



Planning Division  
Development Permit Application

Final action on development application or zone change is required within 120 days per ORS 227.175 or as otherwise required by state or federal law for specific application types.

A pre application conference may be required.

The City will not accept applications for wireless communication facilities or similar facilities without a completed copy of a Wireless Facility Review Worksheet.

The City will not schedule incomplete applications for public hearing or send administrative public notice until all of the required materials are submitted.

29799 SW Town Center Loop E, Wilsonville, OR 97070  
Phone: 503.682.4960 Fax: 503.682.7025  
Web: [www.ci.wilsonville.or.us](http://www.ci.wilsonville.or.us)

**Applicant:**

Name: Griffith Franklin  
Company: \_\_\_\_\_  
Mailing Address: 28025 SW Ladd Hill Road  
City, State, Zip: Sherwood, Oregon 97140  
Phone: 503-784-4640 Fax: \_\_\_\_\_  
E-mail: griffstock@comcast.net

**Authorized Representative:**

Name: Matt Newman  
Company: NW Engineers  
Mailing Address: 3409 NE John Olsen Ave  
City, State, Zip: Hillsboro, Oregon 97124  
Phone: 503-601-4401 Fax: \_\_\_\_\_  
E-mail: mattn@nw-eng.com

**Property Owner:**

Name: Griffith Franklin  
Company: \_\_\_\_\_  
Mailing Address: 28025 SW Ladd Hill Road  
City, State, Zip: Sherwood, Oregon 97140  
Phone: 503-784-4640 Fax: \_\_\_\_\_  
E-mail: griffstock@comcast.net

**Property Owner's Signature:**

*Griffith Franklin*  
Printed Name: GRIFFITH FRANKLIN Date: 11-11-23

**Applicant's Signature:** (if different from Property Owner)

*Griffith Franklin*  
Printed Name: GRIFFITH FRANKLIN Date: 11-11-23

**Site Location and Description:**

Project Address if Available: 28395 SW Boberg Road Suite/Unit \_\_\_\_\_  
Project Location: West side of SW Boberg Road, south of SW Boeckman Road  
Tax Map #(s): 31W 14A Tax Lot #(s): 2000 County:  Washington  Clackamas

**Request:**

Site Design Review for a 9,540 sq. ft., single-story warehouse

**Project Type:** Class I  Class II  Class III

Residential  Commercial  Industrial  Other: \_\_\_\_\_

**Application Type(s):**

- |  |   |  |  |
|--|---|--|--|
| <input type="checkbox"/> Annexation                  | <input type="checkbox"/> Appeal                     | <input type="checkbox"/> Comp Plan Map Amend | <input type="checkbox"/> Parks Plan Review             |
| <input type="checkbox"/> Final Plat                  | <input type="checkbox"/> Major Partition            | <input type="checkbox"/> Minor Partition     | <input type="checkbox"/> Request to Modify Conditions  |
| <input type="checkbox"/> Plan Amendment              | <input type="checkbox"/> Planned Development        | <input type="checkbox"/> Preliminary Plat    | <input checked="" type="checkbox"/> Site Design Review |
| <input type="checkbox"/> Request for Special Meeting | <input type="checkbox"/> Request for Time Extension | <input type="checkbox"/> Signs               | <input type="checkbox"/> Stage II Final Plan           |
| <input type="checkbox"/> SROZ/SRIR Review            | <input type="checkbox"/> Staff Interpretation       | <input type="checkbox"/> Stage I Master Plan | <input type="checkbox"/> Variance                      |
| <input type="checkbox"/> Type C Tree Removal Plan    | <input type="checkbox"/> Tree Permit (B or C)       | <input type="checkbox"/> Temporary Use       | <input type="checkbox"/> Other (describe)              |
| <input type="checkbox"/> Villebois SAP               | <input type="checkbox"/> Villebois PDP              | <input type="checkbox"/> Villebois FDP       |  |
| <input type="checkbox"/> Zone Map Amendment          | <input type="checkbox"/> Waiver(s)                  | <input type="checkbox"/> Conditional Use     |  |





NW Engineers, LLC  
3409 NE John Olsen Avenue  
Hillsboro, OR 97124  
Phone (503) 601-4401  
Website [www.nw-eng.com](http://www.nw-eng.com)

March 14, 2024

DB23-0014 Boberg Industrial Building Expansion

## APPLICANT'S STATEMENT

**APPLICANT'S  
REPRESENTATIVE:**

Matt Newman  
NW Engineers, LLC  
3409 NE John Olsen Avenue  
Hillsboro, Oregon 97124  
[mattn@nw-eng.com](mailto:mattn@nw-eng.com)  
503-601-4401

**APPLICANT/OWNER:**

Griffith Franklin  
28025 SW Ladd Hill Rd.  
Sherwood, OR 97140  
[griffstock@comcast.net](mailto:griffstock@comcast.net)  
503-784-4640

**REQUEST:**

Site Design Review for a 9,540 sq. ft. Single-Story Warehouse-Industrial Building, and a Type C Tree Removal Permit in the PDI Zone

**LEGAL DESCRIPTION:**

31W 14A 2000  
Wilsonville, Oregon

**ADDRESS:**

28395 SW Boberg Road

**SIZE:**

1.0 acres

**LAND USE ZONE:**

PDI Zone

### **I. APPLICABLE REGULATIONS**

- A. City of Wilsonville Comprehensive Plan
- B. Wilsonville Community Development Code:

## II. AFFECTED JURISDICTIONS

Domestic Water:	City of Wilsonville
Drainage:	City of Wilsonville/WES
Erosion Control:	City of Wilsonville
Fire Protection:	Tualatin Valley Fire & Rescue
Parks:	City of Wilsonville
Police Protection:	City of Wilsonville
Sewer:	City of Wilsonville
Streets:	City of Wilsonville
Transit:	Tri-Met
Water Quality/Quantity:	City of Wilsonville/WES

## III. INTRODUCTION

This request is for Stage 2 Final Plan Modification, Site Design Review for a 9,540 sq. ft. Single-Story Warehouse-Industrial Building and a Type C Tree Removal Plan in the PDI Zone.

The applicant received a completeness letter regarding this application dated December 15, 2023 and the applicant resubmitted the application addressing all items on January 29, 2024. The completeness items are listed beginning on Page 3 of this narrative and discussed throughout the report and shown on the attached exhibits & plans. The application was deemed complete on March 3, 2024, requesting that plans be uploaded addressing final comments by March 18, 2024. This narrative addresses those final comments and plan revisions.

The site is defined by the Clackamas County Assessor as Tax Lot 31W 14A 2000 and located at 28395 SW Boberg Road. There is an existing 2,560 sq. ft., single-story office, along with an approximate 2,800 sq. ft. shop on the site behind (west) of the office. The office will remain, and the shop will be demolished in the area of the proposed warehouse. Site improvements include the warehouse building with three roll-up doors, a paved parking lot with 12 parking spaces (including 1 ADA space), covered trash enclosure and related utility and storm drainage improvements. Much of the existing parking lot and landscape area around the office building will be resurfaced because it is cracking. However, as shown on the submitted plans and drainage report, no new impervious area is created on the west half of the site and only approximately 282 sq. ft. of additional sidewalk/pathway is proposed to meet ADA requirements. This additional 75 sq. ft. of impervious area is treated in the proposed water quality planter. No new impervious area is proposed on the east side of the site. The project retains the existing planters on the east side of the site and existing trees will be removed due to their condition (the root structure of the existing trees off-site to the north will be protected from disturbance. Access to the site is from SW Boberg Road with two existing driveways.

No public improvements along the site's SW Boberg Road frontage with the exception of reconstruction of the driveway entrances and sidewalk to meet Public Works commercial driveway Type 1 and ADA standards. All necessary utilities including sanitary sewer, storm and water are in place to service the existing and proposed use. No additional sanitary sewer laterals or water service is necessary since the applicant will provide a breezeway connection between the two buildings. Therefore, sanitary sewer and water service for the two buildings can be shared.

Stormwater from the west portion of the site (24,168 sf), which includes the warehouse, new pavement area and existing gravel (the entire site has been graveled for decades) will be treated/retained in a proposed 823 sf storm water planter, then discharged through a 115-ft.

spreader 10-ft. from the west property line. Stormwater from the site will be discharged from the site at a rate less than the existing condition as noted in the attached Drainage Report. According to calculations provided by HydroCAD, post-development runoff from the 25-year storm event is estimated to be 0.36 cfs compared to the 0.49 cfs pre-development condition. Almost the entire site is impervious since it has been paved or graveled for decades.

The applicant's Geotechnical Engineer, Rapid Soil Solutions performed two infiltration tests at 4-ft. (beneath the compacted gravel), and found the infiltration rate to be 0.6 inches/hr. Stormwater from the east portion of the site is currently conveyed through the existing on-site storm system to SW Boberg Road. No changes to this system which does not include treatment or detention, is proposed. The existing on-site catch basins will continue to be maintained for storm drainage. Therefore, almost all of the on-site stormwater, both on the east and west sides of the site, has historically flowed off-site.

The cover sheet, existing condition plans, site & utility, preliminary grading/erosion control, and on-site improvements with landscaping, tree removal/protection, and site circulation are attached as Sheets 1-8. Architectural plans prepared by Architectural Alliance include the site plan, elevations, floor plans, structural details and trash enclosure/bike rack plans are provided as Sheets A100-A301. With respect to building design, Kynar finish SRI-58 "ash gray" is proposed for the vertical metal siding, with "charcoal" CMU wainscot at the base, and "willow" and "ebony" accent colors.

The application also includes an arborist report prepared by Todd Prager & Associates. Six on-site trees are proposed to be removed. These include a black walnut, shore pine, red maples and a red oak, and a Douglas fir. Removal of the trees is necessary due to their condition and location – particularly in the front (east side) of the site where the tree roots have damaged the parking lot and utilities. Six trees will be replaced as shown on the preliminary landscape plan (Sheet 6). A Type C Tree Removal Permit is requested with this application. Service letters have been provided by both TVF&R & Republic Services. Fire flow from the adjacent fire hydrant is adequate for this development. Additionally, the location of the 10-ft. x 20-ft., 200-sq. ft. trash & recyclables enclosure at the northwest corner of the site has been approved.

Mr. Franklin proposed a similar project on the property in 2008. However, the project was dropped due to the difficult economic environment at the time. The building is similar to that which was originally proposed, however, Mr. Franklin has now chosen a detached metal structure instead of an attached, concrete block building due to cost and seismic upgrade requirements. He has also proposed the metal building with a cmu base to protect it from truck damage resulting from backing into the building. The required findings of facts and additional details are provided throughout this report.

The completeness items dated December 15, 2023 are addressed as follows and throughout this report:

**1. Tabulation of land area...**

**COMMENT:**

This information is provided on Sheet 4.

**2. Physical materials/color board...**

**COMMENT:**

A digital version of the materials board has been prepared by the architect and is provided as sheet A202. It includes paint chips and photos of the proposed materials, along with colored elevations of the proposed building.

**3. Indication of conformance method used for outdoor lighting...**

**COMMENT:**

The proposal does not include any outdoor pole lighting, only fixtures above the existing and proposed doors. Currently there is no lighting on the building and parking lot except at the doorways, and no changes to the east half of the site is proposed. The existing streetlight in front of the site adequately illuminates the front (east) half of the site.

Staff has provided the following statement:

*You need to indicate whether you're complying with the Prescriptive Option or Performance Option as defined in Section 4.199.40 (.01) for exterior lighting and demonstrate in the compliance narrative that the lighting complies with Tables 7 to 10, as applicable, for the Lighting Zone that the site is located in – LZ 2. This information is usually prepared by the architect or planner, although a photometric diagram, when provided, might be prepared by an engineer, but an engineer's stamp isn't required for land use review.*

*At the Building permitting stage a Comm Check form is required demonstrating compliance with the Oregon Energy Efficiency Specialty Code, Exterior Lighting. This may be provided, but isn't required, for land use review. If you have questions about the Comm Check form, I suggest you talk with Jon Scott, Building Inspector/Plans Examiner, copied on this email; his direct number is 503.570.1554.*

We have been unable to find an MEP at this time to prepare a photometric diagram, but will provide one for Building permit stage, if required. The proposal will comply with the Prescriptive Option and shielded lighting is only provided on the building for security purposes (and required per the Building Code at the doorways). Lighting fixtures and location are shown on Sheet A200. Required findings are provided later in this report.

**4. Indication of location and materials of existing and/or proposed fencing...**

**COMMENT:**

Existing chain-link fencing with details are provided on Sheet 4. New fencing will be provided to secure the back (west) side of the site.

**5. Indication of dimensions of all loading berths on plans.**

**COMMENT:**

No loading berths are proposed. Sheet 8 provides the note and turning template for small box trucks that may visit the site. The architectural plans (Sheets A100-A301), show the dimensions of the three proposed roll-up doors.

**6. Site circulation plan indicating direction of traffic flow...**

**COMMENT:**

The circulation plan is provided on Sheet 8.

**7. Indication of water consumption categories...**

**COMMENT:**

The landscape plan (Sheet 6) has been updated to include water consumption categories for the proposed landscaping – all are in the low to moderate category.

**8. Tree Removal and Protection Plan included in the plan set.**

**COMMENT:**

The Tree Protection fencing is shown on the grading plan (Sheet 5).

**9. Traffic Impact Analysis...**

**COMMENT:**

The Traffic Impact Analysis application fee has been paid.

**10. Sufficient information demonstrating the project meets Transportation System Plan and Public Works standards...**

**COMMENT:**

The plans have been updated with two commercial driveways – Type 1 in accordance with Public Works standards.

**11. Sufficient information demonstrating the project is or will be adequately served by water...**

**COMMENT:**

The existing building is currently served by public water with a water meter located adjacent to the north driveway. The single water line will also serve the proposed building with an extension of the line from the west end of the existing building into the new building at its southeast corner. The proposed building does not require fire sprinklers. Its only water demand is for a restroom and drinking fountain. Based on a conversation with staff, a second water service will not be necessary since the two buildings are connected with a breezeway.

**12. Sufficient information demonstrating the project is or will be adequately served by sanitary sewer...**

**COMMENT:**

The existing building is currently served by public sanitary sewer with the existing lateral located adjacent to the southern driveway. This lateral was installed/repared in 2023. The existing lateral

will also serve the proposed building with an extension of the lateral from the west end of the existing building into the new building at its southeast corner. The only demand for sanitary sewer in the new building is for a restroom and drinking fountain waste line. Based on a conversation with staff, a second lateral will not be necessary since the two buildings are connected with a breezeway.

**13. Sufficient information demonstrating the project is or will be adequately served by stormwater....**

**COMMENT:**

The plans have been revised to show an 823 sq. ft. infiltration planter with 115-ft. spreader located 10-ft. from the west property line. This spreader closely mimics the historic flow of stormwater to the west. The planter will treat and discharge stormwater from the west half of the site into the ground, overflowing to the west in a manner that it historically has, although at a reduced rate as shown in the submitted Drainage Report. Stormwater from the east half of the site will continue to flow into the existing system in SW Boberg Road through two catch basins installed when the original building and parking lot was constructed several decades ago. No new replacement impervious areas are proposed on the east portion of the site with the exception of approximately 75 sf of existing landscape planter which was impacted to meet ADA requirements. The parking lot will be repaired, not replaced.

**14. Sufficient information on storm drainage and system design including demonstration that LID is used to the maximum extent feasible....**

**COMMENT:**

The plans have been revised to provide an 823 sq. ft. infiltration planter with 115-ft. spreader as noted above. Vehicle access is provided within 10-ft. of each end of the facility. The garbage enclosure is provided with a roof as required. The Drainage Report demonstrates compliance with current stormwater standards.

**IV. FINDINGS OF FACT**

**A. CITY OF WILSONVILLE COMPREHENSIVE PLAN:**

**COMMENT:**

Except where required by the City of Wilsonville Community Development Code, this application is not required to address goals and policies related to the development of land, since the City of Wilsonville's comprehensive plan is implemented by the zoning ordinance.



**B. CITY OF WILSONVILLE COMMUNITY DEVELOPMENT CODE**

**Section 4.117. - Standards Applying to Industrial Developments in any Zone.**

**(.01)**

All industrial developments, uses, or activities are subject to performance standards. If not otherwise specified in the Planning and Development Code, industrial developments, uses, and activities shall be subject to the performance standards specified in Section 4.135 (.05) (PDI Zone).

**COMMENT:**

The proposed warehouse is located in the PDI Zone.

**Section 4.118. - Standards Applying to all Planned Development Zones.**

**(.01)**

*Height Guidelines.* In "S" overlay zones, the solar access provisions of Section 4.137 shall be used to determine maximum building heights. In cases that are subject to review by the Development Review Board, the Board may further regulate heights as follows:

- A. Restrict or regulate the height or building design consistent with adequate provision of fire protection and fire-fighting apparatus height limitations.
- B. To provide buffering of low density developments by requiring the placement of three or more story buildings away from the property lines abutting a low density zone.
- C. To regulate building height or design to protect scenic vistas of Mt. Hood or the Willamette River.
- D. In no case shall the height of duplexes, triplexes, fourplexes, or townhouses be limited to less than the maximum height allowed for detached single-family dwellings in the same zone. In addition, in no case shall the height of triplexes, fourplexes, or townhouses be limited to less than 25 feet.

**COMMENT:**

The site is not located in the "S" Overlay Zone.

**(.02)**

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

**COMMENT:**

All utilities will be placed underground.



(.03)

Notwithstanding the provisions of Section 4.140 to the contrary, the Development Review Board, in order to implement the purposes and objectives of Section 4.140, and based on findings of fact supported by the record may:

A. Waive the following typical development standards:

1. Minimum lot area;
2. Lot width and frontage;
3. Height and yard requirements;
4. Lot coverage;
5. Lot depth;
6. Street widths;
7. Sidewalk requirements;
8. Height of buildings other than signs;
9. Parking space configuration and drive aisle design;
10. Minimum number of parking or loading spaces;
11. Shade tree islands in parking lots, provided that alternative shading is provided;
12. Fence height;
13. Architectural design standards;
14. Transit facilities;
15. On-site pedestrian access and circulation standards;
16. Solar access standards, as provided in section 4.137;
17. Open space in the Residential Neighborhood zone; and
18. Lot orientation.

**COMMENT:**

The subject property is a lot of record in the PDI Zone. The applicant is aware that the Development Review Board can waive the above applicable standards order to implement the purposes and objectives of Section 4.140.

- B. The following shall not be waived by the Board, unless there is substantial evidence in the whole record to support a finding that the intent and purpose of the standards will be met in alternative ways:**
- 1. Open space requirements in residential areas, except that the Board may waive or reduce open space requirements in the Residential Neighborhood zone. Waivers in compliance with [Section] 4.127(.08)(B)(2)(d);**
  - 2. Minimum density standards of residential zones. The required minimum density may be reduced by the Board in the Residential Neighborhood zone in compliance with [Section] 4.127(.06) B; and**
  - 3. Minimum landscape, buffering, and screening standards.**

**COMMENT:**

The project is designed to comply with the minimum landscape, buffering, and screening standards. Specifically, landscaping is proposed on the front and sides of the site with six trees and existing fencing/arborvitae for screening and buffering of the properties to the north and south (See Sheet 6).

- C. The following shall not be waived by the Board, unless there is substantial evidence in the whole record to support a finding that the intent and purpose of the standards will be met in alternative ways, and the action taken will not violate any applicable federal, state, or regional standards:**
- 1. Maximum number of parking spaces;**
  - 2. Standards for mitigation of trees that are removed;**
  - 3. Standards for mitigation of wetlands that are filled or damaged; and**
  - 4. Trails or pathways shown in the Parks and Recreation Master Plan.**

**COMMENT:**

No waiver of the above standards is requested.

- D. Locate individual building, accessory buildings, off-street parking and loading facilities, open space and landscaping and screening without reference to lot lines; and**

**COMMENT:**

The existing conditions plan was prepared from a current survey provided by the applicant's surveyor, Northwest Surveying. The proposed site plan and related exhibits have been prepared using a survey base which identifies the existing property lines and fencing (See Sheet 3).

- E. Adopt other requirements or restrictions, inclusive of, but not limited to, the following, except that no additional requirements or restrictions can conflict with established clear and objective standards for residential development or be grounds for denying a residential**

development proposal when the applicant has selected the clear and objective path for approval:

1. Percent coverage of land by buildings and structures in relationship to property boundaries to provide stepped increases in densities away from low-density development.
2. Parking ratios and areas expressed in relation to use of various portions of the property and/or building floor area.
3. The locations, width and improvement of vehicular and pedestrian access to various portions of the property, including portions within abutting street or private drive.
4. Arrangement and spacing of buildings and structures to provide appropriate open spaces around buildings.
5. Location and size of off-street loading areas and docks.
6. Uses of buildings and structures by general classification, and by specific designation when there are unusual requirements for parking, or when the use involves noise, dust, odor, fumes, smoke, vibration, glare or radiation incompatible with present or potential development of surrounding property. Such incompatible uses may be excluded in the amendment approving the zone change or the approval of requested permits.
7. Measures designed to minimize or eliminate noise, dust, odor, fumes, smoke, vibration, glare, or radiation which would have an adverse effect on the present or potential development on surrounding properties.
8. Schedule of time for construction of the proposed buildings and structures and any stage of development thereof to insure consistency with the City's adopted Capital Improvements Plan and other applicable regulations.
9. A waiver of the right of remonstrance by the applicant to the formation of a Local Improvement District (LID) for streets, utilities and/or other public purposes.
10. Modify the proposed development in order to prevent congestion of streets and/or to facilitate transportation.
11. Condition the issuance of an occupancy permit upon the installation of landscaping or upon a reasonable scheduling for completion of the installation of landscaping. In the latter event, a posting of a bond or other security in an amount equal to 110 percent of the cost of the landscaping and installation may be required.
12. A dedication of property for streets, pathways, and bicycle paths in accordance with adopted Facilities Master Plans or such other streets necessary to provide proper development of adjacent properties.

**COMMENT:**

The proposed industrial warehouse has been designed in accordance with the applicable standards of the Code.

(.04)

The Planning Director and Development Review Board shall, in making their determination of compliance in attaching conditions, consider the effects of this action on availability and cost. The provisions of this section shall not be used in such a manner that additional conditions, either singularly or cumulatively, have the effect of unnecessarily increasing the cost of development. However, consideration of these factors shall not prevent the Board from imposing conditions of approval necessary to meet the minimum requirements of the Comprehensive Plan and Code.

**COMMENT:**

The applicant understands that the Planning Director and Development Review Board may impose conditions of development, but those conditions shall not exceed the rough proportionality criteria set out by law.

(.05)

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

- A. *Recreational Facilities:* The Director, Board, or Council, as the case may be, may require that suitable area for parks or playgrounds be set aside, improved or permanently reserved for the owners, residents, employees or patrons of the development consistent with adopted Park standards and Parks and Recreation Master Plan.
- B. *Open Space Area:* Whenever private and/or common open space area is provided, the City shall require that an association of owners or tenants be established which shall adopt such Articles of Incorporation, By-Laws or other appropriate agreement, and shall adopt and impose such Declaration of Covenants and Restrictions on such open space areas and/or common areas that are acceptable to the Development Review Board. Said association shall be formed and continued for the purpose of maintaining such open space area. Such an association, if required, may undertake other functions. It shall be created in such a manner that owners of property shall automatically be members and shall be subject to assessments levied to maintain said open space area for the purposes intended. The period of existence of such association shall be not less than 20 years and it shall continue thereafter and until a majority vote of the members shall terminate it, and the City Council formally votes to accept such termination.
- C. *Easements:* Easements necessary to the orderly extension of public utilities, and the protection of open space, may be required as a condition of approval. When required, such easements must meet the requirements of the City Attorney prior to recordation.

**COMMENT:**

None of the above criteria are applicable to this development.

(.06)

Nothing in this Code shall prevent the owner of a site that is less than two acres in size from filing an application to rezone and develop the site as a Planned Development. Smaller properties may or may not be suitable for such development, depending upon their particular sizes, shapes, locations, and the nature of the proposed development, but Planned Developments shall be encouraged at any appropriate location.

**COMMENT:**

No zone change is proposed.

(.07)

*Density Transfers.* In order to protect significant open space or resource areas, the Development Review Board may authorize the transfer of development densities from one portion of a proposed development to another. Such transfers may go to adjoining properties, provided that those properties are considered to be part of the total development under consideration as a unit.

(.08)

*Wetland Mitigation and other mitigation for lost or damaged resources.* The Development Review Board may, after considering the testimony of experts in the field, allow for the replacement of resource areas with newly created or enhanced resource areas. The Board may specify the ratio of lost to created and/or enhanced areas after making findings based on information in the record. As much as possible, mitigation areas shall replicate the beneficial values of the lost or damaged resource areas.

**COMMENT:**

None of the above criteria is applicable to this development.

(.09)

*Habitat-Friendly Development Practices.* To the extent practicable, development and construction activities of any lot shall consider the use of habitat-friendly development practices, which include:

- A. Minimizing grading, removal of native vegetation, disturbance and removal of native soils, and impervious area;
- B. Minimizing adverse hydrological impacts on water resources, such as using the practices described in Part (a) of Table NR-2 in Section 4.139.03, unless their use is prohibited by an applicable and required state or federal permit, such as a permit required under the federal Clean Water Act, 33 U.S.C. §§ 1251 et seq., or the federal Safe Drinking Water Act, 42 U.S.C. § 300f et seq., and including conditions or plans required by such permit;
- C. Minimizing impacts on wildlife corridors and fish passage, such as by using the practices described in Part (b) of Table NR-2 in Section 4.139.03; and
- D. Using the practices described in Part (c) of Table NR-2 in Section 4.139.03.

**COMMENT:**

The site does not contain any natural resources, however, the proposal includes a water quality facility/planter designed in accordance with WES standards.

**Section 4.140. - Planned Development Regulations.**

**(.01)**

***Purpose:***

- A. The provisions of Section 4.140 shall be known as the Planned Development Regulations. The purposes of these regulations are to encourage the development of tracts of land sufficiently large to allow for comprehensive master planning, and to provide flexibility in the application of certain regulations in a manner consistent with the intent of the Comprehensive Plan and general provisions of the zoning regulations and to encourage a harmonious variety of uses through mixed use design within specific developments thereby promoting the economy of shared public services and facilities and a variety of complimentary activities consistent with the land use designation on the Comprehensive Plan and the creation of an attractive, healthful, efficient and stable environment for living, shopping or working.
- B. It is the further purpose of the following Section:
  1. To take advantage of advances in technology, architectural design, and functional land use design;
  2. To recognize the problems of population density, distribution and circulation and to allow a deviation from rigid established patterns of land uses, but controlled by defined policies and objectives detailed in the comprehensive plan;
  3. To produce a comprehensive development equal to or better than that resulting from traditional lot land use development.
  4. To permit flexibility of design in the placement and uses of buildings and open spaces, circulation facilities and off-street parking areas, and to more efficiently utilize potentials of sites characterized by special features of geography, topography, size or shape or characterized by problems of flood hazard, severe soil limitations, or other hazards;
  5. To permit flexibility in the height of buildings while maintaining a ratio of site area to dwelling units that is consistent with the densities established by the Comprehensive Plan and the intent of the Plan to provide open space, outdoor living area and buffering of low-density development.
  6. To allow development only where necessary and adequate services and facilities are available or provisions have been made to provide these services and facilities.
  7. To permit mixed uses where it can clearly be demonstrated to be of benefit to the users and can be shown to be consistent with the intent of the Comprehensive Plan.

8. To allow flexibility and innovation in adapting to changes in the economic and technological climate.

**COMMENT:**

The site is located in the PDI Zone and the proposed warehouse and site plan has been designed in accordance with the standards of this section.

(.02)

***Lot Qualification:***

- A. Planned Development may be established on lots which are suitable for and of a size to be planned and developed in a manner consistent with the purposes and objectives of Section 4.140.
- B. Any site designated for development in the Comprehensive Plan may be developed as a Planned Development, provided that it is zoned "PD" or specifically defined as a PD zone by this Code. All sites which are greater than two acres in size, and designated in the Comprehensive Plan for commercial, residential, or industrial use shall be developed as Planned Developments, unless approved for other uses permitted by the Development Code. Smaller sites may also be developed through the City's PD procedures, provided that the location, size, lot configuration, topography, open space and natural vegetation of the site warrant such development.

**COMMENT:**

The 1.0-acre site is located in the PDI Zone.

(.03)

***Ownership:***

- A. The tract or tracts of land included in a proposed Planned Development must be in one (1) ownership or control or the subject of a joint application by the owners of all the property included. The holder of a written option to purchase, with written authorization by the owner to make applications, shall be deemed the owner of such land for the purposes of Section 4.140.
- B. Unless otherwise provided as a condition for approval of a Planned Development permit, the permittee may divide and transfer units or parcels of any development. The transferee shall use and maintain each such unit or parcel in strict conformance with the approval permit and development plan.

**COMMENT:**

Giffith Franklin is the owner of the property.



(.04)

***Professional Design:***

- A. The applicant for all proposed Planned Developments shall certify that the professional services of the appropriate professionals have been utilized in the planning process for development.
- B. Appropriate professionals shall include, but not be limited to the following to provide the elements of the planning process set out in Section 4.139:
  - 1. An architect licensed by the State of Oregon;
  - 2. A landscape architect registered by the State of Oregon;
  - 3. An urban planner holding full membership in the American Institute of Certified Planners, or a professional planner with prior experience representing clients before the Development Review Board, Planning Commission, or City Council; or
  - 4. A registered engineer or a land surveyor licensed by the State of Oregon.
- B. One of the professional consultants chosen by the applicant from either 1, 2, or 3, above, shall be designated to be responsible for conferring with the planning staff with respect to the concept and details of the plan.
- C. The selection of the professional coordinator of the design team will not limit the owner or the developer in consulting with the planning staff.

**COMMENT:**

The applicant has selected NW Engineers and Architectural Alliance, along with Northwest Surveyors and Todd Prager & Associates to provide planning, engineering, and architectural design, along with survey and arborist services. All consultants are registered in Oregon. NW Engineers is the professional coordinator of the design team for this phase of the project.

(.05)

***Planned Development Permit Process:***

- A. All parcels of land exceeding two acres in size that are to be used for residential, commercial or industrial development, shall, prior to the issuance of any building permit:
  - 1. Be zoned for planned development;
  - 2. Obtain a planned development permit; and
  - 3. Obtain Planning Director, Development Review Board, or, on appeal, City Council approval.

**COMMENT:**

The development site is less than 2-acres in area.

- B. Zone change and amendment to the zoning map are governed by the applicable provisions of the Zoning Sections, inclusive of Section 4.197.
- C. Development Review Board and Planning Director approval is governed by Sections 4.400 to 4.450.

**COMMENT:**

The applicant requests review and approval of a Stage II Final Plan, Site Design Review and Type C Tree Removal Permit.

- D. All planned developments require a planned development permit. The planned development permit review and approval process consists of the following multiple stages, the last two or three of which can be combined at the request of the applicant:
  - 1. Pre-application conference with Planning Department;
  - 2. Preliminary (Stage I) review by the Development Review Board or the Planning Director for properties within the Coffee Creek Industrial Design Overlay District. When a zone change is necessary, application for such change shall be made simultaneously with an application for preliminary approval; and
  - 3. Final (Stage II) review by the Development Review Board or the Planning Director for properties within the Coffee Creek Industrial Design Overlay District.
  - 4. In the case of a zone change and zone boundary amendment, City Council approval is required to authorize a Stage I preliminary plan except for properties within the Coffee Creek Industrial Design Overlay District, which may receive separate zone map amendment approvals.

**COMMENT:**

The pre-application conference was held in May 2023 (PRE23-0007). The application for Site Design Review will be reviewed through a Type II Procedure. No zone change or boundary adjustment is requested.

(.06)

**Staff Report:**

- A. The planning staff shall prepare a report of its findings and conclusions as to whether the use contemplated is consistent with the land use designated on the Comprehensive Plan. If there is a disagreement as to whether the use contemplated is consistent, the applicant, by request, or the staff, may take the preliminary information provided to the Development Review Board for a use interpretation.

- B. The applicant may proceed to apply for Stage I—Preliminary Approval - upon determination by either staff or the Development Review Board that the use contemplated is consistent with the Comprehensive Plan.

**COMMENT:**

The applicant is proceeding with Site Design Review and a Type C Tree Removal Permit.

(.07)

*Preliminary Approval (Stage One):*

- A. Applications for preliminary approval for planned developments shall:
  - 1. Be made by the owner of all affected property or the owner's authorized agent; and
  - 2. Be filed on a form prescribed by the City Planning Department and filed with said Department.
  - 3. Set forth the professional coordinator and professional design team as provided in subsection (.04), above.
  - 4. State whether the development will include mixed land uses, and if so, what uses and in what proportions and locations.

**COMMENT:**

The applicant's representative is responsible for the preparation of this application.

- B. The application shall include conceptual and quantitatively accurate representations of the entire development sufficient to judge the scope, size, and impact of the development on the community; and, in addition to the requirements set forth in Section 4.035, shall be accompanied by the following information:
  - 1. A boundary survey or a certified boundary description by a registered engineer or licensed surveyor.
  - 2. Topographic information as set forth in Section 4.035.
  - 3. A tabulation of the land area to be devoted to various uses, and a calculation of the average residential density per net acre. Developments within the RN zone shall show how the proposed number of units complies with the applicable maximum and minimum provisions of the RN zone.
  - 4. A stage development schedule demonstrating that the developer intends receive Stage II approval within two years of receiving Stage I approval, and to commence construction within two years after the approval of the final development plan, and will proceed diligently to completion; unless a phased development schedule has been approved; in which case adherence to that schedule shall be considered to constitute diligent pursuit of project completion.

5. A commitment by the applicant to provide in the Final Approval (Stage II) a performance bond or other acceptable security for the capital improvements required by the project.
6. If it is proposed that the final development plan will be executed in stages, a schedule thereof shall be provided.
7. Statement of anticipated waivers from any of the applicable site development standards.

**COMMENT:**

All of the above information is provided in this application. The site will be developed in a single stage, and the owner will be responsible for performance bonds (if any since it is unlikely that any public improvements will be necessary).

- C. An application for a Stage I approval shall be considered by the Development Review Board as follows:**
1. A public hearing as provided in Section 4.013.
  2. After such hearing, the Board shall determine whether the proposal conforms to the permit criteria set forth in this Code, and may approve or disapprove the application and the accompanying preliminary development plan or require such changes therein or impose such conditions of approval as are in its judgment, necessary to ensure conformity to said criteria and regulations. In so doing, the Board may, in its discretion, authorize submission of the final development plan in stages, corresponding to different units or elements of the development. It shall do so only upon evidence assuring completion of the entire development in accordance with the preliminary development plan and stage development schedule.
  3. A final decision on a complete application and preliminary plan shall be rendered within 120 days after the application is deemed complete unless a continuance is agreed upon by the applicant and the appropriate City decision-making body.
  4. The determination of the Development Review Board shall become final at the end of the appeal period for the decision, unless appealed to the City Council in accordance with Section 4.022 of this Code.

**COMMENT:**

The applicant is aware of the city review procedure.

- D. As provided in Section 4.134, an application for a Stage I approval within the Coffee Creek Industrial Design Overlay District may be considered by the Planning Director as follows:**
1. A Class II—Administrative Review as provided in Section 4.035(.03).
  2. After considering available information, the Planning Director shall determine whether the proposal conforms to the permit criteria set forth in this Code and may approve or disapprove the application and the accompanying preliminary development plan or require such changes therein or impose such conditions of approval as are in his or her judgment, necessary to ensure conformity to said criteria and regulations. In so doing,

the Planning Director may, in his or her discretion, authorize submission of the final development plan in stages, corresponding to different units or elements of the development. The Planning Director shall do so only upon receiving evidence assuring completion of the entire development in accordance with the preliminary development plan and stage development schedule.

3. A final decision on a complete application and preliminary plan shall be rendered within 12 days after the application is deemed complete unless a continuance is agreed upon by the applicant and the Planning Director.
4. The determination of the Planning Director shall become final at the end of the appeal period for the decision, unless appealed to the Development Review Board in accordance with Section 4.022 of this Code.

**COMMENT:**

The site is not located in the Coffee Creek Industrial Design Overlay District.

(.09)

*Final Approval (Stage Two):*

[Note: Outline Number is incorrect.]

- A. Unless an extension has been granted by the Development Review Board or Planning Director, as applicable, within two years after the approval or modified approval of a preliminary development plan (Stage I), the applicant shall file with the City Planning Department a final plan for the entire development or when submission in stages has been authorized pursuant to Section 4.035 for the first unit of the development, a public hearing shall be held on each such application as provided in Section 4.013. As provided in Section 4.134, an application for a Stage II approval within the Coffee Creek Industrial Design Overlay District may be considered by the Planning Director without a public hearing as a Class II Administrative Review as provided in Section 4.035(.03).
- B. The Development Review Board or Planning Director, as applicable, shall determine whether the proposal conforms to the permit criteria set forth in this Code, and shall approve, conditionally approve, or disapprove the application.
- C. The final plan shall conform in all major respects with the approved preliminary development plan, and shall include all information included in the preliminary plan plus the following:
  1. The location of water, sewerage and drainage facilities;
  2. Preliminary building and landscaping plans and elevations, sufficient to indicate the general character of the development;
  3. The general type and location of signs;
  4. Topographic information as set forth in Section 4.035;
  5. A map indicating the types and locations of all proposed uses; and

6. A grading plan.
- D. The final plan shall be sufficiently detailed to indicate fully the ultimate operation and appearance of the development or phase of development. However, Site Design Review is a separate and more detailed review of proposed design features, subject to the standards of Section 4.400.
- E. Copies of legal documents required by the Development Review Board or Planning Director, as applicable, for dedication or reservation of public facilities, or for the creation of a non-profit homeowner's association, shall also be submitted.
- F. Within 30 days after the filing of the final development plan, the Planning staff shall forward such development plan and the original application to the Tualatin Valley Fire and Rescue District, if applicable, and other agencies involved for review of public improvements, including streets, sewers and drainage. The Development Review Board or Planning Director, as applicable, shall not act on a final development plan until it has first received a report from the agencies or until more than 30 days have elapsed since the plan and application were sent to the agencies, whichever is the shorter period.
- G. Upon receipt of the final development plan, the Development Review Board or Planning Director, as applicable shall examine such plan and determine:
1. Whether it conforms to all applicable criteria and standards; and
  2. Whether it conforms in all substantial respects to the preliminary approval; or
  3. Require such changes in the proposed development or impose such conditions of approval as are in its judgment necessary to insure conformity to the applicable criteria and standards.
- H. If the Development Review Board or Planning Director, as applicable, permits the applicant to revise the plan, it shall be resubmitted as a final development plan within 60 days. If the Board or Planning Director approves, disapproves or grants such permission to resubmit, the decision of the Board shall become final at the end of the appeal period for the decision, unless appealed to the City Council, in accordance with Sections 4.022 of this Code.
- I. All Stage II Site Development plan approvals shall expire two years after their approval date, if substantial development has not occurred on the property prior to that time. Provided, however, that the Development Review Board or Planning Director, as applicable, may extend these expiration times for up to three additional periods of not more than one year each. Applicants seeking time extensions shall make their requests in writing at least 30 days in advance of the expiration date. Requests for time extensions shall only be granted upon (1) a showing that the applicant has in good faith attempted to develop or market the property in the preceding year or that development can be expected to occur within the next year, and (2) payment of any and all Supplemental Street SDCs applicable to the development. Upon such payment, the development shall have vested traffic generation rights under [section] 4.140(.10), provided however, that if the Stage II approval should expire, the vested right to use trips is terminated upon City repayment, without interest, of Supplemental Street SDCs. For purposes of this Ordinance, "substantial development" is deemed to have occurred if the required building permits or public works permits have been

issued for the development, and the development has been diligently pursued, including the completion of all conditions of approval established for the permit.

- J. A planned development permit may be granted by the Development Review Board or Planning Director, as applicable, only if it is found that the development conforms to all the following criteria, as well as to the Planned Development Regulations in Section 4.140:
1. The location, design, size and uses, both separately and as a whole, are consistent with the Comprehensive Plan, and with any other applicable plan, development map or Ordinance adopted by the City Council.
  2. That the location, design, size and uses are such that traffic generated by the development at the most probable used intersection(s) can be accommodated safely and without congestion in excess of Level of Service D, as defined in the Highway Capacity Manual published by the National Highway Research Board, on existing or immediately planned arterial or collector streets and will, in the case of commercial or industrial developments, avoid traversing local streets. Immediately planned arterial and collector streets are those listed in the City's adopted Capital Improvement Program, for which funding has been approved or committed, and that are scheduled for completion within two years of occupancy of the development or four year if they are an associated crossing, interchange, or approach street improvement to Interstate 5.
    - a. In determining levels of Service D, the City shall hire a traffic engineer at the applicant's expense who shall prepare a written report containing the following minimum information for consideration by the Development Review Board:
      - i. An estimate of the amount of traffic generated by the proposed development, the likely routes of travel of the estimated generated traffic, and the source(s) of information of the estimate of the traffic generated and the likely routes of travel;
      - ii. What impact the estimate generated traffic will have on existing level of service including traffic generated by (1) the development itself, (2) all existing developments, (3) Stage II developments approved but not yet built, and (4) all developments that have vested traffic generation rights under section 4.140(.10), through the most probable used intersection(s), including state and county intersections, at the time of peak level of traffic. This analysis shall be conducted for each direction of travel if backup from other intersections will interfere with intersection operations.
    - b. The following are exempt from meeting the Level of Service D criteria standard:
      - i. A planned development or expansion thereof which generates three new p.m. peak hour traffic trips or less;
      - ii. A planned development or expansion thereof which provides an essential governmental service.
    - c. Traffic generated by development exempted under this subsection on or after Ordinance No. 463 was enacted shall not be counted in determining levels of service for any future applicant.



- d. Exemptions under 'b' of this subsection shall not exempt the development or expansion from payment of system development charges or other applicable regulations.
  - e. In no case will development be permitted that creates an aggregate level of traffic at LOS "F".
3. That the location, design, size and uses are such that the residents or establishments to be accommodated will be adequately served by existing or immediately planned facilities and services.
- K. Mapping: Whenever a Planned Development permit has been granted, and so long as the permit is in effect, the boundary of the Planned Development shall be indicated on the Zoning Map of the City of Wilsonville as the appropriate "PD" Zone.

**COMMENT:**

The applicant is submitting the Stage II Final Plan as required. All applicable items have been submitted with this application.

(.10)

*Adherence to Approved Plans, Modification.*

- A. Adherence to Approved Plan and Modification Thereof: The applicant shall agree in writing to be bound, for her/himself and her/his successors in interest, by the conditions prescribed for approval of a development. The approved final plan and stage development schedule shall control the issuance of all building permits and shall restrict the nature, location and design of all uses. Minor changes in an approved preliminary or final development plan may be approved by the Director of Planning if such changes are consistent with the purposes and general character of the development plan. All other modifications, including extension or revision of the stage development schedule, shall be processed in the same manner as the original application and shall be subject to the same procedural requirements.
- B. In the event of a failure to comply with the approved plan or any prescribed condition of approval, including failure to comply with the stage development schedule, the Development Review Board may, after notice and hearing, revoke a Planned Development permit. General economic conditions that affect all in a similar manner may be considered as a basis for an extension of a development schedule. The determination of the Board shall become final 30 days after the date of decision unless appealed to the City Council.
- C. Approved plans and non-conforming status with updated zoning and development standards.
  - 1. Approved plans are the basis of legal conforming status of development except where one of the following occurs, at which point, the approved planned development becomes legally non-conforming:
    - a. the zoning of land within the plan area has been changed since adoption of the plan;
    - or

- b. the zoning standards for the zone under which it was approved have been substantially modified (50 percent or more of the regulatory standards have been modified as determined by the Planning Director); or
  - c. the City Council declared all planned developments in a certain zone or zones to be legal non-conforming as part of an ordinance to update or replace zoning standards; or
  - d. the City Council declared, by a stand-alone ordinance, planned developments in a certain zone not complying with current standards to be legal non-conforming. The City Council may, in an ordinance establishing non-conforming status of a planned development, declare the entire planned development to be non-conforming or declare certain standards established in the planned development to be non-conforming (i.e., lot coverage, setbacks, stormwater standards).
2. If one of the conditions of subsection 1. is met, development that is consistent with the approved plan, but not complying with current zoning standards, shall be considered legal non-conforming and subject to the standards of Sections 4.189 thru 4.192.
  3. In no case shall a planned development approved within the previous 24 months, or under a time-extension under WC Section 4.023, be considered non-conforming; but automatically will become non-conforming after 24-months, and the end of any extensions, if it otherwise would qualify as legally non-conforming or is so declared pursuant to this subsection.
- D. The following are exempt from established residential density requirements beyond one unit per lot.

**COMMENT:**

The applicant is aware of the above requirements.

(.11)

*Early Vesting of Traffic Generation.*

Applicants with Stage I or Master Plan approvals occurring after June 2, 2003 may apply to vest the right to use available transportation capacity at the intersections of Wilsonville Road with Boone's Ferry Road and with Town Center Loop West, and/or the I-5 interchange. Vesting for properties with such approvals shall occur upon execution of a vesting agreement satisfactory to the City, which agreement shall include a proposed development schedule or phasing plan and either provide for the payment of any and all Supplemental Street SDCs or provide other means of financing public improvements. Vesting for properties pending such approvals shall occur upon such agreement and the date the approvals are final.

The number of trips vested is subject to modification based upon updated traffic analysis associated with subsequent development approvals for the property. A reduction in vested trips shall attend repayment of vesting fees by the City. An increase in available vested trips shall occur upon payment of necessary vesting fees.

Vesting shall remain valid and run with the property, unless an approval that is necessary for vesting to occur is terminated or a vesting agreement is terminated. If the vested right to use certain trips is lost or terminated, as determined by the Community Development Director with the concurrence of City Council, such trips shall be made available to other development upon City repayment, without interest, of associated vesting fees.

(Ord. No. 561, 12-15-2003; Ord. No. 812, 2-22-2018)

**COMMENT:**

Due to the small scope of this development, traffic generation will be limited. The applicant is required to submit a request that a Traffic Impact Study be prepared.

**Section 4.137.5. - Screening and Buffering (SB) Overlay Zone.**

(.01)

**Purpose.** The Screening and Buffering Overlay Zone is intended to be used with any underlying base zone to specify appropriate screening and buffering standards for areas where residential and nonresidential uses abut. The "SB" Overlay Zone is used to assure that there is adequate separation and screening between potentially conflicting land uses. The buffering is achieved by restricting access, increasing setbacks, requiring additional landscaping, restricting signs, and, in some cases, by requiring additional information and proof of mitigation for uses that may otherwise cause off-site impacts or nuisances.

**COMMENT:**

The site and all surrounding properties are designated PDI Zone. There are no abutting residentially-zoned properties.

(.02)

**Where the "SB" Overlay Zone is to be Applied.** The Screening and Buffering Overlay Zone is to be applied primarily along the edge of nonresidential zones abutting, or located directly across the street from, residential zones. As with any zoning, the "SB" Overlay Zone is only applied where established by action of the City Council.

**COMMENT:**

The SB Overlay Zone is not applicable to the subject property.

**Section 4.154. - On-site Pedestrian Access and Circulation.**

(.01)

***On-site Pedestrian Access and Circulation:***

- A. The purpose of this section is to implement the pedestrian access and connectivity policies of the Transportation System Plan. It is intended to provide for safe, reasonably direct, and convenient pedestrian access and circulation.

**COMMENT:**

The proposed plan includes internal pedestrian access from the existing and proposed buildings to the sidewalk within the SW Boberg Road right-of-way. No off-site connection to other properties is proposed or required.

**B. Standards. Development shall conform to all of the following standards:**

1. ***Continuous Pathway System.*** A pedestrian pathway system shall extend throughout the development site and connect to adjacent sidewalks, and to all future phases of the development, as applicable.

**COMMENT:**

As noted, sidewalks are proposed to connect the building entries with the sidewalk within the SW Boberg Road right-of-way.

2. ***Safe, Direct, and Convenient.*** Pathways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent parking areas, recreational areas/playgrounds, and public rights-of-way and crosswalks based on all of the following criteria:
  - a. Pedestrian pathways are designed primarily for pedestrian safety and convenience, meaning they are free from hazards and provide a reasonably smooth and consistent surface.
  - b. The pathway is reasonably direct. A pathway is reasonably direct when it follows a route between destinations that does not involve a significant amount of unnecessary out-of-direction travel.
  - c. The pathway connects to all primary building entrances and is consistent with the Americans with Disabilities Act (ADA) requirements.
  - d. All parking lots larger than three acres in size shall provide an internal bicycle and pedestrian pathway pursuant to Section 4.155(.03)B.3.d.

**COMMENT:**

The proposed pedestrian pathways are designed with a direct, ADA accessible route from the building entries to the sidewalk within the SW Boberg Road right-of-way (See Sheet 4).

3. ***Vehicle/Pathway Separation.*** Except as required for crosswalks, per subsection 4, below, where a pathway abuts a driveway or street it shall be vertically or horizontally separated from the vehicular lane. For example, a pathway may be vertically raised six inches above the abutting travel lane, or horizontally separated by a row of bollards.

**COMMENT:**

The proposed pedestrian pathways are separated vertically and horizontally from the driveway aisle and parking lot.

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

**COMMENT:**

As shown on Sheet 4, the pathway does not cross the parking lot or driveway.

5. **Pathway Width and Surface.** Primary pathways shall be constructed of concrete, asphalt, brick/masonry pavers, or other durable surface, and not less than five feet wide. Secondary pathways and pedestrian trails may have an alternative surface except as otherwise required by the ADA.
6. All pathways shall be clearly marked with appropriate standard signs.

**COMMENT:**

A concrete sidewalk is proposed, and appropriate signage will be provided.

**Section 4.155. - General Regulations—Parking, Loading and Bicycle Parking.**

(.01)

**Purpose:**

- A. The design of parking areas is intended to enhance the use of the parking area as it relates to the site development as a whole, while providing efficient parking, vehicle circulation and attractive, safe pedestrian access.
- B. As much as possible, site design of impervious surface parking and loading areas shall address the environmental impacts of air and water pollution, as well as climate change from heat islands.
- C. The view from the public right-of-way and adjoining properties is critical to meet the aesthetic concerns of the community and to ensure that private property rights are met. Where developments are located in key locations such as near or adjacent to the I-5 interchanges, or involve large expanses of asphalt, they deserve community concern and attention.

**COMMENT:**

The parking lot with 12 spaces (including one Van-Accessible), is located on the front (east) portion of the site and will be enhanced with new landscaping and trees (as noted throughout this report, the existing 5 trees to be removed will be replaced with 6 trees).

(.02)

**General Provisions:**

- A. The provision and maintenance of off-street parking spaces is a continuing obligation of the property owner. The standards set forth herein shall be considered by the Development Review Board as minimum criteria.

1. The Board shall have the authority to grant variances or planned development waivers to these standards in keeping with the purposes and objectives set forth in the Comprehensive Plan and this Code.
2. Waivers to the parking, loading, or bicycle parking standards shall only be issued upon a finding that the resulting development will have no significant adverse impact on the surrounding neighborhood, and the community, and that the development considered as a whole meets the purposes of this section.

**COMMENT:**

The applicant will maintain the parking spaces as required. No waiver of parking, loading or bicycle spaces is requested with this application.

- B. No area shall be considered a parking space unless it can be shown that the area is accessible and usable for that purpose, and has maneuvering area for the vehicles, as determined by the Planning Director.

**COMMENT:**

The proposed 12 parking spaces have been designed in accordance with these standards.

- C. In cases of enlargement of a building or a change of use from that existing on the effective date of this Code, the number of parking spaces required shall be based on the additional floor area of the enlarged or additional building, or changed use, as set forth in this Section. Current development standards, including parking area landscaping and screening, shall apply only to the additional approved parking area.

**COMMENT:**

The applicant is proposing 12 parking spaces onsite for the existing and proposed buildings. Due to the new Metro regulations, no parking is required.

- D. In the event several uses occupy a single structure or lot, the total requirement for off-street parking shall be the sum of the requirements of the several uses computed separately, except as modified by subsection "E," below. Within the TC Zone, the cumulative number of parking spaces required by this subsection may be reduced by 25 percent.
- E. Owners of two or more uses, structures, or lots may utilize jointly the same parking area when the peak hours of operation do not overlap, provided satisfactory legal evidence is presented in the form of deeds, leases, or contracts securing full and permanent access to such parking areas for all the parties jointly using them.

**COMMENT:**

The above subsections are not applicable to this project.

- F. Off-street parking spaces existing prior to the effective date of this Code may be included in the amount necessary to meet the requirements in case of subsequent enlargement of the building or use to which such spaces are necessary.

**COMMENT:**

There is currently space for approximately 12 parking spaces in the front portion of the site. These parking spaces will be retained as part of the repaired parking lot with slight modifications to their location and orientation. No replacement or new impervious area is proposed on the east side of the site.

- G. Off-Site Parking.** Except for single-family dwellings and middle housing, the vehicle parking spaces required by this Chapter may be located on another lot, provided the lot is within 500 feet of the use it serves and the DRB has approved the off-site parking through the Land Use Review. The distance from the parking area to the use shall be measured from the nearest parking space to the main building entrance, following a sidewalk or other pedestrian route. Within the TC Zone there is no maximum distance to an off-site location provided the off-site parking is located within the TC Zone. The right to use the off-site parking must be evidenced in the form of recorded deeds, easements, leases, or contracts securing full and permanent access to such parking areas for all the parties jointly using them. Within the TC zone, there is no maximum distance to an off-site location provided the off-site parking is located within the TC Zone.

**COMMENT:**

No off-site parking is proposed.

- H.** The conducting of any business activity shall not be permitted on the required parking spaces, unless a temporary use permit is approved pursuant to Section 4.163.

**COMMENT:**

No additional uses for the parking area is proposed with this application.

- I.** Where the boundary of a parking lot adjoins or is within a residential district, such parking lot shall be screened by a sight-obscuring fence or planting. The screening shall be continuous along that boundary and shall be at least six feet in height.

**COMMENT:**

This subsection is not applicable since there is no residential zoning abutting the site.

- J.** Parking spaces along the boundaries of a parking lot over 650 square feet in area, excluding access areas, shall be provided with a sturdy bumper guard or curb at least six inches high and located far enough within the boundary to prevent any portion of a car within the lot from extending over the property line or interfering with required screening or sidewalks.

**COMMENT:**

No parking is adjacent to the property line.

- K.** All areas used for parking and maneuvering of cars shall be surfaced with asphalt, concrete, or other surface, such as pervious materials (i. e. pavers, concrete, asphalt) that is found by the City's authorized representative to be suitable for the purpose. In all cases, suitable drainage, meeting standards set by the City's authorized representative shall be provided.



**COMMENT:**

The parking lot is currently paved with asphalt.

- L. Artificial lighting which may be provided shall be so limited or deflected as not to shine into adjoining structures or into the eyes of passers-by.**

**COMMENT:**

No new lighting for the existing parking lot is proposed. There are no exterior lights except those adjacent to the doors which are screened/directed in a manner as to not impact the adjacent businesses to the north and south.

- M. Off-street parking requirements for types of uses and structures not specifically listed in this Code shall be determined by the Development Review Board if an application is pending before the Board. Otherwise, the requirements shall be specified by the Planning Director, based upon consideration of comparable uses.**

**COMMENT:**

This subsection is not applicable pursuant to the Metro parking order.

- N. Up to 40 percent of the off-street spaces may be compact car spaces as identified in Section 4.001 - "Definitions," and shall be appropriately identified.**

**COMMENT:**

No compact parking spaces are proposed.

- O. Where off-street parking areas are designed for motor vehicles to overhang beyond curbs, planting areas adjacent to said curbs shall be increased to a minimum of seven feet in depth. This standard shall apply to a double row of parking, the net effect of which shall be to create a planted area that is a minimum of seven feet in depth.**
- P. Parklets are permitted within the TC Zone on up to two parking spaces per block and shall be placed in front of the business. Placement of parklet requires a temporary right-of-way use permit and approval by the City Engineer.**
- Q. Residential garages shall not count towards minimum parking requirements unless all of the following criteria are met:**
  - 1. The garage contains an area, clear of any obstructions, equal to a standard size parking space (nine feet by 18 feet) for each counted parking space within the garage;**
  - 2. Nine square feet is provided either in the garage or in a screened area of the lot per container provided by the franchise hauler (solid waste, recycling, yard debris, etc.) to ensure they are not placed in the parking spaces;**
  - 3. A deed restriction is placed on the property requiring the space stay clear except for identified exceptions such as 30 days before and after a change of tenant or an equivalent restriction within the development's CC&R's;**

- R. Public sidewalks, public sidewalk easements or other public non-vehicle pedestrian easement areas shall not be counted towards the area of parking spaces or used for parking.
- S. Shared visitor parking in certain residential areas:
1. In order to provide visitor parking in non-multi-family residential areas with limited parking, lot size and/or required open space may be reduced equal to the area of standard-sized parking spaces as described in 2. below if all the following criteria are met:
    - a. Ten percent or more of lots in the development do not have at least one adjacent on-street parking space that is at least 22 feet long.
    - b. Shared parking spaces are within 250 feet of a lot without an on-street parking space.
    - c. Shared parking spaces will be owned by an HOA and have enforceable covenants in place to ensure spaces are managed for visitor parking and not storage of extra vehicles or overflow parking of residents. This may include time limits on parking, limits on overnight parking, or other similar limits.
  2. When shared visitor parking is provided that meets the standards of 1. above, lot size or open space area for the development may be reduced as provided below. The same visitor parking spaces cannot be used to reduce both lot size and open space area. To achieve both reductions, adequate visitor parking space must be provided to offset both lot size and open space area reductions.
    - a. Individual lot size may be reduced by up to 2.5 percent of the minimum lot size for the zone to allow an equal area to be developed as shared parking, as long as the shared parking space is within 250 feet of the reduced lot.
    - b. Open space required under Subsection 4.113 (.01) may be reduced by up to 2.5 percent of gross development area (from 25 percent down to as low as 22.5 percent) to allow an area equal to the reduced open space as shared parking. No more than 50 percent of the reduced open space area may be from the required usable open space. In the RN zone, the ten percent Open Space requirement for Small-Lot Subdistrict may be reduced to eight percent.
    - c. In order to reduce stormwater runoff and the need for stormwater facilities, shared visitor parking areas are encouraged to be constructed of pervious surfaces.

**COMMENT:**

The above subsections are not applicable to this project.

(.03)

**Minimum and Maximum Off-Street Parking Requirements:**

- A. Parking and loading or delivery areas shall be designed with access and maneuvering area adequate to serve the functional needs of the site and shall:
  - 1. Separate loading and delivery areas and circulation from customer and/or employee parking and pedestrian areas. Circulation patterns shall be clearly marked.
  - 2. To the greatest extent possible, separate vehicle and pedestrian traffic.

**COMMENT:**

Adequate maneuvering room is provided in the parking lot and in front (north side) of the warehouse building for deliveries. A vehicular circulation plan is provided as Sheet 8.

- B. Parking areas over 650 square feet, excluding access areas, and loading or delivery areas shall be landscaped to minimize the visual dominance of the parking or loading area, as follows:
  - 1. Landscaping of at least ten percent of the parking area designed to be screened from view from the public right-of-way and adjacent properties. This landscaping shall be considered to be part of the 15 percent total landscaping required in Section 4.176.03 for the site development.

**COMMENT:**

Landscaping on the north, south and east sides of the parking lot exceeds 10% of the parking area. It is approximately 22%

- 2. Landscape tree planting areas shall be a minimum of eight feet in width and length and spaced every eight parking spaces or an equivalent aggregated amount.
  - a. Trees shall be planted in a ratio of one tree per eight parking spaces or fraction thereof, except in parking areas of more than 200 spaces where a ratio of one tree per six spaces shall be applied as noted in subsection [4.155](.03)B.3. A landscape design that includes trees planted in areas based on an aggregated number of parking spaces must provide all area calculations.
  - b. Except for trees planted for screening, all deciduous interior parking lot trees must be suitably sized, located, and maintained to provide a branching minimum of seven feet clearance at maturity.

**COMMENT:**

A total of 6 trees are proposed along the south, east and west sides of the site, replacing those trees that are removed due to their condition and location, as part of the Type C Tree Removal Permit. No new trees are proposed on the north side of the site since there are several adjacent trees just north of the property line.

3. Due to their large amount of impervious surface, new development with parking areas of more than 200 spaces that are located in any zone, and that may be viewed from the public right-of-way, shall be landscaped to the following additional standards:
  - a. One trees shall be planted per six parking spaces or fraction thereof. At least 25 percent of the required trees must be planted in the interior of the parking area.
  - b. Required trees may be planted within the parking area or the perimeter, provided that a minimum of 40 percent of the canopy dripline of mature perimeter trees can be expected to shade or overlap the parking area. Shading shall be determined based on shadows cast on the summer solstice.
  - c. All parking lots in excess of 200 parking spaces shall provide an internal pedestrian walkway for every six parking aisles. Minimum walkway clearance shall be at least five feet in width. Walkways shall be designed to provide pedestrian access to parking areas in order to minimize pedestrian travel among vehicles. Walkways shall be designed to channel pedestrians to the front entrance of the building.
  - d. Parking lots more than three acres in size shall provide street-like features along principal drive isles, including curbs, sidewalks, street trees or planting strips, and bicycle routes.
  - e. All parking lots viewed from the public right-of-way shall have a minimum 12 foot landscaped buffer extending from the edge of the property line at the right-of-way to the edge of the parking area. Buffer landscaping shall meet the low screen standard of 4.176(.02)D except that trees, groundcovers and shrubs shall be grouped to provide visual interest and to create view openings no more than ten feet in length and provided every 40 feet. Notwithstanding this requirement, view of parking area that is unscreened from the right-of-way due to slope or topography shall require an increased landscaping standard under 4.176(.02) in order to buffer and soften the view of vehicles as much as possible. For purposes of this section, "view from the public right-of-way" is intended to mean the view from the sidewalk directly across the street from the site, or if no sidewalk, from the opposite side of the adjacent street or road.
  - f. Where topography and slope condition permit, the landscape buffer shall integrate parking lot storm water treatment in bioswales and related plantings. Use of berms or drainage swales are allowed provided that planting areas with lower grade are constructed so that they are protected from vehicle maneuvers. Drainage swales shall be constructed to Public Works Standards
  - g. In addition to the application requirements of section 4.035(.04)6.d., where view of signs is pertinent to landscape design, any approved or planned sign plan shall accompany the application for landscape design approval.

**COMMENT:**

This section is not applicable due to it's relatively small area.

- C. Off Street Parking shall be designed for safe and convenient access that meets ADA and ODOT standards. All parking areas which contain ten (10) or more parking spaces, shall for every 50 standard spaces., provide one ADA-accessible parking space that is constructed to building code standards, Wilsonville Code 9.000.

**COMMENT:**

The parking lot is designed in accordance with ADA standards.

- D. Where possible, parking areas shall be designed to connect with parking areas on adjacent sites so as to eliminate the necessity for any mode of travel of utilizing the public street for multiple accesses or cross movements. In addition, on-site parking shall be designed for efficient on-site circulation and parking.
- E. In all multi-family dwelling developments, there shall be sufficient areas established to provide for parking and storage of motorcycles, mopeds and bicycles. Such areas shall be clearly defined and reserved for the exclusive use of these vehicles.
- F. Except for single-family dwelling units and middle housing, on-street parking spaces, directly adjoining the frontage of and on the same side of the street as the subject property, may be counted towards meeting the minimum off-street parking standards.
- G. Tables 5 shall be used to determine the minimum and maximum parking standards for various land uses. The minimum number of required parking spaces shown on Tables 5 shall be determined by rounding to the nearest whole parking space. For example, a use containing 500 square feet, in an area where the standard is one space for each 400 square feet of floor area, is required to provide one off-street parking space. If the same use contained more than 600 square feet, a second parking space would be required. Structured parking and on-street parking are exempted from the parking maximums in Table 5.

**COMMENT:**

The above subsections are not applicable to this development.

**H. *Electrical Vehicle Charging Stations:***

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

**COMMENT:**

One EV potential parking space is shown on the site. It will be wired for a future station, if required.

**I. *Motorcycle parking:***

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

**COMMENT:**

No motorcycle parking is proposed.

**(.04)**

***Bicycle Parking:***

**A. *Required Bicycle Parking—General Provisions:***

1. The required minimum number of bicycle parking spaces for each use category is shown in Table 5, Parking Standards.
2. Bicycle parking spaces are not required for accessory buildings. If a primary use is listed in Table 5, bicycle parking is not required for the accessory use.
3. When there are two or more primary uses on a site, the required bicycle parking for the site is the sum of the required bicycle parking for the individual primary uses.
4. Bicycle parking space requirements may be waived by the Development Review Board per Section 4.118(.03)A.9. and 10.

**COMMENT:**

Bicycle parking is shown on the northeast corner of the proposed warehouse, adjacent to the sidewalk and accesses to both buildings. Three bicycle spaces are required for the warehouse per Table 5 (0.3 spaces/1000 (0.3 x 9.5 = 2.85 or 3 spaces).

**B. *Standards for Required Bicycle Parking:***

1. Each space must be at least two feet by six feet in area and be accessible without moving another bicycle.
2. An aisle at least five feet wide shall be maintained behind all required bicycle parking to allow room for bicycle maneuvering. Where the bicycle parking is adjacent to a sidewalk, the maneuvering area may extend into the right-of-way.
3. When bicycle parking is provided in racks, there must be enough space between the rack and any obstructions to use the space properly.
4. Bicycle lockers or racks, when provided, shall be securely anchored.

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

**COMMENT:**

A 3-space bike rack is provided on an 8-ft. x 11-ft. concrete pad providing the required dimensional standards of this section (2-ft. x 6-ft with 5-ft. area for maneuvering). The pad is located adjacent to the warehouse 30-ft. from the door.

**C. Long-term Bicycle Parking:**

1. Long-term bicycle parking provides employees, students, residents, commuters, and others who generally stay at a site for several hours a weather-protected place to park bicycles.

**COMMENT:**

Long-term bicycle parking can be provided inside the warehouse, if necessary.

2. For a proposed multi-family residential, retail, office, or institutional development, or for a park and ride or transit center, where six or more bicycle parking spaces are required pursuant to Table 5, 50 percent of the bicycle parking shall be developed as long-term, secure spaces. Required long-term bicycle parking shall meet the following standards:
  - a. All required spaces shall meet the standards in subsection (B.) above, and must be covered in one of the following ways: inside buildings, under roof overhangs or permanent awnings, in bicycle lockers, or within or under other structures.
  - b. All spaces must be located in areas that are secure or monitored (e.g., visible to employees, monitored by security guards, or in public view).
  - c. Spaces are not subject to the locational criterion of [subsection] B.5.

*Note: In considering proposed waivers to the following standards, the City will consider the potential uses of the site and not just the uses that are currently proposed. For waivers to exceed the maximum standards, applicants shall bear the burden of proving that Metro, State, and federal clean air standards will not be violated.*

**COMMENT:**

This section is not applicable for warehouse uses.



**TABLE 5: PARKING STANDARDS**

**Industrial**

2. Storage warehouse - .3 per 1,000 sq. ft.

(.05)

***Minimum Off-Street Loading Requirements:***

- A. Every building that is erected or structurally altered to increase the floor area, and which will require the receipt or distribution of materials or merchandise by truck or similar vehicle, shall provide off-street loading berths on the basis of minimum requirements as follows:
  1. Commercial, industrial, and public utility uses which have a gross floor area of 5,000 square feet or more, shall provide truck loading or unloading berths in accordance with the following tables:
  3. A loading berth shall contain space 12 feet wide, 35 feet long, and have a height clearance of 14 feet. Where the vehicles generally used for loading and unloading exceed these dimensions, the required length of these berths shall be increased to accommodate the larger vehicles.
  4. If loading space has been provided in connection with an existing use or is added to an existing use, the loading space shall not be eliminated if elimination would result in less space than is required to adequately handle the needs of the particular use.
  5. Off-street parking areas used to fulfill the requirements of this Ordinance shall not be used for loading and unloading operations except during periods of the day when not required to meet parking needs.

**COMMENT:**

Loading is provided in the front (north side) of the warehouse where 44-ft. is available between the three roll-up doors and the curb. As noted previously, these loading areas are not intended to be 'loading berths'. It is unlikely that the tenants will require large vehicles to visit the site.

***B. Exceptions and Adjustments:***

1. The Planning Director or Development Review Board may approve a loading area adjacent to or within a street right-of-way where it finds that loading and unloading operations:
  - a. Are short in duration (i.e., less than one hour);
  - b. Are infrequent (less than three operations daily);
  - c. Do not obstruct traffic during peak traffic hours;
  - d. Do not interfere with emergency response services or bicycle and pedestrian facilities; and

- e. Are acceptable to the applicable roadway authority.

**COMMENT:**

This section is not applicable.

(.06)

***Carpool and Vanpool Parking Requirements:***

- A. Carpool and vanpool parking spaces shall be identified for the following uses:
  - 1. New commercial and industrial developments with 75 or more parking spaces,
  - 2. New institutional or public assembly uses, and
  - 3. Transit park-and-ride facilities with 50 or more parking spaces.
- B. Of the total spaces available for employee, student, and commuter parking, at least five percent, but not fewer than two, shall be designated for exclusive carpool and vanpool parking.
- C. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other parking spaces with the exception of ADA parking spaces.
- D. Required carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."

**COMMENT:**

This section is not applicable.

(.07)

***Parking Area Redevelopment.*** The number of parking spaces may be reduced by up to ten percent of the minimum required parking spaces for that use when a portion of the existing parking area is modified to accommodate or provide transit-related amenities such as transit stops, pull-outs, shelters, and park and ride stations.

**COMMENT:**

This section is not applicable.

**Section 4.171. - General Regulations—Protection of Natural Features and Other Resources.**

(.01)

***Purpose.*** It is the purpose of this Section to prescribe standards and procedures for the use and development of land to assure the protection of valued natural features and cultural resources. The requirements of this Section are intended to be used in conjunction with those of the Comprehensive Plan and other zoning standards. It is further the purpose of this Section:

- A. To protect the natural environmental and scenic features of the City of Wilsonville.
- B. To encourage site planning and development practices which protect and enhance natural features such as riparian corridors, streams, wetlands, swales, ridges, rock outcroppings, views, large trees and wooded areas.
- C. To provide ample open space and to create a constructed environment capable and harmonious with the natural environment.

**COMMENT:**

This section is not applicable since there are no natural features or other resources on-site.

**Section 4.175. - Public Safety and Crime Prevention.**

**(.01)**

**All developments shall be designed to deter crime and insure public safety.**

**COMMENT:**

The parking lot and building entrances are visible from the street. The back (west) portion of the site will be gated to limit access during the night and weekends when the site is not occupied. Screened security lighting is proposed on the building as shown on Sheet A200. It will be directed down to limit impacts to surrounding properties.

**(.02)**

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

**COMMENT:**

Signage will be provided as required by the fire marshal.

**(.03)**

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

**COMMENT:**

Parking is proposed in the front (east side) of the site where it is highly visible from the street.

**(.04)**

**Exterior lighting shall be designed and oriented to discourage crime.**

**COMMENT:**

As noted, security lighting is proposed on the building to light the parking lot and the west side of the site. No new lighting is proposed on the front (east) building.

**Section 4.176. - Landscaping, Screening, and Buffering.**

*Note: The reader is encouraged to see Section 4.179, applying to screening and buffering of storage areas for solid waste and recyclables.*

(.01)

**Purpose.** This Section consists of landscaping and screening standards and regulations for use throughout the City. The regulations address materials, placement, layout, and timing of installation. The City recognizes the ecological and economic value of landscaping and requires the use of landscaping and other screening or buffering to:

- A. Promote the re-establishment of vegetation for aesthetic, health, erosion control, flood control and wildlife habitat reasons;
- B. Restore native plant communities and conserve irrigation water through establishment, or re-establishment, of native, drought-tolerant plants;
- C. Mitigate for loss of native vegetation;
- D. Establish and enhance a pleasant visual character which recognizes aesthetics and safety issues;
- E. Promote compatibility between land uses by reducing the visual, noise, and lighting impacts of specific development on users of the site and abutting sites or uses;
- F. Unify development and enhance and define public and private spaces;
- G. Promote the retention and use of existing topsoil and vegetation. Amended soils benefit stormwater retention and promote infiltration;
- H. Aid in energy conservation by providing shade from the sun and shelter from the wind; and
- I. Screen from public view the storage of materials that would otherwise be considered unsightly.
- J. Support crime prevention, create proper sight distance clearance, and establish other safety factors by effective landscaping and screening.
- K. Provide landscaping materials that minimize the need for excessive use of fertilizers, herbicides and pesticides, irrigation, pruning, and mowing to conserve and protect natural resources, wildlife habitats, and watersheds.

**COMMENT:**

Landscaping is proposed as part of this redevelopment. Approximately 23% of the site is landscaped, exceeding the minimum 15%

(.02)

**Landscaping and Screening Standards:**

- A. Subsections "C" through "I," below, state the different landscaping and screening standards to be applied throughout the City. The locations where the landscaping and screening are required and the depth of the landscaping and screening is stated in various places in the Code.
- B. All landscaping and screening required by this Code must comply with all of the provisions of this Section, unless specifically waived or granted a Variance as otherwise provided in the Code. The landscaping standards are minimum requirements; higher standards can be substituted as long as fence and vegetation-height limitations are met. Where the standards set a minimum based on square footage or linear footage, they shall be interpreted as applying to each complete or partial increment of area or length (e.g., a landscaped area of between 800 and 1,600 square feet shall have two trees if the standard calls for one tree per 800 square feet).

**COMMENT:**

Fencing and landscaping is provided as required.

**C. General Landscaping Standard:**

- 1. *Intent.* The General Landscaping Standard is a landscape treatment for areas that are generally open. It is intended to be applied in situations where distance is used as the principal means of separating uses or developments and landscaping is required to enhance the intervening space. Landscaping may include a mixture of ground cover, evergreen and deciduous shrubs, and coniferous and deciduous trees.

**COMMENT:**

Landscape areas along the site's east side include trees, shrubs and ground cover. Landscaping along the north and south side of the site includes ground cover and trees in some areas, with shrubs and ground cover proposed adjacent to the warehouse building (See Sheet 6).

- 2. *Required materials.* Shrubs and trees, other than street trees, may be grouped. Ground cover plants must fully cover the remainder of the landscaped area (see Figure 21: General Landscaping). The General Landscaping Standard has two different requirements for trees and shrubs:
  - a. Where the landscaped area is less than 30 feet deep, one tree is required for every 30 linear feet.
  - b. Where the landscaped area is 30 feet deep or greater, one tree is required for every 800 square feet and two high shrubs or three low shrubs are required for every 400 square feet.

**COMMENT:**

Trees are provided on the south planter, but not the north planter due to the adjacent trees north of the property line which will be protected with Tree Protection Fencing as shown on Sheet 7.

**D. Low Screen Landscaping Standard:**

1. **Intent.** The Low Screen Landscaping Standard is a landscape treatment that uses a combination of distance and low screening to separate uses or developments. It is intended to be applied in situations where low screening is adequate to soften the impact of one use or development on another, or where visibility between areas is more important than a total visual screen. The Low Screen Landscaping Standard is usually applied along street lot lines or in the area separating parking lots from street rights-of-way.
2. **Required materials.** The Low Screen Landscaping Standard requires sufficient low shrubs to form a continuous screen three feet high and 95 percent opaque, year-round. In addition, one tree is required for every 30 linear feet of landscaped area, or as otherwise required to provide a tree canopy over the landscaped area. Ground cover plants must fully cover the remainder of the landscaped area. A three foot high masonry wall or a berm may be substituted for the shrubs, but the trees and ground cover plants are still required. When applied along street lot lines, the screen or wall is to be placed along the interior side of the landscaped area. (See Figure 22: Low Screen Landscaping).

**COMMENT:**

A low screen is provided between the parking lot and SW Boberg Road right-of-way. Two trees are also provided in this planter. Shrubs and ground cover are provided throughout this planter.

**E. Low Berm Landscaping Standard:**

1. **Intent.** The Low Berm Standard is intended to be applied in situations where moderate screening to reduce both visual and noise impacts is needed to protect abutting uses or developments from one-another, and where it is desirable and practical to provide separation by both distance and sight-obscuring materials. This screening is most important where either, or both, of the abutting uses or developments can be expected to be particularly sensitive to noise or visual impacts.
2. **Required materials.** The Low Berm Standard requires a berm at least two feet six inches high along the interior side of the landscaped area (see Figure 23: Low Berm Landscaping). If the berm is less than three feet high, low shrubs meeting the Low Screen Landscaping Standard, above, are to be planted along the top of the berm, assuring that the screen is at least three feet in height. In addition, one tree is required for every 30 linear feet of berm, or as otherwise required to provide a tree canopy over the landscaped area. Ground cover plants must fully cover the remainder of the landscaped area.

**COMMENT:**

A low berm is not required since warehouse-industrial uses are located to the north, south and west. The landscape areas are planted with ground cover and – in some cases – shrubs and trees.

**F. High Screen Landscaping Standard:**

1. *Intent.* The High Screen Landscaping Standard is a landscape treatment that relies primarily on screening to separate uses or developments. It is intended to be applied in situations where visual separation is required.
2. *Required materials.* The High Screen Landscaping Standard requires sufficient high shrubs to form a continuous screen at least six feet high and 95 percent opaque, year-round. In addition, one tree is required for every 30 linear feet of landscaped area, or as otherwise required to provide a tree canopy over the landscaped area. Ground cover plants must fully cover the remainder of the landscaped area. A six foot high masonry wall or a berm may be substituted for the shrubs, but the trees and ground cover plants are still required. When applied along street lot lines, the screen or wall is to be placed along the interior side of the landscaped area. (See Figure 24: High Screen Landscaping).

**COMMENT:**

This section is not applicable.

**G. High Wall Standard:**

1. *Intent.* The High Wall Standard is intended to be applied in situations where extensive screening to reduce both visual and noise impacts is needed to protect abutting uses or developments from one-another. This screening is most important where either, or both, of the abutting uses or developments can be expected to be particularly sensitive to noise or visual impacts, or where there is little space for physical separation.
2. *Required materials.* The High Wall Standard requires a masonry wall at least six feet high along the interior side of the landscaped area (see Figure 25: High Wall Landscaping). In addition, one tree is required for every 30 linear feet of wall, or as otherwise required to provide a tree canopy over the landscaped area. Ground cover plants must fully cover the remainder of the landscaped area.

**COMMENT:**

This section is not applicable.

**H. High Berm Standard:**

1. *Intent.* The High Berm Standard is intended to be applied in situations where extensive screening to reduce both visual and noise impacts is needed to protect abutting uses or developments from one-another, and where it is desirable and practical to provide separation by both distance and sight-obscuring materials. This screening is most important where either, or both, of the abutting uses or developments can be expected to be particularly sensitive to noise or visual impacts.
2. *Required materials.* The High Berm Standard requires a berm at least four feet high along the interior side of the landscaped area (see Figure 26: High Berm Landscaping). If the berm is less than six feet high, low shrubs meeting the Low Screen Landscaping Standard, above, are to be planted along the top of the berm, assuring that the screen is

at least six feet in height In addition, one tree is required for every 30 linear feet of berm, or as otherwise required to provide a tree canopy over the landscaped area. Ground cover plants must fully cover the remainder of the landscaped area.

**COMMENT:**

This section is not applicable.

**I. Partially Sight-Obscuring Fence Standard:**

- 1. Intent.** The Partially Sight-Obscuring Fence Standard is intended to provide a tall, but not totally blocked, visual separation. The standard is applied where a low level of screening is adequate to soften the impact of one use or development on another, and where some visibility between abutting areas is preferred over a total visual screen. It can be applied in conjunction with landscape plantings or applied in areas where landscape plantings are not necessary and where nonresidential uses are involved.
- 2. Required materials.** Partially Sight-Obscuring Fence Standard are to be at least six feet high and at least 50 percent sight-obscuring. Fences may be made of wood (other than plywood or particle-board), metal, bricks, masonry or other permanent materials (see Figure 27: Partially Sight-Obscuring Fence).

**COMMENT:**

Partially Sight-Obscuring fencing is provided along the north, west and south property boundaries on the west half of the site. Screening is provided along the south boundary – eastern portion by an existing arborvitae hedge on the adjacent property. Screening is provided along the north boundary – eastern portion by existing trees on the adjacent property.

**J. Fully Sight-Obscuring Fence Standard:**

- 1. Intent.** The Fully Sight-Obscuring Fence Standard is intended to provide a totally blocked visual separation. The standard is applied where full visual screening is needed to reduce the impact of one use or development on another. It can be applied in conjunction with landscape plantings or applied in areas where landscape plantings are not necessary.
- 2. Required materials.** Fully sight-obscuring fences are to be at least six feet high and 100 percent sight-obscuring. Fences may be made of wood (other than plywood or particle-board), metal, bricks, masonry or other permanent materials (see Figure 28: Totally Sight-Obscuring Fence).

**COMMENT:**

This section is not applicable.



(.03)

***Landscape Area.***

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

**COMMENT:**

As shown on Sheets 4 & 6, site landscaping exceeds the minimum 15% and parking lot landscaping exceed the minimum 10% standard (22% & 23%, respectively).

(.04)

***Buffering and Screening.***

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

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

**COMMENT:**

Although there are no residential areas adjacent to the site, and the proposed warehouse use is not more intensive than those surrounding uses, an existing chain-link fence surrounds the property on the south, west and north perimeter.

(.05)

*Sight-Obscuring Fence or Planting.*

The use for which a sight-obscuring fence or planting is required shall not begin operation until the fence or planting is erected or in place and approved by the City. A temporary occupancy permit may be issued upon a posting of a bond or other security equal to 110 percent of the cost of such fence or planting and its installation. (See Sections 4.400 to 4.470 for additional requirements.)

**COMMENT:**

A sight-obscuring fence is not required as part of this development.

(.06)

*Plant Materials:*

- A. **Shrubs and Ground Cover.** All required ground cover plants and shrubs must be of sufficient size and number to meet these standards within three years of planting. Non-horticultural plastic sheeting or other impermeable surface shall not be placed under mulch. Native topsoil shall be preserved and reused to the extent feasible. Surface mulch or bark dust are to be fully raked into soil of appropriate depth, sufficient to control erosion, and are confined to areas around plantings. Areas exhibiting only surface mulch, compost or barkdust are not to be used as substitutes for plant areas.
  1. *Shrubs.* All shrubs shall be well branched and typical of their type as described in current AAN Standards and shall be equal to or better than 2-gallon containers and ten inches to 12 inches spread.
  2. *Ground cover.* Shall be equal to or better than the following depending on the type of plant materials used: gallon containers spaced at four feet on center minimum, four inch pot spaced two feet on center minimum, two one-fourth inch pots spaced at 18 inch on center minimum. No bare root planting shall be permitted. Ground cover shall be sufficient to cover at least 80 percent of the bare soil in required landscape areas within three years of planting. Where wildflower seeds are designated for use as a ground cover, the City may require annual re-seeding as necessary.
  3. Turf or lawn in non-residential developments. Shall not be used to cover more than ten percent of the landscaped area, unless specifically approved based on a finding that, due to site conditions and availability of water, a larger percentage of turf or lawn area is appropriate. Use of lawn fertilizer shall be discouraged. Irrigation drainage runoff from lawns shall be retained within lawn areas.
  4. Plant materials under trees or large shrubs. Appropriate plant materials shall be installed beneath the canopies of trees and large shrubs to avoid the appearance of bare ground in those locations.
  5. Integrate compost-amended topsoil in all areas to be landscaped, including lawns, to help detain runoff, reduce irrigation and fertilizer needs, and create a sustainable, low-maintenance landscape.

**COMMENT:**

Shrubs and ground cover will be installed in accordance with the above standards.

- B. Trees.** All trees shall be well-branched and typical of their type as described in current American Association of Nurserymen (AAN) Standards and shall be balled and burlapped. The trees shall be grouped as follows:
1. Primary trees which define, outline or enclose major spaces, such as Oak, Maple, Linden, and Seedless Ash, shall be a minimum of two inch caliper.
  2. Secondary trees which define, outline or enclose interior areas, such as Columnar Red Maple, Flowering Pear, Flame Ash, and Honeylocust, shall be a minimum of 1¾ inch to 2 inch caliper.
  3. Accent trees which, are used to add color, variation and accent to architectural features, such as Flowering Pear and Kousa Dogwood, shall be 1¾ inch minimum caliper.
  4. Large conifer trees such as Douglas Fir or Deodar Cedar shall be installed at a minimum height of eight feet.
  5. Medium-sized conifers such as Shore Pine, Western Red Cedar or Mountain Hemlock shall be installed at a minimum height of five to six feet.

**COMMENT:**

Primary deciduous trees are proposed in accordance with the above standards.

- C.** Where a proposed development includes buildings larger than 24 feet in height or greater than 50,000 square feet in footprint area, the Planning Director or the Development Review Board, as applicable, may require larger or more mature plant materials.
1. At maturity, proposed trees shall be at least one-half the height of the building to which they are closest, and building walls longer than 50 feet shall require tree groups located no more than 50 feet on center, to break up the length and height of the façade.
  2. Either fully branched deciduous or evergreen trees may be specified depending upon the desired results. Where solar access is to be preserved, only solar-friendly deciduous trees are to be used. Where year-round sight obscuring is the highest priority, evergreen trees are to be used.
  3. The following standards are to be applied:
    - a. *Deciduous trees:*
      - i. Minimum height of ten feet; and
      - ii. Minimum trunk diameter (caliper) of two inches (measured at four and one-half feet above grade).
    - b. *Evergreen trees:* Minimum height of 12 feet.

**COMMENT:**

Deciduous trees are proposed in accordance with the above standards. The applicant does not desire any evergreen trees on the site.

**D. Street Trees.** In order to provide a diversity of species, the Development Review Board may require a mix of street trees throughout a development. Unless the Board waives the requirement for reasons supported by a finding in the record, different types of street trees shall be required for adjoining blocks in a development.

1. All trees shall be standard base grafted, well branched and typical of their type as described in current AAN Standards and shall be balled and burlapped (b&b). Street trees shall be planted at sizes in accordance with the following standards:
  - a. Arterial streets—Three inches minimum caliper
  - b. Collector streets—Two inches minimum caliper.
  - c. Local streets or residential private access drives—1¾ inches minimum caliper.
  - d. Accent or median tree—1¾ inches minimum caliper.
2. The following trees and varieties thereof are considered satisfactory street trees in most circumstances; however, other varieties and species are encouraged and will be considered:
  - a. Trees over 50 feet mature height: *Quercus garryana* (Native Oregon White Oak), *Quercus rubra borealis* (Red Oak), *Acer Macrophyllum* (Native Big Leaf Maple), *Acer nigrum* (Green Column Black Maple), *Fraxinus americanus* (White Ash), *Fraxinus pennsylvannica* 'Marshall' (Marshall Seedless Green Ash), *Quercus coccinea* (Scarlet Oak), *Quercus pulustris* (PinOak), *Tilia americana* (American Linden).
  - b. Trees under 50 feet mature height: *Acer rubrum* (Red Sunset Maple), *Cornus nuttallii* (Native Pacific Dogwood), *Gleditsia triacanthos* (Honey Locust), *Pyrus calleryana* 'Bradford' (Bradford Pear), *Tilia cordata* (Little Leaf Linden), *Fraxinus oxycarpa* (Flame Ash).
  - c. Other street tree species. Other species may be specified for use in certain situations. For instance, evergreen species may be specified where year-round color is desirable and no adverse effect on solar access is anticipated. Water-loving species may be specified in low locations where wet soil conditions are anticipated.

**COMMENT:**

Two street trees, 2-inch caliper Red Sunset Maple are proposed along the site's frontage.

**E. Types of Plant Species:**

1. Existing landscaping or native vegetation may be used to meet these standards, if protected and maintained during the construction phase of the development and if the plant species do not include any that have been listed by the City as prohibited. The

existing native and non-native vegetation to be incorporated into the landscaping shall be identified.

2. Selection of plant materials. Landscape materials shall be selected and sited to produce hardy and drought-tolerant landscaping. Selection shall be based on soil characteristics, maintenance requirements, exposure to sun and wind, slope and contours of the site, and compatibility with other vegetation that will remain on the site. Suggested species lists for street trees, shrubs and groundcovers shall be provided by the City of Wilsonville.
3. *Prohibited plant materials.* The City may establish a list of plants that are prohibited in landscaped areas. Plants may be prohibited because they are potentially damaging to sidewalks, roads, underground utilities, drainage improvements, or foundations, or because they are known to be invasive to native vegetation.

**COMMENT:**

Trees, shrubs and ground cover have been selected from the approved list. No invasive plants are proposed.

F. *Tree Credit.* Existing trees that are in good health as certified by an arborist and are not disturbed during construction may count for landscaping tree credit as follows (measured at four and one-half feet above grade and rounded to the nearest inch):

1. It shall be the responsibility of the owner to use reasonable care to maintain preserved trees. Trees preserved under this section may only be removed if an application for removal permit under Section 4.610.10(01)(H) has been approved. Required mitigation for removal shall be replacement with the number of trees credited to the preserved and removed tree.
2. Within five years of occupancy and upon notice from the City, the property owner shall replace any preserved tree that cannot be maintained due to disease or damage, or hazard or nuisance as defined in Chapter 6 of this Code. The notice shall be based on complete information provided by an arborist. Replacement with the number of trees credited shall occur within one growing season of notice.

G. *Exceeding Standards.* Landscape materials that exceed the minimum standards of this Section are encouraged, provided that height and vision clearance requirements are met.

H. *Compliance with Standards.* The burden of proof is on the applicant to show that proposed landscaping materials will comply with the purposes and standards of this Section.

**COMMENT:**

No trees are being retained on-site.

(.07)

**Installation and Maintenance:**

- A. **Installation.** Plant materials shall be installed to current industry standards and shall be properly staked to assure survival. Support devices (guy wires, etc.) shall not be allowed to interfere with normal pedestrian or vehicular movement.
- B. **Maintenance.** Maintenance of landscaped areas is the on-going responsibility of the property owner. Any landscaping installed to meet the requirements of this Code, or any condition of approval established by a City decision-making body acting on an application, shall be continuously maintained in a healthy, vital and acceptable manner. Plants that die are to be replaced in kind, within one growing season, unless appropriate substitute species are approved by the City. Failure to maintain landscaping as required in this Section shall constitute a violation of this Code for which appropriate legal remedies, including the revocation of any applicable land development permits, may result.
- C. **Irrigation.** The intent of this standard is to assure that plants will survive the critical establishment period when they are most vulnerable due to a lack of watering and also to assure that water is not wasted through unnecessary or inefficient irrigation. Approved irrigation system plans shall specify one of the following:
  - 1. A permanent, built-in, irrigation system with an automatic controller. Either a spray or drip irrigation system, or a combination of the two, may be specified.
  - 2. A permanent or temporary system designed by a landscape architect licensed to practice in the State of Oregon, sufficient to assure that the plants will become established and drought-tolerant.
  - 3. Other irrigation system specified by a licensed professional in the field of landscape architecture or irrigation system design.
  - 4. A temporary permit issued for a period of one year, after which an inspection shall be conducted to assure that the plants have become established. Any plants that have died, or that appear to the Planning Director to not be thriving, shall be appropriately replaced within one growing season. An inspection fee and a maintenance bond or other security sufficient to cover all costs of replacing the plant materials shall be provided, to the satisfaction of the Community Development Director. Additionally, the applicant shall provide the City with a written license or easement to enter the property and cause any failing plant materials to be replaced.
- D. **Protection.** All required landscape areas, including all trees and shrubs, shall be protected from potential damage by conflicting uses or activities including vehicle parking and the storage of materials.

**COMMENT:**

An automatic irrigation system will be installed in the landscape areas. The landscape areas will be protected from vehicles by curbs in the parking lot. Additionally, Tree Protection Fencing is provided along the north property line (See Sheet 7).

(.08)

*Landscaping on Corner Lots.*

All landscaping on corner lots shall meet the vision clearance standards of Section 4.177. If high screening would ordinarily be required by this Code, low screening shall be substituted within vision clearance areas. Taller screening may be required outside of the vision clearance area to mitigate for the reduced height within it.

**COMMENT:**

This section is not applicable.

(.09)

*Landscape Plans.*

Landscape plans shall be submitted showing all existing and proposed landscape areas. Plans must be drawn to scale and show the type, installation size, number and placement of materials. Plans shall include a plant material list. Plants are to be identified by both their scientific and common names. The condition of any existing plants and the proposed method of irrigation are also to be indicated. Landscape plans shall divide all landscape areas into the following categories based on projected water consumption for irrigation:

- A. High water usage areas ( $\pm$  two inches per week): small convoluted lawns, lawns under existing trees, annual and perennial flower beds, and temperamental shrubs;
- B. Moderate water usage areas ( $\pm$  one inch per week): large lawn areas, average water-using shrubs, and trees;
- C. Low water usage areas (Less than one inch per week, or gallons per hour): seeded fieldgrass, swales, native plantings, drought-tolerant shrubs, and ornamental grasses or drip irrigated areas.
- D. Interim or unique water usage areas: areas with temporary seeding, aquatic plants, erosion control areas, areas with temporary irrigation systems, and areas with special water-saving features or water harvesting irrigation capabilities.

These categories shall be noted in general on the plan and on the plant material list.

**COMMENT:**

The preliminary landscape plan, (Sheet 6) indicates that all proposed landscaping is within the low and moderate categories.

(.10)

*Completion of Landscaping.*

The installation of plant materials may be deferred for a period of time specified by the Board or Planning Director acting on an application, in order to avoid hot summer or cold winter periods, or in

response to water shortages. In these cases, a temporary permit shall be issued, following the same procedures specified in subsection (.07)(C)(3), above, regarding temporary irrigation systems. No final Certificate of Occupancy shall be granted until an adequate bond or other security is posted for the completion of the landscaping, and the City is given written authorization to enter the property and install the required landscaping, in the event that the required landscaping has not been installed. The form of such written authorization shall be submitted to the City Attorney for review.

**COMMENT:**

All required landscaping will be installed prior to C of O, unless deferred as noted above.

(.11)

***Street Trees Not Typically Part of Site Landscaping.***

Street trees are not subject to the requirements of this Section and are not counted toward the required standards of this Section. Except, however, that the Development Review Board may, by granting a waiver or variance, allow for special landscaping within the right-of-way to compensate for a lack of appropriate on-site locations for landscaping. See subsection (.06), above, regarding street trees.

(.12)

***Mitigation and Restoration Plantings.***

A mitigation plan is to be approved by the City's Development Review Board before the destruction, damage, or removal of any existing native plants. Plantings intended to mitigate the loss of native vegetation are subject to the following standards. Where these standards conflict with other requirements of this Code, the standards of this Section shall take precedence. The desired effect of this section is to preserve existing native vegetation.

- A. ***Plant Sources.*** Plant materials are to be native and are subject to approval by the City. They are to be non-clonal in origin; seed source is to be as local as possible, and plants must be nursery propagated or taken from a pre-approved transplantation area. All of these requirements are to be addressed in any proposed mitigation plan.
- B. ***Plant Materials.*** The mitigation plan shall specify the types and installation sizes of plant materials to be used for restoration. Practices such as the use of pesticides, fungicides, and fertilizers shall not be employed in mitigation areas unless specifically authorized and approved.
- C. ***Installation.*** Install native plants insuitable soil conditions. Plant materials are to be supported only when necessary because of extreme winds at the site. Where support is necessary, all stakes, guy wires or other measures are to be removed as soon as the plants can support themselves. Protect from animal and fowl predation and foraging until establishment.
- D. ***Irrigation.*** Permanent irrigation systems are generally not appropriate in restoration situations, and manual or temporary watering of new plantings is often necessary. The mitigation plan shall specify the method and frequency of manual watering, including any that may be necessary after the first growing season.



- E. *Monitoring and Reporting.* Monitoring of native landscape areas is the on-going responsibility of the property owner. Plants that die are to be replaced in kind and quantity within one year. Written proof of the survival of all plants shall be required to be submitted to the City's Planning Department one year after the planting is completed.

**COMMENT:**

No mitigation or monitoring will be required.

**Section 4.177. - Street Improvement Standards.**

This section contains the City's requirements and standards for pedestrian, bicycle, and transit facility improvements to public streets, or within public easements. The purpose of this section is to ensure that development, including redevelopment, provides transportation facilities that are safe, convenient, and adequate in rough proportion to their impacts.

(.01)

Development and related public facility improvements shall comply with the standards in this section, the Wilsonville Public Works Standards, and the Transportation System Plan, in rough proportion to the potential impacts of the development. Such improvements shall be constructed at the time of development or as provided by Section 4.140, except as modified or waived by the City Engineer for reasons of safety or traffic operations.

**COMMENT:**

Two commercial driveways – Type 1 are proposed to replace the existing driveways on SW Boberg Road in accordance with Public Works Standards. No other public improvements with the exception of possible sidewalk modifications to meet ADA standards are proposed within the right-of-way. The plan and details for the driveway improvements are provided on Sheet 4.

(.02)

***Street Design Standards:***

- A. All street improvements and intersections shall provide for the continuation of streets through specific developments to adjoining properties or subdivisions.
  - 1. Development shall be required to provide existing or future connections to adjacent sites through the use of access easements where applicable. Such easements shall be required in addition to required public street dedications as required in Section 4.236(.04).
- B. The City Engineer shall make the final determination regarding right-of-way and street element widths using the ranges provided in Chapter 3 of the Transportation System Plan and the additional street design standards in the Public Works Standards.

**COMMENT:**

No public street extension through the site is required.

**C. *Rights-of-way:***

1. Prior to issuance of a Certificate of Occupancy Building permits or as a part of the recordation of a final plat, the City shall require dedication of rights-of-way in accordance with the Transportation System Plan. All dedications shall be recorded with the County Assessor's Office.
2. The City shall also require a waiver of remonstrance against formation of a local improvement district, and all non-remonstrances shall be recorded in the County Recorder's Office as well as the City's Lien Docket, prior to issuance of a Certificate of Occupancy Building Permit or as a part of the recordation of a final plat.
3. In order to allow for potential future widening, a special setback requirement shall be maintained adjacent to all arterial streets. The minimum setback shall be 55 feet from the centerline or 25 feet from the right-of-way designated on the Master Plan, whichever is greater.

**COMMENT:**

The applicant is required to provide a 20-ft. right-of-way dedication with an additional 6-ft. PUE as shown on the submitted plans. The applicant will sign a waiver of remonstrance, if required.

- D. *Dead-end Streets.*** New dead-end streets or culs-de-sac shall not exceed 200 feet in length, unless the adjoining land contains barriers such as existing buildings, railroads or freeways, or environmental constraints such as steep slopes, or major streams or rivers, that prevent future street extension and connection. A central landscaped island with rainwater management and infiltration are encouraged in cul-de-sac design. No more than 25 dwelling units shall take access to a new dead-end or cul-de-sac street unless it is determined that the traffic impacts on adjacent streets will not exceed those from a development of 25 or fewer units. All other dimensional standards of dead-end streets shall be governed by the Public Works Standards. Notification that the street is planned for future extension shall be posted on the dead-end street.

**COMMENT:**

This section is not applicable.

**E. *Corner or clear vision area:***

1. A clear vision area which meets the Public Works Standards shall be maintained on each corner of property at the intersection of any two streets, a street and a railroad or a street and a driveway. However, the following items shall be exempt from meeting this requirement:
  - a. Light and utility poles with a diameter less than 12 inches.
  - b. Trees less than six inch d.b.h., approved as a part of the Stage II Site Design, or administrative review.
  - c. Except as allowed by b., above, an existing tree, trimmed to the trunk, ten feet above the curb.

- d. Official warning or street sign.
  - e. Natural contours where the natural elevations are such that there can be no cross-visibility at the intersection and necessary excavation would result in an unreasonable hardship on the property owner or deteriorate the quality of the site.
- F. *Vertical clearance.* A minimum clearance of 12 feet above the pavement surface shall be maintained over all streets and access drives.
- G. *Interim improvement standard.* It is anticipated that all existing streets, except those in new subdivisions, will require complete reconstruction to support urban level traffic volumes. However, in most cases, existing and short-term projected traffic volumes do not warrant improvements to full Master Plan standards. Therefore, unless otherwise specified by the Development Review Board, the following interim standards shall apply.

**COMMENT:**

Sight distance is adequate at the site's two driveway approaches from SW Boberg Road.

(.03)

***Sidewalks.***

Sidewalks shall be provided on the public street frontage of all development. Sidewalks shall generally be constructed within the dedicated public right-of-way, but may be located outside of the right-of-way within a public easement with the approval of the City Engineer.

- A. Sidewalk widths shall include a minimum through zone of at least five feet. The through zone may be reduced pursuant to variance procedures in Section 4.196, a waiver pursuant to Section 4.118, or by authority of the City Engineer for reasons of traffic operations, efficiency, or safety.
- B. Within a Planned Development, the Development Review Board may approve a sidewalk on only one side. If the sidewalk is permitted on just one side of the street, the owners will be required to sign an agreement to an assessment in the future to construct the other sidewalk if the City Council decides it is necessary.

**COMMENT:**

Sidewalks exist along the site's SW Boberg Road frontage. Improvements to the commercial driveways will be necessary to comply with ADA standards.

(.04)

***Bicycle Facilities.***

Bicycle facilities shall be provided to implement the Transportation System Plan, and may include on-street and off-street bike lanes, shared lanes, bike boulevards, and cycle tracks. The design of on-street bicycle facilities will vary according to the functional classification and the average daily traffic of the facility.

**COMMENT:**

A bike lane exists along the site's SW Boberg Road frontage. No modifications to this facility are required.

(.05)

***Multiuse Pathways.***

Pathways may be in addition to, or in lieu of, a public street. Paths that are in addition to a public street shall generally run parallel to that street, and shall be designed in accordance with the Public Works Standards or as specified by the City Engineer. Paths that are in lieu of a public street shall be considered in areas only where no other public street connection options are feasible, and are subject to the following standards.

**COMMENT:**

No multiuse pathway through the site is required.

(.06)

***Transit Improvements.***

Development on sites that are adjacent to or incorporate major transit streets shall provide improvements as described in this section to any bus stop located along the site's frontage, unless waived by the City Engineer for reasons of safety or traffic operations. Transit facilities include bus stops, shelters, and related facilities. Required transit facility improvements may include the dedication of land or the provision of a public easement.

(.07)

***Residential Private Access Drives.***

**COMMENT:**

These sections are not applicable.

(.08)

***Access Drive and Driveway Approach Development Standards:***

- A. An access drive to any proposed development shall be designed to provide a clear travel lane free from any obstructions.
- B. Access drive travel lanes shall be constructed with a hard surface capable of carrying a 23-ton load.
- C. Where emergency vehicle access is required, approaches and driveways shall be designed and constructed to accommodate emergency vehicle apparatus and shall conform to applicable fire protection requirements. The City may restrict parking, require signage, or

require other public safety improvements pursuant to the recommendations of an emergency service provider.

- D. Secondary or emergency access lanes may be improved to a minimum 12 feet with an all-weather surface as approved by the Fire District. All fire lanes shall be dedicated easements.
- E. Minimum access requirements shall be adjusted commensurate with the intended function of the site based on vehicle types and traffic generation.
- F. The number of approaches on higher classification streets (e.g., collector and arterial streets) shall be minimized; where practicable, access shall be taken first from a lower classification street.
- G. The City may limit the number or location of connections to a street, or impose access restrictions where the roadway authority requires mitigation to alleviate safety or traffic operations concerns.
- H. The City may require a driveway to extend to one or more edges of a lot and be designed to allow for future extension and inter-lot circulation as adjacent properties develop. The City may also require the owner(s) of the subject site to record an access easement for future joint use of the approach and driveway as the adjacent property(ies) develop(s).
- I. Driveways shall accommodate all projected vehicular traffic on-site without vehicles stacking or backing up onto a street.
- J. Driveways shall be designed so that vehicle areas, including but not limited to drive-up and drive-through facilities and vehicle storage and service areas, do not obstruct any public right-of-way.
- K. Approaches and driveways shall not be wider than necessary to safely accommodate projected peak hour trips and turning movements, and shall be designed to minimize crossing distances for pedestrians.
- L. As it deems necessary for pedestrian safety, the City, in consultation with the roadway authority, may require traffic-calming features, such as speed tables, textured driveway surfaces, curb extensions, signage or traffic control devices, or other features, be installed on or in the vicinity of a site.
- M. Approaches and driveways shall be located and designed to allow for safe maneuvering in and around loading areas, while avoiding conflicts with pedestrians, parking, landscaping, and buildings.
- N. Where a proposed driveway crosses a culvert or drainage ditch, the City may require the developer to install a culvert extending under and beyond the edges of the driveway on both sides of it, pursuant to applicable Public Works standards.
- O. Except as otherwise required by the applicable roadway authority or waived by the City Engineer, temporary driveways providing access to a construction site or staging area shall be paved or graveled to prevent tracking of mud onto adjacent paved streets.

- P. Unless constrained by topography, natural resources, rail lines, freeways, existing or planned or approved development, or easements or covenants, driveways proposed as part of a residential or mixed-use development shall meet local street spacing standards and shall be constructed to align with existing or planned streets, if the driveway.

**COMMENT:**

There are two existing driveway accesses from SW Boberg Road, and no changes to the access locations are necessary. However, these commercial driveways will be improved to Public Works commercial standards – Type 1. Improvements will be in compliance with ADA standards.

(.09)

***Minimum street intersection spacing standards:***

(.10)

***Exceptions and Adjustments.***

The City may approve adjustments to the spacing standards of subsections (.08) and (.09) above through a Class II process, or as a waiver per Section 4.118(.03)(A.), where an existing connection to a City street does not meet the standards of the roadway authority, the proposed development moves in the direction of Code compliance, and mitigation measures alleviate all traffic operations and safety concerns. Mitigation measures may include consolidated access (removal of one access), joint use driveways (more than one property uses same access), directional limitations (e.g., one-way), turning restrictions (e.g., right in/out only), or other mitigation.

(Ord. No. 610, 5-1-2006; Ord. No. 674, 11-16-2009; Ord. No. 682, 9-1-2010; Ord. No. 719, 6-17-2013)

**COMMENT:**

These sections are not applicable.

**Section 4.179. - Mixed Solid Waste and Recyclables Storage in New Multi-Family Residential and Non-Residential Buildings.**

(.01)

All site plans for multi-family residential and non-residential buildings submitted to the Wilsonville Development Review Board for approval shall include adequate storage space for mixed solid waste and source separated recyclables.

**COMMENT:**

The proposal is for a non-residential building, therefore this section is applicable.

(.02)

The floor area of an interior or exterior storage area shall be excluded from the calculation of building floor area for purposes of determining minimum storage requirements.

(.03)

The storage area requirement shall be based on the predominant use(s) of the building. If a building has more than one of the uses listed herein and that use occupies 20 percent or less of the floor area of the building, the floor area occupied by that use shall be counted toward the floor area of the predominant use(s). If a building has more than one of the uses listed herein and that use occupies more than 20 percent of the floor area of the building, then the storage area requirement for the whole building shall be the sum of the requirement for the area of each use.

**COMMENT:**

The proposal is for a single, warehousing use with related offices totaling 12,100 sq. ft. This includes the existing 2,560 sf building and the proposed 9,540 sf building to be connected by a breezeway.

(.04)

Storage areas for multiple uses on a single site may be combined and shared.

(.05)

The specific requirements are based on an assumed storage height of four feet for solid waste/recyclables. Vertical storage higher than four feet but no higher than seven feet may be used to accommodate the same volume of storage in a reduced floor space. Where vertical or stacked storage is proposed, the site plan shall include drawings to illustrate the layout of the storage area and dimensions for the containers.

(.06)

The specific requirements for storage area are as follows:

- A. multi-family residential buildings containing five-ten units shall provide a minimum storage area of 50 square feet. Buildings containing more than ten residential units shall provide an additional five square feet per unit for each unit above ten.
- B. Non-residential buildings shall provide a minimum storage area of ten square feet, plus:
  - 1. *Office:* Four square feet per 1,000 square feet gross floor area (GFA);
  - 2. *Retail:* Ten square feet per 1,000 square feet GFA;
  - 3. *Wholesale/Warehouse/Manufacturing:* Six square feet per 1,000 square feet GFA; and
  - 4. *Other:* Four square feet per 1,000 square feet GFA.

**COMMENT:**

The applicant proposes a 200 sq. ft. covered trash and recyclables enclosure on the northwest corner of the site. Since the primary use of the site is warehousing, a minimum of 78 sq. ft. is required by the above standard ( $13 \times 6 = 78$ ). However, the additional area is necessary to meet the requirements for large dumpsters.

(.07)

The applicant shall work with the City's franchised garbage hauler to ensure that site plans provide adequate access for the hauler's equipment and that storage area is adequate for the anticipated volumes, level of service and any other special circumstances which may result in the storage area exceeding its capacity. The hauler shall notify the City by letter of their review of site plans and make recommendations for changes in those plans pursuant to the other provisions of this section.

**COMMENT:**

The applicant has obtained an approval letter regarding the design, size and location of the trash enclosure from Republic Services.

(.08)

Existing multi-family residential and non-residential developments wishing to retrofit their structures to include storage areas for mixed solid waste and recycling may have their site plans reviewed and approved through the Class I Administrative Review process, according to the provisions of Section 4.035. Site plans for retrofitting existing developments must conform to all requirements of this Section, "Mixed Solid Waste and Recyclables Storage In New Multi-Family Residential and Non-Residential Buildings," and 4.430, "Location, Design and Access Standards for Mixed Solid Waste and Recycling Areas," of the Wilsonville City Code.

**COMMENT:**

This section is not applicable.

(.09)

When applicable, the applicant must comply with Wilsonville Code Section 8.010.

**Section 4.199. - Outdoor Lighting.**

**Section 4.199.10. - Outdoor Lighting In General.**

(.01) *Purpose.*

The purpose of this Code is to provide regulations for outdoor lighting that will:

- A. Permit reasonable uses of outdoor lighting for nighttime safety, utility, security, productivity, enjoyment and commerce.
- B. Conserve energy and resources to the greatest extent possible.
- C. Minimize glare, particularly in and around public rights-of-way; and reduce visual discomfort and improve visual acuity over large areas by avoiding "light islands" and "spotlighting" that result in reduced visual perception in areas adjacent to either the source of the glare or the area illuminated by the glare.
- D. Minimize light trespass, so that each owner of property does not cause unreasonable light spillover to other property.



- E. Curtail the degradation of the nighttime environment and the night sky.
- F. Preserve the dark night sky for astronomy and enjoyment.
- G. Protect the natural environment, including wildlife, from the damaging effects of night lighting from human sources.

**COMMENT:**

Lighting is proposed on the building, shielded from adjacent properties for security purposes. No additional parking lot lighting is proposed, and no new lighting is planned for the existing building.

(.02)

***Purpose Statement as Guidelines:***

Declaration of purpose statements are guidelines and not approval criteria in the application of WC Section 4.199.

**Section 4.199.20. - Applicability.**

(.01)

This Ordinance is applicable to:

- A. Installation of new exterior lighting systems in public facility, commercial, industrial and multi-family housing projects with common areas.
- B. Major additions or modifications (as defined in this Section) to existing exterior lighting systems in public facility, commercial, industrial and multi-family housing projects with common areas.

**COMMENT:**

A new warehouse is proposed with paved access. No modifications to the parking lot on the east side of the existing building are proposed.

(.02)

**Exemption. The following luminaires and lighting systems are EXEMPT from these requirements:**

- A. Interior lighting.
- B. Internally illuminated signs.
- C. Externally illuminated signs.
- D. Temporary lighting for theatrical, television, and performance areas.
- E. Lighting in swimming pools and other water features governed by Article 680 of the National Electrical Code.

- F. Building Code required exit path lighting.
- G. Lighting specifically for stairs and ramps.
- H. Temporary and seasonal lighting provided that individual lamps are 10 watts or less.
- I. Lighting required and/or regulated by the City (i.e. construction related activities), Federal Aviation Administration, U.S. Coast Guard or other Federal or State agency.
- J. Single-family residential lighting.
- K. Code Required Signs.
- L. American flag.
- M. Landscape lighting.
- N. Lights approved by the City through an Administrative Review Temporary Use Permit process.
- O. Public street lights.
- P. ATM security lighting.
- Q. Those "Exceptions" listed in the "Exterior Lighting Power Allowance" provisions of the Oregon Energy Efficiency Specialty Code.

(Ord. No. 688, 11-15-2010)

**COMMENT:**

The proposed Site Development Review is not exempt from this section.

**Section 4.199.30. - Lighting Overlay Zones.**

(.01)

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

**Section 4.199.40. - Lighting Systems Standards for Approval.**

(.01)

***Non-Residential Uses and Common Residential Areas.***

- A. All outdoor lighting shall comply with either the Prescriptive Option or the Performance Option below.

- B. *Prescriptive Option.* If the lighting is to comply with this Prescriptive Option, the installed lighting shall meet all of the following requirements according to the designated Lighting Zone.
1. The maximum luminaire lamp wattage and shielding shall comply with Table 7.
  2. Except for those exemptions listed in Section 4.199.20(.02), the exterior lighting for the site shall comply with the Oregon Energy Efficiency Specialty Code, Exterior Lighting.
  3. The maximum pole or mounting height shall be consistent with Table 8.

**COMMENT:**

No pole lighting is proposed. Lighting will be attached to the proposed building as shown on Sheet A200. This plan indicates a total of 7 wall-mounted area light fixtures, with shields pointed downward. The Prescription Option plan will comply with Table 7.

4. Each luminaire shall be set back from all property lines at least three times the mounting height of the luminaire:
  - a. *Exception 1:* If the subject property abuts a property with the same base and lighting zone, no setback from the common lot lines is required.
  - b. *Exception 2:* If the subject property abuts a property which is zoned (base and lighting) other than the subject parcel, the luminaire shall be setback three times the mounting height of the luminaire, measured from the abutting parcel's setback line. (Any variance or waiver to the abutting property's setback shall not be considered in the distance calculation).
  - c. *Exception 3:* If the luminaire is used for the purpose of street, parking lot or public utility easement illumination and is located less than three mounting heights from the property line, the luminaire shall include a house side shield to protect adjoining property.
  - d. *Exception 4:* If the subject property includes an exterior column, wall or abutment within 25 feet of the property line, a luminaire partly shielded or better and not exceeding 60 lamp watts may be mounted onto the exterior column, wall or abutment or under or within an overhang or canopy attached thereto.
  - e. *Exception 5:* Lighting adjacent to SROZ areas shall be set back three times the mounting height of the luminaire, or shall employ a house side shield to protect the natural resource area.

**COMMENT:**

Exception 1 is applicable to this project. The proposed lights will be mounted approximately 20-ft. above grade and a minimum 30-ft. from the property line (49-ft. on the north side of the building).

- C. *Performance Option.* If the lighting is to comply with the Performance Option, the proposed lighting design shall be submitted by the applicant for approval by the City meeting all of the following:

**COMMENT:**

This section is not applicable.

D. *Curfew.* All prescriptive or performance based exterior lighting systems shall be controlled by automatic device(s) or system(s) that:

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

The following are exceptions to curfew:

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

**COMMENT:**

Only security lighting will be provided after curfew unless the tenant operates during this time period.

(.02)

*Special Permit for Specific Lighting Fixtures and Systems and When Exceeding Lighting Requirements.*

Section 4.199.50. - Submittal Requirements.

(.01)

Applicants shall submit the following information as part of DRB review or administrative review of new commercial, industrial, multi-family or public facility projects:

- A. A statement regarding which of the lighting methods will be utilized, prescriptive or performance, and a map depicting the lighting zone(s) for the property.
- B. A site lighting plan that clearly indicates intended lighting by type and location. For adjustable luminaires, the aiming angles or coordinates shall be shown.
- C. For each luminaire type, drawings, cut sheets or other documents containing specifications for the intended lighting including but not limited to, luminaire description, mounting, mounting height, lamp type and manufacturer, lamp watts, ballast, optical system/distribution, and accessories such as shields.

- D. Calculations demonstrating compliance with Oregon Energy Efficiency Specialty Code, Exterior Lighting, as modified by Section 4.199.40(.01)(B).(2.)
- E. Lighting plans shall be coordinated with landscaping plans so that pole lights and trees are not placed in conflict with one another. The location of lights shall be shown on the landscape plan. Generally, pole lights should not be placed within one pole length of landscape and parking lot trees.
- F. Applicants shall identify the hours of lighting curfew.

**COMMENT:**

The applicant will provide a lighting plan addressing the above standards if required. As noted, only 7 wall-mounted shielded security lights are proposed 20-ft. above grade.

(.02)

In addition to the above submittal requirements, Applicants using the Prescriptive Method shall submit the following information as part of the permit set plan review:

- A. A site lighting plan (items 1.A–F, above) which indicates for each luminaire the three mounting height line to demonstrate compliance with the setback requirements. For luminaires mounted within three mounting heights of the property line the compliance exception or special shielding requirements shall be clearly indicated.

(.03)

In addition to the above submittal requirements, Applicants using the Performance Method shall submit the following information as part of the permit set plan review:

- A. Site plan showing horizontal isocandle lines, or the output of a point-by-point computer calculation of the horizontal illumination of the site, showing property lines and light levels immediately off of the subject property.
- B. For each side of the property, the output of a point-by-point vertical footcandle calculation showing illumination in the vertical plane at the property line from grade to at least ten feet higher than the height of the tallest pole.
- C. Lighting plans shall be prepared by a qualified licensed engineer.

(.04)

In addition to the above applicable submittal requirements, Applicants for Special Permits shall submit the following to the DRB for review:

(.05)

For all calculations, the following light loss factors shall be used unless an alternative is specifically approved by the City:

**COMMENT:**

This section is not applicable for Prescriptive Method.

**Section 4.199.60. - Major Additions or Modifications to Pre-Existing Sites.**

**(01.)**

***Major Additions.***

If a major addition occurs on a property, all of the luminaires on the site shall comply with the requirements of this Section. For purposes of this sub-section, the following are considered to be major additions:

- A. Additions of 50 percent or more in terms of additional dwelling units, gross floor area, seating capacity, or parking spaces, either with a single addition or with cumulative additions after July 2, 2008.
- B. Modification or replacement of 50 percent or more of the outdoor lighting luminaries' within a five-year timeframe existing as of July 2, 2008.

**COMMENT:**

This section is not applicable.

**Section 4.300. - General.**

**(.01)**

The City Council deems it reasonable and necessary in order to accomplish the orderly and desirable development of land within the corporate limits of the City, to require the underground installation of utilities in all new developments.

**COMMENT:**

All utilities are currently installed underground. New utilities for the proposed warehouse will be extended from these underground utility pedestals.

**(.02)**

After the effective date of this Code, the approval of any development of land within the City will be upon the express condition that all new utility lines, including but not limited to those required for power, communication, street lighting, gas, cable television services and related facilities, shall be placed underground.

**COMMENT:**

As noted, all utilities are currently installed underground.

(.03)

The construction of underground utilities shall be subject to the City's Public Works Standards and shall meet applicable requirements for erosion control and other environmental protection.

**Section 4.310 - Exceptions.**

Section 4.300 of this Code shall not apply to surface-mounted transformers, surface-mounted connection boxes, wireless communication facilities, and meter cabinets and other appurtenances which are reasonably necessary to be placed above ground, or to temporary utility service facilities during construction, or to high capacity electric and communication feeder lines, or to utility transmission lines operating at 50,000 volts or more.

**Section 4.320. - Requirements.**

(.01)

The developer or subdivider shall be responsible for and make all necessary arrangements with the serving utility to provide the underground services (including cost of rearranging any existing overhead facilities). All such underground facilities as described shall be constructed in compliance with the rules and regulations of the Public Utility Commission of the State of Oregon relating to the installation and safety of underground lines, plant, system, equipment and apparatus.

(.02)

The location of the buried facilities shall conform to standards supplied to the subdivider by the City. The City also reserves the right to approve location of all surface-mounted transformers.

(.03)

Interior easements (back lot lines) will only be used for storm or sanitary sewers, and front easements will be used for other utilities unless different locations are approved by the City Engineer. Easements satisfactory to the serving utilities shall be provided by the developer and shall be set forth on the plat.

**COMMENT:**

None of the above standards are applicable since all utilities are currently installed underground.

**SITE DESIGN REVIEW**

**Section 4.400. - Purpose.**

(.01)

Excessive uniformity, inappropriateness or poor design of the exterior appearance of structures and signs and the lack of proper attention to site development and landscaping in the business, commercial, industrial and certain residential areas of the City hinders the harmonious development of the City, impairs the desirability of residence, investment or occupation in the City, limits the opportunity to attain the optimum use in value and improvements, adversely affects the stability and value of property, produces degeneration of property in such areas and with attendant deterioration

of conditions affecting the peace, health and welfare, and destroys a proper relationship between the taxable value of property and the cost of municipal services therefor.

**COMMENT:**

The requested Site Design Review application is for a proposed 9,540 sq. ft. warehouse on a site with an existing 2,560 sq. ft. office building connected with a breezeway, parking and landscaping. There is also an existing 2,800 sq. ft. shop on the site behind (west) of the office to be demolished.

(.02)

The City Council declares that the purposes and objectives of site development requirements and the site design review procedure are to:

- A. Assure that Site Development Plans are designed in a manner that insures proper functioning of the site and maintains a high quality visual environment.
- B. Encourage originality, flexibility and innovation in site planning and development, including the architecture, landscaping and graphic design of said development;
- C. Discourage monotonous, drab, unsightly, dreary and inharmonious developments;
- D. Conserve the City's natural beauty and visual character and charm by assuring that structures, signs and other improvements are properly related to their sites, and to surrounding sites and structures, with due regard to the aesthetic qualities of the natural terrain and landscaping, and that proper attention is given to exterior appearances of structures, signs and other improvements;
- E. Protect and enhance the City's appeal and thus support and stimulate business and industry and promote the desirability of investment and occupancy in business, commercial and industrial purposes;
- F. Stabilize and improve property values and prevent blighted areas and, thus, increase tax revenues;
- G. Insure that adequate public facilities are available to serve development as it occurs and that proper attention is given to site planning and development so as to not adversely impact the orderly, efficient and economic provision of public facilities and services.
- H. Achieve the beneficial influence of pleasant environments for living and working on behavioral patterns and, thus, decrease the cost of governmental services and reduce opportunities for crime through careful consideration of physical design and site layout under defensible space guidelines that clearly define all areas as either public, semi-private, or private, provide clear identity of structures and opportunities for easy surveillance of the site that maximize resident control of behavior—particularly crime;
- I. Foster civic pride and community spirit so as to improve the quality and quantity of citizen participation in local government and in community growth, change and improvements;



- J. Sustain the comfort, health, tranquility and contentment of residents and attract new residents by reason of the City's favorable environment and, thus, to promote and protect the peace, health and welfare of the City.

**Section 4.420. - Jurisdiction and Powers of the Board.**

**(.01)**

***Application of Section.***

Except for single-family and middle housing dwellings in any residential zoning district, and apartments in the Village zone, no Building Permit shall be issued for a new building or major exterior remodeling of an existing building, and no Sign Permit, except as permitted in Sections 4.156.02 and 4.156.05, shall be issued for the erection or construction of a sign relating to such new building or major remodeling, until the plans, drawings, sketches and other documents required for a Sign Permit application have been reviewed and approved by the Board.

**COMMENT:**

Site Design Review is required for the proposed development.

**(.02)**

***Development in Accord with Plans.***

Construction, site development and landscaping shall be carried out in substantial accord with the plans, drawings, sketches and other documents approved by the Board, unless altered with Board approval. Nothing in this subsection shall be construed to prevent ordinary repair, maintenance and replacement of any part of the building or landscaping which does not involve a substantial change from the purpose of Section 4.400. If the Board objects to such proposed changes, they shall be subject to the procedures and requirements of the site design review process applicable to new proposals.

**COMMENT:**

The proposed warehouse will be developed in substantial conformance with the submitted plans.

**(.03)**

***Variances.***

The Board may authorize variances from the site development requirements, based upon the procedures, standards and criteria listed in Section 4.196. Variances shall be considered in conjunction with the site design review process.

(Ord. No. 538, 2-21-2002; Ord. No. 557, 9-5-2003; Ord. No. 704, 6-18-2012; Ord. No. 812, 2-22-2018)

**COMMENT:**

No variances are requested for this Site Design Review application.

**Section 4.421. - Criteria and Application of Design Standards.**

**(.01)**

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

**A. *Preservation of Landscape.***

The landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree and soils removal, and any grade changes shall be in keeping with the general appearance of neighboring developed areas.

**COMMENT:**

Much of the landscaping and all of the trees are removed with this development due to poor condition. New landscaping and trees will be installed.

**B. *Relation of Proposed Buildings to Environment.***

Proposed structures shall be located and designed to assure harmony with the natural environment, including protection of steep slopes, vegetation and other naturally sensitive areas for wildlife habitat and shall provide proper buffering from less intensive uses in accordance with Sections 4.171 and 4.139 and 4.139.5. The achievement of such relationship may include the enclosure of space in conjunction with other existing buildings or other proposed buildings and the creation of focal points with respect to avenues of approach, street access or relationships to natural features such as vegetation or topography.

**COMMENT:**

The proposed warehouse has been designed with appropriate mass, height, colors and materials for this industrial services area.

**C. *Drives, Parking and Circulation.***

With respect to vehicular and pedestrian circulation, including walkways, interior drives and parking, special attention shall be given to location and number of access points, general interior circulation, separation of pedestrian and vehicular traffic, and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not detract from the design of proposed buildings and structures and the neighboring properties.

**COMMENT:**

No changes to the two driveway access locations are proposed. These driveways will be replaced with commercial Type 1 driveways. Additional ADA upgrades are proposed. Pedestrian access between the buildings and SW Boberg Road has been improved for safety and ADA compliance.

**D. *Surface Water Drainage.***

**Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties of the public storm drainage system.**

**COMMENT:**

No changes to the existing storm drainage system are proposed on the east half of the site. Stormwater currently is conveyed from the existing office building and parking lot into the public storm system in SW Boberg Road. There is a slight reduction in stormwater on the east half of the site since stormwater generated from the proposed ADA space and adjacent sidewalk will be conveyed to the west. The 25-yr storm on the east side of the site is reduced from 0.34 cfs to 0.33 cfs.

Stormwater from the west portion of the site which includes the warehouse, new pavement area on the north side of the building, and the remaining graveled area on the site (in addition to the ADA space mentioned above) will be treated/retained in a proposed 823 sf storm water planter, then discharged through a 115-ft. spreader 10-ft. from the west property line. A maximum 10-ft. access to both ends of the planter will be provided. Stormwater from the site will be discharged from the site at a rate less than the existing condition as noted in the attached Drainage Report. According to calculations provided by HydroCAD, post-development runoff from the 25-year storm event is estimated to be 0.36 cfs compared to the 0.49 cfs pre-development condition. This is since a portion of the stormwater will infiltrate into the planter. Almost the entire site is impervious since it has been paved or graveled for decades. Therefore, no measurable transfer of stormwater from the east basin to the west basin is proposed.

**E. *Utility Service.***

**Any utility installations above ground shall be located so as to have a harmonious relation to neighboring properties and site. The proposed method of sanitary and storm sewage disposal from all buildings shall be indicated.**

**COMMENT:**

No new above ground utility installation are anticipated.

**F. *Advertising Features.***

**In addition to the requirements of the City's sign regulations, the following criteria should be included: the size, location, design, color, texture, lighting and materials of all exterior signs and outdoor advertising structures or features shall not detract from the design of proposed buildings and structures and the surrounding properties.**

**COMMENT:**

The existing free-standing and wall signs will be refaced in accordance with the above standards.

**G. *Special Features.***

**Exposed storage areas, exposed machinery installations, surface areas, truck loading areas, utility buildings and structures and similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall be required to prevent their being incongruous with the existing or contemplated environment and its surrounding properties. Standards for screening and buffering are contained in Section 4.176.**

**COMMENT:**

No outdoor storage of equipment or materials is anticipated. The area on the north and west side of the building will need to be open for truck access. No storage on the south side of the building is possible due to the proposed infiltration planter.

**(.02)**

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

**COMMENT:**

No accessory buildings are proposed.

**(.03)**

**The Board shall also be guided by the purpose of Section 4.400, and such objectives shall serve as additional criteria and standards.**

**(.04)**

***Conditional application.***

**The Planning Director, Planning Commission, Development Review Board or City Council may, as a Condition of Approval for a zone change, subdivision, land partition, variance, conditional use, or other land use action, require conformance to the site development standards set forth in this Section.**

**COMMENT:**

No conditional approval, partition, variance, etc. is requested.

**(.05)**

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

making this determination of compliance and attaching conditions, the Board shall, however, consider the effects of this action on the availability and cost of needed housing. The provisions of this section shall not be used in such a manner that additional conditions either singularly or accumulatively have the effect of unnecessarily increasing the cost of housing or effectively excluding a needed housing type.

**COMMENT:**

No housing is proposed.

(.06)

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

- A. Where the conditions of approval for a development permit specify that certain paints or colors of materials be used, the use of those paints or colors shall be binding upon the applicant. No Certificate of Occupancy shall be granted until compliance with such conditions has been verified.
- B. Subsequent changes to the color of a structure shall not be subject to City review unless the conditions of approval under which the original colors were set included a condition requiring a subsequent review before the colors could be changed.

**COMMENT:**

The applicant understands that the Board may condition certain paints or colors as noted on the submitted architectural plans.

**Section 4.430. - Location, Design and Access Standards for Mixed Solid Waste and Recycling Areas.**

(.01)

The following locations, design and access standards for mixed solid waste and recycling storage areas shall be applicable to the requirements of Section 4.179 of the Wilsonville City Code.

**COMMENT:**

The proposed covered mixed solid waste and recycling storage area is located at the northwest corner of the site. It has been reviewed and approved by Republic Services and has been designed in accordance with Section 4.179.

(.02)

***Location Standards:***

- A. To encourage its use, the storage area for source separated recyclables shall be co-located with the storage area for residual mixed solid waste.

**COMMENT:**

Mixed solid waste and recyclables are co-located.

- B. Indoor and outdoor storage areas shall comply with Uniform Building and Fire Code requirements.**
- C. Storage area space requirements can be satisfied with a single location or multiple locations and can combine with both interior and exterior locations.**

**COMMENT:**

A single location outside of the building is proposed.

- D. Exterior storage areas can be located within interior side yard or rear yard areas. Minimum setback shall be three feet. Exterior storage areas shall not be located within a required front yard setback, including double frontage lots.**

**COMMENT:**

The covered exterior storage location is within the rear yard a minimum of 3-ft. from the west property line, and approximately 10-ft. from the north property line.

- E. Exterior storage areas shall be located in central and visible locations on a site to enhance security for users.**

**COMMENT:**

The exterior storage area is visible from the parking lot and warehouse building.

- F. Exterior storage areas can be located in a parking area if the proposed use provides at least the minimum number of parking spaces required for the use after deducting the area used for storage. Storage areas shall be appropriately screened according to the provisions of Section 4.430(.03), below.**
- G. The storage area shall be accessible for collection vehicles and located so that the storage area will not obstruct pedestrian or vehicle traffic movement on the site or on public streets adjacent to the site.**

**COMMENT:**

The exterior storage area is not located within the parking lot. Its location has been approved by Republic Services.

**(.03)**

***Design Standards:***

- A. The dimensions of the storage area shall accommodate containers consistent with current methods of local collection.**

**COMMENT:**

The exterior storage area has dimensions of 10-ft. x 20-ft. which is sufficient for two dumpsters as required by Republic Services.

- B. Storage containers shall meet Uniform Fire Code standards and be made of or covered with waterproof materials or situated in a covered area.**
- C. Exterior storage areas shall be enclosed by a sight obscuring fence, wall or hedge at least six feet in height. Gate openings for haulers shall be a minimum of ten feet wide and shall be capable of being secured in a closed or open position. In no case shall exterior storage areas be located in conflict with the vision clearance requirements of Section 4.177.**
- D. Storage area(s) and containers shall be clearly labeled to indicate the type of materials accepted.**

**COMMENT:**

The exterior storage area will be covered and constructed with a CMU wall to match the building, and 20-ft. gate. The storage containers (dumpsters) will have covers and be labeled as required.

(.04)

***Access Standards:***

- A. Access to storage areas can be limited for security reasons. However, the storage area shall be accessible to users at convenient times of the day and to collect service personnel on the day and approximate time they are scheduled to provide collection service.**
- B. Storage areas shall be designed to be easily accessible to collection trucks and equipment, considering paving, grade and vehicle access. A minimum of ten feet horizontal clearance and eight feet of vertical clearance is required if the storage area is covered.**
- C. Storage areas shall be accessible to collection vehicles without requiring backing out of a driveway onto a public street. If only a single access point is available to the storage area, adequate turning radius shall be provided to allow collection vehicles to safely exit the site in a forward motion.  
(Ord. No. 426, 4-4-1994)**

**COMMENT:**

Access to the exterior storage area has been reviewed and approved by Republic Services. It has been designed in accordance with the above minimum criteria. A circulation plan is provided as Sheet 8.

Section 4.440. - Procedure.

(.01)

*Submission of Documents.*

A prospective applicant for a building or other permit who is subject to site design review shall submit to the Planning Department, in addition to the requirements of Section 4.035, the following:

- A. A site plan, drawn to scale, showing the proposed layout of all structures and other improvements including, where appropriate, driveways, pedestrian walks, landscaped areas, fences, walls, off-street parking and loading areas, and railroad tracks. The site plan shall indicate the location of entrances and exits and direction of traffic flow into and out of off-street parking and loading areas, the location of each parking space and each loading berth and areas of turning and maneuvering vehicles. The site plan shall indicate how utility service and drainage are to be provided.
- B. A Landscape Plan, drawn to scale, showing the location and design of landscaped areas, the variety and sizes of trees and plant materials to be planted on the site, the location and design of landscaped areas, the varieties, by scientific and common name, and sizes of trees and plant materials to be retained or planted on the site, other pertinent landscape features, and irrigation systems required to maintain trees and plant materials. An inventory, drawn at the same scale as the Site Plan, of existing trees of four inch caliper or more is required. However, when large areas of trees are proposed to be retained undisturbed, only a survey identifying the location and size of all perimeter trees in the mass is necessary.
- C. Architectural drawings or sketches, drawn to scale, including floor plans, in sufficient detail to permit computation of yard requirements and showing all elevations of the proposed structures and other improvements as they will appear on completion of construction. Floor plans shall also be provided in sufficient detail to permit computation of yard requirements based on the relationship of indoor versus outdoor living area, and to evaluate the floor plan's effect on the exterior design of the building through the placement and configuration of windows and doors.
- D. A Color Board displaying specifications as to type, color, and texture of exterior surfaces of proposed structures. Also, a phased development schedule if the development is constructed in stages.
- E. A sign Plan, drawn to scale, showing the location, size, design, material, color and methods of illumination of all exterior signs.
- F. The required application fee.

**COMMENT:**

All of the above plans and materials have been prepared.

(.02)

As soon as possible after the preparation of a staff report, a public hearing shall be scheduled before the Development Review Board. In accordance with the procedures set forth in Section 4.010(2)



and 4.012, the Development Review Board shall review and approve, approve with conditions, or deny the proposed architectural, site development, landscaping or sign plans of the applicant. If the Board finds that additional information or time are necessary to render a decision, the matter may be continued to a date certain. The applicant shall be immediately notified in writing of any such continuation or delay together with the scheduled date of review.

**Section 4.441. - Effective Date of Decisions.**

A decision of the Board shall become effective 14 calendar days after the date of the decision, unless the decision is appealed to, or called up by, the Council. If the decision of the Board is appealed to, or called up by, the City Council, the decision of the Council shall become effective immediately.

**Section 4.442. - Time Limit on Approval.**

Site design review approval shall be void after two years unless a building permit has been issued and substantial development pursuant thereto has taken place; or an extension is granted by motion of the Board. Section 4.443. Preliminary Consideration.

An applicant may request preliminary consideration by the Board of general plans prior to seeking a building permit. When seeking preliminary consideration, the applicant shall submit a site plan showing the proposed structures, improvements and parking, together with a general description of the plans. The Board shall approve or reject all or part of the applicant's general plan within the normal time requirements of a formal application. Preliminary approval shall be deemed to be approval of the final plan to the extent that the final design contains the characteristics of the preliminary design.

**COMMENT:**

The applicant is aware of the above procedures.

**Section 4.450. - Installation of Landscaping.**

(.01)

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

(.02)

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

(.03)

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

(.04)

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

**COMMENT:**

The applicant agrees to install the required landscaping prior to C of O.

**TREE PRESERVATION AND PROTECTION**

**Section 4.600. - Purpose and Declaration.**

(.01)

Rapid growth, the spread of development, need for water and increasing demands upon natural resources have the effect of encroaching upon, despoiling, or eliminating many of the trees, other forms of vegetation, and natural resources and processes associated therewith which, if preserved and maintained in an undisturbed and natural condition, constitute important physical, aesthetic, recreational and economic assets to existing and future residents of the City of Wilsonville.

(.02)

Specifically, the City Council finds that:

- A. Woodland growth protects public health through the absorption of air pollutants and contamination, through the reduction of excessive noise and mental and physical damage related to noise pollution, and through its cooling effect in the summer months, and insulating effects in winter;
- B. Woodlands provide for public safety through the prevention of erosion, siltation, and flooding;  
and

- C. Trees make a positive contribution to water quality and water supply by absorbing rainfall, controlling surface water run-off, and filtering and assisting in ground water recharge; and
- D. Trees and woodland growth are an essential component of the general welfare of the City of Wilsonville by producing play areas for children and natural beauty, recreation for all ages and an irreplaceable heritage for existing and future City residents.

(.03)

Therefore, the purposes of this subchapter are:

- A. To preserve Significant Resource Overlay Zone areas, recognizing that development can and will occur.
- B. To provide for the protection, preservation, proper maintenance and use of trees and woodlands in order to protect natural habitat and prevent erosion.
- C. To protect trees and other wooded areas for their economic contribution to local property values when preserved, and for their natural beauty and ecological or historical significance.
- D. To protect water quality, control surface water run-off, and protect ground water recharge.
- E. To reflect the public concern for these natural resources in the interest of health, safety and general welfare of Wilsonville residents.
- F. To encourage replanting where trees are removed.

**COMMENT:**

No resources or significant trees exist on-site. Six trees are proposed to be removed due to health, location and development requirements.

**Section 4.600.20. - Applicability of Subchapter.**

(.01)

The provisions of this subchapter apply to the United States and the State of Oregon, and to their agencies and subdivisions, including the City of Wilsonville, and to the employees and agents thereof.

(.02)

By this subchapter, the City of Wilsonville regulates forest practices on all lands located within its urban growth boundary, as provided by ORS 527.722.

(.03)

The provisions of this subchapter apply to all land within the City limits, including property designated as a Significant Resource Overlay Zone or other areas or trees designated as protected by the Comprehensive Plan, City zoning map, or any other law or ordinance; except that any tree activities in the Willamette River Greenway that are regulated by the provisions of WC 4.500 -

4.514 and requiring a conditional use permit shall be reviewed by the DRB under the application and review procedures set forth for Tree Removal Permits.

**COMMENT:**

No natural resources or overlay zones are designated on the property.

**Section 4.600.30. - Tree Removal Permit Required.**

(.01)

*Requirement Established.*

No person shall remove any tree without first obtaining a Tree Removal Permit (TRP) as required by this subchapter.

(.02)

Tree Removal Permits will be reviewed according to the standards provided for in this subchapter, in addition to all other applicable requirements of Chapter 4.

(.03)

Although tree activities in the Willamette River Greenway are governed by WC 4.500—4.514, the application materials required to apply for a conditional use shall be the same as those required for a Type B or C permit under this subchapter, along with any additional materials that may be required by the Planning Department. An application for a Tree Removal Permit under this section shall be reviewed by the Development Review Board.

**COMMENT:**

The applicant is requesting approval to remove six on-site trees.

**Section 4.600.40. - Exceptions.**

(.01)

*Exception from requirement.*

Notwithstanding the requirement of WC 4.600.30(1), the following activities are allowed without a Tree Removal Permit, unless otherwise prohibited:

- A. *Agriculture, Commercial Tree Farm or Orchard.* Tree removal or transplanting occurring during use of land for commercial purposes for agriculture, orchard(s), or tree farm(s), such as Christmas tree production.
- B. *Emergencies.* Actions made necessary by an emergency, such as tornado, windstorm, flood, freeze, utility damage or other like disasters, in order to prevent imminent injury or damage to persons or property or restore order and it is impractical due to circumstances to apply for a permit.

1. When an emergency has occurred, a Tree Removal Permit must be applied for within 30 days following the emergency tree removal under the application procedures established in this subchapter.
  2. In addition to complying with the permit application requirements of this subchapter, an applicant shall provide a photograph of any tree removed and a brief description of the conditions that necessitated emergency removal. Such photograph shall be supplied within seven days of application for a permit. Based on good cause shown arising out of the emergency, the Planning Director may waive any or all requirements of this section.
  3. Where a Type A Permit is granted for emergency tree removal, the permittee is encouraged to apply to the City Tree Fund for replanting assistance.
- C. City utility or road work in utility or road easements, in utility or road rights-of-way, or in public lands. However, any trees removed in the course of utility work shall be mitigated in accordance with the standards of this subchapter.
- D. *Nuisance abatement.* The City is not required to apply for a Tree Removal Permit to undertake nuisance abatement as provided in WC 6.200 et seq. However, the owner of the property subject to nuisance abatement is subject to all the provisions of this subchapter in addition to the requirements of WC 6.200 et seq.
- E. The removal of filbert trees is exempt from the requirements of this subchapter.

**COMMENT:**

Tree removal is not exempt from the requirements of this section.

**Section 4.600.50. - Application for Tree Removal Permit.**

(.01)

***Application for Permit.***

A person seeking to remove one or more trees shall apply to the Director for a Tree Removal Permit for a Type A, B, C, or D permit, depending on the applicable standards as provided in this subchapter.

- A. An application for a tree removal permit that does not meet the requirements of Type A may be submitted as a Type B application.

**COMMENT:**

The applicant is requesting a Type C Tree Removal permit.

(.02)

***Time of Application.***

Application for a Tree Removal Permit shall be made before removing or transplanting trees, except in emergency situations as provided in WC 4.600.40 (1)(B) above. Where the site is proposed for

development necessitating site plan or plat review, application for a Tree Removal Permit shall be made as part of the site development application as specified in this subchapter.

(.03)

*Fees.*

A person applying for a Tree Removal Permit shall pay a non-refundable application fee; as established by resolution of the City Council.

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

**COMMENT:**

The applicant understands that staff may visit the site to observe site conditions.

**Section 4.610.00. - Application Review Procedure.**

(.01)

The permit applicant shall provide complete information as required by this subchapter in order for the City to review the application.

(.02)

*Departmental Review.*

All applications for Tree Removal Permits must be deemed complete by the City Planning Department before being accepted for review. When all required information has been supplied, the Planning Department will verify whether the application is complete. Upon request of either the applicant or the City, the City may conduct a field inspection or review meeting. City departments involved in the review shall submit their report and recommendations to the Planning Director who shall forward them to the appropriate reviewing authority.

(.03)

*Reviewing Authority.*

- A. *Type A or B.* Where site plan review or plat approval by the Development Review Board is not required by City ordinance, the grant or denial of the Tree Removal Permit application shall be the responsibility of the Planning Director. The Planning Director has the authority to refer a Type B permit application to the DRB under the Class II administrative review procedures of this Chapter. The decision to grant or deny a permit shall be governed by the applicable review standards enumerated in WC 4.610.10.
- B. *Type C.* Where the site is proposed for development necessitating site plan review or plat approval by the Development Review Board, the Development Review Board shall be responsible for granting or denying the application for a Tree Removal Permit, and that

decision may be subject to affirmance, reversal or modification by the City Council, if subsequently reviewed by the Council. For site development applications subject to a Class II administrative review process in the Coffee Creek Industrial Design Overlay District, the Planning Director shall be responsible for the granting or denial of the Tree Removal Permit application.

C. *Type D.* Type D permit applications shall be subject to the standards and procedures of Class I administrative review and shall be reviewed for compliance with the Oregon Forest Practice Rules and Statutes. The Planning Director shall make the decision to grant or deny an application for a Type D permit.

D. *Review period for complete applications.* Type A permit applications shall be reviewed within ten working days. Type B permit applications shall be reviewed by the Planning Director within 30 calendar days, except that the DRB shall review any referred application within 60 calendar days. Type C permit applications shall be reviewed within the time frame established by this Chapter. Type D permit applications shall be reviewed within 15 calendar days.

**COMMENT:**

The applicant is requesting a Type C Tree Removal permit in conjunction with this Site Design Review application.

(.04)

***Notice.***

Before the granting of a Type C Tree Removal Permit, notice of the application shall be sent by regular mail to all owners within 250 feet of the property where the trees are located as provided for in WC 4.010. The notice shall indicate where the application may be inspected and when a public hearing on the application will be held.

**COMMENT:**

The Type C Tree Removal Permit will be noticed along with the Site Design Review permit application.

(.05)

***Denial of Tree Removal Permit.***

Whenever an application for a Tree Removal Permit is denied, the permit applicant shall be notified, in writing, of the reasons for denial.

(.06)

***Grant of a Tree Removal Permit.***

Whenever an application for a Type B, C or D Tree Removal Permit is granted, the reviewing authority shall:

- A. *Conditions.* Attach to the granting of the permit any reasonable conditions considered necessary by the reviewing authority including, but not limited to, the recording of any plan or agreement approved under this subchapter, to ensure that the intent of this Chapter will be fulfilled and to minimize damage to, encroachment on or interference with natural resources and processes within wooded areas;
- B. *Completion of Operations.* Fix a reasonable time to complete tree removal operations; and
- C. *Security.* Require the Type C permit grantee to file with the City a cash or corporate surety bond or irrevocable bank letter of credit in an amount determined necessary by the City to ensure compliance with Tree Removal Permit conditions and this Chapter.
  - 1. This requirement may be waived by the Planning Director if the tree removal must be completed before a plat is recorded, and the applicant has complied with WC 4.264(1) of this Code.

(Ord. No. 812, 2-22-2018)

**COMMENT:**

The applicant understands the above requirements.

**Section 4.610.10. - Standards for Tree Removal, Relocation or Replacement.**

(.01)

Except where an application is exempt, or where otherwise noted, the following standards shall govern the review of an application for a Type A, B, C or D Tree Removal Permit:

- A. *Standard for the Significant Resource Overlay Zone.* The standard for tree removal in the Significant Resource Overlay Zone shall be that removal or transplanting of any tree is not inconsistent with the purposes of this Chapter.
- B. *Preservation and Conservation.* No development application shall be denied solely because trees grow on the site. Nevertheless, tree preservation and conservation as a design principle shall be equal in concern and importance to other design principles.
- C. *Developmental Alternatives.* Preservation and conservation of wooded areas and trees shall be given careful consideration when there are feasible and reasonable location alternatives and design options on-site for proposed buildings, structures or other site improvements.
- D. *Land Clearing.* Where the proposed activity requires land clearing, the clearing shall be limited to designated street rights-of-way and areas necessary for the construction of buildings, structures or other site improvements.
- E. *Residential Development.* Where the proposed activity involves residential development, residential units shall, to the extent reasonably feasible, be designed and constructed to blend into the natural setting of the landscape.
- F. *Compliance With Statutes and Ordinances.* The proposed activity shall comply with all applicable statutes and ordinances.



- G. *Relocation or Replacement.* The proposed activity shall include necessary provisions for tree relocation or replacement, in accordance with WC 4.620.00, and the protection of those trees that are not to be removed, in accordance with WC 4.620.10.
- H. *Limitation.* Tree removal or transplanting shall be limited to instances where the applicant has provided completed information as required by this Chapter and the reviewing authority determines that removal or transplanting is necessary based on the criteria of this subsection.
1. *Necessary For Construction.* Where the applicant has shown to the satisfaction of the reviewing authority that removal or transplanting is necessary for the construction of a building, structure or other site improvement, and that there is no feasible and reasonable location alternative or design option on-site for a proposed building, structure or other site improvement; or a tree is located too close to existing or proposed buildings or structures, or creates unsafe vision clearance.
  2. *Disease, Damage, or Nuisance, or Hazard.* Where the tree is diseased, damaged, or in danger of falling, or presents a hazard as defined in WC 6.208, or is a nuisance as defined in WC 6.200 et seq., or creates unsafe vision clearance as defined in this Code.
    - (a) As a condition of approval of Stage II development, filbert trees must be removed if they are no longer commercially grown or maintained.
  3. *Interference.* Where the tree interferes with the healthy growth of other trees, existing utility service or drainage, or utility work in a previously dedicated right-of-way, and it is not feasible to preserve the tree on site.
  4. *Other.* Where the applicant shows that tree removal or transplanting is reasonable under the circumstances.

**COMMENT:**

The applicant requests removal of six trees based on criterion #1 above. As described in the attached Arborist Report prepared by Todd Prager & Associates, removal of the six trees is necessary for construction of utilities and pavement/landscaping. No Oregon White Oak or Pacific yews were found on the development site.

**I. Additional Standards for Type C Permits.**

1. *Tree survey.* For all site development applications reviewed under the provisions of Chapter 4 Planning and Zoning, the developer shall provide a Tree Survey before site development as required by WC 4.610.40, and provide a Tree Maintenance and Protection plan, unless specifically exempted by the Planning Director or DRB, prior to initiating site development.

**COMMENT:**

A tree survey was prepared by Todd Prager & Associates.

2. *Platted Subdivisions.* The recording of a final subdivision plat whose preliminary plat has been reviewed and approved after the effective date of Ordinance 464 by the City and that conforms with this subchapter shall include a Tree Survey and Maintenance and Protection Plan, as required by this subchapter, along with all other conditions of approval.

**COMMENT:**

This section is not applicable since no subdivision is proposed.

3. *Utilities.* The City Engineer shall cause utilities to be located and placed wherever reasonably possible to avoid adverse environmental consequences given the circumstances of existing locations, costs of placement and extensions, the public welfare, terrain, and preservation of natural resources. Mitigation and/or replacement of any removed trees shall be in accordance with the standards of this subchapter.

**COMMENT:**

This section is not applicable since no new public utilities are proposed. However, private utilities have been impacted by existing root systems along the site's frontage.

- J. *Exemption.* Type D permit applications shall be exempt from review under standards D, E, H and I of this subsection.

Section 4.610.20. - Type A Permit.

Section 4.610.30. - Type B Permit.

Section 4.610.40. - Type C Permit.

(.01)

Approval to remove any trees on property as part of a site development application may be granted in a Type C permit. A Type C permit application shall be reviewed by the standards of this subchapter and all applicable review criteria of Chapter 4. Application of the standards of this section shall not result in a reduction of square footage or loss of density, but may require an applicant to modify plans to allow for buildings of greater height. If an applicant proposes to remove trees and submits a landscaping plan as part of a site development application, an application for a Tree Removal Permit shall be included. The Tree Removal Permit application will be reviewed in the Stage II development review process. The DRB shall review all Type C permits, with the exception of Class II development review applications located within the Coffee Creek Industrial Design Overlay District, where the Planning Director shall have review authority. Any plan changes made that affect trees after Stage II review of a development application shall be subject to review by the original approval authority. Where mitigation is required for tree removal, such mitigation may be considered as part of the landscaping requirements as set forth in this Chapter. Tree removal shall not commence until approval of the required Stage II application and the expiration of the appeal period following that decision. If a decision approving a Type C permit is appealed, no trees shall be removed until the appeal has been settled.

**COMMENT:**

This Type C Tree Removal application is requested for development. The applicant understands that tree removal cannot commence without prior authorization of this permit.

(.02)

The applicant must provide ten copies of a Tree Maintenance and Protection Plan completed by an arborist that contains the following information:

- A. A plan, including a topographical survey bearing the stamp and signature of a qualified, registered professional containing all the following information:
  1. *Property Dimensions.* The shape and dimensions of the property, and the location of any existing and proposed structure or improvement.
  2. *Tree survey.* The survey must include:
    - a. An accurate drawing of the site based on accurate survey techniques at a minimum scale of one inch equals 100 feet and which provides a) the location of all trees having six inches or greater d.b.h. likely to be impacted, b) the spread of canopy of those trees, (c) the common and botanical name of those trees, and d) the approximate location and name of any other trees on the property.
    - b. A description of the health and condition of all trees likely to be impacted on the site property. In addition, for trees in a present or proposed public street or road right-of-way that are described as unhealthy, the description shall include recommended actions to restore such trees to full health. Trees proposed to remain, to be transplanted or to be removed shall be so designated. All trees to remain on the site are to be designated with metal tags that are to remain in place throughout the development. Those tags shall be numbered, with the numbers keyed to the tree survey map that is provided with the application.
    - c. Where a stand of 20 or more contiguous trees exist on a site and the applicant does not propose to remove any of those trees, the required tree survey may be simplified to accurately show only the perimeter area of that stand of trees, including its drip line. Only those trees on the perimeter of the stand shall be tagged, as provided in "b," above.
    - d. All Oregon white oaks, native yews, and any species listed by either the state or federal government as rare or endangered shall be shown in the tree survey.
  3. *Tree Protection.* A statement describing how trees intended to remain will be protected during development, and where protective barriers are necessary, that they will be erected before work starts. Barriers shall be sufficiently substantial to withstand nearby construction activities. Plastic tape or similar forms of markers do not constitute "barriers."
  4. *Easements and Setbacks.* Location and dimension of existing and proposed easements, as well as all setbacks required by existing zoning requirements.

5. *Grade Changes.* Designation of grade changes proposed for the property that may impact trees.
6. *Cost of Replacement.* A cost estimate for the proposed tree replacement program with a detailed explanation including the number, size and species.
7. *Tree Identification.* A statement that all trees being retained will be identified by numbered metal tags, as specified in subsection "A," above in addition to clear identification on construction documents.

(Ord. No. 812, 2-22-2018)

**COMMENT:**

All of the above plans and documents have been provided with this application. The Tree Protection Plan is shown on Sheets 5 & 7. The plan indicates a fence located 3-ft. from the north property line to protect existing trees on the adjacent property from root damage.

**Section 4.620.00. - Tree Relocation, Mitigation, or Replacement.**

(.01)

***Requirement Established.*** A Type B or C Tree Removal Permit grantee shall replace or relocate each removed tree having six inches or greater d.b.h. within one year of removal.

**COMMENT:**

The applicant proposes replacement of the six trees with six new trees as shown on the Landscape Plan, Sheet 6.

(.02)

***Basis For Determining Replacement.*** The permit grantee shall replace removed trees on a basis of one tree replanted for each tree removed. All replacement trees must measure two inches or more in diameter. Alternatively, the Planning Director or Development Review Board may require the permit grantee to replace removed trees on a per caliper inch basis, based on a finding that the large size of the trees being removed justifies an increase in the replacement trees required. Except, however, that the Planning Director or Development Review Board may allow the use of replacement Oregon white oaks and other uniquely valuable trees with a smaller diameter.

**COMMENT:**

All trees have a minimum 2-inch caliper.

(.03)

***Replacement Tree Requirements.*** A mitigation or replacement tree plan shall be reviewed by the City prior to planting and according to the standards of this subsection.

- A. Replacement trees shall have shade potential or other characteristics comparable to the removed trees, shall be appropriately chosen for the site from an approved tree species list supplied by the City, and shall be state Department of Agriculture Nursery Grade No. 1 or better.
- B. Replacement trees must be staked, fertilized and mulched, and shall be guaranteed by the permit grantee or the grantee's successors-in-interest for two years after the planting date.
- C. A "guaranteed" tree that dies or becomes diseased during that time shall be replaced.
- D. Diversity of tree species shall be encouraged where trees will be replaced, and diversity of species shall also be maintained where essential to preserving a wooded area or habitat.

**COMMENT:**

Two tree species are proposed: (1) Red Sunset Maple; and (2) Trident Maple. They will be installed and maintained in accordance with these standards.

(.04)

All trees to be planted shall consist of nursery stock that meets requirements of the American Association of Nurserymen (AAN) American Standards for Nursery Stock (ANSI Z60.1) for top grade.

**COMMENT:**

The trees will meet the above standards.

(.05)

***Replacement Tree Location.***

- A. ***City Review Required.*** The City shall review tree relocation or replacement plans in order to provide optimum enhancement, preservation and protection of wooded areas. To the extent feasible and desirable, trees shall be relocated or replaced on-site and within the same general area as trees removed.
- B. ***Relocation or Replacement Off-Site.*** When it is not feasible or desirable to relocate or replace trees on-site, relocation or replacement may be made at another location approved by the City.

**COMMENT:**

The six trees will be replaced on-site as approved by the city.

(.06)

***City Tree Fund.*** Where it is not feasible to relocate or replace trees on site or at another approved location in the City, the Tree Removal Permit grantee shall pay into the City Tree Fund, which fund is hereby created, an amount of money approximately the value as defined by this subchapter, of the replacement trees that would otherwise be required by this subchapter. The City shall use the City

Tree Fund for the purpose of producing, maintaining and preserving wooded areas and heritage trees, and for planting trees within the City.

- A. The City Tree Fund shall be used to offer trees at low cost on a first-come, first-serve basis to any Type A Permit grantee who requests a tree and registers with the City Tree Fund.
- B. In addition, and as funds allow, the City Tree Fund shall provide educational materials to assist with tree planting, mitigation, and relocation.

**COMMENT:**

This section is not applicable since six trees will be planted on-site.

(.07)

*Exception.* Tree replacement may not be required for applicants in circumstances where the Director determines that there is good cause to not so require. Good cause shall be based on a consideration of preservation of natural resources, including preservation of mature trees and diversity of ages of trees. Other criteria shall include consideration of terrain, difficulty of replacement and impact on adjacent property.

**COMMENT:**

No exception is requested.

**Section 4.620.10. - Tree Protection During Construction.**

(.01)

Where tree protection is required by a condition of development under Chapter 4 or by a Tree Maintenance and Protection Plan approved under this subchapter, the following standards apply:

- A. All trees required to be protected must be clearly labeled as such.
- B. **Placing Construction Materials Near Tree.** No person may conduct any construction activity likely to be injurious to a tree designated to remain, including, but not limited to, placing solvents, building material, construction equipment, or depositing soil, or placing irrigated landscaping, within the drip line, unless a plan for such construction activity has been approved by the Planning Director or Development Review Board based upon the recommendations of an arborist.
- C. **Attachments to Trees During Construction.** Notwithstanding the requirement of WC 4.620.10(1)(A), no person shall attach any device or wire to any protected tree unless needed for tree protection.
- D. **Protective Barrier.** Before development, land clearing, filling or any land alteration for which a Tree Removal Permit is required, the developer shall erect and maintain suitable barriers as identified by an arborist to protect remaining trees. Protective barriers shall remain in place until the City authorizes their removal or issues a final certificate of occupancy, whichever occurs first. Barriers shall be sufficiently substantial to withstand nearby construction activities. Plastic tape or similar forms of markers do not constitute "barriers." The most

appropriate and protective barrier shall be utilized. Barriers are required for all trees designated to remain, except in the following cases:

1. *Rights-of-Way and Easements.* Street right-of-way and utility easements may be cordoned by placing stakes a minimum of 50 feet apart and tying ribbon, plastic tape, rope, etc., from stake to stake along the outside perimeters of areas to be cleared.
2. Any property area separate from the construction or land clearing area onto which no equipment will venture may also be cordoned off as described in paragraph (D) of this subsection, or by other reasonable means as approved by the reviewing authority.

**COMMENT:**

The Tree Protection Plan is included as Sheet 7. The protection barrier will be installed to protect existing trees off-site to the north as required and in accordance with the above standards. No ground disturbance within 3-ft. from the north property line is proposed.

**Section 4.620.20. - Maintenance and Protection Standards.**

(.01)

The following standards apply to all activities affecting trees, including, but not limited to, tree protection as required by a condition of approval on a site development application brought under this Chapter or as required by an approved Tree Maintenance and Protection Plan.

- A. Pruning activities shall be guided by the most recent version of the ANSI 300 Standards for Tree, Shrub, and Other Woody Plant Maintenance. Information on these standards shall be available upon request from the Planning Department.
- B. Topping is prohibited.
  1. Exception from this section may be granted under a Tree Removal Permit if necessary for utility work or public safety.

**COMMENT:**

Long-term maintenance of the trees will be in accordance with these standards.

**Section 4.630.00. - Appeal.**

(.01)

The City shall not issue a Tree Removal Permit until approval has been granted by either the Planning Director or the DRB. Any applicant denied a Type A or B permit may appeal the decision as provided for in review of Class I Development Applications, or Class II Development Applications, whichever is applicable. Decisions by the Planning Director may be appealed to the DRB as provided in WC 4.022. Decisions by the DRB may be appealed to the City Council as provided in WC 4.022.

(.02)

The City shall not issue a Tree Removal Permit approved by the Development Review Board until 15 calendar days have passed following the approval. The grant or denial of a Tree Removal Permit may be appealed to the City Council in the same manner as provided for in WC 4.022. An appeal must be filed in writing, within the 15 calendar day period following the decision being appealed. The timely filing of an appeal shall have the effect of suspending the issuance of a permit pending the outcome of the appeal. The City Council, upon review, may affirm, reverse or modify the decision rendered by the Development Review Board based upon the same standards of review specified for the DRB in the Wilsonville Code.

**COMMENT:**

The applicant understands the above limitations.

**Section 4.630.10. - Display of Permit; Inspection.**

The Tree Removal Permit grantee shall conspicuously display the permit on-site. The permit grantee shall display the permit continuously while trees are being removed or replaced or while activities authorized under the permit are performed. The permit grantee shall allow City representatives to enter and inspect the premises at any reasonable time, and failure to allow inspection shall constitute a violation of this subchapter.

**COMMENT:**

The applicant will display the permit as required.

**Section 4.630.20. - Variance for Hardship.**

Any person may apply for a variance of this subchapter as provided for in Section 4.196 of this Chapter.

**COMMENT:**

No variance is requested.

**SUMMARY AND CONCLUSION**

Based on the above findings, the applicant has demonstrated compliance with the requirements of the relevant sections of the City of Wilsonville Development Code. Therefore, this request for Site Design Review for a 9,540 sq. ft. Single-Story Warehouse-Industrial Building, and a Type C Tree Removal Permit in the PDI Zone, should be approved.





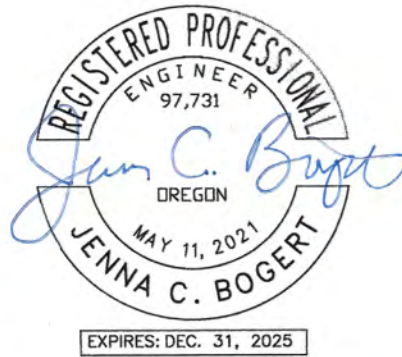
## TECHNICAL MEMORANDUM

DATE: February 9, 2024

TO: Amy Pepper, P.E. | City of Wilsonville

FROM: Jenna Bogert, P.E. | DKS Associates

SUBJECT: Wilsonville 28395 Boberg Road Warehouse  
Trip Generation Memorandum



P21123-029

This memorandum documents the trip generation estimates for the proposed warehouse expansion on the site located at 28395 SW Boberg Road in Wilsonville, Oregon. Based on the information provided by the project applicant, the proposed warehouse building (9,540 sq. ft.) will replace the existing shop building (2,800 sq. ft.) on the site. The existing office building located on the eastern half of the property will remain unchanged.

The purpose of this memorandum is to determine how much additional vehicle traffic the proposed warehouse building would generate through the City’s transportation system. This memorandum will also include an evaluation of the site’s access spacing, available sight distance, on-site circulation, and street improvements.

### PROJECT TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles that are added to the roadway network by the proposed project during a specified period (e.g., p.m. peak hour).

The trip generation for the site’s existing and proposed buildings is estimated using trip rates provided

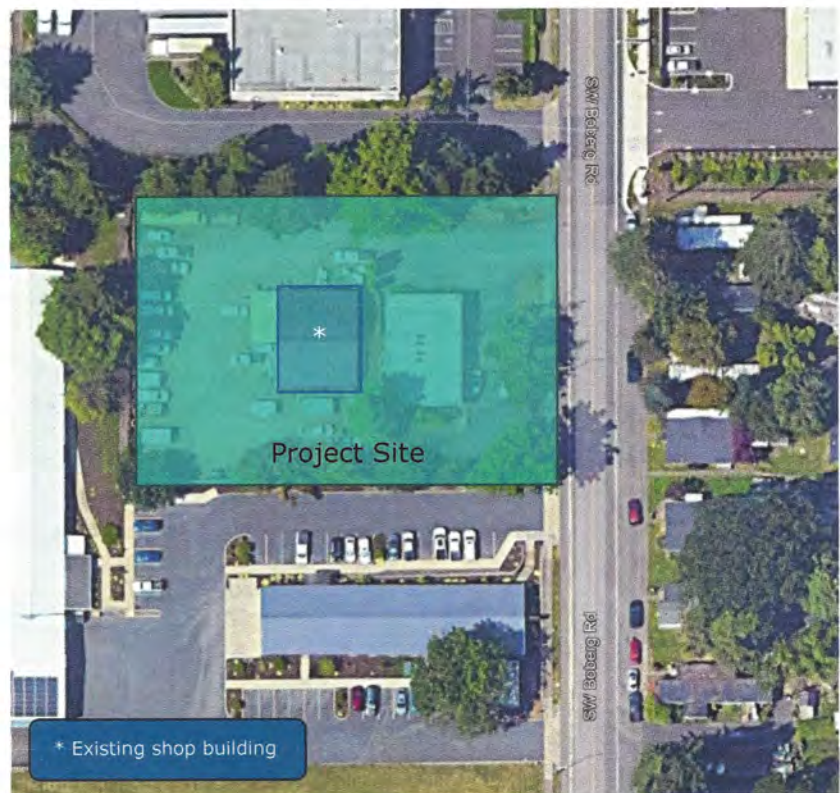


FIGURE 1: STUDY AREA

by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*<sup>1</sup>. For the existing shop building, the Small Office Land Use Code 712 was used to estimate the vehicle trips as there is no land use data for a shop building. The ITE warehouse land use data was considered for the existing shop building, but determined an inappropriate fit as the size of the existing shop building is much smaller than an average warehouse. For the proposed warehouse building, the Warehousing Land Use Code 150 was used to estimate the vehicle trips.

Table 1 shows the estimated number of daily trips and p.m. peak hour trips. As shown, a net increase of 14 weekday trips and 22 peak hour trips (6 in, 16 out) are expected to be generated due to the proposed warehousing building.

**TABLE 1: VEHICLE TRIP GENERATION**

LAND USE	SIZE	DAILY TRIPS	P.M. PEAK HOUR TRIPS			
			IN	OUT	TOTAL	
EXISTING	Shop Building – ITE LUC 712	2,800 sq. ft.	-40	-2	-4	-6
PROPOSED	Warehousing Building – ITE LUC 150	9,540 sq. ft.	54	8	20	28
<b>NET NEW VEHICLE TRIPS (PROPOSED – EXISTING)</b>			<b>+14</b>	<b>+6</b>	<b>+16</b>	<b>+22</b>

**PROJECT TRIPS THROUGH THE I-5 INTERCHANGES**

Using the City of Wilsonville 2040 Travel Demand Model, the number of project trips through the interchange were estimated. The model showed that 20% of the trips generated by the site are expected to travel through the I-5/Elligsen Road interchange and 15% are expected to travel through the I-5/Wilsonville Road interchange. Therefore, the proposed land use is expected to generate four net new PM peak hour trips through the I-5/Elligsen Road interchange area and three net new PM peak hour trips through I-5/Wilsonville Road interchange area.

**SITE ACCESS**

There are two existing accesses to the site along SW Boberg Road, which is classified as a Collector in the City’s Transportation System Plan (TSP). Based on the City’s design standards,<sup>2</sup> the minimum access spacing on SW Boberg Road (Collector) is 100 feet and the desired spacing is 300 feet. The two access points are spaced approximately 100 feet from each other. The nearest driveway to the south is approximately 50 feet away and the nearest driveway to the north is approximately 60 feet away.<sup>3</sup> Therefore, the applicant will need to request a code variance as the site’s two driveways do not meet the minimum access spacing requirements. However, due to the low volume of vehicles entering and exiting the two access points, no crash history, adequate sight

<sup>1</sup> Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021.

<sup>2</sup> Table 2.12 Access Spacing Standards, Public Works Standards, City of Wilsonville, 2017.

<sup>3</sup> All driveways measured centerline to centerline.

distance, and no safety issues, there are no concerns with the spacing of the two access points as shown on the site plan.

Based on a preliminary evaluation, the project access point appears to have sufficient sight distance based on AASTHO standards.<sup>4</sup> However, prior to occupancy, sight distance at any existing or proposed access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

## ON-SITE CIRCULATION

---

The western half of the site is currently separated from the eastern half of the site via secure fencing. There are two separate, small parking lots on the east side of the existing office building. Based on the preliminary site plan provided by the project applicant, the southern segment of fencing will be replaced with permanent curb and an additional two parking stalls. The drive aisles appear to continue to provide adequate width for typically parking maneuvers and trash/delivery vehicles to access the site. There are no vehicle, pedestrian, or bicycle circulation or safety concerns with the proposed site changes.

## FRONTAGE IMPROVEMENTS

---

SW Boberg Road should be consistent with the City of Wilsonville's Collector cross section standard along the project frontage.<sup>5</sup> Today, SW Boberg Road fronting the project site has two travel lanes, a planter strip, sidewalk, and marked bike lanes fronting the project site. Based on the standards, the site's half-street frontage is consistent with the cross section standard for collector streets and no half-street improvements are needed to be consistent with the City's standards.

## SUMMARY

---

Key findings for the proposed warehouse building site expansion in Wilsonville, Oregon are as follows:

- The estimated number of net new p.m. peak hour vehicle trips from proposed warehouse building is 22 trips (6 in, 16 out) and 14 average daily vehicle trips.
- It is expected that four net new p.m. peak hour trips will travel through I-5/Wilsonville Road interchange area and three net new p.m. peak hour trips will travel through the I-5/Elligsen Road interchange area.
- The applicant will need to request a code variance as the site's two driveways do not meet the minimum access spacing requirements. However, due to the low volume of vehicles entering and exiting the two access points, no crash history, adequate sight distance, and no safety issues, there are no concerns with the spacing of the two access points as shown on the site plan.

---

<sup>4</sup> Section 9.5.3.4, A Policy on Geometric Design of Highways and Streets, 7th Edition, American Association of State Highway and Transportation Officials (AASHTO), 2018.

<sup>5</sup> Figure 3-8, Transportation System Plan, City of Wilsonville, Amended November 2020.

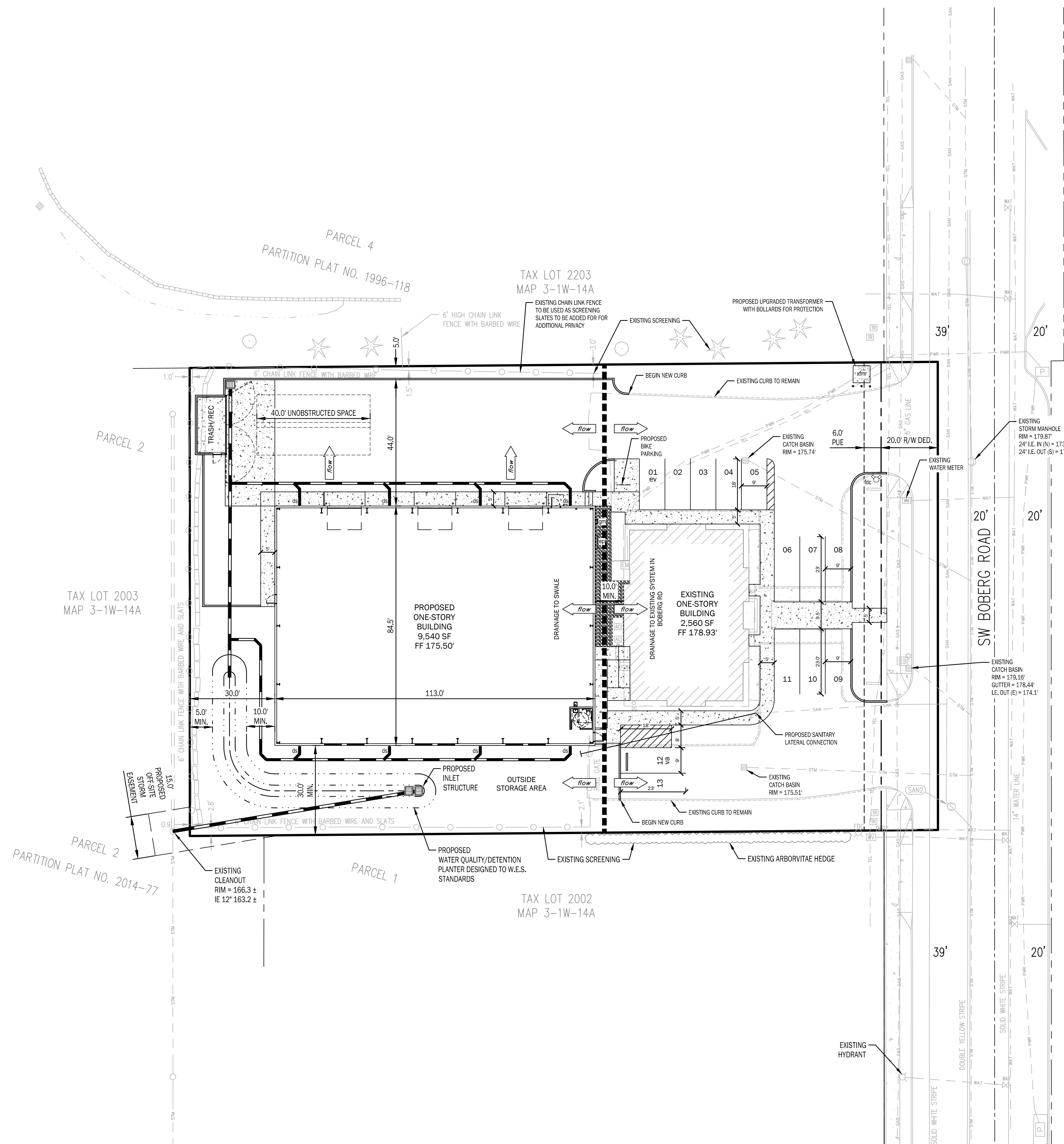
- Prior to occupancy, sight distance at any existing or proposed access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

Please let us know if you have any questions.

### **Attachment**

- Site Plan

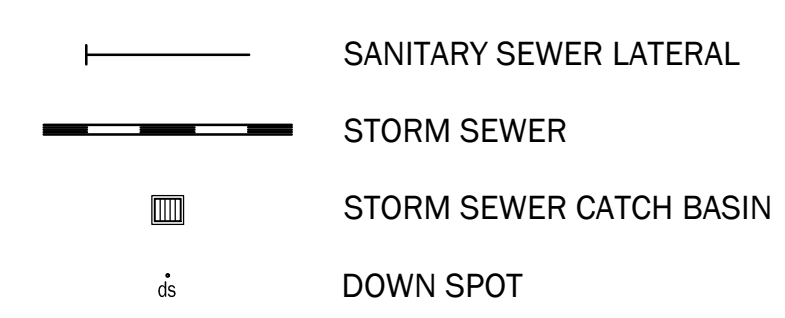




**SITE INFORMATION**

TAX LOT ID: 31W14A 02000  
 SITE ADDRESS: 28395 SW BOBERG RD WILSONVILLE, OR 97070  
 ACREAGE: 1.00 AC  
 ZONE: PDI (PLANNED DEVELOPMENT INDUSTRIAL)  
 SETBACKS: FRONT: 30'  
 SIDE: 30'  
 REAR: 30'  
 PARKING REQUIRED: (2.7 / 1000 SF OFFICE): 7 SPACES  
 (0.3 / 1000 SF WH): 3 SPACES  
 PARKING PROVIDED: 13 SPACES

**PROPOSED UTILITIES**

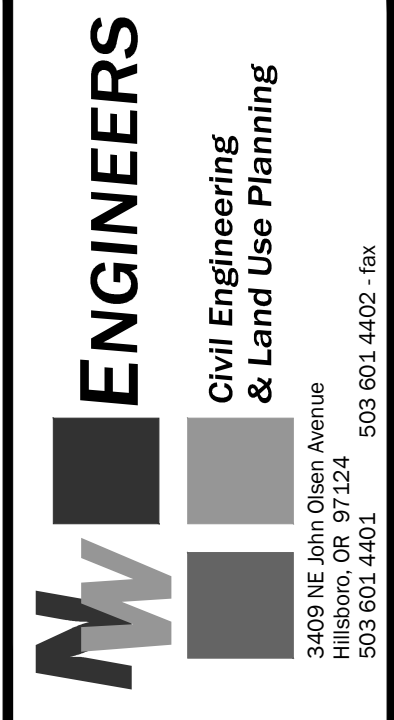


**NOTES**

- SEE SHEET 3, 'EXISTING CONDITIONS' FOR ADDITIONAL INFORMATION REGARDING EXISTING SITE FEATURES.
- SEE SHEET 4, 'EXISTING CONDITIONS OFF-SITE' FOR EXISTING STORM SEWER AND DETENTION FACILITY.
- PARKING LOT LIGHTING ATTACHED TO EXISTING AND PROPOSED BUILDINGS IN A MANNER THAT DOES NOT SHINE ON ADJACENT PROPERTIES.

**LANDSCAPE COVERAGE**

SITE AREA AFTER RIGHT-OF-WAY DEDICATION = 40,294 SF  
 PARKING LOT AREA = 5,584 SF  
 REQUIRED MIN. PARKING AREA LANDSCAPING = 10%  
 PROPOSED (1,285 SF/5,884 SF) = 22%  
 REQUIRED MIN. SITE LANDSCAPING = 15%  
 PROPOSED (10,630 SF/40,294 SF) = 26%

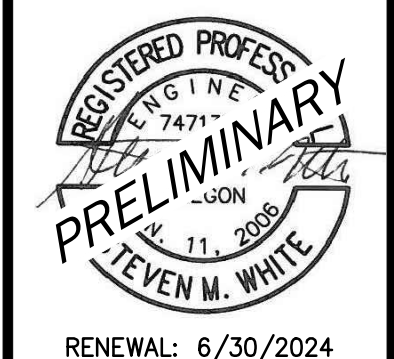


FOR: GRIFFITH FRANKLIN  
 28025 SW LADD HILL RD  
 SHERWOOD, OR 97140  
 PH: 503-784-4640  
 SITE: TAX MAP: 31W14A  
 TAX LOT: 2000  
 CITY OF WILSONVILLE, OR

28395 SW BOBERG RD  
 N0822  
 PRELIMINARY SITE AND UTILITY PLAN

REVISION	BY	DATE
1		
2		
3		
4		
5		
6		
7		

DESIGNED	DRAWN	REVIEWED	SUBMITTAL



chrisb, Plotted: Nov 14, 2023 - 9:41am, P:\N0822\dwg\Plan\Ph\N0822-05-PSIT.dwg



# ***Drainage Analysis Report and Certificate of Investigation***

***28395 SW Boberg Road  
Warehouse Building Replacement***

***March 14, 2024***



**EXPIRES: 06/30/2024**

Prepared For: Griffith Franklin  
28025 SW Ladd Hill Road  
Sherwood, OR 97140

Prepared By: NW Engineers  
3409 NE John Olsen Avenue  
Hillsboro, OR 97124

Submitted To: City of Wilsonville

Project N0822

## Table of Contents:

Introduction .....	3
Existing Conditions .....	3
Proposed Conditions.....	4
Downstream Analysis.....	5
Conclusions .....	5

## Appendices:

Appendix A -	Civil Plan Set
Appendix B -	USGS soils map, Geotechnical Infiltration Report
Appendix C -	Infiltration Planter Detail
Appendix D -	Pre-developed HydroCAD Calculations, Post-developed HydroCAD Calculations

# Preliminary Drainage Analysis Report

**28395 SW Boberg Road  
Tax Map 31W14A  
Tax Lot 2000**

## Introduction

The purpose of this report is to address drainage for the proposed conversion of an existing shop into a warehouse. The project is located at Tax Lot 2000, Tax Map 31W14A. The total lot area is 1.00 acres.

As a result of this report, requirements for both stormwater quality and quantity will be met under the Section 3 – Public Works Standards of the City of Wilsonville Stormwater & Surface Water Design and Construction Standards

## Existing Conditions

Currently, the lot contains an existing single-family home and driveway with mostly grassy areas and several scattered trees. Below is a table with total estimated existing impervious areas for the subject property (Refer to Appendix A for Existing Conditions in the Civil Plan).

<b>Existing Areas Draining East</b>	
One-story wood building	2,882 ft <sup>2</sup>
Concrete Walkway	541 ft <sup>2</sup>
Asphalt	9,943 ft <sup>2</sup>
Sidewalk	424 ft <sup>2</sup>
Non-impervious area	5,640 ft <sup>2</sup>
<b>Total</b>	<b>19,430 ft<sup>2</sup> = 0.47 Acres</b>
<b>Existing Areas Draining West</b>	
Existing Shop	2,644 ft <sup>2</sup>
Covered storage area	467 ft <sup>2</sup>
Gravel	20,150 ft <sup>2</sup>
Non-impervious area	907 ft <sup>2</sup>
<b>Total</b>	<b>24,168 ft<sup>2</sup> = 0.55 Acres</b>

The existing conditions show that runoff from the site is split in two directions. Approximately 19,430 SF of the site is directed east and conveyed by the current storm system east into the existing storm system on SW Boberg Road. The existing storm system takes runoff south to outfall into a tributary of Coffee Lake Creek.

The western portion of the site contains approximately 24,168 SF which includes mostly gravel and the existing building to be renovated. Currently, the existing grade for this area directs runoff west towards the neighboring lot to the west where an existing trench drain collects runoff. The existing trench drain is part of an existing storm system that conveys runoff west to Coffee Lake Creek.



The United States Department of Agriculture Soil Conservation Service Soil Survey of Washington County, Oregon classifies the existing soils of the lot as Willamette silt loam. This soil type is further classified as being in hydrologic group C, with a corresponding pervious curve number (CN) of 74 for greater than 75% grass cover area.

HydroCAD was used to calculate the existing runoff volumes for the site. See Appendix D for HydroCAD calculations. Runoff volumes are shown in the table below.

<b>Existing Runoff Volumes</b>			
	2 year	10 year	25 year
To East	0.18 cfs	0.26 cfs	0.34 cfs
To West	0.27 cfs	0.38 cfs	0.49 cfs

Runoff volumes were calculated using the Santa Barbara Urban Hydrograph based on a Type 1A 24-hr storm event. See table below for 24-hr rainfall depths.

<b>24-Hour Rainfall Depths (inches)</b>		
2 year	10 year	25 year
2.40	3.20	4.00

The subject property is not within a flood plain.

**Proposed Conditions**

Proposed developments include replacement of the existing shop and parking area. Approximately, 1161 SF of existing impervious area that was previously directed east will now be directed west. See civil plan set in Appendix A for proposed developments. Impervious areas will be introduced to the project site as shown in the table below.

<b>Proposed Areas Draining East</b>	
New building	2,560 ft <sup>2</sup>
New Concrete Walkway	823 ft <sup>2</sup>
Asphalt	9,339 ft <sup>2</sup>
Sidewalk	424 ft <sup>2</sup>
Non-Impervious area	5,148 ft <sup>2</sup>
Total	18,294 ft <sup>2</sup> = 0.42 Acres
<b>Proposed Areas Draining West</b>	
One-story wood building	9,540 ft <sup>2</sup>
New Concrete Walkway	2,024 ft <sup>2</sup>
Asphalt	7,467 ft <sup>2</sup>
Gravel	354 ft <sup>2</sup>
Non-Impervious area	5,918 ft <sup>2</sup>
Total	25,303 ft <sup>2</sup> = 0.58 Acres

The portion of the site that directs runoff east will require no storm improvements. The existing impervious area will be modified such that the amount of runoff entering the existing storm system will not increase. Runoff from the eastern portion of the site will be collected by the existing catch basins of the parking lot and be conveyed into the existing storm system on SW Boberg Road.

Runoff from the west portion of the site will be collected and conveyed into a planter for treatment and some infiltration. The infiltration planter will be sized to 800 SF to provide treatment that meets water quality requirements. Treated runoff will then be stored in the 18" of rock storage under the treatment layer.

An infiltration test was conducted by Rapid Soil Solutions. It was determined that site soils have an infiltration rate of 0.6 inches per hour. An infiltration rate of 0.3 in/hr was used for design purposes with a factory of safety of 2.

Due to the low infiltration rate, an underlying 1.5" perforated pipe drain is required for the infiltration planter. The pipe will collect treated runoff that is detained within the rock storage layer. Treated runoff that is not infiltrated, and any overflow will be collected and conveyed to discharge as sheet flow from a flow dispersion trench located adjacent to the infiltration planter.

Runoff will leave the site at runoff rates lower than existing conditions. The table below shows below for proposed runoff rates. See Appendix D for HydroCAD runoff calculations for on- and off-site developments.

<b>Post-developed Peak Discharge Volumes</b>			
	2 year	10 year	25 year
To East	0.18 cfs	0.25 cfs	0.33 cfs
To West	0.16 cfs	0.29 cfs	0.36 cfs

## **Downstream Analysis**

The runoff leaving the site is less than pre-developed conditions in both west and east directions. No downstream analysis was conducted. Instead, a visual investigation has been conducted for existing downstream facilities. It has been observed that there are no impacts or obstructions in the downstream storm system.

## **Conclusions**

Based on our analysis and calculations, it has been determined that the proposed water quality swale meets standards for water quality treatment of runoff directed west. The existing downstream storm systems have the capacity to handle runoff introduced by the development. No additional construction or replacement of existing stormwater facilities is required by this development.

**Appendix A:**

Civil Plan Set

**Appendix B:**

USGS Soils Map  
Geotechnical Infiltration Report

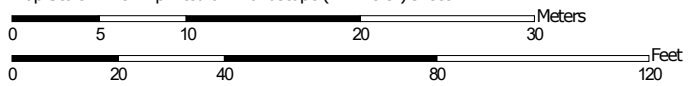
# Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



Map Scale: 1:434 if printed on A landscape (11" x 8.5") sheet.



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

## Clackamas County Area, Oregon

### 88A—Willamette silt loam, wet, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 227q  
*Elevation:* 150 to 350 feet  
*Mean annual precipitation:* 40 to 50 inches  
*Mean annual air temperature:* 52 to 54 degrees F  
*Frost-free period:* 165 to 210 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Willamette, wet, and similar soils:* 85 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Willamette, Wet

##### Setting

*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Stratified glaciolacustrine deposits

##### Typical profile

*H1 - 0 to 14 inches:* silt loam  
*H2 - 14 to 60 inches:* silty clay loam

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)  
*Depth to water table:* About 30 to 42 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water supply, 0 to 60 inches:* High (about 12.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* C  
*Ecological site:* R002XC008OR - Valley Terrace Group  
*Forage suitability group:* Moderately Well Drained < 15% Slopes (G002XY004OR)  
*Other vegetative classification:* Moderately Well Drained < 15% Slopes  
(G002XY004OR)  
*Hydric soil rating:* No

Griffith Franklin  
28025 SW Ladd Hill Rd.  
Sherwood, OR 97140  
503-784-4640  
[griffstock@comcast.net](mailto:griffstock@comcast.net)

27 June 2023

Re: Infiltration testing at 28395 SW Boberg Rd, Wilsonville, OR

Dear Mr. Franklin,

**Field Investigation:**

Rapid Soil Solutions (RSS) has performed a total of two (2) infiltration tests. Figure 1 shows the project site location. The site has a flat to a 2% slope to the rear where testing took place. Soils found on site match those in by DOGMI, RSS found fine- grained flood deposits. Testing was performed for future storm water drainage.



**Infiltration Testing & Conclusion:**

Infiltration testing was performed as per EPA Falling head method in a sleeved hand augur hole. The hole was filled with water and tested for 3 hours with the hobo. A summary of the rate is in the below table. For details of the locations and soils found see the below site with testing locations, attached hobo log.

Location	Depth (ft)	Rate (in/hr.)
HA#1	4	0.6

**Depth to Ground Water**

Attached is the nearest well log, and ground water is about 25ft below grade.



The analysis, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of explorations. Any questions regarding this report please contact me at the below number or email.

Sincerely,



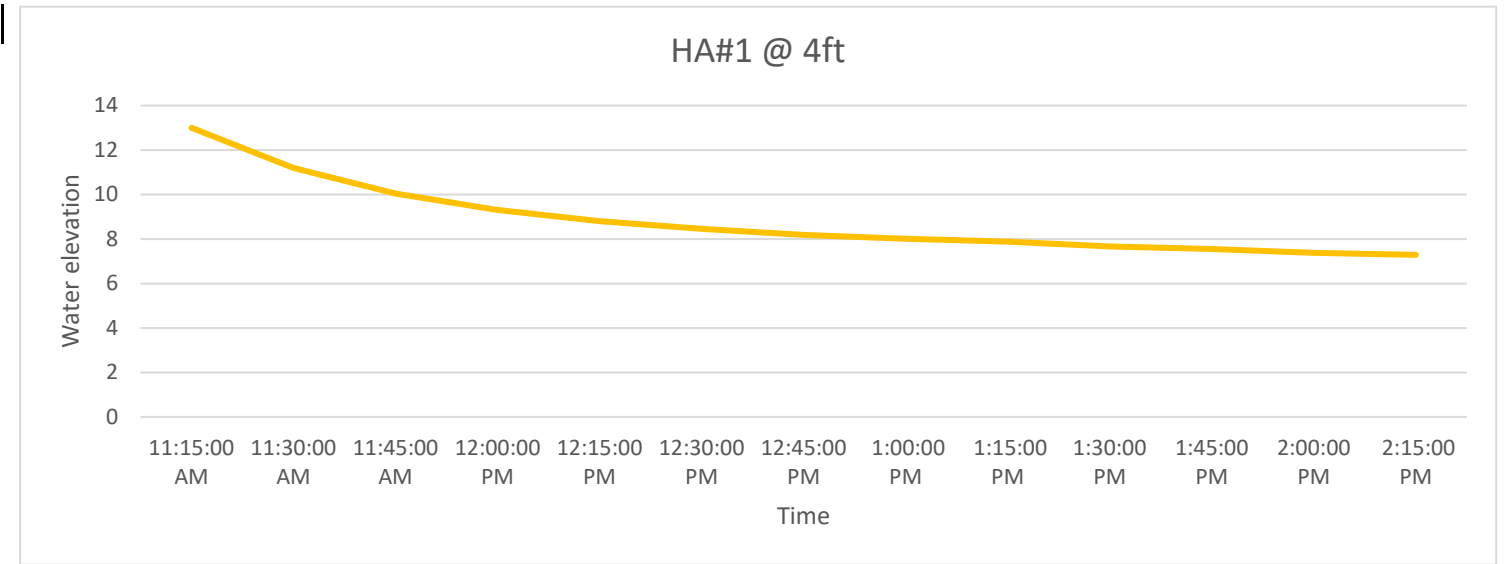
EXPIRES:  
12/31/2024

Mia Mahedy, PE GE.



Infiltration testing at 28395 SW Boberg

#	Date time	Water level
1	11:15:00 AM	13
2	11:30:00 AM	11.188
3	11:45:00 AM	10.036
4	12:00:00 PM	9.304
5	12:15:00 PM	8.8
6	12:30:00 PM	8.452
7	12:45:00 PM	8.188
8	1:00:00 PM	8.008
9	1:15:00 PM	7.888
10	1:30:00 PM	7.66
11	1:45:00 PM	7.552
12	2:00:00 PM	7.384
13	2:15:00 PM	7.288



NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

RECEIVED

CLAC

MAY 25 1964 WATER WELL REPORT 08137

State Well No. 3/1W-14

State Permit No.

(1) OWNER: (partners) Name Hardy S. Young & James Bernnet Address Route #2 Box 50 Sherwood, Oregon

(2) LOCATION OF WELL: County Clackmas Driller's well number 1/4 NW 1/4 Section 14 T. 3S R. 1W W.M. Bearing and distance from section or subdivision corner Lots 15&16 of Boberg Tract

(3) TYPE OF WORK (check): Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]

(4) PROPOSED USE (check): Domestic [X] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ] (5) TYPE OF WELL: Rotary [ ] Driven [ ] Cable [X] Jetted [ ] Dug [ ] Bored [ ]

(6) CASING INSTALLED: Threaded [ ] Welded [X] 8" Diam. from 0 ft. to 60 ft. Gage 1/2 Std.

(7) PERFORATIONS: Perforated? [ ] Yes [X] No Type of perforator used Size of perforations in. by in.

(8) SCREENS: Well screen installed? [ ] Yes [X] No Manufacturer's Name Model No. Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION: Well seal—Material used in seal Betonite + Luffite Depth of seal 25 ft. Was a packer used? yes Diameter of well bore to bottom of seal 25 in. Were any loose strata cemented off? [ ] Yes [X] No Depth Was a drive shoe used? [X] Yes [ ] No Was well gravel packed? [ ] Yes [X] No Size of gravel: Gravel placed from ft. to ft. Did any strata contain unusable water? [ ] Yes [ ] No Type of water? Depth of strata Method of sealing strata off

(10) WATER LEVELS: Static level 25 ft. below land surface Date May 16- Artesian pressure lbs. per square inch Date

(11) WELL TESTS: Drawdown is amount water level is lowered below static level Was a pump test made? [ ] Yes [ ] No If yes, by whom?

Table with columns: Yield (gal./min. with), ft. drawdown after, hrs. Bailer test 45 gal./min. with 12 ft. drawdown after hrs. Artesian flow g.p.m. Date Temperature of water Was a chemical analysis made? [ ] Yes [ ] No

(12) WELL LOG: Diameter of well below casing 8" Depth drilled 62 ft. Depth of completed well 62 ft.

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

Table with columns: MATERIAL, FROM, TO. Top soil 0 7 Boulders-gravel 7 31 Clay-mixed colors 31 55 Gravel--Water 55 62

Work started May 14 19 64 Completed May 16 19 64 Date well drilling machine moved off of well 19

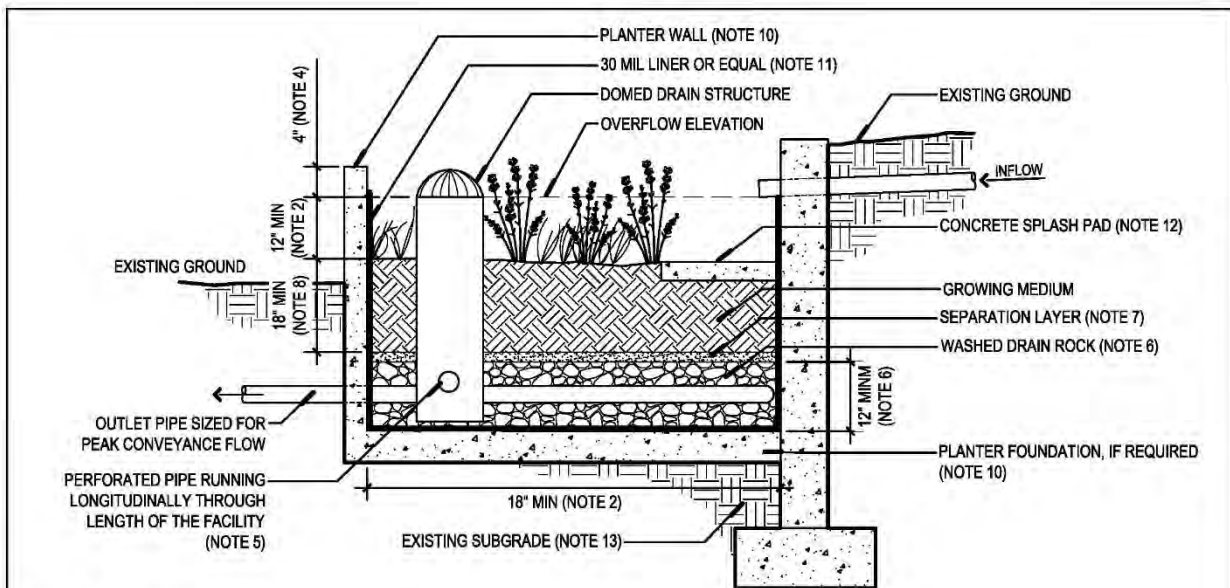
(13) PUMP: Manufacturer's Name Type: H.P.

Water Well Contractor's Certification: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Barron & Strayer (Person, firm or corporation) (Type or print) Address Rt. 1, Box 254, Beaverton, Ore. Drilling Machine Operator's License No. 217 [Signed] A H Barron (Water Well Contractor) Contractor's License No. 35 Date May 22 19 64


**Appendix C:**

Infiltration Planter Detail



**GENERAL NOTES:**

1. **PROVIDE PROTECTION** FROM ALL VEHICLE TRAFFIC, EQUIPMENT STAGING, AND FOOT TRAFFIC IN PROPOSED INFILTRATION AREAS PRIOR TO, DURING AND AFTER CONSTRUCTION.
2. **DIMENSIONS:**
  - WIDTH: 18" MINIMUM
  - DEPTH OF PLANTER (FROM TOP OF GROWING MEDIUM TO OVERFLOW ELEVATION): 12"
  - SLOPE OF PLANTER: 0.5% OR LESS
3. **SETBACKS:**
  - PLANTERS MUST BE MINIMUM OF 5 FEET FROM PROPERTY LINE.
4. **OVERFLOW:**
  - INLET ELEVATION MUST ALLOW FOR 4" OF FREEBOARD, MINIMUM.
  - PROTECT FROM DEBRIS AND SEDIMENT WITH STRAINER OR GRATE.
5. **PIPING:**
  - PERFORATED UNDERDRAIN PIPING: SHALL BE ABS SCH. 40, DUCTILE IRON, OR PVC SCH.40, 6" MINIMUM DIAMETER. PIPING MUST HAVE 1% GRADE AND FOLLOW THE UNIFORM PLUMBING CODE. PVC NOT ALLOWED ABOVE GROUND.
  - OVERFLOW PIPING: SHALL BE ABS SCH.40, DUCTILE IRON, OR PVC SCH.40 AND SHALL NOT BE PERFORATED. MINIMUM DIAMETER IS 6". PIPING MUST HAVE 1% GRADE AND FOLLOW THE UNIFORM PLUMBING CODE. PVC NOT ALLOWED ABOVE GROUND.
6. **DRAIN ROCK:**
  - SIZE FOR FLOW-THROUGH PLANTER: 1 1/2" - 3/4" WASHED
  - DEPTH: 12" MINIMUM
7. **SEPARATION BETWEEN DRAIN ROCK AND GROWING MEDIUM:** SHALL BE A 3" LAYER OF 3/4" - 1/4" OPEN GRADED AGGREGATE.
8. **GROWING MEDIUM:**
  - DEPTH: 18" MINIMUM
  - FACILITY SURFACE AREA MAY BE REDUCED BY 20% WHEN GROWING MEDIA DEPTH IS INCREASED TO 30" OR MORE.
9. **VEGETATION:** FOLLOW LANDSCAPE PLANS OR REFER TO PLANTING REQUIREMENTS IN APPENDIX F.
10. **PLANTER FOUNDATION AND WALLS:**
  - MATERIALS SHALL BE 4" REINFORCED CONCRETE, STONE, BRICK, OR OTHER DURABLE MATERIAL.
  - CONCRETE, BRICK, OR STONE WALLS SHALL BE INCLUDED ON FOUNDATION PLANS.
  - INSTALL INVERTED CURB AS NEEDED BETWEEN PLANTER AND ROAD SUBGRADE.
  - WALL HEIGHTS GREATER THAN 24" ABOVE GRADE REQUIRE HANDRAIL.
11. **WATERPROOF LINER (IF REQUIRED):**
  - LINER SHALL BE 30 MIL PVC OR EQUIVALENT, FOR FLOW THROUGH FACILITIES.
  - A WATERPROOF LINER IS NOT REQUIRED IF THE FOUNDATION OR WALL MATERIAL IS WATERPROOF REINFORCED CONCRETE OR APPROVED EQUAL.
12. **INSTALL CONCRETE SPLASH PAD** TO TRANSITION FROM INLET TO GROWING MEDIUM. SIZE OF PAD SHALL BE 1 FT. x 1 FT.
13. **SEASONAL HIGH GROUNDWATER SEPARATION:**
  - SEPARATION DISTANCE AS REQUIRED BY THE WES.
14. **SUBMIT RETAINING WALL DESIGN** IN ACCORDANCE WITH APPLICABLE STRUCTURAL CODES FOR REVIEW AND APPROVAL.
15. **SEE WES STANDARD DRAWINGS** FOR LOCATING PLANTERS IN THE PUBLIC RIGHT-OF-WAY.

	CLACKAMAS WES 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DATE: July, 2022 SCALE: NTS	STANDARD DRAWING <b>SWM</b> -01
		<b>PLANTER FILTRATION</b>	

**Appendix D:**

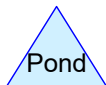
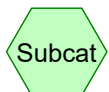
Pre-Developed HydroCAD Calculations  
Post-developed HydroCAD Calculations



Pre-developed to west



Pre-developed to East



**N0822 HydroCAD**

Prepared by Hewlett-Packard Company

HydroCAD® 10.00-16 s/n 02505 © 2015 HydroCAD Software Solutions LLC

Type IA 24-hr 25-year Rainfall=4.00"

Printed 3/14/2024

Page 2

**Summary for Subcatchment E01: Pre-developed to west**

Runoff = 0.49 cfs @ 7.91 hrs, Volume= 0.161 af, Depth= 3.47"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25-year Rainfall=4.00"

Area (sf)	CN	Description
2,644	98	Roofs, HSG C
467	98	Roofs, HSG C
20,150	96	Gravel surface, HSG C
907	74	>75% Grass cover, Good, HSG C
24,168	95	Weighted Average
21,057	95	87.13% Pervious Area
3,111	98	12.87% Impervious Area

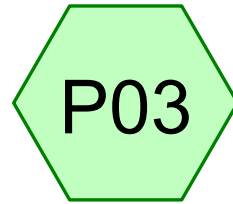
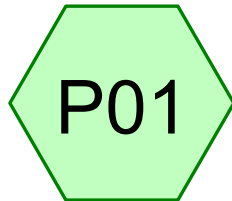
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	220	0.0113	0.74		Lag/CN Method,

**Summary for Subcatchment E02: Pre-developed to East**

Runoff = 0.35 cfs @ 7.83 hrs, Volume= 0.117 af, Depth= 3.14"

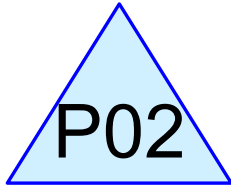
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25-year Rainfall=4.00"

Area (sf)	CN	Description
2,882	98	Roofs, HSG C
541	98	Paved parking, HSG C
9,943	98	Paved parking, HSG C
424	98	Paved parking, HSG C
5,640	74	>75% Grass cover, Good, HSG C
19,430	91	Weighted Average
5,640	74	29.03% Pervious Area
13,790	98	70.97% Impervious Area

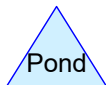
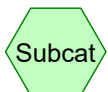


Proposed to west

Proposed to East



Infiltration Planter





**N0822 HydroCAD**

Prepared by Hewlett-Packard Company

HydroCAD® 10.00-16 s/n 02505 © 2015 HydroCAD Software Solutions LLC

Type IA 24-hr 25-year Rainfall=4.00"

Printed 3/14/2024

Page 2

**Summary for Subcatchment P01: Proposed to west**

Runoff = 0.50 cfs @ 7.98 hrs, Volume= 0.180 af, Depth= 2.59"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25-year Rainfall=4.00"

Area (sf)	CN	Description
9,548	98	Roofs, HSG C
1,701	98	Paved parking, HSG C
4,540	98	Paved parking, HSG C
836	98	Paved parking, HSG C
354	96	Gravel surface, HSG C
19,430	74	>75% Grass cover, Good, HSG C
36,409	85	Weighted Average
19,784	74	54.34% Pervious Area
16,625	98	45.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	220	0.0113	0.49		Lag/CN Method,

**Summary for Subcatchment P03: Proposed to East**

Runoff = 0.36 cfs @ 7.82 hrs, Volume= 0.122 af, Depth= 3.28"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.05 hrs  
Type IA 24-hr 25-year Rainfall=4.00"

Area (sf)	CN	Description
2,882	98	Roofs, HSG C
1,381	98	Paved parking, HSG C
104	98	Paved parking, HSG C
10,250	98	Paved parking, HSG C
424	98	Paved parking, HSG C
4,390	74	>75% Grass cover, Good, HSG C
19,431	93	Weighted Average
4,390	74	22.59% Pervious Area
15,041	98	77.41% Impervious Area

**Summary for Pond P02: Infiltration Planter**

Inflow Area = 0.836 ac, 45.66% Impervious, Inflow Depth = 2.59" for 25-year event

Inflow = 0.50 cfs @ 7.98 hrs, Volume= 0.180 af

Outflow = 0.37 cfs @ 8.16 hrs, Volume= 0.180 af, Atten= 25%, Lag= 11.2 min

Discarded = 0.01 cfs @ 8.16 hrs, Volume= 0.012 af

Primary = 0.37 cfs @ 8.16 hrs, Volume= 0.168 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

**N0822 HydroCAD**

Prepared by Hewlett-Packard Company

HydroCAD® 10.00-16 s/n 02505 © 2015 HydroCAD Software Solutions LLC

Type IA 24-hr 25-year Rainfall=4.00"

Printed 3/14/2024

Page 3

Peak Elev= 3.38' @ 8.16 hrs Surf.Area= 0.018 ac Storage= 0.018 af

Plug-Flow detention time= 71.9 min calculated for 0.180 af (100% of inflow)

Center-of-Mass det. time= 72.1 min ( 794.0 - 721.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.023 af	<b>10.00'W x 80.00'L x 4.25'H Prismaoid</b> 0.078 af Overall - 0.055 af Embedded = 0.023 af
#2	0.00'	0.011 af	<b>10.00'W x 80.00'L x 1.50'H rock</b> Inside #1 0.028 af Overall x 40.0% Voids
#3	1.50'	0.000 af	<b>10.00'W x 80.00'L x 1.50'H Prismaoid</b> Inside #1 0.028 af Overall x 0.0% Voids
		0.034 af	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	<b>0.300 in/hr Exfiltration over Surface area below 1.00'</b> Conductivity to Groundwater Elevation = -99.00'
#2	Primary	3.00'	<b>4.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#3	Primary	0.00'	<b>1.5" Vert. Orifice/Grate</b> C= 0.600

**Discarded OutFlow** Max=0.01 cfs @ 8.16 hrs HW=3.38' (Free Discharge)

└─1=Exfiltration ( Controls 0.01 cfs)

**Primary OutFlow** Max=0.37 cfs @ 8.16 hrs HW=3.38' (Free Discharge)

└─2=Orifice/Grate (Orifice Controls 0.26 cfs @ 2.97 fps)

└─3=Orifice/Grate (Orifice Controls 0.11 cfs @ 8.77 fps)

Griffith Franklin  
28025 SW Ladd Hill Rd.  
Sherwood, OR 97140  
503-784-4640  
[griffstock@comcast.net](mailto:griffstock@comcast.net)

27 June 2023

Re: Infiltration testing at 28395 SW Boberg Rd, Wilsonville, OR

Dear Mr. Franklin,

**Field Investigation:**

Rapid Soil Solutions (RSS) has performed a total of two (2) infiltration tests. Figure 1 shows the project site location. The site has a flat to a 2% slope to the rear where testing took place. Soils found on site match those in by DOGMI, RSS found fine- grained flood deposits. Testing was performed for future storm water drainage.



**Infiltration Testing & Conclusion:**

Infiltration testing was performed as per EPA Falling head method in a sleeved hand augur hole. The hole was filled with water and tested for 3 hours with the hobo. A summary of the rate is in the below table. For details of the locations and soils found see the below site with testing locations, attached hobo log.

Location	Depth (ft)	Rate (in/hr.)
HA#1	4	0.6

**Depth to Ground Water**

Attached is the nearest well log, and ground water is about 25ft below grade.



The analysis, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of explorations. Any questions regarding this report please contact me at the below number or email.

Sincerely,

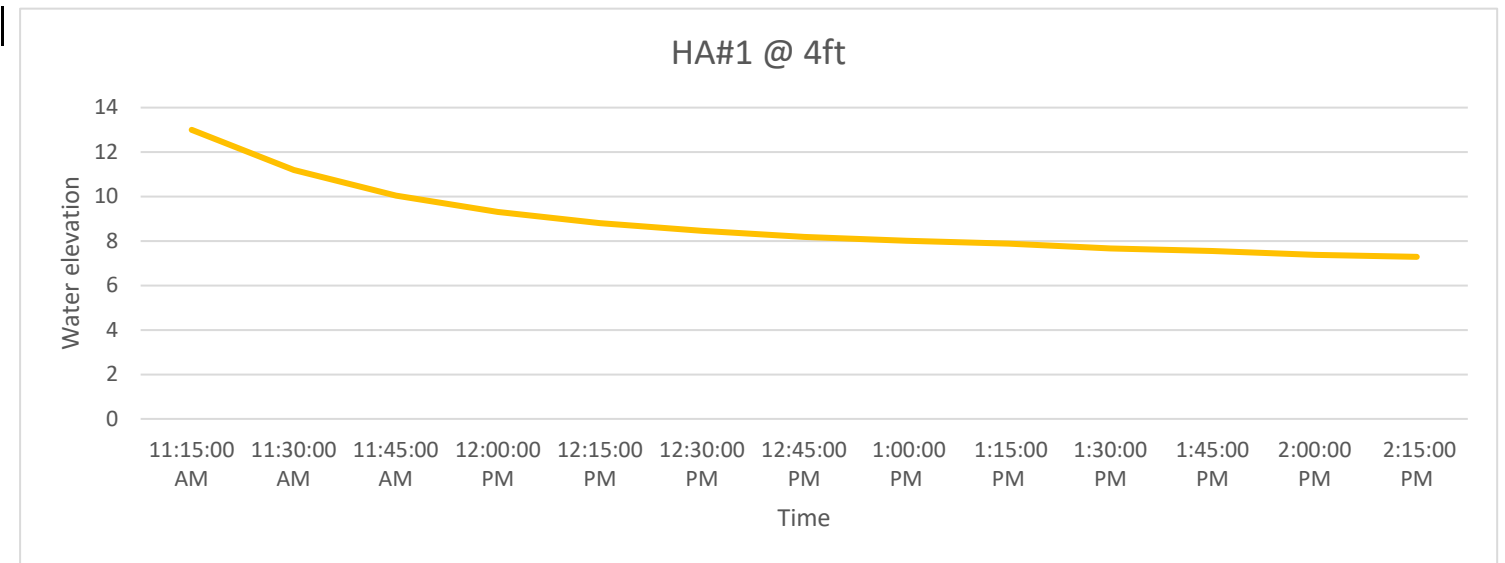


EXPIRES:  
12/31/2024

Mia Mahedy, PE GE.

Infiltration testing at 28395 SW Boberg

#	Date time	Water level
1	11:15:00 AM	13
2	11:30:00 AM	11.188
3	11:45:00 AM	10.036
4	12:00:00 PM	9.304
5	12:15:00 PM	8.8
6	12:30:00 PM	8.452
7	12:45:00 PM	8.188
8	1:00:00 PM	8.008
9	1:15:00 PM	7.888
10	1:30:00 PM	7.66
11	1:45:00 PM	7.552
12	2:00:00 PM	7.384
13	2:15:00 PM	7.288



CLAC

RECEIVED

MAY 25 1964 WATER WELL REPORT 08137

NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

STATE ENGINEER, SALEM 10, OREGON

STATE OF OREGON STATE ENGINEER (Please type or print)

State Well No. 3/1W-14

State Permit No.

(1) OWNER: (partners)

Name Hardy S. Young & James Bernnet
Address Route #2 Box 50 Sherwood, Oregon

(2) LOCATION OF WELL:

County Clackmas Driller's well number
1/4 NW 1/4 Section 14 T. 3S R. 1W W.M.
Bearing and distance from section or subdivision corner
Lots 15&16 of Boberg Tract

(3) TYPE OF WORK (check):

Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):

Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(5) TYPE OF WELL:

Rotary [ ] Driven [ ]
Cable [X] Jetted [ ]
Dug [ ] Bored [ ]

(6) CASING INSTALLED:

8" Diam. from 0 ft. to 60 ft. Gage 1/4 Std.
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:

Perforated? [ ] Yes [X] No
Type of perforator used
Size of perforations in. by in.
perforations from ft. to ft.

(8) SCREENS:

Well screen installed? [ ] Yes [X] No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:

Well seal—Material used in seal Betonite + Luffite
Depth of seal 25 ft. Was a packer used? yes
Diameter of well bore to bottom of seal 25 in.
Were any loose strata cemented off? [ ] Yes [X] No Depth
Was a drive shoe used? [X] Yes [ ] No
Was well gravel packed? [ ] Yes [X] No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? [ ] Yes [ ] No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:

Static level 25 ft. below land surface Date May 16-
Artesian pressure lbs. per square inch Date

(11) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? [ ] Yes [ ] No If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
Baller test 45 gal./min. with 12 ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? [ ] Yes [ ] No

(12) WELL LOG: Diameter of well below casing 8"

Depth drilled 62 ft. Depth of completed well 62 ft.
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

Table with columns: MATERIAL, FROM, TO. Rows: Top soil (0-7), Boulders-gravel (7-31), Clay-mixed colors (31-55), Gravel--Water (55-62)

Work started May 14 19 64 Completed May 16 19 64
Date well drilling machine moved off of well 19

(13) PUMP:

Manufacturer's Name
Type: H.P.

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Barron & Strayer (Person, firm or corporation) (Type or print)
Address Rt. 1, Box 254, Beaverton, Ore.

Drilling Machine Operator's License No. 217

[Signed] A H Barron (Water Well Contractor)

Contractor's License No. 35 Date May 22 19 64



## Todd Prager & Associates<sub>LLC</sub>

### **MEMORANDUM**

**DATE:** September 25, 2023

**TO:** Griffith Franklin

**FROM:** Christine Johnson, ISA Certified Arborist® PN-8730A

**RE:** New Commercial Development and Hardscape Improvements at 28395 SW Boberg Road, Wilsonville, OR

---

### **Summary**

A new building and hardscape improvements are proposed at 28395 SW Boberg Road in Wilsonville, Oregon. The tree inventory resulted in 14 trees on or near the area of development. Six trees are proposed for removal. Eight (8) offsite trees will be retained and protected. This report addresses tree removal and tree protection requirements outlined in the City of Wilsonville Code, Chapter 4, Section 4.600.

### **Background**

The proposed development will add a new building to the west side of the property. A gravel drive currently exists in this area. The existing parking lot will be removed and replaced with a slightly altered footprint along the south side of the existing building. A stormwater facility is proposed in the southwest corner.

The property is zoned PDI (Planned Development Industrial Zone). There are no Heritage Trees on the property. The property is not in the Significant Resource Overlay Zone; however, an SOS overlay is on the eastern portion of the site. The property is not in the Willamette River Greenway.

### **Assignment**

The assignment asked of our firm was:

1. Inventory existing trees at the 28395 SW Boberg Road project site. Assessment to include tree species, sizes, physical and structural conditions of the trees, treatment (remove/retain), and any additional necessary comments.
2. In coordination with the project team, identify the trees to be retained and removed. This may involve working with project planners, engineers, contractors, and others to identify design and construction techniques necessary to retain required trees.
3. Develop tree removal/protection recommendations in accordance with the City of Wilsonville Code, Chapter 4, Section 4.600.

## Tree Inventory

I completed the inventory on June 6, 2023. Fourteen (14) trees on and near the site were inventoried (Attachment 1). The following information was collected for each tree: survey number, common name, scientific name, trunk diameter (DBH), average canopy radius, health condition rating, structural condition rating, property status (on or off the subject property), pertinent comments, and treatment (remove or retain). An additional six shrubs are shown on the survey but are not considered trees.

The tree numbers listed in Attachment 1 correspond with the tree numbers listed in Attachment 2. Onsite trees were tagged with aluminum tags if accessible. No Oregon white oaks (*Quercus garryana*) or Pacific yews (*Taxus brevifolia*) were found on the development site.

## Type C Permit (Section 4.610.40)

Tree removal is proposed for six trees (trees 10122, 10171, 10176, 10177, 10457, and 10516).

- **Tree 10122** is a 29-inch DBH black walnut (*Juglans nigra*). The proposed parking lot improvement widens the entrance to the south parking lot. The new footprint is likely to conflict with surface roots from the black walnut within several feet of the trunk. Therefore, tree removal is proposed.
- **Tree 10171** is a 22-inch diameter at two feet above ground level shore pine (*Pinus contorta*). Tree 10171 is in the footprint of the expanded parking lot. The proposed parking lot improvement expands the parking lot south and bisects the trunk. Retention is not feasible. Therefore, removal is proposed.
- **Tree 10176** is a 13-inch DBH red maple (*Acer rubrum*). Removal is proposed to accommodate the construction of the expanded parking lot and curb. The existing planter will be reduced on the west side by approximately three feet. Removal is proposed for grading, hardscape, and landscaping purposes.
- **Tree 10177** is a 20-inch DBH red maple. Removal is proposed to accommodate the construction of the expanded parking lot and curb. The existing planter will be reduced on the west side by approximately three feet. Removal is proposed for grading, hardscape, and landscaping purposes.
- **Tree 10457** is a 44-inch DBH Douglas-fir (*Pseudotsuga menziesii*). The proposed parking lot improvements will disturb the ground and roots on the south side of tree 10457.
- **Tree 10516** is a 14-inch DBH red oak (*Quercus rubra*). This is a volunteer tree growing between the pavement and chain-link fence. A stormwater line is proposed to the northwest. Retention is not feasible. Therefore, removal is proposed.

## Standards for Tree Removal, Relocation or Replacement (Section 4.620.00)

Section 4.620.00 requires trees removed under a Type C permit be replaced or relocated on a basis of one tree replanted for each tree removed. The landscape architect's report will address replacement tree requirements.



## Tree Protection During Construction (Section 4.620.10)

A typical minimum root protection zone allows encroachments no closer than a radius from a tree of 0.5 feet per inch of DBH if no more than 25 percent of the root protection zone area (estimated at one foot radius per inch of DBH) is impacted. Figure 1 illustrates this concept. This standard may need to be adjusted on a case-by-case basis due to tree health, species, root distribution, whether the tree will be impacted on multiple sides, the specific development proposed, and other factors.

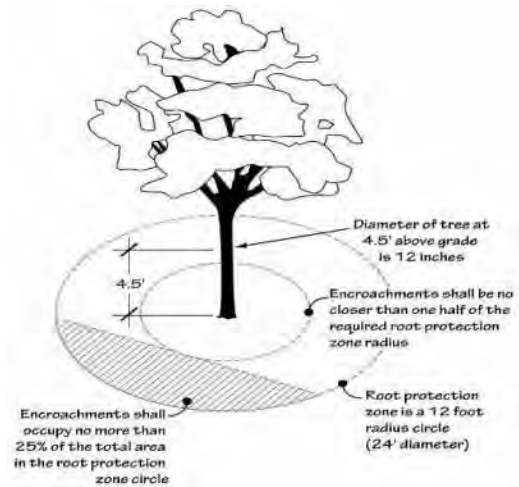


Figure 1: Typical minimum protection zone

An existing 6-foot-tall chain link fence along the northwest corner of the property may act as tree protection fencing for three offsite trees (trees 10490, 10491, and 10492). The remaining off-property trees to the north of the development site will be protected with a combination of tree protection fencing and project arborist oversight.

The following tree protection measures are recommended for trees selected for preservation:

1. **Tree protection fencing.** Tree protection fencing will act as a physical, protective barrier between protected trees and construction.
  - a. *Height:* Provide a minimum 3.5-foot-high hi-visibility fence.
  - b. *Posts & Spacing:* Secure fencing with metal t-stakes no more than 10 feet apart so as not to be moved.
  - c. *Existing Grade:* Install fencing flush to the ground.
  - d. *Locations:* Install fencing as shown in Attachment 2.
  - e. Tree protection fencing shall not be moved without written approval from the project arborist.
  - f. A tree protection fencing detail is on the tree protection plan (Attachment 2).
2. **Tree protection signage.**
  - a. Weatherproof tree protection signage shall be placed on tree protection fencing.
  - b. Signage should be placed at intervals of every 30 feet.
  - c. See Attachment 3 for an example tree protection sign.
3. **Tree protection fencing maintenance and removal.**
  - a. *Maintenance:* Maintain protection fencing in good effective condition at the approved and inspected location. Fencing that is damaged during site work shall be repaired and placed in the approved location prior to resuming work in the area.
  - b. *Removal:* Tree protection fencing may be removed when all work is complete, and the final inspection has occurred.
4. **Prevent protection zone impacts.** The following activities can cause significant harm to trees and should be prevented.
  - a. Dumping of harmful chemicals and materials, such as paints, thinners, cleaning solutions, petroleum products, concrete or dry wall excess, construction debris, or run-off;

- b. Storage of materials such as building supplies, soil, rocks, or waste items;
  - c. Placement of portable toilets, drop-boxes, or similar temporary items;
  - d. Parking of vehicles or equipment; and,
  - e. Excavation, trenching, grading, root pruning, or similar activities unless directed by an arborist present on site.
- 5. Project arborist oversight.** The project arborist shall be onsite to guide pavement demolition, excavation, and grading within a 17-foot radius of tree 10404 as shown on the tree protection plan (Attachment 2).
- 6. Erosion control.** Any required sediment fencing shall be routed outside of tree protection fencing to protect the root systems of the trees to be retained. Sediment fencing should be installed by hand near tree 10404 to avoid damaging roots over 2.0 inches in diameter.
- 7. Additional tree protection measures.** Additional tree protection measures consistent with industry standards and best management practices are in Attachment 4.
- 8. Report sharing.** Share this report in its entirety with the project team and construction staff.

## Conclusion

The proposed development and hardscape improvements at 28395 SW Boberg Road can be constructed in compliance with the City of Wilsonville development code. Six trees are proposed for removal to facilitate the hardscape improvements. Tree protection fencing along the north property line will protect off property trees with roots extending south onto the development site. Project arborist oversight is recommended during demolition, excavation, and grading within a 17-foot radius of tree 10404.

Please contact me if you have any questions, concerns, or need additional information.

Sincerely,



Christine Johnson  
*ISA Certified Arborist®*, PN-8730A  
*ISA Qualified Tree Risk Assessor*  
*Member, American Society of Consulting Arborists*  
*christine@toddprager.com |971.978.9381*

Enclosures: Attachment 1 – Tree Inventory  
Attachment 2 – Tree Maintenance and Protection Plan  
Attachment 3 – Tree Protection Signage  
Attachment 4 – Tree Protection Recommendations  
Attachment 5 – Assumptions and Limiting Conditions



Attachment 1 - Tree Inventory  
28395 SW Boberg Road, Wilsonville, OR 97070

Tree Tag	Survey No.	Common Name	Scientific Name	DBH <sup>1</sup> (in)	Single DBH <sup>2</sup> (in)	C-Rad <sup>3</sup> (ft)	Health Condition <sup>4</sup>	Structural Condition <sup>4</sup>	Property Status <sup>5</sup>	Comments	Treatment
1	10516	red oak	<i>Quercus rubra</i>	14	14	15	good	good	yes		remove
2	10490	red alder	<i>Alnus rubra</i>	16	16	15	good	good	no	DBH estimated, not tagged because of barbed wire fence, approximately 12' from fence line	retain
3	10492	Douglas-fir	<i>Pseudotsuga menziesii</i>	13	13	12	good	good	no	DBH estimated, not tagged because of barbed wire fence, approximately 10' from fence line	retain
4	10491	Douglas-fir	<i>Pseudotsuga menziesii</i>	15	15	15	good	good	no	DBH estimated, not tagged because of barbed wire fence, approximately 10' from fence line	retain
5	10457	Douglas-fir	<i>Pseudotsuga menziesii</i>	44	44	25	good	good	boundary		remove
6	10404	black walnut	<i>Juglans nigra</i>	35	35	20	good	good	no	off property, not tagged	retain
7	10403	vine maple	<i>Acer circinatum</i>	6,4,4,3,3,3,3	10	10	good	good	no	off property, seven stems	retain
8	10402	vine maple	<i>Acer circinatum</i>	3,3	4	8	poor	very poor	no	off property, 50% dead	retain
9	10401	vine maple	<i>Acer circinatum</i>	4,4,4,3,3,3,3	9	8	good	fair	no	off property, 11 stems, asymmetrical crown	retain
10	10400	vine maple	<i>Acer circinatum</i>	13,3	13	0	dead	dead	no	off property	retain
11	10177	red maple	<i>Acer rubrum</i>	20	20	18	good	fair	yes	codominant leaders at 8', dense crown, history of root conflicts, ivy	remove
12	10176	red maple	<i>Acer rubrum</i>	13	13	15	good	good	yes		remove
13	10122	black walnut	<i>Juglans nigra</i>	29	29	30	fair	fair	yes	girdling roots, surface root damage	remove
14	10171	shore pine	<i>Pinus contorta</i>	22	22	15	good	fair	yes	diameter measured at 2', moderate sequoia pitch moth infestation, dense canopy, crossing branches	remove
n/a	10405	arborvitae	<i>Thuja occidentalis</i>	n/a	n/a	n/a	n/a	n/a	yes	not considered a tree	remove shrub
n/a	10406	arborvitae	<i>Thuja occidentalis</i>	n/a	n/a	n/a	n/a	n/a	yes	not considered a tree	remove shrub
n/a	10407	arborvitae	<i>Thuja occidentalis</i>	n/a	n/a	n/a	n/a	n/a	yes	not considered a tree	remove shrub
n/a	10508	photinia	<i>Photinia spp.</i>	n/a	n/a	n/a	n/a	n/a	yes	not considered a tree	remove shrub
n/a	10509	photinia	<i>Photinia spp.</i>	n/a	n/a	n/a	n/a	n/a	yes	not considered a tree	remove shrub
n/a	10510	photinia	<i>Photinia spp.</i>	n/a	n/a	n/a	n/a	n/a	yes	not considered a tree	remove shrub

<sup>1</sup>DBH is the trunk diameter in inches measured per International Society of Arboriculture (ISA) standards.

<sup>2</sup>Single DBH is the trunk diameter of a multi-stem tree converted to a single number according to the following formula: square root of the sum of the squared diameter of each trunk at 4½ feet above mean ground level.

<sup>3</sup>C-Rad is the approximate crown radius in feet.

<sup>4</sup>Condition and Structure ratings range from dead, very poor, poor, fair, to good.

<sup>5</sup>Property status categorizes trees as on the property, off the property, or on the boundary between two properties. Boundary trees proposed for removal will require approval from the neighboring property.

**ENGINEERS**  
Civil Engineering  
& Land Use Planning  
3409 NE John Olsen Avenue  
Hillsboro, OR 97124  
503.601.4402 - fax

FOR: GRIFFITH FRANKLIN  
28025 SW LADD HILL RD  
SHERWOOD, OR 97140  
PH: 503-784-4640  
SITE: TAX MAP: 31W14A  
TAX LOT: 2000  
CITY OF WILSONVILLE, OR

28395 SW BOBERG RD  
N0822  
SITE EXHIBIT

REVISION	BY	DATE
1		
2		
3		
4		
5		
6		
7		

DESIGNED	DRAWN	REVIEWED	SUBMITTAL

**PROPOSED GRADING & EROSION CONTROL LEGEND**

- EXISTING 5-FT CONTOUR
- EXISTING 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- ✕ TREE TO BE REMOVED

**NOTES**

- SEE SHEET 3, 'EXISTING CONDITIONS' FOR FOR ADDITIONAL INFORMATION EXISTING SITE FEATURES.
- SEE SHEET 4, 'EXISTING CONDITIONS OFF-SITE' FOR EXISTING STORM SEWER AND DETENTION FACILITY
- ALL DRAINAGE TO BE DIVERTED AWAY FROM PROPOSED AND EXISTING BUILDING.

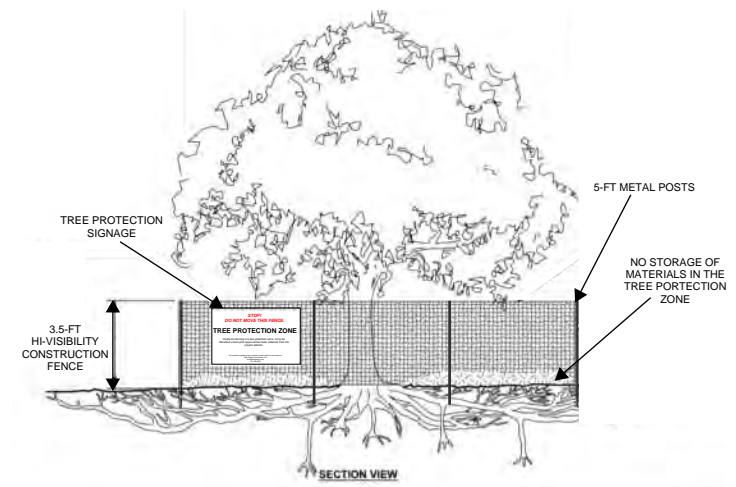
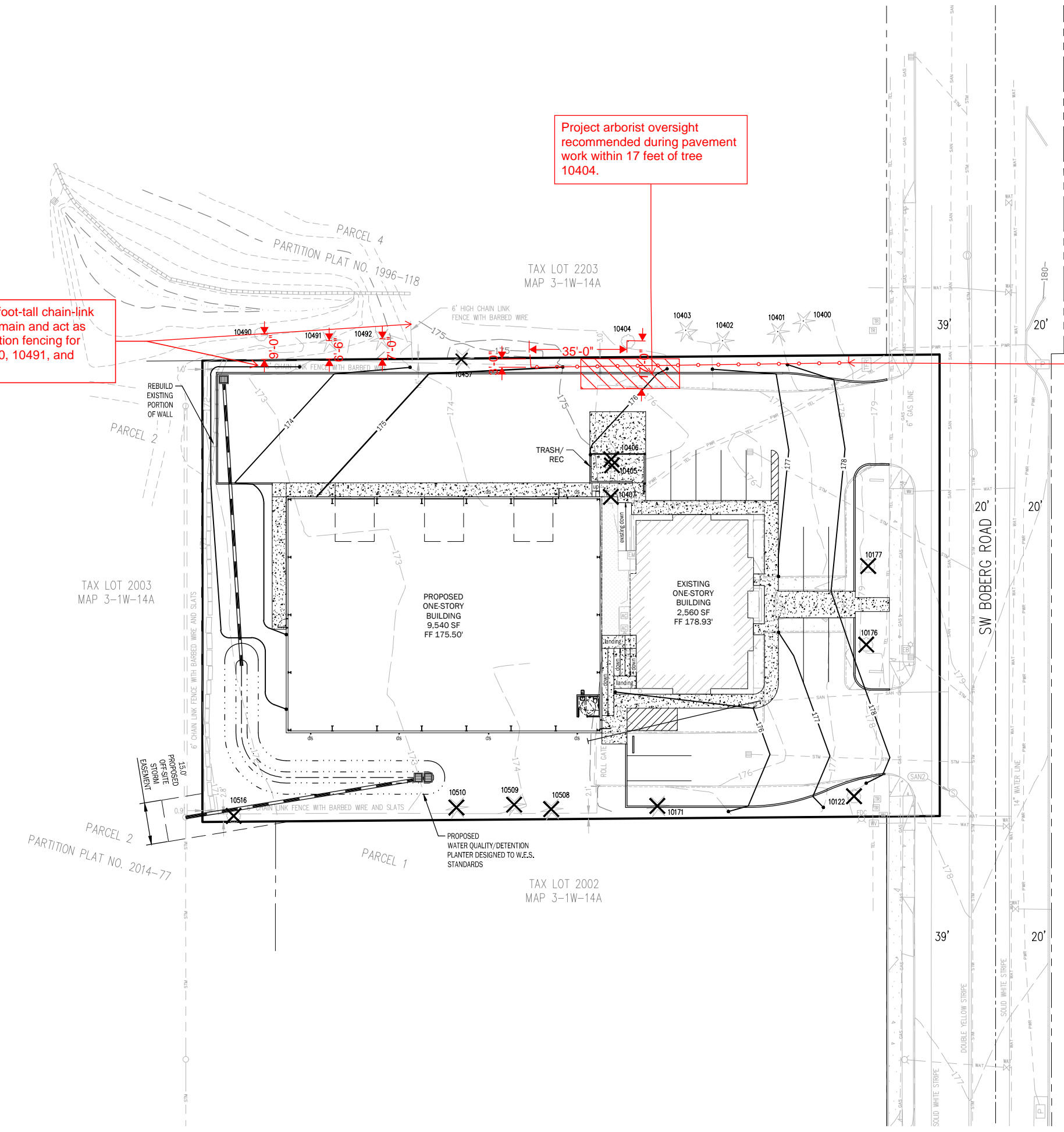
**TREE INFORMATION**

- 10122 28" WALNUT
- 10171 SPLIT 15", 24" PINE
- 10176 16" DECIDUOUS
- 10177 20" DECIDUOUS
- 10400 18" FIR
- 10401 22" FIR
- 10402 22" FIR
- 10403 20" FIR
- 10404 24" WALNUT
- 10405 10" ARBORVITAE
- 10406 8" ARBORVITAE
- 10407 8" ARBORVITAE
- 10457 48" FIR
- 10490 24" ALDER
- 10491 22" FIR
- 10492 20" FIR
- 10508 28" CONIFER
- 10509 22" CONIFER
- 10510 18" CONIFER
- 10516 22" DECIDUOUS

Tree protection fencing to be installed 3 feet south of the property line to meet the edge of proposed grading.

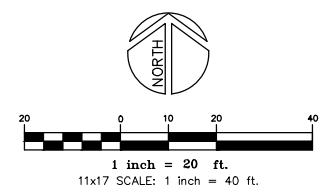
Project arborist oversight recommended during pavement work within 17 feet of tree 10404.

Existing 6-foot-tall chain-link fence to remain and act as tree protection fencing for trees 10490, 10491, and 10492.



**TREE PROTECTION FENCING DETAIL**  
SCALE: NTS

**Attachment 2 - Tree Protection Plan**



***STOP!***  
***DO NOT MOVE THIS FENCE.***

# **TREE PROTECTION ZONE**

Inside the fencing is a tree protection zone, not to be disturbed unless prior approval has been obtained from the project arborist.

For questions regarding tree protection please call the project arborist:  
Todd Prager & Associates, LLC  
todd@toddprager.com  
971.295.4835

## **Attachment 4**

### **Tree Protection Recommendations**

The following recommendations will help to ensure that the trees to be retained are adequately protected:

#### **Before Construction Begins**

1. **Notify all contractors of the tree protection procedures.** For successful tree protection on a construction site, all contractors must know and understand the goals of tree protection.
  - a. Hold a tree protection meeting with all contractors to explain the goals of tree protection.
  - b. Have all contractors sign memoranda of understanding regarding the goals of tree protection. The memoranda should include a penalty for violating the tree protection plan. The penalty should equal the appraised value of the tree(s) within the violated tree protection zone per the current Trunk Formula Method as outlined in the current edition of the *Guide for Plant Appraisal* plus any resulting fines by government agencies.
  - c. The penalty should be paid to the owner of the property.
2. **Fencing.**
  - a. Establish fencing around each tree or group of trees to be retained.
  - b. The fencing should be put in place before the ground is cleared to protect the trees and the soil around the trees from disturbance.
  - c. Fencing should be established by the project arborist based on the needs of the trees to be protected and to facilitate construction.
  - d. Fencing should consist of 3.5-foot-high hi-visibility mesh fencing secured to metal posts to prevent it from being moved by contractors, sagging, or falling down.
  - e. Fencing should remain in the position that is established by the project arborist and not be moved without approval from the project arborist until final project approval.
3. **Signage.**
  - a. All tree protection fencing should be provided with signage so that all contractors understand the purpose of the fencing.
  - b. Signage should be placed every 30 feet.
  - c. Signage should be weathered and secured to fencing.
  - d. Signage has been included in Attachment 3.

## **During Construction**

### **1. Protection Guidelines Within the Tree Protection Zones.**

- a. No traffic should be allowed within the tree protection zones. This includes but is not limited to vehicle, heavy equipment, or even repeated foot traffic.
  - b. No storage of materials including but not limiting to soil, construction material, or waste from the site should be permitted within the tree protection zones. Waste includes but is not limited to concrete wash out, gasoline, diesel, paint, cleaner, thinners, etc.
  - c. Construction trailers should not to be parked/placed within the tree protection zones.
  - d. No vehicles should be allowed to park within the tree protection zones.
  - e. No activity should be allowed that will cause soil compaction within the tree protection zones.
2. The trees should be protected from any cutting, skinning or breaking of branches, trunks, or woody roots.
  3. The project arborist should be notified prior to the cutting of woody roots from trees that are to be retained to evaluate and oversee the proper cutting of roots with sharp cutting tools. Cut roots should be immediately covered with soil or mulch to prevent them from drying out.
  4. No grade changes should be allowed within the tree protection zones.
  5. Trees that have woody roots cut should be provided supplemental water during the summer months.
  6. Any necessary passage of utilities through the tree protection zones should be by means of tunneling under woody roots by hand digging or boring with oversight by the project arborist.
  7. Any deviation from the recommendations in this section should receive prior approval from the project arborist.

## **After Construction**

1. **Carefully landscape the areas within the tree protection zones.** Do not allow trenching for irrigation or other utilities within the tree protection zones.
2. **Carefully plant new plants within the tree protection zones.** Avoid cutting the woody roots of trees that are retained.
3. **Irrigation.** Do not install permanent irrigation within the tree protection zones unless it is drip irrigation to support a specific planting, or the irrigation is approved by the project arborist.
4. **Drainage.** Provide adequate drainage within the tree protection zones and do not alter soil hydrology significantly from existing conditions for the trees to be retained.
5. **Inspect the landscape for pests and disease.** Provide for the ongoing inspection and treatment of insect and disease populations that can damage the retained trees and plants.
6. **Fertilization.** The retained trees may need to be fertilized if recommended by the project arborist.
7. Any deviation from the recommendations in this section should receive prior approval from the project arborist.

## **Attachment 5**

### **Assumptions and Limiting Conditions**

1. Any legal description provided to the consultant is assumed to be correct. The site plans and construction information provided by Griffith Franklin was the basis of the information provided in this report.
2. It is assumed that this property is not in violation of any codes, statutes, ordinances, or other governmental regulations.
3. The consultant is not responsible for information gathered from others involved in various activities pertaining to this project. Care has been taken to obtain information from reliable sources.
4. Loss or alteration of any part of this delivered report invalidates the entire report.
5. Drawings and information contained in this report may not be to scale and are intended to be used as display points of reference only.
6. The consultant's role is only to make recommendations. Inaction on the part of those receiving the report is not the responsibility of the consultant.
7. The purpose of this report is to:
  - a. Inventory existing trees at the 28395 SW Boberg Road project site. Assessment to include tree species, sizes, physical and structural conditions of the trees, treatment (remove/retain), and any additional necessary comments.
  - b. In coordination with the project team, identify the trees to be retained and removed. This may involve working with project planners, engineers, contractors, and others to identify design and construction techniques necessary to retain required trees.
  - c. Develop tree removal/protection recommendations in accordance with the City of Wilsonville Code, Chapter 4, Section 4.600.



# IOSCO

*Trucking ♦ Transportation ♦ Warehousing ♦ Distribution*

To Whom It May Concern,

Our neighbor Griff Franklin has asked us to write a letter indicating that we have approved and agreed to the removal of a Large Douglas Fir Tree that encroaches slightly onto our property on the southern border.

We have given Griff our express approval and consent to remove this tree, **at his expense**. He has agreed to such terms and hereby has our approval.

If there are any further questions or documentation needed, please contact me at the information provided below.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Losco". The signature is fluid and cursive, with a large initial "J" and "L".

Jason losco



October 20, 2023

Jonathan Gray  
Architectural Alliance NW, LLC

Re: Boberg Road Warehouse  
28395 SW Boberg Road  
Wilsonville, OR 97070

Dear Jonathan,

Thank you, for sending us the preliminary site plans for this proposed development in Wilsonville OR.

My Company: Republic Services of Clackamas and Washington Counties has the franchise agreement to service this area with the City of Wilsonville. We will provide complete commercial waste removal and recycling services as needed on a weekly basis for this location.

Truck ingress/egress of the site will occur using the north Boberg Rd. driveway. The truck traffic pattern will be parallel to the north property line and leading to and from the trash/recycle enclosure sited at the northwest corner of the property. Unobstructed turn-around space of 40'x44' will be provided in front of the enclosure, and pull-up space between the northwest side of the building and the west fence line to allow our trucks to turn-around on property before exiting.

The trash/recycle enclosure design of 20'-ft. inside dimension width, and 10'-ft. inside dimension depth will provide adequate room for our receptacles and the anticipated trash and recycle volume of this establishment. The double gates opening radius, with drop rods that function in the open and closed position are adequate for securing the enclosure.

Thanks Jonathan, for your help and concerns for our services prior to this project being developed.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kelly Herrod", written over a light blue horizontal line.

Kelly Herrod  
Operations Supervisor  
Republic Services Inc.

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



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

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

REV 6-30-20

**Project Information**

Applicant Name: Griffith Franklin  
Address: 28025 SW Ladd Hill Rd  
Phone: 503-784-4640  
Email: \_\_\_\_\_  
Site Address: 28395 SW Boberg Rd  
City: Wilsonville  
Map & Tax Lot #: 31W14A002000  
Business Name: \_\_\_\_\_  
Land Use/Building Jurisdiction: PDI  
Land Use/ Building Permit # \_\_\_\_\_

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

**Project Description**

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

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

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

TVFR Permit # 2023-0173  
Permit Type: SFP - Wilsonville  
Submittal Date: 11/2/2023  
Assigned To: M. Gludny  
Due Date: 11/3/2023  
Fees Due: 0  
Fees Paid: 0

**Approval/Inspection Conditions**  
(For Fire Marshal's Office Use Only)

**This section is for application approval only**

M. Gludny 11/3/2023  
Fire Marshal or Designee Date

Conditions: Fire Department Final Inspection Required

See Attached Conditions:  Yes  No

Site Inspection Required:  Yes  No

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

Inspection Comments:

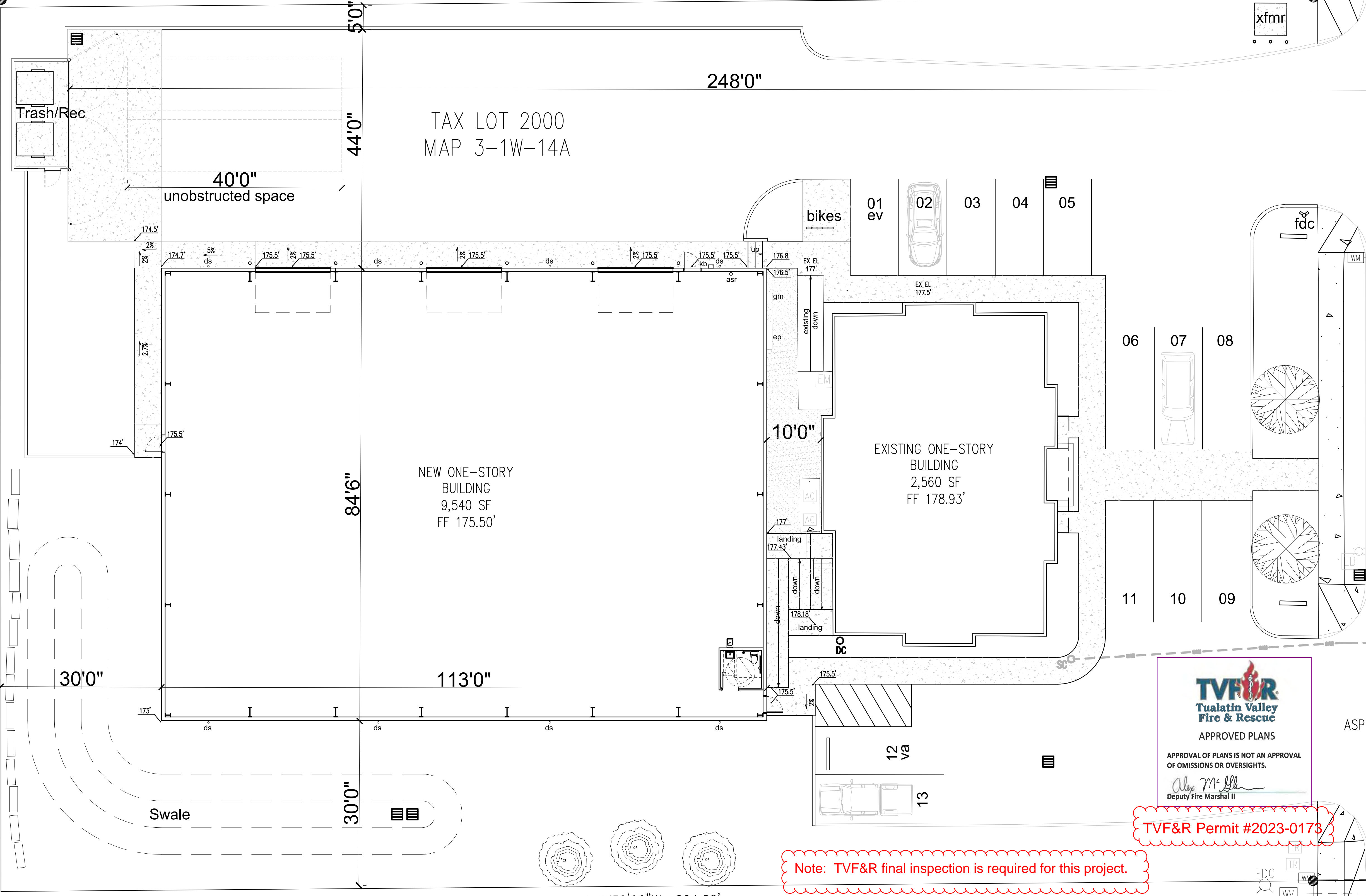
\_\_\_\_\_  
Final TVFR Approval Signature & Emp ID Date





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N89°31'54"E 264.00'



### SITE INFORMATION

**TAX MAP:** 3-1W-14A    **LOT #:** 2000  
**SITE AREA:** 1.00 AC  
**COMP PLAN:** INDUSTRIAL  
**ZONING:** PDI  
**SETBACKS:** Front 30'  
Side 30'  
Rear 30'

**BLDG AREA:** 2,560 SF Office  
9,548 SF W'house

**USE:** INDUSTRIAL / OFFICE  
**PKG REQ (2.7 / 1000 SF Office):** 7  
(0.3 / 1000 SF Wh): 3  
**TOTAL REQUIRED:** 10  
**PARKING PROVIDED:** 14

### BLDG INFORMATION

**CONSTRUCTION TYPE:** VB (NS) EXISTING  
VB (FS) NEW

**OCCUPANCY:** B - EXTG BLDG  
F, S - NEW BLDG

**MAX BASE AREAS:** 9,000 SF (B)  
8,500 SF (F-1)  
9,000 SF (S-1)  
13,000 SF (F-2)  
13,500 SF (S-2)

**MAX ALLOWED AREA** 8,500 + .75(8,500)  
**(PER TABLE 506.3.3)** = 14,875 SF

**EXTG BLDG AREA:** 2,560 SF  
**NEW BLDG AREA:** 9,548 SF  
**ACTUAL TOTAL AREA:** 12,108 SF

**F.R. EXT WALLS:** 0 (TABLE 601)  
0 (TABLE 705.5)

**2HR FIRE FLOW REQ:** 2,750 GPM  
**(PER OFC TABLE B105.1(2))**

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503 956-5862  
Gary.Olmon@PdxArch.com

**Jonathan Gray**  
Senior Associate  
503 729-4224  
Jonathan.Gray@PdxArch.com

Project 0734  
For Griffith Franklin  
Project Title

### Boberg Road Warehouse

A New Industrial Building  
28395 SW Boberg Road  
Wilsonville, Oregon 97070



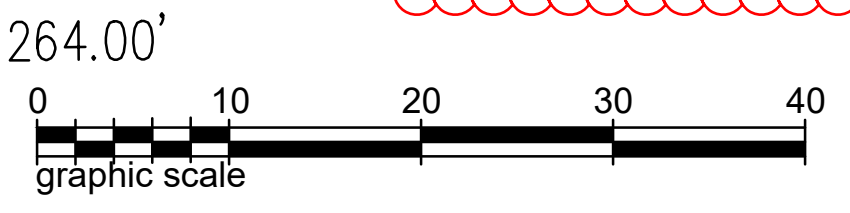
TVF&R Permit #2023-0173

Note: TVF&R final inspection is required for this project.



### Vicinity Map

## Architectural Site Plan



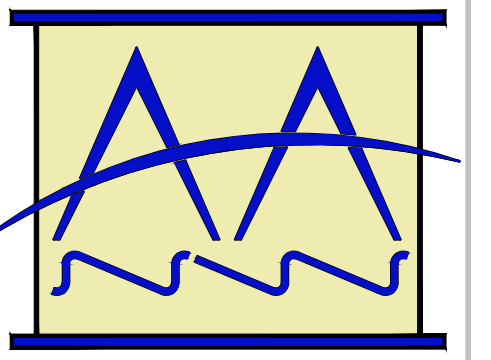
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Date November 1, 2023

Sheet No. **A100**

Sheet Title

### ARCHITECTURAL SITE PLAN







## Building Code Summary

<b>CONSTRUCTION TYPE:</b>	<b>VB (FULLY SPRINKLERED)</b>
<b>OCCUPANCY:</b>	<b>F1, F2, S1, S2</b>
<b>MAX ALLOWED AREA ON SITE (PER TABLE 506.3.3)</b>	<b>8,500 + .75(8,500) = 14,875 SF</b>
<b>LESS EXISTING BUILDING</b>	<b>- 2,650 SF</b>
<b>MAX NEW BUILDING AREA:</b>	<b>= 12,225 SF</b>
<b>THIS BUILDING AREA:</b>	<b>= 9,568 SF</b>
<b>F.R. EXT WALLS:</b>	<b>0 HRS (TABLE 601) 0 HRS (TABLE 705.5)</b>
<b>OCCUPANT LOAD FACTOR:</b>	<b>1/100 GSF (INDUSTRIAL)</b>
<b>OCCUPANT LOAD:</b>	<b>96</b>
<b>EXIT WIDTH REQUIRED:</b>	<b>20" (MIN 32")</b>
<b>NO OF EXITS REQUIRED:</b>	<b>3 (100' MAX TRAVEL)</b>
<b>NO OF EXITS PROVIDED:</b>	<b>3</b>
<b>EXIT WIDTH PROVIDED:</b>	<b>108"</b>
<b>NO OF M OCCUPANTS PER 2002 1.1:</b>	<b>48</b>
<b>NO OF F OCCUPANTS PER 2902 1.1:</b>	<b>48</b>
<b>WATER CLOSETS REQUIRED:</b>	<b>1M /100 OCCUPANTS 1F/100 OCCUPANTS</b>
<b>LAVATORIES REQUIRED:</b>	<b>1M/100 OCCUPANTS 1F/100 OCCUPANTS</b>
<b>BATHROOMS PROVIDED PER 2902 1.2:</b>	<b>1 SINGLE USER</b>
<b>DRINKING FOUNTAINS REQUIRED:</b>	<b>1/1000 OCCUPANTS</b>
<b>DRINKING FOUNTAINS PROVIDED:</b>	<b>1</b>
<b>FIRE FLOW REQUIRED PER OFC 22:</b>	<b>2HRS @ 2,750 GPM</b>

### ARCHITECTURAL ALLIANCE NORTHWEST, LLC

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Gary.Olmon@PdxArch.com  
**Jonathan Gray**  
Senior Associate  
503 729-4224  
Jonathan.Gray@PdxArch.com

Project 0734  
For Griffith Franklin  
Project Title

**Boberg Road Warehouse**  
A New Industrial Building  
28395 SW Boberg Road  
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Scale 1/8"=1'-0"  
When printed on a 22" x 34" page

Date  
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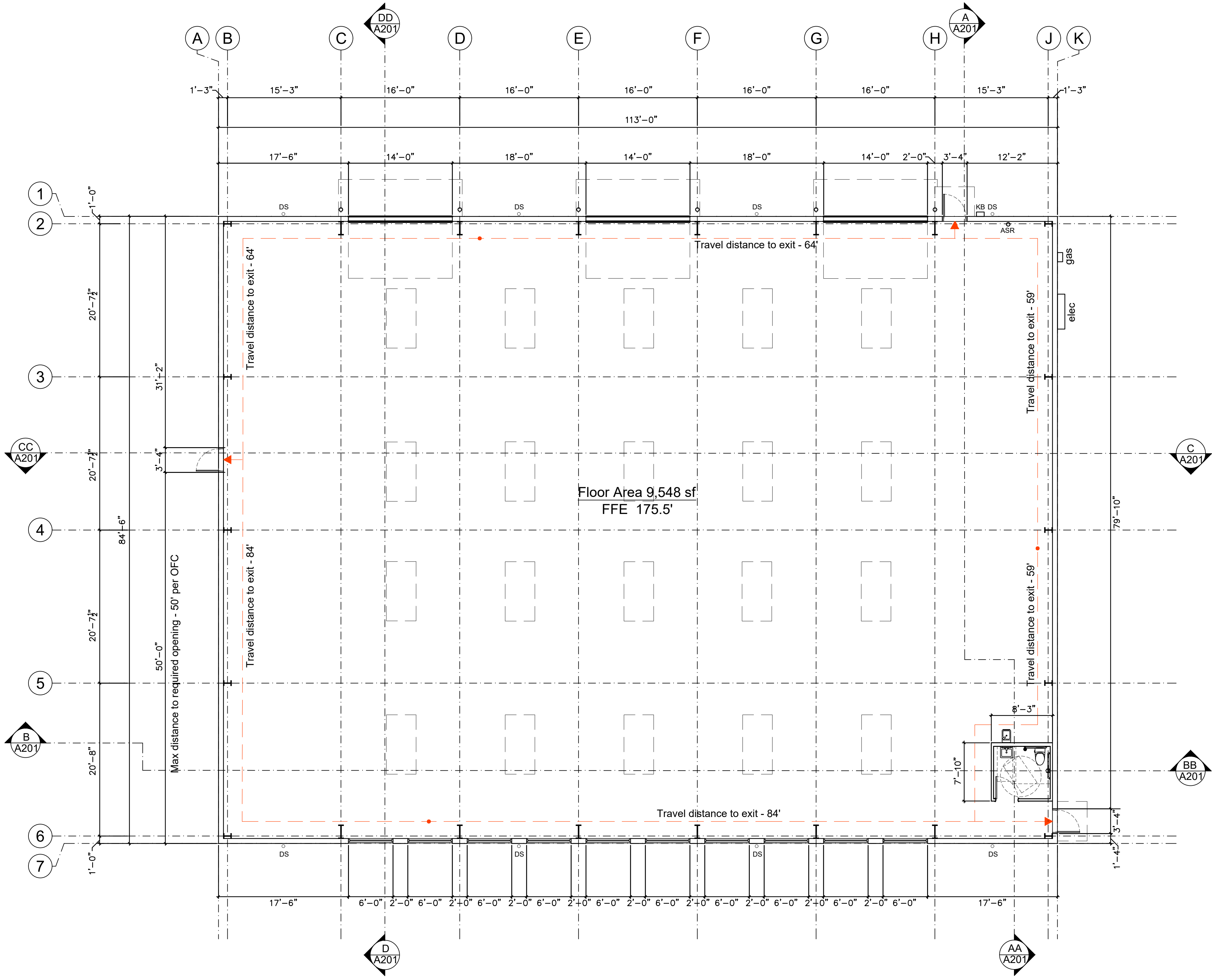
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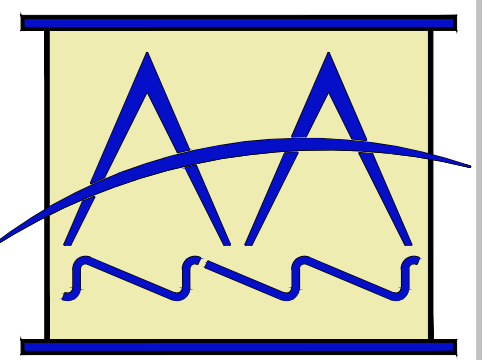
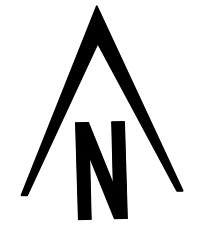
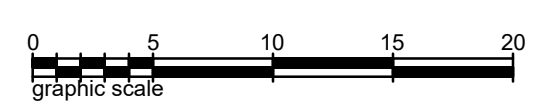
**NEW WAREHOUSE FLOOR PLAN**

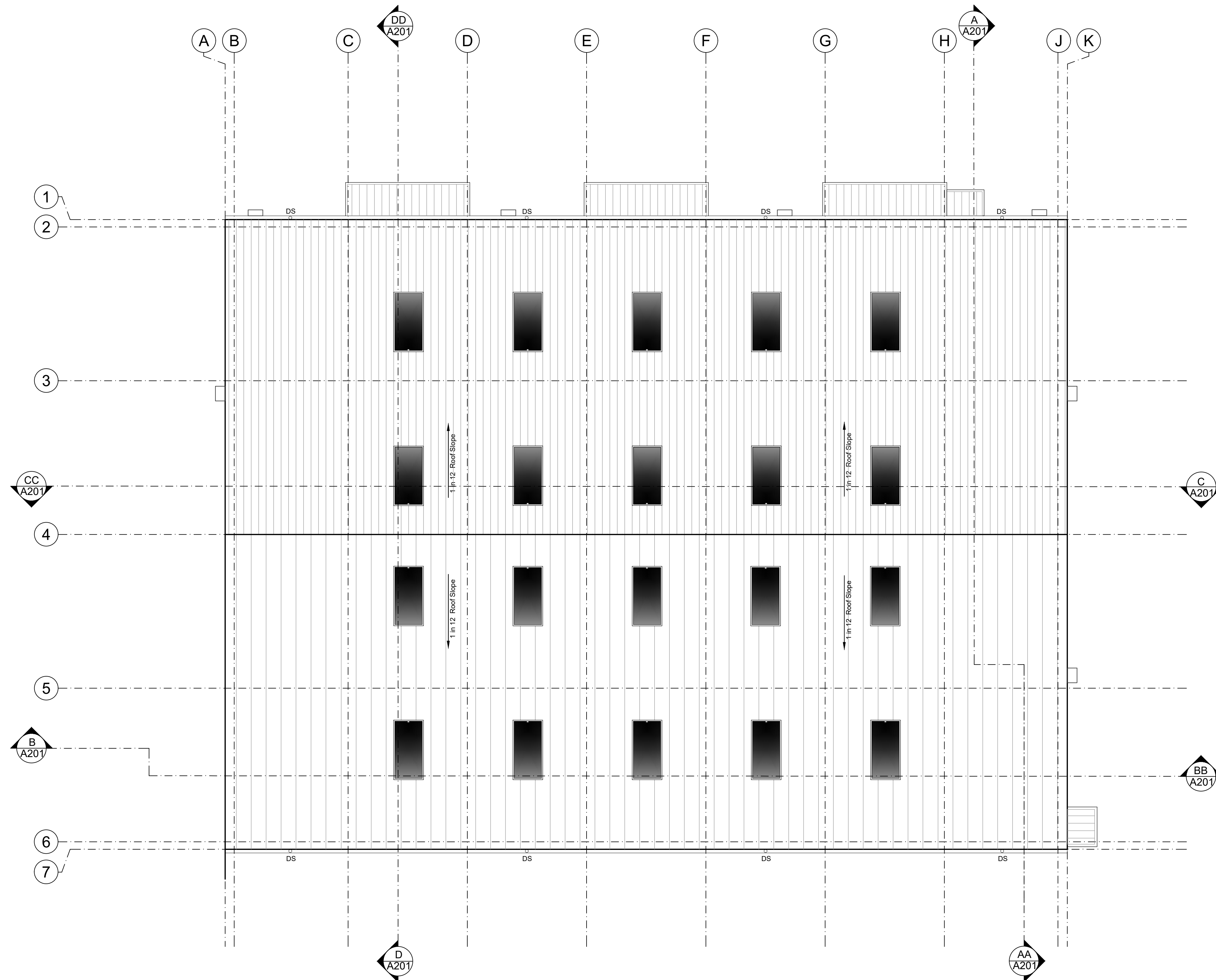


TVF&R Permit #2023-0173

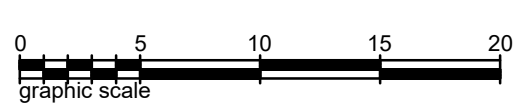


## Floor Plan





# Roof Plan



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October 16, 2023

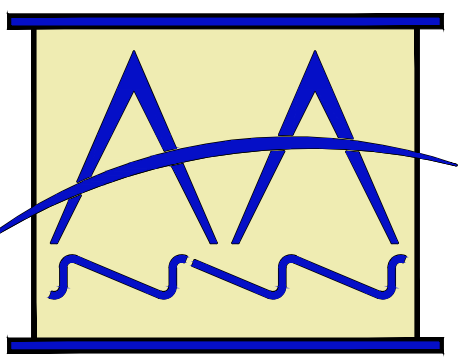
Sheet No.  
**A102**

Sheet Title

**NEW WAREHOUSE ROOF PLAN**



TVF&R Permit #2023-0173





# Material and Finish Keynotes:

- 01 STANDING SEAM METAL ROOF - KYNAR FINISH
- 02 PROFILED METAL BUILDING SIDING - KYNAR FINISH
- 03 8' HIGH GROUND FINISH CMU WAINSCOT - MUTUAL MATERIALS "BURNT ORANGE"
- 04 SPLIT-FACED FINISH CMU ACCENT - MUTUAL MATERIALS "BURNT ORANGE"
- 05 CHAMFERED BRICK WALL CAP - MUTUAL MATERIALS "EBONY"
- 06 ALUMINUM AND LOW-E GLASS WINDOWS - BLACK FACTORY FRAME FINISH
- 07 ALUMINUM AND POLYCARBONATE SKYLIGHTS - FACTORY FRAME FINISH
- 08 METAL AWNING WITH RODS - POWDER COAT FINISH
- 09 HOLLOW METAL DOOR AND FRAME - PAINT SW 6258 "TRICORN BLACK"
- 10 METAL GUTTER, DOWNSPOUT OR TRIM - KYNAR FINISH
- 11 METAL HANDRAIL - POWDER COAT SW 6258 "TRICORN BLACK"
- 12 SECTIONAL VEHICLE DOORS - KYNAR FINISH
- 13 ELECTRICAL SERVICE AND METER
- 14 GAS METER
- 15 WALL-MOUNTED AREA LIGHT FIXTURE, WITH SHIELD, BLACK FACTORY FINISH
- 16 WALL-MOUNTED EGRESS LIGHT FIXTURE, BLACK FACTORY FINISH
- 17 CONCRETE EGRESS WALKWAY
- 18 6" DIA TUBE STEEL BOLLARD - PAINT HIGHWAY YELLOW
- 19 TENANT SIGNAGE ZONE
- 20 12" HIGH STREET ADDRESS NUMBER
- 21 OUTLINE OF EXISTING BUILDING



**NOTE:**  
ALL FACTORY FINISHES FOR METAL BUILDING COMPONENTS INCLUDING ROOF, SIDING, GUTTERS, DOWNSPOUTS, DOORS, WINDOWS, SKYLIGHTS, TRIM ETC. TO BE SELECTED FROM SAMPLES PROVIDED BY THE METAL BUILDING MANUFACTURER AND ARE SUBJECT TO PRODUCT AVAILABILITY AT THE TIME OF ORDER

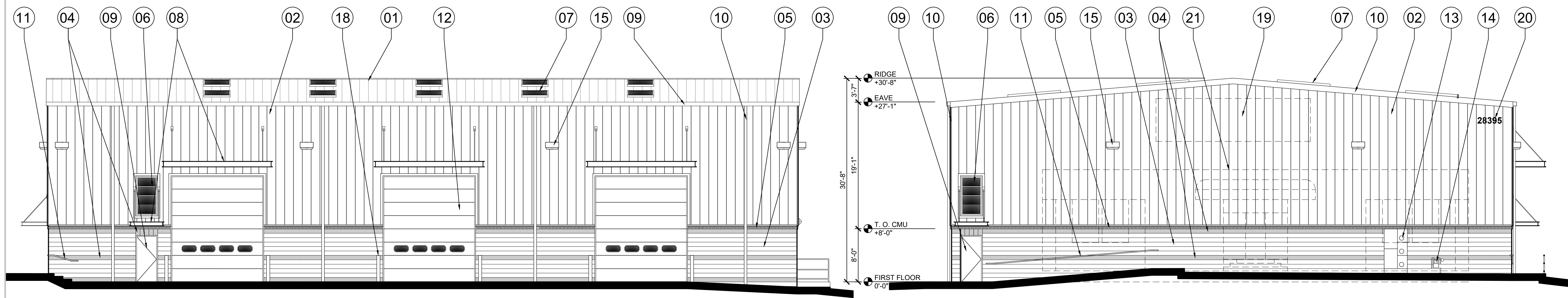
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**North Elevation**

**East Elevation**

**West Elevation**

**South Elevation**

Scale 1/8"=1'-0"  
Printed on a 22" x 34" page

Date October 16, 2023

Sheet No. **A200**

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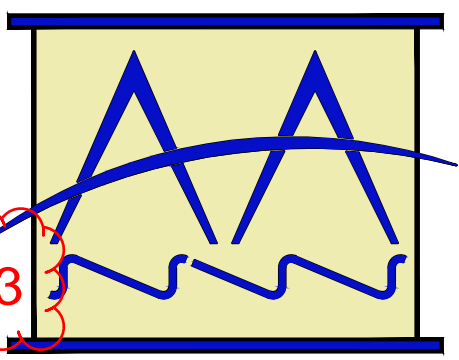


APPROVED PLANS

APPROVAL OF PLANS IS NOT AN APPROVAL OF OMISSIONS OR OVERSIGHTS.

*Ally M. [Signature]*

TVF&R Permit #2023-0173





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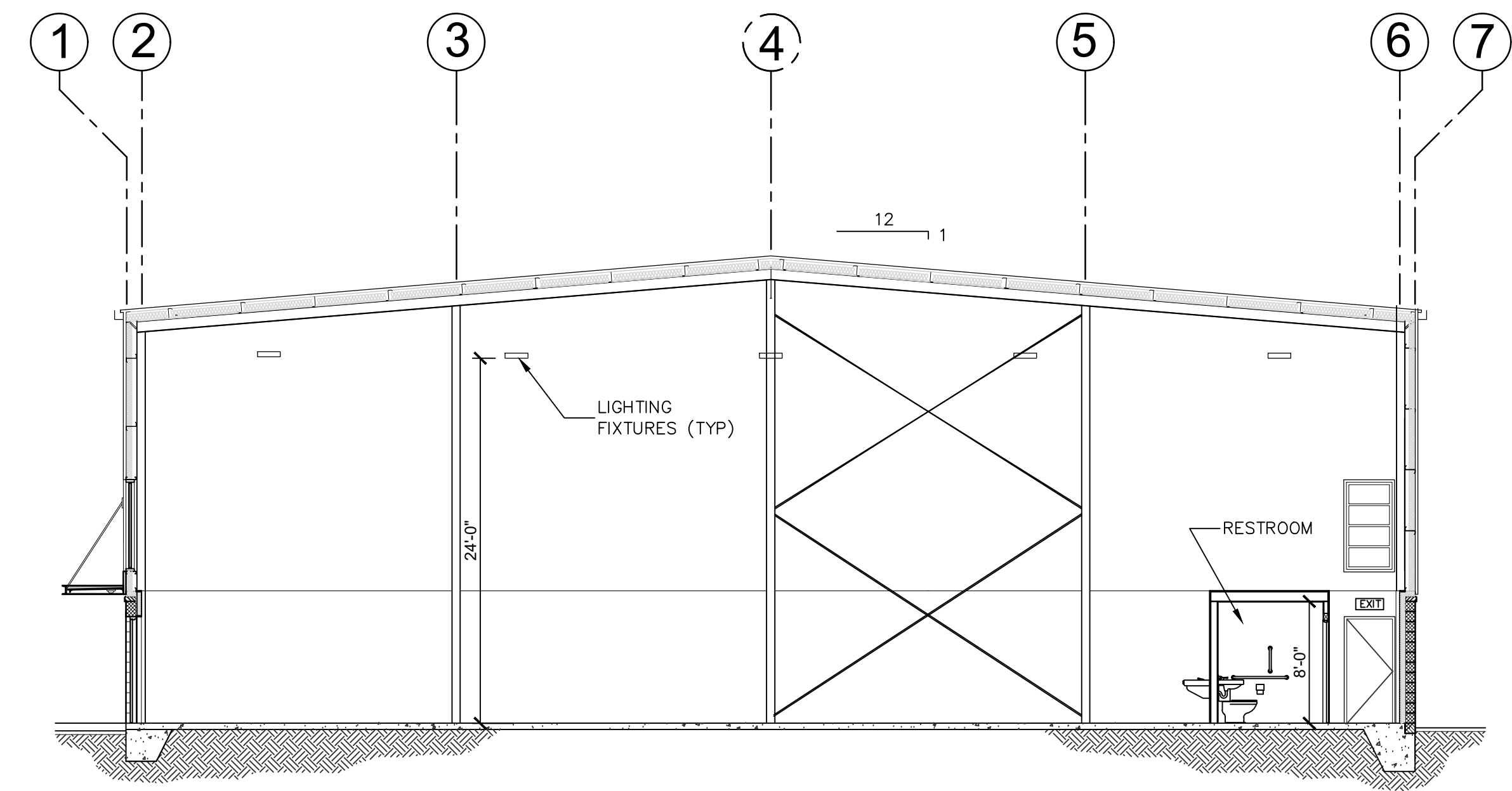
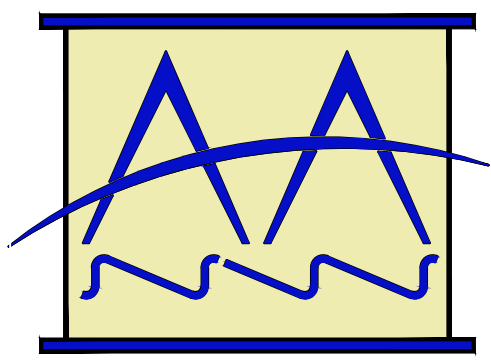
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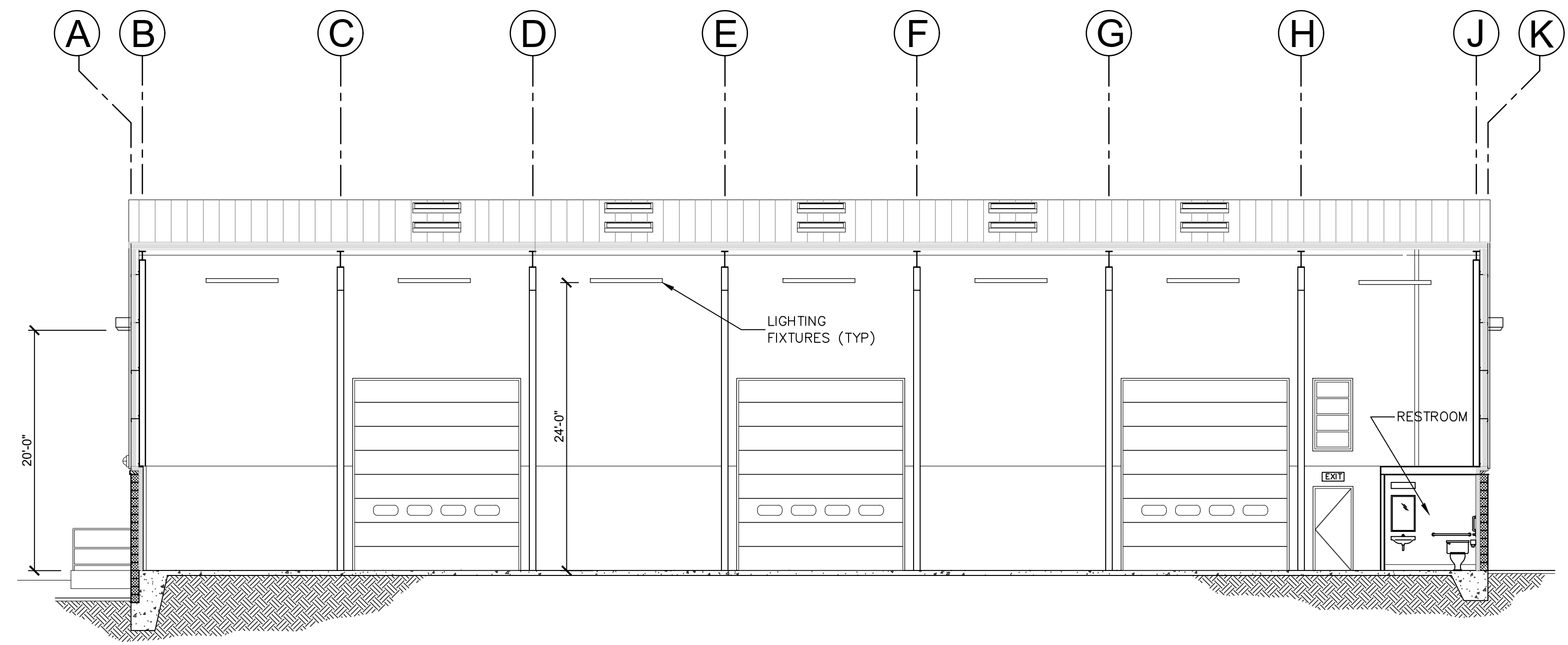
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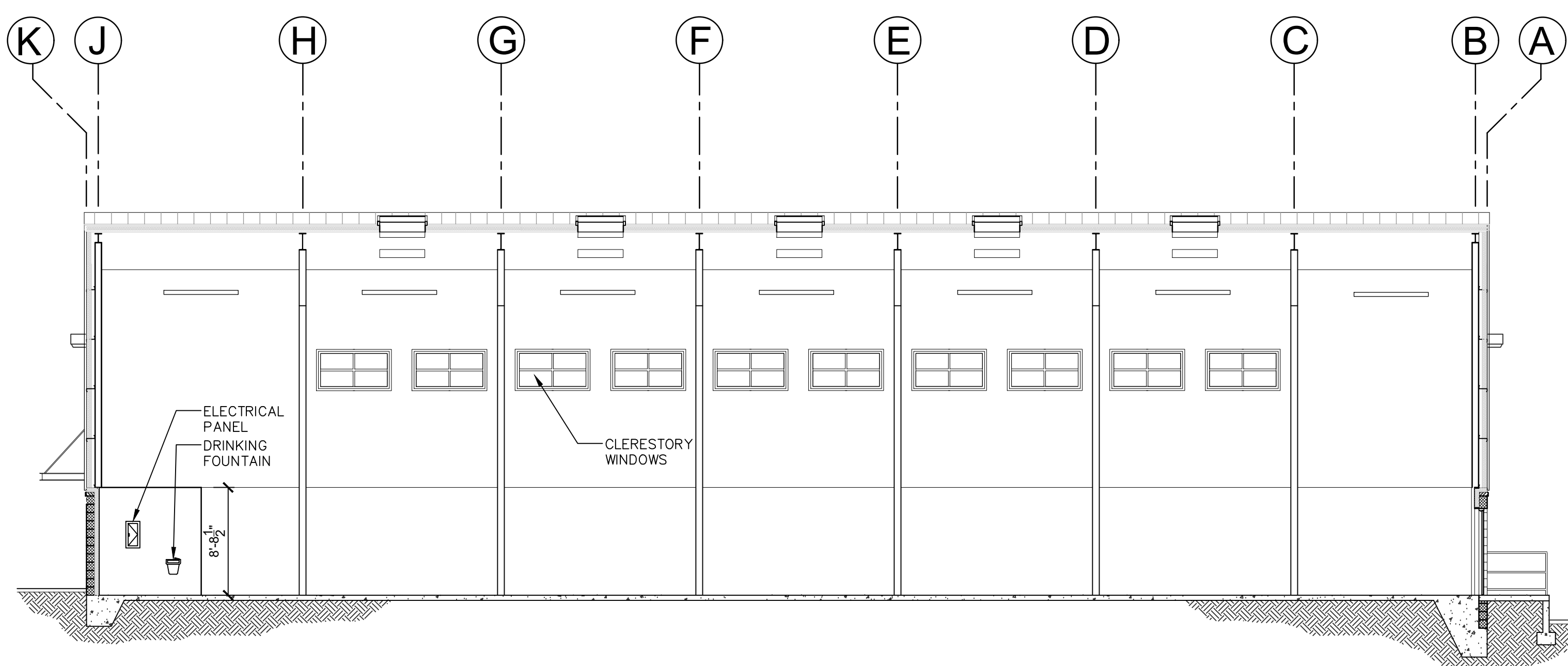
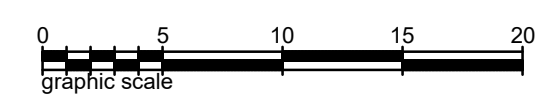
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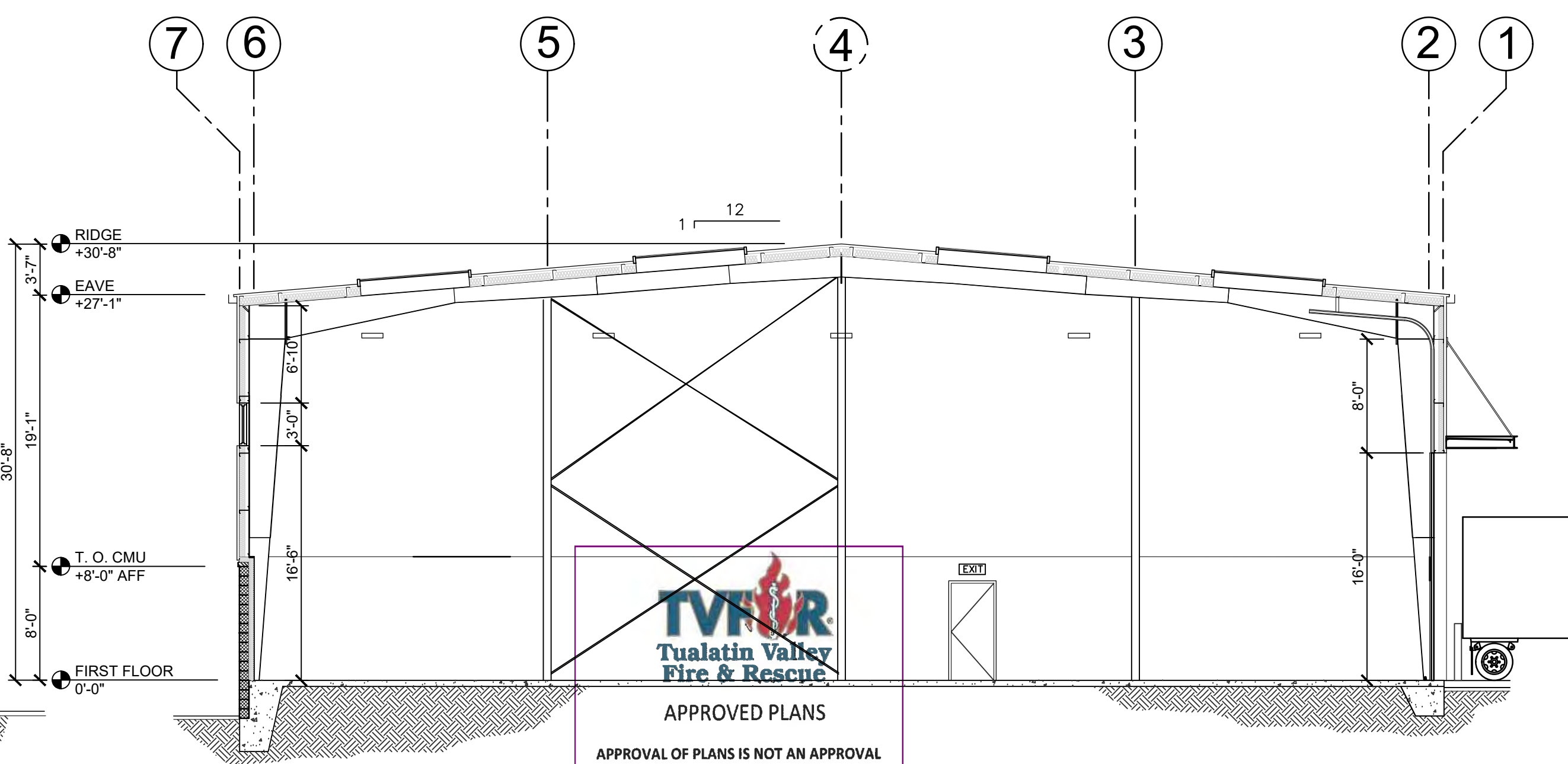
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**Section B-BB**



**Section C-CC**

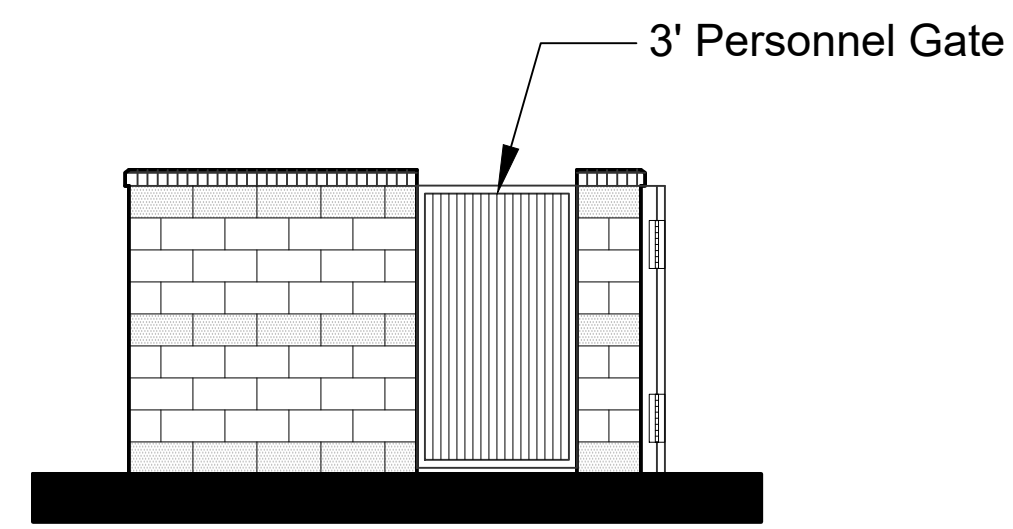
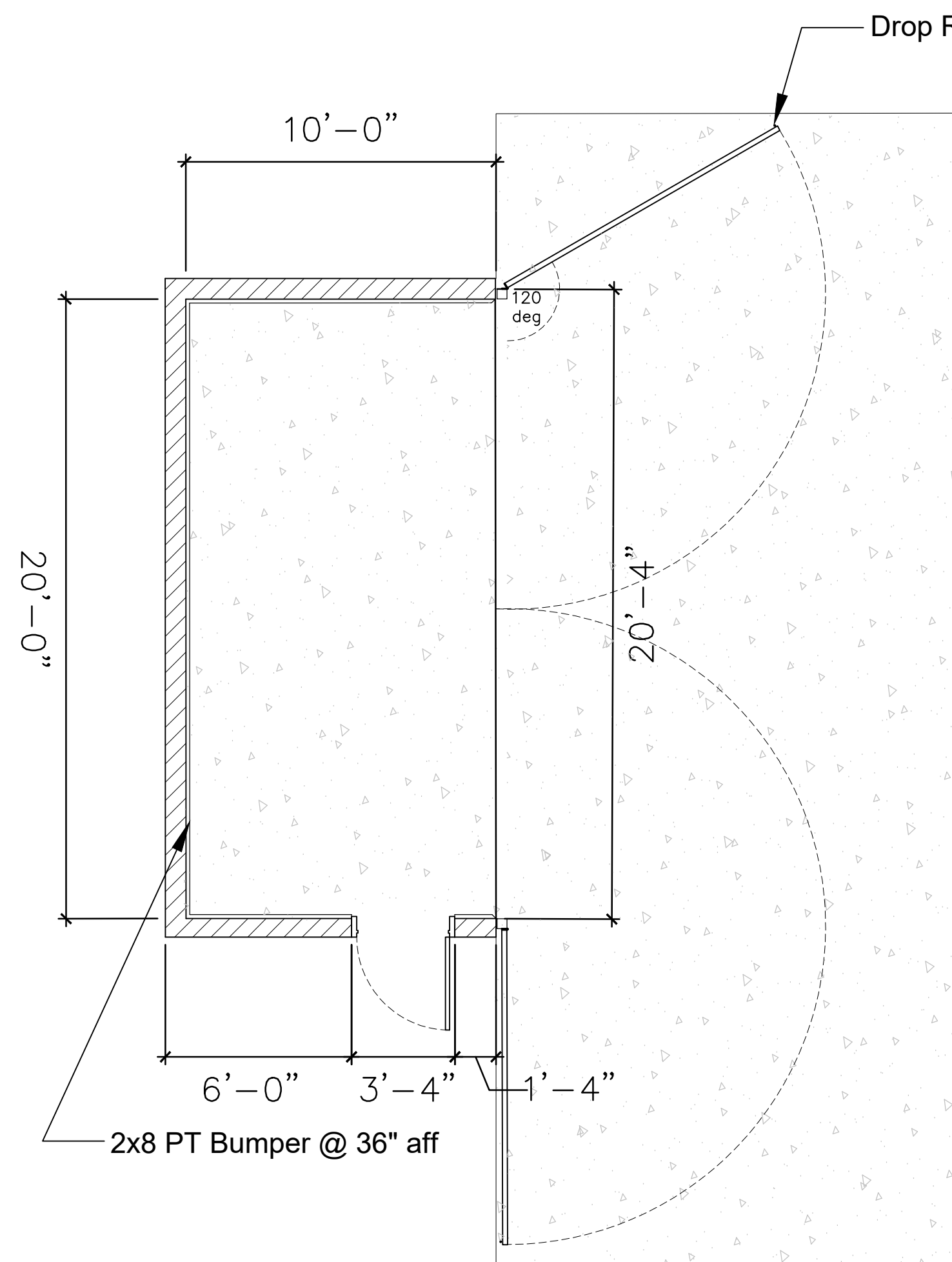


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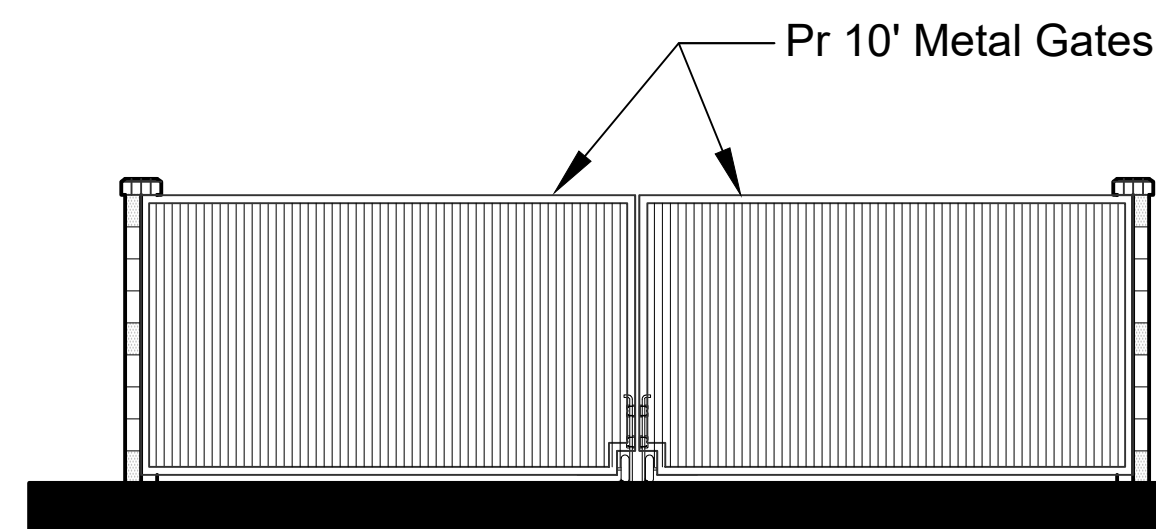
**TVF&R**  
 Tualatin Valley Fire & Rescue  
 APPROVED PLANS  
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 Deputy Fire Marshal II

**TVF&R Permit #2023-0173**

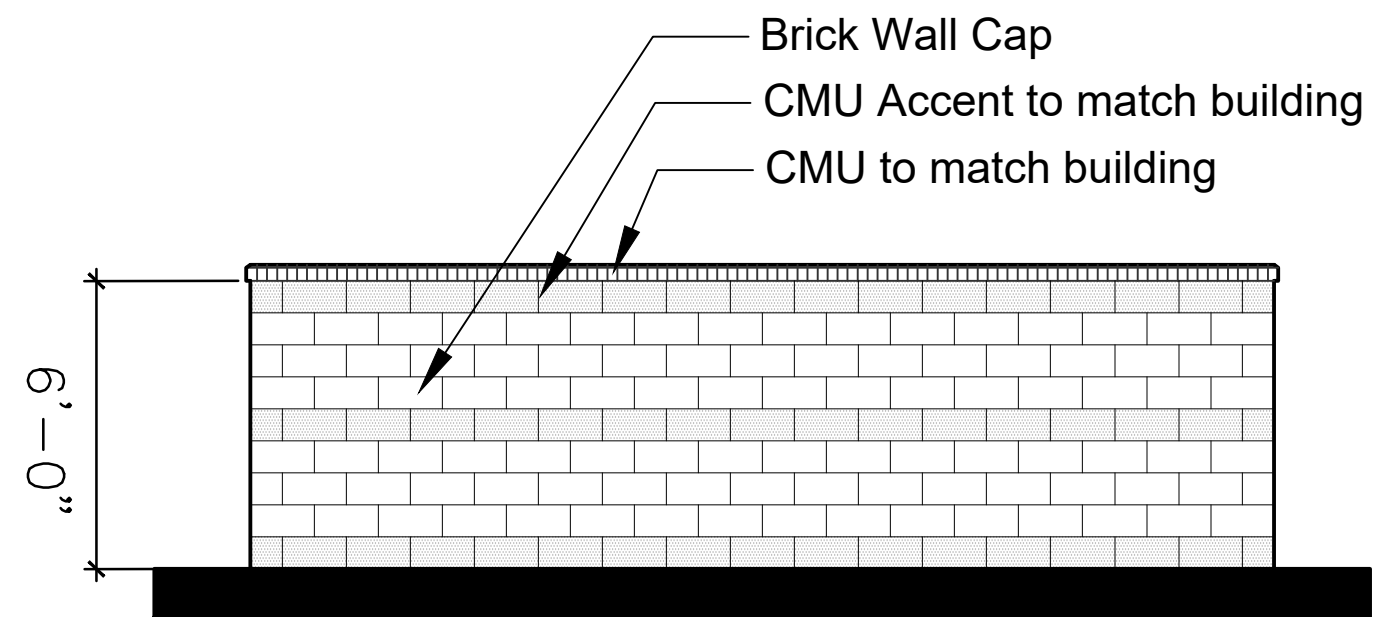




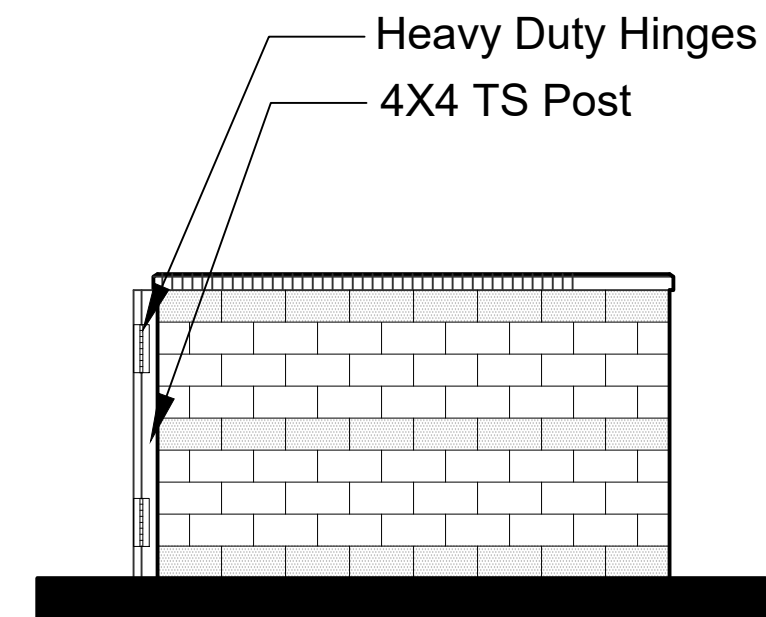
South



East



West



North



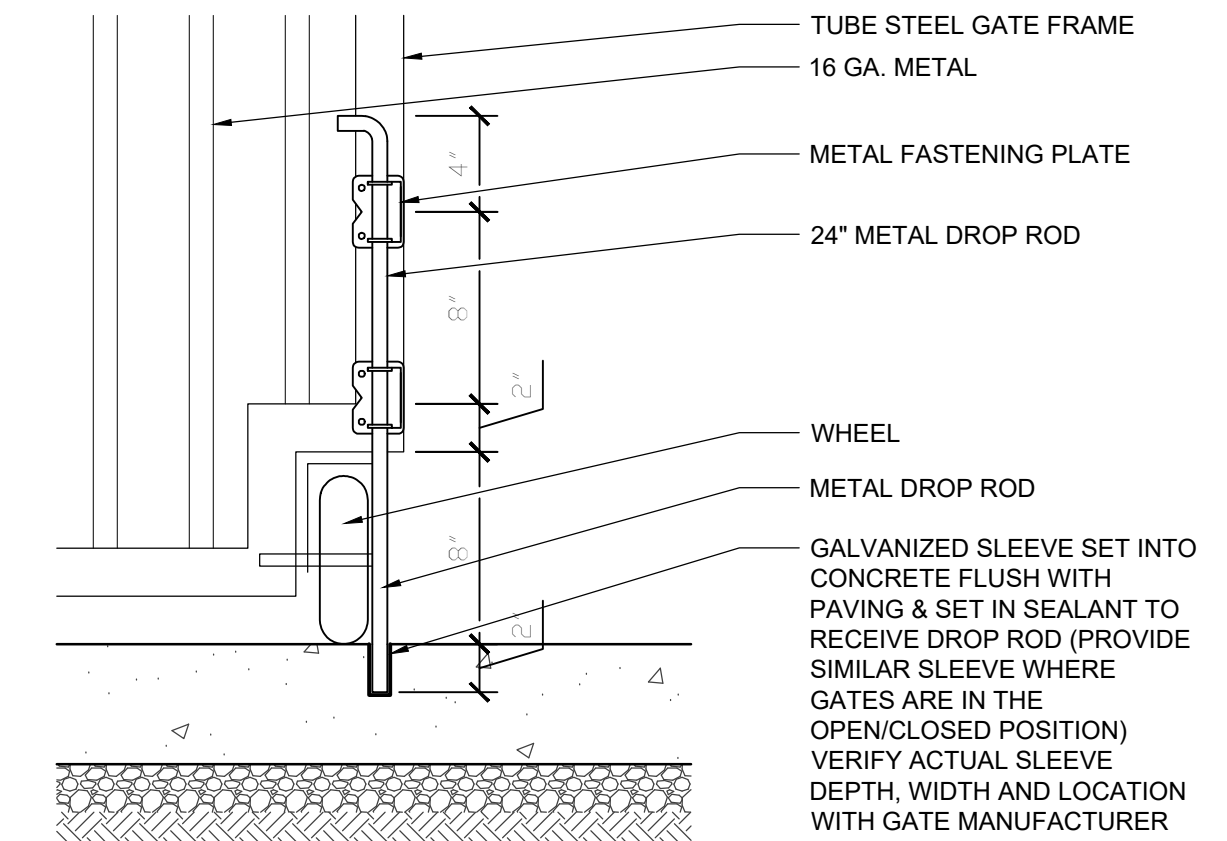
**ARCHITECTURAL ALLIANCE NORTHWEST, LLC**

Studio  
3735 SE Clay St  
Portland, Oregon  
97214  
Business Office  
1815 NE 57th Ave  
Hillsboro, Oregon  
97124

Contacts  
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Architect, AIA  
503 956-5862  
Gary.Olmon@PdxArch.com  
**Jonathan Gray**  
Senior Associate  
503 729-4224  
Jonathan.Gray@PdxArch.com

Project 0734  
For Griffith Franklin

Project Title

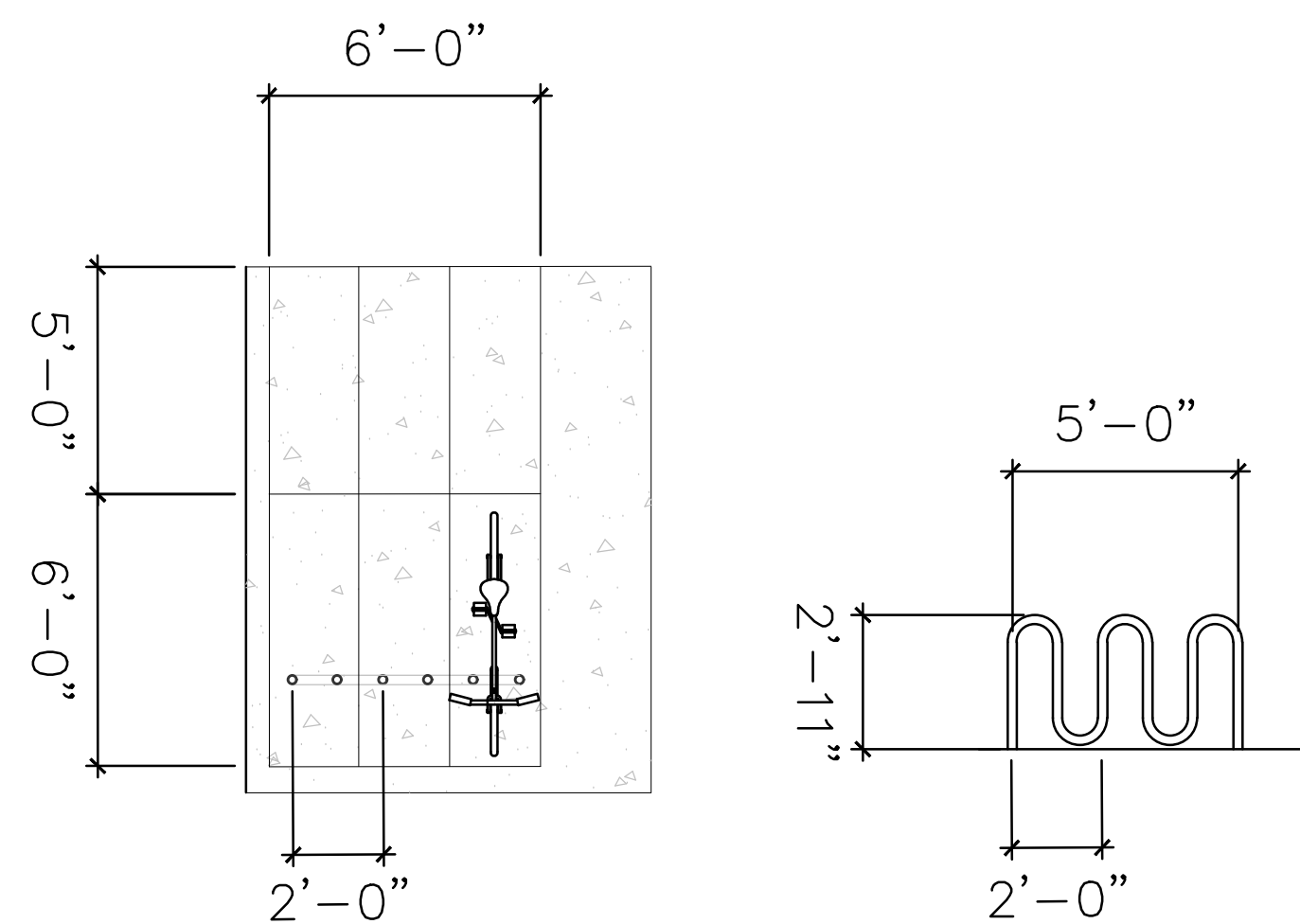


1 DROP ROD AT TRASH ENCLOSURE  
SCALE: 1 1/2" = 1'-0"

## Trash/Recycle Enclosure

8" CMU with 2X8 interior pt wood wall bumper  
Pr 10' metal gates on 4X4 steel posts for each side

Scale 1/4" = 1'-0"

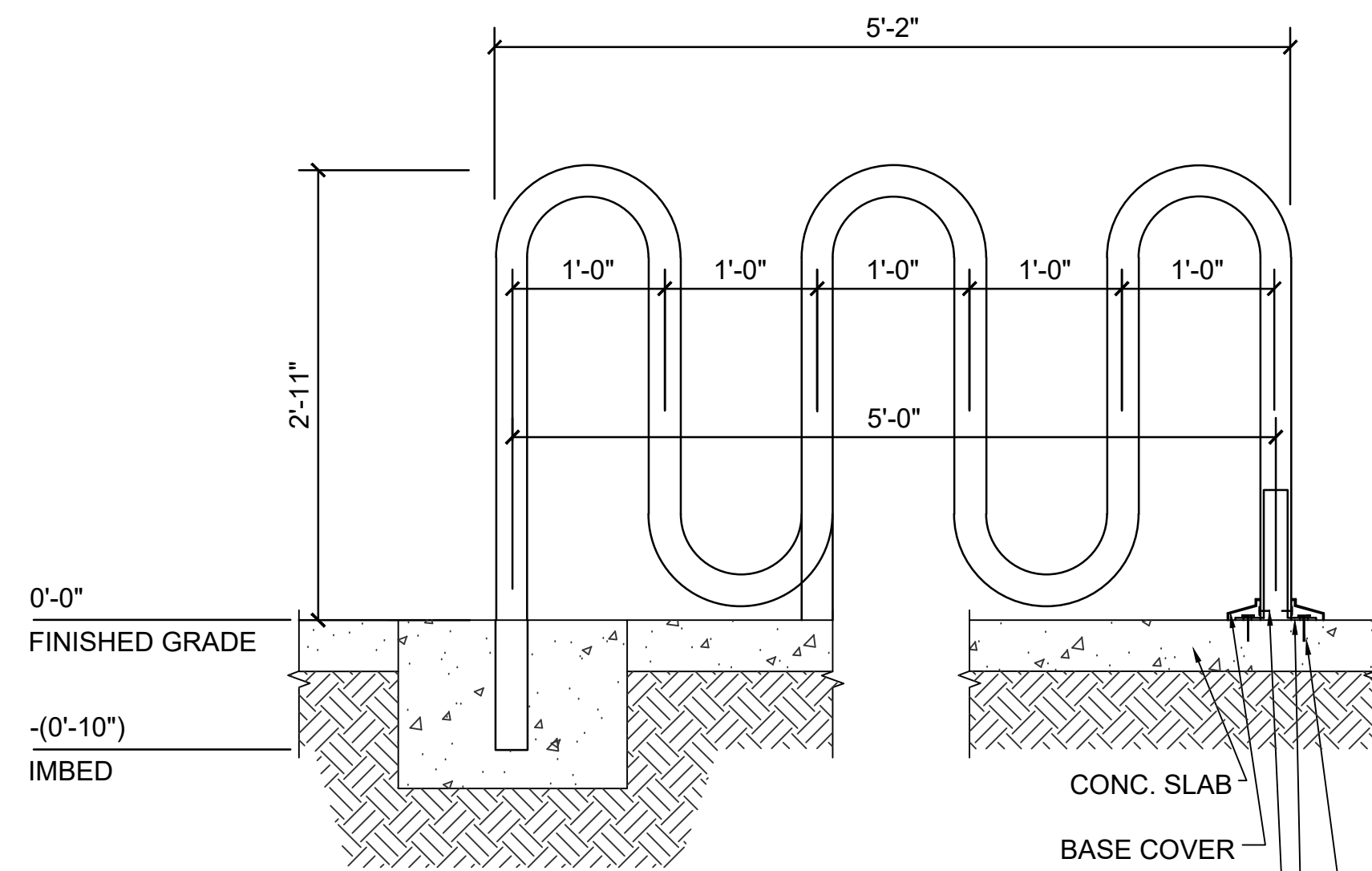


## Bike Rack

See Detail 2 For More Information

Scale 1/4" = 1'-0"

TIMBERFORM "CYCLOOPS" BICYCLE RACK  
COLUMBIA CASCADE COMPANY  
1300 SW 6TH AVE  
PORTLAND, OR 97201  
(503) 223-1157

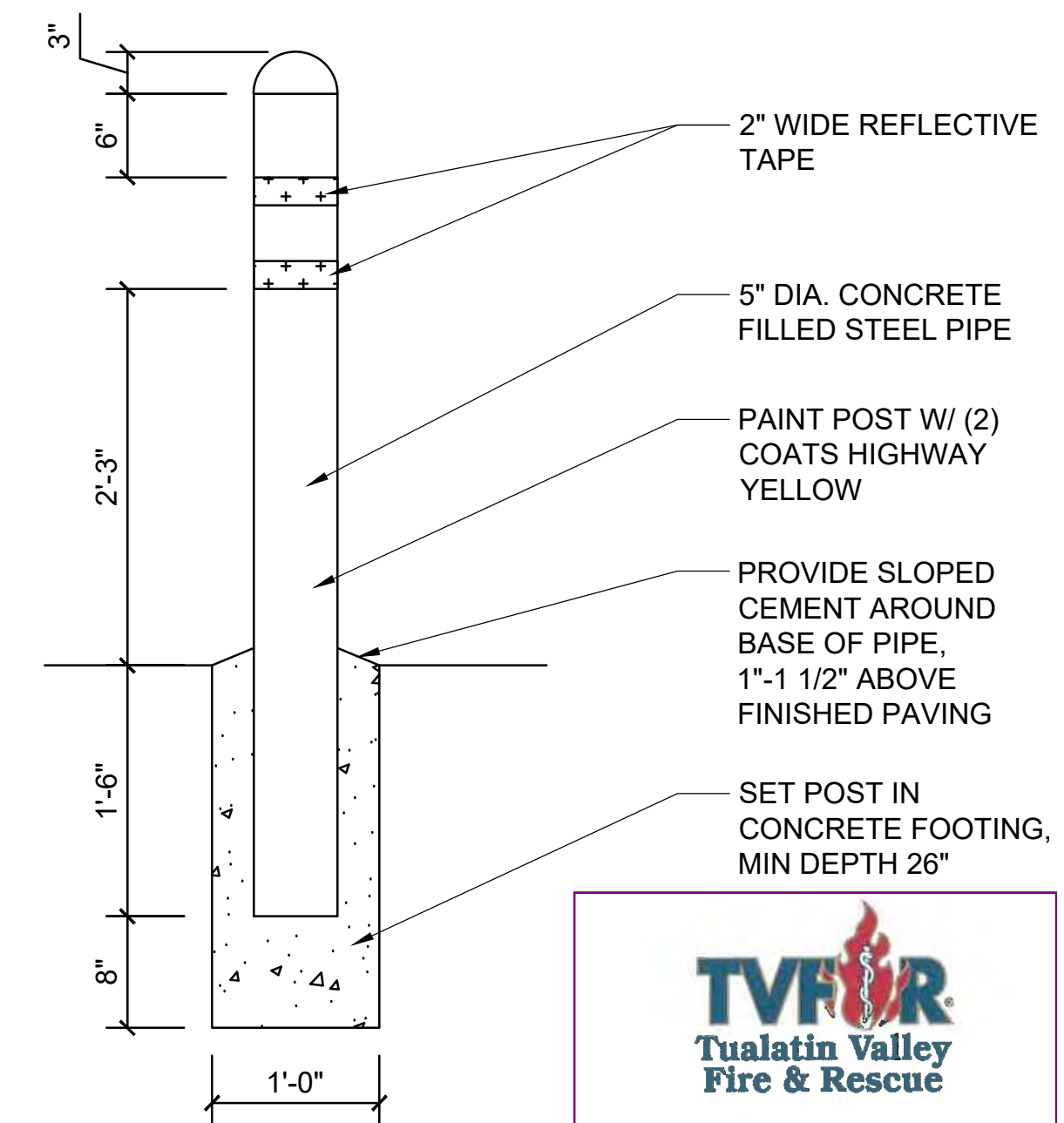


NOTE:  
CONCRETE FOOTING AND NO. 4 REBAR PER LOCAL SOILS CONDITIONS. CONSULT PROJECT ENGINEER FOR EXACT REQUIREMENTS

DIRECT EMBEDMENT MODEL 2170-5-E

PEDESTAL MOUNT MODEL 2170-5-P

2 BICYCLE RACK  
SCALE: 1" = 1'-0"



3 STEEL BOLLARD  
SCALE: 1" = 1'-0"



TVF&R Permit #2023-0173

**Boberg Road Warehouse**  
A New Industrial Building  
28395 SW Boberg Road  
Wilsonville, Oregon 97070

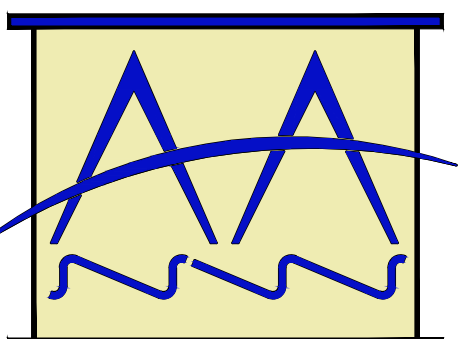
Scale 1/4" = 1'-0"  
When printed on a 22" x 34" page

Date  
October 16, 2023

Sheet No.  
**A301**

Sheet Title

**TRASH ENCLOSURE & BIKE RACK**



<b>Project Number</b>	2022-0486	<b>Date</b>	April 14, 2022
<b>Project Name</b>	City of Wilsonville Flow Testing		
<b>To</b>	Dan Carlson	<b>Phone</b>	503-227-3251
	City of Wilsonville 29799 SW Town Center Loop E Wilsonville, OR 97070		
<b>From</b>	Jarod Myrick, CET	<b>@</b>	Interface Engineering, Inc.
<b>Distribution</b>	Dan Carlson – Building Official, Ian Eglitis – Acting Utilities Supervisor		

**Applies To**      **Fire/Life Safety**

**Comments: Flow Test**

A hydrant flow test was conducted for the subject project at your request. Test Results are:

Test Date and Time =	04/14/2022 @ 9:23am
Tester Names =	Jarod Myrick, Interface Engineering
Witnesses =	Chad Whiting, City of Wilsonville Water Dept. Chris Seward, City of Wilsonville Water Dept.
Test Conducted Per	the National Fire Protection Association (NFPA), Recommended Practice #291.
Gauges Calibrations	Certified through February 18, 2023
Pressure Hydrant Location =	#4223 – Barber St
Pressure Hydrant is on a	<input checked="" type="checkbox"/> Circulating Main <input type="checkbox"/> Dead-End Main
Flow Hydrant #1 Location =	#4234 – Barber St
Flow Hydrant #1 is on a	<input checked="" type="checkbox"/> Circulating Main <input type="checkbox"/> Dead-End Main
Test Static Pressure =	108 psig
Test Residual Pressure =	105 psig
UL Certified Orifice Plate Pressure	55 psig
Test Nozzle =	(1) 4 ½" Hose Monster, C=1.0
Corrected Flow =	2455 gpm
Calculated Available Fire Flow =	Theoretical: 15220 gpm at 20 psi. Contact City of Wilsonville for system limitations

National Fire Protection Association (NFPA) Recommended Practice #291: "To obtain satisfactory test results of theoretical calculation of expected flows or rated capacities, sufficient discharge should be achieved to cause a drop in pressure at the residual hydrant of at least 25 percent, or to flow the total demand necessary for fire-fighting purposes."

This test achieved:

- Flow of the total demand necessary for fire-fighting purposes.



EXPIRES: 12/31/23

**FIRE PROTECTION WATER SUPPLY CALCULATION**  
**Interface Engineering, Inc.**

**Project Information**

Project No.: 2022-0486  
 Project Name: City of Wilsonville Flow Testing  
 Date and Time of Test: 4/14/2022 @ 9:23am

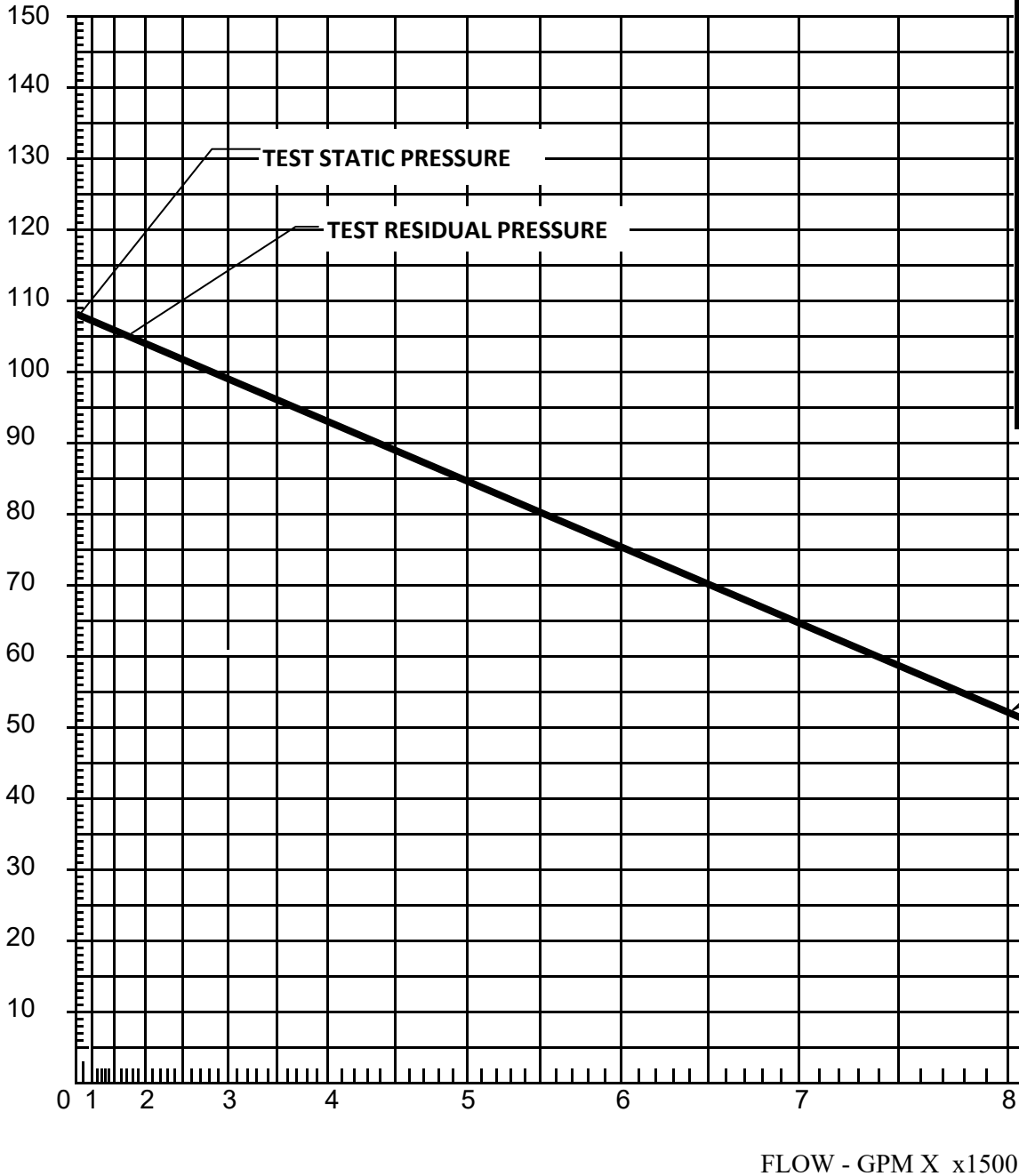
**Flow Data**

A Test Static: = 108 psi.  
 B Test Residual: = 105 psi.  
 C Corrected Flow: = 2455 gpm

**Calculation - Flow Available at 20 psi. Residual Pressure**

D  $F_{20} = (C)(A-20/A-B)^{.54}$   
 $F_{20} = 15220$  GPM

WATER SUPPLY GRAPH N 1.85  
 PRESSURE - P.S.I.



**LINE REPRESENTS  
 AVAILABLE FLOW AT  
 PRESSURE HYDRANT**

**CALCULATED AVAILABLE  
 FIRE FLOW**



APPROVED PLANS

APPROVAL OF PLANS IS NOT AN APPROVAL  
 OF OMISSIONS OR OVERSIGHTS.

*Alex McEll*  
 Deputy Fire Marshal II

**TVF&R Permit #2023-0173**



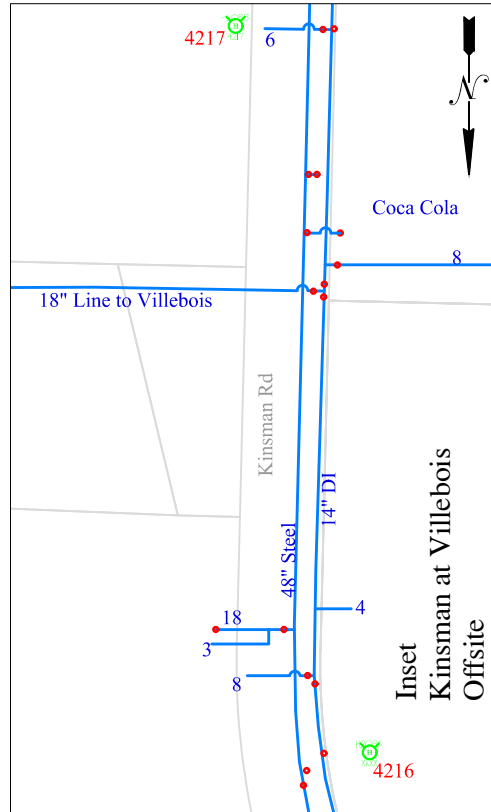


APPROVED PLANS

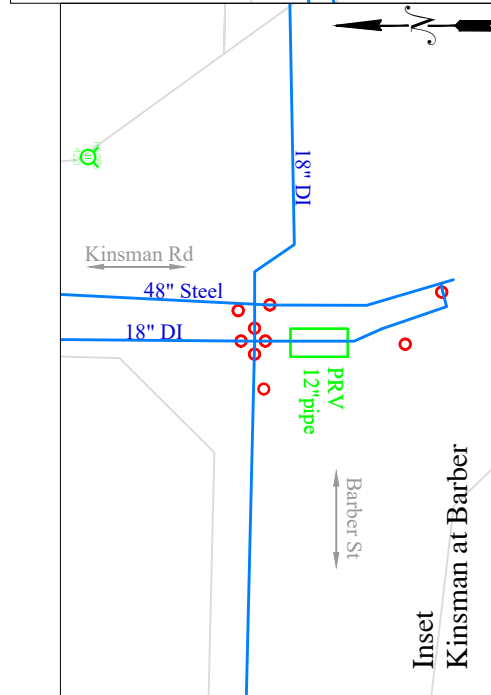
APPROVAL OF PLANS IS NOT AN APPROVAL OF OMISSIONS OR OVERSIGHTS.

Deputy Fire Marshal II

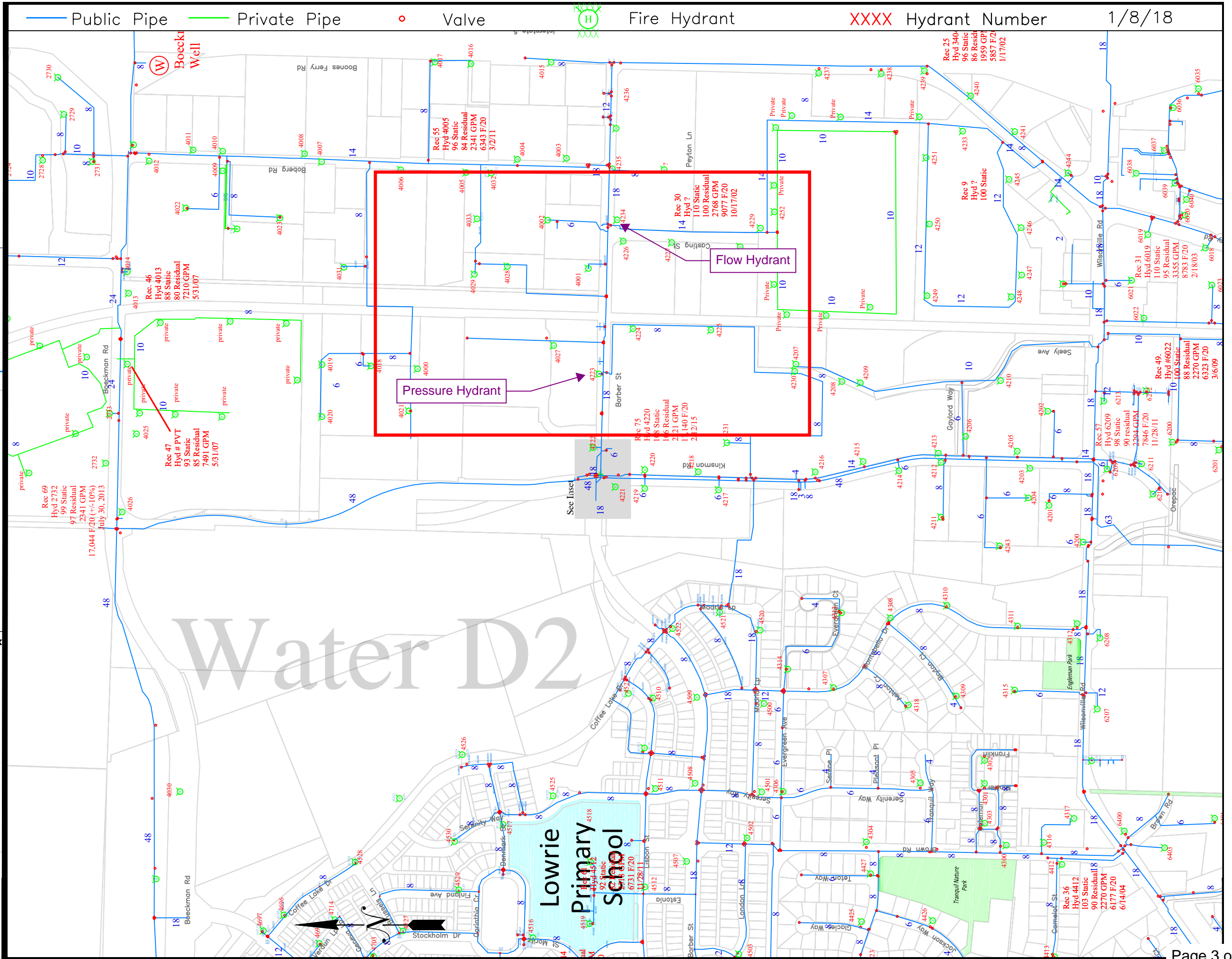
TVF&R Permit #2023-0173



Inset Kinsman at Villebois Offsite



Inset Kinsman at Barber



Public Pipe Private Pipe Valve Fire Hydrant XXXX Hydrant Number 1/8/18

Water D2

<b>Project Number</b>	2019-0276	<b>Date</b>	May 14, 2019
<b>Project Name</b>	City of Wilsonville Six Flow Tests		
<b>To</b>	Dan Carlson	<b>Phone</b>	503-227-3251
	City of Wilsonville 29799 SW Town Center Loop E Wilsonville, OR 97070		
<b>From</b>	Jarod Myrick, CET	<b>@</b>	Interface Engineering, Inc.
<b>Distribution</b>	Dan Carlson – Building Official, Ian Eglitis – Acting Utilities Supervisor		

**Applies To**      **Fire/Life Safety**

**Comments: Flow Test #4**

A hydrant flow test was conducted for the subject project at your request. Test Results are:

Test Date and Time = 05/14/2019 @ 10:06       AM     PM  
 Tester Names = Jarod Myrick, Interface Engineering  
 Kathleen Roach, Interface Engineering  
 Witnesses = Jerry Anderson, City of Wilsonville Water Dept.  
 Steve Gering, City of Wilsonville Water Dept.  
 Sam Skinnaman, City of Wilsonville Water Dept.

Test Conducted Per  National Fire Protection Association (NFPA), Recommended Practice #291.

Gauges Calibrations Certified through February 6, 2020  
 Pressure Hydrant Location = #4005 – Boberg Rd  
 Pressure Hydrant is on a  Circulating Main     Dead-End Main  
 Flow Hydrant Location = #4008 – Boberg Rd  
 Flow Hydrant is on a  Circulating Main     Dead-End Main  
 Test Static Pressure = 100 psig  
 Test Residual Pressure = 96 psig  
 UL Certified Orifice Plate Pressure 51 psig (where Hose Monster is used)  
 Test Nozzle =  1 ea. 4 1/2" Hose Monster, C=1.0  
 Corrected Flow = 2364 gpm  
 Calculated Available Fire Flow = Theoretical: 11918 gpm at 20 psi. Contact City of Wilsonville for system limitations.

National Fire Protection Association (NFPA) Recommended Practice #291: "To obtain satisfactory test results of theoretical calculation of expected flows or rated capacities, sufficient discharge should be achieved to cause a drop in pressure at the residual hydrant of at least 25 percent, or to flow the total demand necessary for fire-fighting purposes."

This test achieved:

Flow of the total demand necessary for fire-fighting purposes.



EXPIRES: 12/31/19

TVF&R Permit #2023-0173

# FIRE PROTECTION SYSTEM WATER SUPPLY CALCULATION

Interface Engineering, Inc.

## Project Information

Project No.:	2019-0276	Date:	14-May-19
Project Name:	City of Wilsonville - 6 Flow Tests	Prepared By:	Jarod Myrick
Description:	Fire Flow Test		Interface Engineering
Test No.:	4	Test date	14-May-19

## Flow Data

			Observed Pressure		Nozzle Coefficient	
A	Test Static:	=				100 psi.
B	Test Residual:	=				96 psi.
C	Corrected Flow:	=		x	=	2364 gpm

## Calculation - Determine Flow Available at 20 psi. Residual Pressure

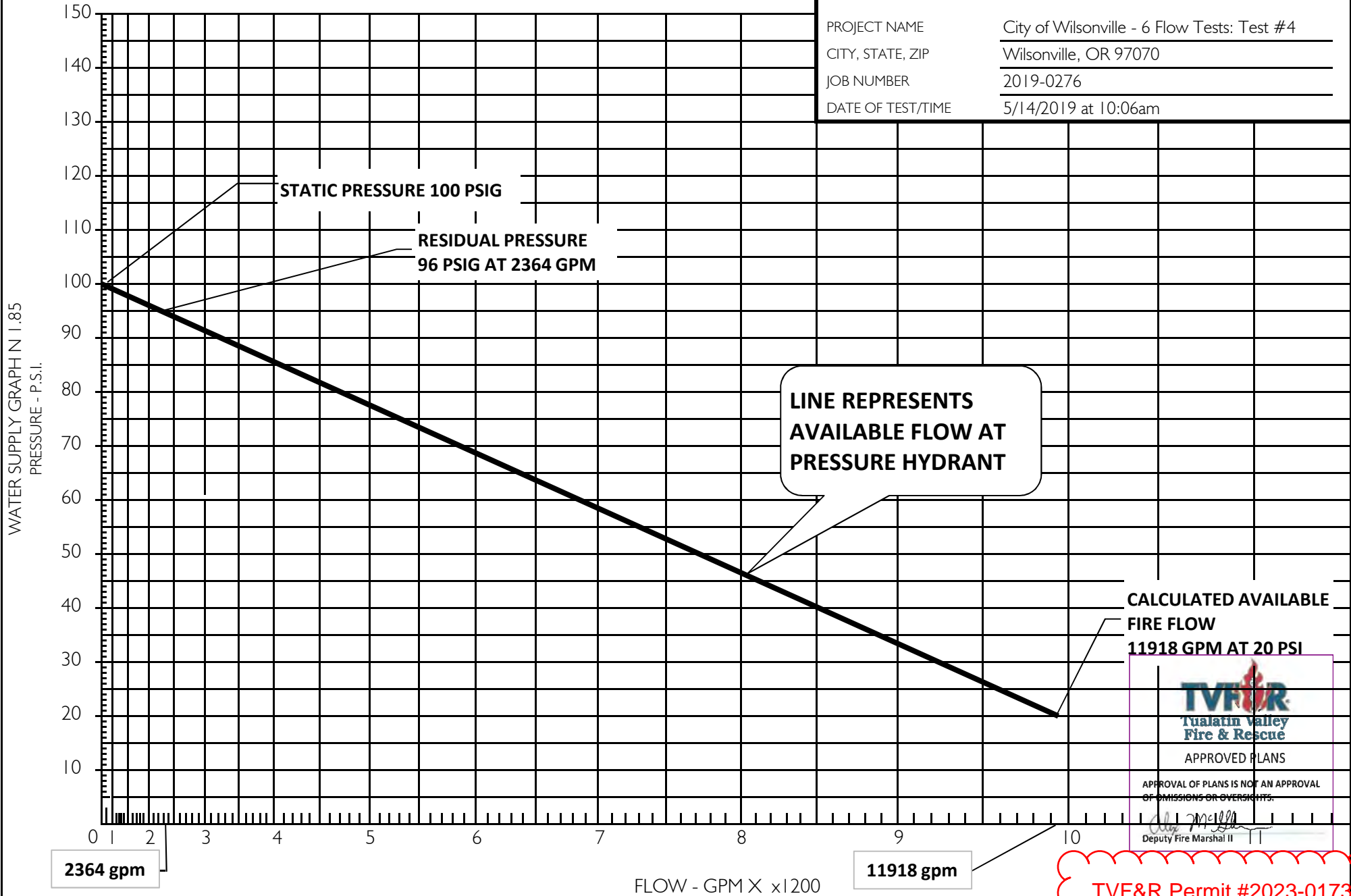
D  $F_{20} = (C)(A-20/A-B)^{.54}$

$F_{20} = 11918$  GPM



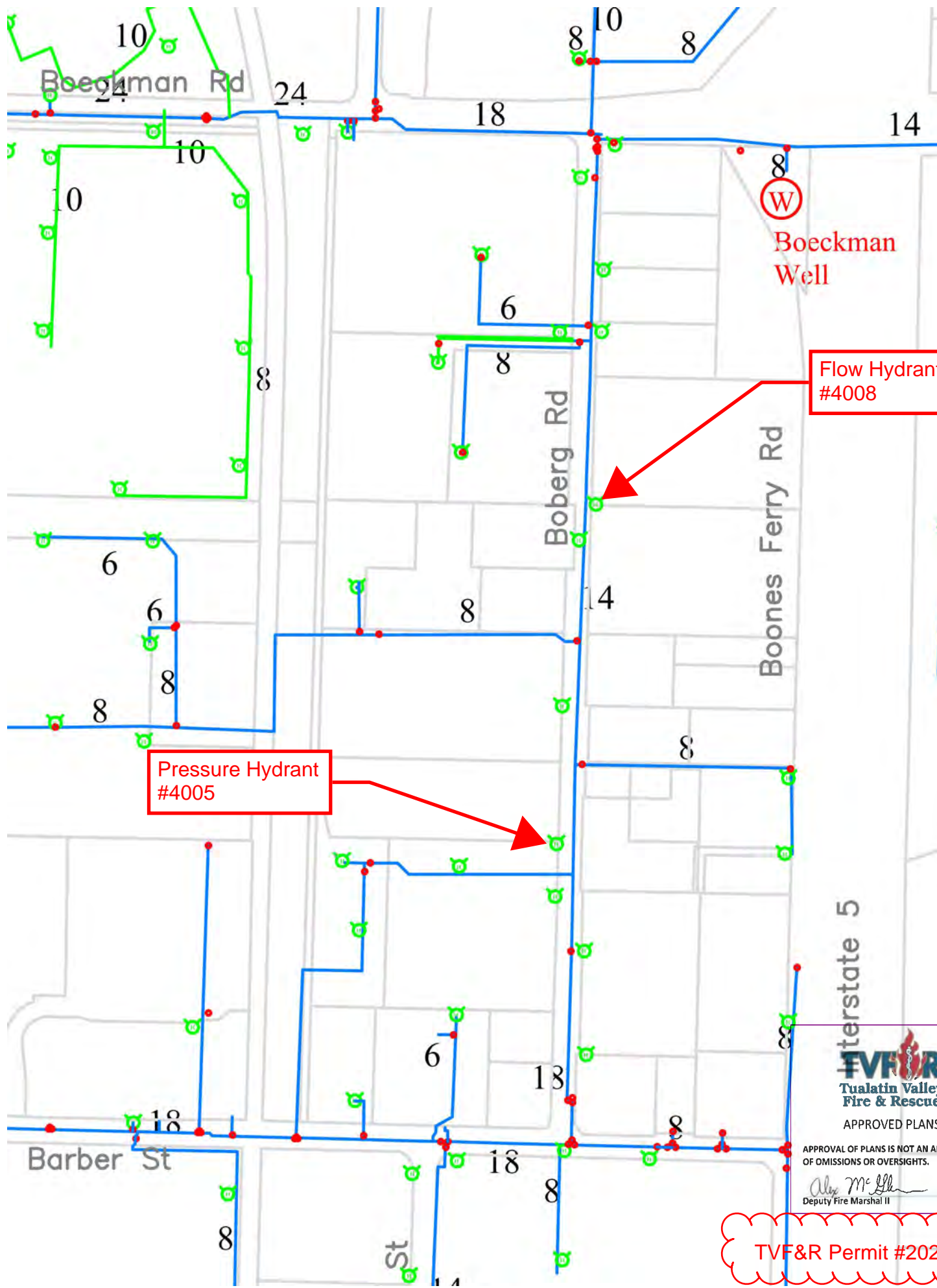
TVF&R Permit #2023-0173

PROJECT NAME	City of Wilsonville - 6 Flow Tests: Test #4
CITY, STATE, ZIP	Wilsonville, OR 97070
JOB NUMBER	2019-0276
DATE OF TEST/TIME	5/14/2019 at 10:06am



**TVF&R Permit #2023-0173**





Pressure Hydrant #4005

Flow Hydrant #4008

Boeckman Well

Interstate 5



APPROVED PLANS  
APPROVAL OF PLANS IS NOT AN APPROVAL OF OMISSIONS OR OVERSIGHTS.

*Aly McEllen*  
Deputy Fire Marshal II

TVF&R Permit #2023-0173