

**STAFF REPORT
FOR THE PLANNING COMMISSION**

FILE NUMBER: DR-16-01

HEARING DATE: July 20, 2016

REQUEST: Class II Design Review – Construct New 2-Story Mixed-Use Building

APPROVAL CRITERIA: Community Development Code (CDC) Chapter 19; Chapter 55; Chapter 58; and Chapter 99.

STAFF REPORT PREPARED BY: Darren Wyss, Associate Planner

Planning Manager's Initials OWB Development Review Engineer's Initials HQL

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GENERAL INFORMATION

OWNER: Icon Construction
1980 Willamette Falls Dr. #200
West Linn, OR 97068

APPLICANT: Icon Construction
1980 Willamette Falls Dr. #200
West Linn, OR 97068
Contact: Mark Handris

CONSULTANT: SGA, LLC
10940 SW Barnes Rd. #364
Portland, OR 97225
Contact: Kevin Godwin

SITE LOCATION: 1969 Willamette Falls Drive

LEGAL DESCRIPTION: Clackamas County Assessor’s Map 3S-1E-02BA, Taxlot 4100

SITE SIZE: 15,000 square Feet

ZONING: GC, General Commercial
Willamette Falls Drive Commercial Design District

COMP PLAN DESIGNATION: Commercial

120-DAY PERIOD: This application became complete on April 26, 2016. The 120-day maximum application-processing period ends on August 24, 2016.

PUBLIC NOTICE: Public notice was mailed to the all neighborhood associations and affected property owners on June 23, 2016. The property was posted with a notice sign on July 1, 2016. The notice was published in the West Linn Tidings on July 7, 2016. The notice requirements of CDC Chapter 99 have been met.

EXECUTIVE SUMMARY

Site Conditions: The proposed development site is located in the Willamette Neighborhood at the corner of Willamette Falls Drive and 11th Street. The property currently contains a single family house and detached accessory structure. The landscaping is primarily lawn with three nine inch per inch in diameter trees and a few smaller landscaping trees and shrubs. The property has an approximate four-percent slope from southwest to northeast and contains no environmental overlays, such as floodplain, Willamette and Tualatin River protection, habitat conservation or wetlands. Current access is from Knapps Alley in the rear of the property. The site is zoned General Commercial and is located within the Willamette Falls Drive Commercial Design District.

Project Description: Icon Construction is requesting approval for design review for the purpose of constructing a new 24,827 square foot, two-story mixed-use building with a 14,415 square foot underground parking garage. The proposal is not required to provide parking as it is located in the Willamette Falls Drive Commercial Design District. However, the underground garage will take access from 11th Street and provide 30 parking spaces. An additional 4 parallel parking spaces will be located in the rear along Knapps Alley.

Since the proposed development site is within the boundary of the Willamette Falls Drive Commercial Design District, the Historic Review Board (HRB) was required to make a recommendation to the Planning Commission on the proposal's design and conformance to CDC Chapter 58. The HRB held public hearings on May 17, 2016 and June 21, 2016 and made a recommendation of approval for compliance with CDC Chapter 58 with a 6 to 0 vote, including four variance requests as allowed by CDC 58.100. The variance requests to the historical design standards were:

1. Allowing a brick/concrete masonry base and partial elevation (CDC 58.090.C(10));
2. Extending the awnings to seven feet and not to eight feet six inches to outer edge of sidewalk (CDC 58.090.C(11));
3. Allowing greater than 30 inches between grade and start of first floor windows, as shown in either the original or alternative designs, because of the elevation change on the site (CDC 58.090.C(15));
4. Allowing three second story windows to not meet the 3:1 height to width ratio (CDC 58.090.C(16)).

The proposed building will contain retail/office leasable space, with the possibility of accommodating a hotel on the second story. Building reliefs have been incorporated throughout the design by off-setting the building footprint and providing awnings and cornice projections. The roof is flat with a "Western False Front" façade.

Surrounding Land Use and Zoning: The site is located zoned General Commercial (GC) and located in the Willamette Neighborhood. Adjacent land uses and zoning include:

Direction From Site	Zoning	Land Use
North and West	GC	Commercial
East	MU	Commercial and Single-family residences
South	R-5	Single-family residences

Applicable Community Development Code Approval Criteria:

- Chapter 19, General Commercial, R-10;
- Chapter 55, Design Review;
- Chapter 58, Willamette Falls Drive Commercial Design District; and
- Chapter 99, Procedures for Decision Making: Quasi-Judicial.

Public comments:

As of the publication date of this report, staff has not received any public comments for the Planning Commission review of DR-16-01. Tualatin Valley Fire & Rescue submitted comments dated February 26, 2016. All comments can be found in Exhibit PC-6.

Public comments submitted for the West Linn Historic Review Board hearings can be found in Exhibit PC-6.

RECOMMENDATION

The Historic Review Board and Staff recommends approval of application DR-16-01, based on: 1) the findings submitted by the applicant, which are incorporated by this reference, 2) supplementary staff findings included in the Addendum below, and 3) the addition of conditions of approval below. With these findings, the applicable approval criteria are met. The conditions are as follows:

1. **Site Plans.** With the exception of modifications required by these conditions, the project shall substantially conform to all submitted Tentative Plan Sheets.
2. **Engineering Standards.** All public improvements and facilities associated with the approved site design, including but not limited to street improvements, driveway approaches, curb cuts, utilities, grading, onsite and offsite stormwater, street lighting, easements, easement locations, and connections for future extension of utilities are subject to the City Engineer's review, modification, and approval. These must be designed, constructed, and completed prior to the issuance of the final building certificate of occupancy.
3. **Street Improvements.** The applicant shall mitigate any impacts to existing right-of-way improvements along Willamette Falls Drive, 11th Street, and Knapps Alley. The mitigation will include replacement of impacted pavement, curbs, planter strips, street trees, street lights, sidewalks, pedestrian crossings, and street storm drainage.
4. **Overhead Utilities.** The applicant shall coordinate with utility providers and the City Engineer to remove existing overhead utilities and associated services and place them underground, or pay a fee-in-lieu per Staff Finding 61. If the overhead utilities are placed underground, the applicant shall comply with both utility provider and City of West Linn standards. This must be completed prior to the issuance of the final building certificate of occupancy.
5. **Fire Flow.** The applicant shall perform a fire flow test, per Staff Finding 53, and submit a letter from Tualatin Valley Fire and Rescue showing adequate fire flow is present prior to the issuance of the final building certificate of occupancy.
6. **Knapps Alley.** The applicant shall improve, including repaving, the portion of Knapps Alley adjacent to the site per Staff Finding 20. This must be completed prior to the issuance of the final building certificate of occupancy.
7. **Willamette Falls Drive Sidewalk.** The applicant shall install the Willamette Falls Drive sidewalk that is adjacent to the site to be flush with the new building, per Staff Finding 52. The applicant shall also reconstruct the pedestrian bulb at the corner of Willamette Falls Drive and 11th Street to meet current ADA standards, including ramps. This must be completed prior to the issuance of the final building certificate of occupancy.

8. **Shadow Transitions.** The front façade shadow transitions shall be a minimum of 12 inches. See Staff finding 36 and Exhibit PC-6.
9. **Traffic Mitigation.** The applicant shall submit a final traffic impact analysis for the review and approval of the City Engineer prior to the issuance of the public works and private development construction permits. The applicant shall provide the improvements for the off-site traffic mitigation and/or pay the cost of the improvements, as determined and approved by the City Engineer or ODOT. The off-site mitigation is for Willamette Falls Drive at 12th Street, Willamette Falls Drive at 10th Street, and 10th Street at 8th Avenue/8th Court, and/or other transportation facilities as recommended by the final traffic impact analysis and as approved by the City Engineer and ODOT prior to approval of the final plat per staff finding 67.
10. **Underground Parking Garage Design.** The applicant shall mark all parking spaces less than 9 feet by 18 feet as “compact” and reconfigure the underground parking garage spaces that do not meet current code standards for compact spaces prior to the issuance of final building certificate of occupancy.

ADDENDUM
PLANNING COMMISSION STAFF REPORT
July 20, 2016

**STAFF EVALUATION OF THE PROPOSAL'S COMPLIANCE
WITH APPLICABLE CODE CRITERIA**

I. CHAPTER 19, GENERAL COMMERCIAL, GC

19.020 PROCEDURES AND APPROVAL PROCESS

C. A use permitted outright, CDC [19.030](#), is a use which requires no approval under the provisions of this code. If a use is not listed as a use permitted outright, it may be held to be a similar unlisted use under the provisions of Chapter [80](#) CDC.

(...)

Staff Finding 1: The applicant proposes a two-story mixed-use building with leasable space for retail or professional services, both of which are permitted in the GC zone. The applicant also has interest in pursuing a small boutique hotel, which is permitted in the GC zone, to occupy the second story. This criterion is met.

19.070 DIMENSIONAL REQUIREMENTS, USES PERMITTED OUTRIGHT AND USES PERMITTED UNDER PRESCRIBED CONDITIONS

A. Except as may be otherwise provided by the provisions of this code, the following are the requirements for uses within this zone:

- 1. The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.*
- 2. The average minimum lot width shall be 50 feet.*
- 3. The average minimum lot depth shall not be less than 90 feet.*

Staff Finding 2: The subject property is 15,000 square feet with front and rear lot line lengths of 150 feet. The side lot lines are 100 feet. These criteria are met.

- 4. Where the use abuts a residential district, except as provided in CDC [58.090\(C\)\(1\)](#), the setback distance of the residential zone shall apply.*
- 5. The maximum lot coverage shall be 50 percent, except as provided in CDC [58.090\(C\)\(1\)\(d\)](#).*

Staff Finding 3: The subject property is located within the Willamette Falls Drive Commercial Design District, which allows zero foot setbacks and 100% lot coverage. Please see Staff Findings 68 to 88. These criteria are met.

- 6. The maximum building height shall be two and one-half stories or 35 feet for any structure located within 50 feet of a low or medium density residential zone, and three and one-half*

stories or 45 feet for any structure located 50 feet or more from a low or medium density residential zone.

(...)

Staff Finding 4: The subject property is located across Knapps Alley (20 feet) from single-family homes zoned R-5 (medium density residential). The maximum height of the east end of the proposed two-story building is 35 feet and the west end is 30 feet. This criterion is met.

II. CHAPTER 38, ADDITIONAL YARD AREA REQUIRED, EXCEPTIONS TO YARD REQUIREMENTS, STORAGE IN YARDS, PROJECTIONS INTO YARDS

38.030 SETBACK FROM STREET CENTERLINE REQUIRED

A. To assure improved light, air, and sight distance and to protect the public health, safety and welfare, a setback in addition to the yard requirements of the zone may be required where the right-of-way is inadequate. A determination shall be made based on the street standards contained in CDC [85.200\(A\)](#).

B. The minimum yard requirement shall be increased to provide for street widening in the event a yard abuts a street having a right-of-way width less than required by its functional classification on the City's Comprehensive Plan Map, and in such case the setback shall be not less than the setback required by the zone plus one-half of the projected road width as required under CDC [85.200\(A\)](#); however

C. The minimum distance from the wall of any structure to the centerline of an abutting street shall not be less than 25 feet plus the yard required by the zone. This provision shall not apply to rights-of-way of 50 feet or greater in width.

Staff Finding 5: The subject property is bordered by Willamette Falls Drive, an arterial classification, and 11th Street, a local residential classification. The existing right-of-way width for Willamette Falls Drive is 120 feet and 11th Street is 60 feet. The required cross-section design for an arterial requires 102 feet of right-of-way. The cross-section design for a local street with parking on both sides (32 foot Local Residential) requires 56 feet of right-of-way. No additional right-of-way is needed adjacent to the subject property and the 25 foot minimum distance is not applicable as both rights-of-way exceed 50 feet in width. These criteria are met.

III. CHAPTER 41, BUILDING HEIGHT, STRUCTURES ON STEEP SLOPES, EXCEPTIONS

41.005 DETERMINING HEIGHT OF BUILDING

A. For all zoning districts, building height shall be (...)

Staff Finding 6: The subject property is located within the Willamette Falls Drive Commercial Design District, which regulates height by CDC 58.090.C(3). Please see Staff Finding 73. This criterion is met.

IV. CHAPTER 42, CLEAR VISION AREAS

42.030 EXCEPTIONS

The following described area in Willamette shall be exempt from the provisions of this chapter. The units of land zoned General Commercial which abut Willamette Falls Drive, located between 10th and 16th Streets. (...)

Staff Finding 7: The subject property is zoned General Commercial and abuts Willamette Falls Drive at 11th Street. The proposal is exempt from CDC Chapter 42: Clear Vision Areas. This criterion is met.

V. CHAPTER 46, OFF-STREET PARKING, LOADING AND RESERVOIR AREAS

46.140 EXEMPTIONS TO PARKING REQUIREMENTS

To facilitate the design requirements of Chapter 58 CDC, properties in the Willamette Falls Drive Commercial Design District, located between 10th and 16th Streets, shall be exempt from the requirements for off-street parking as identified in this chapter. Any off-street parking spaces provided shall be designed and installed per the dimensional standards of this code.

Staff Finding 8: The subject property is located within the Willamette Falls Drive Commercial Design District at 11th Street. The proposal is exempt from minimum parking standards. However, the applicant has proposed 30 underground parking spaces and 4 parallel parking spaces at the rear of the building along Knapps Alley. The applicant has also proposed 8 bicycle parking spaces in the underground parking garage. Please see Staff Finding 9. This criterion is met.

46.150 DESIGN AND STANDARDS

The following standards apply to the design and improvement of areas used for vehicle parking, storage, loading, and circulation:

A. Design Standards.

- 1. "One standard parking space" means a minimum for a parking stall of eight feet in width and 16 feet in length. These stalls shall be identified as "compact." To accommodate larger cars, 50 percent of the required parking spaces shall have a minimum dimension of nine feet in width and 18 feet in length (nine feet by 18 feet). When multi-family parking stalls back onto a main driveway, the stalls shall be nine feet by 20 feet. Parking for development in water resource areas may have 100 percent compact spaces.*
- 2. Disabled parking and maneuvering spaces shall be consistent with current federal dimensional standards and subsection B of this section and placed nearest to accessible building entryways and ramps.*

(...)

Staff Finding 9: The applicant proposes 7 parking spaces of 8 feet by 18 feet, 17 spaces of 9 feet by 18 feet (61%), 4 spaces of 8 feet by 14 feet, and 2 spaces that meet federal ADA standards and are located nearest to the elevator in the underground parking garage. All spaces under 9 feet x 18 feet shall be marked "Compact" per Condition of Approval 10. The 4

spaces of 8 feet x 14 feet shall be reconfigured to meet dimensional requirements per Condition of Approval 10. Subject to the Conditions of Approval, these criteria are met.

B. Accessible parking standards for persons with disabilities. If any parking is provided for the public or visitors, or both, the needs of the people with disabilities shall be based upon the following standards or current applicable federal standards, whichever are more stringent:

1. Minimum number of accessible parking space requirements (see following table):

<i>MINIMUM REQUIRED NUMBER OF TOTAL PARKING SPACES</i>	<i>TOTAL NUMBER OF ACCESSIBLE SPACES</i>	<i>NUMBER OF VAN-ACCESSIBLE SPACES REQUIRED, OF TOTAL</i>	<i>SPACES SIGNED "WHEELCHAIR USE ONLY"</i>
(...)			
26 – 50	2	1	–
(...)			

Staff Finding 10: The applicant proposes 2 parking spaces located in the underground parking garage to meet federal ADA standards. The proposal is exempt from minimum parking standards, but the proposed 34 parking spaces translates to 2 accessible spaces, including 1 van-accessible space. These criteria are met.

2. Location of parking spaces. Parking spaces for the individual with a disability that serve a particular building shall be located on the shortest possible accessible circulation route to an accessible entrance to a building. In separate parking structures or lots that do not serve a particular building, parking spaces for the persons with disabilities shall be located on the shortest possible circulation route to an accessible pedestrian entrance of the parking facility.

3. Accessible parking space and aisle shall meet ADA vertical and horizontal slope standards.

4. Where any differences exist between this section and current federal standards, those standards shall prevail over this code section.

5. One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 inches wide.

6. Van-accessible parking spaces shall have an additional sign marked "Van Accessible" mounted below the accessible parking sign. A van-accessible parking space reserved for wheelchair users shall have a sign that includes the words "Wheelchair Use Only." Van-accessible parking shall have an adjacent eight-foot-wide aisle. All other accessible stalls shall have a six-foot-wide aisle. Two vehicles may share the same aisle if it is between them. The vertical clearance of the van space shall be 96 inches

Staff Finding 11: The applicant proposal has located the 2 accessible parking spots nearest the elevator in the underground parking garage. All accessible spaces meet ADA standards. One accessible space has a 96 inch access aisle that will be signed “Van Accessible”. The other accessible space shares the 96 inch access aisle. These criteria are met.

(...)

D. *Bicycle facilities and parking.*

1. *Provisions shall be made for pedestrian and bicycle ways if such facilities are shown on an adopted plan.*
2. *Bicycle parking facilities shall either be lockable enclosures in which the bicycle is stored, or secure stationary racks which accommodate bicyclist’s locks securing the frame and both wheels. The bicycle parking shall be no more than 50 feet from the entrance to the building, well-lit, observable, and properly signed.*
3. *Bicycle parking must be provided in the following amounts:*

(...)

Staff Finding 12: The proposal is exempt from minimum parking standards, but the applicant proposes to provide 8 secure stationary racks in the underground parking garage. These criteria are met.

F. *(See Figures 1 and 2 below.) Minimum Standards for Parking Lot Layout*

ANGLE OF PARKING	DIRECTION OF PARKING	AISLE WIDTH		DIMENSION ‘A’		DIMENSION ‘B’	
		STALL WIDTH		STALL WIDTH		STALL WIDTH	
		9.0’	8.0’	9.0’	8.0’	9.0’	8.0’
(...)							
90°	BACK-IN	22.0’	22.0’	18.0’	16.0’	9.0’	8.0’
(...)							

Staff Finding 13: The proposal is for the 30 underground parking spaces to be at a 90 degree angle, which requires a drive aisle width of 22 feet regardless of whether the space is standard or compact. The applicant proposes two 24 foot drive aisles and one 22 foot drive aisle for the underground parking garage. The four parallel spaces located along Knapps Alley require a 15 foot drive aisle and have a 20 foot drive aisle (Knapps Alley). This criterion is met.

VI. CHAPTER 48, ACCESS, EGRESS AND CIRCULATION

48.025 ACCESS CONTROL

B. Access Control Standards

1. *Traffic impact analysis requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also CDC [55.125](#), Traffic Impact Analysis.)*

Staff Finding 14: The applicant submitted a Traffic Impact Analysis. Please see Staff Finding 67. This criterion is met.

2. *The City or other agency with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system. Access to and from off-street parking areas shall not permit backing onto a public street.*

Staff Finding 15: The applicant, in coordination with the City Engineer, has designed an access to the subject property that enhances safety and convenience for all travel modes. The design has no parking areas that back onto a public street. This criterion is met.

3. *Access options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (planned access shall be consistent with adopted public works standards and TSP). These methods are “options” to the developer/subdivider.*

a) *Option 1. Access is from an existing or proposed alley or mid-block lane. If a property has access to an alley or lane, direct access to a public street is not permitted.*

b) *Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., “shared driveway”). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.*

c) *Option 3. Access is from a public street adjacent to the development lot or parcel. If practicable, the owner/developer may be required to close or consolidate an existing access point as a condition of approving a new access. Street accesses shall comply with the access spacing standards in subsection (B) (6) of this section.*

Staff Finding 16: The applicant proposes to access the underground parking garage from 11th Street via Option 3. The City Engineer has reviewed this design for access to enhance safety and convenience for all travel modes. These criteria are met.

4. *Subdivisions fronting onto an arterial street.*

(...)

5. *Double-frontage lots.*

(...)

Staff Finding 17: The applicant is not proposing a subdivision. The subject property is taking access from 11th Street, which is a lower classification than Willamette Falls. These criteria are met.

6. *Access spacing.*

a. *The access spacing standards found in Chapter 8 of the adopted Transportation System Plan (TSP) shall be applicable to all newly established public street intersections and non-traversable medians.*

b. *Private drives and other access ways are subject to the requirements of CDC 48.060.*

Staff Finding 18: The proposal does not create any new intersections or non-traversable medians. CDC 48.060 is addressed in Staff Findings 23 to 26. These criteria are met.

(...)

C. *Street connectivity and formation of blocks required.*

In order to promote efficient vehicular and pedestrian circulation throughout the City, land divisions and large site developments shall produce complete blocks bounded by a connecting network of public and/or private streets, in accordance with the following standards:

1. *Block length and perimeter. The maximum block length shall not exceed 800 feet or 1,800 feet along an arterial.*

Staff Finding 19: The applicant's proposal does not create any new blocks. This criterion is met.

2. *Street standards. Public and private streets shall also conform to Chapter 92 CDC, Required Improvements, and to any other applicable sections of the West Linn Community Development Code and approved TSP.*

Staff Finding 20: The applicant is not required to make any improvements to Willamette Falls Drive or 11th Street. Both streets are consistent with the provisions of the West Linn Community Development Code and the West Linn Transportation System Plan. The applicant coordinated access review with the City Engineer to design access to the underground parking garage. The applicant anticipates impacts to adjacent curbs and sidewalks and Knapps Alley during construction and installation of utilities. The applicant will improve, including repaving, Knapps Alley adjacent to the subject property to mitigate impacts from construction, per Condition of Approval 6. The applicant will also mitigate any impacts to public right-of-way infrastructure through replacement per Condition of Approval 3. Please see Staff Findings 89 to 94 for conformance with Chapter 92. Subject to the Conditions of Approval, this criterion is met.

(...)

48.040 MINIMUM VEHICLE REQUIREMENTS FOR NON-RESIDENTIAL USES

Access, egress, and circulation system for all non-residential uses shall not be less than the following:

- A. *Service drives for non-residential uses shall be fully improved with hard surface pavement:*
 - 1. *With a minimum of 24-foot width when accommodating two-way traffic; or*
 - 2. *With a minimum of 15-foot width when accommodating one-way traffic. Horizontal clearance shall be two and one-half feet wide on either side of the driveway.*
 - 3. *Meet the requirements of CDC [48.030\(E\)\(3\)](#) through (6).*
 - 4. *Pickup window driveways may be 12 feet wide unless the Fire Chief determines additional width is required.*

Staff Finding 21: The applicant proposes the underground parking garage access to be hard surface pavement with a width of 24 feet. These criteria are met.

- B. *All non-residential uses shall be served by one or more service drives as determined necessary to provide convenient and safe access to the property and designed according to CDC [48.030\(A\)](#). In no case shall the design of the service drive or drives require or facilitate the backward movement or other maneuvering of a vehicle within a street, other than an alley.*
- C. *All on-site maneuvering and/or access drives shall be maintained pursuant to CDC [46.130](#).*
- D. *Gated accessways to non-residential uses are prohibited unless required for public safety or security.*

Staff Finding 22: The subject property takes access to the underground parking garage from 11th Street and does not require or facilitate backward movement. All access drives and parking lot maneuvering aisles will be maintained pursuant to 46.130. The applicant proposes a security gate on the access to the underground parking garage for public safety and security of the facility. These criteria are met.

(...)

48.060 WIDTH AND LOCATION OF CURB CUTS AND ACCESS SEPARATION REQUIREMENTS

- A. *Minimum curb cut width shall be 16 feet.*
- B. *Maximum curb cut width shall be 36 feet, except along Highway 43 in which case the maximum curb cut shall be 40 feet. For emergency service providers, including fire stations, the maximum shall be 50 feet.*

Staff Finding 23: The applicant proposes a 24 foot curb cut on 11th Street for the underground parking garage access. These criteria are met.

C. No curb cuts shall be allowed any closer to an intersecting street right-of-way line than the following:

- 1. *On an arterial when intersected by another arterial, 150 feet.*

(...)

- 6. *On a local street when intersecting any other street, 35 feet.*

Staff Finding 24: The applicant proposes a curb cut on 11th Street, a local street, to provide access to the underground parking garage. The curb cuts are a distance of 90 feet from the pedestrian bulb on Willamette Falls Drive and 50 feet from the sidewalk at the front property line. These criteria are met.

D. There shall be a minimum distance between any two adjacent curb cuts on the same side of a public street, except for one-way entrances and exits, as follows:

- 1. On an arterial street, 150 feet.*
- 2. On a collector street, 75 feet.*
- 3. Between any two curb cuts on the same lot or parcel on a local street, 30 feet.*

Staff Finding 25: The applicant proposes one curb cut on 11th Street, a local street. These criteria do not apply.

E. A rolled curb may be installed in lieu of curb cuts and access separation requirements.

F. Curb cuts shall be kept to the minimum, particularly on Highway 43. Consolidation of driveways is preferred. The standard on Highway 43 is one curb cut per business if consolidation of driveways is not possible.

G. Adequate line of sight pursuant to engineering standards should be afforded at each driveway or accessway.

Staff Finding 26: The applicant has coordinated plan review with the City Engineer to design the placement of curb cuts. All accessways will adhere to engineering standards per Condition of Approval 2. These criteria are met.

(...)

48.080 BICYCLE AND PEDESTRIAN CIRCULATION

(...)

c. Bicycle and pedestrian ways at commercial or industrial sites shall be provided according to the provisions of Chapter 55 CDC, Design Review.

Staff Finding 27: Please see Staff Findings 30 to 67. These criteria are met.

VII. CHAPTER 52, SIGNS

52.210 APPROVAL STANDARDS

All signs shall meet the following standards:

(...)

Staff Finding 28: The applicant is not proposing any signs at this time. Tenants will be responsible for securing appropriate sign permits. These criteria are met.

VIII. CHAPTER 54, LANDSCAPING

54.010 PURPOSE

The purpose of this chapter is to provide for the design, selection (...)

Staff Finding 29: The applicant proposal is exempt from Chapter 54 per CDC Chapter 58.090.C(2). Please see Staff Finding 72.

IX. CHAPTER 55, DESIGN REVIEW

55.100 APPROVAL STANDARDS – CLASS II DESIGN REVIEW

B. Relationship to the natural and physical environment.

1. The buildings and other site elements shall be designed and located so that all heritage trees, as defined in the municipal code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction.

Staff Finding 30: The subject site contains no heritage trees. This criteria does not apply.

2. All heritage trees...all trees and clusters of trees (“cluster” is defined as three or more trees with overlapping driplines; however, native oaks need not have an overlapping dripline) that are considered significant by the City Arborist...shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section...

a. Non-residential and residential projects on Type I and II lands shall protect all heritage trees and all significant trees and tree clusters by either the dedication of these areas or establishing tree conservation easements...

Staff Finding 31: The subject property contains no Type I or II lands, no heritage trees, and no significant trees. These criteria are met.

b. Non-residential and residential projects on non-Type I and II lands shall set aside up to 20 percent of the area to protect trees and tree clusters that are determined to be significant, plus any heritage trees...

Staff Finding 32: The subject property is 100 percent non-Type I or II lands with no heritage trees or significant trees. This criterion is met.

c. Where stubouts of streets occur on abutting properties, and the extension of those streets will mean the loss of significant trees, tree clusters, or heritage trees, it is understood that tree loss may be inevitable. In these cases, the objective shall be to minimize tree loss. These provisions shall also apply in those cases where access, per construction code standards, to a lot or parcel is blocked by a row or screen of significant trees or tree clusters.

Staff Finding 33: No street stubouts occur on abutting properties, nor do significant trees exist on the subject property. This criterion is met.

- d. *For both non-residential and residential development, the layout shall achieve at least 70 percent of maximum density for the developable net area. The developable net area excludes all Type I and II lands and up to 20 percent of the remainder of the site for the purpose of protection of stands or clusters of trees as defined in subsection (B)(2) of this section.*
- e. *For arterial and collector street projects...*
- f. *If the protection of significant tree(s) or tree clusters is to occur in an area of grading that is necessary for the development of street grades...compensate for the removal of the tree(s) on an "inch by inch" basis (e.g., a 48-inch Douglas fir could be replaced by 12 trees, each four-inch). The mix of tree sizes and types shall be approved by the City Arborist.*

Staff Finding 34: The applicant proposal utilizes almost 100 percent of the site for building footprint. No street improvements are proposed or required. There are no significant trees on site. These criteria are met.

- 3. *The topography and natural drainage shall be preserved to the greatest degree possible.*
- 4. *The structures shall not be located in areas subject to slumping and sliding. The Comprehensive Plan Background Report's Hazard Map, or updated material as available and as deemed acceptable by the Planning Director, shall be the basis for preliminary determination.*
- 5. *There shall be adequate distance between on-site buildings and on-site and off-site buildings on adjoining properties to provide for adequate light and air circulation and for fire protection.*

Staff Finding 35: Staff incorporates applicant findings. These criteria are met.

- 6. Architecture.
 - a. *The proposed structure(s) scale shall be compatible with the existing structure(s) on site and on adjoining sites. Contextual design is required. Contextual design means respecting and incorporating prominent architectural styles, building lines, roof forms, rhythm of windows, building scale and massing of surrounding buildings in the proposed structure. The materials and colors shall be complementary to the surrounding buildings.*

Staff Finding 36: The proposal is located within the Willamette Falls Drive Commercial Design District, which requires conformance to specific design standards (CDC Chapter 58). The West Linn Historic Review Board is required to make a recommendation to the Planning Commission on conformance with Chapter 58. On June 21, 2016 The Historic Review Board recommended approval. Please see Exhibit PC-6 and Staff Findings 68 to 88. This criterion is met.

- b. *While there has been discussion in Chapter 24 CDC about transition, it is appropriate that new buildings should architecturally transition in terms of bulk and mass to work with, or fit, adjacent existing buildings. This transition can be accomplished by selecting designs that "step down" or "step up" from small to big structures and vice versa (see figure below). Transitions may also take the form of carrying building patterns and lines (e.g., parapets, windows, etc.) from the existing building to the new one.*

- c. *Contrasting architecture shall only be permitted when the design is manifestly superior to adjacent architecture in terms of creativity, design, and workmanship, and/or it is adequately separated from other buildings by distance, screening, grade variations, or is part of a development site that is large enough to set its own style of architecture.*
- d. *Human scale is a term that seeks to accommodate the users of the building and the notion that buildings should be designed around the human scale (i.e., their size and the average range of their perception). Human scale shall be accommodated in all designs by, for example, multi-light windows that are broken up into numerous panes, intimately scaled entryways, and visual breaks (exaggerated eaves, indentations, ledges, parapets, awnings, engaged columns, etc.) in the facades of buildings, both vertically and horizontally.*

Staff Finding 37: The proposal is located within the Willamette Falls Drive Commercial Design District, which requires conformance to specific design standards (CDC Chapter 58). The West Linn Historic Review Board is required to make a recommendation to the Planning Commission on conformance with Chapter 58 and completed the required review on June 21, 2016. The Historic Review Board recommended approval. Please see Exhibit PC-6 and Staff Findings 68 to 88. This criterion is met.

- e. *The main front elevation of commercial and office buildings shall provide at least 60 percent windows or transparency at the pedestrian level to create more interesting streetscape and window shopping opportunities. One side elevation shall provide at least 30 percent transparency. Any additional side or rear elevation, which is visible from a collector road or greater classification, shall also have at least 30 percent transparency...*

Staff Finding 38: Staff incorporates applicant findings. This criterion is met.

- f. *Variations in depth and roof line are encouraged for all elevations. To vary the otherwise blank wall of most rear elevations, continuous flat elevations of over 100 feet in length should be avoided by indents or variations in the wall. The use of decorative brick, masonry, or stone insets and/or designs is encouraged. Another way to vary or soften this elevation is through terrain variations such as an undulating grass area with trees to provide vertical relief.*
- g. *Consideration of the micro-climate (e.g., sensitivity to wind, sun angles, shade, etc.) shall be made for building users, pedestrians, and transit users, including features like awnings.*
- h. *The vision statement identified a strong commitment to developing safe and attractive pedestrian environments with broad sidewalks, canopied with trees and awnings*
- i. *Sidewalk cafes, kiosks, vendors, and street furniture are encouraged. However, at least a four-foot-wide pedestrian accessway must be maintained per Chapter 53 CDC, Sidewalk Use.*

Staff Finding 39: Staff incorporates applicant findings. These criteria are met.

- 7. *Transportation Planning Rule (TPR) compliance. The automobile shall be shifted from a dominant role, relative to other modes of transportation, by the following means:*

a. *Commercial and office development shall be oriented to the street. At least one public entrance shall be located facing an arterial street; or...facing the local street with highest traffic levels...*

Staff Finding 40: The applicant proposal has three public entryways located on the front façade facing Willamette Falls Drive, an arterial. The proposed building is pedestrian oriented, has zero lot lines along the street frontages (Willamette Falls Drive and 11th Street) and consumes 100% of the frontage. Parking is accommodated in an underground garage and along the rear adjacent to Knapps Alley. The site and building have been designed for ease of use and the safety of pedestrians, bicyclists, vehicular traffic, and emergency vehicles. This criterion is met.

(...)

c. *Commercial, office, and multi-family projects shall be built as close to the adjacent main right-of-way as practical to facilitate safe pedestrian and transit access...*

Staff Finding 41: The proposed building is pedestrian oriented, has zero lot lines along the street frontages (Willamette Falls Drive and 11th Street) and consumes 100% of the frontage. This criterion is met.

d. *Accessways, parking lots, and internal driveways shall accommodate pedestrian circulation and access by specially textured, colored, or clearly defined footpaths at least six feet wide. Paths shall be eight feet wide when abutting parking areas or travel lanes. Paths shall be separated from parking or travel lanes by either landscaping, planters, curbs, bollards, or raised surfaces...*

Staff Finding 42: The proposal is for an underground parking garage to be accessed from 11th Street. There are no internal pedestrian paths proposed on the site. There is an existing 8-foot sidewalk adjacent to the subject property on 11th Street. Willamette Falls Drive has an existing 8-foot sidewalk adjacent to the subject property that will be expanded to 10-feet. Please see Staff Finding 52. This criterion is met.

e. *Paths shall provide direct routes that pedestrians will use between buildings, adjacent rights-of-way, and adjacent commercial developments. They shall be clearly identified. They shall be laid out to attract use and to discourage people from cutting through parking lots and impacting environmentally sensitive areas.*

Staff Finding 43: Staff incorporates applicant findings. This criterion is met.

f. *At least one entrance to the building shall be on the main street, or as close as possible to the main street. The entrance shall be designed to identify itself as a main point of ingress/egress.*

g. Where transit service exists, or is expected to exist, there shall be a main entrance within a safe and reasonable distance of the transit stop. A pathway shall be provided to facilitate a direct connection.

h. Projects shall bring at least part of the project adjacent to or near the main street right-of-way in order to enhance the height-to-width ratio along that particular street. (The “height-to-width ratio” is an architectural term that emphasizes height or vertical dimension of buildings adjacent to streets. The higher and closer the building is, and the narrower the width of the street, the more attractive and intimate the streetscape becomes.) For every one foot in street width, the adjacent building ideally should be one to two feet higher. This ratio is considered ideal in framing and defining the streetscape.

Staff Finding 44: Staff incorporates applicant findings. These criteria are met.

i. These architectural standards shall apply to public facilities such as reservoirs, water towers, treatment plants, fire stations, pump stations, power transmission facilities, (...)

j. Parking spaces at trailheads shall be located (...)

Staff Finding 45: Staff incorporates applicant findings. These criteria are met.

C. Compatibility between adjoining uses, buffering, and screening.

1. In addition to the compatibility requirements contained in Chapter 24 CDC, buffering shall be provided between different types of land uses; for example, buffering between single-family homes and apartment blocks. However, no buffering is required between single-family homes and duplexes or single-family attached units. The following factors shall be considered in determining the adequacy of the type and extent of the buffer:

a. The purpose of the buffer, for example to decrease noise levels, absorb air pollution, filter dust, or to provide a visual barrier.

b. The size of the buffer required to achieve the purpose in terms of width and height.

c. The direction(s) from which buffering is needed.

d. The required density of the buffering.

e. Whether the viewer is stationary or mobile.

Staff Finding 46: The subject property is adjacent to public rights-of-way on three sides and property with the same zoning on the fourth side. No buffering is required. These criteria are met.

2. On-site screening from view from adjoining properties of such things as service areas, storage areas, and parking lots shall be provided and the following factors will be considered in determining the adequacy of the type and extent of the screening:

a. What needs to be screened?

b. The direction from which it is needed.

c. How dense the screen needs to be.

d. Whether the viewer is stationary or mobile.

e. Whether the screening needs to be year-round.

Staff Finding 47: Staff incorporates applicant findings. These criteria are met.

3. *Rooftop air cooling and heating systems and other mechanical equipment shall be screened from view from adjoining properties.*

Staff Finding 48: Staff incorporates applicant findings. These criteria are met.

D. Privacy and noise.

1. *Structures which include residential dwelling units shall provide private outdoor areas for each ground floor unit which is screened from view from adjoining units.*
2. *Residential dwelling units shall be placed on the site in areas having minimal noise exposure to the extent possible. Natural-appearing sound barriers shall be used to lessen noise impacts where noise levels exceed the noise standards contained in West Linn Municipal Code Section 5.487.*
3. *Structures or on-site activity areas which generate noise, lights, or glare shall be buffered from adjoining residential uses in accordance with the standards in subsection C of this section where applicable.*
4. *Businesses or activities that can reasonably be expected to generate noise in excess of the noise standards contained in West Linn Municipal Code Section 5.487 shall undertake and submit appropriate noise studies and mitigate as necessary to comply with the code. (See CDC 55.110(B)(11) and 55.120(M).)*

If the decision-making authority reasonably believes a proposed use may generate noise exceeding the standards specified in the municipal code, then the authority may require the applicant to supply professional noise studies from time to time during the user's first year of operation to monitor compliance with City standards and permit requirements.

Staff Finding 49: The proposal does not include residential dwelling units and complies with subsection C (see Staff Findings 46-48). The applicant does not have tenants for the leasable spaces at this time, but does not anticipate any uses to generate noise in excess of the West Linn noise regulations. These criteria are met.

(...)

G. Demarcation of public, semi-public, and private spaces. The structures and site improvements shall be designed so that public areas such as streets or public gathering places, semi-public areas, and private outdoor areas are clearly defined in order to establish persons having a right to be in the space, to provide for crime prevention, and to establish maintenance responsibility. These areas may be defined by:

1. *A deck, patio, fence, low wall, hedge, or draping vine;*
2. *A trellis or arbor;*
3. *A change in level;*
4. *A change in the texture of the path material;*
5. *Sign; or*
6. *Landscaping.*

Staff Finding 50: The proposed building will cover almost 100% of the site, which clearly defines the public space (sidewalks) from private space (building façade). These criteria are met.

H. Public transit.

1. Provisions for public transit may be required where the site abuts an existing or planned public transit route. The required facilities shall be based on the following:

- a. The location of other transit facilities in the area.*
- b. The size and type of the proposed development.*
- c. The rough proportionality between the impacts from the development and the required facility.*

2. The required facilities shall be limited to such facilities as the following:

- a. A waiting shelter with a bench surrounded by a three-sided covered structure, with transparency to allow easy surveillance of approaching buses.*
- b. A turnout area for loading and unloading designed per regional transit agency standards.*
- c. Hard-surface paths connecting the development to the waiting and boarding areas.*
- d. Regional transit agency standards shall, however, prevail if they supersede these standards.*

3. The transit stop shall be located as close as possible to the main entrance to the shopping center, public or office building, or multi-family project. The entrance shall not be more than 200 feet from the transit stop with a clearly identified pedestrian link.

4. All commercial business centers (over three acres) and multi-family projects (over 40 units) may be required to provide for the relocation of transit stops to the front of the site if the existing stop is within 200 to 400 yards of the site and the exaction is roughly proportional to the impact of the development. The commercial or multi-family project may be required to provide new facilities in those cases where the nearest stop is over 400 yards away. The transit stop shall be built per subsection (H)(2) of this section.

5. If a commercial business center or multi-family project is adjacent to an existing or planned public transit stop, the parking requirement may be reduced by the multiplier of 0.9, or 10 percent. If a commercial center is within 200 feet of a multi-family project, with over 80 units and pedestrian access, the parking requirement may be reduced by 10 percent or by a 0.90 multiplier.

6. Standards of CDC 85.200(D), Transit Facilities, shall also apply.

Staff Finding 51: Staff incorporates applicant findings. These criteria are met.

I. Public facilities. An application may only be approved if adequate public facilities will be available to provide service to the property prior to occupancy.

1. Streets. Sufficient right-of-way and slope easement shall be dedicated to accommodate all abutting streets to be improved to the City's Improvement Standards and Specifications. The City Engineer shall determine the appropriate level of street and traffic control improvements to be required, including any off-site street and traffic control improvements, based upon the transportation analysis submitted. The City Engineer's determination of developer obligation, the extent of road improvement and City's share, if any, of improvements and the timing of

improvements shall be made based upon the City's systems development charge ordinance and capital improvement program, and the rough proportionality between the impact of the development and the street improvements...

Staff Finding 52: The subject property is bordered by Willamette Falls Drive, an arterial classification, and 11th Street, a local residential classification. The existing right-of-way width for Willamette Falls Drive is 120 feet and 11th Street is 60 feet. The required cross-section design for an arterial requires 102 feet of right-of-way. The cross-section design for a local street with parking on both sides (32 foot Local Residential) requires 56 feet of right-of-way. No additional right-of-way is needed.

The existing Willamette Falls Drive sidewalk adjacent to the property is 8-foot wide, which does not meet the required 12-foot sidewalk for an arterial in the General Commercial zone. The applicant has proposed bringing the sidewalk flush to the new building, which will increase the width. The City Engineer accepts the sidewalk width flush with the building, per Condition of Approval 7, as moving the curb into the public parking area would create an insufficient drive aisle width. The existing 11th Street sidewalk is 8-foot wide and meets standards.

The applicant has proposed a new stormwater line through the pedestrian bulb at the corner of Willamette Falls Drive and 11th Street. The City requires the applicant to reconstruct the pedestrian bulb to meet current ADA standards, including ramps, per Condition of Approval 7. The nexus for the improvement is found in the fact that the proposed development will significantly increase pedestrian activity at this intersection and is also located on a transit route.

The applicant submitted a revised Traffic Impact Analysis in response to comments from ODOT and the City's transportation consultant (see Exhibit PC-5). The City Engineer and the City's transportation consultant both agree with the analysis and findings in the applicant's TIA and that it satisfies the code criteria. The City Engineer and transportation consultant also both recommend accepting mitigation payment of traffic impacts. The City Engineer and ODOT will work with the applicant to determine the final mitigation amount based on an agreed upon total cost of improvements for each impacted intersection.

The nexus for the mitigation is found in the fact that intersection improvements are currently warranted at Willamette Falls Drive at 12th Street, Willamette Falls Drive at 10th Street, and 10th Street at 8th Avenue/8th Court; all of which will be further impacted by the proposed development.

The proportionality is satisfied by the fact the proposed development will contribute to the failing intersections and the City Engineer agrees with the proportionality analysis found on pages 26 and 27 of the June 29, 2016 Willamette Falls Drive Mixed-Use Building Traffic Impact Study completed by Lancaster Engineering. These criteria are met.

(...)

3. *Municipal water. A registered civil engineer shall prepare a plan for the provision of water which demonstrates to the City Engineer's satisfaction the availability of sufficient volume, capacity, and pressure to serve the proposed development's domestic, commercial, and industrial fire flows. All plans will then be reviewed by the City Engineer.*

Staff Finding 53: Water is available in 11th Street and Knapps Alley to serve the proposed building. The applicant has submitted a plan prepared by a registered civil engineer and will take water access from Knapps Alley. The City Engineer has confirmed the water system has sufficient water volume and pressure to serve the new building. The applicant has proposed a Fire Department Connection on 11th Street. The applicant shall complete and submit a fire flow test from a hydrant within 400 feet of the proposed building per Condition of Approval 5. Subject to the Conditions of Approval, these criteria are met.

4. *Sanitary sewers. A registered civil engineer shall prepare a sewerage collection system plan which demonstrates sufficient on-site capacity to serve the proposed development. The City Engineer shall determine whether the existing City system has sufficient capacity to serve the development.*

Staff Finding 54: The applicant has submitted a plan prepared by a registered civil engineer that will gravity flow to the existing sanitary sewer line in Knapps Alley. The system will be built to appropriate standards. The City Engineer has confirmed the sanitary sewer line and system will have sufficient capacity to service the proposal. This criterion are met.

5. *Solid waste and recycling storage areas. Appropriately sized and located solid waste and recycling storage areas shall be provided. Metro standards shall be used.*

Staff Finding 55: The applicant proposal provides a screened solid waste and recycling area along Knapps Alley that meets Metro standards. This criterion is met.

J. *Crime prevention and safety/defensible space.*

1. *Windows shall be located so that areas vulnerable to crime can be surveyed by the occupants.*
2. *Interior laundry and service areas shall be located in a way that they can be observed by others.*
3. *Mailboxes, recycling, and solid waste facilities shall be located in lighted areas having vehicular or pedestrian traffic.*

Staff Finding 56: The proposed building provides adequate windows along the three facades adjacent to the public rights-of-way for surveying by occupants. No interior laundry is proposed, mailboxes will be in the lobby, and recycling/solid waste facilities are located along Knapps Alley and well lit. These criteria are met.

4. *The exterior lighting levels shall be selected and the angles shall be oriented towards areas vulnerable to crime.*
5. *Light fixtures shall be provided in areas having heavy pedestrian or vehicular traffic and in potentially dangerous areas such as parking lots, stairs, ramps, and abrupt grade changes.*
6. *Fixtures shall be placed at a height so that light patterns overlap at a height of seven feet which is sufficient to illuminate a person. All commercial, industrial, residential, and public facility projects undergoing design review shall use low or high pressure sodium bulbs and be able to demonstrate effective shielding so that the light is directed downwards rather than omni-directional. Omni-directional lights of an ornamental nature may be used in general commercial districts only.*

Staff Finding 57: The applicant has provided a proposed lighting plan that illuminates all areas vulnerable to crime. The parking areas and primary pedestrian walkways are fully lighted and meet the seven foot overlap provision. The light fixtures will comply with bulb standards and be directed downward. These criteria are met.

7. *Lines of sight shall be reasonably established so that the development site is visible to police and residents.*
8. *Security fences for utilities (e.g., power transformers, pump stations, pipeline control equipment, etc.) or wireless communication facilities may be up to eight feet tall in order to protect public safety. No variances are required regardless of location.*

Staff Finding 58: Staff incorporates applicant findings. These criteria are met.

- K. *Provisions for persons with disabilities.*
 1. *The needs of a person with a disability shall be provided for. Accessible routes shall be provided between all buildings and accessible site facilities. The accessible route shall be the most practical direct route between accessible building entries, accessible site facilities, and the accessible entry to the site. An accessible route shall connect to the public right-of-way and to at least one on-site or adjacent transit stop (if the area is served by transit). All facilities shall conform to, or exceed, the Americans with Disabilities Act (ADA) standards, including those included in the Uniform Building Code.*

Staff Finding 59: The proposal includes ADA compliant parking in the underground garage with accessible building entry that leads to a fully accessible interior. Accessible entries are also located at the front and rear of the building. The front accessible entry is located on a public sidewalk that connects to a public transit stop 120 feet away. These criteria are met.

- L. *Signs.*
 - (...)
 2. *The signs, graphics, and letter styles shall be designed to be compatible with surrounding development, to contribute to a sense of project identity, or, when appropriate, to reflect a sense of the history of the area and the architectural style.*

3. *The sign graphics and letter styles shall announce, inform, and designate particular areas or uses as simply and clearly as possible.*
4. *The signs shall not obscure vehicle driver's sight distance.*
5. *Signs indicating future use shall be installed on land dedicated for public facilities (e.g., parks, water reservoir, fire halls, etc.).*
6. *Signs and appropriate traffic control devices and markings shall be installed or painted in the driveway and parking lot areas to identify bicycle and pedestrian routes.*

Staff Finding 60: Staff incorporates applicant findings. These criteria are met.

M. Utilities. The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, shall be placed underground, as practical. The design standards of Tables 1 and 2 above, and of subsection 5.487 of the West Linn Municipal Code relative to existing high ambient noise levels shall apply to this section.

Staff Finding 61: The applicant shall coordinate with appropriate utilities providers and the City engineer to either place existing utilities underground, or pay a fee-in-lieu per Condition of Approval 4. If the placement of the overhead utilities underground is undertaken, the activity will comply with both utility provider and City of West Linn standards. Subject to Condition of Approval 4, these criteria are met.

(...)

O. Refuse and recycling standards.

1. *All commercial, industrial and multi-family developments over five units requiring Class II design review shall comply with the standards set forth in these provisions. Modifications to these provisions may be permitted if the Planning Commission determines that the changes are consistent with the purpose of these provisions and the City receives written evidence from the local franchised solid waste and recycling firm that they are in agreement with the proposed modifications.*
2. *Compactors, containers, and drop boxes shall be located on a level Portland cement concrete pad, a minimum of four inches thick, at ground elevation or other location compatible with the local franchise collection firm's equipment at the time of construction. The pad shall be designed to discharge surface water runoff to avoid ponding.*

Staff Finding 62: Staff incorporates applicant findings. These criteria are met.

3. *Recycling and solid waste service areas.*
 - a. *Recycling receptacles shall be designed and located to serve the collection requirements for the specific type of material.*
 - b. *The recycling area shall be located in close proximity to the garbage container areas and be accessible to the local franchised collection firm's equipment.*

- c. *Recycling receptacles or shelters located outside a structure shall have lids and be covered by a roof constructed of water and insect-resistive material. The maintenance of enclosures, receptacles and shelters is the responsibility of the property owner.*
- d. *The location of the recycling area and method of storage shall be approved by the local fire marshal.*
- e. *Recycling and solid waste service areas shall be at ground level and/or otherwise accessible to the franchised solid waste and recycling collection firm.*
- f. *Recycling and solid waste service areas shall be used only for purposes of storing solid waste and recyclable materials and shall not be a general storage area to store personal belongings of tenants, lessees, property management or owners of the development or premises.*
- g. *Recyclable material service areas shall be maintained in a clean and safe condition.*

Staff Finding 63: The applicant proposes a covered solid waste enclosure with a swing gate on the west end of the rear façade along Knapps Alley. The recycling center will be covered, gated, and located on the east end of the rear façade along Knapps Alley. Both are located at ground level and will be kept in a clean and safe condition. The franchised collection firm has access from Knapps Alley. These criteria are met.

- 4. *Special wastes or recyclable materials.*
 - a. *Environmentally hazardous wastes defined in ORS 466.005 shall be located, prepared, stored, maintained, collected, transported, and disposed in a manner acceptable to the Oregon Department of Environmental Quality.*
 - b. *Containers used to store cooking oils, grease or animal renderings for recycling or disposal shall not be located in the principal recyclable materials or solid waste storage areas. These materials shall be stored in a separate storage area designed for such purpose.*

Staff Finding 64: Staff incorporates applicant findings. These criteria are met.

- 5. *Screening and buffering.*
 - a. *Enclosures shall include a curbed landscape area at least three feet in width on the sides and rear. Landscaping shall include, at a minimum, a continuous hedge maintained at a height of 36 inches.*
 - b. *Placement of enclosures adjacent to residentially zoned property and along street frontages is strongly discouraged. They shall be located so as to conceal them from public view to the maximum extent possible.*
 - c. *All dumpsters and other trash containers shall be completely screened on all four sides with an enclosure that is comprised of a durable material such as masonry with a finish that is architecturally compatible with the project. Chain link fencing, with or without slats, will not be allowed.*

Staff Finding 65: The applicant proposal includes both the recycling and refuse collection to be fully enclosed in the rear of the building. The collection containers will not be visible from the public right of way or from adjacent properties. The access to the enclosure will be screened with a solid gate. These criteria are met.

6. *Litter receptacles.*

a. *Location. Litter receptacles may not encroach upon the minimum required walkway widths.*

b. *Litter receptacles may not be located within public rights-of-way except as permitted through an agreement with the City in a manner acceptable to the City Attorney or his/her designee.*

Staff Finding 66: The applicant does not propose any litter receptacles in the public right-of-way at this time and will secure an agreement with the City if any are proposed in the future. Any receptacles on the subject property will be located to not encroach upon required walkway widths. These criteria are met.

55.125 TRANSPORTATION ANALYSIS

Certain development proposals required that a Traffic Impact Analysis (TIA) be provided which may result in modifications to the site plan or conditions of approval to address or minimize any adverse impacts created by the proposal. The purpose, applicability and standards of this analysis are found in CDC 85.170(B)(2).

Staff Finding 67: The applicant submitted a revised Traffic Impact Analysis in response to comments from ODOT and the City's transportation consultant (see Exhibit PC-5). The City Engineer and the City's transportation consultant both agree the analysis and findings found in the applicant's TIA satisfy the code criteria. The City Engineer and transportation consultant also both recommend accepting the applicant's proposed \$42,720 mitigation of traffic impacts.

The nexus for the mitigation is found in the fact that intersection improvements are currently warranted at Willamette Falls Drive at 12th Street, Willamette Falls Drive at 10th Street, and 10th Street at 8th Avenue/8th Court; all of which will be further impacted by the proposed development.

The proportionality is satisfied by the fact the proposed development will contribute to the failing intersections and the City Engineer agrees with the proportionality analysis found on pages 26 and 27 of the June 29, 2016 Willamette Falls Drive Mixed-Use Building Traffic Impact Study completed by Lancaster Engineering. These criteria are met.

X. CHAPTER 58, WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

58.090 STANDARDS

A. Standards are needed to provide a clear and objective list of design elements that are needed to bring new construction and remodels into conformance with 1880 – 1915 architecture. Buildings of the period saw relatively few deviations in design. Consequently, the Historic Review Board will require conformance with the standards. Deviations or deletions from the standards are addressed in the variance procedure of this chapter.

Staff Finding 68: The applicant is requesting four variances to the design standards. Please see Staff Finding 88. The West Linn Historic Review Board recommended approval of the variances (see Exhibit PC-6). This criterion is met.

B. The use of neo-designs or simply contextual designs which only attempt to capture the basic or generalized elements such as building line, massing and form, etc., is not acceptable.

Staff Finding 69: The applicant has not proposed any neo-designs or contextual designs. This criterion is met.

C. The following standards shall apply to new construction and remodels.

1. Dimensional standards.

a. Front: zero-foot setback. Building may not be set back from the property line unless it is consistent with predominant building line.

b. Side and side street: zero-foot setback. Building may not be set back from the side property line except for side passageway, accessway, or stairway unless fire codes dictate otherwise. The setback shall not exceed six feet. The setback should be consistent with the rhythm of adjacent structures, or at least not deleterious to it.

c. Rear: 20-foot setback. Setbacks between zero and 20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.

Staff Finding 70: The front and side street setback is zero. The interior side setback is 2 feet to allow for reliefs and pilasters without extending on to the adjacent property. The rear building setback is 4 feet 6 inches to provide additional distance (Knapps Alley provides 20 feet of separation) from the adjacent single-family homes. The applicant coordinated with property owners across Knapps Alley to provide the 4 foot 6 inch building setback, and also reduce proposed parking along the alley from 13 to 4 spaces, in order to mitigate impacts. The setback increases sky views and the reduced parking reduces noise impacts. These criteria are met.

d. Lot coverage: up to 100 percent of lot may be developed depending upon ability to mitigate impacts upon abutting residential and other uses.

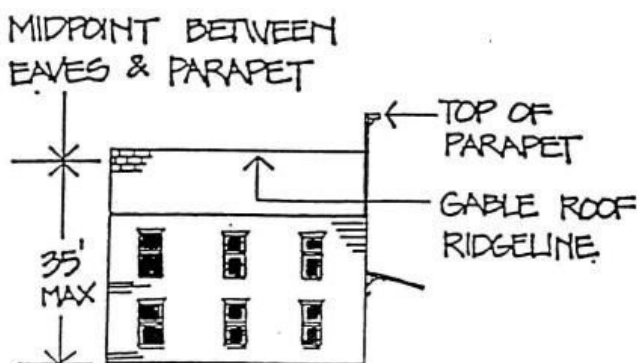
Staff Finding 71: The proposed building will cover 94 percent of the subject property. Impacts to properties on the north, and east are mitigated through separation by public rights-of-way. The properties to the south have a 20 foot right-of-way separation and an additional 4 feet 6 inch building setback. The property to the west has an existing building that has a side yard setback of 20 feet. The proposed building has a side yard setback of two-feet at this property line. The 22 feet of building separation provides adequate mitigation of impacts. This criterion is met.

2. Minimum landscaping required. Sites in this district are exempt from landscaping requirements as identified in Chapter 54 CDC, Landscaping, with the exception of parking areas.

Staff Finding 72: The applicant is not required to provide parking. However, the applicant has proposed an underground parking garage with 29 spaces and 4 ground level parallel parking spaces that are partially tucked under the rear building façade. Neither are conducive to landscaping for lack of sunlight and precipitation.

The purpose statement of Chapter 54 reads *“The landscaping is intended to provide an attractive natural balance to built areas, to reduce runoff, to provide shade, to screen or buffer uses, and to frame or complement views.”* Placing landscaping in the proposed parking areas would not provide an attractive balance as the landscaping will not survive in the conditions. The landscaping would not reduce runoff as they would provide no interception, absorption, or infiltration of stormwater. The landscaping would not provide additional shade as it would be located under cover. The landscaping would not screen or buffer uses nor frame or complement views. Landscaping is not recommended as it would not provide the intended results of Chapter 54. This criterion is met.

3. Building height limitations. Maximum building height shall be 35 feet (as measured by this code), and two stories. False fronts shall be considered as the peak of the building if it exceeds the gable roof ridgeline.



Staff Finding 73: The applicant has proposed the flat roof line is equivalent to the eave line in the diagram, with the low point at the grade adjacent to the building at each point. The northeastern corner of the proposed building has the roof (eave) line at 31 feet, and the top of the parapet at 36 feet. This places the midpoint (building height) between eave and roof at 33 feet 6 inches, which is below 35 foot maximum height. The false front is 35 feet from the adjacent sidewalk. This criterion is met.

4. External ground level or first story minimum height. Ten feet to allow transoms.

5. Roof form. Flat or pitched roofs. Pitched roof ridgeline shall run from the front of the building to the back.

6. Building form, scale and depth. Building shall emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of 1.5:1. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

Staff Finding 74: Staff incorporates the applicant’s findings. These criteria are met.

7. Spacing and rhythm. Buildings shall follow a regular rhythm. Strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.
8. Facades. No gables, hipped, or pitched roofs shall be exposed to the street at the front. The “Western false front” shall be the preferred style although variations shall be allowed.
9. Cornice. Cornices shall be broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

Staff Finding 75: Staff incorporates the applicant’s findings. These criteria are met.

10. Building materials and orientation. Wood shall be the principal building material. Horizontal wood siding in one-inch by eight-inch dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under CDC 58.090.

Staff Finding 76: The applicant has proposed 1”x8” horizontal wood siding and wood trim. The applicant is requesting a variance for a partial brick masonry base and partial concrete masonry base that will provide defense against errant drivers, which was not a concern during the 1880-1915 era. The variance also includes the applicant’s request for a brick masonry partial elevation. The applicant has provided historic photographs showing varying building materials during the 1890-1915 era, including brick and concrete facades. The HRB recommended approval of the variance request. Subject to the approval of the variance request, this criterion is met.

11. Awnings. All buildings shall have awnings extending out from building face. Awnings are preferred for micro-climate benefits. Ideally, the building will have both transom and awnings, although transoms are not required.

Awnings shall be either canvas or vinyl, or similar approved material, supported by an internal metal framework or metal or wood supported by a curved metal support, either attached to the building or a simple four-inch by four-inch wood post extending down to the outside of the sidewalk.

Awnings shall, therefore, extend beyond the front property line to the outside edge of the sidewalk, and shall possess a seven-foot clearance to the valance or any other part. The pitch of the awning shall be 10 to 40 degrees. No “bubble-type” awnings are permitted. No backlit awnings are permitted. Canvas or matte-finish vinyl, or similar approved material awnings, may be one-color or striped and shall have a free-hanging plain or crenelated valance. Canvas or matte-finish vinyl, or similar approved material awnings, should not be shared between two structures. Each structure should have its own awning.

Staff Finding 77: The applicant has proposed fabric awnings with internal metal supports. The awnings will be attached to the building above the pedestrian level windows and provide a seven foot clearance. The applicant is requesting a variance from the requirement to extend

awnings to the outside edge of the sidewalk. The applicant is proposing to extend the awning seven feet to provide a one foot six inch clearance to the edge of the sidewalk to limit damage from parking vehicles. The applicant is also proposing to install metal canopies over the entrance doorways. The applicant has provided historic photographs showing varying awning distances from the building façade during the 1890-1915 era, including facades not extended to the edge of sidewalk. The HRB recommended approval of the variance. Subject to the approval of the variance request, this criterion is met.

12. Extruded roofs. As a substitute for an awning, extruded roofs have a 10- to 40-degree pitch and extend one to two feet from the building face just above the transom windows where the first and second stories meet. The roof runs along the entire building frontage. Standard roofing materials are used. Transoms are required with extruded roofs.

Staff Finding 78: Staff incorporates the applicant's findings. These criteria are met.

13. Doors and entryways. The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their doors on the corner at an angle as depicted in the illustration. The doors may be single or double doors. The doors shall be recessed three to five feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door. Panels should decorate the lower portions. The entryway shall have windows all the way around at the same level as the other display windows. Wood doors are preferable although alternatives with a dark matte finish may be acceptable.

Staff Finding 79: The applicant is proposing three foot recessed double entrance doors at the northeast corner of the building and five foot recessed double doors along the front façade near the northwest corner. Both entryways have windows all the way around at same level as other display windows. The doors will be wood with the lower one-third having a panel. This criterion is met.

14. Glazing. Clear glass only. No mirrored or tinted glass. No films applied to glass. Lettering on glass is permitted (see subsection (C)(25)(b) of this section).

Staff Finding 80: The applicant has proposed clear glass with no glazing for all windows and doors. This criterion is met.

15. Display or pedestrian level windows. Shall extend across at least 80 percent of building front. The windows shall start one and one-half to two and one-half feet above grade to a height of seven to eight feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights was generally no more than six in a pedestrian-level window. The frames may be wood or vinyl-clad wood, or other materials so long as a matte finish is possible.

Staff Finding 81: The applicant has proposed pedestrian level windows that extend 121 feet along 148 feet of building elevation for 81.7 percent of the building front. The windows are broken up into not more than six sections. The windows are proposed to be wood or vinyl-clad wood. The sidewalk along the Willamette Falls Drive elevation slopes down approximately 5 feet from west to east. At the west end of the elevation, and extending eastward to the main entry alcove, all windows start between 18 inches and 30 inches above the adjacent grade. From that entry to the east end of the elevation, the grade makes it impossible to meet these sill constraints without extending the sills below the finished floor line, thus requiring a variance. The applicant has provided historic photographs showing varying window sill heights during the 1890-1915 era, including greater than 30 inches from the sidewalk. The HRB recommended approval of the variance. Subject to the approval of the variance request, this criterion is met.

16. *Second floor and other windows. Double- and single-hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (one and one-half feet to two feet per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.*

Staff Finding 82: The applicant has proposed double-hung second floor windows. The predominant second floor windows are 7' tall and 2' 4" wide, for a ratio of 3:1. The applicant is requesting a variance from the height to width ratio for three of the thirty front façade second story windows that have a ratio of 1.75:1. The applicant has provided historic photographs showing varying window sizes during the 1890-1915 era, including windows with less than a 3:1 ratio. The HRB recommended approval of the variance. Subject to the approval of the variance request, this criterion is met.

17. *Wainscotting. Wainscotting shall be consistent with primary material of the building, typically wood.*

18. *Shutters. Shutters are not allowed.*

19. *Balconies. No balconies are permitted except on rear of building.*

20. *Exterior stairs. Simple stairs are permitted on the rear or side of the building only.*

21. *Roof mounted mechanical equipment. Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. CDC [55.100\(D\)](#), Privacy and noise, shall apply.*

22. *Air conditioning. No window types on avenue or street side are permitted. Window-mounted air conditioners are not allowed at rear where abutting residential.*

Staff Finding 83: Staff incorporates the applicant's findings. These criteria are met.

23. *Exterior lighting fixtures. Any lighting fixtures that can be traced to 1880 – 1915 period are permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overly ornate fixtures of the Victorian era are to be discouraged.*

Staff Finding 84: The applicant has provided examples of the proposed lighting fixtures and their locations. The hanging fixtures replicate the appropriate time period and the parking area and under flat canopies proposed lighting will not attract attention. This criterion is met.

24. Transoms. Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above, but not beyond, the main display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False ceilings are allowed behind the transoms.

25. Planters. No planters are allowed.

Staff Finding 85: Staff incorporates the applicant's findings. These criteria are met.

26. Paint colors. Body color typically included white, cream, or a light, warm color of low intensity. Accents, trims, windows, etc., should be dark-colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880 – 1915 period colors shall be the basis for color selection. No other colors are allowed. The palette is available at the Community Development Department.

Staff Finding 86: The applicant has submitted a color board and architectural renderings of the building colors. Staff finds the color schemes meet the intent of the code. These criteria are met.

27. Ornamental or advertising flags, pennants, or banners. Not permitted on buildings.

28. New materials. Permitted where it is demonstrated that new material visually replicates originally required material, except siding, which must be wood.

Staff Finding 87: Staff incorporates the applicant's findings. These criteria are met.

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

A. *The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880 – 1915.*

B. *The applicant is incorporating exceptional 1880 – 1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.*

Staff Finding 88: The applicant is requesting four variances: 1. Allowing brick/concrete masonry base and partial brick elevation; 2. Extending the awnings to seven feet and not to the eight feet six inches to outer edge of sidewalk; 3. Allowing greater than 30 inches

between grade and start of first floor windows of the front elevation; and 4. Allowing three of thirty second story windows to not meet the 3:1 height to width ratio..

The Historic Review Board recommended approval of the four variances based on the applicant's documentation through historical photographs. The historical photographs clearly support all four variances were common to the architecture in the region during the 1880 to 1915 time period. Subject to approval by the Planning Commission, these criteria are met.

XI. CHAPTER 92, REQUIRED IMPROVEMENTS

92.010 PUBLIC IMPROVEMENTS FOR ALL DEVELOPMENT

The following improvements shall be installed at the expense of the developer and meet all City codes and standards:

- A. *Streets within subdivisions.*
- B. *Extension of streets to subdivisions*
- C. *Local and minor collector streets*
- D. *Monuments*

Staff Finding 89: The applicant shall install improvements to meet the West Linn Public Works Standards per Conditions of Approval 2 and 3. Subject to the Conditions of Approval, this criterion is met.

E. Surface drainage and storm sewer system. A registered civil engineer shall prepare a plan and statement which shall be supported by factual data that clearly shows that there will be no adverse impacts from increased intensity of runoff off site of a 100-year storm, or the plan and statement shall identify all off-site impacts and measures to mitigate those impacts commensurate to the particular land use application. Mitigation measures shall maintain pre-existing levels and meet buildout volumes, and meet planning and engineering requirements.

Staff Finding 90: The applicant has submitted a Preliminary Stormwater Report that complies with City of West Linn Public Works Standards. The applicant shall install improvements to meet the Standards per Condition of Approval 2. Subject to the Conditions of Approval, this criterion is met.

- F. *Sanitary sewers*
(...)
- G. *Water system*
(...)
- H. *Sidewalks.*
(...)

Staff Finding 91: The applicant has collaborated with the City Engineer to design the sanitary sewer and water system to comply with City of West Linn Public Works Standards. The applicant is required to replace any right-of-way infrastructure that is impacted during the construction process. The applicant shall install all improvements to meet the Standards per

Conditions of Approval 2, 3, and 7. Subject to the Conditions of Approval, this criterion is met.

I. Bicycle routes.

J. Street name signs.

K. Dead-end street signs.

L. Signs indicating future use.

M. Street lights.

Staff Finding 92: The applicant shall comply with the requirements and install improvements, including street lighting to meet the West Linn Public Works Standards. These criteria are met.

N. Utilities.

O. Curb cuts and driveways.

P. Street trees.

Q. Joint mailbox facilities

Staff Finding 93: The applicant shall comply with the requirements and install improvements to meet the West Linn Public Works Standards. These criteria are met.

92.030 IMPROVEMENT PROCEDURES

(...)

Staff Finding 94: The applicant shall comply with the requirements and install improvements to meet the West Linn Public Works Standards. These criteria are met.

XII. CHAPTER 99, PROCEDURES FOR DECISION MAKING: QUASI-JUDICIAL

99.030 APPLICATION PROCESS: WHO MAY APPLY, PRE-APPLICATION CONFERENCE, REQUIREMENTS, REFUSAL OF APPLICATION, FEES

(...)

B. Pre-application conferences.

1. Subject to subsection (B)(4) of this section, a pre-application conference is required for, but not limited to, each of the following applications:

(...)

e. Design review (Class I and Class II).

(...)

Staff Finding 95: The applicant attended a pre-application conference with City staff on June 18, 2015. These criteria are met.

99.038 NEIGHBORHOOD CONTACT REQUIRED FOR CERTAIN APPLICATIONS

Prior to submittal of an application for any subdivision, conditional use permit, (...)

Staff Finding 96: The applicant had neighborhood contact by attending the Willamette Neighborhood Meeting on April 25, 2016. Required documentation pertaining to this meeting are included in the applicant submittal. These criteria are met.

99.060 APPROVAL AUTHORITY

B. Planning Commission authority. The Planning Commission shall have the authority to:

(...)

h. Design review, Class II (Chapter 55 CDC).

(...)

D. Historic Review Board authority. The Historic Review Board shall review an application for compliance with Chapters 25 and 58 CDC, as applicable. The Historic Review Board shall have the authority to:

(...)

2. Make recommendations to the approval authority specified in this section regarding the following:

(...)

c. Class I or Class II design review on a property within the Willamette Falls Drive Commercial Design District that is not a historic landmark or within the Willamette Historic District;

d. New construction within the Willamette Falls Drive Commercial Design District that is not a historic landmark or within the Willamette Historic District;

(...)

Staff Finding 97: The applicant proposal was presented to the Historic Review Board on May 17 and June 21, 2016, where a recommendation of approval for compliance with CDC Chapter 58 was made. The Class II Design Review proposal will now be heard by the Planning Commission at a public hearing scheduled for July 20, 2016.

99.080 NOTICE

Notice shall be given in the following ways:

A. Class A Notice. (...)

Staff Finding 98: The applicant proposal has been properly noticed by the City. Please see Staff Report for the Planning Commission Exhibit PC-1 below. These criteria are met.

PC-1 AFFIDAVIT AND NOTICE PACKET

AFFIDAVIT OF NOTICE

We, the undersigned do hereby certify that, in the interest of the party (parties) initiating a proposed land use, the following took place on the dates indicated below:

GENERAL

File No. DR-16-01 Applicant's Name Icon Construction
Development Name _____
Scheduled Meeting Decision Date 7-20-16

NOTICE: Notices were sent at least 20 days prior to the scheduled hearing, meeting, or decision date per Section 99.080 of the Community Development Code. (check below)

TYPE A

A. The applicant (date) 6-23-16 (signed) S. Shroyer
B. Affected property owners (date) 6-23-16 (signed) S. Shroyer
C. School District/Board (date) _____ (signed) _____
D. Other affected gov't. agencies (date) _____ (signed) _____
E. Affected neighborhood assns. (date) 6-23-16 will call (signed) S. Shroyer
F. All parties to an appeal or review (date) _____ (signed) _____

At least 10 days prior to the scheduled hearing or meeting, notice was published/posted:

Tidings (published date) 7-7-16 (signed) S. Shroyer
City's website (posted date) 6-23-16 (signed) S. Shroyer

SIGN

At least 10 days prior to the scheduled hearing, meeting or decision date, a sign was posted on the property per Section 99.080 of the Community Development Code.

(date) 7-1-2016 (signed) Don S. Glyn

NOTICE: Notices were sent at least 14 days prior to the scheduled hearing, meeting, or decision date per Section 99.080 of the Community Development Code. (check below)

TYPE B

A. The applicant (date) _____ (signed) _____
B. Affected property owners (date) _____ (signed) _____
C. School District/Board (date) _____ (signed) _____
D. Other affected gov't. agencies (date) _____ (signed) _____
E. Affected neighborhood assns. (date) _____ (signed) _____

Notice was posted on the City's website at least 10 days prior to the scheduled hearing or meeting.
Date: _____ (signed) _____

STAFF REPORT mailed to applicant, City Council/Planning Commission and any other applicable parties 10 days prior to the scheduled hearing.

(date) _____ (signed) _____

FINAL DECISION notice mailed to applicant, all other parties with standing, and, if zone change, the County surveyor's office.

(date) _____ (signed) _____

**CITY OF WEST LINN
PLANNING COMMISSION
PUBLIC HEARING NOTICE
FILE NO. DR-16-01**

The West Linn Planning Commission is scheduled to hold a public hearing, on **Wednesday, July 20, 2016, starting at 6:30 p.m.** in the Council Chambers of City Hall, 22500 Salamo Road, West Linn, to consider a request for a Class II Design Review to construct a new two-story, mixed-use building at 1969 Willamette Falls Drive.

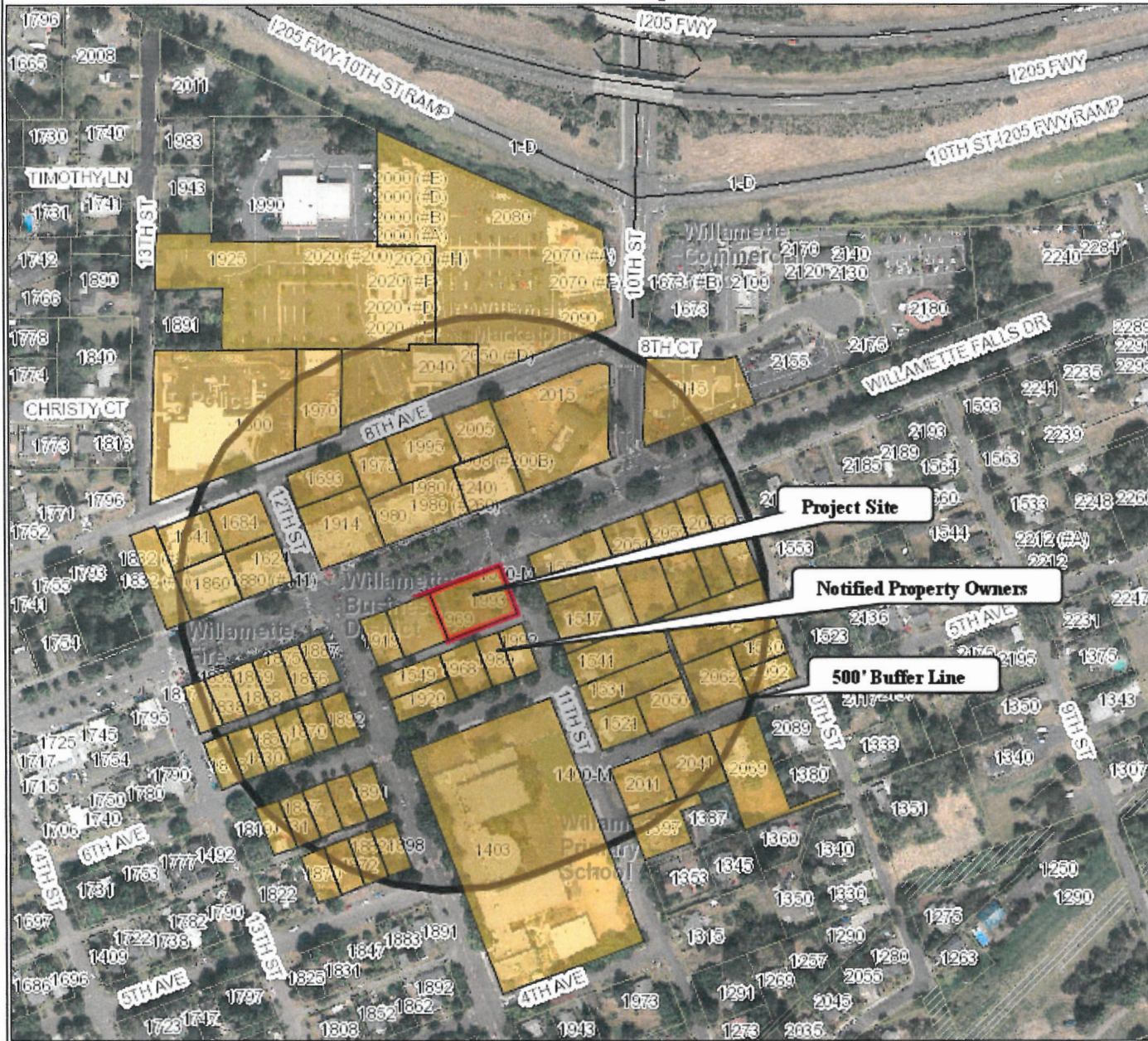
Criteria applicable to the requested Class II Design Review are in CDC Chapters 19, 55, 58, and 99. Approval or disapproval of the request by the Planning Commission will be based upon these criteria and these criteria only. At the hearing, it is important that comments relate specifically to the applicable criteria listed.

You have been notified of this proposal because County records indicate that you own property within 500 feet of the affected site on Clackamas County Assessor's Map 31E02BA, Tax Lot 4100 or as required by Chapter 99 of the CDC.

The complete application in the above noted file is available for inspection at no cost at City Hall or via the web site at <http://westlinnoregon.gov/planning/1969-willamette-falls-drive-class-ii-and-historic-design-review-mixed-use-building> or copies can be obtained for a minimal charge per page. At least ten days prior to the hearing, a copy of the staff report will be available for inspection. For further information, please contact Associate Planner Darren Wyss at dwyss@westlinnoregon.gov or 503-722-5512. Alternately, visit City Hall, 22500 Salamo Road, West Linn, OR 97068.

The hearing will be conducted in accordance with the rules of Section 99.170 of the CDC. Anyone wishing to present written testimony on this proposed action may do so in writing prior to, or at the public hearing. Oral testimony may be presented at the public hearing. At the public hearing, the Planning Commission will receive a staff presentation, and invite both oral and written testimony. The Planning Commission may continue the public hearing to another meeting to obtain additional information, leave the record open for additional evidence, arguments, or testimony, or close the public hearing and take action on the application as provided by state law. **It is important to provide all evidence, both oral and written, to the Planning Commission. Generally, the City Council will not be able to accept additional evidence if there is an appeal of this application.** Failure to raise an issue in person or by letter at some point prior to the close of the hearing, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue, precludes an appeal to the Land Use Board of Appeals (LUBA) based on that issue.

1969 Willamette Falls Drive Notification Map



Scale 1:3,600 - 1 in = 300 ft
Scale is based on 8-1/2 x 11 paper size



Map created by: SSHROYER
Date Created: 28-Mar-16 05:18 PM

WEST LINN GIS

DISCLAIMER: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. Source: West Linn GIS (Geographic Information System) MapOptix.



CITY OF West Linn

CITY OF WEST LINN PLANNING COMMISSION MEETING

**PROJECT # DR-16-01
MAIL: 6/30/16 TIDINGS: 7/7/16**

CITIZEN CONTACT INFORMATION

To lessen the bulk of agenda packets, land use application notice, and to address the worries of some City residents about testimony contact information and online application packets containing their names and addresses as a reflection of the mailing notice area, this sheet substitutes for the photocopy of the testimony forms and/or mailing labels. A copy is available upon request.

**CITY OF WEST LINN
PLANNING COMMISSION
PUBLIC HEARING NOTICE
FILE NO. DR-16-01**

The West Linn Planning Commission is scheduled to hold a public hearing, on **Wednesday, July 20, 2016, starting at 6:30 p.m.** in the Council Chambers of City Hall, 22500 Salamo Road, West Linn, to consider a request for a Class II Design Review to construct a new two-story, mixed-use building at 1969 Willamette Falls Drive (Clackamas County Assessor's Map 31E02BA, Tax Lot 4100).

Criteria applicable to the requested Class II Design Review are in CDC Chapters 19, 55, 58, and 99. Approval or disapproval of the request by the Planning Commission will be based upon these criteria and these criteria only. At the hearing, it is important that comments relate specifically to the applicable criteria listed.

The complete application in the above noted file is available for inspection at no cost at City Hall or via the web site at <http://westlinnoregon.gov/planning/1969-willamette-falls-drive-class-ii-and-historic-design-review-mixed-use-building> or copies can be obtained for a minimal charge per page. At least ten days prior to the hearing, a copy of the staff report will be available for inspection. For further information, please contact Associate Planner Darren Wyss at dwyss@westlinnoregon.gov or 503-722-5512. Alternately, visit City Hall, 22500 Salamo Road, West Linn, OR 97068.

The hearing will be conducted in accordance with the rules of Section 99.170 of the CDC. Anyone wishing to present written testimony on this proposed action may do so in writing prior to, or at the public hearing. Oral testimony may be presented at the public hearing. At the public hearing, the Planning Commission will receive a staff presentation, and invite both oral and written testimony. The Planning Commission may continue the public hearing to another meeting to obtain additional information, leave the record open for additional evidence, arguments, or testimony, or close the public hearing and take action on the application as provided by state law. **It is important to provide all evidence, both oral and written, to the Planning Commission. Generally, the City Council will not be able to accept additional evidence if there is an appeal of this application.** Failure to raise an issue in person or by letter at some point prior to the close of the hearing, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue, precludes an appeal to the Land Use Board of Appeals (LUBA) based on that issue.

Publish: West Linn Tidings, July 7, 2016

PC-2 COMPLETENESS LETTER



City of
West Linn

April 26, 2016

Mark Handris
Icon Construction
1980 Willamette Falls Drive #200
West Linn, OR 97068

SUBJECT: DR-16-01 application for Class II Design Review, including Willamette Falls Drive Commercial Design District Review, to construct a new two-story, mixed-use building.

Dear Mark:

You submitted this application on February 10, 2016. The Planning and Engineering Departments found that this application was incomplete on March 9, 2016 and again on March 31, 2016. All required information was subsequently provided on April 26, 2016 and the application has now been deemed **complete**. The city has 120 days to exhaust all local review; that period ends August 24, 2016.

Please be aware that a determination of a complete application does not guarantee a recommendation of approval from staff for your proposal as submitted – it signals that staff believes you have provided the necessary information for the Planning Commission to render a decision on your proposal.

A 20-day public notice will be prepared and mailed for a Public Hearing before the Historic Review Board on May 17, 2016 for the purpose of making a recommendation to the Planning Commission on CDC Chapter 58. A tentative date for the Planning Commission public hearing is June 15, 2016.

Please contact me at 503-722-5512, or by email at dwyss@westlinnoregon.gov if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Darren Wyss". The signature is fluid and cursive, with a long horizontal stroke at the end.

Darren Wyss
Associate Planner

PC-3 APPLICANT'S SUBMITTAL

DEVELOPMENT REVIEW APPLICATION

For Office Use Only		
STATE CONTACT <i>Darren Wyss</i>	PROJECT NO(S). <i>DR-16-01</i>	
NON-REFUNDABLE FEE(S) <i>300-</i>	REFUNDABLE DEPOSIT(S) <i>20,000-</i>	TOTAL <i>20,300-</i>

Type of Review (Please check all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> Annexation (ANX) | <input checked="" type="checkbox"/> Historic Review | <input type="checkbox"/> Subdivision (SUB) |
| <input type="checkbox"/> Appeal and Review (AP) * | <input type="checkbox"/> Legislative Plan or Change | <input type="checkbox"/> Temporary Uses * |
| <input type="checkbox"/> Conditional Use (CUP) | <input type="checkbox"/> Lot Line Adjustment (LLA) */** | <input type="checkbox"/> Time Extension * |
| <input checked="" type="checkbox"/> Design Review (DR) <i>CLASS II</i> | <input type="checkbox"/> Minor Partition (MIP) (Preliminary Plat or Plan) | <input type="checkbox"/> Variance (VAR) |
| <input type="checkbox"/> Easement Vacation | <input type="checkbox"/> Non-Conforming Lots, Uses & Structures | <input type="checkbox"/> Water Resource Area Protection/Single Lot (WAP) |
| <input type="checkbox"/> Extraterritorial Ext. of Utilities | <input type="checkbox"/> Planned Unit Development (PUD) | <input type="checkbox"/> Water Resource Area Protection/Wetland (WAP) |
| <input type="checkbox"/> Final Plat or Plan (FP) | <input type="checkbox"/> Pre-Application Conference (PA) */** | <input type="checkbox"/> Willamette & Tualatin River Greenway (WRG) |
| <input type="checkbox"/> Flood Management Area | <input type="checkbox"/> Street Vacation | <input type="checkbox"/> Zone Change |
| <input type="checkbox"/> Hillside Protection & Erosion Control | | |

Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

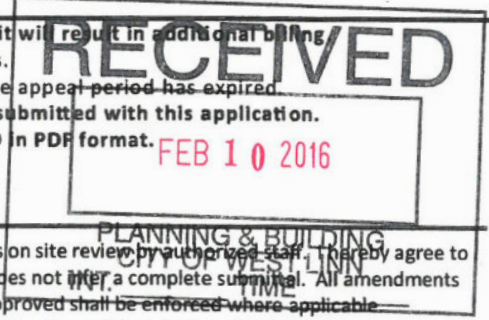
Site Location/Address: <i>1969 WILLAMETTE FALLS DRIVE</i>	Assessor's Map No.: <i>35,1E,02BA</i>
	Tax Lot(s): <i>4100</i>
	Total Land Area: <i>15,000 SF.</i>

Brief Description of Proposal:
CONSTRUCTION OF A NEW TWO-STORY MIXED-USE BUILDING. APPROX. 25,000 SF OF OFFICE/RETAIL + BELOW GRADE PARKING STRUCTURE. 43 NEW PARKING STALLS.

Applicant Name: <i>ICON CONSTRUCTION</i>	Phone: <i>503-657-0406</i>
Address: <i>1980 WILLAMETTE FALLS DR #200</i>	Email: <i>MARK@ICONCONSTRUCTION.NET</i>
City State Zip: <i>WEST LINN, OR 97068</i>	<i>DARREN@ICONCONSTRUCTION.NET</i>
Owner Name: <i>ICON CONSTRUCTION</i>	Phone:
Address: <i>1980 WILLAMETTE FALLS DRIVE #200</i>	Email: <i>MARK@ICONCONSTRUCTION.NET</i>
City State Zip: <i>WEST LINN, OR 97068</i>	<i>DARREN@ICONCONSTRUCTION.NET</i>
Consultant Name: <i>SG ARCHITECTOR, LLC</i>	Phone: <i>503-201-0725</i>
Address: <i>10940 SW BARNES RD #36A</i>	Email: <i>K.GOPWIN@SG-ARCH.NET</i>
City State Zip: <i>PORTLAND, OR 97225</i>	

- All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing.
 - The owner/applicant or their representative should be present at all public hearings.
 - A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.
 - Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format.
- If large sets of plans are required in application please submit only two sets.

* No CD required / ** Only one hard-copy set needed



The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not constitute a complete submission. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable. Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application.

[Signature] *2/9/16* *[Signature]* *2/9/16*
Applicant's signature Date Owner's signature (required) Date

ADDENDUM TO NARRATIVE OF APPLICABLE REGULATIONS AND ASSOCIATED SUPPLEMENTAL FINDINGS DR-16-01, CHAPTER 58, WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT, PRESENTED AT MAY 17TH & JUNE 20TH HISTORIC REVIEW BOARD MEETINGS

58.90 STANDARDS

C. The following standards shall apply to new construction and remodels.

1. Dimensional standards.

c. Rear: 20-foot setback. Setbacks between zero and 20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.

May 17th Response: South (rear) building elevation is on the property line, and fronts onto Knapp's Alley. The alley provides the separation from adjacent properties to mitigate the impact of this project. Access to employee parking and the trash enclosure will occur from Knapp's Alley as well.

June 13th, Amended Response: As noted in the May 17th submittal, the subject site is separated from the residential zone by a public way (Knapp's Alley), and as such does not abut the residential zone, so no mitigation should be required.

Nonetheless, the subject building design incorporates several features to help to reduce the impact of the building on the neighbors to the south. These include: using the building to cover the parking spaces; dividing the facade into six distinct pieces to reduce the overall scale of the building; the inclusion of detailed cornices and pilasters to further divide the facade and add visual interest; the addition of windows and awnings to make the south wall more inviting; and fully enclosing the trash area.

June 20th, Amended Plan: During the period between the May 17th and June 20th HRB meetings, the Owner met with the neighbors who live in the homes on the south side of Knapp's Alley to discuss the concerns they had raised about the project at the May 17th meeting, including traffic and access to sky views.

The result of the discussion was to reduce the width of the building, allowing the south wall to set back 4'-6" from the south property line, which increases sky views. In addition, parking along the alley was reduced from thirteen head-in stalls to four parallel spaces, which will reduce the impact of traffic along the alley. Per CDC 46.140, because the subject property is in the Willamette Falls Drive Commercial District/Overlay Zone, and is between 10th and 16th Streets, there is no parking required, so the reduction in parking stalls has no impact on this standard.

46.140 PARKING

Exemptions:

To facilitate the design requirements of Chapter 58 CDC, properties in the Willamette Falls Drive Commercial District/Overlay Zone, located between 10th and 16th Streets, shall be exempt from the requirements for off-street parking as identified in this chapter. *Any off-street parking spaces provided shall be designed and installed per the dimensional standards of this code.*



Code Analysis

February 2016

Willamette Falls Drive Mixed Use 1969 Willamette Falls Drive, West Linn, OR

Planner: Peter Spir
Development Engineer: Khoi Le

GENERAL

A two story mixed use building at the corner of Willamette Falls Drive and 11th Street, West Linn, OR. Possible uses include retail, restaurant, office, or hotel.

Codes:

2014 Oregon Structural Specialty Code
2014 Oregon Mechanical Specialty Code
2014 Oregon Plumbing Specialty Code
2014 Oregon Energy Efficiency Specialty Code cover

Zoning:

Jurisdiction: City of West Linn
Code: Community Development Code
Zone: GC (General Commercial - CDC Chapter 19)
Zone Overlays: Willamette Commercial Historic Overlay Zone

Utilities:

Water/Sewer: West Linn Public Works - 503 656-6081 (Operations)
Trash: West Linn Refuse - 503-557-3900
Electric: Portland General Electric - 800-542-8818
Gas: NW Natural - 800-422-4012

ZONING ANALYSIS

Legal Description:

Lots 1,2, & 3, Block 10, City of West Linn, Clackamas County, Oregon

Tax Lot Number:

31E02BA04100

Parcel Number:

00749168

Restrictions/Easements:

None known

10940 SW Barnes Rd #364
Portland, OR 97225
503.201.0725

Adjacent Zones:

MU (North & East), R-5 medium density residential (South), GC (West)

Permitted Uses (19.030, anticipated uses):

Business uses, restaurant, retail, hotel, professional/medical services.

Dimensional Requirements (19.070):

Minimum Front Lot Line Width: 35'

Average Minimum Front Lot Line Width: 50'

Average Minimum Lot Depth: 90'

Building Height (CDC): 2 stories/35'

Building Height (OSSC):

Ground Level Minimum Height: 10'

Setbacks: Front - 0' min./0' max., Side - 0'/0', Rear 20'/20'

Lot Coverage: 100% max.

Site Landscaping:

None required.

Parking lot landscaping:

5% + perimeter at surface parking

Site Access (information based on City's 2005 review of the project):

Knapps Alley may be used for parking access and may be backed into from parking stalls, but 20' width of alley must be paved for entire length of site. On-site parking that is accessed from Knapps Alley can only be used by employees of the building and not by visitors. Even high volume employee use may not be allowed.

On-site parking access from 11th Street may be allowed, but curb cut must be 35' away from the corner.

46.140 PARKING

Exemptions:

To facilitate the design requirements of Chapter 58 CDC, properties in the Willamette Falls Drive Commercial District/Overlay Zone, located between 10th and 16th Streets, shall be exempt from the requirements for off-street parking as identified in this chapter. *Any off-street parking spaces provided shall be designed and installed per the dimensional standards of this code.*

Standards:

Standard Stall: 9' x 18'

Compact Stall: 8' x 16'

ADA Stalls: (1) Van Accessible 9' x 18' space with 8' x 18' access aisle required.

Drive Aisle: 23' drive aisle required for 90° head-in parking (City has previously agreed that the 20' alley may be used in lieu of the required 23' aisle.

Parallel (on-street): 9' x 23'

On-Street parking:

Existing on Willamette Falls Drive and 11th Avenue.

Bicycle parking (varies by occupancy):

Retail: 1/3000 s.f., 50% covered

Office, Medical: 2 + 0.5/1000 s.f., 10% covered

Restaurant: 1/1000 s.f., 25% covered

Hotel (residential): 1/unit, 50% covered

Off-street loading required:

Retail: first stall required when area > 10,000s.f.

Restaurant: first stall required when area > 5,000s.f.

Office: first stall required when area > 10,000s.f.

Hotel: first stall required when area > 10,000s.f.

Off-street loading area:

Size: 14' x 20'

52.000 SIGNS

Sign Permit:

A separate sign permit is required.

Sign Exemptions:

Signs placed inside windows are exempt from the chapter provisions. Parking lot signs up to three square feet in area with a maximum height no greater than five feet above grade and directed to the interior of a parking lot and not to a right-of-way shall not require a sign permit.

Sign Variances:

Sign height and area variances shall be a Class II variance procedure, reviewed pursuant to the provisions of subsection C of this section and Chapter 75 CDC. All other sign variances shall be Class I variance procedures, and shall be reviewed pursuant to the provisions of subsection C of this section and CDC 75.050.

Signs in the Willamette Falls Drive Commercial District:

Signs shall not exceed 10 percent of the square footage of the front elevation. The sign(s) shall be proportionate to buildings and signs on adjacent buildings. The "10 percent" shall be broken up into multiple signs. The sign(s) shall be mounted or painted on the second floor, on the valance of the awning, on the windows at pedestrian level, or on four-by-four awning posts.

Signs shall not be of the internally lit can type or channel light type. No backlit awnings are allowed. Illumination by spotlight is permitted. Neon signs are permitted only inside the windows. No flashing signs are allowed. Small signs or plaques which describe the building in a historical sense are exempt from the allowable square footage restrictions.

Sign fonts: Antique lettering is required. Variations are permitted where the lettering would not clash with the predominant font or style. “Gay Nineties” or “P.T. Barnum” type styles, and other exaggerated styles are discouraged. Lettering may be horizontal, vertical, or slanting up from lower left to upper right. Semi-circle designs on windows are permitted. Window lettering should be white, black, or gold with black shading.

Signs Quantity:
Maximum of 3 on-wall signs.

58.090 WILLAMETTE FALLS DRIVE COMMERCIAL DISTRICT DESIGN STANDARDS

Building form, scale and depth:

Emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of 1.5:1. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

Spacing and rhythm:

Provide strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.

Facades:

No gables, hipped, or pitched roofs shall be exposed to the street at the front. The “Western false front” shall be the preferred style although variations shall be allowed.

Cornice:

Broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

Building materials:

1 x 8 horizontal wood siding. Brick and certain concrete configurations are permitted only by a variance under CDC 58.090.

Awnings:

All buildings shall have awnings extending out from building face. Transoms are preferred but not required. Awnings shall be either canvas or vinyl, with internal metal framework, curved metal supports, or a 4 x 4 wood post at the outside of the sidewalk. Minimum clearance of 7', 10 to 40 degree angle slope.

Extruded roofs:

Extruded roofs may be substituted for awnings, must have a 10- to 40-degree pitch and extend one to two feet from the building face just above the transom windows where the first and second stories meet. The roof runs along the entire building frontage. Standard roofing materials are used. Transoms are required with extruded roofs.

Doors and entryways:

The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their entries on the corner at an angle. Doors may be single or double,

and shall be recessed three to five feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door, with panels below. The entryway shall have windows on all sides at the same level as the other display windows. Wood doors are preferred.

Glazing:

Clear glass only. Lettering on glass is permitted.

Display or pedestrian level windows:

Shall extend across at least 80 percent of building front. The windows shall start one and one-half to two and one-half feet above grade to a height of seven to eight feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. The window shall be broken up into numerous lights. From 1880 onwards, the number of lights was generally no more than six in a pedestrian-level window. The frames may be wood or vinyl-clad wood, or other materials so long as a matte finish is possible.

Second floor and other windows:

Double- and single-hung windows proportionately spaced and centered. Smaller square shaped windows may be permitted (one and one-half feet to two feet per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: “one over one” of equal size. “Two over one” or “four over one” is appropriate.

Wainscoting:

Where provided, wainscoting shall be consistent with primary material of the building, typically wood.

Shutters:

Shutters are not allowed.

Balconies:

No balconies are permitted except on rear of building.

Exterior stairs:

Exposed exterior stairs are permitted on the rear or side of the building only.

Roof mounted mechanical equipment:

Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. CDC 55.100(D), Privacy and noise restrictions apply.

Exterior lighting fixtures:

Any lighting fixtures that can be traced to 1880 – 1915 period are permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overly ornate fixtures of the Victorian era are not acceptable.

Transoms:

Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above the main display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a

consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False (drop) ceilings are allowed behind the transoms.

Planters:

No planters are allowed.

Paint colors:

Typical body colors include white, cream, or a light, warm color of low intensity. Accents, trims, windows, etc., should be dark-colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880 – 1915 period colors, available at the Community Development Department, shall be the basis for color selection. No other colors are allowed. The palette is.

Flags, pennants, or banners: Ornamental or advertising flags, pennants, or banners are not permitted.

BUILDING CODE ANALYSIS

Note that many aspects of the Building Code analysis cannot be determined until building plans are more definitive. The following analysis describes the limits in the Code for the various occupancies anticipated.

Possible Occupancy Groups:

- A-2: Restaurant
- B: Business
- M: Retail
- R-1: Hotel
- S-2: Parking Garage

Construction Type:

Projected Construction Type - Ground & Second Floors: V-B Sprinklered (frame construction).

Projected Construction Type - Garage: Type 1 or 2 (concrete or masonry construction).

Allowable Areas by Occupancy Group

(includes increases for sprinkler and separations)*:

A-2: Restaurant - $6000 + [6000 \times 2 \text{ (sprinkler)}] + [6000 \times .17 \text{ (separation)}] = 19,020$ s.f.

B: Business - $9000 + [9000 \times 2 \text{ (sprinkler)}] + [9000 \times .17 \text{ (separation)}] = 28,530$ s.f.

M: Retail - $9000 + [9000 \times 2 \text{ (sprinkler)}] + [9000 \times .17 \text{ (separation)}] = 28,530$ s.f.

R-1: Hotel - $7000 + [7000 \times 2 \text{ (sprinkler)}] + [7000 \times .17 \text{ (separation)}] = 22,190$ s.f.

S-2: Garage - $13,500 + [13,500 \times 2 \text{ (sprinkler)}] + [13,500 \times .17 \text{ (separation)}] = 42,795$ s.f.

**Subject to the 'Sum of the Ratios' limitation: the combined areas of each occupancy divided by the overall building area must result in a ratio of less than 1.0.*

Allowable Building Height Above Grade:

By Construction Type: 40'

By Zone: 35' (The height limitation in the zone governs)

Occupancy Separations (vertical and horizontal):

A-2: Restaurant / B: Business, M: Retail, or R-1: Hotel = 1-hour

R-1: Hotel / B: Business, M: Retail, or A-2: Restaurant = 1-hour

S-2: Garage / B: Business & M: Retail = 1-hour

S-2: Garage / R-1: Hotel = none

Fire Resistive Requirements:

Primary Structural Frame: None

Bearing & non-bearing walls (exterior, north/east/south): None

Bearing & non-bearing walls (exterior, west): 2 hour at ground floor retail / 1 hour at 2nd floor

Bearing & non-bearing walls (interior): None

Floor & Roof construction: None

Shaft Enclosures (Stairs & Elevator): 1-hour

Parapets:

Per OSSC Section 705.11

Openings in Rated Walls (based upon separation from property line):

0' to less than 3': Not permitted

3' to less than 5': 15% of wall area per story

5' to less than 10': 25% of wall area per story

10' to less than 15': 45% of wall area per story

15' to less than 20': 75% of wall area per story

20'+: Unlimited

Exiting:

Elevator: Required

Stairs: Two Stairs will be required. At least one stair must be enclosed on the upper floors, with both enclosed at the garage level.

All required exits must meet accessibility standards per Chapters 10 & 11.

Sincerely,
SG Architecture, LLC

TECHNICAL MEMORANDUM

TO: Darren Wyss
FROM: William Farley, PE
DATE: March 25, 2016
SUBJECT: *1969 Willamette Falls Drive
Response to TIA Review Comments*



**LANCASTER
ENGINEERING**

321 SW 4th Ave., Suite 400
Portland, OR 97204
phone: 503.248.0313
fax: 503.248.9251
lancasterengineering.com

This memorandum is written to respond to comments from the City of West Linn regarding the Traffic Impact Analysis (TIA) conducted by Lancaster Engineering dated February 9th, 2016. Specifically, this memorandum addresses pedestrian access and mobility surrounding the proposed two-story mixed-use commercial building to be constructed at 1969 Willamette Falls Drive.

The proposed development is being constructed in the southwest quadrant of Willamette Falls Drive at 11th Street in downtown West Linn. As described in the *Vicinity Streets* section of the TIA on page 4, continuous sidewalks are provided along Willamette Falls Drive, 12th Street, and 10th Street while 11th Street provides intermittent sidewalks.

Curb bulb-outs and marked pedestrian crossings are provided at many intersections along Willamette Falls Drive in the downtown area, including the intersections at 12th Street, 11th Street, and 10th Street. Along 10th Street, marked pedestrian crossings are located at 8th Street/8th Court, the Interstate 205 northbound ramps, the Interstate 205 southbound ramps, and at Blankenship Road/Salamo Road. Pedestrian crossings at Blankenship Road/Salamo Road and both Interstate 205 ramp intersections are signalized.

Based on the detailed review of the crash history at each intersection, as summarized on page 15 of the TIA, only one collision at any of the study intersections involved a pedestrian. The collision occurred between a pedestrian illegally in the roadway and a westbound motorist near the intersection of 10th Street at Blankenship Road/Salamo Road. No mitigations related to safety were required or recommended.

Pedestrians in the vicinity of the subject site are able to utilize the continuous sidewalks and marked pedestrian crossings to reach destinations in the downtown area comfortably and safely. The access to the proposed mixed-use commercial building will be located on 11th Street where pedestrian activity is not as prominent. The development will not adversely affect the pedestrian facilities in the nearby vicinity. Pedestrian infrastructure in the vicinity of the site is capable of safely supporting the proposal in addition to the existing uses in the area.

All findings and conclusions from the TIA remain valid. If you have any questions, comments, or concerns, please don't hesitate to contact us directly.

Willamette Falls Mixed Use

West Linn, Oregon

Design Review Class II - Chapter 55

February 2016

55.010 PURPOSE AND INTENT - GENERAL

No response required.

55.020 CLASSES OF DESIGN REVIEW

No response required.

55.025 EXEMPTIONS

No response required.

55.030 ADMINISTRATION AND APPROVAL PROCESS

No response required.

55.040 EXPIRATION OR EXTENSION OF APPROVAL

No response required.

55.050 DESIGN REVIEW AMENDMENT TRIGGER

No response required.

55.060 STAGED OR PHASED DEVELOPMENT

No response required.

55.070 SUBMITTAL REQUIREMENTS

No response required.

55.085 ADDITIONAL INFORMATION REQUIRED AND WAIVER OF REQUIREMENTS

No response required.

55.090 APPROVAL STANDARDS – CLASS I DESIGN REVIEW

No response required.

55.100 APPROVAL STANDARDS – CLASS II DESIGN REVIEW

The approval authority shall make findings with respect to the following criteria when approving, approving with conditions, or denying a Class II design review application.

A. The provisions of the following chapters shall be met:

1. Chapter 34 CDC, Accessory Structures, Accessory Dwelling Units, and Accessory Uses.

RESPONSE: There are no accessory structures included as part of this proposal. The requirements of this chapter do not apply.

2. Chapter 38 CDC, Additional Yard Area Required; Exceptions to Yard Requirements; Storage in Yards; Projections into Yards.

RESPONSE: Per 38.020, no sideyard setback is required. The west wall of the building is set back 3'0" per the standard. The other sections of this chapter do not apply.

3. Chapter 40 CDC, Building Height Limitations, Exceptions.

RESPONSE: This chapter has been repealed by ordinance.

4. Chapter 42 CDC, Clear Vision Areas.

RESPONSE: The building and property line sit approximately 48 feet behind the curb at the intersection of 11th Street and Willamette Falls Drive. The requirement of the chapter are met.

5. Chapter 44 CDC, Fences.

RESPONSE: There are no fences or retaining walls planned as part of this proposal. The requirements of this chapter do not apply.

6. Chapter 46 CDC, Off-Street Parking, Loading and Reservoir Areas.

RESPONSE: Per section 46.140, no off-street parking spaces are required in the Willamette Falls Drive Commercial Design District. Spaces provided in the garage and along Knapps Alley comply with the design standards of this chapter. Bicycle parking complying with the standards of this chapter are located in the garage.

7. Chapter 48 CDC, Access, Egress and Circulation.

RESPONSE: The subject property is a legal lot of record (T3S, R1E, Sec. 2, TL4100) and has direct access to 11th Street on the east, a platted alley to the south, and fronts Willamette Falls Drive on the north. Vehicle access is proposed via the alley for street parking and a driveway cut to underground parking with access to 11th Street at a point as far removed as possible from the intersection with Willamette Falls Drive as possible. An existing 8-foot sidewalk on 11th Street and on Willamette Falls Drive provides pedestrian access. Street parking exists along Willamette Falls Drive and bicycle parking is provided on site.

8. Chapter 52 CDC, Signs.

RESPONSE: All signs will be building wall signs and will be submitted by the tenants under separate permits. All signs will meet the standards for the Willamette Falls Drive Commercial Design District per 52.210.

9. Chapter 54 CDC, Landscaping.

RESPONSE: Per 58.090, projects in the Willamette Falls Drive Commercial Design District are exempt from the requirement of chapter 54.

B. Relationship to the natural and physical environment.

1. The buildings and other site elements shall be designed and located so that all heritage trees, as defined in the municipal code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

2. All heritage trees, as defined in the municipal code, all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not

have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section. In cases where there is a difference of opinion on the significance of a tree or tree cluster, the City Arborist's findings shall prevail. It is important to acknowledge that all trees are not significant and, further, that this code section will not necessarily protect all trees deemed significant.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

a. Non-residential and residential projects on Type I and II lands shall protect all heritage trees and all significant trees and tree clusters by either the dedication of these areas or establishing tree conservation easements. Development of Type I and II lands shall require the careful layout of streets, driveways, building pads, lots, and utilities to avoid heritage trees and significant trees and tree clusters, and other natural resources pursuant to this code. The method for delineating the protected trees or tree clusters ("dripline + 10 feet") is explained in subsection (B)(2)(b) of this section. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

b. Non-residential and residential projects on non-Type I and II lands shall set aside up to 20 percent of the area to protect trees and tree clusters that are determined to be significant, plus any heritage trees. Therefore, in the event that the City Arborist determines that a significant tree cluster exists at a development site, then up to 20 percent of the non-Type I and II lands shall be devoted to the protection of those trees, either by dedication or easement. The exact percentage is determined by establishing the driplines of the trees or tree clusters that are to be protected. In order to protect the roots which typically extend further, an additional 10-foot measurement beyond the dripline shall be added. The square footage of the area inside this "dripline plus 10 feet" measurement shall be the basis for calculating the percentage (see figure below). The City Arborist will identify which tree(s) are to be protected. Development of non-Type I and II lands shall also require the careful layout of streets, driveways, building pads, lots, and utilities to avoid significant trees, tree clusters, heritage trees, and other natural resources pursuant to this code. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply. Please note that in the event that more than 20 percent of the non-Type I and II lands comprise significant trees or tree clusters, the developer shall not be required to save the excess trees, but is encouraged to do so.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

c. Where stubouts of streets occur on abutting properties, and the extension of those streets will mean the loss of significant trees, tree clusters, or heritage trees, it is understood that tree loss may be inevitable. In these cases, the objective shall be to minimize tree loss. These provisions shall also apply in those cases where access, per construction code standards, to a lot or parcel is blocked by a row or screen of significant trees or tree clusters.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

d. For both non-residential and residential development, the layout shall achieve at least 70 percent of maximum density for the developable net area. The developable net area excludes all Type I and II lands and up to 20 percent of the remainder of the site for the purpose of protection of stands or clusters of trees as defined in subsection (B)(2) of this section.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

e. For arterial and collector street projects, including Oregon Department of Transportation street improvements, the roads and graded areas shall avoid tree clusters where possible. Significant trees, tree clusters, and heritage tree loss may occur, however, but shall be minimized.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

f. If the protection of significant tree(s) or tree clusters is to occur in an area of grading that is necessary for the development of street grades, per City construction codes, which will result in an adjustment in the grade of over or under two feet, which will then threaten the health of the tree(s), the applicant will submit evidence to the Planning Director that all reasonable alternative grading plans have been considered and cannot work. The applicant will then submit a mitigation plan to the City Arborist to compensate for the removal of the tree(s) on an "inch by inch" basis (e.g., a 48-inch Douglas fir could be replaced by 12 trees, each four-inch). The mix of tree sizes and types shall be approved by the City Arborist.

3. The topography and natural drainage shall be preserved to the greatest degree possible.

RESPONSE: The site slopes at less than 5% and generally from southwest to northeast. Since this is a commercial property almost the entire site will be covered with a building no surface flow will exist after construction. The flow from the new impervious roof will be collected and detained on site and meted with a control structure to the pre-development rates and connected to the public system in the same local drainage basin.

4. The structures shall not be located in areas subject to slumping and sliding. The Comprehensive Plan Background Report's Hazard Map, or updated material as available and as deemed acceptable by the Planning Director, shall be the basis for preliminary determination.

RESPONSE: The West Linn geologic hazard maps (SLIDO) indicates no slumping or sliding in this area.

5. There shall be adequate distance between on-site buildings and on-site and off-site buildings on adjoining properties to provide for adequate light and air circulation and for fire protection.

RESPONSE: On the north, east, and south property boundaries, the proposed building faces onto public ways. On the west property boundary, a 3'-0" setback has been provided (no sideyard setback is required in the district), per section 38.020. There shall be adequate distance between on-site buildings and on-site and off-site building on adjoining properties to provide adequate light and air circulation and for fire protection

6. Architecture.

a. The proposed structure(s) scale shall be compatible with the existing structure(s) on site and on adjoining sites. Contextual design is required. Contextual design means respecting and

incorporating prominent architectural styles, building lines, roof forms, rhythm of windows, building scale and massing of surrounding buildings in the proposed structure. The materials and colors shall be complementary to the surrounding buildings.

RESPONSE: The architecture for this building meets the standards for the Willamette Falls Drive Commercial Design District found in chapter 58 and thus complies with the standards of this section. Please refer to the building elevations.

b. While there has been discussion in Chapter 24 CDC about transition, it is appropriate that new buildings should architecturally transition in terms of bulk and mass to work with, or fit, adjacent existing buildings. This transition can be accomplished by selecting designs that “step down” or “step up” from small to big structures and vice versa (see figure below). Transitions may also take the form of carrying building patterns and lines (e.g., parapets, windows, etc.) from the existing building to the new one.

RESPONSE: The subject property is adjacent to a single story residential style structure housing a commercial use. The adjacent buildings on the opposite side of Willamette Falls Drive are two-story commercial structures. The planned building design is similar in height, size, and style to those structures across the street, while maintaining individual window openings on the first floor that are similar in shape, sill, and head heights.

c. Contrasting architecture shall only be permitted when the design is manifestly superior to adjacent architecture in terms of creativity, design, and workmanship, and/or it is adequately separated from other buildings by distance, screening, grade variations, or is part of a development site that is large enough to set its own style of architecture.

RESPONSE: The building’s architecture contrasts with the adjacent neighbors to the west, but is in accordance with the standards of chapter 58 and is consistent with other buildings in the Willamette Falls Drive Commercial Design District.

d. Human scale is a term that seeks to accommodate the users of the building and the notion that buildings should be designed around the human scale (i.e., their size and the average range of their perception). Human scale shall be accommodated in all designs by, for example, multi-light windows that are broken up into numerous panes, intimately scaled entryways, and visual breaks (exaggerated eaves, indentations, ledges, parapets, awnings, engaged columns, etc.) in the facades of buildings, both vertically and horizontally.

The human scale is enhanced by bringing the building and its main entrance up to the edge of the sidewalk. It creates a more dramatic and interesting streetscape and improves the “height and width” ratio referenced in this section.

RESPONSE: The project design achieves human scale through the use of multi-light windows, intimately scaled entryways, parapets, awnings, and the building’s location at the edge of the sidewalk. The façade is divided into distinct sections that emphasize a pleasing height-to-width ratio.

e. The main front elevation of commercial and office buildings shall provide at least 60 percent windows or transparency at the pedestrian level to create more interesting streetscape and window shopping opportunities. One side elevation shall provide at least 30 percent transparency. Any additional side or rear elevation, which is visible from a collector road or greater classification, shall also have at least 30 percent transparency. Transparency on other elevations is optional. The transparency is measured in lineal fashion. For example, a

100-foot-long building elevation shall have at least 60 feet (60 percent of 100 feet) in length of windows. The window height shall be, at minimum, three feet tall. The exception to transparency would be cases where demonstrated functional constraints or topography restrict that elevation from being used. When this exemption is applied to the main front elevation, the square footage of transparency that would ordinarily be required by the above formula shall be installed on the remaining elevations at pedestrian level in addition to any transparency required by a side elevation, and vice versa. The rear of the building is not required to include transparency. The transparency must be flush with the building elevation.

RESPONSE: The front elevation is 147'0" long with 112'6" of windows, or 76.7%. The east elevation is 99'8" long, with 59'0" of window or other openings, or 59%. The remaining south and west elevations are exempt from the requirement.

- f. Variations in depth and roof line are encouraged for all elevations. To vary the otherwise blank wall of most rear elevations, continuous flat elevations of over 100 feet in length should be avoided by indents or variations in the wall. The use of decorative brick, masonry, or stone insets and/or designs is encouraged. Another way to vary or soften this elevation is through terrain variations such as an undulating grass area with trees to provide vertical relief.

RESPONSE: The rear elevation is divided into five distinct segments through the use of plaster trim and varying parapet heights.

- g. Consideration of the micro-climate (e.g., sensitivity to wind, sun angles, shade, etc.) shall be made for building users, pedestrians, and transit users, including features like awnings.

RESPONSE: On the north and east sides, pedestrians are protected by nearly continuous awnings and canopies. On the south side, awnings provide shade for building users. There are no openings on the west side.

- h. The vision statement identified a strong commitment to developing safe and attractive pedestrian environments with broad sidewalks, canopied with trees and awnings.

RESPONSE: The existing 10'0" wide sidewalk is tree lined via the existing street trees in the median separating Willamette Falls Drive from the existing surface parking area. See the site plan. The building has awnings and canopies over the sidewalk.

- i. Sidewalk cafes, kiosks, vendors, and street furniture are encouraged. However, at least a four-foot-wide pedestrian accessway must be maintained per Chapter 53 CDC, Sidewalk Use.

RESPONSE: It is not known at this time if there will be a sidewalk café'. However, the 10'0" walkway would provide plenty of room for one while maintaining at least 4'0" feet of pedestrian area.

7. Transportation Planning Rule (TPR) compliance. The automobile shall be shifted from a dominant role, relative to other modes of transportation, by the following means:

- a. Commercial and office development shall be oriented to the street. At least one public entrance shall be located facing an arterial street; or, if the project does not front on an arterial, facing a collector street; or, if the project does not front on a collector, facing the local

street with highest traffic levels. Parking lots shall be placed behind or to the side of commercial and office development. When a large and/or multi-building development is occurring on a large undeveloped tract (three plus acres), it is acceptable to focus internally; however, at least 20 percent of the main adjacent right-of-way shall have buildings contiguous to it unless waived per subsection (B)(7)(c) of this section. These buildings shall be oriented to the adjacent street and include pedestrian-oriented transparencies on those elevations.

For individual buildings on smaller individual lots, at least 30 lineal feet or 50 percent of the building must be adjacent to the right-of-way unless waived per subsection (B)(7)(c) of this section. The elevations oriented to the right-of-way must incorporate pedestrian-oriented transparency.

RESPONSE: 100% of the building elevation fronting on streets are located at the lot line, with multiple entry points along the north (front) elevation.

b. Multi-family projects shall be required to keep the parking at the side or rear of the buildings or behind the building line of the structure as it would appear from the right-of-way inside the multi-family project. For any garage which is located behind the building line of the structure, but still facing the front of the structure, architectural features such as patios, patio walls, trellis, porch roofs, overhangs, pergolas, etc., shall be used to downplay the visual impact of the garage, and to emphasize the rest of the house and front entry.

The parking may be positioned inside small courtyard areas around which the units are built. These courtyard spaces encourage socialization, defensible space, and can provide a central location for landscaping, particularly trees, which can provide an effective canopy and softening effect on the courtyard in only a few years. Vehicular access and driveways through these courtyard areas is permitted.

RESPONSE: This project is not multi-family so this standard does not apply.

c. Commercial, office, and multi-family projects shall be built as close to the adjacent main right-of-way as practical to facilitate safe pedestrian and transit access. Reduced frontages by buildings on public rights-of-way may be allowed due to extreme topographic (e.g., slope, creek, wetlands, etc.) conditions or compelling functional limitations, not just inconveniences or design challenges.

RESPONSE: 100% of the building elevations fronting onto public rights-of-way are located on the lot lines. Please refer to the site plan.

d. Accessways, parking lots, and internal driveways shall accommodate pedestrian circulation and access by specially textured, colored, or clearly defined footpaths at least six feet wide. Paths shall be eight feet wide when abutting parking areas or travel lanes. Paths shall be separated from parking or travel lanes by either landscaping, planters, curbs, bollards, or raised surfaces. Sidewalks in front of storefronts on the arterials and main store entrances on the arterials identified in CDC 85.200(A)(3) shall be 12 feet wide to accommodate pedestrians, sidewalk sales, sidewalk cafes, etc. Sidewalks in front of storefronts and main store entrances in commercial/OBC zone development on local streets and collectors shall be eight feet wide.

RESPONSE: The sidewalks at the north and east retail elevations are existing. 10'0" and 8'0" respectively.

e. Paths shall provide direct routes that pedestrians will use between buildings, adjacent rights-of-way, and adjacent commercial developments. They shall be clearly identified. They

shall be laid out to attract use and to discourage people from cutting through parking lots and impacting environmentally sensitive areas.

RESPONSE: The pedestrian access walkways along the north and east sides of the site are existing public walks that directly connect to adjacent properties.

f. At least one entrance to the building shall be on the main street, or as close as possible to the main street. The entrance shall be designed to identify itself as a main point of ingress/egress.

RESPONSE: There are three primary entries fronting on Willamette Falls Drive, along with one facing onto 11th Street.

g. Where transit service exists, or is expected to exist, there shall be a main entrance within a safe and reasonable distance of the transit stop. A pathway shall be provided to facilitate a direct connection.

RESPONSE: There is a bus stop at the corner of Willamette Falls Drive and 11th Street, with access to a main entry to the building on the same corner.

h. Projects shall bring at least part of the project adjacent to or near the main street right-of-way in order to enhance the height-to-width ratio along that particular street. (The "height-to-width ratio" is an architectural term that emphasizes height or vertical dimension of buildings adjacent to streets. The higher and closer the building is, and the narrower the width of the street, the more attractive and intimate the streetscape becomes.) For every one foot in street width, the adjacent building ideally should be one to two feet higher. This ratio is considered ideal in framing and defining the streetscape.

RESPONSE: The building is located on the lot line along both Willamette Falls Drive and 11th Street. At its tallest point (at the corner of Willamette Falls Drive and 11th Street), the building is 35'0" tall, which is the height limit allowed in the district.

i. These architectural standards shall apply to public facilities such as reservoirs, water towers, treatment plants, fire stations, pump stations, power transmission facilities, etc. It is recognized that many of these facilities, due to their functional requirements, cannot readily be configured to meet these architectural standards. However, attempts shall be made to make the design sympathetic to surrounding properties by landscaping, setbacks, buffers, and all reasonable architectural means.

RESPONSE: This project is a private mixed-use building. The requirements of this standard do not apply.

j. Parking spaces at trailheads shall be located so as to preserve the view of, and access to, the trailhead entrance from the roadway. The entrance apron to the trailhead shall be marked: "No Parking," and include design features to foster trail recognition.

RESPONSE: This project is not located at a trailhead. The requirements of this standard do not apply.

C. Compatibility between adjoining uses, buffering, and screening.

1. In addition to the compatibility requirements contained in Chapter 24 CDC, buffering shall be provided between different types of land uses; for example, buffering between single-family homes and apartment blocks. However, no buffering is required between single-family homes and duplexes or single-family attached units. The following factors shall be considered in determining the adequacy of the type and extent of the buffer:

- a. The purpose of the buffer, for example to decrease noise levels, absorb air pollution, filter dust, or to provide a visual barrier.
- b. The size of the buffer required to achieve the purpose in terms of width and height.
- c. The direction(s) from which buffering is needed.
- d. The required density of the buffering.
- e. Whether the viewer is stationary or mobile.

RESPONSE: This project has public rights-of-way on three sides. The lot to the west is the same land use as the project site.

2. On-site screening from view from adjoining properties of such things as service areas, storage areas, and parking lots shall be provided and the following factors will be considered in determining the adequacy of the type and extent of the screening:

- a. What needs to be screened?
- b. The direction from which it is needed.
- c. How dense the screen needs to be.
- d. Whether the viewer is stationary or mobile.
- e. Whether the screening needs to be year-round.

RESPONSE: All trash, storage, and parking are screened or enclosed by building walls.

3. Rooftop air cooling and heating systems and other mechanical equipment shall be screened from view from adjoining properties.

RESPONSE: Rooftop HVAC units are screened by parapets on all sides that will keep the units from being visible from the street.

D. Privacy and noise.

1. Structures which include residential dwelling units shall provide private outdoor areas for each ground floor unit which is screened from view from adjoining units.

2. Residential dwelling units shall be placed on the site in areas having minimal noise exposure to the extent possible. Natural-appearing sound barriers shall be used to lessen noise impacts where noise levels exceed the noise standards contained in West Linn Municipal Code Section 5.487.

3. Structures or on-site activity areas which generate noise, lights, or glare shall be buffered from adjoining residential uses in accordance with the standards in subsection C of this section where applicable.

4. Businesses or activities that can reasonably be expected to generate noise in excess of the noise standards contained in West Linn Municipal Code Section 5.487 shall undertake and submit appropriate noise studies and mitigate as necessary to comply with the code. (See CDC 55.110(B)(11) and 55.120(M).)

If the decision-making authority reasonably believes a proposed use may generate noise exceeding the standards specified in the municipal code, then the authority may require the applicant to supply professional noise studies from time to time during the user's first year of operation to monitor compliance with City standards and permit requirements.

RESPONSE: There are no residential dwelling units planned as part of this project. The requirements of parts 1 and 2 of this standard do not apply. There are no businesses or uses proposed at the time of the submittal that are anticipated to generate noise in excess of the allowable in the requirements. Therefore, parts 3 and 4 of this standard do not apply.

E. Private outdoor area. This section only applies to multi-family projects.

1. In addition to the requirements of residential living, unit shall have an outdoor private area (patio, terrace, porch) of not less than 48 square feet in area;
2. The outdoor space shall be oriented towards the sun where possible; and
3. The area shall be screened or designed to provide privacy for the users of the space.
4. Where balconies are added to units, the balconies shall not be less than 48 square feet, if they are intended to be counted as private outdoor areas.

RESPONSE: This project is not multi-family use. The requirements of this standard do not apply.

F. Shared outdoor recreation areas. This section only applies to multi-family projects and projects with 10 or more duplexes or single-family attached dwellings on lots under 4,000 square feet. In those cases, shared outdoor recreation areas are calculated on the duplexes or single-family attached dwellings only. It also applies to qualifying PUDs under the provisions of CDC 24.170.

1. In addition to the requirements of subsection E of this section, usable outdoor recreation space shall be provided in residential developments for the shared or common use of all the residents in the following amounts:
 - a. Studio up to and including two-bedroom units: 200 square feet per unit.
 - b. Three or more bedroom units: 300 square feet per unit.
2. The required recreation space may be provided as follows:
 - a. It may be all outdoor space; or
 - b. It may be part outdoor space and part indoor space; for example, an outdoor tennis court and indoor recreation room; and
 - c. Where some or all of the required recreation area is indoor, such as an indoor recreation room, then these indoor areas must be readily accessible to all residents of the development subject to clearly posted restrictions as to hours of operation and such regulations necessary for the safety of minors.
 - d. In considering the requirements of this subsection F, the emphasis shall be on usable recreation space. No single area of outdoor recreational space shall encompass an area of less than 250 square feet. All common outdoor recreational space shall be clearly delineated

and readily identifiable as such. Small, marginal, and incidental lots or parcels of land are not usable recreation spaces. The location of outdoor recreation space should be integral to the overall design concept of the site and be free of hazards or constraints that would interfere with active recreation.

3. The shared space shall be readily observable to facilitate crime prevention and safety.

RESPONSE: This project is not multi-family use. The requirements of this standard do not apply.

G. Demarcation of public, semi-public, and private spaces. The structures and site improvements shall be designed so that public areas such as streets or public gathering places, semi-public areas, and private outdoor areas are clearly defined in order to establish persons having a right to be in the space, to provide for crime prevention, and to establish maintenance responsibility. These areas may be defined by:

1. A deck, patio, fence, low wall, hedge, or draping vine;
2. A trellis or arbor;
3. A change in level;
4. A change in the texture of the path material;
5. Sign; or
6. Landscaping.

Use of gates to demarcate the boundary between a public street and a private access driveway is prohibited.

RESPONSE: This project is not multi-family use. The requirements of this standard do not apply.

H. Public transit.

1. Provisions for public transit may be required where the site abuts an existing or planned public transit route. The required facilities shall be based on the following:
 - a. The location of other transit facilities in the area.
 - b. The size and type of the proposed development.
 - c. The rough proportionality between the impacts from the development and the required facility.
2. The required facilities shall be limited to such facilities as the following:
 - a. A waiting shelter with a bench surrounded by a three-sided covered structure, with transparency to allow easy surveillance of approaching buses.
 - b. A turnout area for loading and unloading designed per regional transit agency standards.
 - c. Hard-surface paths connecting the development to the waiting and boarding areas.
 - d. Regional transit agency standards shall, however, prevail if they supersede these standards.

3. The transit stop shall be located as close as possible to the main entrance to the shopping center, public or office building, or multi-family project. The entrance shall not be more than 200 feet from the transit stop with a clearly identified pedestrian link.
4. All commercial business centers (over three acres) and multi-family projects (over 40 units) may be required to provide for the relocation of transit stops to the front of the site if the existing stop is within 200 to 400 yards of the site and the exaction is roughly proportional to the impact of the development. The commercial or multi-family project may be required to provide new facilities in those cases where the nearest stop is over 400 yards away. The transit stop shall be built per subsection (H)(2) of this section.
5. If a commercial business center or multi-family project is adjacent to an existing or planned public transit stop, the parking requirement may be reduced by the multiplier of 0.9, or 10 percent. If a commercial center is within 200 feet of a multi-family project, with over 80 units and pedestrian access, the parking requirement may be reduced by 10 percent or by a 0.90 multiplier.
6. Standards of CDC 85.200(D), Transit Facilities, shall also apply.

RESPONSE: There is an existing bus stop at the corner of Willamette Falls Drive and 11th Street, which is immediately adjacent to the main entry of the building at the northeast corner and is within 200 feet of all primary entries to the building. The stop is constructed with a bench, but without a shelter, consistent with other bus stops in the Willamette Falls Drive Commercial Design District. There is no parking requirement in the district, so parts 4 and 5 of the standard do not apply.

I. Public facilities. An application may only be approved if adequate public facilities will be available to provide service to the property prior to occupancy.

1. Streets. Sufficient right-of-way and slope easement shall be dedicated to accommodate all abutting streets to be improved to the City's Improvement Standards and Specifications. The City Engineer shall determine the appropriate level of street and traffic control improvements to be required, including any off-site street and traffic control improvements, based upon the transportation analysis submitted. The City Engineer's determination of developer obligation, the extent of road improvement and City's share, if any, of improvements and the timing of improvements shall be made based upon the City's systems development charge ordinance and capital improvement program, and the rough proportionality between the impact of the development and the street improvements.

In determining the appropriate sizing of the street in commercial, office, multi-family, and public settings, the street should be the minimum necessary to accommodate anticipated traffic load and needs and should provide substantial accommodations for pedestrians and bicyclists. Road and driveway alignment should consider and mitigate impacts on adjacent properties and in neighborhoods in terms of increased traffic loads, noise, vibrations, and glare.

The realignment or redesign of roads shall consider how the proposal meets accepted engineering standards, enhances public safety, and favorably relates to adjacent lands and land uses. Consideration should also be given to selecting an alignment or design that minimizes or avoids hazard areas and loss of significant natural features (drainageways, wetlands, heavily forested areas, etc.) unless site mitigation can clearly produce a superior landscape in terms of shape, grades, and reforestation, and is fully consistent with applicable code restrictions regarding resource areas.

Streets shall be installed per Chapter 85 CDC standards. The City Engineer has the authority to require that street widths match adjacent street widths. Sidewalks shall be installed per CDC 85.200(A)(3) for commercial and office projects, and CDC 85.200(A)(16) and 92.010(H) for residential projects, and applicable provisions of this chapter. Where streets bisect or traverse water resource areas (WRAs) the street width shall be reduced to the minimum standard of 20 feet (two 10-foot travel lanes) plus four-foot-wide curb flush sidewalks or alternate configurations which are appropriate to site conditions, minimize WRA disturbance or are consistent with an adopted transportation system plan. The street design shall also be consistent with habitat friendly provisions of CDC 32.060(H).

Based upon the City Manager's or Manager's designee's determination, the applicant shall construct or cause to be constructed, or contribute a proportionate share of the costs, for all necessary off-site improvements identified by the transportation analysis commissioned to address CDC 55.125 that are required to mitigate impacts from the proposed development. Proportionate share of the costs shall be determined by the City Manager or Manager's designee, who shall assume that the proposed development provides improvements in rough proportion to identified impacts of the development.

RESPONSE: All streets adjacent to the project are existing public streets that will remain.

2. Repealed by Ord. 1635.

3. Municipal water. A registered civil engineer shall prepare a plan for the provision of water which demonstrates to the City Engineer's satisfaction the availability of sufficient volume, capacity, and pressure to serve the proposed development's domestic, commercial, and industrial fire flows. All plans will then be reviewed by the City Engineer.

RESPONSE: Water facilities serving the project site are existing and will remain.

4. Sanitary sewers. A registered civil engineer shall prepare a sewerage collection system plan which demonstrates sufficient on-site capacity to serve the proposed development. The City Engineer shall determine whether the existing City system has sufficient capacity to serve the development.

RESPONSE: Sewer facilities serving the project site are existing and will remain.

5. Solid waste and recycling storage areas. Appropriately sized and located solid waste and recycling storage areas shall be provided. Metro standards shall be used.

RESPONSE: An appropriately sized solid waste and recycling storage area is provided inside the southwest corner of the building and is accessed from Knapps Alley.

J. Crime prevention and safety/defensible space.

1. Windows shall be located so that areas vulnerable to crime can be surveyed by the occupants.

RESPONSE: Windows overlook the public walks and Knapps Alley. There are no windows on the west elevation due to fire ratings.

2. Interior laundry and service areas shall be located in a way that they can be observed by others.

RESPONSE: No interior laundry is planned for the project.

3. Mailboxes, recycling, and solid waste facilities shall be located in lighted areas having vehicular or pedestrian traffic.

RESPONSE: Mailboxes and trash containers will be located inside the building lobby.

4. The exterior lighting levels shall be selected and the angles shall be oriented towards areas vulnerable to crime.

RESPONSE: Wall mounted sconces and gooseneck style lights will provide lighting consistent with the other buildings in the district.

5. Light fixtures shall be provided in areas having heavy pedestrian or vehicular traffic and in potentially dangerous areas such as parking lots, stairs, ramps, and abrupt grade changes.

RESPONSE: Wall mounted sconces and gooseneck style lights will provide lighting consistent with the other buildings in the district.

6. Fixtures shall be placed at a height so that light patterns overlap at a height of seven feet which is sufficient to illuminate a person. All commercial, industrial, residential, and public facility projects undergoing design review shall use low or high pressure sodium bulbs and be able to demonstrate effective shielding so that the light is directed downwards rather than omni-directional. Omni-directional lights of an ornamental nature may be used in general commercial districts only.

RESPONSE: Wall mounted sconces and gooseneck style lights will provide lighting consistent with the other buildings in the district.

7. Lines of sight shall be reasonably established so that the development site is visible to police and residents.

RESPONSE: The entire project is located at the property lines. Public sidewalks and Knapps Alley allow for adequate lines of sight.

8. Security fences for utilities (e.g., power transformers, pump stations, pipeline control equipment, etc.) or wireless communication facilities may be up to eight feet tall in order to protect public safety. No variances are required regardless of location.

RESPONSE: No utility fences are planned for the project.

K. Provisions for persons with disabilities.

1. The needs of a person with a disability shall be provided for. Accessible routes shall be provided between all buildings and accessible site facilities. The accessible route shall be the most practical direct route between accessible building entries, accessible site facilities, and the accessible entry to the site. An accessible route shall connect to the public right-of-way and to at least one on-site or adjacent transit stop (if the area is served by transit). All facilities shall conform to, or exceed, the Americans with Disabilities Act (ADA) standards, including those included in the Uniform Building Code.

RESPONSE: Accessible parking spaces are provided both in the surface parking area and in the garage and connect to accessible building entries which lead to a fully accessible interior. Additionally, the central entry at the lobby exits onto a public sidewalk that connects to public transit stops. All facilities will comply with ADD requirements.

L. Signs.

1. Based on considerations of crime prevention and the needs of emergency vehicles, a system of signs for identifying the location of each residential unit, store, or industry shall be established.

RESPONSE: Building identification signage will be provided to meet the requirements of local emergency service providers.

2. The signs, graphics, and letter styles shall be designed to be compatible with surrounding development, to contribute to a sense of project identity, or, when appropriate, to reflect a sense of the history of the area and the architectural style.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

3. The sign graphics and letter styles shall announce, inform, and designate particular areas or uses as simply and clearly as possible.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

4. The signs shall not obscure vehicle driver's sight distance.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

5. Signs indicating future use shall be installed on land dedicated for public facilities (e.g., parks, water reservoir, fire halls, etc.).

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

6. Signs and appropriate traffic control devices and markings shall be installed or painted in the driveway and parking lot areas to identify bicycle and pedestrian routes.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

M. Utilities. The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, shall be placed

underground, as practical. The design standards of Tables 1 and 2 above, and of subsection 5.487 of the West Linn Municipal Code relative to existing high ambient noise levels shall apply to this section.

RESPONSE: All utilities to the site are existing and will remain. The secondary feeds from the main lines to the building will be the only new work.

N. Wireless communication facilities (WCFs). (This section only applicable to WCFs.) WCFs as defined in Chapter 57 CDC may be required to go through Class I or Class II design review. The approval criteria for Class I design review is that the visual impact of the WCF shall be minimal to the extent allowed by Chapter 57 CDC. Stealth designs shall be sufficiently camouflaged so that they are not easily seen by passersby in the public right-of-way or from any adjoining residential unit. WCFs that are classified as Class II design review must respond to all of the approval criteria of this chapter.

RESPONSE: Not applicable – none proposed.

O. Refuse and recycling standards.

1. All commercial, industrial and multi-family developments over five units requiring Class II design review shall comply with the standards set forth in these provisions. Modifications to these provisions may be permitted if the Planning Commission determines that the changes are consistent with the purpose of these provisions and the City receives written evidence from the local franchised solid waste and recycling firm that they are in agreement with the proposed modifications.

RESPONSE: No modifications proposed for this development

2. Compactors, containers, and drop boxes shall be located on a level Portland cement concrete pad, a minimum of four inches thick, at ground elevation or other location compatible with the local franchise collection firm's equipment at the time of construction. The pad shall be designed to discharge surface water runoff to avoid ponding.

RESPONSE: A min. 4" thick concrete slab will be constructed in the trash enclosures where the containers will be placed on.

3. Recycling and solid waste service areas.

a. Recycling receptacles shall be designed and located to serve the collection requirements for the specific type of material.

b. The recycling area shall be located in close proximity to the garbage container areas and be accessible to the local franchised collection firm's equipment.

c. Recycling receptacles or shelters located outside a structure shall have lids and be covered by a roof constructed of water and insect-resistive material. The maintenance of enclosures, receptacles and shelters is the responsibility of the property owner.

d. The location of the recycling area and method of storage shall be approved by the local fire marshal.

e. Recycling and solid waste service areas shall be at ground level and/or otherwise accessible to the franchised solid waste and recycling collection firm.

f. Recycling and solid waste service areas shall be used only for purposes of storing solid waste and recyclable materials and shall not be a general storage area to store personal belongings of tenants, lessees, property management or owners of the development or premises.

g. Recyclable material service areas shall be maintained in a clean and safe condition.

RESPONSE: Solid waste containers will be for the storage of trash and recycling containers provided by the local waste management company. These containers will be provided in a screened enclosures with swing gates. Size of containers and frequency of pick-ups will be determined by the Building Owner and the waste management company.

4. Special wastes or recyclable materials.

a. Environmentally hazardous wastes defined in ORS 466.005 shall be located, prepared, stored, maintained, collected, transported, and disposed in a manner acceptable to the Oregon Department of Environmental Quality.

RESPONSE: Hazardous wastes will be handled and disposed of per state law. Cooking grease, if any, will be stored in approved containers within the restaurant.

b. Containers used to store cooking oils, grease or animal renderings for recycling or disposal shall not be located in the principal recyclable materials or solid waste storage areas. These materials shall be stored in a separate storage area designed for such purpose.

RESPONSE: Hazardous wastes will be handled and disposed of per state law. Cooking grease, if any, will be stored in approved containers within the restaurant.

5. Screening and buffering.

a. Enclosures shall include a curbed landscape area at least three feet in width on the sides and rear. Landscaping shall include, at a minimum, a continuous hedge maintained at a height of 36 inches.

RESPONSE: The enclosure is fully contained within the building structure. Other screening requirements of this section do not apply.

b. Placement of enclosures adjacent to residentially zoned property and along street frontages is strongly discouraged. They shall be located so as to conceal them from public view to the maximum extent possible.

RESPONSE: The enclosure is fully contained within the building structure. Other screening requirements of this section do not apply.

c. All dumpsters and other trash containers shall be completely screened on all four sides with an enclosure that is comprised of a durable material such as masonry with a finish that is architecturally compatible with the project. Chain link fencing, with or without slats, will not be allowed.

RESPONSE: The enclosure is fully contained within the building structure. Other screening requirements of this section do not apply.

6. Litter receptacles.

a. Location. Litter receptacles may not encroach upon the minimum required walkway widths.

RESPONSE: Site furnishings, such as litter receptacles, have not been selected at the time of this application. Future selections will be submitted for approval.

b. Litter receptacles may not be located within public rights-of-way except as permitted through an agreement with the City in a manner acceptable to the City Attorney or his/her designee.

RESPONSE: Site furnishings, such as litter receptacles, have not been selected at the time of this application. Future selections will be submitted for approval.

c. Number. The number and location of proposed litter receptacles shall be based on the type and size of the proposed uses. However, at a minimum, for non-residential uses, at least one external litter receptacle shall be provided for every 25 parking spaces for first 100 spaces, plus one receptacle for every additional 100 spaces. (Ord. 1547, 2007; Ord. 1604 § 52, 2011; Ord. 1613 § 12, 2013; amended during July 2014 supplement; Ord. 1623 § 6, 2014; Ord. 1635 § 26, 2014; Ord. 1636 § 37, 2014)

RESPONSE: Site furnishings, such as litter receptacles, have not been selected at the time of this application. Future selections will be submitted for approval.

55.110 SITE ANALYSIS

The site analysis shall include:

A. A vicinity map showing the location of the property in relation to adjacent properties, roads, pedestrian and bike ways, transit stops and utility access.

RESPONSE: See Civil drawings for this information.

B. A site analysis on a drawing at a suitable scale (in order of preference, one inch equals 10 feet to one inch equals 30 feet) which shows:

1. The property boundaries, dimensions, and gross area.

RESPONSE: See Civil drawings for this information.

2. Contour lines at the following minimum intervals:

- a. Two-foot intervals for slopes from zero to 25 percent; and
- b. Five- or 10-foot intervals for slopes in excess of 25 percent.

RESPONSE: See Civil drawings for this information.

3. A slope analysis which identifies portions of the site according to the slope ranges as follows:

- a. Type I (under 15 percent);
- b. Type II (between 15 to 25 percent);
- c. Type III (between 25 to 35 percent);
- d. Type IV (over 35 percent).

RESPONSE: See Civil drawings for this information.

4. The location and width of adjoining streets.

RESPONSE: See Civil drawings for this information and Existing Conditions plan (Survey).

5. The drainage patterns and drainage courses on the site and on adjacent lands.

RESPONSE: See Civil drawings for this information.

6. Potential natural hazard areas including:

- a. Floodplain areas pursuant to the site's applicable FEMA Flood Map panel;
- b. Water resource areas as defined by Chapter 32 CDC;
- c. Landslide areas designated by the Natural Hazard Mitigation Plan, Map 16; and
- d. Landslide vulnerable analysis areas, designated by the Natural Hazard Mitigation Plan, Map 17.

RESPONSE: See Civil drawings for this information.

7. Resource areas including:

- a. Wetlands;
- b. Riparian corridors;
- c. Streams, including intermittent and ephemeral streams;
- d. Habitat conservation areas; and
- e. Large rock outcroppings.

RESPONSE: See Civil drawings for this information.

8. Potential historic landmarks and registered archaeological sites. The existence of such sites on the property shall be verified from records maintained by the Community Development Department and other recognized sources.

RESPONSE: None exist on the site. Further documentation will be provided to the City if requested.

9. Identification information including the name and address of the owner, developer, project designer, lineal scale and north arrow.

RESPONSE: See Civil & Architectural drawings for this information.

10. Identify Type I and II lands in map form. Provide a table which identifies square footage of Type I and II lands also as percentage of total site square footage. (Ord. 1408, 1998; Ord. 1425, 1998; Ord. 1442, 1999; Ord. 1463, 2000; Ord. 1526, 2005; Ord. 1544, 2007; Ord. 1565, 2008; Ord. 1590 § 1, 2009; Ord. 1613 § 13, 2013; Ord. 1621 § 25, 2014; Ord. 1635 § 27, 2014; Ord. 1636 § 38, 2014)

55.120 SITE PLAN

The site plan shall be at the same scale as the site analysis (CDC 55.110) and shall show:

- A. The applicant's entire property and the surrounding property to a distance sufficient to determine the relationship between the applicant's property and proposed development and adjacent property and development.

RESPONSE: See provided site plan.

B. Boundary lines and dimensions for the perimeter of the property and the dimensions for all proposed lot or parcel lines.

RESPONSE: See provided site plan.

C. Streams and stream corridors.

RESPONSE: See provided site plan.

D. Identification information, including the name and address of the owner, developer, project designer, lineal scale and north arrow.

RESPONSE: See provided site plan.

E. The location, dimensions, and names of all existing and proposed streets, public pathways, easements on adjacent properties and on the site, and all associated rights-of-way.

RESPONSE: See provided site plan.

F. The location, dimensions and setback distances of all:

1. Existing and proposed structures, improvements, and utility facilities on site; and
2. Existing structures and driveways on adjoining properties.

RESPONSE: See provided site plan.

G. The location and dimensions of:

1. The entrances and exits to the site;
2. The parking and circulation areas;
3. Areas for waste disposal, recycling, loading, and delivery;
4. Pedestrian and bicycle routes, including designated routes, through parking lots and to adjacent rights-of-way;
5. On-site outdoor recreation spaces and common areas;
6. All utilities, including stormwater detention and treatment; and
7. Sign locations.

RESPONSE: See provided site plan.

H. The location of areas to be landscaped. (Ord. 1442, 1999; Ord. 1613 § 14, 2013; Ord. 1622 § 28, 2014; Ord. 1636 § 39, 2014)

RESPONSE: See provided site plan.

55.125 TRANSPORTATION ANALYSIS

Certain development proposals required that a Traffic Impact Analysis (TIA) be provided which may result in modifications to the site plan or conditions of approval to address or minimize any adverse impacts created by the proposal. The purpose, applicability and standards of this analysis are found in CDC 85.170(B)(2). (Ord. 1584, 2008)

RESPONSE: A Traffic Impact Analysis has been prepared by Lancaster Engineering on February 9th 2016 and included in this application.

55.130 GRADING PLAN

The grading and drainage plan shall be at a scale sufficient to evaluate all aspects of the proposal and shall include the following:

A. The location and extent to which grading will take place indicating general contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed.

RESPONSE: The civil site drawings show the existing contours. The proposed building will match the existing grades along the frontages and on the property line to the west. Finish grades are shown on the civil and architectural plans to demonstrate how the building fits with the existing grades

B. A registered civil engineer shall prepare a plan and statement that shall be supported by factual data that clearly shows that there will be no adverse impacts from increased intensity of runoff off site, or the plan and statement shall identify all off-site impacts and measures to mitigate those impacts. The plan and statement shall, at a minimum, determine the off-site impacts from a 10-year storm.

RESPONSE: A preliminary storm report has been prepared to demonstrate how the impervious roof area will be collected into a detention tanks with orifices that release storm water at the pre-development rates for the 2 through 25 year events. The storm water from this site will be connected to the public system with a 8-inch line at a point where the public system has a larger 12-inch line with a capacity approximately 35 times the 25-year flow from this development.

C. Storm detention and treatment plans may be required.

RESPONSE: A storm detention tank is proposed as shown on the site utility plan which will detain the developed flows and discharge at the pre-developed rates for storm events of 2-through 25 years. Because the building covers almost this entire site no infiltration or water quality swales or rain gardens are possible. A storm water pollution control manhole will provide treatment. Roof water generally does not contain harmful pollutants and in most cases is exempt from DEQ regulations for water quality.

D. Identification, information, including the name and address of the owner, developer, project designer, and the project engineer. (Ord. 1463, 2000; Ord. 1613 § 15, 2013; Ord. 1622 § 28, 2014)

RESPONSE: The civil plans provide a listing of the owner/developer, architect, engineer and surveyor with names and contact information.

55.140 ARCHITECTURAL DRAWINGS

This section does not apply to single-family residential subdivisions or partitions, or up to two duplexes or single-family attached dwellings.

Architectural drawings shall be submitted showing:

- A. Building elevations and sections tied to curb elevation;

RESPONSE: See provided plans.

- B. Building materials: color and type; and

RESPONSE: See provided plans.

- C. The name of the architect or designer. (Ord. 1408, 1998; Ord. 1613 § 16, 2013)

RESPONSE: See provided plans.

55.150 LANDSCAPE PLAN

This section does not apply to detached single-family residential subdivisions or partitions, or up to two duplexes or single-family attached dwellings.

- A. The landscape plan shall be prepared and shall show the following:

1. Preliminary underground irrigation system, if proposed;
2. The location and height of fences and other buffering of screening materials, if proposed;
3. The location of terraces, decks, patios, shelters, and play areas, if proposed;
4. The location, size, and species of the existing and proposed plant materials, if proposed; and
5. Building and pavement outlines.

RESPONSE: Due to the allowable site coverage of 100% the proposed development will only be providing concrete raised planters along the front entrances of the major Tenants. Any plantings would adhere to the list of City approved species.

- B. The landscape plan shall be accompanied by:

1. The erosion controls that will be used, if necessary;
2. Planting list; and
3. Supplemental information as required by the Planning Director or City Arborist. (Ord. 1408, 1998; Ord. 1613 § 17, 2013)

RESPONSE: No erosion control measures required for this development. A planting list will be provided to the City Arborist prior to any installation.

55.170 EXCEPTIONS TO UNDERLYING ZONE, YARD, PARKING, SIGN PROVISIONS, AND LANDSCAPING PROVISIONS

A. The Planning Director may grant an exception to the dimensional building setback or yard requirements in the applicable zone based on findings that the approval will satisfy the following criteria:

1. A minor exception that is not greater than 20 percent of the required setback.
2. A more efficient use of the site.
3. The preservation of natural features that have been incorporated into the overall design of the project.
4. No adverse affect to adjoining properties in terms of light, air circulation, noise levels, privacy, and fire hazard.
5. Safe vehicular and pedestrian access to the site and safe on-site vehicular and pedestrian circulation.

RESPONSE: No exceptions are being requested as part of this application.

B. The Planning Director may grant an exception to the off-street parking dimensional and minimum number of space requirements in the applicable zone so long as the following criteria are met:

1. The minor exception is not greater than 10 percent of the required parking;
2. The application is for a use designed for a specific purpose which is intended to be permanent in nature (for example, a nursing home) and which has a low demand for off-street parking; or
3. There is an opportunity for sharing parking and there is written evidence that the property owners are willing to enter into a legal agreement; or
4. Public transportation is available to the site reducing the standards and will not adversely affect adjoining uses, and there is a community interest in the preservation of particular natural feature(s) of the site which make it in the public interest to grant an exception to parking standards.

RESPONSE: No exceptions are being requested as part of this application.

C. The Planning Director may grant an exception to the sign dimensional requirements in the applicable zone when the following criteria are met:

1. The minor exception is not greater than 10 percent of the required applicable dimensional standard for signs;
2. The exception is necessary for adequate identification of the use on the property; and
3. The sign will be compatible with the overall site plan, the structural improvements, and with the structures and uses on adjoining properties.

RESPONSE: No exceptions are being requested as part of this application.

D. The Planning Director may grant an exception to the landscaping requirements in the applicable zone based on findings that the following criteria will be met:

1. A minor exception that is not greater than 10 percent of the required landscaped area.
2. A more efficient use of the site.
3. The preservation of natural features that have been incorporated into the overall design of the project.
4. No adverse effect to adjoining property.

RESPONSE: No exceptions are being requested as part of this application.

55.180 MAINTENANCE

All on-site improvements shall be the ongoing responsibility of the property owner or occupant.

RESPONSE: The applicant acknowledges this responsibility.

55.190 SHARED OPEN SPACE

Where the open space is designated on the plan as common open space, the following shall apply:

- A. The open space area shall be shown on the final plan and recorded with the Planning Director.

RESPONSE: There is no shared open space planned as part of this application.

- B. The open space shall be conveyed in accordance with one of the following methods:

1. By dedication to the City as publicly owned and maintained as open space. Open space proposed for dedication to the City must be acceptable to it with regard to the size, shape, location, improvement, and budgetary and maintenance limitations.

RESPONSE: There is no shared open space planned as part of this application.

2. By leasing or conveying title (including beneficial ownership) to a corporation, home association, or other legal entity with the City retaining the development rights to the property. The terms of such lease or other instrument of conveyance must include provisions suitable to the City Attorney for guaranteeing the following:

- a. The continued use of such land for intended purposes.
- b. Continuity of property maintenance.
- c. When appropriate, the availability of funds required for such maintenance.
- d. Adequate insurance protection.
- e. Recovery for loss sustained by casualty and condemnation, or otherwise.

RESPONSE: There is no shared open space planned as part of this application.

3. By any method that achieves the objectives set forth in subsection (B)(2) of this section.

RESPONSE: There is no shared open space planned as part of this application.

55.195 ANNEXATION AND STREET LIGHTS

As a condition of approval for design review for any project that is being annexed to the City, the developer and/or homeowners association shall pay for all expenses related to street light energy and maintenance costs until annexed into the City. The approval for any property annexed must state: "This approval is contingent on voter approval of annexation of the subject property." This means that no permit, final plat, or certificate of occupancy may be issued or approved until annexation is complete. (Ord. 1442, 1999; Ord. 1604 § 53, 2011).

RESPONSE: The subject property is located within the city limits. The requirements of this section do not apply.

End of Chapter Responses

Willamette Falls Mixed Use

West Linn, Oregon

Design Review Class II Submittal – Chapter 58

February 2016

A. Introduction

The following Narrative, Plans and Supplemental materials will demonstrate that the proposed project is in compliance with the applicable site plan and design review standards set forth in the West Linn Community Development Code.

B. Narrative

Icon Development is proposing a new two-story development located at 1912 Willamette Falls Drive- east of 12th Street. The site has one temporary existing structure that will be demolished and is boarded primarily by commercial development with some residential development to the north.

The proposed mixed use development is two-story office/retail with an underground parking facility. The total building area is approximately 24,510 s.f. of leasable building area and 42 on-site parking spaces have been provided behind and under the building. Spring/Summer 2016 construction start is anticipated.

C. Conformance

58.90 STANDARDS

- A. Standards are needed to provide a clear and objective list of design elements that are needed to bring new construction and remodels into conformance with 80c1915 architecture. Buildings of the period saw relatively few deviations in design. Consequently, the Historic Review Board will require conformance with the standards. Deviations or deletions from the standards are addressed in the variance procedure of this chapter.
- B. The use of "neo-designs" or simply contextual designs which only attempt to capture the basic or generalized elements such as building line, massing and form, etc. is not acceptable.
- C. The following standards shall apply to new construction and remodels.
1. Dimensional standards:
 - a. Front: zero-foot setback. Building may not be set back from the property line unless it is consistent with predominant building line.
RESPONSE: The proposed building frontage (north elevation) is located on this property line.
 - b. Side and Side Street: zero-foot setback. Building may not be set back from the side property line except for side passageway, accessway, or stairway unless fire codes dictate otherwise. The setback shall not exceed six feet. The setback should be consistent with the rhythm of adjacent structures, or at least not deleterious to it. (ORD. 1391)
RESPONSE: West (side) building elevation is setback 2'0" from the existing property line to allow for the building to have reliefs and pilasters without extending into the adjacent property.

c. Rear: 20-foot setback. Setbacks between 0-20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.

RESPONSE: South (rear) building elevation is on the property line, and fronts onto Knapp's Alley. The alley provides the separation from adjacent properties to mitigate the impact of this project. Access to employee parking and the trash enclosure will occur from Knapp's Alley as well.

d. Lot coverage: Up to 100 percent of lot may be developed depending upon ability to mitigate impacts upon abutting residential and other uses.

RESPONSE: The proposed lot coverage based on the street level ground floor area is 66.33%.

Site area = .0344 acres = 15,000 s.f.

2. Minimum landscaping required: Structures in this area are exempt from landscaping requirements as identified in Section 55.100(A)(1)(b), Design Review. The provision of CDC Section 55.100(A)(1)(c)(1-8) shall still apply where parking lots are proposed.

RESPONSE: There is no landscaping required for this project. There will be landscaping provided at the proposed water quality facility at the west property line.

3. Building height limitations: Maximum building height shall be 35 feet (as measured by this Code), and two stories. False fronts shall be considered as the peak of the building if it exceeds the gable roof ridgeline.

RESPONSE: All proposed building heights are at or below the maximum allowable by code (35'0" high)

Front (north) parapet = 32-35 feet

Rear (south) parapet = 30-33 feet

Side (west) parapet = 26 feet

Side (east) parapet = 32-35 feet

4. External ground level or first story minimum height: 10 feet to allow transoms.

RESPONSE: The ground level first story height is 14'0" A.F.F to allow for window transoms.

5. Roof form: Flat or pitched roofs. Pitched roof ridgeline shall run from the front of the building to the back.

RESPONSE: All proposed flat sloped roofs run from front to back of the building.

6. Building form, scale and depth: Building shall emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of 1.5:1. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

RESPONSE: The proposed exterior elevations emphasize many vertical elements using tall windows, cornices, and awnings. The second floor has been provided with many windows that align with the main floor below that enhance the "verticality" of each building elevation. Building reliefs have been incorporated throughout the overall design by off- setting the building footprint and providing awnings and cornice projections.

7. Spacing and rhythm: Buildings shall follow a regular rhythm. Strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.

RESPONSE: Appropriate spacing and vertical breaks in the building vernacular, have been incorporated into all the building elevations. No vertical spacing exceeds 50'-0" in length (see elevation sheet).

8. Facades: No gables, hipped, or pitched roofs shall be exposed to the street at the front. The "Western false front" shall be the preferred style although variations shall be allowed.

RESPONSE: All roofs are 'flat' for the entire building, and are concealed by "Western False Front" facades (see elevations sheet).

9. Cornice: Cornices shall be broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

RESPONSE: The cornice at the northeast corner is enhanced with supporting brackets. All other cornices are enhanced with framed panel decoration (see elevations & wall section sheets.)

10. Building materials and orientation: Wood shall be the principal building material. Horizontal wood siding in 1" X 8" dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under Section 58.090.

RESPONSE: The primary materials list will be wood:

Siding: 1x8 horizontal siding minimum (hardiplank)

Cornices/trim: 2x wood trim - painted

Ornamental trim: Wood - painted

The applicant requests a variance under the terms of Section 55.100 for a brick masonry base and partial elevation.

11. Awnings: All buildings shall have awnings extending out from building/face. Awnings are preferred for micro-climate benefits. Ideally, the building will have both transom and awnings, although transoms are not required. Awnings shall be either canvas or vinyl, or similar approved material, supported by an internal metal framework or metal or wood supported by a curved metal support, either attached to the building or a simple 4" X 4" wood post extending down to the outside of the sidewalk. Awnings shall, therefore, extend beyond the front property line to the outside edge of the sidewalk, and shall possess a seven-foot clearance to the valance or any other part. The pitch of the awning shall be 10-40 degrees. No "bubble-type" awnings are permitted. No backlit awnings are permitted. Canvas or matte finish vinyl, or similar approved material awnings may be one color or striped and shall have a free-hanging plain or crenelated valance. Canvas or matte finish vinyl, or similar approved material awnings should not be shared between two structures. Each structure should have its own awning. (ORD. 1401)

RESPONSE: Building awnings will be a combination of fabric awnings and metal canopies that extend beyond the building and above the existing sidewalk. However, due to the possibility of vehicles damaging the awnings, the applicant would petition to reducing the awnings depth to 7'-0" instead of the full sidewalk width of 8'-6". All supports will be fastened to the building by metal supports and have a minimum clearance height of 7'-0". Each building window facade will have a separate awning with a slope between 10 - 40 degrees (see elevations.)

12. Extruded roofs: As a substitute for an awning, extruded roofs have a 10-40 degree pitch and extend 1-2 feet from the building face just above the transom windows where the first and second stories meet. The roof runs along the entire building frontage. Standard roofing materials are used. Transoms are required with extruded roofs.

RESPONSE: No "extruded roofs" are being proposed. Transom windows will be provided beneath both the fabric awnings and metal canopies.

13. Doors and entryways: The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their door on the corner at an angle as depicted in the illustration. The doors may be single or double doors. The doors shall be recessed 3-5 feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door. Panels should decorate the lower portions. The entryway shall have windows all the way around at the same level as the other display windows. Wood doors are preferable although alternatives with a dark matte finish may be acceptable.

RESPONSE: Recessed double entrance doors have been provided at the center of the building along with additional recessed entry doors at each end of the building (see elevation and floor plan). The door styles will be full glass light style and will meet the intent of the code.

14. Glazing: Clear glass only. No mirrored or tinted glass. No films applied to glass. Lettering on glass is permitted (see item 25(b) of this section).

RESPONSE: Clear glass is proposed for all windows.

15. Display or pedestrian level windows: Shall extend across at least 80 percent of building front. The windows shall start 1-1/2 - 2-1/2 feet above grade to a height of 7-8 feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights

was generally no more than six in a pedestrian level window. The frames may be wood or vinyl clad wood, or other materials so long as a matte finish impossible.

RESPONSE: The proposed street level windows and storefronts extend across the entire front elevation and meets or exceeds the intent of the code (see elevation sheet).

16. Second floor and other windows: Double and single hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (1-112' - 2' per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.

RESPONSE: The proposed upper level windows have a double-hung appearance that meets or exceeds the intent of the code (see elevation sheet).

17. Wainscoting: Wainscoting shall be consistent with primary material of the building, typically wood.

RESPONSE: The applicant would like to propose an alternate brick masonry wainscoting instead of the primary wood material used on the building (see 55.090.10). This alternative provides for a more durable building longevity and is consistent with other buildings in the district (see attached photo for example).

18. Shutters: Shutters are not allowed.

RESPONSE: No shutters are proposed.

19. Balconies: No balconies are permitted except on rear of building.

RESPONSE: No balconies are proposed.

20. Exterior stairs: Simple stairs are permitted on the rear or side of the building only.

RESPONSE: All exit stairs are fully enclosed within the building envelope design (see elevation sheet).

21. Roof mounted mechanical equipment: Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. Section 55.100(A)(4), "Privacy and Noise, "shall apply.

RESPONSE: The mechanical rooftop units (RTUs) will be located in a structurally designed "mechanical zone" that is located at the middle of the building. This location will allow the parapets to provide adequate screening from below to hide the units (see roof plan sheet). A preliminary noise study has been provided with this application.

22. Air conditioning: No window type on avenue or street side are permitted. Window mounted air conditioners are not allowed at rear where abutting residential.

RESPONSE: All air conditioning/units will be mounted on the roof (see Item 21).

23. Exterior lighting fixtures: Any lighting fixtures that can be traced to 1880-1915 period is permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overlay ornate fixtures of the Victorian era are to be discouraged.

RESPONSE: All exterior light fixtures will meet the intent of the code "period fixtures 1880-1915". A cutsheet of the light fixture can be provided to the city at a later date.

24. Transoms: Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above, but not beyond, the main

display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False ceilings are allowed behind the transoms.

RESPONSE: The storefront windows proposed will have a metal canopies or fabric awnings above their entire width. No upper separate transom windows are proposed, however the window style will have transom influence by the use of grids and mullions. All window sizes will meet the intent of the code (see elevations).

25. Signs:

a. Signs shall not exceed 10 percent of the square footage of the front elevation. The calculation of allowable signage is explained in Section 52.300. The sign(s) shall be proportionate to buildings and signs on adjacent buildings. The "10percent" shall be broken up into multiple signs. The sign(s) shall be mounted or painted on the second floor, on the valance of the awning, on the windows at pedestrian level, or on 4 X 4 awning posts. Signs shall not be of the internally lit "can" type or channel light type. No backlit awnings are allowed. Illumination by spotlight is permitted. Neon signs are permitted only inside the windows. No flashing signs are allowed. By temporary sign permit only, neon colored lettering or designs painted on windows or on paper or banners in the windows are allowed, but discouraged. Small signs or plaques which describe the building in a historical sense are exempt from the allowable square footage restrictions. Signs cannot project out from building face.

b. Sign typeface: Antique lettering as shown in the illustration is required. Variations are permitted where the lettering would not clash with the predominant font or style. "Gay Nineties or P. T Barnum" type styles and other exaggerated styles are discouraged. Lettering may be horizontal, vertical, or slanting up from lower left to upper right. Semi-circle designs on windows are permitted. Window lettering should be either white, black, or gold with black shading.

c. Temporary signs: Temporary sandwich board signs are permitted and shall be designed to be consistent with the aforementioned sign and typeface provision.

RESPONSE: All signage shall meet the intent of the code. A separate sign permit will be obtained from the City prior to the installation of any tenant or building signage.

26. Planters: No planters are allowed.

RESPONSE: The proposed site/plaza plan provides for "no planters."

27. Paint colors: Body color typically included white, cream, or a light warm color of low intensity. Accents, trims, windows, etc. should be dark colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880-1915 period colors shall be the basis for color selection. No other colors are allowed. The palette is available at the Planning Department.

RESPONSE: A material and color board has been submitted with this application. The applicant was told by the city that a color palette that was referenced in the city code was not available at this time. The City will review the proposed colors/materials submitted by the applicant. The colored elevations provided indicate the proposed color locations.

28. Ornamental or advertising flags, pennants, or banners: Not permitted on buildings.

RESPONSE: No flags, pennants, or banners are being proposed.

29. New materials: Permitted where it is demonstrated that new material visually replicates originally required material, except siding, which must be wood.

RESPONSE: The only 'new' material being proposed is the brick masonry on the north and east walls of the building. This material will help provide longevity to the building

for years to come due to the amount of pedestrian traffic, and is consistent with similar materials on buildings along Willamette Falls Drive.

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

1. The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880-1915.

2. The applicant is incorporating exceptional 1880-1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.

RESPONSE: A variance to the standards is requested to allow the lower portion of the north and east walls, along with a full height portion of the north wall, to be brick masonry. This alternative provides superior design and detail to the wood standard by helping to break up the elevations in a more attractive way than strictly wood and pain. It also provides a more durable base to the building which will withstand ongoing pedestrian traffic and the elements.

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



THE HANDRIS BUILDING

BRICK BASE/WAINSCOT



TVFR STATION 59

FULL-HEIGHT BRICK FACADE

VARIANCE REQUEST

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW THE USE OF BRICK ON THE PROPOSED BUILDING.

RESPONSE TO CRITERIA

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW FIVE SEPARATE BUILDINGS ALONG WILLAMETTE FALLS DRIVE, IN THE COMMERCIAL DESIGN DISTRICT. FOUR OF THE FIVE EXAMPLES INCLUDE BRICK AS A BASE/WAINSCOT, COLUMNS, OR FULL FACADE. THE FIFTH EXAMPLE USES CONCRETE AS A BASE, AN EXAMPLE OF ANOTHER NON-WOOD DURABLE SURFACE AT THE STREET LEVEL.

THE PROPOSED BUILDING INCLUDES A CONTINUOUS BRICK BASE/WAINSCOT, ALONG WITH PORTIONS OF THE FACADE THAT HAVE BRICK HIGHER ON THE WALL OR FULL HEIGHT. THIS USE OF BRICK IS CONSISTENT WITH THE EXISTING USE OF BRICK/DURABLE BASE MATERIALS IN THE REGION.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

LOCATED AT THE ENTRY TO THE COMMERCIAL DESIGN DISTRICT, THE PROPOSED BUILDING WILL SERVE AS A GATEWAY ELEMENT. AS SUCH, IT SHOULD EXHIBIT A LEVEL OF RICHNESS AND SOPHISTICATED THAT SETS THE TONE AS VISITORS ENTER THE DISTRICT. BRICK IS WIDELY RECOGNIZED AS A SUBSTANTIAL, RICH LOOKING, LONG LASTING MATERIAL. FURTHER, BRICK HAS A DURABILITY AGAINST THE ELEMENTS THAT ENSURES THAT IT MAINTAINS THOSE QUALITIES OVER TIME.

ON THE PROPOSED BUILDING, THE BRICK IS USED TO ANCHOR THE BUILDING TO THE SITE, CREATE A HUMAN SCALE COMPONENT TO THE WALL, AND PROVIDE A PLEASING MEANS OF DIVIDING THE FACADE INTO VERTICAL ELEMENTS. CRISP DETAILING AND CONSTRUCTION OF CORNERS, CAPS, AND SOLDIER COURSES WILL RESULT IN A SUPERIOR END PRODUCT AS IS APPROPRIATE FOR ITS LOCATION IN THE DISTRICT.

CHAPTER 58 WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

58.090 STANDARD C.10

BUILDING MATERIALS AND ORIENTATION. WOOD SHALL BE THE PRINCIPAL BUILDING MATERIAL. HORIZONTAL WOOD SIDING IN ONE-INCH BY EIGHT-INCH DIMENSIONS SHALL BE USED FOR SIDING. BRICK AND CERTAIN CONCRETE CONFIGURATIONS ARE PERMITTED ONLY BY A VARIANCE UNDER CDC 58.090.

58.100 VARIANCE PROCEDURES

IN THOSE CIRCUMSTANCES WHERE A DESIGN PROPOSAL CANNOT MEET THE STANDARDS, OR PROPOSES AN ALTERNATIVE TO THE STANDARD, THE HISTORIC REVIEW BOARD MAY GRANT A VARIANCE IN THOSE CASES WHERE ONE OF THE FOLLOWING CRITERIA IS MET:

- A. THE APPLICANT CAN DEMONSTRATE BY REVIEW OF HISTORICAL RECORDS OR PHOTOGRAPHS THAT THE ALTERNATIVE IS CORRECT AND APPROPRIATE TO ARCHITECTURE IN THE REGION, AND ESPECIALLY WEST LINN, IN 1880 – 1915.
- B. THE APPLICANT IS INCORPORATING EXCEPTIONAL 1880 – 1915 ARCHITECTURE INTO THE BUILDING WHICH OVERCOMPENSATES FOR AN OMISSION. THE EMPHASIS IS UPON SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP.



1553 11th STREET

DURABLE CONCRETE BASE



LIL' COOPERSTOWN

BRICK BASE/WAINSCOT



THE CORNER

BRICK COLUMNS

REQUEST FOR VARIANCE FROM HISTORIC REVIEW STANDARDS

February 2016

Class II / Historic Review Submittal

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



P-1 GRAY MIST

Main Building / Window Trim / Cornices
'Benjamin Moore'



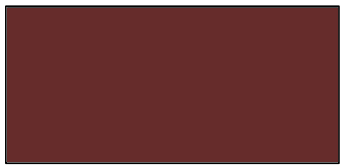
P-1a BRUSHED ALUMINUM (alternate color)

Main Building / Window Trim / Cornices
'Benjamin Moore'



P-2 SAGE MOUNTAIN

Main Building / Wood Pilaster Panels
'Benjamin Moore'



P-3 COTTAGE RED

Accent Trim - 'Benjamin Moore'



P-4 BLACK BEAUTY

Fabric & Metal Awnings - 'Pike Awnings'



W-1 STOREFRONT WINDOWS

Painted Wood or Vinyl Clad
'Anderson' / 'Pella' / 'Jeld-Wen'



S-1 SIDING (exterior all sides)

HardiePlank Cement Fiber Siding
'James Hardi' Products



B-1 BRICK Chestnut / Mission Texture

'Mutual Materials'


COLOR/ MATERIAL SCHEDULE

February 2016

Class II / Historic Review Submittal



Main Building Period Lights ("S1" Fixture)

		Overview
Features		
Product SKU	P5615-20	
Family	?	
Archives		
Category	Outdoor	
Descr		
On		
glas		



[BUY ONLINE](#)
[FIND A DEALER](#)

- P5615-20**
- One-light wall lantern has a double shade - opal glass surrounded by oval clear seeded glass. This vintage electric styling has Natural Brass tubing inside the clear seeded glass.
 - One-light wall lantern has a double shade - opal glass surrounded by oval clear seeded glass.
 - This vintage electric styling has natural brass tubing inside the clear seeded glass.
 - This fixture adds warmth and style to your outdoors.
- \$122.10



Home \ Products \ Outdoor \ P5615-20

vintage electric styling has natural brass tubing inside the clear seeded glass.

Finish

Antique Bronze

Bulb Type ?

Uses Medium Base

Bulb Wattage ?

100

Bulb Quantity ?

1

Listed ?

Wet location listed

Mount Type ?

Wall

Style ?

Traditional/Casual

Features

- One-light wall lantern has a double shade - opal glass surrounded by oval clear seeded glass.
- This vintage electric styling has natural brass tubing inside the clear seeded glass.
- This fixture adds warmth and style to your outdoors.

Room Type ?

Outdoor Lighting and/or

Dimensions ?

Width/Diameter: 7-7/8"
Height: 15-3/8"



You Might Also Like



P2809-20 \$93.5
ARCHIVES BATH & VANITY



P2809-81 \$93.5
ARCHIVES BATH & VANITY



P5124-20 \$114.4
ARCHIVES PENDANTS

+ Customer Service

+ Support

+ Company Information

+ Public Relations



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WS4™

4' LED Wet Location Linear Luminaire ("S2" Fixture)

Covered Parking Light

Product Description

The versatile Cree WS Series wet location linear luminaire is suitable for indoor and outdoor applications. Constructed of one-piece molded, durable fiberglass-reinforced polyester and UV-stabilized, impact-resistant diffused acrylic shielding, the Cree WS Series is wet location listed and water-tight sealed for IP65 rating, which provides protection from external elements. The operating temperature range is -25°C - + 35°C (-13°F - + 95°F), allowing for cold to hot weather environment installations.

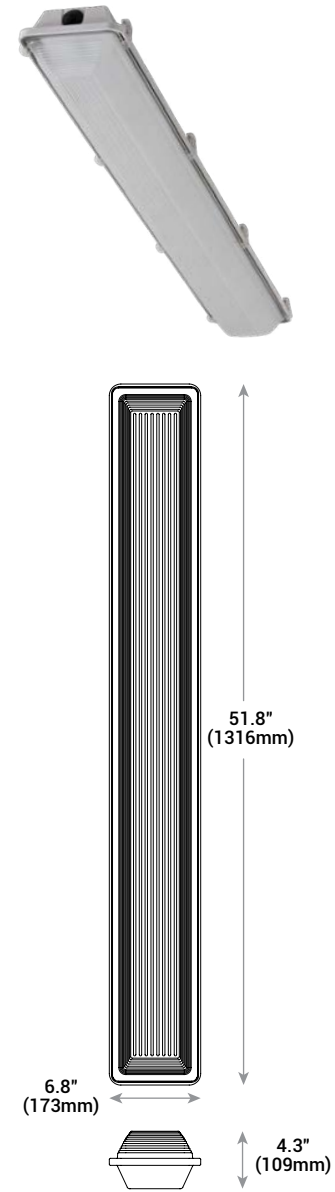
Performance Summary

- Initial Delivered Lumens:** 4700-6300 lumens
- Efficacy:** Up to 98 LPW
- CRI:** Minimum 80 CRI
- CCT:** 3500K, 4000K, 5000K, 5700K
- Input Voltage:** 120-277 VAC
- Limited Warranty*:** 10 years on luminaire
- Dimensions:** L 51.8" (1316mm) x W 6.8" (173mm) x H 4.3" (109mm)
- Weight:** 12 lbs. (5.4kg)
- Mounting:** Ceiling, wall, or suspended
- Dimming:** 0-10V dimming: 10% - 47L and 50L; 15% - 59L and 63L

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed	
Tamper Proof Kit WS4TPK - Includes 4 tamper proof screws and bit Tamper Proof Kit for Stainless Steel Latches WSSSL4TPK - Includes 4 tamper proof screws and bit	Mounting Bracket Kit WS4MBK - Includes 2 stainless steel surface mount brackets Cable Suspension Kit WS4CSK - Includes 2 stainless steel brackets and 2-5' (1.5m) aircraft cables



Ordering Information

Example: WS4-59L-35K-10V-FD

Product	Initial Delivered Lumens	CCT	Voltage	Control	Color/CRI	Options
WS4	47L 50W, 4700 lumens - 94 LPW 50L 51W, 5000 lumens - 98 LPW 59L 63W, 5900 lumens - 94 LPW 63L 64W, 6300 lumens - 98 LPW	35K 3500K - Available with 47L and 59L Initial Delivered Lumens only 40K 4000K - Available with 47L and 59L Initial Delivered Lumens only 50K 5000K - Available with 50L and 63L Initial Delivered Lumens only 57K 5700K - Available with 50L and 63L Initial Delivered Lumens only	Blank 120-277 Volt	10V 0-10V Dimming	FD CRI 80	SSL Stainless Steel Latches



Rev. Date: V3 06/05/2015



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

Product Specifications

CREE LED TECHNOLOGY

Cree's total systems approach to product development is a comprehensive engineering philosophy that combines the most advanced LED sources, driver technologies, optics and forms. The result is highly-reliable luminaire solutions for both indoor and outdoor applications that reduce energy use, extend lifetimes, and maximize illumination performance and quality.

CONSTRUCTION & MATERIALS

- Constructed of fiberglass reinforced polyester
- Polycarbonate latches
- Two 3/4" IP entry points are provided (one at each end of the housing) for continuous feed
- Top of housing has six embossments providing mounting flexibility to uneven surfaces

OPTICAL SYSTEM

- Cree LED Technology
- Frosted injection molded acrylic shielding
- Polyurethane gasketing is poured in place, providing a continuous, seamless seal
- Highly reflective reflector plate provides maximum efficiency

ELECTRICAL SYSTEM

- **Power Factor:** = 0.9 nominal
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 50/60Hz
- **Operating Temperature Range:** -25°C - +35°C (-13°F - +95°F)
- **Total Harmonic Distortion:** < 20%
- **Source Current:** 0.15mA

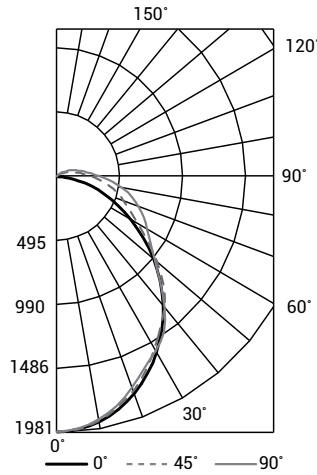
REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- IP65 rated
- DLC qualified for Linear Ambient – Direct category (3500K, 4000K, 5000K color temperatures; all lumen packages). Please refer to www.designlights.org/QPL for most current information
- DLC qualified for Low-Bay category (5700K color temperatures; all lumen packages). Please refer to www.designlights.org/QPL for most current information
- RoHS compliant. Consult factory for additional details

Photometry

WS4-59L-35K-10V-FD BASED ON DTC REPORT TEST #: 38552

Fixture photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%



Coefficients Of Utilization				
RCC %:	80			
RW %:	70	50	30	0
RCR: 0	1.18	1.18	1.18	1.18
1	1.06	1.00	.95	.91
2	.96	.87	.79	.73
3	.87	.76	.67	.61
4	.80	.67	.58	.51
5	.73	.60	.51	.44
6	.68	.54	.45	.39
7	.63	.49	.40	.34
8	.59	.45	.36	.31
9	.55	.41	.33	.27
10	.51	.38	.30	.25

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m ²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	1,152	1,163	1,170
55°	831	878	889
65°	530	586	731
75°	278	357	597
85°	86	192	425

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	1,482	N/A	24.9%
0-40	2,387	N/A	40.2%
0-60	4,075	N/A	68.6%
0-90	5,556	N/A	93.5%
0-180	5,941	N/A	100%

Reference www.cree.com/Lighting/Products/Indoor/Surface-Ambient/WS-Series for detailed photometric data

Recommended WS Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected ² LMF	100K hr Projected ² LMF
0°C (32°F)	1.07	1.01	0.93	0.86	0.79
5°C (41°F)	1.06	1.00	0.92	0.85	0.78
10°C (50°F)	1.04	0.98	0.91	0.83	0.77
15°C (59°F)	1.03	0.97	0.89	0.82	0.76
20°C (68°F)	1.01	0.96	0.88	0.81	0.75
25°C (77°F)	1.00	0.94	0.87	0.80	0.73
30°C (86°F)	0.99	0.93	0.85	0.79	0.72
35°C (95°F)	0.97	0.91	0.84	0.77	0.71

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

IG Series

LED Parking Garage Luminaire

Covered Parking Ceiling ("S2" Fixture)

Product Description

Cree innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax™ Technology, our innovative optical waveguide platform. Available in 33 watt and 66 watt, two lumen packages are offered to satisfy IESNA RP20-14 Basic and IESNA Security Zone G-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

Applications: Parking garages

Performance Summary

Utilizes Cree WaveMax™ Technology
Initial Delivered Lumens: 3,910 or 7,500 lumens
Input Power: 33 or 66 watts
Efficacy: Up to 118 LPW
Optic: Type V Short Distribution
Made in the U.S.A. of U.S. and imported parts
CCT: 4000K (+/- 300K), 5700K (+/- 500K)
CRI: Minimum 80 CRI
Limited Warranty*: 10 years on luminaire

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed
Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Ordering Information

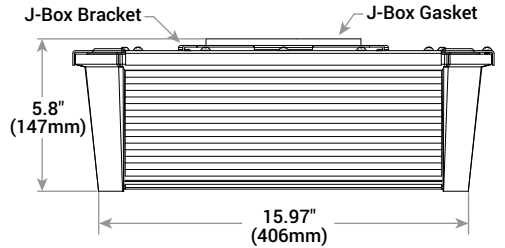
Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** IG-JBWH + **Luminaire:** IG-A-NM-5S-A-40K-UL-WH

Mount (Luminaire must be ordered separately)	
IG-	WH
IG-JB Junction Box IG-PD Pendant	Color Options: WH White

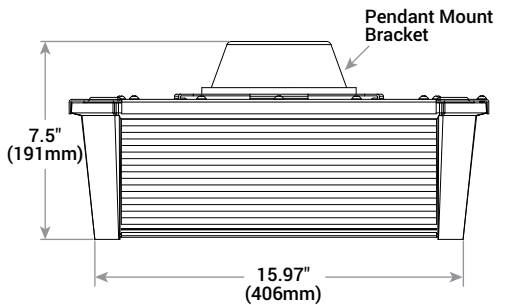
Luminaire (Mount must be ordered separately)							
IG	NM	5S				WH	
Product	Mounting	Optic	Input Power Designator	CCT	Voltage	Color	Options
IG	NM No Mount	5S Type V Short	A 33W, 3,910 lumens - 118 LPW J 66W, 7,500 lumens - 114 LPW	40K 4000K 57K 5700K	UL 120-277V 34 347V	WH White	PML Programmable Multi-Level - Refer to PML spec sheet for details



JB Mount



PD Mount



Weight
10 lbs. (4.5kg)



Rev. Date: V5 12/03/2015



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

Product Specifications

CREE WAVEMAX™ TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, Cree WaveMax™ Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CONSTRUCTION & MATERIALS

- Impact resistant white polycarbonate housing and acrylic lenses
- Corrosion resistant anodized aluminum top plate
- Low profile, lightweight design provides ease of installation
- Standard luminaire can mount to both pendant or J-box (specify mount in ordering table above)
- J-Box mounting bracket mounts directly over existing 4" (102mm) square, rectangular or octagonal junction boxes only
- Pendant mount includes 6" (152mm) wires out of luminaire and provides a splice location for mounting to 3/4" IP pendant (by others)
- **Weight:** 10 lbs. (4.5kg)

OPTICAL SYSTEM

- WaveMax™ Technology that improves optical control, optical efficiency, energy efficiency and the overall visual experience
- Acrylic Lenses with DiamondFacet™ Microlenses
- Unmatched low-glare comfort and decreased LED source luminance by smoothly spreading brightness over the optical lenses
- 6% Uplight

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- **Input Power:** Stays constant over life
- **Operating Temperature Range:** -40°C - + 40°C (-40°F - + 104°F)
- Integral 6kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

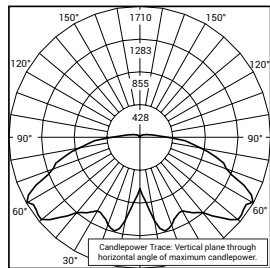
REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Suitable for operation in ambient not exceeding 40°C (104°F)
- Enclosure rated IP66 per IEC 60529
- 6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Meets Buy American requirements within ARRA
- DLC qualified. Please refer to www.designlights.org/QPL for most current information

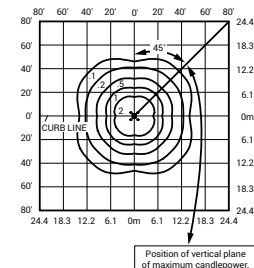
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Products/Outdoor/Parking-Structure/IG-Series

5S



RESTL Test Report #: PL06962-001B
IG-**-5S-J-40K-UL
Initial Delivered Lumens: 7,276



IG-**-5S-J-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 7,500
Initial FC at grade

Electrical Data*							
Input Power Designator	System Watts 120-277V	System Watts 347V	Total Current				
			120V	208V	240V	277V	347V
A	33	35	0.29	0.17	0.15	0.13	0.11
J	66	69	0.57	0.33	0.28	0.25	0.20

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-347V +/-10%

Recommended IG Series Lumen Maintenance Factors (LMF) ¹						
Ambient	Input Power Designator	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected ² LMF	100K hr Calculated ³ LMF
5°C (41°F)	A	1.04	1.00	0.97	0.94	0.91
	J	1.04	0.99	0.95	0.91	0.88
10°C (50°F)	A	1.03	0.99	0.96	0.93	0.91
	J	1.03	0.98	0.94	0.90	0.87
15°C (59°F)	A	1.02	0.98	0.95	0.92	0.90
	J	1.02	0.97	0.93	0.89	0.86
20°C (68°F)	A	1.01	0.97	0.94	0.91	0.89
	J	1.01	0.96	0.92	0.88	0.85
25°C (77°F)	A	1.00	0.96	0.93	0.90	0.88
	J	1.00	0.95	0.91	0.87	0.84
30°C (86°F)	A	0.99	0.95	0.92	0.89	0.87
	J	0.99	0.94	0.90	0.86	0.83
35°C (95°F)	A	0.98	0.94	0.91	0.88	0.86
	J	0.98	0.93	0.89	0.85	0.82
40°C (104°F)	A	0.97	0.93	0.90	0.87	0.85
	J	0.97	0.92	0.88	0.84	0.81

¹ Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

Type V Short Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	3,910	B2 U3 G2	3,910	B2 U3 G2
J	7,500	B3 U3 G2	7,500	B3 U3 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES Bug (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf



BULKHEADS

Wall or ceiling mount • Wet location listed



Specifications:

Description:

LED General purpose luminaire comprised of a die-cast aluminum frame and polycarbonate diffuser. Fixtures are impact resistant and can be mounted on wall or ceiling. 120V AC replaceable LED module, 1,211 lumens, 3000K color temperature and 90+ CRI.

Construction:

- Black (-31) (powdercoat)
- Aluminum construction Frosted polycarbonate diffuser
- LED Module is replaceable (part # 93053641)
- Flicker-free dimming to 10% brightness with most ELV type dimmers (See Dimming Notes)
- Title 24 compliant
- Unit covers a standard 4" hexagonal recessed outlet box
- Mounting strap for outlet box included
- Six inches of wire supplied

Performance:

Number of Modules	1
Input Power	17W
Input Voltage	120V
Input Frequency	60Hz
Lumens/LPW	1211/71.2 (LM-79) per module
CCT	3000K
CRI	90
Life	60,000 (L70/TM-21)
EMI/RFI	FCC Title 47, Part 15, Class B
Min. Start Temp	-30° C
Max. Operating Temp	30° C
Warranty	5 year warranty
Labels	cCSAus Wet location listed

P3650-3130K9

Images:



Dimensions:

Diameter: 9-1/2"
Height: 4-1/2"
H/CTR: 4-3/4"

Catalog number:

Base	Finish	Color Temp	CRI
P3650	31 - Black	30K - 3000K	9 - 90 CRI

P3650-3130K9

Dimming Notes:

P3650 is designed to be compatible with many Electronic Low Voltage (ELV-Reverse Phase) controls.

The following is a partial list of known compatible dimmer controls:

Electronic Low Voltage ELV Reverse Phase Controls

Lutron	Diva Series	(Part Number DVELV-300P)
Lutron	Nova T Series	(Part Number NTELV-300)
Lutron	Vierti Series	(Part Number VTELV-600)
Lutron		(Part Number MAELV-600)
Lutron		(Part Number SPELV-600)
Leviton		(Part Number AWRMG-EAW)
Leviton		(Part Number 6615-P)

Digital type dimmers are not recommended.

Dimming capabilities will vary depending on the dimmer control, load, and circuit installation.

Always refer to dimmer manufacturer instructions or a controls specialist for specific requirements.

Dimmer control brand names where identified above are trade names or registered trademarks of each respective company.

Willamette Falls Commercial
Willamette Falls Drive & 11th Street
West Linn, Oregon



DRAINAGE REPORT
January 2016

Prepared By:

Bruce D. Goldson, PE

Theta, llc

PO Box 1345, Lake Oswego, Oregon 97035

2015-107B



EXPIRES: 06/30/2017
SIGNATURE DATE: _____

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 Design Parameters pg
 Hydrographic Results pg
 Summary pg
 Appendix pg



NARRATIVE ASSUMPTIONS

Existing Conditions:

The subject property three old tax lots (3S 1E 02BA TL 4100) with two existing buildings bordered on three sides with public roads and containing 0.34 Acres. The property slopes to the northwesterly direction at approximately 3%. There is sanitary, storm and water service to the property.

Developed Conditions:

A proposed multi-story commercial building is proposed to cover the entire property. With complete lot coverage with impervious area on-site infiltration is not possible. On-site detention and water quality facilities are propose. The storm discharge will be to the existing public storm system in the adjacent street

Summary of storm water flow

	2-YEAR	5-YEAR	10-YEAR	25-YEAR
PRE-DEVELOP	0.11 CFS	0.15 CFS	0.19 CFS	0.23 CFS
POST-DEVELOP	0.22 CFS	0.26 CFS	0.30 CFS	0.35 CFS

REGULATORY DESIGN CRITERIA

The storm water quantity management requirements of the City of West Linn.

References

1. King County Department of Public Works, Surface Water Management Division, Hydrographic

Water Quality Facility

Design Parameters

The design storm is a 24 hour standard SCS Type 1A

- 2-year.....2.5 inches
- 5-year.....3.0 inches
- 10-year.....3.4 inches
- 25-year.....3.9 inches
- 100-year.....4.5 inches

SOIL TYPES

Willamette Silt Loam – type C soil

Time of Concentration

$$T = (0.42)[(nL)^8 / (p_2)^5 (s_0)^4]$$

Pre-development: $T = (0.42)[(0.01)(45)]^8 / (2.5)^5 (.04)^4 = 0.50 \text{ min}$

$$T = (0.42)[(0.15)(78)]^8 / (2.5)^5 (.03)^4 = 7.73 \text{ min}$$

$$T_{\text{total}} = 8.23 \text{ min (Pre)}$$

Assume 5-minutes developedk

HYDROGRAPH RESULTS

KING COUNTY DEPARTMENT OF PUBLIC WORKS

Surface Water Management Division

HYDROGRAPH PROGRAMS

Version 4.21B

1 - INFO ON THIS PROGRAM

2 - SBUHYD

3 - MODIFIELD SBUHYD

4 - ROUTE

5 - ROUTE2

6 - ADDHYD

- 7 - BASEFLOW
- 8 - PLOTHYD
- 9 - DTATA
- 10 - REFAC
- 11 - RETURN TO DOS

ENTER OPTION:

2

SBUN/SCS METHOD FOR COMPUTING RUNOFF HYDROGRAPH

STORM OPTIONS:

- 1 - S.C.S. TYPE-1A
- 2 - 7-DAY DESIGN STORM
- 3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

S.C.S. TYPE - 1A RAINFALL DISTRIBUTION

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

2,24,2.6

XXXXXXXXXXXXXXXXXXXXXXXXX S.C.S.TYPE-1A DISTRIBUTION XXX

XXXXXXXXXXXXX 2-YEAR 24-HOUR STORM xxxx 2.50 "TOTAL PRECIP XX/

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,0.04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.11	7.83		1683		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF2pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S - STOP

C

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.0,86,034,98,5

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.22	7.67		2802		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF2post

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S - STOP

n

STORM OPTIONS:

- 1 - S.C.S. TYPE-1A
- 2 - 7-DAY DESIGN STORM
- 3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

5,24,3.0

XXXXXXXXXXXXXXXXXXXXXXXXX S.C.S. TYPE-1A DISTRIBUTION XXX

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,0.04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.15	7.83		2211		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF5pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S - STOP

c

0.0,86,0.34,98,5

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.26	7.67		3416		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF5post

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S - STOP

n

STORM OPTIONS:

1 - S.C.S. TYPE-1A

2 - 7-DAY DESIGN STORM

3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

10,24,3.4

XXXXXXXXXXXXXXXXXXXXXXXXX S.C.S.TYPE-1A DISTRIBUTION XXX

XXXXXXXXXXXXX 10-YEAR 24-HOUR STORM xxxx 3.40" TOTAL PRECIP XXX

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.19	7.83		2648		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF10pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - DATA PRINT OUT:

C

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.0,86,0.34,98,5

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.30	7.67		3908		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF10post

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S - STOP

n

STORM OPTIONS:

1 - S.C.S. TYPE-1A

2 - 7-DAY DESIGN STORM

3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

25,24,3.9

XXXXXXXXXXXXXXXXXXXXXXXXX S.C.S.TYPE-1A DISTRIBUTION XXX

XXXXXXXXXXXXX 25-YEAR 24-HOUR STORM xxxx 3.90" TOTAL PRECIP XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.23	7.83		3205		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF25pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - DATA PRINT OUT:

C

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.0,86,0.34,98,5

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0
PEAK-Q(CFS)	T-PEAK(HRS)		VOL(CU-FT)		
.35	7.67		4523		

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF25post

j

DETENTION SIZING

ENTER OPTION

10

R/D FACILITY DESIGN ROUTINE

SPECIFY TYPE OF R/D FACILITY

- 1 - POND 4 - INFILTRATION POND
- 2 - TANK 5 - INFILTRATION TANK
- 3 - VAULT 6 - GRAVEL TRENCH/BED

2

ENTER: POND SIDE SLOPE (HORIZ. COMPONENT)

3

ENTER: TANK DIAMETER (ft). EFFECTIVE STORAGE DEPTH (ft)

4,4

ENTER: [d:][[atj]]filename[.ext] OF PRIMARY DESIGN INFLOW HYDROGRAPH:

C:WF25POST

PRELIMINARY DESIGN INFLOW PEAK = .35 CFS

ENTER PRIMARY DESIGN RELEASE RATE(cfs)

0.23

ENTER NUMBER OF INFLOW HYDROGRAPHS TO BE TESTED FOR PERFORMANCE (5 MAXIMUM)

3

ENTER [d:][path]filename[.ext] OF HYDROGRAPH 1:

C:WF10POST

ENTER TARGET RELEASE RATE (cfs)

0.19

ENTER [d:][path]filename[.ext] OF HYDROGRAPH 2:

C:WF5POST

ENTER TARGET RELEASE RATE (cfs)

0.15

0. ENTER [d:][path]filename[.ext] OF HYDROGRAPH 3:

C:WF2POST

ENTER TARGET RELEASE RATE (cfs)

0.11

ENTER: NUMBER OF ORIFICES, RISER-HEAD (ft), RISER-DIAMETER(in)

3.4.10

RISER OVERFLOW DEPTH FOR PRIMARY PEAK INFLOW= 0.12 FT

SPECIFY ITERATION DISPLAY: Y -YES, N - NO

N

SPECIFY: R - REVIEW/REVISE INPUT, C - CONTINUE

C

INITIAL STORAGE VALUE FOR ITERATION PURPOSES: 1170 CU-FT

BOTTOM ORIFICE: ENTER Q-MAX(cfs)

0.10

DIA. = 1.36 INCHES

MIDDLE ORIFICE: ENTER Q-MAX(cfs), HEIGHT(ft)

0.0.07

DIA. = 1.35 INCHES

TOP ORIFICE: ENTER HEIGHT(ft)

3.4

DIA. = 1.69 INCHES

PERFORMANCE: INFLOW TARGET-OUTFLOW ACTUAL-OUTFLOW PK-STAGE STORAGE

DESIGN HYD:	.35	.23	.23	3.99	547
TEST HYD 1:	.30	.19	.15	3.42	490
TEST HYD 2:	.26	.15	.13	3.42	430
TEST HYD 3:	.22	.11	.11	2.40	340

SPECIFY: D - DOCUMENT, R -REVISE, A - ADJUST ORIF, E -ENLARGE, S -STOP

PRELIMINARY DESIGN:

A detention tank 48" in diameter and 44 feet long will provide the necessary volume, with three orifices will meet the outflow of the 2, 5 10, and 25 year predeveloped flow rates per the city code.

Appendix

Table 4.1 24-Hour Rainfall Depths

Recurrence Interval (year)	Annual Chance of Occurrence (%)	Rainfall Depth (inches)
2	50	2.5
5	20	3.0
10	10	3.4
25	4	3.9
50	2	4.3
100	1	4.5
500	0.2	5.3

Table 4-3 MODIFIED CURVE NUMBERS

LAND USE DESCRIPTION		CURVE NUMBERS BY HYDROLOGIC SOIL GROUP			
		A	B	C	D
Cultivated land ¹	Winter Condition	86	91	94	95
Mountain Open Areas:	Low growing brush and grassland.	74	82	89	92
Meadow or pasture:		65	78	85	89
Wood or forest land:	Undisturbed	42	64	76	81
	Established second growth ²	48	68	78	83
	Young second growth or brush	55	72	81	86
Orchard:	With over crop	81	88	92	94
Open spaces, lawns, parks, golf courses, cemeteries, landscaping	Good Condition: Grass cover on > =75% of area	68	80	86	90
	Fair Condition: Grass cover on 50-75% of area	77	85	90	92
Gravel Roads and Parking Lots:		76	85	89	91
Dirt Roads and Parking Lots:		72	82	87	89
Impervious surfaces, pavement, roofs, etc.		98	98	98	98
Open water bodies:	Lakes, wetlands, ponds, etc.	100	100	100	100
Single Family Residential ³ :		Select a separate curve number for pervious and impervious portions of the site or basin.			
<u>Dwelling unit/gross acre</u>	<u>% Impervious⁴</u>				
1.0 DU/GA	15				
1.5 DU/GA	20				
2.0 DU/GA	25				
2.5 DU/GA	30				
3.0 DU/GA	34				
3.5 DU/GA	38				
4.0 DU/GA	42				
4.5 DU/GA	46				
5.0 DU/GA	48				
5.5 DU/GA	50				
6.0 DU/GA	52				
6.5 DU/GA	54				
7.0 DU/GA	56				
Planned Unit Developments, condominiums, apartments, commercial businesses & industrial areas ³	% impervious ⁴ Must be computed	Select a separate curve number for pervious and impervious portions of the site or basin.			

¹ For a more detailed description of agricultural land use curve numbers, refer to National Engineering Handbook, Sec. 4, Hydrology, Chapter 9, August 1972.

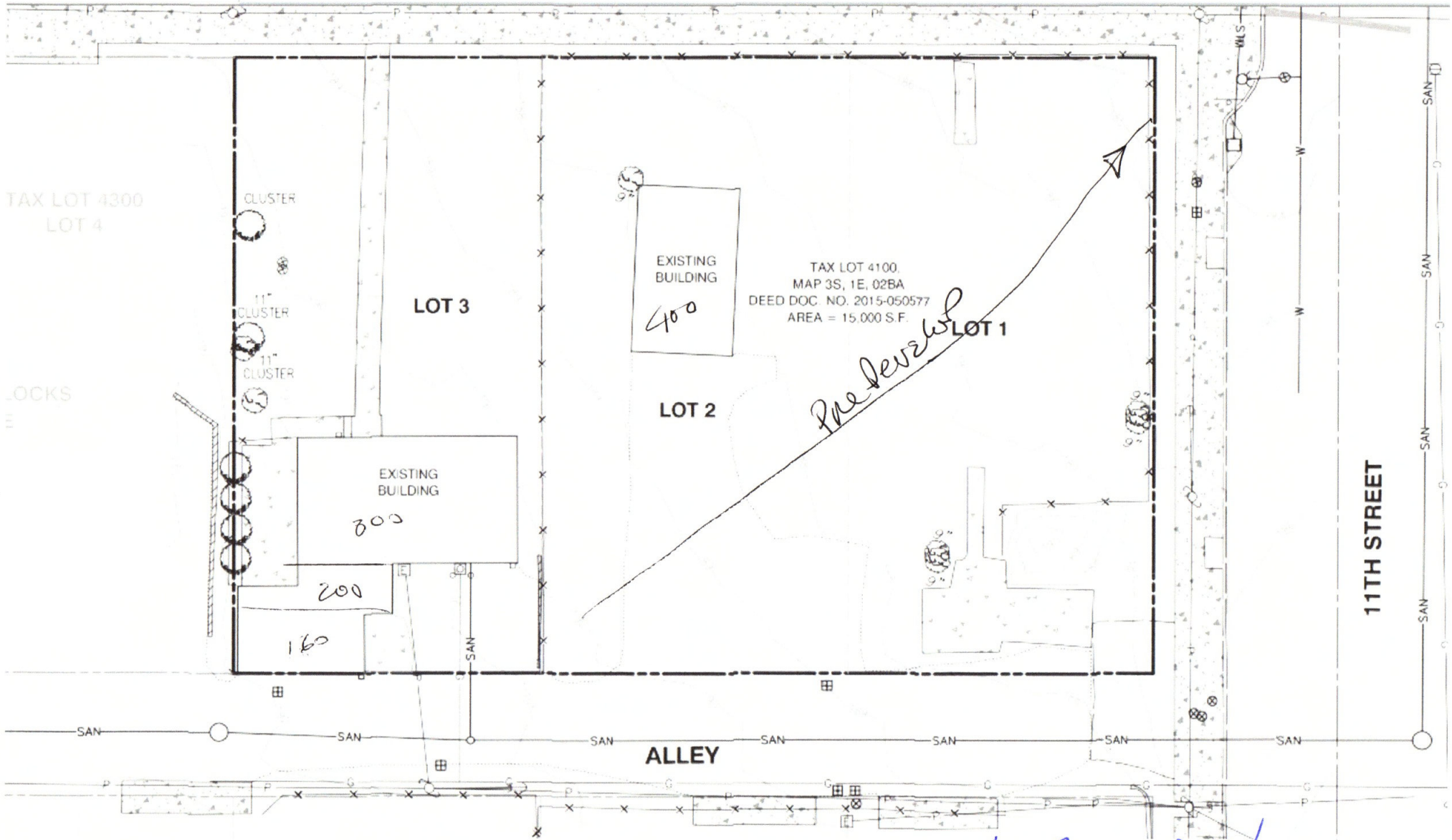
² Modified by KCFW, 1995.

³ Assumes roof and driveway runoff is directed into street/storm system.

⁴ The remaining pervious areas (lawn) are considered to be in good condition for these curve numbers.

15

Table 4-4 MANNING'S COEFFICIENTS/ "K" FACTORS	
"n" AND "K" Value Used in Time Calculations for Hydrographs	
"n" Sheet Flow Equation Manning's Values (for initial 300 ft. of travel)	n
Smooth surfaces (concrete, asphalt, gravel, or bare hand packed soil)	0.01
Fallow fields or loose soil surface (no residue)	0.05
Cultivated soil with residue cover (s # 0.20 ft/ft)	0.06
Cultivated soil with residue cover (s > 0.20 ft/ft)	0.17
Short prairie grass and lawns	0.15
Dense grasses	0.24
Bermuda grass	0.41
Range (natural)	0.13
Woods or forest with light underbrush	0.40
Woods or forest with dense underbrush	0.80
* Manning values for sheet flow only, from Overton and Meadows 1976 (See SCS's TR-55, 1986) "K" Values Used in Travel Time/Time of Concentration Calculations- Shallow Concentrated Flow (After the initial 300 ft. of sheet flow R = 0.1)	
	k _s
1. Forest with heavy ground litter and meadows (n = 0.10)	3
2. Brushy ground with some trees (n = 0.060)	5
3. Fallow or minimum tillage cultivation (n=0.040)	8
4. High grass (n=0.035)	9
5. Short grass, pasture, and lawns (n=0.030)	11
6. Nearly bare ground (n=0.025)	13
7. Paved and gravel areas (n=0.012)	27
** Channel flow (intermittent) (At beginning of visible channels R=0.2)	
	k _s
1. Forested swale with heavy ground litter (n=0.10)	5
2. Forested drainage course/ravine with defined channel bed (n=0.050)	10
3. Rock-lined waterway (n=0.035)	15
4. Grassed waterway (n=0.030)	17
5. Earth-lined waterway (n=0.025)	20
6. CMP pipe (n=0.024)	21
7. Concrete pipe (0.012)	42
8. Other waterways and pipe 0.508/n	
Channel flow (Continuous stream, R=0.4)	
	k _s
9. Meandering stream with some pools (n=0.040)	20
10. Rock-lined stream (n=0.035)	23
11. Grass-lined stream (n=0.030)	27
12. Other streams, man-made channels and pipe 0.807/n **	
** See Table 6-3 for additional Mannings "n" values for open channels.	



TAX LOT 4100.
 MAP 3S, 1E, 02BA
 DEED DOC. NO. 2015-050577
 AREA = 15,000 S.F.

Pre-Development

total 0.34

Impervious 0.04
Permeous 0.30

WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068



WILLAMETTE FALLS MIXED-USE BUILDING
1963 WILLAMETTE FALLS DRIVE, WEST LINN

SITE ANALYSIS

PROJECT DESCRIPTION
A TWO STORY MIXED USE BUILDING AT THE CORNER OF WILLAMETTE FALLS DRIVE AND 11TH STREET, WEST LINN, OR. POSSIBLE USES INCLUDE RETAIL, RESTAURANT, OFFICE, OR HOTEL.

CODES
2014 OREGON STRUCTURAL SPECIALTY CODE
2014 OREGON MECHANICAL SPECIALTY CODE
2014 OREGON PLUMBING SPECIALTY CODE
2014 OREGON ENERGY EFFICIENCY SPECIALTY CODE COVER

ZONING
JURISDICTION: CITY OF WEST LINN
CODE: COMMUNITY DEVELOPMENT CODE
ZONE: GC (GENERAL COMMERCIAL - CDC CHAPTER 19)
ZONE OVERLAYS: WILLAMETTE COMMERCIAL HISTORIC OVERLAY ZONE

UTILITIES
WATER/SEWER: WEST LINN PUBLIC WORKS - 503-656-6081 (OPERATIONS)
TRASH: WEST LINN REFUSE - 503-557-3900
ELECTRIC: PORTLAND GENERAL ELECTRIC - 800-542-8818
GAS: NW NATURAL - 800-422-4012

LEGAL DESCRIPTION
LOTS 1, 2, & 3, BLOCK 10, CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
TAX LOT: 31E02BA04100 / PARCEL: 00749168

RESTRICTIONS/EASEMENTS
NONE

ADJACENT ZONES
MU (NORTH & EAST), R-5 MEDIUM DENSITY RESIDENTIAL (SOUTH), GC (WEST)

PERMITTED USES (19.030, ANTICIPATED USES)
BUSINESS USES, RESTAURANT, RETAIL, HOTEL, PROFESSIONAL/MEDICAL SERVICES.

DIMENSIONAL REQUIREMENTS (19.070)
MINIMUM FRONT LOT LINE WIDTH: 35' REQ. / 150' PROPOSED
AVERAGE MINIMUM FRONT LOT LINE WIDTH: 50' REQ. / 150' PROPOSED
AVERAGE MINIMUM LOT DEPTH: 90' REQ. / 100' PROPOSED
BUILDING HEIGHT (CDC): 2 STORIES/35' MAX. / 2 STORIES/35' PROPOSED
GROUND LEVEL MINIMUM HEIGHT: 10' REQ. / 28' PROPOSED
SETBACKS: FRONT - 0' MIN. / 0' MAX., SIDE - 0' MIN. / 0' MAX., REAR 20' MIN. / 20' MAX.
LOT COVERAGE: 100% MAX.

SITE LANDSCAPING
NONE REQUIRED.

CODE REVIEW

POSSIBLE OCCUPANCY GROUPS
A-2: RESTAURANT
B: BUSINESS
M: RETAIL
R-1: HOTEL
S-2: PARKING GARAGE

CONSTRUCTION TYPE
PROPOSED CONSTRUCTION TYPE - GROUND & SECOND FLOORS:
V-B SPRINKLERED (WOOD FRAME CONSTRUCTION).
PROJECTED CONSTRUCTION TYPE - GARAGE:
TYPE 1 OR 2 (CONCRETE OR MASONRY CONSTRUCTION).

ALLOWABLE AREAS BY OCCUPANCY GROUP
(INCLUDES INCREASES FOR SPRINKLER AND SEPARATIONS):
A-2: RESTAURANT - 6000 + [6000 X 2 (SPRINKLER)] + [6000 X .17 (SEPARATION)] = 19,020 S.F.
B: BUSINESS - 9000 + [9000 X 2 (SPRINKLER)] + [9000 X .17 (SEPARATION)] = 28,530 S.F.
M: RETAIL - 9000 + [9000 X 2 (SPRINKLER)] + [9000 X .17 (SEPARATION)] = 28,530 S.F.
R-1: HOTEL - 7000 + [7000 X 2 (SPRINKLER)] + [7000 X .17 (SEPARATION)] = 22,190S.F.
S-2: GARAGE - 13,500 + [13,500 X 2 (SPRINKLER)] + [13,500 X .17 (SEPARATION)] = 42,795 S.F.
*SUBJECT TO THE 'SUM OF THE RATIOS' LIMITATION: THE COMBINED AREAS OF EACH OCCUPANCY DIVIDED BY THE OVERALL BUILDING AREA MUST RESULT IN A RATIO OF LESS THAN 1.0.

ALLOWABLE BUILDING HEIGHT ABOVE GRADE
BY CONSTRUCTION TYPE: 40'
BY ZONE: 35' (THE HEIGHT LIMITATION IN THE ZONE GOVERNS)

OCCUPANCY SEPARATIONS (VERTICAL AND HORIZONTAL)
A-2: RESTAURANT / B: BUSINESS, M: RETAIL, OR R-1: HOTEL = 1-HOUR
R-1: HOTEL / B: BUSINESS, V: RETAIL OR A-2: RESTAURANT = 1-HOUR
S-2: GARAGE / B: BUSINESS & M: RETAIL = 1-HOUR

FIRE RESISTIVE REQUIREMENTS
PRIMARY STRUCTURAL FRAME: NONE
BEARING & NON-BEARING WALLS (EXTERIOR, NORTH/EAST/SOUTH): NONE
BEARING & NON-BEARING WALLS (EXTERIOR, WEST):
2 HOUR AT GROUND FLOOR RETAIL / 1 HOUR AT 2ND FLOOR
BEARING & NON-BEARING WALLS (INTERIOR): NONE
FLOOR & ROOF CONSTRUCTION: NONE
SHAFT ENCLOSURES (STAIR & ELEVATOR): 1-HOUR
PARAPETS: PER OSSC SECTION 705.11

OPENINGS IN RATED WALLS (BASED UPON SEPARATION FROM PROPERTY LINE)
0' TO LESS THAN 3': NOT PERMITTED
3' TO LESS THAN 5': 15% OF WALL AREA PER STORY
5' TO LESS THAN 10': 25% OF WALL AREA PER STORY
10' TO LESS THAN 15': 45% OF WALL AREA PER STORY
15' TO LESS THAN 20': 75% OF WALL AREA PER STORY
20'+: UNLIMITED

EXITING
ELEVATOR: REQUIRED
STAIRS: TWO STAIRS WILL BE REQUIRED. AT LEAST ONE STAIR MUST BE ENCLOSED ON THE UPPER FLOORS. BOTH MUST BE ENCLOSED AT THE GARAGE LEVEL.
ALL REQUIRED EXITS MUST MEET ACCESSIBILITY STANDARDS PER CHAPTERS 10 & 11.

DIRECTORY

OWNER
ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DRIVE, SUITE 200
WEST LINN, OREGON 97068

ARCHITECT
SG ARCHITECTURE, LLC.
10940 SW BARNES RD. #364
PORTLAND, OREGON 97225
CONTACT: SCOT SUTTON, 503-347-4685, ssutton@sg-arch.net
KEVIN GODWIN, 503-201-0725, kgodwin@sg-arch.net

CIVIL
THETA, LLC.
P.O. BOX 1345
WEST LINN, OREGON 97035
CONTACT: BRUCE GOLDSOHN, 503-481-8822, thetaeng@comcast.net

SURVEYING
CENTERLINE CONCEPTS LAND SURVEYING, INC.
729 McCLALLA AVE., SUITES 1 & 2
OREGON CITY, OREGON 97045
503-650-0188

BUILDING DATA

AREA:	
FIRST FLOOR (STREET LEVEL)	12,220 SF
SECOND FLOOR	12,607
TOTAL	24,827 SF
GARAGE LEVEL	14,415 SF
TOTAL BUILDING	39,242 SF
PARKING:	
KNAPP'S ALLEY	
PARALLEL STALLS	4
UNDERGROUND	
STANDARD STALLS	28
ADA STALLS	2
TOTAL PARKING PROVIDED	34
TOTAL PARKING REQUIRED	0

SHEET INDEX

A0.0	COVERSHEET, CODE PLANS
EX	EXISTING CONDITIONS PLAN (SURVEY)
A2.0	PARKING LEVEL PLAN
A2.1	GROUND FLOOR PLAN
A2.2a	SECOND FLOOR PLAN - OFFICE LAYOUT
A2.2b	SECOND FLOOR PLAN - HOTEL LAYOUT
A3.1	EXTERIOR ELEVATIONS (COLOR)

VICINITY MAP



CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: JUNE 2016
DRAWN BY:

REVISIONS:

COVER SHEET AND GENERAL NOTES

SHEET NUMBER:

A0.0

WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11th ST.,
WEST LINN, OREGON

ICON CONSTRUCTION &
DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

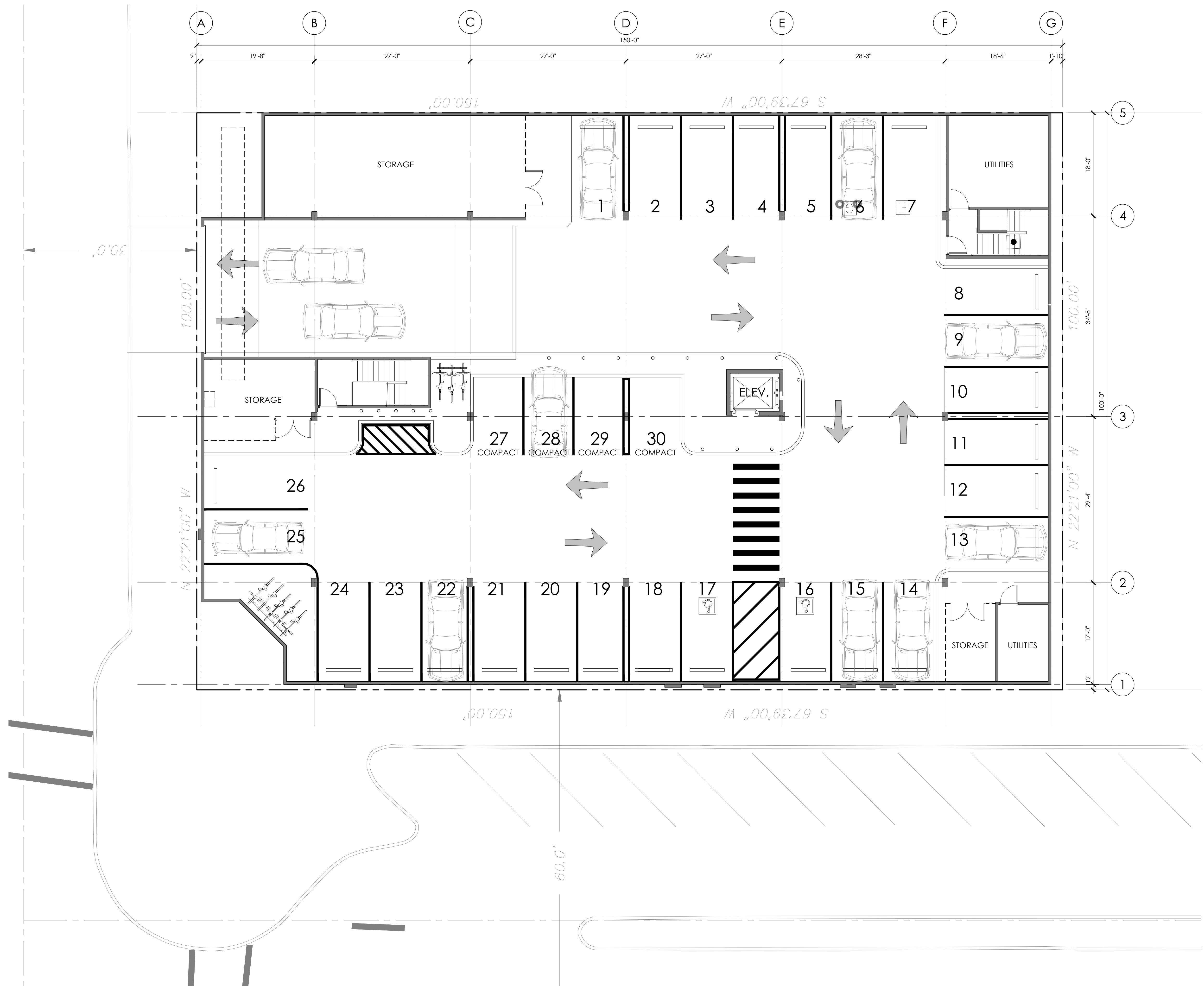
**CLASS II & HISTORIC
DESIGN REVIEW
SUBMITTAL DRAWINGS**

PROJECT NUMBER: 15-104
ISSUE DATE: JUNE 2016
DRAWN BY:

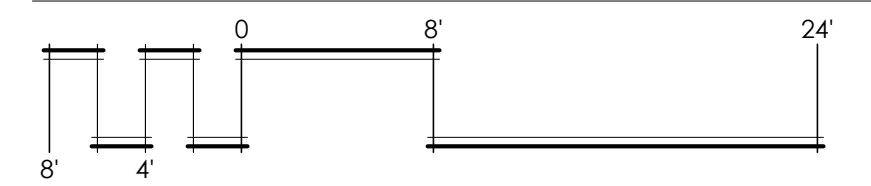
REVISIONS:

SHEET NUMBER:

A2.0



GARAGE LEVEL PLAN



WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.,
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

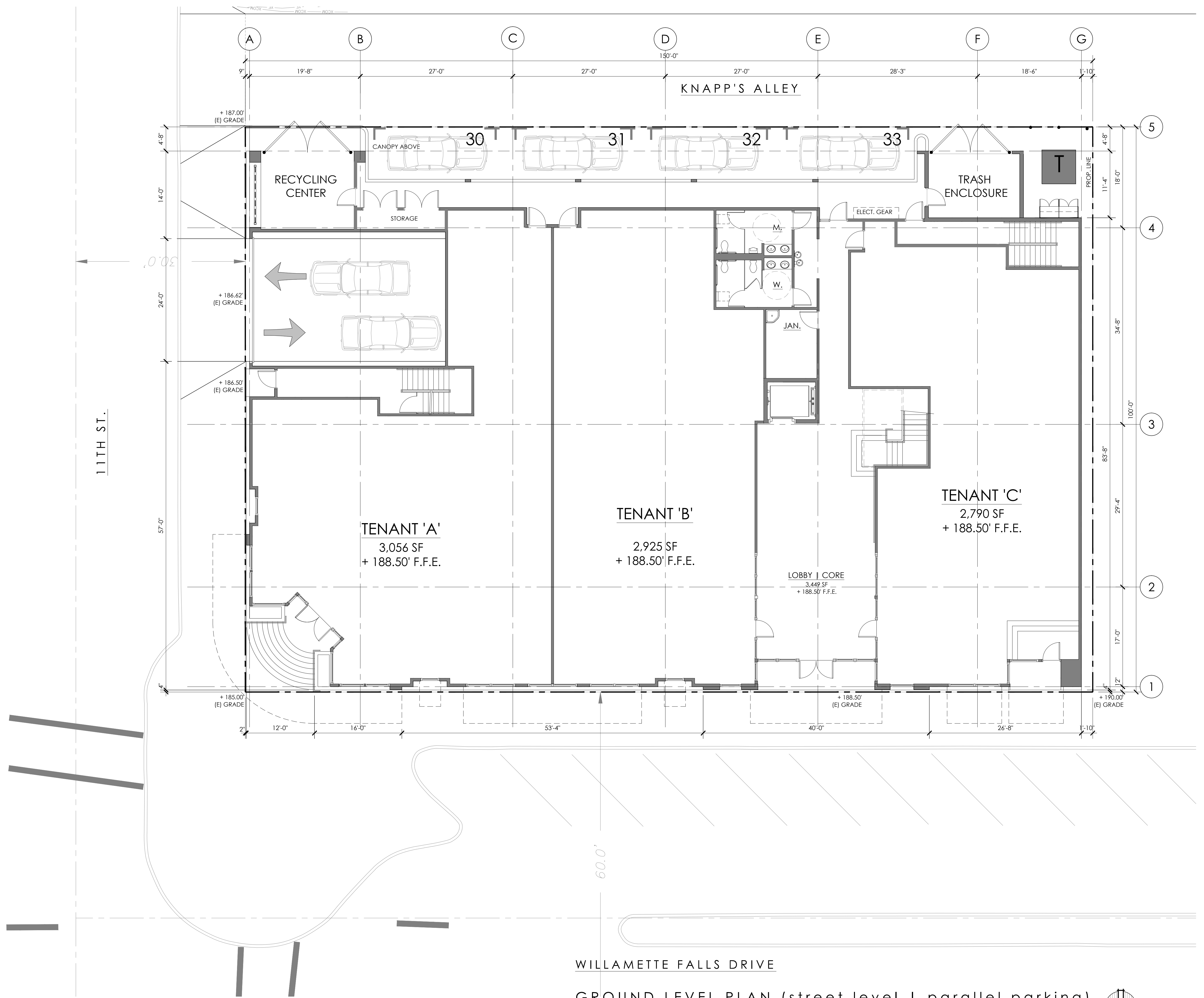
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: JUNE 2016
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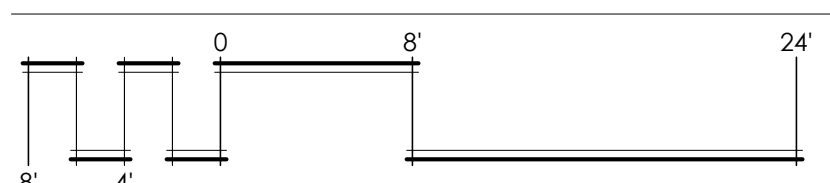
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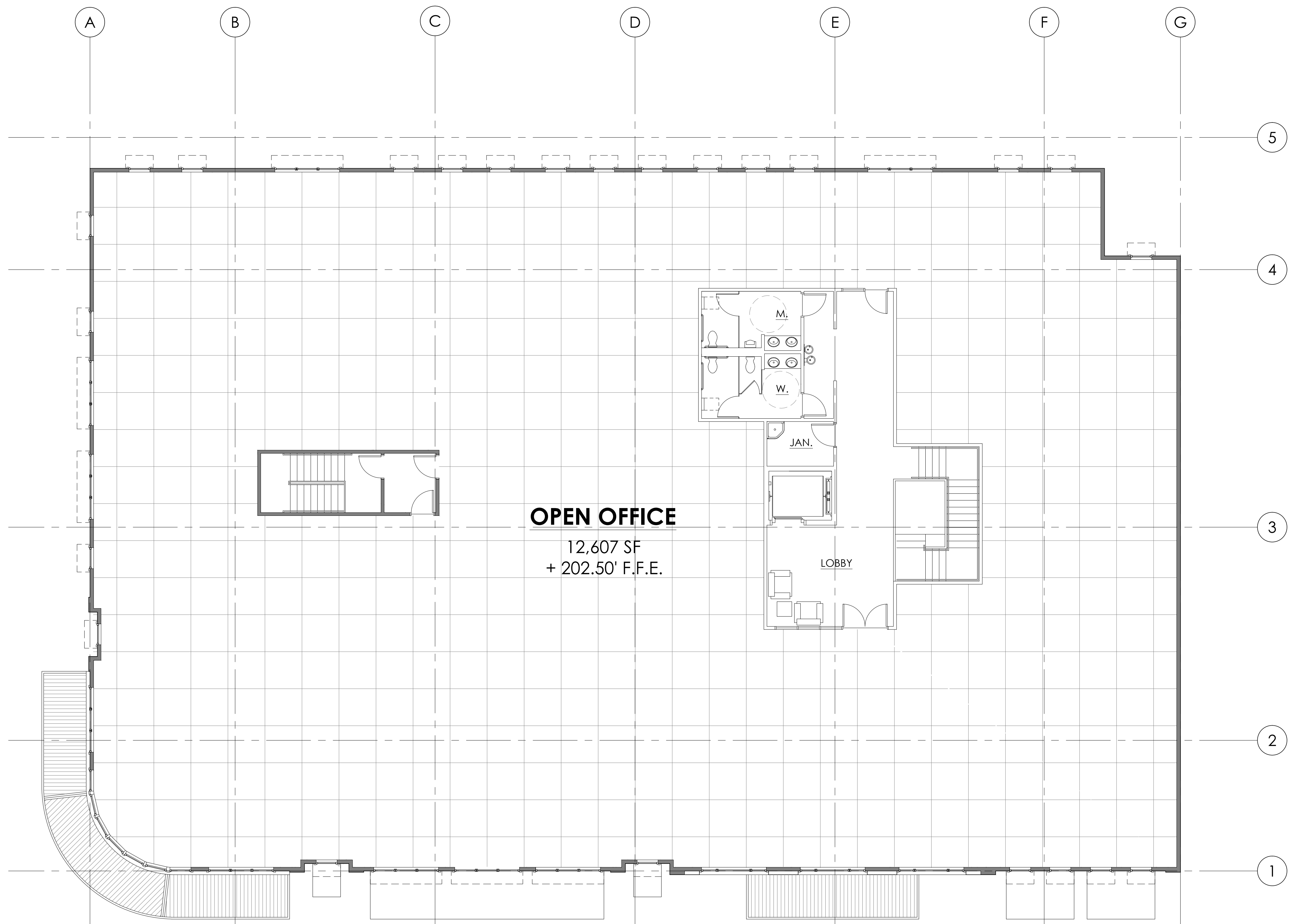
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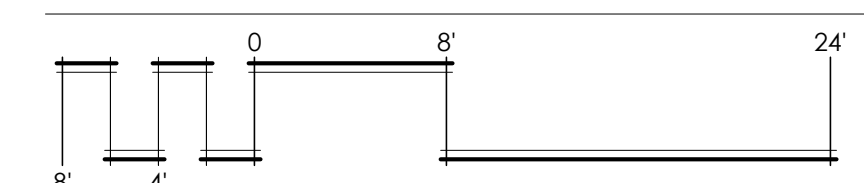
WILLAMETTE FALLS DRIVE

GROUND LEVEL PLAN (street level | parallel parking)





OFFICE LEVEL PLAN (second floor)

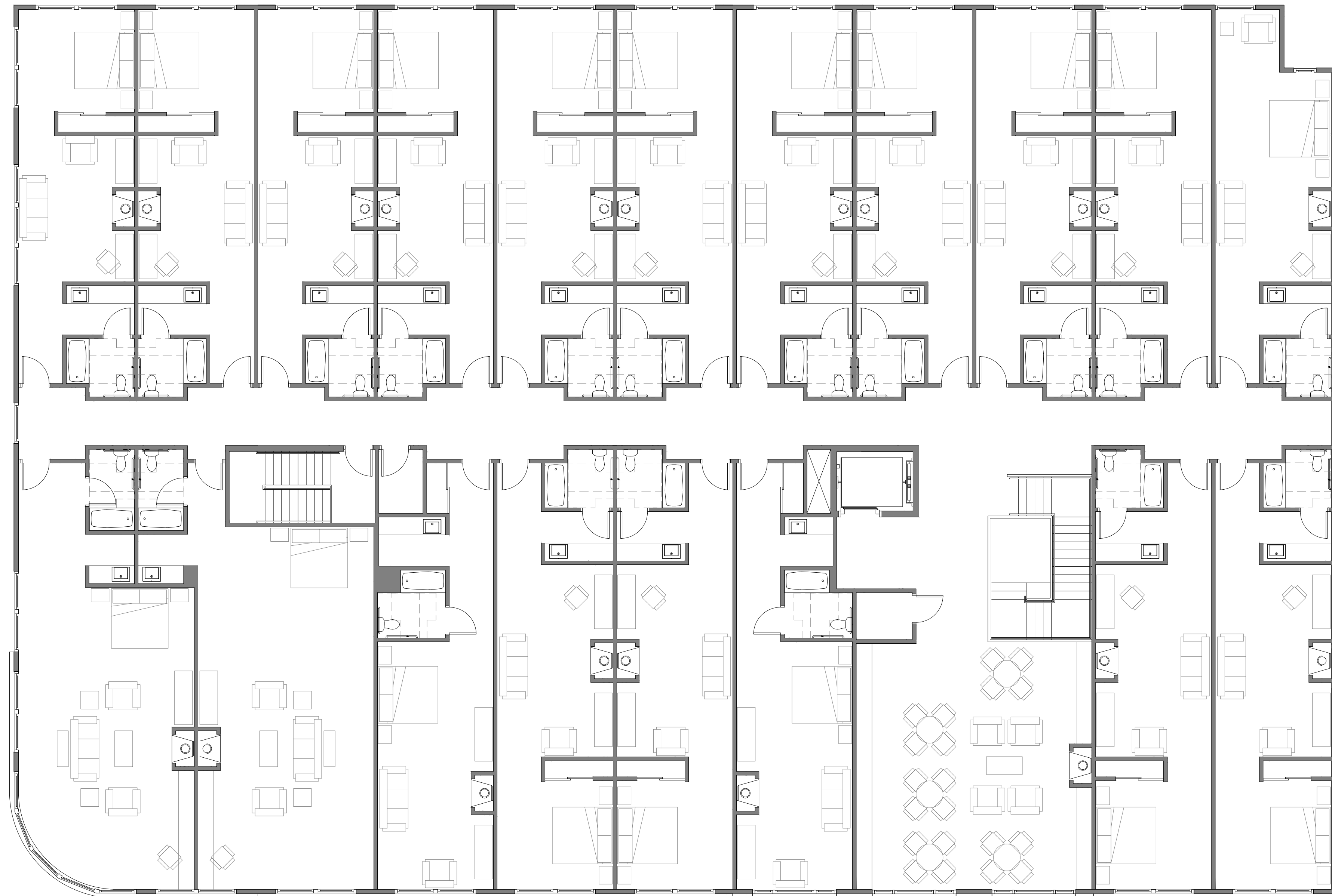


WILLAMETTE
FALLS

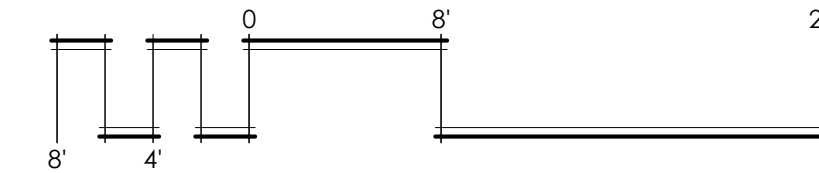
MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION &
DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068



SECOND LEVEL PLAN - HOTEL



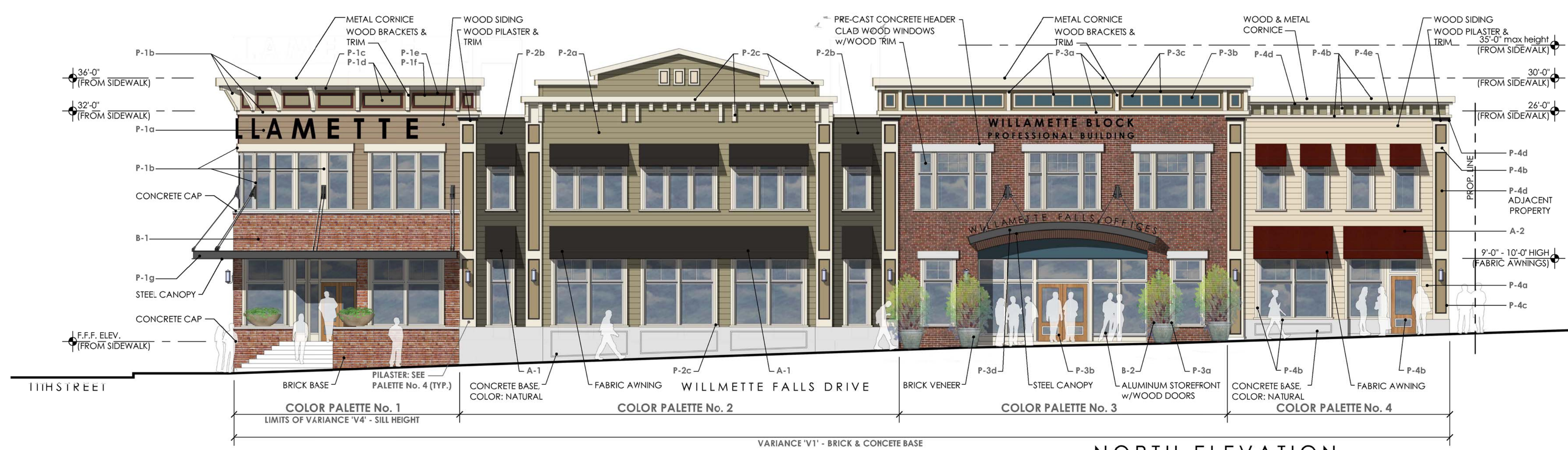
CLASS II & HISTORIC
DESIGN REVIEW
SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: JUNE 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A2.2b



COLOR & MATERIAL SCHEDULE

* SEE MATERIALS BOARDS FOR PROPOSED PAINT, BRICK, & FABRIC LINES (eg: SHERWIN WILLIAMS 'AMERICAN HERITAGE HISTORICAL COLORS' COLLECTION). FINAL SELECTIONS WILL BE MADE FROM THE FULL RANGE AVAILABLE WITHIN EACH LINE.

PALETTE No. 1		
P-1a:	PAINT	SIDING
P-1b:	PAINT	TYPICAL TRIM
P-1c:	PAINT	ACCENT TRIM
P-1d:	PAINT	ACCENT TRIM
P-1e:	PAINT	ACCENT TRIM
P-1f:	PAINT	ACCENT TRIM
P-1g:	PAINT	STEEL CANOPY

B-1:	BRICK	WALL FINISH
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PALETTE No. 2		
P-2a:	PAINT	SIDING
P-2b:	PAINT	SIDING
P-2c:	PAINT	TYPICAL TRIM

A-1:	FABRIC	AWNING
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PALETTE No. 3		
P-3a:	PAINT	TYPICAL TRIM
P-3b:	PAINT	ACCENT TRIM
P-3c:	PAINT	ACCENT TRIM
P-3d:	PAINT	STEEL CANOPY

B-2:	BRICK	WALL FINISH
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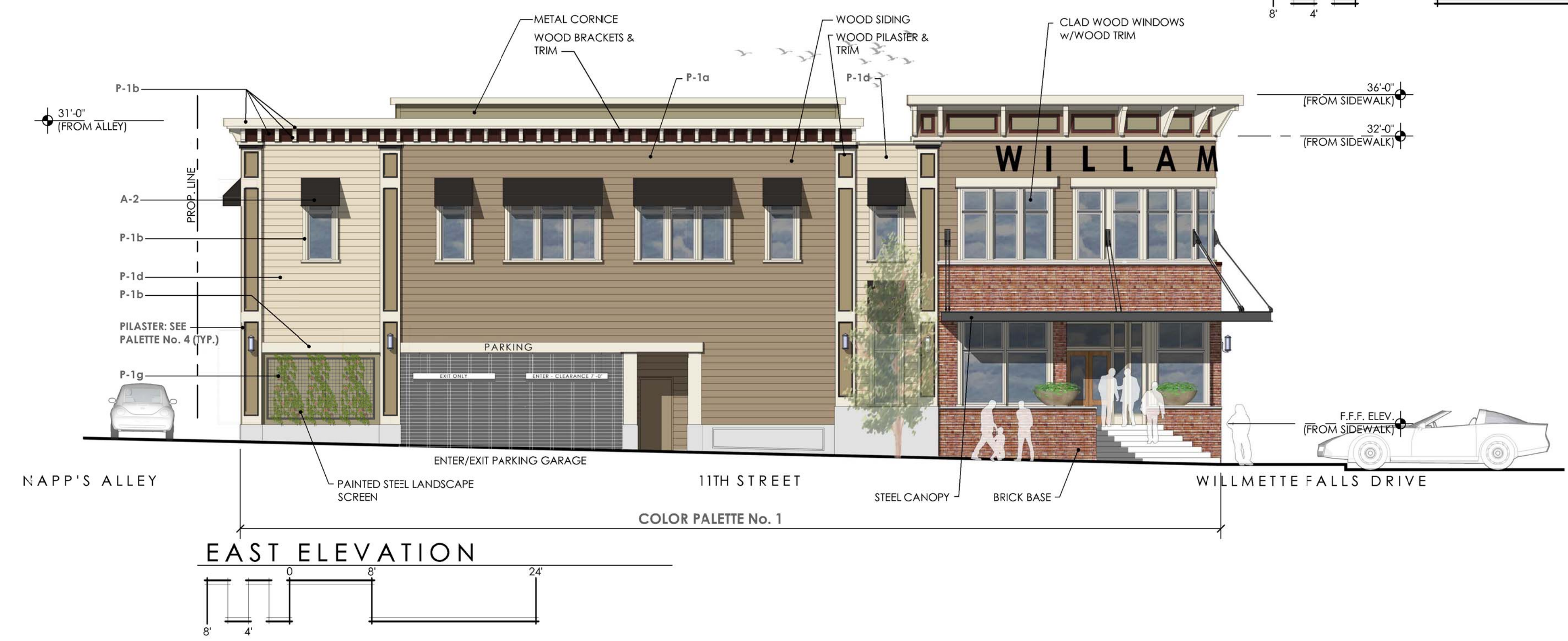
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P-4c:	PAINT	ACCENT TRIM
P-4d:	PAINT	ACCENT TRIM
P-4e:	PAINT	ACCENT TRIM

A-2:	FABRIC	AWNING
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SGA
SG ARCHITECTURE, LLC
10940 SW Barnes Road #364
Portland, Oregon 97225

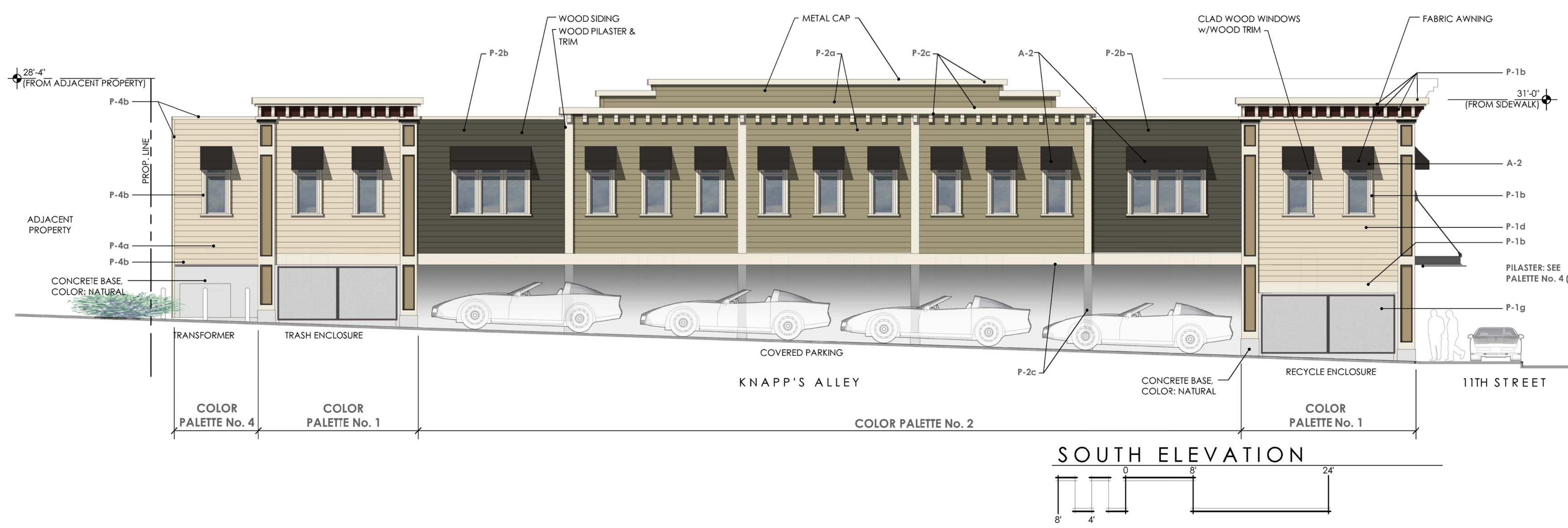
WILLAMETTE FALLS
MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068



P-4a:	PAINT	SIDING
P-4b:	PAINT	TYPICAL TRIM
P-4c:	PAINT	ACCENT TRIM
P-4d:	PAINT	ACCENT TRIM
P-4e:	PAINT	ACCENT TRIM

A-2:	FABRIC	AWNING
------	--------	--------



P-4a:	PAINT	SIDING
P-4b:	PAINT	TYPICAL TRIM
P-4c:	PAINT	ACCENT TRIM
P-4d:	PAINT	ACCENT TRIM
P-4e:	PAINT	ACCENT TRIM

A-2:	FABRIC	AWNING
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CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS
PROJECT NUMBER: 15-104
ISSUE DATE: JUNE, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A3.1

THE LIGHTING PROJECT

Comments
Notes Regarding Deliverable

Date

#

Revisions

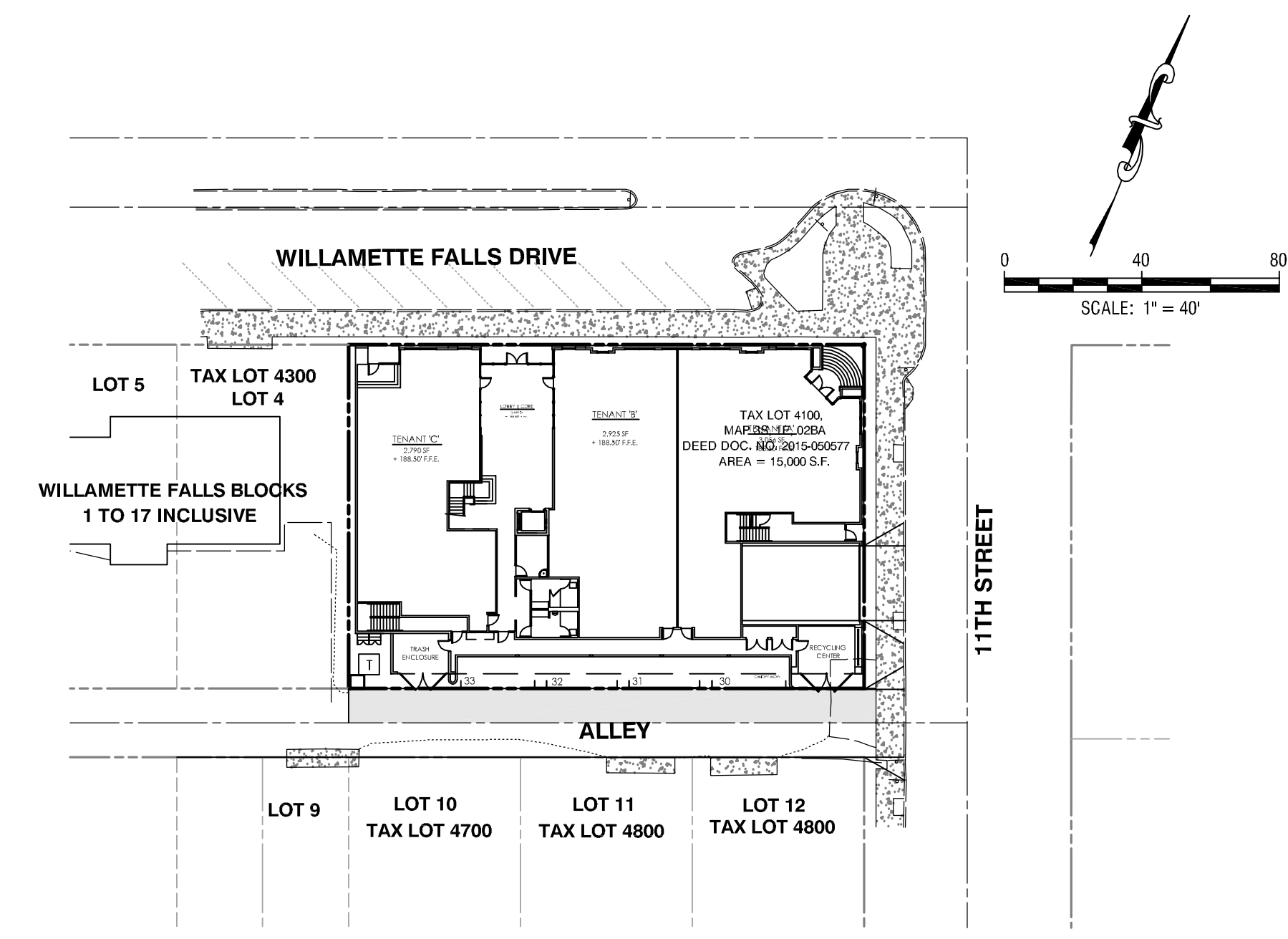
Drawn By: JESSE
The Lighting Project / www.tlpnw.com
Date: 6/29/2016

Scale:

Willamette Falls
SITE LIGHTING



Luminaire Schedule						
Symbol	Qty	Tag	Description	Lum. Watts	Total Watts	Lum. Lumens
	10	S1	PROGRESS P5615-20	16.6	166	670
	2	S2	CREE WS4-47L-40K-xxx-FD Wall Mounted	50.2	100.4	4883
	4	S3	CREE IGA-NM-5S-A-40K-ULxxxx	32.02	128.08	3695



SITE MAP
SCALE: 1" = 40'

WILLAMETTE FALLS MIXED USE West Linn, Oregon

OWNER/APPLICANT
Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
Phone 503-657-0406

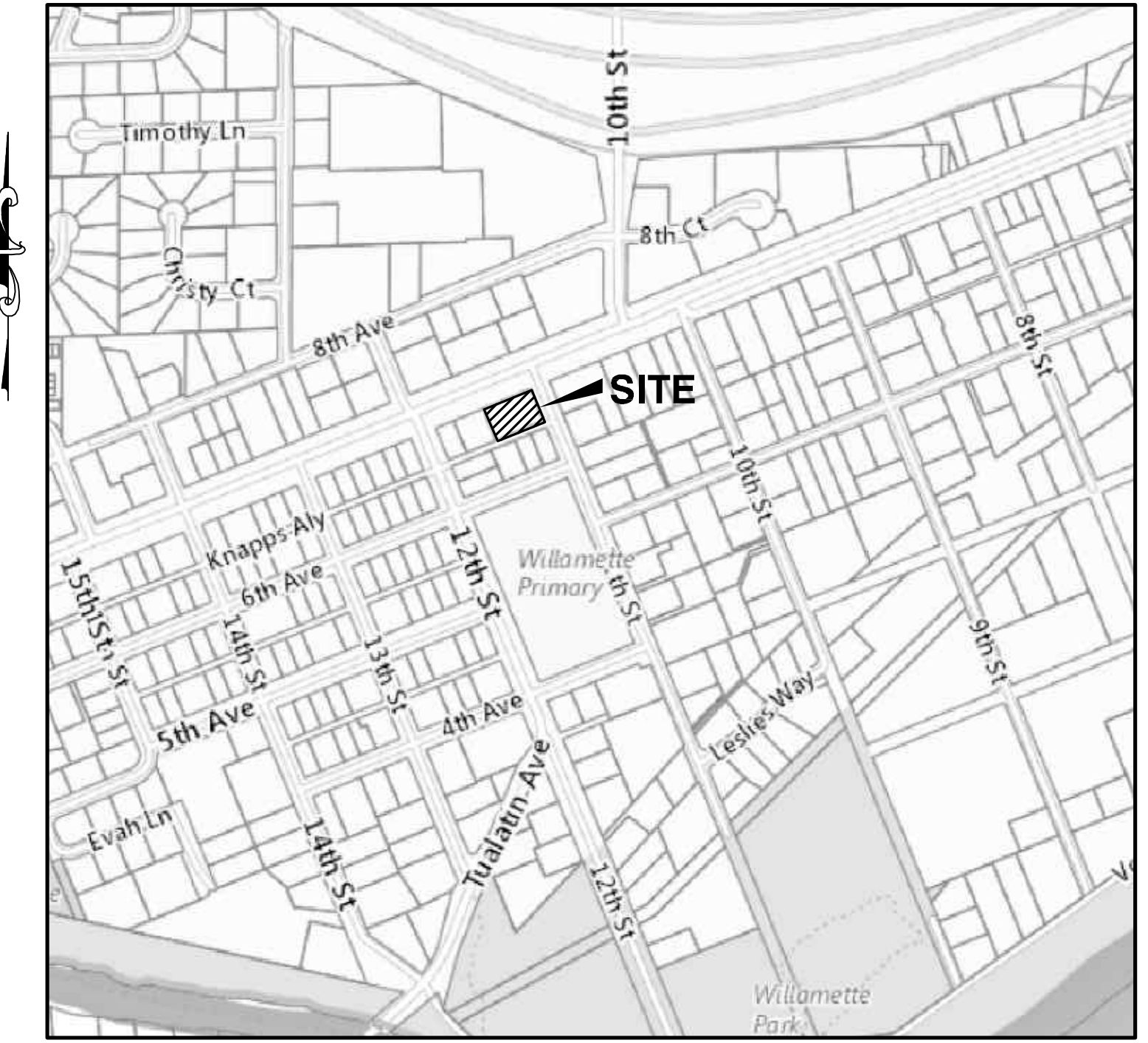
ARCHITECT
SGA
10940 SW Barnes Road, No. 364
Portland, Oregon 97225
Phone 503-201-0725

ENGINEERING
Bruce D. Goldson, PE
Theta, LLC
PO Box 1345
Lake Oswego, Oregon 97035
Phone 503-481-8822

SURVEYING
Centerline Concepts, land surveying, Inc.
729 Molalla Ave, Suite 1 & 2
Oregon City, Oregon 97045
Phone 503-650-0188

LEGAL
T3S R1E Section 2, TL 4100

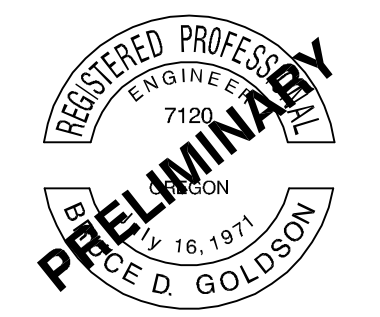
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1969 Willamette Falls Drive
West Linn, Oregon



VICINITY MAP
SCALE: NTS

SHEET INDEX

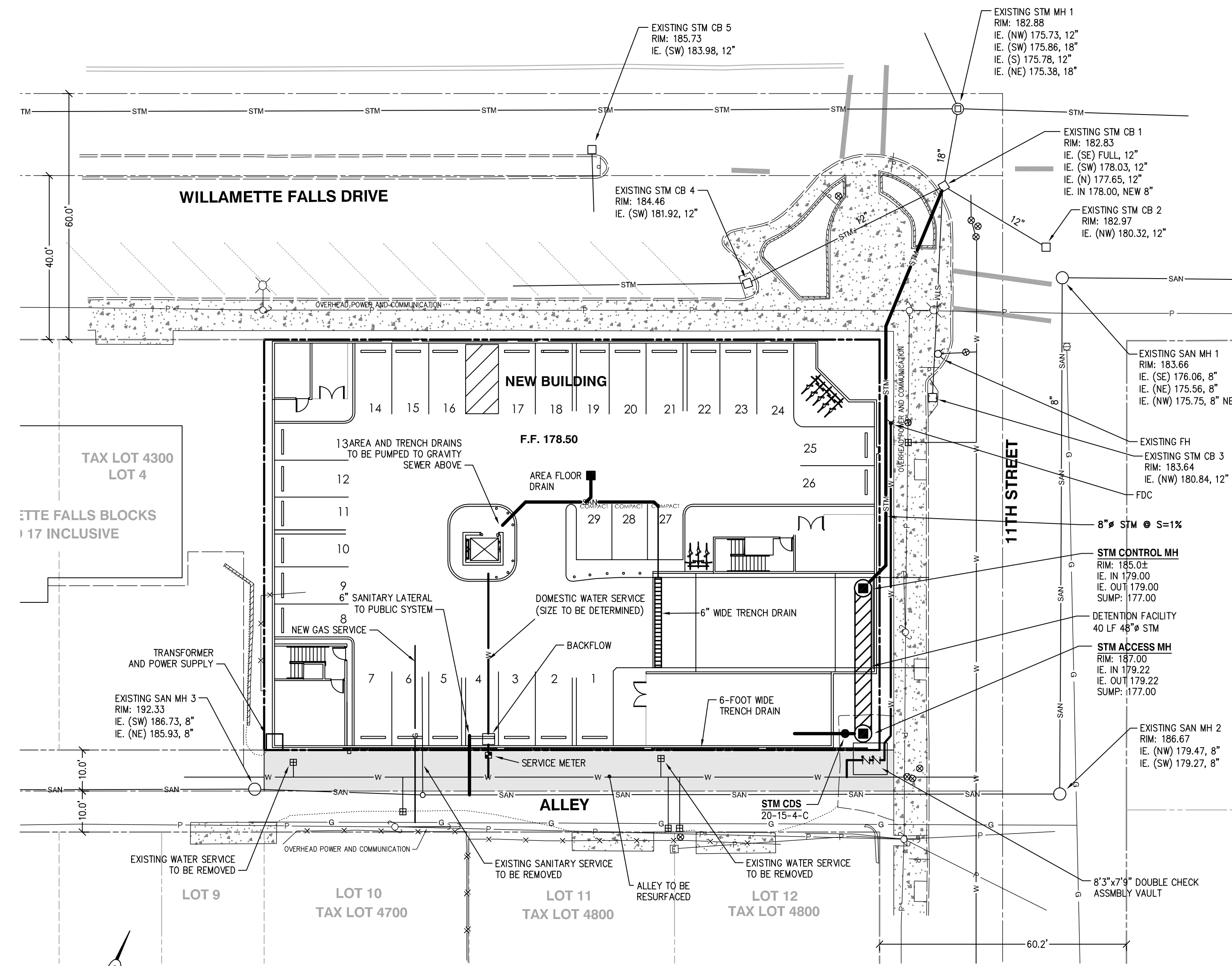
- 1 COVER
- 2 SITE ANALYSIS
- 3 SITE AND UTILITY PLAN
- 4 GRADING AND EROSION CONTROL PLAN



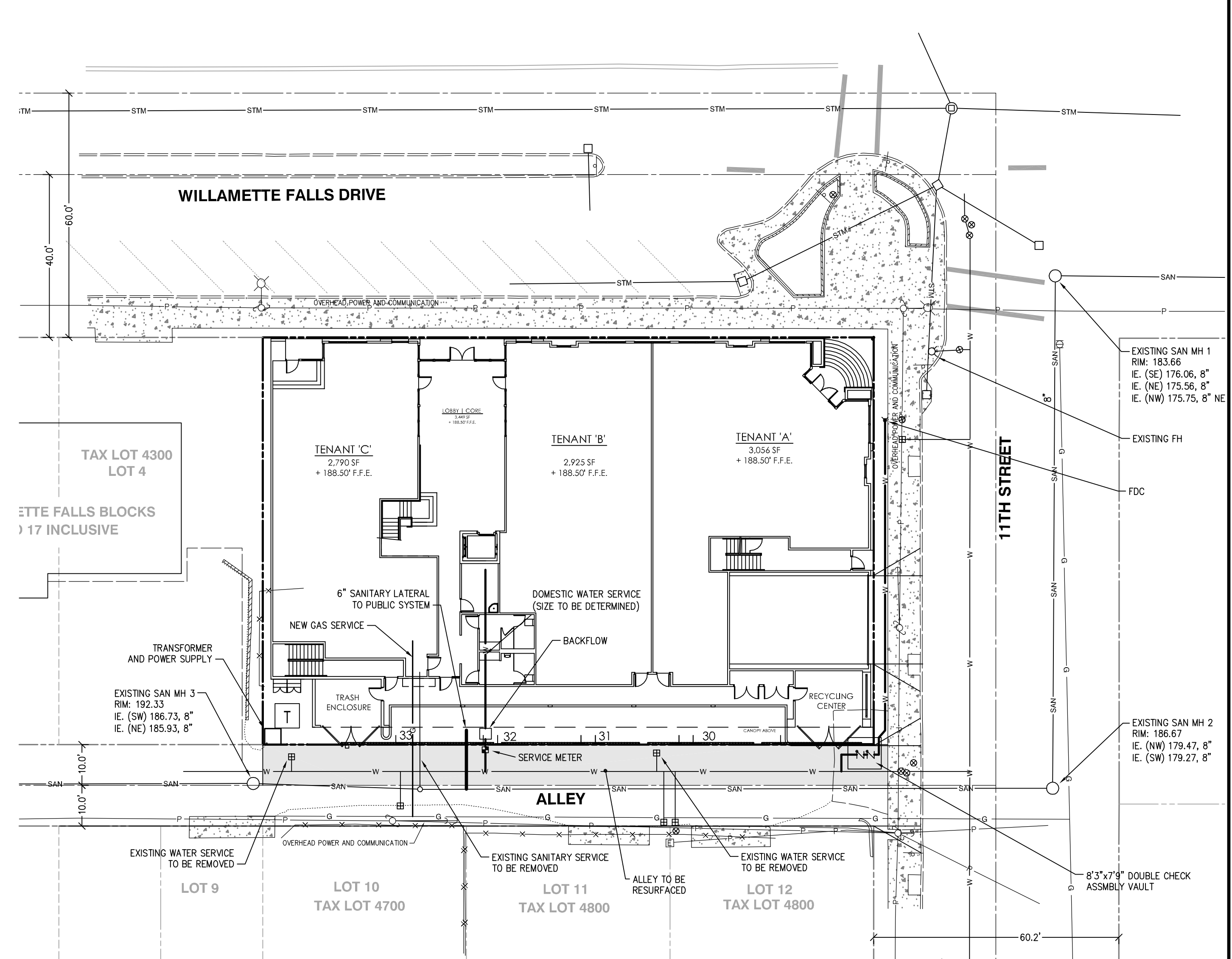
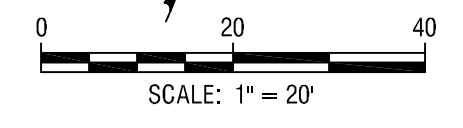
EXPIRES: 06/30/2017
SIGNATURE DATE: 06/27/2016

DESIGN REVIEW - COVER

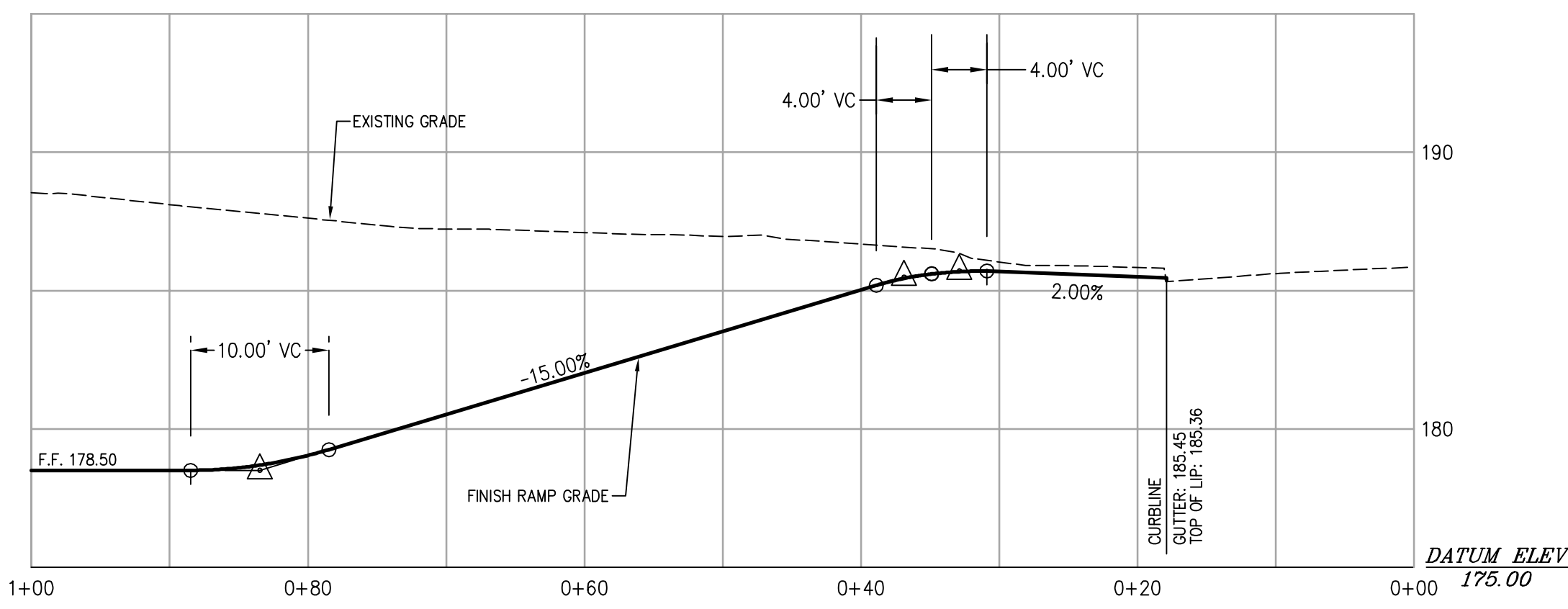
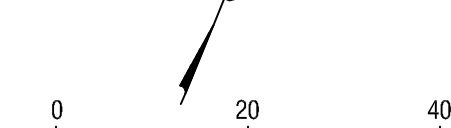
2015-129I						Icon Construction & Development, LLC 1980 Willamette Falls Drive, Suite 200 West Linn, Oregon 97068 PH: (503) 657-0406		Tax Lot 4100 T.3S., R.1E., Section 2 West Linn, Oregon		SHEET: 1/4
DESIGNED:	BDG									
DRAWN:	BJS			PO Box 1345	503/481-8822					
SCALE:	1" = 20'			Lake Oswego, Oregon 97035	email: thetaeng@comcast.net					
DATE:	January, 2016	03/24/2016	1	REVISED PER WEST LINN LETTER, MARCH 9TH, 2016						
FILE:	Willamette Design Review1	DATE	NO.	REVISION						



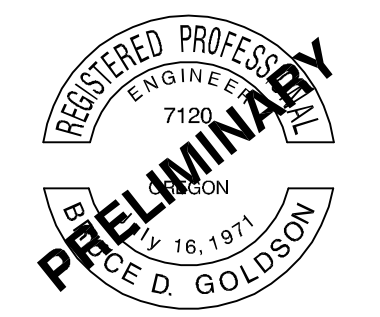
GARAGE LEVEL
SCALE: 1" = 20'



LOBBY LEVEL
SCALE: 1" = 20'



GARAGE RAMP PROFILE
1" = 10' HORIZONTAL
SCALE: 1" = 5' VERTICAL



EXPIRES: 06/30/2017
SIGNATURE DATE: 06/27/2016

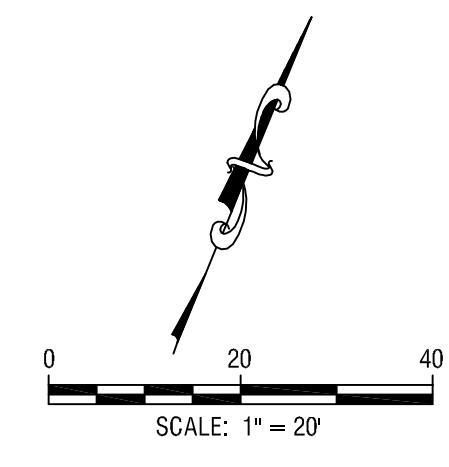
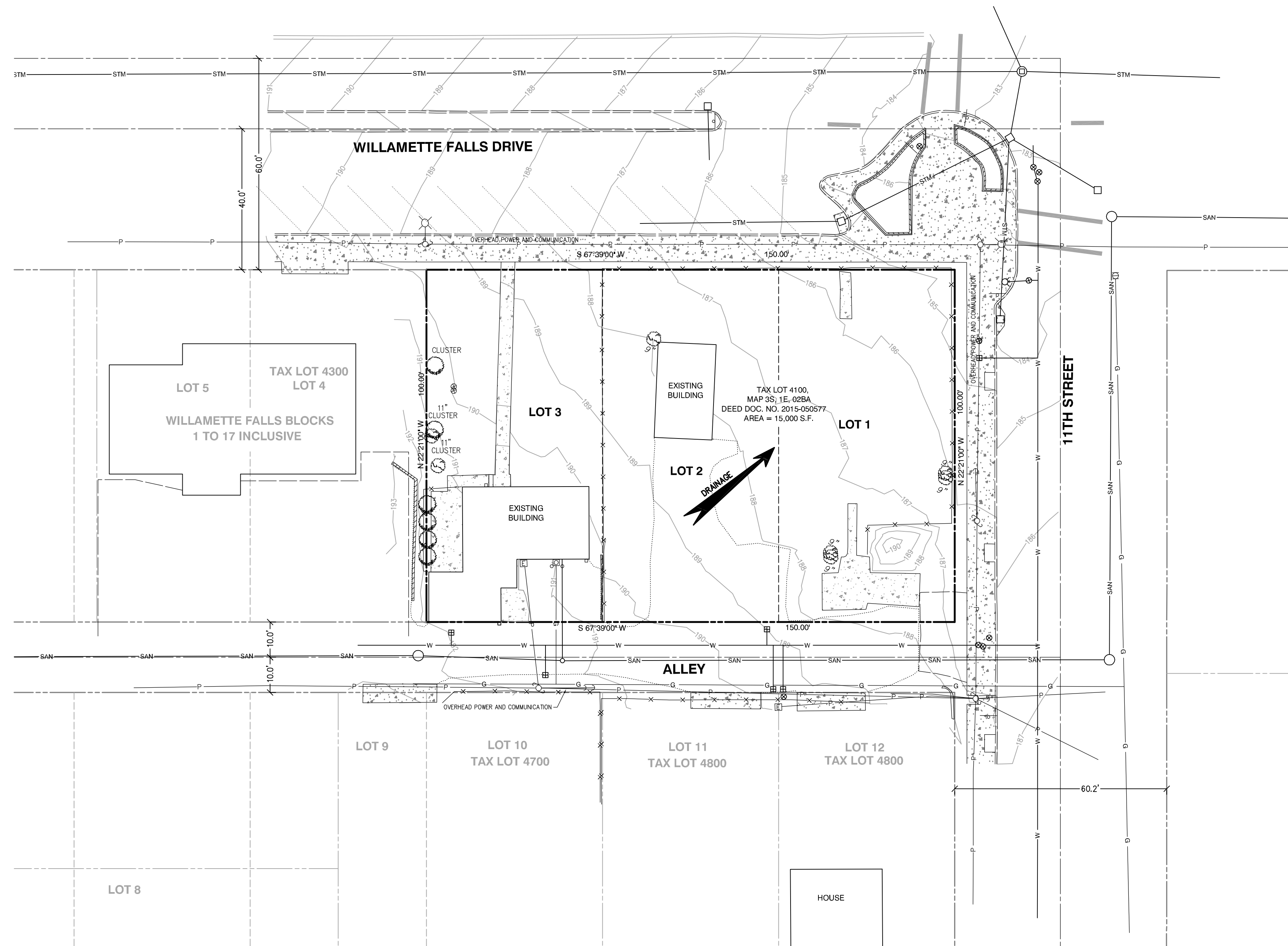
DESIGN REVIEW - SITE AND UTILITY PLAN

DESIGNED: BDG			
DRAWN: BJS			
SCALE: 1" = 20'			
DATE: January, 2016	03/24/2016	1	REVISED PER WEST LINN LETTER, MARCH 9TH, 2016
FILE: Willamette Design Review1	DATE	NO.	REVISION

Theta, llc
ENGINEERING - SURVEYING - PLANNING
PO Box 1345
Lake Oswego, Oregon 97035
503/481-8822
email: thetaeng@comcast.net

Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon



RESOURCE AREAS:

- A NO WETLAND PRESENT
- B NOT IN RIPARIAN CORRIDOR
- C NO STREAMS OR INTERMITTENT WATER WAYS
- D NO HABITAT CONSERVATION AREA
- E NO ROCK OUTCROPPINGS

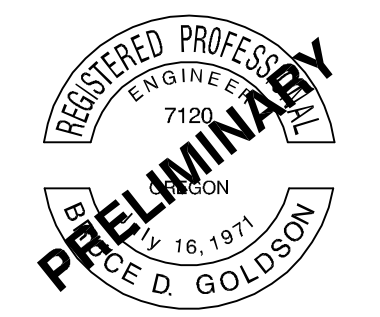
NATURAL HAZARD AREAS:

- A NOT IN FLOOD PLAIN
- B NOT IN WATER RESOURCE AREAS
- C NOT IN LANDSLIDE AREA
- D NOT IN LANDSLIDE VULNERABLE ANALYSIS AREA

GROSS AREA = 15,000 SQ.FT.

SLOPE ANALYSIS

- TYPE I: (UNDER 15%) = 15,000 SQ.FT.
- TYPE II: (15% TO 25%) = 0.00 SQ.FT.
- TYPE III: (25% TO 35%) = 0.00 SQ.FT.
- TYPE IV: (OVER 35%) = 0.00 SQ.FT.



EXPIRES: 06/30/2017
SIGNATURE DATE: 03/24/2016

DESIGN REVIEW - SITE ANALYSIS

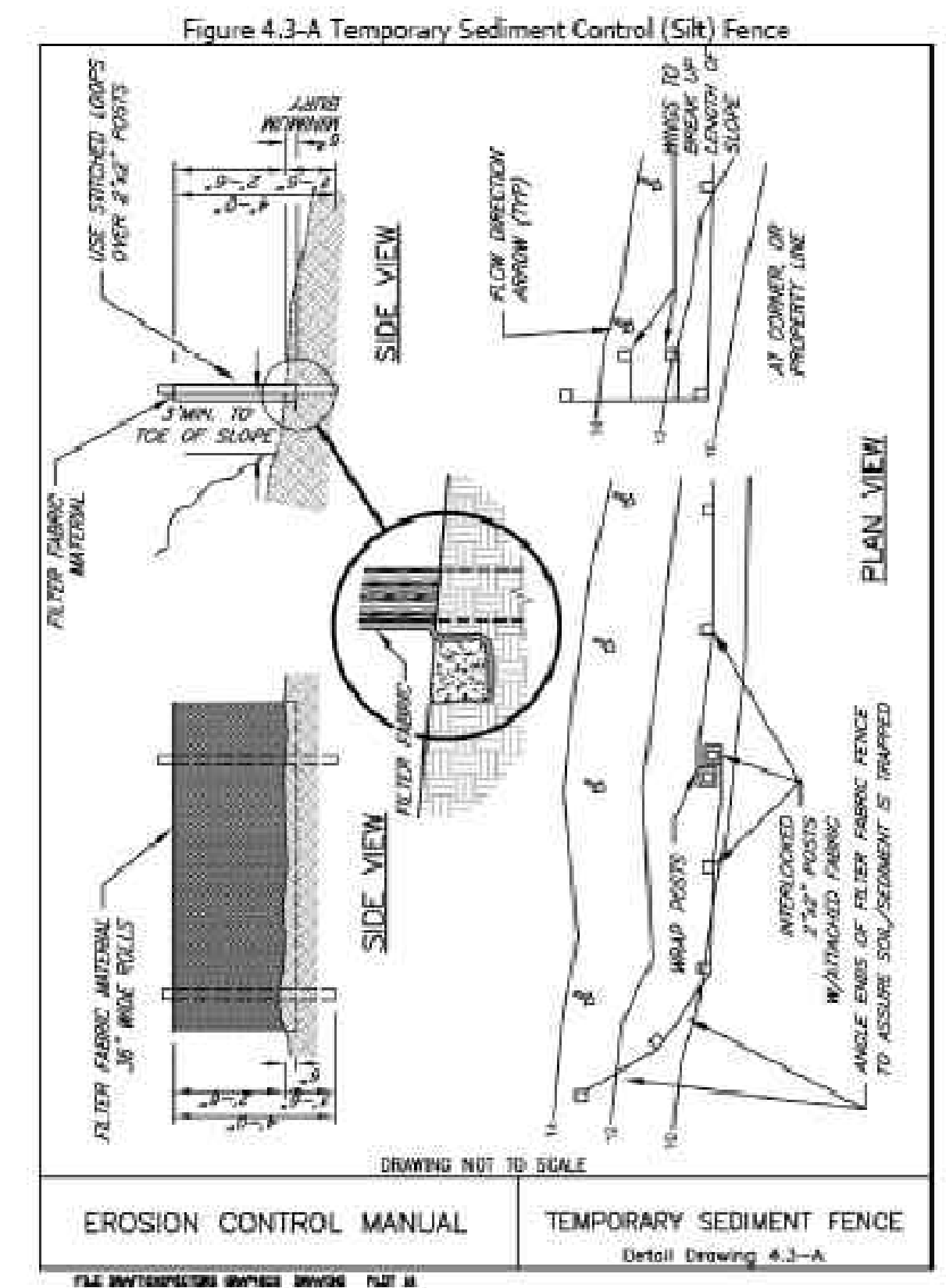
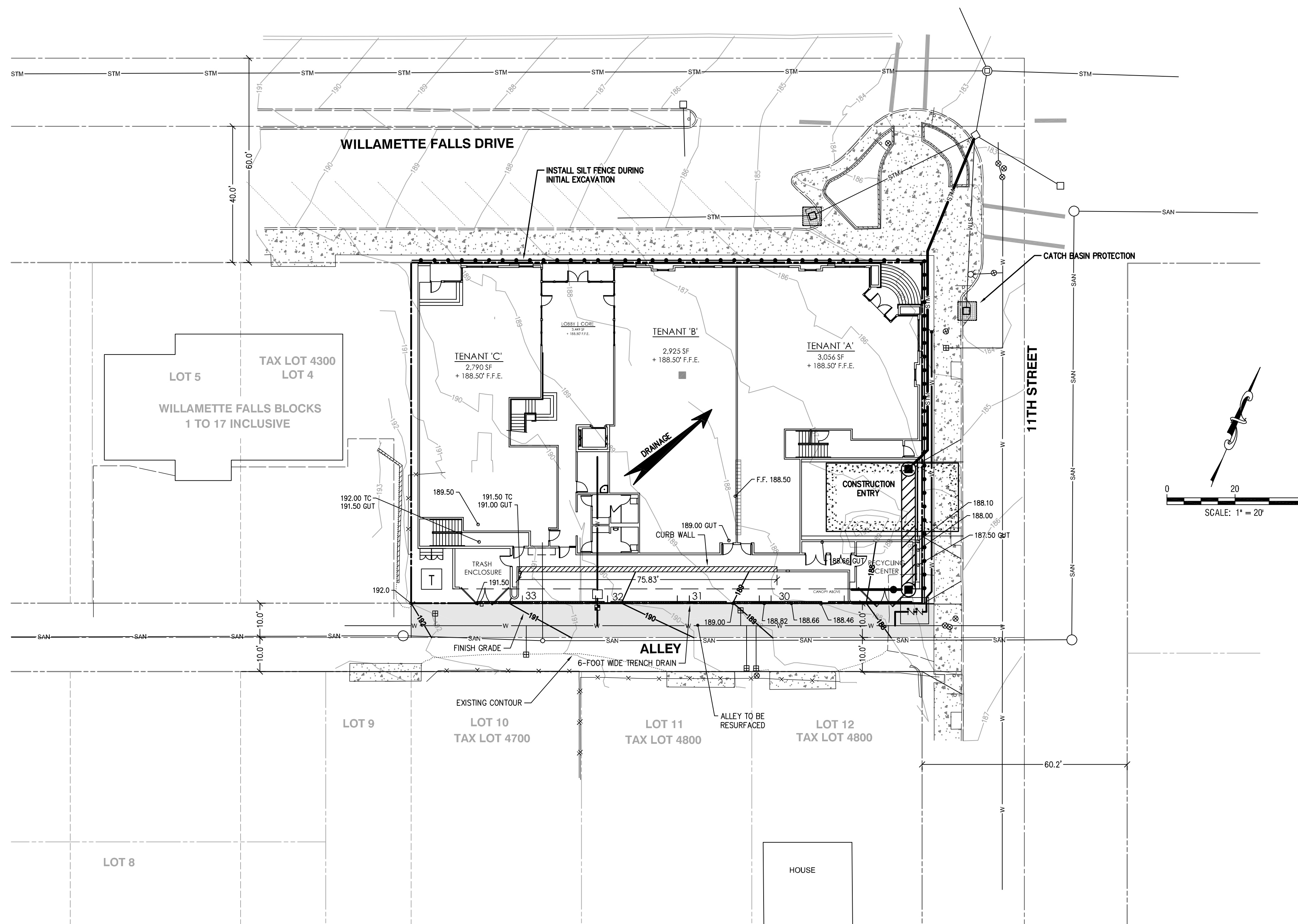
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DRAWN:	BJS			
SCALE:	1" = 20'			
DATE:	January, 2016	03/24/2016	1	REVISED PER WEST LINN LETTER, MARCH 9TH, 2016
FILE:	Willamette Design Review1	DATE	NO.	REVISION

Theta, llc
ENGINEERING - SURVEYING - PLANNING
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Icon Construction & Development, LLC
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West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET:
2/4



C:\Users\Willems\OneDrive\Design\Design\Review\1\Jan_6_2016\16-45618.PDF

2015-129I				
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DRAWN:	BJS			
SCALE:	1" = 20'			
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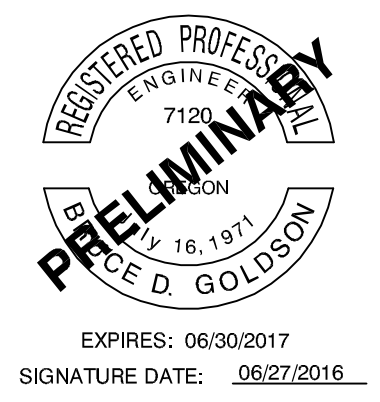
Theta, llc
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PO Box 1345 503/481-8822
Lake Oswego, Oregon 97035 email: thetaeng@comcast.net

Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

DESIGN REVIEW - GRADING AND EROSION CONTROL PLAN

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET:
4/4



EXISTING CONDITIONS MAP

TAX LOT 4100
 LOCATED IN THE N.W. 1/4 SECTION 2, T.3S., R.1E., W.M.,
 CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
 OCTOBER 13, 2015 SCALE 1"=20'

SANITARY MANHOLE DIPS	STORM STRUCTURE DIPS	SDCB 1 RIM 182.83' 12" CONC SE FULL OF SED 12" CONC SW 178.03' 12" CONC N 177.65'	SDCB 5 RIM 185.73' 12" CONC SW 183.98'
SSMH 1 RIM 183.66' 8" PVC SE 176.06' 8" PVC NE 175.56'	SDMH 1 RIM 182.88' 12" CONC NW 176.73' 18" CONC SW 175.86' 12" CONC S 175.78' 18" CONC NE 175.38'	SDCB 2 RIM 182.97' 12" CONC NW 180.32'	SDCB 6 RIM 196.23' 12" CONC NE 192.73'
SSMH 2 RIM 186.67 8" PVC NW 179.47' 8" PVC SW 179.27'	SDMH 2 RIM 197.48' 18" CONC NE 189.88'	SDCB 3 RIM 183.64' 12" PVC NW 180.84'	
SSMH 3 RIM 192.33' 8" SW 186.73' 8" PVC NE 185.93'	SDMH 3 RIM 188.71' 12" PVC SW 186.81' 12" STEEL SE 186.66'	SDCB 4 RIM 184.46' 12" CONC SW 181.92'	

SURVEY NOTES:

THE DATUM FOR THIS SURVEY IS BASED UPON NATIONAL GEODETIC SURVEY BENCHMARK NUMBER V 723, BEING A BRASS DISC AT THE JUNCTION INTERSTATE HIGHWAY 205 AND STATE HIGHWAY 99E, SET VERTICALLY IN THE EAST FACE OF THE MOST SOUTHERLY ONE OF FIVE COLUMNS OF THE FIRST PIER WEST OF THE EAST ABUTMENT OF THE INTERSTATE HIGHWAY OVERPASS. THE ELEVATION IS 62.48', NAVD 88.

A TRIMBLE S6-SERIES ROBOTIC INSTRUMENT WAS USED TO COMPLETE A CLOSED LOOP FIELD TRAVERSE.

THE BASIS OF BEARINGS FOR THIS SURVEY IS PER MONUMENTS FOUND AND HELD PER THE PLAT OF "WILLAMETTE FALLS BLOCKS 1 TO 17 INCLUSIVE", RECORDS OF CLACKAMAS COUNTY.

THE PURPOSE OF THIS SURVEY IS TO RESOLVE AND DETERMINE THE PERIMETER BOUNDARY OF THE SUBJECT PROPERTY, TO SHOW ALL PERTINENT BOUNDARY ISSUES AND ENCROACHMENTS. NO PROPERTY CORNERS WERE SET IN THIS SURVEY.

NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUIESCENCE, ETC.

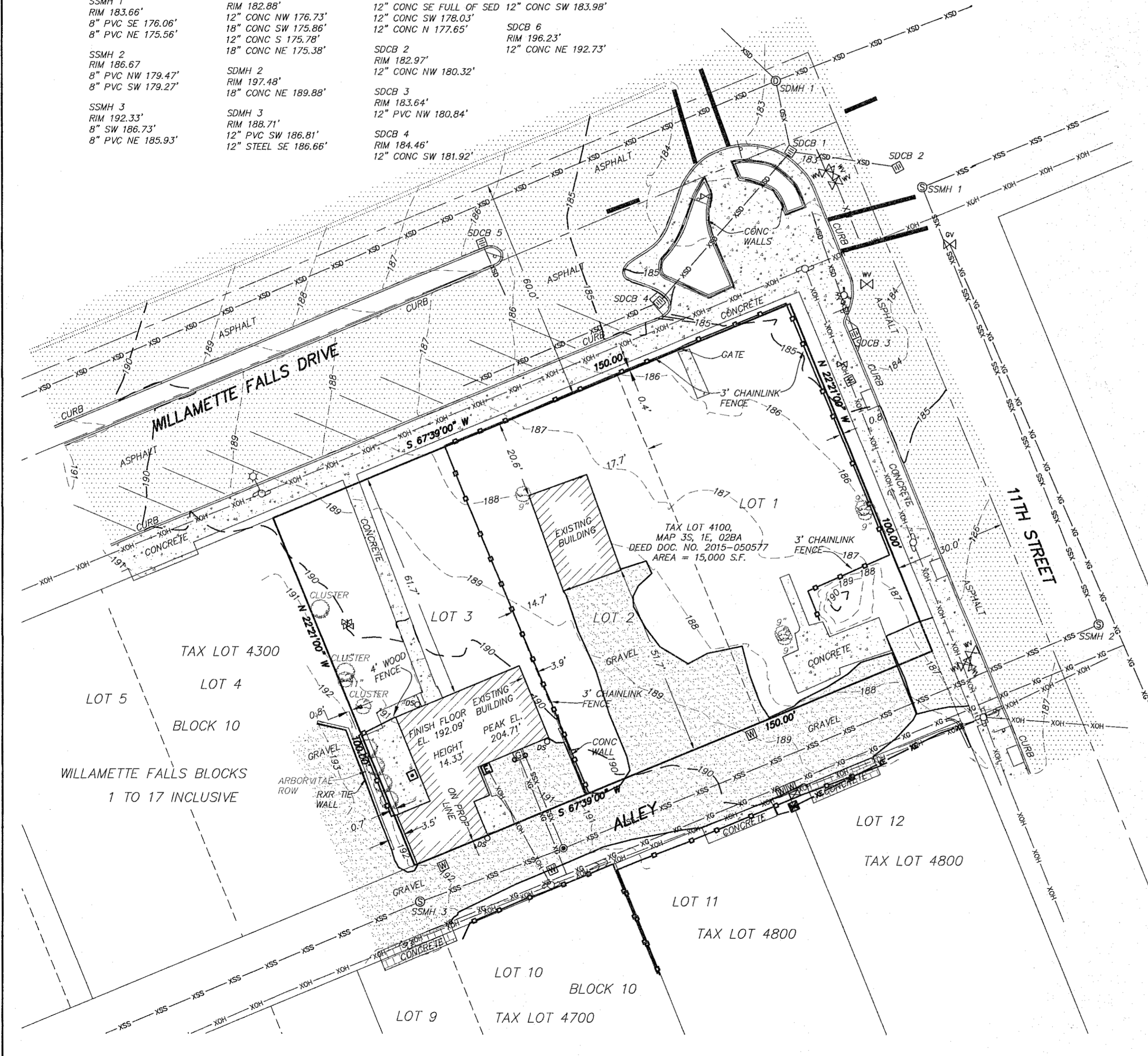
NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP.

THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES 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. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR.

LEGEND:

Some Symbols shown may not be used on map

	DECIDUOUS TREE		UTILITY AND LIGHT POLE
	EVERGREEN TREE		UTILITY POLE
	STORM SEWER MANHOLE		LIGHT POLE
	CATCH BASIN		GUY WIRE
	SANITARY SEWER CLEANOUT		ELECTRIC BOX
	SANITARY SEWER MANHOLE		ELECTRIC METER
	IRRIGATION CONTROL VALVE		ELECTRICAL POWER PEDESTAL
	WATER VALVE		ELECTRIC RISER
	WATER METER		HEAT PUMP
	FIRE HYDRANT		OVERHEAD LINE
	GAS VALVE		GAS LINE
	GAS METER		ELECTRICAL LINE
	BOLLARD		COMMUNICATIONS LINE
	SIGN		SANITARY SEWER LINE
	MAILBOX		STORM DRAIN LINE
	COMMUNICATIONS PEDESTAL		WATER LINE
	COMMUNICATIONS MANHOLE		FENCELINE
	COMMUNICATIONS BOX		UTILITY RISER
	STORM OUTFALL		DOWN SPOUT TO SPLASH GUARD/GROUND
	PROPERTY CORNER		ARBORVITAE
	DOWN SPOUT TO STORM SYSTEM		

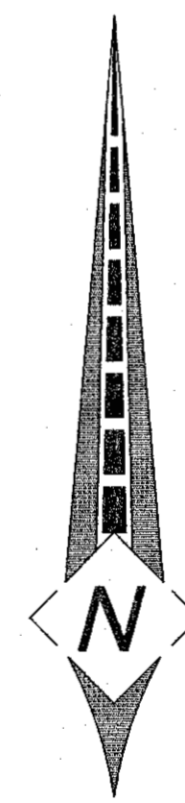
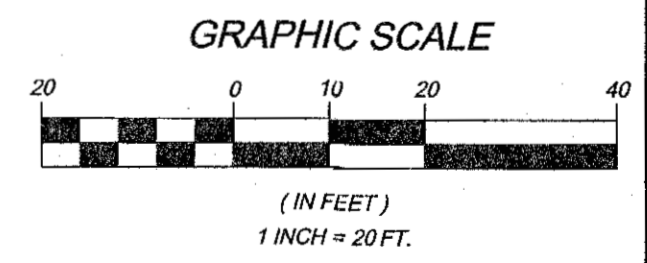


SIGNED ON: 15 OCT 15

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR

OREGON
 JULY 13, 2004
 TOBY G. BOLDEN
 60377LS

RENEWS: DECEMBER 31, 2015



**CENTERLINE CONCEPTS
 LAND SURVEYING, INC.**

729 MOLALLA AVE., SUITE 1 & 2
 OREGON CITY, OREGON 97045
 PHONE 503.650.0188 FAX 503.650.0189

Plotted: M:\PROJECTS\CON-WILLAMETTE FALLS DR-1969\dwg\ECM.dwg

EX

PC-4 REVISED TRAFFIC IMPACT ANALYSIS AND COMMENTS



720 SW Washington St.
Suite 500
Portland, OR 97205
503.243.3500
www.dksassociates.com

MEMORANDUM

DATE: July 6, 2016
TO: Khoi Le, City of West Linn
FROM: Garth Appanaitis, PE
SUBJECT: Willamette Falls Drive Mixed-Use Building TIS Review
West Linn On Call - Task 2

P16043-002

Per your request of March 15, 2016, we have reviewed the traffic impact analysis (TIS)¹ provided for the proposed mixed use development at 1969 Willamette Falls Drive. This updated TIS was submitted to address our comments on the prior TIS. This review focused on the technical components of the analysis, which are summarized in the following sections. Based on our review of submitted materials, the applicant did not provide all materials that were requested. However, based on the information provided we can generally determine impacts to the transportation system.

TECHNICAL REVIEW SUMMARY

This section provides a summary of our technical review, which is organized into items that were not provided, general review items, and a summary of key findings.

Incomplete Items

The following items were not included with the revised submittal:

- Vehicle queueing analysis, as requested in our review dated April 13, 2016 was not provided.
- The summary of site trips (page 11) assumes a reduction for internal trips between the restaurant and office uses. However, the supporting calculation worksheets are not provided.

General Review Items

The following items provide additional highlights of our review:

- Land Use and Trip Generation (Page 3) - The prior analysis was updated to account for potential restaurant uses on the lower floor (an allowed use), which increased the estimated trip generation from prior estimates that assumed a shopping center trip rate. The TIS notes that this assumption (along with a scenario including an office use on the first floor) would “represent upper and lower bounds of trip estimates for the range of potential uses”. While the assumed use of a restaurant on the lower floor represents a reasonable use case, it should be clarified that this is not a true “upper bound” since other use cases that are allowed by development code would generate more traffic (such as a combination of convenience store, drinking place, and fast food without drive in).
- Trip Generation (Page 11) - The trip generation calculations include reductions for internal trips between the restaurant and office uses. As noted in the prior section, these calculations were not provided. Further, the calculations appear to be incorrect. For an internal trip to occur, it must travel

¹ Willamette Falls Drive Mixed-Use Building Traffic Impact Study, Lancaster Engineering, June 29, 2016.

between both uses. Therefore, the number of internal trips is calculated as the minimum of those estimated for each use (e.g., four internal trips could not enter the restaurant in the morning if only one internal trips is leaving the office). A review of the ITE internal trip rates² does not match the assumptions shown in the trip generation summary, but it does not appear to significantly change findings³.

- Warrant Analysis (Page 17) - While a westbound left turn warrant was met at the intersection of Willamette Falls Drive / 11th Street, it was not recommended since the intersection was reported to operate both safely and efficiently under current conditions. Further, the addition of the turn lane would increase conflict points for pedestrian crossings and encroach on the existing turn lane provided for 10th Street.

Findings

The following recommendations would address site impacts:

- Coordination - Given the proximity to I-205, the inclusion of ODOT study intersections, and past coordination with ODOT on the 10th Street corridor, ODOT should review the TIS and provide comments.
- Proportionate Share Contributions (Page 26/27) - Proportionate share contributions for three improvements were identified based on an estimated improvement cost and a calculation of the portion of total traffic that would be related to the site development. The City should determine and confirm the appropriate contribution towards each improvement based on the following technical findings:
 - WFD/12th - The intersection does not meet City performance standards under the existing condition and would further degrade with the additional site traffic. A traffic signal (\$300k) is identified in the Transportation System Plan, however the intersection does not yet meet traffic signal warrants.
 - WFD/10th - This intersection would meet performance standards without the proposed development, but the additional site trips would trigger the improvement at this location. The applicant should coordinate with the City and ODOT to determine the appropriate improvement at this location along the 10th Street corridor. A total project cost of \$990,000 was identified, but it is not clear where this cost was reported and the City should confirm with ODOT the improvement (which may include a phased or full improvement of the ultimate improvement) and/or the estimated cost of the improvement for fee in lieu.
 - 10th / 8th Court - The intersection does not currently meet performance standards and would be further degraded with the proposed development. The applicant should coordinate with the City and ODOT to determine the appropriate improvement at this location along the 10th Street corridor. The TSP identifies future turn restrictions at this location.

The applicant's materials sufficiently addressed impacts to the transportation system in the immediate vicinity of the site as well as the surrounding system. Additional traffic impacts not noted in the application or in this review would be addressed through the developer's contributions to System Development Charges.

If you have any questions, please call.

² *Trip Generation Handbook, 3rd Edition*, Institute of Transportation Engineers, August 2014.

³ The morning peak hour would have one less out trip and the evening peak hour would not change the total trips.

**WILLAMETTE FALLS DRIVE MIXED-USE BUILDING
TRAFFIC IMPACT STUDY**

WEST LINN, OREGON

DATE:
June 29, 2016

PREPARED FOR:
Mark Handris

PREPARED BY:
William Farley, PE
Michael Ard, PE



**LANCASTER
ENGINEERING**

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

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Project Description	4
Trip Generation & Distribution	11
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Operational Analysis	18
Mitigation and Proportionate-Share Contribution Analysis	26
Conclusions	28
Appendix	29

EXECUTIVE SUMMARY

1. A two-story mixed-use commercial building has been proposed for the lot located at 1969 Willamette Falls Drive in West Linn, Oregon. The new building will consist of 10,511 square feet of ground-floor retail and 14,560 square feet of second floor office space or a second floor 19-room hotel.
2. Assuming that the first floor is used as restaurant space and the second floor is used for office space, the proposed mixed-use building is projected to generate up to 82 trips during the morning peak hour and up to 78 trips during the evening peak hour. If the first floor is used as office space and the second floor of the building is used for a 19-room hotel, the trip generation would be reduced to 26 trips during the morning peak hour and 27 trips during the evening peak hour. These represent upper and lower bounds of trip estimates for the range of potential uses.
3. A detailed examination of the crash history at the study intersections shows no significant safety concerns and no trends that are indicative of design deficiencies. No safety mitigations are recommended. Left-turn lane warrants were found to be met for the intersection of Willamette Falls Drive at 11th Street under existing conditions. Installation of a westbound left-turn lane can be considered; however, since installation of the turn lane is likely to result in overall negative impacts to operations and safety once pedestrian crossings and operation of the intersection at 10th Street are considered, installation of a new westbound left-turn lane is not recommended.
4. The intersections of 10th Street at Blankenship Road/Salamo Road, 10th Street at the Interstate 205 southbound ramps, and 10th Street at the Interstate 205 northbound ramps are projected to continue operating within the Oregon Department of Transportation's required performance standards either with or without the addition of site trips from the proposed development.
5. The intersections of 10th Street at 8th Avenue/8th Court and Willamette Falls Drive at 12th Street are currently operating above the City's performance standard of LOS D. Since the proposed development does not add any trips to the critical movements at these intersections, no specific mitigation is recommended in conjunction with the proposed development.
6. The intersection of Willamette Falls Drive at 10th Street is projected to operate at LOS E following completion of the proposed development. Warrant 1, Eight-Hour Vehicular Volume, was found to be met for this intersection under existing conditions. However, since plans impacting the intersection are being evaluated by the City of West Linn that involve the 10th Street corridor and considering the fact that the signal is warranted under existing conditions, the installation of a traffic signal is not recommended as mitigation for the proposed development.
7. Based on the analysis of proportionate impacts resulting from the proposed development, it is anticipated that the developer may need to contribute up to \$42,720 toward the cost of future transportation system improvements, depending on the mix of uses that ultimately occupy the building.

PROJECT DESCRIPTION

INTRODUCTION

This Transportation Impact Study (TIS) addresses the development of a proposed mixed-use commercial building located at 1969 Willamette Falls Drive in West Linn, Oregon. The two-story development will comprise 10,511 square feet of ground-floor retail space and either 14,560 square feet of second-floor office or a 19-room hotel.

This report looks at the traffic impacts of the proposed development on the transportation system in the vicinity of the site and addresses concerns raised by the City of West Linn, Clackamas County, and the Oregon Department of Transportation. The purpose of this report is to provide an analysis that addresses the impacts on adjacent streets as well as the operation of nearby study intersections to ensure safe and efficient performance.

All supporting data and calculations are included in the appendix to this report.

PROJECT LOCATION

The subject property is located on the southwest corner of the intersection of Willamette Falls Drive at 11th Street in West Linn, Oregon. The proposed mixed-use development will take access to the transportation network via a driveway ramp to an underground parking garage on 11th Street, as well as additional access and parking from Knapp's Alley. The building frontage will face Willamette Falls Drive where there is additional head-in on-street parking.

To identify impacts resulting from the proposed development, the following intersections were selected for full analysis during the weekday AM and PM peak hours:

- Willamette Falls Drive at 12th Street
- Willamette Falls Drive at 11th Street
- Willamette Falls Drive at 10th Street
- 10th Street at 8th Avenue/8th Court
- 10th Street at Interstate 205 Eastbound ramp access
- 10th Street at Interstate 205 westbound ramp access
- 10th Street at Blankenship Road/Salamo Road

VICINITY STREETS

Willamette Falls Drive is under the jurisdiction of the City of West Linn and is classified as a Minor Arterial. It is generally a two-lane roadway with one standard lane in each direction and has a posted speed of 20 mph in the site vicinity within the central business district. East of the central business district, Willamette Falls Drive is classified as a principal arterial and the speed limit is increased to 40 mph. The roadway has on-street parking on both sides of the street as well as head-in parking

served by frontage streets separated by raised medians. There are curb and sidewalks on both sides of the roadway, as well as frequent pedestrian bulb-outs located on the corners of most cross streets.

12th Street is under the jurisdiction of the City of West Linn and is classified as a Minor Arterial south of Willamette Falls Drive and a Local Road to the north. It is a two-lane facility with no posted speed limit. There are curbs, sidewalks, and on-street parking areas along both sides of the roadway.

11th Street is under the jurisdiction of the City of West Linn and is classified as a Local Road. It is a two-lane facility with a statutory residential speed limit of 25 mph. Intermittent curbs and sidewalks are provided along both sides of the street. On-street parking is permitted in areas with sufficient width where vehicles can park without impeding the flow of through traffic.

10th Street is classified by the City of West Linn as a Minor Arterial. The road cross-section varies between three and four lanes for two-way traffic and does not have a posted speed limit. There are curbs along both sides of the street and continuous sidewalks along the west side. On-street parking is not available.

8th Avenue and 8th Court are under the jurisdiction of the City of West Linn and are classified as Local Roads. Both are two-lane facilities with one standard lane in each direction and each has a statutory residential speed limit of 25 mph. Curbs and sidewalks are provided intermittently on both sides of the streets. On-street parking is permitted in areas with sufficient width as to not impede the flow of through traffic.

Interstate 205 is under the jurisdiction of the Oregon Department of Transportation. It is generally a four-lane divided freeway with a posted speed of 65 mph to the west of 10th Street and 55 mph to the east.

Salamo Road is under the jurisdiction of the City of West Linn and is classified as a Minor Arterial. It is generally a two-lane roadway with a posted speed of 40 mph west of 10th Street. No curbs or sidewalks are provided near the intersection with 10th Street. On-street parking is not permitted on either side of the roadway.

West of 10th Street, Salamo Road becomes Blankship Road. Blankenship Road is under the jurisdiction of the City of West Linn and is classified as a Collector west of Tannler Drive. It generally is a three-lane roadway, including a center two-way left-turn lane, and has a posted speed limit of 25 mph. Curbs and sidewalks are provided continuously along the southern side of the street and intermittently along the northern side. On-street parking is not permitted on either side of the roadway.

STUDY INTERSECTIONS

The intersection of Willamette Falls Drive at 12th Street is a four-legged intersection under all-way stop control. The eastbound and westbound approaches on Willamette Falls Drive each have a dedi-

cated left-turn lane and a shared through/right-turn lane. The northbound and southbound approaches have a single, shared lane for all turning movements.

The intersection of Willamette Falls Drive at 11th Street is a four-legged intersection with stop control for the northbound approach on 11th Street and for the southbound approach from a frontage street. Each approach at the intersection has a single, shared lane for all turning movements. Access to a frontage street with additional on-street parking is available on the north side of the intersection.

The intersection of Willamette Falls Drive at 10th Street is a three-legged intersection operating under all-way stop control. The eastbound approach on Willamette Falls Drive has a dedicated left-turn lane and a through lane while the westbound approach has a single, shared lane for all turning movements. The southbound approach has dedicated lanes for left and right turns.

The intersection of 10th Street at 8th Avenue/8th Court is a four-legged intersection operating under two-way stop control for the eastbound and westbound approaches. The northbound approach on 10th Street has a single, shared lane for all turning movements and a left-turn restriction weekdays from 4PM to 6PM. The southbound approach has a dedicated left-turn lane and a shared through/right-turn lane. The eastbound approach on 8th Avenue has a dedicated left-turn lane and a shared through/right-turn lane while the westbound approach on 8th Court has a dedicated right-turn lane and a shared through/left-turn lane.

The intersection of 10th Street at the Interstate 205 northbound ramps is a four-legged, signalized intersection. The northbound approach on 10th Street has a dedicated right-turn lane and a through lane while the southbound approach has a dedicated left-turn lane served with flashing-yellow-arrow phasing and a through lane. The eastbound approach from northbound Interstate 205 has a shared through/left-turn lane and a dedicated right-turn lane.

The intersection of 10th Street at the Interstate 205 southbound ramps is a four-legged, signalized intersection. The northbound approach on 10th Street has a dedicated left-turn lane served by flashing-yellow-arrow phasing and a through lane while the southbound approach has a through lane and a shared through/right-turn lane. The westbound approach from southbound Interstate 205 has a shared through/left-turn lane and a dedicated right-turn lane.

The intersection of 10th Street at Blankenship Road/Salamo Road is a three-legged intersection controlled by a traffic signal. The northbound approach on 10th Street has a dedicated left and a channelized right-turn lane. The westbound approach on Salamo Road has a dedicated left-turn lane and a through lane. The eastbound approach on Blankenship Road has a through lane and a channelized right-turn lane. It should be noted that a single controller operates this intersection and the intersection of 10th Street at the Interstate 205 southbound ramps.

A vicinity map showing the project site and the study area intersections is shown in Figure 1 on page eight.

PUBLIC TRANSIT

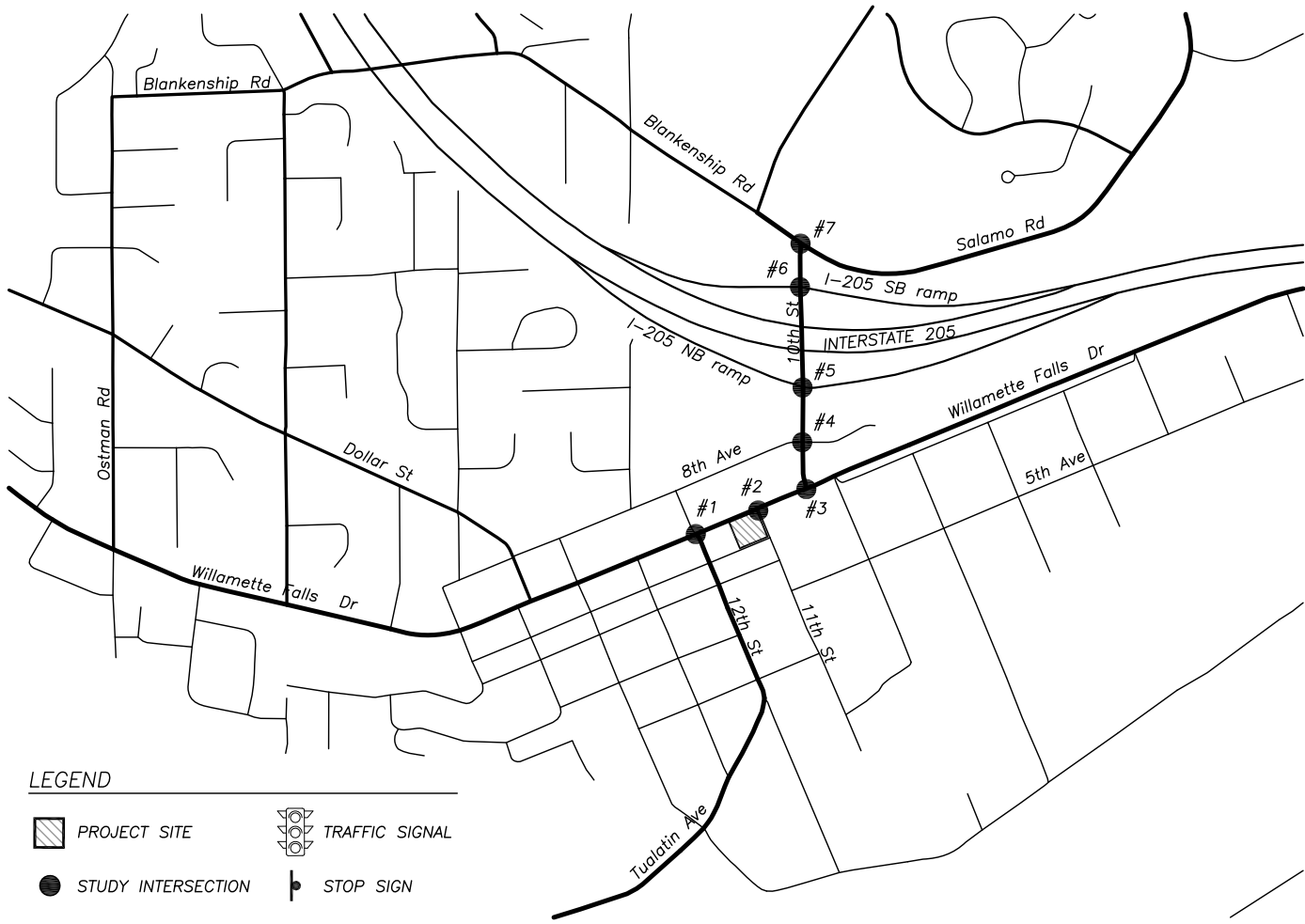
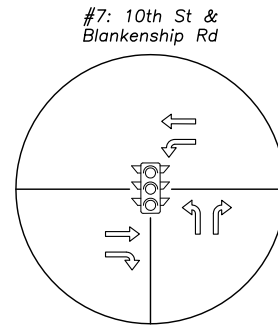
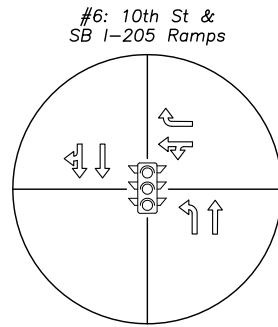
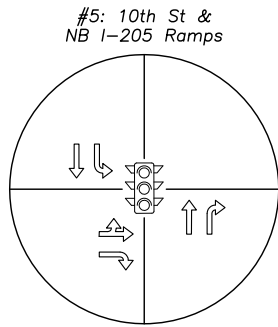
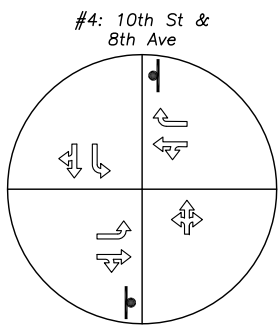
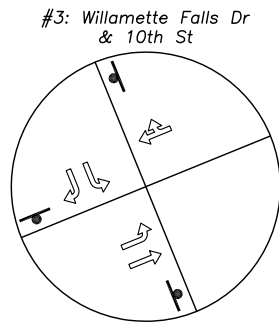
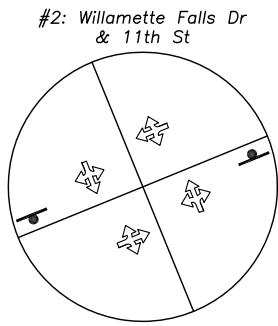
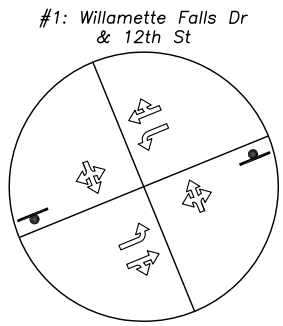
TriMet Bus *Line 154-Willamette/Clackamas Heights* provides bus service along Willamette Falls Drive, 10th Street, and Blankenship Road on its route from Oregon City. The bus provides weekday service from 6 AM to 7 PM with headways of approximately 60 minutes. The bus route has no weekend service.

TRAFFIC COUNTS

Traffic counts were conducted for the study intersections along 10th Street on April 14th, 2015, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM to capture the weekday peak periods. Traffic counts were conducted for the intersections of Willamette Falls Drive at 11th Street and Willamette Falls Drive at 12th Street on July 21st, 2015, for the same periods. Data was used for the system-wide peaks of 7:20 AM to 8:20 AM for the morning and from 4:15 PM to 5:15 PM for the evening.

Since the counts along Willamette Falls Drive were collected at different periods, one of which was when a nearby school was not in session, adjustments were made to the traffic counts at 11th Street and 12th Street. Traffic volumes observed at the intersections of Willamette Falls Drive at 11th Street and Willamette Falls Drive at 12th Street were increased to balance with the traffic counts collected at Willamette Falls Drive at 10th Street.

Figure 2 on page nine shows the existing traffic volumes at each of the study intersections for the AM peak hour and Figure 3 on page ten shows the existing traffic volumes for the PM peak hour.



- LEGEND**
- PROJECT SITE
 - TRAFFIC SIGNAL
 - STUDY INTERSECTION
 - STOP SIGN

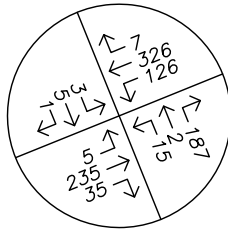


VICINITY MAP

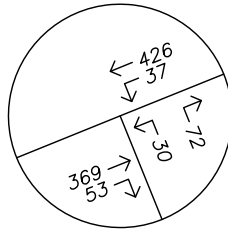


FIGURE
1
PAGE
8

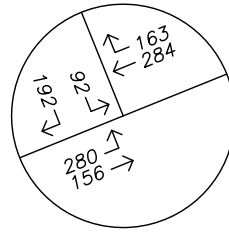
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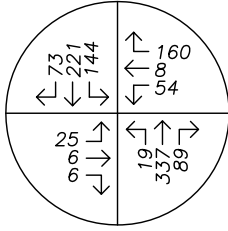
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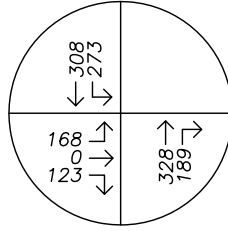
#3: Willamette Falls Dr & 10th St



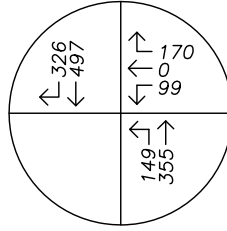
#4: 10th St & 8th Ave



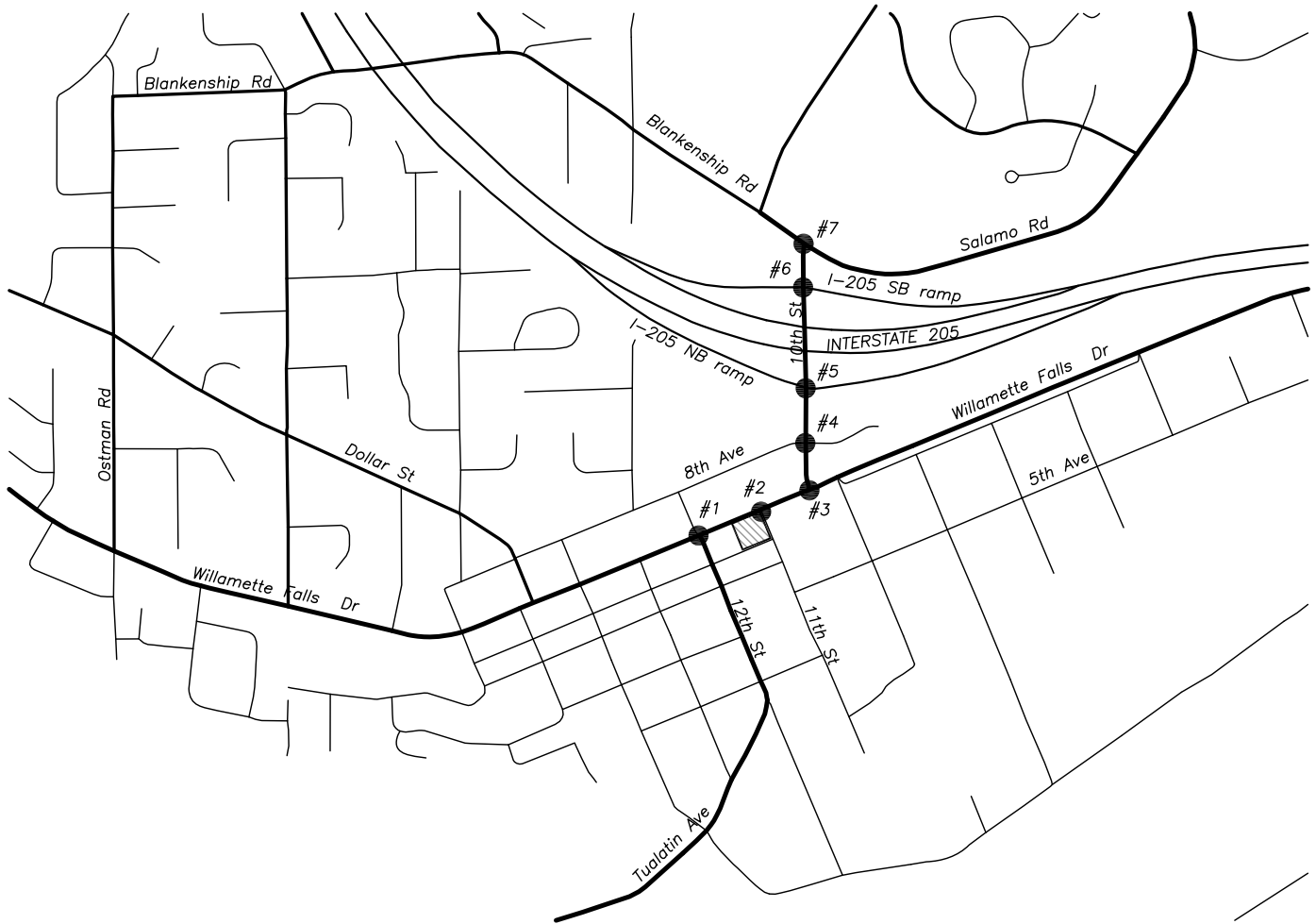
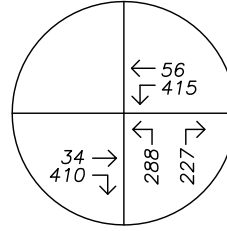
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#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



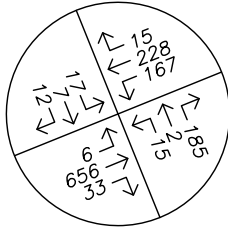
TRAFFIC VOLUMES
Existing Conditions
AM Peak Hour



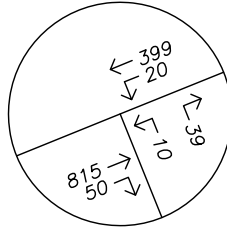
FIGURE
2

PAGE
9

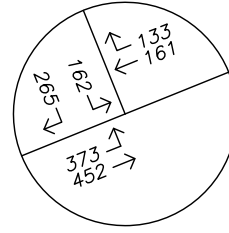
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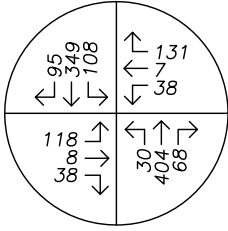
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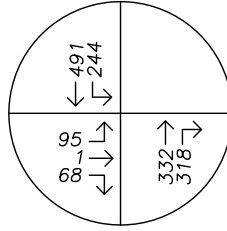
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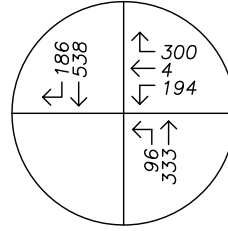
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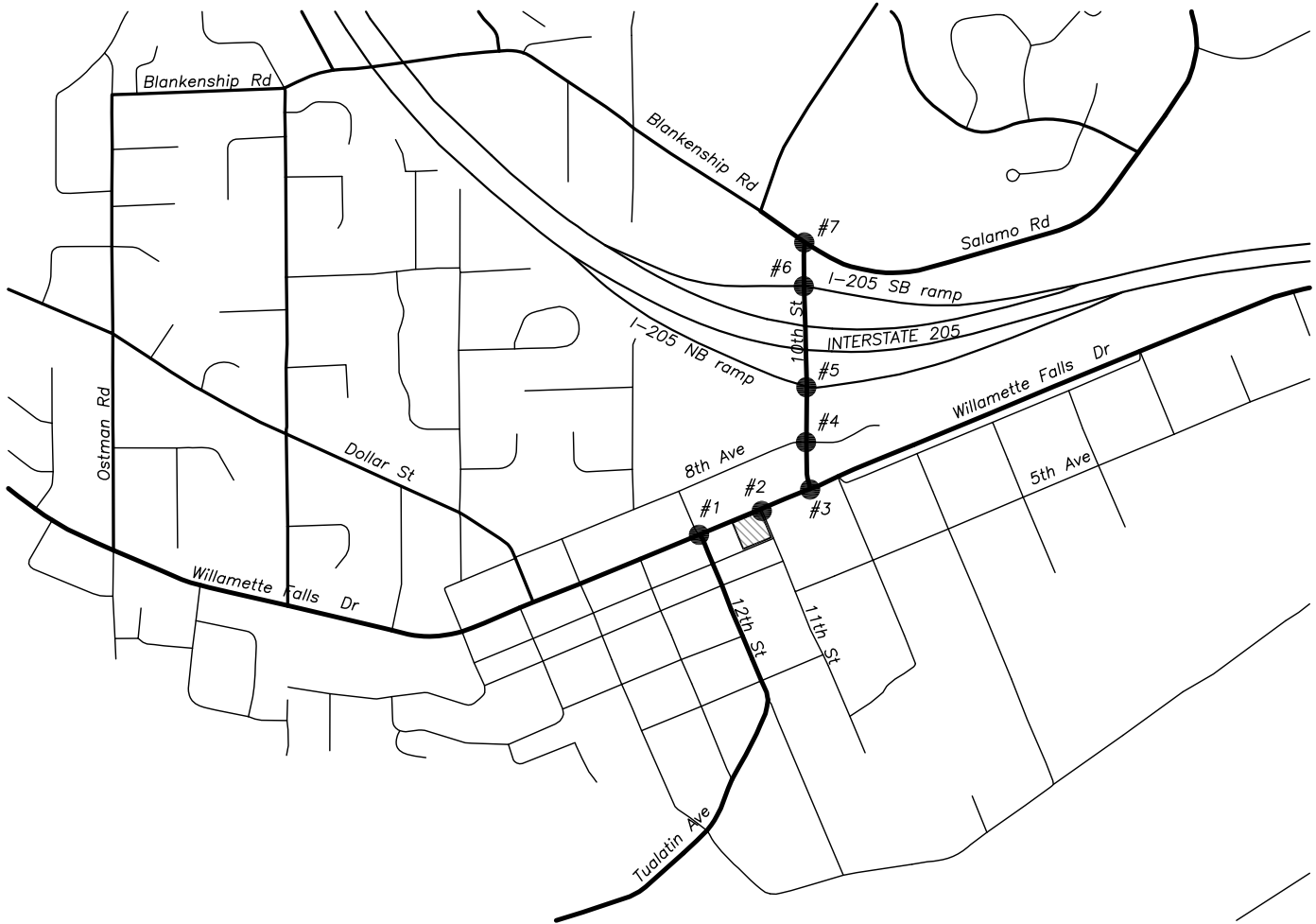
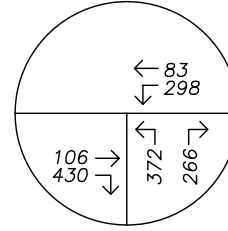
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



TRAFFIC VOLUMES
Existing Conditions
PM Peak Hour



FIGURE
3

PAGE
10

TRIP GENERATION & DISTRIBUTION

TRIP GENERATION

The ground floor of the proposed mixed-use commercial building will consist of 10,511 square-feet of retail space. The second floor is proposed as either 14,560 square-feet of office space or a 19-room hotel. To ensure a conservative analysis, it was assumed that the first floor would consist of restaurant uses and the second floor would be occupied by office space, since this combination of uses results in the highest traffic volumes of the potential uses.

To estimate the number of trips that will be generated by the proposed mixed-use building, trip rates from *TRIP GENERATION MANUAL*, Ninth Edition, published by the Institute of Transportation Engineers (ITE), were used. Land use code #932, *High-Turnover (Sit-Down) Restaurant*, and land use code #710, *General Office*, were used to calculate the total trip generation of the proposed development.

The trip generation calculations show that the proposed mixed-use building will generate up to 82 net new trips during the morning peak hour with 55 entering the site and 27 exiting. During the evening peak hour, the development will generate up to 78 net new trips with 42 entering and 36 exiting the site. Up to a total of 876 daily trips will be generated by the project.

The following table offers a summary of the trip generation. Detailed ITE trip generation calculations are included in the appendix to this report.

TRIP GENERATION SUMMARY								
	Size	Morning Peak Hour			Evening Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Restaurant	10,511 ksf	63	51	114	62	42	104	1336
- Internal Trips (7%/3%)		-4	-4	-8	-2	-1	-3	-66
- Pass-by trip (43%)		-23	-23	-46	-22	-22	-44	-546
Office	14,560 ksf	20	3	23	4	18	22	160
-Internal Trips (7%/3%)		-1	0	-1	0	-1	-1	-8
Total	25,071 ksf	55	27	82	42	36	78	876

Although the above calculations represent a reasonable worst-case development scenario that is appropriate for use to determine potential mitigation needs, a lower-bound trip estimate was also prepared in order to determine the range of the potential traffic impacts. Since the actual traffic impacts will be directly related to the actual uses within the proposed building, traffic impact fees ultimately

paid should be proportionate to the actual uses rather than either the high or low trip generation estimate values.

Under a low trip generation scenario, the building could be developed with 10,511 square feet of office space on the first floor and with a 19-room hotel on the second floor. Under this alternative development scenario, the building would be projected to generate 26 trips during the morning peak hour with 20 entering the site and 6 exiting. During the evening peak hour, the development would generate 27 trips with 9 entering and 18 exiting the site. A total of 272 daily trips would be generated by the project, with half entering and half exiting the site.

The table below offers a summary of the low estimate of trip generation. Again, detailed ITE trip generation calculations are included in the appendix to this report.

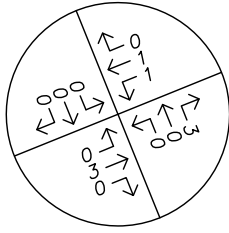
TRIP GENERATION SUMMARY								
	Size	Morning Peak Hour			Evening Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Office	10,511 ksf	14	2	16	3	13	16	116
Hotel	19 Rooms	6	4	10	6	5	11	156
Total	25,071 ksf	20	6	26	9	18	27	272

TRIP DISTRIBUTION

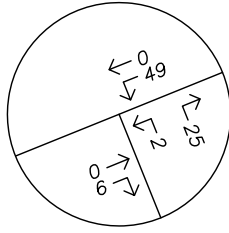
It is projected that majority of the trips generated by the proposed mixed-use building will arrive and depart using Interstate 205. Based on the observed traffic trends, it is projected that approximately 45 percent of the trips will travel to and from the east on Interstate 205 while 25 percent will travel to and from the west. Approximately 10 percent of the trips to and from the site will use Salamo Road and 5 percent will each use Blankenship Road to the north, Willamette Falls Drive to the east or west, or Tualatin Avenue to the south.

The trip distribution and assignment for the mixed-use commercial building is shown in Figure 4 on page 13 for the AM peak hour and Figure 5 on page 14 for the PM peak hour.

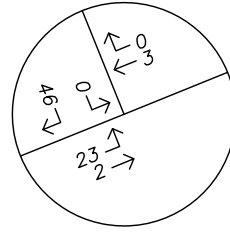
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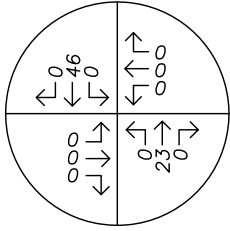
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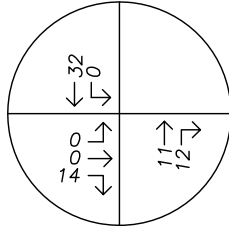
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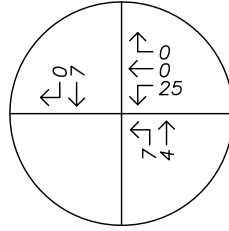
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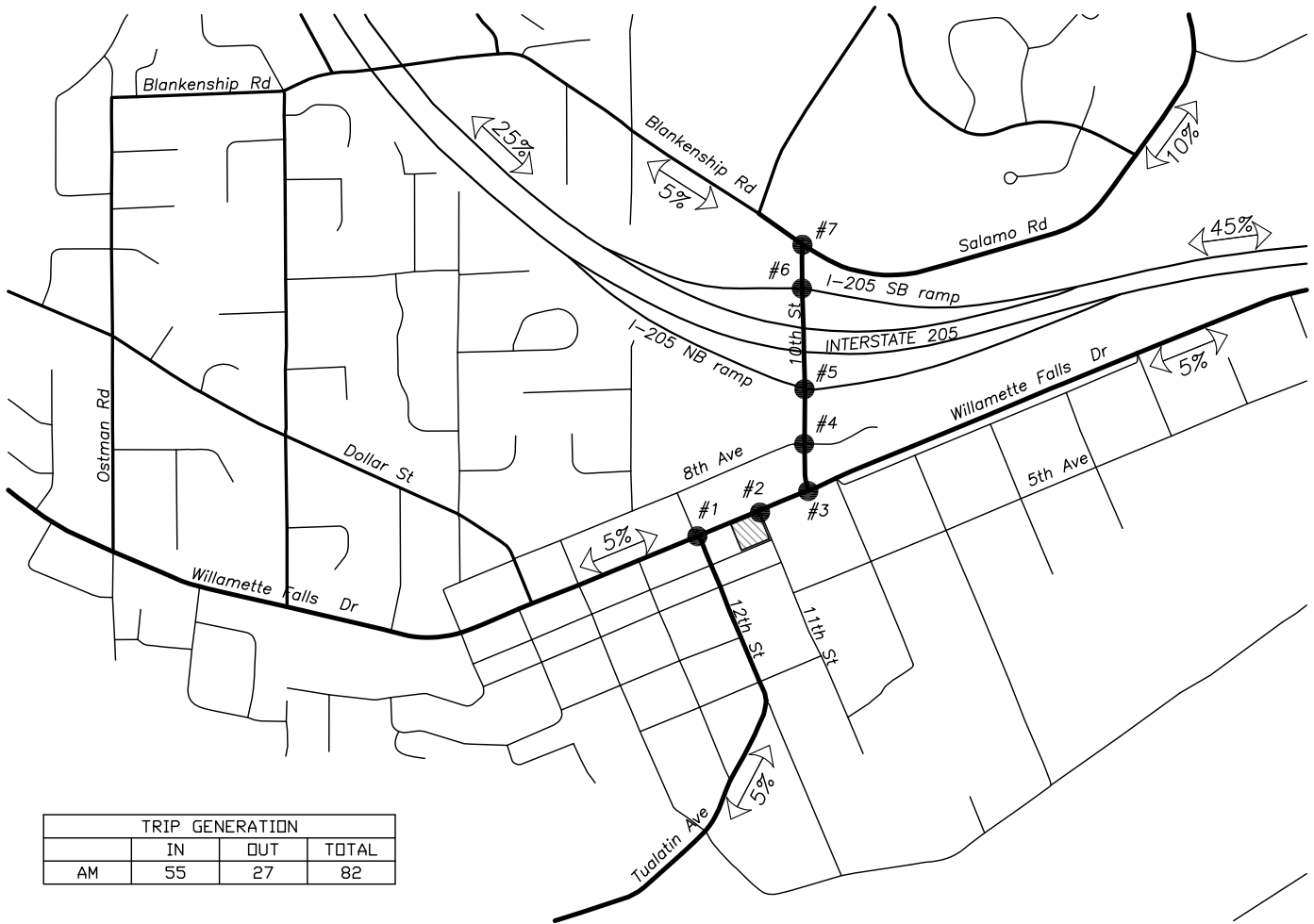
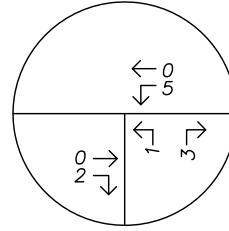
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



TRIP GENERATION			
	IN	OUT	TOTAL
AM	55	27	82



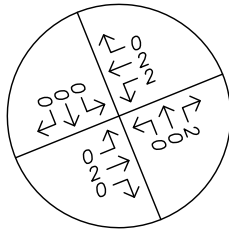
SITE TRIP DISTRIBUTION & ASSIGNMENT
 Proposed Development Plan – Site Trips
 AM Peak Hour



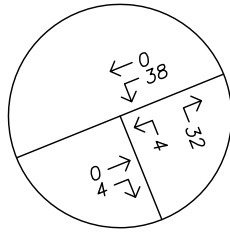
FIGURE 4

PAGE 13

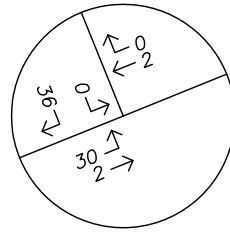
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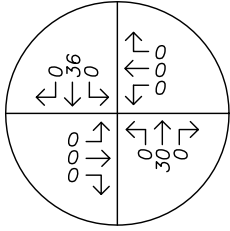
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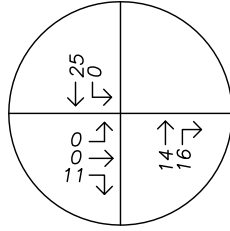
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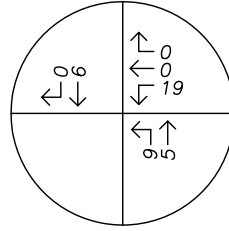
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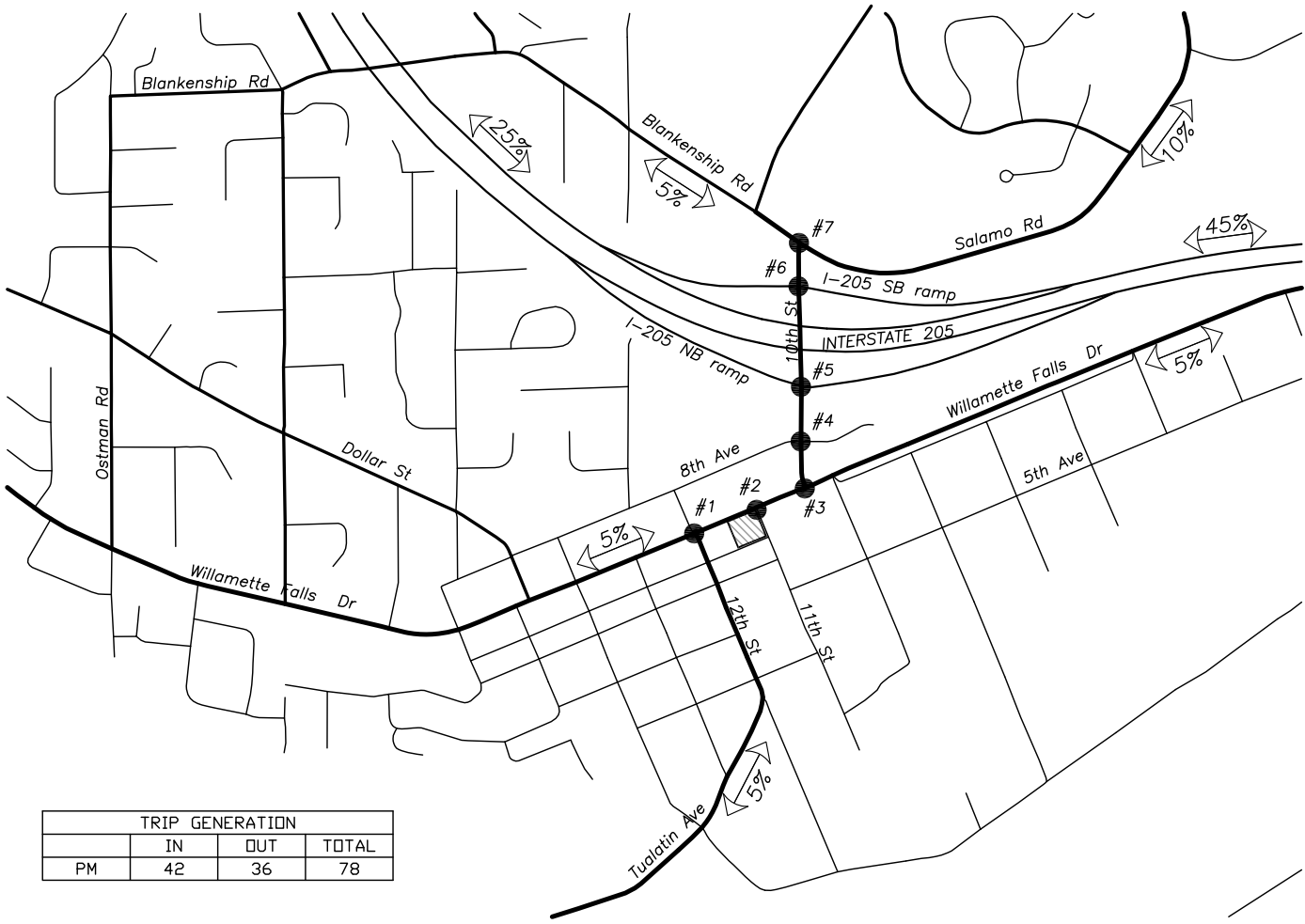
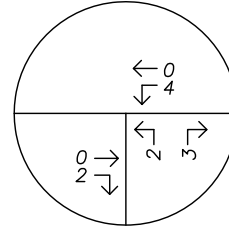
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



TRIP GENERATION			
	IN	OUT	TOTAL
PM	42	36	78



SITE TRIP DISTRIBUTION & ASSIGNMENT
 Proposed Development Plan – Site Trips
 PM Peak Hour



SAFETY ANALYSIS

CRASH DATA ANALYSIS

Using data obtained from the Oregon Department of Transportation's Crash Analysis and Reporting Unit, a review was performed for the most recent available five years of crash data (January 2010 to December 2014) for each of the study intersections. A crash rate was calculated under the common assumption that traffic counted during the PM peak period represents 10 percent of the average daily traffic (ADT) at the intersection. Crash rates greater than 1.0 crashes per million entering vehicles (CMEV) are generally indicative of a need for further investigation and possible mitigation.

The intersection of Willamette Falls Drive at 12th Street had a total of four reported crashes during the analysis period. Of the reported crashes, two were rear-end collisions, one was an angle collision involving a bicyclist, and one occurred during a turning movement. Two of the crashes resulted in property damage only (*PDO*) while the remaining two resulted in possible injuries or complaints of pain (*Injury-C*). The calculated crash rate for the intersection was 0.16 CMEV.

The crash involving a bicyclist occurred when a westbound vehicle failed to give right-of-way to a bicyclist who was making a left-turn through the intersection. The crash resulted in the bicyclist sustaining possible injuries.

The intersection of Willamette Falls Drive at 11th Street had one reported crash during the analysis period. The crash was a rear-end collision that resulted in non-incapacitating injuries (*Injury-B*). The crash rate for the intersection was calculated to be 0.04 CMEV.

The intersection of Willamette Falls Drive at 10th Street had five crashes reported during the five-year analysis period. Three were rear-end collisions while the remaining two involved vehicles making a turning movement. All five crashes resulted in only property damage. The intersection's crash rate was calculated at 0.18 CMEV.

The intersection of 10th Street at 8th Avenue/8th Court had 13 crashes reported during the analysis period. Seven of the crashes reported involved turning vehicles, five were angle-type collisions, and one crash was with a fixed object. Nine of these crashes resulted in property damage only while four resulted in possible injuries or complaints of pain. The crash rate was calculated to be 0.31 CMEV.

The intersection of 10th Street at the Interstate 205 northbound ramps had 13 crashes reported during the five-year period. Of the reported crashes, eight were rear-end collisions, three occurred during a turning movement, one was a sideswipe collision while overtaking, and one involved a vehicle backing up in traffic. Eight of the crashes resulted in only property damage while three resulted in possible injuries, one in a non-incapacitating injury, and one in an incapacitating injury (*Injury-A*). The crash rate for the intersection was calculated to be 0.46 CMEV.

The incapacitating injury that occurred at the intersection of 10th Street at Interstate 205 northbound ramps was a result from a rear-end collision between two vehicles traveling eastbound exiting from the Interstate. The driver at fault was following too closely and collided with the stopped vehicle.

The intersection of 10th Street at the Interstate 205 southbound ramps had 13 reported crashes during the analysis period. These crashes included eleven rear-end collisions, one turning crash, and one with a fixed object. Eight crashes resulted in property damage only while four resulted in possible injuries or complaints of pain and one resulted in a non-incapacitating injury. The crash rate for the intersection was calculated to be 0.43 CMEV.

The intersection of 10th Street at Blankenship Road/Salamo Road had nine crashes reported during the analysis period. These crashes included four rear-end collisions, two sideswipe-meeting collisions, one non-collision, one involving a fixed object, and one pedestrian collision. Four of the crashes resulted in property damage only, four resulted in possible injuries or complaints of pain, and one crash resulted in a non-incapacitating injury. The intersection's crash rate was calculated to be 0.32 CMEV.

The crash involving a pedestrian at the intersection of 10th Street at Blankenship Road/Salamo Road occurred between a pedestrian walking on the shoulder and a westbound vehicle and resulted in the pedestrian suffering a possible injury or complaining of pain.

Based on the detailed review of the crash history, no significant patterns or contributing design concerns were identified at the study intersections.

WARRANT ANALYSIS

Left-turn lane warrants and traffic signal warrants were examined for the applicable study intersections.

Warrant 1, Eight-Hour Vehicular Volume, was examined for the intersection of Willamette Falls Drive at 10th Street and was found to be met under existing conditions. However, since the City of West Linn is considering other treatments to the 10th Street corridor that could divert traffic or change the operation of the intersection, installation of a traffic signal is not recommended at this time.

Traffic signal warrants were also examined for the intersections of 10th Street at 8th Avenue/8th Court and Willamette Falls Drive at 12th Street. Due to low volumes on the minor street approaches, traffic signal warrants are not projected to be met under year 2017 traffic conditions, regardless of trips resulting from the proposed mixed-use building.

Left-turn lane warrants were examined for the intersection of Willamette Falls Drive at 11th Street. A left-turn refuge is primarily a safety consideration for the major street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants examined for facilities under the jurisdic-

tion of West Linn used the methodology outlined in the NCHRP Report #457, published by the Transportation Research Board. These turn-lane warrants are evaluated based on the number of left-turning vehicles, the number of advancing and opposing vehicles, and the roadway travel speed.

Due to the significant amount of traffic along Willamette Falls Drive, left-turn lane warrants were found to be met during the PM peak period under existing conditions for a westbound left-turn lane. The warrant is projected to continue to be met as traffic increases from growth as well as the proposed development.

Although the left-turn lane warrant is met for the intersection, the crash history and operational analysis of Willamette Falls Drive at 11th Street indicates that the intersection is operating safely and efficiently under the existing configuration. Installation of a westbound left-turn lane can be considered; however, since the intersection is operating safely and is projected to continue operating within the City's standards, the installation of a left-turn refuge does not appear to be necessary for safety or operations.

It should also be noted that the striping for the existing eastbound left-turn lane on Willamette Falls Drive approaching 10th Street extends within 50 feet of the intersection at 11th Street. This distance is not sufficient to develop a westbound left-turn lane. Accordingly, installation of a dedicated left-turn lane would be expected to negatively impact the much more heavily-used eastbound left-turn movement onto 10th Street. It would also result in increased conflict points for pedestrians crossing Willamette Falls Drive on the east side of 11th Street, including creating the opportunity for double-threat pedestrian collisions. Since the turn lane is not needed for operations or safety and there would be potentially significant negative operational and safety impacts associated with providing the turn lane, installation of a new westbound left-turn lane on Willamette Falls Drive at 11th Street is not recommended.

OPERATIONAL ANALYSIS

BACKGROUND TRAFFIC

To provide analysis of the traffic impact resulting from the construction of the proposed mixed-use commercial building, an estimate of future traffic volumes is required. In order to calculate the future traffic volumes, 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 2017 background conditions.

In addition to the projected growth, in-process trips associated with the Tannler Mixed-Use Project, located northwest of the intersection of Blankenship Road at Tannler Drive, as well as trips associated with a 61 single-family dwellings that are part of other projects located north of Interstate 205, were incorporated into the year 2017 background traffic volumes.

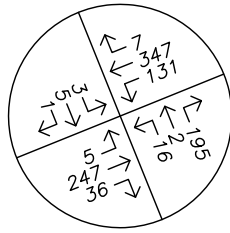
Figure 6 on page 19 and Figure 7 on page 20 show the projected year 2017 background volumes during the AM and PM peak hours, respectively.

BACKGROUND PLUS SITE TRIPS TRAFFIC

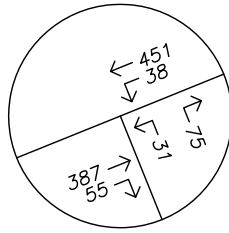
Peak hour trips calculated to be generated from the proposed development of 10,511 square feet of ground-floor restaurant and 14,560 square-feet of second-floor office, as described earlier within the Trip Generation section, were added to the projected year 2017 background traffic volumes to obtain the expected 2017 background plus site trips.

Figure 8 on page 21 and Figure 9 on page 22 show the projected year 2017 peak hour background traffic volumes with the addition of site trips from the proposed development.

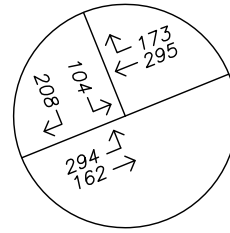
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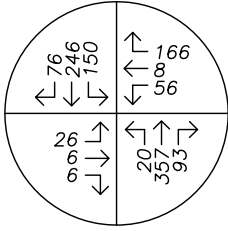
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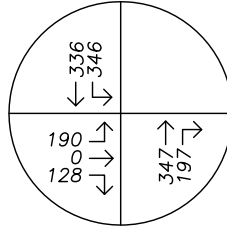
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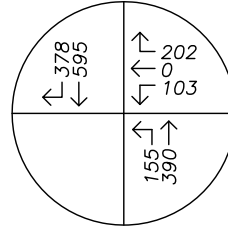
#4: 10th St & 8th Ave



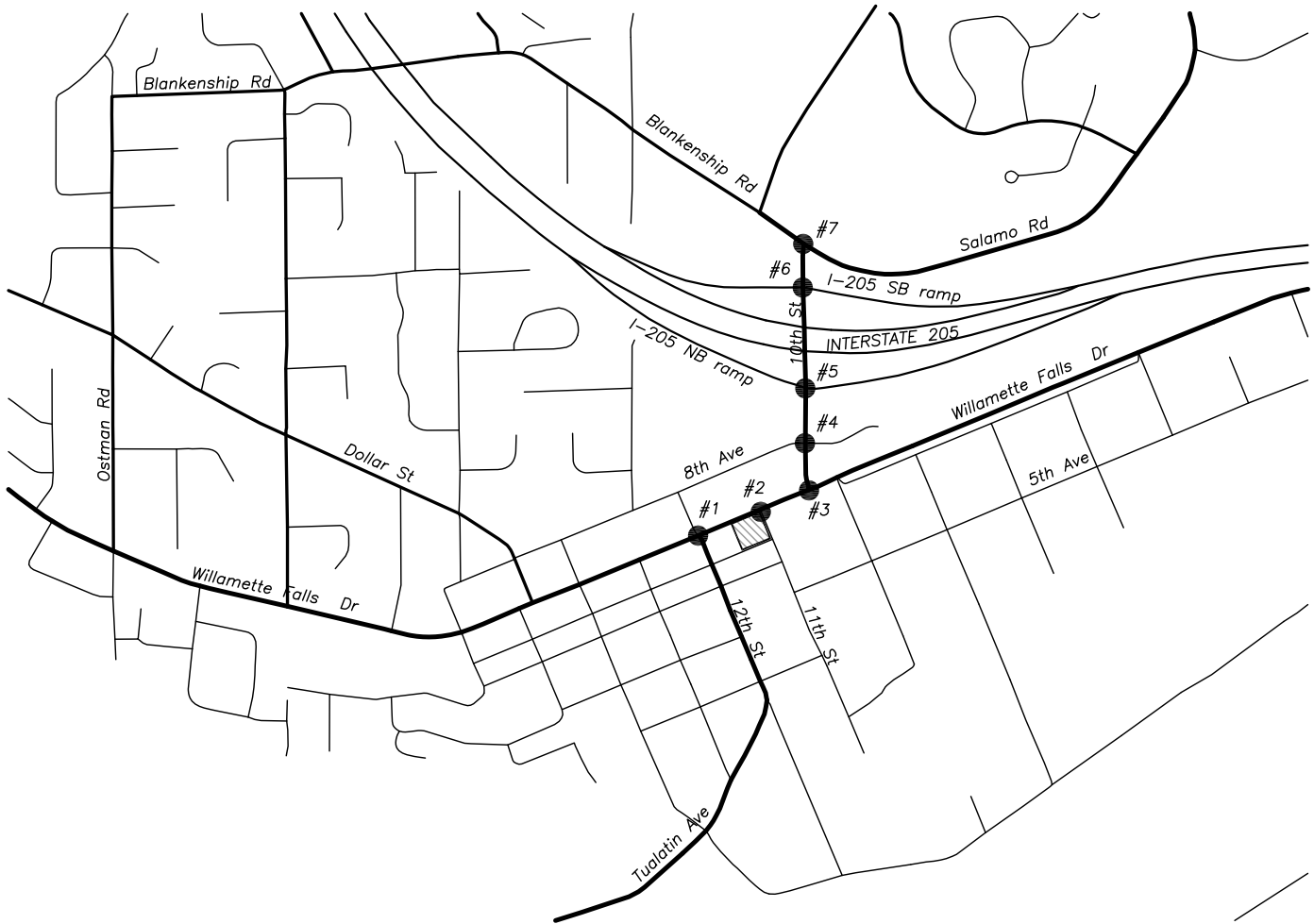
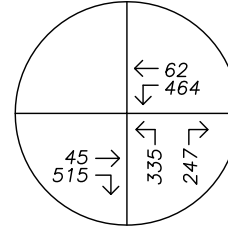
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



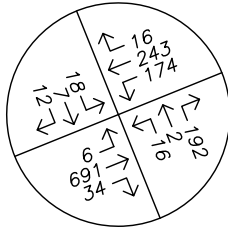
TRAFFIC VOLUMES
 Year 2017 Background Conditions
 AM Peak Hour



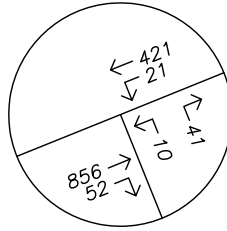
FIGURE
 6

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 19

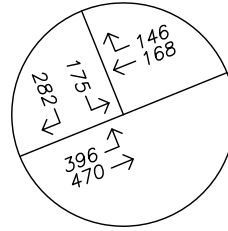
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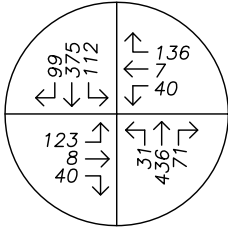
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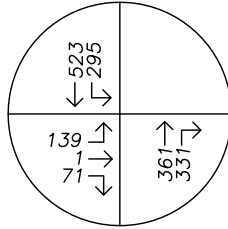
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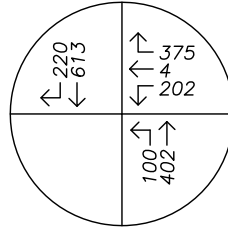
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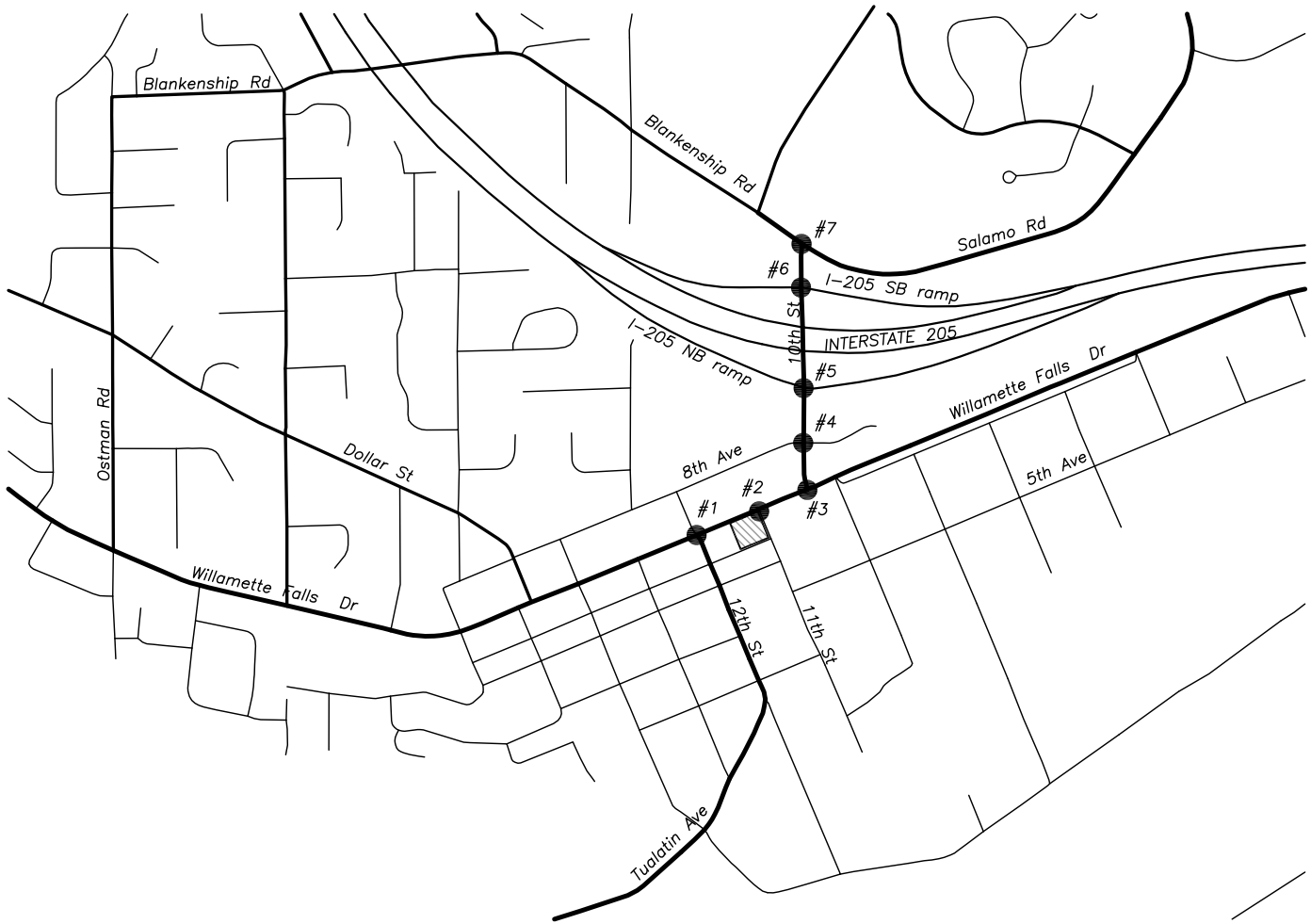
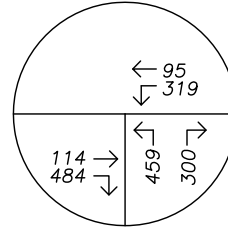
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#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



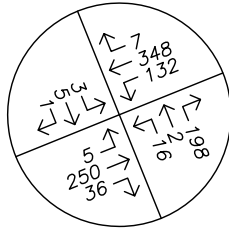
TRAFFIC VOLUMES
Year 2017 Background Conditions
PM Peak Hour



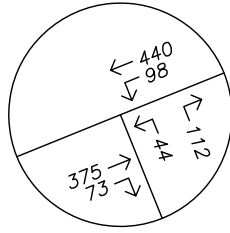
FIGURE
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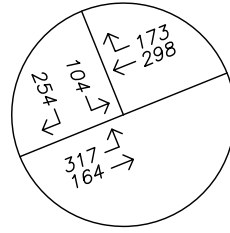
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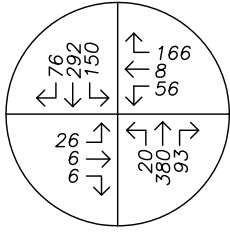
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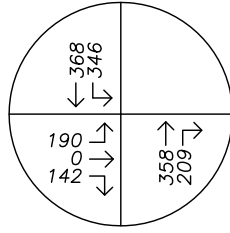
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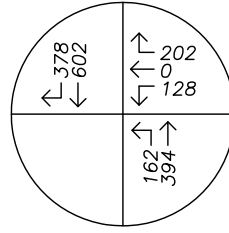
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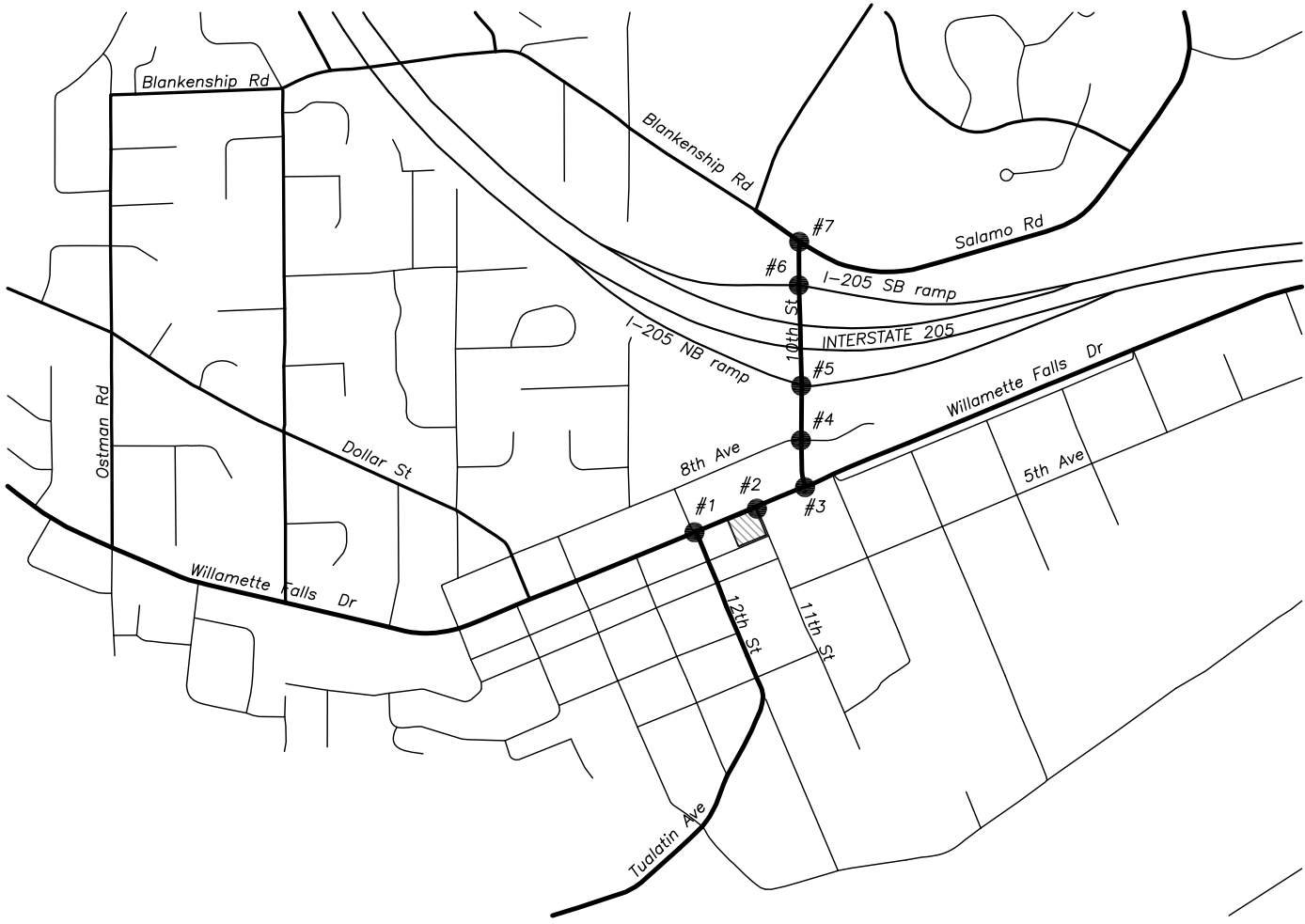
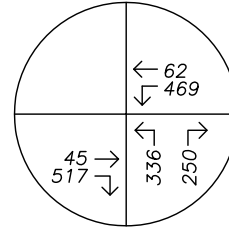
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd

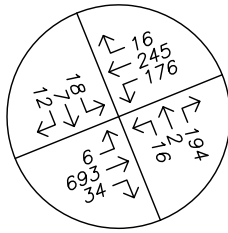


TRAFFIC VOLUMES
 Year 2017 Background Plus Site Trips
 AM Peak Hour

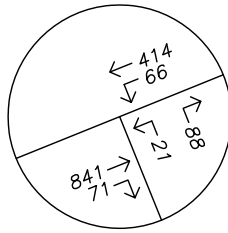


FIGURE
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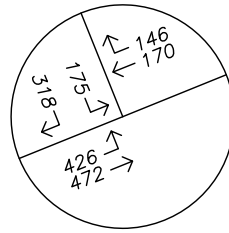
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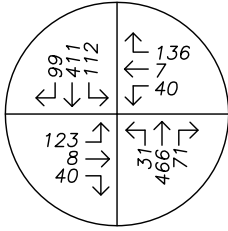
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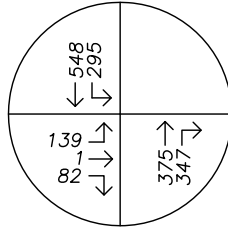
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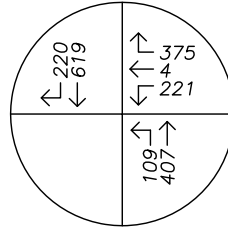
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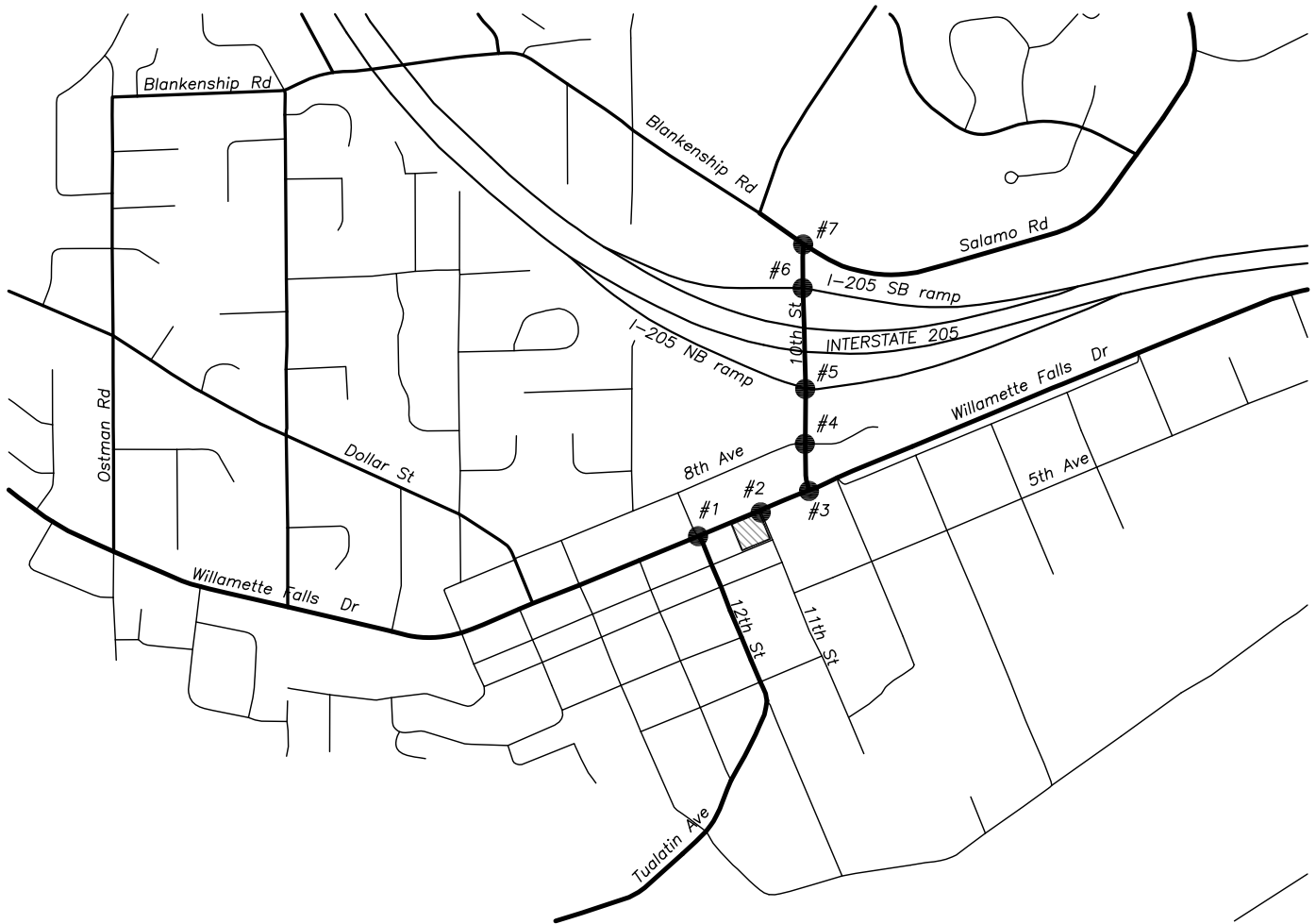
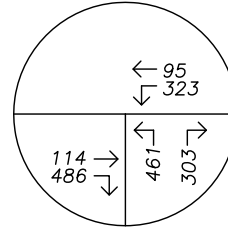
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



TRAFFIC VOLUMES
 Year 2017 Background Plus Site Trips
 PM Peak Hour



FIGURE
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CAPACITY ANALYSIS

To determine traffic impacts resulting from the proposed development of the mixed-use commercial building, an operational analysis was conducted for each of the study-area intersections. The analysis was conducted according to the signalized and unsignalized intersection methodologies provided in the *HIGHWAY CAPACITY MANUAL*, published by the Transportation Research Board. The analysis periods include morning and evening peak hours for existing conditions, year 2017 background conditions, and year 2017 background plus trips generated by the proposed mixed-use building.

The intersections of 10th Street at the Interstate 205 northbound and southbound ramps, in addition to the intersection of 10th Street at Blankenship Road/Salamo Road which runs on the same controller as the southbound ramps, are under the jurisdiction of the Oregon Department of Transportation (ODOT). The applicable minimum operation standards for ODOT facilities are established under the Oregon Highway Plan and are based on the volume-to-capacity (v/c) ratio. The v/c ratio compares the actual traffic demand to the potential capacity to determine the portion that is utilized by traffic. ODOT's v/c operating standard for the Interstate 205 interchange ramps and the intersection of 10th Street at Blankenship Road/Salamo Road is 0.85.

Since the intersection of 10th Street at the Interstate 205 southbound ramp operates on the same traffic signal controller with 10th Street at Blankenship Road/Salamo Road, analysis was conducted using signal timing information obtained from ODOT staff. The signal timing details for the intersection are provided in the appendix.

The City of West Linn's Comprehensive Plan requires intersections to operate at level of service (LOS) D or better. Levels of service can range from A, which indicates very little or no delay, to F, which indicates a high degree of congestion and delay.

The intersection of Willamette Falls Drive at 12th Street is currently operating at LOS E during the evening peak hour. Under year 2017 traffic conditions, the intersection is projected to continue operating at LOS E, regardless of additional trips from the proposed development. Since the traffic impact to the intersection from the proposed development is negligible, no mitigations are recommended.

The intersection of Willamette Falls Drive at 11th Street is projected to operate at LOS D or better under all analysis scenarios, with or without additional trips from the proposed development.

The intersection of Willamette Falls Drive at 10th Street is currently operating at LOS D with significant delays being experienced by the eastbound left-turning vehicles during the evening peak hour. Under year 2017 traffic conditions, the intersection is projected to continue operating at LOS D with approximately 29 percent longer delays for the same approach. With the addition of up to 30 trips from the proposed development to the eastbound left-turn approach, the intersection is projected to operate at LOS E.

The intersection of 10th Street at 8th Avenue/8th Court is presently operating at LOS F during the evening peak hour due to significant delays to the minor street approaches. The intersection is projected to continue operating at LOS F under year 2017 conditions, regardless of additional trips from the proposed development.

Since traffic signal warrants are not met due to low traffic volumes associated with the minor street approaches, the city is currently evaluating possible mitigations for the intersection including extending 8th Court to Willamette Falls Drive and limiting the intersection to right turns only. Since the proposed development does not contribute trips to the minor street approaches, no mitigations associated with the mixed-use building are recommended.

The intersections of 10th Street at the Interstate 205 northbound and southbound ramps and the intersection of 10th Street at Blankenship Road/Salamo Road are projected to operate within ODOT's performance standard, regardless of trips associated with the proposed development.

The results of the capacity analysis for the weekday AM and PM peak hours, along with the levels of service, delay, and v/c ratios are shown in the table on the following page. Detailed calculations, as well as tables showing the relationships between delay and level of service are included in the appendix to this report.

CAPACITY ANALYSIS SUMMARY

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
Willamette Falls Dr at 12th St						
2015 Existing	B	12	-	E	37	-
2017 Background	B	13	-	E	37	-
2017 Background + Site	B	13	-	E	37	-
Willamette Falls Dr at 11th St						
2015 Existing	C	16	0.27	C	22	0.55
2017 Background	C	17	0.28	C	23	0.57
2017 Background + Site	C	22	0.44	D	35	0.58
Willamette Falls Dr at 10th St						
2015 Existing	C	24	-	D	26	-
2017 Background	D	30	-	D	32	-
2017 Background + Site	E	37	-	E	38	-
10th St at 8th Ave/8th Ct						
2015 Existing	F	62	0.45	F	>120	>1.0
2017 Background	F	81	0.52	F	>120	>1.0
2017 Background + Site	F	104	0.61	F	>120	>1.0
10th St at I-205 NB Ramps						
2015 Existing	B	15	0.57	B	10	0.50
2017 Background	B	17	0.66	B	13	0.57
2017 Background + Site	B	17	0.66	B	13	0.58
10th St at I-205 SB Ramps						
2015 Existing	D	38	0.63	C	34	0.66
2017 Background	D	42	0.71	D	41	0.75
2017 Background + Site	D	45	0.74	D	43	0.78
10th St at Blankenship/Salamo						
2015 Existing	C	34	0.68	C	26	0.63
2017 Background	D	46	0.82	C	29	0.72
2017 Background + Site	D	47	0.83	C	30	0.73

MITIGATION AND PROPORTIONATE-SHARE CONTRIBUTION ANALYSIS

For intersections where improvements are needed, an estimate of the proportionate share cost of the project which should reasonably be borne by the developer was prepared. The estimate was based on the number of site trips that pass through the intersection as a portion of total entering volumes and the projected cost of the planned/proposed improvements, as detailed in the January, 2016 draft Transportation System Plan (TSP).

WILLAMETTE FALLS DRIVE AT 12TH STREET

The intersection of Willamette Falls Drive at 12th Street is currently operating at level of service E during the evening peak hour, and is projected to operate similarly in the future either with or without the addition of site trips from the proposed development. The 2016 draft TSP indicates that a traffic signal should be installed at this intersection when warranted. The cost of the traffic signal is estimated to be \$300,000.

Assuming that the proposed development is occupied with the highest-intensity mix of potential uses (i.e. ground-floor restaurants and second-floor offices), the proposed project would add up to 8 new trips through the intersection during the evening peak hour. This represents 0.56 percent of the 1,419 trips projected to pass through the intersection in 2017 following completion of the Willamette Falls Drive Mixed-Use Building. If the development contributes a proportionate share of the cost, the contribution would be \$1,690 for this intersection.

WILLAMETTE FALLS DRIVE AT 10TH STREET

The intersection of Willamette Falls Drive at 10th Street is projected to operate at level of service E during the morning and evening peak hours following completion of the proposed development. The 2016 draft TSP indicates that a traffic signal should also be installed at this intersection. Notably, the existing traffic volumes at this location meet traffic signal warrants, so installation of a traffic signal can be considered immediately. Further planned improvements for the intersection include installing dual eastbound left-turn lanes and widening the 10th Street corridor. In total, the City of West Linn is expected to contribute \$990,000 toward the cost of these improvements.

Assuming that the proposed development is occupied with the highest-intensity mix of potential uses (i.e. ground-floor restaurants and second-floor offices), the proposed project would add up to 70 new trips through the intersection during the evening peak hour. This represents 4.10 percent of the 1,707 trips projected to pass through the intersection in 2017 following completion of the Willamette Falls Drive Mixed-Use Building. If the development contributes a proportionate share of the cost, the contribution would be \$40,600 for these improvements.

10TH STREET AT 8TH AVENUE/8TH COURT

The intersection of 10th Street at 8th Avenue/8th Court is currently operating at level of service F during the morning and evening peak hours, and is projected to operate similarly in the future either with or without the addition of site trips from the proposed development. The draft 2016 TSP indicates that the intersection should be channelized to restrict the eastbound left, eastbound through, northbound left, and westbound through movements. The City of West Linn is expected to contribute \$10,000 toward the cost of these improvements.

Assuming that the proposed development is occupied with the highest-intensity mix of potential uses (i.e. ground-floor restaurants and second-floor offices), the proposed project would add up to 66 new trips through the intersection during the evening peak hour. This represents 4.27 percent of the 1,544 trips projected to pass through the intersection in 2017 following completion of the Willamette Falls Drive Mixed-Use Building. If the development contributes a proportionate share of the cost, the contribution would be \$430 for this intersection.

CONCLUSIONS

The proposed mixed-use building consisting of 10,511 square feet of ground-floor retail and either 14,560 square feet of office space or a 19-room hotel is projected to have acceptable impacts to the surrounding transportation system.

A detailed examination of the crash history at the study intersections shows no significant safety concerns and no trends that are indicative of design deficiencies. No safety mitigations are recommended.

Left-turn lane warrants were found to be met for the intersection of Willamette Falls Drive at 11th Street under existing conditions. Installation of a westbound left-turn lane can be considered; however, since installation of the turn lane is likely to result in overall negative impacts to operations and safety once pedestrian crossings and operation of the intersection at 10th Street are considered, installation of a new westbound left-turn lane is not recommended.

The intersections of 10th Street at Blankenship Road/Salamo Road, 10th Street at the Interstate 205 southbound ramps, and 10th Street at the Interstate 205 northbound ramps are projected to continue operating within the Oregon Department of Transportation's required performance standards either with or without the addition of site trips from the proposed development.

The intersections of 10th Street at 8th Avenue/8th Court and Willamette Falls Drive at 12th Street are currently operating above the City's performance standard of LOS D. Since the proposed development does not add any trips to the critical movements at these intersections, no specific mitigation is recommended in conjunction with the proposed development.

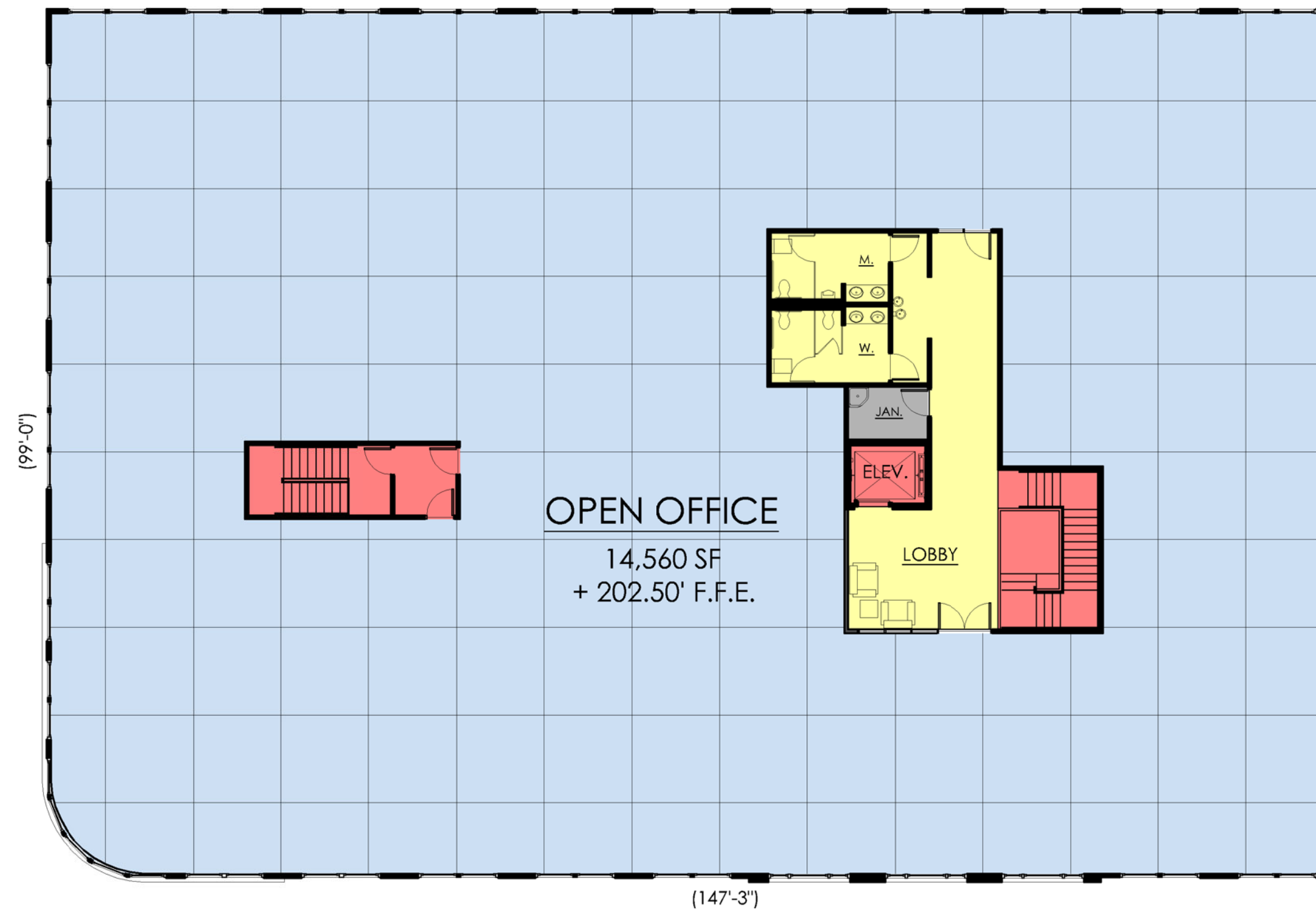
The intersection of Willamette Falls Drive at 10th Street is projected to operate at LOS E following completion of the proposed development. Warrant 1, Eight-Hour Vehicular Volume, was found to be met for this intersection under existing conditions. However, since plans impacting the intersection are being evaluated by the City of West Linn that involve the 10th Street corridor and considering the fact that the signal is warranted under existing conditions, the installation of a traffic signal is not recommended as mitigation for the proposed development.

Based on the analysis of proportionate impacts resulting from the proposed development, it is anticipated that the developer may need to contribute up to \$42,720 toward the cost of future transportation system improvements, depending on the mix of uses that ultimately occupy the building.

APPENDIX



Project Location



UPPER PLAN (offices)
14,560 SF

SGA

SG ARCHITECTURE, LLC.

10940 SW Barnes Road #364
Portland, Oregon 97225
www.sg-arch.net

**Willamette Falls
Mixed -Use**

Willamette Falls Drive & 11th St.
West Linn, OR

WILLAMETTE NEIGHBORHOOD
ASSOCIATION MEETING
NOVEMBER 2015



GARAGE LEVEL PLAN (parking)
14,415 SF

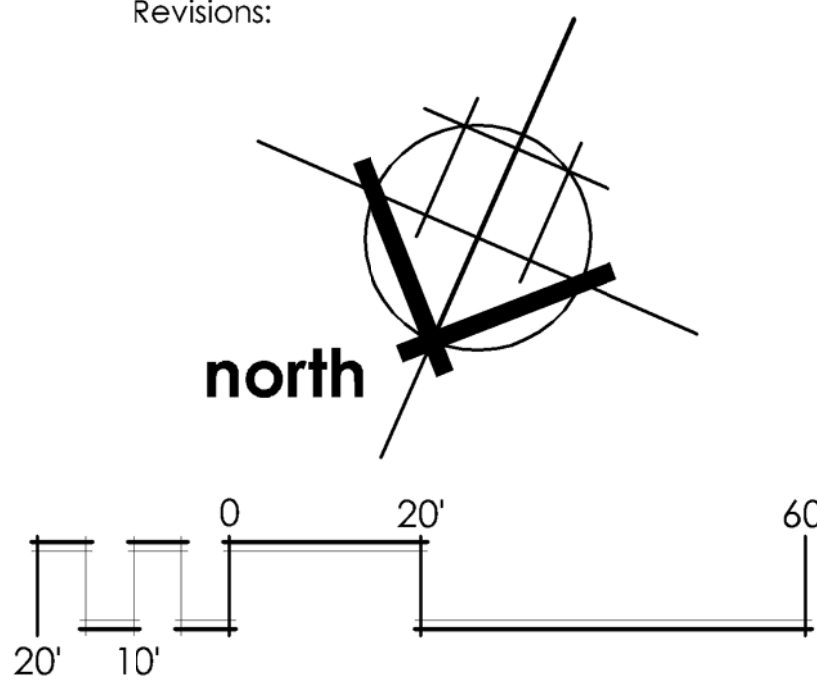


STREET LEVEL PLAN (shops)
9,950 SF

**ICON CONSTRUCTION &
DEVELOPMENT**
1980 Willamette Falls Drive
Suite 200
West Linn, Oregon 97068
Phone: 503-657-0406

PROJECT NUMBER: 15-104
ISSUE DATE: November 2015
DRAWN BY:

Revisions:



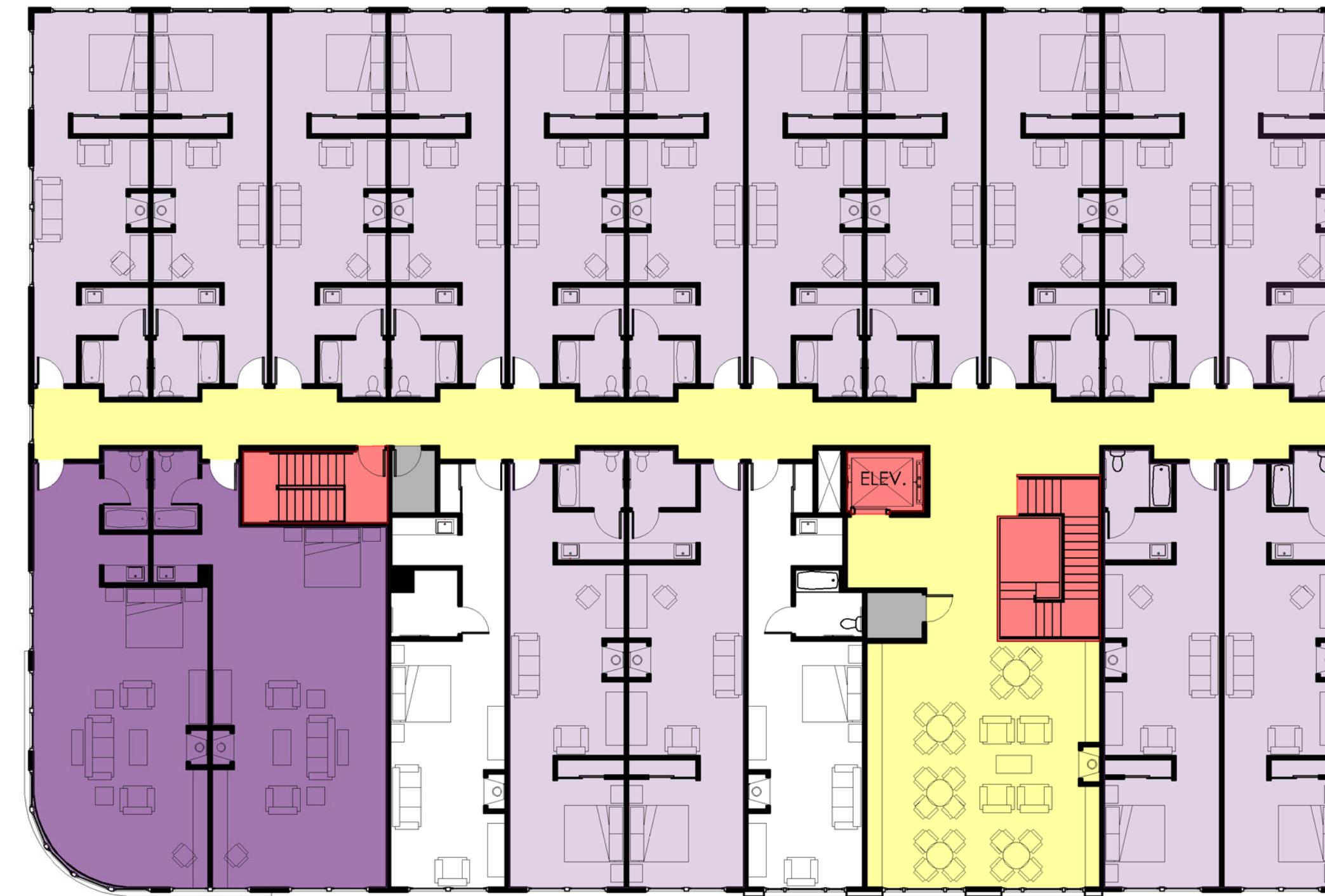
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**Floor Plan
(retail /office)**



Project Location

KEY PLAN
 SUITE - A
 2 ROOMS
 SUITE - B
 15 ROOMS
 SUITE - C
 2 ROOMS



UPPER PLAN (hotel)
 14,560 SF

SGA

SG ARCHITECTURE, LLC.

10940 SW Barnes Road #364
 Portland, Oregon 97225
 www.sg-arch.net

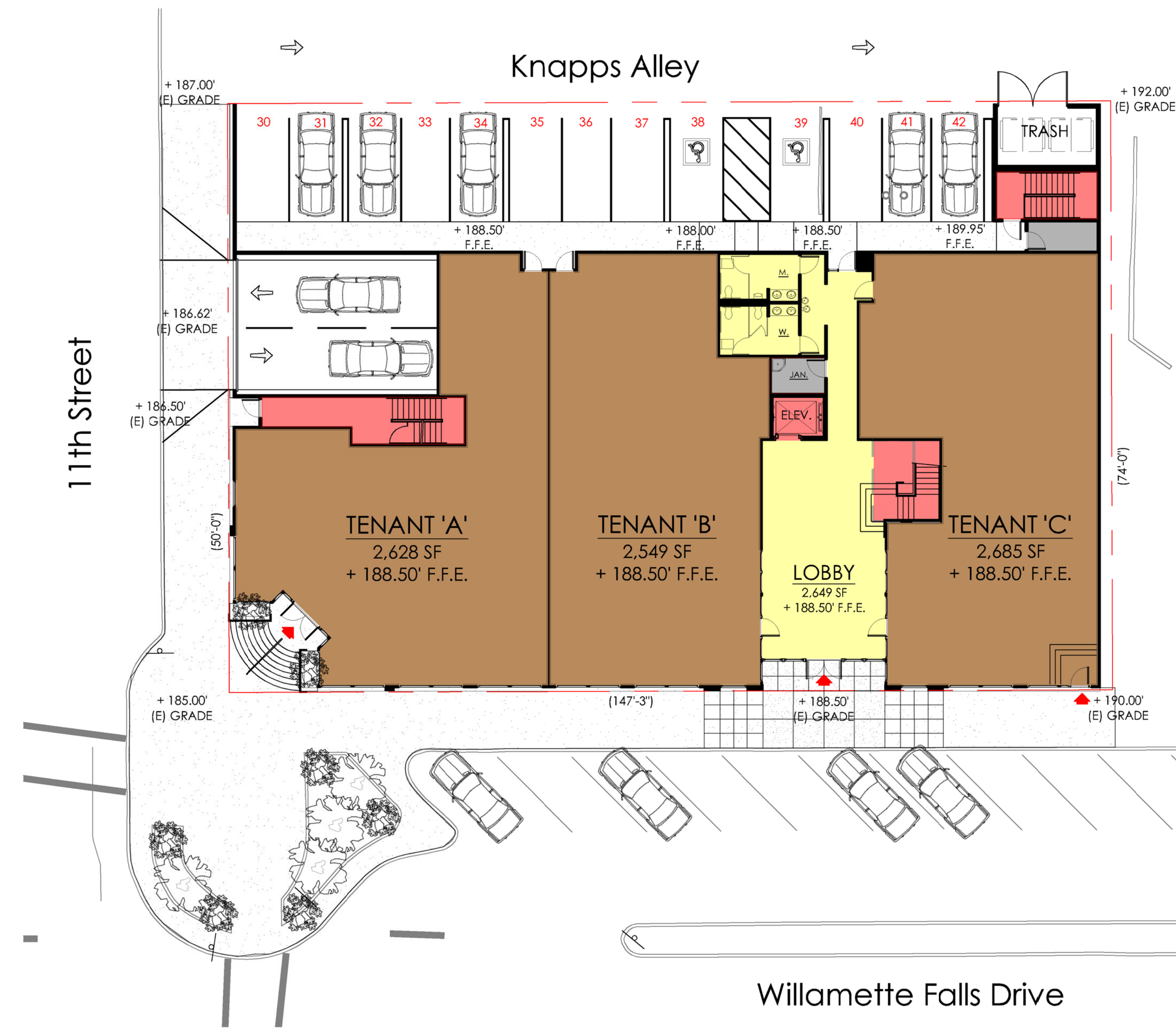
**Willamette Falls
 Mixed -Use**

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 NOVEMBER 2015



GARAGE LEVEL PLAN (parking)
 14,415 SF

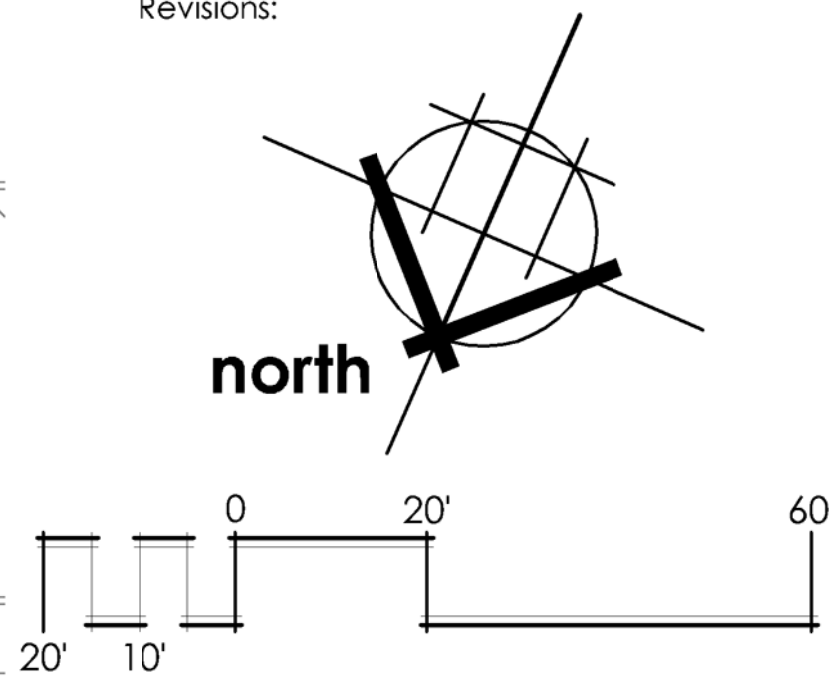


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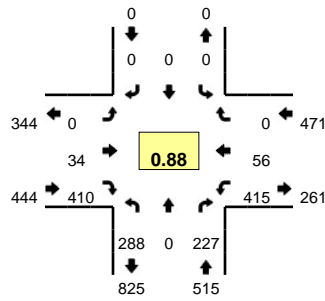


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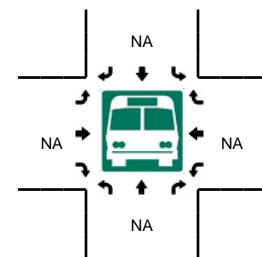
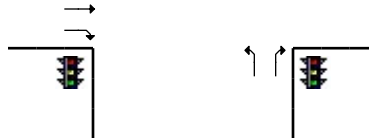
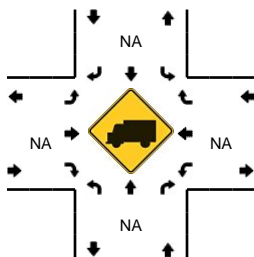
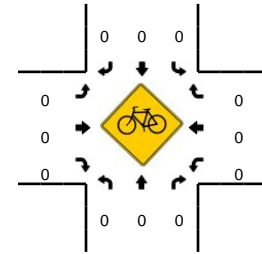
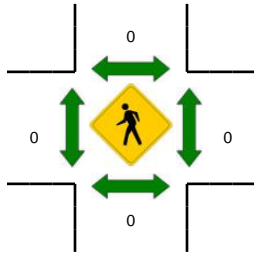
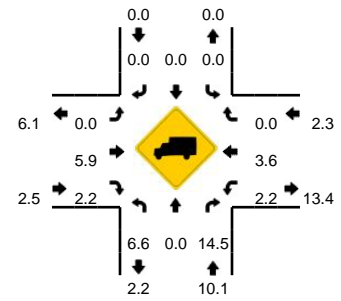
**Floor Plan
 (retail / hotel)**

LOCATION: 10th St -- Salamo Rd
CITY/STATE: West Linn, OR

QC JOB #: 13358509
DATE: Tue, Apr 14 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

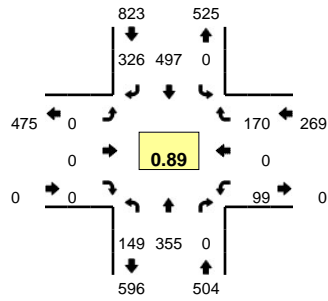


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Salamo Rd (Eastbound)				Salamo Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	14	0	16	0	0	0	0	0	0	2	30	0	26	1	0	0	89	
7:05 AM	15	0	9	0	0	0	0	0	0	1	33	0	24	2	0	0	84	
7:10 AM	8	0	10	0	0	0	0	0	0	1	26	0	19	3	0	0	67	
7:15 AM	9	0	9	0	0	0	0	0	0	3	19	0	28	7	0	0	75	
7:20 AM	16	0	16	0	0	0	0	0	0	2	32	0	24	4	0	0	94	
7:25 AM	27	0	14	0	0	0	0	0	0	1	32	0	28	3	0	0	105	
7:30 AM	19	0	12	0	0	0	0	0	0	1	36	0	37	6	0	0	111	
7:35 AM	26	0	20	0	0	0	0	0	0	4	47	0	42	2	0	0	141	
7:40 AM	21	0	19	0	0	0	0	0	0	2	39	0	44	2	0	0	127	
7:45 AM	19	0	25	0	0	0	0	0	0	4	39	0	44	6	0	0	137	
7:50 AM	26	0	27	0	0	0	0	0	0	5	26	0	29	13	0	0	126	
7:55 AM	39	0	21	0	0	0	0	0	0	0	17	0	37	9	0	0	123	1279
8:00 AM	31	0	22	0	0	0	0	0	0	4	37	0	28	2	0	0	124	1314
8:05 AM	21	0	15	0	0	0	0	0	0	6	32	0	40	2	0	0	116	1346
8:10 AM	24	0	15	0	0	0	0	0	0	3	32	0	32	4	0	0	110	1389
8:15 AM	19	0	21	0	0	0	0	0	0	2	41	0	30	3	0	0	116	1430
8:20 AM	24	0	21	0	0	0	0	0	0	1	22	0	31	3	0	0	102	1438
8:25 AM	28	0	11	0	0	0	0	0	0	4	29	0	33	7	0	0	112	1445
8:30 AM	28	0	17	0	0	0	0	0	0	0	26	0	27	4	0	0	102	1436
8:35 AM	32	0	22	0	0	0	0	0	0	3	32	0	36	9	0	0	134	1429
8:40 AM	24	0	19	0	0	0	0	0	0	4	22	0	42	1	0	0	112	1414
8:45 AM	17	0	10	0	0	0	0	0	0	5	40	0	37	5	0	0	114	1391
8:50 AM	32	0	23	0	0	0	0	0	0	6	36	0	18	4	0	0	119	1384
8:55 AM	22	0	15	0	0	0	0	0	0	4	37	0	26	6	0	0	110	1371
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	264	0	256	0	0	0	0	0	0	40	500	0	520	40	0	0	1620	
Heavy Trucks	32	0	60	0	0	0	0	0	0	0	20	0	12	0	0	0	124	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

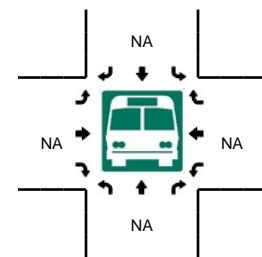
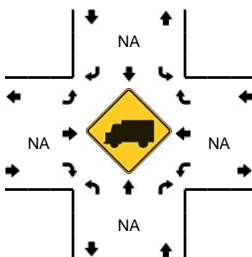
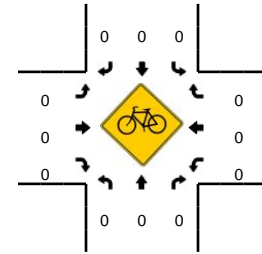
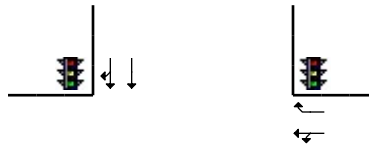
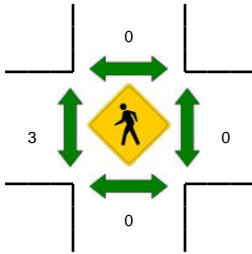
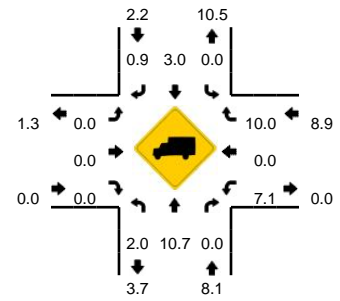
Comments:

LOCATION: 10th St -- I-205 SB Ramps
CITY/STATE: West Linn, OR

QC JOB #: 13358507
DATE: Tue, Apr 14 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

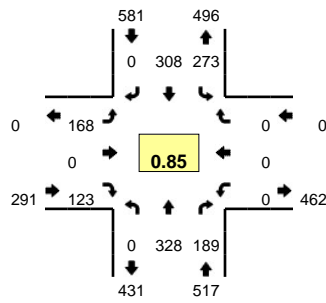


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 SB Ramps (Eastbound)				I-205 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	20	0	0	0	26	25	0	0	0	0	0	8	0	9	0	96	
7:05 AM	11	18	0	0	0	35	26	0	0	0	0	0	7	0	6	0	103	
7:10 AM	11	15	0	0	0	27	18	0	0	0	0	0	15	0	3	0	89	
7:15 AM	19	17	0	0	0	27	22	0	0	0	0	0	9	0	0	0	94	
7:20 AM	8	22	0	0	0	28	27	0	0	0	0	0	9	0	10	0	104	
7:25 AM	16	29	0	0	0	46	15	0	0	0	0	0	6	0	11	0	123	
7:30 AM	9	16	0	0	0	40	28	0	0	0	0	0	7	0	17	0	117	
7:35 AM	11	34	0	0	0	56	36	0	0	0	0	0	9	0	11	0	157	
7:40 AM	21	30	0	0	0	51	31	0	0	0	0	0	8	0	11	0	152	
7:45 AM	20	27	0	0	0	37	33	0	0	0	0	0	8	0	15	0	140	
7:50 AM	7	42	0	0	0	42	24	0	0	0	0	0	12	0	16	0	143	
7:55 AM	15	41	0	0	0	33	15	0	0	0	0	0	12	0	19	0	135	1453
8:00 AM	9	36	0	0	0	43	28	0	0	0	0	0	3	0	16	0	135	1492
8:05 AM	13	26	0	0	0	48	31	0	0	0	0	0	7	0	12	0	137	1526
8:10 AM	6	25	0	0	0	33	28	0	0	0	0	0	8	0	19	0	119	1556
8:15 AM	14	27	0	0	0	40	30	0	0	0	0	0	10	0	13	0	134	1596
8:20 AM	12	25	0	0	0	28	26	0	0	0	0	0	14	0	18	0	123	1615
8:25 AM	13	22	0	0	0	36	24	0	0	0	0	0	8	0	18	0	121	1613
8:30 AM	19	34	0	0	0	29	29	0	0	0	0	0	3	0	9	0	123	1619
8:35 AM	7	31	0	0	0	36	27	0	0	0	0	0	8	0	20	0	129	1591
8:40 AM	9	24	0	0	0	31	33	0	0	0	0	0	11	0	23	0	131	1570
8:45 AM	12	15	0	0	0	43	32	0	0	0	0	0	8	0	10	0	120	1550
8:50 AM	7	32	0	0	0	38	22	0	0	0	0	0	9	0	26	0	134	1541
8:55 AM	16	21	0	0	0	37	30	0	0	0	0	0	10	0	15	0	129	1535
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	208	364	0	0	0	576	400	0	0	0	0	0	100	0	148	0	1796	
Heavy Trucks	0	56	0	0	0	20	8	0	0	0	0	0	4	0	36	0	124	
Pedestrians		0				0								0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

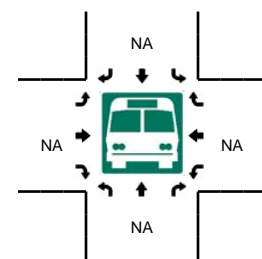
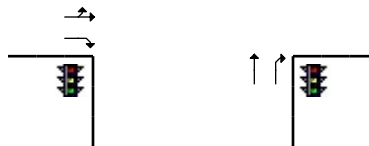
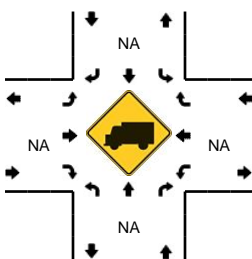
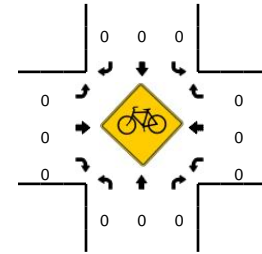
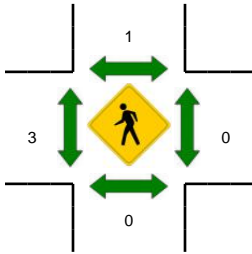
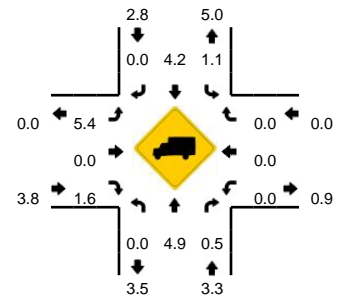
Comments:

LOCATION: 10th St -- I-205 NB Ramps
CITY/STATE: West Linn, OR

QC JOB #: 13358505
DATE: Tue, Apr 14 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

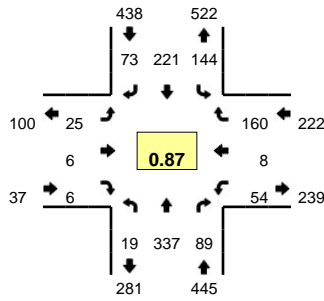


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 NB Ramps (Eastbound)				I-205 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	16	12	0	19	17	0	0	11	0	9	0	0	0	0	0	84	
7:05 AM	0	21	24	0	22	19	0	0	8	0	5	0	0	0	0	0	99	
7:10 AM	0	22	14	0	15	25	0	0	7	0	6	0	0	0	0	0	89	
7:15 AM	0	24	14	0	22	15	0	0	8	0	11	0	0	0	0	0	94	
7:20 AM	0	29	21	0	18	19	0	0	10	0	12	0	0	0	0	0	109	
7:25 AM	0	27	20	0	26	22	0	0	13	0	13	0	0	0	0	0	121	
7:30 AM	0	12	11	0	16	19	0	0	5	0	9	0	0	0	0	0	72	
7:35 AM	0	38	23	0	27	37	0	0	11	0	7	0	0	0	0	0	143	
7:40 AM	0	32	18	0	31	29	0	0	19	0	6	0	0	0	0	0	135	
7:45 AM	0	38	20	0	22	26	0	0	13	0	10	0	0	0	0	0	129	
7:50 AM	0	36	20	0	23	29	0	0	15	0	4	0	0	0	0	0	127	
7:55 AM	0	32	12	0	17	24	0	0	25	0	14	0	0	0	0	0	124	1326
8:00 AM	0	18	11	0	23	27	0	0	16	0	11	0	0	0	0	0	106	1348
8:05 AM	0	20	9	0	23	26	0	0	18	0	14	0	0	0	0	0	110	1359
8:10 AM	0	27	10	0	22	26	0	0	13	0	12	0	0	0	0	0	110	1380
8:15 AM	0	19	14	0	25	24	0	0	10	0	11	0	0	0	0	0	103	1389
8:20 AM	0	26	27	0	21	25	0	0	21	0	5	0	0	0	0	0	125	1405
8:25 AM	0	30	13	0	17	29	0	0	10	0	8	0	0	0	0	0	107	1391
8:30 AM	0	27	11	0	18	11	0	0	14	0	9	0	0	0	0	0	90	1409
8:35 AM	0	24	19	0	21	24	0	0	21	0	13	0	0	0	0	0	122	1388
8:40 AM	0	23	17	0	14	25	0	0	11	0	11	0	0	0	0	0	101	1354
8:45 AM	0	21	19	0	26	28	0	0	4	0	11	0	0	0	0	0	109	1334
8:50 AM	0	25	14	0	17	27	0	0	20	0	8	0	0	0	0	0	111	1318
8:55 AM	0	25	6	0	25	26	0	0	10	0	6	0	0	0	0	0	98	1292
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	432	244	0	320	368	0	0	172	0	92	0	0	0	0	0	1628	
Heavy Trucks	0	32	0	0	0	20	0	0	16	0	0	0	0	0	0	0	68	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

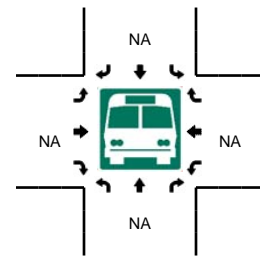
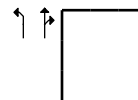
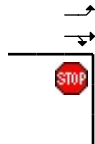
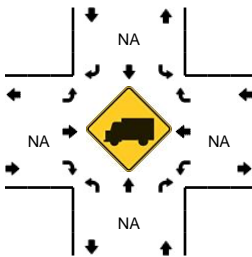
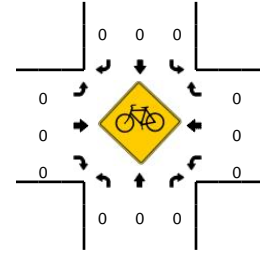
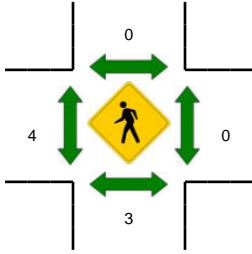
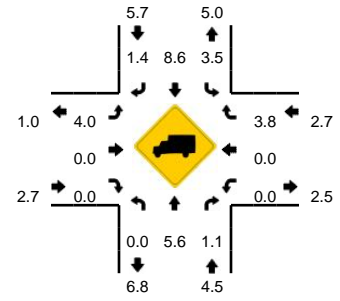
Comments:

LOCATION: 10th St -- 8th Ave
CITY/STATE: West Linn, OR

QC JOB #: 13358503
DATE: Tue, Apr 14 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

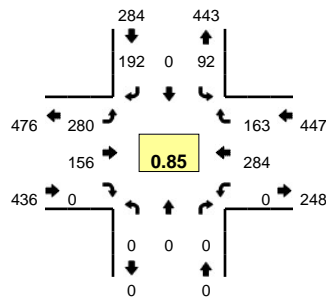


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				8th Ave (Eastbound)				8th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	16	5	0	16	5	4	0	0	0	0	0	2	0	10	0	58	
7:05 AM	0	31	9	0	14	8	3	0	0	1	1	0	4	0	12	0	83	
7:10 AM	1	24	6	0	10	15	6	0	1	2	0	0	5	2	13	0	85	
7:15 AM	0	25	6	0	14	8	4	0	2	1	0	0	3	0	11	0	74	
7:20 AM	0	32	8	0	7	20	4	0	4	0	0	0	5	0	13	0	93	
7:25 AM	0	27	6	0	15	11	8	0	2	0	0	0	5	0	17	0	91	
7:30 AM	1	27	11	0	15	19	4	0	1	0	1	0	4	0	10	0	93	
7:35 AM	2	37	9	0	13	24	7	0	4	1	0	0	5	0	15	0	117	
7:40 AM	0	36	4	0	6	26	3	0	1	0	1	0	6	2	18	0	103	
7:45 AM	0	42	10	0	13	17	7	0	1	0	0	0	6	1	10	0	107	
7:50 AM	4	39	9	0	7	17	8	0	2	1	0	0	2	0	14	0	103	
7:55 AM	5	27	9	0	10	20	8	0	2	0	0	0	2	2	18	0	103	1110
8:00 AM	6	16	5	0	9	18	9	0	0	1	1	0	5	0	11	0	81	1133
8:05 AM	0	16	5	0	16	18	8	0	1	0	2	0	4	1	10	0	81	1131
8:10 AM	0	21	6	0	14	18	4	0	4	2	0	0	5	2	11	0	87	1133
8:15 AM	1	17	7	0	19	13	3	0	3	1	1	0	5	0	13	0	83	1142
8:20 AM	1	31	9	0	6	11	7	0	2	0	2	0	5	0	23	0	97	1146
8:25 AM	1	23	7	0	16	19	1	0	2	0	0	0	2	1	13	0	85	1140
8:30 AM	1	19	9	0	13	9	1	0	3	1	0	0	2	2	17	0	77	1124
8:35 AM	3	22	2	0	19	10	9	0	6	1	0	0	7	0	18	0	97	1104
8:40 AM	1	19	3	0	11	17	7	0	3	0	0	0	3	1	16	0	81	1082
8:45 AM	1	16	5	0	15	18	5	0	6	3	0	0	1	0	14	0	84	1059
8:50 AM	0	25	6	0	12	13	9	0	2	0	1	0	1	1	15	0	85	1041
8:55 AM	2	12	2	0	14	11	6	0	3	1	1	0	6	2	13	0	73	1011
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	460	92	0	128	268	68	0	24	4	4	0	68	12	172	0	1308	
Heavy Trucks	0	32	0		4	28	0		0	0	0		0	0	4		68	
Pedestrians		0				0				4				0				4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0			0
Railroad																		
Stopped Buses																		

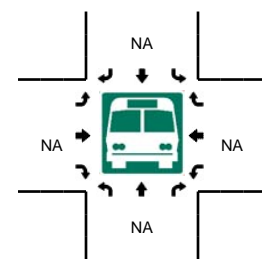
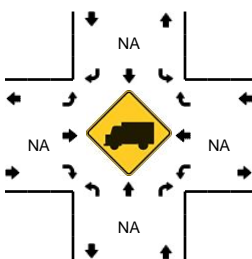
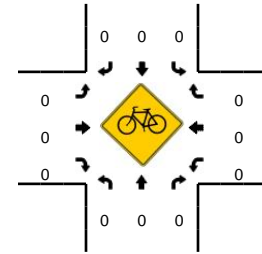
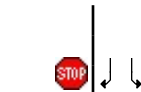
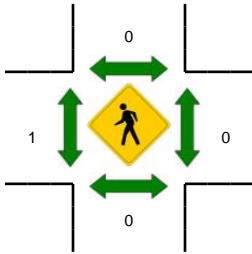
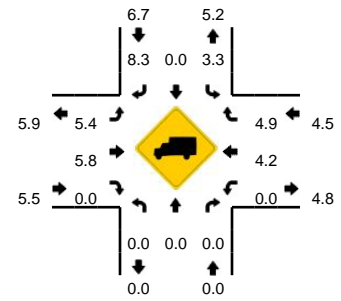
Comments:

LOCATION: 10th St -- Willamette Falls Dr
CITY/STATE: West Linn, OR

QC JOB #: 13358501
DATE: Tue, Apr 14 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

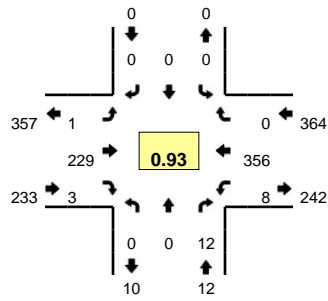


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	5	0	11	5	0	0	0	18	10	0	49	
7:05 AM	0	0	0	0	7	0	7	0	25	7	0	0	0	22	14	0	82	
7:10 AM	0	0	0	0	9	0	12	0	20	7	0	0	0	27	12	0	87	
7:15 AM	0	0	0	0	2	0	8	0	15	9	0	0	0	30	17	0	81	
7:20 AM	0	0	0	0	6	0	19	0	22	14	0	0	0	23	18	0	102	
7:25 AM	0	0	0	0	8	0	9	0	18	9	0	0	0	29	14	0	87	
7:30 AM	0	0	0	0	9	0	16	0	25	12	0	0	0	24	14	0	100	
7:35 AM	0	0	0	0	5	0	25	0	32	9	0	0	0	27	16	0	114	
7:40 AM	0	0	0	0	9	0	21	0	31	16	0	0	0	29	8	0	114	
7:45 AM	0	0	0	0	5	0	21	0	40	16	0	0	0	20	12	0	114	
7:50 AM	0	0	0	0	1	0	18	0	35	15	0	0	0	22	16	0	107	
7:55 AM	0	0	0	0	9	0	12	0	20	10	0	0	0	20	20	0	91	1128
8:00 AM	0	0	0	0	9	0	16	0	15	15	0	0	0	23	12	0	90	1169
8:05 AM	0	0	0	0	11	0	12	0	12	16	0	0	0	13	9	0	73	1160
8:10 AM	0	0	0	0	12	0	13	0	15	12	0	0	0	22	14	0	88	1161
8:15 AM	0	0	0	0	8	0	10	0	15	12	0	0	0	32	10	0	87	1167
8:20 AM	0	0	0	0	10	0	11	0	24	14	0	0	0	20	17	0	96	1161
8:25 AM	0	0	0	0	3	0	18	0	11	6	0	0	0	32	17	0	87	1161
8:30 AM	0	0	0	0	3	0	6	0	16	8	0	0	0	23	15	0	71	1132
8:35 AM	0	0	0	0	8	0	10	0	12	7	0	0	0	29	13	0	79	1097
8:40 AM	0	0	0	0	4	0	14	0	14	6	0	0	0	17	9	0	64	1047
8:45 AM	0	0	0	0	4	0	15	0	17	10	0	0	0	16	7	0	69	1002
8:50 AM	0	0	0	0	3	0	13	0	19	6	0	0	0	14	10	0	65	960
8:55 AM	0	0	0	0	3	0	16	0	6	4	0	0	0	15	12	0	56	925
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	76	0	268	0	412	164	0	0	0	304	144	0	1368	
Heavy Trucks	0	0	0	0	0	0	28	0	32	16	0	0	0	12	4	0	92	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

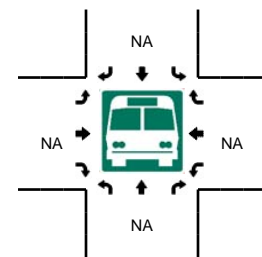
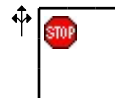
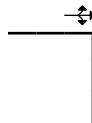
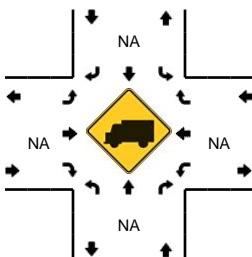
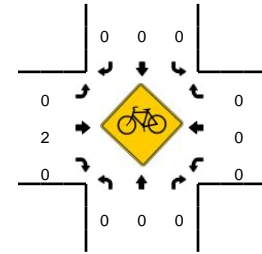
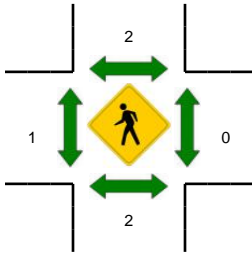
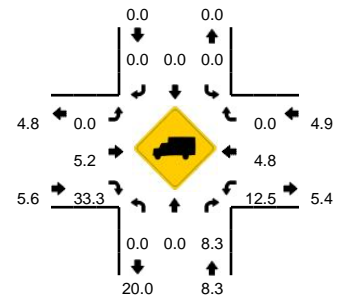
Comments:

LOCATION: 11th St -- Willamette Falls Dr
CITY/STATE: West Linn, OR

QC JOB #: 13543303
DATE: Tue, Jul 21 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

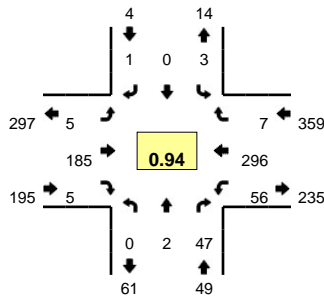


5-Min Count Period Beginning At	11th St (Northbound)				11th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	2	0	0	0	0	0	0	13	0	0	0	22	0	0	37	
7:05 AM	0	0	0	0	0	0	0	0	0	20	0	2	0	20	0	0	42	
7:10 AM	0	0	0	0	0	0	0	0	0	14	0	0	0	21	0	0	35	
7:15 AM	0	0	0	0	0	0	0	0	0	17	0	0	0	29	0	0	46	
7:20 AM	0	0	1	0	0	0	0	0	0	16	0	0	0	27	0	0	44	
7:25 AM	0	0	3	0	0	0	0	0	0	18	0	0	0	38	0	0	59	
7:30 AM	0	0	0	0	0	0	0	0	0	18	0	1	2	34	0	0	55	
7:35 AM	0	0	1	0	0	0	0	0	0	22	0	0	1	26	0	0	50	
7:40 AM	0	0	1	0	0	0	0	0	0	20	1	0	2	27	0	1	52	
7:45 AM	0	0	1	0	0	0	0	0	0	23	0	0	1	31	0	0	56	
7:50 AM	0	0	0	0	0	0	0	0	0	21	0	0	0	25	0	0	46	
7:55 AM	0	0	1	0	0	0	0	0	0	15	0	0	0	29	0	0	45	567
8:00 AM	0	0	1	0	0	0	0	0	0	14	0	0	1	41	0	0	57	587
8:05 AM	0	0	2	0	0	0	0	0	0	21	0	0	0	27	0	0	50	595
8:10 AM	0	0	1	0	0	0	0	0	0	22	0	0	0	25	0	0	48	608
8:15 AM	0	0	0	0	0	0	0	0	0	19	2	0	0	26	0	0	47	609
8:20 AM	0	0	0	0	0	0	0	0	0	26	0	0	0	26	0	0	52	617
8:25 AM	0	0	1	0	0	0	0	0	0	20	0	1	0	27	0	0	49	607
8:30 AM	0	0	2	0	0	0	0	0	0	12	0	0	0	33	0	0	47	599
8:35 AM	0	0	2	0	0	0	0	0	0	24	0	0	1	31	0	0	58	607
8:40 AM	0	0	0	0	0	0	0	0	0	14	0	0	1	28	0	0	43	598
8:45 AM	0	0	1	0	0	0	0	0	0	17	0	0	1	30	0	0	49	591
8:50 AM	0	0	0	0	0	0	0	0	0	24	0	0	0	31	0	0	55	600
8:55 AM	0	0	2	0	0	0	0	0	0	18	1	0	0	30	0	0	51	606
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	16	0	0	0	0	0	0	232	0	4	12	392	0	0	656	
Heavy Trucks	0	0	0	0	0	0	0	0	0	16	0	0	4	16	0	0	36	
Pedestrians		8			0				0				0				8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

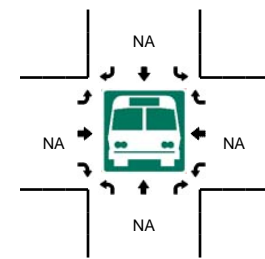
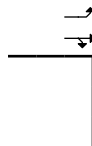
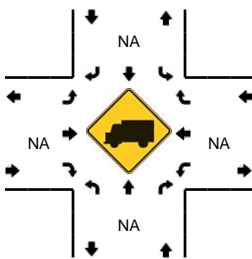
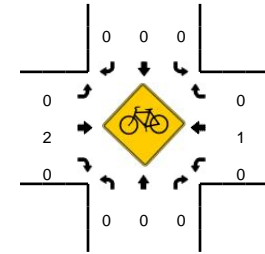
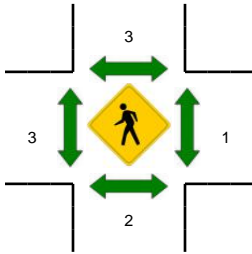
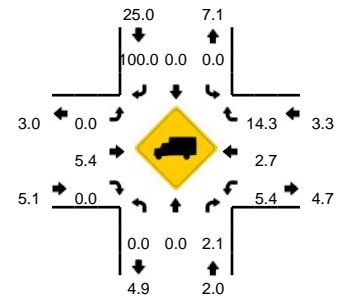
Comments:

LOCATION: 12th St -- Willamette Falls Dr
CITY/STATE: West Linn, OR

QC JOB #: 13543301
DATE: Tue, Jul 21 2015



Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

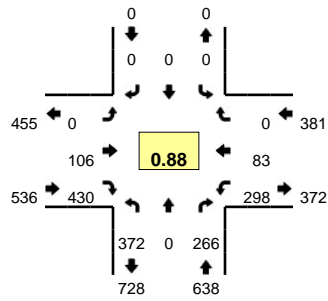


5-Min Count Period Beginning At	12th St (Northbound)				12th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	2	0	0	0	0	0	0	10	0	0	0	23	0	0	35	
7:05 AM	1	0	7	0	0	0	0	0	0	16	0	0	2	20	0	0	46	
7:10 AM	0	0	4	0	0	0	0	0	0	9	0	0	5	15	0	0	33	
7:15 AM	0	0	2	0	0	0	1	0	0	15	0	0	2	28	0	0	48	
7:20 AM	0	0	2	0	0	0	0	0	0	15	0	0	4	19	1	0	41	
7:25 AM	0	0	3	0	0	0	0	0	0	15	0	0	3	33	1	0	55	
7:30 AM	0	0	4	0	0	0	0	0	0	15	0	0	3	31	1	0	54	
7:35 AM	0	0	4	0	1	0	0	0	0	21	0	0	5	22	0	0	53	
7:40 AM	0	0	2	0	0	0	0	0	0	18	0	0	7	19	1	0	47	
7:45 AM	0	0	5	0	0	0	0	0	1	17	0	0	6	27	0	0	56	
7:50 AM	0	0	2	0	1	0	0	0	1	19	3	0	8	17	1	0	52	
7:55 AM	0	0	5	0	0	0	0	0	1	10	0	0	3	25	1	0	45	565
8:00 AM	0	1	4	0	0	0	0	0	0	10	1	0	5	36	0	0	57	587
8:05 AM	0	1	2	0	1	0	0	0	0	19	0	0	7	22	0	0	52	593
8:10 AM	0	0	12	0	0	0	0	0	2	11	0	0	3	23	1	0	52	612
8:15 AM	0	0	2	0	0	0	1	0	0	15	1	0	2	22	0	0	43	607
8:20 AM	0	1	8	0	0	0	0	0	1	20	0	0	6	17	3	0	56	622
8:25 AM	0	1	5	0	1	0	0	0	0	15	1	0	6	21	1	0	51	618
8:30 AM	1	0	2	0	0	0	1	0	0	9	1	0	5	24	2	0	45	609
8:35 AM	1	1	6	0	0	0	0	0	1	17	0	0	10	20	0	0	56	612
8:40 AM	0	0	4	0	0	0	0	0	2	12	0	0	9	17	1	0	45	610
8:45 AM	1	0	4	0	1	1	1	0	0	12	1	0	4	25	1	0	51	605
8:50 AM	2	1	10	0	0	1	0	0	0	15	0	0	8	21	1	0	59	612
8:55 AM	0	0	1	0	0	0	0	0	1	14	0	0	7	23	0	0	46	613
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	44	0	4	0	0	0	0	204	0	0	44	344	8	0	648	
Heavy Trucks	0	0	4	0	0	0	0	0	0	16	0	0	0	4	4	0	28	
Pedestrians		8			0					8				0			16	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Railroad																		
Stopped Buses																		

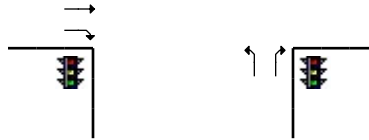
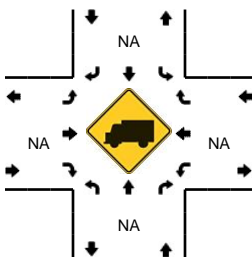
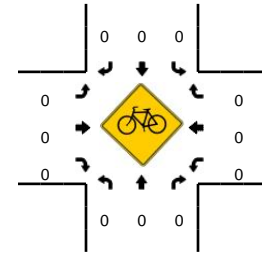
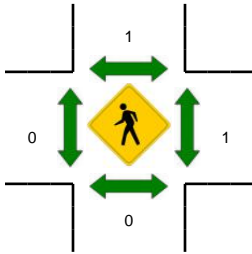
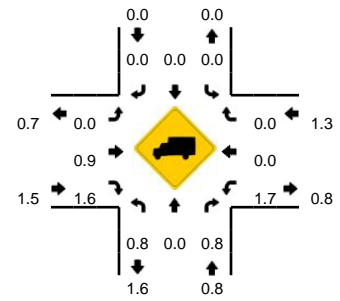
Comments:

LOCATION: 10th St -- Salamo Rd
CITY/STATE: West Linn, OR

QC JOB #: 13358510
DATE: Tue, Apr 14 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

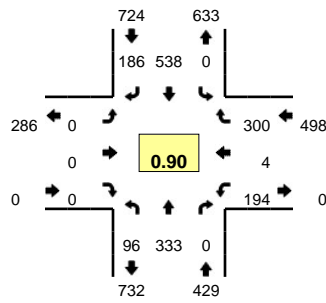


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Salamo Rd (Eastbound)				Salamo Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	18	0	13	0	0	0	0	0	0	9	24	0	16	10	0	0	90	
4:05 PM	24	0	29	0	0	0	0	0	0	7	38	0	23	3	0	0	124	
4:10 PM	25	0	14	0	0	0	0	0	0	11	29	0	38	3	0	0	120	
4:15 PM	35	0	22	0	0	0	0	0	0	7	31	0	22	5	0	0	122	
4:20 PM	29	0	19	0	0	0	0	0	0	10	43	0	17	5	0	0	123	
4:25 PM	28	0	20	0	0	0	0	0	0	7	35	0	19	5	0	0	114	
4:30 PM	25	0	22	0	0	0	0	0	0	5	30	0	28	7	0	0	117	
4:35 PM	40	0	11	0	0	0	0	0	0	8	37	0	18	5	0	0	119	
4:40 PM	40	0	16	0	0	0	0	0	0	7	35	0	29	8	0	0	135	
4:45 PM	25	0	15	0	0	0	0	0	0	12	29	0	28	14	0	0	123	
4:50 PM	37	0	24	0	0	0	0	0	0	6	31	0	29	4	0	0	131	
4:55 PM	27	0	20	0	0	0	0	0	0	11	34	0	30	8	0	0	130	1448
5:00 PM	26	0	30	0	0	0	0	0	0	7	41	0	14	6	0	0	124	1482
5:05 PM	24	0	36	0	0	0	0	0	0	18	50	0	29	5	0	0	162	1520
5:10 PM	36	0	31	0	0	0	0	0	0	8	34	0	35	11	0	0	155	1555
5:15 PM	34	0	31	0	0	0	0	0	0	6	32	0	28	2	0	0	133	1566
5:20 PM	23	0	24	0	0	0	0	0	0	14	36	0	40	15	0	0	152	1595
5:25 PM	27	0	27	0	0	0	0	0	0	8	26	0	24	7	0	0	119	1600
5:30 PM	22	0	19	0	0	0	0	0	0	4	30	0	27	5	0	0	107	1590
5:35 PM	26	0	32	0	0	0	0	0	0	4	35	0	29	8	0	0	134	1605
5:40 PM	28	0	32	0	0	0	0	0	0	9	31	0	41	7	0	0	148	1618
5:45 PM	34	0	31	0	0	0	0	0	0	7	34	0	20	8	0	0	134	1629
5:50 PM	32	0	28	0	0	0	0	0	0	11	32	0	36	7	0	0	146	1644
5:55 PM	33	0	21	0	0	0	0	0	0	7	31	0	14	5	0	0	111	1625
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	344	0	388	0	0	0	0	0	0	132	500	0	312	88	0	0	1764	
Heavy Trucks	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	8	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

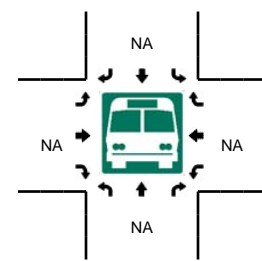
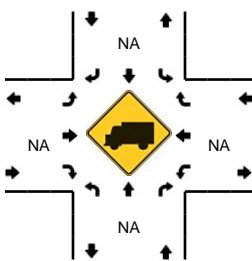
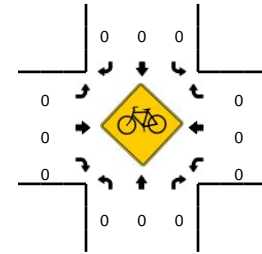
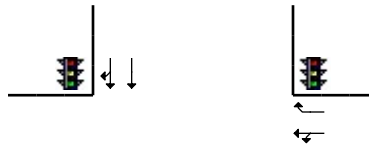
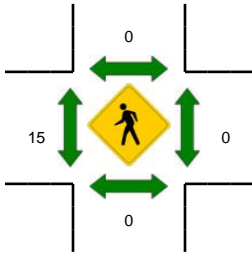
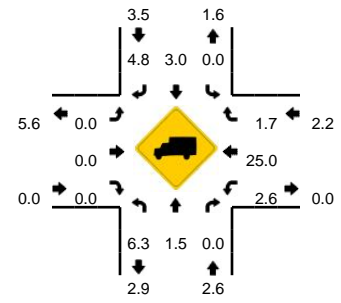
Comments:

LOCATION: 10th St -- I-205 SB Ramps
CITY/STATE: West Linn, OR

QC JOB #: 13358508
DATE: Tue, Apr 14 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

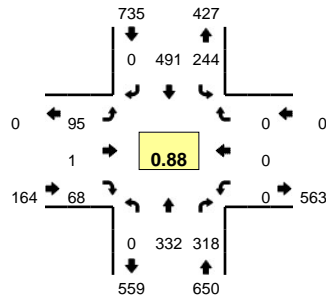


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 SB Ramps (Eastbound)				I-205 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	10	17	0	0	0	28	11	0	0	0	0	0	11	1	15	0	93	
4:05 PM	8	29	0	0	0	43	21	0	0	0	0	0	10	1	23	0	135	
4:10 PM	12	14	0	0	0	43	21	0	0	0	0	0	12	0	27	0	129	
4:15 PM	10	31	0	0	0	43	18	0	0	0	0	0	10	1	25	0	138	
4:20 PM	11	26	0	0	0	44	12	0	0	0	0	0	6	0	19	0	118	
4:25 PM	7	24	0	0	0	46	13	0	0	0	0	0	18	0	27	0	135	
4:30 PM	5	24	0	0	0	35	16	0	0	0	0	0	25	0	26	0	131	
4:35 PM	9	23	0	0	0	40	21	0	0	0	0	0	16	0	27	0	136	
4:40 PM	10	26	0	0	0	45	18	0	0	0	0	0	6	0	26	0	131	
4:45 PM	11	20	0	0	0	40	12	0	0	0	0	0	18	0	18	0	119	
4:50 PM	8	27	0	0	0	43	10	0	0	0	0	0	23	0	35	0	146	
4:55 PM	7	22	0	0	0	56	11	0	0	0	0	0	20	0	24	0	140	1551
5:00 PM	10	36	0	0	0	49	8	0	0	0	0	0	24	3	21	0	151	1609
5:05 PM	2	31	0	0	0	56	20	0	0	0	0	0	14	0	27	0	150	1624
5:10 PM	6	43	0	0	0	41	27	0	0	0	0	0	14	0	25	0	156	1651
5:15 PM	17	35	0	0	0	46	21	0	0	0	0	0	12	0	30	0	161	1674
5:20 PM	4	25	0	0	0	51	19	0	0	0	0	0	14	1	23	0	137	1693
5:25 PM	4	27	0	0	0	31	17	0	0	0	0	0	15	0	28	0	122	1680
5:30 PM	5	21	0	0	0	37	18	0	0	0	0	0	26	0	17	0	124	1673
5:35 PM	5	27	0	0	0	46	20	0	0	0	0	0	11	0	31	0	140	1677
5:40 PM	6	33	0	0	0	48	26	0	0	0	0	0	12	0	30	0	155	1701
5:45 PM	10	35	0	0	0	35	15	0	0	0	0	0	19	1	26	0	141	1723
5:50 PM	10	29	0	0	0	48	20	0	0	0	0	0	10	0	26	0	143	1720
5:55 PM	7	31	0	0	0	35	8	0	0	0	0	0	23	0	28	0	132	1712
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	72	440	0	0	0	584	220	0	0	0	0	0	208	12	292	0	1828	
Heavy Trucks	0	4	0	0	0	0	12	0	0	0	0	0	4	4	8	0	32	
Pedestrians	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

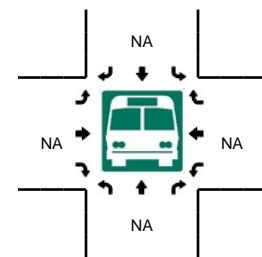
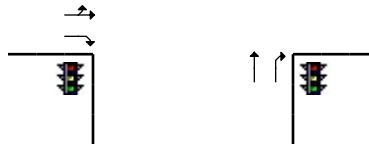
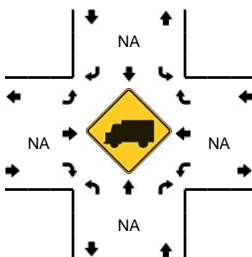
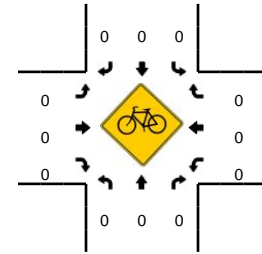
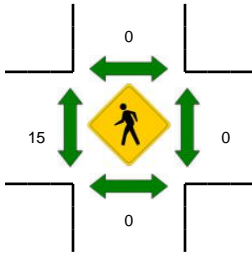
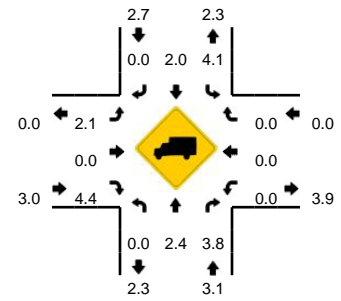
Comments:

LOCATION: 10th St -- I-205 NB Ramps
CITY/STATE: West Linn, OR

QC JOB #: 13358506
DATE: Tue, Apr 14 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

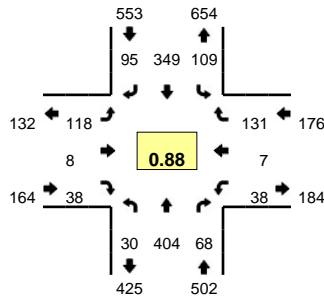


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 NB Ramps (Eastbound)				I-205 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	28	17	0	20	21	0	0	2	0	8	0	0	0	0	0	96	
4:05 PM	0	25	25	0	17	30	0	0	9	0	4	0	0	0	0	0	110	
4:10 PM	0	31	15	0	28	30	0	0	2	0	10	0	0	0	0	0	116	
4:15 PM	0	28	22	0	18	36	0	0	6	0	3	0	0	0	0	0	113	
4:20 PM	0	30	28	0	19	35	0	0	4	0	2	0	0	0	0	0	118	
4:25 PM	0	24	24	0	24	38	0	0	9	0	4	0	0	0	0	0	123	
4:30 PM	0	27	23	0	15	41	0	0	5	1	5	0	0	0	0	0	117	
4:35 PM	0	25	28	0	20	35	0	0	6	0	4	0	0	0	0	0	118	
4:40 PM	0	32	22	0	18	34	0	0	6	0	7	0	0	0	0	0	119	
4:45 PM	0	30	28	0	21	43	0	0	5	0	7	0	0	0	0	0	134	
4:50 PM	0	28	29	0	18	42	0	0	5	0	5	0	0	0	0	0	127	
4:55 PM	0	25	34	0	20	55	0	0	6	0	7	0	0	0	0	0	147	1438
5:00 PM	0	30	33	0	19	55	0	0	9	0	7	0	0	0	0	0	153	1495
5:05 PM	0	19	23	0	32	43	0	0	16	0	7	0	0	0	0	0	140	1525
5:10 PM	0	34	24	0	20	34	0	0	18	0	10	0	0	0	0	0	140	1549
5:15 PM	0	39	27	0	24	33	0	0	11	0	12	0	0	0	0	0	146	1582
5:20 PM	0	27	28	0	29	38	0	0	7	0	10	0	0	0	0	0	139	1603
5:25 PM	0	19	27	0	15	31	0	0	6	0	2	0	0	0	0	0	100	1580
5:30 PM	0	19	22	0	11	48	0	0	8	0	5	0	0	0	0	0	113	1576
5:35 PM	0	31	24	0	21	44	0	0	3	0	4	0	0	0	0	0	127	1585
5:40 PM	0	34	22	0	24	37	0	0	6	0	9	0	0	0	0	0	132	1598
5:45 PM	0	32	12	0	25	26	0	0	12	0	4	0	0	0	0	0	111	1575
5:50 PM	0	35	24	0	15	47	0	0	8	1	4	0	0	0	0	0	134	1582
5:55 PM	0	30	15	0	20	36	0	0	14	0	12	0	0	0	0	0	127	1562
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	296	360	0	284	612	0	0	124	0	84	0	0	0	0	0	1760	
Heavy Trucks	0	0	16		8	12	0		0	0	8		0	0	0		44	
Pedestrians		0				0				20				0			20	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

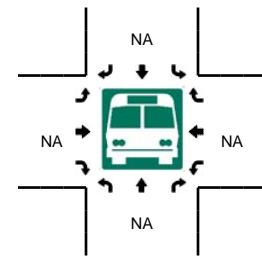
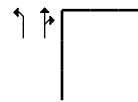
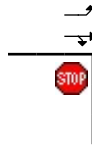
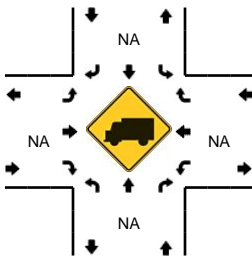
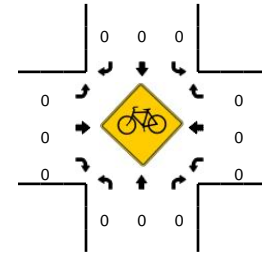
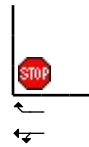
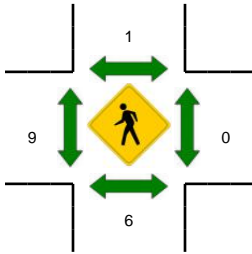
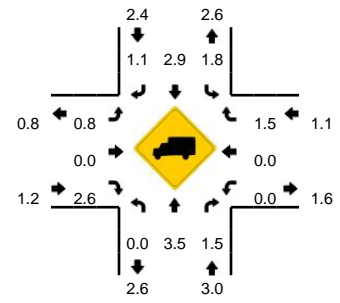
Comments:

LOCATION: 10th St -- 8th Ave
CITY/STATE: West Linn, OR

QC JOB #: 13358504
DATE: Tue, Apr 14 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

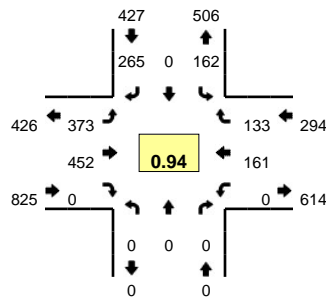


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				8th Ave (Eastbound)				8th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	27	5	0	9	16	4	0	10	1	1	0	4	0	9	0	89	
4:05 PM	3	28	4	0	7	17	7	0	9	0	2	0	0	1	14	0	92	
4:10 PM	0	26	5	0	5	22	14	0	8	0	3	0	1	0	13	0	97	
4:15 PM	4	33	7	0	7	20	10	0	12	0	3	0	3	0	4	0	103	
4:20 PM	3	32	8	0	7	23	7	0	11	0	3	0	4	0	16	0	114	
4:25 PM	2	26	2	0	9	28	5	0	10	2	1	0	3	0	11	0	99	
4:30 PM	2	33	6	0	12	23	7	1	9	0	0	0	2	0	8	0	103	
4:35 PM	3	31	11	0	10	21	9	0	5	1	5	0	4	1	13	0	114	
4:40 PM	2	35	3	0	2	34	4	0	8	1	3	0	4	1	10	0	107	
4:45 PM	3	33	5	0	13	31	5	0	9	1	4	0	0	1	17	0	122	
4:50 PM	3	41	3	0	6	24	16	0	9	1	0	0	1	1	10	0	115	
4:55 PM	0	42	5	0	11	40	10	0	12	1	3	0	6	2	11	0	143	1298
5:00 PM	3	34	7	0	9	45	10	0	11	0	5	0	2	0	14	0	140	1349
5:05 PM	2	26	6	0	13	31	8	0	7	1	3	0	5	1	5	0	108	1365
5:10 PM	3	38	5	0	9	29	4	0	15	0	8	0	4	0	12	0	127	1395
5:15 PM	3	37	5	0	11	30	6	0	10	1	2	0	3	1	16	0	125	1417
5:20 PM	2	31	7	0	10	26	11	0	4	4	2	0	1	0	14	0	112	1415
5:25 PM	3	26	8	0	4	23	7	0	6	1	3	0	8	2	12	0	103	1419
5:30 PM	3	28	6	0	5	29	11	0	5	1	1	0	5	2	9	0	105	1421
5:35 PM	4	38	4	0	13	31	8	0	9	1	2	0	3	0	7	0	120	1427
5:40 PM	3	33	3	0	9	22	12	0	9	0	0	0	4	0	16	0	111	1431
5:45 PM	1	19	4	0	5	19	6	0	8	1	3	0	2	1	12	0	81	1390
5:50 PM	1	33	5	0	13	26	11	0	9	0	3	0	0	2	16	0	119	1394
5:55 PM	1	28	5	0	9	29	9	0	7	0	1	0	5	3	10	0	107	1358
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	24	468	60	0	104	436	144	0	128	8	32	0	36	12	140	0	1592	
Heavy Trucks	0	8	0		8	8	4		0	0	0		0	0	4		32	
Pedestrians		8				0				24				0			32	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

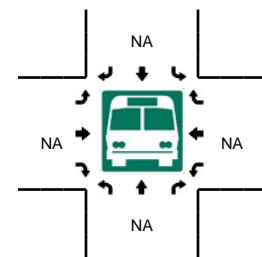
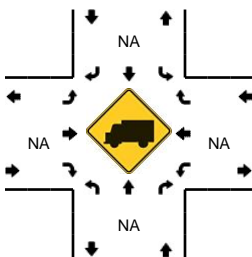
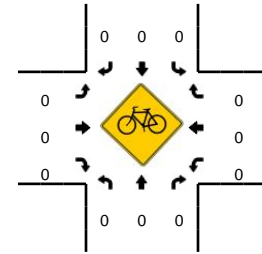
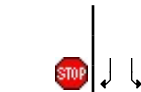
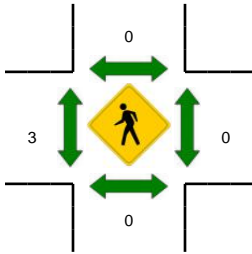
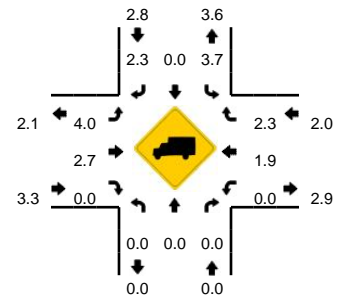
Comments:

LOCATION: 10th St -- Willamette Falls Dr
CITY/STATE: West Linn, OR

QC JOB #: 13358502
DATE: Tue, Apr 14 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

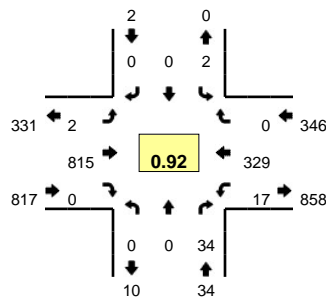


5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	8	0	16	0	28	37	0	0	0	5	5	0	99	
4:05 PM	0	0	0	0	11	0	8	0	24	40	0	0	0	18	12	0	113	
4:10 PM	0	0	0	0	14	0	13	0	23	35	0	0	0	10	7	0	102	
4:15 PM	0	0	0	0	20	0	7	0	28	37	0	0	0	12	17	0	121	
4:20 PM	0	0	0	0	11	0	17	0	32	40	0	0	0	15	12	0	127	
4:25 PM	0	0	0	0	15	0	19	0	21	43	0	0	0	13	11	0	122	
4:30 PM	0	0	0	0	7	0	18	0	28	42	0	0	0	7	12	0	114	
4:35 PM	0	0	0	0	14	0	16	0	33	34	0	0	0	10	12	0	119	
4:40 PM	0	0	0	0	17	0	25	0	30	42	0	0	0	15	10	0	139	
4:45 PM	0	0	0	0	13	0	21	0	31	36	0	0	0	20	9	0	130	
4:50 PM	0	0	0	0	5	0	24	0	39	34	0	0	0	16	10	0	128	
4:55 PM	0	0	0	0	13	0	32	0	34	33	0	0	0	10	11	0	133	1447
5:00 PM	0	0	0	0	11	0	37	0	34	38	0	0	0	14	12	0	146	1494
5:05 PM	0	0	0	0	14	0	24	0	29	39	0	0	0	18	3	0	127	1508
5:10 PM	0	0	0	0	22	0	25	0	34	34	0	0	0	11	14	0	140	1546
5:15 PM	0	0	0	0	16	0	18	0	36	28	0	0	0	18	7	0	123	1548
5:20 PM	0	0	0	0	12	0	18	0	26	37	0	0	0	10	15	0	118	1539
5:25 PM	0	0	0	0	10	0	22	0	24	20	0	0	0	25	12	0	113	1530
5:30 PM	0	0	0	0	15	0	22	0	26	35	0	0	0	23	11	0	132	1548
5:35 PM	0	0	0	0	11	0	27	0	39	14	0	0	0	13	9	0	113	1542
5:40 PM	0	0	0	0	13	0	13	0	28	34	0	0	0	13	9	0	110	1513
5:45 PM	0	0	0	0	9	0	16	0	21	28	0	0	0	11	6	0	91	1474
5:50 PM	0	0	0	0	12	0	16	0	33	28	0	0	0	11	6	0	106	1452
5:55 PM	0	0	0	0	12	0	24	0	24	36	0	0	0	12	11	0	119	1438
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	188	0	344	0	388	444	0	0	0	172	116	0	1652	
Heavy Trucks	0	0	0	0	4	0	4	0	8	12	0	0	0	4	0	0	32	
Pedestrians	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

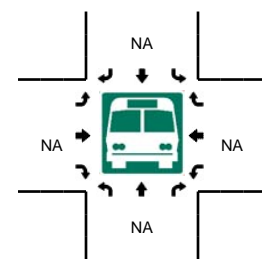
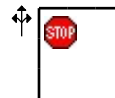
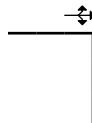
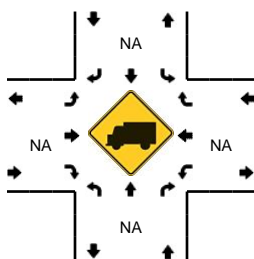
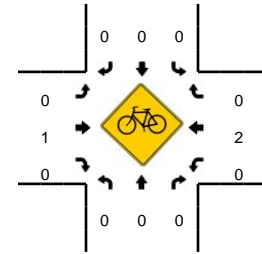
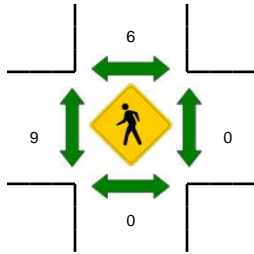
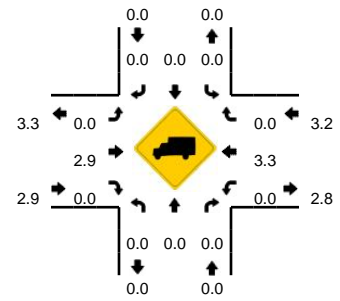
Comments:

LOCATION: 11th St -- Willamette Falls Dr
CITY/STATE: West Linn, OR

QC JOB #: 13543304
DATE: Tue, Jul 21 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

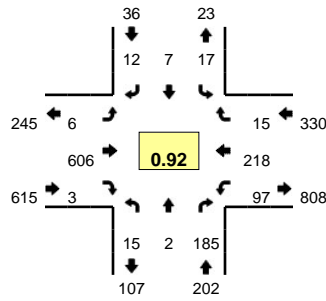


5-Min Count Period Beginning At	11th St (Northbound)				11th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	2	0	0	0	0	0	0	56	0	1	2	22	0	0	83	
4:05 PM	0	0	0	0	0	0	0	0	0	58	0	0	1	21	0	3	83	
4:10 PM	0	0	0	0	1	0	0	0	0	72	0	0	4	20	0	1	98	
4:15 PM	0	0	1	0	0	0	0	0	0	64	0	0	1	21	0	0	87	
4:20 PM	0	0	4	0	0	0	0	0	0	67	0	0	0	26	0	0	97	
4:25 PM	0	0	4	0	0	0	0	0	0	70	0	1	0	30	0	0	105	
4:30 PM	0	0	2	0	0	0	0	0	0	66	0	0	0	26	0	1	95	
4:35 PM	0	0	1	0	0	0	0	0	0	74	0	0	1	42	0	1	119	
4:40 PM	0	0	3	0	0	0	0	0	0	61	0	0	1	26	0	0	91	
4:45 PM	0	0	2	0	0	0	0	0	0	63	0	0	2	26	0	0	93	
4:50 PM	0	0	1	0	0	0	0	0	0	66	0	0	0	24	0	1	92	
4:55 PM	0	0	4	0	2	0	0	0	0	63	0	0	1	25	0	0	95	1138
5:00 PM	0	0	3	0	0	0	0	0	0	76	0	0	1	23	0	0	103	1158
5:05 PM	0	0	5	0	0	0	0	0	0	72	0	1	3	34	0	0	115	1190
5:10 PM	0	0	4	0	0	0	0	0	0	73	0	0	0	26	0	4	107	1199
5:15 PM	0	0	2	0	0	0	0	0	0	75	0	0	1	35	0	0	113	1225
5:20 PM	0	0	4	0	0	0	0	0	0	74	0	1	1	40	0	1	121	1249
5:25 PM	0	0	3	0	0	0	0	0	0	81	0	0	1	28	0	1	114	1258
5:30 PM	0	0	4	0	0	0	0	0	0	69	0	0	1	27	0	0	101	1264
5:35 PM	0	0	3	0	0	0	0	0	0	67	0	0	1	29	0	0	100	1245
5:40 PM	0	0	3	0	0	0	0	0	0	71	0	0	0	40	0	0	114	1268
5:45 PM	1	0	1	0	0	0	0	0	0	68	0	0	0	29	0	0	99	1274
5:50 PM	0	0	0	0	0	0	0	0	0	69	0	0	2	35	0	0	106	1288
5:55 PM	0	0	1	0	0	0	0	0	0	65	0	1	1	22	0	0	90	1283
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	48	0	0	0	0	0	0	884	0	4	16	332	0	16	1300	
Heavy Trucks	0	0	0	0	0	0	0	0	0	24	0	0	0	4	0	0	28	
Pedestrians	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	12	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

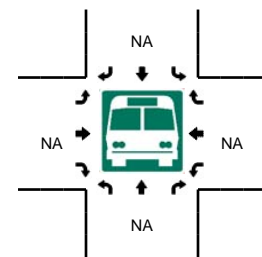
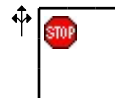
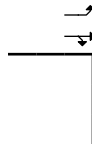
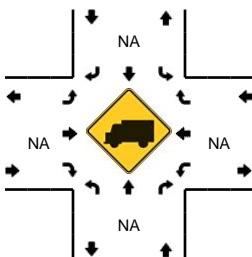
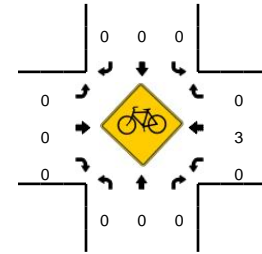
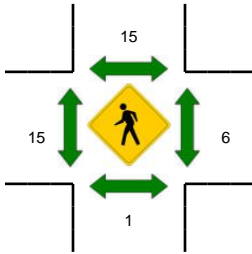
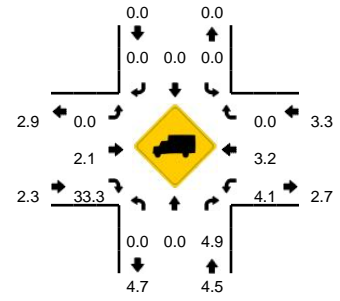
Comments:

LOCATION: 12th St -- Willamette Falls Dr
CITY/STATE: West Linn, OR

QC JOB #: 13543302
DATE: Tue, Jul 21 2015



Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:25 PM -- 4:40 PM

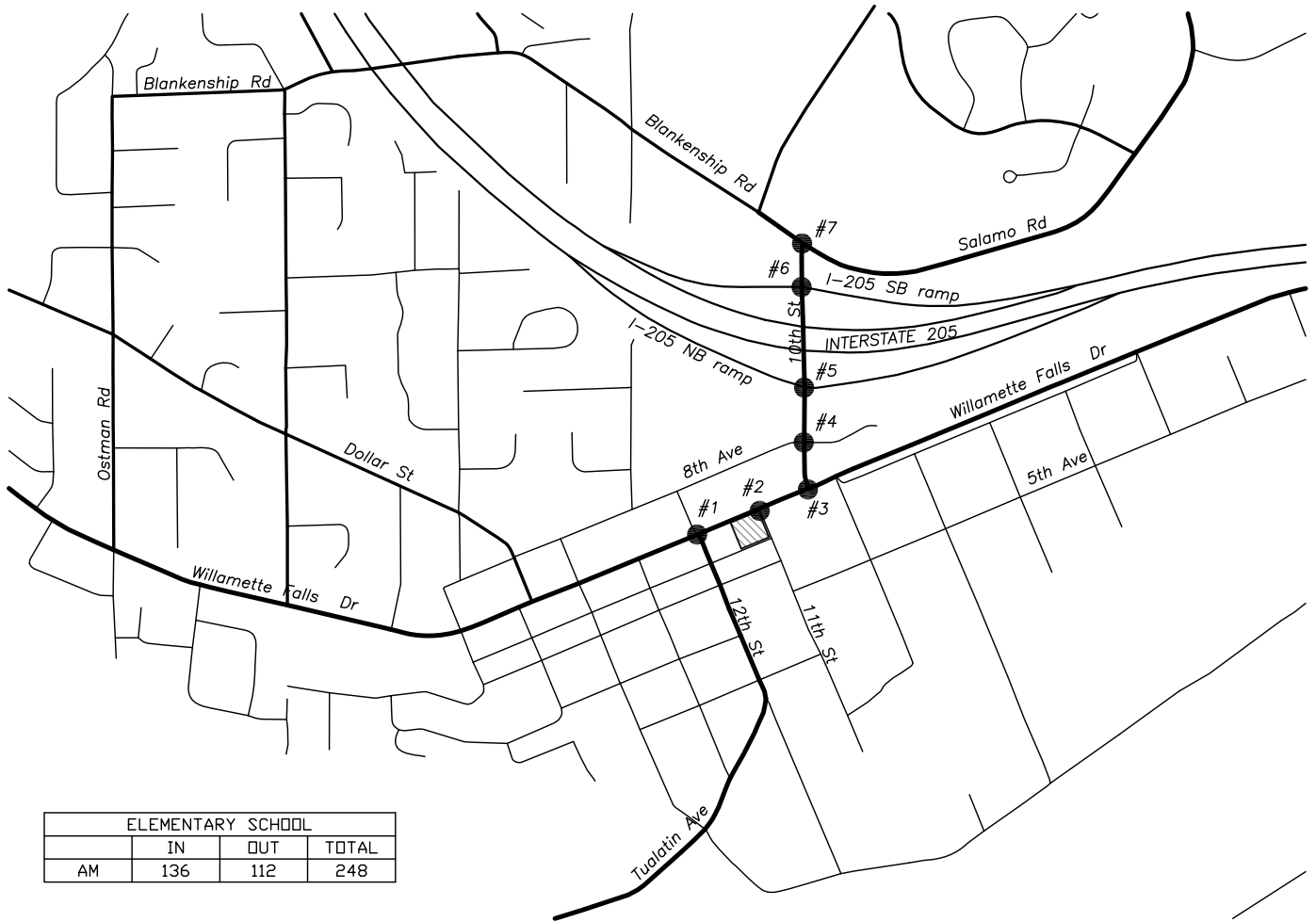
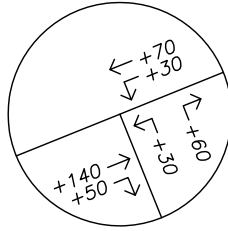
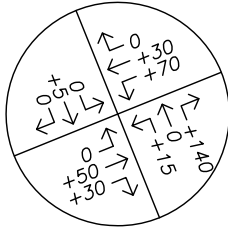


5-Min Count Period Beginning At	12th St (Northbound)				12th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	1	10	0	1	0	1	0	1	47	2	0	8	15	0	0	86	
4:05 PM	1	0	14	0	1	0	0	0	1	44	0	0	5	18	0	0	84	
4:10 PM	0	0	15	0	5	0	0	0	1	49	1	0	5	16	0	0	92	
4:15 PM	3	0	15	0	3	0	3	0	2	47	0	0	7	11	1	0	92	
4:20 PM	1	0	16	0	3	1	2	0	0	47	1	0	9	16	0	0	96	
4:25 PM	0	0	16	0	0	0	0	0	0	54	0	0	10	22	1	0	103	
4:30 PM	1	0	15	0	0	4	0	0	2	54	0	0	5	20	2	0	103	
4:35 PM	2	0	16	0	2	0	4	0	0	51	0	0	5	34	0	0	114	
4:40 PM	0	0	6	0	2	0	0	0	0	55	1	0	9	15	2	0	90	
4:45 PM	0	1	15	0	1	1	0	0	2	49	1	0	8	18	3	0	99	
4:50 PM	2	0	9	0	1	0	0	0	0	53	0	0	8	16	0	0	89	
4:55 PM	0	0	14	0	1	0	1	0	0	49	0	0	9	14	1	0	89	1137
5:00 PM	3	0	23	0	2	1	0	0	0	49	0	0	8	16	2	0	104	1155
5:05 PM	1	0	18	0	1	0	1	0	0	50	0	0	9	21	2	0	103	1174
5:10 PM	2	1	22	0	1	0	1	0	0	48	0	0	10	15	1	0	101	1183
5:15 PM	0	0	22	0	3	0	0	0	0	51	2	0	6	25	3	0	112	1203
5:20 PM	0	0	27	0	3	0	0	0	2	45	0	0	9	31	1	0	118	1225
5:25 PM	1	0	29	0	2	0	2	0	0	48	1	0	8	19	1	0	111	1233
5:30 PM	1	0	20	0	2	0	0	0	0	47	0	0	9	17	1	0	97	1227
5:35 PM	1	0	21	0	1	0	1	0	0	48	0	0	8	20	1	0	101	1214
5:40 PM	2	0	21	0	0	5	2	0	0	49	0	0	11	26	2	0	118	1242
5:45 PM	0	2	20	0	0	1	1	0	2	48	0	0	13	20	1	0	108	1251
5:50 PM	2	1	20	0	0	0	1	0	1	48	1	0	13	16	2	0	105	1267
5:55 PM	2	0	15	0	0	1	1	0	0	53	0	0	8	11	2	0	93	1271
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	0	188	0	8	16	16	0	8	636	0	0	80	304	12	0	1280	
Heavy Trucks	0	0	8		0	0	0		0	4	0		4	16	0		32	
Pedestrians						16				0				0			16	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

#1: Willamette Falls Dr & 12th St

#2: Willamette Falls Dr & 11th St



ELEMENTARY SCHOOL			
	IN	OUT	TOTAL
AM	136	112	248



TRAFFIC VOLUMES
Willamette Primary School Adjustments
AM Peak Hour

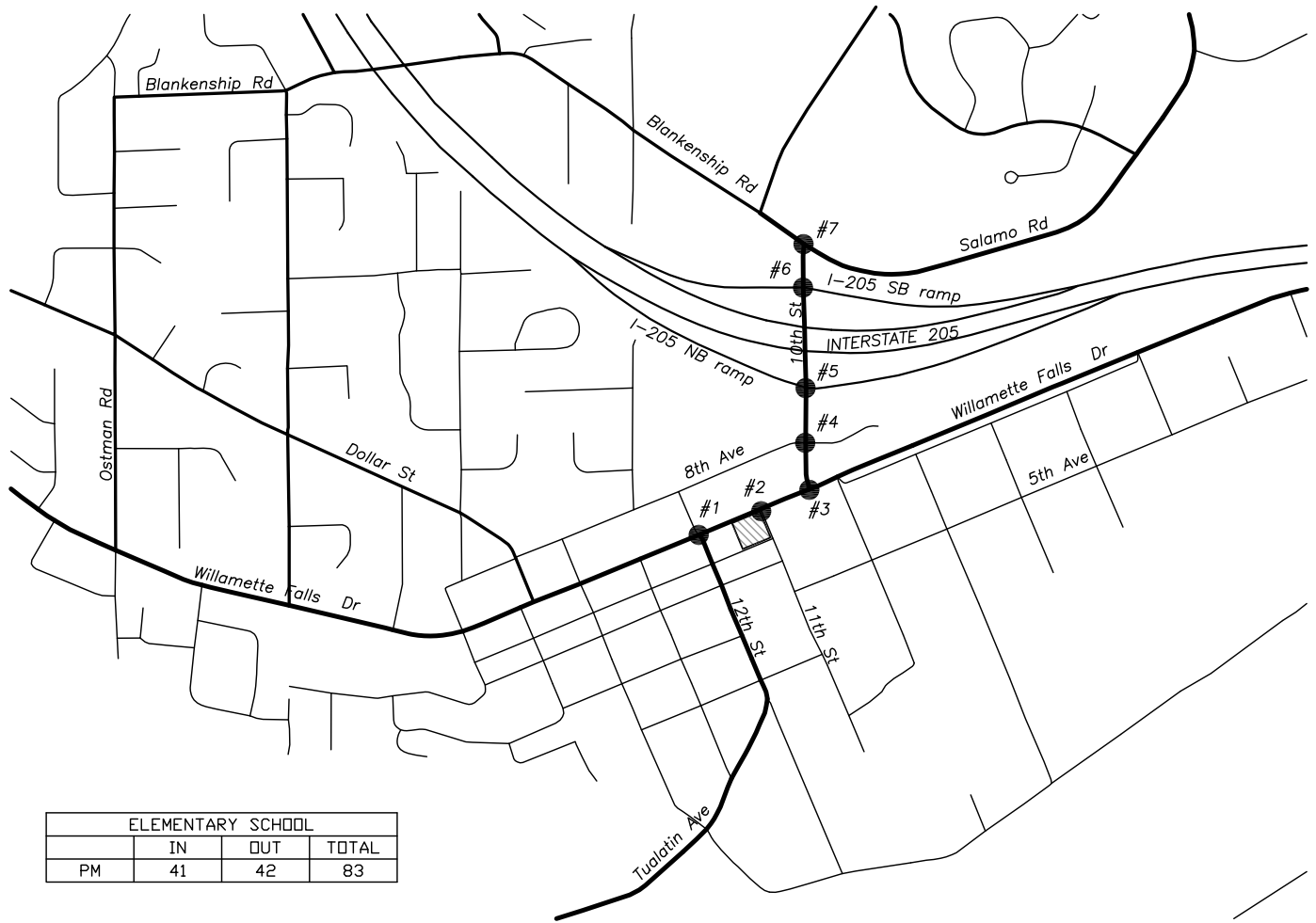
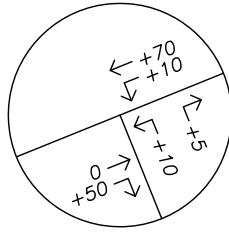
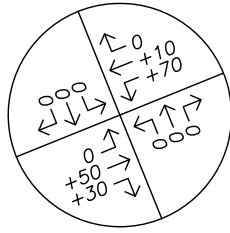


FIGURE 10

PAGE APPENDIX

#1: Willamette Falls Dr & 12th St

#2: Willamette Falls Dr & 11th St



ELEMENTARY SCHOOL			
	IN	OUT	TOTAL
PM	41	42	83



TRAFFIC VOLUMES
Willamette Primary School Adjustments
PM Peak Hour



FIGURE
11
PAGE
APPENDIX



TRIP GENERATION CALCULATIONS

Land Use: High-Turnover (Sit-Down) Restaurant
Land Use Code: 932
Variable: 1000 Sq Ft Gross Floor Area
Variable Quantity: 10.511

AM PEAK HOUR

Trip Rate: 10.81

	Enter	Exit	Total
Directional Distribution	55%	45%	
Trip Ends	63	51	114

PM PEAK HOUR

Trip Rate: 9.85

	Enter	Exit	Total
Directional Distribution	60%	40%	
Trip Ends	62	42	104

WEEKDAY

Trip Rate: 127.15

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	668	668	1,336

SATURDAY

Trip Rate: 158.37

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	832	832	1,664

Source: TRIP GENERATION, Ninth Edition



TRIP GENERATION CALCULATIONS

Land Use: General Office Building
Land Use Code: 710
Variable: 1000 Sq Ft Gross Floor Area
Variable Value: 14.6

AM PEAK HOUR

Trip Rate: 1.56

	Enter	Exit	Total
Directional Distribution	88%	12%	
Trip Ends	20	3	23

PM PEAK HOUR

Trip Rate: 1.49

	Enter	Exit	Total
Directional Distribution	17%	83%	
Trip Ends	4	18	22

WEEKDAY

Trip Rate: 11.03

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	80	80	160

SATURDAY

Trip Rate: 2.46

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	18	18	36

Source: TRIP GENERATION, Ninth Edition



TRIP GENERATION CALCULATIONS

Land Use: General Office Building
Land Use Code: 710
Variable: 1000 Sq Ft Gross Floor Area
Variable Value: 10.5

AM PEAK HOUR

Trip Rate: 1.56

	Enter	Exit	Total
Directional Distribution	88%	12%	
Trip Ends	14	2	16

PM PEAK HOUR

Trip Rate: 1.49

	Enter	Exit	Total
Directional Distribution	17%	83%	
Trip Ends	3	13	16

WEEKDAY

Trip Rate: 11.03

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	58	58	116

SATURDAY

Trip Rate: 2.46

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	13	13	26

Source: TRIP GENERATION, Ninth Edition



TRIP GENERATION CALCULATIONS

Land Use: Hotel
Land Use Code: 310
Variable: Rooms
Variable Value: 19

AM PEAK HOUR

Trip Rate: 0.53

	Enter	Exit	Total
Directional Distribution	59%	41%	
Trip Ends	6	4	10

PM PEAK HOUR

Trip Rate: 0.6

	Enter	Exit	Total
Directional Distribution	51%	49%	
Trip Ends	6	5	11

WEEKDAY

Trip Rate: 8.17

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	78	78	156

SATURDAY

Trip Rate: 8.19

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	78	78	156

Source: TRIP GENERATION, Ninth Edition

02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

WILLAMETTE FALLS DR and 12TH ST, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2012														
REAR-END	0	0	1	1	0	0	0	0	0	1	0	0	0	0
YEAR 2012 TOTAL	0	0	1	1	0	0	0	0	0	1	0	0	0	0
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	0	1	0	1	0	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	0	1	1	2	0	1	0	1	1	1	1	1	0	0
YEAR: 2010														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2010 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
FINAL TOTAL	0	2	2	4	0	2	0	2	1	3	1	2	0	0

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 Reporting System.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

WILLAMETTE FALLS DR and 12TH ST, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 4

SER#	S D P R S W E A U C O DATE E L G H R DAY INVEST D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE (MEDIAN) INT-REL	OFFRD WTHR	CRASH	SPCL USE TRLR QTY	MOVE	A S G E LICNS	PED	ERROR	ACT EVENT	CAUSE
		DIST	FIRST STREET	DIRECT	LEGS TRAF-	RNDBT SURF	COLL	OWNER	FROM	PRTC INJ	E X RES	LOC		
		FROM	SECOND STREET	LOCTN	(#LANES) CONTL	DRVWY LIGHT	SVRTY	V# TYPE	TO	P# TYPE SVRTY	E X RES	LOC		
03816	N N N CITY 10/19/2010 TU 3P	16 0	WILLAMETTE FALLS DR 12TH ST	INTER NE 06	CROSS N 0	N STOP SIGN N	N CLR BIKE ANGL INJ	01 NONE PRVTE PSNGR CAR	TURN-L SE-SW	01 DRVR NONE	38 F OR-Y OR<25	027	000	02 00 02
									- STRGHT SW NE	01 BIKE INJC	43 M	I XWLK	000	035 00
03006	N N N NONE 08/18/2011 TH 10A	16 0	WILLAMETTE FALLS DR 12TH ST	INTER CN 04	CROSS N 0	N STOP SIGN N	N CLR ANGL-OTH TURN PDO	01 NONE PRVTE PSNGR CAR	STRGHT SW-NE	01 DRVR NONE	60 F OR-Y OR<25	000	000	02 00 00
								02 NONE PRVTE PSNGR CAR	TURN-L SE-SW	01 DRVR NONE	00 F UNK UNK	028	000	00 02
03447	N N N NONE 09/06/2012 TH 5P	16 83	WILLAMETTE FALLS DR 12TH ST	STRGHT SW 08	(NONE) UNKNOWN	N UNKNOWN N	N CLR S-1STOP REAR PDO	01 NONE PRVTE PSNGR CAR	STRGHT SW-NE	01 DRVR NONE	38 M OR-Y OR<25	026	000	07 00 07
								02 NONE PRVTE PSNGR CAR	STOP SW-NE	01 DRVR NONE	56 M OR-Y OR<25	000	000	00 00
01108	N Y N N N CITY 04/01/2011 FR 10P	16 150	WILLAMETTE FALLS DR 12TH ST	GRADE NE 07	(NONE) NONE	N NONE N	N RAIN PRKD MV REAR INJ	01 NONE PRVTE PSNGR CAR	STRGHT SW-NE	01 DRVR INJC	43 M OR-Y OR<25	080	000	013 10 10
								02 NONE PRVTE PSNGR CAR	PRKD-P SW-NE				008	013 00
								03 NONE PRVTE PSNGR CAR	PRKD-P SW-NE				008	00

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 requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

WILLAMETTE FALLS DR and 11TH ST, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2013														
REAR-END	0	1	0	1	0	1	0	0	0	1	0	0	0	0
YEAR 2013 TOTAL	0	1	0	1	0	1	0	0	0	1	0	0	0	0
FINAL TOTAL	0	1	0	1	0	1	0	0	0	1	0	0	0	0

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 Reporting Unit.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

WILLAMETTE FALLS DR and 11TH ST, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 1

SER#	INVEST	S D	P R S W	E A U C O DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	A S	E L G H R DAY	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E LICNS	PED	ERROR	ACT	EVENT	CAUSE
								(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC																
03417	Y N N N N			06/13/2013	16	WILLAMETTE FALLS DR	STRGHT	N	N	N	UNK	PRKD MV	01 NONE 0	STRGHT																			01,32	
CITY				TH	86	11TH ST	SW	(NONE)	UNKNOWN	N	UNK	REAR	PRVTE	NE-SW																			00	
				8A			07			N	DAY	INJ	PSNGR CAR		01 DRVR	INJB	43 M	OR-Y												047,080	000		01,32	
								(02)					02 NONE 0	PRKD-P																				
													PRVTE	NE-SW																		008	00	
													PSNGR CAR																					

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and WILLAMETTE FALLS DR, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2014 TOTAL	0	0	2	2	0	0	0	2	0	1	1	2	0	0
YEAR: 2011														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	0	0	2	2	0	0	0	2	0	2	0	2	0	0
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2010 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
FINAL TOTAL	0	0	5	5	0	0	0	5	0	4	1	5	0	0

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 Reporting System.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and WILLAMETTE FALLS DR, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER#	INVEST	S D P R S W E A U C O DATE E L G H R DAY D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE (MEDIAN)	INT-REL LEGS	OFFRD TRAF-	WTHR SURF	CRASH COLL	SPCL USE TRLR QTY	MOVE FROM	A S G E LICNS	PED LOC	ERROR	ACT	EVENT	CAUSE
16	10TH ST	INTER	3-LEG	N	CLR	S-1STOP	01 NONE	0	STRGHT	07								
04581	NONE	11/30/2011 WE 4P	16	WILLAMETTE FALLS DR 10TH ST	INTER SW	3-LEG	N	N	CLR	S-1STOP	01 NONE	0	STRGHT					07
			0		06	0	STOP SIGN	N	DRY	REAR	PRVTE	SW-NE						000
								N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 M	UNK		026
											02 NONE	0	STOP					000
											PRVTE	SW-NE						011
											PSNGR CAR		01 DRVR	NONE	46 M	OR-Y		000
																		000
																		000
																		000
00394	NONE	01/30/2014 TH 6A	16	WILLAMETTE FALLS DR 10TH ST	INTER W	CROSS	N	N	CLR	S-1STOP	01 NONE	0	STRGHT					07
			0		06	0	STOP SIGN	N	DRY	REAR	PRVTE	SW-NE						000
								N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00 M	OR-Y		026
											02 NONE	0	STOP					000
											PRVTE	SW-NE						012
											PSNGR CAR		01 DRVR	NONE	31 F	OR-Y		000
																		000
																		000
																		000
02189	NONE	06/28/2010 MO 12P	16	WILLAMETTE FALLS DR 10TH ST	INTER CN	3-LEG	N	N	CLR	S-1TURN	01 NONE	0	STRGHT				004	07
			0		02	0	STOP SIGN	N	DRY	REAR	PRVTE	NE-SW						000
								N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	38 F	OR-Y		026
											02 NONE	0	STOP					000
											PRVTE	NE-N						013
											PSNGR CAR		01 DRVR	NONE	65 F	OR-Y		000
																		000
											02 NONE	0	STOP					013
											PRVTE	NE-N						004
											PSNGR CAR		02 PSNG	NO<5	04 M			000
																		000
																		000
02637	NONE	07/23/2011 SA 7P	16	WILLAMETTE FALLS DR 10TH ST	INTER CN	3-LEG	N	N	CLR	ANGL-OTH	01 NONE	0	TURN-R					02
			0		01	0	STOP SIGN	N	DRY	TURN	PRVTE	N -SW						015
								N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 M	OR-Y		028
											02 NONE	0	STRGHT					000
											PRVTE	NE-SW						000
											PSNGR CAR		01 DRVR	NONE	18 F	OR-Y		000
																		000
																		000
																		000
01104	CITY	03/19/2014 WE 10A	16	WILLAMETTE FALLS DR 10TH ST	INTER CN	3-LEG	N	N	CLD	ANGL-OTH	01 NONE	0	TURN-R					02
			0		01	0	STOP SIGN	N	DRY	TURN	PRVTE	N -SW						015
								N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	66 M	OR-Y		028
											02 NONE	0	STRGHT					000
											PRVTE	NE-SW						000
											PSNGR CAR		01 DRVR	NONE	50 F	OR-Y		000
																		000
																		000

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and 8TH AVE, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2014 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2013														
FIXED / OTHER OBJECT	0	0	1	1	0	0	0	0	1	0	1	0	0	1
YEAR 2013 TOTAL	0	0	1	1	0	0	0	0	1	0	1	0	0	1
YEAR: 2012														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2012 TOTAL	0	0	2	2	0	0	0	1	1	0	2	2	0	0
YEAR: 2010														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2010 TOTAL	0	0	1	1	0	0	0	0	1	0	1	1	0	0
FINAL TOTAL	0	0	5	5	0	0	0	2	3	1	4	4	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 Reporting Unit.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and 8TH AVE, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER#	INVEST	S D P R S W E A U C O DATE E L G H R DAY D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE (MEDIAN) INT-REL LEGS TRAF- (#LANES) CONTL	OFFRD	WTHR	CRASH	SPCL USE TRLR QTY MOVE	WTHR	CRASH	TRLR QTY	MOVE	A S G E LICNS E X RES	PED	ERROR	ACT	EVENT	CAUSE
			DIST	FIRST STREET	DIRECT		RNDBT	SURF	COLL	OWNER	FROM									
			FROM	SECOND STREET	LOCTN		DRVWY	LIGHT	SVRTY	V# TYPE	TO									
00143	NONE	N N N TH 7P	17	8TH AVE 10TH ST	INTER N 05	CROSS 0	N N	CLR DRY DLIT	ANGL-OTH TURN PDO	01 NONE 0 PRVTE PSNGR CAR	TURN-L W -N						007	000	015 000	08 00 08
										02 NONE 0 PRVTE PSNGR CAR	STRGHT S -N						000	000		00 00
04522	CITY	N N N N N MO 5P	17	8TH AVE 10TH ST	INTER CN 04	CROSS 0	N N	RAIN WET DLIT	ANGL-OTH ANGL PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT W -E						028	000	015 000	02 00 02
										02 NONE 0 PRVTE PSNGR CAR	STRGHT S -N						000	000		00 00
04173	CITY	N N N N N TU 8A	17	8TH AVE 10TH ST	INTER CN 03	CROSS 0	N N	CLD WET DAWN	ANGL-OTH ANGL PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT W -E						028	000	015 000	02 00 02
										02 NONE 0 PRVTE PSNGR CAR	STRGHT N -S						000	000		00 00
02513	CITY	N N N N N TU 1P	17	8TH AVE 10TH ST	INTER CN 01	CROSS 0	N N	CLR DRY DAY	ANGL-OTH ANGL PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT E -W						028	000	015 000	02 00 02
										02 NONE 0 PRVTE PSNGR CAR	STRGHT N -S						000	000		00 00
04978	CITY	Y Y N N N SU 2A	19	8TH AVE 10TH ST	STRGHT SE 07	(NONE) NONE (02)	N Y	CLD WET DARK	FIX OBJ FIX PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT E -W						047,081,051	000	042,088 042,088	01,33 00 01,33

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and 8TH CT, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2014 TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR: 2013														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	2	0	2	0	3	0	2	0	1	1	2	0	0
YEAR 2013 TOTAL	0	2	1	3	0	3	0	3	0	2	1	3	0	0
YEAR: 2012														
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2012 TOTAL	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR: 2011														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR: 2010														
TURNING MOVEMENTS	0	0	2	2	0	0	0	1	1	1	1	2	0	0
YEAR 2010 TOTAL	0	0	2	2	0	0	0	1	1	1	1	2	0	0
FINAL TOTAL	0	4	4	8	0	5	0	6	2	4	4	8	0	0

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and 8TH CT, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 8

SER#	INVEST	S D P R S W E A U C O DATE E L G H R DAY D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE		OFFRD	WTHR	CRASH	SPCL USE		MOVE	A S				ERROR	ACT	EVENT	CAUSE		
						(MEDIAN)	INT-REL				TRLR	QTY		G	E	LICNS	PED						
			DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED					
			FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC			
02649	NONE	NNN TH 4P	19	8TH CT 10TH ST	INTER CN 03	CROSS 0	N STOP SIGN	N N N	CLR DRY DAY	ANGL-OTH TURN PDO	01 02	NONE PRVTE PSNGR CAR	0 0 CAR	TURN-L NE-SE	01	DRVR	NONE	00	F	UNK OR<25	028	000 000	02 00 02
03642	CITY	NNN SA 9P	17	8TH CT 10TH ST	INTER CN 04	CROSS 0	N TRF SIGNAL	N N N	CLD WET DLIT	ANGL-OTH TURN PDO	01 02	NONE PRVTE PSNGR CAR	0 0 CAR	STRGHT S -N	01	DRVR	NONE	46	M	OR-Y OR<25	000	000 000	02 00 00
03280	CITY	NNNNN TU 3P	19	8TH CT 10TH ST	INTER CN 04	CROSS 0	N STOP SIGN	N N N	CLR DRY DAY	ANGL-OTH ANGL INJ	01 02 03 04	NONE PRVTE PSNGR CAR	0 0 0 0	STRGHT NW-SE	01	DRVR	NONE	78	M	OR-Y OR<25	028	000 000 000 000	013 00 02 00 00 00 00
04201	NONE	NNN WE 6P	17	8TH CT 10TH ST	INTER CN 03	CROSS 0	N STOP SIGN	N N N	UNK WET DUSK	ANGL-OTH TURN PDO	01 02	NONE PRVTE PSNGR CAR	0 0 CAR	TURN-L E -S	01	DRVR	NONE	16	F	OR-Y OR<25	028	000 000	02 00 02
01337	CITY	NNNNN FR 4P	19	8TH CT 10TH ST	INTER CN 01	CROSS 0	N STOP SIGN	N N N	CLR DRY DAY	ANGL-OTH ANGL PDO	01 02	NONE PRVTE PSNGR CAR	0 0 CAR	STRGHT E -W	01	DRVR	NONE	62	F	OR-Y OR<25	028	000 000	02 00 00
01621	NONE	NNN FR 11A	17	8TH CT 10TH ST	INTER CN 01	CROSS 0	N TRF SIGNAL	N N N	CLR DRY DAY	ANGL-OTH TURN INJ	01	NONE PRVTE PSNGR CAR	0 0 CAR	TURN-L E -S	01	DRVR	INJC	65	M	OR-Y	028	000	02 00 02

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and 8TH CT, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 8

SER#	E L G H R DAY	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	INJ	RES	LOC	ERROR	ACT	EVENT	CAUSE	
INVEST	D C S L K TIME	FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC	ERROR	ACT	EVENT	CAUSE
										02 NONE 0	TURN-L								OR<25
										PRVTE	N -E						000		00
										PSNGR CAR		01 DRVR	NONE	58 M	OR-Y	000	000		00
																			OR<25
04802	N N N N N 12/05/2013	17	8TH CT	INTER	CROSS	N	N	CLR	O-1TURN	01 NONE 0	STRGHT								02,08
CITY	TH	0	10TH ST	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	S -N						000		00
	7P			04	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	INJC	46 M	OR-Y	000	000		00
										02 NONE 0	TURN-L								OR<25
										PRVTE	N -E						000		00
										PSNGR CAR		01 DRVR	INJC	17 M	OR-Y	028,004	000		02,08
																			OR<25
00175	N N N N N 01/14/2014	17	8TH CT	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE 0	TURN-L								02
CITY	TU	0	10TH ST	CN		STOP SIGN	N	DRY	TURN	PRVTE	W -N						000		00
	7P			04	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	INJC	34 F	OR-Y	028	000		02
										02 NONE 0	STRGHT								OR<25
										PRVTE	S -N						000		00
										PSNGR CAR		01 DRVR	NONE	20 M	OR-Y	000	000		00
																			OR<25

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 requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and EB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
REAR-END	0	1	1	2	0	4	0	2	0	2	0	0	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	0	1	2	3	0	4	0	2	1	2	1	1	0	0
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	0	1	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2013 TOTAL	0	0	2	2	0	0	0	1	1	0	2	1	1	0
YEAR: 2012														
REAR-END	0	0	1	1	0	0	0	0	1	0	1	0	0	0
YEAR 2012 TOTAL	0	0	1	1	0	0	0	0	1	0	1	0	0	0
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2010 TOTAL	0	0	1	1	0	0	0	1	0	0	1	1	0	0
FINAL TOTAL	0	1	6	7	0	4	0	4	3	2	5	3	1	0

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 Reporting System.

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 7

SER#	INVEST	S D P R S W E A U C O DATE E L G H R DAY D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE (MEDIAN) INT-REL LEGS TRAF- (#LANES) CONTL	OFFRD	WTHR	CRASH	SPCL USE TRLR QTY MOVE	WTHR	CRASH	SPCL USE TRLR QTY MOVE	A S G E LICNS E X RES	PED	ERROR	ACT	EVENT	CAUSE
			DIST	FIRST STREET	DIRECT		RNDBT	SURF	COLL	OWNER	FROM								
			FROM	SECOND STREET	LOCTN		DRVWY	LIGHT	SVRTY	V# TYPE	TO								
04320	NONE	N N N TH 8P	19	10TH ST EB ENFR 10TH	INTER S 06	CROSS N 0	N N N	CLR DRY DLIT	S-1STOP REAR PDO	01 NONE PRVTE PSNGR CAR	0	STRGHT S -N	01 DRVR	NONE	46 F	OR-Y OR<25	016	000 000	27 00 27
										02 NONE PRVTE PSNGR CAR	0	STOP S -N	01 DRVR	NONE	91 M	OR-Y OR<25	000	000	00 00
00121	NONE	N N N TH 8P	11	10TH ST EB ENFR 10TH	INTER CN 03	CROSS N 0	N N N	RAIN WET DLIT	O-1TURN TURN PDO	01 NONE PRVTE PSNGR CAR	0	STRGHT S -N	01 DRVR	NONE	45 F	OR-Y OR<25	000	000	04 00 00
										02 NONE PRVTE PSNGR CAR	0	TURN-L N -E	01 DRVR	NONE	00 M	OR-Y OR<25	020,004	000	00 04
04702	CITY	N N N N N TH 7A	17	10TH ST EB ENFR 10TH	INTER CN 04	CROSS N 0	N N N	RAIN WET DLIT	O-1TURN TURN PDO	01 NONE PRVTE PSNGR CAR	0	STRGHT S -N	01 DRVR	NONE	58 F	OR-Y OR<25	000	000	02,08 00 00
										02 NONE PRVTE PSNGR CAR	0	TURN-L N -E	01 DRVR	NONE	46 F	EXP OR<25	028,004	000	00 02,08
02427	CITY	N N N N N WE 1P	17	10TH ST EB ENFR 10TH	STRGHT N 03	(NONE) UNKNOWN (02)	N N N	CLR DRY DAY	S-1STOP REAR INJ	01 NONE PRVTE PSNGR CAR	0	STRGHT S -N	01 DRVR	INJB	30 F	OR-Y OR<25	043,026	000	07 00 07
										02 NONE PRVTE PSNGR CAR	0	STOP S -N	01 DRVR	INJC	16 F	OR-Y OR<25	000	000	011 00 00
										02 NONE PRVTE PSNGR CAR	0	STOP S -N	02 PSNG	INJC	00 F		000	000	011 00 00
										02 NONE PRVTE PSNGR CAR	0	STOP S -N	03 PSNG	INJC	11 F		000	000	011 00 00
03248	CITY	N N N N N TH 1P	17	10TH ST EB ENFR 10TH	STRGHT N 03	(NONE) UNKNOWN (02)	N N N	CLR DRY DAY	S-1STOP REAR PDO	01 NONE PRVTE PSNGR CAR	0	STRGHT S -N	01 DRVR	NONE	27 F	OR-Y OR<25	026	000	29 00 29
										02 NONE PRVTE PSNGR CAR	0	STOP S -N	01 DRVR	NONE	86 F	OR-Y OR<25	000	000	011 00 00
04934	CITY	Y N N N N WE 4P	17	10TH ST EB ENFR 10TH	STRGHT S 03	(NONE) TRF SIGNAL	N N N	RAIN WET DUSK	S-1STOP REAR PDO	01 NONE PRVTE PSNGR CAR	0	STRGHT S -N	01 DRVR	NONE	48 M	OR-Y	047,026,052	000	01,07,32 00 01,07,32

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 requirement, 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 ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 7

SER#	INVEST	D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	PRTC	INJ	G E LICNS	PED	ERROR	ACT	EVENT	CAUSE
E L G H R DAY	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	TRLR QTY	TO	P#	TYPE	SVRTY	E X RES	LOC			
FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE											
						(02)					02 NONE 0	STOP								
											PRVTE	S -N						011		00
											PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		000
																		000		00
04284	N N N N N	11/05/2013	17	10TH ST	STRGHT		Y	N	CLD	S-1STOP	01 NONE 0	STRGHT								07
CITY	TU			EB ENFR 10TH	S	(NONE)	TRF SIGNAL	N	DRY	REAR	PRVTE	S -N						000		00
	5P				03			N	DUSK	PDO	PSNGR CAR		01	DRVR	NONE	43	M	UNK		026
						(02)														07
											02 NONE 0	STOP								
											PRVTE	S -N						011		00
											PSNGR CAR		01	DRVR	NONE	66	F	OR-Y		000
																		000		00

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and EB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
REAR-END	0	1	0	1	0	1	0	0	1	1	0	1	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	0	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	0	2	1	3	0	2	0	1	2	2	1	2	0	0
YEAR: 2013														
REAR-END	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR: 2012														
BACKING	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2012 TOTAL	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	0	0	0
YEAR 2011 TOTAL	0	1	0	1	0	1	0	1	0	1	0	0	0	0
FINAL TOTAL	0	4	2	6	0	4	0	4	2	4	2	3	0	0

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER#	INVEST	S D P R S W E A U C O DATE E L G H R DAY D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE (MEDIAN) INT-REL	OFFRD	WTHR	CRASH	SPCL USE TRLR QTY	MOVE	A S G E LICNS	PED	ERROR	ACT	EVENT	CAUSE	
			DIST	FIRST STREET	DIRECT	LEGS TRAF-	RNDBT	SURF	COLL	OWNER	FROM	INJ						
			FROM	SECOND STREET	LOCTN	(#LANES) CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	P# TYPE	SVRTY	E X RES	LOC			
04461	NONE	N N N 11/05/2014 WE 11A	11	10TH ST EB EXTO 10TH	INTER NW 06	CROSS 0	N N	UNK WET DAY	S-1STOP REAR INJ	01 NONE 0 PRVTE PSNGR CAR	STRGHT W -E			026	000	000	29	
										02 NONE 0 PRVTE PSNGR CAR	STOP W -E	01 DRVR	NONE	62 M	OR-Y OR<25		011 000	00 00
										02 NONE 0 PRVTE PSNGR CAR	STOP W -E	02 PSNG	NO<5	02 M		000	000	00 00
04883	NONE	N N N 12/17/2013 TU 6P	11	10TH ST EB EXTO 10TH	INTER CN 03	CROSS 0	N N	CLR DRY DLIT	S-1STOP REAR INJ	01 NONE 0 PRVTE PSNGR CAR	STRGHT W -E			026	000	000	07	
										02 NONE 0 PRVTE PSNGR CAR	STOP W -E	01 DRVR	INJA	41 F	OR-Y OR<25		013 000	00 00
01764	CITY	N N N N N 05/08/2014 TH 9P	17	10TH ST EB EXTO 10TH	INTER CN 04	CROSS 0	N N	RAIN WET DLIT	O-1TURN TURN INJ	01 NONE 0 UNKN PSNGR CAR	TURN-L N -SE			028	000	000	02	
										02 NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01 DRVR	INJC	16 F	OR-Y OR<25		000 000	00 00
03344	NONE	N N N 09/10/2011 SA 4P	17	10TH ST EB EXTO 10TH	STRGHT N 03	(NONE) UNKNOWN (02)	N N	CLR DRY DAY	S-1STOP REAR INJ	01 NONE 0 PRVTE PSNGR CAR	STRGHT N -S			026	000	000	07	
										02 NONE 0 PRVTE PSNGR CAR	STOP N -S	01 DRVR	INJC	48 F	OR-Y OR<25		011 000	00 00
02397	CITY	N N N N N 06/22/2014 SU 5P	17	10TH ST EB EXTO 10TH	STRGHT N 05	(NONE) L-TURN REF (03)	N N	CLR DRY DAY	S-STRGHT SS-O PDO	01 NONE 0 UNKN PSNGR CAR	STRGHT S -N			045	000	000	13	
										02 NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01 DRVR	NONE	00 M	UNK UNK		000 000	00 13
										02 NONE 0 PRVTE PSNGR CAR	STRGHT S -N	01 DRVR	NONE	54 M	OR-Y OR<25		000 000	00 00
91693	NONE	N N N 03/24/2012 SA 11A	11	EB EXTO 10TH 10TH ST	STRGHT NW 03	(NONE) TRF SIGNAL (01)	N N	CLR DRY DAY	O-1STOP BACK PDO	01 NONE 0 UNKN PSNGR CAR	BACK E -W			011	000	000	10	
										02 NONE 0 PRVTE PSNGR CAR	STOP E -W	01 DRVR	NONE	52 M	OR-Y UNK		011 000	00 00

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CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

S	D											SPCL USE																
P	R	S	W	INT-TYPE																								
E	A	U	C	O	DATE	CLASS	CITY STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY	MOVE	A	S											
SER#	E	L	G	H	R	DAY	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED						
INVEST	D	C	S	L	K	TIME	FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE

OR<25

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 requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and WB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2013 TOTAL	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR: 2012														
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2012 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	0	0	0
YEAR 2010 TOTAL	0	0	1	1	0	0	0	1	0	0	1	0	0	0
FINAL TOTAL	0	1	2	3	0	1	0	3	0	2	1	1	0	0

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and WB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 3

SER#	INVEST	S D P R S W E A U C O DATE			CLASS	CITY STREET	RD CHAR	INT-TYPE				SPCL USE		MOVE	A S		PED	ERROR	ACT	EVENT	CAUSE	
		E L G H R DAY	DIST	FIRST STREET				DIRECT	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH		TRLR QTY	FROM						PRTC
		D C S L K TIME	FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E X RES	LOC				
03497	CITY	N N N N N	09/20/2012	17	10TH ST	INTER	CROSS	N		S-OTHER	01	NONE	0	TURN-R							27,08	
		TH			WB ENFR 10TH	CN			TRF SIGNAL	N		PRVTE		N -W						000	00	
		7P				01	0			DAY		PSNGR CAR			01	DRVR	NONE	42 F	OTH-Y	016,006	038	27,08
01073	CITY	N N N	03/30/2013	17	10TH ST	STRGHT	(NONE)	N		S-1STOP	01	NONE	0	STRGHT							07	
		SA			WB ENFR 10TH	S			TRF SIGNAL	N		PRVTE		S -N						000	00	
		3P				03	(03)			DAY		PSNGR CAR			01	DRVR	NONE	34 M	OTH-Y	026	000	07
04921	NONE	N N N	12/22/2010	17	10TH ST	BRIDGE	(NONE)	N		S-1STOP	01	NONE		STRGHT							07	
		WE			WB ENFR 10TH	S			UNKNOWN	N		PRVTE		S -N						000	00	
		6P				03	(04)			DLIT		PSNGR CAR			01	DRVR	NONE	40 M	OR-Y	026	000	07

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and WB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
REAR-END	0	1	2	3	0	1	0	2	1	3	0	2	0	0
YEAR 2014 TOTAL	0	1	2	3	0	1	0	2	1	3	0	2	0	0
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	0	1	0
YEAR 2013 TOTAL	0	0	1	1	0	0	0	1	0	0	1	0	1	0
YEAR: 2012														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	0	1	1	0	0	0	1
REAR-END	0	2	1	3	0	2	0	2	0	3	0	1	0	0
YEAR 2012 TOTAL	0	3	1	4	0	3	0	2	1	4	0	1	0	1
YEAR: 2011														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2011 TOTAL	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	0	0	1	0	1	0	0
YEAR 2010 TOTAL	0	0	1	1	0	0	0	0	0	1	0	1	0	0
FINAL TOTAL	0	4	6	10	0	4	0	6	2	9	1	4	1	1

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and WB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 10

SER#	INVEST	S D P R S W E A U C O DATE E L G H R DAY D C S L K TIME	CLASS	CITY STREET FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT-TYPE (MEDIAN) LEGS (#LANES)	INT-REL TRAF- CONTL	OFFRD RDNBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	SPCL USE TRLR QTY MOVE OWNER FROM TO	A S G E LICNS E X RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02020	NONE	N N N 06/12/2010 SA 3P	17	10TH ST WB EXTO 10TH	INTER SE 06	CROSS 0	N TRF SIGNAL	N N	CLR UNK DAY	S-1STOP REAR PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT SE-NW					07 00 07
											02 NONE 0 PRVTE PSNGR CAR	STOP SE-NW					00 00 00
																	013 00 00
03946	NONE	N N N 10/06/2014 MO 8A	11	10TH ST WB EXTO 10TH	INTER SE 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR INJ	01 NONE 0 PRVTE PSNGR CAR	STRGHT SE-NW					07 22 00
											02 NONE 0 PRVTE PSNGR CAR	STOP SE-NW					00 00 00
											03 NONE 0 UNKN UNKNOWN	STOP SE-NW					00 00 00
03096	NONE	N N N 08/21/2012 TU 2P	17	10TH ST WB EXTO 10TH	INTER S 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT S -N					07 00 07
											02 NONE 0 PRVTE PSNGR CAR	STOP S -N					00 00 00
											03 NONE 0 PRVTE PSNGR CAR	STOP S -N					00 00 00
04112	NONE	N N N 09/20/2014 SA 1P	17	10TH ST WB EXTO 10TH	INTER S 06	CROSS 0	N TRF SIGNAL	N N	RAIN WET DAY	S-1STOP REAR PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT S -N					29 00 29
											02 NONE 0 PRVTE UNKNOWN	STOP S -N					00 00 00
03281	CITY	N N Y 09/04/2013 WE 8P	17	10TH ST WB EXTO 10TH	STRGHT N 03	(NONE) (03)	Y TRF SIGNAL	N N	CLD DRY DLIT	S-1STOP REAR PDO	01 NONE 0 PRVTE PSNGR CAR	STRGHT S -N					07 00 07
											02 NONE 1 PRVTE PSNGR CAR	STOP S -N					00 00 00
01563	NONE	N N N 04/29/2012 SU 12P	11	WB EXTO 10TH 10TH ST	STRGHT E 03	(NONE)	UNKNOWN	N N	CLR UNK DAY	S-1STOP REAR INJ	01 NONE 0 PRVTE PSNGR CAR	STRGHT E -W					07 00 07

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 requirement, 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 ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and WB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 10

SER#	INVEST	D C S L K TIME	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	PRTC	INJ	A S	E LICNS	PED	ERROR	ACT EVENT	CAUSE		
E L G H R DAY	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	TO	P#	TYPE	SVRTY	E X RES	LOC						
FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE													
						(01)										OR<25						
											02 NONE 0	STOP										
											PRVTE	E -W							011	00		
											PSNGR CAR		01 DRVR	INJC	63 F	OR-Y		000	000	00		
																OR<25						
02210	N N N	06/21/2011	19	WB EXTO 10TH	STRGHT		N	N	CLR	S-1STOP	01 NONE 0	STRGHT								07		
NONE		TU		10TH ST	SE	(NONE)	UNKNOWN	N	DRY	REAR	PRVTE	SE-NW								000	00	
		12P						N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00 F	OR-Y		026	000	07		
						(01)										OR<25						
											02 NONE 0	STOP								011	00	
											PRVTE	SE-NW								000	00	
											PSNGR CAR		01 DRVR	NONE	62 F	OR-Y		000	000	00		
																OR<25						
03922	N N N N N	10/20/2012	11	WB EXTO 10TH	STRGHT		N	Y	CLD	FIX OBJ	01 NONE 0	STRGHT								029,079,010	25	
CITY		SA		10TH ST	SE	(NONE)	UNKNOWN	N	WET	FIX	PRVTE	E -W								000	029,079,010	25
		10A						N	DAY	INJ	PSNGR CAR		01 DRVR	INJB	25 M	OR-Y		000	017	00		
						(01)										OR<25						
02637	Y N N N N	07/10/2014	11	WB EXTO 10TH	STRGHT		N	N	CLR	S-1STOP	01 NONE 0	STRGHT									27,07,01	
CITY		TH		10TH ST	SE	(NONE)	NONE	N	DRY	REAR	PRVTE	SE-NW								000	00	
		6P						N	DAY	PDO	PSNGR CAR		01 DRVR	NONE	16 F	OR-Y		016,043,026	038		27,07,01	
						(01)										OR<25						
											02 NONE 0	STOP								011	00	
											PRVTE	SE-NW								000	00	
											PSNGR CAR		01 DRVR	NONE	66 M	OR-Y		000	000	00		
																OR<25						
02894	N N N N N	08/06/2012	17	10TH ST	STRGHT		N	N	CLR	S-1STOP	01 POLCE 0	STRGHT									27,07	
CITY		MO		WB EXTO 10TH	S	(NONE)	TRF SIGNAL	N	DRY	REAR	PUBLIC	S -N								000	00	
		12P						N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	49 M	OR-Y		016,026	038		27,07	
						(02)										OR<25						
											02 NONE 0	STOP								011	00	
											PRVTE	S -N								000	00	
											PSNGR CAR		01 DRVR	INJC	53 M	OR-Y		000	000	00		
																OR<25						

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and BLANKENSHIP RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	0	1	1	0	0	1	1
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2014 TOTAL	0	2	0	2	0	2	0	1	1	2	0	1	1	1
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	0	0	1	1	0	0	0	1	0	0	1	1	0	0
FINAL TOTAL	0	2	1	3	0	2	0	2	1	2	1	2	1	1

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02/04/2016

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and SALAMO RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

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: 2014														
MISCELLANEOUS	0	1	0	1	0	1	0	1	0	1	0	0	0	0
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
SIDESWIPE - MEETING	0	1	0	1	0	2	0	1	0	1	0	0	0	0
YEAR 2014 TOTAL	0	2	1	3	0	3	0	3	0	3	0	1	0	0
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	0	1	1	0	0	0	0
SIDESWIPE - MEETING	0	0	1	1	0	0	1	1	0	1	0	0	0	0
YEAR 2013 TOTAL	0	0	2	2	0	0	1	1	1	2	0	0	0	0
YEAR: 2011														
PEDESTRIAN	0	1	0	1	0	1	0	0	1	0	1	0	0	0
YEAR 2011 TOTAL	0	1	0	1	0	1	0	0	1	0	1	0	0	0
FINAL TOTAL	0	3	3	6	0	4	1	4	2	5	1	1	0	0

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and SALAMO RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER#	E A U C O DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	A S	PRTC	INJ	G E LICNS	PED	ERROR	ACT	EVENT	CAUSE
INVEST	D C S L K TIME	FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V# TYPE	TO	E X RES	P# TYPE	SVRTY	E X RES	LOC	ERROR	ACT	EVENT	CAUSE
01823	N N N 05/12/2014	17	SALAMO RD	INTER	3-LEG	N	N	CLR	S-1STOP	01 NONE 0	STRGHT									07
NONE	MO 0	10TH ST	S			TRF SIGNAL	N	DRY	REAR	PRVTE	S -N							000		00
	3P		06		2		N	DAY	PDO	PSNGR CAR			01 DRVR	NONE	34 M	UNK	026	000		07
																OR<25				
										02 NONE 0	STOP									
										PRVTE	S -N							011		00
										PSNGR CAR			01 DRVR	NONE	62 M	OR-Y	000	000		00
																OR<25				
01413	N Y N N N 04/12/2014	17	SALAMO RD	STRGHT		N	N	CLR	O-STRGHT	01 NONE 0	STRGHT									10
CITY	SA 516	10TH ST	E		(NONE)	NONE	N	DRY	SS-M	PRVTE	W -E							000		00
	5P		08		(02)		N	DAY	INJ	PSNGR CAR			01 DRVR	INJC	49 F	OR-Y	080	000		10
																OR<25				
										02 NONE 0	STRGHT									
										PRVTE	E -W							000		00
										PSNGR CAR			01 DRVR	INJC	29 F	OTH-Y	000	000		00
																N-RES				
										03 NONE 0	STRGHT									
										PRVTE	E -W							000		00
										PSNGR CAR			01 DRVR	NONE	42 M	OR-Y	000	000		00
																OR<25				
04404	N N N 11/19/2011	17	SALAMO RD	STRGHT		N	N	CLD	PED	01 NONE 0	STRGHT									18
NONE	SA 919	10TH ST	E		(NONE)	UNKNOWN	N	WET	PED	PRVTE	E -W							000		00
	5P		08		(02)		N	DARK	INJ	PSNGR CAR			01 DRVR	NONE	46 M	OR-Y	000	000		00
																OR<25				
											-									
											STRGHT									
											W E					SHLDR	062	042		18
02248	Y N N N N 06/25/2013	17	SALAMO RD	STRGHT		N	N	RAIN	S-1STOP	01 NONE 0	STRGHT									07,01
CITY	TU 500	10TH ST	SE		(NONE)	TRF SIGNAL	N	WET	REAR	PRVTE	SE-NW							000		00
	3P		08		(02)		N	DAY	PDO	PSNGR CAR			01 DRVR	NONE	24 F	NONE	026,047	000		07,01
																OR<25				
										02 NONE 0	STOP									
										PRVTE	SE-NW							011		00
										PSNGR CAR			01 DRVR	NONE	33 F	OR-Y	000	000		00
																OR<25				
01364	Y N N N N 04/22/2013	17	SALAMO RD	GRADE		N	N	CLR	O-STRGHT	01 NONE 0	STRGHT									32,01
CITY	MO 500	10TH ST	SE		(NONE)	NONE	N	DRY	SS-M	PRVTE	SE-NW							000		00
	2P		07		(02)		N	DAY	PDO	TRUCK			01 DRVR	NONE	16 M	OR-Y	052,047,085	000		32,01
																OR<25				
										02 NONE 0	STRGHT									
										PRVTE	W -E							000		00
										PSNGR CAR			01 DRVR	NONE	50 M	OR-Y	000	000		00
																OR<25				
										03 NONE 0	STRGHT									
										PRVTE	W -E							000		00
										PSNGR CAR			01 DRVR	NONE	37 F	OR-Y	000	000		00
																OR<25				
										03 NONE 0	STRGHT									
										PRVTE	W -E							000		00
										PSNGR CAR			02 PSNG	NO<5	04 M		000	000		00

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CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and SALAMO RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER#	INVEST	S D	P R S W	E A U C O DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	TRLR QTY	A S	G E LICNS	PED	ACT	EVENT	CAUSE
E L G H R DAY	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G E LICNS	PED	ERROR	ACT	EVENT	CAUSE			
D C S L K TIME	FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E X RES	LOC	ERROR	ACT	EVENT	CAUSE	
													03 NONE 0	STRGHT							
													PRVTE	W -E					000	000	00
													PSNGR CAR		03 PSNG	NO<5	04 M		000	000	00
02903	Y N N N N	07/30/2014		17	SALAMO RD	GRADE		N	N	CLR	NON-COLL	01 NONE 0	STRGHT								01
CITY	WE		678		10TH ST	SE	(NONE)	NONE	N	DRY	OTH	PRVTE	NW-SE						000	000	00
	8P					07			N	DAY	INJ	MTRCYCLE			01 DRVR	INJC	28 M	OR-Y	047	017	01
							(02)											OR<25			

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Traffic Signal Warrant Analysis



Project: 1969 Willamette Falls Drive
 Date: 2/5/2016
 Scenario: 2015 Existing Conditions

Major Street:	Willamette Falls Dr	Minor Street:	10th Street
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	1119	PM Peak Hour Volumes:	360

Warrant Used:

 X 100 percent of standard warrants used
 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
<u>Major St.</u>	<u>Minor St.</u>	<u>100% Warrants</u>	<u>70% Warrants</u>	<u>100% Warrants</u>	<u>70% Warrants</u>
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	11,190	10,600	
Minor Street*	3,600	3,550	Yes
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	11,190	15,900	
Minor Street*	3,600	1,750	No
<i>Combination Warrant</i>			
Major Street	11,190	12,720	
Minor Street*	3,600	2,840	No

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis



Project: 1969 Willamette Falls Drive
 Date: 6/29/2016
 Scenario: 2017 Background Plus Site Conditions

Major Street:	10th Street	Minor Street:	8th Street/8th Court
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	1047	PM Peak Hour Volumes:	123

Warrant Used:
 100 percent of standard warrants used
 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	10,470	8,850	
Minor Street*	1,230	2,650	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	10,470	13,300	
Minor Street*	1,230	1,350	No
<i>Combination Warrant</i>			
Major Street	10,470	10,640	
Minor Street*	1,230	2,120	No

* Minor street evaluated based on the critical eastbound left-turn lane only.

Traffic Signal Warrant Analysis



Project: 1969 Willamette Falls Drive
 Date: 6/29/2016
 Scenario: 2017 Background Plus Site Conditions

Major Street:	Willamette Falls Drive	Minor Street:	12th Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	988	PM Peak Hour Volumes:	164

Warrant Used:
 X 100 percent of standard warrants used
 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	9,880	8,850	
Minor Street*	1,640	2,650	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	9,880	13,300	
Minor Street*	1,640	1,350	No
<i>Combination Warrant</i>			
Major Street	9,880	10,640	
Minor Street*	1,640	2,120	No

* Minor street right-turning traffic volumes reduced by 25%

Left-Turn Lane Warrant Analysis



Project: 1969 Willamette Falls Drive
 Intersection: Willamette Falls Drive at 11th Street
 Date: 2/4/2016
 Scenario: 2015 Existing Conditions - PM Peak Hour

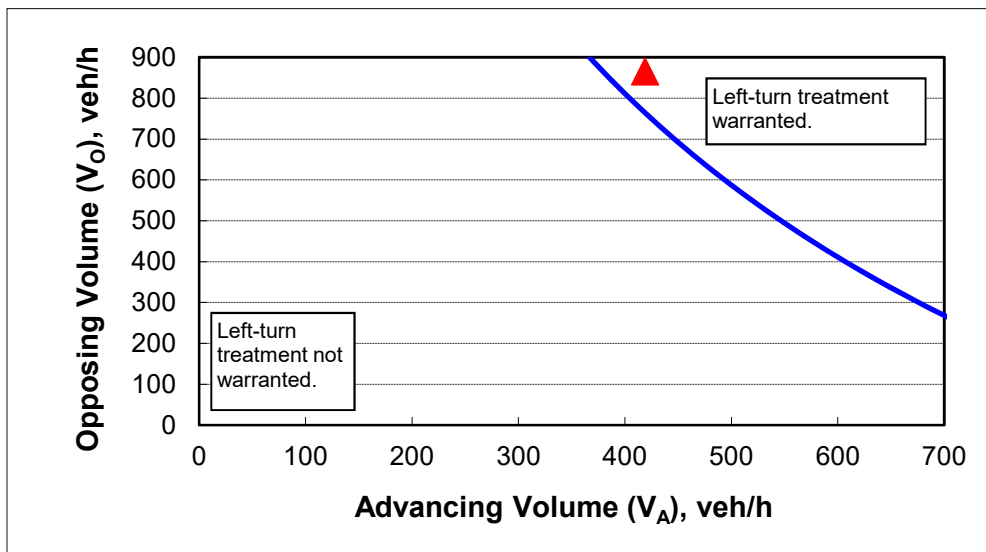
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	419
Opposing volume (V_O), veh/h:	865

OUTPUT

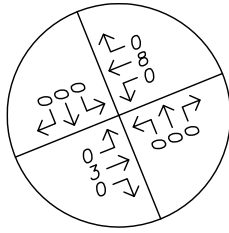
Variable	Value
Limiting advancing volume (V_A), veh/h:	379
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



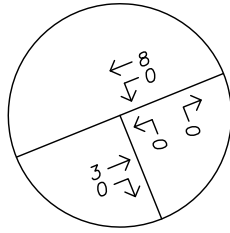
CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

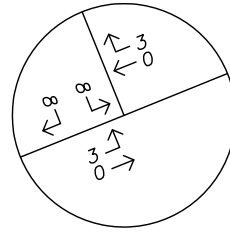
#1: Willamette Falls Dr & 12th St



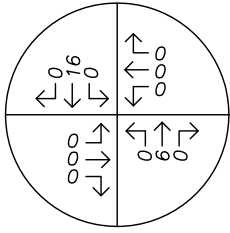
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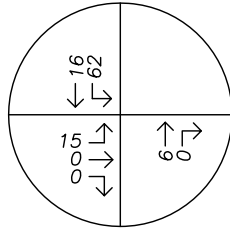
#3: Willamette Falls Dr & 10th St



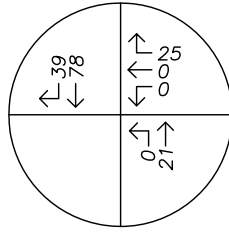
#4: 10th St & 8th Ave



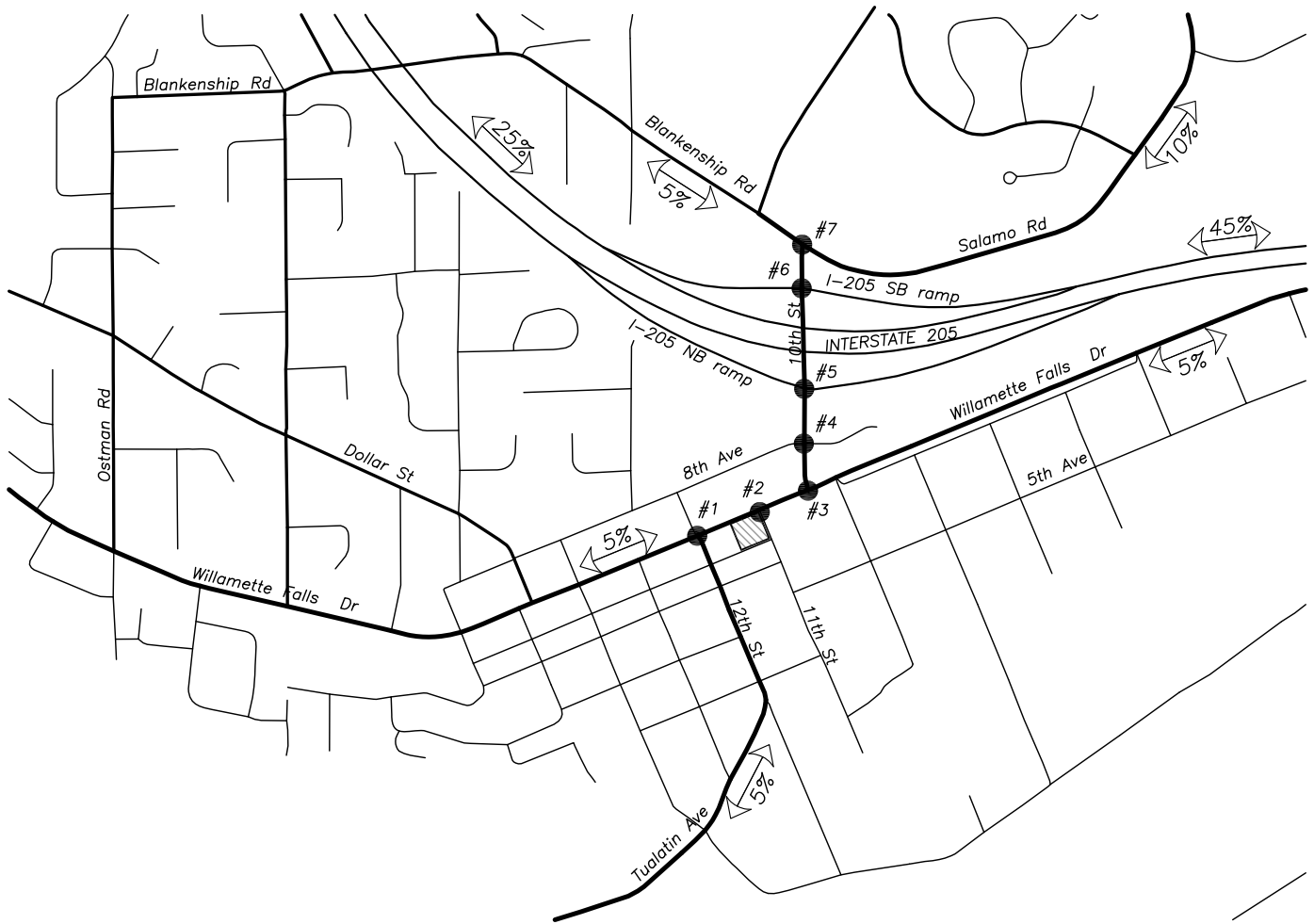
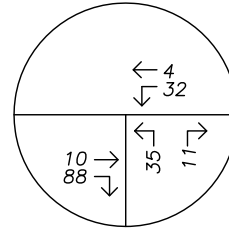
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd

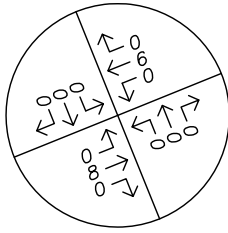


TRAFFIC VOLUMES
 In-Process Development – Tannler Drive Mixed-Use
 AM Peak Hour

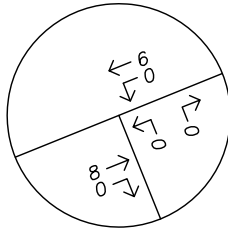


FIGURE
 12
PAGE
 APPENDIX

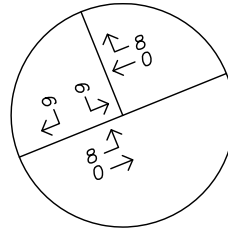
#1: Willamette Falls Dr & 12th St



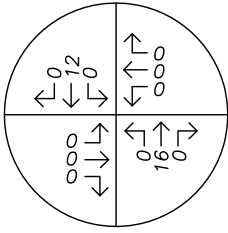
#2: Willamette Falls Dr & 11th St



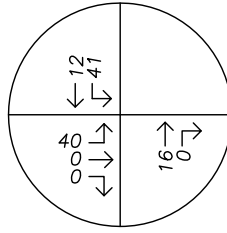
#3: Willamette Falls Dr & 10th St



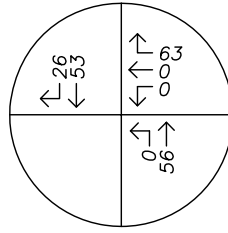
#4: 10th St & 8th Ave



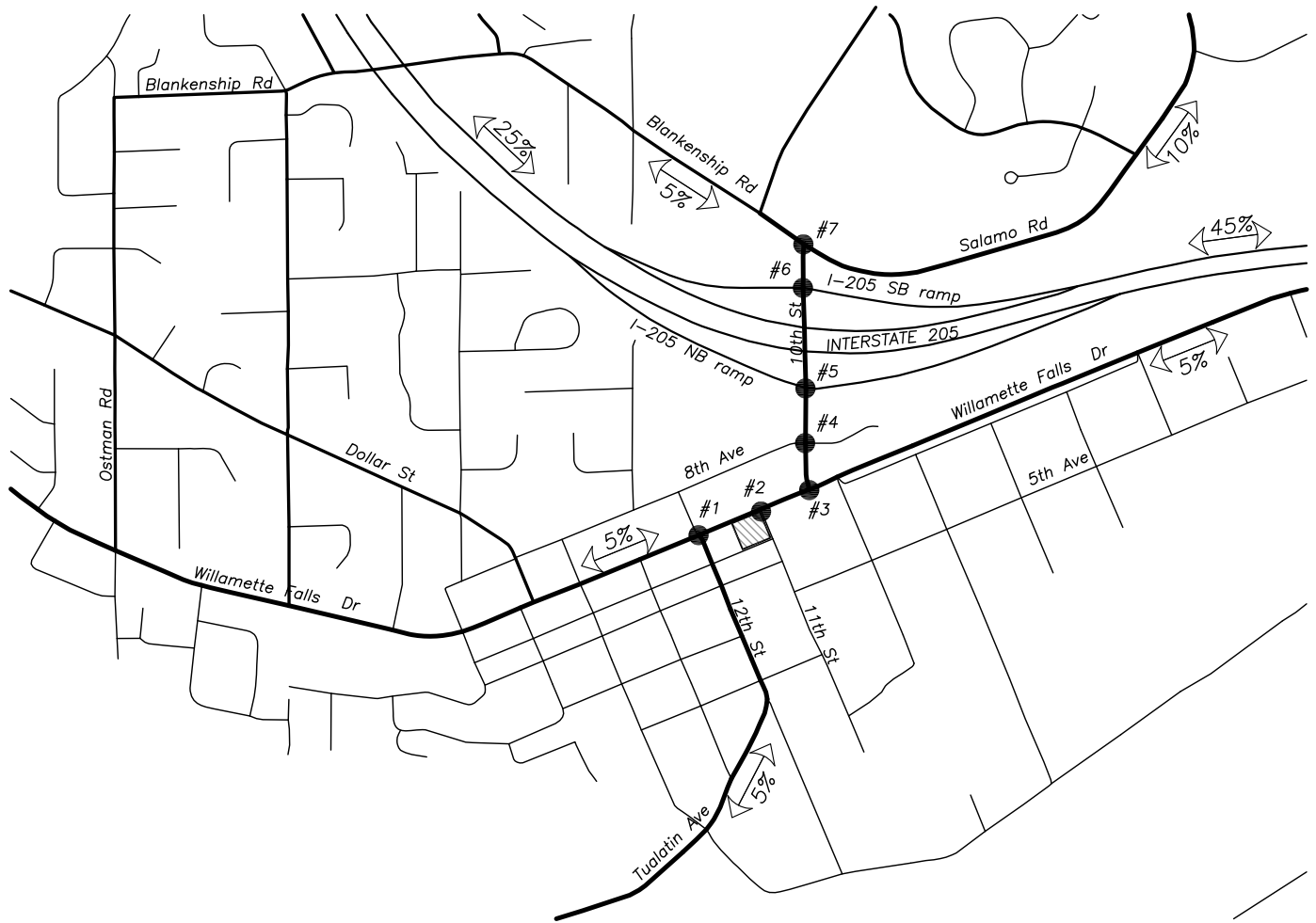
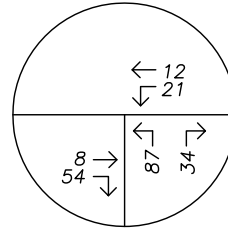
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



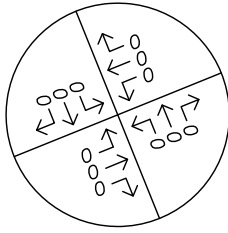
TRAFFIC VOLUMES
 In-Process Development – Tannler Drive Mixed-Use
 PM Peak Hour



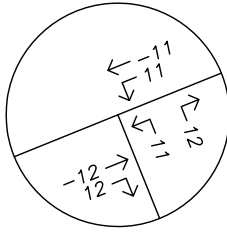
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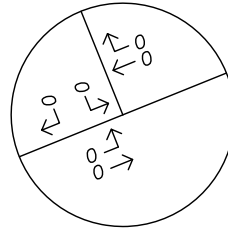
#1: Willamette Falls Dr & 12th St



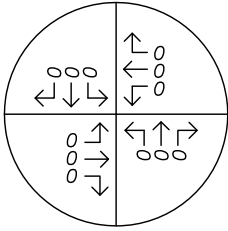
#2: Willamette Falls Dr & 11th St



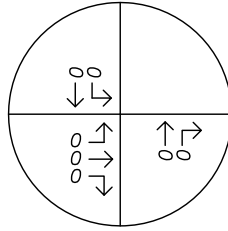
#3: Willamette Falls Dr & 10th St



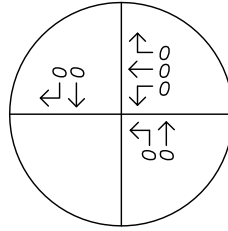
#4: 10th St & 8th Ave



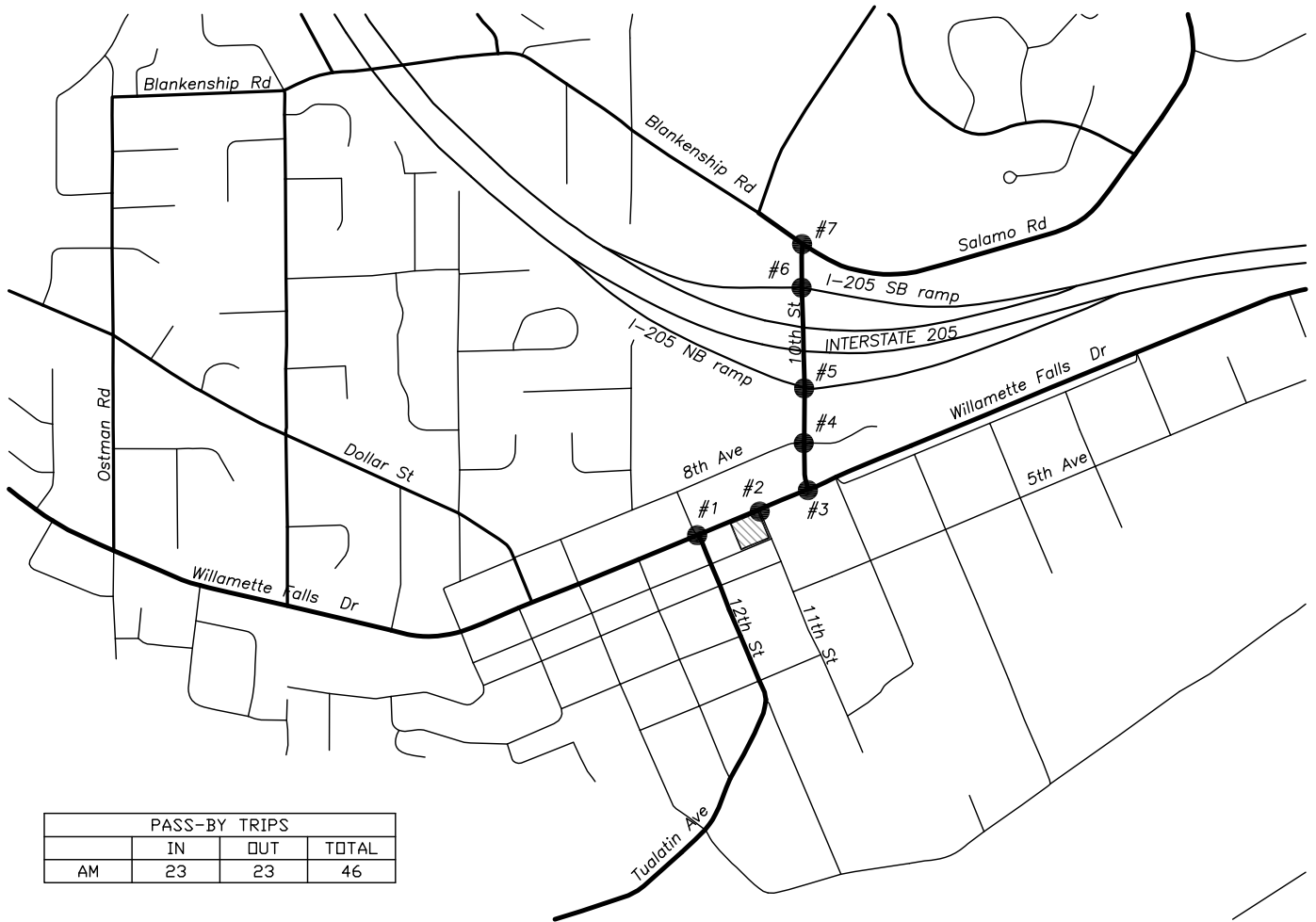
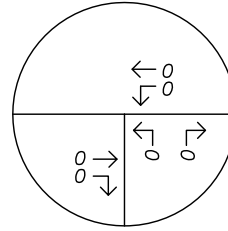
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



PASS-BY TRIPS			
	IN	OUT	TOTAL
AM	23	23	46



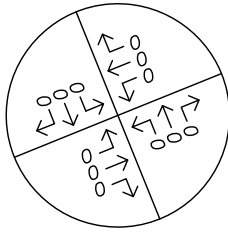
SITE-GENERATED TRAFFIC
Proposed Development Plan - Pass-by Trips
AM Peak Hour



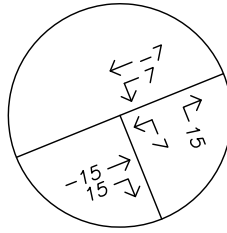
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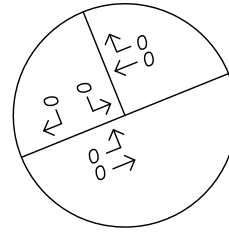
#1: Willamette Falls Dr & 12th St



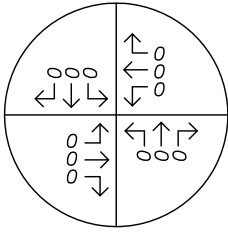
#2: Willamette Falls Dr & 11th St



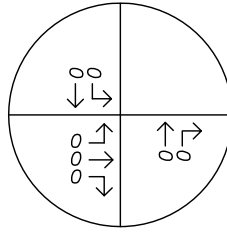
#3: Willamette Falls Dr & 10th St



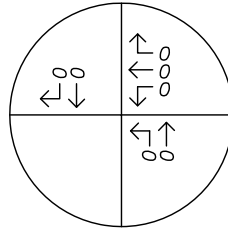
#4: 10th St & 8th Ave



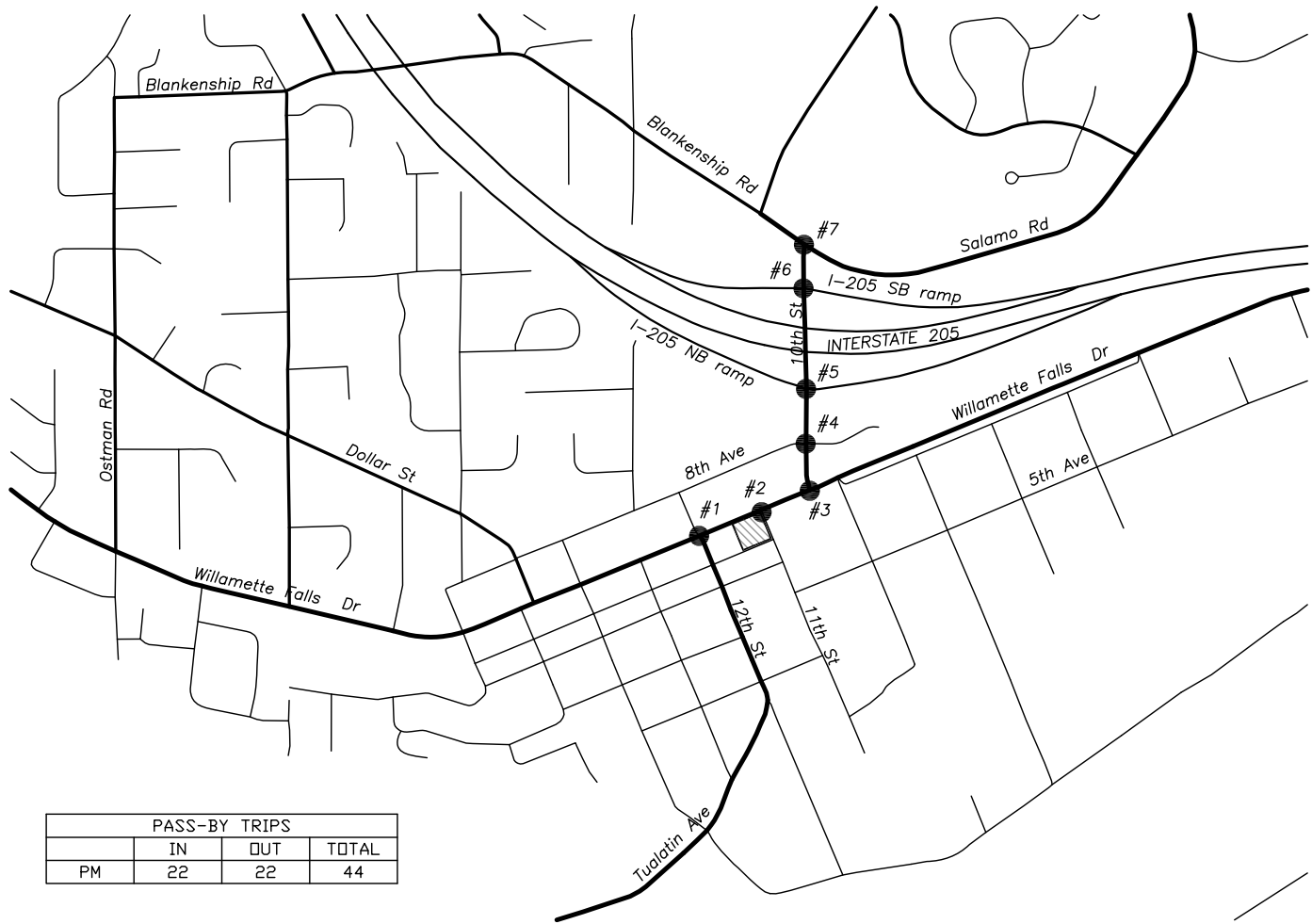
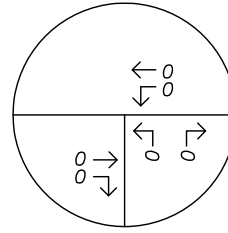
#5: 10th St & NB I-205 Ramps



#6: 10th St & SB I-205 Ramps



#7: 10th St & Blankenship Rd



PASS-BY TRIPS			
	IN	OUT	TOTAL
PM	22	22	44



SITE-GENERATED TRAFFIC
Proposed Development Plan – Pass-by Trips
PM Peak Hour



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Intersection Name: I-205 SB @ 10th / Salamo / Blankenship
Controller: 122319.2 **Channel:** - **Drop:** 0
System: TransCore TransSuite TCS
Controller Type: Voyage
Revision - **Version -**
 TransCore Unified Controller Manager 10.3.1

Zero Tables

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 CoordinationPlansCont
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Controller Function and Timing

Security, Sequence and Timing (Next/2/1, Next/2/2/3/A, Next/2/2/5)				
Security Code	0	0 = disabled, or 1000-9999	First All Red	8.0 0.0 to 25.5 seconds
Sequence	7	0 = sequential, 1 = quad left turn, 2-6 = special A-E, 7 = lead lag		
Power up Flash	0.0	0.0 - 25.5 seconds		

Initialization (Next/2/2/5)			Lead Lag (Next/2/2/3/A)			
Ring 1	Ring 2	Interval	Phases 1 - 2	Phases 3 - 4	Phases 5 - 6	Phases 7 - 8
1	0	0	2	2	2	2
Phase 1 - 8		0 = Red, 1 = Yel, 2 = Grn	0 = no reversal, 1 = reversal, 2 = by coord plan or clock			

(Next/2/2/3)		Phase Functions								(Next/2/2/1)								
Phase Used	1 2 3 4 5 6 7 8									Yellow Lock	- - - - -							
Restricted Phases	- - - - -									Min Recall	- 2 - - 5 - - -							
Exclusive Phases	- - - - - 7 -									Max Recall	- - - - -							
										Ped Recall	- - - - -							
										Red Lock	- - - - -							
										Max Out Recall Inhibit	1 2 3 4 5 6 7 8							
										Soft Recall	- - - - -							
										Free Walk Rest	- - - - -							
										Conditional Ped	- - - - -							
										Disable Inhibit Max Termination	- - - - -							
										Call To Non-Act 1	- - - - -							
										Call To Non-Act 2	- - - - -							

Phase Times (Next/2/2/2)									
Phase	1	2	3	4	5	6	7	8	
Movement									
Minimum Green	4	6	4	6	10	2	6	6	0 - 255 sec.
Passage	2.3	2.3	2.3	2.3	5.2	0.5	2.3	2.3	0.0 - 25.5 sec.
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	0.0 - 25.5 sec.
Red Clearance	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0	0.0 - 25.5 sec. or 0 - 255 sec.
Max 1	21	37	30	16	40	6	25	32	0 - 255 sec.
Max 2	21	37	30	16	40	6	25	32	0 - 255 sec.
Walk	0	5	5	5	5	0	5	0	0 - 255 sec.
Ped Clear	0	11	10	23	12	0	13	0	0 - 255 sec.
Seconds Per Actuation	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0 - 25.5 sec.
Time Before Reduction	8	8	8	8	10	0	8	8	0 - 255 sec.
Time to Reduce	3	3	3	3	20	0	3	3	0 - 255 sec.
Minimum Gap	0.5	0.5	0.5	0.5	3.2	0.5	0.5	0.5	0.0 - 25.5 sec.
Max Variable Initial	4	6	4	6	13	2	6	6	0 - 255 sec.
Max Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
Auto Max	0	0	0	0	0	0	0	0	0 - 255 sec.
Advanced walk	0	0	0	0	0	0	0	0	0 - 255 sec.

Phase Times (Next/2/2/9/5)									
Inhibit Min Yellow									X = On
Red Decimal Off									X = On

Dual Entry (Next/2/2/9/3)

Mode	1	0 = off, 1 = on, 2 = Not Used, 3 = by coord plan, 4 = by time clock circuit 61
------	---	--

Dual Entry Ph -->	1	2	3	4	5	6	7	8	
Phase	0	0	0	8	0	0	0	4	0 = none, 1-8 = phase 1-8

Cond Service (Next/2/2/9/3/A)			5 Sec Head Logic (Next/2/2/9/4)						
Phase	Mode	CS Max Time	X Omits Y		Anti-Trap			Yellow Blanking LT	
Phase 1	0	7	X:Y		Trap Protected Phase		Next Phase	Phase	
Phase 3	0	0	6:1	0	1	0	< (5)	1	0
Phase 5	0	0	8:3	0	3	0	< (7)	3	0
Phase 7	0	0	2:5	0	5	0	< (1)	5	0
0 = off, 1 = C.S.On. 2 = C.S. on by TOD circuit 57, 3 = N/A, 4 = C.S. and C.R. On, 5 = C.R. on by TOD circuit 57.			4:7	0	7	0	< (3)	7	0
			0 = off, 1 = side call, 2 = no side call		X = On				

Other Controller Functions (Next/2/2/9/1, Next/2/2/9/5)

Inhibit Simultaneous Gap Out	1 - 3 4 5 - 7 8	
Last Car Passage	2	0 = recall phase, 1 = last car passage, 2 = NOT recall - Not last car passage
Red Revert (+2seconds)	0.0	0 - 25.5 sec.
Auto Ped Clear	On	X = On
FDW thru Yellow	Off	X = On
Red Rest Delay	0.0	0 - 25.5 sec.
Change Sequence	Off	X = On (After a download without a power on - off cycle)
Advanced Flash Rate	60 FPM	0 = Disabled (60 FPM), 1 = 120 FPM
Ped Push Button Time	null	0 = Disable, 0 - 5 Seconds

Phase -->	1	2	3	4	5	6	7	8	
Red Clear Extension Detector	0	0	0	0	0	0	0	0	0 = none 1 - 32 = detector 1 - 32
Red Clear Extension Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec.

Local Detectors (Next/2/2/4/1)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
1				1	1	0	0	2.0	0
2				1	1	0	0	0.0	0
3				3	3	0	0	2.0	0
4				3	3	0	0	0.0	0
5				5	5	0	0	0.0	0
6				5	5	0	0	0.0	0
7				7	7	0	0	2.0	0
8				7	7	0	0	0.0	0
9				2	2	0	0	0.0	0
10				2	2	3	0	2.0	0
11				2	2	3	0	0.0	0
12				2	2	3	0	0.0	0
13				2	2	0	0	0.0	0
14				4	4	0	0	2.0	0
15				4	4	0	0	0.0	0
16				4	4	0	0	0.0	0
17				4	4	0	0	0.0	0
18				4	4	0	0	0.0	0
19				7	7	0	0	2.0	0
20				7	7	0	0	2.0	0
21				5	5	0	0	2.0	0
22				5	5	0	0	0.0	0
23				5	5	0	0	0.0	0
24				8	8	0	0	2.0	0
25				8	8	0	0	0.0	0
26				8	8	0	0	0.0	0
27				8	8	0	0	0.0	0
28				8	8	0	0	0.0	0
29				5	5	4	3	0.0	0
30				7	7	0	0	0.0	0
31				0	0	0	0	0.0	0
32				0	0	0	0	0.0	0

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Local Detectors 33 - 64 (Next/2/2/4/6)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
33		N/A	N/A	0	0	N/A	N/A	N/A	N/A
34		N/A	N/A	0	0	N/A	N/A	N/A	N/A
35		N/A	N/A	0	0	N/A	N/A	N/A	N/A
36		N/A	N/A	0	0	N/A	N/A	N/A	N/A
37		N/A	N/A	0	0	N/A	N/A	N/A	N/A
38		N/A	N/A	0	0	N/A	N/A	N/A	N/A
39		N/A	N/A	0	0	N/A	N/A	N/A	N/A
40		N/A	N/A	0	0	N/A	N/A	N/A	N/A
41		N/A	N/A	0	0	N/A	N/A	N/A	N/A
42		N/A	N/A	0	0	N/A	N/A	N/A	N/A
43		N/A	N/A	0	0	N/A	N/A	N/A	N/A
44		N/A	N/A	0	0	N/A	N/A	N/A	N/A
45		N/A	N/A	0	0	N/A	N/A	N/A	N/A
46		N/A	N/A	0	0	N/A	N/A	N/A	N/A
47		N/A	N/A	0	0	N/A	N/A	N/A	N/A
48		N/A	N/A	0	0	N/A	N/A	N/A	N/A
49		N/A	N/A	0	0	N/A	N/A	N/A	N/A
50		N/A	N/A	0	0	N/A	N/A	N/A	N/A
51		N/A	N/A	0	0	N/A	N/A	N/A	N/A
52		N/A	N/A	0	0	N/A	N/A	N/A	N/A
53		N/A	N/A	0	0	N/A	N/A	N/A	N/A
54		N/A	N/A	0	0	N/A	N/A	N/A	N/A
55		N/A	N/A	0	0	N/A	N/A	N/A	N/A
56		N/A	N/A	0	0	N/A	N/A	N/A	N/A
57		N/A	N/A	0	0	N/A	N/A	N/A	N/A
58		N/A	N/A	0	0	N/A	N/A	N/A	N/A
59		N/A	N/A	0	0	N/A	N/A	N/A	N/A
60		N/A	N/A	0	0	N/A	N/A	N/A	N/A
61		N/A	N/A	0	0	N/A	N/A	N/A	N/A
62		N/A	N/A	0	0	N/A	N/A	N/A	N/A
63		N/A	N/A	0	0	N/A	N/A	N/A	N/A
64		N/A	N/A	0	0	N/A	N/A	N/A	N/A

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Detector Plans (Next/2/2/4/5)

Detector Plans (Next/2/2/4/5)										
Loop Number										
Plan Detectors		0	0	0	0	0	0	0	0	0 - 32, 0 = none, 1 - 32 = detectors 1- 32
Detector Plan 1	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 2	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 3	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14

Detector Fail (Next/2/2/4/3)

Detector Fail Sample Period (all detectors)		0	0 - 255 minutes							
Dynamic Phase Length Fail Period		0	0 - 255 minutes							
Video Fail Inputs	1	2	3	4	5	6	7	8	0 = none, 1 - 8 = phase 1 - 8	
Phase Recalled	0	0	0	0	0	0	0	0		
System Detectors	1	2	3	4	5	6	7	8	0 = none, 1 - 32 = detector 1 - 32	
Local Detector	1	5	9	10	19	20	29	30		

Flash (Next/2/2/5)

Flash Entry						Flash Exit				
Ring 1	Ring 2		Interval			Ring 1	Ring 2		Interval	
0	0		red			1	0		0	
0 = none, phase 1 - 8			0 = red, 1 = yel, 2 = grn			0 = none, phase 1 - 8			0 = red, 1 = yel, 2 = grn	

Soft Flash (Next/2/2/5/A)

Phase	1	2	3	4	5	6	7	8				
	3	4	3	4	3	4	3	4				
Overlap	A	B	C	D	E	F	G	H	I	J	K	L
	3	4	3	4	3	4	3	4	3	4	3	4
0 = dark, 1=flash yel WIG, 2 = flash yel WAG, 3 = flash red WIG, 4 = flash red WAG												

Internal Logic	1	2	3	4	5	6	7	8	9	10	11	12	0 = normal, 1 = dark, 2 = flash WIG
Output	0	0	0	0	0	0	0	0	0	0	0	0	

Overlaps (Next/2/2/8/1)

Vehicle Overlaps	Phase or Movement	Phase or Movement								Extension Green	Clearance		A - D 0 = no overlap 1 = overlap 2 = 60 FPM 3 = Not ped overlap 4 = Comp Phase 5 = Prevent Ext 6 = Not Vehicle E - L 0 = no Overlap 1 = Overlap Green, Yellow, Red 0.0 - 25.5 sec
		1	2	3	4	5	6	7	8		Yellow	Red	
A		0	0	0	0	1	1	1	0	0.0	0.0	0.0	
B		0	1	1	1	0	0	0	0	0.0	0.0	0.0	
C		0	0	1	0	1	1	1	0	0.0	0.0	0.0	
D		0	0	0	1	1	0	1	0	0.0	0.0	0.0	
E		0	0	0	0	0	0	1	0	0.0	0.0	0.0	
F		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
G		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
H		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
I		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
J		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
K		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
L		0	0	0	0	0	0	0	0	0.0	0.0	0.0	

(Next/2/2/8/6/8)

Ped Overlaps (Next/2/2/8/5)

Overlap	Not Ped-Ped Overlaps								Ped Overlap	Phase	Recall	Walk	Ped Clear	Walk, Ped Clear 0 - 255 seconds				
	A	B	C	D	E	F	G	H										
A	-	-	-	-	-	-	-	-	A	-	-	-	-		-	-	-	-
B	-	-	-	-	-	-	-	-	B	-	-	-	-		-	-	-	-
C	-	-	-	-	-	-	-	-	C	-	-	-	-		-	-	-	-
D	-	-	-	-	-	-	-	-	D	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-	E	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-	F	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-	G	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-	H	-	-	-	-		-	-	-	-

Advance Warning (Next/2/2/8/3)

	E	F	G	H	I	J	K	L	
Enable	0	0	0	0	0	0	0	0	0 = Disable, 1 = Enable
1st Conditional Overlaps	0	0	0	0	0	0	0	0	0 = None, 1 = OL E, 2 = OL F, 3 = OL G, 4 = OL H, 5 = OL I, 6 = OL J, 7 = OL K, 8 = OL L
2nd Conditional Overlaps	0	0	0	0	0	0	0	0	
Advance Deactivation Delay	0	0	0	0	0	0	0	0	0 - 99 sec

Flashing Yellow Left Turn Arrow (FYLTA) (Next/2/2/8/6)

Phase Pairs ->	1 - 2	3 - 4	5 - 6	7 - 8	
Enable	0	0	0	0	0 = off, 3 = 3 outputs, 4 = 4 outputs, 5 = 5 outputs
Even Omits Odd	0	0	0	0	0 / 1 / 2
Detector Switch Odd / Even	1	1	1	1	X = on, odd phase must be omitted
Red Transition	2.0	2.0	2.0	2.0	0.0 or 2.0 - 25.5 sec.
Red Extension	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
Return to GLTA	0	0	0	0	0 = off, 1 = max out, 2= yellow lock

Gap Dependent FYLTA					
Detector Input	0	0	0	0	0 = Disabled, 1 - 64 = Local Detector 1 - 64
Minimum Delay	0	0	0	0	0 - 255 seconds
Detector Gap Time	0.0	0.0	0.0	0.0	0 - 25.5 seconds.
Maximum Delay	0	0	0	0	0 - 255 seconds
Not Ped	0	0	0	0	

Dynamic Flashing Yellow Left Turn Arrow

Phase Pairs	1 - 2	3 - 4	5 - 6	7 - 8	
[Plan A] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan B] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan C] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan D] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

CoordinationData

Coordination Modes (Next/2/3/1)

Flash Mode	3 3	0=off, 1=on, 33=time clock, 34=comm, 35=hardwire
Coordination Plan Mode	3 4	0=free, 1-32 = coord plan 1-32, 33=time clock, 34=comm, 35=hardwire
Offset Seeking Mode	2	0=add only, 1= dwell, 2=fastway
Late Ped	0	0 = off, 1 = on
Coord Walk Rest	0	0 = off, 1 = on, 2 = by tod circuit 160, 3 = end of walk, 4 = coord ped during perms
Zero Mode(TS2 only)	0	0=start of main street, 1=end of main street, 2=by TOD circuit 144, 3 = first green
(Next/2/3/4/1)		
Repeated Ped Service	2	0=off, 1=on (no coord ped), 2=on (beginning green coord ped), 3=on (coord ped always)
Omit Phase During Repeated Phase	- - - - -	-- = service allowed ; # = service prevented

Coordination Plans (Next/2/3/2)

Coord Plan	Coordination Phases		Cycle Length	Offset Time	Min Cycle Len Dwell Time	Permissive	Service Plan	Max Plan
	Ring 1	Ring 2						
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0
	0 - 8		0 - 255 sec				0 - 8	

Circuit Mapping (Next/2/3/3)

Circuit Map	Coord Plan	Time Clock Circuit							
		1	2	3	4	5	6	7	8
1	34	0	0	0	0	0	0	0	0
2	34	0	0	0	0	0	0	0	0
3	34	0	0	0	0	0	0	0	0
4	34	0	0	0	0	0	0	0	0
5	34	0	0	0	0	0	0	0	0
6	34	0	0	0	0	0	0	0	0
7	34	0	0	0	0	0	0	0	0
8	34	0	0	0	0	0	0	0	0
9	34	0	0	0	0	0	0	0	0
10	34	0	0	0	0	0	0	0	0
11	34	0	0	0	0	0	0	0	0
12	34	0	0	0	0	0	0	0	0
13	34	0	0	0	0	0	0	0	0
14	34	0	0	0	0	0	0	0	0
15	34	0	0	0	0	0	0	0	0
16	34	0	0	0	0	0	0	0	0
17	34	0	0	0	0	0	0	0	0
18	34	0	0	0	0	0	0	0	0
19	34	0	0	0	0	0	0	0	0
20	34	0	0	0	0	0	0	0	0

coord plan - 0 = free, 1 - 32 = coord plan 1 - 32, 33 = any, 34 none selected
time clock circuits - 0 = not used, or circuits 6 - 199

Dynamic Phase Lengths (Next/2/3/4/4)

Phase ->	1	2	3	4	5	6	7	8	
Back Detector	1	31	0	29	5	32	0	30	0 = none, 1-32 = detector 1-32
Lane Factor	1.0	1.9	0.0	1.3	1.0	1.9	0.0	1.5	0 = none, 0.5 - 5.0
Check Out Detector	0	0	0	0	0	0	0	0	0 = none, 1-32 = detector 1-32
Coord Delta Force Off	Set A	5	5	0	5	5	5	0	0 - 255 sec
	Set B	0	0	0	5	5	0	5	
	Set C	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	
Free Delta Max	Set A	0	0	0	0	0	0	0	
	Set B	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	

Auto Permissive Min Green (Next/2/3/4/3)

Phase ->	1	2	3	4	5	6	7	8	
Auto Perm Min Green	0	0	0	0	0	0	0	0	0 - 255 sec.

Time of Day Data (Next/2/4/1)

Day Program

	Day Prog	Time	Coord Plan or Circuit	Coord Plan # or Circuit #	Circuit Abbrev	State On/Off
1	1	16:00	Circuit	13	MX2	X
2	1	18:30	Circuit	13	MX2	
3	0	00:00	Circuit	0	None / Coord Plan	
4	0	00:00	Circuit	0	None / Coord Plan	
5	0	00:00	Circuit	0	None / Coord Plan	
6	0	00:00	Circuit	0	None / Coord Plan	
7	0	00:00	Circuit	0	None / Coord Plan	
8	0	00:00	Circuit	0	None / Coord Plan	
9	0	00:00	Circuit	0	None / Coord Plan	
10	0	00:00	Circuit	0	None / Coord Plan	
11	0	00:00	Circuit	0	None / Coord Plan	
12	0	00:00	Circuit	0	None / Coord Plan	
13	0	00:00	Circuit	0	None / Coord Plan	
14	0	00:00	Circuit	0	None / Coord Plan	
15	0	00:00	Circuit	0	None / Coord Plan	
16	0	00:00	Circuit	0	None / Coord Plan	
17	0	00:00	Circuit	0	None / Coord Plan	
18	0	00:00	Circuit	0	None / Coord Plan	
19	0	00:00	Circuit	0	None / Coord Plan	
20	0	00:00	Circuit	0	None / Coord Plan	
21	0	00:00	Circuit	0	None / Coord Plan	
22	0	00:00	Circuit	0	None / Coord Plan	
23	0	00:00	Circuit	0	None / Coord Plan	
24	0	00:00	Circuit	0	None / Coord Plan	
25	0	00:00	Circuit	0	None / Coord Plan	
26	0	00:00	Circuit	0	None / Coord Plan	
27	0	00:00	Circuit	0	None / Coord Plan	
28	0	00:00	Circuit	0	None / Coord Plan	
29	0	00:00	Circuit	0	None / Coord Plan	
30	0	00:00	Circuit	0	None / Coord Plan	
31	0	00:00	Circuit	0	None / Coord Plan	
32	0	00:00	Circuit	0	None / Coord Plan	
33	0	00:00	Circuit	0	None / Coord Plan	
34	0	00:00	Circuit	0	None / Coord Plan	
35	0	00:00	Circuit	0	None / Coord Plan	
36	0	00:00	Circuit	0	None / Coord Plan	
37	0	00:00	Circuit	0	None / Coord Plan	
38	0	00:00	Circuit	0	None / Coord Plan	
39	0	00:00	Circuit	0	None / Coord Plan	
40	0	00:00	Circuit	0	None / Coord Plan	
	1 - 15	hh:mm	X = On = Coord Plan	coord plan 0 - 32 or circuit 1-199		X = On

CIRCUIT OVERRIDES 1 - 100 (Next/2/4/4)

1 - Coord Line 1	CL1	2 = TOD	51 - Ped Omit 3	PO3	2 = TOD
2 - Coord Line 2	CL2	2 = TOD	52 - Ped Omit 4	PO4	2 = TOD
3 - Coord Line 4	CL4	2 = TOD	53 - Ped Omit 5	PO5	2 = TOD
4 - Coord Line 8	CL8	2 = TOD	54 - Ped Omit 6	PO6	2 = TOD
5 - Coord Line 16	C16	2 = TOD	55 - Ped Omit 7	PO7	2 = TOD
6 - Coordinated Operation	CRD	2 = TOD	56 - Ped Omit 8	PO8	2 = TOD
7 - Soft Flash	SFL	2 = TOD	57 - Conditional Service	CVS	2 = TOD
8 - Enable System Relays	ESR	2 = TOD	58 - Inhibit Simultaneous Gap Out	ISG	1 = On
9 - Call to Non Actuated Ring 1	CN1	2 = TOD	59 - Inhibit Hardwire	HWI	2 = TOD
10 - Call to Non Actuated Ring 2	CN2	2 = TOD	60 - Ped Override Mode	POM	1 = On
11 - Walk Rest Modifier	WRM	2 = TOD	61 - Dual Entry	DLE	1 = On
12 - Min Recall	MIN	2 = TOD	62 - Exclusive Ped	EPD	2 = TOD
13 - Max 2 Both Rings	MX2	2 = TOD	63 - Call to Time Clock Mode	CTC	2 = TOD
14 - Coord Inhibit Max Ring 1	IM1	2 = TOD	64 - Dual Enhanced Ped	DEP	2 = TOD
15 - Coord Inhibit Max Ring 2	IM2	1 = On	65 - Service Plan 1	SP1	2 = TOD
16 - Call to Free	CTF	2 = TOD	66 - Service Plan 2	SP2	2 = TOD
17 - TOD Output 1	TO1	2 = TOD	67 - Service Plan 3	SP3	2 = TOD
18 - TOD Output 2	TO2	2 = TOD	68 - Service Plan 4	SP4	2 = TOD
19 - TOD Output 3	TO3	2 = TOD	69 - Service Plan 5	SP5	2 = TOD
20 - TOD Output 4	TO4	2 = TOD	70 - Service Plan 6	SP6	2 = TOD
21 - TOD Output 5	TO5	2 = TOD	71 - Service Plan 7	SP7	2 = TOD
22 - TOD Output 6	TO6	2 = TOD	72 - Service Plan 8	SP8	2 = TOD
23 - TOD Output 7	TO7	2 = TOD	73 - Max Plan 1	MP1	2 = TOD
24 - TOD Output 8	TO8	2 = TOD	74 - Max Plan 2	MP2	2 = TOD
25 - Vehicle Call Phase 1	VC1	2 = TOD	75 - Max Plan 3	MP3	2 = TOD
26 - Vehicle Call Phase 2	VC2	2 = TOD	76 - Max Plan 4	MP4	2 = TOD
27 - Vehicle Call Phase 3	VC3	2 = TOD	77 - Max Plan 5	MP5	2 = TOD
28 - Vehicle Call Phase 4	VC4	2 = TOD	78 - Max Plan 6	MP6	2 = TOD
29 - Vehicle Call Phase 5	VC5	2 = TOD	79 - Max Plan 7	MP7	2 = TOD
30 - Vehicle Call Phase 6	VC6	2 = TOD	80 - Max Plan 8	MP8	2 = TOD
31 - Vehicle Call Phase 7	VC7	2 = TOD	81 - Transit Priority Max Group 1	TG1	2 = TOD
32 - Vehicle Call Phase 8	VC8	2 = TOD	82 - Transit Priority Max Group 2	TG2	2 = TOD
33 - Ped Call Phase 1	PC1	2 = TOD	83 - Transit Priority Max Group 3	TG3	2 = TOD
34 - Ped Call Phase 2	PC2	2 = TOD	84 - Transit Priority Max Group 4	TG4	2 = TOD
35 - Ped Call Phase 3	PC3	2 = TOD	85 - Transit Priority Max Group 5	TG5	2 = TOD
36 - Ped Call Phase 4	PC4	2 = TOD	86 - Transit Priority Max Group 6	TG6	2 = TOD
37 - Ped Call Phase 5	PC5	2 = TOD	87 - Transit Priority Max Group 7	TG7	2 = TOD
38 - Ped Call Phase 6	PC6	2 = TOD	88 - Transit Priority Max Group 8	TG8	2 = TOD
39 - Ped Call Phase 7	PC7	2 = TOD	89 - Inhibit Gap Reducing 1	GR1	2 = TOD
40 - Ped Call Phase 8	PC8	2 = TOD	90 - Inhibit Gap Reducing 2	GR2	2 = TOD
41 - Phase Omit 1	VO1	2 = TOD	91 - Inhibit Gap Reducing 3	GR3	2 = TOD
42 - Phase Omit 2	VO2	2 = TOD	92 - Inhibit Gap Reducing 4	GR4	2 = TOD
43 - Phase Omit 3	VO3	2 = TOD	93 - Inhibit Gap Reducing 5	GR5	2 = TOD
44 - Phase Omit 4	VO4	2 = TOD	94 - Inhibit Gap Reducing 6	GR6	2 = TOD
45 - Phase Omit 5	VO5	2 = TOD	95 - Inhibit Gap Reducing 7	GR7	2 = TOD
46 - Phase Omit 6	VO6	2 = TOD	96 - Inhibit Gap Reducing 8	GR8	2 = TOD
47 - Phase Omit 7	VO7	2 = TOD	97 - Lag 1	LG1	2 = TOD
48 - Phase Omit 8	VO8	2 = TOD	98 - Lag 3	LG3	2 = TOD
49 - Ped Omit 1	PO1	2 = TOD	99 - Lag 5	LG5	2 = TOD
50 - Ped Omit 2	PO2	2 = TOD	100 - Lag 7	LG8	2 = TOD

CIRCUIT OVERRIDES 101 - 199 (Next/2/4/4)

101 - Inhibit Overlap A	OLA	2 = TOD	151 - Coord Hold 7	HD7	2 = TOD
102 - Inhibit Overlap B	OLB	2 = TOD	152 - Coord Hold 8	HD8	2 = TOD
103 - Inhibit Overlap C	OLC	2 = TOD	153 - PE Priority Return B	PRB	2 = TOD
104 - Inhibit Overlap D	OLD	2 = TOD	154 - PE Priority Return C	PRC	2 = TOD
105 - Enable Schedule A Phone 1	AT1	2 = TOD	155 - PE Priority Return D	PRD	2 = TOD
106 - Enable Schedule A Phone 2	AT2	2 = TOD	156 - PE Priority Return E	PRE	2 = TOD
107 - Enable Schedule B Phone 1	BT1	2 = TOD	157 - Platoon Inbound	PPI	2 = TOD
108 - Enable Schedule B Phone 2	BT2	2 = TOD	158 - Platoon Outbound	PPO	2 = TOD
109 - Enable Schedule C Phone 1	CT1	2 = TOD	159 - Platoon Spl 2	PS2	2 = TOD
110 - Enable Schedule C Phone 2	CT2	2 = TOD	160 - Coord Walk Rest	CWR	2 = TOD
111 - Enable Volume to Call Phone 1	VT1	2 = TOD	161 - Dynamic Phase Length Short Inhibit 1	SL1	2 = TOD
112 - Enable Volume to Call Phone 1	VT2	2 = TOD	162 - Dynamic Phase Length Short Inhibit 2	SL2	2 = TOD
113 - Enable Volume Logging	EVL	1 = On	163 - Dynamic Phase Length Short Inhibit 3	SL3	2 = TOD
114 - Enable MOE Logging	EML	1 = On	164 - Dynamic Phase Length Short Inhibit 4	SL4	2 = TOD
115 - Detector Low Threshold Inhibit	DLI	2 = TOD	165 - Dynamic Phase Length Short Inhibit 5	SL5	2 = TOD
116 - Detector Continue Presence Inhibit	DPI	2 = TOD	166 - Dynamic Phase Length Short Inhibit 6	SL6	2 = TOD
117 - Inhibit Detector Based On Programming	IND	2 = TOD	167 - Dynamic Phase Length Short Inhibit 7	SL7	2 = TOD
118 - Inhibit Detector Delay	IDD	2 = TOD	168 - Dynamic Phase Length Short Inhibit 8	SL8	2 = TOD
119 - Inhibit Conditional Ped	ICP	2 = TOD	169 - Coord Late Left Turn 1	CT1	2 = TOD
120 - Inhibit Transit Priority	ITP	2 = TOD	170 - Coord Late Left Turn 3	CT3	2 = TOD
121 - Red Rest Ring 1	RR1	2 = TOD	171 - Coord Late Left Turn 5	CT5	2 = TOD
122 - Red Rest Ring 2	RR2	2 = TOD	172 - Coord Late Left Turn 7	CT7	2 = TOD
123 - Omit Red Clear Ring 1	OR1	2 = TOD	173 - Dynamic Phase Length Enable A	DPA	2 = TOD
124 - Omit Red Clear Ring 2	OR2	2 = TOD	174 - Dynamic Phase Length Enable B	DPB	2 = TOD
125 - Ped Recycle Ring 1	PR1	2 = TOD	175 - Dynamic Phase Length Enable C	DPC	2 = TOD
126 - Ped Recycle Ring 2	PR2	2 = TOD	176 - Dynamic Phase Length Enable D	DPD	2 = TOD
127 - Enable MOE Log to Call Phone 1	MT1	2 = TOD	177 - Proactive Plan Select Average	PSA	2 = TOD
128 - Enable MOE Log to Call Phone 2	MT2	2 = TOD	178 - Proactive Plan Select Inbound	PSI	2 = TOD
129 - Transit Inhibit Short Time 1	IS1	2 = TOD	179 - Proactive Plan Select Outbound	PSO	2 = TOD
130 - Transit Inhibit Short Time 2	IS2	2 = TOD	180 - Split Variant Inbound	SVI	2 = TOD
131 - Transit Inhibit Short Time 3	IS3	2 = TOD	181 - Split Variant Outbound	SVO	2 = TOD
132 - Transit Inhibit Short Time 4	IS4	2 = TOD	182 - Disable Coord Walk Rest Ring 1	WR1	2 = TOD
133 - Transit Inhibit Short Time 5	IS5	2 = TOD	183 - Disable Coord Walk Rest Ring 2	WR2	2 = TOD
134 - Transit Inhibit Short Time 6	IS6	2 = TOD	184 - Proactive Plan Select New Look	NLK	2 = TOD
135 - Transit Inhibit Short Time 7	IS7	2 = TOD	185 - Disable Red Clearance Extension	DRX	2 = TOD
136 - Transit Inhibit Short Time 8	IS8	2 = TOD	186 - Detector Plan Line 1	DL1	2 = TOD
137 - Enable Transit Priority Logging	ETL	2 = TOD	187 - Detector Plan Line 2	DL2	2 = TOD
138 - Disable Flashing Yellow Arrow 1	DF1	2 = TOD	188 - Disable LRT 1 Vertical Flashing Bar	DV1	2 = TOD
139 - Disable Flashing Yellow Arrow 3	DF3	2 = TOD	189 - Disable LRT 2 Vertical Flashing Bar	DV2	2 = TOD
140 - Disable Flashing Yellow Arrow 5	DF5	2 = TOD	190 - Disable LRT 3 Vertical Flashing Bar	DV3	2 = TOD
141 - Disable Flashing Yellow Arrow 7	DF7	2 = TOD	191 - Disable LRT 4 Vertical Flashing Bar	DV4	2 = TOD
142 - Disable Auto Max	DAM	2 = TOD	192 - Datakey Enable	DKE	1 = On
143 - Disable Repeated Phase Service	DRS	2 = TOD	193 - Dynamic Phase Reversal Enable 1	DR1	2 = TOD
144 - End of Main Street	EMS	2 = TOD	194 - Dynamic Phase Reversal Enable 3	DR3	2 = TOD
145 - Coord Hold 1	HD1	2 = TOD	195 - Dynamic Phase Reversal Enable 5	DR5	2 = TOD
146 - Coord Hold 2	HD2	2 = TOD	196 - Dynamic Phase Reversal Enable 7	DR7	2 = TOD
147 - Coord Hold 3	HD3	2 = TOD	197 - Enable Coordination Log	ECL	1 = On
148 - Coord Hold 4	HD4	2 = TOD	198 - Disable Gap For FYLTA	DGF	2 = TOD
149 - Coord Hold 5	HD5	2 = TOD	199 - Coordination Auto Walk	CAW	2 = TOD
150 - Coord Hold 6	HD6	2 = TOD			

PREEMPTION SEQUENCE 1 - 4 (Next/2/5)

Seq	Interval	Instruction	Phases Serviced	Interval Time	Hold On Input	Output On	Output Mode	
1	1	197	- - - 4 - - - -	0	On	- - - - - - - -	0	Instructions - 0 = service phases defined in phases location 1-9 = use special intervals 1-9 10 = preempt sequence allows fylta 11 = preempt interval disables fylta 15 = alternate trap protection 90 = go to all red 91 = turn cvm off 92 = turn cvm on 93 = enable ped service and phases defined in phases location 94 = disable ped service 96 = enable coordination w/peds 97 = enable coordination w/o peds 98 = return with no calls 99 = return with ped calls and phases defined in phases location 100 = jump to step defined in time location and input has to be active for jump 101 = use time as resettable gap timer and service phases defined in phases location 196 = coordination sync w/peds 197 = coordination sync w/o peds 200 = lrt phase service w/o peds 201 = lrt phase service w/peds 202 = priority return-queue/delay 216 = lrt coordination sync w/peds 217 = lrt coordination sync w/o peds Phases Serviced - phases 1 - 8 Interval Time - 0 - 255 sec or interval 1 - 10 Hold on Input - X = on Outputs On - output 1 - 8 Output Modes - 0 = all steady on 1 = all flash together 2 = odd flashes WIG, even flashes WAG 3 = 1 - 4 steady on, 5 - 8 all flash together
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0	
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0	
2	1	197	- - 3 - - - - 8	0	On	- - - - - - - -	0	
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0	
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0	
3	1	197	- - - - - 7 -	0	On	- - - - - - - -	0	
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0	
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0	
4	1	197	- 2 - - 5 - - -	0	On	- - - - - - - -	0	
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0	
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0	
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0	

SEQUENCE TIMING (Next/2/5/0)

Sequence		1	2	3	4	5	6	7	8		
Input Memory										X = on	
Input Priority		6	6	6	6	0	0	0	0	0 = lowest, - 8 = highest	
Entry (Transition Parameters)	Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec 0.0 would time the normal function time	
	Walk	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0		
	Ped Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec	
	Overlap Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Overlap Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 255 sec	
	Delay to Preempt	0	0	0	0	0	0	0	0		
	Delay Ped Omit	0	0	0	0	0	0	0	0		
	Delay Phase Omit	0	0	0	0	0	0	0	0		
Min Reservice		0	0	0	0	0	0	0	0	0 - 255 min	
Overlap Inhibits		A								X = on	
		B									
		C									
		D									
Exit Parameters	Exit to Coord Plan Offset by X	0	0	0	0	0	0	0	0	0 - 20	
	Exit Coord Plan Time	0	0	0	0	0	0	0	0	0 - 60 min	
	Exit to Max Plan	0	0	0	0	0	0	0	0	0 - 8	
	Exit Free Time	0	0	0	0	0	0	0	0	0 - 60 min	
	Override Time	0	0	0	0	0	0	0	0		
	Fail Time	0	0	0	0	0	0	0	0		
	Exit Mode Time	0	0	0	0	0	0	0	0		

PRIORITY RETURN AND SPECIAL INTERVALS (Next/2/5/0/6, Next/2/5/9)

Phase / Overlap		1	2	3	4	5	6	7	8	A	B	C	D	
Priority Return	Enable	Off	0 = disabled; 1 = enabled; 2 = enabled and skip preempt phase on exit											
	A (max)	0	0	0	0	0	0	0	0	0 - 100% of currently used max				
	B (max)	0	0	0	0	0	0	0	0					
	C (max)	0	0	0	0	0	0	0	0					
	D (max)	0	0	0	0	0	0	0	0					
	E (max)	0	0	0	0	0	0	0	0					
	Ped Clear	0	0	0	0	0	0	0	0	0 - 100% of currently used ped clearance				
Queue Delay Recovery		0	0	0	0	0	0	0	0	0 - 255 sec				
Special Intervals	1	0	0	0	0	0	0	0	0	0	0	0	0	0 = Dark 1 = green don't walk 2 = green walk 3 = green flashing don't walk 4 = yellow 5 = red 6 = flashing yellow WIG 7 = flashing yellow WAG 8 = flashing red WIG 9 = flashing red WAG 10 = walk only 11=flashing don't walk only
	2	0	0	0	0	0	0	0	0	0	0	0	0	
	3	0	0	0	0	0	0	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	0	0	0	0	
	5	0	0	0	0	0	0	0	0	0	0	0	0	
	6	0	0	0	0	0	0	0	0	0	0	0	0	
	7	0	0	0	0	0	0	0	0	0	0	0	0	
	8	0	0	0	0	0	0	0	0	0	0	0	0	
	9	0	0	0	0	0	0	0	0	0	0	0	0	

LIGHT RAIL TRAIN (Next/2/5/0/7)

Light Rail Train	1	2	3	4	
Associated Preempt	0	0	0	0	0 = none, preempt 1 - 8
Time to Green	0	0	0	0	0 - 255 sec
Horizontal Bar Flash Time	0.0	0.0	0.0	0.0	
Vertical Bar Flash Time	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
Min Duration	0	0	0	0	0 - 255 sec

Miscellaneous Data

TRANSIT PRIORITY (Next/2/7)

	1	2	3	4	5	6	7	8	
Phases	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	Phases 1 - 8 (max of 2 compatible phases)
PE Enable (6.25Hz TP call on PE)	X	X	X	X	X	X	X	X	X = 6.25 Hz signal will activate TP
Priority	0	0	0	0	0	0	0	0	0 - 8, 8 = highest
Memory									X = on
Delay Time	0	0	0	0	0	0	0	0	0 - 255 sec
Minimum Reservice Time (per input)	0	0	0	0	0	0	0	0	0 - 255 min
Override Time	0	0	0	0	0	0	0	0	0 - 255 sec
Bus Extend	0	0	0	0	0	0	0	0	0 - 255 min
Minimum Reservice Time (all inputs)	0	0 - 255 min							
Free Operation Mode	0	0 = use shortest of max 1 or 2, 1 - 8 = use max time of group 1 - 8, 9 = use time of day circuit							

TRANSIT PRIORITY ALTERNATE FORCE OFF PLANS (Next/2/7/6)

Current Coord Plan	1	2	3	4	5	6	7	8	0 = none 17 - 32 = coord plan 17 - 32
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	
Current Coord Plan	9	10	11	12	13	14	15	16	
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	

GROUP TIMING (Next/2/7/5)

	Phase -->	1	2	3	4	5	6	7	8	
Group 1	Max Times	0	0	0	0	0	0	0	0	0 - 255 sec 0 would time the normal function time
	Walk Times	0	0	0	0	0	0	0	0	
Group 2	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 3	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 4	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 5	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 6	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 7	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 8	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	

TRUCK PRIORITY (Next/2/7/9)

Truck Priority -->	1	2	3	4	
Associated Transit Priority	0	0	0	0	0 = none 1 - 8 = transit priority 1 - 8
Leading Detector	0	0	0	0	0 = none, 1 - 32 = detector 1 - 32
Trailing Detector	0	0	0	0	
Stop Bar Distance	0	0	0	0	0 - 999 feet
Trap Distance	0.0	0.0	0.0	0.0	0.0 - 99.9 feet
Minimum Speed	0	0	0	0	0 - 100 mph
Minimum Length	0	0	0	0	0 - 255 feet
Downhill Grade (%)	0	0	0	0	0 - 20%
Uphill Grade (%)	0	0	0	0	
Undersized Vehicle					X = Enabled

170 INPUTS (Next/2/8/1)

C1-39	101 - Veh Detector 9	C1-67	22 - Ped Detector 2
C1-40	113 - Veh Detector 19	C1-68	25 - Ped Detector 5
C1-41	106 - Veh Detector 14	C1-69	24 - Ped Detector 4
C1-42	118 - Veh Detector 24	C1-70	23 - Ped Detector 3
C1-43	102 - Veh Detector 10	C1-71	151 - Preempt In 1
C1-44	114 - Veh Detector 20	C1-72	152 - Preempt In 2
C1-45	107 - Veh Detector 15	C1-73	153 - Preempt In 3
C1-46	161 - Veh Detector 25	C1-74	154 - Preempt In 4
C1-47	105 - Veh Detector 13	C1-75	165 - Veh Detector 29
C1-48	117 - Veh Detector 23	C1-76	104 - Veh Detector 12
C1-49	27 - Ped Detector 7	C1-77	116 - Veh Detector 22
C1-50	164 - Veh Detector 28	C1-78	111 - Veh Detector 17
C1-51	199 - LRT Ped Inhibit	C1-79	163 - Veh Detector 27
C1-52	155 - Preempt In 5	C1-80	82 - Interval Advance
C1-53	85 - Manual Control Enable	C1-81	137 - Conflict Monitor Status/Flash
C1-54	166 - Veh Detector 30	C1-82	62 - Stop Timing Ring 1
C1-55	15 - Veh Detector 5	C11-15	254 - Pin Not Used
C1-56	11 - Veh Detector 1	C11-16	254 - Pin Not Used
C1-57	17 - Veh Detector 7	C11-17	254 - Pin Not Used
C1-58	13 - Veh Detector 3	C11-18	254 - Pin Not Used
C1-59	16 - Veh Detector 6	C11-19	254 - Pin Not Used
C1-60	12 - Veh Detector 2	C11-20	254 - Pin Not Used
C1-61	18 - Veh Detector 8	C11-21	254 - Pin Not Used
C1-62	14 - Veh Detector 4	C11-22	254 - Pin Not Used
C11-10	254 - Pin Not Used	C11-23	254 - Pin Not Used
C11-11	254 - Pin Not Used	C11-24	254 - Pin Not Used
C11-12	254 - Pin Not Used	C11-25	254 - Pin Not Used
C11-13	254 - Pin Not Used	C11-26	254 - Pin Not Used
C1-63	103 - Veh Detector 11	C11-27	254 - Pin Not Used
C1-64	115 - Veh Detector 21	C11-28	254 - Pin Not Used
C1-65	108 - Veh Detector 16	C11-29	254 - Pin Not Used
C1-66	162 - Veh Detector 26	C11-30	254 - Pin Not Used

INPUTS AND OUTPUTS OPTIONS (Next/2/8/3)

Connector Type	C1/C11	Change I/O	0 = Disabled
0 = C1/C11; 1 = MS-A/B/C/D; 2 = TS2 Port 1; 3 = ITS Cabinet		X = On (After a download without a power on - off cycle)	

170 OUTPUTS (Next/2/8/2)

C1-2	44 - Don't Walk, Ph 4	C1-35	131 - TOD Output 1
C1-3	64 - Walk, Ph 4	C1-36	132 - TOD Output 2
C1-4	14 - Red, Ph 4	C1-37	133 - TOD Output 3
C1-5	24 - Yellow, Ph 4	C1-38	134 - TOD Output 4
C1-6	34 - Green, Ph 4	C1-100	53 - Ped Clear, Ph 3
C1-7	13 - Red, Ph 3	C1-101	51 - Ped Clear, Ph 1
C1-8	23 - Yellow, Ph 3	C1-102	187 - Soft Flash
C1-9	33 - Green, Ph 3	C1-103	147 - Watchdog
C1-10	42 - Don't Walk, Ph 2	C1-83	43 - Don't Walk, Ph 3
C1-11	62 - Walk, Ph 2	C1-84	63 - Walk, Ph 3
C1-12	12 - Red, Ph 2	C1-85	116 - Overlap D, Red
C1-13	22 - Yellow, Ph 2	C1-86	115 - Overlap D, Yellow
C1-15	32 - Green, Ph 2	C1-87	114 - Overlap D, Green
C1-16	11 - Red, Ph 1	C1-88	113 - Overlap C, Red
C1-17	21 - Yellow, Ph 1	C1-89	112 - Overlap C, Yellow
C1-18	31 - Green, Ph 1	C1-90	111 - Overlap C, Green
C1-19	43 - Don't Walk, Ph 3	C1-91	47 - Don't Walk, Ph 7
C1-20	63 - Walk, Ph 3	C1-93	61 - Walk, Ph 1
C1-21	18 - Red, Ph 8	C1-94	106 - Overlap B, Red
C1-22	28 - Yellow, Ph 8	C1-95	105 - Overlap B, Yellow
C1-23	38 - Green, Ph 8	C1-96	104 - Overlap B, Green
C1-24	17 - Red, Ph 7	C1-97	103 - Overlap A, Red
C1-25	27 - Yellow, Ph 7	C1-98	102 - Overlap A, Yellow
C1-26	37 - Green, Ph 7	C1-99	101 - Overlap A, Green
C1-27	45 - Don't Walk, Ph 5	C11-1	254 - Pin Not Used
C1-28	65 - Walk, Ph 5	C11-2	254 - Pin Not Used
C1-29	16 - Red, Ph 6	C11-3	254 - Pin Not Used
C1-30	26 - Yellow, Ph 6	C11-4	254 - Pin Not Used
C1-31	36 - Green, Ph 6	C11-5	254 - Pin Not Used
C1-32	15 - Red, Ph 5	C11-6	254 - Pin Not Used
C1-33	25 - Yellow, Ph 5	C11-7	254 - Pin Not Used
C1-34	35 - Green, Ph 5	C11-8	254 - Pin Not Used

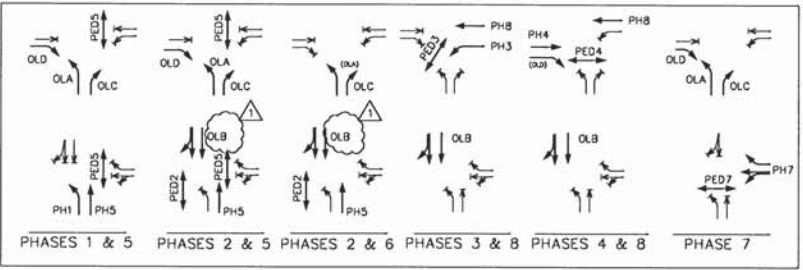
CONTROLLER ID	
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Manufacturer ID	NORTHWEST SIGNAL
Model ID	Voyage-0 v05.03.01
Protocol Revision ID	AB3418E V1

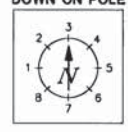
LEGEND

- INSTALL MODEL 170 CONTROLLER WITH TELEPHONE DROP IN MODEL 332 CABINET WITH RISER FRAME ORIENT FRONT (LOUVERED) DOOR AS SHOWN.
- INSTALL (L) METER TRAFFIC SIGNAL MAST ARM.
- INSTALL TERMINAL CABINET.
- INSTALL PEDESTRIAN SIGNAL PEDESTAL WITH FRANGIBLE BASE.
- INSTALL PHASE (PH) PEDESTRIAN SIGNAL, PUSHBUTTON AND INSTRUCTION DECAL.
- INSTALL 430mm X 255mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
- INSTALL 559mm X 305mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- INSTALL 560mm X 305mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
- INSTALL 760mm X 430mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- INSTALL 760mm X 430mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
- INSTALL CHANNEL (CH), (N) BARREL FIRE PRE-EMPTION DETECTOR UNIT.
- INSTALL CHANNEL (CH) FIRE PRE-EMPTION DETECTOR FEEDER CABLE.
- INSTALL PHASE (PH) VEHICLE SIGNAL WITH LEDS.
- INSTALL (L) METER LUMINAIRE ARM.
- INSTALL 250 WATT HIGH PRESSURE SODIUM COBRA HEAD HORIZONTAL CUTOFF TYPE 3, FLAT LENS LUMINAIRE, TYPE M-C-III, 240 VOLT MAG-REGULATOR BALLAST/FUSED IN POLE BASE AND CONNECTED TO 240 VOLTS.
- INSTALL 400 WATT HIGH PRESSURE SODIUM COBRA HEAD HORIZONTAL CUTOFF TYPE 3, FLAT LENS LUMINAIRE, TYPE M-C-III, 240 VOLT MAG-REGULATOR BALLAST/FUSED IN POLE BASE AND CONNECTED TO 240 VOLTS.
- INSTALL SPECIAL (NON-STANDARD) TRAFFIC SIGNAL MAST ARM POLE. (SEE SPECIAL PROVISIONS).
- INSTALL SPECIAL (NON-STANDARD) TRAFFIC SIGNAL MAST ARM POLE WITH LUMINAIRE POLE EXTENSION (10.7 METER MOUNTING HEIGHT).
- INSTALL PHOTOELECTRIC CELL ON POLE (6m-11m ABOVE POLE BASE).
- INSTALL (S) mm ELECTRICAL CONDUIT.
- DETECTOR CONDUIT (SEE DETECTOR PLAN).
- INSTALL CONDUIT AND WIRE AS REQUIRED BY POWER COMPANY.
- INSTALL PHASE (PH) PROGRAMMED VEHICLE SIGNAL.
- INSTALL (N) NO. 8 TYPE THWN (SIGNAL SYSTEM COMMON).
- INSTALL (N) NO. (G) TYPE THWN WRES.
- INSTALL (N) NO. (G) TYPE XHHW WRES.
- INSTALL POLY PULL LINE (1KN MIN. STRENGTH)
- INSTALL AS REQUIRED BY TELEPHONE COMPANY.
- (PH) INCLUDES 3 SPARE WIRES FOR PHASE (PH) AS PER TABLE.
- RETAIN AND PROTECT EXISTING LUMINAIRE POLE
- INSTALL SERVICE CABINET, 240 VOLT, FOR BOTH SIGNAL AND ILLUMINATION CIRCUITS.
- INSTALL 240 VOLT METER BASE.
- INSTALL CROSSWALK CLOSURE SIGNS (BOTH SIDES OF POST).
- INSTALL ALUMINUM STREET NAME SIGN "10TH ST" ON SIGNAL MAST ARM (SEE DETAIL "A")
- INSTALL ALUMINUM STREET NAME SIGN ON SIGNAL MAST ARM (SEE DETAIL "B")
- REMOVE EXISTING LUMINAIRE AND WOOD POLE. DISCONNECT WIRING FROM EXISTING OVERHEAD LINES ON SALAMO ROAD.
- INTERCONNECT CONDUIT (SEE DETECTOR PLAN).
- INSTALL ALUMINUM (762mm X 914mm, TYPE W7) RIGHT ARROW "ONLY" SIGN (DIAMOND GRADE SHEETING).
- INSTALL VEHICLE SIGNAL PEDESTAL WITH TRANSFORMER BASE.
- INSTALL STAND ALONE PHONE MODEM IN CONTROLLER CABINET. (SEE SPECIAL PROVISIONS)
- INSTALL REMOTE POWER SERVICE POST.
- REMOVE AND RELOCATE EXISTING LUMINAIRE POLE. REMOVE FOUNDATION.
- REINSTALL LUMINAIRE POLE OR NEW FOUNDATION AND RECOMMENDED WIRING.

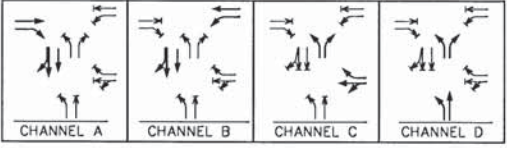
NORMAL PHASE ROTATION



ORIENTATION LOOKING DOWN ON POLE



FIRE PRE EMPTION



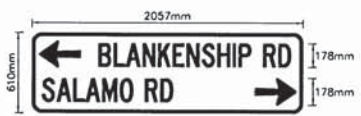
- OLA = 5,6,7
- OLB = 2,3,4
- OLC = 3,5,6,7
- OLD = 4,5,7
- PH7 = EXCLUSIVE

POLE ENTRANCE CHART

POLE NUMBER	1	2	3	4	5	6	7	8	9	10	11
LUMINAIRE ARM	5	7	1	-	-	-	8	2	-	4	-
MAST ARM	5	7	1	-	-	-	8	2	-	4	-
PEDESTRIAN SIGNAL CLAM SHELL	5	5	5	5,7	7	2	2,8	-	-	5	1,4
PEDESTRIAN PB	3	7	1,3	5	4	6,8	-	-	7	2,4	-
TERMINAL CABINET	1	3	5	-	-	-	-	4	6	-	8
VEHICLE SIGNAL	-	-	-	-	-	-	2	-	-	6	-



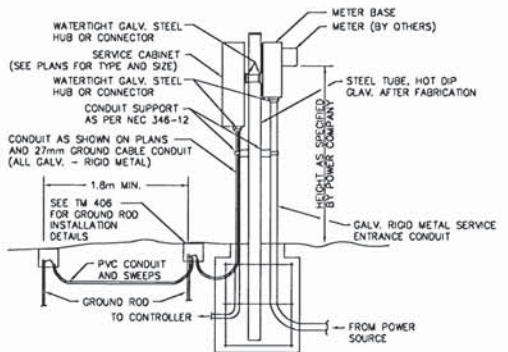
DETAIL "A"



DETAIL "B"

ABBREVIATIONS

- T = TYPE SHOWN
 - PH = PHASE SHOWN
 - X = NUMBER OF CABLES SHOWN
 - E = ELEVATOR PLUMBIZER
 - H = HEIGHT SHOWN
 - L = LENGTH SHOWN
 - N = NUMBER SHOWN
 - G = AWG SIZE SHOWN
 - S = SIZE SHOWN
 - A = STANDARD PLUMBIZER
 - CH = CHANNEL SHOWN
 - P = POLE MOUNT
- SIGNAL HEAD TYPES**
- 2 = 305mm R1, 305mm Y, 305mm G
 - 3 = 305mm RLTA, 305mm YLTA, 305mm GLTA
 - 5 = 305mm RR1A, 305mm YR1A, 305mm GR1A



REMOTE POWER SERVICE POST (UNDERGROUND)

(SEE TM404 FOR DETAILS)

ADDED NOTE: REMOVED VEHICLE PHASE 2 INPUT, ASSIGNED TO OVERLAP B

KITTILSON & ASSOCIATES, INC.
 815 SW ALDER, SUITE 100
 PORTLAND, OR 97205
 (503) 228-5230; FAX: 275-8189

REUSE OF DOCUMENTS
 This document may be used for other projects unless otherwise noted. It is the user's responsibility to verify the accuracy of the information contained herein.

TRAFFIC SIGNAL LEGEND
WEST LINN, OR

DATE: APRIL 2000
 ACCOMPANIED BY: DWG. _____
 SHEET NO. **TS-3**
 NS DWG. NO. **11960**

04/20/00 AS-BUILT

Intersection Name: I-205 NB @ 10th

Controller 122323.2 Channel: - Drop: 0

System: TransCore TransSuite TCS

Controller Type: Voyage

Revision - Version -

TransCore Unified Controller Manager 10.3.1

Zero Tables

Dual Entry
 DetectorPlans
 DetectorFailMonitor
 Vehicle Overlaps
 PedOverlaps
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Controller Function and Timing

Security, Sequence and Timing (Next/2/1, Next/2/2/3/A, Next/2/2/5)				
Security Code	0	0 = disabled, or 1000-9999	First All Red	8.0 0.0 to 25.5 seconds
Sequence	7	0 = sequential, 1 = quad left turn, 2-6 = special A-E, 7 = lead lag		
Power up Flash	0.0	0.0 - 25.5 seconds		

Initialization (Next/2/2/5)			Lead Lag (Next/2/2/3/A)			
Ring 1	Ring 2	Interval	Phases 1 - 2	Phases 3 - 4	Phases 5 - 6	Phases 7 - 8
0	5	0	2	2	2	2
Phase 1 - 8		0 = Red, 1 = Yel, 2 = Grn	0 = no reversal, 1 = reversal, 2 = by coord plan or clock			

(Next/2/2/3)		Phase Functions	(Next/2/2/1)								
Phase Used	- 2 - - 5 6 - 8		Yellow Lock	- - - - - - - -							
Restricted Phases	- - - - - - - -		Min Recall	- 2 - - - - 6 - -							
Exclusive Phases	- - - - - - - -		Max Recall	- - - - - - - -							
			Ped Recall	- - - - - - - -							
			Red Lock	- - - - - - - -							
			Max Out Recall Inhibit	1 2 3 4 5 6 7 8							
			Soft Recall	- - - - - - - -							
			Free Walk Rest	- - - - - - - -							
			Conditional Ped	- - - - - - - -							
			Disable Inhibit Max Termination	- - - - - - - -							
			Call To Non-Act 1	- - - - - - - -							
			Call To Non-Act 2	- - - - - - - -							

Phase Times (Next/2/2/2)									
Phase	1	2	3	4	5	6	7	8	
Movement									
Minimum Green	0	10	0	0	4	10	0	6	0 - 255 sec.
Passage	0.0	6.9	0.0	0.0	2.3	6.9	0.0	2.3	0.0 - 25.5 sec.
Yellow	0.0	4.0	0.0	0.0	4.0	4.0	0.0	4.0	0.0 - 25.5 sec.
Red Clearance	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0 - 25.5 sec. or 0 - 255 sec.
Max 1	0	30	0	0	25	30	0	20	0 - 255 sec.
Max 2	0	30	0	0	25	30	0	20	0 - 255 sec.
Walk	0	7	0	0	0	7	0	0	0 - 255 sec.
Ped Clear	0	14	0	0	0	10	0	0	0 - 255 sec.
Seconds Per Actuation	0.0	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0 - 25.5 sec.
Time Before Reduction	0	10	0	0	8	10	0	8	0 - 255 sec.
Time to Reduce	0	10	0	0	3	10	0	3	0 - 255 sec.
Minimum Gap	0.0	4.9	0.0	0.0	0.5	4.9	0.0	0.5	0.0 - 25.5 sec.
Max Variable Initial	0	15	0	0	4	15	0	6	0 - 255 sec.
Max Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
Auto Max	0	0	0	0	0	0	0	0	0 - 255 sec.
Advanced walk	0	0	0	0	0	0	0	0	0 - 255 sec.

Phase Times (Next/2/2/9/5)									
Inhibit Min Yellow									X = On
Red Decimal Off									X = On

Dual Entry (Next/2/2/9/3)

Mode	0	0 = off, 1 = on, 2 = Not Used, 3 = by coord plan, 4 = by time clock circuit 61
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Dual Entry Ph -->	1	2	3	4	5	6	7	8	
Phase	0	0	0	0	0	0	0	0	0 = none, 1-8 = phase 1-8

Cond Service (Next/2/2/9/3/A)			5 Sec Head Logic (Next/2/2/9/4)						
	Mode	CS Max Time	X Omits Y		Anti-Trap			Yellow Blanking LT	
Phase			X:Y		Trap Protected Phase	Next Phase	Phase		
Phase 1	0	0							
Phase 3	0	0	6:1	0	1	0	< (5)	1	0
Phase 5	0	0	8:3	0	3	0	< (7)	3	0
Phase 7	0	0	2:5	0	5	0	< (1)	5	0
0 = off, 1 = C.S.On. 2 = C.S. on by TOD circuit 57, 3 = N/A, 4 = C.S. and C.R. On, 5 = C.R. on by TOD circuit 57.			4:7	0	7	0	< (3)	7	0
			0 = off, 1 = side call, 2 = no side call		X = On				

Other Controller Functions (Next/2/2/9/1, Next/2/2/9/5)

Inhibit Simultaneous Gap Out	1 - 3 4 5 - 7 8	
Last Car Passage	2	0 = recall phase, 1 = last car passage, 2 = NOT recall - Not last car passage
Red Revert (+2seconds)	0.0	0 - 25.5 sec.
Auto Ped Clear	On	X = On
FDW thru Yellow	Off	X = On
Red Rest Delay	0.0	0 - 25.5 sec.
Change Sequence	Off	X = On (After a download without a power on - off cycle)
Advanced Flash Rate	60 FPM	0 = Disabled (60 FPM), 1 = 120 FPM
Ped Push Button Time	null	0 = Disable, 0 - 5 Seconds

Phase -->	1	2	3	4	5	6	7	8	
Red Clear Extension Detector	0	0	0	0	0	0	0	0	0 = none 1 - 32 = detector 1 - 32
Red Clear Extension Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec.

Local Detectors (Next/2/2/4/1)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
1				1	1	0	0	0.0	0
2				1	1	0	0	0.0	0
3				3	3	0	0	0.0	0
4				3	3	0	0	0.0	0
5				5	5	0	0	0.0	0
6				5	5	0	0	0.0	0
7				7	7	0	0	0.0	0
8				7	7	0	0	0.0	0
9				2	2	0	0	0.0	0
10				2	2	0	0	0.0	0
11				2	2	0	0	0.0	0
12				2	2	0	0	5.0	0
13				2	2	0	0	0.0	0
14				8	8	0	0	2.0	0
15				8	8	0	0	2.0	0
16				4	4	0	0	0.0	0
17				4	4	0	0	0.0	0
18				4	4	0	0	0.0	0
19				6	6	0	0	0.0	0
20				6	6	0	0	0.0	0
21				6	6	0	0	0.0	0
22				6	6	0	0	0.0	0
23				6	6	0	0	0.0	0
24				8	8	0	0	0.0	0
25				8	8	0	0	2.0	0
26				8	8	0	0	0.0	0
27				8	8	0	0	0.0	0
28				8	8	0	0	0.0	0
29				0	0	0	0	0.0	0
30				0	0	0	0	0.0	0
31				0	0	0	0	0.0	0
32				0	0	0	0	0.0	0

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Local Detectors 33 - 64 (Next/2/2/4/6)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
33		N/A	N/A	0	0	N/A	N/A	N/A	N/A
34		N/A	N/A	0	0	N/A	N/A	N/A	N/A
35		N/A	N/A	0	0	N/A	N/A	N/A	N/A
36		N/A	N/A	0	0	N/A	N/A	N/A	N/A
37		N/A	N/A	0	0	N/A	N/A	N/A	N/A
38		N/A	N/A	0	0	N/A	N/A	N/A	N/A
39		N/A	N/A	0	0	N/A	N/A	N/A	N/A
40		N/A	N/A	0	0	N/A	N/A	N/A	N/A
41		N/A	N/A	0	0	N/A	N/A	N/A	N/A
42		N/A	N/A	0	0	N/A	N/A	N/A	N/A
43		N/A	N/A	0	0	N/A	N/A	N/A	N/A
44		N/A	N/A	0	0	N/A	N/A	N/A	N/A
45		N/A	N/A	0	0	N/A	N/A	N/A	N/A
46		N/A	N/A	0	0	N/A	N/A	N/A	N/A
47		N/A	N/A	0	0	N/A	N/A	N/A	N/A
48		N/A	N/A	0	0	N/A	N/A	N/A	N/A
49		N/A	N/A	0	0	N/A	N/A	N/A	N/A
50		N/A	N/A	0	0	N/A	N/A	N/A	N/A
51		N/A	N/A	0	0	N/A	N/A	N/A	N/A
52		N/A	N/A	0	0	N/A	N/A	N/A	N/A
53		N/A	N/A	0	0	N/A	N/A	N/A	N/A
54		N/A	N/A	0	0	N/A	N/A	N/A	N/A
55		N/A	N/A	0	0	N/A	N/A	N/A	N/A
56		N/A	N/A	0	0	N/A	N/A	N/A	N/A
57		N/A	N/A	0	0	N/A	N/A	N/A	N/A
58		N/A	N/A	0	0	N/A	N/A	N/A	N/A
59		N/A	N/A	0	0	N/A	N/A	N/A	N/A
60		N/A	N/A	0	0	N/A	N/A	N/A	N/A
61		N/A	N/A	0	0	N/A	N/A	N/A	N/A
62		N/A	N/A	0	0	N/A	N/A	N/A	N/A
63		N/A	N/A	0	0	N/A	N/A	N/A	N/A
64		N/A	N/A	0	0	N/A	N/A	N/A	N/A

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Detector Plans (Next/2/2/4/5)

Detector Plans (Next/2/2/4/5)										
Loop Number										
Plan Detectors		0	0	0	0	0	0	0	0	0 - 32, 0 = none, 1 - 32 = detectors 1- 32
Detector Plan 1	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 2	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 3	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14

Detector Fail (Next/2/2/4/3)

Detector Fail Sample Period (all detectors)		0	0 - 255 minutes						
Dynamic Phase Length Fail Period		0	0 - 255 minutes						
Video Fail Inputs	1	2	3	4	5	6	7	8	0 = none, 1 - 8 = phase 1 - 8
Phase Recalled	0	0	0	0	0	0	0	0	
System Detectors	1	2	3	4	5	6	7	8	0 = none, 1 - 32 = detector 1 - 32
Local Detector	5	9	14	15	19	20	0	0	

Flash (Next/2/2/5)

Flash Entry						Flash Exit									
Ring 1		Ring 2		Interval		Ring 1		Ring 2		Interval					
0		0		red		0		5		0					
0 = none, phase 1 - 8				0 = red, 1 = yel, 2 = grn				0 = none, phase 1 - 8				0 = red, 1 = yel, 2 = grn			

Soft Flash (Next/2/2/5/A)

Phase	1	2	3	4	5	6	7	8				
	3	4	3	4	3	4	3	4				
Overlap	A	B	C	D	E	F	G	H	I	J	K	L
	3	4	3	4	3	4	3	4	3	4	3	4
0 = dark, 1=flash yel WIG, 2 = flash yel WAG, 3 = flash red WIG, 4 = flash red WAG												

Internal Logic	1	2	3	4	5	6	7	8	9	10	11	12	0 = normal, 1 = dark, 2 = flash WIG
Output	0	0	0	0	0	0	0	0	0	0	0	0	

Flashing Yellow Left Turn Arrow (FYLTA) (Next/2/2/8/6)

Phase Pairs ->	1 - 2	3 - 4	5 - 6	7 - 8	
Enable	0	0	4	0	0 = off, 3 = 3 outputs, 4 = 4 outputs, 5 = 5 outputs
Even Omits Odd	0	0	0	0	0 / 1 / 2
Detector Switch Odd / Even	1	1	1	1	X = on, odd phase must be omitted
Red Transition	2.0	2.0	3.0	2.0	0.0 or 2.0 - 25.5 sec.
Red Extension	0.0	0.0	3.0	0.0	0.0 - 25.5 sec.
Return to GLTA	0	0	0	0	0 = off, 1 = max out, 2= yellow lock

Gap Dependent FYLTA					
Detector Input	0	0	0	0	0 = Disabled, 1 - 64 = Local Detector 1 - 64
Minimum Delay	0	0	0	0	0 - 255 seconds
Detector Gap Time	0.0	0.0	0.0	0.0	0 - 25.5 seconds.
Maximum Delay	0	0	0	0	0 - 255 seconds
Not Ped	0	0	4	0	

Dynamic Flashing Yellow Left Turn Arrow

Phase Pairs	1 - 2	3 - 4	5 - 6	7 - 8	
[Plan A] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan B] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan C] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan D] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

CoordinationData

Coordination Modes (Next/2/3/1)

Flash Mode	3 3	0=off, 1=on, 33=time clock, 34=comm, 35=hardwire
Coordination Plan Mode	3 4	0=free, 1-32 = coord plan 1-32, 33=time clock, 34=comm, 35=hardwire
Offset Seeking Mode	2	0=add only, 1= dwell, 2=fastway
Late Ped	0	0 = off, 1 = on
Coord Walk Rest	0	0 = off, 1 = on, 2 = by tod circuit 160, 3 = end of walk, 4 = coord ped during perms
Zero Mode(TS2 only)	0	0=start of main street, 1=end of main street, 2=by TOD circuit 144, 3 = first green
(Next/2/3/4/1)		
Repeated Ped Service	0	0=off, 1=on (no coord ped), 2=on (beginning green coord ped), 3=on (coord ped always)
Omit Phase During Repeated Phase	- - - - -	-- = service allowed ; # = service prevented

Coordination Plans (Next/2/3/2)

Coord Plan	Coordination Phases		Cycle Length	Offset Time	Min Cycle Len Dwell Time	Permissive	Service Plan	Max Plan
	Ring 1	Ring 2						
1	0	6	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0
	0 - 8		0 - 255 sec			0 - 8		

Circuit Mapping (Next/2/3/3)

Circuit Map	Coord Plan	Time Clock Circuit							
		1	2	3	4	5	6	7	8
1	34	0	0	0	0	0	0	0	0
2	34	0	0	0	0	0	0	0	0
3	34	0	0	0	0	0	0	0	0
4	34	0	0	0	0	0	0	0	0
5	34	0	0	0	0	0	0	0	0
6	34	0	0	0	0	0	0	0	0
7	34	0	0	0	0	0	0	0	0
8	34	0	0	0	0	0	0	0	0
9	34	0	0	0	0	0	0	0	0
10	34	0	0	0	0	0	0	0	0
11	34	0	0	0	0	0	0	0	0
12	34	0	0	0	0	0	0	0	0
13	34	0	0	0	0	0	0	0	0
14	34	0	0	0	0	0	0	0	0
15	34	0	0	0	0	0	0	0	0
16	34	0	0	0	0	0	0	0	0
17	34	0	0	0	0	0	0	0	0
18	34	0	0	0	0	0	0	0	0
19	34	0	0	0	0	0	0	0	0
20	34	0	0	0	0	0	0	0	0

coord plan - 0 = free, 1 - 32 = coord plan 1 - 32, 33 = any, 34 none selected
time clock circuits - 0 = not used, or circuits 6 - 199

Dynamic Phase Lengths (Next/2/3/4/4)

Phase ->	1	2	3	4	5	6	7	8	
Back Detector	0	9	0	0	5	19	0	29	0 = none, 1-32 = detector 1-32
Lane Factor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 = none, 0.5 - 5.0
Check Out Detector	0	0	0	0	0	20	0	0	0 = none, 1-32 = detector 1-32
Coord Delta Force Off	Set A	0	0	0	0	0	0	0	0 - 255 sec
	Set B	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	
Free Delta Max	Set A	0	0	0	0	0	0	0	
	Set B	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	

Auto Permissive Min Green (Next/2/3/4/3)

Phase ->	1	2	3	4	5	6	7	8	
Auto Perm Min Green	0	0	0	0	0	0	0	0	0 - 255 sec.

CIRCUIT OVERRIDES 1 - 100 (Next/2/4/4)

1 - Coord Line 1	CL1	2 = TOD	51 - Ped Omit 3	PO3	2 = TOD
2 - Coord Line 2	CL2	2 = TOD	52 - Ped Omit 4	PO4	2 = TOD
3 - Coord Line 4	CL4	2 = TOD	53 - Ped Omit 5	PO5	2 = TOD
4 - Coord Line 8	CL8	2 = TOD	54 - Ped Omit 6	PO6	2 = TOD
5 - Coord Line 16	C16	2 = TOD	55 - Ped Omit 7	PO7	2 = TOD
6 - Coordinated Operation	CRD	2 = TOD	56 - Ped Omit 8	PO8	2 = TOD
7 - Soft Flash	SFL	2 = TOD	57 - Conditional Service	CVS	2 = TOD
8 - Enable System Relays	ESR	2 = TOD	58 - Inhibit Simultaneous Gap Out	ISG	1 = On
9 - Call to Non Actuated Ring 1	CN1	2 = TOD	59 - Inhibit Hardwire	HWI	2 = TOD
10 - Call to Non Actuated Ring 2	CN2	2 = TOD	60 - Ped Override Mode	POM	1 = On
11 - Walk Rest Modifier	WRM	2 = TOD	61 - Dual Entry	DLE	1 = On
12 - Min Recall	MIN	2 = TOD	62 - Exclusive Ped	EPD	2 = TOD
13 - Max 2 Both Rings	MX2	2 = TOD	63 - Call to Time Clock Mode	CTC	2 = TOD
14 - Coord Inhibit Max Ring 1	IM1	2 = TOD	64 - Dual Enhanced Ped	DEP	2 = TOD
15 - Coord Inhibit Max Ring 2	IM2	1 = On	65 - Service Plan 1	SP1	2 = TOD
16 - Call to Free	CTF	2 = TOD	66 - Service Plan 2	SP2	2 = TOD
17 - TOD Output 1	TO1	2 = TOD	67 - Service Plan 3	SP3	2 = TOD
18 - TOD Output 2	TO2	2 = TOD	68 - Service Plan 4	SP4	2 = TOD
19 - TOD Output 3	TO3	2 = TOD	69 - Service Plan 5	SP5	2 = TOD
20 - TOD Output 4	TO4	2 = TOD	70 - Service Plan 6	SP6	2 = TOD
21 - TOD Output 5	TO5	2 = TOD	71 - Service Plan 7	SP7	2 = TOD
22 - TOD Output 6	TO6	2 = TOD	72 - Service Plan 8	SP8	2 = TOD
23 - TOD Output 7	TO7	2 = TOD	73 - Max Plan 1	MP1	2 = TOD
24 - TOD Output 8	TO8	2 = TOD	74 - Max Plan 2	MP2	2 = TOD
25 - Vehicle Call Phase 1	VC1	2 = TOD	75 - Max Plan 3	MP3	2 = TOD
26 - Vehicle Call Phase 2	VC2	2 = TOD	76 - Max Plan 4	MP4	2 = TOD
27 - Vehicle Call Phase 3	VC3	2 = TOD	77 - Max Plan 5	MP5	2 = TOD
28 - Vehicle Call Phase 4	VC4	2 = TOD	78 - Max Plan 6	MP6	2 = TOD
29 - Vehicle Call Phase 5	VC5	2 = TOD	79 - Max Plan 7	MP7	2 = TOD
30 - Vehicle Call Phase 6	VC6	2 = TOD	80 - Max Plan 8	MP8	2 = TOD
31 - Vehicle Call Phase 7	VC7	2 = TOD	81 - Transit Priority Max Group 1	TG1	2 = TOD
32 - Vehicle Call Phase 8	VC8	2 = TOD	82 - Transit Priority Max Group 2	TG2	2 = TOD
33 - Ped Call Phase 1	PC1	2 = TOD	83 - Transit Priority Max Group 3	TG3	2 = TOD
34 - Ped Call Phase 2	PC2	2 = TOD	84 - Transit Priority Max Group 4	TG4	2 = TOD
35 - Ped Call Phase 3	PC3	2 = TOD	85 - Transit Priority Max Group 5	TG5	2 = TOD
36 - Ped Call Phase 4	PC4	2 = TOD	86 - Transit Priority Max Group 6	TG6	2 = TOD
37 - Ped Call Phase 5	PC5	2 = TOD	87 - Transit Priority Max Group 7	TG7	2 = TOD
38 - Ped Call Phase 6	PC6	2 = TOD	88 - Transit Priority Max Group 8	TG8	2 = TOD
39 - Ped Call Phase 7	PC7	2 = TOD	89 - Inhibit Gap Reducing 1	GR1	2 = TOD
40 - Ped Call Phase 8	PC8	2 = TOD	90 - Inhibit Gap Reducing 2	GR2	2 = TOD
41 - Phase Omit 1	VO1	2 = TOD	91 - Inhibit Gap Reducing 3	GR3	2 = TOD
42 - Phase Omit 2	VO2	2 = TOD	92 - Inhibit Gap Reducing 4	GR4	2 = TOD
43 - Phase Omit 3	VO3	2 = TOD	93 - Inhibit Gap Reducing 5	GR5	2 = TOD
44 - Phase Omit 4	VO4	2 = TOD	94 - Inhibit Gap Reducing 6	GR6	2 = TOD
45 - Phase Omit 5	VO5	2 = TOD	95 - Inhibit Gap Reducing 7	GR7	2 = TOD
46 - Phase Omit 6	VO6	2 = TOD	96 - Inhibit Gap Reducing 8	GR8	2 = TOD
47 - Phase Omit 7	VO7	2 = TOD	97 - Lag 1	LG1	2 = TOD
48 - Phase Omit 8	VO8	2 = TOD	98 - Lag 3	LG3	2 = TOD
49 - Ped Omit 1	PO1	2 = TOD	99 - Lag 5	LG5	2 = TOD
50 - Ped Omit 2	PO2	2 = TOD	100 - Lag 7	LG8	2 = TOD

CIRCUIT OVERRIDES 101 - 199 (Next/2/4/4)

101 - Inhibit Overlap A	OLA	2 = TOD	151 - Coord Hold 7	HD7	2 = TOD
102 - Inhibit Overlap B	OLB	2 = TOD	152 - Coord Hold 8	HD8	2 = TOD
103 - Inhibit Overlap C	OLC	2 = TOD	153 - PE Priority Return B	PRB	2 = TOD
104 - Inhibit Overlap D	OLD	2 = TOD	154 - PE Priority Return C	PRC	2 = TOD
105 - Enable Schedule A Phone 1	AT1	2 = TOD	155 - PE Priority Return D	PRD	2 = TOD
106 - Enable Schedule A Phone 2	AT2	2 = TOD	156 - PE Priority Return E	PRE	2 = TOD
107 - Enable Schedule B Phone 1	BT1	2 = TOD	157 - Platoon Inbound	PPI	2 = TOD
108 - Enable Schedule B Phone 2	BT2	2 = TOD	158 - Platoon Outbound	PPO	2 = TOD
109 - Enable Schedule C Phone 1	CT1	2 = TOD	159 - Platoon Spl 2	PS2	2 = TOD
110 - Enable Schedule C Phone 2	CT2	2 = TOD	160 - Coord Walk Rest	CWR	2 = TOD
111 - Enable Volume to Call Phone 1	VT1	2 = TOD	161 - Dynamic Phase Length Short Inhibit 1	SL1	2 = TOD
112 - Enable Volume to Call Phone 1	VT2	2 = TOD	162 - Dynamic Phase Length Short Inhibit 2	SL2	2 = TOD
113 - Enable Volume Logging	EVL	1 = On	163 - Dynamic Phase Length Short Inhibit 3	SL3	2 = TOD
114 - Enable MOE Logging	EML	1 = On	164 - Dynamic Phase Length Short Inhibit 4	SL4	2 = TOD
115 - Detector Low Threshold Inhibit	DLI	2 = TOD	165 - Dynamic Phase Length Short Inhibit 5	SL5	2 = TOD
116 - Detector Continue Presence Inhibit	DPI	2 = TOD	166 - Dynamic Phase Length Short Inhibit 6	SL6	2 = TOD
117 - Inhibit Detector Based On Programming	IND	2 = TOD	167 - Dynamic Phase Length Short Inhibit 7	SL7	2 = TOD
118 - Inhibit Detector Delay	IDD	2 = TOD	168 - Dynamic Phase Length Short Inhibit 8	SL8	2 = TOD
119 - Inhibit Conditional Ped	ICP	2 = TOD	169 - Coord Late Left Turn 1	CT1	2 = TOD
120 - Inhibit Transit Priority	ITP	2 = TOD	170 - Coord Late Left Turn 3	CT3	2 = TOD
121 - Red Rest Ring 1	RR1	2 = TOD	171 - Coord Late Left Turn 5	CT5	2 = TOD
122 - Red Rest Ring 2	RR2	2 = TOD	172 - Coord Late Left Turn 7	CT7	2 = TOD
123 - Omit Red Clear Ring 1	OR1	2 = TOD	173 - Dynamic Phase Length Enable A	DPA	2 = TOD
124 - Omit Red Clear Ring 2	OR2	2 = TOD	174 - Dynamic Phase Length Enable B	DPB	2 = TOD
125 - Ped Recycle Ring 1	PR1	2 = TOD	175 - Dynamic Phase Length Enable C	DPC	2 = TOD
126 - Ped Recycle Ring 2	PR2	2 = TOD	176 - Dynamic Phase Length Enable D	DPD	2 = TOD
127 - Enable MOE Log to Call Phone 1	MT1	2 = TOD	177 - Proactive Plan Select Average	PSA	2 = TOD
128 - Enable MOE Log to Call Phone 2	MT2	2 = TOD	178 - Proactive Plan Select Inbound	PSI	2 = TOD
129 - Transit Inhibit Short Time 1	IS1	2 = TOD	179 - Proactive Plan Select Outbound	PSO	2 = TOD
130 - Transit Inhibit Short Time 2	IS2	2 = TOD	180 - Split Variant Inbound	SVI	2 = TOD
131 - Transit Inhibit Short Time 3	IS3	2 = TOD	181 - Split Variant Outbound	SVO	2 = TOD
132 - Transit Inhibit Short Time 4	IS4	2 = TOD	182 - Disable Coord Walk Rest Ring 1	WR1	2 = TOD
133 - Transit Inhibit Short Time 5	IS5	2 = TOD	183 - Disable Coord Walk Rest Ring 2	WR2	2 = TOD
134 - Transit Inhibit Short Time 6	IS6	2 = TOD	184 - Proactive Plan Select New Look	NLK	2 = TOD
135 - Transit Inhibit Short Time 7	IS7	2 = TOD	185 - Disable Red Clearance Extension	DRX	2 = TOD
136 - Transit Inhibit Short Time 8	IS8	2 = TOD	186 - Detector Plan Line 1	DL1	2 = TOD
137 - Enable Transit Priority Logging	ETL	2 = TOD	187 - Detector Plan Line 2	DL2	2 = TOD
138 - Disable Flashing Yellow Arrow 1	DF1	2 = TOD	188 - Disable LRT 1 Vertical Flashing Bar	DV1	2 = TOD
139 - Disable Flashing Yellow Arrow 3	DF3	2 = TOD	189 - Disable LRT 2 Vertical Flashing Bar	DV2	2 = TOD
140 - Disable Flashing Yellow Arrow 5	DF5	2 = TOD	190 - Disable LRT 3 Vertical Flashing Bar	DV3	2 = TOD
141 - Disable Flashing Yellow Arrow 7	DF7	2 = TOD	191 - Disable LRT 4 Vertical Flashing Bar	DV4	2 = TOD
142 - Disable Auto Max	DAM	2 = TOD	192 - Datakey Enable	DKE	1 = On
143 - Disable Repeated Phase Service	DRS	2 = TOD	193 - Dynamic Phase Reversal Enable 1	DR1	2 = TOD
144 - End of Main Street	EMS	2 = TOD	194 - Dynamic Phase Reversal Enable 3	DR3	2 = TOD
145 - Coord Hold 1	HD1	2 = TOD	195 - Dynamic Phase Reversal Enable 5	DR5	2 = TOD
146 - Coord Hold 2	HD2	2 = TOD	196 - Dynamic Phase Reversal Enable 7	DR7	2 = TOD
147 - Coord Hold 3	HD3	2 = TOD	197 - Enable Coordination Log	ECL	1 = On
148 - Coord Hold 4	HD4	2 = TOD	198 - Disable Gap For FYLTA	DGF	2 = TOD
149 - Coord Hold 5	HD5	2 = TOD	199 - Coordination Auto Walk	CAW	2 = TOD
150 - Coord Hold 6	HD6	2 = TOD			

PREEMPTION SEQUENCE 1 - 4 (Next/2/5)

Seq	Interval	Instruction	Phases Serviced	Interval Time	Hold On Input	Output On	Output Mode	
1	1	197	- 2 - - 5 - - -	0	On	- - - - -	0	Instructions - 0 = service phases defined in phases location 1-9 = use special intervals 1-9 10 = preempt sequence allows fylta 11 = preempt interval disables fylta 15 = alternate trap protection 90 = go to all red 91 = turn cvm off 92 = turn cvm on 93 = enable ped service and phases defined in phases location 94 = disable ped service 96 = enable coordination w/peds 97 = enable coordination w/o peds 98 = return with no calls 99 = return with ped calls and phases defined in phases location 100 = jump to step defined in time location and input has to be active for jump 101 = use time as resettable gap timer and service phases defined in phases location 196 = coordination sync w/peds 197 = coordination sync w/o peds 200 = lrt phase service w/o peds 201 = lrt phase service w/peds 202 = priority return-queue/delay 216 = lrt coordination sync w/peds 217 = lrt coordination sync w/o peds Phases Serviced - phases 1 - 8 Interval Time - 0 - 255 sec or interval 1 - 10 Hold on Input - X = on Outputs On - output 1 - 8 Output Modes - 0 = all steady on 1 = all flash together 2 = odd flashes WIG, even flashes WAG 3 = 1 - 4 steady on, 5 - 8 all flash together
	2	98	- - - - -	0	Off	- - - - -	0	
	3	0	- - - - -	0	Off	- - - - -	0	
	4	0	- - - - -	0	Off	- - - - -	0	
	5	0	- - - - -	0	Off	- - - - -	0	
	6	0	- - - - -	0	Off	- - - - -	0	
	7	0	- - - - -	0	Off	- - - - -	0	
	8	0	- - - - -	0	Off	- - - - -	0	
	9	0	- - - - -	0	Off	- - - - -	0	
	10	0	- - - - -	0	Off	- - - - -	0	
2	1	0	- - - - -	0	Off	- - - - -	0	
	2	0	- - - - -	0	Off	- - - - -	0	
	3	0	- - - - -	0	Off	- - - - -	0	
	4	0	- - - - -	0	Off	- - - - -	0	
	5	0	- - - - -	0	Off	- - - - -	0	
	6	0	- - - - -	0	Off	- - - - -	0	
	7	0	- - - - -	0	Off	- - - - -	0	
	8	0	- - - - -	0	Off	- - - - -	0	
	9	0	- - - - -	0	Off	- - - - -	0	
	10	0	- - - - -	0	Off	- - - - -	0	
3	1	197	- - - - - 6 - -	0	On	- - - - -	0	
	2	98	- - - - -	0	Off	- - - - -	0	
	3	0	- - - - -	0	Off	- - - - -	0	
	4	0	- - - - -	0	Off	- - - - -	0	
	5	0	- - - - -	0	Off	- - - - -	0	
	6	0	- - - - -	0	Off	- - - - -	0	
	7	0	- - - - -	0	Off	- - - - -	0	
	8	0	- - - - -	0	Off	- - - - -	0	
	9	0	- - - - -	0	Off	- - - - -	0	
	10	0	- - - - -	0	Off	- - - - -	0	
4	1	197	- - - - - 8	0	On	- - - - -	0	
	2	98	- - - - -	0	Off	- - - - -	0	
	3	0	- - - - -	0	Off	- - - - -	0	
	4	0	- - - - -	0	Off	- - - - -	0	
	5	0	- - - - -	0	Off	- - - - -	0	
	6	0	- - - - -	0	Off	- - - - -	0	
	7	0	- - - - -	0	Off	- - - - -	0	
	8	0	- - - - -	0	Off	- - - - -	0	
	9	0	- - - - -	0	Off	- - - - -	0	
	10	0	- - - - -	0	Off	- - - - -	0	

SEQUENCE TIMING (Next/2/5/0)

Sequence		1	2	3	4	5	6	7	8		
Input Memory										X = on	
Input Priority		6	0	6	6	0	0	0	0	0 = lowest, - 8 = highest	
Entry (Transition Parameters)	Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec 0.0 would time the normal function time	
	Walk	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0		
	Ped Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec	
	Overlap Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Overlap Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 255 sec	
	Delay to Preempt	0	0	0	0	0	0	0	0		
	Delay Ped Omit	0	0	0	0	0	0	0	0		
	Delay Phase Omit	0	0	0	0	0	0	0	0		
Min Reservice		0	0	0	0	0	0	0	0	0 - 255 min	
Overlap Inhibits		A								X = on	
		B									
		C									
		D									
Exit Parameters	Exit to Coord Plan Offset by X	0	0	0	0	0	0	0	0	0 - 20	
	Exit Coord Plan Time	0	0	0	0	0	0	0	0	0 - 60 min	
	Exit to Max Plan	0	0	0	0	0	0	0	0	0 - 8	
	Exit Free Time	0	0	0	0	0	0	0	0	0 - 60 min	
	Override Time	0	0	0	0	0	0	0	0		
	Fail Time	0	0	0	0	0	0	0	0		
	Exit Mode Time	0	0	0	0	0	0	0	0		

PRIORITY RETURN AND SPECIAL INTERVALS (Next/2/5/0/6, Next/2/5/9)

Phase / Overlap		1	2	3	4	5	6	7	8	A	B	C	D	
Priority Return	Enable	Off	0 = disabled; 1 = enabled; 2 = enabled and skip preempt phase on exit											
	A (max)	0	0	0	0	0	0	0	0	0 - 100% of currently used max				
	B (max)	0	0	0	0	0	0	0	0					
	C (max)	0	0	0	0	0	0	0	0					
	D (max)	0	0	0	0	0	0	0	0					
	E (max)	0	0	0	0	0	0	0	0					
	Ped Clear	0	0	0	0	0	0	0	0	0 - 100% of currently used ped clearance				
Queue Delay Recovery		0	0	0	0	0	0	0	0	0 - 255 sec				
Special Intervals	1	0	0	0	0	0	0	0	0	0	0	0	0	0 = Dark 1 = green don't walk 2 = green walk 3 = green flashing don't walk 4 = yellow 5 = red 6 = flashing yellow WIG 7 = flashing yellow WAG 8 = flashing red WIG 9 = flashing red WAG 10 = walk only 11=flashing don't walk only
	2	0	0	0	0	0	0	0	0	0	0	0	0	
	3	0	0	0	0	0	0	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	0	0	0	0	
	5	0	0	0	0	0	0	0	0	0	0	0	0	
	6	0	0	0	0	0	0	0	0	0	0	0	0	
	7	0	0	0	0	0	0	0	0	0	0	0	0	
	8	0	0	0	0	0	0	0	0	0	0	0	0	
	9	0	0	0	0	0	0	0	0	0	0	0	0	

LIGHT RAIL TRAIN (Next/2/5/0/7)

Light Rail Train	1	2	3	4	
Associated Preempt	0	0	0	0	0 = none, preempt 1 - 8
Time to Green	0	0	0	0	0 - 255 sec
Horizontal Bar Flash Time	0.0	0.0	0.0	0.0	
Vertical Bar Flash Time	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
Min Duration	0	0	0	0	0 - 255 sec

Miscellaneous Data

TRANSIT PRIORITY (Next/2/7)

	1	2	3	4	5	6	7	8	
Phases	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	Phases 1 - 8 (max of 2 compatible phases)
PE Enable (6.25Hz TP call on PE)	X	X	X	X					X = 6.25 Hz signal will activate TP
Priority	0	0	0	0	0	0	0	0	0 - 8, 8 = highest
Memory									X = on
Delay Time	0	0	0	0	0	0	0	0	0 - 255 sec
Minimum Reservice Time (per input)	0	0	0	0	0	0	0	0	0 - 255 min
Override Time	0	0	0	0	0	0	0	0	0 - 255 sec
Bus Extend	0	0	0	0	0	0	0	0	0 - 255 min
Minimum Reservice Time (all inputs)	0	0 - 255 min							
Free Operation Mode	0	0 = use shortest of max 1 or 2, 1 - 8 = use max time of group 1 - 8, 9 = use time of day circuit							

TRANSIT PRIORITY ALTERNATE FORCE OFF PLANS (Next/2/7/6)

Current Coord Plan	1	2	3	4	5	6	7	8	0 = none 17 - 32 = coord plan 17 - 32
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	
Current Coord Plan	9	10	11	12	13	14	15	16	
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	

GROUP TIMING (Next/2/7/5)

	Phase -->	1	2	3	4	5	6	7	8	
Group 1	Max Times	0	0	0	0	0	0	0	0	0 - 255 sec 0 would time the normal function time
	Walk Times	0	0	0	0	0	0	0	0	
Group 2	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 3	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 4	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 5	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 6	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 7	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 8	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	

TRUCK PRIORITY (Next/2/7/9)

Truck Priority -->	1	2	3	4	
Associated Transit Priority	0	0	0	0	0 = none 1 - 8 = transit priority 1 - 8
Leading Detector	0	0	0	0	0 = none, 1 - 32 = detector 1 - 32
Trailing Detector	0	0	0	0	
Stop Bar Distance	0	0	0	0	0 - 999 feet
Trap Distance	0.0	0.0	0.0	0.0	0.0 - 99.9 feet
Minimum Speed	0	0	0	0	0 - 100 mph
Minimum Length	0	0	0	0	0 - 255 feet
Downhill Grade (%)	0	0	0	0	0 - 20%
Uphill Grade (%)	0	0	0	0	
Undersized Vehicle					X = Enabled

170 INPUTS (Next/2/8/1)

C1-39	101 - Veh Detector 9	C1-67	22 - Ped Detector 2
C1-40	113 - Veh Detector 19	C1-68	26 - Ped Detector 6
C1-41	106 - Veh Detector 14	C1-69	24 - Ped Detector 4
C1-42	118 - Veh Detector 24	C1-70	28 - Ped Detector 8
C1-43	102 - Veh Detector 10	C1-71	151 - Preempt In 1
C1-44	114 - Veh Detector 20	C1-72	152 - Preempt In 2
C1-45	107 - Veh Detector 15	C1-73	153 - Preempt In 3
C1-46	161 - Veh Detector 25	C1-74	154 - Preempt In 4
C1-47	105 - Veh Detector 13	C1-75	254 - Pin Not Used
C1-48	117 - Veh Detector 23	C1-76	104 - Veh Detector 12
C1-49	112 - Veh Detector 18	C1-77	116 - Veh Detector 22
C1-50	164 - Veh Detector 28	C1-78	111 - Veh Detector 17
C1-51	199 - LRT Ped Inhibit	C1-79	163 - Veh Detector 27
C1-52	155 - Preempt In 5	C1-80	82 - Interval Advance
C1-53	85 - Manual Control Enable	C1-81	137 - Conflict Monitor Status/Flash
C1-54	254 - Pin Not Used	C1-82	62 - Stop Timing Ring 1
C1-55	15 - Veh Detector 5	C11-15	254 - Pin Not Used
C1-56	11 - Veh Detector 1	C11-16	254 - Pin Not Used
C1-57	17 - Veh Detector 7	C11-17	254 - Pin Not Used
C1-58	13 - Veh Detector 3	C11-18	254 - Pin Not Used
C1-59	16 - Veh Detector 6	C11-19	254 - Pin Not Used
C1-60	12 - Veh Detector 2	C11-20	254 - Pin Not Used
C1-61	18 - Veh Detector 8	C11-21	254 - Pin Not Used
C1-62	14 - Veh Detector 4	C11-22	254 - Pin Not Used
C11-10	254 - Pin Not Used	C11-23	254 - Pin Not Used
C11-11	254 - Pin Not Used	C11-24	254 - Pin Not Used
C11-12	254 - Pin Not Used	C11-25	254 - Pin Not Used
C11-13	254 - Pin Not Used	C11-26	254 - Pin Not Used
C1-63	103 - Veh Detector 11	C11-27	254 - Pin Not Used
C1-64	115 - Veh Detector 21	C11-28	254 - Pin Not Used
C1-65	108 - Veh Detector 16	C11-29	254 - Pin Not Used
C1-66	162 - Veh Detector 26	C11-30	254 - Pin Not Used

INPUTS AND OUTPUTS OPTIONS (Next/2/8/3)

Connector Type	C1/C11	Change I/O	0 = Disabled
0 = C1/C11; 1 = MS-A/B/C/D; 2 = TS2 Port 1; 3 = ITS Cabinet		X = On (After a download without a power on - off cycle)	

170 OUTPUTS (Next/2/8/2)

C1-2	44 - Don't Walk, Ph 4	C1-35	131 - TOD Output 1
C1-3	64 - Walk, Ph 4	C1-36	132 - TOD Output 2
C1-4	14 - Red, Ph 4	C1-37	133 - TOD Output 3
C1-5	24 - Yellow, Ph 4	C1-38	134 - TOD Output 4
C1-6	34 - Green, Ph 4	C1-100	53 - Ped Clear, Ph 3
C1-7	13 - Red, Ph 3	C1-101	51 - Ped Clear, Ph 1
C1-8	23 - Yellow, Ph 3	C1-102	187 - Soft Flash
C1-9	33 - Green, Ph 3	C1-103	147 - Watchdog
C1-10	42 - Don't Walk, Ph 2	C1-83	43 - Don't Walk, Ph 3
C1-11	62 - Walk, Ph 2	C1-84	63 - Walk, Ph 3
C1-12	12 - Red, Ph 2	C1-85	116 - Overlap D, Red
C1-13	22 - Yellow, Ph 2	C1-86	115 - Overlap D, Yellow
C1-15	32 - Green, Ph 2	C1-87	114 - Overlap D, Green
C1-16	11 - Red, Ph 1	C1-88	113 - Overlap C, Red
C1-17	21 - Yellow, Ph 1	C1-89	112 - Overlap C, Yellow
C1-18	31 - Green, Ph 1	C1-90	111 - Overlap C, Green
C1-19	48 - Don't Walk, Ph 8	C1-91	41 - Don't Walk, Ph 1
C1-20	68 - Walk, Ph 8	C1-93	61 - Walk, Ph 1
C1-21	18 - Red, Ph 8	C1-94	106 - Overlap B, Red
C1-22	28 - Yellow, Ph 8	C1-95	105 - Overlap B, Yellow
C1-23	38 - Green, Ph 8	C1-96	104 - Overlap B, Green
C1-24	17 - Red, Ph 7	C1-97	103 - Overlap A, Red
C1-25	27 - Yellow, Ph 7	C1-98	102 - Overlap A, Yellow
C1-26	217 - FYLTA, 5	C1-99	101 - Overlap A, Green
C1-27	46 - Don't Walk, Ph 6	C11-1	254 - Pin Not Used
C1-28	66 - Walk, Ph 6	C11-2	254 - Pin Not Used
C1-29	16 - Red, Ph 6	C11-3	254 - Pin Not Used
C1-30	26 - Yellow, Ph 6	C11-4	254 - Pin Not Used
C1-31	36 - Green, Ph 6	C11-5	254 - Pin Not Used
C1-32	15 - Red, Ph 5	C11-6	254 - Pin Not Used
C1-33	223 - FYLTA CLR, 5	C11-7	254 - Pin Not Used
C1-34	35 - Green, Ph 5	C11-8	254 - Pin Not Used

INTERNAL LOGIC 1 - 96 (Next/2/9)

Step	Inst.	Comment	Step	Inst.	Comment
1	201		49	0	
2	106		50	0	
3	165		51	0	
4	201		52	0	
5	107		53	0	
6	165		54	0	
7	0		55	0	
8	0		56	0	
9	0		57	0	
10	0		58	0	
11	0		59	0	
12	0		60	0	
13	0		61	0	
14	0		62	0	
15	0		63	0	
16	0		64	0	
17	0		65	0	
18	0		66	0	
19	0		67	0	
20	0		68	0	
21	0		69	0	
22	0		70	0	
23	0		71	0	
24	0		72	0	
25	0		73	0	
26	0		74	0	
27	0		75	0	
28	0		76	0	
29	0		77	0	
30	0		78	0	
31	0		79	0	
32	0		80	0	
33	0		81	0	
34	0		82	0	
35	0		83	0	
36	0		84	0	
37	0		85	0	
38	0		86	0	
39	0		87	0	
40	0		88	0	
41	0		89	0	
42	0		90	0	
43	0		91	0	
44	0		92	0	
45	0		93	0	
46	0		94	0	
47	0		95	0	
48	0		96	0	

CONTROLLER ID	
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Manufacturer ID	NORTHWEST SIGNAL
Model ID	Voyage-0 v05.03.01
Protocol Revision ID	AB3418E V1

*LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

*LEVEL OF SERVICE CRITERIA
FOR UNSIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50



LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.




















Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

HCM Unsignalized Intersection Capacity Analysis
 1: 12th St & Willamette Falls Dr

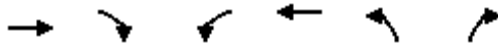
Willamette Falls Commercial Building
 Year 2015 Existing Conditions - AM Peak Period

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control	Stop			Stop				Stop			Stop		
Traffic Volume (vph)	5	235	35	126	326	7	15	2	187	3	5	1	
Future Volume (vph)	5	235	35	126	326	7	15	2	187	3	5	1	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Hourly flow rate (vph)	5	250	37	134	347	7	16	2	199	3	5	1	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	5	287	134	354	217	9							
Volume Left (vph)	5	0	134	0	16	3							
Volume Right (vph)	0	37	0	7	199	1							
Hadj (s)	0.58	-0.01	0.55	0.04	-0.50	0.42							
Departure Headway (s)	6.3	5.7	6.1	5.5	5.3	6.7							
Degree Utilization, x	0.01	0.46	0.23	0.54	0.32	0.02							
Capacity (veh/h)	536	604	574	634	620	460							
Control Delay (s)	8.2	12.3	9.6	13.8	10.7	9.8							
Approach Delay (s)	12.2		12.6		10.7	9.8							
Approach LOS	B		B		B	A							
Intersection Summary													
Delay			12.1										
Level of Service			B										
Intersection Capacity Utilization			44.6%		ICU Level of Service			A					
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

2: 11th St & Willamette Falls Dr

Willamette Falls Commercial Building
Year 2015 Existing Conditions - AM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	
Traffic Volume (veh/h)	369	53	37	426	30	72
Future Volume (Veh/h)	369	53	37	426	30	72
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	397	57	40	458	32	77
Pedestrians	1				2	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			456		966	428
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			456		966	428
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			96		88	87
cM capacity (veh/h)			1087		264	613
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	454	498	109			
Volume Left	0	40	32			
Volume Right	57	0	77			
cSH	1700	1087	442			
Volume to Capacity	0.27	0.04	0.25			
Queue Length 95th (ft)	0	3	24			
Control Delay (s)	0.0	1.1	15.8			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.1	15.8			
Approach LOS			C			
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			63.2%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Willamette Falls Dr & 10th St

Willamette Falls Commercial Building
 Year 2015 Existing Conditions - AM Peak Period



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	280	156	284	163	92	192
Future Volume (vph)	280	156	284	163	92	192
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	329	184	334	192	108	226
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total (vph)	329	184	526	108	226	
Volume Left (vph)	329	0	0	108	0	
Volume Right (vph)	0	0	192	0	226	
Hadj (s)	0.60	0.10	-0.13	0.62	-0.58	
Departure Headway (s)	7.0	6.5	6.0	7.9	6.7	
Degree Utilization, x	0.64	0.33	0.88	0.24	0.42	
Capacity (veh/h)	499	535	585	442	521	
Control Delay (s)	20.7	11.6	38.2	12.1	13.2	
Approach Delay (s)	17.4		38.2	12.9		
Approach LOS	C		E	B		
Intersection Summary						
Delay			24.3			
Level of Service			C			
Intersection Capacity Utilization			55.8%	ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
4: 10th St & 8th Ave/8th Ct

Willamette Falls Commercial Building
Year 2015 Existing Conditions - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	6	6	54	8	160	19	337	89	144	221	73
Future Volume (Veh/h)	25	6	6	54	8	160	19	337	89	144	221	73
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	29	7	7	62	9	184	22	387	102	166	254	84
Pedestrians		4						3				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		3.5						3.5				
Percent Blockage		0						0				
Right turn flare (veh)						5						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.98	0.98	0.98	0.98	0.98		0.98					
vC, conflicting volume	1210	1165	303	1082	1156	438	342			489		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1204	1157	274	1071	1148	438	314			489		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	68	96	99	61	94	70	98			84		
cM capacity (veh/h)	91	157	739	159	159	617	1196			1054		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	29	14	255	511	166	338						
Volume Left	29	0	62	22	166	0						
Volume Right	0	7	184	102	0	84						
cSH	91	259	572	1196	1054	1700						
Volume to Capacity	0.32	0.05	0.45	0.02	0.16	0.20						
Queue Length 95th (ft)	30	4	57	1	14	0						
Control Delay (s)	62.4	19.7	22.0	0.5	9.1	0.0						
Lane LOS	F	C	C	A	A							
Approach Delay (s)	48.5		22.0	0.5	3.0							
Approach LOS	E		C									
Intersection Summary												
Average Delay			7.2									
Intersection Capacity Utilization			60.5%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

5: 10th St & I-205 NB Ramp

Willamette Falls Commercial Building
Year 2015 Existing Conditions - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗	↘	↑	
Traffic Volume (vph)	168	0	123	0	0	0	0	328	189	273	308	0
Future Volume (vph)	168	0	123	0	0	0	0	328	189	273	308	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frbp, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1731	1553					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.31	1.00	
Satd. Flow (perm)		1731	1553					1845	1568	579	1845	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	198	0	145	0	0	0	0	386	222	321	362	0
RTOR Reduction (vph)	0	0	119	0	0	0	0	0	94	0	0	0
Lane Group Flow (vph)	0	198	26	0	0	0	0	386	128	321	362	0
Confl. Peds. (#/hr)	1					1						3
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		12.2	12.2					23.8	23.8	45.0	45.0	
Effective Green, g (s)		12.2	12.2					23.8	23.8	45.0	45.0	
Actuated g/C Ratio		0.18	0.18					0.35	0.35	0.67	0.67	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		314	281					653	555	670	1235	
v/s Ratio Prot								c0.21		c0.12	0.20	
v/s Ratio Perm		0.11	0.02						0.08	0.21		
v/c Ratio		0.63	0.09					0.59	0.23	0.48	0.29	
Uniform Delay, d1		25.4	22.9					17.7	15.3	6.0	4.6	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		3.4	0.1					3.1	0.7	0.3	0.5	
Delay (s)		28.8	23.0					20.8	16.0	6.4	5.0	
Level of Service		C	C					C	B	A	A	
Approach Delay (s)		26.3			0.0			19.1			5.6	
Approach LOS		C			A			B			A	

Intersection Summary

HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	15.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: 10th St & I-205 SB Ramp

Willamette Falls Commercial Building
Year 2015 Existing Conditions - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↕	↗	↖	↑			↕	↗	
Traffic Volume (vph)	0	0	0	99	0	170	149	355	0	0	497	326	
Future Volume (vph)	0	0	0	99	0	170	149	355	0	0	497	326	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5		
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95		
Frbp, ped/bikes					1.00	1.00	1.00	1.00			0.99		
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00		
Frt					1.00	0.85	1.00	1.00			0.94		
Flt Protected					0.95	1.00	0.95	1.00			1.00		
Satd. Flow (prot)					1787	1599	1671	1759			3287		
Flt Permitted					0.95	1.00	0.95	1.00			1.00		
Satd. Flow (perm)					1787	1599	1671	1759			3287		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Adj. Flow (vph)	0	0	0	111	0	191	167	399	0	0	558	366	
RTOR Reduction (vph)	0	0	0	0	0	170	0	0	0	0	86	0	
Lane Group Flow (vph)	0	0	0	0	111	21	167	399	0	0	838	0	
Confl. Peds. (#/hr)												3	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	8%	8%	8%	2%	2%	2%	
Turn Type				Split	NA	Prot	Prot	NA				NA	
Protected Phases				7	7	7	1	5			2 3 4		
Permitted Phases													
Actuated Green, G (s)					14.0	14.0	13.2	31.9			83.8		
Effective Green, g (s)					14.0	14.0	13.2	31.9			83.8		
Actuated g/C Ratio					0.11	0.11	0.10	0.25			0.66		
Clearance Time (s)					5.5	5.5	5.5	5.5					
Vehicle Extension (s)					2.3	2.3	2.3	5.2					
Lane Grp Cap (vph)					196	175	172	440			2160		
v/s Ratio Prot					c0.06	0.01	0.10	c0.23			c0.25		
v/s Ratio Perm													
v/c Ratio					0.57	0.12	0.97	0.91			0.39		
Uniform Delay, d1					53.9	51.2	57.0	46.4			10.1		
Progression Factor					1.00	1.00	1.00	1.00			0.42		
Incremental Delay, d2					2.7	0.2	59.7	23.3			0.0		
Delay (s)					56.6	51.4	116.6	69.6			4.3		
Level of Service					E	D	F	E			A		
Approach Delay (s)		0.0			53.3			83.5			4.3		
Approach LOS		A			D			F			A		
Intersection Summary													
HCM 2000 Control Delay			37.6		HCM 2000 Level of Service						D		
HCM 2000 Volume to Capacity ratio			0.63										
Actuated Cycle Length (s)			127.5		Sum of lost time (s)						27.5		
Intersection Capacity Utilization			51.8%		ICU Level of Service						A		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
7: 10th St & Blankenship Rd/Salamo Rd

Willamette Falls Commercial Building
Year 2015 Existing Conditions - AM Peak Period






















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	34	410	415	56	288	227
Future Volume (vph)	34	410	415	56	288	227
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	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)	1792	1524	1770	1863	1641	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1792	1524	1770	1863	1641	1468
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	39	466	472	64	327	258
RTOR Reduction (vph)	0	107	0	0	0	55
Lane Group Flow (vph)	39	359	472	64	327	203
Heavy Vehicles (%)	6%	6%	2%	2%	10%	10%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	72.9	33.7	54.7	61.3	100.5
Effective Green, g (s)	16.0	72.9	33.7	54.7	61.3	100.5
Actuated g/C Ratio	0.13	0.57	0.26	0.43	0.48	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	224	871	467	799	788	1157
v/s Ratio Prot	0.02	c0.24	c0.27	0.03	c0.20	0.14
v/s Ratio Perm						
v/c Ratio	0.17	0.41	1.01	0.08	0.41	0.18
Uniform Delay, d1	49.8	15.3	46.9	21.5	21.5	3.3
Progression Factor	1.00	1.00	1.00	1.00	0.26	0.00
Incremental Delay, d2	1.7	0.7	44.3	0.2	0.5	0.1
Delay (s)	51.5	16.0	91.2	21.7	6.0	0.1
Level of Service	D	B	F	C	A	A
Approach Delay (s)	18.7			82.9	3.4	
Approach LOS	B			F	A	

Intersection Summary

HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	127.5	Sum of lost time (s)	27.5
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 1: 12th St & Willamette Falls Dr

Willamette Falls Commercial Building
 Existing Conditions - PM Peak Period

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop				Stop			Stop	
Traffic Volume (vph)	6	656	33	167	228	15	15	2	185	17	7	12
Future Volume (vph)	6	656	33	167	228	15	15	2	185	17	7	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	713	36	182	248	16	16	2	201	18	8	13
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	7	749	182	264	219	39						
Volume Left (vph)	7	0	182	0	16	18						
Volume Right (vph)	0	36	0	16	201	13						
Hadj (s)	0.53	0.00	0.55	0.01	-0.45	-0.09						
Departure Headway (s)	6.6	6.0	6.7	6.2	6.2	7.2						
Degree Utilization, x	0.01	1.00	0.34	0.45	0.38	0.08						
Capacity (veh/h)	537	749	523	572	562	460						
Control Delay (s)	8.5	59.9	11.9	12.9	12.9	10.8						
Approach Delay (s)	59.5		12.5		12.9	10.8						
Approach LOS	F		B		B	B						
Intersection Summary												
Delay			36.8									
Level of Service			E									
Intersection Capacity Utilization			68.9%	ICU Level of Service	C							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 2: 11th St & Willamette Falls Dr

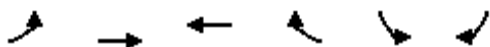
Willamette Falls Commercial Building
 Existing Conditions - PM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	815	50	20	399	10	39
Future Volume (Veh/h)	815	50	20	399	10	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	876	54	22	429	11	42
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			930		1385	903
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			930		1385	903
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		93	87
cM capacity (veh/h)			731		152	336
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	930	451	53			
Volume Left	0	22	11			
Volume Right	54	0	42			
cSH	1700	731	268			
Volume to Capacity	0.55	0.03	0.20			
Queue Length 95th (ft)	0	2	18			
Control Delay (s)	0.0	0.9	21.7			
Lane LOS		A	C			
Approach Delay (s)	0.0	0.9	21.7			
Approach LOS			C			
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			55.9%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Willamette Falls Dr & 10th St

Willamette Falls Commercial Building
 Existing Conditions - PM Peak Period



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↷		↶	↷
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	373	452	161	133	162	265
Future Volume (vph)	373	452	161	133	162	265
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	397	481	171	141	172	282

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	397	481	312	172	282
Volume Left (vph)	397	0	0	172	0
Volume Right (vph)	0	0	141	0	282
Hadj (s)	0.55	0.05	-0.24	0.55	-0.65
Departure Headway (s)	7.1	6.6	6.5	8.0	6.7
Degree Utilization, x	0.78	0.88	0.57	0.38	0.53
Capacity (veh/h)	500	540	532	439	518
Control Delay (s)	30.1	39.5	17.6	14.6	15.8
Approach Delay (s)	35.2		17.6	15.3	
Approach LOS	E		C	C	

Intersection Summary

Delay	26.4
Level of Service	D
Intersection Capacity Utilization	56.7%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
4: 10th St & 8th Ave/8th Ct

Willamette Falls Commercial Building
Existing Conditions - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	8	38	38	7	131	30	404	68	108	349	95
Future Volume (Veh/h)	118	8	38	38	7	131	30	404	68	108	349	95
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	134	9	43	43	8	149	34	459	77	123	397	108
Pedestrians		9						6			1	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		1						1			0	
Right turn flare (veh)						5						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.90	0.90	0.90	0.90	0.90		0.90					
vC, conflicting volume	1351	1310	466	1262	1326	498	514			536		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1335	1290	355	1236	1307	498	408			536		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	93	93	60	93	74	97			88		
cM capacity (veh/h)	73	125	615	107	122	573	1025			1032		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	134	52	200	570	123	505						
Volume Left	134	0	43	34	123	0						
Volume Right	0	43	149	77	0	108						
cSH	73	367	429	1025	1032	1700						
Volume to Capacity	1.84	0.14	0.47	0.03	0.12	0.30						
Queue Length 95th (ft)	297	12	60	3	10	0						
Control Delay (s)	520.4	16.4	26.3	0.9	9.0	0.0						
Lane LOS	F	C	D	A	A							
Approach Delay (s)	379.5		26.3	0.9	1.8							
Approach LOS	F		D									
Intersection Summary												
Average Delay			48.9									
Intersection Capacity Utilization			70.3%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

5: 10th St & I-205 NB Ramp

Willamette Falls Commercial Building

Existing Conditions - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↑	↖	↗	↑	
Traffic Volume (vph)	95	1	68	0	0	0	0	332	318	244	491	0
Future Volume (vph)	95	1	68	0	0	0	0	332	318	244	491	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frbp, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1758	1568					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.37	1.00	
Satd. Flow (perm)		1758	1568					1845	1568	689	1845	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	108	1	77	0	0	0	0	377	361	277	558	0
RTOR Reduction (vph)	0	0	68	0	0	0	0	0	140	0	0	0
Lane Group Flow (vph)	0	109	9	0	0	0	0	377	221	277	558	0
Confl. Peds. (#/hr)								1				15
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		6.7	6.7					24.7	24.7	42.2	42.2	
Effective Green, g (s)		6.7	6.7					24.7	24.7	42.2	42.2	
Actuated g/C Ratio		0.11	0.11					0.42	0.42	0.72	0.72	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		199	178					773	657	719	1321	
v/s Ratio Prot								c0.20		0.08	c0.30	
v/s Ratio Perm		0.06	0.01						0.14	0.19		
v/c Ratio		0.55	0.05					0.49	0.34	0.39	0.42	
Uniform Delay, d1		24.7	23.3					12.5	11.6	3.8	3.4	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.1	0.1					1.7	1.1	0.2	0.8	
Delay (s)		26.8	23.3					14.2	12.6	4.0	4.2	
Level of Service		C	C					B	B	A	A	
Approach Delay (s)		25.4			0.0			13.4			4.1	
Approach LOS		C			A			B			A	

Intersection Summary

HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	58.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: 10th St & I-205 SB Ramp

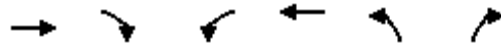
Willamette Falls Commercial Building
Existing Conditions - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↕	↗	↖	↑			↕	↗	
Traffic Volume (vph)	0	0	0	194	4	300	96	333	0	0	538	186	
Future Volume (vph)	0	0	0	194	4	300	96	333	0	0	538	186	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5		
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95		
Frbp, ped/bikes					1.00	1.00	1.00	1.00			0.98		
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00		
Frt					1.00	0.85	1.00	1.00			0.96		
Flt Protected					0.95	1.00	0.95	1.00			1.00		
Satd. Flow (prot)					1776	1583	1752	1845			3271		
Flt Permitted					0.95	1.00	0.95	1.00			1.00		
Satd. Flow (perm)					1776	1583	1752	1845			3271		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	0	0	0	216	4	333	107	370	0	0	598	207	
RTOR Reduction (vph)	0	0	0	0	0	279	0	0	0	0	25	0	
Lane Group Flow (vph)	0	0	0	0	220	54	107	370	0	0	780	0	
Confl. Peds. (#/hr)												15	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%	
Turn Type				Split	NA	Prot	Prot	NA			NA		
Protected Phases				7	7	7	1	5			2 3 4		
Permitted Phases													
Actuated Green, G (s)					20.1	20.1	11.8	29.7			75.4		
Effective Green, g (s)					20.1	20.1	11.8	29.7			75.4		
Actuated g/C Ratio					0.16	0.16	0.10	0.24			0.61		
Clearance Time (s)					5.5	5.5	5.5	5.5					
Vehicle Extension (s)					2.3	2.3	2.3	5.2					
Lane Grp Cap (vph)					288	257	166	442			1992		
v/s Ratio Prot					c0.12	0.03	0.06	c0.20			c0.24		
v/s Ratio Perm													
v/c Ratio					0.76	0.21	0.64	0.84			0.39		
Uniform Delay, d1					49.6	45.0	54.0	44.7			12.4		
Progression Factor					1.00	1.00	1.00	1.00			0.54		
Incremental Delay, d2					10.7	0.2	6.9	14.4			0.1		
Delay (s)					60.3	45.2	60.9	59.2			6.7		
Level of Service					E	D	E	E			A		
Approach Delay (s)		0.0			51.2			59.6			6.7		
Approach LOS		A			D			E			A		
Intersection Summary													
HCM 2000 Control Delay			33.9		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.66										
Actuated Cycle Length (s)			123.8		Sum of lost time (s)						27.5		
Intersection Capacity Utilization			51.2%		ICU Level of Service						A		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
7: 10th St & Blankenship Rd/Salamo Rd

Willamette Falls Commercial Building
Existing Conditions - PM Peak Period






















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	106	430	298	83	372	266
Future Volume (vph)	106	430	298	83	372	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
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)	1881	1599	1787	1881	1787	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1881	1599	1787	1881	1787	1599
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	120	489	339	94	423	302
RTOR Reduction (vph)	0	124	0	0	0	28
Lane Group Flow (vph)	120	365	339	94	423	274
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	76.8	25.5	46.5	65.8	96.8
Effective Green, g (s)	16.0	76.8	25.5	46.5	65.8	96.8
Actuated g/C Ratio	0.13	0.62	0.21	0.38	0.53	0.78
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	243	991	368	706	949	1250
v/s Ratio Prot	c0.06	0.23	c0.19	0.05	c0.24	0.17
v/s Ratio Perm						
v/c Ratio	0.49	0.37	0.92	0.13	0.45	0.22
Uniform Delay, d1	50.1	11.6	48.2	25.4	17.8	3.6
Progression Factor	1.00	1.00	1.00	1.00	0.37	0.07
Incremental Delay, d2	7.0	0.5	30.7	0.4	0.5	0.1
Delay (s)	57.1	12.1	78.8	25.8	7.2	0.4
Level of Service	E	B	E	C	A	A
Approach Delay (s)	21.0			67.3	4.3	
Approach LOS	C			E	A	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	123.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

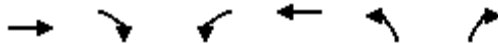
HCM Unsignalized Intersection Capacity Analysis
 1: 12th St & Willamette Falls Dr

Willamette Falls Commercial Building
 Year 2017 Background Conditions - AM Peak Period

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop				Stop			Stop	
Traffic Volume (vph)	5	247	36	131	347	7	16	2	195	3	5	1
Future Volume (vph)	5	247	36	131	347	7	16	2	195	3	5	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	263	38	139	369	7	17	2	207	3	5	1
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	5	301	139	376	226	9						
Volume Left (vph)	5	0	139	0	17	3						
Volume Right (vph)	0	38	0	7	207	1						
Hadj (s)	0.58	0.00	0.55	0.04	-0.50	0.42						
Departure Headway (s)	6.4	5.8	6.1	5.6	5.4	6.8						
Degree Utilization, x	0.01	0.49	0.24	0.59	0.34	0.02						
Capacity (veh/h)	528	595	568	627	610	445						
Control Delay (s)	8.3	13.0	9.8	15.0	11.1	9.9						
Approach Delay (s)	13.0		13.6		11.1							
Approach LOS	B		B		B		A					
Intersection Summary												
Delay			12.9									
Level of Service			B									
Intersection Capacity Utilization			46.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
2: 11th St & Willamette Falls Dr

Willamette Falls Commercial Building
Year 2017 Background Conditions - AM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↗
Traffic Volume (veh/h)	387	55	38	451	31	75
Future Volume (Veh/h)	387	55	38	451	31	75
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	416	59	41	485	33	81
Pedestrians	1			2		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	3.5			3.5		
Percent Blockage	0			0		
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			477	1016		448
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			477	1016		448
tC, single (s)			4.1	6.5		6.3
tC, 2 stage (s)						
tF (s)			2.2	3.6		3.4
p0 queue free %			96	87		86
cM capacity (veh/h)			1068	247		598
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	475	526	114			
Volume Left	0	41	33			
Volume Right	59	0	81			
cSH	1700	1068	423			
Volume to Capacity	0.28	0.04	0.27			
Queue Length 95th (ft)	0	3	27			
Control Delay (s)	0.0	1.1	16.6			
Lane LOS			A	C		
Approach Delay (s)	0.0	1.1	16.6			
Approach LOS			C			
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			65.9%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Willamette Falls Dr & 10th St

Willamette Falls Commercial Building
 Year 2017 Background Conditions - AM Peak Period



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	294	162	295	173	104	208
Future Volume (vph)	294	162	295	173	104	208
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	346	191	347	204	122	245

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	346	191	551	122	245
Volume Left (vph)	346	0	0	122	0
Volume Right (vph)	0	0	204	0	245
Hadj (s)	0.60	0.10	-0.14	0.62	-0.58
Departure Headway (s)	7.3	6.7	6.2	8.1	6.8
Degree Utilization, x	0.70	0.36	0.95	0.27	0.46
Capacity (veh/h)	486	520	551	440	518
Control Delay (s)	24.1	12.3	50.5	12.8	14.4
Approach Delay (s)	19.9		50.5	13.9	
Approach LOS	C		F	B	

Intersection Summary					
Delay			30.0		
Level of Service			D		
Intersection Capacity Utilization			58.4%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
4: 10th St & 8th Ave/8th Ct



















Willamette Falls Commercial Building
Year 2017 Background Conditions - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	6	56	8	166	20	357	93	150	246	76
Future Volume (Veh/h)	26	6	6	56	8	166	20	357	93	150	246	76
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	30	7	7	64	9	191	23	410	107	172	283	87
Pedestrians		4						3				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		3.5						3.5				
Percent Blockage		0						0				
Right turn flare (veh)						5						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1284	1238	334	1150	1228	464	374			517		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1275	1227	285	1135	1216	464	327			517		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	60	95	99	54	94	68	98			83		
cM capacity (veh/h)	76	139	717	140	141	596	1163			1029		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	30	14	264	540	172	370						
Volume Left	30	0	64	23	172	0						
Volume Right	0	7	191	107	0	87						
cSH	76	232	505	1163	1029	1700						
Volume to Capacity	0.40	0.06	0.52	0.02	0.17	0.22						
Queue Length 95th (ft)	39	5	75	2	15	0						
Control Delay (s)	80.5	21.5	25.5	0.6	9.2	0.0						
Lane LOS	F	C	D	A	A							
Approach Delay (s)	61.8		25.5	0.6	2.9							
Approach LOS	F		D									
Intersection Summary												
Average Delay			8.2									
Intersection Capacity Utilization			63.4%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
5: 10th St & I-205 NB Ramp

Willamette Falls Commercial Building
Year 2017 Background Conditions - AM Peak Period

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	190	0	128	0	0	0	0	347	197	346	336	0	
Future Volume (vph)	190	0	128	0	0	0	0	347	197	346	336	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00		
Frbp, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00		
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00		
Frt		1.00	0.85					1.00	0.85	1.00	1.00		
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)		1731	1553					1845	1568	1752	1845		
Flt Permitted		0.95	1.00					1.00	1.00	0.27	1.00		
Satd. Flow (perm)		1731	1553					1845	1568	504	1845		
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	
Adj. Flow (vph)	224	0	151	0	0	0	0	408	232	407	395	0	
RTOR Reduction (vph)	0	0	123	0	0	0	0	0	95	0	0	0	
Lane Group Flow (vph)	0	224	28	0	0	0	0	408	137	407	395	0	
Confl. Peds. (#/hr)	1					1						3	
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	3%	3%	3%	3%	3%	3%	
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA		
Protected Phases		8						6		5	2		
Permitted Phases	8		8						6	2			
Actuated Green, G (s)		13.5	13.5					24.6	24.6	49.3	49.3		
Effective Green, g (s)		13.5	13.5					24.6	24.6	49.3	49.3		
Actuated g/C Ratio		0.19	0.19					0.34	0.34	0.68	0.68		
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0		
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9		
Lane Grp Cap (vph)		320	287					623	529	679	1249		
v/s Ratio Prot								0.22		c0.16	0.21		
v/s Ratio Perm		0.13	0.02						0.09	c0.24			
v/c Ratio		0.70	0.10					0.65	0.26	0.60	0.32		
Uniform Delay, d1		27.8	24.6					20.5	17.5	7.3	4.8		
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00		
Incremental Delay, d2		5.8	0.1					4.5	0.9	1.1	0.5		
Delay (s)		33.5	24.7					25.0	18.4	8.4	5.3		
Level of Service		C	C					C	B	A	A		
Approach Delay (s)		30.0			0.0			22.6			6.9		
Approach LOS		C			A			C			A		
Intersection Summary													
HCM 2000 Control Delay			17.2									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.66										
Actuated Cycle Length (s)			72.8									Sum of lost time (s)	15.0
Intersection Capacity Utilization			76.7%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

6: 10th St & I-205 SB Ramp

Willamette Falls Commercial Building
Year 2017 Background Conditions - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑			↕	↗
Traffic Volume (vph)	0	0	0	103	0	202	155	390	0	0	595	378
Future Volume (vph)	0	0	0	103	0	202	155	390	0	0	595	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frbp, ped/bikes					1.00	1.00	1.00	1.00			0.99	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.94	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1787	1599	1671	1759			3292	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1787	1599	1671	1759			3292	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	116	0	227	174	438	0	0	669	425
RTOR Reduction (vph)	0	0	0	0	0	202	0	0	0	0	79	0
Lane Group Flow (vph)	0	0	0	0	116	25	174	438	0	0	1015	0
Confl. Peds. (#/hr)												3
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	8%	8%	8%	2%	2%	2%
Turn Type				Split	NA	Prot	Prot	NA				NA
Protected Phases				7	7	7	1	5				2 3 4
Permitted Phases												
Actuated Green, G (s)					14.0	14.0	13.3	32.5				84.6
Effective Green, g (s)					14.0	14.0	13.3	32.5				84.6
Actuated g/C Ratio					0.11	0.11	0.10	0.25				0.66
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					194	174	173	445				2169
v/s Ratio Prot					c0.06	0.02	0.10	c0.25				c0.31
v/s Ratio Perm												
v/c Ratio					0.60	0.14	1.01	0.98				0.47
Uniform Delay, d1					54.5	51.8	57.6	47.7				10.8
Progression Factor					1.00	1.00	1.00	1.00				0.69
Incremental Delay, d2					3.8	0.2	69.9	38.5				0.0
Delay (s)					58.3	52.0	127.5	86.2				7.5
Level of Service					E	D	F	F				A
Approach Delay (s)		0.0			54.1			98.0				7.5
Approach LOS		A			D			F				A

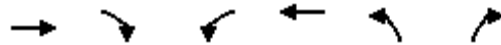
Intersection Summary

HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: 10th St & Blankenship Rd/Salamo Rd

Willamette Falls Commercial Building
Year 2017 Background Conditions - AM Peak Period





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	45	515	464	62	335	247
Future Volume (vph)	45	515	464	62	335	247
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	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)	1792	1524	1770	1863	1641	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1792	1524	1770	1863	1641	1468
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	51	585	527	70	381	281
RTOR Reduction (vph)	0	97	0	0	0	59
Lane Group Flow (vph)	51	488	527	70	381	222
Heavy Vehicles (%)	6%	6%	2%	2%	10%	10%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	73.5	33.7	54.7	62.2	101.4
Effective Green, g (s)	16.0	73.5	33.7	54.7	62.2	101.4
Actuated g/C Ratio	0.12	0.57	0.26	0.43	0.48	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	223	872	464	793	794	1159
v/s Ratio Prot	0.03	c0.32	c0.30	0.04	c0.23	0.15
v/s Ratio Perm						
v/c Ratio	0.23	0.56	1.14	0.09	0.48	0.19
Uniform Delay, d1	50.6	17.3	47.4	22.0	22.2	3.3
Progression Factor	1.00	1.00	1.00	1.00	0.24	0.00
Incremental Delay, d2	2.4	1.4	84.5	0.2	0.5	0.1
Delay (s)	53.0	18.7	131.9	22.2	5.9	0.1
Level of Service	D	B	F	C	A	A
Approach Delay (s)	21.5			119.0	3.5	
Approach LOS	C			F	A	

Intersection Summary

HCM 2000 Control Delay	45.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 1: 12th St & Willamette Falls Dr

Willamette Falls Commercial Building
 Year 2017 Background Conditions - PM Peak Period

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control	Stop			Stop				Stop			Stop		
Traffic Volume (vph)	6	691	34	174	243	16	16	2	192	18	7	12	
Future Volume (vph)	6	691	34	174	243	16	16	2	192	18	7	12	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	7	751	37	189	264	17	17	2	209	20	8	13	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	7	788	189	281	228	41							
Volume Left (vph)	7	0	189	0	17	20							
Volume Right (vph)	0	37	0	17	209	13							
Hadj (s)	0.53	0.00	0.55	0.01	-0.45	-0.08							
Departure Headway (s)	6.7	6.1	6.8	6.2	6.2	7.3							
Degree Utilization, x	0.01	1.00	0.36	0.49	0.40	0.08							
Capacity (veh/h)	529	788	519	567	557	453							
Control Delay (s)	8.6	60.4	12.2	13.8	13.3	10.9							
Approach Delay (s)	60.0		13.2		13.3								
Approach LOS	F		B		B								
Intersection Summary													
Delay			37.4										
Level of Service			E										
Intersection Capacity Utilization			71.6%		ICU Level of Service								C
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis
2: 11th St & Willamette Falls Dr

Willamette Falls Commercial Building
Year 2017 Background Conditions - PM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→	↘	↙	←	↘	↙
Traffic Volume (veh/h)	856	52	21	421	10	41
Future Volume (Veh/h)	856	52	21	421	10	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	920	56	23	453	11	44
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			976	1456		948
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			976	1456		948
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			97	92		86
cM capacity (veh/h)			703	137		316
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	976	476	55			
Volume Left	0	23	11			
Volume Right	56	0	44			
cSH	1700	703	251			
Volume to Capacity	0.57	0.03	0.22			
Queue Length 95th (ft)	0	3	20			
Control Delay (s)	0.0	0.9	23.3			
Lane LOS			A	C		
Approach Delay (s)	0.0	0.9	23.3			
Approach LOS			C			
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			58.2%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Willamette Falls Dr & 10th St

Willamette Falls Commercial Building
 Year 2017 Background Conditions - PM Peak Period



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	396	470	168	146	175	282
Future Volume (vph)	396	470	168	146	175	282
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	421	500	179	155	186	300

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	421	500	334	186	300
Volume Left (vph)	421	0	0	186	0
Volume Right (vph)	0	0	155	0	300
Hadj (s)	0.55	0.05	-0.24	0.55	-0.65
Departure Headway (s)	7.3	6.8	6.6	8.1	6.9
Degree Utilization, x	0.85	0.94	0.62	0.42	0.57
Capacity (veh/h)	481	523	526	441	509
Control Delay (s)	38.1	50.3	19.7	15.5	17.4
Approach Delay (s)	44.8		19.7	16.7	
Approach LOS	E		C	C	

Intersection Summary					
Delay			32.1		
Level of Service			D		
Intersection Capacity Utilization			59.7%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
4: 10th St & 8th Ave/8th Ct

Willamette Falls Commercial Building
Year 2017 Background Conditions - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	8	40	40	7	136	31	436	71	112	375	99
Future Volume (Veh/h)	123	8	40	40	7	136	31	436	71	112	375	99
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	140	9	45	45	8	155	35	495	81	127	426	113
Pedestrians		9						6			1	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		1						1			0	
Right turn flare (veh)						5						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.87	0.87	0.87	0.87	0.87		0.87					
vC, conflicting volume	1434	1392	498	1341	1408	536	548			576		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1424	1376	350	1318	1394	536	408			576		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	92	92	49	92	72	96			87		
cM capacity (veh/h)	58	106	598	89	103	546	990			997		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	140	54	208	611	127	539						
Volume Left	140	0	45	35	127	0						
Volume Right	0	45	155	81	0	113						
cSH	58	337	356	990	997	1700						
Volume to Capacity	2.41	0.16	0.58	0.04	0.13	0.32						
Queue Length 95th (ft)	350	14	88	3	11	0						
Control Delay (s)	795.7	17.7	33.4	0.9	9.1	0.0						
Lane LOS	F	C	D	A	A							
Approach Delay (s)	579.1		33.4	0.9	1.7							
Approach LOS	F		D									
Intersection Summary												
Average Delay			72.1									
Intersection Capacity Utilization			73.3%		ICU Level of Service					D		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

5: 10th St & I-205 NB Ramp

Willamette Falls Commercial Building
Year 2017 Background Conditions - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↑	↗	↖	↑	
Traffic Volume (vph)	139	1	71	0	0	0	0	361	331	295	523	0
Future Volume (vph)	139	1	71	0	0	0	0	361	331	295	523	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frbp, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1757	1568					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.32	1.00	
Satd. Flow (perm)		1757	1568					1845	1568	583	1845	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	158	1	81	0	0	0	0	410	376	335	594	0
RTOR Reduction (vph)	0	0	68	0	0	0	0	0	142	0	0	0
Lane Group Flow (vph)	0	159	13	0	0	0	0	410	234	335	594	0
Confl. Peds. (#/hr)							1					15
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		10.6	10.6					25.5	25.5	45.7	45.7	
Effective Green, g (s)		10.6	10.6					25.5	25.5	45.7	45.7	
Actuated g/C Ratio		0.16	0.16					0.38	0.38	0.69	0.69	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		280	250					709	603	669	1271	
v/s Ratio Prot								c0.22		0.11	c0.32	
v/s Ratio Perm		0.09	0.01						0.15	0.23		
v/c Ratio		0.57	0.05					0.58	0.39	0.50	0.47	
Uniform Delay, d1		25.7	23.6					16.1	14.8	5.6	4.7	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.9	0.1					2.7	1.4	0.3	0.9	
Delay (s)		27.6	23.6					18.8	16.2	6.0	5.7	
Level of Service		C	C					B	B	A	A	
Approach Delay (s)		26.3			0.0			17.6			5.8	
Approach LOS		C			A			B			A	

Intersection Summary

HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	66.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: 10th St & I-205 SB Ramp

Willamette Falls Commercial Building
Year 2017 Background Conditions - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑			↕	↗
Traffic Volume (vph)	0	0	0	202	4	375	100	402	0	0	613	220
Future Volume (vph)	0	0	0	202	4	375	100	402	0	0	613	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frbp, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.96	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1776	1583	1752	1845			3265	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1776	1583	1752	1845			3265	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	224	4	417	111	447	0	0	681	244
RTOR Reduction (vph)	0	0	0	0	0	347	0	0	0	0	27	0
Lane Group Flow (vph)	0	0	0	0	228	70	111	447	0	0	898	0
Confl. Peds. (#/hr)												15
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%
Turn Type				Split	NA	Prot	Prot	NA				NA
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					21.0	21.0	12.1	30.5			76.2	
Effective Green, g (s)					21.0	21.0	12.1	30.5			76.2	
Actuated g/C Ratio					0.17	0.17	0.10	0.24			0.61	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					296	264	168	447			1977	
v/s Ratio Prot					c0.13	0.04	0.06	c0.24			c0.28	
v/s Ratio Perm												
v/c Ratio					0.77	0.26	0.66	1.00			0.45	
Uniform Delay, d1					50.1	45.7	54.9	47.6			13.5	
Progression Factor					1.00	1.00	1.00	1.00			0.61	
Incremental Delay, d2					11.0	0.3	8.0	42.6			0.1	
Delay (s)					61.1	46.0	62.9	90.2			8.4	
Level of Service					E	D	E	F			A	
Approach Delay (s)		0.0			51.3			84.8			8.4	
Approach LOS		A			D			F			A	

Intersection Summary

HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	125.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: 10th St & Blankenship Rd/Salamo Rd

Willamette Falls Commercial Building
Year 2017 Background Conditions - PM Peak Period






















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	114	484	319	95	459	300
Future Volume (vph)	114	484	319	95	459	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
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)	1881	1599	1787	1881	1787	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1881	1599	1787	1881	1787	1599
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	130	550	362	108	522	341
RTOR Reduction (vph)	0	117	0	0	0	23
Lane Group Flow (vph)	130	433	363	108	522	318
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	78.5	25.5	46.5	67.8	98.8
Effective Green, g (s)	16.0	78.5	25.5	46.5	67.8	98.8
Actuated g/C Ratio	0.13	0.62	0.20	0.37	0.54	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	239	997	362	695	963	1255
v/s Ratio Prot	c0.07	0.27	c0.20	0.06	c0.29	0.20
v/s Ratio Perm						
v/c Ratio	0.54	0.43	1.00	0.16	0.54	0.25
Uniform Delay, d1	51.5	12.2	50.1	26.5	18.9	3.6
Progression Factor	1.00	1.00	1.00	1.00	0.35	0.16
Incremental Delay, d2	8.6	0.7	48.0	0.5	0.6	0.1
Delay (s)	60.1	12.9	98.1	27.0	7.2	0.7
Level of Service	E	B	F	C	A	A
Approach Delay (s)	21.9			81.8	4.6	
Approach LOS	C			F	A	

Intersection Summary			
HCM 2000 Control Delay	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	125.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 1: 12th St & Willamette Falls Dr

Willamette Falls Commercial Building
 Year 2017 Background Plus Site - AM Peak Period

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop				Stop			Stop	
Traffic Volume (vph)	5	250	36	132	348	7	16	2	198	3	5	1
Future Volume (vph)	5	250	36	132	348	7	16	2	198	3	5	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	266	38	140	370	7	17	2	211	3	5	1
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	5	304	140	377	230	9						
Volume Left (vph)	5	0	140	0	17	3						
Volume Right (vph)	0	38	0	7	211	1						
Hadj (s)	0.58	0.00	0.55	0.04	-0.50	0.42						
Departure Headway (s)	6.4	5.8	6.1	5.6	5.4	6.9						
Degree Utilization, x	0.01	0.49	0.24	0.59	0.34	0.02						
Capacity (veh/h)	527	593	566	625	609	442						
Control Delay (s)	8.3	13.2	9.9	15.2	11.2	10.0						
Approach Delay (s)	13.1		13.7		11.2	10.0						
Approach LOS	B		B		B	A						
Intersection Summary												
Delay			13.0									
Level of Service			B									
Intersection Capacity Utilization			46.5%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
2: 11th St & Willamette Falls Dr

Willamette Falls Commercial Building
Year 2017 Background Plus Site - AM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↔	↔
Traffic Volume (veh/h)	375	73	98	440	44	112
Future Volume (Veh/h)	375	73	98	440	44	112
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	403	78	105	473	47	120
Pedestrians	1			2		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	3.5			3.5		
Percent Blockage	0			0		
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			483	1128		444
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			483	1128		444
tC, single (s)			4.1	6.5	6.3	
tC, 2 stage (s)						
tF (s)			2.2	3.6	3.4	
p0 queue free %			90	76	80	
cM capacity (veh/h)			1062	198	600	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	481	578	167			
Volume Left	0	105	47			
Volume Right	78	0	120			
cSH	1700	1062	381			
Volume to Capacity	0.28	0.10	0.44			
Queue Length 95th (ft)	0	8	54			
Control Delay (s)	0.0	2.6	21.6			
Lane LOS			A	C		
Approach Delay (s)	0.0	2.6	21.6			
Approach LOS			C			
Intersection Summary						
Average Delay			4.2			
Intersection Capacity Utilization			72.1%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Willamette Falls Dr & 10th St

Willamette Falls Commercial Building
 Year 2017 Background Plus Site - AM Peak Period



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	317	164	298	173	104	254
Future Volume (vph)	317	164	298	173	104	254
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	373	193	351	204	122	299

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	373	193	555	122	299
Volume Left (vph)	373	0	0	122	0
Volume Right (vph)	0	0	204	0	299
Hadj (s)	0.60	0.10	-0.14	0.62	-0.58
Departure Headway (s)	7.6	7.1	6.5	8.2	7.0
Degree Utilization, x	0.78	0.38	1.00	0.28	0.58
Capacity (veh/h)	480	513	544	437	506
Control Delay (s)	31.7	13.1	63.4	13.2	18.1
Approach Delay (s)	25.4		63.4	16.6	
Approach LOS	D		F	C	

Intersection Summary					
Delay			36.7		
Level of Service			E		
Intersection Capacity Utilization		59.8%		ICU Level of Service	B
Analysis Period (min)		15			

HCM Unsignalized Intersection Capacity Analysis
4: 10th St & 8th Ave/8th Ct

Willamette Falls Commercial Building
Year 2017 Background Plus Site - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	6	56	8	166	20	380	93	150	292	76
Future Volume (Veh/h)	26	6	6	56	8	166	20	380	93	150	292	76
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	30	7	7	64	9	191	23	437	107	172	336	87
Pedestrians		4						3				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		3.5						3.5				
Percent Blockage		0						0				
Right turn flare (veh)						5						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.94	0.94	0.94	0.94	0.94		0.94					
vC, conflicting volume	1364	1318	386	1230	1308	490	427			544		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1355	1306	317	1213	1295	490	360			544		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	53	94	99	47	93	67	98			83		
cM capacity (veh/h)	64	121	674	120	123	576	1108			1005		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	30	14	264	567	172	423						
Volume Left	30	0	64	23	172	0						
Volume Right	0	7	191	107	0	87						
cSH	64	205	434	1108	1005	1700						
Volume to Capacity	0.47	0.07	0.61	0.02	0.17	0.25						
Queue Length 95th (ft)	46	5	98	2	15	0						
Control Delay (s)	104.4	23.8	30.6	0.6	9.3	0.0						
Lane LOS	F	C	D	A	A							
Approach Delay (s)	78.8		30.6	0.6	2.7							
Approach LOS	F		D									
Intersection Summary												
Average Delay			9.2									
Intersection Capacity Utilization			67.0%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
5: 10th St & I-205 NB Ramp

Willamette Falls Commercial Building
Year 2017 Background Plus Site - AM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↑	↗	↘	↑	
Traffic Volume (vph)	190	0	142	0	0	0	0	358	209	346	368	0
Future Volume (vph)	190	0	142	0	0	0	0	358	209	346	368	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frbp, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1731	1553					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.27	1.00	
Satd. Flow (perm)		1731	1553					1845	1568	492	1845	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	224	0	167	0	0	0	0	421	246	407	433	0
RTOR Reduction (vph)	0	0	136	0	0	0	0	0	96	0	0	0
Lane Group Flow (vph)	0	224	31	0	0	0	0	421	150	407	433	0
Confl. Peds. (#/hr)	1						1					3
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		13.6	13.6					25.4	25.4	49.9	49.9	
Effective Green, g (s)		13.6	13.6					25.4	25.4	49.9	49.9	
Actuated g/C Ratio		0.19	0.19					0.35	0.35	0.68	0.68	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		320	287					637	541	668	1252	
v/s Ratio Prot								0.23		c0.16	0.23	
v/s Ratio Perm		0.13	0.02						0.10	c0.25		
v/c Ratio		0.70	0.11					0.66	0.28	0.61	0.35	
Uniform Delay, d1		28.0	24.9					20.4	17.4	7.5	5.0	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		5.8	0.1					4.6	1.0	1.2	0.6	
Delay (s)		33.8	25.0					25.0	18.4	8.7	5.5	
Level of Service		C	C					C	B	A	A	
Approach Delay (s)		30.0			0.0			22.6			7.1	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: 10th St & I-205 SB Ramp

Willamette Falls Commercial Building
Year 2017 Background Plus Site - AM Peak Period



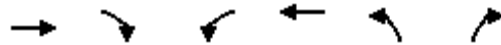
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑			↕	↗
Traffic Volume (vph)	0	0	0	128	0	202	162	394	0	0	602	378
Future Volume (vph)	0	0	0	128	0	202	162	394	0	0	602	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frbp, ped/bikes					1.00	1.00	1.00	1.00			0.99	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.94	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1787	1599	1671	1759			3293	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1787	1599	1671	1759			3293	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	144	0	227	182	443	0	0	676	425
RTOR Reduction (vph)	0	0	0	0	0	202	0	0	0	0	77	0
Lane Group Flow (vph)	0	0	0	0	144	25	182	443	0	0	1024	0
Confl. Peds. (#/hr)												3
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	8%	8%	8%	2%	2%	2%
Turn Type				Split	NA	Prot	Prot	NA				NA
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					14.0	14.0	13.3	32.5			84.6	
Effective Green, g (s)					14.0	14.0	13.3	32.5			84.6	
Actuated g/C Ratio					0.11	0.11	0.10	0.25			0.66	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					194	174	173	445			2169	
v/s Ratio Prot					c0.08	0.02	0.11	c0.25			c0.31	
v/s Ratio Perm												
v/c Ratio					0.74	0.14	1.05	1.00			0.47	
Uniform Delay, d1					55.5	51.8	57.6	47.9			10.8	
Progression Factor					1.00	1.00	1.00	1.00			0.69	
Incremental Delay, d2					13.1	0.2	82.9	41.4			0.0	
Delay (s)					68.6	52.0	140.4	89.2			7.5	
Level of Service					E	D	F	F			A	
Approach Delay (s)		0.0			58.4			104.1			7.5	
Approach LOS		A			E			F			A	

Intersection Summary			
HCM 2000 Control Delay	45.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: 10th St & Blankenship Rd/Salamo Rd

Willamette Falls Commercial Building
Year 2017 Background Plus Site - AM Peak Period






















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	45	517	469	62	336	250
Future Volume (vph)	45	517	469	62	336	250
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	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)	1792	1524	1770	1863	1641	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1792	1524	1770	1863	1641	1468
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	51	588	533	70	382	284
RTOR Reduction (vph)	0	96	0	0	0	60
Lane Group Flow (vph)	51	492	533	70	382	224
Heavy Vehicles (%)	6%	6%	2%	2%	10%	10%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	73.5	33.7	54.7	62.2	101.4
Effective Green, g (s)	16.0	73.5	33.7	54.7	62.2	101.4
Actuated g/C Ratio	0.12	0.57	0.26	0.43	0.48	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	223	872	464	793	794	1159
v/s Ratio Prot	0.03	c0.32	c0.30	0.04	c0.23	0.15
v/s Ratio Perm						
v/c Ratio	0.23	0.56	1.15	0.09	0.48	0.19
Uniform Delay, d1	50.6	17.3	47.4	22.0	22.3	3.4
Progression Factor	1.00	1.00	1.00	1.00	0.24	0.00
Incremental Delay, d2	2.4	1.5	89.4	0.2	0.5	0.1
Delay (s)	53.0	18.8	136.7	22.2	5.9	0.1
Level of Service	D	B	F	C	A	A
Approach Delay (s)	21.5			123.4	3.4	
Approach LOS	C			F	A	

Intersection Summary

HCM 2000 Control Delay	47.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

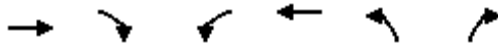
HCM Unsignalized Intersection Capacity Analysis
 1: 12th St & Willamette Falls Dr

Willamette Falls Commercial Building
 Year 2017 Background Plus Site - PM Peak Period

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop				Stop			Stop	
Traffic Volume (vph)	6	692	34	176	245	16	16	2	193	18	7	12
Future Volume (vph)	6	692	34	176	245	16	16	2	193	18	7	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	752	37	191	266	17	17	2	210	20	8	13
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	7	789	191	283	229	41						
Volume Left (vph)	7	0	191	0	17	20						
Volume Right (vph)	0	37	0	17	210	13						
Hadj (s)	0.53	0.00	0.55	0.01	-0.45	-0.08						
Departure Headway (s)	6.7	6.1	6.8	6.2	6.2	7.3						
Degree Utilization, x	0.01	1.00	0.36	0.49	0.40	0.08						
Capacity (veh/h)	528	789	518	566	557	452						
Control Delay (s)	8.6	60.5	12.3	13.9	13.3	10.9						
Approach Delay (s)	60.0		13.2		13.3							
Approach LOS	F		B		B							
Intersection Summary												
Delay			37.4									
Level of Service			E									
Intersection Capacity Utilization			71.8%		ICU Level of Service		C					
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
2: 11th St & Willamette Falls Dr

Willamette Falls Commercial Building
Year 2017 Background Plus Site - PM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	←
Traffic Volume (veh/h)	841	71	66	414	21	88
Future Volume (Veh/h)	841	71	66	414	21	88
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	904	76	71	445	23	95
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			980		1538	942
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			980		1538	942
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		80	70
cM capacity (veh/h)			700		113	319
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	980	516	118			
Volume Left	0	71	23			
Volume Right	76	0	95			
cSH	1700	700	236			
Volume to Capacity	0.58	0.10	0.50			
Queue Length 95th (ft)	0	8	64			
Control Delay (s)	0.0	2.7	34.7			
Lane LOS		A	D			
Approach Delay (s)	0.0	2.7	34.7			
Approach LOS			D			
Intersection Summary						
Average Delay			3.4			
Intersection Capacity Utilization			90.6%	ICU Level of Service	E	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Willamette Falls Dr & 10th St

Willamette Falls Commercial Building
 Year 2017 Background Plus Site - PM Peak Period



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↷		↷	↷
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	426	472	170	146	175	318
Future Volume (vph)	426	472	170	146	175	318
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	453	502	181	155	186	338

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	453	502	336	186	338
Volume Left (vph)	453	0	0	186	0
Volume Right (vph)	0	0	155	0	338
Hadj (s)	0.55	0.05	-0.24	0.55	-0.65
Departure Headway (s)	7.4	6.9	6.8	8.1	6.9
Degree Utilization, x	0.93	0.96	0.63	0.42	0.65
Capacity (veh/h)	453	512	533	439	509
Control Delay (s)	52.2	56.0	20.6	15.7	20.7
Approach Delay (s)	54.2		20.6	18.9	
Approach LOS	F		C	C	

Intersection Summary					
Delay			37.8		
Level of Service			E		
Intersection Capacity Utilization			61.5%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
4: 10th St & 8th Ave/8th Ct

Willamette Falls Commercial Building
Year 2017 Background Plus Site - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	8	40	40	7	136	31	466	71	112	411	99
Future Volume (Veh/h)	123	8	40	40	7	136	31	466	71	112	411	99
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	140	9	45	45	8	155	35	530	81	127	467	113
Pedestrians		9						6			1	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		1						1			0	
Right turn flare (veh)						5						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1510	1468	538	1417	1484	572	589			611		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1511	1462	380	1403	1481	572	439			611		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	90	92	40	91	70	96			87		
cM capacity (veh/h)	48	92	566	75	90	521	950			968		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	140	54	208	646	127	580
Volume Left	140	0	45	35	127	0
Volume Right	0	45	155	81	0	113
cSH	48	305	302	950	968	1700
Volume to Capacity	2.91	0.18	0.69	0.04	0.13	0.34
Queue Length 95th (ft)	375	16	119	3	11	0
Control Delay (s)	1042.3	19.3	41.9	1.0	9.3	0.0
Lane LOS	F	C	E	A	A	
Approach Delay (s)	757.6		41.9	1.0	1.7	
Approach LOS	F		E			

Intersection Summary

Average Delay	89.7
Intersection Capacity Utilization	74.8%
ICU Level of Service	D
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

5: 10th St & I-205 NB Ramp

Willamette Falls Commercial Building
Year 2017 Background Plus Site - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↖	↗					↑	↖	↗	↑		
Traffic Volume (vph)	139	1	82	0	0	0	0	375	347	295	548	0	
Future Volume (vph)	139	1	82	0	0	0	0	375	347	295	548	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00		
Frbp, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00		
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00		
Frt		1.00	0.85					1.00	0.85	1.00	1.00		
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)		1757	1568					1845	1568	1752	1845		
Flt Permitted		0.95	1.00					1.00	1.00	0.30	1.00		
Satd. Flow (perm)		1757	1568					1845	1568	559	1845		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	
Adj. Flow (vph)	158	1	93	0	0	0	0	426	394	335	623	0	
RTOR Reduction (vph)	0	0	78	0	0	0	0	0	143	0	0	0	
Lane Group Flow (vph)	0	159	15	0	0	0	0	426	251	335	623	0	
Confl. Peds. (#/hr)							1					15	
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	3%	3%	3%	
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA		
Protected Phases		8						6		5	2		
Permitted Phases	8		8						6	2			
Actuated Green, G (s)		10.6	10.6					25.8	25.8	46.0	46.0		
Effective Green, g (s)		10.6	10.6					25.8	25.8	46.0	46.0		
Actuated g/C Ratio		0.16	0.16					0.39	0.39	0.69	0.69		
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0		
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9		
Lane Grp Cap (vph)		279	249					714	607	658	1274		
v/s Ratio Prot								c0.23		0.12	c0.34		
v/s Ratio Perm		0.09	0.01						0.16	0.24			
v/c Ratio		0.57	0.06					0.60	0.41	0.51	0.49		
Uniform Delay, d1		25.9	23.8					16.3	14.9	5.8	4.8		
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00		
Incremental Delay, d2		1.9	0.1					2.9	1.6	0.4	1.0		
Delay (s)		27.8	23.8					19.1	16.5	6.2	5.8		
Level of Service		C	C					B	B	A	A		
Approach Delay (s)		26.4			0.0			17.9			6.0		
Approach LOS		C			A			B			A		
Intersection Summary													
HCM 2000 Control Delay			13.3		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			66.6		Sum of lost time (s)					15.0			
Intersection Capacity Utilization			82.6%		ICU Level of Service					E			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

6: 10th St & I-205 SB Ramp

Willamette Falls Commercial Building
Year 2017 Background Plus Site - PM Peak Period



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑			↕	↗
Traffic Volume (vph)	0	0	0	221	4	375	109	407	0	0	619	220
Future Volume (vph)	0	0	0	221	4	375	109	407	0	0	619	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frbp, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.96	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1775	1583	1752	1845			3267	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1775	1583	1752	1845			3267	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	246	4	417	121	452	0	0	688	244
RTOR Reduction (vph)	0	0	0	0	0	348	0	0	0	0	27	0
Lane Group Flow (vph)	0	0	0	0	250	70	121	452	0	0	905	0
Confl. Peds. (#/hr)												15
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%
Turn Type				Split	NA	Prot	Prot	NA				NA
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					21.0	21.0	12.6	30.5			75.9	
Effective Green, g (s)					21.0	21.0	12.6	30.5			75.9	
Actuated g/C Ratio					0.17	0.17	0.10	0.24			0.60	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					295	263	175	446			1967	
v/s Ratio Prot					c0.14	0.04	0.07	c0.25			c0.28	
v/s Ratio Perm												
v/c Ratio					0.85	0.26	0.69	1.01			0.46	
Uniform Delay, d1					50.9	45.8	54.8	47.8			13.8	
Progression Factor					1.00	1.00	1.00	1.00			0.62	
Incremental Delay, d2					19.2	0.3	9.9	46.0			0.1	
Delay (s)					70.1	46.1	64.7	93.8			8.6	
Level of Service					E	D	E	F			A	
Approach Delay (s)		0.0			55.1			87.6			8.6	
Approach LOS		A			E			F			A	

Intersection Summary

HCM 2000 Control Delay	43.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	126.0	Sum of lost time (s)	27.5
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: 10th St & Blankenship Rd/Salamo Rd

Willamette Falls Commercial Building
Year 2017 Background Plus Site - PM Peak Period



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	114	486	323	95	461	303
Future Volume (vph)	114	486	323	95	461	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
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)	1881	1599	1787	1881	1787	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1881	1599	1787	1881	1787	1599
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	130	552	367	108	524	344
RTOR Reduction (vph)	0	117	0	0	0	23
Lane Group Flow (vph)	130	435	367	108	524	321
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	78.5	25.5	46.5	68.0	99.0
Effective Green, g (s)	16.0	78.5	25.5	46.5	68.0	99.0
Actuated g/C Ratio	0.13	0.62	0.20	0.37	0.54	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	238	996	361	694	964	1256
v/s Ratio Prot	c0.07	0.27	c0.21	0.06	c0.29	0.20
v/s Ratio Perm						
v/c Ratio	0.55	0.44	1.02	0.16	0.54	0.26
Uniform Delay, d1	51.6	12.3	50.2	26.6	18.9	3.6
Progression Factor	1.00	1.00	1.00	1.00	0.35	0.16
Incremental Delay, d2	8.7	0.7	51.6	0.5	0.6	0.1
Delay (s)	60.3	13.0	101.9	27.1	7.2	0.7
Level of Service	E	B	F	C	A	A
Approach Delay (s)	22.0			84.9	4.6	
Approach LOS	C			F	A	

Intersection Summary

HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	126.0	Sum of lost time (s)	27.5
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queuing and Blocking Report
 Year 2017 Background Plus Site - AM Peak Period

6/29/2016

Intersection: 1: 12th St & Willamette Falls Dr

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	43	137	63	145	89	52
Average Queue (ft)	4	66	45	64	49	7
95th Queue (ft)	24	109	66	105	74	31
Link Distance (ft)		226		306	349	227
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	35		35			
Storage Blk Time (%)	0	26	11	26		
Queuing Penalty (veh)	1	1	40	34		

Intersection: 2: 11th St & Willamette Falls Dr

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	140	142	166
Average Queue (ft)	10	47	71
95th Queue (ft)	66	106	152
Link Distance (ft)	306	246	469
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Willamette Falls Dr & 10th St

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	214	277	371	111	132
Average Queue (ft)	117	75	256	44	70
95th Queue (ft)	215	201	440	83	117
Link Distance (ft)		246	313		187
Upstream Blk Time (%)		2	50		
Queuing Penalty (veh)		12	0		
Storage Bay Dist (ft)	190			100	
Storage Blk Time (%)	9	1		0	2
Queuing Penalty (veh)	17	3		0	2

Queuing and Blocking Report
 Year 2017 Background Plus Site - AM Peak Period

6/29/2016

Intersection: 4: 10th St & 8th Ave/8th Ct

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	L	TR
Maximum Queue (ft)	85	31	268	144	197	105	52
Average Queue (ft)	28	9	118	85	80	44	2
95th Queue (ft)	67	30	311	169	205	89	32
Link Distance (ft)		551	298		187		229
Upstream Blk Time (%)			18		5		0
Queuing Penalty (veh)			0		26		0
Storage Bay Dist (ft)	200			125		115	
Storage Blk Time (%)			1	30		0	
Queuing Penalty (veh)			2	19		2	

Intersection: 5: 10th St & I-205 NB Ramp

Movement	EB	EB	NB	NB	SB	SB	B21
Directions Served	LT	R	T	R	L	T	T
Maximum Queue (ft)	182	256	249	105	164	278	228
Average Queue (ft)	105	62	184	80	121	133	32
95th Queue (ft)	185	171	298	135	188	293	160
Link Distance (ft)		345	229			210	246
Upstream Blk Time (%)		0	17			9	1
Queuing Penalty (veh)		0	97			65	3
Storage Bay Dist (ft)	160			80	140		
Storage Blk Time (%)	7	0	37	1	18	2	
Queuing Penalty (veh)	10	0	78	4	66	6	

Intersection: 6: 10th St & I-205 SB Ramp

Movement	WB	WB	NB	NB	B21	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	225	637	225	337	292	174	228
Average Queue (ft)	195	546	194	307	197	125	107
95th Queue (ft)	299	776	279	371	364	182	220
Link Distance (ft)		597		246	210	174	174
Upstream Blk Time (%)		65		51	22	2	4
Queuing Penalty (veh)		0		277	119	10	18
Storage Bay Dist (ft)	200		200				
Storage Blk Time (%)	4	80	23	47			
Queuing Penalty (veh)	9	102	89	76			

Queuing and Blocking Report
 Year 2017 Background Plus Site - AM Peak Period

6/29/2016

Intersection: 7: 10th St & Blankenship Rd/Salamo Rd

Movement	EB	EB	WB	WB	NB
Directions Served	T	R	L	T	L
Maximum Queue (ft)	116	196	240	636	94
Average Queue (ft)	47	134	236	515	24
95th Queue (ft)	101	210	261	760	74
Link Distance (ft)	154	154		600	
Upstream Blk Time (%)	0	11		31	
Queuing Penalty (veh)	0	0		0	
Storage Bay Dist (ft)			215		75
Storage Blk Time (%)			61	0	3
Queuing Penalty (veh)			38	0	9

Network Summary

Network wide Queuing Penalty: 1236

Queuing and Blocking Report
 Year 2017 Background Plus Site - PM Peak Period

6/29/2016

Intersection: 1: 12th St & Willamette Falls Dr

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	60	283	69	189	148	43
Average Queue (ft)	8	251	52	74	62	24
95th Queue (ft)	41	273	69	136	107	47
Link Distance (ft)		226		306	349	227
Upstream Blk Time (%)		100				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	35		35			
Storage Blk Time (%)	0	98	24	26		
Queuing Penalty (veh)	3	6	62	45		

Intersection: 2: 11th St & Willamette Falls Dr

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	72	251	216
Average Queue (ft)	11	84	88
95th Queue (ft)	46	196	196
Link Distance (ft)	306	246	469
Upstream Blk Time (%)		1	
Queuing Penalty (veh)		7	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Willamette Falls Dr & 10th St

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	202	194	218	116	148
Average Queue (ft)	97	82	93	59	73
95th Queue (ft)	167	145	184	102	128
Link Distance (ft)		246	313		187
Upstream Blk Time (%)		0	1		1
Queuing Penalty (veh)		0	0		3
Storage Bay Dist (ft)	190			100	
Storage Blk Time (%)	1	0		0	3
Queuing Penalty (veh)	3	2		1	6

Queuing and Blocking Report
 Year 2017 Background Plus Site - PM Peak Period

6/29/2016

Intersection: 4: 10th St & 8th Ave/8th Ct

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	LT	R	LTR	L	TR
Maximum Queue (ft)	212	269	157	138	158	78	70
Average Queue (ft)	122	86	45	57	36	32	5
95th Queue (ft)	234	324	109	117	103	65	39
Link Distance (ft)		551	298		187		229
Upstream Blk Time (%)		2			0		
Queuing Penalty (veh)		0			1		
Storage Bay Dist (ft)	200			125		115	
Storage Blk Time (%)	18	0	1	3			0
Queuing Penalty (veh)	9	0	1	1			0

Intersection: 5: 10th St & I-205 NB Ramp

Movement	EB	EB	NB	NB	SB	SB	B21
Directions Served	LT	R	T	R	L	T	T
Maximum Queue (ft)	165	124	244	105	164	254	29
Average Queue (ft)	75	31	140	82	91	96	1
95th Queue (ft)	137	74	249	128	157	192	20
Link Distance (ft)		345	229			210	246
Upstream Blk Time (%)			2			1	
Queuing Penalty (veh)			14			6	
Storage Bay Dist (ft)	160			80	140		
Storage Blk Time (%)	1		14	2	3	1	
Queuing Penalty (veh)	1		50	9	14	4	

Intersection: 6: 10th St & I-205 SB Ramp

Movement	WB	WB	NB	NB	B21	SB	SB
Directions Served	LT	R	L	T	T	T	TR
Maximum Queue (ft)	225	651	225	339	248	174	234
Average Queue (ft)	207	617	158	284	108	135	121
95th Queue (ft)	281	635	275	379	280	196	254
Link Distance (ft)		597		246	210	174	174
Upstream Blk Time (%)		87		36	7	4	6
Queuing Penalty (veh)		0		185	35	17	25
Storage Bay Dist (ft)	200		200				
Storage Blk Time (%)	4	80	1	43			
Queuing Penalty (veh)	15	181	6	47			

Queuing and Blocking Report
Year 2017 Background Plus Site - PM Peak Period

6/29/2016

Intersection: 7: 10th St & Blankenship Rd/Salamo Rd

Movement	EB	EB	WB	WB	NB
Directions Served	T	R	L	T	L
Maximum Queue (ft)	168	179	240	570	71
Average Queue (ft)	109	106	210	237	9
95th Queue (ft)	183	188	275	594	42
Link Distance (ft)	154	154		600	
Upstream Blk Time (%)	15	7		2	
Queuing Penalty (veh)	0	0		0	
Storage Bay Dist (ft)			215		75
Storage Blk Time (%)			30	0	1
Queuing Penalty (veh)			29	0	4

Network Summary

Network wide Queuing Penalty: 792

Wyss, Darren

From: Le, Khoi
Sent: Friday, June 17, 2016 2:22 PM
To: 'Mike Ard'
Subject: RE: Willamette Falls Drive Mixed-Use Building

Hi Mike,

I discussed the question with Garth from DKS and we agree that trip generation should be calculated with the assumption that the entire first floor to be "Eating and Drinking Establishment" while the second floor to be "Office". Let me know if you have any questions or comments.

Thanks,

Khoi

From: Mike Ard [mailto:mike@lancasterengineering.com]
Sent: Tuesday, June 07, 2016 2:20 PM
To: Le, Khoi <kle@westlinnoregon.gov>
Cc: Garth Appanaitis <gaa@dksassociates.com>
Subject: Re: Willamette Falls Drive Mixed-Use Building

Khoi,

I am not sure I understand your question. Are you asking me to compare trip generation results assuming the mix of uses as I described them vs. the entire building on both floors becoming a restaurant/bar?

Michael Ard, PE
Lancaster Engineering
(503)248-0313

On Mon, Jun 6, 2016 at 9:58 AM, Le, Khoi <kle@westlinnoregon.gov> wrote:

Hi Mike,

Can you tell me what's the different between the two assumptions:

- a. All under "Eating and Drinking Establishment"
- b. Your proposed alternative

Since the property is located in the GC zone, I am more leaning toward the worst case scenario so both the City and the Developer don't have to reanalyze the traffic generated by this development.

Garth,

Please feel free to provide your inputs.

Thanks,
Khoi

From: Mike Ard [<mailto:mike@lancasterengineering.com>]
Sent: Wednesday, June 01, 2016 12:12 PM
To: Le, Khoi <kle@westlinnoregon.gov>
Subject: Willamette Falls Drive Mixed-Use Building

Khoi,

Per the review comments from DKS Associates regarding our traffic impact study, we are re-evaluating the trip generation potential of the proposed building. DKS indicated that the proposed building included reference to land use code 820, shopping center, which they stated applies to larger developments with a mix of retail uses that balance out higher activity uses. This accurately describes the surrounding environment of the proposed development, since the proposed building is located within an existing retail district that includes shops, restaurants, offices, etc. Accordingly, we believed it was appropriate to utilize shopping center trip generation data for our analysis. However, it is also correct that a specific eating or drinking establishment could result in higher trip generation for the proposed building than the volumes that were analyzed (as is true for any specific use within a larger retail environment).

We have obtained some refined information from the developer regarding the maximum uses within the building. As previously described, the upper floor (14,560 sf) will be exclusively office space under a "worst case" analysis, but still could end up being the lower-intensity 19-room hotel use. For the lower floor, the refined site plan shows three leasable spaces, with two office spaces and one retail space. The retail space has an area of 2,633 sf, and the lower floor has a total area of approximately 10,500 sf.

Based on the comments from DKS, we are considering accounting for the "retail" space as an eating or drinking establishment (whatever associated land use yields the highest trip generation) while treating the rest of the building as office space. Is this acceptable, or would you like to suggest another approach to the trip generation estimate?

Thank you,

Michael Ard, PE

Lancaster Engineering

[\(503\)248-0313](tel:(503)248-0313)

Khoi Le

Development Engineering Supervisor
22500 Salamo Rd.

West Linn, OR 97068

kle@westlinnoregon.gov

westlinnoregon.gov

Phone [\(503\) 722-5517](tel:(503)722-5517)



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Oregon

Kate Brown, Governor

Department of Transportation

Region 1 Headquarters
123 NW Flanders Street
Portland, Oregon 97209
(503) 731.8200
FAX (503) 731.8259

May 5, 2016

ODOT #7120

ODOT Response

Project Name: 1969 Willamette Falls Drive Mixed Use Bldg.	Applicant: ICON Construction
Jurisdiction: City of West Linn	Jurisdiction Case #: DR16-01
Site Address: 1696 Willamette Falls Drive, West Linn, OR	Legal Description: 03S 01E 02 B Tax Lot(s): 04100
State Highway: 64 / Interstate 205	Mileposts: 6.4

The site of this proposed land use action is in the vicinity of HIGHWAY ROUTE 64/Interstate 205. ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation.

COMMENTS/FINDINGS

- ODOT concurs with DKS assessment relating to trip generation estimates used in the TIA.
- ODOT recommends that the TIA be updated to include more intense trip generation related to the proposed mixed use land use.

ODOT RECOMMENDED LOCAL CONDITIONS OF APPROVAL

- ODOT recommends the developer contributes a proportional share to the cost of all the TSP's projects along the 10th Street Corridor (I-205 Interchange).
- ODOT recommends that the modified TIA includes queuing analysis at all analyzed intersections.
- ODOT is concerned with the on-going violation of PM Peak restriction of left-turn movements at the intersection of 10th Street and 8th Avenue. ODOT is looking to the City to provide additional enforcement to restrict the left-turn movements during the PM peak hour and/or provide a structural barrier that would eliminate the movements altogether.

Please send a copy of the Staff Report and Notice of Decision including conditions of approval to:

ODOT Region 1 Planning
Development Review
123 NW Flanders St
Portland, OR 97209

Region1_DEVREV_Applications@odot.state.or.us

Development Review Planner: Joshua Brooking, Elise Scolnick	503.731.3049 , 503.731.8234, joshua.c.brooking@odot.state.or.us ,
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	P.Elise.SCOLNICK@odot.state.or.us
Traffic Contact: Avi Tayar, P.E.	503.731.82218221 abraham.TAYAR@odot.state.or.us
District Contact: Loretta Kieffer	971.673.6228 Loretta.L.KIEFFER@odot.state.or.us



720 SW Washington St.
Suite 500
Portland, OR 97205
503.243.3500
www.dksassociates.com

MEMORANDUM

DATE: April 13, 2016
TO: Khoi Le, City of West Linn
FROM: Garth Appanaitis, PE
SUBJECT: Willamette Falls Drive Mixed-Use Building TIS Review
West Linn On Call - Task 2

P16043-002

Per your request of March 15, 2016, we have reviewed the traffic impact analysis (TIS)¹ provided for the proposed mixed use development at 1969 Willamette Falls Drive. This review focused on the technical components of the analysis, which are summarized in the following sections. Based on our review of submitted materials, additional analysis components should be considered and clarification should be provided for the noted items.

TECHNICAL REVIEW SUMMARY

This section provide a summary of our technical review, which is organized into significant items and additional review notes for consideration that could be pursued at the City's discretion.

Significant Items

The following items have significant potential to alter the finding of transportation impacts and related recommendations:

- Page 3 - Given the proximity to I-205, the inclusion of ODOT study intersections, and past coordination with ODOT on the 10th Street corridor, ODOT should review the TIS and provide comments.
 - *Recommendation: Collect review comments from ODOT.*
- Page 7 - A description of public transit service is provided, but there is no summary of how the site would connect to the existing bicycle and pedestrian network.
 - *Recommendation: Summarize pedestrian and bicycle connectivity from the proposed site to the surrounding street system and major activity generators, including locations for crossing Willamette Falls Drive.*
- Page 11 - Trip generation estimates were compared for two scenarios that included retail uses on the first floor and office space or a hotel on the second floor. The higher trip generation scenario (office) was used for the analysis. ITE Code 820 (shopping center) was used to represent the proposed first floor retail use. However, this land use type is typically used with larger developments with a mix of retail types that will balance out higher activity uses. Depending on the specific use of the site (and potential uses allowed under the existing zoning designation), other types of retail uses may generate more traffic and create additional traffic impacts that are not accounted for in the TIS. The zoning designation of GC (General Commercial) allows both eating and drinking establishments as well as food and beverage retail sales. Both of these categories of uses have the potential to generate significantly more trips than ITE Code 820.

¹ Willamette Falls Drive Mixed-Use Building Traffic Impact Study, Lancaster Engineering, February 9, 2016.



- *Recommendation: Assume retail land use categories (with approval from City staff) that account for the trip potential of allowed retail uses. Potential combinations of uses should include eating and drinking establishments (such as ITE 925, 933, etc.) and food and beverage retail sales (such as ITE 851, 852, etc.). The assumed uses should be confirmed with City staff before proceeding with the analysis.*
- *Recommendation: Update TIS to incorporate revised trip generation estimates.*
- Page 16 - The Eight-Hour Vehicle Volume traffic signal warrant (Warrant 1) was met for the intersection of Willamette Falls Drive / 10th Street. There is indication that the City is considering other treatments, but no specifics are provided. The proposed development would add additional trips to this intersection. The intersection would meet West Linn mobility standards without the proposed development and would exceed standards with the proposed development.
 - *Recommendation: Provide proportionate share calculation to indicate contributions to future improvements at this location.*
- Page 17 - The intersection of Willamette Falls Drive / 11th Street meets left turn lane warrants for the westbound left turn movement. The proposed site would add additional traffic to this movement. The report states that the installation of the left turn lane can be considered, but is not appear to be necessary for safety or operations.
 - *Recommendation: Provide additional information about what, if any, tradeoffs would be required for the left turn installation that meets warrants.*
- Page 23 - The intersection of Willamette Falls Drive / 12th Street does not meet West Linn mobility standards during the evening peak hour and additional traffic would be added by the proposed development. No mitigation was recommended, but the proposed development would add additional traffic to this location.
 - *Recommendation: Provide proportionate share calculation to indicate contributions to future improvements at this location.*
- Page 24 - The intersection of 10th Street / 8th Avenue currently does not meet West Linn mobility standards and the proposed development would add additional trips. The report notes that the City is currently considering alternatives for this location. No mitigation is recommended.
 - *Recommendation: Provide proportionate share calculation to indicate contributions to future improvements at this location.*
- Page 26 - No vehicle queueing analysis was provided for the study intersections.
 - *Recommendation: Provide 95th percentile queueing analysis using SimTraffic to estimate queueing impacts at the following study intersections:*
 - *Willamette Falls Drive / 11th Street*
 - *Willamette Falls Drive / 10th Street*
 - *10th Street / 8th Avenue*
 - *Any locations where additional impacts are identified due to revised trip generation assumptions.*

The 95th percentile queueing should be provided for the p.m. peak hour for the existing conditions, 2017 background and 2017 + Site scenarios. If a tool other than SimTraffic is preferred, the method should be approved by the City engineer.

Other Review Notes

The following items were noted during the technical review and are not likely to significantly affect the analysis findings.

- Page 6 - The intersection of 10th Street / 8th Avenue is described as having a single lane northbound approach with shared left, through, right turn movements. While not noted, there was previously a dedicated left turn lane at this location that has since been removed with the use of cross-hatching paint and a sign restricting left turn movements between the hours of 4:00 to 6:00 p.m. Page 10



(Figure 3) indicates that 30 vehicles make a northbound left turn at the intersection of 10th Street / 8th Avenue during the PM peak hour (4:15 to 5:15) while the movement is restricted. This count exceeds the number of vehicles making the movement during the a.m. peak hour (19 vehicles). During the count period (4:00 to 6:00 p.m.) there are a total of 57 vehicles making the restricted movement.

- *Recommendation: City may consider if additional enforcement is needed at this location. No action required by applicant.*

If you have any questions, please call.

PC-5 PUBLIC COMMENTS



February 26, 2016

Darren Wyss
City of West Linn
22500 Salamo Rd.
West Linn, OR 97068

Re: DR-16-01, Willamette Falls Mixed Use

Tax Lot ID# 31E 02 BA0 4100

Dear Darren,

Thank you for the opportunity to review the proposed site plan surrounding the above named development project. Tualatin Valley Fire & Rescue endorses this proposal predicated on the following criteria and conditions of approval:

FIRE APPARATUS ACCESS:

- FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDINGS AND FACILITIES:** Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet. (OFC 503.1.1))
- FIRE APPARATUS ACCESS ROAD EXCEPTION FOR AUTOMATIC SPRINKLER PROTECTION:** When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access may be modified as approved by the fire code official. (OFC 503.1.1) ***Note: If residential fire sprinklers are elected as an alternate means of protection and the system will be supported by a municipal water supply, please contact the local water purveyor for information surrounding water meter sizing.***
- ADDITIONAL ACCESS ROADS – COMMERCIAL/INDUSTRIAL HEIGHT:** Buildings exceeding 30 feet in height or three stories in height shall have at least two separate means of fire apparatus access. (D104.1)
- ADDITIONAL ACCESS ROADS – COMMERCIAL/INDUSTRIAL SQUARE FOOTAGE:** Buildings or facilities having a gross building area of more than 62,000 square feet shall have at least two approved separate means of fire apparatus access. Exception: Projects having a gross building area of up to 124,000 square feet that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems. (OFC D104.2)
- AERIAL FIRE APPARATUS ROADS:** Buildings with a vertical distance between the grade plane and the highest roof surface that exceeds 30 feet in height shall be provided with a fire apparatus access road constructed for use by aerial apparatus with an unobstructed driving surface width of not less than 26 feet. For the purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of the parapet walls, whichever

is greater. Any portion of the building may be used for this measurement, provided that it is accessible to firefighters and is capable of supporting ground ladder placement. (OFC D105.1, D105.2)

6. **AERIAL APPARATUS OPERATIONS:** At least one of the required aerial access routes shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial access road is positioned shall be approved by the fire code official. Overhead utility and power lines shall not be located over the aerial access road or between the aerial access road and the building. (D105.3, D105.4)
7. **MULTIPLE ACCESS ROADS SEPARATION:** Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the area to be served (as identified by the Fire Code Official), measured in a straight line between accesses. (OFC D104.3) Exception: Buildings equipped throughout with an approved automatic fire sprinkler system (the approval of this alternate method of construction shall be accomplished in accordance with the provisions of ORS 455.610(5)).
8. **FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE:** Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. The fire district will approve access roads of 12 feet for up to three dwelling units and accessory buildings. (OFC 503.2.1 & D103.1)
9. **NO PARKING SIGNS:** Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "No Parking" signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Signs shall read "NO PARKING - FIRE LANE" and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background. (OFC D103.6)
10. **NO PARKING:** Parking on emergency access roads shall be as follows (OFC D103.6.1-2):
 1. 20-26 feet road width – no parking on either side of roadway
 2. 26-32 feet road width – parking is allowed on one side
 3. Greater than 32 feet road width – parking is not restricted
11. **PAINTED CURBS:** Where required, fire apparatus access roadway curbs shall be painted red (or as approved) and marked "NO PARKING FIRE LANE" at 25 foot intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background (or as approved). (OFC 503.3)
12. **FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS:** Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet and shall extend 20 feet before and after the point of the hydrant. (OFC D103.1)
13. **TURNOUTS:** Where access roads are less than 20 feet and exceed 400 feet in length, turnouts 10 feet wide and 30 feet long may be required and will be determined on a case by case basis. (OFC 503.2.2)
14. **SURFACE AND LOAD CAPACITIES:** Fire apparatus access roads shall be of an all-weather surface that is easily distinguishable from the surrounding area and is capable of supporting not less than 12,500 pounds point load (wheel load) and 75,000 pounds live load (gross vehicle weight). Documentation from a

registered engineer that the final construction is in accordance with approved plans or the requirements of the Fire Code may be requested. (OFC 503.2.3)

- 15. **BRIDGES:** Private bridges shall be designed and constructed in accordance with the State of Oregon Department of Transportation and American Association of State Highway and Transportation Officials Standards *Standard Specification for Highway Bridges*. A building permit shall be obtained for the construction of the bridge if required by the building official of the jurisdiction where the bridge is to be built. The design engineer shall prepare a special inspection and structural observation program for approval by the building official. The design engineer shall give, in writing; final approval of the bridge to the fire district after construction is completed. Maintenance of the bridge shall be the responsibility of the party or parties that use the bridge for access to their property. The fire district may at any time, for due cause, ask that a registered engineer inspect the bridge for structural stability and soundness at the expense of the property owner(s) the bridge serves. (OFC 503.2.6)
- 16. **TURNING RADIUS:** The inside turning radius and outside turning radius shall not be less than 28 feet and 48 feet respectively, measured from the same center point. (OFC 503.2.4 & D103.3)
- 17. **ACCESS ROAD GRADE:** Fire apparatus access roadway grades shall not exceed 12%. When fire sprinklers* are installed, a maximum grade of 15% will be allowed.

0-12%	Allowed
13-15%	Special consideration with submission of written Alternate Methods and Materials request. Ex: Automatic fire sprinkler (13-D) system* in lieu of grade.
16-18%	Special consideration on a case by case basis with submission of written Alternate Methods and Materials request Ex: Automatic fire sprinkler (13-D) system* plus additional engineering controls in lieu of grade.
Greater than 18%	Not allowed**

*The approval of fire sprinklers as an alternate shall be accomplished in accordance with the provisions of ORS 455.610(5) and OAR 918-480-0100 and installed per section 903.3.1.1, 903.3.1.2, or 903.3.1.3 of the Oregon Fire Code (OFC 503.2.7 & D103.2)

- 18. **ANGLE OF APPROACH/GRADE FOR TURNAROUNDS:** Turnarounds shall be as flat as possible and have a maximum of 5% grade with the exception of crowning for water run-off. (OFC 503.2.7 & D103.2)
- 19. **ANGLE OF APPROACH/GRADE FOR INTERSECTIONS:** Intersections shall be level (maximum 5%) with the exception of crowning for water run-off. (OFC 503.2.7 & D103.2)
- 20. **AERIAL APPARATUS OPERATING GRADES:** Portions of aerial apparatus roads that will be used for aerial operations shall be as flat as possible. Front to rear and side to side maximum slope shall not exceed 10%.
- 21. **GATES:** Gates securing fire apparatus roads shall comply with all of the following (OFC D103.5, and 503.6):
 - 1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width), or two 10 foot sections with a center post or island.
 - 2. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
 - 3. Electric gates shall be equipped with a means for operation by fire department personnel
 - 4. Electric automatic gates shall comply with ASTM F 2200 and UL 325.

22. **ACCESS DURING CONSTRUCTION:** Approved fire apparatus access roadways shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. Temporary address signage shall also be provided during construction. (OFC 3309 and 3310.1)
23. **TRAFFIC CALMING DEVICES:** Shall be prohibited on fire access routes unless approved by the Fire Code Official. See Application Guide Appendix A for further information. (OFC 503.4.1).

FIREFIGHTING WATER SUPPLIES:

24. **MUNICIPAL FIREFIGHTING WATER SUPPLY EXCEPTIONS:** The requirements for firefighting water supplies may be modified as approved by the fire code official where any of the following apply: (OFC 507.5.1 Exceptions)
1. Buildings are equipped throughout with an approved automatic fire sprinkler system (the approval of this alternate method of construction shall be accomplished in accordance with the provisions of ORS 455.610(5)).
 2. There are not more than three Group R-3 or Group U occupancies.
25. **COMMERCIAL BUILDINGS – REQUIRED FIRE FLOW:** The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be determined in accordance with residual pressure (OFC Table B105.2). The required fire flow for a building shall not exceed the available GPM in the water delivery system at 20 psi.
- Note:** OFC B106, Limiting Fire-Flow is also enforced, except for the following:
- In areas where the water system is already developed, the maximum needed fire flow shall be either 3,000 GPM or the available flow in the system at 20 psi, whichever is greater.
 - In new developed areas, the maximum needed fire flow shall be 3,000 GPM at 20 psi.
 - Tualatin Valley Fire & Rescue does not adopt Occupancy Hazards Modifiers in section B105.4-B105.4.1
26. **FIRE FLOW WATER AVAILABILITY:** Applicants shall provide documentation of a fire hydrant flow test or flow test modeling of water availability from the local water purveyor if the project includes a new structure or increase in the floor area of an existing structure. Tests shall be conducted from a fire hydrant within 400 feet for commercial projects, or 600 feet for residential development. Flow tests will be accepted if they were performed within 5 years as long as no adverse modifications have been made to the supply system. Water availability information may not be required to be submitted for every project. (OFC Appendix B)
27. **WATER SUPPLY DURING CONSTRUCTION:** Approved firefighting water supplies shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. (OFC 3312.1)

FIRE HYDRANTS:

28. **FIRE HYDRANTS – COMMERCIAL BUILDINGS:** Where a portion of the building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided. (OFC 507.5.1)
- This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.
 - The number and distribution of fire hydrants required for commercial structure(s) is based on Table C105.1, following any fire-flow reductions allowed by section B105.3.1. Additional fire hydrants may be required due to spacing and/or section 507.5 of the Oregon Fire Code.

29. **FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in Table C 105.1. (OFC Appendix C)
30. **FIRE HYDRANT(S) PLACEMENT:** (OFC C104)
- Existing hydrants in the area may be used to meet the required number of hydrants as approved. Hydrants that are up to 600 feet away from the nearest point of a subject building that is protected with fire sprinklers may contribute to the required number of hydrants. (OFC 507.5.1)
 - Hydrants that are separated from the subject building by railroad tracks shall not contribute to the required number of hydrants unless approved by the fire code official.
 - Hydrants that are separated from the subject building by divided highways or freeways shall not contribute to the required number of hydrants. Heavily traveled collector streets may be considered when approved by the fire code official.
 - Hydrants that are accessible only by a bridge shall be acceptable to contribute to the required number of hydrants only if approved by the fire code official.
31. **PRIVATE FIRE HYDRANT IDENTIFICATION:** Private fire hydrants shall be painted red in color. Exception: Private fire hydrants within the City of Tualatin shall be yellow in color. (OFC 507)
32. **FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the fire code official. (OFC C102.1)
33. **REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of blue reflective markers. They shall be located adjacent and to the side of the center line of the access roadway that the fire hydrant is located on. In the case that there is no center line, then assume a center line and place the reflectors accordingly. (OFC 507)
34. **PHYSICAL PROTECTION:** Where fire hydrants are subject to impact by a motor vehicle, guard posts, bollards or other approved means of protection shall be provided. (OFC 507.5.6 & OFC 312)
35. **CLEAR SPACE AROUND FIRE HYDRANTS:** A 3 foot clear space shall be provided around the circumference of fire hydrants. (OFC 507.5.5)
36. **FIRE DEPARTMENT CONNECTION (FDC) LOCATIONS:** FDCs shall be located within 100 feet of a fire hydrant (or as approved). Hydrants and FDC's shall be located on the same side of the fire apparatus access roadway or drive aisle, fully visible, and recognizable from the street or nearest point of the fire department vehicle access or as otherwise approved. (OFC 912.2.1 & NFPA 13)
- Fire department connections (FDCs) shall normally be located remotely and outside of the fall-line of the building when required. FDCs may be mounted on the building they serve, when approved.
 - FDCs shall be plumbed on the system side of the check valve when sprinklers are served by underground lines also serving private fire hydrants.

BUILDING ACCESS AND FIRE SERVICE FEATURES

37. **EMERGENCY RESPONDER RADIO COVERAGE:** In new buildings where the design reduces the level of radio coverage for public safety communications systems below minimum performance levels, a distributed antenna system, signal booster, or other method approved by TVF&R and Washington County Consolidated Communications Agency shall be provided. (OFC 510.1)

38. **KNOX BOX:** A Knox Box for building access may be required for structures and gates. See Appendix C for further information and detail on required installations. Order via www.tvfr.com or contact TVF&R for assistance and instructions regarding installation and placement. (OFC 506.1)
39. **UTILITY IDENTIFICATION:** Rooms containing controls to fire suppression and detection equipment shall be identified as "Fire Control Room." Signage shall have letters with a minimum of 4 inches high with a minimum stroke width of 1/2 inch, and be plainly legible, and contrast with its background. (OFC 509.1)

If you have questions or need further clarification, please feel free to contact me at (503) 649-8577.

Sincerely,



Ty Darby
Deputy Fire Marshal II

Cc: file

PC-6 HRB RECOMMENDATION AND MATERIALS

**WEST LINN HISTORIC REVIEW BOARD
CHAPTER 58 RECOMMENDATION
DR-16-01**

**IN THE MATTER OF A PROPOSAL TO CONSTRUCT A NEW 2-STORY MIXED-USE
BUILDING AT 1969 WILLAMETTE FALLS DRIVE.**

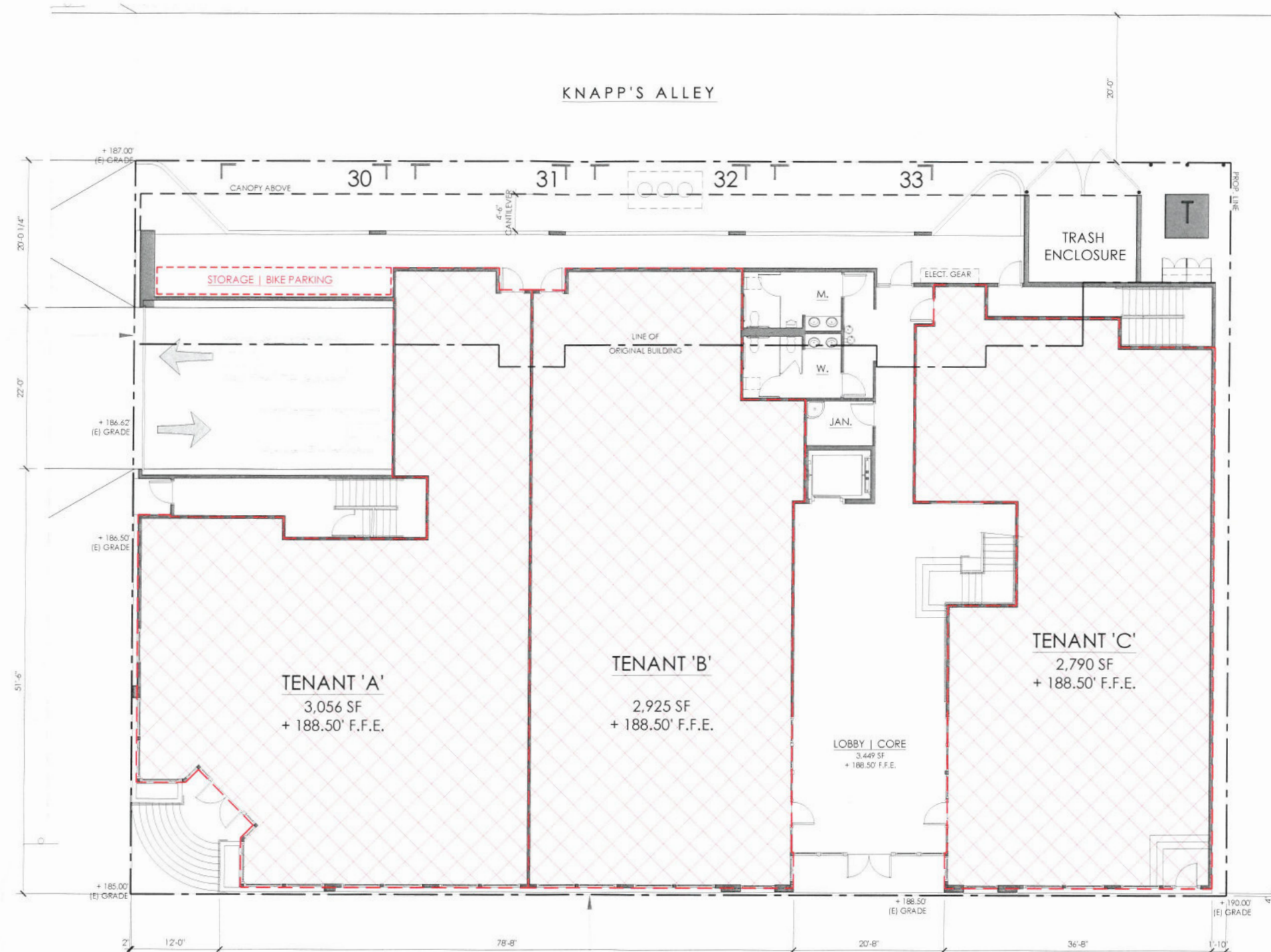
The Historic Review Board (HRB) held a public hearing on May 17, 2016. The purpose of the public hearing was to make a recommendation to the West Linn Planning Commission on DR-16-01 compliance with Chapter 58 of the Community Development Code (CDC). The HRB continued the hearing to June 21, 2016 and requested the applicant provide additional documentation to support their five variance requests.

The applicant submitted a narrative addendum, documentation to support the variance requests, and two alternative façade designs (Option A and B). The need for one of the five variances was eliminated. The HRB made a recommendation of approval for compliance with CDC Chapter 58 with a 6 to 0 vote, including four variance requests as allowed by CDC 58.100. The variance requests were:

1. Allowing a brick/concrete masonry base and partial elevation (CDC 58.090.C(10));
2. Extending the awnings to seven feet and not to eight feet six inches to outer edge of sidewalk (CDC 58.090.C(11));
3. Allowing greater than 30 inches between grade and start of first floor windows, as shown in either the original or alternative designs, because of the elevation change on the site (CDC 58.090.C(15));
4. Allowing three second story windows to not meet the 3:1 height to width ratio (CDC 58.090.C(16)).

The HRB preferred alternative design Option A and recommended two conditions of approval to the Planning Commission:

1. Site Plan, Elevations, and Narrative. The project shall conform to the plans, elevations, and narrative submitted in Exhibit HRB-4, including the amended façade.
2. Shadow Transitions. The front façade shadow transitions shall be a minimum of 12 inches.



WILLAMETTE FALLS DRIVE

GROUND LEVEL PLAN (street level | parallel parking)



May 18, 2016 plus additional for June 21 DR 16-01

Questions, but not necessarily concerns, from Tom Neff.

p.5 mentions a 29-space parking garage but staff finding 5 (p.7) refers to 20 spaces.

p.9 Staff finding 12. Why is full glass requested?

Staff finding 14. If "proposed windows are wood or vinyl-clad wood" why is "P1a BRUSHED ALUMINUM" even listed as an alternative color on the Color/Materials Schedule?

p.10 Staff finding 15. What is the distance from 2nd floor to dividing piece of 2nd floor window? Just curious, looking ahead, would the second-floor window types have to be changed if floor two becomes a hotel?

p.11 58.090 C26. *Accent trims, windows, etc, should be dark-colored.* While I realize it doesn't say "shall be", is there a reason beyond artistic judgment that most of the window trim is light?

p.2 of SGA responses to CDC provisions. Where and what is "the proposed water quality facility at the west property line?"

Will there be cameras covering both the indoor and Knapp's Alley parking facilities?

~~Will the gate mentioned for the underground parking be such as to prevent after-hours pedestrian access?~~ Addressed on new 11th St. elevation.

As of this writing (6p.m.) I have no objection to any of the variances requested. To staff and applicant; nice job on packet.

Additional comments/questions for hearing on June 21, 2016:

There is no west elevation shown. Are there windows in it?

Is there a cost difference to add an additional color to the south elevation to break up the blandness for the benefit of the neighbors to the south?

Assuming the sidewalk is redone, by the city or the applicant, will there be an attempt to match the existing texture of the sidewalk?

What are the two narrow segments on either side of the second "building"?

On the Colonial Revival palette who named "Bunglehouse Blue"?

Memorandum

Date: June 14, 2016

To: West Linn Historic Review Board

From: Darren Wyss, Associate Planner

Subject: DR-16-01 – Supplemental Staff Report

The Historic Review Board (HRB) held a public hearing on May 18, 2016. The purpose of the public hearing was to make a recommendation to the West Linn Planning Commission on DR-16-01 compliance with Chapter 58 of the Community Development Code. The HRB continued the hearing to June 21, 2016 and requested the applicant provide additional documentation to support their five variance requests. The applicant has submitted a narrative addendum, additional documentation, and some alternative design elements, which are all attached.

The original five variance requests:

1. Allowing a brick masonry base and partial elevation (CDC 58.090.C(10));
2. Extending the awnings to seven feet and not to eight feet six inches to outer edge of sidewalk (CDC 58.090.C(11));
3. Entryway doors being full glass light style (CDC 58.090.C(13));
4. Allowing greater than 30 inches between grade and start of first floor windows because of the elevation change on the site (CDC 58.090.C(15));
5. Allowing second story windows to not meet the 3:1 height to width ratio (CDC 58.090.C(16)).

The applicant has eliminated the need for requested variance 3 through the use of doors that comply with the code. The applicant has also redesigned the front elevation to bring all but the eastern most windows into compliance with the maximum 30 inch sill height of pedestrian level windows. Variance 4 is still needed, but only for two windows. The applicant has proposed changing some of the brick masonry base to concrete to break up the front façade. Additionally, differing brick blends will be used to further divide the front façade. Please see the revised findings below.

The HRB also requested the applicant either change the siding to wood or request a variance for the Hardiplank siding that was originally proposed (CDC 58.090.C(10)). The applicant has proposed a change to wood siding and will not need to request a variance for the Hardiplank.

Please feel free to contact me at dwyss@westlinnoregon.gov or 503-722-5512 with any questions regarding the materials or process.

Revised findings for DR-16-01:

58.090. STANDARDS

C. The following standards shall apply to new construction and remodels.

(...)

10. Building materials and orientation. Wood shall be the principal building material. Horizontal wood siding in one-inch by eight-inch dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under CDC [58.090](#).

Staff Finding 9: The applicant has proposed 1"x8" horizontal wood siding and wood trim. The applicant is requesting a variance for a partial brick masonry base and partial concrete masonry base that will provide defense against errant drivers, which was not a concern during the 1880-1915 era. The variance also includes the applicant's request for a brick masonry partial elevation. Subject to the approval of the variance request, this criterion is met.

13. Doors and entryways. The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their doors on the corner at an angle as depicted in the illustration. The doors may be single or double doors. The doors shall be recessed three to five feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door. Panels should decorate the lower portions. The entryway shall have windows all the way around at the same level as the other display windows. Wood doors are preferable although alternatives with a dark matte finish may be acceptable.

Staff Finding 12: The applicant is proposing three foot recessed double entrance doors at the northeast corner of the building and five foot recessed double doors along the front façade near the northwest corner. Both entryways have windows all the way around at same level as other display windows. The doors will be wood with the lower one-third having a panel. This criterion is met.

15. Display or pedestrian level windows. Shall extend across at least 80 percent of building front. The windows shall start one and one-half to two and one-half feet above grade to a height of seven to eight feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights was generally no more than six in a pedestrian-level window. The frames may be wood or vinyl-clad wood, or other materials so long as a matte finish is possible.

Staff Finding 14: The applicant has proposed pedestrian level windows that extend 121 feet along 148 feet of building elevation for 81.7 percent of the building front. The windows are broken up into not more than six sections. The windows are proposed to be wood or vinyl-clad wood. The sidewalk along the Willamette Falls Drive elevation slopes down approximately 5 feet from west to east. At the west end of the elevation, and extending to the most eastward two windows of the main entry alcove, all windows start between 18 inches and 30 inches above the adjacent grade. The two windows adjacent to the main entry alcove on the east end

of the building elevation are 36 to 38 inches above the adjacent grade, thus requiring a variance. Subject to the approval of the variance request, this criterion is met.

16. Second floor and other windows. Double- and single-hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (one and one-half feet to two feet per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: “one over one” of equal size. “Two over one” or “four over one” is appropriate.

Staff Finding 15: The applicant has proposed double-hung second floor windows. The predominant second floor windows are 7’ tall and 2’ 4” wide, for a ratio of 3:1. The applicant is requesting a variance from the height to width ratio for three of the thirty front façade second story windows that have a ratio of 1.75:1. The applicant has provided historic photographs showing varying window sizes during the 1890-1915 era, including windows with less than a 3:1 ratio. Subject to the approval of the variance request, this criterion is met.

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

A. The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880 – 1915.

B. The applicant is incorporating exceptional 1880 – 1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.

Staff Finding 20: The applicant is requesting four variances: 1. Allowing brick/concrete masonry base and partial brick elevation; 2. Extending the awnings to seven feet and not to the eight feet six inches to outer edge of sidewalk; 3. Allowing greater than 30 inches between grade and start of first floor windows for the easternmost two windows of the front elevation; and 4. Allowing three of thirty second story windows to not meet the 3:1 height to width ratio..

The applicant has submitted historical photographs (attached) to support the request for four variances. Subject to approval by the Historic Review Board, these criteria are met.

JUNE 13, 2016

ADDENDUM TO NARRATIVE OF APPLICABLE REGULATIONS AND ASSOCIATED SUPPLEMENTAL FINDINGS DR-16-01, CHAPTER 58, WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT, PRESENTED AT MAY 17TH HISTORIC REVIEW BOARD MEETING

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

1. The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880-1915.
2. The applicant is incorporating exceptional 1880-1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.

58.90 STANDARDS

C. The following standards shall apply to new construction and remodels.

1. Dimensional standards.

c. Rear: 20-foot setback. Setbacks between zero and 20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.

May 17th Response: South (rear) building elevation is on the property line, and fronts onto Knapp's Alley. The alley provides the separation from adjacent properties to mitigate the impact of this project. Access to employee parking and the trash enclosure will occur from Knapp's Alley as well.

June 13th, Amended Response: As noted in the May 17th submittal, the subject site is separated from the residential zone by a public way (Knapp's Alley), and as such does not abut the residential zone, so no mitigation should be required.

Nonetheless, the subject building design incorporates several features to help to reduce the impact of the building on the neighbors to the south. These include: using the building to cover the parking spaces; dividing the facade into six distinct pieces to reduce the overall scale of the building; the inclusion of detailed cornices and pilasters to further divide the facade and add visual interest; the addition of windows and awnings to make the south wall more inviting; and fully enclosing the trash area. The developer has also reached out to the neighbors for the purpose of discussion alternate "features" that may help reduce the visual impacts.

10. Building materials and orientation: Wood shall be the principal building material. Horizontal wood siding in 1" X 8" dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under Section 58.090.

May 17th Response: That the building exterior would be constructed with only "wood materials" to keep with the vernacular context of the historical era.

June 13th, Amended Response: The hardi-plank siding has been eliminated for the proposed 1x8 siding.

**ACTION: All proposed siding/trim materials will be wood:
Siding: 1x8 horizontal siding minimum (cedar or equiv.)**

	1x board and batten - painted
Cornices:	2x wood trim - painted
Trim:	2x wood - painted
Vents:	wood louvers
Ornamental trim:	painted wood - painted

Therefore, a variance is no longer requested for this Standard.

11. Awnings: All buildings shall have awnings extending out from building face...

May 17th Response: Building awnings will be a combination of fabric awnings and metal canopies that extend beyond the building and above the existing sidewalk. However, due to the possibility of vehicles damaging the awnings, the applicant would petition to reducing the awnings depth to 7'-0" instead of the full sidewalk width of 8'-6". All supports will be fastened to the building by metal supports and have a minimum clearance height of 7'-0". Each building window facade will have a separate awning with a slope between 10 - 40 degrees (see elevations.)

June 13th, Amended Response: At the May 17th Historic Review Board meeting, the Board agreed to allow the variance proposed to allow the 7'-0" depth of the awnings.

We are requesting that this variance for this minor deviation from compliance to the Standard continue to be allowed.

13. Doors and entryways: The entryway shall be centered in the middle of the building at grade...

May 17th Response: Recessed double entrance doors have been provided at the center of the building along with additional recessed entry doors at each end of the building (see elevation and floor plan). The door styles will be full glass light style and will meet the intent of the code.

June 13th, Amended Response: It should be noted that in the attached exhibit of historic photos, full-light doors as requested in the original design appear in exhibits H2, H3, and H4. However, the entry doors on the proposed design have been revised to have solid panels for their lower 1/3rd, in compliance with the standard. This change has been reflected on the elevations.

Therefore, a variance is no longer requested for this Standard.

15. Display or pedestrian level windows: Shall extend across at least 80 percent of building front. The windows shall start 1-1/2 - 2-1/2 feet above grade...

May 17th Response: The proposed street level windows and storefronts extend across the entire front elevation and meets or exceeds the intent of the code (see elevation sheet).

June 13th, Amended Response: It should be noted that in the attached exhibit of historic photos, full-light doors as requested in the original design appear in exhibits H3, H5, and H7.

in the original design, the windows at the western-most portion of the elevation were already in compliance, and have not been changed. The windows in the western masonry facade have been lengthened to bring the sills into compliance with the Standard.

The remaining pedestrian level windows on the proposed design have been lengthened to have the sills lowered to the finished floor line. This as succeeded in bringing all but the windows in the eastern-most rounded corner portion of the building into compliance.

Thus, only two windows that front directly onto Willamette Falls Drive are out of compliance, and only by about 6-8 inches.

The proposed floor slab is of post-tensioned construction, and as such cannot be stepped. Further, even if steps in the slab could be constructed, a step in the slab would make it impossible to provide the underground parking, which would cause those cars to compete for the already limited public surface parking. This makes it both necessary and desirable to maintain the proposed sill height at the floor line.

We are requesting a variance to allow this minor deviation from compliance to the Standard.

16. Second floor and other windows: Double and single hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (1-112' - 2' per side). A typical window should have a 3:1 height to width ratio for the glass area...

May 17th Response: The proposed upper level windows have a double-hung appearance that meets or exceeds the intent of the code (see elevation sheet).

June 13th, Amended Response: It should be noted that, in all 11 of the attached historic photo exhibits, second floor windows appear that are wider than the prescribed 3:1 height to width standard.

However, the second floor windows on the proposed design have been revised to have a 3:1 height to width ratio, in compliance with the standard. This change has been reflected on the elevations.

Therefore, a variance is no longer requested for this Standard.

29. New materials: Permitted where it is demonstrated that new material visually replicates originally required material, except siding, which must be wood.

May 17th Response: The only 'new' material being proposed is the brick masonry on the north and east walls of the building. This material will help provide longevity to the building for years to come due to the amount of pedestrian traffic, and is consistent with similar materials on buildings along Willamette Falls Drive.

June 13th, Amended Response: It should be noted that, in 10 of 11 of the attached historic photo exhibits, brick masonry and/or concrete has been used as a primary building material.

The proposed design has been revised to alternate brick and concrete at the building base, which serves to break up the continuous brick wainscot that raised concerns at the May 17th HRB meeting. Further, this has allowed us to provide a different brick blend at each of the brick facades, which will help to further divide the facade into multiple 'buildings'.

As well, the Owner has requested the brick and concrete as a defense against errant drivers - more that one of his other buildings on Willamette Falls Drive have been hit by cars that were driven up over the curb. Had the building bases been wood, the buildings would have suffered significant damage, and the occupants might have been injured. It is unlikely that buildings in the 1880-1915 era had to face this particular modern day threat.

We are requesting a variance to allow this deviation from compliance to the Standard.

End of document

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



510 NW 3rd AVENUE - PORTLAND

**HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:**

NAME:
PORTLAND FIRE DISTRICT
ENGINE COMPANY NO. 2

LOCATION:
510 NW 3RD AVENUE, PORTLAND

DATE OF CONSTRUCTION:
1912

USE:
FIRE STATION

PRIMARY CONSTRUCTION MATERIALS:
BRICK MASONRY

**SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:**

V1 **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY

V5 **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H1

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



10 NW BROADWAY - PORTLAND

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:

10 NW BROADWAY, PORTLAND

NAME:

HELEN M. SWINBELLS APARTMENTS

DATE OF CONSTRUCTION:

1913

USE:

APARTMENTS

PRIMARY CONSTRUCTION MATERIALS:

BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING

REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V2** **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V3** **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H2

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



SW ALDER ST. & PARK AVE. - PORTLAND

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:

SW ALDER STREET & SW PARK AVENUE, PORTLAND

NAME:

UNKNOWN
(FORMERLY THE CORNELIUS HOTEL)

DATE OF CONSTRUCTION:

1907

USE:

UNKNOWN
(FORMERLY HOTEL)

PRIMARY CONSTRUCTION MATERIALS:

BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V3** **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H3

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



CORNER OF MAIN & 7th STREETS - OREGON CITY

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
CORNER OF MAIN & 7th STREETS, OREGON CITY

NAME:
L. ADAMS DEPARTMENT STORE

DATE OF CONSTRUCTION:
1912

USE:
DEPARTMENT STORE

CONSTRUCTION MATERIALS:
BRICK MASONRY
WOOD SIDING

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V2** **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V3** **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H4

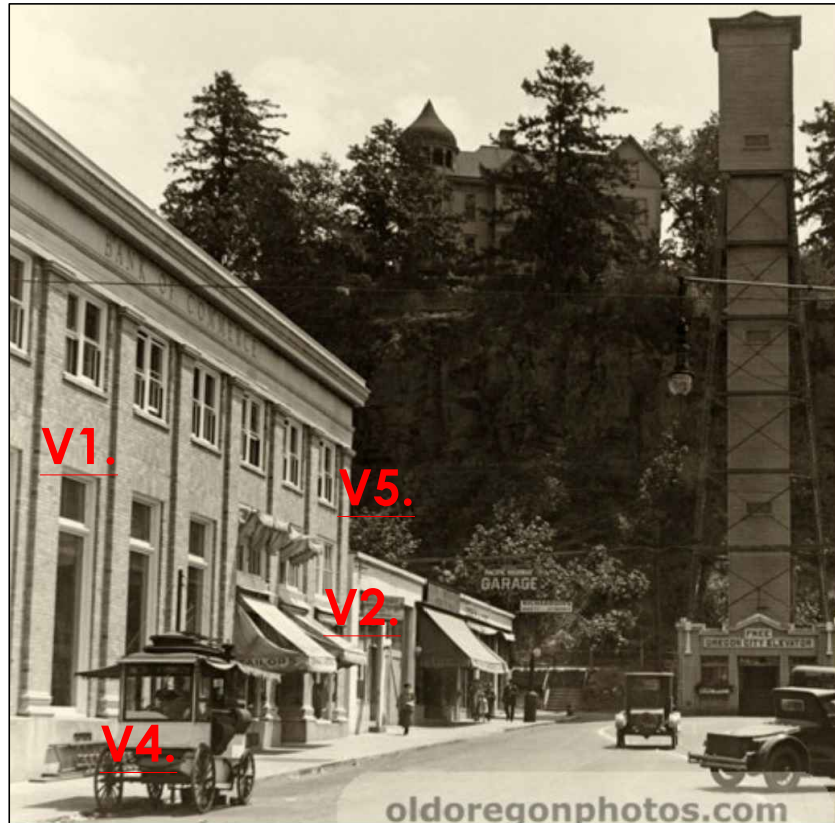
HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



702 MAIN STREET - OREGON CITY

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
702 MAIN STREET, OREGON CITY

NAME:
BANK OF COMMERCE

DATE OF CONSTRUCTION:
1921

USE:
BANK
(CURRENTLY COMMERCIAL RETAIL)

CONSTRUCTION MATERIALS:
BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V2** **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H5

HISTORIC REVIEW BOARD
WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



STREET UNKNOWN - OREGON CITY

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:

OREGON CITY, STREET ADDRESS UNKNOWN

NAME:

UNKNOWN

DATE OF CONSTRUCTION:

1884

USE:

COMMERCIAL (ASSUMED)

CONSTRUCTION MATERIALS:

BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING

REQUESTED VARIANCES:

V1 **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY

V5 **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H6

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



SECOND AVENUE & OAK STREET - HOOD RIVER

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
SECOND AVENUE & OAK STREET, HOOD RIVER

NAME:
MULTIPLE

DATE OF CONSTRUCTION:
MULTIPLE, PHOTO TAKEN 1910

USE:
COMMERCIAL

CONSTRUCTION MATERIALS:
BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H7

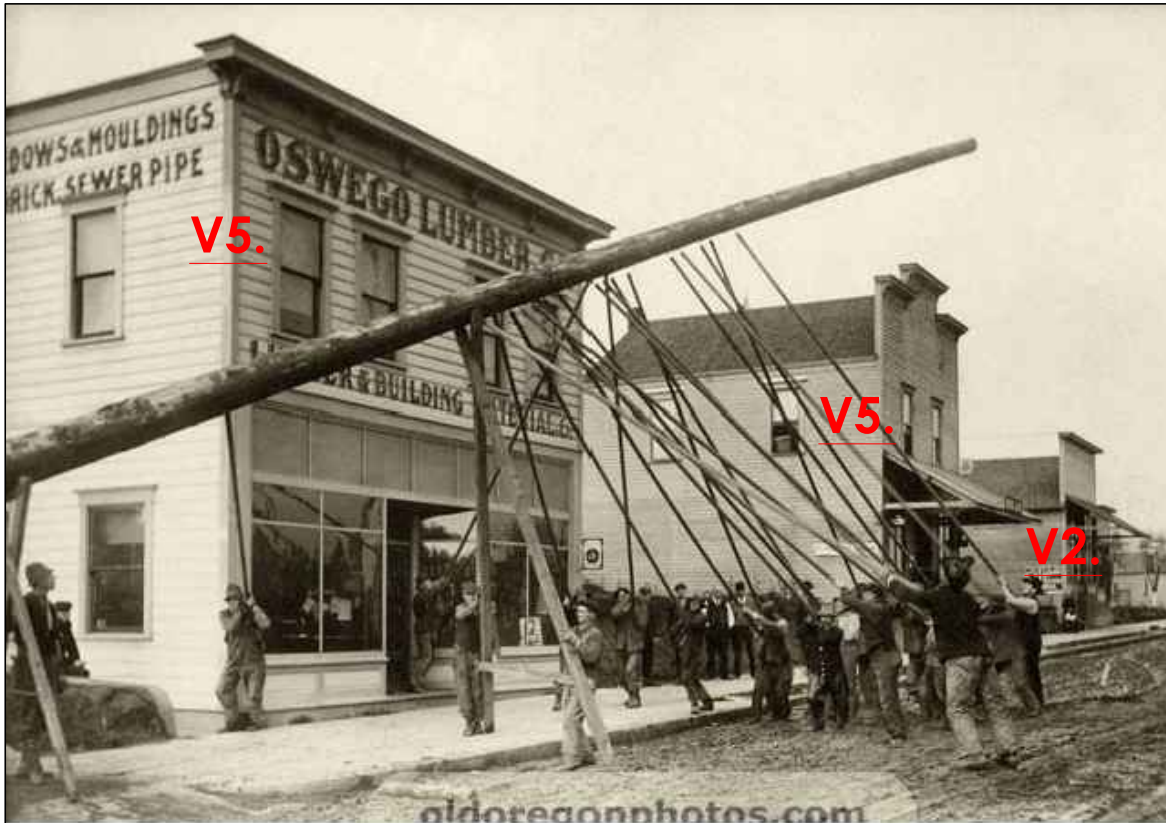
HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



STATE STREET - LAKE OSWEGO

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
STATE STREET, LAKE OSWEGO

NAME:
OSWEGO LUMBER CO.

DATE OF CONSTRUCTION:
1913

USE:
COMMERCIAL

CONSTRUCTION MATERIALS:
WOOD SIDING

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

V2 STANDARD 58.090.C.11
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK

V5 STANDARD 58.090.C.16
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H8

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



WILLAMETTE FALLS - OREGON CITY

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
WILLAMETTE FALLS, OREGON CITY

NAME:
UNKNOWN

DATE OF CONSTRUCTION:
1915

USE:
MILLS

CONSTRUCTION MATERIALS:
BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

V1 **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY

V5 **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H9

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



815 MAIN STREET - OREGON CITY

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
815 MAIN STREET, OREGON CITY

NAME:
LIBERTY THEATER

DATE OF CONSTRUCTION:
1921

USE:
THEATER

CONSTRUCTION MATERIALS:
BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V2** **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H10

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

7/20/16 PC Meeting
343

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WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



812 MAIN STREET - OREGON CITY

HISTORIC BUILDING IMAGE - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

LOCATION:
815 MAIN STREET, OREGON CITY

NAME:
WEINHARD BUILDING

DATE OF CONSTRUCTION:
1895

USE:
COMMERCIAL

CONSTRUCTION MATERIALS:
BRICK MASONRY

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

V1 **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY

V5 **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

H11

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

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WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



1860 WILLAMETTE FALLS DRIVE - WEST LINN

WILLAMETTE FALLS DRIVE BUILDING - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

NAME:
TUALATIN VALLEY FIRE & RESCUE
STATION 59 WILLAMETTE

LOCATION:
1860 WILLAMETTE FALLS DRIVE, WEST LINN

USE:
FIRE STATION

PRIMARY CONSTRUCTION MATERIALS:
BRICK MASONRY

APPROVALS:
APPROVED WITH VARIANCES TO CHAPTER 58 STANDARDS BY
HISTORIC REVIEW BOARD & PLANNING COMMISSION

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE PRIMARY BUILDING MATERIAL IS BRICK MASONRY
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

WL 1

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

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WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



1880 WILLAMETTE FALLS DRIVE - WEST LINN

WILLAMETTE FALLS DRIVE BUILDING - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

NAME:
NONE

LOCATION:
1880 WILLAMETTE FALLS DRIVE, WEST LINN

USE:
COMMERCIAL

PRIMARY CONSTRUCTION MATERIALS:
WOOD SIDING

APPROVALS:
APPROVED WITH VARIANCES TO CHAPTER 58 STANDARDS BY
HISTORIC REVIEW BOARD & PLANNING COMMISSION

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

V2 **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK

V3 **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2

V5 **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



1914 WILLAMETTE FALLS DRIVE - WEST LINN

WILLAMETTE FALLS DRIVE BUILDING - IN SUPPORT OF HISTORIC REVIEW BOARD VARIANCE:

NAME:

1914 WILLAMETTE FALLS DRIVE BUILDING

LOCATION:

1914 WILLAMETTE FALLS DRIVE, WEST LINN

USE:

COMMERCIAL

PRIMARY CONSTRUCTION MATERIALS:

WOOD SIDING | CONCRETE BASE

APPROVALS:

APPROVED WITH VARIANCES TO CHAPTER 58 STANDARDS BY HISTORIC REVIEW BOARD & PLANNING COMMISSION

SHOWN IN SUPPORT OF THE FOLLOWING REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (CONCRETE):
THE BUILDING BASE IS CONCRETE
- V2** **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V3** **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

WL 3

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

7/20/16 PC Meeting
347

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



1980 WILLAMETTE FALLS DRIVE - WEST LINN

WILLAMETTE FALLS DRIVE BUILDING - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

NAME:
ICON CONSTRUCTION BUILDING

LOCATION:
1980 WILLAMETTE FALLS DRIVE, WEST LINN

USE:
COMMERCIAL

PRIMARY CONSTRUCTION MATERIALS:
WOOD SIDING | CONCRETE BASE

APPROVALS:
APPROVED WITH VARIANCES TO CHAPTER 58 STANDARDS BY HISTORIC
REVIEW BOARD & PLANNING COMMISSION

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION (CONCRETE):
THE BUILDING BASE IS CONCRETE
- V2** **STANDARD 58.090.C.11**
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V3** **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

WL 4 **HISTORIC REVIEW BOARD**
WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING
Willamette Falls Drive & 11th Street West Linn, Oregon



2008 WILLAMETTE FALLS DRIVE - WEST LINN

WILLAMETTE FALLS DRIVE BUILDING - IN SUPPORT OF
HISTORIC REVIEW BOARD VARIANCE:

NAME:
THE HANDRIS BUILDING

LOCATION:
2008 WILLAMETTE FALLS DRIVE, WEST LINN

USE:
COMMERCIAL

PRIMARY CONSTRUCTION MATERIALS:
WOOD SIDING | BRICK BASE

APPROVALS:
APPROVED WITH VARIANCES TO CHAPTER 58 STANDARDS BY HISTORIC
REVIEW BOARD & PLANNING COMMISSION

SHOWN IN SUPPORT OF THE FOLLOWING
REQUESTED VARIANCES:

- V1** STANDARD 58.090.C.10
BUILDING MATERIALS AND ORIENTATION (BRICK):
THE BUILDING BASE IS BRICK MASONRY
- V2** STANDARD 58.090.C.11
AWNINGS:
AWNINGS DO NOT EXTEND TO THE EDGE OF THE SIDEWALK
- V3** STANDARD 58.090.C.13
DOORS AND ENTRYWAYS:
PANELS DO NOT MAKE UP THE LOWER 1/3 TO 1/2
- V4** STANDARD 58.090.C.15
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
CONTINUOUS SILL STARTS MORE THAN 30" ABOVE GRADE
- V5** STANDARD 58.090.C.16
SECOND FLOOR AND OTHER WINDOWS
THE HEIGHT TO WIDTH RATIO IS LESS THAN 3 : 1

WL 5 HISTORIC REVIEW BOARD
WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT
REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS | CLASS 2
HISTORIC REVIEW BOARD MEETING CONTINUANCE | JUNE 21st, 2016

SGA
SG ARCHITECTURE, LLC

COLOR & MATERIAL SCHEDULE

* SEE MATERIALS BOARDS FOR PROPOSED PAINT, BRICK, & FABRIC LINES (eg: SHERWIN WILLIAMS 'AMERICAN HERITAGE HISTORICAL COLORS' COLLECTION). FINAL SELECTIONS WILL BE MADE FROM THE FULL RANGE AVAILABLE WITHIN EACH LINE.

PALETTE No. 1

P-1a:	PAINT		SIDING
P-1b:	PAINT		TYPICAL TRIM
P-1c:	PAINT		ACCENT TRIM
P-1d:	PAINT		ACCENT TRIM
P-1e:	PAINT		ACCENT TRIM
P-1f:	PAINT		STEEL CANOPY
P-1g:	PAINT		STEEL CANOPY

B-1:	BRICK		WALL FINISH
------	-------	--	-------------

PALETTE No. 2

P-2a:	PAINT		SIDING
P-2b:	PAINT		SIDING
P-2c:	PAINT		TYPICAL TRIM

A-1:	FABRIC		AWNING
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PALETTE No. 3

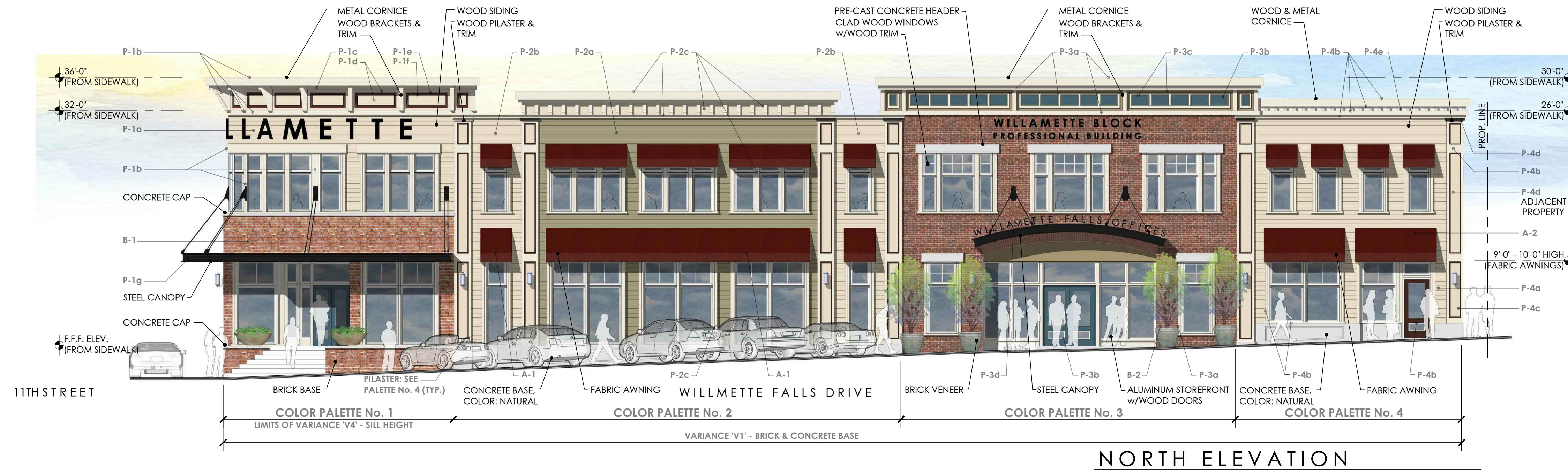
P-3a:	PAINT		TYPICAL TRIM
P-3b:	PAINT		ACCENT TRIM
P-3c:	PAINT		ACCENT TRIM
P-3d:	PAINT		STEEL CANOPY

B-2:	BRICK		WALL FINISH
------	-------	--	-------------

PALETTE No. 4

P-4a:	PAINT		SIDING
P-4b:	PAINT		TYPICAL TRIM
P-4c:	PAINT		ACCENT TRIM
P-4d:	PAINT		ACCENT TRIM
P-4e:	PAINT		ACCENT TRIM

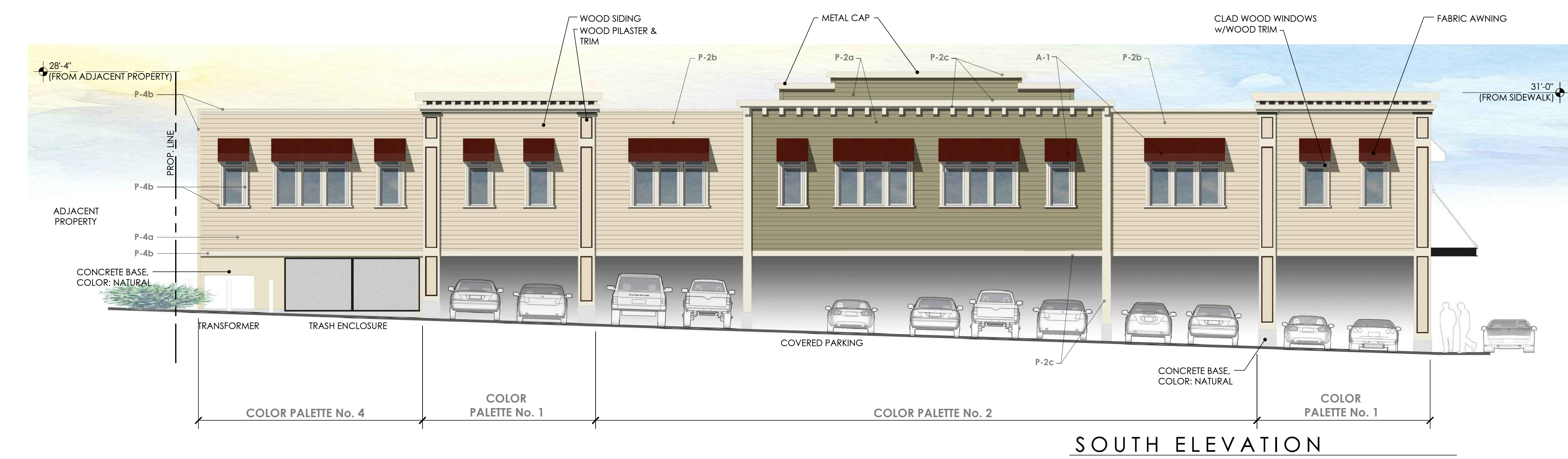
A-2:	FABRIC		AWNING
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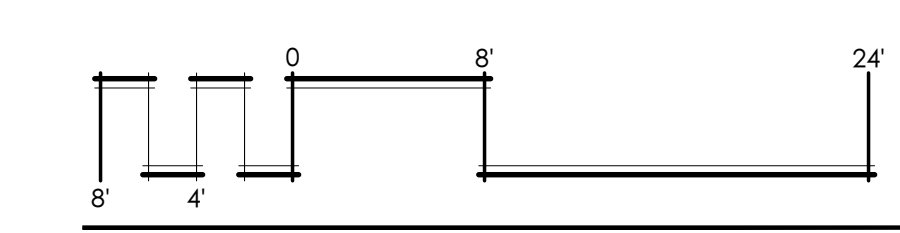
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



WILLAMETTE FALLS
MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS
PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2015
DRAWN BY:

REVISIONS:
6-21-2016
HRB CONTINUANCE HEARING

SHEET NUMBER:

A3.1a

COLOR & MATERIAL SCHEDULE

* SEE MATERIALS BOARDS FOR PROPOSED PAINT, BRICK, & FABRIC LINES (eg: SHERWIN WILLIAMS 'AMERICAN HERITAGE HISTORICAL COLORS' COLLECTION). FINAL SELECTIONS WILL BE MADE FROM THE FULL RANGE AVAILABLE WITHIN EACH LINE.

PALETTE No. 1

P-1a:	PAINT		SIDING
P-1b:	PAINT		TYPICAL TRIM
P-1c:	PAINT		ACCENT TRIM
P-1d:	PAINT		ACCENT TRIM
P-1e:	PAINT		ACCENT TRIM
P-1f:	PAINT		ACCENT TRIM
P-1g:	PAINT		STEEL CANOPY

PALETTE No. 2

P-2a:	PAINT		SIDING
P-2b:	PAINT		SIDING
P-2c:	PAINT		TYPICAL TRIM

PALETTE No. 3

P-3a:	PAINT		TYPICAL TRIM
P-3b:	PAINT		ACCENT TRIM
P-3c:	PAINT		ACCENT TRIM
P-3d:	PAINT		STEEL CANOPY

PALETTE No. 4

P-4a:	PAINT		SIDING
P-4b:	PAINT		TYPICAL TRIM
P-4c:	PAINT		ACCENT TRIM
P-4d:	PAINT		ACCENT TRIM
P-4e:	PAINT		ACCENT TRIM

PALETTE No. 5

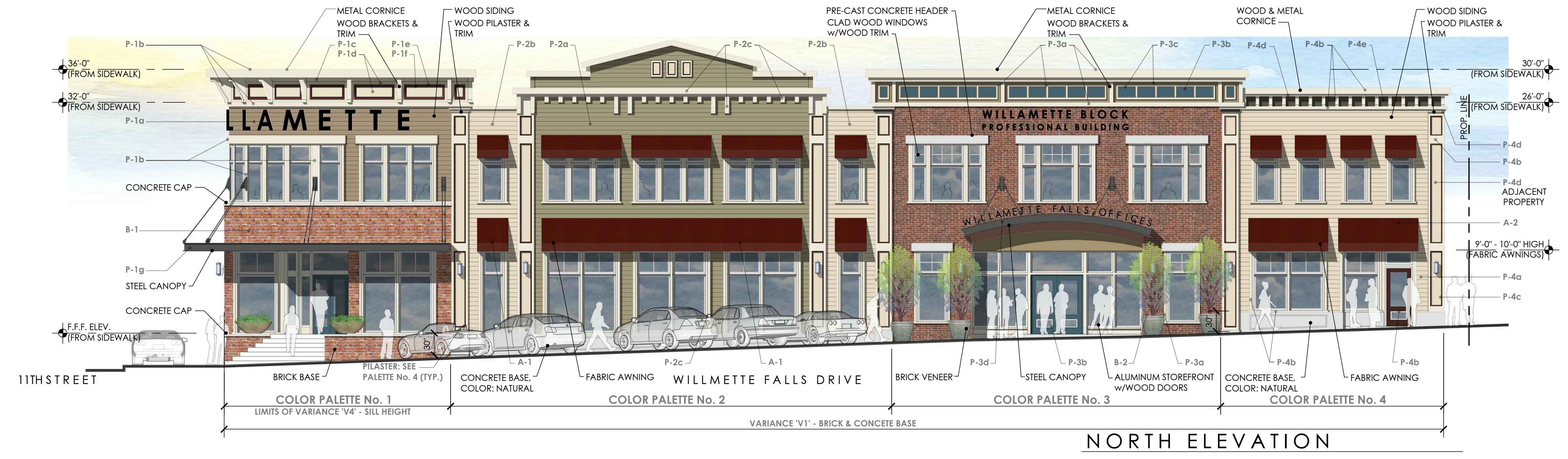
A-2:	FABRIC		AWNING
------	--------	--	--------

WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

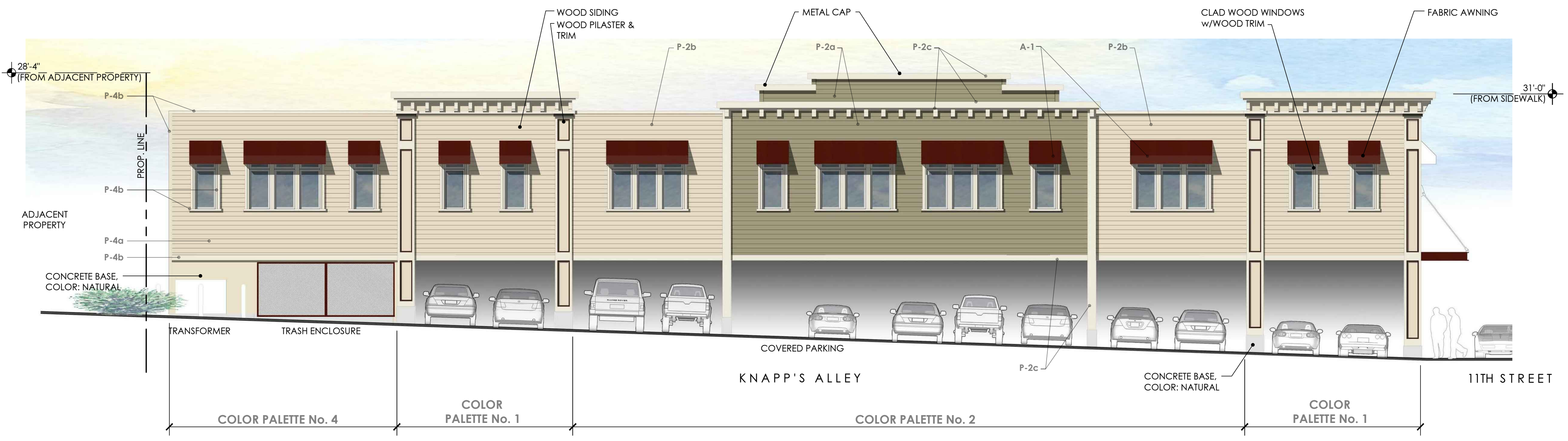
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068



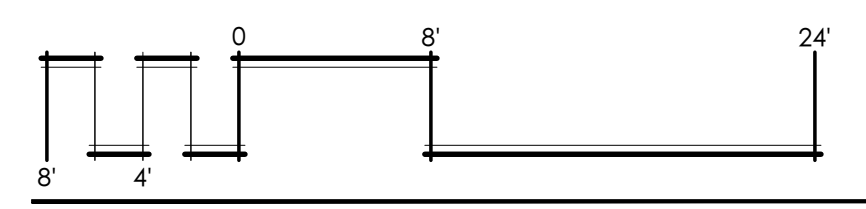
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2015
DRAWN BY:

REVISIONS:
6-21-2016
HRB CONTINUANCE HEARING

SHEET NUMBER:

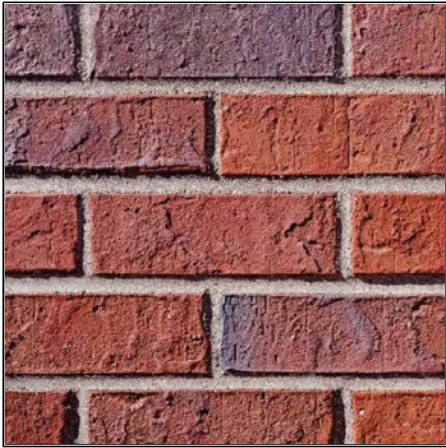
WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon

NOTE: THE BRICK BLENDS & AWNING FABRICS SHOWN BELOW ARE REPRESENTATIVE ONLY. THEY ARE DRAWN FROM MUTUAL MATERIALS' HISTORICAL BLEND SELECTIONS, AND FROM THE SUNBRELLA FABRIC CATALOG. BRICK BLENDS FOR THE BUILDING WILL BE SELECTED FROM THE FULL RANGE OF HISTORICAL BLENDS AVAILABLE FROM MUTUAL MATERIALS. AWNING FABRIC COLORS WILL BE SELECTED FROM THE FULL RANGE OF SUNBRELLA SELECTIONS.

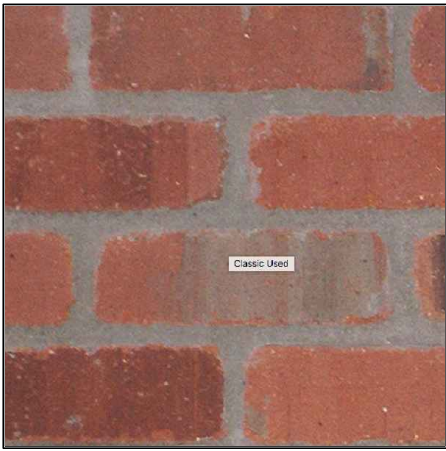
BRICK BLENDS:



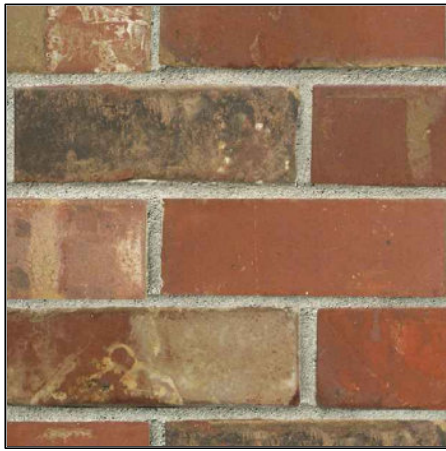
BRICK BLEND:
CEDAR SPRINGS



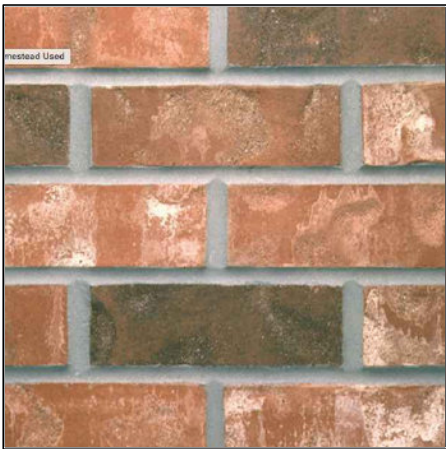
BRICK BLEND:
MUTUAL USED



BRICK BLEND:
CLASSIC USED



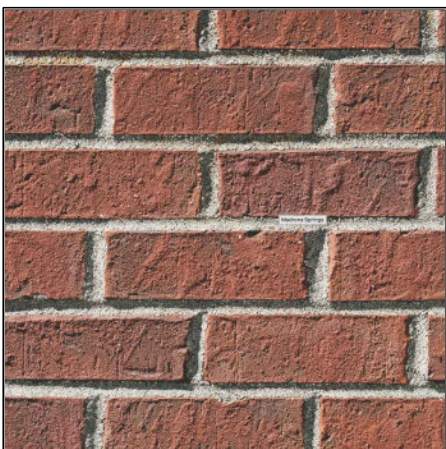
BRICK BLEND:
OLD UNIVERSITY



BRICK BLEND:
HOMESTEAD USED



BRICK BLEND:
PACIFIC HANDMOLD



BRICK BLEND:
MADRONA SPRINGS



BRICK BLEND:
VANCOUVER USED

AWNING FABRICS:



AWNING FABRIC:
SLATE



AWNING FABRIC:
FERN



AWNING FABRIC:
MAHOGANY



AWNING FABRIC:
MANHATTAN DUNE

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon

NOTE: THE COLOR PALETES SHOWN BELOW ARE REPRESENTATIVE ONLY, SELECTED FROM THE 'AMERICA'S HERITAGE HISTORICAL COLORS' COLLECTION BY SHERWIN WILLIAMS. ACTUAL BUILDING COLORS WILL BE SELECTED FROM THE FULL LINE OF THIS COLLECTION.

			PALETTE: ANTIQUE WHITE BODY: SW 6119 ANTIQUE WHITE TRIM: SW 2842 ROYCROFT SUEDE ACCENT 1: SW 7012 CREAMY ACCENT 2: SW 0048 BUNGLEHOUSE BLUE
			PALETTE: COLONIAL REVIVAL GREEN STONE BODY: SW 2826 COLONIAL REVIVAL GREEN STONE TRIM: SW 2842 ROYCROFT SUEDE ACCENT 1: SW 7012 CREAMY ACCENT 2: SW 0048 BUNGLEHOUSE BLUE
			PALETTE: COLONIAL REVIVAL STONE BODY: SW 2827 COLONIAL REVIVAL STONE TRIM: SW 2829 CLASSICAL WHITE ACCENT 1: SW 6258 TRICORN BLACK ACCENT 2: SW 2802 ROOKWOOD RED
			PALETTE: DOWNING SLATE BODY: SW 2819 DOWNING SLATE TRIM: SW 2813 DOWNING STRAW ACCENT 1: SW 2814 ROOKWOOD ANTIQUE GOLD ACCENT 2: SW 2807 ROOKWOOD MEDIUM BROWN
			PALETTE: DOWNING STONE BODY: SW 2821 DOWNING STONE TRIM: SW 2851 SAGE GREEN LIGHT ACCENT 1: SW 2846 ROYCROFT BRONZE GREEN ACCENT 2: SW 0050 CLASSIC LIGHT BUFF
			PALETTE: NEEDLEPOINT NAVY BODY: SW 0032 NEEDLEPOINT NAVY TRIM: SW 0050 CLASSIC LIGHT BUFF ACCENT 1: SW 2853 NEW COLONIAL YELLOW ACCENT 2: SW 0045 ANTIQUARIAN BROWN
			PALETTE: RENWICK ROSE BEIGE BODY: SW 2804 RENWICK ROSE BEIGE TRIM: SW 2805 RENWICK BEIGE ACCENT 1: SW 0023 PEWTER TANKARD ACCENT 2: SW 2838 POLISHED MAHOGANY
			PALETTE: ROYCROFT MIST BEIGE BODY: SW 2844 ROYCROFT MISE BEIGE TRIM: SW 2821 DOWNING STONE ACCENT 1: SW 7006 EXTRA WHITE ACCENT 2: SW 2801 ROOKWOOD DARK RED
			PALETTE: SHERATON SAGE BODY: SW 0014 SHERATON SAGE TRIM: SW 2822 DOWNING SAND ACCENT 1: SW 2814 ROOKWOOD ANTIQUE GOLD ACCENT 2: SW 2856 FAIRFAX BROWN



Memorandum

Date: June 9, 2016

To: West Linn Historic Review Board

From: Darren Wyss, Associate Planner

Subject: DR-16-01 – Materials Submitted for May 17, 2016 Public Hearing

Attached are comments and applicant materials submitted on the day of or at the May 17, 2016 Historic Review Board public hearing on DR-16-01, an application for a 2-Story Mixed-Use Building at 1969 Willamette Falls Drive.

Please feel free to contact me at dwyss@westlinnoregon.gov or 503-722-5512 with any questions regarding the materials or process.

To The West Linn Historic Review Board
From Audra Brown (1968 6th Ave)
Ian Brown (1968 6th Ave)
James Estes (1992 6th Ave)
Kristen Woofter (1992 6th Ave)
Regarding 1969 Willamette Falls Drive Design Review (DR-16-01)

Thank you for providing the opportunity for public comment regarding the proposed development of 1969 Willamette Falls Drive. Our homes (1968 6th Ave and 1992 6th Ave) are immediately to the south of the development site, in an area zoned for single-family detached homes. We share Knapp's Alley for access to our properties. Because of our proximity, the redevelopment of this property will affect us greatly.

We love this neighborhood's vibrant mix of commercial and residential uses. We knew that the property behind us was likely to be redeveloped consistent with its zoning in the Willamette Commercial District. There is much to like about the proposal, which reflects a lot of work by the developer. However, aspects of the application are inconsistent with the Community Development Code, particularly as it relates to the commercial/residential interface and transition from the very public hustle and bustle of the commercial uses and activities to the quieter more personal family-oriented residential area. Our homes were built to respect the CDC's requirements regarding setbacks and other standards that protect neighbors from the impacts of development, and our concerns lead us to oppose this application.

This submission is limited to our concerns as they relate to Chapter 58 of the CDC and the staff report, because it is our understanding that the Historic Review Board's review is limited to these requirements. We have other concerns regarding other chapters, which we will address to the Planning Commission.

Setback

CDC 58.090(C)(1)(c) provides the following setback standard:

“Rear: 20-foot setback. Setbacks between zero and 20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.”

The application proposes a zero-foot rear setback. The application states, “The alley provides the separation from adjacent properties to mitigate the impact of this project.” The staff report incorporates this assertion without further comment.

The applicant did not even contact adjacent residents about this development until it provided notice of its mandatory “pre-application” neighborhood meeting on April 25, 2016, long after the February 10, 2016 application submission. The meeting notice indicated that the application had not been submitted, and that the plans were preliminary and could be modified before the application would be submitted. At the meeting, we learned that the applicant had already submitted the application.

The applicant has made no attempt to even identify the impacts of building within the 20-foot setback area, much less to mitigate those impacts. The only “mitigation” identified is that the structure will be separated from adjacent homes by a 20-foot alley, but the alley would exist in any event. The 20-foot alley does not substitute for the 40-foot separation provided by the 20-foot alley plus the 20-foot setback required by code.

We are concerned about the impact of the building on our privacy. The second-story windows will survey backyards as children play, and observe garages when the doors are open. The windows will also provide a view into our homes; they will have a direct line of sight into our master bedrooms, and into the living room, dining room, and kitchen of 1968 6th Avenue. Those viewing from the second-story windows may include not only the proposed office and hotel workers and guests, but also occupants related to future permissible uses, such as bar patrons. Although the building would have an impact on our privacy even if it met the setback standard, building it 20 feet closer to our homes increases that impact.

We are concerned about other impacts of a two-story structure built to the property line. The building will be at least 25 feet high, at its shortest (the elevation drawing shows 24 feet at the southwest corner and 30 feet at the southeast corner, but does not include the parapets).

- The building will block daylight. Although the building is to our north, we currently get a lot of daylight through our north-facing windows. A lot of that daylight will be blocked by structure that is approximately 150 feet long and 30 feet tall. We will lose much more of that daylight than we would if the building complied with the 20-foot setback requirement.
- By looming over Knapp’s Alley, the building will block more blue sky and invade the sense of space that would be expected from a 20-foot setback.
- The building’s lighting will be closer to our homes. Although the applicant’s site lighting plan indicates that light pollution will be limited, the applicant indicated, at the neighborhood meeting, that the building will be very well lit.

- The building wall will reflect noise to neighboring properties. The development would be expected to increase noise from cars, people, garbage, etc. The configuration of the rear of the building will actually magnify this impact, because the semi-enclosed parking area will direct all sound in its only open direction, toward neighboring homes.

Again, setting the building back 20 feet would not eliminate these impacts, but building within the 20-foot setback area magnifies these impacts.

We are also concerned about the impact of the wall along 11th Street being built to the corner of the property, at the intersection with Knapp's Alley. This wall will block the line of sight for traffic turning into Knapp's Alley. Although this problem relates to the "Clear Vision Area" standards set forth in Chapter 42, it also creates impacts particular to the home at 1992 6th Avenue, which shares this intersection with the project site. To avoid whatever hazards may be around the blind corner, cars will be forced to swing wide as they turn onto Knapp's Alley, toward the home's yard and driveway. Residents leaving the driveway will have to contend with traffic coming around the blind corner. This particular impact would be eliminated by the 20 foot setback to create a clear vision area at this intersection consistent with CDC 42.050.

The applicant's burden is to "demonstrate that he can successfully mitigate any impacts associated with the building." The applicant has not even identified an impact to be mitigated. The applicant has not suggested how any impact of building in the setback area could be mitigated.

The applicant has reasoned only that Knapp's Alley "provides the separation from adjacent properties to mitigate the impact of this project," a rationale without any factual basis given. It is a rationale that would apply equally to any future development on the south side of Willamette Falls Drive, and would allow no protection to any of the neighboring homes on 6th Avenue. The commercial buildings on Knapp's Alley have varying heights and setbacks, but few are built to the property line and none are as imposing as the proposed development. Redevelopment here will set a precedent that will affect the entire street, and this design would set a bad precedent.

Landscaping

CDC 58.090(C)(2) provides that the site is exempt from the landscaping requirements of Chapter 54, "with the exception of parking areas." The application proposes a 13-car parking lot in the rear.

Landscaping within a parking area is required by CDC 54.020(E)(3)(a), which requires one shade tree planted for every eight parking spaces and, for parking lots with 10 to 20 spaces, a minimum five percent of the interior of the parking lot devoted to landscaping. Additionally, landscaping between the parking area and Knapp's Alley is required by CDC 54.020(E)(3)(d), which requires a parking area that abuts a street "to be set back from the right-of-way line by perimeter landscaping in the form of a landscaped strip at least 10 feet in width."

The staff report states that landscaping "is not required as parking is not required." Chapter 58, however, explicitly states that although *parking* is not required, and landscaping *unrelated* to parking is not required, any parking areas that *are* provided require landscaping consistent with the code. To interpret the code as suggested by staff would set precedent that any parking spaces beyond those required under any future development in the city do not have to meet landscape requirements.

The staff report also reasons that landscaping "would not screen or buffer uses nor frame or complement views." The parking area off of Knapp's Alley would be in full view of neighboring houses. Perimeter landscaping would screen and buffer the parking from the neighboring residences. Interior landscaping would frame and complement the view.

The staff report also suggests that the landscaping would not survive the conditions for lack of sunlight and precipitation. The fact that the building is designed in a way that makes compliance with the code difficult is not a reason to exempt it from the code. Additionally, the parking area off of Knapp's Alley is open on the south-facing side, and some sunlight would reach the perimeter landscaping; the lack of precipitation could be compensated for by irrigation systems. Finally, setting the building back 20 feet to comply with CDC 58.090(C)(1)(c) will allow normal sunlight and precipitation.

The current parking areas off of Knapp's Alley do not have much landscaping (the current site is an exception). However, the code is clear that landscaping is required for future parking areas in the Willamette Commercial District.

Variances

The applicant's request for variances regarding the use of brick, the relatively wide second story windows, and the first story windows that do not have the prescribed height from grade are not only inconsistent with the specific standards identified, but also detract from the overall spacing, rhythm, and "emphasis on the vertical" mandated by CDC 58.090(C)(6) and (7). The design standards are composed to encourage consistency with the historic commercial

structures of the district. They do so by requiring large structures to be broken up into narrower, vertically-oriented visual elements that appear similar to existing, smaller structures.

The use of brick requires a variance from CDC 58.090(C)(10). In addition, the brick wainscoting creates a strong horizontal line. This line emphasizes the unity of the structure by running its entire length and by tying together the brick facades around the entrances. This configuration undermines the spacing and rhythm and detracts from the vertical elements that are set above the wainscoting.

The height of the first floor windows requires a variance from CDC 58.090(C)(15), which requires pedestrian level window to “start one and one-half to two and one-half feet above grade.” The grade has a slope, and it would be impossible for the windows to be horizontally aligned with each other and also to meet the design standard. Like the brick wainscoting, the decision to keep the windows in line, from one end of the building to the other, emphasizes the horizontal dimension of the building.

By holding the east end of the building to the same height as the west end of the building, while the sidewalk drops approximately six feet, “Tenant A’s” space is perched high above the sidewalk. “Tenant A’s” entrance is virtually inaccessible to anyone who cannot easily climb stairs, and pedestrians will not be able to “window shop” or even look into its windows, which are located up to six feet or more from the ground. Holding the first story of the building even, rather than following the grade, also prevents “Tenant B” and “Tenant C” from having entrances directly on the sidewalk. One of the key discussions of the neighborhood meeting on April 25, 2016, regarded the need to create a draw for pedestrians on Willamette Drive to continue browsing through the windows of shops and restaurants down its entirety. Approving this variance would deviate from the desired results of a walking neighborhood.

The solution required by the code is for the discrete elements of the building (already mandated by the “Spacing and rhythm” requirement) to follow the grade, and each have their own window heights in compliance with the code. This solution would also the east entrance to be fully accessible and would allow each shop to be directly accessible from the sidewalk.

The second-story windows, which have a height-to-width ratio of 1.75:1, requires a variance from CDC 58.090(16), which requires a height-to-width ratio of 3:1. The applicant reasons simply that wider-than-allowed windows are already around and, in the applicant’s own opinion, look better.

The proposed second-story windows are not narrower than the first-story windows, in either overall width or in their height-to-width ratio. Again, they emphasize the horizontal, rather than the vertical, dimension of the structure.

CDC 58.100 allows such variances if:

“A. The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880 – 1915. [or]

“B. The applicant is incorporating exceptional 1880 – 1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.”

The applicant has offered several photographs of local buildings that include brick. The applicant suggests that criterion (A) is satisfied because brick similar to the pictured buildings would be “correct and appropriate to architecture in the region.” However, criterion (A) requires that the alternative be correct and appropriate to the architecture “in 1880-1915.” The age of the buildings is not provided, but most are certainly newer than 1880-1915.

The applicant also suggests that criterion (B) is satisfied because brick’s qualities as a building material provide “superior design, detail, or workmanship.” Criterion (B) requires that the applicant incorporate “exceptional 1880-1915 architecture into the building”; the emphasis on superior design, detail, or workmanship relates to that requirement, not the qualities of the non-standard building material. The applicant has not identified any “exceptional” 1880-1915 architecture that it has incorporated into the building to “overcompensate” for the variances.

Conclusion

We appreciate the effort that has gone into the proposal, and the ultimate redevelopment of the site could be tremendously positive for the Willamette area and West Linn as a whole. We chose to live in this neighborhood because of the vibrant mix of commercial and residential uses. We appreciate the value of future development in our neighborhood, and expect that redevelopment of this site that conforms to the code will occur soon. This proposal, however, would involve building within the setback area without any attempt to mitigate the impact of doing so, would place a parking area off of a narrow residential street without appropriate landscaping to buffer the use, and does not offer architecture that is consistent with the vision embodied in Chapter 58. We hope that you will find that the application is not in compliance

with Chapter 58, and we request that you either recommend denial of the application or, if the applicant wishes, continue the hearing to allow the applicant to meet our concerns.

On the next page are two pictures taken from 1968 6th Avenue, which may be helpful.



View from the roof of the garage of 1968 6th Avenue. The vantage point is set back from the alley more than 20 feet; moving to the property line would provide much greater surveillance. At its shortest, the wall of the structure at the property line is less than seven feet high to the top of the gutter; the proposed structure would loom

almost four times as tall, and would not fit within this frame. The current parking is framed by pleasant landscaping. Parking off of Knapp's Alley is in full view of the master bedroom.

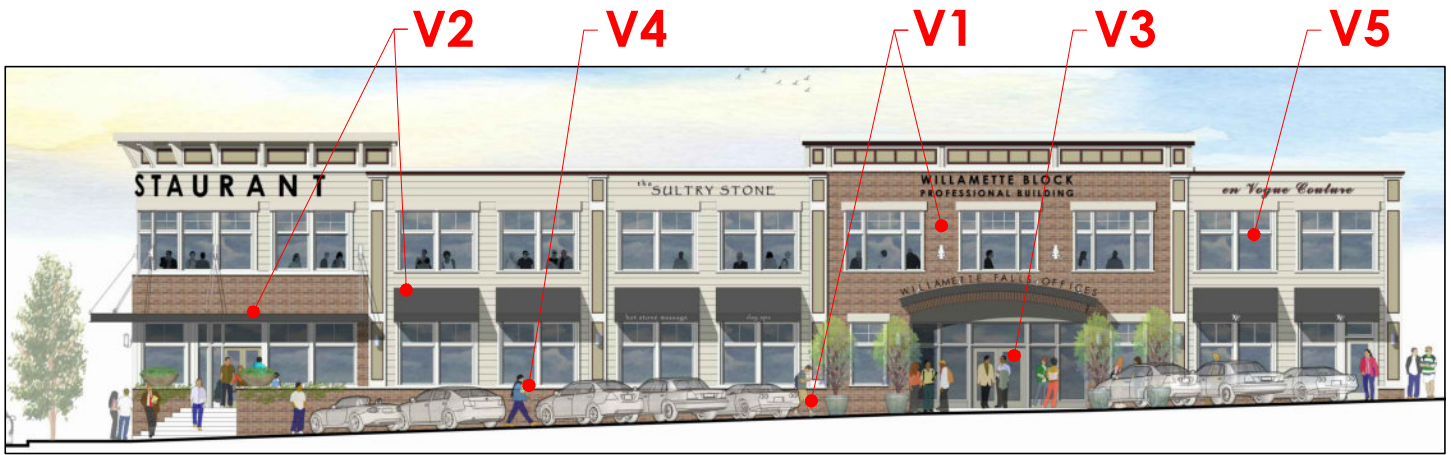


View from the back door of 1968 6th Avenue. The view is similar from the dining room, the kitchen, and the living room. The proposed second-story windows will have a clear view into the home. 1992 6th Avenue does not have a fence to screen the first floor view of the Knapp's Alley parking.

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



PROPOSED WILLAMETTE FALLS DRIVE ELEVATION

REQUESTS FOR VARIANCE

58.100 VARIANCE PROCEDURES:

IN THOSE CIRCUMSTANCES WHERE A DESIGN PROPOSAL CANNOT MEET THE STANDARDS, OR PROPOSES AN ALTERNATIVE TO THE STANDARD, THE HISTORIC REVIEW BOARD MAY GRANT A VARIANCE IN THOSE CASES WHERE ONE OF THE FOLLOWING CRITERIA IS MET:

- A. THE APPLICANT CAN DEMONSTRATE BY REVIEW OF HISTORICAL RECORDS OR PHOTOGRAPHS THAT THE ALTERNATIVE IS CORRECT AND APPROPRIATE TO ARCHITECTURE IN THE REGION, AND ESPECIALLY WEST LINN, IN 1880 – 1915.
- B. THE APPLICANT IS INCORPORATING EXCEPTIONAL 1880 – 1915 ARCHITECTURE INTO THE BUILDING WHICH OVERCOMPENSATES FOR AN OMISSION. THE EMPHASIS IS UPON SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP.

REQUESTED VARIANCES:

- V1** **STANDARD 58.090.C.10**
BUILDING MATERIALS AND ORIENTATION:
'WOOD SHALL BE THE PRINCIPAL BUILDING MATERIAL... BRICK AND CERTAIN CONCRETE CONFIGURATIONS ARE PERMITTED ONLY BY A VARIANCE UNDER CDC 58.090.'
- V2** **STANDARD 58.090.C.11**
AWNINGS:
'AWNINGS SHALL BE EITHER CANVAS OR VINYL... AWNINGS SHALL, THEREFORE, EXTEND BEYOND THE FRONT PROPERTY LINE TO THE OUTSIDE EDGE OF THE SIDEWALK...'
- V3** **STANDARD 58.090.C.13**
DOORS AND ENTRYWAYS:
'DOORS SHALL HAVE GLAZING IN THE UPPER TWO-THIRDS TO HALF OF THE DOOR. PANELS SHOULD DECORATE THE LOWER PORTIONS.'
- V4** **STANDARD 58.090.C.15**
DISPLAY OR PEDESTRIAN LEVEL WINDOWS
'...THE WINDOWS SHALL START ONE AND ONE-HALF TO TWO AND ONE-HALF FEET ABOVE GRADE...'
- V5** **STANDARD 58.090.C.16**
SECOND FLOOR AND OTHER WINDOWS
'A TYPICAL WINDOW SHOULD HAVE A 3:1 HEIGHT TO WIDTH RATIO FOR THE GLASS AREA.'



HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS
CLASS 2 | HISTORIC REVIEW BOARD MEETING | MAY 17TH, 2016



WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon

V1 REQUESTED VARIANCE:

STANDARD 58.090.C.10

BUILDING MATERIALS AND ORIENTATION:

'WOOD SHALL BE THE PRINCIPAL BUILDING MATERIAL... BRICK AND CERTAIN CONCRETE CONFIGURATIONS ARE PERMITTED ONLY BY A VARIANCE UNDER CDC 58.090.'

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW THE USE OF BRICK ON THE PROPOSED BUILDING.



THE HANDRIS BUILDING

BRICK BASE/WAINSCOT



TVFR STATION 59

FULL-HEIGHT BRICK FACADE



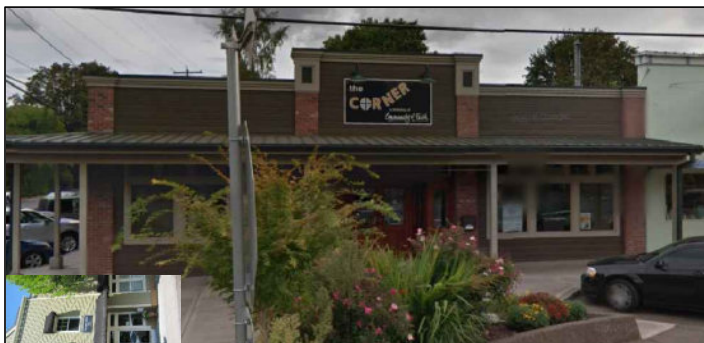
1980 WILLAMETTE FALLS DRIVE

DURABLE CONCRETE BASE



LIL' COOPERSTOWN

BRICK BASE/WAINSCOT



THE CORNER

BRICK COLUMNS

RESPONSE TO CRITERIA:

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW FIVE BUILDINGS ON WILLAMETTE FALLS DRIVE IN THE COMMERCIAL DESIGN DISTRICT. FOUR OF THE FIVE EXAMPLES INCLUDE BRICK AS A BASE/WAINSCOT, COLUMNS, OR FULL FACADE. THE FIFTH EXAMPLE USES CONCRETE AS A BASE, AN EXAMPLE OF ANOTHER NON-WOOD DURABLE SURFACE AT THE STREET LEVEL. THE PROPOSED BUILDING INCLUDES A CONTINUOUS BRICK BASE/ WAINSCOT, ALONG WITH PORTIONS OF THE FACADE THAT HAVE BRICK HIGHER ON THE WALL OR FULL HEIGHT. THIS USE OF BRICK IS CONSISTENT WITH THE EXISTING USE OF BRICK/DURABLE BASE MATERIALS IN THE REGION.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

LOCATED AT THE ENTRY TO THE COMMERCIAL DESIGN DISTRICT, THE PROPOSED BUILDING WILL SERVE AS A GATEWAY ELEMENT. AS SUCH, IT SHOULD EXHIBIT A LEVEL OF RICHNESS AND SOPHISTICATION THAT SETS THE TONE AS VISITORS ENTER THE DISTRICT. BRICK IS WIDELY RECOGNIZED AS A SUBSTANTIAL, RICH LOOKING, LONG LASTING MATERIAL. FURTHER, BRICK HAS A DURABILITY AGAINST THE ELEMENTS THAT ENSURES THAT IT MAINTAINS THOSE QUALITIES OVER TIME.

ON THE PROPOSED BUILDING, THE BRICK IS USED TO ANCHOR THE BUILDING TO THE SITE, CREATE A HUMAN SCALE COMPONENT TO THE WALL, AND PROVIDE A PLEASING MEANS OF DIVIDING THE FACADE INTO VERTICAL ELEMENTS. CRISP DETAILING AND CONSTRUCTION OF CORNERS, CAPS, AND SOLDIER COURSES WILL RESULT IN A SUPERIOR END PRODUCT AS IS APPROPRIATE FOR ITS LOCATION IN THE DISTRICT.

V1

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS

CLASS 2 | HISTORIC REVIEW BOARD MEETING | MAY 17TH, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



2008 WILLAMETTE FALLS DRIVE
AWNING 48"+ FROM CURB



1914 WILLAMETTE FALLS DRIVE
AWNING 24"+ FROM CURB /
STEEL CANOPY 18"+ FROM CURB



1980 WILLAMETTE FALLS DRIVE
AWNING 24"+ FROM CURB

V2 REQUESTED VARIANCE:

STANDARD 58.090.C.11

AWNINGS:

'AWNINGS SHALL BE EITHER CANVAS OR VINYL... AWNINGS SHALL, THEREFORE, EXTEND BEYOND THE FRONT PROPERTY LINE TO THE OUTSIDE EDGE OF THE SIDEWALK...'

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW THE AWNINGS & CANOPIES TO BE HELD APPROX. 18" BEHIND THE CURB LINE.



1880 WILLAMETTE FALLS DRIVE
AWNING 36"+ FROM CURB

RESPONSE TO CRITERIA:

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW FOUR BUILDINGS ON WILLAMETTE FALLS DRIVE IN THE COMMERCIAL DESIGN DISTRICT. THREE OF THE FOUR EXAMPLES SHOW FABRIC AWNINGS, ONE SHOWS STANDING SEAM METAL AWNINGS, AND ONE SHOWS A FLAT PAINTED STEEL CANOPY. IN ALL OF THE EXAMPLES, THE AWNINGS OR CANOPIES ARE SET BACK FROM THE CURB LINE. THE PROPOSED LOCATION OF THE AWNINGS BEHIND THE CURB LINE IS CONSISTENT WITH THE EXISTING AWNING DESIGNS IN THE AREA.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

THE PURPOSE OF LOCATING THE AWNING AND CANOPY FACES BEHIND THE FACE OF CURB IS TO PREVENT DAMAGE FROM VEHICLES, SUCH AS DELIVERY VANS, MAKING THIS IS A SUPERIOR DESIGN TO WHAT IS REQUIRED BY THE STANDARD. THE PROPOSED AWNINGS AND CANOPIES STILL MEET THE INTENT OF THE STANDARD - TO PROVIDE PROTECTION FOR PEDESTRIANS FROM THE WEATHER.

V2

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS
CLASS 2 | HISTORIC REVIEW BOARD MEETING | MAY 17TH, 2016

7/20/16 PC Meeting
365

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING Willamette Falls Drive & 11th Street West Linn, Oregon



2008 WILLAMETTE FALLS DRIVE
FULL-LIGHT DOOR



1914 WILLAMETTE FALLS DRIVE
FULL-LIGHT DOOR



1880 WILLAMETTE FALLS DRIVE
FULL-LIGHT DOOR

V3 REQUESTED VARIANCE:

STANDARD 58.090.C.13

DOORS AND ENTRYWAYS:

'DOORS SHALL HAVE GLAZING IN THE UPPER TWO-THIRDS TO HALF OF THE DOOR. PANELS SHOULD DECORATE THE LOWER PORTIONS.'

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW FULL GLASS LIGHTS IN TENANT ENTRY DOORS.

RESPONSE TO CRITERIA:

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW FOUR EXAMPLES OF FULL LIGHT GLASS DOORS ON THREE BUILDINGS ON WILLAMETTE FALLS DRIVE IN THE COMMERCIAL DESIGN DISTRICT. PROVIDING FULL LIGHT DOORS ON THE PROPOSED WILLAMETTE FALLS DRIVE ELEVATION IS CONSISTENT WITH EXISTING TENANT ENTRIES IN THE AREA.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

FULL LIGHT ENTRY DOORS AT TENANT SPACES HAVE THE EFFECT OF MAXIMIZING CLEAR STOREFRONT, WHICH IS CRITICAL TO THE VIABILITY OF RETAIL TENANTS. THE STANDARD FOR PEDESTRIAN LEVEL WINDOWS HAS THE EFFECT OF LIMITING THE MAXIMUM CLEAR STOREFRONT THAT CAN BE ACHIEVED ON THE WILLAMETTE FALLS DRIVE ELEVATION.

PROVIDING ADDITIONAL CLEAR STOREFRONT VIA FULL LIGHT GLAZING AT THE ENTRY DOORS IS A SUPERIOR DESIGN SOLUTION, BECAUSE IT MAXIMIZES THE AMOUNT OF CLEAR RETAIL GLASS ALONG WILLAMETTE FALLS DRIVE.



1914 WILLAMETTE FALLS DRIVE
FULL-LIGHT DOOR

V3

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS

CLASS 2 | HISTORIC REVIEW BOARD MEETING | MAY 17TH, 2016

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING Willamette Falls Drive & 11th Street West Linn, Oregon



2008 WILLAMETTE FALLS DRIVE
SILL @ 38" ABOVE SIDEWALK



1914 WILLAMETTE FALLS DRIVE
SILL @ 42"+ ABOVE SIDEWALK



1980 WILLAMETTE FALLS DRIVE
SILL @ 48"+ ABOVE SIDEWALK

V4 REQUESTED VARIANCE:

STANDARD 58.090.C.15

DISPLAY OR PEDESTRIAN LEVEL WINDOWS

'...THE WINDOWS SHALL START ONE AND ONE-HALF TO TWO AND ONE-HALF FEET ABOVE GRADE...'

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW WINDOW SILLS TO OCCUR MORE THAN 30" ABOVE ADJACENT GRADE.

RESPONSE TO CRITERIA:

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW FOUR BUILDINGS ON WILLAMETTE FALLS DRIVE IN THE COMMERCIAL DESIGN DISTRICT. AS SHOWN, EACH EXAMPLE BUILDING HAS GROUND FLOOR WINDOWS WITH SILL HEIGHTS MORE THAN 30" ABOVE THE ADJACENT SIDEWALK. THE FIRST FLOOR WINDOW SILL ELEVATION ON THE PROPOSED BUILDING IS CONSISTENT WITH EXISTING BUILDINGS IN THE AREA.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

AS SHOWN IN THE PLANS & ELEVATIONS FOR THE PROPOSED BUILDING, THE SIDEWALK ALONG THE WILLAMETTE FALLS DRIVE ELEVATION SLOPES DOWN APPROXIMATELY FIVE FEET FROM WEST TO EAST. AT THE WEST END OF THE ELEVATION, AND EXTENDING EASTWARD TO THE MAIN ENTRY ALCOVE, ALL WINDOWS ARE BETWEEN 18" AND 30" ABOVE THE ADJACENT GRADE. FROM THAT ENTRY TO THE EAST END OF THE ELEVATION, THE GRADE MAKES IT IMPOSSIBLE TO MEET THESE SILL CONSTRAINTS WITHOUT EXTENDING THE SILLS BELOW THE FINISHED FLOOR LINE.

WE ATTEMPTED TO MEET THE INTENT OF THE STANDARD OF CREATING ATTRACTIVE BUILDINGS THAT HAVE A HISTORIC FEEL BY MAINTAINING THE SILL LINE AT 30" ABOVE THE FINISHED FLOOR LINE. THIS DECISION RESULTS IN A SUPERIOR DESIGN BY MAKING THE RESULTING BUILDING FUNCTIONAL FROM THE INTERIOR, WHILE THE CONSTANT SILL LINE ALONG THIS ELEVATION HELPS TO CREATE A PLEASING BASE UPON WHICH THE BUILDING CAN REST.



1860 WILLAMETTE FALLS DRIVE
SILL @ 38" ABOVE SIDEWALK

V4

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS

CLASS 2 | HISTORIC REVIEW BOARD MEETING | MAY 17TH, 2016



WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



2008 WILLAMETTE FALLS DRIVE
2.4 : 1 WINDOW RATIO



1914 WILLAMETTE FALLS DRIVE
2 : 1 WINDOW RATIO



1880 WILLAMETTE FALLS DRIVE
2 : 1 WINDOW RATIO

V5 REQUESTED VARIANCE:

STANDARD 58.090.C.16

SECOND FLOOR AND OTHER WINDOWS

'A TYPICAL WINDOW SHOULD HAVE A 3:1 HEIGHT TO WIDTH RATIO FOR THE GLASS AREA.'

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW SECOND FLOOR WINDOW WITH A HEIGHT TO WIDTH RATIO OF APPROXIMATELY 1.75 : 1.

RESPONSE TO CRITERIA:

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW EXAMPLES OF SECOND FLOOR WINDOWS ON THREE BUILDINGS ON WILLAMETTE FALLS DRIVE IN THE COMMERCIAL DESIGN DISTRICT WHICH ARE AT A LESS THAN 3 : 1 HEIGHT TO WIDTH RATIO.

IN FACT, THE UPPER FLOOR WINDOWS ON MOST OF THE EXISTING BUILDINGS ALONG WILLAMETTE FALLS DRIVE DO NOT MEET THE 3:1 RATIO, WITH NO NOTICEABLE DETRIMENT TO THE HISTORIC CHARACTER OF THE NEIGHBORHOOD. THE DESIGN OF THE SECOND FLOOR WINDOWS ON THE PROPOSED BUILDING IS CONSISTENT WITH EXISTING BUILDINGS IN THE AREA.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

ON THE PROPOSED BUILDING, THE PREDOMINANT SECOND FLOOR WINDOWS ARE 7' TALL x 4' WIDE, FOR A RATIO OF 1.75 : 1. THE 30" INTERIOR SILL AND 9'-6" HEAD HEIGHTS SHOWN WERE SELECTED AS APPROPRIATE FOR TYPICAL UPPER FLOOR FUNCTIONS SUCH AS OFFICE / SERVICE SPACE.

TO ACHIEVE A 3:1 HEIGHT RATIO WITH A 7' TALL WINDOW, THE WINDOW WOULD BE 2'-4" WIDE. IN OUR PROFESSIONAL OPINION, 2'-4" WIDE WINDOWS WOULD LOOK ODDLY NARROW, EVEN IN A HISTORICAL CONTEXT.

IN AN EFFORT TO ADDRESS THE INTENT OF THIS SECTION, THAT IS, TO PROVIDE VERTICALITY TO THE ELEVATION, WE HAVE DIVIDED THE UPPER LIGHTS OF THESE DOUBLE HUNG UNITS INTO TWO 2'-0" WIDE LIGHTS EACH, WHICH HELPS TO MAKE THE WINDOWS FEEL NARROWER AND MORE VERTICAL.

V5

HISTORIC REVIEW BOARD

WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

REQUEST FOR VARIANCE | CHAPTER 58 STANDARDS

CLASS 2 | HISTORIC REVIEW BOARD MEETING | MAY 17TH, 2016

SGA
SG ARCHITECTURE, LLC

Willamette Falls Professional Building
Willamette Falls Drive & 11th Street, West Linn

Responses to the letter provided by the neighbors at 1968 & 1992 6th Avenue

To the Historic Review Board:

We have consolidated the letter from the neighbors at 1968 & 1992 6th Avenue to the predominant 4 points of concern, and provided our responses in red below.

1. Notice of Application

The applicant did not even contact adjacent residents about this development until it provided notice of its mandatory “pre-application” neighborhood meeting on April 25, 2016, long after the February 10, 2016 application submission. The meeting notice indicated that the application had not been submitted, and that the plans were preliminary and could be modified before the application would be submitted. At the meeting, we learned that the applicant had already submitted the application.

Two neighborhood association meetings were held: one in November 2015, and one on April 25th, 2016.

The meeting notice as posted at the site does not address whether or not the application had been submitted at the time of the meetings. Nonetheless, it is not required that the meeting be held prior to submittal, only that it be completed prior to the application being deemed complete.

2. Setback/Location on Site

CDC 58.090(C)(1)(c) provides the following setback standard: “Rear: 20 foot setback. Setbacks between zero and 20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.”

We are concerned about the impact of the building on our privacy. The second story windows will survey backyards as children play, and observe garages when the doors are open. The windows will also provide a view into our homes; they will have a direct line of sight into our master bedrooms, and into the living room, dining room, and kitchen of 1968 6th Avenue. Those viewing from the second story windows may include not only the proposed office and hotel workers and guests, but also occupants related to future permissible uses, such as bar patrons. Although the building would have an impact on our privacy even if it met the setback standard, building it 20 feet closer to our homes increases that impact.

The subject site is within a relatively urban area, with buildings located in relatively close proximity. The view from the second floor windows along the alley would not be any different than would be expected if the proposed project were a house.

We are concerned about other impacts of a two story structure built to the property line. The building will be at least 25 feet high, at its shortest (the elevation drawing shows 24 feet at the southwest corner and 30 feet at the southeast corner, but does not include the parapets).

While there are no requirements to mitigate the 'large wall' impact of the back of buildings in the District, we have endeavored to diminish that impression by dividing the wall using strong vertical lines and varied top of wall heights to create more of a 'townhouse' appearance.

The building will block daylight. Although the building is to our north, we currently get a lot of daylight through our north facing windows. A lot of that daylight will be blocked by structure that is approximately 150 feet long and 30 feet tall. We will lose much more of that daylight than we would if the building complied with the 20 foot setback requirement.

Light entering north facing windows is indirect, as direct sunlight would come from the south. Neither the quantity nor quality of indirect light will be affected by the proposed building's 0' setback.

By looming over Knapp's Alley, the building will block more blue sky and invade the sense of space that would be expected from a 20 foot setback.

There is no provision in the Code for views to the horizon. The view to the sky above these homes will not be impacted.

The building's lighting will be closer to our homes. Although the applicant's site lighting plan indicates that light pollution will be limited, the applicant indicated, at the neighborhood meeting, that the building will be very well lit.

Lighting on the Knapp's Alley side of the proposed building will be subject to City requirements and restrictions, such as full cut off fixtures, foot-candles at ground level, etc. The only lighting proposed will be under cover above the parking spaces, unless additional area lighting is required by Code. There are no plans to provide decorative lighting along the alley, or to light the surface of the building.

The building wall will reflect noise to neighboring properties. The development would be expected to increase noise from cars, people, garbage, etc. The configuration of the rear of the building will actually magnify this impact, because the semi-enclosed parking area will direct all sound in its only open direction, toward neighboring homes.

Cars currently use the alley for access, and trash is currently collected along the alley as well. The cover over the parking will serve to knock the sound down, rather than magnify it or allow

it to be distributed about the neighborhood as would occur in an open parking lot - which would be the result with the requested 20' setback.

We are also concerned about the impact of the wall along 11th Street being built to the corner of the property, at the intersection with Knapp's Alley. This wall will block the line of sight for traffic turning into Knapp's Alley. Although this problem relates to the "Clear Vision Area" standards set forth in Chapter 42, it also creates impacts particular to the home at 1992 6th Avenue, which shares this intersection with the project site. To avoid whatever hazards may be around the blind corner, cars will be forced to swing wide as they turn onto Knapp's Alley, toward the home's yard and driveway. Residents leaving the driveway will have to contend with traffic coming around the blind corner. This particular impact would be eliminated by the 20 foot setback to create a clear vision area at this intersection consistent with CDC 42.050.

Per Section 42.030 EXCEPTIONS, the area on 11th Street to Willamette Falls Drive, is exempted from the clear vision area requirements of this chapter.

"42.030 EXCEPTIONS

The following described area in Willamette shall be exempt from the provisions of this chapter. The units of land zoned General Commercial which abut Willamette Falls Drive, located between 10th and 16th Streets. Beginning at the intersection of Willamette Falls Drive and 11th Street on 7th Avenue to 16th Street; on 16th Street to 9th Avenue; on 9th Avenue to 14th Street to the Tualatin River; following the Tualatin River and Willamette River to 12th Street; on 12th Street to 4th Avenue; on 4th Avenue to 11th Street; on 11th Street to Willamette Falls Drive. This described area does not include the northerly side of Willamette Falls Drive."

The applicant has reasoned only that Knapp's Alley "provides the separation from adjacent properties to mitigate the impact of this project," a rationale without any factual basis given. It is a rationale that would apply equally to any future development on the south side of Willamette Falls Drive, and would allow no protection to any of the neighboring homes on 6th Avenue. The commercial buildings on Knapp's Alley have varying heights and setbacks, but few are built to the property line and none are as imposing as the proposed development. Redevelopment here will set a precedent that will affect the entire street, and this design would set a bad precedent.

There is a strong precedent of commercial buildings in the Historic Commercial District backing up to Knapp's Alley without a setback. In fact, of the twelve commercial properties located along Knapp's Alley between 12th & 14th Streets, six have no setback from the alley. In addition, on the north side of Willamette Falls Drive in the District, two of the three buildings between 11th & 12th Streets have no setback from their alley.

The primary potential impacts on lots across the alley from the proposed 0' setback would be the possibility of parking area lighting extending beyond the alley, and increased noise from cars in the parking area. The proposed design mitigates these impacts by keeping the parking lighting and vehicle noise under cover, which will reduce the amount of light and noise that travels beyond the site boundaries

Note that if the design were to adhere to the 20 foot setback, the parking area would be surface parking, lighted by pole fixtures, wall pack fixtures, or both. These kinds of fixtures would be far more intrusive than the undercover light that is proposed. Further, noise would be able to bounce freely off of the building wall and out into the neighborhood.

3. Landscaping

CDC 58.090(C)(2) provides that the site is exempt from the landscaping requirements of Chapter 54, "with the exception of parking areas." The application proposes a 13 car parking lot in the rear. Landscaping within a parking area is required by CDC 54.020(E)(3)(a), which requires one shade tree planted for every eight parking spaces and, for parking lots with 10 to 20 spaces, a minimum five percent of the interior of the parking lot devoted to landscaping. Additionally, landscaping between the parking area and Knapp's Alley is required by CDC 54.020(E)(3)(d), which requires a parking area that abuts a street "to be set back from the right of way line by perimeter landscaping in the form of a landscaped strip at least 10 feet in width."

The staff report states that landscaping "is not required as parking is not required." To interpret the code as suggested by staff would set precedent that any parking spaces beyond those required under any future development in the city do not have to meet landscape requirements.

The staff report also reasons that landscaping "would not screen or buffer uses nor frame or complement views." The parking area off of Knapp's Alley would be in full view of neighboring houses. Perimeter landscaping would screen and buffer the parking from the neighboring residences. Interior landscaping would frame and complement the view.

Parking areas as described in Chapter 54 are presumed by the Code to be uncovered surface parking lots. The proposed project parking is undercover, and more closely resembles a parking structure. If the neighbor's interpretation of Chapter 54 were to be followed to other sites, it would not be possible to construct a parking structure - or covered parking as proposed - as there is no way to provide landscaping in an indoor parking facility.

For parking stalls that back directly onto the alley, it would be impossible to provide the hoped for 10' landscape buffer. There is a strong precedent of uncovered parking areas in the Historic Commercial District backing directly onto Knapp's Alley. Of the twelve commercial properties located along Knapp's Alley between 12th & 14th Streets, six have surface parking backing directly onto the alley - with no landscaping or landscape buffer.

4. Variances

The variances described in the neighbor's letter have been addressed separately as part of this application.

May 18, 2016 DR 16-01

Questions, but not necessarily concerns, from Tom Neff.

p.5 mentions a 29-space parking garage but staff finding 5 (p.7) refers to 20 spaces.

p.6 Q. for staff: C 1.(c) When adjacent property to the west is developed in a "future use", the zero-foot setback here is not likely to be a problem anyway?

p.9 Staff finding 12. Why is full glass requested?

Staff finding 14. If "proposed windows are wood or vinyl-clad wood" why is "P1a BRUSHED ALUMINUM" even listed as an alternative color on the Color/Materials Schedule?

p.10 Staff finding 15. What is the distance from floor to dividing piece of 2nd floor window? Just curious, looking ahead, would the second-floor window types have to be changed if floor two becomes a hotel?

p.11 58.090 C26. *Accent trims, windows, etc, should be dark-colored.* While I realize it doesn't say "shall be", is there a reason beyond artistic judgment that most of the window trim is light-on-light except for the center of the building?

p.2 of SGA responses to CDC provisions. Where and what is "the proposed water quality facility at the west property line?"

Will there be cameras covering both the indoor and Knapp's Alley parking facilities?

Will the gate mentioned for the underground parking be such as to prevent after-hours pedestrian access?

As of this writing (6p.m.) I have no objection to any of the variances requested. Staff and applicant, nice job on packet.

**STAFF REPORT
FOR THE HISTORIC REVIEW BOARD**

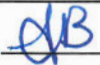
FILE NUMBER: DR-16-01

HEARING DATE: May 17, 2016

REQUEST: Class II Design Review – Construct New 2-Story Mixed-Use Building

**APPROVAL
CRITERIA:** Community Development Code Chapter 58, Willamette Falls Drive
Commercial Design District
Community Development Code Chapter 99, Quasi-Judicial Decision Making

**STAFF REPORT
PREPARED BY:** Darren Wyss, Associate Planner

Planning Manager's Review 

EXECUTIVE SUMMARY

The subject property is 15,000 square feet and located in the Willamette Falls Drive Commercial Design District. This requires the Historic Review Board (HRB) to make a recommendation to the West Linn Planning Commission on compliance with design district standards. The subject property is located on the southwest corner of Willamette Falls Drive and 11th Street in the Willamette Neighborhood. There is an existing single-family home and detached accessory structure that will be demolished.

The applicant is proposing the construction of a 24,510 square foot, two-story mixed-use building with a 14,415 square foot underground parking garage. The garage will provide 29 parking spaces and an additional 13 parking spaces will be located in the rear along Knapps Alley. The applicant has requested a variance, which can be granted by the HRB, to utilize brick on the building façade as opposed to solely using horizontal wood siding as required by CDC 58.090.C(10).

Staff finds that the applicant's proposal, supplemented with one condition of approval, meets the applicable criteria. Therefore, staff recommends approval.

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HRB-2 NOTICE MAILING PACKET 14-17
HRB-3 APPLICANT SUBMITTAL 18-59

GENERAL INFORMATION

**APPLICANT/
OWNER:**

Icon Construction

SITE LOCATION:

1969 Willamette Falls Drive

LEGAL

DESCRIPTION:

Clackamas County Assessor's Map 3-1E-02BA, Tax Lot 4100

SITE SIZE:

15,000 square feet

ZONING:

GC, General Commercial
Willamette Falls Drive Commercial Design District

COMP PLAN

DESIGNATION:

Commercial

120-DAY PERIOD:

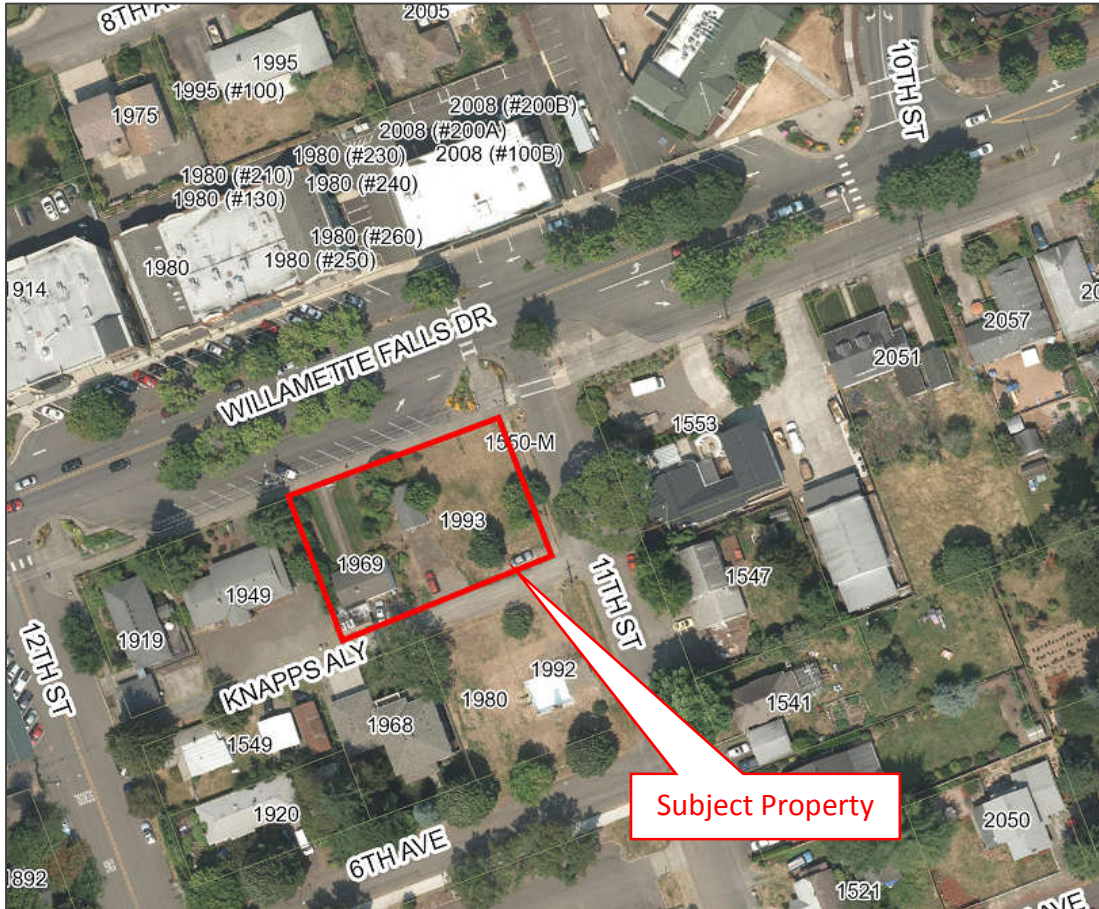
This application became complete on April 26, 2016. The 120-day maximum application processing period ends on August 24, 2016.

PUBLIC NOTICE:

Public notice was mailed to the Willamette Neighborhood Association and to affected property owners on April 27, 2016. The property was posted with a sign on May 6, 2016. In addition, the application has been posted on the City's website. The notice requirements have been met.

BACKGROUND

The subject property is 1969 Willamette Falls Drive and located in the Willamette neighborhood at the southwest corner of Willamette Falls Drive and 11th Street.



Site Conditions: The subject property currently contains a single family house and detached accessory structure. The landscaping is primarily lawn with three nine-inch trees and a handful of smaller landscaping trees and shrubs. The property has an approximate four-percent slope from southwest to northeast and contains no environmental overlays. Current access is from Knapps Alley in the rear of the property.



Project Description: The applicant is proposing the construction of a 24,510 square foot, two-story mixed-use building with a 14,415 square foot underground parking garage. The garage will take access from 11th Street and provide 29 parking spaces. An additional 13 parking spaces will be located in the rear along Knapps Alley. The applicant has requested a variance, which can be granted by the HRB, to utilize brick on the building façade as opposed to solely using horizontal wood siding as required by CDC 58.090.C(10).

The proposed building will contain retail/office leasable space, with the possibility of accommodating a hotel on the second story. Building reliefs have been incorporated throughout the design by off-setting the building footprint and providing awnings and cornice projections. The roof is flat with a “Western False Front” façade.



Surrounding Land Use: The subject property is fully contained in the GC Zone and within the Willamette Falls Drive Commercial Design District. Surrounding properties include the MU zone to the east, GC zone to the north and west, and R-5 zone to the south.

Public comments. To date, staff has not received any comments from the public.

ANALYSIS

Community Development Code Chapter 58, Willamette Falls Drive Commercial Design District and Chapter 99, Quasi-Judicial Decision Making are applicable to this recommendation. Staff has found the proposal is consistent with the applicable criteria.

RECOMMENDATION

Staff recommends the Historic Review Board recommend approval of application DR-16-01 subject to the following proposed condition:

1. Site Plan, Elevations, and Narrative. The project shall conform to the plans, elevations, and narrative submitted in Exhibit HRB-3.

APPLICABLE REGULATIONS AND ASSOCIATED SUPPLEMENTAL FINDINGS DR-16-01

CHAPTER 58, WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT 58.090 STANDARDS

A. *Standards are needed to provide a clear and objective list of design elements that are needed to bring new construction and remodels into conformance with 1880 – 1915 architecture. Buildings of the period saw relatively few deviations in design. Consequently, the Historic Review Board will require conformance with the standards. Deviations or deletions from the standards are addressed in the variance procedure of this chapter.*

Staff Finding 1: The applicant is requesting a variance from CDC.090.C(10) to allow brick on the building façade. This criterion is met.

B. *The use of neo-designs or simply contextual designs which only attempt to capture the basic or generalized elements such as building line, massing and form, etc., is not acceptable.*

Staff Finding 2: The applicant has not proposed any neo-designs or contextual designs. This criterion is met.

C. *The following standards shall apply to new construction and remodels.*

1. *Dimensional standards.*

a. *Front: zero-foot setback. Building may not be set back from the property line unless it is consistent with predominant building line.*

b. *Side and side street: zero-foot setback. Building may not be set back from the side property line except for side passageway, accessway, or stairway unless fire codes dictate otherwise. The setback shall not exceed six feet. The setback should be consistent with the rhythm of adjacent structures, or at least not deleterious to it.*

c. *Rear: 20-foot setback. Setbacks between zero and 20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.*

Staff Finding 3: Staff incorporates the applicant's findings. These criteria are met.

d. *Lot coverage: up to 100 percent of lot may be developed depending upon ability to mitigate impacts upon abutting residential and other uses.*

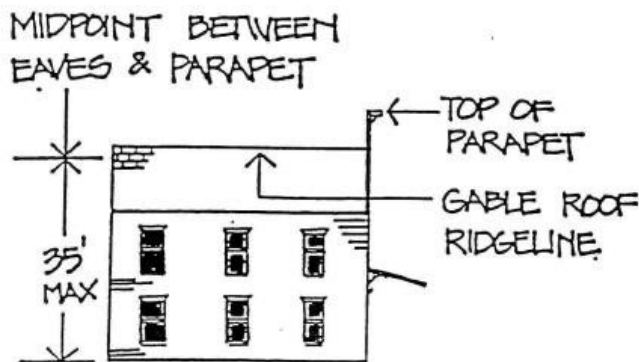
Staff Finding 4: The proposed building will cover 97 percent of the subject property. Impacts to properties on the north, east, and south are mitigated through separation by public rights-of-way. The property to the west has an existing building that has a side yard setback of 20 feet. The proposed building has a side yard setback of two-feet at this property line. The 22 feet of building separation provides adequate mitigation of impacts. This criterion is met.

2. Minimum landscaping required. Sites in this district are exempt from landscaping requirements as identified in Chapter 54 CDC, Landscaping, with the exception of parking areas.

Staff Finding 5: The applicant is not required to provide parking. However, the applicant has proposed an underground parking garage with 20 spaces and 13 ground level tuck-under parking spaces. Neither are conducive to landscaping for lack of sunlight and precipitation.

The purpose statement of Chapter 54 reads “The landscaping is intended to provide an attractive natural balance to built areas, to reduce runoff, to provide shade, to screen or buffer uses, and to frame or complement views.” Placing landscaping in the proposed parking areas would not provide an attractive balance as the landscaping will not survive in the conditions. The landscaping would not reduce runoff as they would provide no interception, absorption, or infiltration of stormwater. The landscaping would not provide additional shade as it would be located under cover. The landscaping would not screen or buffer uses nor frame or complement views. Landscaping is not required as parking is not required in the Willamette Falls Drive Commercial Design District. This criterion is met.

3. Building height limitations. Maximum building height shall be 35 feet (as measured by this code), and two stories. False fronts shall be considered as the peak of the building if it exceeds the gable roof ridgeline.



Staff Finding 6: The applicant has proposed the flat roof line is equivalent to the eave line in the diagram, with the low point at the grade adjacent to the building at each point. The northwestern corner of the proposed building has the roof (eave) line at 31 feet, and the top of the parapet at 36 feet. This places the midpoint (building height) between eave and roof at 33 feet 6 inches, which is below 35 foot maximum height. This criterion is met.

4. External ground level or first story minimum height. Ten feet to allow transoms.

5. Roof form. Flat or pitched roofs. Pitched roof ridgeline shall run from the front of the building to the back.

6. Building form, scale and depth. Building shall emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of 1.5:1. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

Staff Finding 7: Staff incorporates the applicant’s findings. These criteria are met.

7. Spacing and rhythm. Buildings shall follow a regular rhythm. Strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.
8. Facades. No gables, hipped, or pitched roofs shall be exposed to the street at the front. The “Western false front” shall be the preferred style although variations shall be allowed.
9. Cornice. Cornices shall be broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

Staff Finding 8: Staff incorporates the applicant’s findings. These criteria are met.

10. Building materials and orientation. Wood shall be the principal building material. Horizontal wood siding in one-inch by eight-inch dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under CDC 58.090.

Staff Finding 9: The applicant has proposed 1”x8” horizontal hardiplank siding and wood trim. The applicant is requesting a variance for a brick masonry base and partial elevation. Subject to the approval of the variance request, this criterion is met.

11. Awnings. All buildings shall have awnings extending out from building face. Awnings are preferred for micro-climate benefits. Ideally, the building will have both transom and awnings, although transoms are not required.

Awnings shall be either canvas or vinyl, or similar approved material, supported by an internal metal framework or metal or wood supported by a curved metal support, either attached to the building or a simple four-inch by four-inch wood post extending down to the outside of the sidewalk.

Awnings shall, therefore, extend beyond the front property line to the outside edge of the sidewalk, and shall possess a seven-foot clearance to the valance or any other part. The pitch of the awning shall be 10 to 40 degrees. No “bubble-type” awnings are permitted. No backlit awnings are permitted. Canvas or matte-finish vinyl, or similar approved material awnings, may be one-color or striped and shall have a free-hanging plain or crenelated valance. Canvas or matte-finish vinyl, or similar approved material awnings, should not be shared between two structures. Each structure should have its own awning.

Staff Finding 10: The applicant has proposed fabric awnings with internal metal supports. The awnings will be attached to the building above the pedestrian level windows and provide a seven foot clearance. The applicant is requesting a variance from the requirement to extend awnings to the outside edge of the sidewalk. The applicant is proposing to extend the awning seven feet to provide a one foot six inch clearance to the edge of the sidewalk to limit damage from parking vehicles. The applicant is also proposing to install metal canopies over the entrance doorways. Subject to the approval of the variance request, this criterion is met.

12. Extruded roofs. As a substitute for an awning, extruded roofs have a 10- to 40-degree pitch and extend one to two feet from the building face just above the transom windows where the first and

second stories meet. The roof runs along the entire building frontage. Standard roofing materials are used. Transoms are required with extruded roofs.

Staff Finding 11: Staff incorporates the applicant's findings. These criteria are met.

13. Doors and entryways. The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their doors on the corner at an angle as depicted in the illustration. The doors may be single or double doors. The doors shall be recessed three to five feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door. Panels should decorate the lower portions. The entryway shall have windows all the way around at the same level as the other display windows. Wood doors are preferable although alternatives with a dark matte finish may be acceptable.

Staff Finding 12: The applicant is proposing three foot recessed double entrance doors at the northeast corner of the building and five foot recessed double doors along the front façade near the northwest corner. Both entryways have windows all the way around at same level as other display windows. The doors will be wood. The applicant is requesting a variance from the requirement of panels on the bottom one-third to one-half of the doors and propose to install full glass light style doors. Subject to the approval of the variance request, this criterion is met.

14. Glazing. Clear glass only. No mirrored or tinted glass. No films applied to glass. Lettering on glass is permitted (see subsection (C)(25)(b) of this section).

Staff Finding 13: The applicant has proposed clear glass with no glazing for all windows and doors. This criterion is met.

15. Display or pedestrian level windows. Shall extend across at least 80 percent of building front. The windows shall start one and one-half to two and one-half feet above grade to a height of seven to eight feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights was generally no more than six in a pedestrian-level window. The frames may be wood or vinyl-clad wood, or other materials so long as a matte finish is possible.

Staff Finding 14: The applicant has proposed pedestrian level windows that extend 121 feet along 148 feet of building elevation for 81.7 percent of the building front. The windows are broken up into not more than six sections. The windows are proposed to be wood or vinyl-clad wood. The sidewalk along the Willamette Falls Drive elevation slopes down approximately 5 feet from west to east. At the west end of the elevation, and extending eastward to the main entry alcove, all windows start between 18 inches and 30 inches above the adjacent grade. From that entry to the east end of the elevation, the grade makes it impossible to meet these sill constraints without extending the sills below the finished floor line. The applicant attempted to meet the intent by creating an attractive building that has a historic feel by maintaining the sill line at 30 inches above the finished floor line. The applicant request

a variance to the maximum 30 inch above grade requirement for the start of the windows. Subject to the approval of the variance request, this criterion is met.

16. Second floor and other windows. Double- and single-hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (one and one-half feet to two feet per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.

Staff Finding 15: The applicant has proposed double-hung second floor windows. The predominant second floor windows are 7' tall and 4' wide, for a ratio of 1.75:1. The applicant is requesting a variance from the height to width ratio on the grounds that the 30 inch sill and 9 foot 6 inch head heights were selected as appropriate for typical upper floor functions such as office spaces. To achieve a 3:1 height ratio with a 7 foot tall window, the window would be 2 foot 4 inches wide. In the applicant's professional opinion, 2 foot 4 inch wide windows would look oddly narrow, even in a historical context. A review of the existing elevations along Willamette Falls Drive shows that most upper floor windows do not meet the 3:1 ratio, with no detriment to the historic character of the neighborhood.

In an effort to address the intent to provide verticality to the elevation, the applicant has divided the upper lights of the double hung units into two 2 foot wide lights each, which helps to make the windows feel narrower and more vertical. Subject to the approval of the variance request, this criterion is met.

17. Wainscotting. Wainscotting shall be consistent with primary material of the building, typically wood.

18. Shutters. Shutters are not allowed.

19. Balconies. No balconies are permitted except on rear of building.

20. Exterior stairs. Simple stairs are permitted on the rear or side of the building only.

21. Roof mounted mechanical equipment. Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. CDC 55.100(D), Privacy and noise, shall apply.

22. Air conditioning. No window types on avenue or street side are permitted. Window-mounted air conditioners are not allowed at rear where abutting residential.

Staff Finding 16: Staff incorporates the applicant's findings. These criteria are met.

23. Exterior lighting fixtures. Any lighting fixtures that can be traced to 1880 – 1915 period are permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overly ornate fixtures of the Victorian era are to be discouraged.

Staff Finding 17: The applicant has provided examples of the proposed lighting fixtures and their locations. The hanging fixtures replicate the appropriate time period and the parking area and under flat canopies proposed lighting will not attract attention. This criterion is met.

24. Transoms. Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above, but not beyond, the main display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False ceilings are allowed behind the transoms.

25. Planters. No planters are allowed.

Staff Finding 18: Staff incorporates the applicant's findings. These criteria are met.

26. Paint colors. Body color typically included white, cream, or a light, warm color of low intensity. Accents, trims, windows, etc., should be dark-colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880 – 1915 period colors shall be the basis for color selection. No other colors are allowed. The palette is available at the Community Development Department.

Staff Finding 19: The applicant has submitted a color board and architectural renderings of the building colors. Staff finds the color schemes meet the intent of the code. These criteria are met.

27. Ornamental or advertising flags, pennants, or banners. Not permitted on buildings.

28. New materials. Permitted where it is demonstrated that new material visually replicates originally required material, except siding, which must be wood.

Staff Finding 20: Staff incorporates the applicant's findings. These criteria are met.

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

A. *The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880 – 1915.*

B. *The applicant is incorporating exceptional 1880 – 1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.*

Staff Finding 20: The applicant is requesting five variances: 1. Allowing brick masonry base and partial elevation; 2. Extending the awnings to seven feet and not to the eight feet six inches to outer edge of sidewalk; 3. Entryway doors being full glass light style; 4. Allowing greater than 30 inches between grade and start of first floor windows because of the grade; 5. Allowing second story windows to not meet the 3:1 height to width ratio.

The applicant has proposed all five variances contribute to superior design, detail, and workmanship. Subject to approval by the Historic Review Board, these criteria are met.

EXHIBIT HRB-1: AFFIDAVIT OF NOTICE

AFFIDAVIT OF NOTICE

We, the undersigned do hereby certify that, in the interest of the party (parties) initiating a proposed land use, the following took place on the dates indicated below:

GENERAL

File No. DK-16-01 Applicant's Name Icon Construction - Mark Handrus
Development Name N/A
Scheduled Meeting/Decision Date 5-17-16

NOTICE: Notices were sent at least 20 days prior to the scheduled hearing, meeting, or decision date per Section 99.080 of the Community Development Code. (check below)

TYPE A [checked]

- A. The applicant (date) 4-27-16 (signed) S. Shroyer
B. Affected property owners (date) 4-27-16 (signed) S. Shroyer
C. School District/Board (date) (signed)
D. Other affected gov't. agencies (date) (signed)
E. Affected neighborhood assns. (date) 4-27-16 (All) (signed) S. Shroyer
F. All parties to an appeal or review (date) 4-27-16 (signed) S. Shroyer

At least 10 days prior to the scheduled hearing or meeting, notice was published/posted:

Tidings (published date) 5-5-16 (signed) S. Shroyer
City's website (posted date) 4-27-16 (signed) S. Shroyer

SIGN

At least 10 days prior to the scheduled hearing, meeting or decision date, a sign was posted on the property per Section 99.080 of the Community Development Code.

(date) 5-6-2016 (signed) Dan S Up

NOTICE: Notices were sent at least 14 days prior to the scheduled hearing, meeting, or decision date per Section 99.080 of the Community Development Code. (check below)

TYPE B

- A. The applicant (date) (signed)
B. Affected property owners (date) (signed)
C. School District/Board (date) (signed)
D. Other affected gov't. agencies (date) (signed)
E. Affected neighborhood assns. (date) (signed)

Notice was posted on the City's website at least 10 days prior to the scheduled hearing or meeting.
Date: (signed)

STAFF REPORT mailed to applicant, City Council/Planning Commission and any other applicable parties 10 days prior to the scheduled hearing.

(date) 5-6-2016 (signed) Dan S Up

FINAL DECISION notice mailed to applicant, all other parties with standing, and, if zone change, the County surveyor's office.

(date) (signed)

EXHIBIT HRB-2: NOTICE OF MAILING PACKET

**CITY OF WEST LINN
HISTORIC REVIEW BOARD
PUBLIC HEARING NOTICE
FILE NO. DR-16-01**

The West Linn Historic Review Board (HRB) is scheduled to hold a public hearing on **Tuesday, May 17, 2016, at 7:00 p.m.** in the Council Chambers at City Hall, 22500 Salamo Road, West Linn, to consider an application for Class II Design Review to construct a new two-story, mixed-use building at 1969 Willamette Falls Drive. The purpose of the public hearing is to make a recommendation to the West Linn Planning Commission on the application's compliance with the Willamette Falls Drive Commercial Design District approval criteria.

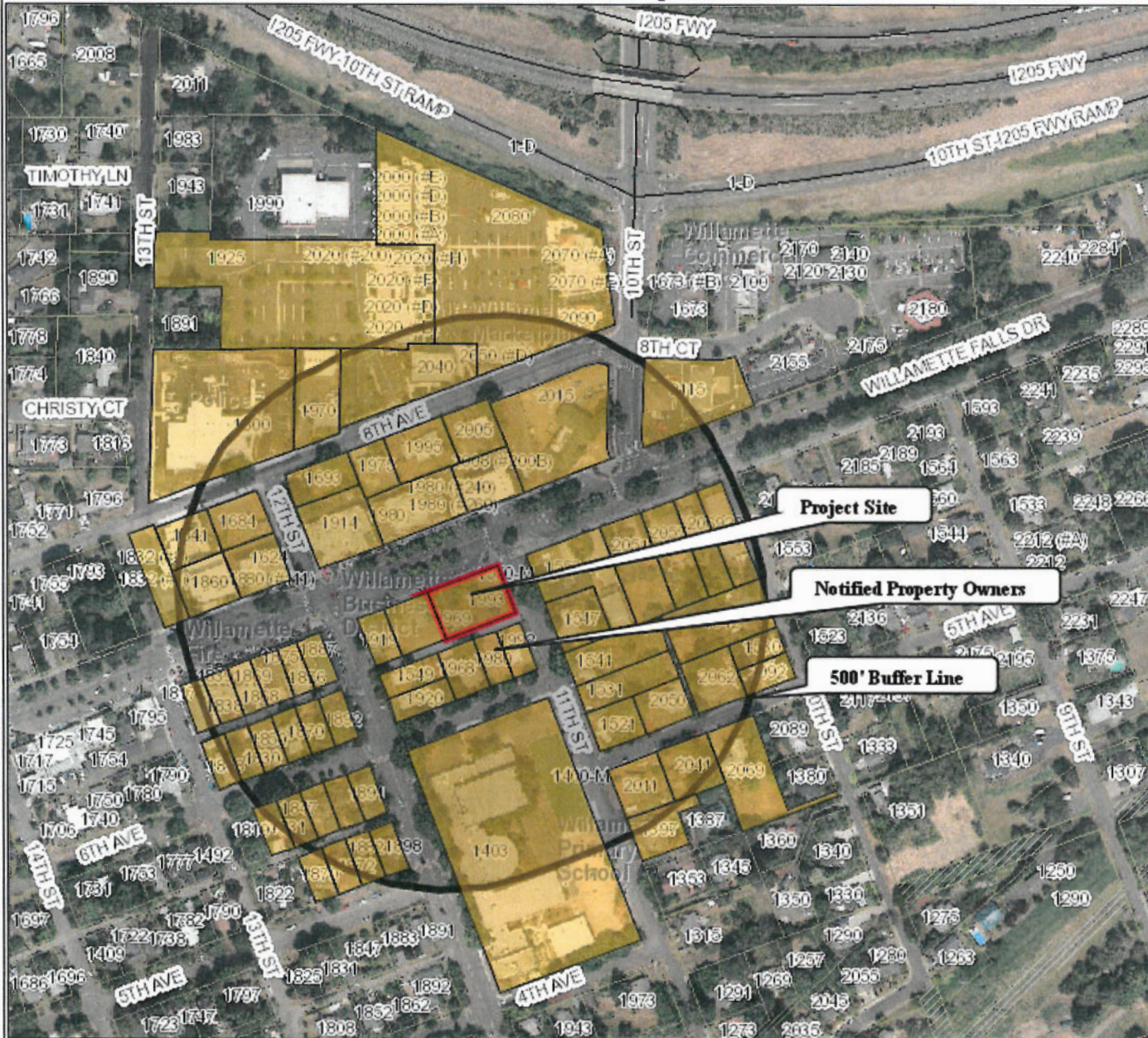
Criteria applicable to the request are found in CDC Chapters 19, 58, and 99. A recommendation of approval or disapproval of the request by the HRB will be based solely upon these criteria. At the hearing, it is important that comments relate specifically to the applicable criteria listed.

You have been notified of this proposal because County records indicate that you own property within 500 feet of the affected site on Clackamas County Assessor's Map 31E02BA, Tax Lot 4100, or as otherwise required by Chapter 99 of the CDC.

The complete application in the above noted file is available for inspection at no cost at City Hall or via the web site at <http://westlinnoregon.gov/planning/1969-willamette-falls-drive-class-ii-and-historic-design-review-mixed-use-building>. Copies can also be obtained for a minimal charge per page. At least 10 days prior to the hearing, a copy of the staff report will be available for inspection. For further information, please contact Associate Planner Darren Wyss at dwyss@westlinnoregon.gov or 503-722-5512. Alternately, visit City Hall, 22500 Salamo Road, West Linn, OR 97068.

The hearing will be conducted in accordance with the rules of Section 99.170 of the CDC. Anyone wishing to present written testimony on this proposed action may do so in writing prior to, or at the public hearing. Oral testimony may be presented at the public hearing. At the public hearing, the HRB will receive a staff presentation, and invite both oral and written testimony. The HRB may continue the public hearing to another meeting to obtain additional information, leave the record open for additional evidence, arguments, or testimony, or close the public hearing and take action on the application as provided by state law. **It is important to provide all evidence, both oral and written, to the HRB. Generally, the City Council will not be able to accept additional evidence if there is an appeal of this application.** Failure to raise an issue in person or by letter at some point prior to the close of the hearing, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue, precludes an appeal to the Land Use Board of Appeals (LUBA) based on that issue.

1969 Willamette Falls Drive Notification Map



Scale 1:3,600 - 1 in = 300 ft
Scale is based on 8-1/2 x 11 paper size



Map created by: SSHROYER
Date Created: 28-Mar-16 05:18 PM

WEST LINN GIS

DISCLAIMER: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. Source: West Linn GIS (Geographic Information System) MapOptix.



CITY OF West Linn

HISTORIC REVIEW BOARD PUBLIC HEARING

**PROJECT # DR-16-01
MAIL: 4/27/16 TIDINGS: 5/5/16**

CITIZEN CONTACT INFORMATION

To lessen the bulk of agenda packets, land use application notice, and to address the worries of some City residents about testimony contact information and online application packets containing their names and addresses as a reflection of the mailing notice area, this sheet substitutes for the photocopy of the testimony forms and/or mailing labels. A copy is available upon request.

EXHIBIT HRB-3: APPLICANT SUBMITTAL

DEVELOPMENT REVIEW APPLICATION

For Office Use Only		
STATE CONTACT <i>Darren Wyss</i>	PROJECT NO(S). <i>DR-16-01</i>	
NON-REFUNDABLE FEE(S) <i>300-</i>	REFUNDABLE DEPOSIT(S) <i>20,000-</i>	TOTAL <i>20,300-</i>

Type of Review (Please check all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> Annexation (ANX) | <input checked="" type="checkbox"/> Historic Review | <input type="checkbox"/> Subdivision (SUB) |
| <input type="checkbox"/> Appeal and Review (AP) * | <input type="checkbox"/> Legislative Plan or Change | <input type="checkbox"/> Temporary Uses * |
| <input type="checkbox"/> Conditional Use (CUP) | <input type="checkbox"/> Lot Line Adjustment (LLA) */** | <input type="checkbox"/> Time Extension * |
| <input checked="" type="checkbox"/> Design Review (DR) <i>CLASS II</i> | <input type="checkbox"/> Minor Partition (MIP) (Preliminary Plat or Plan) | <input type="checkbox"/> Variance (VAR) |
| <input type="checkbox"/> Easement Vacation | <input type="checkbox"/> Non-Conforming Lots, Uses & Structures | <input type="checkbox"/> Water Resource Area Protection/Single Lot (WAP) |
| <input type="checkbox"/> Extraterritorial Ext. of Utilities | <input type="checkbox"/> Planned Unit Development (PUD) | <input type="checkbox"/> Water Resource Area Protection/Wetland (WAP) |
| <input type="checkbox"/> Final Plat or Plan (FP) | <input type="checkbox"/> Pre-Application Conference (PA) */** | <input type="checkbox"/> Willamette & Tualatin River Greenway (WRG) |
| <input type="checkbox"/> Flood Management Area | <input type="checkbox"/> Street Vacation | <input type="checkbox"/> Zone Change |
| <input type="checkbox"/> Hillside Protection & Erosion Control | | |

Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

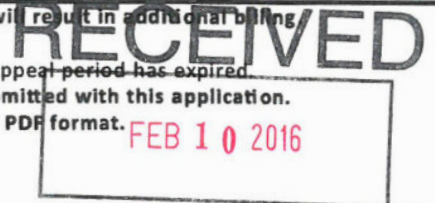
Site Location/Address: <i>1969 WILLAMETTE FALLS DRIVE</i>	Assessor's Map No.: <i>35,1E,02BA</i>
	Tax Lot(s): <i>4100</i>
	Total Land Area: <i>15,000 SF.</i>

Brief Description of Proposal:
CONSTRUCTION OF A NEW TWO-STORY MIXED-USE BUILDING. APPROX. 25,000 SF OF OFFICE/RETAIL + BELOW GRADE PARKING STRUCTURE. 43 NEW PARKING STALLS.

Applicant Name: <i>ICON CONSTRUCTION</i>	Phone: <i>503-657-0406</i>
Address: <i>1980 WILLAMETTE FALLS DR #200</i>	Email: <i>MARK@ICONCONSTRUCTION.NET</i>
City State Zip: <i>WEST LINN, OR 97068</i>	<i>DARREN@ICONCONSTRUCTION.NET</i>
Owner Name: <i>ICON CONSTRUCTION</i>	Phone:
Address: <i>1980 WILLAMETTE FALLS DRIVE #200</i>	Email: <i>MARK@ICONCONSTRUCTION.NET</i>
City State Zip: <i>WEST LINN, OR 97068</i>	<i>DARREN@ICONCONSTRUCTION.NET</i>
Consultant Name: <i>SG ARCHITECTOR, LLC</i>	Phone: <i>503-201-0725</i>
Address: <i>10940 SW BARNES RD #36A</i>	Email: <i>K.GOPWIN@SG-ARCH.NET</i>
City State Zip: <i>PORTLAND, OR 97225</i>	

- All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing.
- The owner/applicant or their representative should be present at all public hearings.
- A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.
- Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format. If large sets of plans are required in application please submit only two sets.

* No CD required / ** Only one hard-copy set needed



The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not constitute a complete submission. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable. Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application.

[Signature] *2/9/16* *[Signature]* *2/9/16*
Applicant's signature Date Owner's signature (required) Date

Wyss, Darren

From: Scot Sutton <ssutton@sg-arch.net>
Sent: Friday, May 06, 2016 2:45 PM
To: Wyss, Darren
Cc: Kevin Godwin
Subject: Re: 1969 Willamette Falls Dr
Attachments: 15-104 A3.1_elevations_REVISED-A3.1.pdf; ATT00001.htm

Hi Darren,

The windows are planned as double hung.

Regarding your other questions this morning:

58.090 STANDARDS

3. Building height limitations. Maximum building height shall be 35 feet (as measured by this code), and two stories. False fronts shall be considered as the peak of the building if it exceeds the gable roof ridgeline.

Q. Please address the '36'-0" Above Sidewalk' elevation tag at the east parapet as it relates to the maximum allowable building height.

A. For the following explanations, please refer to the attached elevations.

The definition of 'building height' in the Standard is somewhat vague. There is no definition for building height in Chapter 02 DEFINITIONS. A word search of the Code for 'height' does not return any hits related to determining from where to measure building height (i.e.: from grade at each point along the elevation, from an average grade, from finished floor, etc.). Further, the diagram provided in this section indicates that the maximum height is at the 'midpoint between eaves and parapet', but does not address where the 'eave' measurement should be taken when concerning a flat roof building.

This ambiguity leads us to address the maximum height question in two ways:

1.

Assume that the flat roof line is equivalent to the eave line in the diagram, with the low point at the grade adjacent to the building at each point. In this case, the roof (eave) line is at 31'-0", and the top of the parapet at 36'-0". This places the midpoint (building height) between eave and roof at 33'-6", which is below 35'-0" and meets the Code.

2.

Alternatively, assume that the 35'-0" maximum height is measured from an average grade level to the top of the parapet. In that scenario, the top of the east parapet is 4'-0" above the top of the predominant parapet which is 29'-0" above the adjacent sidewalk/grade at the mid-point/average of the elevation. In this case, the top of the east parapet is 33'-0" above this average grade point (29' + 4'), which meets the Code.

15. Display or pedestrian level windows. Shall extend across at least 80 percent of building front. The windows shall start one and one-half to two and one-half feet above grade to a height of seven to eight feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights was generally no more than six in a pedestrian-level window. The frames may be wood or vinyl-clad wood, or other materials so long as a matte finish is possible.

Q. Please verify the percentage length of the first floor windows shown on the Willamette Falls Drive elevation.

A. There are 121' of window along 148' of elevation, equal to 81.7%, which meets the Code.

Q. Please address starting height (sill height) of the first floor windows above grade.

A. As is shown in the elevations, the sidewalk along the Willamette Falls Drive elevation slopes down approximately 5 feet from west to east. At the west end of the elevation, and extending eastward to the main entry alcove, all windows are between 18" and 30" above the adjacent grade. From that entry to the east end of the elevation, the grade makes it impossible to meet these sill constraints without extending the sills below the finished floor line. We attempted to meet the intent of the Chapter of creating attractive buildings that have a historic feel by maintaining the sill line at 30" above the finished floor line. Based upon the above explanation and mitigation efforts, we would request a variance to this section of the Code.

16. Second floor and other windows. Double- and single-hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (one and one-half feet to two feet per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.

Q. Please address the 3:1 height to width ratio.

A. The predominant second floor windows are 7' tall and 4' wide, for a ratio of 1.75:1. The 30' sill and 9'-6" head heights shown were selected as appropriate for typical upper floor functions such as office spaces. to achieve a 3:1 height ratio with a 7' tall window, the window would be 2'-4" wide. In our professional opinion, 2'-4" wide windows would look oddly narrow, even in a historical context. Further, a review of the existing elevations along Willamette Falls Drive shows that most upper floor windows do not meet the 3:1 ratio, with no detriment to the historic character of the neighborhood.

In an effort to address the intent of this Section, that is, to provide verticality to the elevation, we have divided the upper lights of these double hung units into two 2'-0" wide lights each, which helps to make the windows feel narrower and more vertical. Based upon the above explanation and mitigation efforts, we would request a variance to this section of the Code.

Thanks Darren, let us know if we can be of any additional help,

Scot Sutton | SG Architecture, LLC
10940 SW Barnes Rd #364 | Portland OR 97225 | 503-347-4685
ssutton@sg-arch.net

This email is confidential, intended only for the named recipient(s) above and may contain information that is

Willamette Falls Mixed Use

West Linn, Oregon

Design Review Class II Submittal – Chapter 58

February 2016

A. Introduction

The following Narrative, Plans and Supplemental materials will demonstrate that the proposed project is in compliance with the applicable site plan and design review standards set forth in the West Linn Community Development Code.

B. Narrative

Icon Development is proposing a new two-story development located at 1912 Willamette Falls Drive- east of 12th Street. The site has one temporary existing structure that will be demolished and is boarded primarily by commercial development with some residential development to the north.

The proposed mixed use development is two-story office/retail with an underground parking facility. The total building area is approximately 24,510 s.f. of leasable building area and 42 on-site parking spaces have been provided behind and under the building. Spring/Summer 2016 construction start is anticipated.

C. Conformance

58.90 STANDARDS

A. Standards are needed to provide a clear and objective list of design elements that are needed to bring new construction and remodels into conformance with 80c1915 architecture. Buildings of the period saw relatively few deviations in design. Consequently, the Historic Review Board will require conformance with the standards. Deviations or deletions from the standards are addressed in the variance procedure of this chapter.

B. The use of "neo-designs" or simply contextual designs which only attempt to capture the basic or generalized elements such as building line, massing and form, etc. is not acceptable.

C. The following standards shall apply to new construction and remodels.

1. Dimensional standards:

a. Front: zero-foot setback. Building may not be set back from the property line unless it is consistent with predominant building line.

RESPONSE: The proposed building frontage (north elevation) is located on this property line.

b. Side and Side Street: zero-foot setback. Building may not be set back from the side property line except for side passageway, accessway, or stairway unless fire codes dictate otherwise. The setback shall not exceed six feet. The setback should be consistent with the rhythm of adjacent structures, or at least not deleterious to it. (ORD. 1391)

RESPONSE: West (side) building elevation is setback 2'0" from the existing property line to allow for the building to have reliefs and pilasters without extending into the adjacent property.

c. Rear: 20-foot setback. Setbacks between 0-20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.

RESPONSE: South (rear) building elevation is on the property line, and fronts onto Knapp's Alley. The alley provides the separation from adjacent properties to mitigate the impact of this project. Access to employee parking and the trash enclosure will occur from Knapp's Alley as well.

d. Lot coverage: Up to 100 percent of lot may be developed depending upon ability to mitigate impacts upon abutting residential and other uses.

RESPONSE: The proposed lot coverage based on the street level ground floor area is 66.33%.

Site area = .0344 acres = 15,000 s.f.

2. Minimum landscaping required: Structures in this area are exempt from landscaping requirements as identified in Section 55.100(A)(1)(b), Design Review. The provision of CDC Section 55.100(A)(1)(c)(1-8) shall still apply where parking lots are proposed.

RESPONSE: There is no landscaping required for this project. There will be landscaping provided at the proposed water quality facility at the west property line.

3. Building height limitations: Maximum building height shall be 35 feet (as measured by this Code), and two stories. False fronts shall be considered as the peak of the building if it exceeds the gable roof ridgeline.

RESPONSE: All proposed building heights are at or below the maximum allowable by code (35'0" high)

Front (north) parapet = 32-35 feet

Rear (south) parapet = 30-33 feet

Side (west) parapet = 26 feet

Side (east) parapet = 32-35 feet

4. External ground level or first story minimum height: 10 feet to allow transoms.

RESPONSE: The ground level first story height is 14'0" A.F.F to allow for window transoms.

5. Roof form: Flat or pitched roofs. Pitched roof ridgeline shall run from the front of the building to the back.

RESPONSE: All proposed flat sloped roofs run from front to back of the building.

6. Building form, scale and depth: Building shall emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of 1.5:1. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

RESPONSE: The proposed exterior elevations emphasize many vertical elements using tall windows, cornices, and awnings. The second floor has been provided with many windows that align with the main floor below that enhance the "verticality" of each building elevation. Building reliefs have been incorporated throughout the overall design by off- setting the building footprint and providing awnings and cornice projections.

7. Spacing and rhythm: Buildings shall follow a regular rhythm. Strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.

RESPONSE: Appropriate spacing and vertical breaks in the building vernacular, have been incorporated into all the building elevations. No vertical spacing exceeds 50'-0" in length (see elevation sheet).

8. Facades: No gables, hipped, or pitched roofs shall be exposed to the street at the front. The "Western false front" shall be the preferred style although variations shall be allowed.

RESPONSE: All roofs are 'flat' for the entire building, and are concealed by "Western False Front" facades (see elevations sheet).

9. Cornice: Cornices shall be broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

RESPONSE: The cornice at the northeast corner is enhanced with supporting brackets. All other cornices are enhanced with framed panel decoration (see elevations & wall section sheets.)

10. Building materials and orientation: Wood shall be the principal building material. Horizontal wood siding in 1" X 8" dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under Section 58.090.

RESPONSE: The primary materials list will be wood:

Siding: 1x8 horizontal siding minimum (hardiplank)

Cornices/trim: 2x wood trim - painted

Ornamental trim: Wood - painted

The applicant requests a variance under the terms of Section 55.100 for a brick masonry base and partial elevation.

11. Awnings: All buildings shall have awnings extending out from building/face. Awnings are preferred for micro-climate benefits. Ideally, the building will have both transom and awnings, although transoms are not required. Awnings shall be either canvas or vinyl, or similar approved material, supported by an internal metal framework or metal or wood supported by a curved metal support, either attached to the building or a simple 4" X 4" wood post extending down to the outside of the sidewalk. Awnings shall, therefore, extend beyond the front property line to the outside edge of the sidewalk, and shall possess a seven-foot clearance to the valance or any other part. The pitch of the awning shall be 10-40 degrees. No "bubble-type" awnings are permitted. No backlit awnings are permitted. Canvas or matte finish vinyl, or similar approved material awnings may be one color or striped and shall have a free-hanging plain or crenelated valance. Canvas or matte finish vinyl, or similar approved material awnings should not be shared between two structures. Each structure should have its own awning. (ORD. 1401)

RESPONSE: Building awnings will be a combination of fabric awnings and metal canopies that extend beyond the building and above the existing sidewalk. However, due to the possibility of vehicles damaging the awnings, the applicant would petition to reducing the awnings depth to 7'-0" instead of the full sidewalk width of 8'-6". All supports will be fastened to the building by metal supports and have a minimum clearance height of 7'-0". Each building window facade will have a separate awning with a slope between 10 - 40 degrees (see elevations.)

12. Extruded roofs: As a substitute for an awning, extruded roofs have a 10-40 degree pitch and extend 1-2 feet from the building face just above the transom windows where the first and second stories meet. The roof runs along the entire building frontage. Standard roofing materials are used. Transoms are required with extruded roofs.

RESPONSE: No "extruded roofs" are being proposed. Transom windows will be provided beneath both the fabric awnings and metal canopies.

13. Doors and entryways: The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their door on the corner at an angle as depicted in the illustration. The doors may be single or double doors. The doors shall be recessed 3-5 feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door. Panels should decorate the lower portions. The entryway shall have windows all the way around at the same level as the other display windows. Wood doors are preferable although alternatives with a dark matte finish may be acceptable.

RESPONSE: Recessed double entrance doors have been provided at the center of the building along with additional recessed entry doors at each end of the building (see elevation and floor plan). The door styles will be full glass light style and will meet the intent of the code.

14. Glazing: Clear glass only. No mirrored or tinted glass. No films applied to glass. Lettering on glass is permitted (see item 25(b) of this section).

RESPONSE: Clear glass is proposed for all windows.

15. Display or pedestrian level windows: Shall extend across at least 80 percent of building front. The windows shall start 1-1/2 - 2-1/2 feet above grade to a height of 7-8 feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights

was generally no more than six in a pedestrian level window. The frames may be wood or vinyl clad wood, or other materials so long as a matte finish impossible.

RESPONSE: The proposed street level windows and storefronts extend across the entire front elevation and meets or exceeds the intent of the code (see elevation sheet).

16. Second floor and other windows: Double and single hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (1-112' - 2' per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.

RESPONSE: The proposed upper level windows have a double-hung appearance that meets or exceeds the intent of the code (see elevation sheet).

17. Wainscoting: Wainscoting shall be consistent with primary material of the building, typically wood.

RESPONSE: The applicant would like to propose an alternate brick masonry wainscoting instead of the primary wood material used on the building (see 55.090.10). This alternative provides for a more durable building longevity and is consistent with other buildings in the district (see attached photo for example).

18. Shutters: Shutters are not allowed.

RESPONSE: No shutters are proposed.

19. Balconies: No balconies are permitted except on rear of building.

RESPONSE: No balconies are proposed.

20. Exterior stairs: Simple stairs are permitted on the rear or side of the building only.

RESPONSE: All exit stairs are fully enclosed within the building envelope design (see elevation sheet).

21. Roof mounted mechanical equipment: Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. Section 55.100(A)(4), "Privacy and Noise, "shall apply.

RESPONSE: The mechanical rooftop units (RTUs) will be located in a structurally designed "mechanical zone" that is located at the middle of the building. This location will allow the parapets to provide adequate screening from below to hide the units (see roof plan sheet). A preliminary noise study has been provided with this application.

22. Air conditioning: No window type on avenue or street side are permitted. Window mounted air conditioners are not allowed at rear where abutting residential.

RESPONSE: All air conditioning/units will be mounted on the roof (see Item 21).

23. Exterior lighting fixtures: Any lighting fixtures that can be traced to 1880-1915 period is permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overlay ornate fixtures of the Victorian era are to be discouraged.

RESPONSE: All exterior light fixtures will meet the intent of the code "period fixtures 1880-1915". A cutsheet of the light fixture can be provided to the city at a later date.

24. Transoms: Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above, but not beyond, the main

display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False ceilings are allowed behind the transoms.

RESPONSE: The storefront windows proposed will have a metal canopies or fabric awnings above their entire width. No upper separate transom windows are proposed, however the window style will have transom influence by the use of grids and mullions. All window sizes will meet the intent of the code (see elevations).

25. Signs:

a. Signs shall not exceed 10 percent of the square footage of the front elevation. The calculation of allowable signage is explained in Section 52.300. The sign(s) shall be proportionate to buildings and signs on adjacent buildings. The "10percent" shall be broken up into multiple signs. The sign(s) shall be mounted or painted on the second floor, on the valance of the awning, on the windows at pedestrian level, or on 4 X 4 awning posts. Signs shall not be of the internally lit "can" type or channel light type. No backlit awnings are allowed. Illumination by spotlight is permitted. Neon signs are permitted only inside the windows. No flashing signs are allowed. By temporary sign permit only, neon colored lettering or designs painted on windows or on paper or banners in the windows are allowed, but discouraged. Small signs or plaques which describe the building in a historical sense are exempt from the allowable square footage restrictions. Signs cannot project out from building face.

b. Sign typeface: Antique lettering as shown in the illustration is required. Variations are permitted where the lettering would not clash with the predominant font or style. "Gay Nineties or P. T Barnum" type styles and other exaggerated styles are discouraged. Lettering may be horizontal, vertical, or slanting up from lower left to upper right. Semi-circle designs on windows are permitted. Window lettering should be either white, black, or gold with black shading.

c. Temporary signs: Temporary sandwich board signs are permitted and shall be designed to be consistent with the aforementioned sign and typeface provision.

RESPONSE: All signage shall meet the intent of the code. A separate sign permit will be obtained from the City prior to the installation of any tenant or building signage.

26. Planters: No planters are allowed.

RESPONSE: The proposed site/plaza plan provides for "no planters."

27. Paint colors: Body color typically included white, cream, or a light warm color of low intensity. Accents, trims, windows, etc. should be dark colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880-1915 period colors shall be the basis for color selection. No other colors are allowed. The palette is available at the Planning Department.

RESPONSE: A material and color board has been submitted with this application. The applicant was told by the city that a color palette that was referenced in the city code was not available at this time. The City will review the proposed colors/materials submitted by the applicant. The colored elevations provided indicate the proposed color locations.

28. Ornamental or advertising flags, pennants, or banners: Not permitted on buildings.

RESPONSE: No flags, pennants, or banners are being proposed.

29. New materials: Permitted where it is demonstrated that new material visually replicates originally required material, except siding, which must be wood.

RESPONSE: The only 'new' material being proposed is the brick masonry on the north and east walls of the building. This material will help provide longevity to the building

for years to come due to the amount of pedestrian traffic, and is consistent with similar materials on buildings along Willamette Falls Drive.

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

1. The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880-1915.
2. The applicant is incorporating exceptional 1880-1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.

RESPONSE: A variance to the standards is requested to allow the lower portion of the north and east walls, along with a full height portion of the north wall, to be brick masonry. This alternative provides superior design and detail to the wood standard by helping to break up the elevations in a more attractive way than strictly wood and pain. It also provides a more durable base to the building which will withstand ongoing pedestrian traffic and the elements.

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



THE HANDRIS BUILDING

BRICK BASE/WAINSCOT



TVFR STATION 59

FULL-HEIGHT BRICK FACADE

VARIANCE REQUEST

DESCRIPTION

THE APPLICANT REQUESTS A VARIANCE TO THE ABOVE STANDARD TO ALLOW THE USE OF BRICK ON THE PROPOSED BUILDING.

RESPONSE TO CRITERIA

CRITERIA A - 'THE ALTERNATIVE IS APPROPRIATE TO ARCHITECTURE IN THE REGION':

THE PHOTOS PRESENTED AS PART OF THIS VARIANCE REQUEST SHOW FIVE SEPARATE BUILDINGS ALONG WILLAMETTE FALLS DRIVE, IN THE COMMERCIAL DESIGN DISTRICT. FOUR OF THE FIVE EXAMPLES INCLUDE BRICK AS A BASE/WAINSCOT, COLUMNS, OR FULL FACADE. THE FIFTH EXAMPLE USES CONCRETE AS A BASE, AN EXAMPLE OF ANOTHER NON-WOOD DURABLE SURFACE AT THE STREET LEVEL.

THE PROPOSED BUILDING INCLUDES A CONTINUOUS BRICK BASE/WAINSCOT, ALONG WITH PORTIONS OF THE FACADE THAT HAVE BRICK HIGHER ON THE WALL OR FULL HEIGHT. THIS USE OF BRICK IS CONSISTENT WITH THE EXISTING USE OF BRICK/DURABLE BASE MATERIALS IN THE REGION.

CRITERIA B - 'SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP':

LOCATED AT THE ENTRY TO THE COMMERCIAL DESIGN DISTRICT, THE PROPOSED BUILDING WILL SERVE AS A GATEWAY ELEMENT. AS SUCH, IT SHOULD EXHIBIT A LEVEL OF RICHNESS AND SOPHISTICATION THAT SETS THE TONE AS VISITORS ENTER THE DISTRICT. BRICK IS WIDELY RECOGNIZED AS A SUBSTANTIAL, RICH LOOKING, LONG LASTING MATERIAL. FURTHER, BRICK HAS A DURABILITY AGAINST THE ELEMENTS THAT ENSURES THAT IT MAINTAINS THOSE QUALITIES OVER TIME.

ON THE PROPOSED BUILDING, THE BRICK IS USED TO ANCHOR THE BUILDING TO THE SITE, CREATE A HUMAN SCALE COMPONENT TO THE WALL, AND PROVIDE A PLEASING MEANS OF DIVIDING THE FACADE INTO VERTICAL ELEMENTS. CRISP DETAILING AND CONSTRUCTION OF CORNERS, CAPS, AND SOLDIER COURSES WILL RESULT IN A SUPERIOR END PRODUCT AS IS APPROPRIATE FOR ITS LOCATION IN THE DISTRICT.

CHAPTER 58 WILLAMETTE FALLS DRIVE COMMERCIAL DESIGN DISTRICT

58.090 STANDARD C.10

BUILDING MATERIALS AND ORIENTATION. WOOD SHALL BE THE PRINCIPAL BUILDING MATERIAL. HORIZONTAL WOOD SIDING IN ONE-INCH BY EIGHT-INCH DIMENSIONS SHALL BE USED FOR SIDING. BRICK AND CERTAIN CONCRETE CONFIGURATIONS ARE PERMITTED ONLY BY A VARIANCE UNDER CDC 58.090.

58.100 VARIANCE PROCEDURES

IN THOSE CIRCUMSTANCES WHERE A DESIGN PROPOSAL CANNOT MEET THE STANDARDS, OR PROPOSES AN ALTERNATIVE TO THE STANDARD, THE HISTORIC REVIEW BOARD MAY GRANT A VARIANCE IN THOSE CASES WHERE ONE OF THE FOLLOWING CRITERIA IS MET:

- A. THE APPLICANT CAN DEMONSTRATE BY REVIEW OF HISTORICAL RECORDS OR PHOTOGRAPHS THAT THE ALTERNATIVE IS CORRECT AND APPROPRIATE TO ARCHITECTURE IN THE REGION, AND ESPECIALLY WEST LINN, IN 1880 – 1915.
- B. THE APPLICANT IS INCORPORATING EXCEPTIONAL 1880 – 1915 ARCHITECTURE INTO THE BUILDING WHICH OVERCOMPENSATES FOR AN OMISSION. THE EMPHASIS IS UPON SUPERIOR DESIGN, DETAIL, OR WORKMANSHIP.



1553 11th STREET

DURABLE CONCRETE BASE



LIL' COOPERSTOWN

BRICK BASE/WAINSCOT



THE CORNER

BRICK COLUMNS

REQUEST FOR VARIANCE FROM HISTORIC REVIEW STANDARDS

February 2016

Class II / Historic Review Submittal

SGA
SG ARCHITECTURE, LLC

WILLAMETTE FALLS

PROFESSIONAL BUILDING

Willamette Falls Drive & 11th Street West Linn, Oregon



P-1 GRAY MIST

Main Building / Window Trim / Cornices
'Benjamin Moore'



P-1a BRUSHED ALUMINUM (alternate color)

Main Building / Window Trim / Cornices
'Benjamin Moore'



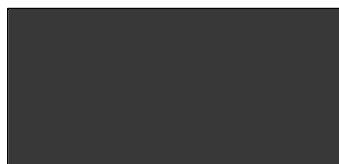
P-2 SAGE MOUNTAIN

Main Building / Wood Pilaster Panels
'Benjamin Moore'



P-3 COTTAGE RED

Accent Trim - 'Benjamin Moore'



P-4 BLACK BEAUTY

Fabric & Metal Awnings - 'Pike Awnings'



W-1 STOREFRONT WINDOWS

Painted Wood or Vinyl Clad
'Anderson' / 'Pella' / 'Jeld-Wen'



S-1 SIDING (exterior all sides)

HardiePlank Cement Fiber Siding
'James Hardi' Products



B-1 BRICK Chestnut / Mission Texture

'Mutual Materials'

COLOR/ MATERIAL SCHEDULE




February 2016

Class II / Historic Review Submittal

SGA
SG ARCHITECTURE, LLC

Main Building Period Lights ("S1" Fixture)

Overview	Product Specifications
Features	Product SKU P5615-20
Family	Archives
Category	Outdoor
Description	On: On glas: glas

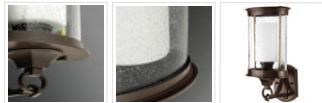




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- P5615-20**
- One-light wall lantern has a double shade - opal glass seeded glass.
 - One-light wall lantern has a double shade - opal glass surrounded by oval clear seeded glass. This vintage electric styling has Natural Brass tubing inside the clear seeded glass.
 - This vintage electric styling has natural brass tubing surrounded by oval clear seeded glass.
 - inside the clear seeded glass.
 - This fixture adds warmth and style to your outdoors.
- \$122.10



Home \ Products \ Outdoor \ P5615-20

vintage electric styling has natural brass tubing inside the clear seeded glass.

Finish

Antique Bronze

Bulb Type

Uses Medium Base

Bulb Wattage

100

Bulb Quantity

1

Listed

Wet location listed

Mount Type

Wall

Style

Traditional/Casual

Features

- One-light wall lantern has a double shade - opal glass surrounded by oval clear seeded glass.
- This vintage electric styling has natural brass tubing inside the clear seeded glass.
- This fixture adds warmth and style to your outdoors.

Room Type

Outdoor Lighting and/or

Dimensions

Width/Diameter: 7-7/8"
Height: 15-3/8"



You Might Also Like



P2809-20 \$93.5
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P2809-81 \$93.5
ARCHIVES BATH & VANITY



P5124-20 \$114.4
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WS4™

4' LED Wet Location Linear Luminaire ("S2" Fixture)

Covered Parking Light

Product Description

The versatile Cree WS Series wet location linear luminaire is suitable for indoor and outdoor applications. Constructed of one-piece molded, durable fiberglass-reinforced polyester and UV-stabilized, impact-resistant diffused acrylic shielding, the Cree WS Series is wet location listed and water-tight sealed for IP65 rating, which provides protection from external elements. The operating temperature range is -25°C - + 35°C (-13°F - + 95°F), allowing for cold to hot weather environment installations.

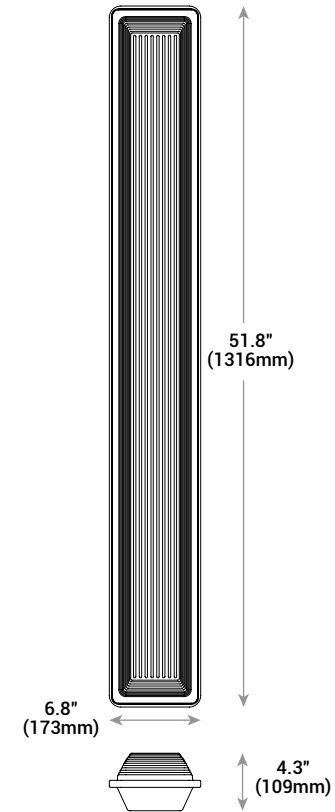
Performance Summary

- Initial Delivered Lumens:** 4700-6300 lumens
- Efficacy:** Up to 98 LPW
- CRI:** Minimum 80 CRI
- CCT:** 3500K, 4000K, 5000K, 5700K
- Input Voltage:** 120-277 VAC
- Limited Warranty*:** 10 years on luminaire
- Dimensions:** L 51.8" (1316mm) x W 6.8" (173mm) x H 4.3" (109mm)
- Weight:** 12 lbs. (5.4kg)
- Mounting:** Ceiling, wall, or suspended
- Dimming:** 0-10V dimming: 10% - 47L and 50L; 15% - 59L and 63L

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed	
Tamper Proof Kit WS4TPK - Includes 4 tamper proof screws and bit Tamper Proof Kit for Stainless Steel Latches WSSSL4TPK - Includes 4 tamper proof screws and bit	Mounting Bracket Kit WS4MBK - Includes 2 stainless steel surface mount brackets Cable Suspension Kit WS4CSK - Includes 2 stainless steel brackets and 2-5' (1.5m) aircraft cables



Ordering Information

Example: WS4-59L-35K-10V-FD

Product	Initial Delivered Lumens	CCT	Voltage	Control	Color/CRI	Options
WS4	47L 50W, 4700 lumens - 94 LPW 50L 51W, 5000 lumens - 98 LPW 59L 63W, 5900 lumens - 94 LPW 63L 64W, 6300 lumens - 98 LPW	35K 3500K - Available with 47L and 59L Initial Delivered Lumens only 40K 4000K - Available with 47L and 59L Initial Delivered Lumens only 50K 5000K - Available with 50L and 63L Initial Delivered Lumens only 57K 5700K - Available with 50L and 63L Initial Delivered Lumens only	Blank 120-277 Volt	10V 0-10V Dimming	FD CRI 80	SSL Stainless Steel Latches



Rev. Date: V3 06/05/2015



US: www.cree.com/lighting

T (800) 236-6800

F (262) 504-5415

7/20/16 PC Meeting
407

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

Product Specifications

CREE LED TECHNOLOGY

Cree's total systems approach to product development is a comprehensive engineering philosophy that combines the most advanced LED sources, driver technologies, optics and forms. The result is highly-reliable luminaire solutions for both indoor and outdoor applications that reduce energy use, extend lifetimes, and maximize illumination performance and quality.

CONSTRUCTION & MATERIALS

- Constructed of fiberglass reinforced polyester
- Polycarbonate latches
- Two 3/4" IP entry points are provided (one at each end of the housing) for continuous feed
- Top of housing has six embossments providing mounting flexibility to uneven surfaces

OPTICAL SYSTEM

- Cree LED Technology
- Frosted injection molded acrylic shielding
- Polyurethane gasketing is poured in place, providing a continuous, seamless seal
- Highly reflective reflector plate provides maximum efficiency

ELECTRICAL SYSTEM

- **Power Factor:** = 0.9 nominal
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 50/60Hz
- **Operating Temperature Range:** -25°C - +35°C (-13°F - +95°F)
- **Total Harmonic Distortion:** < 20%
- **Source Current:** 0.15mA

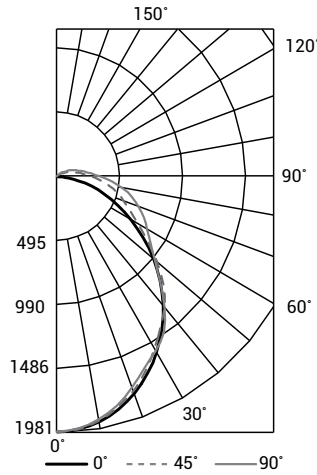
REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- IP65 rated
- DLC qualified for Linear Ambient – Direct category (3500K, 4000K, 5000K color temperatures; all lumen packages). Please refer to www.designlights.org/QPL for most current information
- DLC qualified for Low-Bay category (5700K color temperatures; all lumen packages). Please refer to www.designlights.org/QPL for most current information
- RoHS compliant. Consult factory for additional details

Photometry

WS4-59L-35K-10V-FD BASED ON DTC REPORT TEST #: 38552

Fixture photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%



Coefficients Of Utilization				
RCC %:	80			
RW %:	70	50	30	0
RCR: 0	1.18	1.18	1.18	1.18
1	1.06	1.00	.95	.91
2	.96	.87	.79	.73
3	.87	.76	.67	.61
4	.80	.67	.58	.51
5	.73	.60	.51	.44
6	.68	.54	.45	.39
7	.63	.49	.40	.34
8	.59	.45	.36	.31
9	.55	.41	.33	.27
10	.51	.38	.30	.25

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m ²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	1,152	1,163	1,170
55°	831	878	889
65°	530	586	731
75°	278	357	597
85°	86	192	425

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	1,482	N/A	24.9%
0-40	2,387	N/A	40.2%
0-60	4,075	N/A	68.6%
0-90	5,556	N/A	93.5%
0-180	5,941	N/A	100%

Reference www.cree.com/Lighting/Products/Indoor/Surface-Ambient/WS-Series for detailed photometric data

Recommended WS Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected ² LMF	100K hr Projected ² LMF
0°C (32°F)	1.07	1.01	0.93	0.86	0.79
5°C (41°F)	1.06	1.00	0.92	0.85	0.78
10°C (50°F)	1.04	0.98	0.91	0.83	0.77
15°C (59°F)	1.03	0.97	0.89	0.82	0.76
20°C (68°F)	1.01	0.96	0.88	0.81	0.75
25°C (77°F)	1.00	0.94	0.87	0.80	0.73
30°C (86°F)	0.99	0.93	0.85	0.79	0.72
35°C (95°F)	0.97	0.91	0.84	0.77	0.71

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

IG Series

LED Parking Garage Luminaire

Covered Parking Ceiling ("S2" Fixture)

Product Description

Cree innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax™ Technology, our innovative optical waveguide platform. Available in 33 watt and 66 watt, two lumen packages are offered to satisfy IESNA RP20-14 Basic and IESNA Security Zone G-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

Applications: Parking garages

Performance Summary

Utilizes Cree WaveMax™ Technology
Initial Delivered Lumens: 3,910 or 7,500 lumens
Input Power: 33 or 66 watts
Efficacy: Up to 118 LPW
Optic: Type V Short Distribution
Made in the U.S.A. of U.S. and imported parts
CCT: 4000K (+/- 300K), 5700K (+/- 500K)
CRI: Minimum 80 CRI
Limited Warranty*: 10 years on luminaire

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed
Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Ordering Information

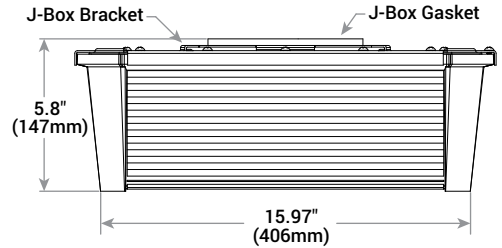
Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** IG-JBWH + **Luminaire:** IG-A-NM-5S-A-40K-UL-WH

Mount (Luminaire must be ordered separately)	
IG-	WH
IG-JB Junction Box IG-PD Pendant	Color Options: WH White

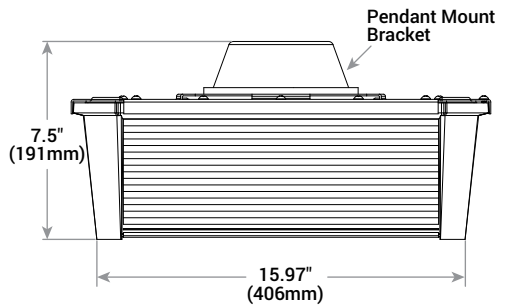
Luminaire (Mount must be ordered separately)							
IG	NM	5S				WH	
Product	Mounting	Optic	Input Power Designator	CCT	Voltage	Color	Options
IG	NM No Mount	5S Type V Short	A 33W, 3,910 lumens – 118 LPW J 66W, 7,500 lumens – 114 LPW	40K 4000K 57K 5700K	UL 120-277V 34 347V	WH White	PML Programmable Multi-Level - Refer to PML spec sheet for details



JB Mount



PD Mount



Weight

10 lbs. (4.5kg)



Rev. Date: V5 12/03/2015



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

Product Specifications

CREE WAVEMAX™ TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, Cree WaveMax™ Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CONSTRUCTION & MATERIALS

- Impact resistant white polycarbonate housing and acrylic lenses
- Corrosion resistant anodized aluminum top plate
- Low profile, lightweight design provides ease of installation
- Standard luminaire can mount to both pendant or J-box (specify mount in ordering table above)
- J-Box mounting bracket mounts directly over existing 4" (102mm) square, rectangular or octagonal junction boxes only
- Pendant mount includes 6" (152mm) wires out of luminaire and provides a splice location for mounting to 3/4" IP pendant (by others)
- **Weight:** 10 lbs. (4.5kg)

OPTICAL SYSTEM

- WaveMax™ Technology that improves optical control, optical efficiency, energy efficiency and the overall visual experience
- Acrylic Lenses with DiamondFacet™ Microlenses
- Unmatched low-glare comfort and decreased LED source luminance by smoothly spreading brightness over the optical lenses
- 6% Uplight

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- **Input Power:** Stays constant over life
- **Operating Temperature Range:** -40°C - + 40°C (-40°F - + 104°F)
- Integral 6kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

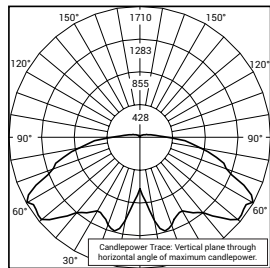
REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Suitable for operation in ambient not exceeding 40°C (104°F)
- Enclosure rated IP66 per IEC 60529
- 6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Meets Buy American requirements within ARRA
- DLC qualified. Please refer to www.designlights.org/QPL for most current information

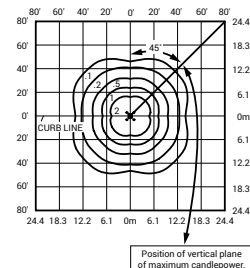
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Products/Outdoor/Parking-Structure/IG-Series

5S



RESTL Test Report #: PL06962-001B
IG-**-5S-J-40K-UL
Initial Delivered Lumens: 7,276



IG-**-5S-J-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 7,500
Initial FC at grade

Electrical Data*							
Input Power Designator	System Watts 120-277V	System Watts 347V	Total Current				
			120V	208V	240V	277V	347V
A	33	35	0.29	0.17	0.15	0.13	0.11
J	66	69	0.57	0.33	0.28	0.25	0.20

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-347V +/-10%

Recommended IG Series Lumen Maintenance Factors (LMF) ¹						
Ambient	Input Power Designator	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected ² LMF	100K hr Calculated ³ LMF
5°C (41°F)	A	1.04	1.00	0.97	0.94	0.91
	J	1.04	0.99	0.95	0.91	0.88
10°C (50°F)	A	1.03	0.99	0.96	0.93	0.91
	J	1.03	0.98	0.94	0.90	0.87
15°C (59°F)	A	1.02	0.98	0.95	0.92	0.90
	J	1.02	0.97	0.93	0.89	0.86
20°C (68°F)	A	1.01	0.97	0.94	0.91	0.89
	J	1.01	0.96	0.92	0.88	0.85
25°C (77°F)	A	1.00	0.96	0.93	0.90	0.88
	J	1.00	0.95	0.91	0.87	0.84
30°C (86°F)	A	0.99	0.95	0.92	0.89	0.87
	J	0.99	0.94	0.90	0.86	0.83
35°C (95°F)	A	0.98	0.94	0.91	0.88	0.86
	J	0.98	0.93	0.89	0.85	0.82
40°C (104°F)	A	0.97	0.93	0.90	0.87	0.85
	J	0.97	0.92	0.88	0.84	0.81

¹ Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

Type V Short Distribution				
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	3,910	B2 U3 G2	3,910	B2 U3 G2
J	7,500	B3 U3 G2	7,500	B3 U3 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES Bug (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf



BULKHEADS

Wall or ceiling mount • Wet location listed



Specifications:

Description:

LED General purpose luminaire comprised of a die-cast aluminum frame and polycarbonate diffuser. Fixtures are impact resistant and can be mounted on wall or ceiling. 120V AC replaceable LED module, 1,211 lumens, 3000K color temperature and 90+ CRI.

Construction:

- Black (-31) (powdercoat)
- Aluminum construction Frosted polycarbonate diffuser
- LED Module is replaceable (part # 93053641)
- Flicker-free dimming to 10% brightness with most ELV type dimmers (See Dimming Notes)
- Title 24 compliant
- Unit covers a standard 4" hexagonal recessed outlet box
- Mounting strap for outlet box included
- Six inches of wire supplied

Performance:

Number of Modules	1
Input Power	17W
Input Voltage	120V
Input Frequency	60Hz
Lumens/LPW	1211/71.2 (LM-79) per module
CCT	3000K
CRI	90
Life	60,000 (L70/TM-21)
EMI/RFI	FCC Title 47, Part 15, Class B
Min. Start Temp	-30° C
Max. Operating Temp	30° C
Warranty	5 year warranty
Labels	cCSAus Wet location listed

P3650-3130K9

Images:



Dimensions:

Diameter: 9-1/2"
Height: 4-1/2"
H/CTR: 4-3/4"

Catalog number:

Base	Finish	Color Temp	CRI
P3650	31 - Black	30K - 3000K	9 - 90 CRI

P3650-3130K9

Dimming Notes:

P3650 is designed to be compatible with many Electronic Low Voltage (ELV-Reverse Phase) controls.

The following is a partial list of known compatible dimmer controls:

Electronic Low Voltage ELV Reverse Phase Controls

Lutron	Diva Series	(Part Number DVELV-300P)
Lutron	Nova T Series	(Part Number NTELV-300)
Lutron	Vierti Series	(Part Number VTELV-600)
Lutron		(Part Number MAELV-600)
Lutron		(Part Number SPELV-600)
Leviton		(Part Number AWRMG-EAW)
Leviton		(Part Number 6615-P)

Digital type dimmers are not recommended.

Dimming capabilities will vary depending on the dimmer control, load, and circuit installation.

Always refer to dimmer manufacturer instructions or a controls specialist for specific requirements.

Dimmer control brand names where identified above are trade names or registered trademarks of each respective company.

WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.
WEST LINN, OREGON

ICON CONSTRUCTION &
DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068



WILLAMETTE FALLS PROFESSIONAL MIXED-USE BUILDING
1969 WILLAMETTE FALLS DRIVE, WEST LINN

SITE ANALYSIS

PROJECT DESCRIPTION
A TWO STORY MIXED USE BUILDING AT THE CORNER OF WILLAMETTE FALLS DRIVE AND 11TH STREET, WEST LINN, OR. POSSIBLE USES INCLUDE RETAIL, RESTAURANT, OFFICE, OR HOTEL.

CODES
2014 OREGON STRUCTURAL SPECIALTY CODE
2014 OREGON MECHANICAL SPECIALTY CODE
2014 OREGON PLUMBING SPECIALTY CODE
2014 OREGON ENERGY EFFICIENCY SPECIALTY CODE COVER

ZONING
JURISDICTION: CITY OF WEST LINN
CODE: COMMUNITY DEVELOPMENT CODE
ZONE: GC (GENERAL COMMERCIAL - CDC CHAPTER 19)
ZONE OVERLAYS: WILLAMETTE COMMERCIAL HISTORIC OVERLAY ZONE

UTILITIES
WATER/SEWER: WEST LINN PUBLIC WORKS - 503-656-6081 (OPERATIONS)
TRASH: WEST LINN REFUSE - 503-557-3900
ELECTRIC: PORTLAND GENERAL ELECTRIC - 800-542-8818
GAS: NW NATURAL - 800-422-4012

LEGAL DESCRIPTION
LOTS 1,2, & 3, BLOCK 10, CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
TAX LOT: 31EQ2BA04100 / PARCEL: 00749168

RESTRICTIONS/EASEMENTS
NONE

ADJACENT ZONES
MU (NORTH & EAST), R-5 MEDIUM DENSITY RESIDENTIAL (SOUTH), GC (WEST)

PERMITTED USES (19.030, ANTICIPATED USES)
BUSINESS USES, RESTAURANT, RETAIL, HOTEL, PROFESSIONAL/MEDICAL SERVICES.

DIMENSIONAL REQUIREMENTS (19.070)
MINIMUM FRONT LOT LINE WIDTH: 35' REQ. / 150' PROPOSED
AVERAGE MINIMUM FRONT LOT LINE WIDTH: 50' REQ. / 150' PROPOSED
AVERAGE MINIMUM LOT DEPTH: 90' REQ. / 100' PROPOSED
BUILDING HEIGHT (CDC): 2 STORIES/35' MAX. / 2 STORIES/35' PROPOSED
GROUND LEVEL MINIMUM HEIGHT: 10' REQ. / 28' PROPOSED
SETBACKS: FRONT - 0' MIN. / 0' MAX., SIDE - 0' MIN. / 0' MAX., REAR 20' MIN. / 20' MAX.
LOT COVERAGE: 100% MAX.

SITE LANDSCAPING
NONE REQUIRED.

CODE REVIEW

POSSIBLE OCCUPANCY GROUPS

A-2: RESTAURANT
B: BUSINESS
M: RETAIL
R-1: HOTEL
S-2: PARKING GARAGE

CONSTRUCTION TYPE
PROPOSED CONSTRUCTION TYPE - GROUND & SECOND FLOORS:
V-B SPRINKLERED (WOOD FRAME CONSTRUCTION).
PROJECTED CONSTRUCTION TYPE - GARAGE:
TYPE 1 OR 2 (CONCRETE OR MASONRY CONSTRUCTION).

ALLOWABLE AREAS BY OCCUPANCY GROUP
(INCLUDES INCREASES FOR SPRINKLER AND SEPARATIONS)*:
A-2: RESTAURANT - 6000 + [6000 X 2 (SPRINKLER)] + [6000 X .17 (SEPARATION)] = 19,020 S.F.
B: BUSINESS - 9000 + [9000 X 2 (SPRINKLER)] + [9000 X .17 (SEPARATION)] = 28,530 S.F.
M: RETAIL - 9000 + [9000 X 2 (SPRINKLER)] + [9000 X .17 (SEPARATION)] = 28,530 S.F.
R-1: HOTEL - 7000 + [7000 X 2 (SPRINKLER)] + [7000 X .17 (SEPARATION)] = 22,190 S.F.
S-2: GARAGE - 13,500 + [13,500 X 2 (SPRINKLER)] + [13,500 X .17 (SEPARATION)] = 42,795 S.F.
*SUBJECT TO THE 'SUM OF THE RATIOS' LIMITATION: THE COMBINED AREAS OF EACH OCCUPANCY DIVIDED BY THE OVERALL BUILDING AREA MUST RESULT IN A RATIO OF LESS THAN 1.0.

ALLOWABLE BUILDING HEIGHT ABOVE GRADE
BY CONSTRUCTION TYPE: 40'
BY ZONE: 35' (THE HEIGHT LIMITATION IN THE ZONE GOVERNS)

OCCUPANCY SEPARATIONS (VERTICAL AND HORIZONTAL)
A-2: RESTAURANT / B: BUSINESS, M: RETAIL, OR R-1: HOTEL = 1-HOUR
R-1: HOTEL / B: BUSINESS, M: RETAIL, OR A-2: RESTAURANT = 1-HOUR
S-2: GARAGE / B: BUSINESS & M: RETAIL = 1-HOUR

FIRE RESISTIVE REQUIREMENTS
PRIMARY STRUCTURAL FRAME: NONE
BEARING & NON-BEARING WALLS (EXTERIOR, NORTH/EAST/SOUTH): NONE
BEARING & NON-BEARING WALLS (EXTERIOR, WEST): 2 HOUR AT GROUND FLOOR RETAIL / 1 HOUR AT 2ND FLOOR
BEARING & NON-BEARING WALLS (INTERIOR): NONE
FLOOR & ROOF CONSTRUCTION: NONE
SHAFT ENCLOSURES (STAIRS & ELEVATOR): 1-HOUR
PARAPETS: PER OSSC SECTION 705.11

OPENINGS IN RATED WALLS (BASED UPON SEPARATION FROM PROPERTY LINE)
0' TO LESS THAN 3': NOT PERMITTED
3' TO LESS THAN 5': 15% OF WALL AREA PER STORY
5' TO LESS THAN 10': 25% OF WALL AREA PER STORY
10' TO LESS THAN 15': 45% OF WALL AREA PER STORY
15' TO LESS THAN 20': 75% OF WALL AREA PER STORY
20'+: UNLIMITED

EXITING
ELEVATOR: REQUIRED
STAIRS: TWO STAIRS WILL BE REQUIRED. AT LEAST ONE STAIR MUST BE ENCLOSED ON THE UPPER FLOORS, BOTH MUST BE ENCLOSED AT THE GARAGE LEVEL.
ALL REQUIRED EXITS MUST MEET ACCESSIBILITY STANDARDS PER CHAPTERS 10 & 11.

DIRECTORY

OWNER

ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DRIVE, Suite 200
WEST LINN, OREGON 97068
CONTACT: MARK HANDRIS, 503-657-0406, mark@iconconstruction.net
DARREN GUSDORF, 503-657-0406, darren@iconconstruction.net

ARCHITECT

SG ARCHITECTURE, LLC.
10940 SW BARNES RD. #364
PORTLAND, OREGON 97225
CONTACT: SCOT SUTTON, 503-347-4685, ssutton@sg-arch.net
KEVIN GODWIN, 503-201-0725, kgodwin@sg-arch.net

CIVIL

THETA, LLC
PO BOX 1345
WEST LINN, OREGON 97035
CONTACT: BRUCE GOLDSOHN, 503-481-8822, theaeng@comcast.net

SURVEYING

CENTERLINE CONCEPTS LAND SURVEYING, INC.
729 MOLLALLA AVE, SUITE 1 & 2
OREGON CITY, OREGON 97045
503-650-0188

BUILDING DATA:

1ST FLOOR LEVEL (STREET LEVEL)	9,950 SF
2ND LEVEL FLOOR	14,560 SF
TOTAL BUILDING AREA	24,510 SF (LEASABLE)
GARAGE LEVEL	14,415 SF
BUILDING TOTAL AREA	38,925 SF

TOTAL PARKING PROVIDE (ON-SITE)	
UNDERGROUND	29 SPACES
STREET LEVEL COVERED	13 SPACES
TOTAL PARKING PROVIDED	42 SPACES

SHEET INDEX

ARCHITECTURAL

- A0.0 COVERSHEET, CODE PLANS
- EX EXISTING CONDITION PLAN (SURVEY)
- A2.0 BASEMENT PARKING LEVEL PLAN
- A2.1 GROUND FLOOR PLAN (STREET LEVEL)
- A2.2a SECOND FLOOR PLAN - OFFICE LAYOUT
- A2.2b SECOND FLOOR PLAN - HOTEL LAYOUT
- A3.1 EXTERIOR ELEVATIONS (COLOR)
- LIGHTING PLAN - PHOTOMETRIC

VICINITY MAP



CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:
Class II Application Re-Submit per City Letter Dated 3-9-2016

COVER SHEET AND GENERAL NOTES

SHEET NUMBER:

A0.0

WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.,
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

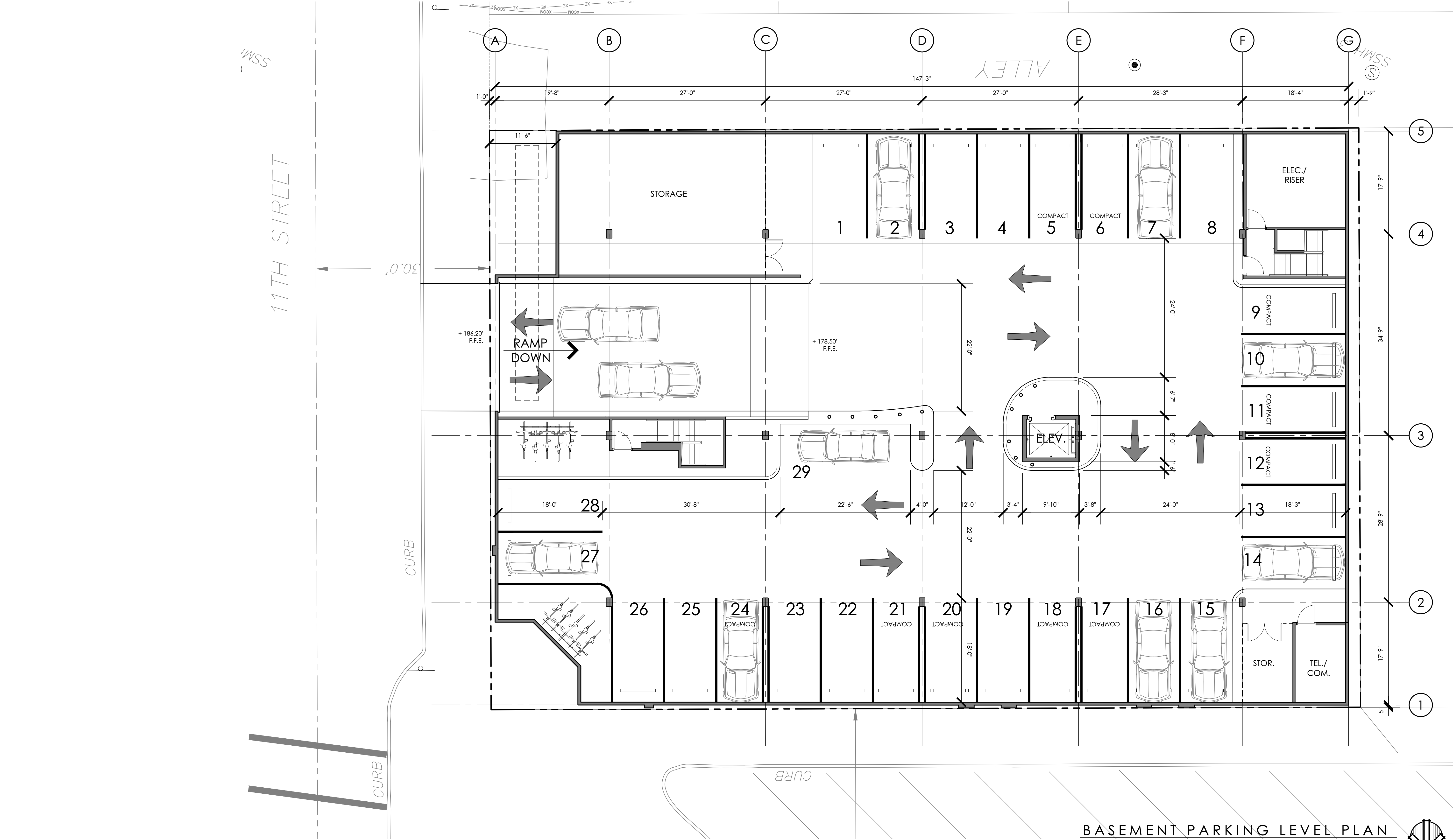
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

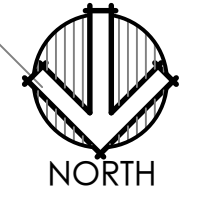
PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:



BASEMENT PARKING LEVEL PLAN



11TH STREET

ALLEY

CURB

CURB

WILLAMETTE FALLS

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11TH ST.,
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

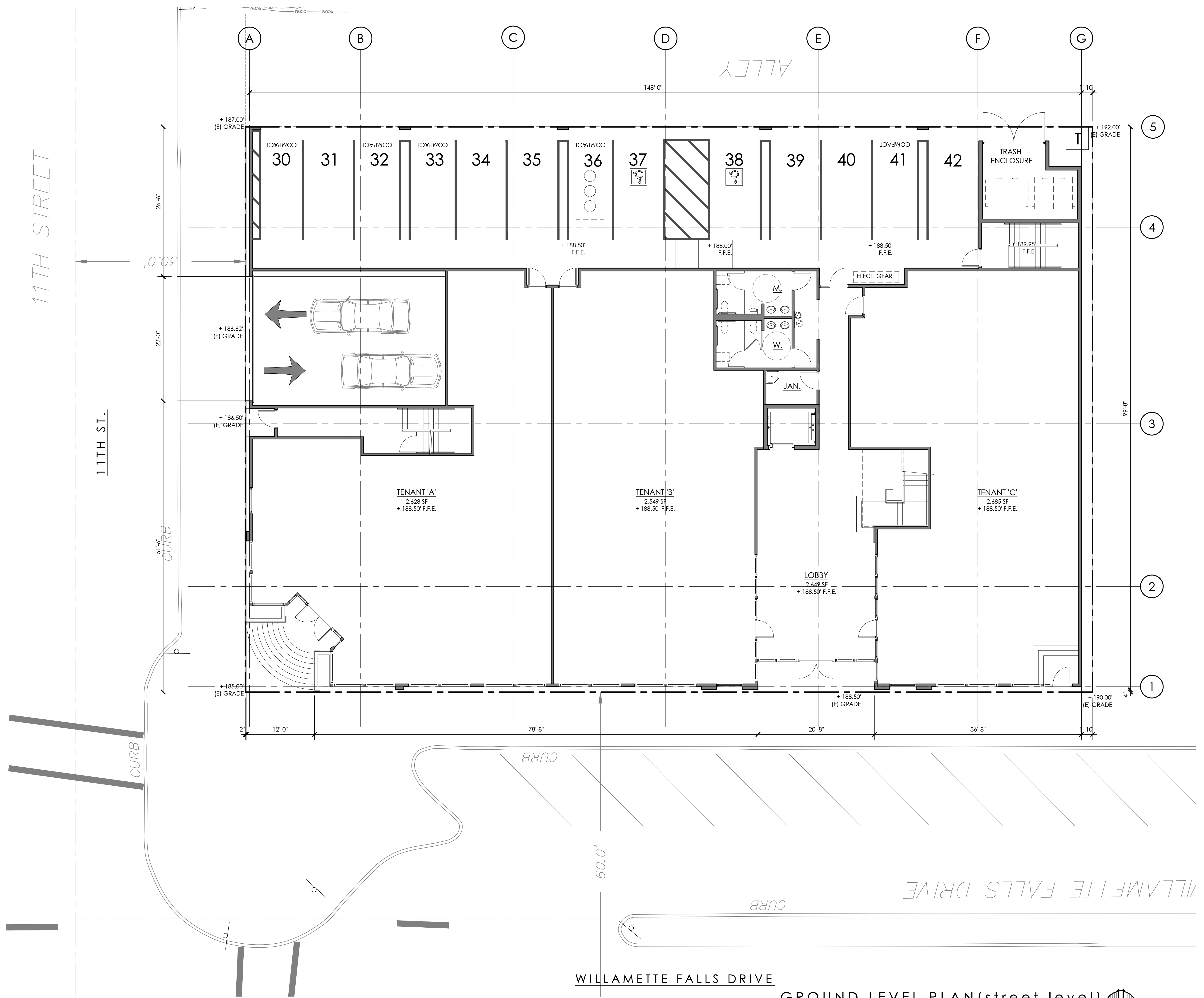
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

**CLASS II & HISTORIC
DESIGN REVIEW
SUBMITTAL DRAWINGS**

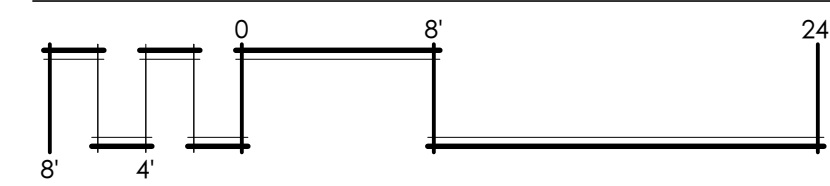
PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:



GROUND LEVEL PLAN (street level)



**WILLAMETTE
FALLS**

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 111th ST.
WEST LINN, OREGON

ICON CONSTRUCTION &
DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

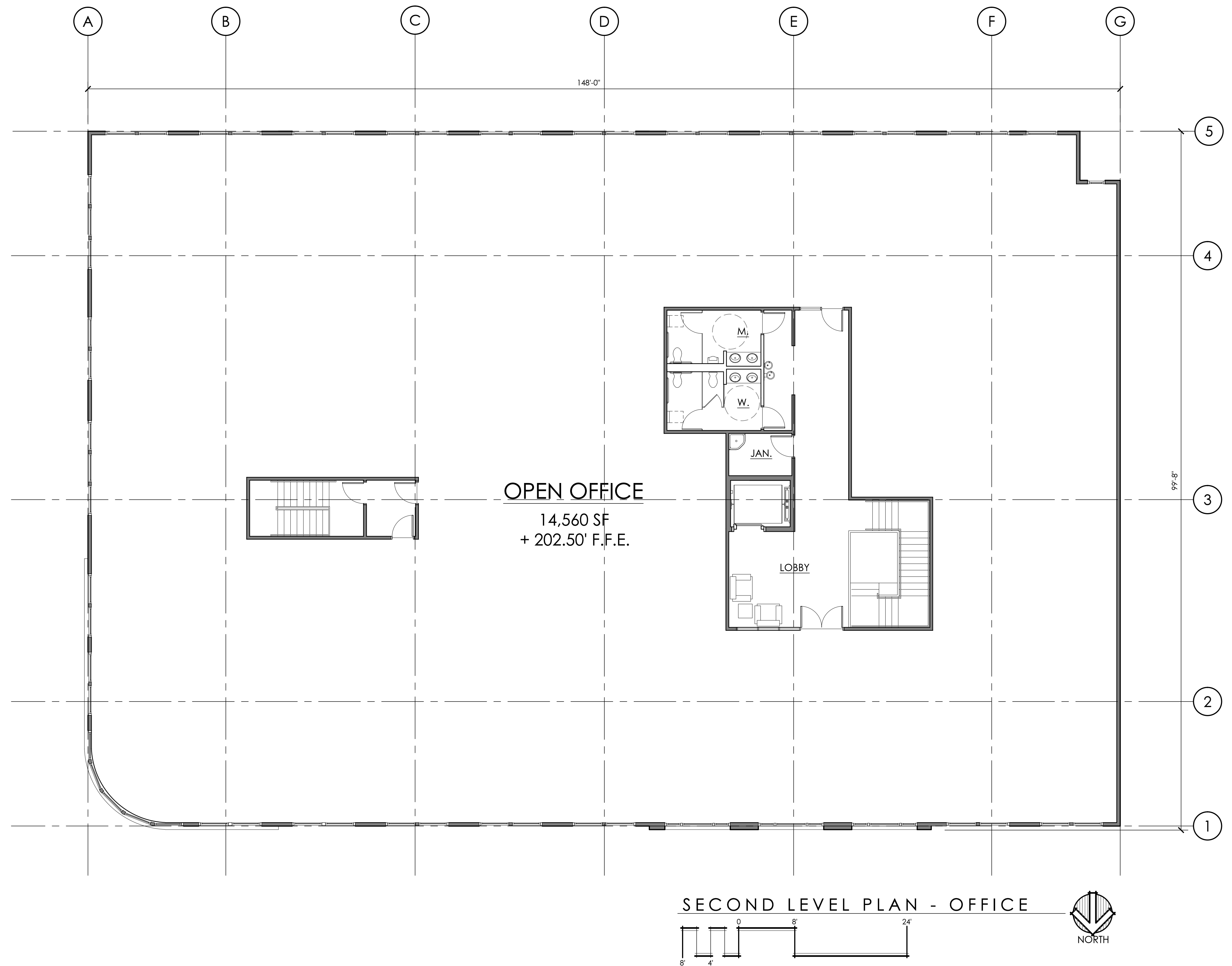
**CLASS II & HISTORIC
DESIGN REVIEW
SUBMITTAL DRAWINGS**

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A2.2a



**WILLAMETTE
FALLS**

MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11th ST.,
WEST LINN, OREGON

ICON CONSTRUCTION &
DEVELOPMENT

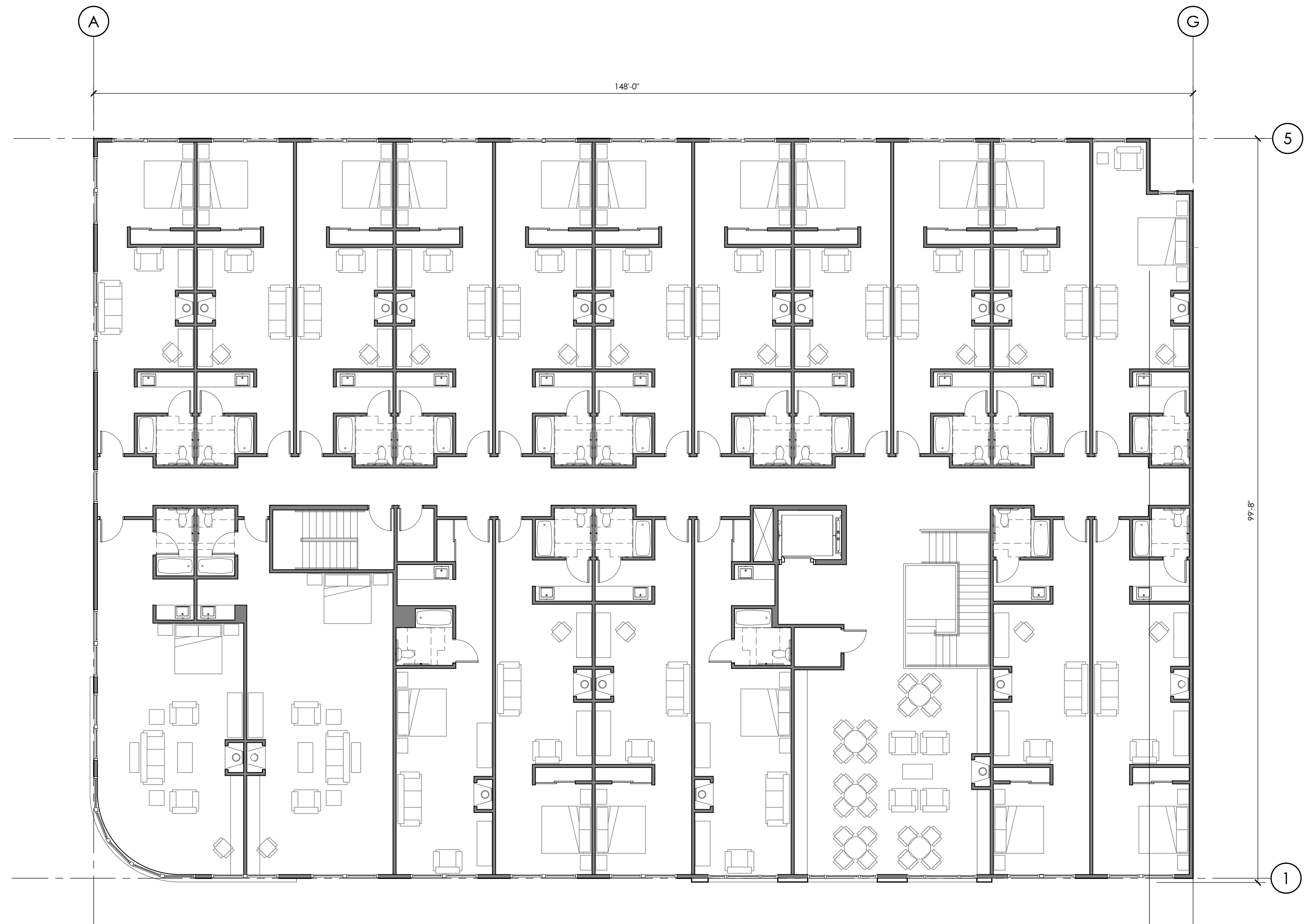
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

**CLASS II & HISTORIC
DESIGN REVIEW
SUBMITTAL DRAWINGS**

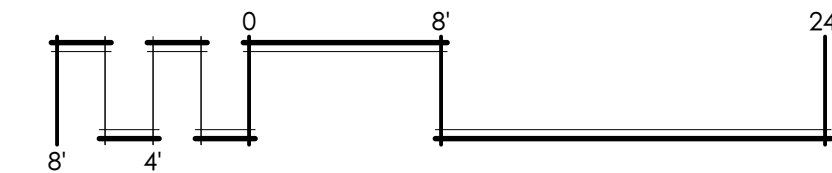
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ISSUE DATE: FEBRUARY, 2016
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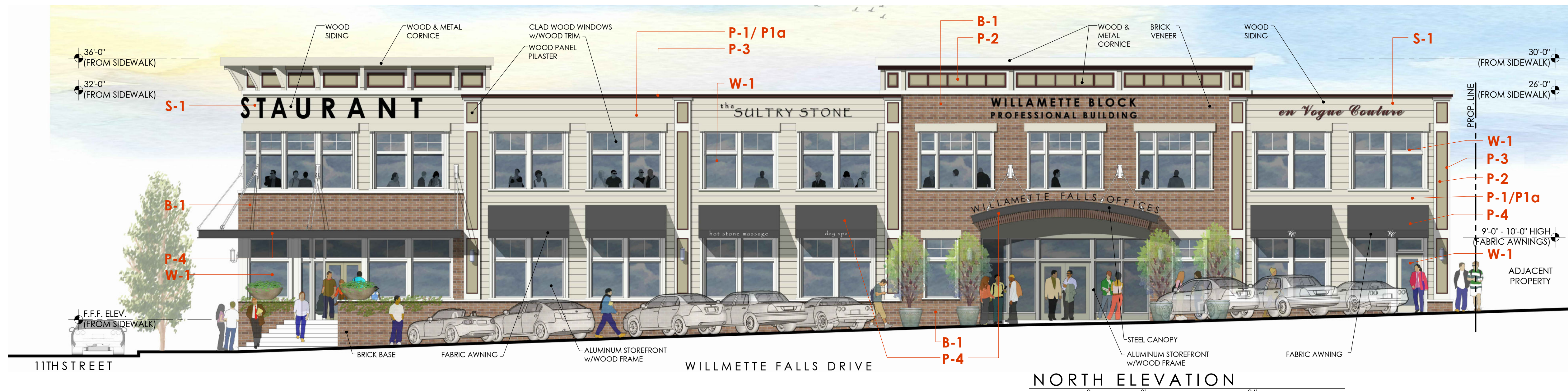
REVISIONS:

SHEET NUMBER:

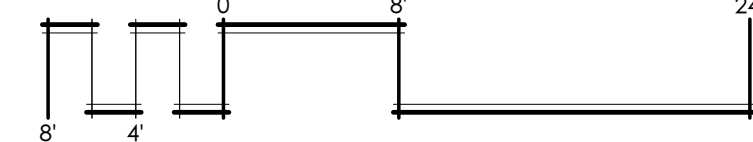


SECOND LEVEL PLAN - HOTEL



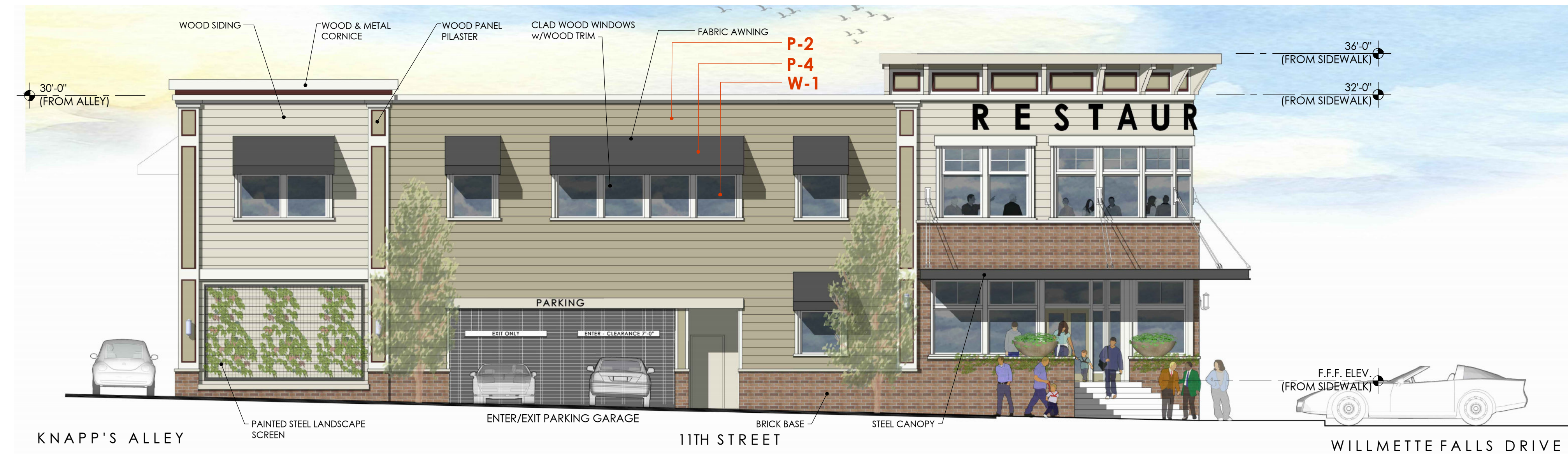


NORTH ELEVATION

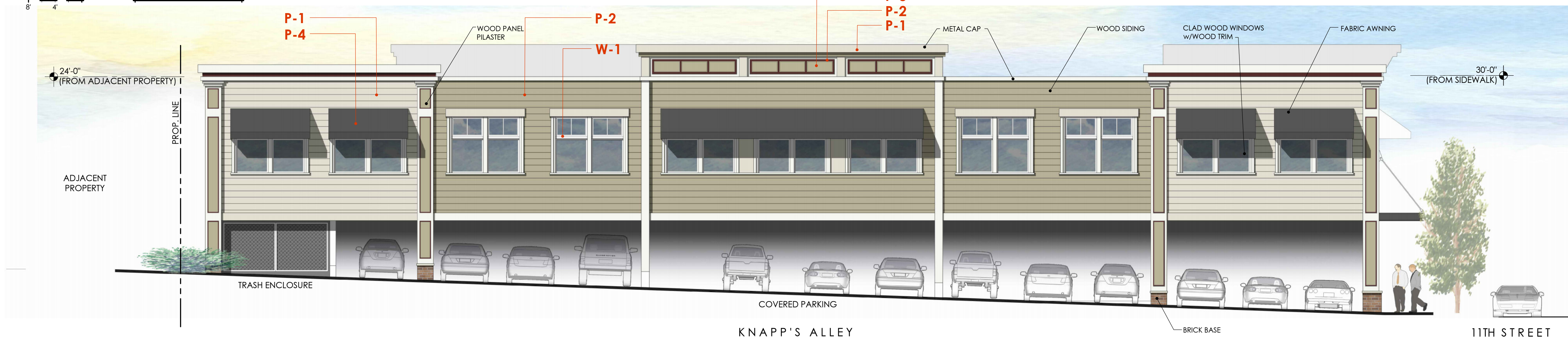
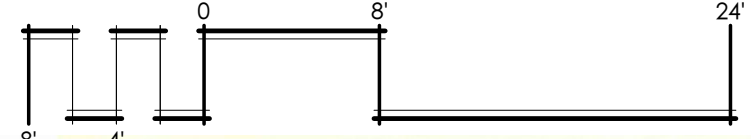


COLOR / MATERIAL SCHEDULE

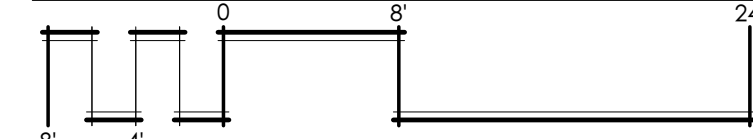
- P-1 GRAY MIST**
Main Building / Window Trim / Cornices
'Benjamin Moore'
- P-1a BRUSHED ALUMINUM (alternate color)**
Main Building / Window Trim / Cornices
'Benjamin Moore'
- P-2 SAGE MOUNTAIN**
Main Building / Wood Pilaster Panels
'Benjamin Moore'
- P-3 COTTAGE RED**
Accent Trim - 'Benjamin Moore'
- P-4 BLACK BEAUTY**
Fabric & Metal Awnings - 'Pike Awnings'
- W-1 STOREFRONT WINDOWS**
Painted Wood or Vinyl Clad
'Anderson' / 'Pella' / 'Jeld-Wen'
- S-1 SIDING (exterior all sides)**
HardiePlank Cement Fiber Siding
'James Hardi' Products
- B-1 BRICK Chestnut / Mission Texture**
'Mutual Materials'



EAST ELEVATION



SOUTH ELEVATION



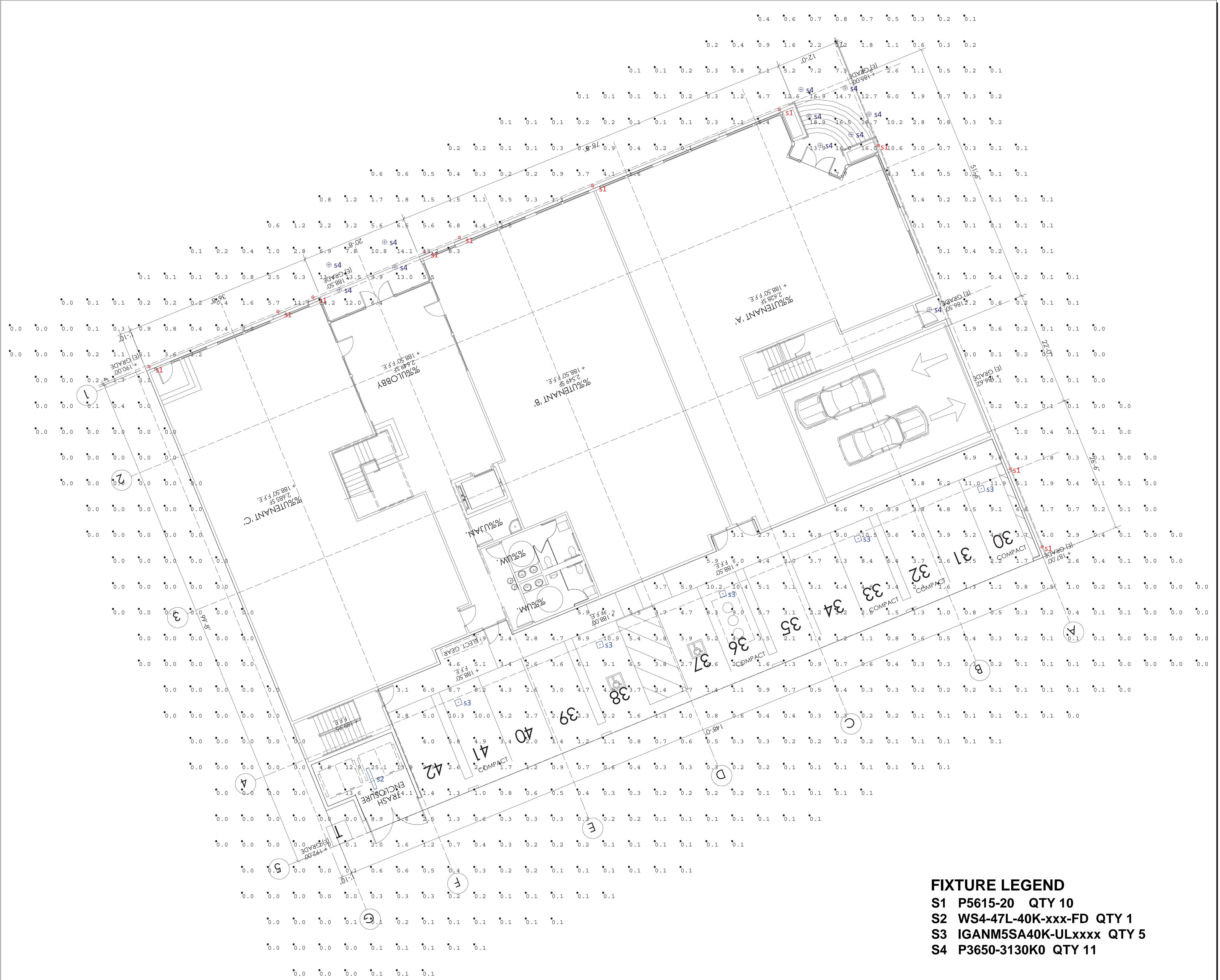
THE LIGHTING PROJECT

#	Date	Comments
1		Notes Regarding Deliverable

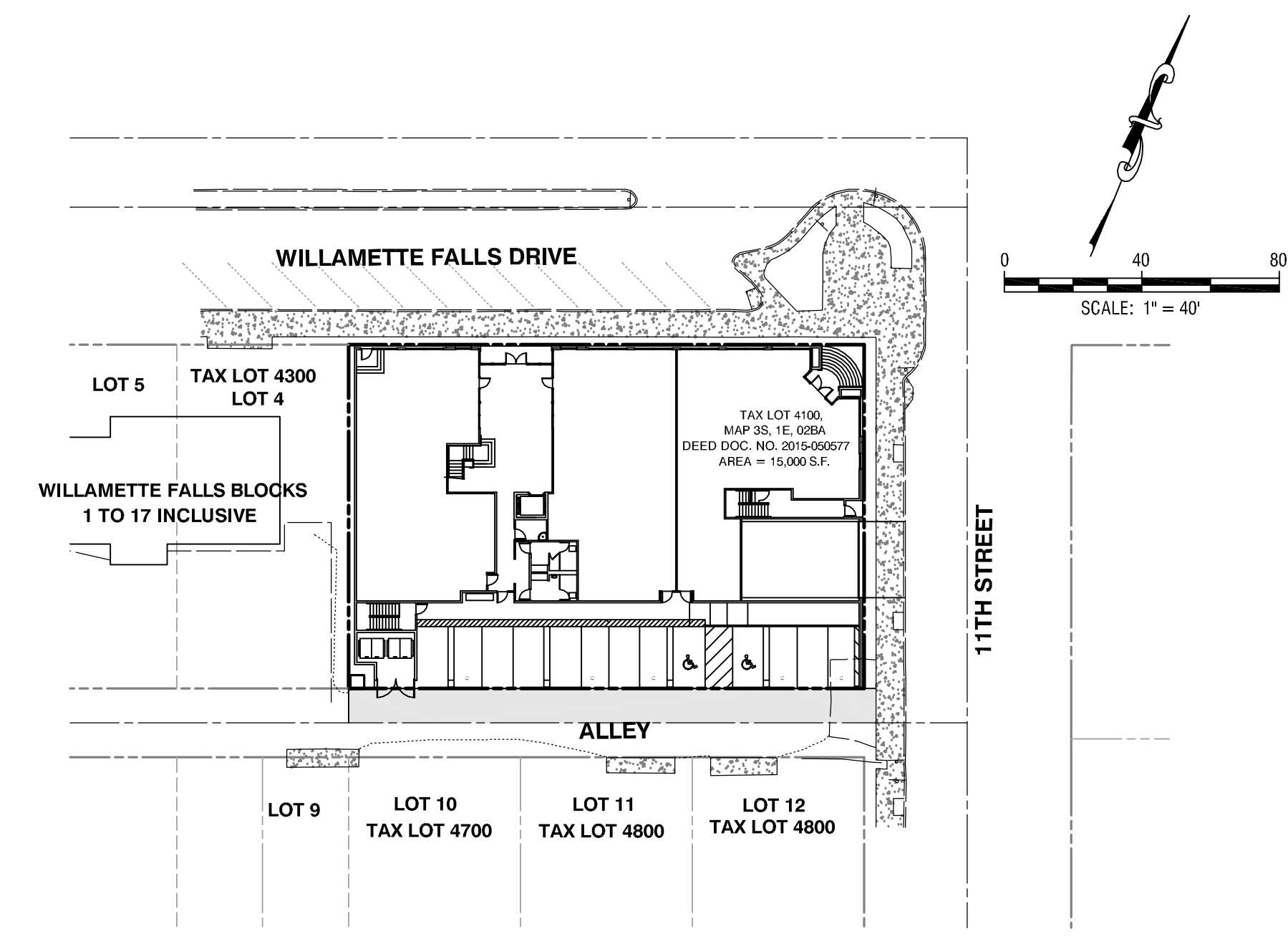
#	Date	Comments

Drawn By: ANDREW KIDD
 The Lighting Project / www.tlpnw.com
 Date: 3/22/2016
 Scale:

WALLAMETTE FALLS
 SITE LIGHTING



- FIXTURE LEGEND**
- S1 P5615-20 QTY 10
 - S2 WS4-47L-40K-xxx-FD QTY 1
 - S3 IGANM5SA40K-ULxxxx QTY 5
 - S4 P3650-3130K0 QTY 11



SITE MAP
SCALE: 1" = 40'

WILLAMETTE FALLS MIXED USE West Linn, Oregon

OWNER/APPLICANT
Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
Phone 503-657-0406

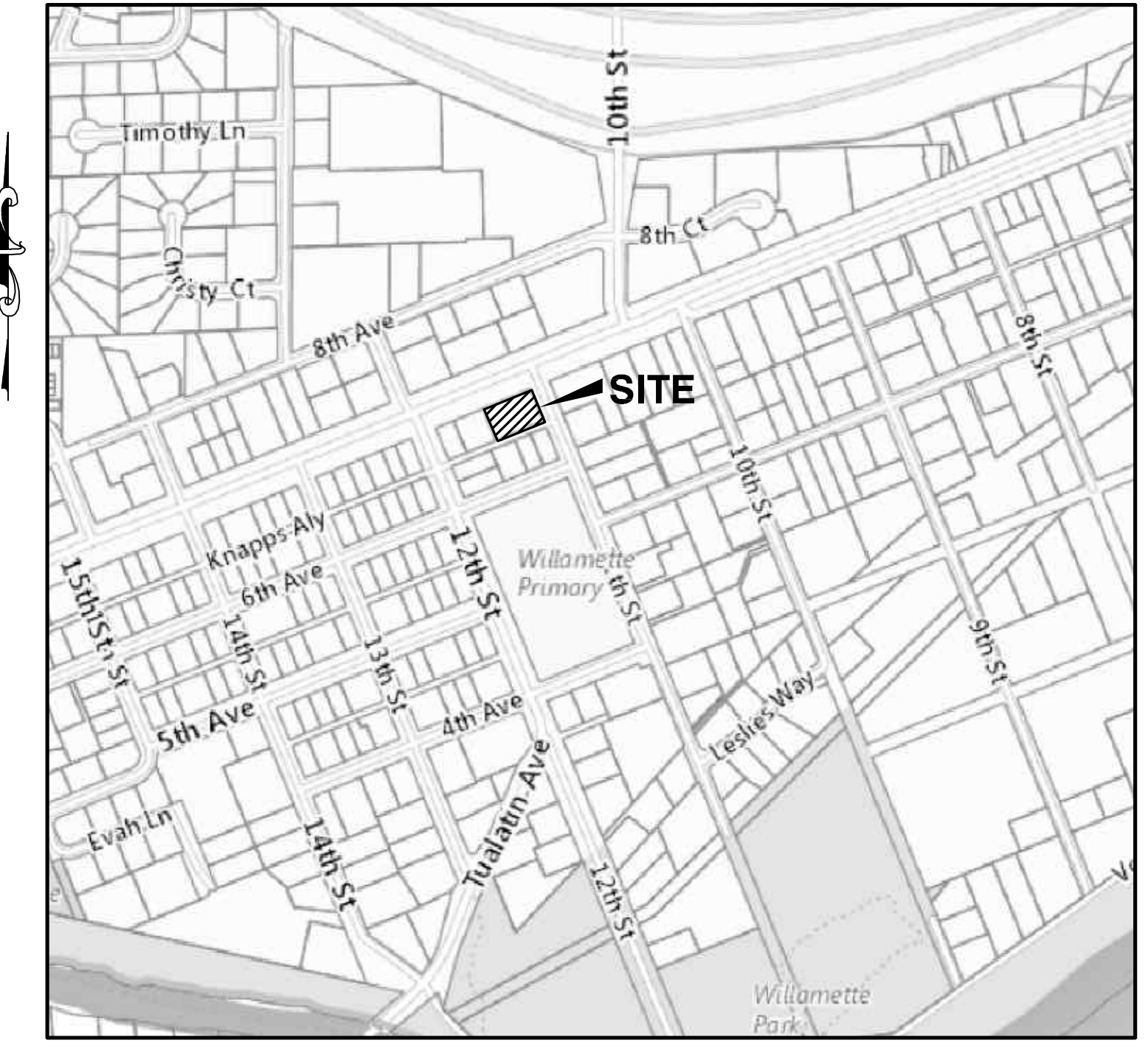
ARCHITECT
SGA
10940 SW Barnes Road, No. 364
Portland, Oregon 97225
Phone 503-201-0725

ENGINEERING
Bruce D. Goldson, PE
Theta, LLC
PO Box 1345
Lake Oswego, Oregon 97035
Phone 503-481-8822

SURVEYING
Centerline Concepts, land surveying, Inc.
729 Molalla Ave, Suite 1 & 2
Oregon City, Oregon 97045
Phone 503-650-0188

LEGAL
T3S R1E Section 2, TL 4100

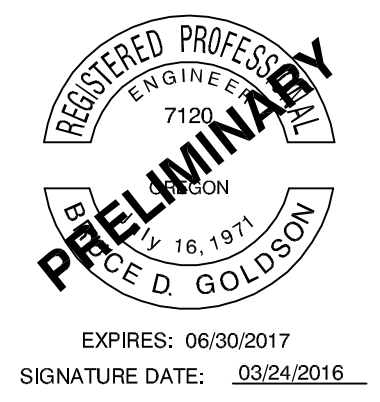
ADDRESS:
1969 Willamette Falls Drive
West Linn, Oregon



VICINITY MAP
SCALE: NTS

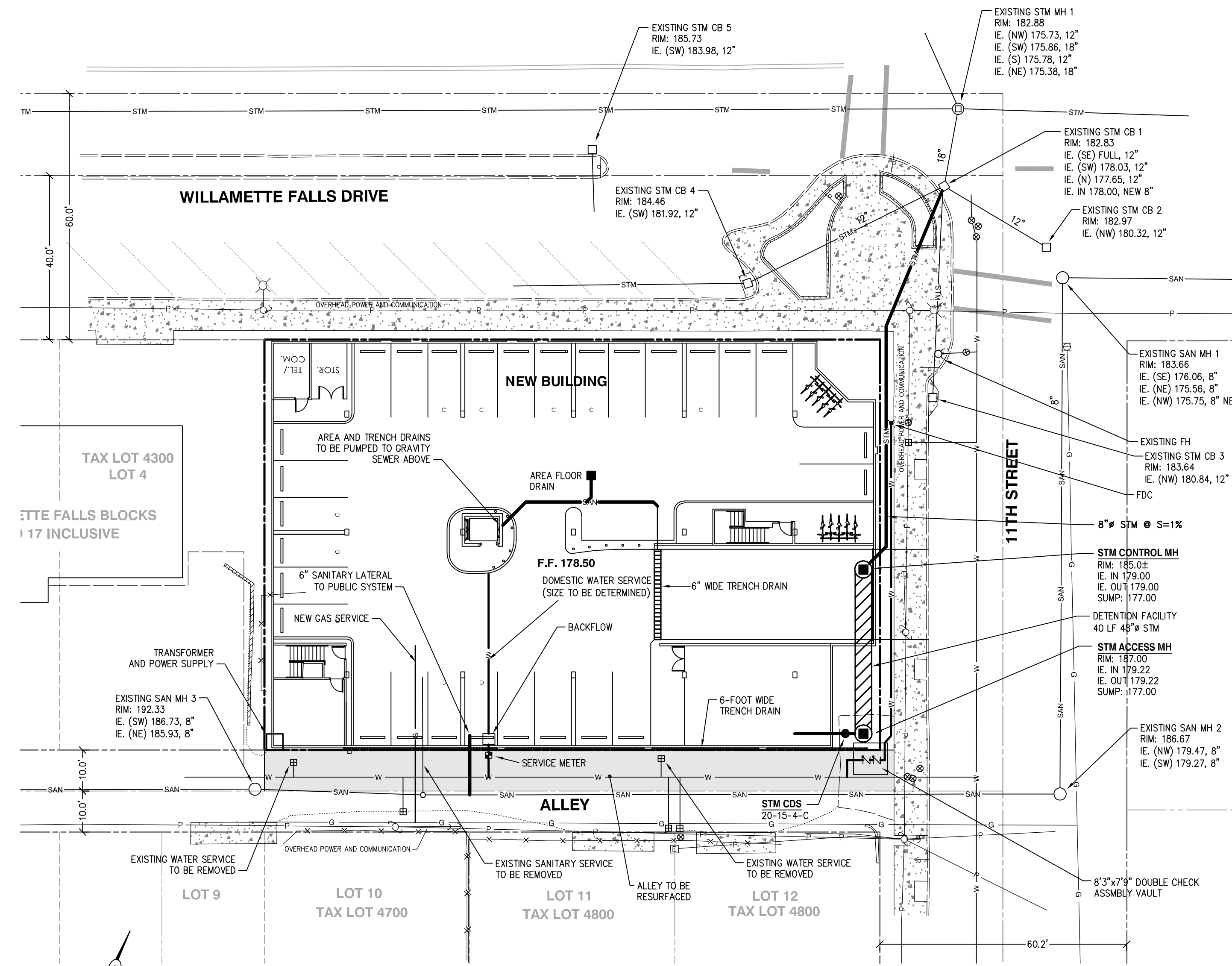
SHEET INDEX

- 1 COVER
- 2 SITE ANALYSIS
- 3 SITE AND UTILITY PLAN
- 4 GRADING AND EROSION CONTROL PLAN

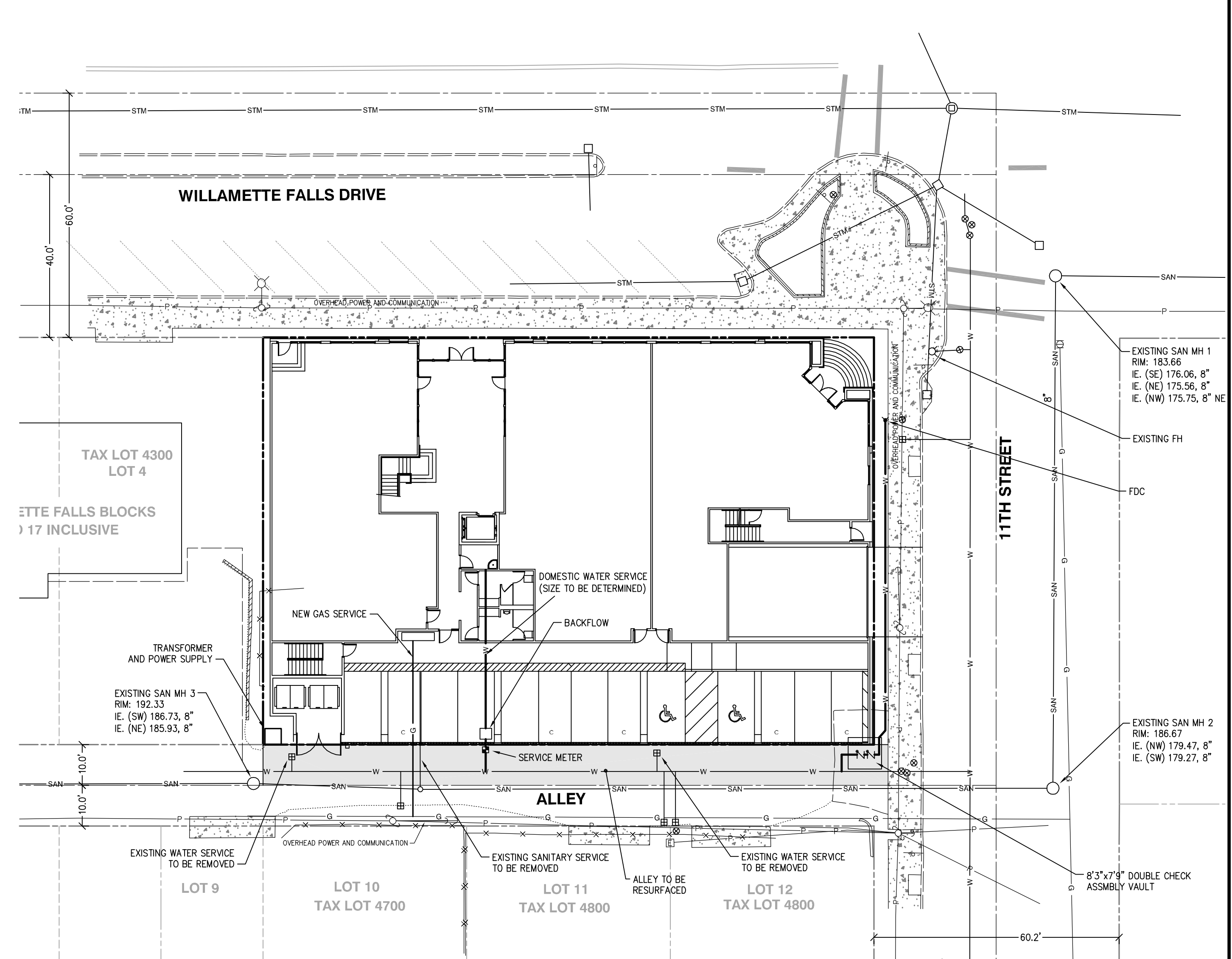
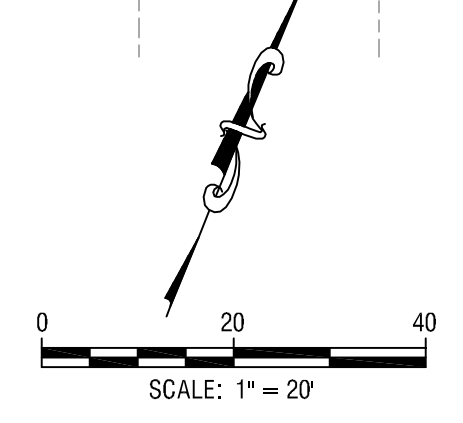


DESIGN REVIEW - COVER

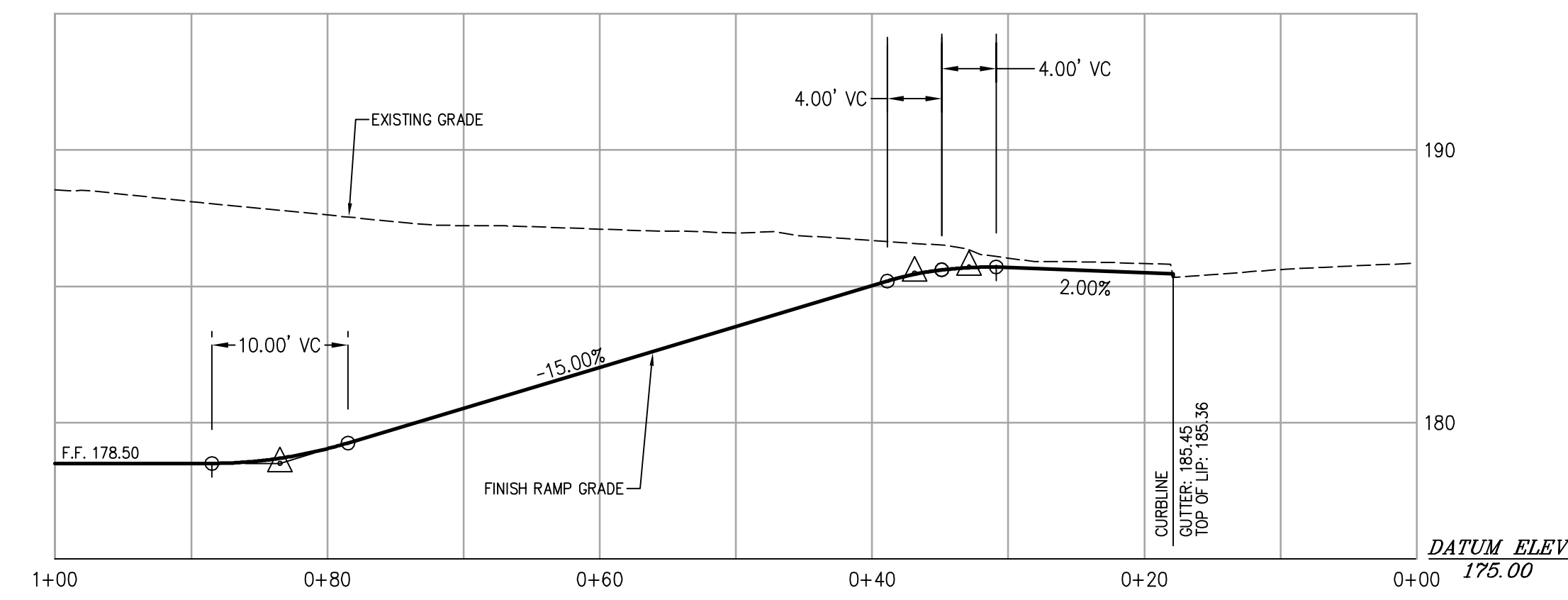
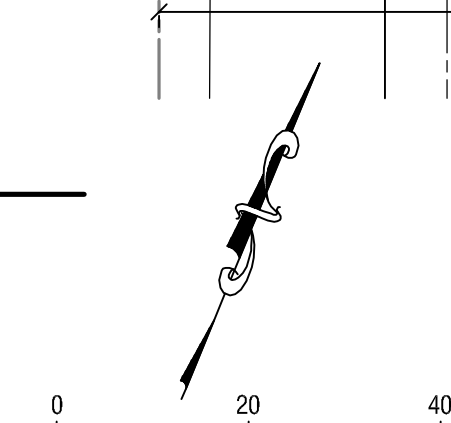
<p>2015-129I</p>				<p>Theta, LLC ENGINEERING - SURVEYING - PLANNING PO Box 1345 Lake Oswego, Oregon 97035 503/481-8822 email: thetaeng@comcast.net</p>	<p>Icon Construction & Development, LLC 1980 Willamette Falls Drive, Suite 200 West Linn, Oregon 97068 PH: (503) 657-0406</p>	<p>Tax Lot 4100 T.3S., R.1E., Section 2 West Linn, Oregon</p>	<p>SHEET: 1/4</p>
DESIGNED: BDG	DRAWN: BJS	SCALE: 1" = 20'	DATE: January, 2016				
FILE: Willamette Design Review1	DATE: 03/24/2016	NO. 1	REVISION: REVISED PER WEST LINN LETTER, MARCH 9TH, 2016				



GARAGE LEVEL
SCALE: 1" = 20'

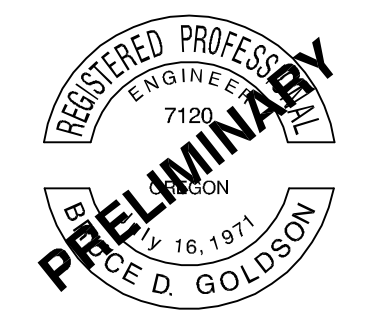


LOBBY LEVEL
SCALE: 1" = 20'



GARAGE RAMP PROFILE
1" = 10' HORIZONTAL
SCALE: 1" = 5' VERTICAL

1
3



EXPIRES: 06/30/2017
SIGNATURE DATE: 03/24/2016

2015-129I				
DESIGNED: BDG				
DRAWN: BJS				
SCALE: 1" = 20'				
DATE: January, 2016	03/24/2016	1	REVISED PER WEST LINN LETTER, MARCH 9TH, 2016	
FILE: Willamette Design Review1	DATE	NO.	REVISION	

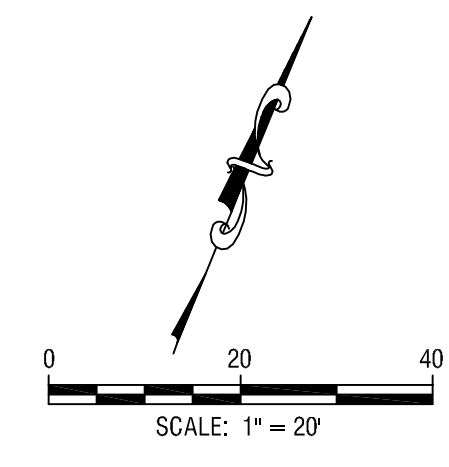
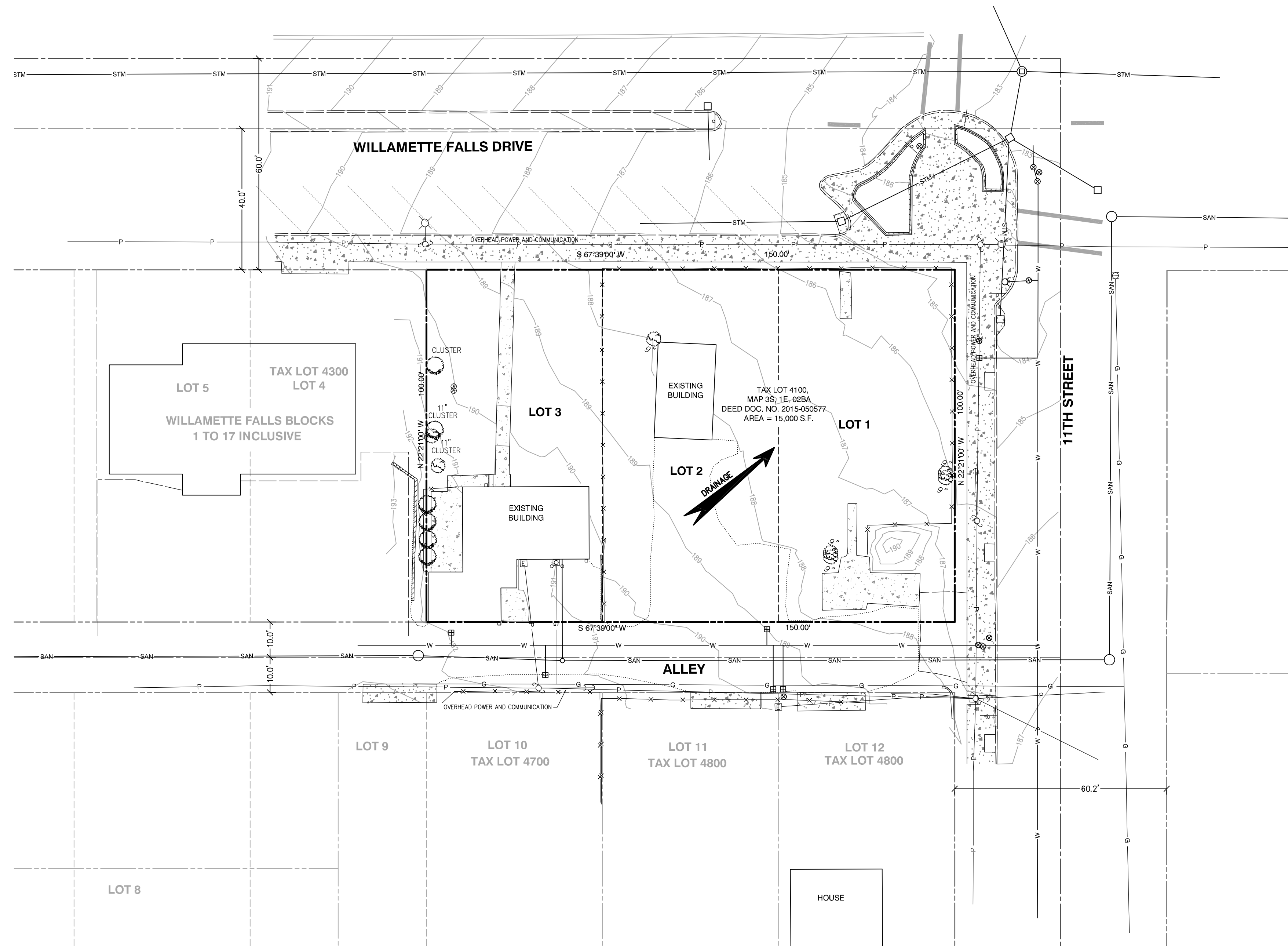
Theta, llc
ENGINEERING - SURVEYING - PLANNING
PO Box 1345
Lake Oswego, Oregon 97035
503/481-8822
email: thetaeng@comcast.net

Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET:
3/4

DESIGN REVIEW - SITE AND UTILITY PLAN



RESOURCE AREAS:

- A NO WETLAND PRESENT
- B NOT IN RIPARIAN CORRIDOR
- C NO STREAMS OR INTERMITTENT WATER WAYS
- D NO HABITAT CONSERVATION AREA
- E NO ROCK OUTCROPPINGS

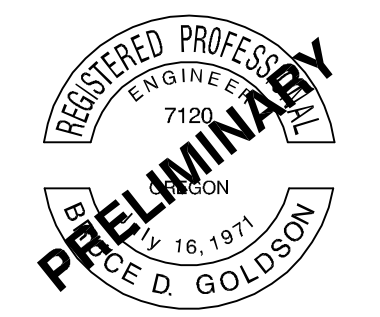
NATURAL HAZARD AREAS:

- A NOT IN FLOOD PLAIN
- B NOT IN WATER RESOURCE AREAS
- C NOT IN LANDSLIDE AREA
- D NOT IN LANDSLIDE VULNERABLE ANALYSIS AREA

GROSS AREA = 15,000 SQ.FT.

SLOPE ANALYSIS

- TYPE I: (UNDER 15%) = 15,000 SQ.FT.
- TYPE II: (15% TO 25%) = 0.00 SQ.FT.
- TYPE III: (25% TO 35%) = 0.00 SQ.FT.
- TYPE IV: (OVER 35%) = 0.00 SQ.FT.



EXPIRES: 06/30/2017
SIGNATURE DATE: 03/24/2016

DESIGN REVIEW - SITE ANALYSIS

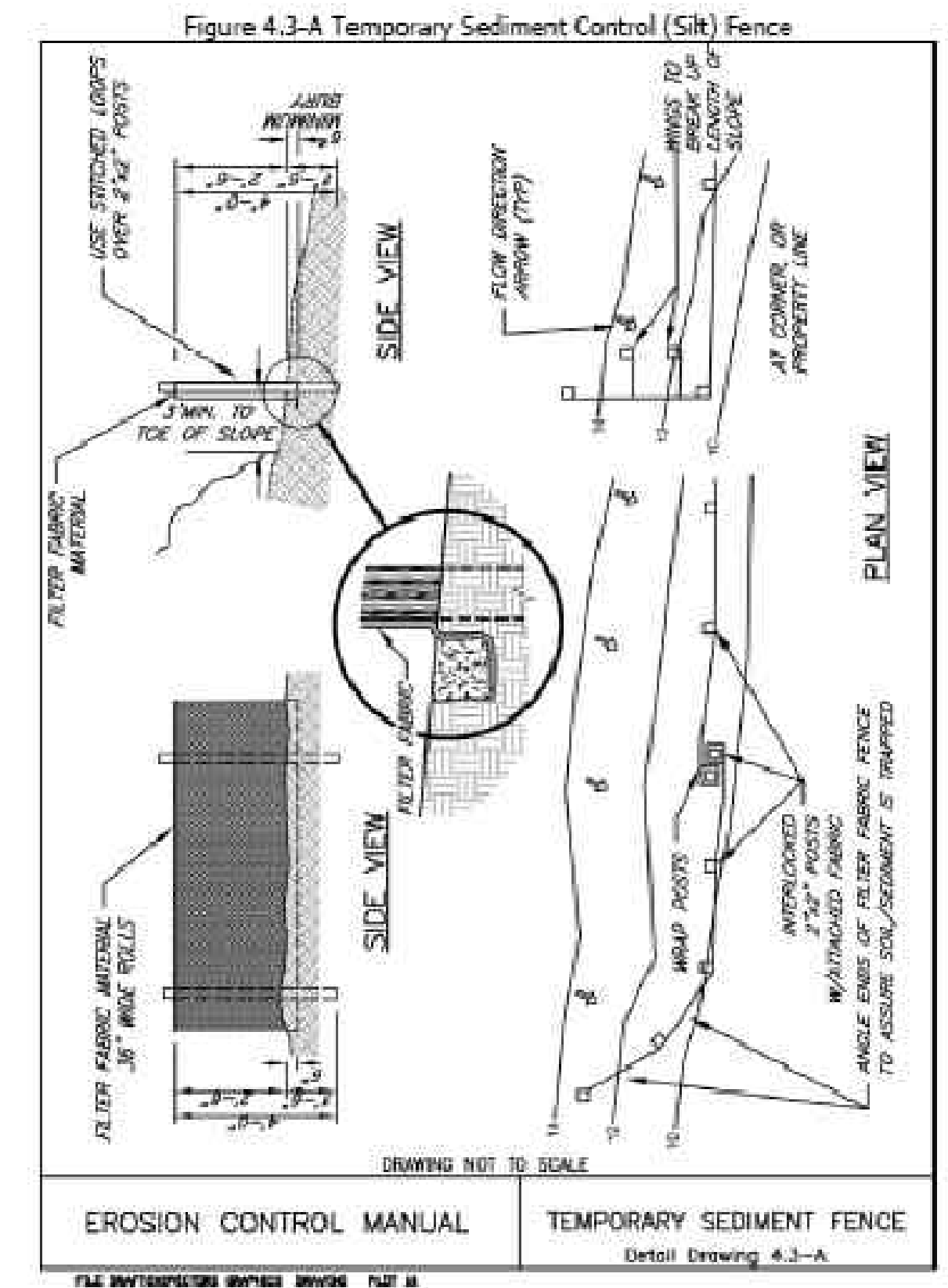
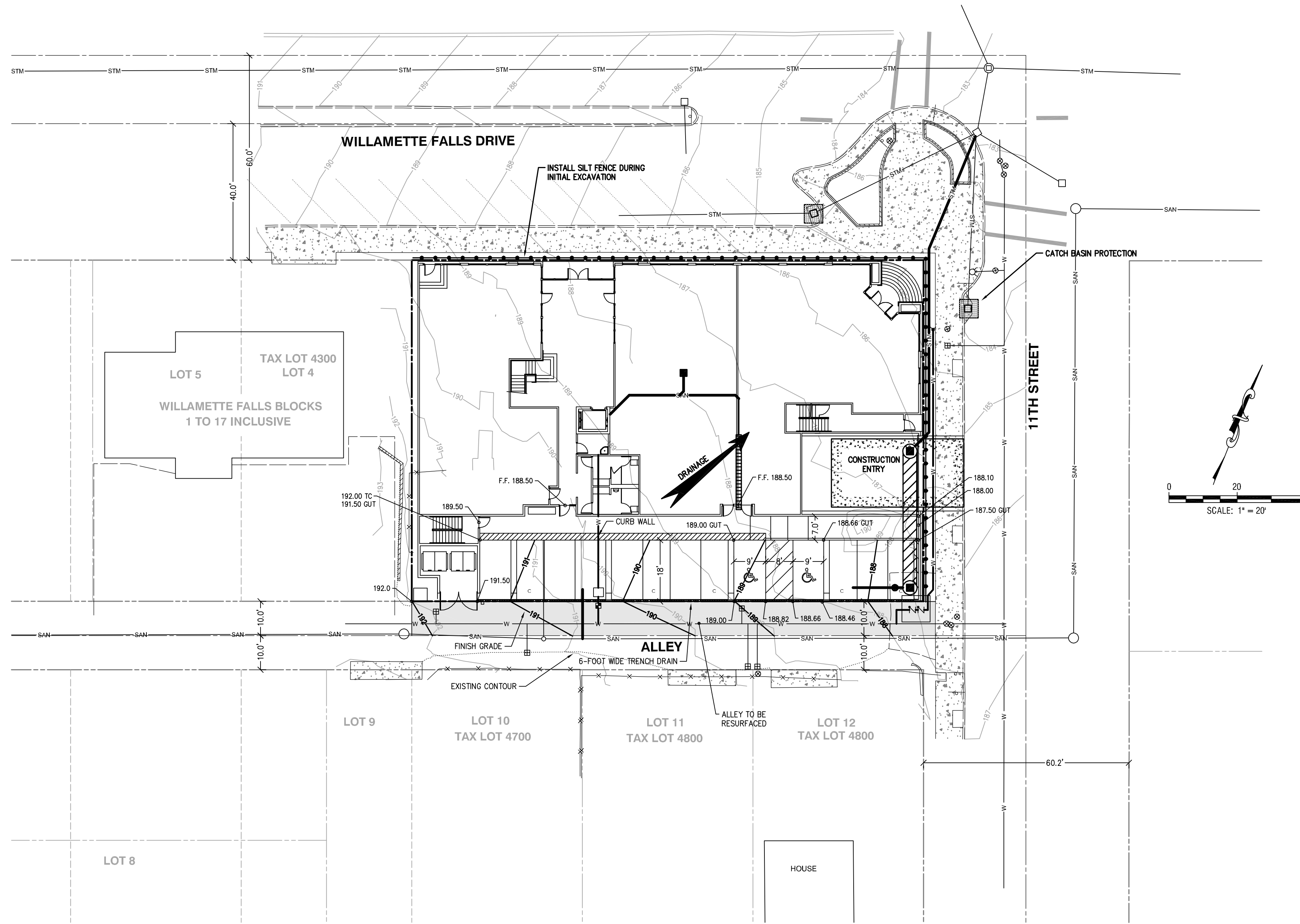
2015-129I				
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West Linn, Oregon 97068
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Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET:
2/4



2015-129I				
DESIGNED:	BDG			
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1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

DESIGN REVIEW - GRADING AND EROSION CONTROL PLAN

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET:
4/4



EXPIRES: 06/30/2017
SIGNATURE DATE: 03/24/2016



TRANSMITTAL

TO:

Darren Wyss
Associate Planner

CITY OF WEST LINN

22500 Salamo Rd.
West Linn, Oregon 97068
dwyss@westlinnoregon.gov
Phone (503) 722-5512

SGA PROJECT

1963 Willamette Falls Drive | SGA Project No. 15-104

VIA

Delivery US Mail Overnight Mail Fax Email

INCLUDED ITEMS

- 1 Copy Copy of Affidavit of Sign Posting
- 1 Copy Affidavit: Mailing to Neighbors
- 1 Copy Certified Mail Receipts (Officer Letter)
- 1 Copy Letter to Neighborhood Association Officers
- 1 Copy Neighborhood Meeting Notes from 04-25-2016 Meeting
- 1 Copy Letter to Neighbors within 500' radius
- 1 Copy Mailing Address Labels
- 1 Copy Maps of Neighborhood Mailing
- 1 Copy Site Sign
- 1 Copy Audio Recording of Meeting

END OF TRANSMITTED ITEMS

26 April, 2016



SUTTON|GODWIN|ARCHITECTURE

April 4, 2016

NEIGHBORHOOD MEETING NOTICE

Ms. Gail Holmes

President - Willamette Neighborhood Association (WNA)
C/O City of West Linn
22500 Salamo Road
West Linn, Oregon

REF: 1963 Willamette Falls Drive

Lots 1, 2 & 3 Block 10
West Linn, Oregon

Ms. Holmes-

SG Architecture, LLC is representing the applicant regarding the property located at 1993 Willamette Falls Drive in the Willamette Neighborhood Association. In the coming months the applicant will be processing the Land Use Application that will be submitted to the City of West Linn. Prior to applying for the necessary Land Use and Historic Review approvals we like to discuss the project in more detail with the Neighborhood Association, surrounding property owners and residents.

Please arrange for our meeting to be on:

Monday - April 25, 2016 @ 7:00 PM
West Linn Police station "Community Room"
Located at 1800 8th Ave
West Linn, OR 97068

PUBLIC

You are encouraged to contact the Willamette Neighborhood Association with any questions you wish to relay to the applicant. **WNA President, Gail Holmes** may be contacted at willamette@westlinoregon.gov or at 503-318-7317. Please note that this will be an informal meeting on preliminary plans. These plans may be modified before the application is submitted to the City.

We look forward to discussing this project with you. If you have questions, but will be unable to attend, please feel free to call me at 503-201-0725.

Sincerely,
SG Architecture, LLC

10940 SW Barnes Rd #364
Portland, OR 97225
503.201.0725

Kevin M. Godwin – Partner

CC by Certified Mail: Elizabeth Rocchia-Treasurer

7015 0640 0007 2073 3960

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- Adult Signature Restricted Delivery \$

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City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

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- Adult Signature Restricted Delivery \$

Postmark
Here

Postage

\$
Total Postage and Fees

Sent To

GAIL HOLMES

Street and Apt. No., or PO Box No.

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

Mail Receipt:

THIS IS NOT A SHIPPING LABEL. PLEASE SAVE FOR YOUR RECORDS.

TRANSACTION DATE:
MON 4 APR 2016

EXPECTED DELIVERY DATE:

N/A
KEVIN GODWIN
10940 SW BARNES RD
#364

PORTLAND OR 97225
(503) 201-0725
MAIL FROM:

MAIL TO:
WILLAMETTE NEIGHBORHOOD ASSOCIATION
MS ELIZABETH ROCCHIA - TREASURER
801 WENDY CT
WEST LINN OR 97068-4059
RESIDENTIAL

MAIL INFORMATION:
USPS FIRST CLASS MAIL
0 LBS 2.0 OZ TOTAL WEIGHT
0 LBS 2.0 OZ EACH PIECE
11.50X6.13X0.25
1 PIECE
CERTIFIED MAIL
RETURN RECEIPT

TRACKING & REFERENCE
SHIPMENT ID: MMWAD92ET586W
ORDER/ITEM #: BS
REF#: - -
CERT MAIL #: 70150640000720733960

DESCRIPTION:
--

MAILED THROUGH:
THE UPS STORE #3379
PORTLAND, OR 97225-5368
(503) 646-9999

POSTAGE CHARGES
FIRST CLASS MAIL 11.60
PIECES X 1
TOTAL \$11.60

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SHIPMENT ID: MMWAD92ET586W



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TRANSACTION DATE:
MON 4 APR 2016

EXPECTED DELIVERY DATE:

N/A
KEVIN GODWIN
10940 SW BARNES RD
#364

PORTLAND OR 97225
(503) 201-0725
MAIL FROM:

MAIL TO:
WILLAMETTE NEIGHBORHOOD ASSOCIATION
MS. GAIL HOLMES - PRESIDENT
801 WENDY CT
WEST LINN OR 97068-4059
RESIDENTIAL

MAIL INFORMATION:
USPS FIRST CLASS MAIL
0 LBS 2.0 OZ TOTAL WEIGHT
0 LBS 2.0 OZ EACH PIECE
11.50X6.13X0.25
1 PIECE
CERTIFIED MAIL
RETURN RECEIPT

TRACKING & REFERENCE
SHIPMENT ID: MMWAD9236GKHM
ORDER/ITEM #: BS
REF#: - -
CERT MAIL #: 70150640000720733953

DESCRIPTION:
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MAILED THROUGH:
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QUESTIONS? CONTACT SHIPPED THROUGH ABOVE.

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Neighborhood Meeting
Affidavit of Posting Notice

City of West Linn)

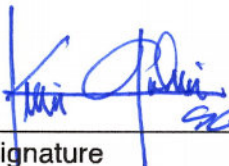
SS

City of West Linn)

I, Kevin Godwin, being duly sworn, state that I represent the party initiating interest in a proposed two-story building development affecting the land at 1963 Willamette Falls Drive in West Linn, Oregon, and that pursuant to Community Development Code Section 99, did on April 5th, 2016, personally post notice indicating that the site may be proposed for a two story building development.

Two signs were posted, one at the fence facing Willamette Falls Drive and 11th Street, and one in the parking area median facing Willamette Falls Drive.

This 1st day of April, 2016.


Signature
Kevin Godwin
SCT ARCHITECTURE, LLC.

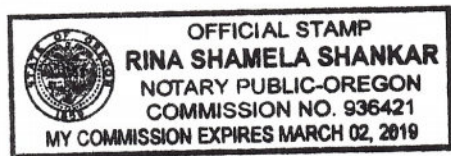
Subscribed and sworn to, or affirmed, before me this 26th day of April, 2016.



Notary for the state of Oregon

County of Washington

My Commission Expires: March 02, 2019



**NOTICE OF
NEIGHBORHOOD MEETING**

**REGARDING A NEW TWO-STORY
BUILDING PROPOSED FOR
1963 WILLAMETTE FALLS DRIVE**

**YOU ARE INVITED TO ATTEND A
NEIGHBORHOOD MEETING ON**

**MONDAY,
APRIL 25TH, 2016
7:00 PM**

at the

West Linn Police Station
"Community Room"
1800 8th Ave, West Linn

FOR ADDITIONAL INFORMATION CONTACT THE
APPLICANT FOR THIS PROJECT:

Kevin Godwin - SG Architecture, LLC
10940 SW Barnes Rd #364, Portland OR 97225
503-201-0725 kgodwin@sg-arch.net

Neighborhood Meeting
Affidavit of Mailing

City of West Linn)

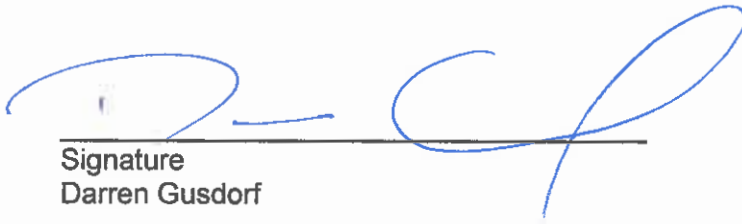
SS

City of West Linn)

I, Darren Gusdorf, being duly sworn, state that I represent the party initiating interest in a proposed two-story building development affecting the land at 1963 Willamette Falls Drive in West Linn, Oregon, and that pursuant to Community Development Code Section 99, did on April 5th, 2016, cause to have mailed, to each of the persons on the attached list, a notice of meeting to discuss the proposed development of the aforementioned property.

I further state that said notices were enclosed in plainly addressed envelopes to said persons and were deposited on the date indicated above in the United States Post Office with postage prepaid thereon.

This 13th day of April, 2016.

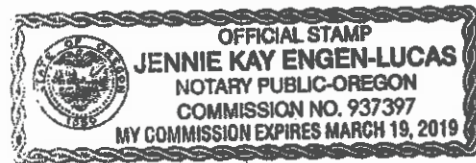


Signature
Darren Gusdorf

Subscribed and sworn to, or affirmed, before me this 13th day of April, 2016.

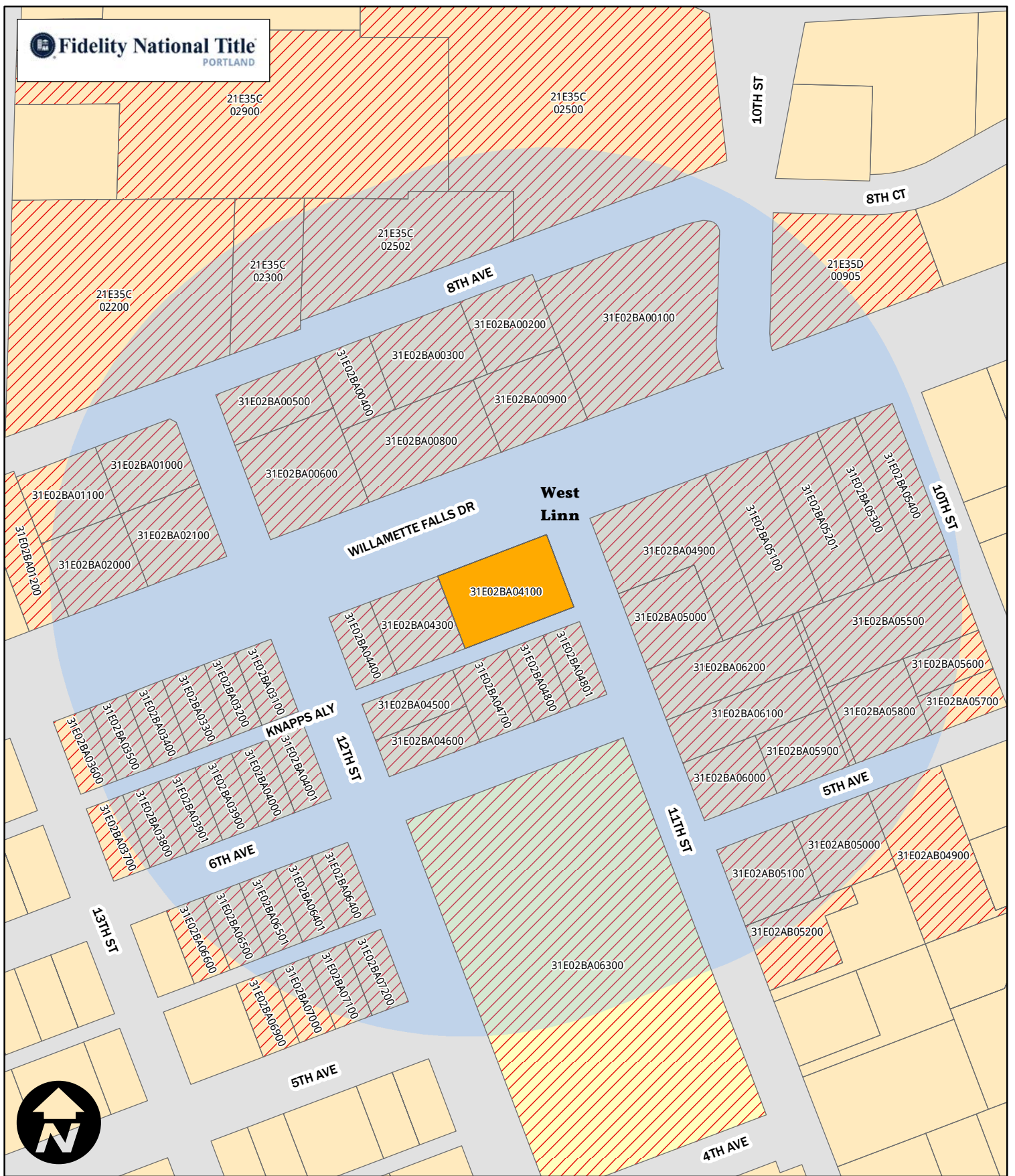


Notary for the state of Oregon



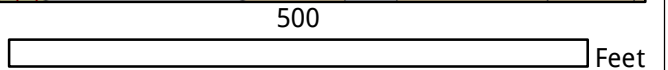
County of Clackamas

My Commission Expires: 3/19/2019



Public Notification Search

- Subject
- Notification
- Radius
- School Lands
- Taxlots
- Incorporated city



Prepared by: Fidelity National Title
 Data: CoreLogic, Metro RLIS
 Date: 4/1/2016
 This information is reliable, but not guaranteed. It is not a survey.



MEETING NOTES

West Linn Neighborhood Association

April 25th, 2016 | 7:00 PM

ATTENDEES:

Gail Holmes, President & Elizabeth Rocchia, Treasurer
Willamette Neighborhood Association
WillametteNA@westlinnoregon.gov

Scot Sutton, Partner & Kevin Godwin, Partner
SG Architecture, LLC

Twenty-Seven Additional Neighbors (See Attached Sign-In Sheet)

PURPOSE:

Review of the proposed two-story mixed-use building to be located at 1963 Willamette Falls Drive.

PRESENTATION:

Kevin Godwin & Scot Sutton presented plans and elevations of the proposed project. After the presentation, they addressed questions from the neighbors.

NEIGHBOR QUESTIONS / COMMENTS:

What is the project schedule / has the project been submitted for planning review?

- A. The project has been submitted for planning review. Anticipate Historic Review Committee review in May, and approval by Planning Commission in June. Construction start projected for summer 2016, with completion anticipated in early 2017.**

The neighbors expressed a desire for period lighting fixtures, and landscaping to the extent possible.

- A. Period lighting fixtures are planned as required in the zone. Landscaping opportunities are limited due to building location on the lot line, but large pot planting, along with built-in planters in at the corner of 11th & WFD are planned.**

What will happen with the utility lines?

- A. We are working with PGE to meet the City's requirement to relocate the lines underground.**

What is the parking count? Will the underground parking be public access? What about security?

- A. While no on-site parking is required by Code, 42 parking stalls are proposed. All of the on-site stalls will be privately owned by the project developer, for the use of visitors to and employees of businesses in the building. The underground lot will be gated during non-business hours, lighted 24 hours, and will have alarms as required by Code for cars entering the street.**

What are the proposed uses for the building?

- A. Possible uses for both floors include any of those permitted by the Code. Current intended ground floor uses include retail, restaurant, or service business. Current intended second floor uses include office or boutique hotel.**

Have any tenants been identified?

- A. No tenants have been identified at this time.**

What are the anticipated improvements along Knapp's Alley? How will drainage be addressed?

- A. Proposed improvements include re-surfacing the North (project) side of the alley. All stormwater generated along the project half of the alley frontage, as well as on the project site itself, will be directed to the storm drain system per City requirements.**

The meeting adjourned at 7:50 PM.

END OF MEETING NOTES