05 AM	0	2		2	1	0	1	0		0	0				0	3
8:10 AM	0	0		0	1	0	1	0		0	0				0	1
8:15 AM	0	1		1	1	0	1	0		0	0				0	2
8:20 AM	0	6		6	0	0	0	0		0	0				0	6
8:25 AM	0	1		1	1	0	1	0		0	0				0	2
8:30 AM	0	1		1	1	1	2	0		0	0				0	3
8:35 AM	0	4		4	0	0	0	1		0	1				0	5
8:40 AM	0	3		3	1	0	1	0		0	0				0	4
8:45 AM	0	2		2	0	0	0	0		0	0				0	2
8:50 AM	0	1		1	1	0	1	0		0	0				0	2
8:55 AM	0	0		0	2	0	2	0		0	0				0	2
Total Survey	0	53		53	48	2	50	2		1	3				0	106

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
7:00 AM	0	14		14	19	0	19	0		0	0				0	33
7:15 AM	0	9		9	9	0	9	1		1	2				0	20
7:30 AM	0	3		3	7	1	8	0		0	0				0	11
7:45 AM	0	4		4	3	0	3	0		0	0				0	7
8:00 AM	0	4		4	3	0	3	0		0	0				0	7
8:15 AM	0	8		8	2	0	2	0		0	0				0	10
8:30 AM	0	8		8	2	1	3	1		0	1				0	12
8:45 AM	0	3		3	3	0	3	0		0	0				0	6
Total Survey	0	53		53	48	2	50	2		1	3				0	106

Heavy Vehicle Peak Hour Summary
7:00 AM to 8:00 AM

By Approach	Northbound Beavercreek Rd			Southbound Beavercreek Rd			Eastbound Clairmont Dr			Westbound Clairmont Dr			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	30	39	69	39	31	70	2	1	3	0	0	0	71
PHF	0.47			0.51			0.25			0.00			0.54

By Movement	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Total
	L	T		Total	T	R	Total	L		R	Total				Total	
Volume	0	30		30	38	1	39	1		1	2				0	71
PHF	0.00	0.47		0.47	0.50	0.25	0.51	0.25		0.25	0.25				0.00	0.54

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
7:00 AM	0	30		30	38	1	39	1		1	2				0	71
7:15 AM	0	20		20	22	1	23	1		1	2				0	45
7:30 AM	0	19		19	15	1	16	0		0	0				0	35
7:45 AM	0	24		24	10	1	11	1		0	1				0	36
8:00 AM	0	23		23	10	1	11	1		0	1				0	35

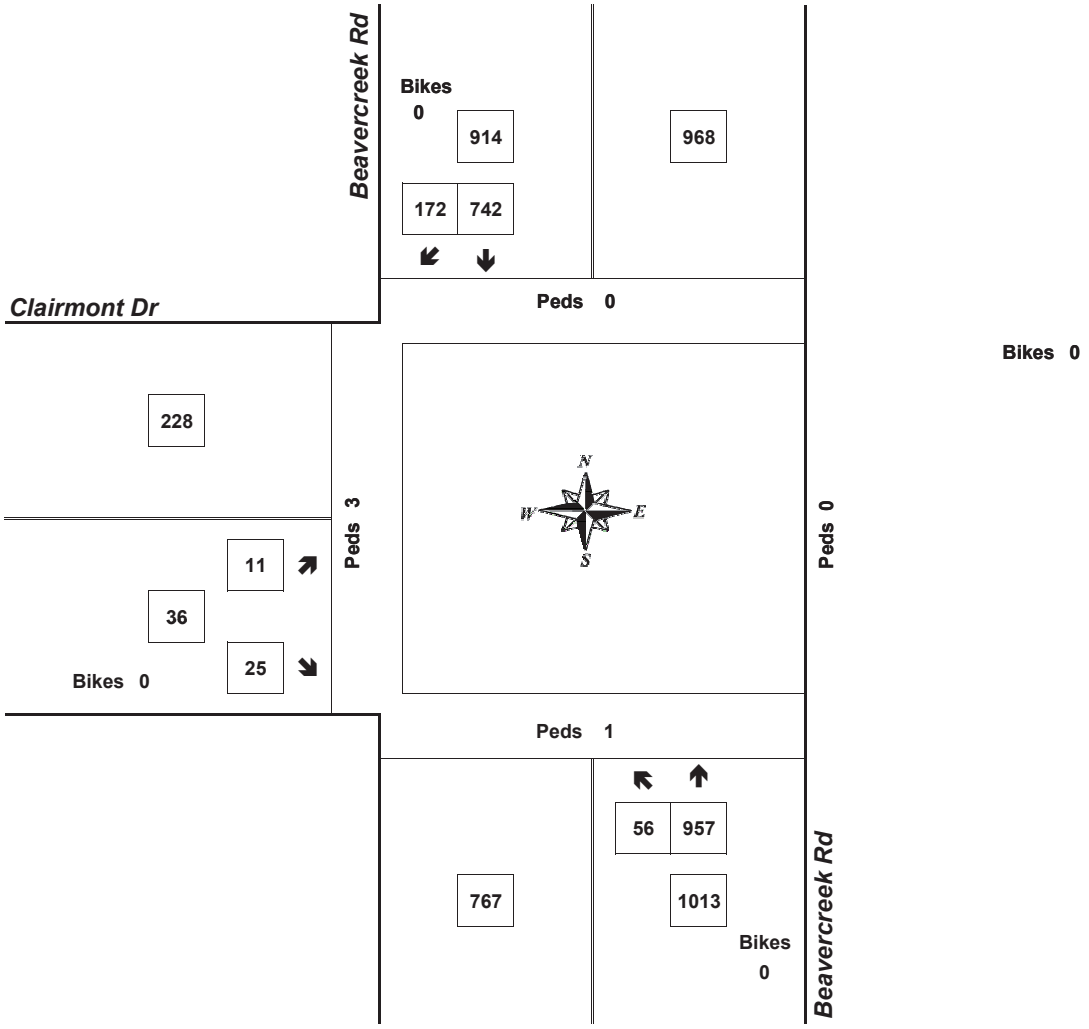
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Beavercreek Rd & Clairmont Dr

7:00 AM to 8:00 AM
Tuesday, April 12, 2016

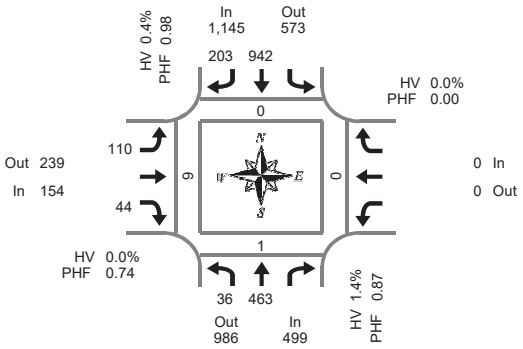


Approach	PHF	HV%	Volume
EB	0.47	5.6%	36
WB	0.00	0.0%	0
NB	0.79	3.0%	1,013
SB	0.63	4.3%	914
Intersection	0.77	3.6%	1,963

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
5:00 PM to 6:00 PM

Beavercreek Rd & Clairmont Dr

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
4:00 PM	2	32		0		62	9	0	9		4	0				0	118	0	1	0	0
4:05 PM	1	38		0		77	6	0	5		5	0				0	132	0	0	0	0
4:10 PM	0	24		0		66	7	0	7		3	0				0	107	0	0	0	0
4:15 PM	0	39		0		64	8	0	15		2	0				0	128	0	0	0	0
4:20 PM	0	35		0		77	7	0	6		4	0				0	129	0	0	0	0
4:25 PM	1	37		0		56	3	0	3		2	0				0	102	0	0	0	0
4:30 PM	0	42		0		56	9	0	17		2	0				0	126	0	0	0	0
4:35 PM	1	30		0		79	14	0	10		2	0				0	136	0	0	0	1
4:40 PM	2	34		0		79	8	0	6		3	0				0	132	0	0	0	0
4:45 PM	1	36		0		89	13	0	4		6	0				0	149	0	0	0	0
4:50 PM	2	49		0		75	6	0	6		2	0				0	140	0	0	0	0
4:55 PM	1	37		0		71	5	0	13		7	0				0	134	0	0	0	0
5:00 PM	0	37		0		84	17	0	12		7	0				0	157	0	0	0	2
5:05 PM	3	29		0		75	13	0	12		3	0				0	135	0	1	0	2
5:10 PM	3	32		0		79	14	0	12		6	0				0	146	0	0	0	3
5:15 PM	3	42		0		80	25	0	9		1	0				0	160	0	0	0	0
5:20 PM	2	49		0		72	15	0	10		1	0				0	149	0	0	0	0
5:25 PM	2	45		0		80	13	0	7		5	0				0	152	0	0	0	0
5:30 PM	2	30		0		71	14	0	12		4	0				0	133	0	0	0	0
5:35 PM	3	44		0		89	15	0	6		4	1				0	161	0	0	0	1
5:40 PM	5	37		0		84	18	0	4		1	0				0	149	0	0	0	1
5:45 PM	6	49		0		69	16	0	9		6	0				0	155	0	0	0	0
5:50 PM	5	31		0		80	18	0	8		3	0				0	145	0	0	0	0
5:55 PM	2	38		0		79	25	0	9		3	0				0	156	0	0	0	0
Total Survey	47	896		0		1,793	298	0	211		86	1				0	3,331	0	2	0	10

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
4:00 PM	3	94		0		205	22	0	21		12	0				0	357	0	1	0	0
4:15 PM	1	111		0		197	18	0	24		8	0				0	359	0	0	0	0
4:30 PM	3	106		0		214	31	0	33		7	0				0	394	0	0	0	1
4:45 PM	4	122		0		235	24	0	23		15	0				0	423	0	0	0	0
5:00 PM	6	98		0		238	44	0	36		16	0				0	438	0	1	0	7
5:15 PM	7	136		0		232	53	0	26		7	0				0	461	0	0	0	0
5:30 PM	10	111		0		244	47	0	22		9	1				0	443	0	0	0	2
5:45 PM	13	118		0		228	59	0	26		12	0				0	456	0	0	0	0
Total Survey	47	896		0		1,793	298	0	211		86	1				0	3,331	0	2	0	10

Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	499	986	1,485	0	1,145	573	1,718	0	154	239	393	1	0	0	0	0	1,798	0	1	0	9
%HV	1.4%				0.4%				0.0%				0.0%				0.7%				
PHF	0.87				0.98				0.74				0.00				0.97				

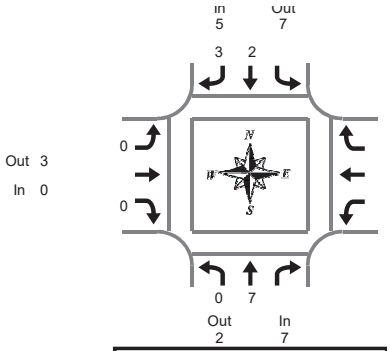
By Movement	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	36	463		499		942	203	1,145	110		44	154				0	1,798
%HV	0.0%	1.5%	NA	1.4%	NA	0.2%	1.5%	0.4%	0.0%	NA	0.0%	0.0%	NA	NA	NA	0.0%	0.7%
PHF	0.56	0.85		0.87		0.97	0.86	0.98	0.76		0.69	0.74				0.00	0.97

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd				Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
4:00 PM	11	433		0		851	95	0	101		42	0				0	1,533	0	1	0	1
4:15 PM	14	437		0		884	117	0	116		46	0				0	1,614	0	1	0	8
4:30 PM	20	462		0		919	152	0	118		45	0				0	1,716	0	1	0	8
4:45 PM	27	467		0		949	168	0	107		47	1				0	1,765	0	1	0	9
5:00 PM	36	463		0		942	203	0	110		44	1				0	1,798	0	1	0	9

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Beavercreek Rd & Clairmont Dr

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

Peak Hour Summary
5:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
4:00 PM	0	0		0	1	0	1	0		0	0				0	1
4:05 PM	0	4		4	1	1	2	1		0	1				0	7
4:10 PM	0	0		0	0	0	0	1		0	1				0	1
4:15 PM	0	4		4	1	1	2	0		0	0				0	6
4:20 PM	0	1		1	1	1	2	0		0	0				0	3
4:25 PM	0	2		2	0	0	0	0		0	0				0	2
4:30 PM	0	1		1	0	0	0	0		0	0				0	1
4:35 PM	0	1		1	0	1	1	0		0	0				0	2
4:40 PM	0	1		1	0	0	0	0		0	0				0	1
4:45 PM	0	0		0	1	0	1	0		0	0				0	1
4:50 PM	0	1		1	0	0	0	0		0	0				0	1
4:55 PM	0	0		0	0	0	0	0		0	0				0	0
5:00 PM	0	1		1	0	0	0	0		0	0				0	1
5:05 PM	0	0		0	0	1	1	0		0	0				0	1
5:10 PM	0	1		1	0	0	0	0		0	0				0	1
5:15 PM	0	0		0	0	0	0	0		0	0				0	0
5:20 PM	0	1		1	0	0	0	0		0	0				0	1
5:25 PM	0	0		0	0	0	0	0		0	0				0	0
5:30 PM	0	0		0	1	0	1	0		0	0				0	1
5:35 PM	0	2		2	0	0	0	0		0	0				0	2
5:40 PM	0	2		2	0	0	0	0		0	0				0	2
5:45 PM	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
5:55 PM	0	0		0	1	2	3	0		0	0				0	3
Total Survey	0	22		22	7	7	14	2		0	2				0	38

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
4:00 PM	0	4		4	2	1	3	2		0	2				0	9
4:15 PM	0	7		7	2	2	4	0		0	0				0	11
4:30 PM	0	3		3	0	1	1	0		0	0				0	4
4:45 PM	0	1		1	1	0	1	0		0	0				0	2
5:00 PM	0	2		2	0	1	1	0		0	0				0	3
5:15 PM	0	1		1	0	0	0	0		0	0				0	1
5:30 PM	0	4		4	1	0	1	0		0	0				0	5
5:45 PM	0	0		0	1	2	3	0		0	0				0	3
Total Survey	0	22		22	7	7	14	2		0	2				0	38

Heavy Vehicle Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound Beavercreek Rd			Southbound Beavercreek Rd			Eastbound Clairmont Dr			Westbound Clairmont Dr			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	7	2	9	5	7	12	0	3	3	0	0	0	12
PHF	0.44			0.42			0.00			0.00			0.60

By Movement	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Total
	L	T		Total	T	R	Total	L		R	Total				Total	
Volume	0	7		7	2	3	5	0		0	0				0	12
PHF	0.00	0.44		0.44	0.50	0.38	0.42	0.00		0.00	0.00				0.00	0.60

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Beavercreek Rd				Southbound Beavercreek Rd			Eastbound Clairmont Dr				Westbound Clairmont Dr				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
4:00 PM	0	15		15	5	4	9	2		0	2				0	26
4:15 PM	0	13		13	3	4	7	0		0	0				0	20
4:30 PM	0	7		7	1	2	3	0		0	0				0	10
4:45 PM	0	8		8	2	1	3	0		0	0				0	11
5:00 PM	0	7		7	2	3	5	0		0	0				0	12

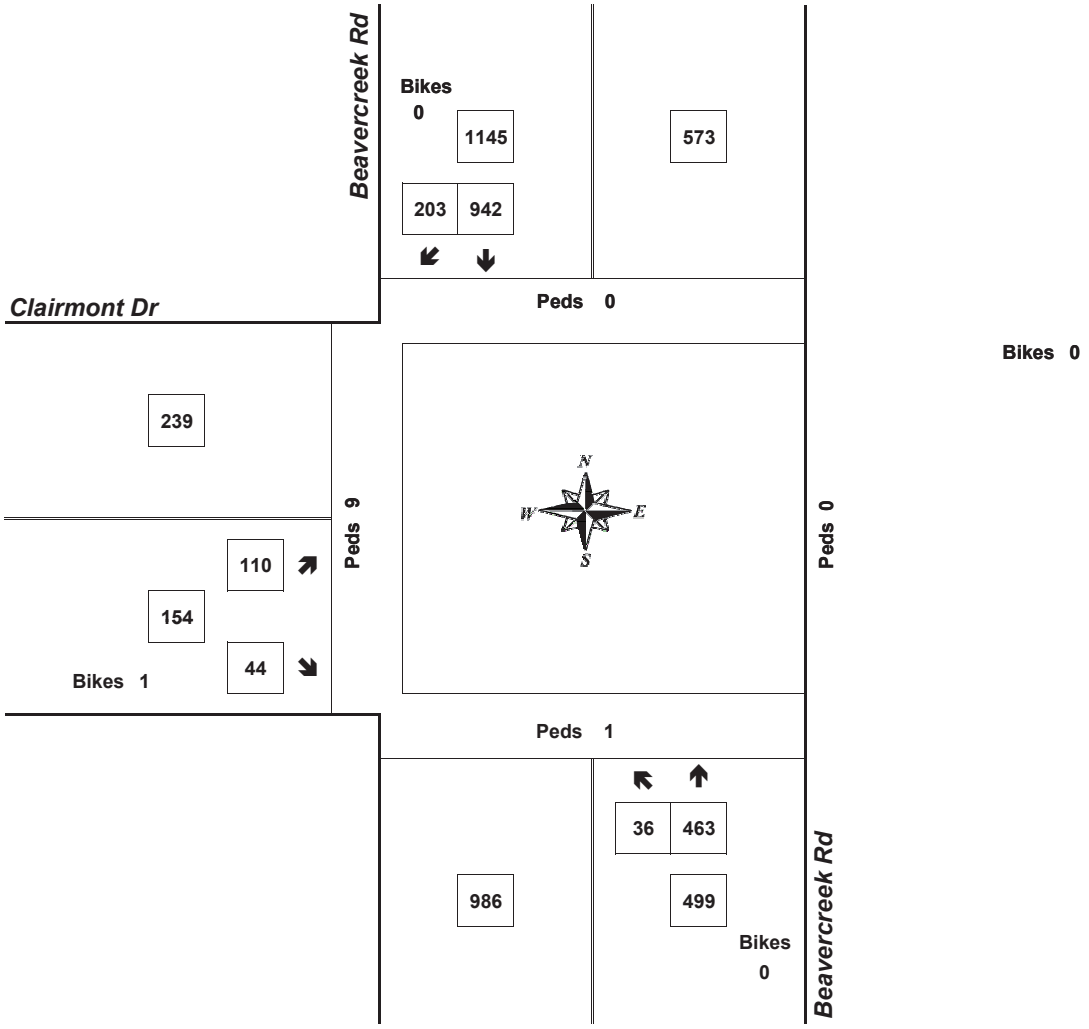
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Beavercreek Rd & Clairmont Dr

5:00 PM to 6:00 PM
Tuesday, April 12, 2016

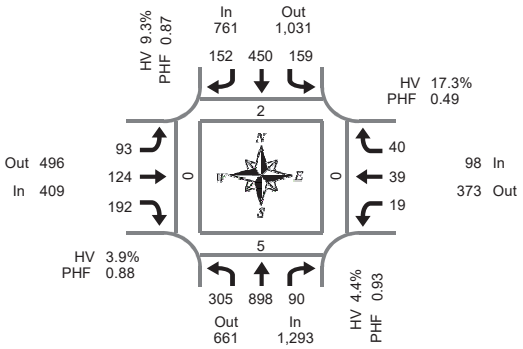


Approach	PHF	HV%	Volume
EB	0.74	0.0%	154
WB	0.00	0.0%	0
NB	0.87	1.4%	499
SB	0.98	0.4%	1,145
Intersection	0.97	0.7%	1,798

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:35 AM to 8:35 AM

Hwy 213 & Molalla Ave

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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
7:00 AM	23	80	4	0	1	26	8	0	8	6	14	0	0	5	2	0	177	0	0	0	0
7:05 AM	22	101	2	0	1	26	11	0	5	3	7	0	1	2	3	0	184	0	0	0	0
7:10 AM	16	72	3	0	5	28	12	0	9	4	11	0	2	4	3	0	169	0	0	0	0
7:15 AM	16	76	9	0	8	32	13	0	6	9	12	0	0	1	2	0	184	0	0	0	0
7:20 AM	21	82	3	0	7	30	6	0	6	7	6	0	1	0	0	0	169	1	2	0	0
7:25 AM	21	98	6	0	12	34	20	0	5	5	15	0	1	3	3	0	223	0	0	0	0
7:30 AM	20	74	6	0	7	27	10	0	8	12	12	0	0	5	2	0	183	0	0	0	0
7:35 AM	20	89	10	0	11	43	14	0	4	4	15	0	2	0	0	0	212	0	0	0	0
7:40 AM	39	64	7	0	14	33	12	0	11	15	14	0	2	12	6	0	229	1	0	0	0
7:45 AM	17	79	9	0	22	41	18	0	3	13	15	0	2	4	7	0	230	0	1	0	0
7:50 AM	35	64	12	0	15	23	10	0	11	19	12	0	4	4	9	0	218	0	1	0	0
7:55 AM	18	74	10	0	25	51	5	0	5	10	14	0	1	4	5	0	222	0	0	0	0
8:00 AM	27	59	4	0	14	34	19	0	7	19	19	0	1	1	3	0	207	1	1	0	0
8:05 AM	21	91	3	0	7	47	17	0	13	4	20	0	2	2	3	0	230	0	0	0	0
8:10 AM	29	79	5	0	6	32	10	0	15	3	16	0	1	4	1	0	201	0	1	0	0
8:15 AM	20	89	9	0	10	37	10	0	6	10	18	0	1	1	0	0	211	0	0	0	0
8:20 AM	28	73	6	0	8	33	11	0	8	8	11	0	0	4	0	0	190	0	0	0	0
8:25 AM	26	67	9	0	18	34	13	0	4	4	16	0	2	2	1	0	196	0	0	0	0
8:30 AM	25	70	6	0	9	42	13	0	6	15	22	0	1	1	5	0	215	0	1	0	0
8:35 AM	26	68	7	0	14	35	5	0	7	5	20	0	3	6	6	0	202	1	0	0	0
8:40 AM	26	63	14	0	17	29	15	0	4	20	12	0	2	5	2	0	209	0	0	0	0
8:45 AM	18	77	16	0	29	50	15	0	5	12	16	0	6	1	1	0	246	0	0	0	0
8:50 AM	31	51	17	0	26	44	10	0	5	18	11	0	3	2	5	0	223	0	2	0	1
8:55 AM	17	66	9	0	17	51	12	0	7	11	17	0	0	5	5	0	217	0	0	0	0
Total Survey	562	1,806	186	0	303	862	289	0	168	236	345	0	38	78	74	0	4,947	4	9	0	1

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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
7:00 AM	61	253	9	0	7	80	31	0	22	13	32	0	3	11	8	0	530	0	0	0	0
7:15 AM	58	256	18	0	27	96	39	0	17	21	33	0	2	4	5	0	576	1	2	0	0
7:30 AM	79	227	23	0	32	103	36	0	23	31	41	0	4	17	8	0	624	1	0	0	0
7:45 AM	70	217	31	0	62	115	33	0	19	42	41	0	7	12	21	0	670	0	2	0	0
8:00 AM	77	229	12	0	27	113	46	0	35	26	55	0	4	7	7	0	638	1	2	0	0
8:15 AM	74	229	24	0	36	104	34	0	18	22	45	0	3	7	1	0	597	0	0	0	0
8:30 AM	77	201	27	0	40	106	33	0	17	40	54	0	6	12	13	0	626	1	1	0	0
8:45 AM	66	194	42	0	72	145	37	0	17	41	44	0	9	8	11	0	686	0	2	0	1
Total Survey	562	1,806	186	0	303	862	289	0	168	236	345	0	38	78	74	0	4,947	4	9	0	1

Peak Hour Summary
7:35 AM to 8:35 AM

By Approach	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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	1,293	661	1,954	0	761	1,031	1,792	0	409	496	905	0	98	373	471	0	2,561	2	5	0	0
%HV	4.4%				9.3%				3.9%				17.3%				6.3%				
PHF	0.93				0.87				0.88				0.49				0.95				

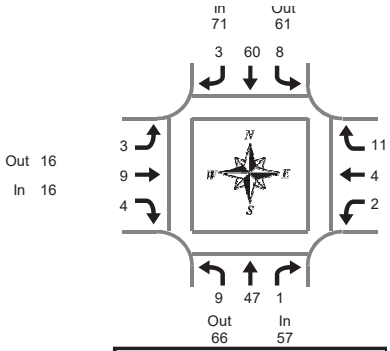
By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	305	898	90	1,293	159	450	152	761	93	124	192	409	19	39	40	98	2,561
%HV	3.0%	5.2%	1.1%	4.4%	5.0%	13.3%	2.0%	9.3%	3.2%	7.3%	2.1%	3.9%	10.5%	10.3%	27.5%	17.3%	6.3%
PHF	0.84	0.87	0.73	0.93	0.64	0.85	0.83	0.87	0.66	0.65	0.87	0.88	0.59	0.49	0.45	0.49	0.95

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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
7:00 AM	268	953	81	0	128	394	139	0	81	107	147	0	16	44	42	0	2,400	2	4	0	0
7:15 AM	284	929	84	0	148	427	154	0	94	120	170	0	17	40	41	0	2,508	3	6	0	0
7:30 AM	300	902	90	0	157	435	149	0	95	121	182	0	18	43	37	0	2,529	2	4	0	0
7:45 AM	298	876	94	0	165	438	146	0	89	130	195	0	20	38	42	0	2,531	2	5	0	0
8:00 AM	294	853	105	0	175	468	150	0	87	129	198	0	22	34	32	0	2,547	2	5	0	1

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:35 AM to 8:35 AM

Hwy 213 & Molalla Ave

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	4	1	5	0	4	1	5	0	1	1	2	0	1	1	2	14
7:05 AM	1	5	0	6	0	2	0	2	0	0	0	0	1	0	1	2	10
7:10 AM	5	3	0	8	0	7	0	7	0	0	1	1	0	1	0	1	17
7:15 AM	0	3	0	3	1	6	0	7	0	1	0	1	0	0	0	0	11
7:20 AM	1	2	0	3	0	4	0	4	0	0	0	0	0	0	0	0	7
7:25 AM	1	2	0	3	0	2	0	2	0	0	0	0	0	2	0	2	7
7:30 AM	0	4	0	4	0	2	0	2	0	1	2	3	0	1	1	2	11
7:35 AM	2	4	0	6	0	4	0	4	0	0	1	1	0	0	0	0	11
7:40 AM	0	4	1	5	2	5	0	7	0	1	1	2	1	1	1	3	17
7:45 AM	0	3	0	3	2	9	0	11	0	1	0	1	0	0	3	3	18
7:50 AM	1	7	0	8	0	1	1	2	0	0	0	0	0	0	0	0	10
7:55 AM	1	5	0	6	1	7	0	8	0	1	0	1	0	1	0	1	16
8:00 AM	1	6	0	7	0	4	0	4	0	1	1	2	1	0	1	2	15
8:05 AM	0	2	0	2	0	3	0	3	1	1	0	2	0	0	0	0	7
8:10 AM	1	5	0	6	1	6	0	7	1	0	1	2	0	1	1	2	17
8:15 AM	0	3	0	3	0	7	1	8	1	1	0	2	0	0	0	0	13
8:20 AM	1	3	0	4	0	9	1	10	0	0	0	0	0	1	0	1	15
8:25 AM	1	4	0	5	2	2	0	4	0	1	0	1	0	0	1	1	11
8:30 AM	1	1	0	2	0	3	0	3	0	2	0	2	0	0	4	4	11
8:35 AM	0	3	0	3	0	1	0	1	0	1	0	1	0	1	1	2	7
8:40 AM	2	2	0	4	1	7	0	8	0	0	0	0	0	0	0	0	12
8:45 AM	1	3	0	4	0	5	0	5	0	0	2	2	0	0	0	0	11
8:50 AM	2	2	0	4	0	7	1	8	0	1	2	3	0	0	0	0	15
8:55 AM	1	3	0	4	0	10	1	11	1	0	0	1	0	1	0	1	17
Total Survey	23	83	2	108	10	117	6	133	4	14	12	30	3	11	15	29	300

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	6	12	1	19	0	13	1	14	0	1	2	3	1	2	2	5	41
7:15 AM	2	7	0	9	1	12	0	13	0	1	0	1	0	2	0	2	25
7:30 AM	2	12	1	15	2	11	0	13	0	2	4	6	1	2	2	5	39
7:45 AM	2	15	0	17	3	17	1	21	0	2	0	2	0	1	3	4	44
8:00 AM	2	13	0	15	1	13	0	14	2	2	2	6	1	1	2	4	39
8:15 AM	2	10	0	12	2	18	2	22	1	2	0	3	0	1	1	2	39
8:30 AM	3	6	0	9	1	11	0	12	0	3	0	3	0	1	5	6	30
8:45 AM	4	8	0	12	0	22	2	24	1	1	4	6	0	1	0	1	43
Total Survey	23	83	2	108	10	117	6	133	4	14	12	30	3	11	15	29	300

Heavy Vehicle Peak Hour Summary
7:35 AM to 8:35 AM

By Approach	Northbound Hwy 213			Southbound Hwy 213			Eastbound Molalla Ave			Westbound Molalla Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	57	66	123	71	61	132	16	16	32	17	18	35	161
PHF	0.68			0.71			0.67			0.71			0.88

By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	9	47	1	57	8	60	3	71	3	9	4	16	2	4	11	17	161
PHF	0.75	0.65	0.25	0.68	0.50	0.68	0.38	0.71	0.25	0.75	0.50	0.67	0.50	0.50	0.55	0.71	0.88

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	12	46	2	60	6	53	2	61	0	6	6	12	2	7	7	16	149
7:15 AM	8	47	1	56	7	53	1	61	2	7	6	15	2	6	7	15	147
7:30 AM	8	50	1	59	8	59	3	70	3	8	6	17	2	5	8	15	161
7:45 AM	9	44	0	53	7	59	3	69	3	9	2	14	1	4	11	16	152
8:00 AM	11	37	0	48	4	64	4	72	4	8	6	18	1	4	8	13	151

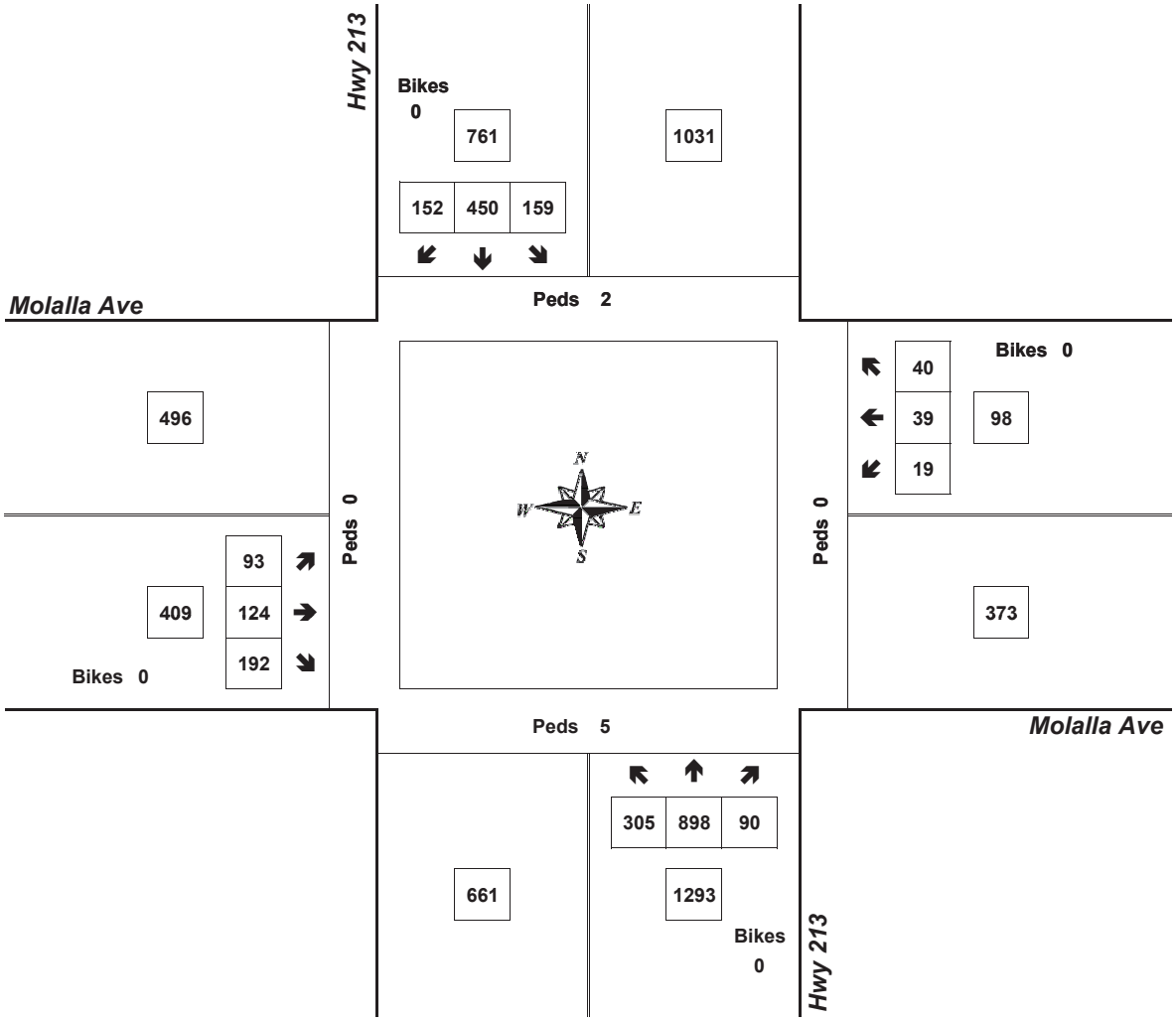
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Hwy 213 & Molalla Ave

7:35 AM to 8:35 AM
Tuesday, April 12, 2016



Approach	PHF	HV%	Volume
EB	0.88	3.9%	409
WB	0.49	17.3%	98
NB	0.93	4.4%	1,293
SB	0.87	9.3%	761
Intersection	0.95	6.3%	2,561

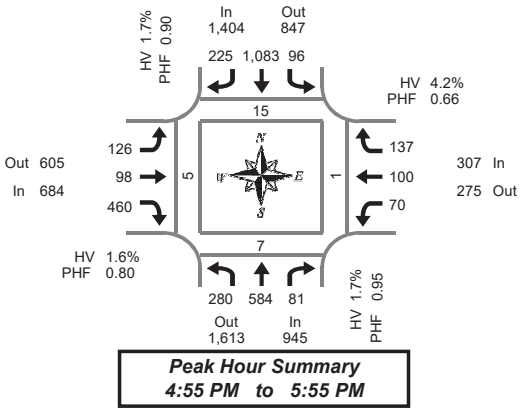
Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740

Hwy 213 & Molalla Ave

Tuesday, April 12, 2016
4:00 PM to 6:00 PM



5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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	30	45	2	0	2	84	21	0	12	7	51	0	7	13	19	1	293	0	1	0	0
4:05 PM	16	48	1	0	4	61	19	0	18	5	39	0	8	10	10	0	239	0	2	0	0
4:10 PM	19	54	6	0	4	111	14	1	9	3	29	0	5	3	11	0	268	1	6	0	0
4:15 PM	33	47	1	0	6	71	17	0	12	4	43	0	6	9	10	0	259	4	10	0	1
4:20 PM	16	44	2	0	7	89	17	0	14	5	26	0	7	10	7	0	244	2	1	0	0
4:25 PM	25	50	1	0	5	102	29	0	14	4	29	0	2	6	8	0	275	0	0	0	0
4:30 PM	26	54	1	0	4	67	18	0	15	1	47	0	6	10	9	0	258	0	1	0	0
4:35 PM	19	40	2	0	2	91	21	0	6	9	36	1	8	12	12	0	258	4	0	0	0
4:40 PM	19	47	3	0	11	105	24	0	11	1	35	0	7	8	11	0	282	1	1	0	2
4:45 PM	27	66	2	0	5	76	22	0	7	8	40	0	4	5	8	0	270	2	0	0	2
4:50 PM	30	51	3	0	1	76	21	0	6	5	56	0	5	12	24	0	290	0	0	0	0
4:55 PM	25	47	8	0	7	87	17	0	14	5	30	0	11	6	31	0	288	2	0	0	1
5:00 PM	20	46	5	0	4	85	16	0	8	3	27	0	3	7	16	0	240	0	0	0	0
5:05 PM	31	57	3	0	7	61	13	0	15	8	39	0	5	19	18	0	276	2	0	0	0
5:10 PM	23	28	11	0	5	99	22	0	6	3	38	1	7	10	10	0	262	1	0	0	2
5:15 PM	23	59	7	0	4	135	25	0	9	9	23	0	6	6	12	0	318	0	0	0	0
5:20 PM	26	50	5	0	8	75	16	0	10	6	38	0	2	7	9	0	252	1	1	0	0
5:25 PM	17	40	8	0	6	98	25	0	10	7	45	0	6	10	6	0	278	1	0	0	1
5:30 PM	22	49	3	0	11	98	26	0	11	12	44	0	11	11	9	0	307	1	5	0	0
5:35 PM	27	51	4	0	11	83	13	0	10	12	51	0	4	5	5	0	276	1	0	1	0
5:40 PM	25	52	5	0	12	66	23	0	9	13	51	0	6	8	8	0	278	5	1	0	1
5:45 PM	18	53	10	0	15	86	7	0	13	8	33	0	2	8	10	0	263	1	0	0	0
5:50 PM	23	52	12	0	6	110	22	0	11	12	41	0	7	3	3	0	302	0	0	0	0
5:55 PM	29	45	7	0	9	75	11	0	9	5	48	0	7	9	15	0	269	0	0	0	1
Total Survey	569	1,175	112	0	156	2,091	459	1	259	155	939	2	142	207	281	1	6,545	29	29	1	11

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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	65	147	9	0	10	256	54	1	39	15	119	0	20	26	40	1	800	1	9	0	0
4:15 PM	74	141	4	0	18	262	63	0	40	13	98	0	15	25	25	0	778	6	11	0	1
4:30 PM	64	141	6	0	17	263	63	0	32	11	118	1	21	30	32	0	798	5	2	0	2
4:45 PM	82	164	13	0	13	239	60	0	27	18	126	0	20	23	63	0	848	4	0	0	3
5:00 PM	74	131	19	0	16	245	51	0	29	14	104	1	15	36	44	0	778	3	0	0	2
5:15 PM	66	149	20	0	18	308	66	0	29	22	106	0	14	23	27	0	848	2	1	0	1
5:30 PM	74	152	12	0	34	247	62	0	30	37	146	0	21	24	22	0	861	7	6	1	1
5:45 PM	70	150	29	0	30	271	40	0	33	25	122	0	16	20	28	0	834	1	0	0	1
Total Survey	569	1,175	112	0	156	2,091	459	1	259	155	939	2	142	207	281	1	6,545	29	29	1	11

Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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	945	1,613	2,558	0	1,404	847	2,251	0	684	605	1,289	1	307	275	582	0	3,340	15	7	1	5
%HV	1.7%				1.7%				1.6%				4.2%				1.9%				
PHF	0.95				0.90				0.80				0.66				0.97				

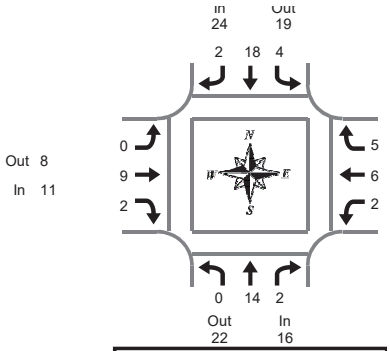
By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	280	584	81	945	96	1,083	225	1,404	126	98	460	684	70	100	137	307	3,340
%HV	0.0%	2.4%	2.5%	1.7%	4.2%	1.7%	0.9%	1.7%	0.0%	9.2%	0.4%	1.6%	2.9%	6.0%	3.6%	4.2%	1.9%
PHF	0.91	0.93	0.75	0.95	0.63	0.88	0.84	0.90	0.85	0.66	0.79	0.80	0.83	0.69	0.53	0.66	0.97

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla 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	285	593	32	0	58	1,020	240	1	138	57	461	1	76	104	160	1	3,224	16	22	0	6
4:15 PM	294	577	42	0	64	1,009	237	0	128	56	446	2	71	114	164	0	3,202	18	13	0	8
4:30 PM	286	585	58	0	64	1,055	240	0	117	65	454	2	70	112	166	0	3,272	14	3	0	8
4:45 PM	296	596	64	0	81	1,039	239	0	115	91	482	1	70	106	156	0	3,335	16	7	1	7
5:00 PM	284	582	80	0	98	1,071	219	0	121	98	478	1	66	103	121	0	3,321	13	7	1	5

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
4:55 PM to 5:55 PM

Hwy 213 & Molalla Ave

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	1	7	0	8	2	4	0	6	1	0	1	2	0	0	0	0	16
4:05 PM	0	3	0	3	1	2	0	3	1	0	1	2	0	1	0	1	9
4:10 PM	1	4	1	6	0	1	0	1	0	1	1	2	0	0	1	1	10
4:15 PM	0	4	0	4	1	4	0	5	0	1	0	1	0	2	1	3	13
4:20 PM	1	4	0	5	0	3	0	3	0	0	0	0	0	0	0	0	8
4:25 PM	0	3	1	4	0	2	1	3	0	1	0	1	0	0	0	0	8
4:30 PM	2	3	0	5	1	4	0	5	1	0	1	2	0	2	0	2	14
4:35 PM	0	1	0	1	0	1	0	1	0	0	0	0	1	0	1	2	4
4:40 PM	0	4	0	4	1	4	0	5	0	1	0	1	0	0	1	1	11
4:45 PM	1	4	1	6	0	3	1	4	0	1	0	1	0	1	0	1	12
4:50 PM	0	0	0	0	0	2	0	2	1	0	0	1	1	0	0	1	4
4:55 PM	0	0	0	0	2	3	0	5	0	1	0	1	0	0	0	0	6
5:00 PM	0	2	0	2	0	2	0	2	0	0	0	0	0	1	1	2	6
5:05 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	2	1	3	5
5:10 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	2	0	3	0	3	0	1	0	1	0	0	1	1	7
5:20 PM	0	1	0	1	0	0	1	1	0	1	1	2	0	0	0	0	4
5:25 PM	0	2	1	3	0	5	0	5	0	1	0	1	0	2	1	3	12
5:30 PM	0	2	0	2	0	1	0	1	0	1	1	2	1	0	0	1	6
5:35 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
5:40 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	1	1	2	5
5:45 PM	0	1	0	1	1	0	0	1	0	2	0	2	0	0	0	0	4
5:50 PM	0	2	0	2	0	1	0	1	0	1	0	1	1	0	0	1	5
5:55 PM	1	1	0	2	0	1	0	1	0	1	0	1	0	2	2	4	8
Total Survey	7	52	5	64	10	49	4	63	4	15	6	25	4	14	11	29	181

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	2	14	1	17	3	7	0	10	2	1	3	6	0	1	1	2	35
4:15 PM	1	11	1	13	1	9	1	11	0	2	0	2	0	2	1	3	29
4:30 PM	2	8	0	10	2	9	0	11	1	1	1	3	1	2	2	5	29
4:45 PM	1	4	1	6	2	8	1	11	1	2	0	3	1	1	0	2	22
5:00 PM	0	3	0	3	0	3	1	4	0	1	0	1	0	3	2	5	13
5:15 PM	0	5	1	6	0	8	1	9	0	3	1	4	0	2	2	4	23
5:30 PM	0	3	1	4	1	3	0	4	0	1	1	2	1	1	1	3	13
5:45 PM	1	4	0	5	1	2	0	3	0	4	0	4	1	2	2	5	17
Total Survey	7	52	5	64	10	49	4	63	4	15	6	25	4	14	11	29	181

Heavy Vehicle Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound Hwy 213			Southbound Hwy 213			Eastbound Molalla Ave			Westbound Molalla Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	16	22	38	24	19	43	11	8	19	13	15	28	64
PHF	0.67			0.67			0.55			0.65			0.70

By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	14	2	16	4	18	2	24	0	9	2	11	2	6	5	13	64
PHF	0.00	0.70	0.50	0.67	0.50	0.56	0.25	0.67	0.00	0.75	0.25	0.55	0.50	0.50	0.63	0.65	0.70

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213				Eastbound Molalla Ave				Westbound Molalla Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	6	37	3	46	8	33	2	43	4	6	4	14	2	6	4	12	115
4:15 PM	4	26	2	32	5	29	3	37	2	6	1	9	2	8	5	15	93
4:30 PM	3	20	2	25	4	28	3	35	2	7	2	11	2	8	6	16	87
4:45 PM	1	15	3	19	3	22	3	28	1	7	2	10	2	7	5	14	71
5:00 PM	1	15	2	18	2	16	2	20	0	9	2	11	2	8	7	17	66

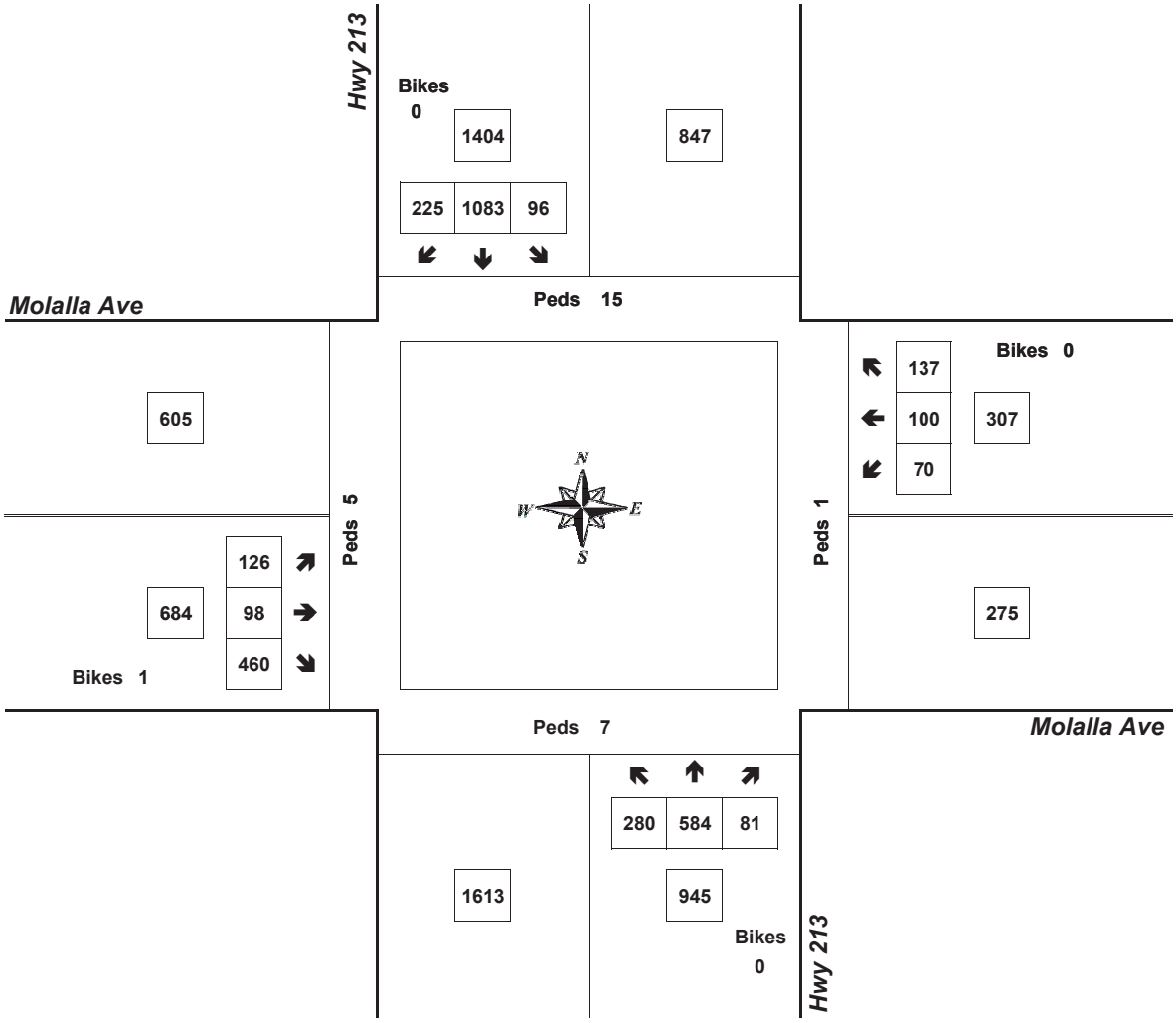
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Hwy 213 & Molalla Ave

4:55 PM to 5:55 PM
Tuesday, April 12, 2016

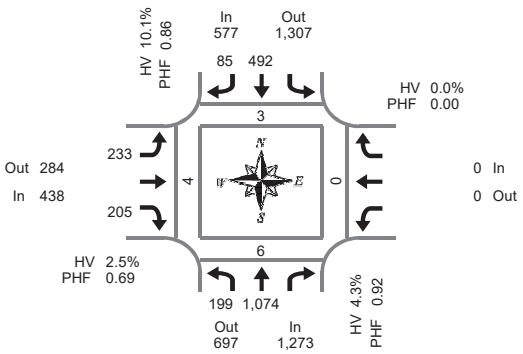


Approach	PHF	HV%	Volume
EB	0.80	1.6%	684
WB	0.66	4.2%	307
NB	0.95	1.7%	945
SB	0.90	1.7%	1,404
Intersection	0.97	1.9%	3,340

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:10 AM to 8:10 AM

Hwy 213 & Meyers Rd

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
7:00 AM	7	97		0	40	7	0	16		16	0				0	183	0	0	0	0
7:05 AM	3	102		0	26	4	0	19		17	0				0	171	0	0	0	0
7:10 AM	10	85		0	38	10	0	16		31	0				0	190	0	0	0	0
7:15 AM	20	84		0	32	5	0	13		21	0				0	175	1	1	0	0
7:20 AM	16	87		0	38	5	0	20		34	0				0	200	0	1	0	0
7:25 AM	26	93		0	39	8	0	27		31	0				0	224	0	0	0	0
7:30 AM	19	86		0	34	6	0	27		19	0				0	191	0	1	0	0
7:35 AM	25	97		0	49	9	0	18		11	0				0	209	0	0	0	0
7:40 AM	10	94		0	43	3	0	22		14	0				0	186	0	1	0	0
7:45 AM	20	90		0	45	6	0	18		10	0				0	189	1	0	0	4
7:50 AM	10	90		0	33	7	0	15		12	0				0	167	1	2	0	0
7:55 AM	14	87		0	53	8	0	16		10	0				0	188	0	0	0	0
8:00 AM	10	84		0	35	6	0	22		7	0				0	164	0	0	0	0
8:05 AM	19	97		0	53	12	0	19		5	0				0	205	0	0	0	0
8:10 AM	11	86		0	48	9	0	19		8	0				0	181	0	0	0	0
8:15 AM	8	96		0	33	9	0	25		3	0				0	174	0	1	0	1
8:20 AM	11	84		0	44	5	0	22		9	0				0	175	0	0	0	0
8:25 AM	9	94		0	32	4	0	22		6	0				0	167	0	1	0	0
8:30 AM	12	75		0	64	6	0	15		11	0				0	183	0	0	0	0
8:35 AM	6	78		0	45	5	0	19		10	0				0	163	0	0	0	0
8:40 AM	10	81		0	37	6	0	21		15	0				0	170	0	1	0	0
8:45 AM	8	93		0	53	14	0	26		10	0				0	204	0	0	0	1
8:50 AM	10	88		0	42	12	0	24		11	0				0	187	0	0	0	0
8:55 AM	13	81		0	49	5	0	11		5	0				0	164	0	0	0	0
Total Survey	307	2,129		0	1,005	171	0	472		326	0				0	4,410	3	9	0	6

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
7:00 AM	20	284		0	104	21	0	51		64	0				0	544	0	0	0	0
7:15 AM	62	264		0	109	18	0	60		86	0				0	599	1	2	0	0
7:30 AM	54	277		0	126	18	0	67		44	0				0	586	0	2	0	0
7:45 AM	44	267		0	131	21	0	49		32	0				0	544	2	2	0	4
8:00 AM	40	267		0	136	27	0	60		20	0				0	550	0	0	0	0
8:15 AM	28	274		0	109	18	0	69		18	0				0	516	0	2	0	1
8:30 AM	28	234		0	146	17	0	55		36	0				0	516	0	1	0	0
8:45 AM	31	262		0	144	31	0	61		26	0				0	555	0	0	0	1
Total Survey	307	2,129		0	1,005	171	0	472		326	0				0	4,410	3	9	0	6

Peak Hour Summary
7:10 AM to 8:10 AM

By Approach	Northbound Hwy 213				Southbound Hwy 213				Eastbound Meyers Rd				Westbound Meyers 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	1,273	697	1,970	0	577	1,307	1,884	0	438	284	722	0	0	0	0	0	2,288	3	6	0	4
%HV	4.3%				10.1%				2.5%				0.0%				5.4%				
PHF	0.92				0.86				0.69				0.00				0.92				

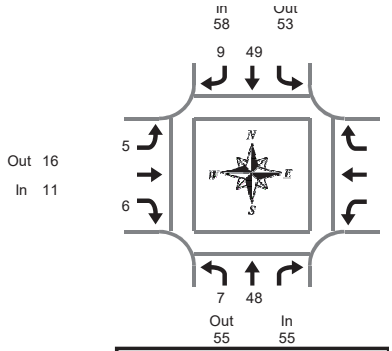
By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Meyers Rd				Westbound Meyers Rd				Total
	L	T		Total	T	R	Total		L		R	Total				Total	
Volume	199	1,074		1,273	492	85	577		233		205	438				0	2,288
%HV	3.5%	4.5%	NA	4.3%	NA	10.0%	10.6%	10.1%	2.1%	NA	2.9%	2.5%	NA	NA	NA	0.0%	5.4%
PHF	0.71	0.96		0.92		0.87	0.82	0.86	0.79		0.60	0.69				0.00	0.92

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
7:00 AM	180	1,092		0	470	78	0	227		226	0				0	2,273	3	6	0	4
7:15 AM	200	1,075		0	502	84	0	236		182	0				0	2,279	3	6	0	4
7:30 AM	166	1,085		0	502	84	0	245		114	0				0	2,196	2	6	0	5
7:45 AM	140	1,042		0	522	83	0	233		106	0				0	2,126	2	5	0	5
8:00 AM	127	1,037		0	535	93	0	245		100	0				0	2,137	0	3	0	2

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:10 AM to 8:10 AM

Hwy 213 & Meyers Rd

Tuesday, April 12, 2016
7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
7:00 AM	1	5		6	4	1	5	0		0	0				0	11
7:05 AM	1	7		8	4	1	5	1		0	1				0	14
7:10 AM	0	6		6	3	3	6	0		1	1				0	13
7:15 AM	0	2		2	5	0	5	2		2	4				0	11
7:20 AM	1	1		2	4	0	4	0		0	0				0	6
7:25 AM	3	2		5	2	1	3	0		0	0				0	8
7:30 AM	0	5		5	4	1	5	1		0	1				0	11
7:35 AM	0	5		5	4	1	5	0		0	0				0	10
7:40 AM	1	5		6	7	0	7	0		1	1				0	14
7:45 AM	0	2		2	6	0	6	1		0	1				0	9
7:50 AM	1	7		8	2	0	2	0		0	0				0	10
7:55 AM	1	6		7	4	1	5	1		1	2				0	14
8:00 AM	0	6		6	4	1	5	0		1	1				0	12
8:05 AM	0	1		1	4	1	5	0		0	0				0	6
8:10 AM	0	5		5	6	1	7	0		1	1				0	13
8:15 AM	1	2		3	5	2	7	1		0	1				0	11
8:20 AM	1	4		5	9	0	9	0		1	1				0	15
8:25 AM	0	6		6	4	0	4	1		2	3				0	13
8:30 AM	0	1		1	3	0	3	0		0	0				0	4
8:35 AM	0	3		3	0	0	0	0		0	0				0	3
8:40 AM	1	5		6	7	0	7	0		0	0				0	13
8:45 AM	1	4		5	5	0	5	0		0	0				0	10
8:50 AM	0	5		5	8	0	8	0		0	0				0	13
8:55 AM	0	3		3	8	0	8	1		1	2				0	13
Total Survey	13	98		111	112	14	126	9		11	20				0	257

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
7:00 AM	2	18		20	11	5	16	1		1	2				0	38
7:15 AM	4	5		9	11	1	12	2		2	4				0	25
7:30 AM	1	15		16	15	2	17	1		1	2				0	35
7:45 AM	2	15		17	12	1	13	2		1	3				0	33
8:00 AM	0	12		12	14	3	17	0		2	2				0	31
8:15 AM	2	12		14	18	2	20	2		3	5				0	39
8:30 AM	1	9		10	10	0	10	0		0	0				0	20
8:45 AM	1	12		13	21	0	21	1		1	2				0	36
Total Survey	13	98		111	112	14	126	9		11	20				0	257

Heavy Vehicle Peak Hour Summary
7:10 AM to 8:10 AM

By Approach	Northbound Hwy 213			Southbound Hwy 213			Eastbound Meyers Rd			Westbound Meyers Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	55	55	110	58	53	111	11	16	27	0	0	0	124
PHF	0.65			0.81			0.55			0.00			0.86

By Movement	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Total
	L	T		Total	T	R	Total	L		R	Total				Total	
Volume	7	48		55	49	9	58	5		6	11				0	124
PHF	0.44	0.63		0.65	0.72	0.75	0.81	0.63		0.50	0.55				0.00	0.86

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
7:00 AM	9	53		62	49	9	58	6		5	11				0	131
7:15 AM	7	47		54	52	7	59	5		6	11				0	124
7:30 AM	5	54		59	59	8	67	5		7	12				0	138
7:45 AM	5	48		53	54	6	60	4		6	10				0	123
8:00 AM	4	45		49	63	5	68	3		6	9				0	126

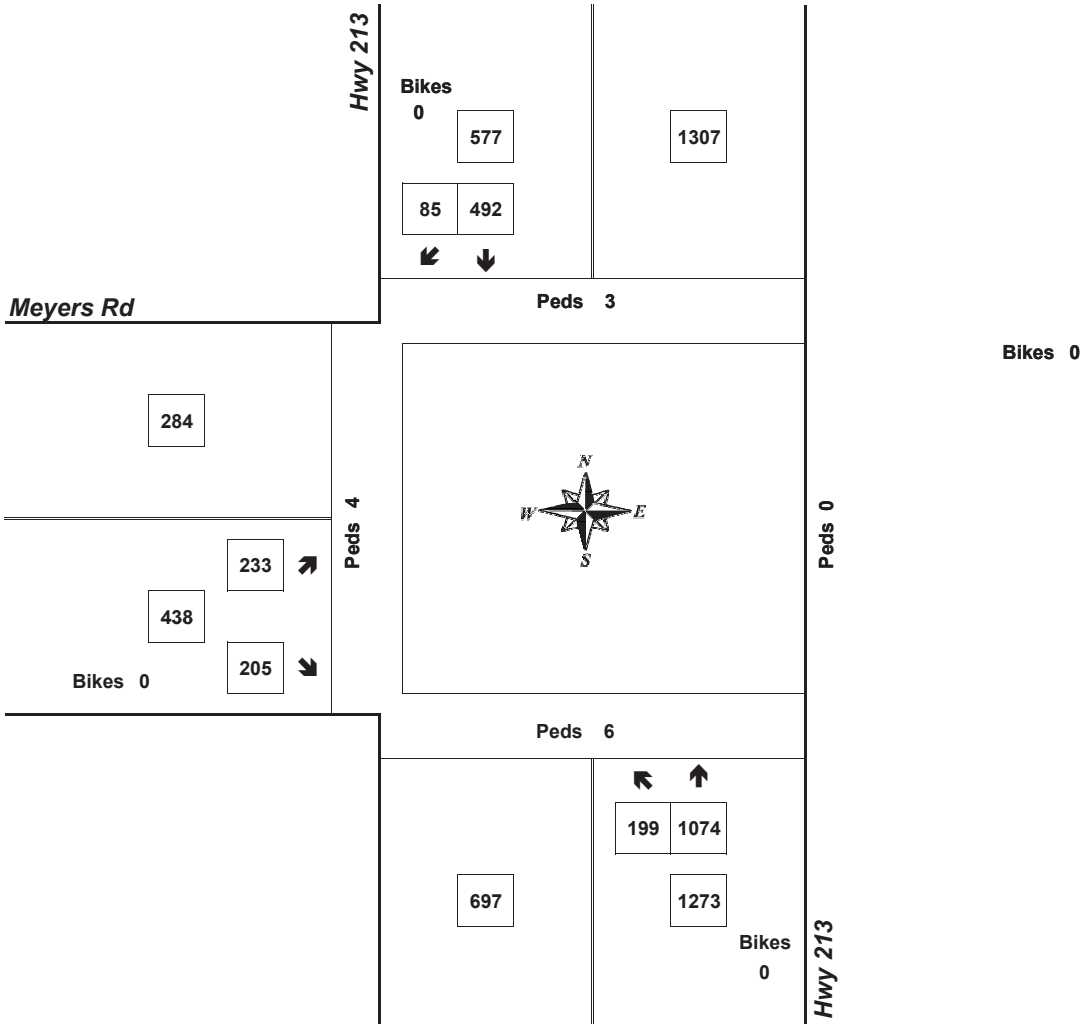
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Hwy 213 & Meyers Rd

7:10 AM to 8:10 AM
Tuesday, April 12, 2016

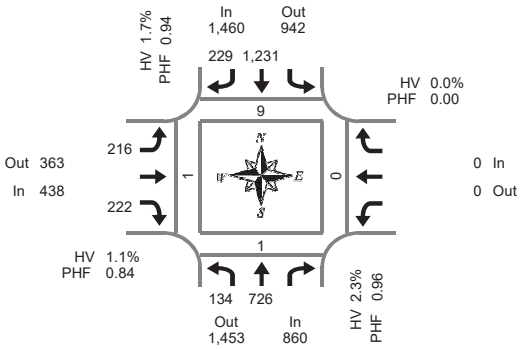


Approach	PHF	HV%	Volume
EB	0.69	2.5%	438
WB	0.00	0.0%	0
NB	0.92	4.3%	1,273
SB	0.86	10.1%	577
Intersection	0.92	5.4%	2,288

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
4:55 PM to 5:55 PM

Hwy 213 & Meyers Rd

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
4:00 PM	12	62		0	113	27	0	11		12	0				0	237	1	1	0	1
4:05 PM	17	62		0	85	10	0	29		25	0				0	228	0	2	0	0
4:10 PM	12	62		0	114	23	1	10		10	0				0	231	0	0	0	0
4:15 PM	10	60		0	102	27	0	10		19	0				0	228	1	4	0	1
4:20 PM	14	49		0	76	14	0	17		14	0				0	184	0	1	0	0
4:25 PM	7	69		0	109	19	0	9		22	0				0	235	0	0	0	0
4:30 PM	7	71		0	97	23	0	4		16	0				0	218	0	0	0	0
4:35 PM	12	53		0	106	17	0	13		11	0				0	212	1	0	0	0
4:40 PM	15	61		0	91	13	0	25		19	0				0	224	0	0	0	0
4:45 PM	10	77		0	109	17	0	16		9	0				0	238	1	0	0	0
4:50 PM	8	64		0	106	11	0	17		23	0				0	229	0	1	0	0
4:55 PM	13	56		0	109	9	0	33		25	0				0	245	0	0	0	0
5:00 PM	8	59		0	95	16	0	15		18	0				0	211	1	0	0	1
5:05 PM	14	65		0	103	11	0	14		21	0				0	228	1	0	0	0
5:10 PM	11	47		0	95	24	0	21		19	1				0	217	2	1	0	0
5:15 PM	19	66		0	112	23	0	16		8	0				0	244	0	0	0	0
5:20 PM	12	58		0	113	21	0	18		9	0				0	231	1	0	0	0
5:25 PM	9	56		1	96	13	0	11		20	0				0	205	3	0	0	0
5:30 PM	15	73		0	96	22	0	13		16	0				0	235	0	0	0	0
5:35 PM	9	61		0	111	15	0	12		18	0				0	226	1	0	0	0
5:40 PM	2	58		0	93	31	0	23		25	0				0	232	0	0	0	0
5:45 PM	15	58		0	97	11	0	24		27	0				0	232	0	0	0	0
5:50 PM	7	69		0	111	33	0	16		16	0				0	252	0	0	0	0
5:55 PM	8	62		0	93	21	0	16		18	0				0	218	2	1	0	0
Total Survey	266	1,478		1	2,432	451	1	393		420	1				0	5,440	15	11	0	3

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
4:00 PM	41	186		0	312	60	1	50		47	0				0	696	1	3	0	1
4:15 PM	31	178		0	287	60	0	36		55	0				0	647	1	5	0	1
4:30 PM	34	185		0	294	53	0	42		46	0				0	654	1	0	0	0
4:45 PM	31	197		0	324	37	0	66		57	0				0	712	1	1	0	0
5:00 PM	33	171		0	293	51	0	50		58	1				0	656	4	1	0	1
5:15 PM	40	180		1	321	57	0	45		37	0				0	680	4	0	0	0
5:30 PM	26	192		0	300	68	0	48		59	0				0	693	1	0	0	0
5:45 PM	30	189		0	301	65	0	56		61	0				0	702	2	1	0	0
Total Survey	266	1,478		1	2,432	451	1	393		420	1				0	5,440	15	11	0	3

Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound Hwy 213				Southbound Hwy 213				Eastbound Meyers Rd				Westbound Meyers Rd				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	860	1,453	2,313	1	1,460	942	2,402	0	438	363	801	1	0	0	0	0	2,758
%HV	2.3%				1.7%				1.1%				0.0%				1.8%
PHF	0.96				0.94				0.84				0.00				0.96

Pedestrians Crosswalk			
North	South	East	West
9	1	0	1

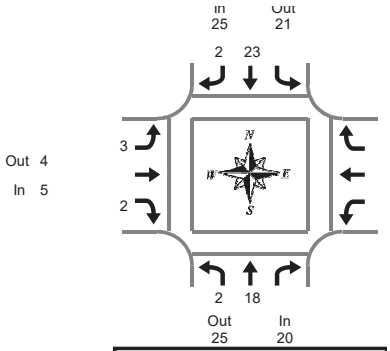
By Movement	Northbound Hwy 213				Southbound Hwy 213				Eastbound Meyers Rd				Westbound Meyers Rd				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	134	726		860		1,231	229	1,460	216		222	438				0	2,758
%HV	1.5%	2.5%	NA	2.3%	NA	1.9%	0.9%	1.7%	1.4%	NA	0.9%	1.1%	NA	NA	NA	0.0%	1.8%
PHF	0.76	0.95		0.96		0.96	0.76	0.94	0.86		0.79	0.84				0.00	0.96

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L		R	Bikes				Bikes		North	South	East	West
4:00 PM	137	746		0	1,217	210	1	194		205	0				0	2,709	4	9	0	2
4:15 PM	129	731		0	1,198	201	0	194		216	1				0	2,669	7	7	0	2
4:30 PM	138	733		1	1,232	198	0	203		198	1				0	2,702	10	2	0	1
4:45 PM	130	740		1	1,238	213	0	209		211	1				0	2,741	10	2	0	1
5:00 PM	129	732		1	1,215	241	0	199		215	1				0	2,731	11	2	0	1

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
4:55 PM to 5:55 PM

Hwy 213 & Meyers Rd

Tuesday, April 12, 2016
4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
4:00 PM	0	5		5	4	1	5	1		0	1				0	11
4:05 PM	0	5		5	4	0	4	0		1	1				0	10
4:10 PM	0	2		2	2	0	2	0		0	0				0	4
4:15 PM	0	3		3	3	1	4	1		0	1				0	8
4:20 PM	0	6		6	4	0	4	0		0	0				0	10
4:25 PM	0	4		4	1	0	1	0		0	0				0	5
4:30 PM	0	4		4	3	1	4	0		0	0				0	8
4:35 PM	0	0		0	3	2	5	2		0	2				0	7
4:40 PM	0	1		1	1	0	1	1		0	1				0	3
4:45 PM	0	6		6	3	0	3	1		0	1				0	10
4:50 PM	0	0		0	3	0	3	0		0	0				0	3
4:55 PM	0	1		1	3	0	3	2		0	2				0	6
5:00 PM	0	1		1	2	0	2	0		0	0				0	3
5:05 PM	0	2		2	2	0	2	0		0	0				0	4
5:10 PM	0	2		2	0	1	1	0		0	0				0	3
5:15 PM	1	1		2	2	0	2	1		0	1				0	5
5:20 PM	0	3		3	2	0	2	0		0	0				0	5
5:25 PM	0	3		3	3	0	3	0		0	0				0	6
5:30 PM	1	1		2	3	1	4	0		1	1				0	7
5:35 PM	0	1		1	1	0	1	0		0	0				0	2
5:40 PM	0	1		1	1	0	1	0		1	1				0	3
5:45 PM	0	0		0	2	0	2	0		0	0				0	2
5:50 PM	0	2		2	2	0	2	0		0	0				0	4
5:55 PM	0	2		2	1	0	1	1		0	1				0	4
Total Survey	2	56		58	55	7	62	10		3	13				0	133

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
4:00 PM	0	12		12	10	1	11	1		1	2				0	25
4:15 PM	0	13		13	8	1	9	1		0	1				0	23
4:30 PM	0	5		5	7	3	10	3		0	3				0	18
4:45 PM	0	7		7	9	0	9	3		0	3				0	19
5:00 PM	0	5		5	4	1	5	0		0	0				0	10
5:15 PM	1	7		8	7	0	7	1		0	1				0	16
5:30 PM	1	3		4	5	1	6	0		2	2				0	12
5:45 PM	0	4		4	5	0	5	1		0	1				0	10
Total Survey	2	56		58	55	7	62	10		3	13				0	133

Heavy Vehicle Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound Hwy 213			Southbound Hwy 213			Eastbound Meyers Rd			Westbound Meyers Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	20	25	45	25	21	46	5	4	9	0	0	0	50
PHF	0.63			0.69			0.63			0.00			0.69

By Movement	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Total
	L	T		Total	T	R	Total	L		R	Total				Total	
Volume	2	18		20	23	2	25	3		2	5				0	50
PHF	0.50	0.64		0.63	0.72	0.50	0.69	0.38		0.25	0.63				0.00	0.69

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 213				Southbound Hwy 213			Eastbound Meyers Rd				Westbound Meyers Rd				Interval Total
	L	T		Total	T	R	Total	L		R	Total				Total	
4:00 PM	0	37		37	34	5	39	8		1	9				0	85
4:15 PM	0	30		30	28	5	33	7		0	7				0	70
4:30 PM	1	24		25	27	4	31	7		0	7				0	63
4:45 PM	2	22		24	25	2	27	4		2	6				0	57
5:00 PM	2	19		21	21	2	23	2		2	4				0	48

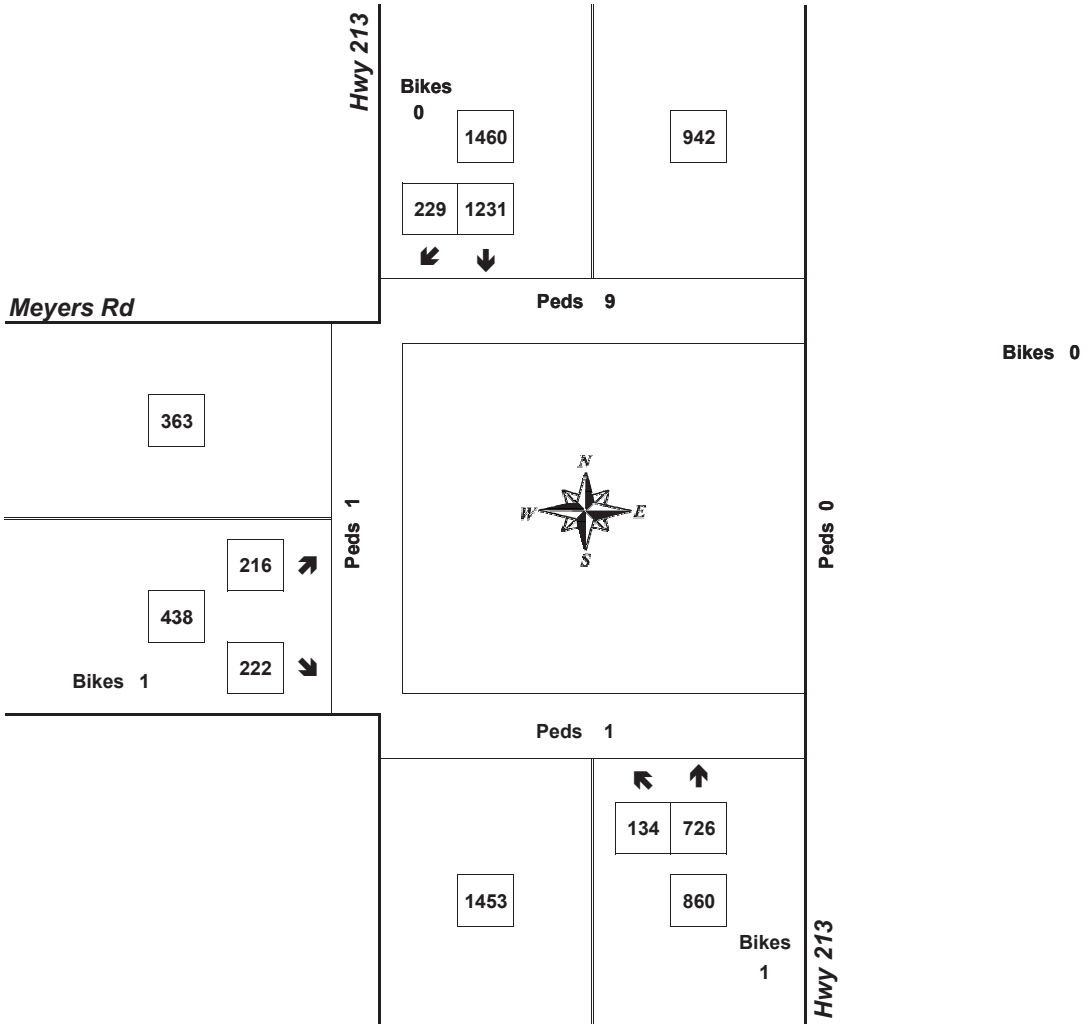
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Hwy 213 & Meyers Rd

4:55 PM to 5:55 PM
Tuesday, April 12, 2016



Approach	PHF	HV%	Volume
EB	0.84	1.1%	438
WB	0.00	0.0%	0
NB	0.96	2.3%	860
SB	0.94	1.7%	1,460
Intersection	0.96	1.8%	2,758

Count Period: 4:00 PM to 6:00 PM

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Community College Access On Clairmont

Start Time	12-Apr-16 Tue	Enter	Exit							Total
12:00 AM		1	5							6
01:00		0	1							1
02:00		0	1							1
03:00		0	0							0
04:00		2	2							4
05:00		9	0							9
06:00		34	4							38
07:00		240	38							278
08:00		229	26							255
09:00		**258**	66							**324**
10:00		130	105							235
11:00		92	**203**							295
12:00 PM		216	195							**411**
01:00		97	143							240
02:00		138	**216**							354
03:00		124	131							255
04:00		110	149							259
05:00		**240**	156							396
06:00		88	140							228
07:00		30	136							166
08:00		14	162							176
09:00		9	98							107
10:00		2	5							7
11:00		0	7							7
Total		2063	1989							4052
Percent		50.9%	49.1%							
AM Peak	-	09:00	11:00	-	-	-	-	-	-	09:00
Vol.	-	258	203	-	-	-	-	-	-	324
PM Peak	-	17:00	14:00	-	-	-	-	-	-	12:00
Vol.	-	240	216	-	-	-	-	-	-	411

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Community College Access On Clairmont

Start Time	13-Apr-16 Wed	Enter	Exit							Total
12:00 AM		0	1							1
01:00		1	1							2
02:00		0	1							1
03:00		0	0							0
04:00		1	0							1
05:00		9	1							10
06:00		32	6							38
07:00		212	31							243
08:00		**239**	49							288
09:00		194	68							262
10:00		163	110							273
11:00		155	**156**							**311**
12:00 PM		148	**206**							**354**
01:00		143	163							306
02:00		102	154							256
03:00		74	184							258
04:00		82	138							220
05:00		**160**	142							302
06:00		78	120							198
07:00		25	118							143
08:00		10	92							102
09:00		7	121							128
10:00		1	13							14
11:00		2	4							6
Total		1838	1879							3717
Percent		49.4%	50.6%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	239	156	-	-	-	-	-	-	311
PM Peak	-	17:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	160	206	-	-	-	-	-	-	354
Grand Total		3901	3868							7769
Percent		50.2%	49.8%							
ADT		ADT 5,104		AADT 5,104						

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Community College Access on Molalla

Start Time	12-Apr-16 Tue	Enter	Exit							Total
12:00 AM		3	4							7
01:00		0	1							1
02:00		0	0							0
03:00		0	0							0
04:00		8	0							8
05:00		30	13							43
06:00		67	31							98
07:00		328	99							427
08:00		**421**	91							512
09:00		410	146							556
10:00		201	190							391
11:00		182	**381**							**563**
12:00 PM		**440**	311							**751**
01:00		189	209							398
02:00		218	**366**							584
03:00		166	353							519
04:00		155	346							501
05:00		284	297							581
06:00		128	186							314
07:00		60	248							308
08:00		14	141							155
09:00		18	100							118
10:00		5	3							8
11:00		5	4							9
Total		3332	3520							6852
Percent		48.6%	51.4%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	421	381	-	-	-	-	-	-	563
PM Peak	-	12:00	14:00	-	-	-	-	-	-	12:00
Vol.	-	440	366	-	-	-	-	-	-	751

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Community College Access on Molalla

Start Time	13-Apr-16 Wed	Enter	Exit							Total
12:00 AM		2	0							2
01:00		2	4							6
02:00		1	1							2
03:00		0	0							0
04:00		6	3							9
05:00		29	12							41
06:00		68	32							100
07:00		388	66							454
08:00		**456**	86							542
09:00		345	167							512
10:00		286	218							504
11:00		262	**344**							**606**
12:00 PM		**283**	310							593
01:00		250	**346**							**596**
02:00		146	296							442
03:00		136	346							482
04:00		168	302							470
05:00		218	232							450
06:00		118	142							260
07:00		64	161							225
08:00		16	100							116
09:00		16	90							106
10:00		2	19							21
11:00		2	3							5
Total		3264	3280							6544
Percent		49.9%	50.1%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	456	344	-	-	-	-	-	-	606
PM Peak	-	12:00	13:00	-	-	-	-	-	-	13:00
Vol.	-	283	346	-	-	-	-	-	-	596
Grand Total		6596	6800							13396
Percent		49.2%	50.8%							
ADT		ADT 9,546		AADT 9,546						

unduplicated headcount by extraction period -with ACTI code filter (% difference table across/prior year same time) (acti selected = None)

	2015/SP	2015/FA	2016/WI	2016/SP
PWK2	4,379 (,)	5,482 (1,103, 25.2%)	5,056 (-426, -7.8%)	(-5,056, -100.0%)
PWK1	4,863 (,)	5,952 (1,089, 22.4%)	5,175 (-777, -13.1%)	4,695 (-480, -9.3%)
FD	5,420 (,)	6,282 (862, 15.9%)	5,817 (-465, -7.4%)	5,539 (-278, -4.8%)
WK1	5,628 (,)	6,363 (735, 13.1%)	5,926 (-437, -6.9%)	5,669 (-257, -4.3%)
WK2	5,616 (,)	6,381 (765, 13.6%)	5,974 (-407, -6.4%)	5,740 (-234, -3.9%)
WK3	5,796 (,)	6,417 (621, 10.7%)	6,017 (-400, -6.2%)	5,892 (-125, -2.1%)
WK4	6,091 (,)	6,485 (394, 6.5%)	6,047 (-438, -6.8%)	(-6,047, -100.0%)
WK5	6,154 (,)	6,569 (415, 6.7%)	6,126 (-443, -6.7%)	(-6,126, -100.0%)
WK6	6,246 (,)	6,738 (492, 7.9%)	6,148 (-590, -8.8%)	(-6,148, -100.0%)
WK7	6,261 (,)	6,798 (537, 8.6%)	6,189 (-609, -9.0%)	(-6,189, -100.0%)
WK8	6,290 (,)	6,809 (519, 8.3%)	6,232 (-577, -8.5%)	(-6,232, -100.0%)
WK9	6,312 (,)	6,811 (499, 7.9%)	6,376 (-435, -6.4%)	(-6,376, -100.0%)
WK10	6,722 (,)	6,817 (95, 1.4%)	6,404 (-413, -6.1%)	(-6,404, -100.0%)
EOT-E	6,874 (,)	6,818 (-56, -0.8%)	6,426 (-392, -5.7%)	(-6,426, -100.0%)
EOT-F	6,939 (,)	7,122 (183, 2.6%)	6,428 (-694, -9.7%)	(-6,428, -100.0%)
AUDIT	6,938 (,)	(-6,938, -100.0%)	(0,)	(0,)

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	10	17	27	0	13	0	17	9	14	13	27	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	0	2	2	0	0
YEAR 2015 TOTAL	**0**	**12**	**18**	**30**	**0**	**15**	**0**	**20**	**9**	**15**	**15**	**30**	**0**	**0**
YEAR: 2014														
REAR-END	0	9	10	19	0	11	0	16	2	11	7	19	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**9**	**12**	**21**	**0**	**11**	**0**	**16**	**4**	**12**	**8**	**21**	**0**	**0**
YEAR: 2013														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
BACKING	0	0	1	1	0	0	0	0	1	0	0	1	0	0
REAR-END	0	17	11	28	0	18	0	22	5	20	8	28	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	2	0	2	0	3	1	2	0	1	1	2	0	0
YEAR 2013 TOTAL	**0**	**19**	**14**	**33**	**0**	**21**	**1**	**25**	**7**	**22**	**10**	**33**	**0**	**0**
YEAR: 2012														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	1	0	1	0	1	0	1
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	18	6	24	0	24	0	16	6	16	8	24	0	0

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	2	0	2	0	3	0	2	0	0	2	2	0	0
YEAR 2012 TOTAL	**0**	**22**	**7**	**29**	**0**	**29**	**0**	**21**	**6**	**19**	**10**	**29**	**0**	**1**
YEAR: 2011														
ANGLE	1	0	2	3	1	2	1	1	2	2	1	3	0	0
REAR-END	0	12	13	25	0	13	0	19	6	18	7	25	0	0
TURNING MOVEMENTS	0	2	0	2	0	3	0	0	2	0	2	2	0	0
YEAR 2011 TOTAL	**1**	**14**	**15**	**30**	**1**	**18**	**1**	**20**	**10**	**20**	**10**	**30**	**0**	**0**
FINAL TOTAL	**1**	**76**	**66**	**143**	**1**	**94**	**2**	**102**	**36**	**88**	**53**	**143**	**0**	**1**

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

1 - 4 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C L / W H K / O R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
04839	N N N	11/29/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT												29
NO RPT		SA		CASCADE HY SOUTH	UN		TRF SIGNAL	N	UNK	REAR		PRVTE	UN-UN									000			00
N		UNK			06	3		N	UNK	PDO		PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		026	000			29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	UN-UN									011			00
												PSNGR CAR		01	DRVR	NONE	27	M	OR-Y		000	000			00
																			OR<25						
01828	N N N	05/25/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										013		07
NONE		WE		CASCADE HY SOUTH	N		TRF SIGNAL	N	WET	REAR		PRVTE	N -S									000			00
N		2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	76	M	OR-Y		026	000			07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	N -S									011	013		00
												PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		000	000			00
																			UNK						
											03	NONE 0	STOP												
												PRVTE	N -S									022			00
												PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000			00
																			UNK						
02674	N N N	07/27/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000			00
N		7P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	M	OR-Y		026	000			07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	N -S									011			00
												PSNGR CAR		01	DRVR	NONE	27	M	OR-Y		000	000			00
																			OR<25						
											02	NONE 0	STOP												
												PRVTE	N -S									011			00
												PSNGR CAR		02	PSNG	INJC	05	F			000	000			00
01982	N N N N N	05/30/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	PED	01	NONE 0	STRGHT												18,14
STATE		WE		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	PED		PRVTE	N -S									000			00
N		4P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	32	F	OR-Y		000	000	082		00
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25						
													- STRGHT	01	PED	INJB	14	M		I XWLK	028,020	035			18,14
													E W												

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

5 - 9 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S L / W H / C / O R / N K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00662	N N N N N	02/25/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	O-1STOP	01	NONE 0	BACK												10
CITY		MO		CASCADE HY SOUTH	N		TRF SIGNAL	N	SNO	BACK		PRVTE	S -N									000			00
N		6P			06	3		N	UNK	PDO		PSNGR CAR		01	DRVR	NONE	34	F	SUSP		011	000			10
N		45 19	-122 34	016000100S00															OR<25						
		54.9642	30.2965679																						
											02	NONE 0	STOP												
												PRVTE	N -S									011			00
												PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000			00
																			OR<25						
02051	N N N	06/10/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												10
NONE		MO		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	SS-O		PRVTE	N -S									000			00
N		12P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y		080	000			10
N		45 19	-122 34	016000100S00															OR<25						
		54.9642	30.2965679																						
											02	NONE 0	STOP												
												PRVTE	N -S									011			00
												PSNGR CAR		01	DRVR	NONE	87	F	OR-Y		000	000			00
																			OR<25						
02085	N N N	06/12/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		CASCADE HY SOUTH	N		TRF SIGNAL	N	UNK	REAR		PRVTE	N -S									000			00
N		10A			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		026	000			07
N		45 19	-122 34	016000100S00															OR<25						
		55.860672	29.9517239																						
											02	NONE 0	STOP												
												PUBLC	N -S									011			00
												PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		000	000			00
																			UNK						
03700	N N N	10/01/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		TU		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		UNKN	N -S									000			00
N		1P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000			07
N		45 19	-122 34	016000100S00															UNK						
		54.9642	30.2965679																						
											02	NONE 0	STOP												
												PRVTE	N -S									011			00
												PSNGR CAR		01	DRVR	NONE	52	M	OR-Y		000	000			00
																			OR<25						
04798	N Y N	12/11/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT												07
CITY		WE		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000			00
N		8P			06	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		026	000			07
N		45 19	-122 34	016000100S00															OR<25						
		54.9642	30.2965679																						
											02	NONE 0	STOP												
												PRVTE	N -S									011			00
												PSNGR CAR		01	DRVR	INJC	58	M	OR-Y		000	000			00
																			OR<25						

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A C	R U G / S	S C H / L	W O R / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
01637	N	N	N		04/29/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT					TU		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N					2P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
N					45 19 54.965388	-122 34 30.296064	016000100S00															OR<25					
														02	NONE 0	STOP											
															PRVTE	N -S									011		00
															PSNGR CAR		01	DRVR	NONE	65	F	OR-Y		000	000		00
																						OR<25					
03308	N	N	N		08/25/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE					MO		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N					4P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000		29
N					45 19 54.97	-122 34 30.3	016000100S00															OR<25					
														02	NONE 0	STOP											
															PRVTE	S -N									011		00
															PSNGR CAR		01	DRVR	NONE	28	F	OR-Y		000	000		00
																						OR<25					
04757	N	N	N		11/22/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-STRGHT	01	NONE 0	STRGHT											13
NO RPT					SA		CASCADE HY SOUTH	N		TRF SIGNAL	N	WET	SS-O		UNKN	N -S									000		00
N					1P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		045	000		13
N					45 19 54.97	-122 34 30.3	016000100S00															UNK					
														02	NONE 0	STRGHT											
															PRVTE	N -S									000		00
															PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		000	000		00
																						OR<25					
01497	N	N	N		04/21/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE					TU		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N					10P			06	3		N	DARK	INJ		PSNGR CAR		01	DRVR	INJB	54	M	OR-Y		026	000		29
N					45 19 54.97	-122 34 30.3	016000100S00															OR<25					
														02	NONE 0	STOP											
															UNKN	N -S									011		00
															PSNGR CAR		01	DRVR	NONE	49	M	OR-Y		000	000		00
																						UNK					
01876	N	N	N		05/21/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											10
NO RPT					TH		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	SS-O		PRVTE	N -S									000		00
N					4P			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	78	F	OR-Y		080	000		10
N					45 19 54.97	-122 34 30.3	016000100S00															OR<25					
														02	NONE 0	STRGHT											
															PRVTE	N -S									000		00
															PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		000	000		00
																						OR<25					

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TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

14 - 18 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S H S / W O K / R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											03	NONE 0	STRGHT											
												PRVTE	N -S									000		00
												PSNGR CAR		01	DRVR	INJC	54	F	OR-Y		000	000		00
																			OR<25					
02710	N N N	07/04/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											16,29
NO RPT		SA		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N		3P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	F	OR-Y		026	025		16,29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	NONE	62	F	OR-Y		000	000		00
																			OR<25					
03650	N N N	09/02/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		WE		CASCADE HY SOUTH	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N		2P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	43	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	NONE	61	F	OR-Y		000	000		00
																			OR<25					
05088	N N N	12/01/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE		TU		CASCADE HY SOUTH	N		TRF SIGNAL	N	WET	REAR		PRVTE	N -S									000		00
N		5P			06	3		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		000	000		00
																			OR<25					
00115	N N N	01/10/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT		MO		CASCADE HY SOUTH	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
N		5P			06	2		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		000	000		00
																			OR<25					
00158	N N N	01/13/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		4A			09	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	36	F	OR-Y		042	000		07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S U S / C H L / W O K / R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STRGHT											
												PRVTE	NE-SW								000		00
												PSNGR CAR		01	DRVR	NONE	55	F	OR-Y		000	000		00
																			OR>25					
00268	N N N	01/22/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		SA		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		1P			09	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	INJC	47	M	OR-Y		000	000		00
																			OR<25					
00504	N N N	02/10/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		3P			09	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		000	000		00
																			OR<25					
00807	N N N	03/07/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT		MO		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		6A			09	3		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	45	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR>25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	NONE	53	M	OR-Y		000	000		00
																			OR<25					
81746	N N N	04/04/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		PRVTE	SE-NW									000		00
N		10A			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		000	000		00
																			OR<25					
02297	N N N	06/30/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		12P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R G S / S H L / W O K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	INJC	48	M	OR-Y	000	000		00
																			OR<25				
03876	N N N	10/15/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		SA		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		UNKN	SE-NW								000		00
N		12A			09	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y	026	000		07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															UNK				
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	NONE	22	F	OR-Y	000	000		00
																			OR<25				
03993	N N N	10/25/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											07
NO RPT		TU		CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		PRVTE	SE-NW								000		00
N		6P			09	2		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OTH-Y	026	000		07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25				
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	NONE	64	M	OR-Y	000	000		00
																			OR<25				
04755	N N N	12/09/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	UNKN 0	STRGHT									013		07
NONE		FR		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		UNKN	SE-NW								000		00
N		8A			09	2		N	DAY	PDO		UNKNOWN		01	DRVR	NONE	00	Unk	UNK	026	000		07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															UNK				
											02	NONE 0	STOP											
												PRVTE	SE-NW								011	013	00
												PSNGR CAR		01	DRVR	NONE	25	F	OR-Y	000	000		00
																			OR<25				
											03	NONE 0	STOP											
												PRVTE	SE-NW								022		00
												PSNGR CAR		01	DRVR	NONE	00	F	UNK	000	000		00
																			UNK				
00376	N N N N N	01/28/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
STATE		SA		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW								000		00
N		7P			09	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	45	F	OR-Y	026	000		07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25				
											02	NONE 0	STOP											
												PRVTE	SE-NW								011		00
												PSNGR CAR		01	DRVR	INJC	19	F	OR-Y	000	000		00
																			OR<25				

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L / R C / S S / U G / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		02	PSNG	INJC	20	F			000	000			00
00436	N N N	02/02/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000			00
N		4P			09	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	85	M	OR-Y		026	000			07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25						
											02	NONE 0	STOP												
												UNKN	SE-NW									011			00
												PSNGR CAR		01	DRVR	NONE	00	M	UNK		000	000			00
																			UNK						
00485	N N N N N	02/06/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
CITY		MO		CASCADE HY SOUTH	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000			00
N		6P			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	65	M	OTH-Y		043,026	000			07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															N-RES						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	INJC	26	M	OR-Y		000	000			00
																			OR>25						
00679	N N N	02/22/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		UNKN	SE-NW									000			00
N		1P			09	2		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	M	UNK		026	000			07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															UNK						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	INJC	23	F	OR-Y		000	000			00
																			OR<25						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		02	PSNG	INJC	28	F			000	000			00
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		03	PSNG	INJC	55	F			000	000			00
00763	N N N	02/29/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		PRVTE	SE-NW									000			00
N		7P			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000			07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25						

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SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	R G S	S H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
															02	NONE 0	STOP											
																PRVTE	SE-NW									011		00
																PSNGR CAR		01	DRVR	INJC	17	F	OR-Y		000	000		00
																							OR<25					
00972	N	N	N			03/15/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH		CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		PRVTE	SE-NW									000		00
N						6A			09	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		026	000		07
N						45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
															02	NONE 0	STOP											
																PRVTE	SE-NW									011		00
																PSNGR CAR		01	DRVR	INJC	56	F	OR-Y		000	000		00
																							OR<25					
01301	N	N	N			04/07/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT						SA		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N						9A			09	2		N	DAY	INJ		MTRCYCLE		01	DRVR	INJC	33	M	OR-Y		026	000		07
N						45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
															02	NONE 0	STOP											
																PRVTE	SE-NW									011		00
																PSNGR CAR		01	DRVR	NONE	28	M	OR-Y		000	000		00
																							OR<25					
01649	N	N	N			05/05/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						SA		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N						2P			09	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		026	000		07
N						45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
															01	NONE 0	STRGHT											
																PRVTE	SE-NW									000		00
																PSNGR CAR		02	PSNG	NO<5	01	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	SE-NW									011		00
																PSNGR CAR		01	DRVR	NONE	53	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	SE-NW									011		00
																PSNGR CAR		02	PSNG	INJC	49	F			000	000		00
01694	N	N	N			05/08/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TU		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N						8P			09	3		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	72	M	OR-Y		026	000		07
N						45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S H S / W O K / R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	00	M	UNK		000	000		00
																			OR<25					
02190	N N N	06/18/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 1	STRGHT											07
NONE		MO		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		12P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	70	M	OTH-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	43	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		02	PSNG	INJC	07	M			000	000		00
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		03	PSNG	INJC	09	F			000	000		00
02429	N N N	07/06/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		2P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	61	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	54	M	OTH-Y		000	000		00
																			N-RES					
02909	N N N	08/07/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		3P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	27	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	70	M	OR-Y		000	000		00
																			OR<25					
04569	N N N	11/26/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											27,07
NONE		MO		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		3P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	66	F	OR-Y		016,026	000		27,07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					

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										02	NONE 0	STOP											
											PRVTE	SE-NW									011		00
											PSNGR CAR		01	DRVR	INJB	27	F	OR-Y		000	000		00
																		OR<25					
										02	NONE 0	STOP											
											PRVTE	SE-NW									011		00
											PSNGR CAR		02	PSNG	NO<5	02	M			000	000		00
00193	N N N	01/17/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW								000		00
N		10A			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		026	000		07
N		45 19	-122 34	016000100S00															OR<25				
		54.9642	30.2965679																				
										02	NONE 0	STOP											
											PRVTE	SE-NW									011		00
											PSNGR CAR		01	DRVR	NONE	29	F	OR-Y		000	000		00
																		OR<25					
00296	N N N	01/25/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT										07
NONE		FR		CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		PRVTE	SE-NW								000		00
N		7A			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25				
		54.9642	30.2965679																				
										02	NONE 0	STOP											
											PRVTE	SE-NW									011		00
											PSNGR CAR		01	DRVR	INJC	24	F	OR-Y		000	000		00
																		OR<25					
										02	NONE 0	STOP											
											PRVTE	SE-NW									011		00
											PSNGR CAR		02	PSNG	NO<5	03	M			000	000		00
03686	N N N	03/27/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE		WE		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW								000		00
N		9A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25				
		54.9642	30.2965679																				
										02	NONE 0	STOP											
											PRVTE	SE-NW									011		00
											PSNGR CAR		01	DRVR	INJC	59	M	OR-Y		000	000		00
																		OR<25					
01343	N N N	04/10/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE		WE		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW								000		00
N		5P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25				
		54.9642	30.2965679																				

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

44 - 48 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	41	F	OR-Y		000	000		00
																			OR<25					
01405	N N N N N	04/24/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27,07
CITY		WE		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		1P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		016,043,026	000		27,07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	27	F	OTH-Y		000	000		00
																			OR<25					
01782	N N N	05/21/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		7A			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	62	F	OR-Y		000	000		00
																			OR<25					
02276	N N N	06/27/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		10A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	63	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		02	PSNG	NO<5	01	F			000	000		00
03212	N N N	08/29/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY		TH		CASCADE HY SOUTH	NE		TRF SIGNAL	N	WET	REAR		PRVTE	SE-NW									000		00
N		11A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	24	F	OR-Y		000	000		00
																			OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

49 - 52 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R U G / S C S / H / W O L / N R K / N	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
03276	N N N N N	09/01/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY		SU		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		12P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y		043,026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	48	F	OR-Y		000	000		00
																			OR>25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		02	PSNG	INJC	49	F			000	000		00
03531	N N N	09/21/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		SA		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		9A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															N-RES					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	44	F	OR-Y		000	000		00
																			OR<25					
04072	N N N	10/24/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		UNKN	SE-NW									000		00
N		7A			09	3		N	DLIT	PDO		UNKNOWN		01	DRVR	NONE	00	Unk	UNK		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	69	M	OR-Y		000	000		00
																			OR<25					
00987	N N N	03/11/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		6P			09	3		N	DUSK	INJ		PSNGR CAR		01	DRVR	INJB	38	F	OR-Y		026	000		07
N		45 19 54.965388	-122 34 30.296064	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	36	M	OR-Y		000	000		00
																			OR<25					
00273	N N N	01/22/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		6A			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	21	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	25	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		02	PSNG	INJC	04	F			000	000		00
02876	N N N	07/17/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		FR		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		7A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	69	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	33	M	OR-Y		000	000		00
																			OR<25					
03849	N N N	09/17/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		6P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	42	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	47	F	OR-Y		000	000		00
																			OR<25					
00553	N N N	02/12/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		7P			09	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												UNKN	SE-NW									011		00
												UNKNOWN		01	DRVR	NONE	45	F	OR-Y		000	000		00
																			UNK					
01159	N N N	04/02/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		4P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR>25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	58	F	OR-Y		000	000		00
																			OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S U S / C H L / W O K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04182	N N N	09/14/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		MO		CASCADE HY SOUTH	NE		YIELD	N	DRY	REAR		PRVTE	SE-NW									000		00
N		12A			09	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															N-RES					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	27	F	OR-Y		000	000		00
																			OR<25					
05566	N N N	12/22/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											29
NONE		TU		CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		UNKN	SE-NW									000		00
N		5A			09	3		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															UNK					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	42	F	OR-Y		000	000		00
																			OR<25					
00577	N N N N N	02/19/2013	16	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY		TU	0	CASCADE HY SOUTH	NE		YIELD	N	WET	REAR		PRVTE	SE-NW									000		00
N		6A			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	53	M	OR-Y		043,026	000		07
N		45 19 54.965352	-122 34 30.296028																OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJB	57	M	OR-Y		000	000		00
																			OR<25					
01893	N N N	05/30/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	ANGL-STP	01	NONE 1	TURN-R											22
CITY		TH		CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	TURN		PRVTE	S -E									000		22
N		2P			06	3		N	DAY	INJ		SEMI TOW		01	DRVR	NONE	29	M	OR-Y		017	017		00
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	E -W									012		00
												PSNGR CAR		01	DRVR	INJC	48	F	OR-Y		000	000		00
																			OR<25					
00120	N N N	01/09/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-R											02
NONE		TH		CASCADE HY SOUTH	E		TRF SIGNAL	N	WET	TURN		PRVTE	W -S									016		00
N		5P			03	3		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		028	000		02
N		45 19 54.965388	-122 34 30.296064	016000100S00															OR<25					
											02	NONE 0	STRGHT											
												PRVTE	N -S									000		00
												PSNGR CAR		01	DRVR	NONE	63	M	UNK		000	000		00
																			OR>25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

63 - 66 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01893	N N N	04/20/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		MO		CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
N		3P			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	E -W									011		00
												PSNGR CAR		01	DRVR	INJC	47	F	OR-Y		000	000		00
																			OR<25					
04437	N N N	10/27/2015	14	S BEAVERCREEK RD	INTER	4-LEG	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											29
NONE		TU		CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
N		5P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		042	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STRGHT											
												PRVTE	E -W									006		00
												PSNGR CAR		01	DRVR	NONE	53	F	OR-Y		000	000		00
																			OR<25					
00355	Y N Y N N	01/30/2011	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											16,32
CITY		SU	0	CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000		00
N		3P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	72	F	OR-Y		053,026,011	025		16,32
Y		45 19 54.9800769	-122 34 30.2904031																OR<25					
											02	NONE 0	STOP											
												PRVTE	E -W									011		00
												PSNGR CAR		01	DRVR	INJB	51	F	OR-Y		000	000		00
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	E -W									022		00
												PSNGR CAR		01	DRVR	NONE	54	M	OR-Y		000	000		00
																			OR<25					
01217	N N N	04/11/2011	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	STRGHT											07
NONE		MO	0	CASCADE HY SOUTH	E		UNKNOWN	N	DRY	REAR		PRVTE	E -W									000		00
N		8P			06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	47	F	OTH-Y		042	000		07
Y		45 19 54.9800769	-122 34 30.2904031																N-RES					
											02	NONE 0	STRGHT											
												PRVTE	E -W									006		00
												PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STRGHT											
												PRVTE	E -W									006		00
												PSNGR CAR		02	PSNG	INJC	18	F			000	000		00

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C	R U G S	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
01368	Y	N	N	N	04/22/2011	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									013	01
STATE					FR	0	CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N								000		00
N					2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	41	F	OR-Y	047,026	000		01
Y					45 19 54.9800769	-122 34 30.2904031																OR<25				
														02	NONE 0	STOP										
															PRVTE	S -N								011	013	00
															PSNGR CAR		01	DRVR	NONE	17	F	OR-Y	000	000		00
																						OR<25				
														03	NONE 0	STOP										
															PRVTE	S -N								022		00
															PSNGR CAR		01	DRVR	NONE	22	M	OR-Y	000	000		00
																						OR<25				
04115	N	N	N		11/03/2011	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE					TH	0	CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W								000		00
N					11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK	026	000		07
Y					45 19 54.9800769	-122 34 30.2904031																UNK				
														02	NONE 0	STOP										
															PRVTE	E -W								011		00
															PSNGR CAR		01	DRVR	INJC	25	F	OR-Y	000	000		00
																						OR>25				
00750	N	N	N		02/27/2012	16	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT										07
NONE					MO	0	CASCADE HY SOUTH	E		TRF SIGNAL	N	WET	REAR		PRVTE	E -W								000		00
N					2P			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y	026	000		07
N					45 19 54.9653846	-122 34 30.296051																OR<25				
														02	NONE 0	STOP										
															PRVTE	E -W								011		00
															PSNGR CAR		01	DRVR	INJC	33	M	OR-Y	000	000		00
																						OR<25				
05319	N	N	N		12/31/2014	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										29
NONE					WE	0	CASCADE HY SOUTH	E		TRF SIGNAL	N	DRY	REAR		UNKN	UN-UN								000		00
N					9P			06	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK	026	000		29
N					45 19 54.97	-122 34 30.3																UNK				
														02	NONE 0	STOP										
															PRVTE	UN-UN								011		00
															PSNGR CAR		01	DRVR	INJC	16	F	OR-Y	000	000		00
																						OR<25				
														02	NONE 0	STOP										
															PRVTE	UN-UN								011		00
															PSNGR CAR		02	PSNG	INJC	18	F		000	000		00

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

71 - 74 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
03287	N N N	08/13/2015	16	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											29
NO RPT		TH	0	CASCADE HY SOUTH	E		TRF SIGNAL	N	UNK	REAR		UNKN	E -W									000		00
N		3P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3																UNK					
											02	NONE 0	STOP											
												PRVTE	E -W									011		00
												PSNGR CAR		01	DRVR	NONE	65	F	OR-Y		000	000		00
																			OR<25					
00353	N N N	01/25/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		WE		CASCADE HY SOUTH	SE		YIELD	N	WET	REAR		PRVTE	SW-NE									000		00
N		7P			09	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		026	000		07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011		00
												PSNGR CAR		01	DRVR	INJC	50	F	OR-Y		000	000		00
																			OR<25					
02025	N N N	06/03/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											07
NONE		SU		CASCADE HY SOUTH	SE		YIELD	N	UNK	REAR		PRVTE	SW-NE									000		00
N		5P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011		00
												PSNGR CAR		01	DRVR	NONE	46	M	OR-Y		000	000		00
																			OR<25					
03609	N N N	09/29/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT		SA		CASCADE HY SOUTH	SE		YIELD	N	DRY	REAR		PRVTE	SW-NE									000		00
N		8A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	38	M	OR-Y		026	000		07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011		00
												PSNGR CAR		01	DRVR	INJC	24	M	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011		00
												PSNGR CAR		02	PSNG	INJC	24	F			000	000		00
00303	N N N	01/25/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										004	07
NONE		FR		CASCADE HY SOUTH	SE		YIELD	N	DRY	REAR		PRVTE	SW-NE									000		00
N		11A			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

75 - 79 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S U S / C H L / W O K / R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	SW-NE								011	004		00
												PSNGR CAR		01	DRVR	NONE	73	M	OR-Y		000	000		00
																			OR<25					
01066	N N N	03/29/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	SE		YIELD	N	DRY	REAR		PRVTE	SW-NE								000			00
N		5P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9642	30.2965679																					
											02	NONE 0	STOP											
												PRVTE	SW-NE								011			00
												PSNGR CAR		01	DRVR	INJC	32	F	OR-Y		000	000		00
																			OR<25					
03374	N N N	09/11/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		WE		CASCADE HY SOUTH	SE		YIELD	N	DRY	REAR		PRVTE	SW-NE								000			00
N		8A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	32	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9642	30.2965679																					
											02	NONE 0	STOP											
												PRVTE	SW-NE								011			00
												PSNGR CAR		01	DRVR	INJC	74	M	OR-Y		000	000		00
																			OR<25					
04298	N N N	11/05/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU		CASCADE HY SOUTH	SE		YIELD	N	WET	REAR		PRVTE	SW-NE								000			00
N		5P			09	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9642	30.2965679																					
											02	NONE 0	STOP											
												PRVTE	SW-NE								011			00
												PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		000	000		00
																			OR<25					
00483	N N N	02/06/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	SNOW	S-STRGHT	01	NONE 0	STRGHT										124	07
CITY		TH		CASCADE HY SOUTH	SE		YIELD	N	SNO	REAR		UNKN	SW-NE								000	124		00
N		10P			09	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		042	000		07
N		45 19	-122 34	016000100S00															UNK					
		54.965388	30.296064																					
											02	NONE 0	STRGHT											
												PRVTE	SW-NE								006			00
												PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		000	000		00
																			OR<25					
01591	N N N	04/26/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		SA		CASCADE HY SOUTH	SE		YIELD	N	DRY	REAR		PRVTE	SW-NE								000			00
N		4P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	28	M	OR-Y		026	000		29
N		45 19	-122 34	016000100S00															OR<25					
		54.965388	30.296064																					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C	R S U G S	W C H L	O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	69	M	OR-Y		000	000		00
																						OR<25					
00664	N	N	N		02/20/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE					FR		CASCADE HY SOUTH	SE		YIELD	N	DRY	REAR		PRVTE	SW-NE									000		00
N					3P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	46	M	OR-Y		026	000		29
N					45 19 54.97	-122 34 30.3	016000100S00															OR<25					
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		000	000		00
																						OR<25					
00930	N	N	N		03/15/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE					SU		CASCADE HY SOUTH	SE		YIELD	N	WET	REAR		PRVTE	SW-NE									000		00
N					10A			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		026	000		29
N					45 19 54.97	-122 34 30.3	016000100S00															OR<25					
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	00	M	UNK		000	000		00
																						OR<25					
05136	N	N	N		12/03/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE					TH		CASCADE HY SOUTH	SE		YIELD	N	WET	REAR		PRVTE	SW-NE									000		00
N					5P			09	3		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	41	M	OR-Y		026	000		29
N					45 19 54.97	-122 34 30.3	016000100S00															OR<25					
														02	NONE 0	STOP											
															PRVTE	SW-NE									011		00
															PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		000	000		00
																						OR<25					
00146	N	N	N		01/12/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY					WE		CASCADE HY SOUTH	S		TRF SIGNAL	N	WET	REAR		PRVTE	S -N									000		00
N					4P			06	2		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		026	000		07
N					45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25					
														02	NONE 0	STOP											
															PRVTE	S -N									011		00
															PSNGR CAR		01	DRVR	INJC	24	F	OR-Y		000	000		00
																						OR<25					
														02	NONE 0	STOP											
															PRVTE	S -N									011		00
															PSNGR CAR		02	PSNG	INJC	24	F			000	000		00

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00864	N N N	03/11/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	S		L-GRN-SIG	N	DRY	REAR		PRVTE	S -N									000		00
N		1P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	S -N									012		00
												PSNGR CAR		01	DRVR	INJB	51	M	OR-Y		000	000		00
																			OR<25					
01684	N N N	05/16/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	24	F	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	39	M	OR-Y		000	000		00
																			OR>25					
03992	N N N	10/25/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		10A			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	57	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	32	F	OR-Y		000	000		00
																			OR<25					
04652	N N N N N	12/03/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											27,07
NONE		SA		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		9A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	45	M	OR-Y		016,026	000		27,07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	73	M	OR-Y		000	000		00
																			OR<25					
00069	N N N N N	01/06/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										004	07
STATE		FR		CASCADE HY SOUTH	S		TRF SIGNAL	N	WET	REAR		PRVTE	S -N									000		00
N		2P			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	16	F	OR-Y		043,026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	S -N									011	004	00
												PSNGR CAR		01	DRVR	INJC	55	F	OR-Y		000	000		00
																			OR<25					

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02327	N N N N N	06/29/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											07,27
UNK		FR		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		7A			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	M	OR-Y		026,016	038		07,27
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	44	F	OR-Y		000	000		00
																			OR<25					
03411	N N N	09/13/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		11A			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	F	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	00	M	UNK		000	000		00
																			UNK					
03520	N N N	09/20/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		6A			06	3		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	37	M	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	29	M	OR-Y		000	000		00
																			OR<25					
03630	N N N	09/27/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		5A			06	3		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	49	F	OR-Y		000	000		00
																			OR<25					
00463	Y N N N N	02/05/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07,01
COUNTY		WE		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		5A			06	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	19	M	OTH-Y		026,047	000		07,01
N		45 19 54.965388	-122 34 30.296064	016000100S00															N-RES					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	44	F	OR-Y		000	000		00
																			OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S L / W O H / C R / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00709	N N N	02/17/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		CASCADE HY SOUTH	S		TRF SIGNAL	N	WET	REAR		UNKN	S -N									000		00
N		5A			06	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
N		45 19 54.965388	-122 34 30.296064	016000100S00															UNK					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	55	M	OR-Y OR<25		000	000		00
01295	N N N	04/03/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		9A			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y OR<25		026	000		07
N		45 19 54.965388	-122 34 30.296064	016000100S00																				
											02	NONE 0	STOP											
												UNKN	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	00	M	UNK UNK		000	000		00
02651	N N N	06/26/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT		TH		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		2P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00																				
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	22	M	OR-Y OR<25		000	000		00
02801	N N N	07/21/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		MO		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		11A			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00																				
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	20	F	OR-Y OR<25		000	000		00
04596	N N N	11/04/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		WE		CASCADE HY SOUTH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
N		5P			06	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	76	M	OR-Y OR>25		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00																				
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	INJC	81	M	OR-Y OR<25		000	000		00

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		02	PSNG	INJC	60	F			000	000		00
04973	N N N	11/23/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE		MO		CASCADE HY SOUTH	S		TRF SIGNAL	N	WET	REAR		UNKN	S -N									000		00
N		6P			06	3		N	DUSK	PDO		UNKNOWN		01	DRVR	NONE	00	Unk	UNK		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															UNK					
											02	NONE 0	STOP											
												PRVTE	S -N									011		00
												PSNGR CAR		01	DRVR	NONE	72	M	OR-Y		000	000		00
																			OR<25					
01378	N N N	01/12/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		WE		CASCADE HY SOUTH	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
N		12P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		026	000		07
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	NONE	54	M	OR-Y		000	000		00
																			OR<25					
03959	N N N	10/07/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TU		CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N		7A			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		026	026		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	NONE	28	M	OR-Y		000	000		00
																			OR<25					
04748	N N N	11/12/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH		CASCADE HY SOUTH	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
N		1P			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											01	NONE 0	STRGHT											
												PRVTE	W -E									000		00
												PSNGR CAR		02	PSNG	INJC	18	F			000	000		00
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		000	000		00
																			OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

104 - 108 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
05677	N N N	12/29/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE		TU		CASCADE HY SOUTH	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
N		5P			06	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	80	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	INJC	27	M	OR-Y		000	000		00
																			OR<25					
04873	N N N	12/19/2011	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N		2P			06	1		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
N		45 19 54.9648775	-122 34 30.2926838																OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	NONE	30	F	OR-Y		000	000		00
																			OR<25					
02778	N N N	07/29/2012	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		SU	0	CASCADE HY SOUTH	W		L-TURN REF	N	DRY	REAR		PRVTE	W -E									000		00
N		10A			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	37	F	OR-Y		026	000		07
N		45 19 54.9653846	-122 34 30.296051																OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									012		00
												PSNGR CAR		01	DRVR	NONE	51	F	OR-Y		000	000		00
																			OR<25					
02536	N N N	07/15/2013	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N		6P			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		026	000		07
N		45 19 54.965352	-122 34 30.296028																OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	NONE	60	F	OR-Y		000	000		00
																			OR<25					
04147	N N N	10/29/2013	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N		3P			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y		026	000		07
N		45 19 54.965352	-122 34 30.296028																OR>25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	INJC	34	F	OR-Y		000	000		00
																			OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

109 - 112 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A C	R L G / S C	S U / H S	C / L	W O / R	N / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
00273	N	N	N	N	N	N	01/01/2014	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY							WE	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N							9A			06	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	65	F	SUSP		026	000		07
N							45 19 54.965388	-122 34 30.296064																OR<25					
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	INJC	21	F	OR-Y		000	000		00
																								OR<25					
00762	N	N	N				03/02/2015	16	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE							MO	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N							2P			06	2		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y		026	000		29
N							45 19 54.97	-122 34 30.3																OR<25					
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	INJC	54	F	OR-Y		000	000		00
																								OR<25					
04147	N	N	N				10/08/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE							TH	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
N							10A			06	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		29
N							45 19 54.97	-122 34 30.3																OR<25					
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		000	000		00
																								OR<25					
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		02	PSNG	NO<5	03	F			000	000		00
04684	N	N	N				11/08/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE							SU	0	CASCADE HY SOUTH	W		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
N							5P			06	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		29
N							45 19 54.97	-122 34 30.3																OR<25					
																02	NONE 0	STOP											
																	PRVTE	W -E									011		00
																	PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		000	000		00
																								OR<25					
01141	N	N	N				04/04/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE							MO		CASCADE HY SOUTH	NW		YIELD	N	WET	REAR		PRVTE	NE-SW									000		00
N							11A			09	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		07
N							45 19 54.9654008	-122 34 30.2960471	016000100S00															UNK					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	NE-SW								011		00
												PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		000		000	00
																			OR<25					
04735	N N N	12/08/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		1P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	70	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9654008	30.2960471																					
											02	NONE 0	STOP											
												PRVTE	NE-SW								011		00
												PSNGR CAR		01	DRVR	NONE	64	F	OR-Y		000	000		00
																			OR<25					
03846	N N N	10/15/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		CASCADE HY SOUTH	NW		YIELD	N	WET	REAR		PRVTE	NE-SW									000		00
N		5P			09	3		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	46	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	NE-SW								011		00
												PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		000	000		00
																			OR<25					
04066	N N N	10/29/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		12P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	NE-SW								011		00
												PSNGR CAR		01	DRVR	INJC	52	F	OR-Y		000	000		00
																			OR<25					
04076	N N N	10/29/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		4P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					
											02	NONE 0	STOP											
												PRVTE	NE-SW								011		00
												PSNGR CAR		01	DRVR	INJB	46	M	OR-Y		000	000		00
																			OR<25					
04216	Y N N	11/08/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	Y	CLD	FIX OBJ	01	NONE 0	STRGHT										055	01
CITY		TH		CASCADE HY SOUTH	NW		YIELD	N	DRY	FIX		PRVTE	NE-SW									000	055	00
N		2P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	51	F	OR-Y		047,081	000		01
N		45 19	-122 34	016000100S00															OR<25					
		54.9653846	30.296051																					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

119 - 123 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02430	N N N	07/07/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		SU		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000			00
N		12P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000			07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	INJC	36	M	OR-Y		000	000			00
																			OR<25						
03349	N N N N N	09/10/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
CITY		TU		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000			00
N		1P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	60	F	OR-Y		043,026	000			07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	INJC	30	F	OR-Y		000	000			00
																			OR<25						
04790	N N N	12/12/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		TH		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000			00
N		2P			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	54	M	OR-Y		026	000			07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	INJC	56	F	OR-Y		000	000			00
																			OR<25						
00348	N N N	01/26/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		SU		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000			00
N		4P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000			07
N		45 19 54.965388	-122 34 30.296064	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	NONE	18	F	OR-Y		000	000			00
																			OR<25						
00768	N N N	02/21/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		FR		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000			00
N		7A			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	61	M	OR-Y		026	000			07
N		45 19 54.965388	-122 34 30.296064	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	NONE	49	F	OR-Y		000	000			00
																			OR<25						

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at S BEAVERCREEK RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

124 - 127 of 143 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S / C H / O L / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
01784	N N N	05/09/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		10A			09	3		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y		026	000		07
N		45 19 54.965388	-122 34 30.296064	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		01	DRVR	INJC	41	M	OR-Y		000	000		00
																			OR<25					
02955	N N N	08/01/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		FR		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		9P			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	29	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		01	DRVR	INJC	34	M	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		02	PSNG	INJC	36	F			000	000		00
04683	N N N	11/18/2014	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT		TU		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		5P			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		01	DRVR	INJB	35	M	OR-Y		000	000		00
																			OR<25					
04227	N N N	10/13/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT		TU		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		7P			09	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	37	M	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		01	DRVR	INJB	77	F	OR-Y		000	000		00
																			OR<25					
01216	N N N	04/06/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		MO		CASCADE HY SOUTH	NW		YIELD	N	DRY	REAR		PRVTE	NE-SW									000		00
N		3P			09	3		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	57	F	OR-Y		026	000		29
N		45 19 54.97	-122 34 30.3	016000100S00															OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
											02	NONE 0	STOP										
												PRVTE	NE-SW								011	00
												PSNGR CAR		01	DRVR	NONE	60	F	OR-Y OR<25	000	000	00
04738	N N N	11/09/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										29
NO RPT		MO		CASCADE HY SOUTH	NW		YIELD	N	WET	REAR		PRVTE	NE-SW								000	00
N		6P			09	3		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y OR<25	026	000	29
N		45 19 54.97	-122 34 30.3	016000100S00																		
											02	NONE 0	STOP										
												PRVTE	NE-SW								011	00
												PSNGR CAR		01	DRVR	NONE	59	F	OR-Y OR<25	000	000	00
00286	N N N N N	01/23/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	O-1 L-TURN	01	NONE 0	TURN-L										02,04
STATE		SU		CASCADE HY SOUTH	CN		TRF SIGNAL	N	WET	TURN		PRVTE	SW-NW								000	00
N		6A			02	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	65	F	OR-Y OR<25	028,003	000	02,04
N		45 19 54.9654008	-122 34 30.2960471	016000100S00																		
											02	NONE 0	STRGHT										
												PRVTE	NE-SW								000	00
												PSNGR CAR		01	DRVR	NONE	21	M	OR-Y OR<25	000	000	00
											02	NONE 0	STRGHT										
												PRVTE	NE-SW								000	00
												PSNGR CAR		02	PSNG	INJC	27	F		000	000	00
00804	N N N	03/07/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										04
NONE		MO		CASCADE HY SOUTH	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	S -N								000	00
N		10A			04	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK OR<25	020	000	04
N		45 19 54.9654008	-122 34 30.2960471	016000100S00																		
											02	NONE 0	STRGHT										
												PRVTE	W -E								000	00
												PSNGR CAR		01	DRVR	NONE	67	M	OR-Y OR<25	000	000	00
00825	N Y N	03/09/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	O-OTHER	01	NONE 0	TURN-L										08
CITY		WE		CASCADE HY SOUTH	CN		TRF SIGNAL	N	WET	TURN		PRVTE	N -E								000	00
N		9P			01	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	46	M	OR-Y OR<25	001	000	08
N		45 19 54.9654008	-122 34 30.2960471	016000100S00																		
											02	NONE 0	TURN-L										
												PRVTE	S -W								000	00
												PSNGR CAR		01	DRVR	NONE	21	M	OR-Y OR<25	000	000	00

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	TURN-L											
												PRVTE	S -W									000		00
												PSNGR CAR		02	PSNG	INJC	21	M			000	000		00
03843	N Y N N N	09/18/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											04
STATE		SU		CASCADE HY SOUTH	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	N -S									000		00
N		1A			03	2		N	DLIT	FAT		PSNGR CAR		01	DRVR	INJC	58	M	OR-Y		000	000		00
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25					
											02	NONE 0	STRGHT											
												PRVTE	W -E									000		00
												PSNGR CAR		01	DRVR	KILL	29	F	OR-Y		020	000		04
																			OR<25					
											02	NONE 0	STRGHT											
												PRVTE	W -E									000		00
												PSNGR CAR		02	PSNG	INJB	26	M			000	000		00
04463	N N N	11/22/2011	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 1	STRGHT											04
NONE		TU		CASCADE HY SOUTH	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	S -N									000		00
N		10A			02	0		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	44	M	OR-Y		097	000		00
N		45 19 54.9654008	-122 34 30.2960471	016000100S00															OR<25					
											02	NONE 0	STRGHT											
												PRVTE	E -W									000		00
												PSNGR CAR		01	DRVR	NONE	77	F	OR-Y		097	000		00
																			OR<25					
00857	N N N N N	03/06/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLD	O-1 L-TURN	01	NONE 0	STRGHT											04
CITY		TU		CASCADE HY SOUTH	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -N									000		00
N		9P			02	2		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	27	M	OR-Y		020	000		04
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	TURN-L											
												PRVTE	N -E									000		00
												PSNGR CAR		01	DRVR	INJC	45	M	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	N -E									000		00
												PSNGR CAR		02	PSNG	INJA	39	F			000	000		00
02536	N N N N N	07/13/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02,14
STATE		FR		CASCADE HY SOUTH	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W -E									000		00
N		7P			03	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	28	M	OR-Y		028,024	000		02,14
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	POLCE 0	STRGHT											
												PUBLC	N -S									000		00
												PSNGR CAR		01	DRVR	NONE	45	M	OR-Y		000	000		00
																			OR<25					
03642	N N N	10/01/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											04
NO RPT		MO		CASCADE HY SOUTH	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -S									000		00
N		6A			01	3		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		020	000		04
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	TURN-L											
												PRVTE	S -W									000		00
												PSNGR CAR		01	DRVR	NONE	28	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	S -W									000		00
												PSNGR CAR		02	PSNG	NO<5	01	M			000	000		00
											02	NONE 0	TURN-L											
												PRVTE	S -W									000		00
												PSNGR CAR		03	PSNG	INJC	03	F			000	000		00
04829	N N N	12/13/2012	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		CASCADE HY SOUTH	CN		TRF SIGNAL	N	UNK	REAR		PRVTE	W -E									000		00
N		7A			03	3		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		026	000		07
N		45 19 54.9653846	-122 34 30.296051	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	W -E									011		00
												PSNGR CAR		01	DRVR	NONE	00	F	UNK		000	000		00
																			OR<25					
00083	N N N	01/08/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	TURN-L											07
NONE		TU		CASCADE HY SOUTH	CN		TRF SIGNAL	N	WET	REAR		PRVTE	W -N									000		00
N		7A			02	3		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	35	F	OR-Y		026	000		07
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	W -N									013		00
												PSNGR CAR		01	DRVR	NONE	38	M	OR-Y		000	000		00
																			OR<25					
03336	N N N N N	09/09/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											04
CITY		MO		CASCADE HY SOUTH	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -N									000		00
N		11P			04	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	29	M	OR-Y		000	000		00
N		45 19 54.9642	-122 34 30.2965679	016000100S00															OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S U S / C H L / W O K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A / G / E	S / E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											01	NONE 0	STRGHT												
												PRVTE	S -N									000		00
												PSNGR CAR		02	PSNG	INJB	21	F			000	000		00
											02	NONE 0	TURN-L												
												PRVTE	N -E									000		00
												PSNGR CAR		01	DRVR	NONE	42	F	OR-Y OR<25		003	000		04
05036	N N N	12/26/2013	14	S BEAVERCREEK RD	INTER	CROSS	N	N	UNK	ANGL-OTH	01	NONE 0	STRGHT												04
NONE		TH		CASCADE HY SOUTH	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	S -N									000		00
N		7A			02	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y OR<25		020	000		04
N		45 19 54.9642	-122 34 30.2965679	016000100S00																				
											02	NONE 0	STRGHT												
												PRVTE	E -W									000		00
												PSNGR CAR		01	DRVR	NONE	57	F	OR-Y OR<25		000	000		00
00292	N N N	01/23/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-L												08
NO RPT		FR		CASCADE HY SOUTH	CN		L-GRN-SIG	N	DRY	TURN		PRVTE	W -N									000		00
N		11P			02	3		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	28	F	OR-Y OR<25		007	000		08
N		45 19 54.97	-122 34 30.3	016000100S00																				
											02	NONE 0	TURN-L												
												PRVTE	W -N									000		00
												PSNGR CAR		01	DRVR	INJC	20	M	OR-Y OR<25		000	000		00
04783	N N N	11/13/2015	14	S BEAVERCREEK RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT												02
NO RPT		FR		CASCADE HY SOUTH	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		11P			01	3		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	16	F	OR-Y OR<25		000	000		00
N		45 19 54.97	-122 34 30.3	016000100S00																				
											02	NONE 0	TURN-L												
												UNKN	NW-NE									000		00
												UNKNOWN		01	DRVR	NONE	00	Unk	UNK UNK		028,004	000		02

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CRASH SUMMARIES BY YEAR BY COLLISION TYPE

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	0	2	2	0	0	0	1	1	2	0	2	0	0
TURNING MOVEMENTS	0	6	1	7	0	10	0	6	1	7	0	7	0	0
YEAR 2015 TOTAL	**0**	**6**	**3**	**9**	**0**	**10**	**0**	**7**	**2**	**9**	**0**	**9**	**0**	**0**
YEAR: 2014														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
REAR-END	0	2	1	3	0	2	0	1	2	2	1	3	0	0
SIDESWIPE - OVERTAKING	0	1	0	1	0	1	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	8	3	11	0	16	0	9	2	7	4	11	0	0
YEAR 2014 TOTAL	**0**	**11**	**5**	**16**	**0**	**19**	**0**	**10**	**6**	**10**	**6**	**16**	**0**	**0**
YEAR: 2013														
REAR-END	0	0	2	2	0	0	0	1	1	2	0	2	0	0
TURNING MOVEMENTS	0	7	3	10	0	13	0	7	3	7	3	10	0	0
YEAR 2013 TOTAL	**0**	**7**	**5**	**12**	**0**	**13**	**0**	**8**	**4**	**9**	**3**	**12**	**0**	**0**
YEAR: 2012														
ANGLE	0	1	0	1	0	4	0	0	1	0	1	1	0	0
PEDESTRIAN	0	1	0	1	0	1	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	0	0	1	1	0	1	0	0
YEAR 2012 TOTAL	**0**	**3**	**0**	**3**	**0**	**7**	**0**	**0**	**3**	**2**	**1**	**3**	**0**	**0**
YEAR: 2011														
REAR-END	0	2	1	3	0	2	0	3	0	3	0	3	0	0

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	0	1	1	0	0
YEAR 2011 TOTAL	**0**	**3**	**1**	**4**	**0**	**3**	**0**	**3**	**1**	**3**	**1**	**4**	**0**	**0**
FINAL TOTAL	**0**	**30**	**14**	**44**	**0**	**52**	**0**	**28**	**16**	**33**	**11**	**44**	**0**	**0**

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

1 - 4 of 44 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C L / W H K / O R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01865	Y N N	05/21/2012	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	ANGL-STP	01	NONE 0	TURN-R												01,08
CITY		MO	0	MAPLELANE RD	UN		CURVE	N	WET	TURN		PRVTE	SE-NE										000		00
N		3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	16	M	N-VAL		047,001	000		01,08
N		45 19	-122 34																OR<25					
		51.9507339	19.1626125																					
											02	NONE 0	STOP											
												PRVTE	NE-SW									012		00
												PSNGR CAR		01	DRVR	INJC	18	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									012		00
												PSNGR CAR		02	PSNG	INJC	19	F			000	000		00
02880	N N N	08/10/2011	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE	0	MAPLELANE RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000		00
N		11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
N		45 19	-122 34																UNK					
		51.967762	19.1458792																					
											02	NONE 0	STOP											
												PRVTE	NE-SW									011		00
												PSNGR CAR		01	DRVR	INJC	35	F	OR-Y		000	000		00
																			OR<25					
03851	N N N	Y 10/14/2011	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		FR	0	MAPLELANE RD	NE		L-GRN-SIG	N	DRY	REAR		PRVTE	NE-SW									000		00
N		2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		026	000		07
N		45 19	-122 34																OR<25					
		51.967762	19.1458792																					
											02	NONE 0	STOP											
												PRVTE	NE-SW									012		00
												PSNGR CAR		01	DRVR	NONE	71	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	NE-SW									012		00
												PSNGR CAR		02	PSNG	INJC	16	F			000	000		00
01856	N N N	05/27/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	ANGL-STP	01	NONE 0	TURN-R												08
NO RPT		MO	0	MAPLELANE RD	NE		TRF SIGNAL	N	WET	TURN		UNKN	SE-NE									000		00
N		9A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		001	000		08
N		45 19	-122 34																UNK					
		51.9507119	19.162596																					
											02	NONE 0	STOP											
												PRVTE	SE-SW									011		00
												PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		000	000		00
																			OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

5 - 8 of 44 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02314	N N N	06/29/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		SA	0	MAPLELANE RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW									000			00
N		3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		026	000			07
N		45 19	-122 34																OR<25						
		51.9507119	19.162596																						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	NONE	65	M	UNK		000	000			00
																			OR<25						
00522	N N N	02/07/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	SNOW	S-1STOP	01	NONE 0	STRGHT											124	07
NONE		FR	0	MAPLELANE RD	NE		TRF SIGNAL	N	SNO	REAR		PRVTE	NE-SW									000	124		00
N		4P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		026	000			07
N		45 19	-122 34																OR<25						
		51.9507479	19.162596																						
											02	NONE 0	STOP												
												PRVTE	NE-SW									011			00
												PSNGR CAR		01	DRVR	INJC	76	M	OR-Y		000	000			00
																			OR<25						
00528	Y N N N N	02/07/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	SNOW	S-STRGHT	01	NONE 0	STRGHT											124	01,06,04
CITY		FR	0	MAPLELANE RD	NE		TRF SIGNAL	N	ICE	SS-O		PRVTE	NE-SW									031	124		00
N		3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		047,032,020	000			01,06,04
N		45 19	-122 34																OR<25						
		51.9507479	19.162596																						
											02	NONE 0	STRGHT												
												PRVTE	NE-SW									000			00
												PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		000	000			00
																			OR<25						
											03	NONE 0	STRGHT												
												PRVTE	SE-NW									000			00
												PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		000	000			00
																			OR<25						
											03	NONE 0	STRGHT												
												PRVTE	SE-NW									000			00
												PSNGR CAR		02	PSNG	INJC	56	F			000	000			00
03458	N N N	09/20/2011	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		TU	0	MAPLELANE RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000			00
N		3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000			07
N		45 19	-122 34																OR<25						
		51.967762	19.1458792																						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	NONE	53	F	OR-Y		000	000			00
																			OR<25						

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CITY OF OREGON CITY, CLACKAMAS COUNTY

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

9 - 12 of 44 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
03699	N N N	10/01/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE		TU	0	MAPLELANE RD	SE		TRF SIGNAL	N	WET	REAR		PRVTE	SE-NW									000		00
N		3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	49	F	OR-Y		026	000		07
N		45 19 51.9507119	-122 34 19.162596																OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	16	F	OR-Y		000	000		00
																			OR<25					
00135	N N N	01/10/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											07
NONE		FR	0	MAPLELANE RD	NW		L-GRN-SIG	N	WET	REAR		PRVTE	NW-SE									000		00
N		5P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	35	F	OR-Y		026	000		07
N		45 19 51.9507479	-122 34 19.162596																OR<25					
											02	NONE 0	STOP											
												PRVTE	NW-SE									012		00
												PSNGR CAR		01	DRVR	NONE	57	F	OR-Y		000	000		00
																			OR<25					
04612	N N N	11/14/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		FR	0	MAPLELANE RD	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
N		2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y		026	000		29
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		01	DRVR	INJC	45	M	OR-Y		000	000		00
																			OR<25					
00572	N N N	02/05/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH	0	MAPLELANE RD	NW		TRF SIGNAL	N	WET	REAR		PRVTE	NW-SE									000		00
N		2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		29
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		01	DRVR	NONE	75	F	OR-Y		000	000		00
																			OR<25					
01838	N N N	05/14/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH	0	MAPLELANE RD	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
N		6P			06	0		N	DAY	PDO		UNKNOWN		01	DRVR	NONE	00	M	OR-Y		026	000		29
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011	013	00
												PSNGR CAR		01	DRVR	NONE	39	M	OR-Y		000	000		00
																			OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R U G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											03	NONE 0	STOP											
												UNKN	NW-SE								022		00
												UNKNOWN		01	DRVR	NONE	00	M	OR-Y	000	000		00
																			OR<25				
03662	N N N N N	10/03/2011	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	TURN-L											04
CITY		MO	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	SE-SW								000		00
N		6A			04	0		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y	004,020	000		04
N		45 19	-122 34																OR<25				
		51.967762	19.1458792																				
											02	NONE 0	STRGHT											
												PRVTE	NW-SE								000		00
												PSNGR CAR		01	DRVR	INJC	40	F	OR-Y	000	000		00
																			OR<25				
01238	N N N N N	04/03/2012	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	PED	01	NONE 0	STRGHT											18
CITY		TU	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	PED		PRVTE	SE-NW								000		00
N		2P			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	40	M	OR-Y	000	000		00
N		45 19	-122 34																OR<25				
		51.9507339	19.1626125																				
													-										
													STRGHT	01	CONV	NONE	41	M		I XWLK 028	034		18
													NE SW										
05012	N N N N N	12/23/2012	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	SNOW	ANGL-OTH	01	NONE 0	STRGHT											04
CITY		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	SNO	ANGL		PRVTE	SE-NW								000		00
N		5P			01	0		Y	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	49	M	OR-Y	020	000		04
N		45 19	-122 34																OR<25				
		51.9507339	19.1626125																				
											01	NONE 0	STRGHT											
												PRVTE	SE-NW								000		00
												PSNGR CAR		02	PSNG	INJC	21	F		000	000		00
											01	NONE 0	STRGHT											
												PRVTE	SE-NW								000		00
												PSNGR CAR		03	PSNG	INJC	21	M		000	000		00
											02	NONE 0	STRGHT											
												PRVTE	NE-SW								019		00
												PSNGR CAR		01	DRVR	INJC	18	M	OR-Y	000	000		00
																			OR<25				
01412	N N N N N	04/25/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		TH	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-SE								000		00
N		12P			03	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJC	18	M	OR-Y	000	000		00
N		45 19	-122 34																OR<25				
		51.9507119	19.162596																				

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S H / W R / O K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									019		00
												PSNGR CAR		01	DRVR	INJB	75	F	OR-Y		028,004	000		02
																			OR<25					
01772	N N N N N	05/21/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											04
STATE		TU	0	MAPLELANE RD	CN		L-GRN-SIG	N	WET	TURN		PRVTE	SE-NW									000		00
N		9P			02	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	54	F	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	NONE	50	M	OR-Y		003,004	000		04
																			OR<25					
03017	N N N N N	08/16/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		FR	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		1P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	19	M	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	INJC	77	F	OR-Y		028,004	000		02
																			OR<25					
03548	N N N N N	09/22/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	SE-NW									000		00
N		12P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	INJC	65	M	OR-Y		028,004	000		02
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		02	PSNG	INJC	65	F			000	000		00
04248	N N N N N	11/04/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
COUNTY		MO	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-SE									000		00
N		3P			03	0		Y	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									019		00
												PSNGR CAR		01	DRVR	NONE	69	F	OR-Y		028	000		02
																			OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

22 - 24 of 44 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04517	N N N	11/21/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-OTHER	01	NONE	TURN-L											02
CITY		TH	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		UNKN	SW-NW									018		00
N		5P			01	0		Y	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		028	000		02
N		45 19	-122 34																UNK					
		51.9507119	19.162596																					
											02	NONE 0	TURN-R											
												PRVTE	NE-NW									000		00
												PSNGR CAR		01	DRVR	NONE	79	F	OR-Y		000	000		00
																			OR<25					
04680	N N N	12/03/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											14
NONE		TU	0	MAPLELANE RD	CN		L-GRN-SIG	N	DRY	TURN		PRVTE	SE-NW									000		00
N		7P			02	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	24	M	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											01	NONE 0	STRGHT											
												PRVTE	SE-NW									000		00
												PSNGR CAR		02	PSNG	INJC	23	F			000	000		00
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	INJB	45	F	OR-Y		003,004	000		14
																			OR<25					
05056	N N N N N	12/27/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLD	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		FR	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E -W									000		00
N		10A			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	21	M	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	W -N									000		00
												PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		028,004	000		02
																			OR<25					
05089	N N N N N	12/31/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		TU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E -W									000		00
N		3P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	36	F	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507119	19.162596																					
											01	NONE 0	STRGHT											
												PRVTE	E -W									000		00
												PSNGR CAR		02	PSNG	INJB	10	F			000	000		00
											02	NONE 0	TURN-L											
												PRVTE	W -N									000		00
												PSNGR CAR		01	DRVR	NONE	38	M	SUSP		028,004	000		02
																			OR<25					

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											02	NONE 0	TURN-L											
												PRVTE	W -N								000			00
												PSNGR CAR		02	PSNG	NO<5	02	F		000	000			00
00778	N N N	02/21/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L											02
NO RPT		FR	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-NE								000			00
N		12P			02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	71	M	OR-Y		028	000		02
N		45 19	-122 34																OR<25					
		51.9507479	19.162596																					
											02	NONE 0	STRGHT											
												PRVTE	SE-NW								000			00
												PSNGR CAR		01	DRVR	NONE	66	F	OR-Y		000	000		00
																			OR<25					
00899	N N N	03/03/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											02
NO RPT		MO	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	NE-SW								000			00
N		2P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	F	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507479	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	SW-NW								000			00
												PSNGR CAR		01	DRVR	INJC	29	F	OR-Y		028,004	000		02
																			OR<25					
00927	N N N	03/05/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		WE	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	SE-NW								000			00
N		4P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	17	F	OR-Y		000	000		00
N		45 19	-122 34																OR<25					
		51.9507479	19.162596																					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE								000			00
												PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		028,004	000		02
																			OR<25					
00983	N N N	03/10/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											04
NO RPT		MO	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	NW-SE								000			00
N		1A			03	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		097	000		00
N		45 19	-122 34																OR<25					
		51.9507479	19.162596																					
											02	NONE 0	STRGHT											
												PRVTE	NE-SW								000			00
												PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		097	000		00
																			OR<25					
01236	N N N N N	03/30/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLD	O-1 L-TURN	01	NONE 0	STRGHT										013	02
STATE		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW								000			00
N		7P			02	0		N	DUSK	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y		000	000		00
N		45 19	-122 34																OR>25					
		51.9507479	19.162596																					

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											01	NONE 0	STRGHT											
												PRVTE	SE-NW								000			00
												PSNGR CAR		02	PSNG	INJB	29	M		000	000			00
											02	NONE 0	TURN-L											
												PRVTE	NW-NE								000	013		00
												PSNGR CAR		01	DRVR	INJC	88	M	OR-Y	028,004	000			02
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	NE-SW								012			00
												PSNGR CAR		01	DRVR	INJC	60	F	OR-Y	000	000			00
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	NE-SW								012			00
												PSNGR CAR		02	PSNG	INJC	63	M		000	000			00
01751	N N N N N	05/07/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY		WE	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW								000			00
N		12P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	19	M	OR-Y	000	000			00
N		45 19 51.9507479	-122 34 19.162596																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE								000			00
												PSNGR CAR		01	DRVR	NONE	53	F	OR-Y	028	000			02
																			OR<25					
01985	N N N	05/24/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											04
NONE		SA	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-SW								000			00
N		10P			03	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y	020	000			04
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE								000			00
												PSNGR CAR		01	DRVR	NONE	16	F	OR-Y	000	000			00
																			OR<25					
02033	N N N	05/28/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NONE		WE	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW								000			00
N		2P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	16	M	OR-Y	000	000			00
N		45 19 51.95	-122 34 19.16																OR<25					
											01	NONE 0	STRGHT											
												PRVTE	SE-NW								000			00
												PSNGR CAR		02	PSNG	INJB	16	F		000	000			00
											02	NONE 0	TURN-L											
												PRVTE	NW-NE								000			00
												PSNGR CAR		01	DRVR	INJB	48	F	OR-Y	028,004	000			02
																			OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

S BEAVERCREEK RD at MAPLELANE RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

34 - 37 of 44 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02701	N N N	07/11/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NO RPT		FR	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		4P			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	NONE	67	F	OR-Y		028,004	000		02
																			OR<25					
02897	N N N	07/29/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NONE		TU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		2P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	62	F	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	INJB	51	F	OR-Y		028,004	000		02
																			OR<25					
03931	N N N	10/05/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NO RPT		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		7P			02	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N		45 19 51.95	-122 34 19.16																UNK					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	INJB	58	F	OR-Y		028,004	000		02
																			OR<25					
03932	N N N	10/05/2014	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L											02
NONE		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		UNKN	NW-NE									000		00
N		7P			02	0		N	DLIT	INJ		UNKNOWN		01	DRVR	NONE	00	Unk	UNK		028	000		02
N		45 19 51.95	-122 34 19.16																UNK					
											02	NONE 0	STRGHT											
												PRVTE	SE-NW									000		00
												PSNGR CAR		01	DRVR	INJB	46	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STRGHT											
												PRVTE	SE-NW									000		00
												PSNGR CAR		02	PSNG	INJB	56	M			000	000		00
00499	N N N	02/07/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											02
NO RPT		SA	0	MAPLELANE RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	NW-SE									000		00
N		2P			03	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJA	19	F	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									019		00
												PSNGR CAR		01	DRVR	NONE	78	F	OR-Y		028,004	000		02
																			OR<25					
00976	N N N	03/19/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02,08,04
NONE		TH	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-SE									000		00
N		11A			03	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJC	39	M	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									018		00
												PSNGR CAR		01	DRVR	INJB	18	F	OR-Y		028,004,003	000		02,08,04
																			OR<25					
02475	N N N	06/21/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NO RPT		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-SE									000		00
N		2P			03	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJB	55	M	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									019		00
												PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		028,004	000		02
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									019		00
												PSNGR CAR		02	PSNG	INJC	09	F			000	000		00
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									019		00
												PSNGR CAR		03	PSNG	INJC	07	M			000	000		00
03095	N N N	07/31/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02,08
NO RPT		FR	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NE-SW									000		00
N		7A			01	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJC	53	M	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					
											02	NONE 0	TURN-L											
												PRVTE	SW-NW									018		00
												PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		028,004	000		02,08
																			OR<25					
04186	N N N	10/11/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NONE		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		6P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	44	F	OR-Y		000	000		00
N		45 19 51.95	-122 34 19.16																OR<25					

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A C / U S / G L / C S / H L / S K / W R / O	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
											01	NONE 0	STRGHT											
												PRVTE	SE-NW									000		00
												PSNGR CAR		02	PSNG	INJC	47	M			000	000		00
											02	NONE 0	TURN-R											
												PRVTE	NE-NW									016		00
												PSNGR CAR		01	DRVR	NONE	73	F	OR-Y OR<25		028	000		02
05053	N N N	11/29/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											04
NO RPT		SU	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		2P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	27	M	OR-Y OR<25		097	000		00
N		45 19 51.95	-122 34 19.16																					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	INJC	37	F	OR-Y OR<25		097	000		00
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		02	PSNG	NO<5	03	F			000	000		00
02051	N N N	05/29/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NO RPT		FR	0	MAPLELANE RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	SE-NW									000		00
N		8P			02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	27	M	OR-Y OR<25		000	000		00
N		45 19 51.95	-122 34 19.16																					
											02	NONE 0	TURN-L											
												PRVTE	NW-NE									000		00
												PSNGR CAR		01	DRVR	NONE	62	F	OR-Y OR<25		028,004	000		02

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CRASH SUMMARIES BY YEAR BY COLLISION TYPE

S BEAVERCREEK RD at CLAIRMONT DR, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	2	0	2	0	4	0	2	0	2	0	2	0	0
YEAR 2015 TOTAL	**0**	**2**	**0**	**2**	**0**	**4**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**0**
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	0	1	1	0	1	0	0
YEAR 2013 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**2**	**1**	**3**	**0**	**4**	**0**	**2**	**1**	**3**	**0**	**3**	**0**	**0**

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

S BEAVERCREEK RD at CLAIRMONT DR, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

1 - 3 of 3 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03214	N N N	08/29/2013	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT												07
NONE		TH	0	CLAIRMONT DR	SE		TRF SIGNAL	N	WET	REAR		PRVTE	SE-NW									000			00
N		8A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000			07
N		45 19 36.6107519	-122 33 59.292432																OR<25						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		000	000			00
																			OR<25						
04217	N N N	10/13/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												29
NO RPT		TU	0	CLAIRMONT DR	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000			00
N		5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	18	F	OR-Y		026	000			29
N		45 19 36.54	-122 33 59.22																OR<25						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	INJC	47	M	OR-Y		000	000			00
																			OR<25						
01105	N N N	03/30/2015	16	S BEAVERCREEK RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											013	29
NO RPT		MO	0	CLAIRMONT DR	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000			00
N		3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	33	F	OR-Y		026	000			29
N		45 19 36.54	-122 33 59.22																OR<25						
											02	NONE 0	STOP												
												PRVTE	NW-SE									011	013		00
												PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		000	000			00
																			OR<25						
											03	NONE 0	STOP												
												PRVTE	NW-SE									022	013		00
												PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		000	000			00
																			OR<25						
											04	NONE 0	STOP												
												PRVTE	NW-SE									022			00
												PSNGR CAR		01	DRVR	INJC	53	F	OR-Y		000	000			00
																			OR<25						

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CRASH SUMMARIES BY YEAR BY COLLISION TYPE

S BEAVERCREEK RD at N DOUGLAS LP, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
FINAL TOTAL														

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CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	3	1	4	0	3	0	3	0	4	0	4	0	0
TURNING MOVEMENTS	0	2	1	3	0	5	0	2	1	1	2	3	0	0
YEAR 2015 TOTAL	**0**	**6**	**2**	**8**	**0**	**9**	**0**	**6**	**1**	**6**	**2**	**8**	**0**	**0**
YEAR: 2014														
BACKING	0	1	0	1	0	1	1	1	0	1	0	1	0	0
REAR-END	0	2	2	4	0	2	0	3	0	4	0	4	0	0
YEAR 2014 TOTAL	**0**	**3**	**2**	**5**	**0**	**3**	**1**	**4**	**0**	**5**	**0**	**5**	**0**	**0**
YEAR: 2013														
ANGLE	0	0	2	2	0	0	0	0	2	0	2	2	0	0
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	2	0	2	0	2	0	2	0	1	1	2	0	0
YEAR 2013 TOTAL	**0**	**3**	**2**	**5**	**0**	**3**	**0**	**3**	**2**	**2**	**3**	**5**	**0**	**0**
YEAR: 2012														
MISCELLANEOUS	0	1	0	1	0	1	0	0	1	0	1	1	0	0
REAR-END	0	2	2	4	0	2	0	3	1	3	1	4	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	1	1	1	2	0	2	0	0
YEAR 2012 TOTAL	**0**	**4**	**3**	**7**	**0**	**4**	**1**	**4**	**3**	**5**	**2**	**7**	**0**	**0**
YEAR: 2011														
REAR-END	0	2	2	4	0	2	1	4	0	2	2	4	0	0

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2011 TOTAL	**0**	**3**	**2**	**5**	**0**	**3**	**1**	**5**	**0**	**2**	**3**	**5**	**0**	**0**
FINAL TOTAL	**0**	**19**	**11**	**30**	**0**	**22**	**3**	**22**	**6**	**20**	**10**	**30**	**0**	**0**

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

1 - 4 of 30 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00863	N N N	03/11/2011	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												27,07
NONE		FR		MOLALLA AVE	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N		7A			06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y		016,026	000		27,07
N		45 19	-122 34	016000100S00															OR<25					
		25.0075997	43.7817723																					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	INJC	56	F	OR-Y		000	000		00
																			OR<25					
03954	N N N N N	10/21/2011	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT												27,07
CITY		FR		MOLALLA AVE	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N		3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		016,026	000		27,07
N		45 19	-122 34	016000100S00															OR<25					
		25.0075997	43.7817723																					
											02	NONE 1	STOP											
												PRVTE	N -S									011		00
												SEMI TOW		01	DRVR	NONE	41	M	OR-Y		000	000		00
																			OR>25					
04071	N N N	10/31/2011	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												27,07
NONE		MO		MOLALLA AVE	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N		3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	32	M	OR-Y		016,026	038		27,07
N		45 19	-122 34	016000100S00															OR<25					
		25.0075997	43.7817723																					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	INJC	21	F	OR-Y		000	000		00
																			OR<25					
03885	N N N	10/17/2012	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		MOLALLA AVE	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N		2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	56	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		25.0075936	43.7817583																					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	NONE	57	F	OR-Y		000	000		00
																			OR<25					
01076	N N N	03/17/2014	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013		07
NO RPT		MO		MOLALLA AVE	N		TRF SIGNAL	N	DRY	REAR		UNKN	N -S									000		00
N		5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		026	000		07
N		45 19	-122 34	016000100S00															UNK					
		25.0075919	43.781772																					
											02	NONE 0	STOP											
												PRVTE	N -S									011	013	00
												PSNGR CAR		01	DRVR	NONE	42	M	OR-Y		000	000		00
																			OR<25					

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

5 - 9 of 30 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R G S / S H L / W O R / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
											03	NONE 0	STOP											
												PRVTE	N -S									022		00
												PSNGR CAR		01	DRVR	INJC	42	F	OR-Y		000	000		00
																			OR<25					
01942	N N N N N	05/21/2014	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLD	O-1STOP	01	LOG 1	BACK											10
NONE		WE		MOLALLA AVE	N		TRF SIGNAL	N	DRY	BACK		PRVTE	S -N									000		00
N		9A			06	0		N	DAY	INJ		SEMI TOW		01	DRVR	NONE	51	M	OR-Y		011	000		10
N		45 19 25.01	-122 34 43.78	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	INJC	54	F	OR-Y		000	000		00
																			OR<25					
03506	N N N	08/28/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		FR		MOLALLA AVE	N		TRF SIGNAL	N	DRY	REAR		UNKN	N -S									000		00
N		4P			06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	M	UNK		026	000		29
N		45 19 25.01	-122 34 43.78	016000100S00															UNK					
											02	NONE 0	STOP											
												PRVTE	N -S									011		00
												PSNGR CAR		01	DRVR	INJC	45	M	OR-Y		000	000		00
																			OR<25					
01966	N N N	03/05/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH		MOLALLA AVE	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		026	000		29
N		45 19 25.01	-122 34 43.78	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	21	F	OR-Y		000	000		00
																			OR<25					
00267	Y N N N N	01/20/2012	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT											01,07
CITY		FR		MOLALLA AVE	S		L-GRN-SIG	N	DRY	REAR		PRVTE	S -N									000		00
N		4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	16	M	OR-Y		047,026	000		01,07
N		45 19 25.0075936	-122 34 43.7817583	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	S -N									012		00
												PSNGR CAR		01	DRVR	NONE	70	F	OR-Y		000	000		00
																			OR<25					
04514	N N N	11/07/2013	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		TH		MOLALLA AVE	S		TRF SIGNAL	N	DRY	REAR		UNKN	S -N									000		00
N		3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		026	000		07
N		45 19 25.0075919	-122 34 43.781772	016000100S00															UNK					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

10 - 14 of 30 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R U G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											02	NONE 0	STOP											
												PRVTE	S -N								011		00
												PSNGR CAR		01	DRVR	INJC	55	M	OR-Y OR<25	000	000		00
00853	N N N N N	02/28/2014	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27,07
CITY		FR		MOLALLA AVE	S		L-GRN-SIG	N	DRY	REAR		PRVTE	S -N								000		00
N		9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	32	F	SUSP OR<25	016,026	038		27,07
N		45 19 25.0075919	-122 34 43.781772	016000100S00																			
											01	NONE 0	STRGHT											
												PRVTE	S -N								000		00
												PSNGR CAR		02	PSNG	NO<5	01	M		000	000		00
											02	NONE 0	STOP											
												PRVTE	S -N								012		00
												PSNGR CAR		01	DRVR	INJB	44	F	OR-Y OR<25	000	000		00
02826	N N N	07/13/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											29
NONE		MO		MOLALLA AVE	S		TRF SIGNAL	N	UNK	REAR		UNKN	S -N								000		00
N		6P			06	0		N	DAY	PDO		UNKNOWN		01	DRVR	NONE	00	F	OR-Y UNK	026	000		29
N		45 19 25.01	-122 34 43.78	016000100S00																			
											02	NONE 0	STOP											
												PRVTE	S -N								012		00
												PSNGR CAR		01	DRVR	NONE	56	M	OR-Y OR<25	000	000		00
04438	N N N	11/15/2013	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	O-OTHER	01	NONE 0	TURN-L											02
NONE		FR		MOLALLA AVE	W		TRF SIGNAL	N	DRY	TURN		PRVTE	S -W								000		00
N		9P			05	1		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	18	F	OR-Y OR<25	028	000		02
N		45 19 25.0075919	-122 34 43.781772	016000100S00																			
											02	NONE 0	TURN-R											
												PRVTE	N -W								000		00
												PSNGR CAR		01	DRVR	NONE	70	M	OR-Y OR<25	000	000		00
02299	N N N	04/24/2014	16	CASCADE HY SOUTH	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											29
NONE		TH	0	MOLALLA AVE	W		R-GRN-SIG	N	UNK	REAR		UNKN	NW-SE								000		00
N		8A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y UNK	026	000		29
N		45 19 25.01	-122 34 43.78																				
											02	NONE 0	STOP											
												PRVTE	NW-SE								011		00
												PSNGR CAR		01	DRVR	NONE	32	M	OR-Y OR<25	000	000		00

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R U G / S C S / W H L / O R / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00361	Y N N N N	01/30/2013	14	CASCADE HY SOUTH	INTER	CROSS	N	N	RAIN	ANGL-STP	01	NONE 0	STRGHT											04,01
CITY		WE		MOLALLA AVE	NW		TRF SIGNAL	N	WET	ANGL		UNKN	N -S									001		00
N		8P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		047,020	000		04,01
N		45 19 25.0075919	-122 34 43.781772	016000100S00															UNK					
											02	NONE 0	STOP											
												PRVTE	W -E									012		00
												PSNGR CAR		01	DRVR	NONE	45	M	OR-Y OR<25		000	000		00
04782	N N N	12/12/2011	16	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO	0	MOLALLA AVE	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
N		6P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026	000		07
N		45 19 25.0047405	-122 34 43.7524551																UNK					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		01	DRVR	NONE	19	M	OR-Y OR<25		000	000		00
01543	Y N N	04/26/2012	16	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											01,07
NONE		TH	0	MOLALLA AVE	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
N		12P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y OR<25		047,026	000		01,07
N		45 19 25.0075936	-122 34 43.7817583																					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		01	DRVR	INJC	86	M	OR-Y OR<25		000	000		00
05111	N N N	12/22/2012	16	CASCADE HY SOUTH	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											07
NONE		SA	0	MOLALLA AVE	NW		TRF SIGNAL	N	WET	REAR		UNKN	NW-SE									000		00
N		4P			06	0		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y UNK		026	000		07
N		45 19 25.0075936	-122 34 43.7817583																					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		01	DRVR	INJC	37	F	OTH-Y OR<25		000	000		00
03003	N N N	08/05/2014	16	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TU	0	MOLALLA AVE	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
N		6A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y OR<25		026	000		29
N		45 19 25.01	-122 34 43.78																					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011		00
												PSNGR CAR		01	DRVR	NONE	25	F	OR-Y OR<25		000	000		00

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

20 - 24 of 30 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A C	L G S	R S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	PRTC / INJ / SVRTY	A G E	S E X	LICNS / PED / RES / LOC	ERROR	ACT / EVENT	CAUSE
00129	N	N	N	N	01/13/2015	16	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT							29
CITY					TU	0	MOLALLA AVE	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE						000	00
N					11A			06	0		N	DAY	INJ		PSNGR CAR		01 DRVR	65	F	OR-Y	026	000	29
N					45 19 25.01	-122 34 43.78														OR<25			
														02	NONE 0	STOP							
															PRVTE	NW-SE						011	00
															PSNGR CAR		01 DRVR	86	F	OR-Y	000	000	00
																				OR<25			
03264	N	N	N	N	08/10/2011	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT							04
NO RPT					WE		MOLALLA AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -S						000	00
N					10P			01	0		N	DLIT	INJ		PSNGR CAR		01 DRVR	30	M	OR-Y	097	000	00
N					45 19 25.0075997	-122 34 43.7817723	016000100S00													OR<25			
														02	NONE 0	TURN-L							
															PRVTE	S -NW						000	00
															PSNGR CAR		01 DRVR	66	M	OR-Y	097	000	00
																				OR<25			
02047	N	N	N	N	06/05/2012	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLD	S-1TURN	01	NONE 0	STRGHT							07
CITY					TU		MOLALLA AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -N						000	00
N					3P			04	0		N	DAY	PDO		PSNGR CAR		01 DRVR	24	M	SUSP	043,026	000	07
N					45 19 25.0075936	-122 34 43.7817583	016000100S00													OR<25			
														02	NONE 0	TURN-R							
															PRVTE	S -E						000	00
															PSNGR CAR		01 DRVR	65	M	OR-Y	000	000	00
																				OR<25			
04077	N	N	N	N	10/30/2012	14	CASCADE HY SOUTH	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 1	STRGHT							02
STATE					TU		MOLALLA AVE	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N						000	00
N					11A			02	0		N	DAY	INJ		SEMI TOW		01 DRVR	36	M	OR-Y	000	000	00
N					45 19 25.0075936	-122 34 43.7817583	016000100S00													OR<25			
														02	NONE 0	TURN-R							
															PRVTE	E -N						000	00
															PSNGR CAR		01 DRVR	18	F	OR-Y	028	000	02
																				OR<25			
04414	Y	N	N	N	11/17/2012	14	CASCADE HY SOUTH	INTER	CROSS	N	N	RAIN	NON-COLL	01	NONE 0	TURN-L						124	01
CITY					SA		MOLALLA AVE	CN		TRF SIGNAL	N	WET	OTH		PRVTE	N -E						000 124	00
N					7P			01	0		N	DARK	INJ		MTRCYCLE		01 DRVR	31	M	OR-Y	047	017	01
N					45 19 25.0075936	-122 34 43.7817583	016000100S00													OR<25			

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SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / U S L / C H / O R / W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00299	N N N	01/25/2013	14	CASCADE HY SOUTH	INTER	CROSS	N	N	FOG	ANGL-OTH	01	NONE 0	STRGHT											04
OTHER		FR		MOLALLA AVE	CN		TRF SIGNAL	N	WET	ANGL		PRVTE	S -N									000		00
N		8P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	70	F	OR-Y		020	000		04
N		45 19 25.0075919	-122 34 43.781772	016000100S00															OR>25					
											02	NONE 0	STRGHT											
												PUBLC	W -E									000		00
												OTH BUS		01	DRVR	NONE	56	M	OTH-Y		000	000		00
																			N-RES					
03944	N N N N N	10/16/2013	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L										013	04
CITY		WE		MOLALLA AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -W									000	013	00
N		5P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	17	F	OR-Y		003	000		04
N		45 19 25.0075919	-122 34 43.781772	016000100S00															OR<25					
											02	NONE 0	TURN-R											
												PRVTE	N -W									000		00
												PSNGR CAR		01	DRVR	NONE	30	F	OR-Y		000	000		00
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	W -E									022		00
												PSNGR CAR		01	DRVR	NONE	45	F	OR-Y		000	000		00
																			OR<25					
03566	N N N	09/01/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											04
NONE		TU		MOLALLA AVE	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	NW-SE									000		00
N		2P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		000	000		00
N		45 19 25.01	-122 34 43.78	016000100S00															OR<25					
											02	NONE 0	STRGHT											
												PRVTE	S -N									000		00
												PSNGR CAR		01	DRVR	INJB	27	M	OR-Y		020	000		04
																			OR<25					
04072	N N N	10/03/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NONE		SA		MOLALLA AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -S									000		00
N		11A			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	53	F	OR-Y		000	000		00
N		45 19 25.01	-122 34 43.78	016000100S00															OR<25					
											02	NONE 0	TURN-L											
												PRVTE	S -NW									000		00
												PSNGR CAR		01	DRVR	INJB	52	M	OR-Y		028,004	000		02
																			OR<25					
											02	NONE 0	TURN-L											
												PRVTE	S -NW									000		00
												PSNGR CAR		02	PSNG	INJB	51	F			000	000		00

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MOLALLA AVE, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

29 - 30 of 30 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A C / L S / R L / U G / S H / C L / W O / R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
05340	N N N	12/12/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	UNK	O-1 L-TURN	01	NONE 0	TURN-L										04
NO RPT		SA		MOLALLA AVE	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -W									000	00
N		7P			01	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	56	F	OR-Y		003	000	04
N		45 19 25.01	-122 34 43.78	016000100S00															OR<25				
											02	NONE 0	STRGHT										
												PRVTE	N -S									000	00
												PSNGR CAR		01	DRVR	INJB	53	M	OR-Y		000	000	00
																			OR<25				
											02	NONE 0	STRGHT										
												PRVTE	N -S									000	00
												PSNGR CAR		02	PSNG	INJB	18	M			000	000	00
00326	N N N	01/25/2015	14	CASCADE HY SOUTH	INTER	CROSS	N	N	FOG	O-1 L-TURN	01	NONE 0	STRGHT										04
NONE		SU		MOLALLA AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -S									000	00
N		8P			01	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		020	000	04
N		45 19 25.01	-122 34 43.78	016000100S00															OR<25				
											02	NONE 0	TURN-L										
												PRVTE	S -SW									000	00
												PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		000	000	00
																			OR<25				

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CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CASCADE HY SOUTH at N DOUGLAS LP, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2015 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2013														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2013 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2011														
REAR-END	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2011 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**
FINAL TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**2**	**1**	**2**	**1**	**3**	**0**	**0**

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at N DOUGLAS LP, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

1 - 3 of 3 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A C / G S / R L / S H / W K / O R	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00209	N N N	01/18/2011	19	CASCADE HY SOUTH	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										004	07
NONE		TU	0	N DOUGLAS LP	SE		TRF SIGNAL	N	WET	REAR		PRVTE	SE-NW									000		00
N		5P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	42	F	OR-Y		026	000		07
Y		45 19 25.0286652	-122 34 43.7834473																OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011	004	00
												PSNGR CAR		01	DRVR	NONE	27	F	OR-Y		000	000		00
																			OR<25					
01578	N N N N N	05/07/2013	19	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	PED	01	NONE 0	STRGHT											18,14,19
CITY		TU	0	N DOUGLAS LP	SE		TRF SIGNAL	N	DRY	PED		PRVTE	E -W									000		00
N		7P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		000	000		00
N		45 19 25.0075919	-122 34 43.7817359																OR<25					
													- STRGHT S N	01	PED	INJA	12	M		I XWLK	020	035		18,14,19
02361	N N N	06/15/2015	19	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	29
NONE		MO	0	N DOUGLAS LP	SE		STOP SIGN	N	DRY	REAR		PRVTE	SE-NW									000		00
N		5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	60	F	OR-Y		026	000		29
N		45 19 25.01	-122 34 43.78																OR<25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011	013	00
												PSNGR CAR		01	DRVR	INJC	58	M	OR-Y		000	000		00
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	SE-NW									022		00
												PSNGR CAR		01	DRVR	NONE	52	F	OR-Y		000	000		00
																			OR<25					

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CRASH SUMMARIES BY YEAR BY COLLISION TYPE

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	2	2	4	0	2	0	4	0	4	0	4	0	0
YEAR 2015 TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**4**	**0**	**4**	**0**	**4**	**0**	**0**
YEAR: 2014														
REAR-END	0	3	1	4	0	3	0	3	1	4	0	4	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**4**	**1**	**5**	**0**	**5**	**0**	**3**	**2**	**4**	**1**	**5**	**0**	**0**
YEAR: 2013														
REAR-END	0	2	0	2	0	3	0	1	1	2	0	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**3**	**0**	**3**	**0**	**4**	**0**	**2**	**1**	**2**	**1**	**3**	**0**	**0**
YEAR: 2012														
REAR-END	0	1	2	3	0	1	0	3	0	3	0	3	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2012 TOTAL	**0**	**1**	**3**	**4**	**0**	**1**	**0**	**3**	**1**	**3**	**1**	**4**	**0**	**0**
YEAR: 2011														
REAR-END	0	3	3	6	0	3	0	5	1	6	0	6	0	0
YEAR 2011 TOTAL	**0**	**3**	**3**	**6**	**0**	**3**	**0**	**5**	**1**	**6**	**0**	**6**	**0**	**0**
FINAL TOTAL	**0**	**13**	**9**	**22**	**0**	**15**	**0**	**17**	**5**	**19**	**3**	**22**	**0**	**0**

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

1- 5 of 22 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S H S / W O R / C K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02526	N N N	07/16/2011	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-STRGHT	01	NONE 0	STRGHT												07
NONE		SA		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		4P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		042	000		07
N		45 19	-122 34	016000100S00															UNK					
		13.2306335	38.5965852																					
											02	NONE 0	STRGHT											
												PRVTE	SE-NW									000		00
												PSNGR CAR		01	DRVR	NONE	33	F	OR-Y		000	000		00
																			OR<25					
02681	N N N N N	07/27/2011	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
CITY		WE		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		9A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	49	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		13.6786648	38.9716054																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	47	F	OR-Y		000	000		00
																			OR<25					
04126	Y N Y N N	11/03/2011	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT												32,01
STATE		TH		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		12P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	60	F	OR-Y		052,047,026	000		32,01
N		45 19	-122 34	016000100S00															OR<25					
		13.6786648	38.9716054																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									012		00
												PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		000	000		00
																			OR<25					
04218	N N N	11/09/2011	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		13.6786648	38.9716054																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000		00
																			OR<25					
02133	N N N	06/13/2012	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		WE		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	M	OR-Y		026	000		07
N		45 19	-122 34	016000100S00															OR<25					
		13.6786454	38.9716092																					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	INJC	37	F	OR-Y		000	000		00
																			OR<25					

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

6 - 9 of 22 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
03450	N N N	09/16/2012	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		SU		MEYERS RD	SE		UNKNOWN	N	DRY	REAR		PRVTE	SE-NW									000			00
N		6P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	72	F	OR-Y		026	000			07
N		45 19 13.6786454	-122 34 38.9716092	016000100S00															OR<25						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	NONE	37	F	OR-Y		000	000			00
																			OR<25						
00314	N N N	01/24/2014	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												07
NONE		FR		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		UNKN	SE-NW									001			00
N		1P			06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	F	OR-Y		026	000			07
N		45 19 13.6786439	-122 34 38.9715959	016000100S00															UNK						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	INJC	76	F	OR-Y		000	000			00
																			OR<25						
02950	N N N	08/01/2014	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												29
NONE		FR		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000			00
N		11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y		026	000			29
N		45 19 13.68	-122 34 38.97	016000100S00															OR>25						
											02	NONE 0	STOP												
												PRVTE	SE-NW									011			00
												PSNGR CAR		01	DRVR	INJC	56	M	OR-Y		000	000			00
																			OR<25						
01480	N N N	04/21/2015	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											013	29
NONE		TU		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000			00
N		8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	46	M	OR-Y		026	000			29
N		45 19 13.68	-122 34 38.97	016000100S00															OR>25						
											02	NONE 0	STOP												
												UNKN	SE-NW									011	013		00
												PSNGR CAR		01	DRVR	NONE	55	M	OR-Y		000	000			00
																			OR<25						
											03	NONE 0	STOP												
												PRVTE	SE-NW									022			00
												PSNGR CAR		01	DRVR	NONE	33	M	OR-Y		000	000			00
																			OR<25						
											03	NONE 0	STOP												
												PRVTE	SE-NW									022			00
												PSNGR CAR		02	PSNG	INJC	30	F			000	000			00

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

10 - 13 of 22 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C L / W H / O R / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G / E	S E / X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
02898	N N N	07/18/2015	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	29
NO RPT		SA		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		7P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	47	F	OTH-Y		026	038		29
N		45 19 13.68	-122 34 38.97	016000100S00															N-RES					
											01	NONE 0	STRGHT											
												PRVTE	SE-NW									000		00
												PSNGR CAR		02	PSNG	INJC	15	F			000	000		00
											02	NONE 0	STOP											
												PRVTE	SE-NW									011	013	00
												PSNGR CAR		01	DRVR	NONE	33	M	OR-Y		000	000		00
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	SE-NW									022		00
												PSNGR CAR		01	DRVR	NONE	33	M	OR-Y		000	000		00
																			OR<25					
03157	N N N	08/04/2015	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		TU		MEYERS RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE-NW									000		00
N		7A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		026	000		29
N		45 19 13.68	-122 34 38.97	016000100S00															OR>25					
											02	NONE 0	STOP											
												PRVTE	SE-NW									011		00
												PSNGR CAR		01	DRVR	NONE	00	M	UNK		000	000		00
																			OR>25					
00384	N N N	01/29/2014	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										004	07
NONE		WE		MEYERS RD	SW		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NE									000		00
N		11A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
N		45 19 13.6786439	-122 34 38.9715959	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									012	004	00
												PSNGR CAR		01	DRVR	NONE	77	M	OR-Y		000	000		00
																			OR<25					
00146	N N N	01/12/2012	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										004	07
NONE		TH	0	MEYERS RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
N		11A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		026	000		07
N		45 19 13.6786454	-122 34 38.9716092																OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011	004	00
												PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		000	000		00
																			OR<25					

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
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URBAN NON-SYSTEM CRASH LISTING

CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

14 - 17 of 22 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S C S / W H L / O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00406	N N N	02/04/2013	17	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	07
NONE		MO	0	MEYERS RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	SW-NE									000		00
N		5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		026	000		07
N		45 19 13.6786439	-122 34 38.9715959																OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									011	013	00
												PSNGR CAR		01	DRVR	INJB	62	M	OR-Y		000	000		00
																			OR<25					
											03	NONE 0	STOP											
												PRVTE	SW-NE									022		00
												PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		000	000		00
																			OR<25					
02122	N N N	06/03/2015	16	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		WE	0	MEYERS RD	SW		L-GRN-SIG	N	DRY	REAR		PRVTE	SW-NE									000		00
N		8A			06	0		N	DAY	PDO		UNKNOWN		01	DRVR	NONE	32	F	OR-Y		026	000		29
N		45 19 13.68	-122 34 38.97																OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NE									012		00
												PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		000	000		00
																			OR<25					
01597	N N N	04/25/2011	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE		MO		MEYERS RD	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
N		UNK			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	44	F	OR-Y		026	000		07
N		45 19 13.6786648	-122 34 38.9716054	016000100S00															OR<25					
											02	UNKN 0	STOP											
												UNKN	NW-SE									011		00
												UNKNOWN		01	DRVR	NONE	00	Unk	UNK		000	000		00
																			UNK					
01681	N N N N N	05/15/2013	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
CITY		WE		MEYERS RD	NW		TRF SIGNAL	N	WET	REAR		PRVTE	NW-SE									000		00
N		11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OTH-Y		026	000		07
N		45 19 13.6776	-122 34 38.9706959	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		01	DRVR	INJC	19	F	OR-Y		000	000		00
																			OR<25					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011		00
												PSNGR CAR		02	PSNG	INJC	23	F			000	000		00

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

18 - 21 of 22 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / R S G / S H S / W O R / K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03966	N N N	09/15/2014	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	29
NONE		MO		MEYERS RD	NW		TRF SIGNAL	N	DRY	REAR		UNKN	NW-SE									000		00
N		2P			06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	Unk	UNK		026	000		29
N		45 19 13.68	-122 34 38.97	016000100S00															UNK					
											02	NONE 0	STOP											
												PRVTE	NW-SE									011	013	00
												PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																			UNK					
											03	NONE 0	STOP											
												PRVTE	NW-SE									022		00
												PSNGR CAR		01	DRVR	INJC	29	F	OR-Y		000	000		00
																			OR<25					
00155	N N N N N	01/13/2011	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	TURN-L											07
STATE		TH		MEYERS RD	CN		TRF SIGNAL	N	WET	REAR		PRVTE	SW-NW									000		00
N		12P			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		043,026	000		07
N		45 19 13.6786648	-122 34 38.9716054	016000100S00															OR<25					
											02	NONE 0	STOP											
												PRVTE	SW-NW									013		00
												PSNGR CAR		01	DRVR	INJC	25	M	OR-Y		000	000		00
																			OR<25					
81696	N N N	02/16/2012	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											04
NO RPT		TH		MEYERS RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	N -S									000		00
N		10P			03	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		020	000		04
N		45 19 13.6786454	-122 34 38.9716092	016000100S00															OR<25					
											02	NONE 0	TURN-L											
												PRVTE	W -N									000		00
												PSNGR CAR		01	DRVR	NONE	58	M	OR-Y		000	000		00
																			OR<25					
02761	N N N N N	07/30/2013	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											04
CITY		TU		MEYERS RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-SE									000		00
N		11P			03	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	51	F	OR-Y		020	000		04
N		45 19 13.6776	-122 34 38.9706959	016000100S00															OR<25					
											02	NONE 0	TURN-L											
												PRVTE	SE-SW									000		00
												PSNGR CAR		01	DRVR	NONE	19	F	OTH-Y		000	000		00
																			OR<25					
04662	N N N	11/17/2014	14	CASCADE HY SOUTH	INTER	3-LEG	N	N	UNK	O-1 L-TURN	01	NONE 0	STRGHT											04
NO RPT		MO		MEYERS RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE	NW-SE									000		00
N		7P			01	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJB	21	M	OR-Y		020	000		04
N		45 19 13.68	-122 34 38.97	016000100S00															OR<25					

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CITY OF OREGON CITY, CLACKAMAS COUNTY

CASCADE HY SOUTH at MEYERS RD, City of Oregon City, Clackamas County, 01/01/2011 to 12/31/2015

22 - 22 of 22 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D R U G S	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
															02	NONE 0	TURN-L											
																PRVTE	SE-SW									000		00
																PSNGR CAR		01	DRVR	INJC	23	F	SUSP OR<25		000	000		00

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HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	266	361	16	100	419	840	25	1037	79	449	593	609
Future Volume (vph)	266	361	16	100	419	840	25	1037	79	449	593	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.99	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
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3242	3317		3367	3471	1531	1719	3438	1517	3335	3438	1538
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3242	3317		3367	3471	1531	1719	3438	1517	3335	3438	1538
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)	280	380	17	105	441	884	26	1092	83	473	624	641
RTOR Reduction (vph)	0	2	0	0	0	120	0	0	58	0	0	232
Lane Group Flow (vph)	280	395	0	105	441	764	26	1092	25	473	624	409
Confl. Peds. (#/hr)	1		8	8		1			1	1		
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.5	45.1		7.9	44.5	44.5	3.1	35.5	35.5	13.5	45.9	45.9
Effective Green, g (s)	8.5	45.1		7.9	44.5	44.5	3.1	35.5	35.5	13.5	45.9	45.9
Actuated g/C Ratio	0.07	0.38		0.07	0.37	0.37	0.03	0.30	0.30	0.11	0.38	0.38
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	229	1246		221	1287	567	44	1017	448	375	1315	588
v/s Ratio Prot	c0.09	0.12		0.03	0.13		0.02	c0.32		c0.14	0.18	
v/s Ratio Perm						c0.50			0.02			0.27
v/c Ratio	1.22	0.32		0.48	0.34	1.35	0.59	1.07	0.05	1.26	0.47	0.70
Uniform Delay, d1	55.8	26.5		54.1	27.2	37.8	57.8	42.2	30.2	53.2	28.0	31.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.17	0.86	8.02	1.00	1.00	1.00
Incremental Delay, d2	132.8	0.1		1.6	0.2	167.7	17.4	48.8	0.2	137.4	1.2	6.7
Delay (s)	188.5	26.7		55.7	27.4	205.4	85.0	85.0	242.8	190.7	29.2	37.9
Level of Service	F	C		E	C	F	F	F	F	F	C	D
Approach Delay (s)		93.6			139.5			95.9			76.3	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	101.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	131	675	54	8	870	94	100	30	12	194	45	398
Future Volume (vph)	131	675	54	8	870	94	100	30	12	194	45	398
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96		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)	1736	3425		1731	3420		1719	1734		1770	1863	1570
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	3425		1731	3420		1719	1734		1770	1863	1570
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	158	813	65	10	1048	113	120	36	14	234	54	480
RTOR Reduction (vph)	0	5	0	0	6	0	0	12	0	0	0	89
Lane Group Flow (vph)	158	873	0	10	1155	0	120	38	0	234	54	391
Confl. Peds. (#/hr)			3	3			2					2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	5%	5%	5%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	14.9	58.6		0.9	44.6		12.7	12.7		17.7	17.7	32.6
Effective Green, g (s)	14.9	58.6		0.9	44.6		12.7	12.7		17.7	17.7	32.6
Actuated g/C Ratio	0.14	0.54		0.01	0.41		0.12	0.12		0.16	0.16	0.30
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	239	1860		14	1413		202	204		290	305	539
v/s Ratio Prot	0.09	0.25		0.01	c0.34		c0.07	0.02		c0.13	0.03	c0.10
v/s Ratio Perm												0.15
v/c Ratio	0.66	0.47		0.71	0.82		0.59	0.18		0.81	0.18	0.72
Uniform Delay, d1	44.1	15.1		53.4	28.0		45.2	42.9		43.5	38.8	33.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.7	0.2		100.1	3.8		4.6	0.4		15.0	0.3	4.8
Delay (s)	50.8	15.3		153.5	31.8		49.8	43.4		58.5	39.1	38.5
Level of Service	D	B		F	C		D	D		E	D	D
Approach Delay (s)		20.7			32.9			47.9			44.6	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	107.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	772	179	58	996	11	26
Future Volume (vph)	772	179	58	996	11	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1845	1530	1736	1827	1703	1490
Flt Permitted	1.00	1.00	0.16	1.00	0.95	1.00
Satd. Flow (perm)	1845	1530	285	1827	1703	1490
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	1003	232	75	1294	14	34
RTOR Reduction (vph)	0	49	0	0	0	31
Lane Group Flow (vph)	1003	183	75	1294	14	3
Confl. Peds. (#/hr)		3	3			1
Heavy Vehicles (%)	3%	3%	4%	4%	6%	6%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	58.7	65.4	67.1	67.1	6.7	6.7
Effective Green, g (s)	58.7	65.4	67.1	67.1	6.7	6.7
Actuated g/C Ratio	0.71	0.79	0.81	0.81	0.08	0.08
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1307	1291	299	1480	137	120
v/s Ratio Prot	0.54	c0.01	0.01	c0.71	0.01	
v/s Ratio Perm		0.11	0.19			0.00
v/c Ratio	0.77	0.14	0.25	0.87	0.10	0.02
Uniform Delay, d1	7.7	2.1	8.0	5.1	35.3	35.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.1	0.4	6.1	0.3	0.1
Delay (s)	10.5	2.1	8.4	11.2	35.6	35.1
Level of Service	B	A	A	B	D	D
Approach Delay (s)	8.9			11.0	35.3	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	129	200	20	41	42	317	937	94	165	470	158
Future Volume (vph)	97	129	200	20	41	42	317	937	94	165	470	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1539	1543	1624	1358	1736	3471	1553	1656	3312	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	1827	1539	1543	1624	1358	1736	3471	1553	1656	3312	1482
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)	102	136	211	21	43	44	334	986	99	174	495	166
RTOR Reduction (vph)	0	0	119	0	0	40	0	0	49	0	0	96
Lane Group Flow (vph)	102	136	92	21	43	4	334	986	50	174	495	70
Confl. Peds. (#/hr)	2		5	5		2						
Heavy Vehicles (%)	4%	4%	4%	17%	17%	17%	4%	4%	4%	9%	9%	9%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.6	20.2	48.6	2.9	11.5	11.5	28.4	61.1	61.1	17.8	50.5	50.5
Effective Green, g (s)	11.6	20.2	48.6	2.9	11.5	11.5	28.4	61.1	61.1	17.8	50.5	50.5
Actuated g/C Ratio	0.10	0.17	0.41	0.02	0.10	0.10	0.24	0.51	0.51	0.15	0.42	0.42
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	167	307	681	37	155	130	410	1767	790	245	1393	623
v/s Ratio Prot	c0.06	c0.07	0.03	0.01	0.03		c0.19	c0.28		0.11	0.15	
v/s Ratio Perm			0.03			0.00			0.03			0.05
v/c Ratio	0.61	0.44	0.14	0.57	0.28	0.03	0.81	0.56	0.06	0.71	0.36	0.11
Uniform Delay, d1	52.0	44.8	22.5	57.9	50.4	49.2	43.3	20.2	14.9	48.6	23.7	21.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.74	0.70	1.91	7.03
Incremental Delay, d2	6.5	1.0	0.1	18.4	1.0	0.1	5.8	0.6	0.1	8.7	0.7	0.3
Delay (s)	58.5	45.9	22.6	76.4	51.4	49.3	49.2	22.3	26.1	42.7	45.9	148.8
Level of Service	E	D	C	E	D	D	D	C	C	D	D	F
Approach Delay (s)		37.8			55.4			28.9			65.7	
Approach LOS		D			E			C			E	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	242	213	207	1121	514	88
Future Volume (vph)	242	213	207	1121	514	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1531	1733	1827	3282	1420
Flt Permitted	0.95	1.00	0.40	1.00	1.00	1.00
Satd. Flow (perm)	1752	1531	721	1827	3282	1420
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	232	225	1218	559	96
RTOR Reduction (vph)	0	191	0	0	0	35
Lane Group Flow (vph)	263	41	225	1218	559	61
Confl. Peds. (#/hr)	3	6	4			4
Heavy Vehicles (%)	3%	3%	4%	4%	10%	10%
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	21.1	21.1	89.9	89.9	76.0	76.0
Effective Green, g (s)	21.1	21.1	89.9	89.9	76.0	76.0
Actuated g/C Ratio	0.18	0.18	0.75	0.75	0.63	0.63
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	308	269	619	1368	2078	899
v/s Ratio Prot	c0.15		0.03	c0.67	0.17	
v/s Ratio Perm		0.03	0.24			0.04
v/c Ratio	0.85	0.15	0.36	0.89	0.27	0.07
Uniform Delay, d1	48.0	41.9	4.8	11.3	9.7	8.4
Progression Factor	1.00	1.00	1.00	1.00	0.50	0.52
Incremental Delay, d2	19.9	0.3	0.4	9.0	0.3	0.1
Delay (s)	67.9	42.1	5.1	20.4	5.1	4.5
Level of Service	E	D	A	C	A	A
Approach Delay (s)	55.8			18.0	5.0	
Approach LOS	E			B	A	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	623	741	77	127	420	368	47	654	146	786	1220	730
Future Volume (vph)	623	741	77	127	420	368	47	654	146	786	1220	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	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	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3467	3514		3433	3539	1561	1736	3471	1528	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3467	3514		3433	3539	1561	1736	3471	1528	3433	3539	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	642	764	79	131	433	379	48	674	151	810	1258	753
RTOR Reduction (vph)	0	6	0	0	0	323	0	0	114	0	0	295
Lane Group Flow (vph)	642	837	0	131	433	56	48	674	37	810	1258	458
Confl. Peds. (#/hr)	1		10	10		1			2	2		
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	24.3	34.9		7.2	17.8	17.8	4.8	29.2	29.2	30.7	55.1	55.1
Effective Green, g (s)	24.3	34.9		7.2	17.8	17.8	4.8	29.2	29.2	30.7	55.1	55.1
Actuated g/C Ratio	0.20	0.29		0.06	0.15	0.15	0.04	0.24	0.24	0.26	0.46	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	702	1021		205	524	231	69	844	371	878	1624	726
v/s Ratio Prot	c0.19	c0.24		0.04	0.12		0.03	0.19		c0.24	c0.36	
v/s Ratio Perm						0.04			0.02			0.29
v/c Ratio	0.91	0.82		0.64	0.83	0.24	0.70	0.80	0.10	0.92	0.77	0.63
Uniform Delay, d1	46.8	39.6		55.1	49.6	45.2	56.9	42.6	35.2	43.5	27.2	24.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.99	1.17	4.82	1.00	1.00	1.00
Incremental Delay, d2	16.4	5.2		6.4	10.3	0.6	24.7	7.3	0.5	14.9	3.7	4.1
Delay (s)	63.3	44.8		61.5	59.9	45.7	80.9	57.3	170.3	58.4	30.9	28.8
Level of Service	E	D		E	E	D	F	E	F	E	C	C
Approach Delay (s)		52.8			54.4			78.1			38.3	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	50.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	442	1010	86	11	534	66	195	76	61	108	68	320
Future Volume (vph)	442	1010	86	11	534	66	195	76	61	108	68	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		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
Frt	1.00	0.99		1.00	0.98		1.00	0.93		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)	1787	3524		1784	3515		1787	1737		1787	1881	1593
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1787	3524		1784	3515		1787	1737		1787	1881	1593
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	456	1041	89	11	551	68	201	78	63	111	70	330
RTOR Reduction (vph)	0	5	0	0	7	0	0	25	0	0	0	61
Lane Group Flow (vph)	456	1125	0	11	612	0	201	116	0	111	70	269
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	30.7	56.5		0.8	26.6		15.8	15.8		11.9	11.9	42.6
Effective Green, g (s)	30.7	56.5		0.8	26.6		15.8	15.8		11.9	11.9	42.6
Actuated g/C Ratio	0.30	0.55		0.01	0.26		0.15	0.15		0.12	0.12	0.41
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	532	1933		13	907		274	266		206	217	728
v/s Ratio Prot	c0.26	0.32		0.01	c0.17		c0.11	0.07		c0.06	0.04	0.11
v/s Ratio Perm												0.06
v/c Ratio	0.86	0.58		0.85	0.67		0.73	0.44		0.54	0.32	0.37
Uniform Delay, d1	34.1	15.4		51.0	34.3		41.6	39.6		43.0	41.8	20.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	12.9	0.5		166.4	2.0		9.7	1.2		2.7	0.9	0.3
Delay (s)	46.9	15.9		217.5	36.3		51.3	40.7		45.7	42.7	21.2
Level of Service	D	B		F	D		D	D		D	D	C
Approach Delay (s)		24.8			39.5			47.0			29.5	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	103.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	980	211	37	482	114	46
Future Volume (vph)	980	211	37	482	114	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1900	1564	1787	1881	1805	1575
Flt Permitted	1.00	1.00	0.10	1.00	0.95	1.00
Satd. Flow (perm)	1900	1564	190	1881	1805	1575
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1010	218	38	497	118	47
RTOR Reduction (vph)	0	46	0	0	0	40
Lane Group Flow (vph)	1010	172	38	497	118	7
Confl. Peds. (#/hr)		9	9			1
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	48.9	60.5	55.9	55.9	11.6	11.6
Effective Green, g (s)	48.9	60.5	55.9	55.9	11.6	11.6
Actuated g/C Ratio	0.64	0.79	0.73	0.73	0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1214	1328	191	1374	273	238
v/s Ratio Prot	c0.53	0.02	0.01	c0.26	c0.07	
v/s Ratio Perm		0.09	0.14			0.00
v/c Ratio	0.83	0.13	0.20	0.36	0.43	0.03
Uniform Delay, d1	10.6	1.9	11.6	3.8	29.5	27.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.0	0.0	0.5	0.2	1.1	0.1
Delay (s)	15.6	1.9	12.1	3.9	30.6	27.7
Level of Service	B	A	B	A	C	C
Approach Delay (s)	13.2			4.5	29.7	
Approach LOS	B			A	C	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	76.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	102	479	73	104	143	291	610	84	100	1130	234
Future Volume (vph)	131	102	479	73	104	143	291	610	84	100	1130	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00	0.98	1.00	1.00	0.96
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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1566	1736	1827	1489	1770	3539	1546	1770	3539	1526
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1566	1736	1827	1489	1770	3539	1546	1770	3539	1526
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	135	105	494	75	107	147	300	629	87	103	1165	241
RTOR Reduction (vph)	0	0	64	0	0	131	0	0	40	0	0	136
Lane Group Flow (vph)	135	105	430	75	107	16	300	629	47	103	1165	105
Confl. Peds. (#/hr)	15		7	7		15	5		1	1		5
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.2	16.9	41.2	8.6	13.3	13.3	24.3	64.9	64.9	11.6	52.2	52.2
Effective Green, g (s)	12.2	16.9	41.2	8.6	13.3	13.3	24.3	64.9	64.9	11.6	52.2	52.2
Actuated g/C Ratio	0.10	0.14	0.34	0.07	0.11	0.11	0.20	0.54	0.54	0.10	0.44	0.44
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	179	262	596	124	202	165	358	1914	836	171	1539	663
v/s Ratio Prot	c0.08	0.06	c0.15	0.04	0.06		c0.17	0.18		0.06	c0.33	
v/s Ratio Perm			0.13			0.01			0.03			0.07
v/c Ratio	0.75	0.40	0.72	0.60	0.53	0.10	0.84	0.33	0.06	0.60	0.76	0.16
Uniform Delay, d1	52.4	46.9	34.4	54.1	50.4	48.0	46.0	15.4	13.0	52.0	28.6	20.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.91	0.63	0.95	0.83	1.51
Incremental Delay, d2	16.4	1.0	4.3	8.1	2.5	0.3	13.4	0.4	0.1	4.0	2.4	0.3
Delay (s)	68.8	47.9	38.7	62.1	52.9	48.2	56.0	14.4	8.3	53.2	26.1	31.4
Level of Service	E	D	D	E	D	D	E	B	A	D	C	C
Approach Delay (s)		45.5			52.9			26.2			28.8	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	225	231	139	758	1285	238
Future Volume (vph)	225	231	139	758	1285	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1787	1575	1770	1863	3539	1546
Flt Permitted	0.95	1.00	0.13	1.00	1.00	1.00
Satd. Flow (perm)	1787	1575	250	1863	3539	1546
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	234	241	145	790	1339	248
RTOR Reduction (vph)	0	182	0	0	0	74
Lane Group Flow (vph)	234	59	145	790	1339	174
Confl. Peds. (#/hr)	9	1	1			1
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	20.9	20.9	90.1	90.1	76.8	76.8
Effective Green, g (s)	20.9	20.9	90.1	90.1	76.8	76.8
Actuated g/C Ratio	0.17	0.17	0.75	0.75	0.64	0.64
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	311	274	299	1398	2264	989
v/s Ratio Prot	c0.13		0.04	c0.42	c0.38	
v/s Ratio Perm		0.04	0.33			0.11
v/c Ratio	0.75	0.22	0.48	0.57	0.59	0.18
Uniform Delay, d1	47.1	42.5	9.3	6.5	12.5	8.8
Progression Factor	1.00	1.00	1.00	1.00	0.82	0.87
Incremental Delay, d2	9.9	0.4	1.2	1.7	0.7	0.3
Delay (s)	56.9	42.9	10.5	8.1	11.1	7.9
Level of Service	E	D	B	A	B	A
Approach Delay (s)	49.8			8.5	10.6	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	277	376	17	104	436	874	26	1082	82	467	619	634
Future Volume (vph)	277	376	17	104	436	874	26	1082	82	467	619	634
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.99	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
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3242	3317		3367	3471	1531	1719	3438	1517	3335	3438	1538
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3242	3317		3367	3471	1531	1719	3438	1517	3335	3438	1538
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)	292	396	18	109	459	920	27	1139	86	492	652	667
RTOR Reduction (vph)	0	3	0	0	0	120	0	0	61	0	0	225
Lane Group Flow (vph)	292	412	0	109	459	800	27	1139	25	492	652	442
Confl. Peds. (#/hr)	1		8	8		1			1	1		
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.5	45.0		8.0	44.5	44.5	3.1	35.5	35.5	13.5	45.9	45.9
Effective Green, g (s)	8.5	45.0		8.0	44.5	44.5	3.1	35.5	35.5	13.5	45.9	45.9
Actuated g/C Ratio	0.07	0.38		0.07	0.37	0.37	0.03	0.30	0.30	0.11	0.38	0.38
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	229	1243		224	1287	567	44	1017	448	375	1315	588
v/s Ratio Prot	c0.09	0.12		0.03	0.13		0.02	c0.33		c0.15	0.19	
v/s Ratio Perm						c0.52			0.02			0.29
v/c Ratio	1.28	0.33		0.49	0.36	1.41	0.61	1.12	0.06	1.31	0.50	0.75
Uniform Delay, d1	55.8	26.8		54.0	27.4	37.8	57.9	42.2	30.3	53.2	28.2	32.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.16	0.88	6.59	1.00	1.00	1.00
Incremental Delay, d2	153.2	0.2		1.7	0.2	195.6	20.1	65.8	0.2	158.3	1.3	8.6
Delay (s)	209.0	26.9		55.7	27.5	233.3	87.1	102.9	199.7	211.6	29.6	40.7
Level of Service	F	C		E	C	F	F	F	F	F	C	D
Approach Delay (s)		102.2			156.8			109.2			83.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	112.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	136	702	56	8	905	98	104	31	12	202	47	414
Future Volume (vph)	136	702	56	8	905	98	104	31	12	202	47	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96		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)	1736	3426		1731	3420		1719	1735		1770	1863	1570
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	3426		1731	3420		1719	1735		1770	1863	1570
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	164	846	67	10	1090	118	125	37	14	243	57	499
RTOR Reduction (vph)	0	5	0	0	6	0	0	11	0	0	0	85
Lane Group Flow (vph)	164	908	0	10	1202	0	125	40	0	243	57	414
Confl. Peds. (#/hr)			3	3			2					2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	5%	5%	5%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	15.4	60.9		0.9	46.4		13.1	13.1		17.9	17.9	33.3
Effective Green, g (s)	15.4	60.9		0.9	46.4		13.1	13.1		17.9	17.9	33.3
Actuated g/C Ratio	0.14	0.55		0.01	0.42		0.12	0.12		0.16	0.16	0.30
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	241	1883		14	1432		203	205		285	300	535
v/s Ratio Prot	0.09	0.27		0.01	c0.35		c0.07	0.02		0.14	0.03	c0.11
v/s Ratio Perm												0.16
v/c Ratio	0.68	0.48		0.71	0.84		0.62	0.19		0.85	0.19	0.77
Uniform Delay, d1	45.4	15.3		54.8	28.9		46.5	44.1		45.2	40.2	35.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.7	0.2		100.1	4.5		5.5	0.5		21.1	0.3	6.9
Delay (s)	53.0	15.5		154.9	33.3		51.9	44.5		66.2	40.5	42.2
Level of Service	D	B		F	C		D	D		E	D	D
Approach Delay (s)		21.2			34.3			49.8			49.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	34.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	803	186	60	1036	11	27
Future Volume (vph)	803	186	60	1036	11	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1845	1529	1736	1827	1703	1489
Flt Permitted	1.00	1.00	0.16	1.00	0.95	1.00
Satd. Flow (perm)	1845	1529	290	1827	1703	1489
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	1043	242	78	1345	14	35
RTOR Reduction (vph)	0	45	0	0	0	32
Lane Group Flow (vph)	1043	197	78	1345	14	3
Confl. Peds. (#/hr)		3	3			1
Heavy Vehicles (%)	3%	3%	4%	4%	6%	6%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	68.9	75.6	77.2	77.2	6.7	6.7
Effective Green, g (s)	68.9	75.6	77.2	77.2	6.7	6.7
Actuated g/C Ratio	0.74	0.81	0.83	0.83	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1368	1318	300	1518	122	107
v/s Ratio Prot	0.57	c0.01	0.01	c0.74	0.01	
v/s Ratio Perm		0.12	0.21			0.00
v/c Ratio	0.76	0.15	0.26	0.89	0.11	0.02
Uniform Delay, d1	7.1	1.8	8.3	5.0	40.3	40.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1	0.5	6.6	0.4	0.1
Delay (s)	9.7	1.9	8.8	11.6	40.7	40.1
Level of Service	A	A	A	B	D	D
Approach Delay (s)	8.2			11.5	40.3	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	92.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	134	208	21	43	44	330	978	98	172	491	164
Future Volume (vph)	101	134	208	21	43	44	330	978	98	172	491	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1540	1543	1624	1358	1736	3471	1553	1656	3312	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	1827	1540	1543	1624	1358	1736	3471	1553	1656	3312	1482
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)	106	141	219	22	45	46	347	1029	103	181	517	173
RTOR Reduction (vph)	0	0	107	0	0	42	0	0	51	0	0	101
Lane Group Flow (vph)	106	141	112	22	45	4	347	1029	52	181	517	72
Confl. Peds. (#/hr)	2		5	5		2						
Heavy Vehicles (%)	4%	4%	4%	17%	17%	17%	4%	4%	4%	9%	9%	9%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.1	18.4	47.6	4.3	10.6	10.6	29.2	61.0	61.0	18.3	50.1	50.1
Effective Green, g (s)	12.1	18.4	47.6	4.3	10.6	10.6	29.2	61.0	61.0	18.3	50.1	50.1
Actuated g/C Ratio	0.10	0.15	0.40	0.04	0.09	0.09	0.24	0.51	0.51	0.15	0.42	0.42
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	175	280	668	55	143	119	422	1764	789	252	1382	618
v/s Ratio Prot	c0.06	c0.08	0.04	0.01	0.03		c0.20	c0.30		0.11	0.16	
v/s Ratio Perm			0.03			0.00			0.03			0.05
v/c Ratio	0.61	0.50	0.17	0.40	0.31	0.03	0.82	0.58	0.07	0.72	0.37	0.12
Uniform Delay, d1	51.7	46.6	23.4	56.6	51.3	50.0	42.9	20.6	15.0	48.4	24.1	21.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.09	1.61	0.70	1.94	6.63
Incremental Delay, d2	5.8	1.4	0.1	4.7	1.3	0.1	5.1	0.6	0.1	8.7	0.7	0.4
Delay (s)	57.5	48.0	23.5	61.3	52.6	50.1	47.4	23.0	24.3	42.4	47.6	142.2
Level of Service	E	D	C	E	D	D	D	C	C	D	D	F
Approach Delay (s)		38.7			53.3			28.9			65.3	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	42.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	252	222	215	1170	536	92
Future Volume (vph)	252	222	215	1170	536	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1531	1733	1827	3282	1420
Flt Permitted	0.95	1.00	0.38	1.00	1.00	1.00
Satd. Flow (perm)	1752	1531	699	1827	3282	1420
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	241	234	1272	583	100
RTOR Reduction (vph)	0	199	0	0	0	37
Lane Group Flow (vph)	274	42	234	1272	583	63
Confl. Peds. (#/hr)	3	6	4			4
Heavy Vehicles (%)	3%	3%	4%	4%	10%	10%
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	21.0	21.0	90.0	90.0	75.7	75.7
Effective Green, g (s)	21.0	21.0	90.0	90.0	75.7	75.7
Actuated g/C Ratio	0.18	0.18	0.75	0.75	0.63	0.63
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	306	267	608	1370	2070	895
v/s Ratio Prot	c0.16		0.03	c0.70	0.18	
v/s Ratio Perm		0.03	0.26			0.04
v/c Ratio	0.90	0.16	0.38	0.93	0.28	0.07
Uniform Delay, d1	48.4	42.0	4.8	12.3	9.9	8.6
Progression Factor	1.00	1.00	1.00	1.00	0.60	0.71
Incremental Delay, d2	26.5	0.3	0.4	12.3	0.3	0.1
Delay (s)	75.0	42.3	5.2	24.7	6.3	6.2
Level of Service	E	D	A	C	A	A
Approach Delay (s)	59.7			21.7	6.3	
Approach LOS	E			C	A	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	648	771	80	132	437	383	49	683	152	818	1273	759
Future Volume (vph)	648	771	80	132	437	383	49	683	152	818	1273	759
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	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	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3467	3514		3433	3539	1561	1736	3471	1528	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3467	3514		3433	3539	1561	1736	3471	1528	3433	3539	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	668	795	82	136	451	395	51	704	157	843	1312	782
RTOR Reduction (vph)	0	6	0	0	0	336	0	0	120	0	0	296
Lane Group Flow (vph)	668	871	0	136	451	59	51	704	37	843	1312	486
Confl. Peds. (#/hr)	1		10	10		1			2	2		
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	24.5	35.1		7.3	17.9	17.9	5.0	28.5	28.5	31.1	54.6	54.6
Effective Green, g (s)	24.5	35.1		7.3	17.9	17.9	5.0	28.5	28.5	31.1	54.6	54.6
Actuated g/C Ratio	0.20	0.29		0.06	0.15	0.15	0.04	0.24	0.24	0.26	0.46	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	707	1027		208	527	232	72	824	362	889	1610	720
v/s Ratio Prot	c0.19	c0.25		0.04	0.13		0.03	0.20		c0.25	c0.37	
v/s Ratio Perm						0.04			0.02			0.31
v/c Ratio	0.94	0.85		0.65	0.86	0.25	0.71	0.85	0.10	0.95	0.81	0.68
Uniform Delay, d1	47.1	39.9		55.1	49.8	45.1	56.8	43.8	35.8	43.7	28.3	25.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.99	1.18	4.38	1.00	1.00	1.00
Incremental Delay, d2	21.2	6.6		7.2	12.9	0.6	25.4	10.3	0.5	18.6	4.7	5.0
Delay (s)	68.3	46.6		62.3	62.6	45.7	81.7	61.7	157.3	62.3	33.0	30.7
Level of Service	E	D		E	E	D	F	E	F	E	C	C
Approach Delay (s)		56.0			55.8			79.3			40.8	
Approach LOS		E			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	52.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	460	1051	89	11	556	69	203	79	63	112	71	333
Future Volume (vph)	460	1051	89	11	556	69	203	79	63	112	71	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		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
Frt	1.00	0.99		1.00	0.98		1.00	0.93		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)	1787	3524		1784	3515		1787	1738		1787	1881	1593
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1787	3524		1784	3515		1787	1738		1787	1881	1593
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	474	1084	92	11	573	71	209	81	65	115	73	343
RTOR Reduction (vph)	0	5	0	0	7	0	0	24	0	0	0	56
Lane Group Flow (vph)	474	1171	0	11	637	0	209	122	0	115	73	287
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	32.0	58.5		0.9	27.4		16.3	16.3		12.3	12.3	44.3
Effective Green, g (s)	32.0	58.5		0.9	27.4		16.3	16.3		12.3	12.3	44.3
Actuated g/C Ratio	0.30	0.55		0.01	0.26		0.15	0.15		0.12	0.12	0.42
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	539	1944		15	908		274	267		207	218	733
v/s Ratio Prot	c0.27	0.33		0.01	c0.18		c0.12	0.07		c0.06	0.04	0.12
v/s Ratio Perm												0.06
v/c Ratio	0.88	0.60		0.73	0.70		0.76	0.46		0.56	0.33	0.39
Uniform Delay, d1	35.2	15.9		52.4	35.6		43.0	40.8		44.3	43.1	21.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.1	0.5		103.2	2.5		11.9	1.2		3.2	0.9	0.3
Delay (s)	50.3	16.5		155.7	38.1		54.9	42.1		47.5	44.0	21.8
Level of Service	D	B		F	D		D	D		D	D	C
Approach Delay (s)		26.2			40.0			49.6			30.4	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	106.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1020	220	38	501	119	48
Future Volume (vph)	1020	220	38	501	119	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1900	1563	1787	1881	1805	1575
Flt Permitted	1.00	1.00	0.09	1.00	0.95	1.00
Satd. Flow (perm)	1900	1563	160	1881	1805	1575
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1052	227	39	516	123	49
RTOR Reduction (vph)	0	46	0	0	0	42
Lane Group Flow (vph)	1052	181	39	516	123	7
Confl. Peds. (#/hr)		9	9			1
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	51.3	63.3	58.2	58.2	12.0	12.0
Effective Green, g (s)	51.3	63.3	58.2	58.2	12.0	12.0
Actuated g/C Ratio	0.65	0.80	0.73	0.73	0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1230	1338	166	1382	273	238
v/s Ratio Prot	c0.55	0.02	0.01	c0.27	c0.07	
v/s Ratio Perm		0.10	0.16			0.00
v/c Ratio	0.86	0.14	0.23	0.37	0.45	0.03
Uniform Delay, d1	11.0	1.8	13.3	3.8	30.6	28.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.0	0.0	0.7	0.2	1.2	0.1
Delay (s)	17.0	1.8	14.1	4.0	31.8	28.7
Level of Service	B	A	B	A	C	C
Approach Delay (s)	14.3			4.7	30.9	
Approach LOS	B			A	C	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	79.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	106	498	76	108	149	303	637	87	104	1179	243
Future Volume (vph)	136	106	498	76	108	149	303	637	87	104	1179	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00	0.98	1.00	1.00	0.96
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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1566	1736	1827	1489	1770	3539	1546	1770	3539	1526
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1566	1736	1827	1489	1770	3539	1546	1770	3539	1526
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	109	513	78	111	154	312	657	90	107	1215	251
RTOR Reduction (vph)	0	0	62	0	0	136	0	0	42	0	0	144
Lane Group Flow (vph)	140	109	451	78	111	18	312	657	48	107	1215	107
Confl. Peds. (#/hr)	15		7	7		15	5		1	1		5
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.1	17.0	41.9	8.8	13.7	13.7	24.9	64.2	64.2	12.0	51.3	51.3
Effective Green, g (s)	12.1	17.0	41.9	8.8	13.7	13.7	24.9	64.2	64.2	12.0	51.3	51.3
Actuated g/C Ratio	0.10	0.14	0.35	0.07	0.11	0.11	0.21	0.54	0.54	0.10	0.43	0.43
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	178	263	605	127	208	169	367	1893	827	177	1512	652
v/s Ratio Prot	c0.08	0.06	c0.15	0.04	0.06		c0.18	0.19		0.06	c0.34	
v/s Ratio Perm			0.13			0.01			0.03			0.07
v/c Ratio	0.79	0.41	0.75	0.61	0.53	0.10	0.85	0.35	0.06	0.60	0.80	0.16
Uniform Delay, d1	52.7	47.0	34.4	54.0	50.1	47.6	45.8	15.9	13.4	51.7	30.0	21.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.89	0.57	0.95	0.83	1.70
Incremental Delay, d2	20.1	1.1	5.0	8.5	2.6	0.3	14.1	0.4	0.1	3.6	2.9	0.3
Delay (s)	72.8	48.0	39.3	62.5	52.8	47.9	58.1	14.5	7.8	52.9	27.9	36.3
Level of Service	E	D	D	E	D	D	E	B	A	D	C	D
Approach Delay (s)		46.7			52.8			26.8			30.9	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	35.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	234	240	145	791	1341	248
Future Volume (vph)	234	240	145	791	1341	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1787	1575	1770	1863	3539	1546
Flt Permitted	0.95	1.00	0.12	1.00	1.00	1.00
Satd. Flow (perm)	1787	1575	223	1863	3539	1546
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	244	250	151	824	1397	258
RTOR Reduction (vph)	0	177	0	0	0	77
Lane Group Flow (vph)	244	73	151	824	1397	181
Confl. Peds. (#/hr)	9	1	1			1
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	21.3	21.3	89.7	89.7	76.0	76.0
Effective Green, g (s)	21.3	21.3	89.7	89.7	76.0	76.0
Actuated g/C Ratio	0.18	0.18	0.75	0.75	0.63	0.63
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	317	279	285	1392	2241	979
v/s Ratio Prot	c0.14		0.04	c0.44	c0.39	
v/s Ratio Perm		0.05	0.35			0.12
v/c Ratio	0.77	0.26	0.53	0.59	0.62	0.19
Uniform Delay, d1	47.0	42.6	10.8	6.9	13.3	9.1
Progression Factor	1.00	1.00	1.00	1.00	0.77	0.65
Incremental Delay, d2	10.7	0.5	1.8	1.9	0.8	0.3
Delay (s)	57.7	43.1	12.6	8.7	11.1	6.2
Level of Service	E	D	B	A	B	A
Approach Delay (s)	50.3			9.3	10.3	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	376	17	104	436	872	26	1084	82	436	650	634
Future Volume (vph)	227	376	17	104	436	872	26	1084	82	436	650	634
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.99	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
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3242	3317		3367	3471	1531	1719	3438	1517	3335	3438	1538
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3242	3317		3367	3471	1531	1719	3438	1517	3335	3438	1538
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)	239	396	18	109	459	918	27	1141	86	459	684	667
RTOR Reduction (vph)	0	3	0	0	0	120	0	0	61	0	0	222
Lane Group Flow (vph)	239	412	0	109	459	798	27	1141	25	459	684	445
Confl. Peds. (#/hr)	1		8	8		1			1	1		
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	7.5	45.0		8.0	45.5	45.5	3.1	35.5	35.5	13.5	45.9	45.9
Effective Green, g (s)	7.5	45.0		8.0	45.5	45.5	3.1	35.5	35.5	13.5	45.9	45.9
Actuated g/C Ratio	0.06	0.38		0.07	0.38	0.38	0.03	0.30	0.30	0.11	0.38	0.38
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	202	1243		224	1316	580	44	1017	448	375	1315	588
v/s Ratio Prot	c0.07	0.12		0.03	0.13		0.02	c0.33		c0.14	0.20	
v/s Ratio Perm						c0.52			0.02			0.29
v/c Ratio	1.18	0.33		0.49	0.35	1.38	0.61	1.12	0.06	1.22	0.52	0.76
Uniform Delay, d1	56.2	26.8		54.0	26.7	37.2	57.9	42.2	30.3	53.2	28.6	32.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.17	0.93	5.52	1.00	1.00	1.00
Incremental Delay, d2	121.5	0.2		1.7	0.2	180.0	20.2	66.6	0.2	122.4	1.5	8.8
Delay (s)	177.7	26.9		55.7	26.8	217.2	87.8	105.8	167.3	175.6	30.0	41.0
Level of Service	F	C		E	C	F	F	F	F	F	C	D
Approach Delay (s)		82.1			146.5			109.6			71.0	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	103.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	136	671	56	8	903	98	104	31	12	202	47	414
Future Volume (vph)	136	671	56	8	903	98	104	31	12	202	47	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96		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)	1736	3424		1731	3420		1719	1735		1770	1863	1570
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	3424		1731	3420		1719	1735		1770	1863	1570
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	164	808	67	10	1088	118	125	37	14	243	57	499
RTOR Reduction (vph)	0	5	0	0	6	0	0	11	0	0	0	85
Lane Group Flow (vph)	164	870	0	10	1200	0	125	40	0	243	57	414
Confl. Peds. (#/hr)			3	3			2					2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	5%	5%	5%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	15.4	60.8		0.9	46.3		13.1	13.1		17.9	17.9	33.3
Effective Green, g (s)	15.4	60.8		0.9	46.3		13.1	13.1		17.9	17.9	33.3
Actuated g/C Ratio	0.14	0.55		0.01	0.42		0.12	0.12		0.16	0.16	0.30
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	241	1880		14	1430		203	205		286	301	536
v/s Ratio Prot	0.09	0.25		0.01	c0.35		c0.07	0.02		0.14	0.03	c0.11
v/s Ratio Perm												0.16
v/c Ratio	0.68	0.46		0.71	0.84		0.62	0.19		0.85	0.19	0.77
Uniform Delay, d1	45.3	15.1		54.8	28.9		46.4	44.0		45.1	40.1	35.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.7	0.2		100.1	4.5		5.5	0.5		20.3	0.3	6.8
Delay (s)	53.0	15.3		154.9	33.4		51.9	44.5		65.4	40.4	42.1
Level of Service	D	B		F	C		D	D		E	D	D
Approach Delay (s)		21.2			34.3			49.7			49.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	803	155	30	1036	9	13
Future Volume (vph)	803	155	30	1036	9	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1845	1528	1736	1827	1703	1489
Flt Permitted	1.00	1.00	0.17	1.00	0.95	1.00
Satd. Flow (perm)	1845	1528	317	1827	1703	1489
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	1043	201	39	1345	12	17
RTOR Reduction (vph)	0	34	0	0	0	16
Lane Group Flow (vph)	1043	167	39	1345	12	1
Confl. Peds. (#/hr)		3	3			1
Heavy Vehicles (%)	3%	3%	4%	4%	6%	6%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	73.4	79.8	80.6	80.6	6.4	6.4
Effective Green, g (s)	73.4	79.8	80.6	80.6	6.4	6.4
Actuated g/C Ratio	0.76	0.83	0.84	0.84	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1410	1341	306	1533	113	99
v/s Ratio Prot	0.57	c0.01	0.00	c0.74	0.01	
v/s Ratio Perm		0.10	0.10			0.00
v/c Ratio	0.74	0.12	0.13	0.88	0.11	0.01
Uniform Delay, d1	6.1	1.5	6.7	4.7	42.1	41.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.1	0.0	0.2	6.0	0.4	0.0
Delay (s)	8.2	1.6	6.9	10.7	42.5	41.9
Level of Service	A	A	A	B	D	D
Approach Delay (s)	7.1			10.6	42.2	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	134	208	7	43	35	330	989	33	138	556	164
Future Volume (vph)	101	134	208	7	43	35	330	989	33	138	556	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1538	1543	1624	1358	1736	3471	1553	1656	3312	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	1827	1538	1543	1624	1358	1736	3471	1553	1656	3312	1482
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)	106	141	219	7	45	37	347	1041	35	145	585	173
RTOR Reduction (vph)	0	0	94	0	0	33	0	0	17	0	0	103
Lane Group Flow (vph)	106	141	125	7	45	4	347	1041	18	145	585	70
Confl. Peds. (#/hr)	2		5	5		2						
Heavy Vehicles (%)	4%	4%	4%	17%	17%	17%	4%	4%	4%	9%	9%	9%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.1	23.4	52.7	1.0	12.3	12.3	29.3	61.9	61.9	15.7	48.3	48.3
Effective Green, g (s)	12.1	23.4	52.7	1.0	12.3	12.3	29.3	61.9	61.9	15.7	48.3	48.3
Actuated g/C Ratio	0.10	0.19	0.44	0.01	0.10	0.10	0.24	0.52	0.52	0.13	0.40	0.40
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	175	356	733	12	166	139	423	1790	801	216	1333	596
v/s Ratio Prot	c0.06	c0.08	0.04	0.00	0.03		c0.20	c0.30		0.09	0.18	
v/s Ratio Perm			0.04			0.00			0.01			0.05
v/c Ratio	0.61	0.40	0.17	0.58	0.27	0.03	0.82	0.58	0.02	0.67	0.44	0.12
Uniform Delay, d1	51.7	42.1	20.4	59.3	49.7	48.5	42.9	20.1	14.2	49.7	26.0	22.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.14	0.98	1.00	0.69	1.97	6.73
Incremental Delay, d2	5.8	0.7	0.1	56.2	0.9	0.1	10.0	1.1	0.0	7.3	1.0	0.4
Delay (s)	57.5	42.9	20.5	115.5	50.6	48.5	58.7	20.9	14.3	41.4	52.2	151.6
Level of Service	E	D	C	F	D	D	E	C	B	D	D	F
Approach Delay (s)		35.7			54.8			29.9			69.5	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	44.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	44	210	7	29	98	193	1050	33	112	482	85
Future Volume (vph)	220	44	210	7	29	98	193	1050	33	112	482	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.99	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	0.99	1.00		0.99	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.88		1.00	1.00	0.85	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		0.95	1.00	1.00
Satd. Flow (prot)	1742	1584		1760	1863	1565	1736	3455		1641	3282	1420
Flt Permitted	0.74	1.00		0.31	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1350	1584		580	1863	1565	1736	3455		1641	3282	1420
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)	239	48	228	8	32	107	210	1141	36	122	524	92
RTOR Reduction (vph)	0	156	0	0	0	37	0	1	0	0	0	46
Lane Group Flow (vph)	239	120	0	8	32	70	210	1176	0	122	524	46
Confl. Peds. (#/hr)	3		6	6		3	4					4
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	10%	10%	10%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	Perm
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						6
Actuated Green, G (s)	26.5	26.5		26.5	26.5	40.2	19.4	66.3		13.7	60.6	60.6
Effective Green, g (s)	26.5	26.5		26.5	26.5	40.2	19.4	66.3		13.7	60.6	60.6
Actuated g/C Ratio	0.22	0.22		0.22	0.22	0.34	0.16	0.55		0.11	0.51	0.51
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	298	349		128	411	582	280	1908		187	1657	717
v/s Ratio Prot		0.08			0.02	0.01	c0.12	c0.34		0.07	0.16	
v/s Ratio Perm	c0.18			0.01		0.03						0.03
v/c Ratio	0.80	0.34		0.06	0.08	0.12	0.75	0.62		0.65	0.32	0.06
Uniform Delay, d1	44.3	39.4		36.9	37.1	27.7	48.0	18.2		50.9	17.5	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.29	0.32	0.05
Incremental Delay, d2	14.3	0.6		0.2	0.1	0.1	10.7	1.5		7.5	0.5	0.2
Delay (s)	58.6	40.0		37.1	37.1	27.7	58.7	19.7		73.3	6.1	0.9
Level of Service	E	D		D	D	C	E	B		E	A	A
Approach Delay (s)		48.6			30.3			25.6			16.6	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	648	771	80	132	437	363	49	703	152	781	1310	759
Future Volume (vph)	648	771	80	132	437	363	49	703	152	781	1310	759
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	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	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3467	3514		3433	3539	1561	1736	3471	1528	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3467	3514		3433	3539	1561	1736	3471	1528	3433	3539	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	668	795	82	136	451	374	51	725	157	805	1351	782
RTOR Reduction (vph)	0	6	0	0	0	319	0	0	119	0	0	305
Lane Group Flow (vph)	668	871	0	136	451	55	51	725	38	805	1351	477
Confl. Peds. (#/hr)	1		10	10		1			2	2		
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	25.1	35.6		7.3	17.8	17.8	5.0	29.1	29.1	30.0	54.1	54.1
Effective Green, g (s)	25.1	35.6		7.3	17.8	17.8	5.0	29.1	29.1	30.0	54.1	54.1
Actuated g/C Ratio	0.21	0.30		0.06	0.15	0.15	0.04	0.24	0.24	0.25	0.45	0.45
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	725	1042		208	524	231	72	841	370	858	1595	713
v/s Ratio Prot	c0.19	c0.25		0.04	0.13		0.03	0.21		c0.23	c0.38	
v/s Ratio Perm						0.04			0.02			0.30
v/c Ratio	0.92	0.84		0.65	0.86	0.24	0.71	0.86	0.10	0.94	0.85	0.67
Uniform Delay, d1	46.5	39.5		55.1	49.9	45.1	56.8	43.5	35.3	44.1	29.3	25.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.92	1.17	3.96	1.00	1.00	1.00
Incremental Delay, d2	17.1	5.9		7.2	13.5	0.5	25.5	10.6	0.5	17.4	5.8	4.9
Delay (s)	63.6	45.4		62.3	63.4	45.7	77.9	61.7	140.4	61.5	35.0	30.8
Level of Service	E	D		E	E	D	E	E	F	E	D	C
Approach Delay (s)		53.3			56.4			75.8			41.2	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	51.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
2: Shopping Center Access/S Maple Lane Road & S Beavercreek Road

01/15/2018

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	460	1014	89	11	536	69	203	79	63	112	71	333
Future Volume (vph)	460	1014	89	11	536	69	203	79	63	112	71	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		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
Frt	1.00	0.99		1.00	0.98		1.00	0.93		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)	1787	3523		1784	3513		1787	1738		1787	1881	1593
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1787	3523		1784	3513		1787	1738		1787	1881	1593
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	474	1045	92	11	553	71	209	81	65	115	73	343
RTOR Reduction (vph)	0	5	0	0	8	0	0	24	0	0	0	57
Lane Group Flow (vph)	474	1132	0	11	616	0	209	122	0	115	73	286
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	31.8	57.9		0.9	27.0		16.2	16.2		12.2	12.2	44.0
Effective Green, g (s)	31.8	57.9		0.9	27.0		16.2	16.2		12.2	12.2	44.0
Actuated g/C Ratio	0.30	0.55		0.01	0.26		0.15	0.15		0.12	0.12	0.42
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	540	1938		15	901		275	267		207	218	734
v/s Ratio Prot	c0.27	0.32		0.01	c0.18		c0.12	0.07		c0.06	0.04	0.12
v/s Ratio Perm												0.06
v/c Ratio	0.88	0.58		0.73	0.68		0.76	0.46		0.56	0.33	0.39
Uniform Delay, d1	34.9	15.7		52.0	35.2		42.6	40.5		43.9	42.8	21.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	14.9	0.5		103.2	2.2		11.7	1.2		3.2	0.9	0.3
Delay (s)	49.8	16.1		155.3	37.4		54.3	41.8		47.1	43.7	21.6
Level of Service	D	B		F	D		D	D		D	D	C
Approach Delay (s)		26.0			39.4			49.1			30.2	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	105.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1020	183	19	501	99	24
Future Volume (vph)	1020	183	19	501	99	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1900	1564	1787	1881	1805	1575
Flt Permitted	1.00	1.00	0.09	1.00	0.95	1.00
Satd. Flow (perm)	1900	1564	174	1881	1805	1575
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1052	189	20	516	102	25
RTOR Reduction (vph)	0	38	0	0	0	21
Lane Group Flow (vph)	1052	151	20	516	102	4
Confl. Peds. (#/hr)		9	9			1
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	49.0	59.9	54.9	54.9	10.9	10.9
Effective Green, g (s)	49.0	59.9	54.9	54.9	10.9	10.9
Actuated g/C Ratio	0.66	0.80	0.73	0.73	0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1244	1346	157	1380	263	229
v/s Ratio Prot	c0.55	0.02	0.00	c0.27	c0.06	
v/s Ratio Perm		0.08	0.09			0.00
v/c Ratio	0.85	0.11	0.13	0.37	0.39	0.02
Uniform Delay, d1	10.0	1.6	11.8	3.6	28.9	27.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.5	0.0	0.4	0.2	1.0	0.0
Delay (s)	15.4	1.7	12.2	3.8	29.9	27.4
Level of Service	B	A	B	A	C	C
Approach Delay (s)	13.3			4.1	29.4	
Approach LOS	B			A	C	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	106	498	25	108	119	303	687	29	83	1237	243
Future Volume (vph)	136	106	498	25	108	119	303	687	29	83	1237	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00	0.98	1.00	1.00	0.96
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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1564	1736	1827	1489	1770	3539	1546	1770	3539	1526
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1564	1736	1827	1489	1770	3539	1546	1770	3539	1526
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	109	513	26	111	123	312	708	30	86	1275	251
RTOR Reduction (vph)	0	0	46	0	0	108	0	0	13	0	0	145
Lane Group Flow (vph)	140	109	467	26	111	15	312	708	17	86	1275	106
Confl. Peds. (#/hr)	15		7	7		15	5		1	1		5
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.8	22.5	47.7	3.7	14.4	14.4	25.2	66.5	66.5	9.3	50.6	50.6
Effective Green, g (s)	11.8	22.5	47.7	3.7	14.4	14.4	25.2	66.5	66.5	9.3	50.6	50.6
Actuated g/C Ratio	0.10	0.19	0.40	0.03	0.12	0.12	0.21	0.55	0.55	0.08	0.42	0.42
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	349	680	53	219	178	371	1961	856	137	1492	643
v/s Ratio Prot	c0.08	0.06	c0.14	0.01	0.06		c0.18	0.20		0.05	c0.36	
v/s Ratio Perm			0.15			0.01			0.01			0.07
v/c Ratio	0.80	0.31	0.69	0.49	0.51	0.08	0.84	0.36	0.02	0.63	0.85	0.16
Uniform Delay, d1	53.0	42.1	30.0	57.2	49.5	46.9	45.5	14.9	12.1	53.7	31.4	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.15	0.79	1.00	0.94	0.81	1.72
Incremental Delay, d2	23.0	0.5	2.9	7.0	1.8	0.2	14.8	0.5	0.0	5.1	3.9	0.3
Delay (s)	75.9	42.6	32.9	64.2	51.3	47.1	67.1	12.2	12.1	55.4	29.3	37.4
Level of Service	E	D	C	E	D	D	E	B	B	E	C	D
Approach Delay (s)		42.2			50.6			28.5			32.0	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	41	228	26	39	105	131	707	29	107	1266	223
Future Volume (vph)	205	41	228	26	39	105	131	707	29	107	1266	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	0.98	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.87		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1757	1621		1768	1863	1552	1770	3516		1770	3539	1546
Flt Permitted	0.73	1.00		0.26	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1351	1621		486	1863	1552	1770	3516		1770	3539	1546
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	214	43	238	27	41	109	136	736	30	111	1319	232
RTOR Reduction (vph)	0	179	0	0	0	76	0	2	0	0	0	75
Lane Group Flow (vph)	214	102	0	27	41	33	136	764	0	111	1319	157
Confl. Peds. (#/hr)	9		1	1		9	1					1
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	Perm
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						6
Actuated Green, G (s)	23.9	23.9		23.9	23.9	36.2	14.0	70.3		12.3	68.6	68.6
Effective Green, g (s)	23.9	23.9		23.9	23.9	36.2	14.0	70.3		12.3	68.6	68.6
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.30	0.12	0.59		0.10	0.57	0.57
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	269	322		96	371	526	206	2059		181	2023	883
v/s Ratio Prot		0.06			0.02	0.01	c0.08	0.22		0.06	c0.37	
v/s Ratio Perm	c0.16			0.06		0.01						0.10
v/c Ratio	0.80	0.32		0.28	0.11	0.06	0.66	0.37		0.61	0.65	0.18
Uniform Delay, d1	45.7	41.1		40.8	39.3	29.8	50.7	13.2		51.6	17.5	12.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.02	0.83	0.74
Incremental Delay, d2	14.9	0.6		1.6	0.1	0.1	7.7	0.5		3.5	1.0	0.3
Delay (s)	60.6	41.7		42.4	39.5	29.9	58.4	13.7		55.9	15.6	9.3
Level of Service	E	D		D	D	C	E	B		E	B	A
Approach Delay (s)		49.9			34.0			20.4			17.4	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	277	380	21	104	436	874	27	1088	82	447	667	634
Future Volume (vph)	277	380	21	104	436	874	27	1088	82	447	667	634
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.99	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
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3242	3312		3367	3471	1531	1719	3438	1517	3335	3438	1538
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3242	3312		3367	3471	1531	1719	3438	1517	3335	3438	1538
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)	292	400	22	109	459	920	28	1145	86	471	702	667
RTOR Reduction (vph)	0	3	0	0	0	120	0	0	61	0	0	224
Lane Group Flow (vph)	292	419	0	109	459	800	28	1145	25	471	702	443
Confl. Peds. (#/hr)	1		8	8		1			1	1		
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	8.5	45.0		8.0	44.5	44.5	3.1	35.5	35.5	13.5	45.9	45.9
Effective Green, g (s)	8.5	45.0		8.0	44.5	44.5	3.1	35.5	35.5	13.5	45.9	45.9
Actuated g/C Ratio	0.07	0.38		0.07	0.37	0.37	0.03	0.30	0.30	0.11	0.38	0.38
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	229	1242		224	1287	567	44	1017	448	375	1315	588
v/s Ratio Prot	c0.09	0.13		0.03	0.13		0.02	c0.33		c0.14	0.20	
v/s Ratio Perm						c0.52			0.02			0.29
v/c Ratio	1.28	0.34		0.49	0.36	1.41	0.64	1.13	0.06	1.26	0.53	0.75
Uniform Delay, d1	55.8	26.8		54.0	27.4	37.8	57.9	42.2	30.3	53.2	28.7	32.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.14	0.93	6.58	1.00	1.00	1.00
Incremental Delay, d2	153.2	0.2		1.7	0.2	195.6	23.4	68.1	0.2	135.3	1.6	8.7
Delay (s)	209.0	27.0		55.7	27.5	233.3	89.3	107.5	199.4	188.5	30.3	40.9
Level of Service	F	C		E	C	F	F	F	F	F	C	D
Approach Delay (s)		101.4			156.8			113.4			74.6	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	110.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	136	686	56	8	905	99	104	31	12	205	47	414
Future Volume (vph)	136	686	56	8	905	99	104	31	12	205	47	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.96		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)	1736	3425		1731	3420		1719	1735		1770	1863	1570
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1736	3425		1731	3420		1719	1735		1770	1863	1570
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	164	827	67	10	1090	119	125	37	14	247	57	499
RTOR Reduction (vph)	0	5	0	0	6	0	0	11	0	0	0	85
Lane Group Flow (vph)	164	889	0	10	1203	0	125	40	0	247	57	414
Confl. Peds. (#/hr)			3	3			2					2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	5%	5%	5%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	15.4	61.0		0.9	46.5		13.1	13.1		18.0	18.0	33.4
Effective Green, g (s)	15.4	61.0		0.9	46.5		13.1	13.1		18.0	18.0	33.4
Actuated g/C Ratio	0.14	0.55		0.01	0.42		0.12	0.12		0.16	0.16	0.30
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	240	1882		14	1432		202	204		287	302	536
v/s Ratio Prot	0.09	0.26		0.01	c0.35		c0.07	0.02		c0.14	0.03	c0.11
v/s Ratio Perm												0.16
v/c Ratio	0.68	0.47		0.71	0.84		0.62	0.19		0.86	0.19	0.77
Uniform Delay, d1	45.5	15.2		54.9	28.9		46.6	44.2		45.3	40.2	35.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.8	0.2		100.1	4.5		5.5	0.5		22.2	0.3	6.8
Delay (s)	53.3	15.4		155.0	33.4		52.1	44.6		67.5	40.5	42.2
Level of Service	D	B		F	C		D	D		E	D	D
Approach Delay (s)		21.3			34.4			50.0			49.8	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	34.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	111.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	803	173	34	1036	12	14
Future Volume (vph)	803	173	34	1036	12	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1845	1528	1736	1827	1703	1489
Flt Permitted	1.00	1.00	0.17	1.00	0.95	1.00
Satd. Flow (perm)	1845	1528	313	1827	1703	1489
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	1043	225	44	1345	16	18
RTOR Reduction (vph)	0	38	0	0	0	17
Lane Group Flow (vph)	1043	187	44	1345	16	1
Confl. Peds. (#/hr)		3	3			1
Heavy Vehicles (%)	3%	3%	4%	4%	6%	6%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	72.4	79.0	79.6	79.6	6.6	6.6
Effective Green, g (s)	72.4	79.0	79.6	79.6	6.6	6.6
Actuated g/C Ratio	0.76	0.83	0.84	0.84	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1403	1340	302	1527	118	103
v/s Ratio Prot	0.57	c0.01	0.00	c0.74	0.01	
v/s Ratio Perm		0.11	0.12			0.00
v/c Ratio	0.74	0.14	0.15	0.88	0.14	0.01
Uniform Delay, d1	6.3	1.6	7.0	4.9	41.6	41.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.0	0.2	6.3	0.5	0.0
Delay (s)	8.5	1.6	7.2	11.1	42.1	41.3
Level of Service	A	A	A	B	D	D
Approach Delay (s)	7.2			11.0	41.7	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	148	208	8	46	38	330	991	36	152	563	164
Future Volume (vph)	101	148	208	8	46	38	330	991	36	152	563	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1538	1543	1624	1358	1736	3471	1553	1656	3312	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	1827	1538	1543	1624	1358	1736	3471	1553	1656	3312	1482
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)	106	156	219	8	48	40	347	1043	38	160	593	173
RTOR Reduction (vph)	0	0	92	0	0	36	0	0	19	0	0	104
Lane Group Flow (vph)	106	156	127	8	48	4	347	1043	19	160	593	69
Confl. Peds. (#/hr)	2		5	5		2						
Heavy Vehicles (%)	4%	4%	4%	17%	17%	17%	4%	4%	4%	9%	9%	9%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.1	23.7	52.9	1.0	12.6	12.6	29.2	60.5	60.5	16.8	48.1	48.1
Effective Green, g (s)	12.1	23.7	52.9	1.0	12.6	12.6	29.2	60.5	60.5	16.8	48.1	48.1
Actuated g/C Ratio	0.10	0.20	0.44	0.01	0.10	0.10	0.24	0.50	0.50	0.14	0.40	0.40
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	175	360	735	12	170	142	422	1749	782	231	1327	594
v/s Ratio Prot	c0.06	c0.09	0.04	0.01	0.03		c0.20	c0.30		0.10	0.18	
v/s Ratio Perm			0.04			0.00			0.01			0.05
v/c Ratio	0.61	0.43	0.17	0.67	0.28	0.03	0.82	0.60	0.02	0.69	0.45	0.12
Uniform Delay, d1	51.7	42.3	20.3	59.3	49.5	48.2	42.9	21.1	14.9	49.1	26.2	22.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.12	0.98	1.00	0.68	1.95	6.59
Incremental Delay, d2	5.8	0.8	0.1	89.5	0.9	0.1	10.1	1.2	0.0	7.9	1.0	0.4
Delay (s)	57.5	43.1	20.4	148.8	50.4	48.3	58.4	22.0	15.0	41.3	52.1	149.3
Level of Service	E	D	C	F	D	D	E	C	B	D	D	F
Approach Delay (s)		35.9			57.7			30.7			68.4	
Approach LOS		D			E			C			E	

Intersection Summary			
HCM 2000 Control Delay	44.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	47	210	8	30	100	193	1053	37	119	483	85
Future Volume (vph)	220	47	210	8	30	100	193	1053	37	119	483	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.99	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	0.99	1.00		0.99	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.88		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1742	1587		1760	1863	1565	1736	3454		1641	3282	1420
Flt Permitted	0.74	1.00		0.31	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1349	1587		570	1863	1565	1736	3454		1641	3282	1420
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)	239	51	228	9	33	109	210	1145	40	129	525	92
RTOR Reduction (vph)	0	146	0	0	0	36	0	2	0	0	0	46
Lane Group Flow (vph)	239	133	0	9	33	73	210	1183	0	129	525	46
Confl. Peds. (#/hr)	3		6	6		3	4					4
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	10%	10%	10%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	Perm
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						6
Actuated Green, G (s)	26.5	26.5		26.5	26.5	40.7	19.4	65.8		14.2	60.6	60.6
Effective Green, g (s)	26.5	26.5		26.5	26.5	40.7	19.4	65.8		14.2	60.6	60.6
Actuated g/C Ratio	0.22	0.22		0.22	0.22	0.34	0.16	0.55		0.12	0.51	0.51
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	297	350		125	411	589	280	1893		194	1657	717
v/s Ratio Prot		0.08			0.02	0.01	c0.12	c0.34		0.08	0.16	
v/s Ratio Perm	c0.18			0.02		0.03						0.03
v/c Ratio	0.80	0.38		0.07	0.08	0.12	0.75	0.63		0.66	0.32	0.06
Uniform Delay, d1	44.3	39.7		37.0	37.1	27.3	48.0	18.6		50.6	17.5	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.29	0.34	0.05
Incremental Delay, d2	14.6	0.7		0.2	0.1	0.1	10.7	1.6		7.9	0.5	0.2
Delay (s)	58.9	40.4		37.3	37.2	27.4	58.7	20.2		73.4	6.4	0.9
Level of Service	E	D		D	D	C	E	C		E	A	A
Approach Delay (s)		48.9			30.2			26.0			17.3	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: OR-213 & S Beavercreek Road

01/15/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	648	774	83	132	439	370	51	715	152	789	1324	759
Future Volume (vph)	648	774	83	132	439	370	51	715	152	789	1324	759
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.97	0.95		0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	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	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	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
Satd. Flow (prot)	3467	3511		3433	3539	1561	1736	3471	1528	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3467	3511		3433	3539	1561	1736	3471	1528	3433	3539	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	668	798	86	136	453	381	53	737	157	813	1365	782
RTOR Reduction (vph)	0	7	0	0	0	324	0	0	118	0	0	291
Lane Group Flow (vph)	668	877	0	136	453	57	53	737	39	813	1365	491
Confl. Peds. (#/hr)	1		10	10		1			2	2		
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	24.5	35.0		7.3	17.8	17.8	4.4	29.6	29.6	30.1	55.3	55.3
Effective Green, g (s)	24.5	35.0		7.3	17.8	17.8	4.4	29.6	29.6	30.1	55.3	55.3
Actuated g/C Ratio	0.20	0.29		0.06	0.15	0.15	0.04	0.25	0.25	0.25	0.46	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	707	1024		208	524	231	63	856	376	861	1630	729
v/s Ratio Prot	c0.19	c0.25		0.04	0.13		0.03	0.21		c0.24	c0.39	
v/s Ratio Perm						0.04			0.03			0.31
v/c Ratio	0.94	0.86		0.65	0.86	0.24	0.84	0.86	0.10	0.94	0.84	0.67
Uniform Delay, d1	47.1	40.1		55.1	49.9	45.2	57.5	43.2	34.9	44.1	28.4	25.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.92	1.20	4.16	1.00	1.00	1.00
Incremental Delay, d2	21.2	7.2		7.2	13.9	0.6	57.5	10.3	0.5	18.4	5.3	4.9
Delay (s)	68.3	47.3		62.3	63.8	45.7	110.1	62.1	145.9	62.6	33.7	30.2
Level of Service	E	D		E	E	D	F	E	F	E	C	C
Approach Delay (s)		56.3			56.5			78.7			40.7	
Approach LOS		E			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	52.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	460	1025	89	11	545	71	203	79	63	115	71	333
Future Volume (vph)	460	1025	89	11	545	71	203	79	63	115	71	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		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
Frt	1.00	0.99		1.00	0.98		1.00	0.93		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)	1787	3523		1784	3513		1787	1738		1787	1881	1593
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1787	3523		1784	3513		1787	1738		1787	1881	1593
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	474	1057	92	11	562	73	209	81	65	119	73	343
RTOR Reduction (vph)	0	5	0	0	8	0	0	24	0	0	0	56
Lane Group Flow (vph)	474	1144	0	11	627	0	209	122	0	119	73	287
Confl. Peds. (#/hr)			3	3			1		1	1		1
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2		4	4		8	8	1
Permitted Phases												8
Actuated Green, G (s)	32.0	58.3		0.9	27.2		16.2	16.2		12.5	12.5	44.5
Effective Green, g (s)	32.0	58.3		0.9	27.2		16.2	16.2		12.5	12.5	44.5
Actuated g/C Ratio	0.30	0.55		0.01	0.26		0.15	0.15		0.12	0.12	0.42
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
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)	539	1939		15	902		273	265		210	222	737
v/s Ratio Prot	c0.27	0.32		0.01	c0.18		c0.12	0.07		c0.07	0.04	0.12
v/s Ratio Perm												0.06
v/c Ratio	0.88	0.59		0.73	0.69		0.77	0.46		0.57	0.33	0.39
Uniform Delay, d1	35.1	15.8		52.4	35.6		43.0	40.9		44.1	42.9	21.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.1	0.5		103.2	2.3		12.1	1.3		3.5	0.9	0.3
Delay (s)	50.2	16.3		155.6	37.9		55.1	42.1		47.6	43.7	21.6
Level of Service	D	B		F	D		E	D		D	D	C
Approach Delay (s)		26.2			39.9			49.8			30.4	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	105.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1020	197	21	501	110	27
Future Volume (vph)	1020	197	21	501	110	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1900	1563	1787	1881	1805	1575
Flt Permitted	1.00	1.00	0.10	1.00	0.95	1.00
Satd. Flow (perm)	1900	1563	181	1881	1805	1575
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1052	203	22	516	113	28
RTOR Reduction (vph)	0	39	0	0	0	24
Lane Group Flow (vph)	1052	164	22	516	113	4
Confl. Peds. (#/hr)		9	9			1
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	6	4	5	2	4	
Permitted Phases		6	2			4
Actuated Green, G (s)	51.4	62.9	57.3	57.3	11.5	11.5
Effective Green, g (s)	51.4	62.9	57.3	57.3	11.5	11.5
Actuated g/C Ratio	0.66	0.81	0.74	0.74	0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1255	1354	162	1385	266	232
v/s Ratio Prot	c0.55	0.02	0.00	c0.27	c0.06	
v/s Ratio Perm		0.09	0.10			0.00
v/c Ratio	0.84	0.12	0.14	0.37	0.42	0.02
Uniform Delay, d1	10.0	1.6	12.0	3.7	30.1	28.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.1	0.0	0.4	0.2	1.1	0.0
Delay (s)	15.1	1.6	12.4	3.9	31.2	28.4
Level of Service	B	A	B	A	C	C
Approach Delay (s)	12.9			4.2	30.7	
Approach LOS	B			A	C	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	77.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	117	498	28	117	128	303	692	31	95	1242	243
Future Volume (vph)	136	117	498	28	117	128	303	692	31	95	1242	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00	0.98	1.00	1.00	0.96
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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1563	1736	1827	1489	1770	3539	1546	1770	3539	1526
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1563	1736	1827	1489	1770	3539	1546	1770	3539	1526
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	121	513	29	121	132	312	713	32	98	1280	251
RTOR Reduction (vph)	0	0	44	0	0	116	0	0	15	0	0	146
Lane Group Flow (vph)	140	121	469	29	121	17	312	713	17	98	1280	105
Confl. Peds. (#/hr)	15		7	7		15	5		1	1		5
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.8	23.0	47.9	3.8	15.0	15.0	24.9	63.9	63.9	11.3	50.3	50.3
Effective Green, g (s)	11.8	23.0	47.9	3.8	15.0	15.0	24.9	63.9	63.9	11.3	50.3	50.3
Actuated g/C Ratio	0.10	0.19	0.40	0.03	0.12	0.12	0.21	0.53	0.53	0.09	0.42	0.42
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	357	682	54	228	186	367	1884	823	166	1483	639
v/s Ratio Prot	c0.08	0.06	c0.14	0.02	0.07		c0.18	0.20		0.06	c0.36	
v/s Ratio Perm			0.16			0.01			0.01			0.07
v/c Ratio	0.80	0.34	0.69	0.54	0.53	0.09	0.85	0.38	0.02	0.59	0.86	0.16
Uniform Delay, d1	53.0	41.9	29.8	57.2	49.2	46.5	45.8	16.4	13.3	52.1	31.7	21.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.15	0.79	1.00	0.96	0.79	1.62
Incremental Delay, d2	23.0	0.6	2.9	9.9	2.4	0.2	15.9	0.5	0.0	3.3	4.2	0.3
Delay (s)	75.9	42.5	32.7	67.1	51.6	46.7	68.4	13.5	13.3	53.2	29.3	35.4
Level of Service	E	D	C	E	D	D	E	B	B	D	C	D
Approach Delay (s)		42.1			50.9			29.7			31.7	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	44	228	28	41	110	131	709	32	112	1269	223
Future Volume (vph)	205	44	228	28	41	110	131	709	32	112	1269	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	0.98	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.87		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1757	1624		1768	1863	1553	1770	3513		1770	3539	1546
Flt Permitted	0.73	1.00		0.25	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1348	1624		474	1863	1553	1770	3513		1770	3539	1546
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	214	46	238	29	43	115	136	739	33	117	1322	232
RTOR Reduction (vph)	0	167	0	0	0	80	0	2	0	0	0	75
Lane Group Flow (vph)	214	117	0	29	43	35	136	770	0	117	1322	157
Confl. Peds. (#/hr)	9		1	1		9	1					1
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	pm+ov	Prot	NA		Prot	NA	Perm
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8						6
Actuated Green, G (s)	23.9	23.9		23.9	23.9	36.5	14.0	70.0		12.6	68.6	68.6
Effective Green, g (s)	23.9	23.9		23.9	23.9	36.5	14.0	70.0		12.6	68.6	68.6
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.30	0.12	0.58		0.10	0.57	0.57
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	268	323		94	371	530	206	2049		185	2023	883
v/s Ratio Prot		0.07			0.02	0.01	c0.08	0.22		0.07	c0.37	
v/s Ratio Perm	c0.16			0.06		0.02						0.10
v/c Ratio	0.80	0.36		0.31	0.12	0.07	0.66	0.38		0.63	0.65	0.18
Uniform Delay, d1	45.8	41.5		41.0	39.4	29.6	50.7	13.3		51.5	17.6	12.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.02	0.84	0.74
Incremental Delay, d2	15.2	0.7		1.9	0.1	0.1	7.7	0.5		4.0	1.0	0.3
Delay (s)	60.9	42.2		42.9	39.5	29.7	58.4	13.9		56.3	15.6	9.3
Level of Service	E	D		D	D	C	E	B		E	B	A
Approach Delay (s)		50.2			34.0			20.5			17.6	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

OREGON CITY

Caufield Neighborhood Association

MEETING AGENDA ***Nov. 28, 2017***

Presiding – Robert Malchow, Chairman Kristina Browning, Vice Chairwoman and temp. Sec.

Please fill out name tag and sign the sign-in sheet (include e-mail address)

1.) Citizens pledge

2.) **Officer Michael Villanti** - Police report and news

3.) **Bob Cochran (Campus Services Dean), Phil Zerzan (Dir. Of Campus Safety) and Lori Hall(Public Info. Officer)** – Clackamas Comm. College; update on new buildings and other campus activities

4.) **Phil Lewis – Oregon City Community Services Dir.**; update on Glen Oak Park and other city public spaces

5.) Business meeting

5.1 Meeting minutes from Sept. 26, 2017

5.2 Elections: Secretary; Chair; Co-Chair; Police Chief's Advisory Council Liaison

5.3 Other Exec. Comm. reports (info on Evergreen Housing Development's "Villages at Beavercreek")

6.) Citizen Concerns / Community Announcements

7.) Raffle and Refreshments

NEXT MEETING – Jan. 23, 2018 (Tuesday) at OCDS Facilities & Maintenance Center - 6:45PM

CAUFIELD NEIGHBORHOOD ASSOC

11-28-17

NAME	ADDRESS	PHONE	E-MAIL
Don Hohensee	OC 15066 Pebble Beach Dr	503-632-3153	donhohensee@bctonline.com
Joe & Dee Dee Watson	20196 Quinalt Dr	503-518 3049	jodewatson@msn.com
KYLE & MARY KOHNE	20681 S. Coquille Drive	503-891-6174	KrKohne@bpa.gov
BOB COCHRAN	19600 MORAINE	503-544-6750	bobc@centurytel.net
Lori Hall	" "	503-544-3102	lori.hall@clackamas.edu
PHIL ZERZAN	" " "	—	—
Darrell & Janell Bennett	15084 Persimmon Way	503-632-2378	heartwood49@msn.com
MATT PASCHALL	OCPD		
Kurt-Jane Radtke	20023 Quinalt Dr	503 518 8181	
JOE & MARY JOHNSON	19921 BEAVERCREEK		
Marcella Tice	20226 Merriweather Dr.	503-632-3734	—
~~Gene Sorbs~~	20243 Merriweather Dr	—	gjosinoc@comcast.net
Guy Carter	19186 Beavercreek	503-656-1376	N.A.
Damien Rother	19865 Sophia Ct	503-706-8739	mrother@easystreet.net
Mike B. Tyler	—	—	—
Bill & Carol Trumble	20180 Woodglen Way	503-781-0955-9	cjtrumble@yahoo.com
Mike Mitchell			
Kristina Brownika			

Caufield Neighborhood Association Meeting Minutes **Nov. 28th, 2017**

32 neighbors, 5 guests

Pledge of Allegiance

Police Report: Matt Pascal and Mike Villanti presented the police call activity report
Outlined the Christmas 911 program
Announced the Shred Event is April 28th at the Wagons on Washington St. (Oregon Trail Interpretive Center) from 9AM -12noon
Thus far in 2017, they have written nearly 1,000 cell phone tickets
If any traffic questions or concerns, Officer Villanti can be reached through the city website https://www.orcity.org/police

Clackamas Community College; Bob Cochran, the Campus Services Dean, Phil Zerzan, Director of Campus Safety and Lori Hall, CCC's Public Information Officer presented the information on construction permitted by the Bond passed by voters in Nov. 2018:
#1 - The Harmony West Center is a new a nursing and dental building CCC just finished. Classes start January 8th in this new building. **Grand Opening** Jan 25th at 4:00Pm - self guided tours, music, refreshments etc.
#2 - The Industrial Technical Center is scheduled to be finished in time for Fall 2018 classes. It will be used in cooperation with local businesses in order to create highly skilled blue-collar workers.
#3 - Barlow parking lot has been redone. The walking and riding trail adjacent to it has been rebuilt and is seeing a lot of foot traffic.
#4 - The addition on DeJardin Hall is moving forward. This will consolidate most of the science classes and have expanded laboratory space. Construction is set to begin Spring of 2018 and be completed by Fall 2019.
#5 – An expanded Tri-Met Transit Center on campus will help with the increase in demand in public transit to and from CCC. Funded with grant money, a ten foot wide paved path connecting Hwy 213 with the CCC entrance plaza will make for a safer pedestrian entrance to the college.
#6 - The Environmental Learning Center project was done with a $870,000 Metro Grant, refurbishing and upgrading the landscaping of the ELC and allowing for passive recreation and educational opportunities. It will re-open in summer 2018.
#7 - Fire Station 16 has temporarily relocated to CCC while they rebuild their Station on Mollala.

Oregon City Community Services (Parks) Director Phil Lewis presented updates on **Glen Oak Park** and other spaces: The Oregon City Parks department received a half-million dollar grant in order to build the 9 acre park development which includes a fenced dog park for off-leash play, nature playground, trails, a picnic shelter, additional parking, open lawns, pickle ball courts and stream restoration projects. It will be built in 2 phases, the first of which will begin in spring of 2018. The park is estimated to be completed Fall 2019.

In CIC (Citizens Involvement Committee) news, our Caufield representative, Mike Mitchell, announced:
#1 - Carnegie Library Park may change its name. Public input is welcome on Dec 6th at 7pm.
#2 - The Parks Department will be reopening the Earnesta;jga House summer 2018.
#3 – The City received a Metro grant for the McLoughlin/Canemah promenade link to evaluate the alignment of the pathway – this will link the promenade and park. A draft version is on the city's website

#4 - Glen Oak Park will be formally named and public input is welcome.

Business meeting –
Business meeting minutes approval
Meeting minutes from Sept. 26th, 2017 were approved by unanimous voice vote.

Election of Officers 2018 New officers will be...
Shirley Bullfinch ~ Refreshment provider
Darrell Bennett ~ Police Chief Liaison
Citizen Involvement Council ~ Mike Mitchell
Citizen Involvement Council Alternate ~ Robert Malchow
Vice-Chair ~ Kristina Browning
Secretary ~ *open*
Chairman ~ Robert Malchow

All officers approved by voice vote. None opposed.

Executive reports:

Chairman Robert Malchow updated us on the "**Villages at Beavercreek**", the new 140 unit development across from the high school. It is the first development to be put into use via the Beavercreek Road Concept plan. Robert handed out schematic drawings he had received from Andrew Brand, the Evergreen Development's project lead. Most CNA members were favorable to the development, although they voice concerns about high price point of the rentals and the increase in traffic and congestion that is almost certain on Beavercreek Road (preparing for 5 lanes was suggested and agreed on by most in attendance). The development is slated to break ground in Spring 2018.
Mike Mitchell updated us about the signage at crosswalks, the library's new RFID scanner and fully automated book processing, Tourism plan and ODOT will be presenting Monday night 7pm at City Hall, Dec 4th. The city has equitable taskforce for homeless advocates in OC. Interested in what is going on with the city? Type in "Subscribe" in the search bar and sign up to receive updates.

Citizen Concerns – Marcella Tebo informed everyone about the non-profit assoc. "Fill a Stocking, Fill a Heart" which provides Christmas cheer with food and toys to those families (esp. with kids) who need assistance during the holiday season.

Meeting Adjourned at 8:45pm

Reminder to follow the Caufield Facebook page which can be found at:
www.Facebook.com/CaufieldNeighborhoodAssociation

Next Meeting - 6:45 PM, Tuesday, Jan 23rd, 2018 at the OCDS Facilities & Maintenance Center

OREGON CITY

Community Development – Planning

221 Molalla Ave. Suite 200 | Oregon City OR 97045
Ph (503) 722-3789 | Fax (503) 722-3880

Construction Costs for Site Plan and Design Review and Detailed Development Plans

The cost of Planning Division review for Site Plan and Design Review and Detailed Development Plans is based on the construction cost of the project. The construction costs is defined as all costs to complete the project, including soft costs. The estimate does exclude interior furniture or moving expenses.

Address: _____

Project Description: _____

_____

_____

Section I – Construction Costs

Design Work	$ 648,761
Site Prep	$ 414,127
Consultants	$ 826,485
Excavation	$ 1,138,171
Utilities	$ 569,493
Foundation	$ 242,081
Framing material/wall construction	$ 574,508
Interior finish (walls, doors, floor finish, cabinetry, light fixtures, etc.)	$ 1,462,921
Supplemental information (fire suppression, hvac, electrical, plumbing, etc.)	$ 4,663,647
Roofing	$ 418,053
Landscaping	$ 957,880
Paving	$ 1,015,191
Sign	$ 13,797
Trash Enclosures	$ 25,000
Other	$ 9,509,569
Total Section I	$

Section II – Permits

Building	$
Electrical	$
Plumbing	$
Mechanical	$
Land Use	$
Total Section II	$

Section III - Total

Section I Total	$
Section II Total	$
Total Section III	$

Office Use Only –
Building Official Verification: _____

City of Oregon City
Pre-Application Conference Summary

Project Number: PA-17-0049
Project Name: CCC Master Plan / Phase 2 Detailed Development Plan
Meeting Date: September 28, 2017

Please note that the draft pre-application conference notes are based on the applicant's pre-application submittal. A finalized version of the pre-application conference notes that reflects any additional items discussed during the meeting will be provided to the applicant following the meeting.

Proposed Project:
DeJardin Hall addition and new transit center.

General Information:
Location: 19600 Molalla Avenue Oregon City, OR 97045
Zoning: I - Institutional
Applicable Overlay Districts: Not in this project phase area.

Applications anticipated:
Detailed Development Plan, Type II Master Plan Amendment

Planning Review and Application Fees:
See Fee Schedule
The 2017 Planning applications and fees include:
Detailed Development Plan

Project Cost	Fee
Less than $500,000	$2,068 plus .007% project cost
$500,000 to $3,000,000	$3,445 plus .005% project cost
Over $3,000,000	$11,718 plus .003% project cost (Max $54,964)

Mailing Labels: $16 – or provided by applicant

Transportation Impact Analysis:

- Non-Residential <50K sq. ft. – Base Fee: $2,729
- Large Study Area or Location near of along Key Corridor: $682.00
- Meetings: $136.00/hour

Review Process:
Upon a complete application submittal, the applicant is entitled to a decision from the city for a decision of approval, approval with conditions or denial within 120 days of deeming the application complete, by state law.

Detailed Development Plans are a Type II decision rendered by the Community Development Director, with appeal on the record to the City Commission, and then onto LUBA.

Master Plan – Approval of a General Development Plans is a Type III decision that involves the greatest amount of discretion and evaluation of subjective approval standards. The decision of the planning commission or historic review board is appealable to the city commission on the record pursuant to Section 17.50.190. The city commission decision on appeal is the city's final decision and is subject to review by LUBA within twenty-one days of when it becomes final, unless otherwise provided by state law.

Amendments to a Master Plan
Amendments to a Master Plan follow OCMC 17.65.80. Amendments requiring a Type III process are specifically listed under subsection B(1)-(8) of this section. Regarding extensions to a Master Plan Duration, changes to Phasing, and Conditions of Approval, such items are not specifically listed as requiring a Type III amendment. It is staff's interpretation that changes to phasing or extension of a Master Plan's duration, and even Conditions of Approval, may be amended and processed as a Type II process, provided that that such amendments does not exceed the 20-year duration specified in OCMC in 17.65.020(A) and 17.65.50(D), or any of the thresholds specified under subsection B(1)-(8) of OCMC 17.65.80.

Planning Notes
The CCC Master Plan in 2007 "locked in" the zoning code in place at the time. The applicant is entitle to submit future phases under the 2007 Master Plan and code and applicable conditions (including the TSP in place at that time), unless the College opts to use today's code.

The Master Plan vests the college with the 2007 land use code, and includes "custom" standards for certain elements of the development.

The Master Plan anticipates full building out of the Campus up to 300,000 square feet of new buildings by 2020.

Applicable Code
Staff will provide an application narrative template of applicable code criteria that apply to the development.

If application is submitted under current code the following sections would apply:

Title 17 - Zoning

Chapter 17.39 - [I] INSTITUTIONAL DISTRICT
Chapter 17.41 - TREE PROTECTION STANDARDS
Chapter 17.44 - US—GEOLOGIC HAZARDS
Chapter 17.47 - EROSION AND SEDIMENT CONTROL
Chapter 17.49 - NATURAL RESOURCE OVERLAY DISTRICT
Chapter 17.50 - ADMINISTRATION AND PROCEDURES
Chapter 17.52 - OFF-STREET PARKING AND LOADING
Chapter 17.54 - SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS
Chapter 17.62 - SITE PLAN AND DESIGN REVIEW
Chapter 17.65 - MASTER PLANS

Transportation and Right-of-Way Improvements
Title 12 - Streets, Sidewalks and Public Places
Chapter 12.04 - STREETS, SIDEWALKS AND PUBLIC PLACES

Street Trees
Chapter 12.08 - PUBLIC AND STREET TREES

Drainage and Grading
Chapter 13.12 - STORMWATER MANAGEMENT
Chapter 15.48 - GRADING, FILLING AND EXCAVATING

Sign Code
The current sign code applies. Chapter 15.28 - SIGNS

Transportation
Please see notes from Replinger and Associates, the City's transportation consultant.

Additional Comments
The following Applicant Questions were asked at a prior pre-app, which may be useful for this application.

What is the overall process for approving the new additions to campus? What are the differences between proposing the building projects together or separately?

As discussed above, each new building or, if submitted together, the buildings will trigger a detailed development plan (DP).

If multiple buildings are proposed, a separate application and fee is required for each building.

Under the current plan, the primary differences would be the transportation impact mitigations specific to the particular phase of the development. Phase 1 development under 50,000 sf of building does not trigger any mitigation requirements. To date, the ITC has constructed

approximately 46,000 square feet. Any development beyond 50,000 sf of buildings will trigger Phase 2 mitigation requirements.

How should the applicant interpret transportation-related Condition 9 of the concept master plan?

CP 07-01 – Condition of Approval 9.
The applicant shall either leave the level-of-service (LOS) standards in the Site Plan and Design Review regulations (17.62.050.A.16) or the they shall be incorporated into the Clackamas Community College Transportation Plan as a reference to the LOS the City requires development to meet and as the standards that were utilized in the review of the master plan to determine adequacy of the transportation system. This standard will be utilized in determining appropriate mitigation measures and in the calculation of the proportional share required to be paid by the applicant for transportation infrastructure deficiencies.

This condition requires that the applicant review the TIS that was done with the Master Plan and propose a proportional share of improvements that was required based on a current analysis of intersection operations, should any be found to be deficient.

The ITC building was covered under the Phase 1 development assumptions and for Phase 1, no transportation projects were needed for transportation mitigation.

For any of the Phase 2 development, CCC would need to implement the projects identified in the original Condition of Approval or conduct a new, updated analysis to support revised Conditions of Approval.

What transportation system improvements will be required?

The following roadway improvements are identified in the TSP as planned over the life of the master plan.

Per the approved master plan:

- Construct a single-point diamond interchange at the OR 213/S. Beavercreek Road intersection.
- Provide dual southbound and northbound left turn lanes at the OR 213/Molalla Avenue intersection.
- Add a travel lane on OR 213 between Molalla Avenue and Henrici Road.
- Construct an east-west connection of Meyers Road from OR 213 to Beavercreek Road, which will be classified as a collector.
- Construct a traffic signal at the S. Beavercreek Road/S. Glen Oak Road intersection

Mitigation for future traffic impacts will be made by making improvements consistent with the projects identified above—either providing dual turn lanes at the OR213/Molalla intersection, or constructing a new college access point at Meyers Road.

The applicant may amend any aspect of the original master plan, conditions of approval, or phasing, through a Type III master plan amendment.

What other permits are necessary?

- See Public Works / Development Services requirements for public improvements permits required.
- Sign permits
- Building permits
- If any fences are proposed, applicant should propose the design with the detailed development plan.

SDCs

SDC calculation estimate request form
http://www.orcity.org/sites/default/files/sdcs_request_form_oregoncity_v4.0.pdf

Neighborhood Meeting

A meeting with the Caufield Neighborhood Association is required. Please turn in with your application:

- A sign-in sheet of meeting attendees
- A summary of issues discussed
- A letter from the neighborhood association or citizen involvement committee indicating that a neighborhood meeting was held.

Pre-application conferences are required by Section 17.50.050 of the City Code, as follows:
A. Preapplication Conference. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with City staff to discuss the proposal. To schedule a preapplication conference, the applicant shall contact the Planning Division, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the City, which identifies the proposed land uses, traffic circulation, and public rights-of-way and all other required plans. The purpose of the preapplication conference is to provide an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Planning Division shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations as well as a written summary of the preapplication conference. Notwithstanding any representations by City staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the City of any standard or requirement.

NOTICE TO APPLICANT: A property owner may apply for any permit they wish for their property. HOWEVER, THERE ARE NO GUARANTEES THAT ANY APPLICATION WILL BE APPROVED. No decisions are made until all reports and testimony have been submitted. This form will be kept by the Community Development Department . A copy will be given to the applicant. IF the applicant does not submit an application within six (6) months from the Pre-application Conference meeting date, a NEW Pre-Application Conference will be required.

OREGON CITY

Public Works – Development Services

625 Center Street | Oregon City OR 97045
Ph (503) 657-0891 | Fax (503) 657-7829

DEVELOPMENT SERVICES
PRE-APPLICATION MEETING NOTES

Planning Project Number:	PA 17-49
Address:	19600 Molalla Ave, Oregon City, OR 97045
Map Number(s):	3-2E-09C
Tax Lot(s):	00800
Project Name:	Dejardin Addition CCC
Meeting Date:	September 28, 2017
Reviewer(s):	Sang Pau

General Comments

1. The applicant is responsible for this project's compliance with applicable Public Works standards, codes and policies.

2. The applicant shall provide an Erosion Prevention and Sedimentation Control Plan to the City for approval.

3. All applicable System Development Charges (SDC) shall be due and payable upon building permit issuance. The applicant will need to complete a SDC request form, found on the City's website.

Street

1. This project is considered to be part of Phase 2 of the Clackamas Community College Master Plan. This development shall include the dedication of Meyers Road from Highway 213 to the eastern property line of the campus.

2. A fee-in-lieu payment will be determined for the portion of the Meyers Road construction from Highway 213 to the eastern property line of the campus and include a proportional share of related intersection improvements for the 4th leg of intersection with Hwy 213.

3. There will also need to be a "Crossover Access Easement" that benefits the property, 19842 Molalla Avenue (Clackamas County Map 3-2E-9C, tax lot 700, to crossover the Clackamas Community College's remnant property that is located on the south side of the Meyers Rd extension.

Stormwater

The City's Stormwater and Grading Design Standards, can be found online at:
http://www.orcity.org/sites/default/files/final_manual_0.pdf

1. The project, as described in the Pre-Application submittal, is within the following General Threshold for Stormwater and Grading Design Standards and is subject to the requirements of the City's Stormwater and Grading Design Standards.

    A. Development activities that result in 5,000 square feet of new or replaced impervious surface, cumulative over a 5-year period.

    The applicants must submit a completed Site Assessment and Planning Checklist (and other items as described in Section 9.1.1 of the Stormwater and Grading Design Standards) as part of the land use application process. At a minimum the applicant should submit the following items from Section 9.1.1 to form the basis for developing the Stormwater Management Plan.

        a. Infiltration test may be required to document onsite infiltration conditions if infiltration is proposed as the primary stormwater management strategy for the development.

        b. Downstream analysis / preliminary drainage report

            i. The downstream analysis shall extend to the distance where the project site contributes less than 15 percent of the cumulative tributary drainage area or 1,500 feet downstream of the approved point of discharge, whichever is greater. In capacity constrained areas, the City may extend the distance of the required downstream analysis.

            ii. Downstream analysis performed for other recent Clackamas Community College campus projects may be utilized to support the downstream analysis for this project.

2. The nearest stormwater oulet is an Oregon Department of Transportation (ODOT) storm line that is within Highway 213. The ODOT storm pipe drains into the "Caufield" Basin. The development may require approval from ODOT for the utilization of the storm pipe.

Other

1. The proposed development does not reside within the Natural Resource Overlay District (NROD) and does not reside within the Geologic Hazard area.

2. The development is in an area identified to have high water table.