



DEVELOPMENT REVIEW BOARD PANEL A AGENDA

August 08, 2022 at 6:30 PM

Wilsonville City Hall & Remote Video Conferencing

PARTICIPANTS MAY ATTEND THE MEETING AT:

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

Zoom: <https://us02web.zoom.us/j/85843043229>

TO PROVIDE PUBLIC TESTIMONY:

Individuals must submit a testimony card online:
<https://www.ci.wilsonville.or.us/DRB-SpeakerCard>
and email testimony regarding Resolution No. 405
to Planning at
Planning@ci.wilsonville.or.us
by 2:00 PM on the August 8, 2022.

CALL TO ORDER

CHAIR'S REMARKS

ROLL CALL

Daniel McKay
Kathryn Neil
Rachelle Barrett

Jean Svadlenka
Ben Yacob

CITIZEN INPUT

CONSENT AGENDA

1. [Approval of minutes of April 11, 2022 DRB Panel A meeting](#)

PUBLIC HEARINGS

2. [Resolution No. 405 Boones Ferry Gas Station. The applicant is requesting approval of a Stage I Preliminary Plan Modification, Stage II Final Plan, Site Design Review, Class 3 Sign Permit, Sign Waiver and Type C Tree Plan for construction of a 2,999-square-foot convenience store with drive-thru and 12-pump fuel station.](#)

Case Files:

[DB21-0045 Stage I Preliminary Plan Modification](#)

[DB21-0046 Stage II Final Plan](#)

[DB21-0047 Site Design Review](#)

[DB21-0048 Class 3 Sign Permit](#)

BOARD MEMBER COMMUNICATIONS

3. [Results of the May 23, 2022 DRB Panel B meeting](#)
4. [Results of the July 25, 2022 DRB Panel B meeting](#)
5. [Recent City Council Action Minutes](#)

STAFF COMMUNICATIONS

ADJOURN

The City will endeavor to provide the following services, without cost, if requested at least 48 hours prior to the meeting by contacting Shelley White, Administrative Assistant at 503-682-4960: assistive listening devices (ALD), sign language interpreter, and/or bilingual interpreter. Those who need accessibility assistance can contact the City by phone through the Federal Information Relay Service at 1-800-877-8339 for TTY/Voice communication.

Habr  interpretes disponibles para aqu llas personas que no hablan Ingl s, previo acuerdo. Comun quese al 503-682-4960.

DEVELOPMENT REVIEW BOARD MEETING
AUGUST 8, 2022
6:30 PM

Consent Agenda:

1. Approval of minutes of April 11, 2022 DRB Panel A meeting



**DEVELOPMENT REVIEW BOARD PANEL A
MEETING MINUTES**

April 11, 2022 at 6:30 PM

City Hall Council Chambers & Remote Video Conferencing

CALL TO ORDER

A regular meeting of the Development Review Board Panel A was held at City Hall beginning at 6:30 p.m. on Monday, April 11, 2022. Chair Jean Svadlenka called the meeting to order at 6:30 p.m., followed by roll call.

CHAIR'S REMARKS

ROLL CALL

Present for roll call were: Jean Svadlenka, Daniel McKay, Kathryn Neil, Ben Yacob, Rachelle Barrett

Staff present: Daniel Pauly, Ryan Adams, Amy Pepper, Kimberly Rybold, Cindy Luxhoj, and Shelley White

CITIZENS' INPUT

This is an opportunity for visitors to address the Development Review Board (DRB) on items not on the agenda. There were no comments.

CONSENT AGENDA

1. Approval of minutes of March 14, 2022 DRB Panel A meeting

Kathryn Neil made a motion to approve the March 14, 2022 DRB Panel A meeting minutes as presented. Rachelle Barrett seconded the motion, which passed by a 4 to 0 to 1 vote with Daniel McKay abstaining.

PUBLIC HEARINGS

2. **Resolution No. 402 Frog Pond Oaks Subdivision:** OTAK, Inc. – Representative for West Hills Land Development, LLC – Applicant and Sheri Miller and James Mehus – Owners. Annexation and Zone Map Amendment from Rural Residential Farm Forest 5-Acre (RRFF-5) to Residential Neighborhood (RN) of approximately 10.462 acres, and adopting findings and conditions approving a Stage I Preliminary Plan, Stage II Final Plan, Site Design Review of Parks and Open Space, Tentative Subdivision Plat, Type C Tree Plan, Waiver and Abbreviated SROZ Map Verification for a 41-Lot Residential Subdivision. The subject site is located at 6725 SW Frog Pond Lane on Tax Lots 401 and 402, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Staff: Cindy Luxhoj, AICP, Associate Planner

Case Files:

DB21-0072	Annexation
DB21-0073	Zone Map Amendment
DB21-0074	Stage I Preliminary Plan
DB21-0075	Stage II Final Plan
DB21-0076	Site Design Review of Parks & Open Space
DB21-0077	Tentative Subdivision Plat
DB21-0078	Type C Tree Plan
DB21-0079	Waiver
SI21-0005	Abbreviated SROZ Map Verification

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

Chair Svadlenka called the public hearing to order at 6:38 p.m. and read the conduct of hearing format into the record. Chair Svadlenka, Rachelle Barrett, Daniel McKay, and Ben Yacob declared for the record that they had visited the site. No board member, however, declared a conflict of interest, bias, or conclusion from a site visit. No board member participation was challenged by any member of the audience.

Cindy Luxhoj, AICP, Associate Planner, announced that the criteria applicable to the application were stated starting on page 2 of the Staff report, which was entered into the record. Copies of the report were made available to the side of the room and on the City's website.

Ms. Luxhoj presented the Staff report via PowerPoint, briefly noting the site's location and reviewing its background, zoning, and the requested applications-with as follows:

- The current city limit was delineated with an orange line on the map. (Slide 2) The Frog Pond Oaks property was located in Clackamas County and zoned Rural Residential Farm Forest 5-Acre (RRFF-5).
- The City adopted the Frog Pond Area Plan (FPAP) in November 2015 to guide development of the 2002 Urban Growth Boundary (UGB) area of Frog Pond West and the urban reserve (~~UR~~)-areas in Frog Pond East and South, and to help ensure the continued development of high-quality neighborhoods in Wilsonville. As a follow-up to the Area Plan, and in anticipation of forthcoming development, the City adopted the Frog Pond West Master Plan for the area within the UGB in July 2017.
- To guide development and implement the vision of the Area Plan, the Master Plan included details on land use, including residential types and unit count ranges, residential and community design, transportation, parks and open space, and community elements, such as lighting, street trees, gateways, and signs.
- Proper noticing was followed for the application with notice mailed to property owners within 250 ft of the subject property, onsite posting, and publication in the *Wilsonville Spokesman*. No public comments were received during the comment period for the project.
- Of the nine requests before the Board tonight, the Annexation and Zone Map Amendment were recommendations to City Council. Six requests were objective in nature as they involved verifying compliance with the Code standards, and the last request, which involved discretionary review, was for a waiver.

- The area proposed for Annexation included two tax lots comprised of 10.46 acres outlined in red. (Slide 6) The proposed Zone Map Amendment would rezone the 10.46-acre Frog Pond Oaks property from Clackamas County RRFF-5 to the City's RN zone. The rezone was consistent with the Comprehensive Plan Map designation of Residential Neighborhood as well as with the Frog Pond West Master Plan. The City Council hearing for the Annexation and Zone Map Amendment was scheduled for April 18th.
- The Stage I Preliminary Plan generally established the proposed residential use, number of lots, preservation of open space, and block and street layout consistent with the Frog Pond West Master Plan. Specifically, in regard to residential land use unit count, the proposed Stage I Preliminary Plan Area included portions of Small Lot Sub-district 10 and Medium Lot Sub-district 11.
 - Although the Applicant proposed 21 lots in Sub-district 11, within the range of proportional density requirement for that part of the site, 12 lots were proposed in Sub-district 10, three lots fewer than the 15-lot minimum of 15. The City may allow a reduction in the minimum density for a sub-district when it is demonstrated that the reduction is necessary due to topography, protection of trees and natural resources, infrastructure needs, and similar conditions.
 - The proposed three-lot reduction was related to placement of two stormwater facilities in the Small Lot Sub-district and limitations on lot configuration and location related to street alignments and extensions required by the Frog Pond West Master Plan. The proposed lots in the subdivision met or exceeded all dimensional standards, including minimum lot size requirements, while preserving significant trees and allowing for compliant future development within the Master Plan area. The configuration of lots as proposed would allow for buildout of Sub-districts 10 and 11, consistent with the Master Plan recommendations. The Applicant proposed installing necessary facilities and services concurrent with development of the residential neighborhood.
- The Stage II Final Plan addressed the general development pattern within the subject property and generally demonstrated consistency with City standards and the development standards of the proposed RN Zone. The proposed lot layout and size, as well as block size and access, demonstrated consistency with development standards established for the RN Zone and in the Frog Pond West Master Plan.
 - The Applicant provided a large open space in Tract E in the northwest portion of the site and a smaller open space area in Tract D in the northeast part of the site. Tract E included active play areas, benches, and a trail that connected to a proposed local trail in the Frog Pond Vista subdivision to the west and Frog Pond Crossing subdivision to the east. Active play areas were outlined in blue, and the trail was highlighted with a red-dashed line. (Slide 10)
 - Conditions of approval ensured that the trail would continue through Tract D to connect with Frog Pond Crossing, illustrated with an orange-dashed line (Slide 10), and that the final alignments of the connections to the west and east were coordinated at the time of construction permitting. Tracts D and E preserved numerous mature trees, including a large grove that contained Oregon White Oak, and both tracts would be attractively landscaped.
- Site Design Review looked at Tract C in the proposed subdivision outlined in blue, which completed the western part of a pedestrian connection primarily constructed in the Frog Pond Crossing subdivision to the east, outlined in green. (Slide 11) Only the trees and landscaping on the west side of the path in the pedestrian connection were within Tract C of the Frog Pond Oaks development. Tract C had a wider cross-section than was typical for a pedestrian connection to accommodate a temporary water line within the tract.

- A condition of approval required that the final design and layout of Tract C be confirmed prior to issuance of the Public Works Permit to ensure consistency with respect to tree location and distance of trees from the pathway in the connection from the Frog Pond Crossing subdivision to ensure consistency with the connection in the Frog Pond Crossing subdivision with respect to tree location and distance of trees from the pathway.
- The Tentative Subdivision Plat met technical platting requirements, demonstrated consistency with the Stage II Final Plan, and thus, the Frog Pond West Master Plan, and did not create barriers to future development of adjacent neighborhoods and sites.
- Type C Tree Removal Plan. Of the 104 trees inventoried on the site, 76 were proposed to remain, including 15 in the Tract D open space in the northeast part of the site and 61 in the Tract E open space in the northwest part of the site. Trees to remain were outlined with a blue-dashed line. The 28 trees proposed for removal, outlined in red, were due to the construction of public streets and residential lots. The majority of the trees being removed were in the southeast part of the site near the existing house and accessory buildings. (Slide 13)
 - The Applicant proposed planting 109 new trees in the form of 87 street trees, 15 trees within Open Space Tracts D and E, and 7 trees within the pedestrian connection in Tract C. In addition, 13 trees were proposed to be planted adjacent to the stormwater facility in Tract B for a total of 122 trees. Proposed tree planting was in excess of the one-for-one mitigation requirement for tree removal.
- Abbreviated SROZ Map Verification. Consistent with the Development Code requirements, a verification of the SROZ boundary was required at the time an applicant requested a land use decision. Because a wetland area was identified in the central portion of the site, outlined in red, the Applicant conducted a detailed site analysis consistent with Development Code requirements. The City's Natural Resources Manager reviewed the analysis to confirm that the wetland was not deemed locally significant and that no portions of the site should be within the SROZ boundary. (Slide 15)
- Waiver. One request involved discretionary review; a waiver related to the location of the open space required in the R-5 Small Lot Sub-district. When a residential subdivision included land designated R-5 in a small lot sub-district in the Frog Pond West Master Plan, the Code required that 10 percent of the net developable area within the sub-district be in open space, 50 percent of which was to be usable open space. The RN Zone provided an allowance for the DRB to waive or reduce the open space requirement when considering substantial evidence regarding the following factors: the walking distance to usable open space adjacent to the subject property or within 500 ft of it, the amount and type of open space available, adjacent to, or within 500 ft of the subject property, including facilities which support creative play.
 - The Applicant was requesting a waiver to locate the open space required in the R-5 Small Lot Sub-district, colored yellow, within the R-7 Medium Lot Sub-district, shown in light green. (Slide 17) The proposed development included 2.76 acres in the R-5 Small Lot Sub-district. The Applicant proposed 80,230 sq ft of open space primarily in Tract E, outlined in blue, but also in Tracts C and D, which was well in excess of the 10 percent open space requirement of 12,025 sq ft. The open space was not proposed within the Small Lot Sub-district due to the proposed location of stormwater facilities, which served both Sub-districts 10 and 11 within the site, as well as street alignments and extensions required by the Master Plan. As a result, adequate space was not available to meet the minimum open space standards of the R-5 Sub-district 10 while maximizing available housing density for the sub-district.

- The open space in the R-7 Sub-district portion of the site was approximately 365 ft north of the 12 lots located in the R-5 Small Lot Sub-district. Additionally, active open space was available in the Frog Pond Ridge subdivision to the south, which was within approximately 400 ft of the sub-district. The Applicant would further explain how the waiver would meet the purpose of the standard, and address the waiver criteria, during their presentation. (Slide 17)
- The Applicant had requested a modification to Condition of Approval PDE 10 related to planning conditions for Site Design Review. The requested revision, as accepted by the City's Development Engineering Manager, read as follows:
 - PDE 10. **Prior to issuance of any Public Works permits:** Consistent with the Frog Pond West Master Plan, which includes a Public Lighting Plan and recommended lighting plan hierarchy, and recommends that pedestrian connections, trailheads and paths be uniformly illuminated to define a hierarchy of travel routes, and that such illumination follow the Public Works Standards for Shared-Use Path Lighting, the applicant shall, in consultation with the City Engineer, determine if additional pedestrian-scale lighting is warranted along the pathways in Tracts C, D, and E and ~~install~~ include any warranted lighting in compliance with these standards in the Public Works plans. See Finding E25.
- The Applicant had also requested a modification to Condition of Approval PFD 7 related to engineering conditions for the Stage II Final Plan. The requested revision, as accepted by the City's Development Engineering Manager, read as follows:
 - PFD 7. **Prior to Issuance of Public Works Permit:** A final stormwater report shall be submitted for review and approval. The stormwater report shall include information and calculations to demonstrate how the proposed development meets the stormwater system design criteria and treatment and flow control requirements of the 2015 Stormwater & Surface Water Design and Construction Standards (Section 3 – Public Works Standards). The draft stormwater report shows a portion of the pre-development flows from the site drain ~~to the southeast toward Willow Creek, however, some of those post-development flows are proposed to drain~~ offsite to the northwest toward the Boeckman Creek drainage basin, however, some of that area's post-development flows are proposed to drain to the southwest through the proposed on-site stormwater management facilities and discharge to the Willow Creek drainage basin. Post-development flows are required to drain in the direction of pre-development flows. The final stormwater report shall be revised so that post-development flows drain in the direction of pre-development flows. Additional LID stormwater facilities may be required to meet the water quality and flow control requirements.

Daniel McKay noted the modification Condition PDE 10 seemed ambiguous and asked about the purpose or intention of the change.

Ms. Luxhoj explained the condition stated, “prior to issuance of any Public Works permit”, but lighting did not need to be installed prior to issuance of the permit. It did need to be included in the Public Works plans reviewed as part of that permit in case any changes or additional lighting were warranted, but the installation would occur later.

Rachelle Barrett asked for clarification regarding the modification to Condition PFD 7 and what the change meant.

Amy Pepper, Engineering Development Manager, explained the condition cleaned up the language a bit. In the north portion of the site, the proposed application had all the drainage going south, which was not permitted in the standards. The modification linked the condition back to the Public Works Standards, but materially, the requirement did not change.

Chair Svadlenka confirmed there were no further questions from the Board and called for the Applicant's presentation.

Dan Grimberg, West Hills Land Development, 3330 NW Yeon Ave, Portland, OR, 97210 stated that West Hills was a locally owned developer/builder of subdivisions in the Metro area for 35 years. They had built a number of communities in Wilsonville, including the first 350 homes in Villebois, Arbor Crossing in the Boeckman Rd area, and Arbor Trail near Wilsonville Rd and four previous developments in Frog Pond. West Hills had been involved in the master plan process with the City and Staff, so they were very familiar with the requirements; however, none of the developments were easy as the Codes were very detailed. When the plans were developed, there was not as much detailed information on trees, wetlands, roads, and utilities as was necessary for development. As such, all of those elements had to be boiled down to the very best subdivision and community the Code allowed which he believed had been achieved with Frog Pond Oaks. West Hills was proud of their involvement in Wilsonville and enjoyed working with City Staff who were tough, but fair, and always willing to talk through issues, which they appreciated. He introduced the project team, all of whom were from Otak, adding they were proud to present the Frog Pond Oaks 41-lot project.

Li Alligood, Otak, 808 SW 3rd Ave., Suite 800, Portland, OR, 97204 presented the Applicant's presentation via PowerPoint, noting the focus would be on the design process of the new subdivision, given Staff's presentation on the Code requirements. Her comments were as follows:

- Frog Pond Oaks consisted of two properties under the same ownership totaling 10.46 acres and included 41 lots, five tracts, and the associated infrastructure such as utilities, streets, etc. This was the fifth development in Frog Pond West completed by West Hills and future developments were expected to be reviewed in the coming months.
- The existing site contained a house and associated outbuildings. A tree grove in the northwest corner of the site was the reason for the waiver request and were proposed to be located in one of the tracts. As mentioned, the nonjurisdictional wetland in the center of the site would be removed with the development.
- The R-7 Sub-district with 29 proposed lots was to the north of Street C and the Small Lot R-5 Sub-district to the south had 12 proposed lots. The R-7 side also included Tract E, a large open space tract to protect the existing trees. The Applicant had requested a waiver to move the location of the open space from the R-5 to R-7 zone in part due to the stormwater tract in the R-5 zone. All tracts and lots met the minimal dimensional standards of the Zoning Code for the RN Zone.
- She noted the project team had spoken a great deal with City Staff about the stormwater management approach during the application review process and planning processes included conversations when the [inaudible].

Keith Buisman, Civil Engineer, Otak, stated Slide 7 was from the Frog Pond West Infrastructure Analysis Plan, and the green area in the center was the very preliminary, high-level location for the stormwater facility area within Frog Pond Oaks, which was driven by topography. The upper northeast

corner of the site was approximately 250 ft in elevation dropping down to 240 ft in the displayed plan, which was generally how the topography was along there. The proposed stormwater management was in compliance with the Framework Plan that had been provided as part of the Frog Pond West Master Plan. Some low impact development approach (LIDA) facilities were dashed along the outline of the image shown.

- Frog Pond Lane, an existing street, was the low point area and the current drainage was a ditch inlet that was about midway along the frontage of the Applicant's improvements that collected drainage from the existing property and channeled it south into Willow Creek Basin. The two proposed stormwater facilities located in Tracts A and B would be LIDA rain garden facilities. Additionally, LIDA swales within the proposed development were designed to manage some of the street runoff. Each proposed stormwater facility was sized according to the City's stormwater management requirements and standards. The space available to the Applicant was pretty tight as far as the space necessary to meet the standards. (Slide 8)

Ms. Alligood continued the presentation, noting the R-5 Small Lot Zone had requirements for common open space with a portion deemed active open space. The Wilsonville Development Code allowed for requests to reduce or waive the required open space; however, the Applicant wanted to relocate the open space and enlarge it by six times the amount required in the Code.

- She noted the R-7 Zone had no open space requirements and reviewed the Frog Pond West standards related to open space and applicable waivers. In the R-5 Small Lot Sub-district, 10 percent of the net developable area, which subtracted streets and infrastructure, was required as open space with 50 percent to be usable open space. Code Section 4.118(.03) applied to all planned development zones and gave the Board the authority to waive development standards, if substantial evidence existed in the record to demonstrate the interest and purpose of the standard would be met in alternative ways. One of those standards was the open space requirement in residential zones. (Slides 10-11)
- Citing the purpose and intent of the open space standards stated in Section 4.127 (.09), she stated the Applicant would continue to provide light, air, open space, and usable recreation facilities to the occupants of each residential development. (Slide 12) The amount of required open space was approximately 12,000 sq ft, and the Applicant proposed more than 80,000 sq ft. The requirement also stipulated 6,013 sq ft of usable open space, and the Applicant proposed 68,470 sq ft, shown in dark green on Slide 13.
- The purpose of the open space standards also cited the retention of natural resources and trees as part of development. By providing the open space in the R-7 Zone instead of the R-5 Zone, the Applicant was able to retain a significant open space with mature tree growth and provide additional open space area for the residents of the community. Public walking trails within Tract E provided access to the trees and had connections to adjacent developments. The standard also addressed access and connections to trails and open space areas. The proposed open space area was less than 400 ft from the R-5 Zone, so closer than the required 500 ft. The previously approved area in Frog Pond Ridge was also less than 500 ft from the R-5 Zone. This distance was approximately the length of two downtown Portland city blocks or one Frog Pond West city block.

Steve Dixon, Senior Landscape Architect, Otak, explained the Applicant's overall approach in designing open space, noting that through the various phases of Frog Pond, it became clear that the major characteristic and aesthetic of Frog Pond West were the existing mature tree groves. The open space in

Frog Pond Ridge had retained a significant number of trees, as did the subject proposal. To facilitate vehicular and pedestrian connectivity, the Applicant extended the street grid as much as possible and added to the existing pedestrian access that moved north from Boeckman Rd up through Frog Pond Meadows, Stafford Meadows, and Frog Pond Ridge, extending up the east side of the subject property. As it extended closer to the north edge of Frog Pond West near Kahle Rd, the access widened to 40 ft, becoming like an allée with the existing trees. Pedestrian connectivity had been the primary driver of that design.

- Density was also a factor and the Applicant had met those requirements in R-7 by utilizing minimum lot sizes for the majority of the lots. In R-5, adjacent to Frog Pond Lane, the stormwater requirements had constrained that area. Therefore, it made sense to front lots on the R-5 area provide a large significant open space in the northwest corner of the site.

Ms. Alligood noted a split in Willow Creek Dr south of the site allowed for the retention of a large White Oak which was also part of the reason for the variation of Willow Creek Dr.

- She acknowledged the discrepancies pointed out by Staff and Chair Svadlenka, noting the Landscape Sheet L1.00 indicated 28 trees were being removed, but 29 were actually being removed as stated on the Tree Removal and Retention Plan (Sheet L1.10) and the Site Plan. The Applicant had significant mitigation for tree removal, as well as a number of tree credits on site that worked towards that mitigation, so the calculation of how many trees were required remained the same. There was simply an error in the plan set.
- The Applicant had also requested revisions to the conditions of approval related to stormwater management and the installation of the lights to reflect the fact that no site work occurs before Public Works permits were issued.

Ben Yacob asked how much of the new vegetation being planted was native and how much was aesthetics.

Gabriel Kruse, Landscape Architect, Otak, replied that in more native areas, such as the large landscape tracts, the Applicant tried to use a lot of native plants as opposed to ornamentals which were fairly common. He did not know percentages offhand, but a lot of native seed would go into the understory around the significant trees being saved after the invasive blackberry bushes were cleared out, and Oregon Grape Holly would be used for buffering. The Applicant made every effort to use as many native plants as possible, especially in the more natural settings, while some of the pedestrian connections were a bit more ornamental in nature.

Mr. Yacob stated he was happy to hear there was some thought behind the plant choices. He asked what kind of mitigation was planned for omitting the wetland in the middle of the site.

Mike Peebles, Civil Engineer, Otak, explained the wetland in the center of the site was reviewed by Otak's wetland consultant and following a concurrence process with the Army Corps of Engineers, they did not take jurisdiction over the wetland. The Applicant moved forward with permitting through the Department of State Lands (DSL). The impact to the wetland was being mitigated through the provision of mitigation credits for wetland banks that were in the area, which was typical for wetland impacts, so no mitigation was being done onsite. The State used those funds for restoration or mitigation in other nearby areas.

Mr. Jacob asked if storm drains alone would move water out of the middle of the subdivision to keep it from accumulating.

Mr. Peebles confirmed that was correct. The water source and grading had been part of the discussion and evaluation by the Corps and DSL. It was a fairly flat site, and the presence of water was somewhat due to the condition and previous grading of the site by previous property owners. The Applicant also had a geotech on board, and a lot of the existing surface drainage was intercepted with the granular trenches installed as part of the infrastructure improvement. Underground storm drains also had the capacity to intercept and collect any water that might be present underground; however, based on the grading of the site, most of the surface water would not be present in the footprints or homebuilding areas.

Mr. Jacob asked if any additional steps would be taken to raise the elevation there.

Mr. Peebles replied some grading would be done to create padding for the lots, and the lots themselves would drain to the streets. Additionally, all the rooftops in the subdivision would have lateral connections to the underground storm drains which would control surface water that hits both the new impervious layers as well as the yard areas on site.

Ms. Alligood clarified that it was not a floodplain, but a substandard wetland.

Mr. Peebles agreed, adding that it was an isolated wetland.

Mr. Jacob understood the adjoining subdivision to the east also had a water area, as well as a creek, that ran close to the property, so water was definitely an issue.

Mr. Peebles agreed, noting other Frog Pond developments had wetland areas that the Applicant had worked around, provided connection, permitted and avoided impact. Based on the Corps not taking jurisdiction over the subject wetland area, it became a developable area.

Mr. Jacob asked about the parking spaces for homes and the sizes of the garages and corresponding driveways.

Ms. Alligood understood all homes had at least two-car garages and driveways that would accommodate at least two more cars.

Daniel Pauly, Planning Manager, added that Staff verified that the required parking spaces met the required dimensions at the time of Building Permit issuance.

Daniel McKay thanked the Applicant for designing two-car garages and driveways.

Mr. Pauly clarified that was not guaranteed and could change, legally.

Mr. McKay understood the public streets could accommodate parking on both sides and thanked the Applicant for that as well.

Chair Svadlenka confirmed the two stormwater facilities would collect the runoff from all of the lots in both the R-5 and R-7 Sub-districts, and asked how water would travel from Lots 33 and 34 to Tracts A and B.

Mr. Peebles replied there were two basic types of collection. Runoff from the public streets was collected in catch basins and conveyed into a 12-inch underground pipe within the road right-of-way. Each lot was also connected to that underground storm system, so the roof drains were connected to laterals that went out to the 12-inch storm line, which flowed via gravity, which was why those facilities had to be at the bottom of the hill. Water was conveyed in underground storm pipes and discharged into the rain gardens that provided both detention to help control the quantity of water, and treatment, which helped clean the water. Subsequently, it was outlet into the downstream system in Frog Pond Lane and went further south.

- Besides the two rain gardens, a series of swales and a planter strip would also provide some detention and water quality treatment closer to the source, such as the street runoff going into the filters of the catch basins. Stormwater management on site was a combination of best management practices that met City Code. The Applicant had worked from Boeckman Rd north and was familiar with capacities downstream and how the systems worked and had collaborated with the City's engineering and natural resource staffs to develop good stormwater management systems in Frog Pond West that complied with the Master Plan.

Chair Svadlenka asked if alternate designs had been considered to locate Tract B, the stormwater facility, somewhere in the R-7 zone.

Mr. Peebles responded that there was a depth issue with the tracts and rain gardens in terms of where stormwater could outfall to and there were no parallel pipes on the property, but the Applicant had worked through those issues with the City. They were also restricted downstream, as the whole system drained into Willow Creek, which was in the open channel flow farther to the south going through Stafford Meadows and Frog Pond Meadows. Moving the facilities up into the R-7 area would result in the treated water being put into the pipes with untreated water. All stormwater facilities had overflow that could not impact structures and locating this one next to Frog Pond Lane enabled better overflow protection for those structures. The Applicant had explored options up north, but with the preservation of the tree area in the northwest corner of the site, the use of LIDA facilities, and maintaining some on street parking, etc., the design as proposed was the best solution for the stormwater facilities. Additionally, it complied with the Frog Pond Master Plan for where those facilities made sense from a topography standpoint.

Chair Svadlenka asked if moving Tract B into R-7 would automatically mean a reduction of the open space in Tract E.

Mr. Peebles replied if the facility was moved from the tract up to R-7, lots in the R-7 area would be impacted, and development would need to move into the open space area to get more lots, but they were trying to reduce impacts to trees. Additionally, R-5 Sub-district had street frontage restrictions, so no lots could be fronted off of Frog Pond Lane, so with the orientation of those lots, it made sense to put the rain gardens in that location. Moving the facility north might also result in the need for another road for frontage.

Rachelle Barrett noted the subdivision was between two others and asked how continuity of design was accomplished across projects with other developers.

Ms. Alligood responded Staff has been very engaged in ensuring the Applicant coordinated with adjacent engineering teams and developers. For example, the open space tract and street connections were shared with the development to the east, so CAD files and background information was shared to ensure coordination. City Staff kept the big picture view because they saw everything that came through. She confirmed that coordination extended to details like lighting and color schemes, noting the Frog Pond West Concept Plan had very specific requirements for light fixtures, street trees etc. to ensure the uniformity of those components throughout the Frog Pond West development area. Whatever street trees were proposed for Streets 3 and B would continue through adjacent developments once selected.

Chair Svadlenka asked if the Applicant was making any improvements to Frog Pond Lane at the south end of R-5.

Ms. Alligood replied the northern part of Frog Pond Lane would be built with the subject project. She noted a 15-ft right-of-way dedication and explained that sidewalks, stormwater facilities, and a center median would be constructed by the Applicant. The developer to the south would build the southern part of Frog Pond Lane, so the road would be complete once both projects were finished. Similarly, the Applicant would build their portion of the Willow Creek Dr street system and dedicate right-of-way for Kahle Rd.

Chair Svadlenka noted the Residential Neighborhood Zone required that transportation choices be provided, including active transportation options, and asked about City buses going into Frog Pond and how residents of Frog Pond Oaks would access public transportation.

Mr. Pauly replied the Transit Master Plan would be updated in the next year. He had recently spoken with SMART about transit in Frog Pond East and how it might relate to Frog Pond West. Due to various issues, buses did not typically go into residential neighborhoods; however, the right processes and people were at the table to make those decisions. Additionally, the bus routes were not fixed and could change over time depending on needs, which was done through a thoughtful process in the Transit Master Plan and in service planning. That said, SMART participated in development review and had made no requests for extra bus stops or anything adjacent to the subject development in anticipation of any future bus routes on either of the roads, which was consistent with the adopted Master Plan and route planning.

Chair Svadlenka called for public testimony regarding the application and confirmed with Staff that no one was present at City Hall to testify and no one on Zoom indicated they wanted to testify.

Chair Svadlenka stated that because waivers were for extraordinary situations, she wanted to ensure Board members had the opportunity to look at the waiver and determine how necessary it was.

Mr. Pauly clarified that waivers were different from variances, and that discussion would be for variance criteria. Waivers were fairly common and were not related to a hardship or 'as necessary.' If a

waiver led to a better design, it allowed for flexibility in the Code. Waivers were about improving design and flexibility where it made sense, rather than there being a hardship or necessity to do something, which was rare and addressed with a variance. Waivers were more routine and helped address things that were not anticipated when the Code was written. Waivers regarded the positive notion of a better design rather than as necessary.

- He confirmed that waivers did not set precedence because waivers were unique to each situation wherein the DRB would evaluate the uniqueness of a plan to determine if a better design could be created by waiving a particular Code criterion in that specific context. Because the context on each project was different, each was considered anew. Waivers were based on case law. The Board considered the evidence in that specific context to determine if it created a better design.

Kimberly Rybold, Senior Planner, added when the Frog Pond RN Code was built, some specific instances and specific criteria were included to guide the Board in determining the appropriateness of a waiver, and open space was a good example. Not only did the Code enable a waiver to be used for open space, it provided specific criteria for the DRB to use in its consideration of the waiver. If there was a concern for precedent, the evaluation of the waiver request against the criteria laid out in the Code would help give the DRB guidance in how the waiver was considered.

Ryan Adams, City Attorney, confirmed Staff had summed up the explanation perfectly, reiterating there was no precedent; it was an ad hoc type situation each time.

Mr. Pauly stated Staff was happy to provide more specific waiver training if the DRB desired as time allowed on future agendas.

Chair Svadlenka agreed that would be good because she had gotten feedback that the DRB should pay particular attention to waivers because they were for extraordinary situations, but she had noted the points made by Staff and how the waiver applied to the subject application. She would have preferred some alternative designs regarding Tract B because that area would satisfy the open space requirement for the R-5 Sub-district, although having Tract E as an open space was a really nice design feature. The preservation of trees, which was a theme that ran through the entire Frog Pond development, was important as well.

Mr. Pauly noted the tracts, the stormwater basins, were not gray concrete boxes, but landscaped green spaces, and while not active recreational areas, the spaces did provide the light and air that open spaces provided, while also fulfilling a functional infrastructure need.

Chair Svadlenka asked if locating stormwater facilities closer to lots was preferred.

Mr. Pauly replied it was a balancing game. All stormwater facilities could be put into a planting strip in the right-of-way, but parking and street trees would be lost. The designers had consulted with Staff to achieve that balance, and he believed future master planning would utilize block level facilities of this size as opposed to locating stormwater facilities throughout a development, which were hard to maintain and prevented other amenities from being built. Historically, stormwater facilities had been even larger, more regional and not near the lots. The size of the proposed facility provided balance; it was neither huge nor so dispersed that it created maintenance issues.

Ms. Pepper added that the stormwater standards required low impact development, which meant more dispersed facilities to the maximum extent practical; however, it was not strictly defined but took into account driveways, street trees, and other factors on how many stormwater facilities there were and where they were located.

Chair Svadlenka confirmed there was no additional questions or discussion and closed the public hearing at 7:53 pm.

Rachelle Barrett moved to adopt the amended Staff report as read into record. Ben Yacob seconded the motion, which passed unanimously.

The following corrections and amendments were read into the record:

- PDE 10. **Prior to issuance of any Public Works permits:** Consistent with the Frog Pond West Master Plan, which includes a Public Lighting Plan and recommended lighting plan hierarchy, and recommends that pedestrian connections, trailheads and paths be uniformly illuminated to define a hierarchy of travel routes, and that such illumination follow the Public Works Standards for Shared-Use Path Lighting, the applicant shall, in consultation with the City Engineer, determine if additional pedestrian-scale lighting is warranted along the pathways in Tracts C, D and E and ~~install~~ include any warranted lighting in compliance with these standards in the Public Works plans. See Finding E25.
- PFD 7. **Prior to Issuance of Public Works Permit:** A final stormwater report shall be submitted for review and approval. The stormwater report shall include information and calculations to demonstrate how the proposed development meets the stormwater system design criteria and treatment and flow control requirements of the 2015 Stormwater & Surface Water Design and Construction Standards (Section 3 – Public Works Standards). The draft stormwater report shows a portion of the pre-development flows from the site drain ~~to the southeast toward Willow Creek, however, some of those post-development flows are proposed to drain~~ offsite to the northwest toward the Boeckman Creek drainage basin, however, some of that area's post-development flows are proposed to drain to the southwest through the proposed on-site stormwater management facilities and discharge to the Willow Creek drainage basin. Post-development flows are required to drain in the direction of pre-development flows. The final stormwater report shall be revised so that post-development flows drain in the direction of pre-development flows. Additional LID stormwater facilities may be required to meet the water quality and flow control requirements.
- The Applicant's Landscape Sheet L1.00 Notes were corrected to state ~~28~~ 29 trees were being removed, but the actual Tree Removal and Retention Plan (Sheet L1.10) stated 29 trees were being removed.

Chair Svadlenka moved to adopt Resolution No. 402. Kathryn Neil seconded the motion, which passed unanimously.

Chair Svadlenka read the rules of appeal into the record.

BOARD MEMBER COMMUNICATIONS

3. Results of the March 28, 2022 DRB Panel B meeting
4. Recent City Council Action Minutes

There were no comments.

STAFF COMMUNICATIONS

Daniel Pauly, Planning Director, reported City Council had returned to in-person meetings last week. Currently, City Hall was under construction and occasionally work was conducted at night, so in-person meetings for the DRB would be delayed until construction was complete, which was anticipated to be in June for DRB B and July for DRB A. He invited anyone with further questions to contact him.

Kathryn Neil asked if Board members could opt to attend via Zoom or if in-person attendance would be required.

Mr. Pauly replied that generally Boards were encouraged to be fully online or fully in person. The technology for hybrid meetings was there, but it made the meetings awkward. That said, last week's City Council meeting featured one member remote and the remainder in person.

Ryan Adams, City Attorney, added that new legislation during the pandemic required public meetings be available to the public electronically. If there was a possibility of not having a quorum, it was preferable for a Board member to call in as opposed to not attend at all.

Mr. Pauly added the option was to be reserved for extenuating circumstances, such as a Board member being out of town or feeling under the weather, not simply for convenience.

Ms. Neil clarified she had summer plans and might have to attend a meeting virtually.

Rachelle Barrett stated she had never attended a meeting in chambers and asked how Board members were able to see the details of the Staff report.

Daniel McKay replied that each seat had small screens on which to view the presentations. He had also brought his laptop to meetings, which was easier for notes than using the paper binder provided at the time.

ADJOURNMENT

The meeting adjourned at 8:02 p.m.

Public Hearing:

2. **Resolution No. 405 Boones Ferry Gas Station.**

The applicant is requesting approval of a Stage I Preliminary Plan Modification, Stage II Final Plan, Site Design Review, Class 3 Sign Permit, Sign Waiver and Type C Tree Plan for construction of a 2,999-square-foot convenience store with drive-thru and 12-pump fuel station. Staff: Kimberly Rybold, AICP, Senior Planner

Case Files:

DB21-0045 Stage I Preliminary Plan Modification

DB21-0046 Stage II Final Plan

DB21-0047 Site Design Review

DB21-0048 Class 3 Sign Permit

WAIV22-0002 Sign Waiver

TPLN22-0004 Type C Tree Removal Plan

**DEVELOPMENT REVIEW BOARD
RESOLUTION NO. 405**

A RESOLUTION ADOPTING FINDINGS AND CONDITIONS APPROVING A STAGE I PRELIMINARY PLAN MODIFICATION, STAGE II FINAL PLAN, SITE DESIGN REVIEW, CLASS 3 SIGN PERMIT, SIGN WAIVER, AND TYPE C TREE PLAN FOR CONSTRUCTION OF A 2,999-SQUARE-FOOT CONVENIENCE STORE WITH DRIVE-THRU AND 12-PUMP FUEL STATION.

WHEREAS, an application, together with planning exhibits for the above-captioned development, has been submitted by Mark McKechnie, Oregon Architecture, Inc. – Applicant and Joseph Angel, Wilsonville Retail/Angel LLC – Owner in accordance with the procedures set forth in Section 4.008 of the Wilsonville Code, and

WHEREAS, the subject site is located at 29760 and 29800 SW Boones Ferry Road on Tax Lots 900 and 1002, Section 14D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon, and

WHEREAS, the Planning Staff has prepared the staff report on the above-captioned subject dated July 28, 2022, and

WHEREAS, said planning exhibits and staff report were duly considered by the Development Review Board Panel A at a scheduled meeting conducted on August 8, 2022, at which time exhibits, together with findings and public testimony were entered into the public record, and

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

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

NOW, THEREFORE, BE IT RESOLVED that the Development Review Board of the City of Wilsonville does hereby adopt the staff report dated July 28, 2022, attached hereto as Exhibit A1, with findings and recommendations contained therein, and authorizes the Planning Director to issue permits consistent with said recommendations for:

DB21-0045 through DB21-0048, WAIV22-0002, and TPLN22-0004; Stage 1 Preliminary Plan Modification, Stage 2 Final Plan, Site Design Review, Class III Sign Permit, Sign Waiver, and Type C Tree Removal Plan.

ADOPTED by the Development Review Board of the City of Wilsonville at a regular meeting thereof this 8th day of August, 2022, and filed with the Planning Administrative Assistant on _____. This resolution is final on the 15th calendar day after the postmarked date of the written notice of decision per *WC Sec 4.022(.09)* unless appealed per *WC Sec 4.022(.02)* or called up for review by the Council in accordance with *WC Sec 4.022(.03)*.

Jean Svadlenka, Chair - Panel A
Wilsonville Development Review Board

Attest:

Shelley White, Planning Administrative Assistant



Exhibit A1
Staff Report
Wilsonville Planning Division
Boones Ferry Road Gas Station and Convenience Store

Development Review Board Panel 'A'
Quasi-Judicial Public Hearing

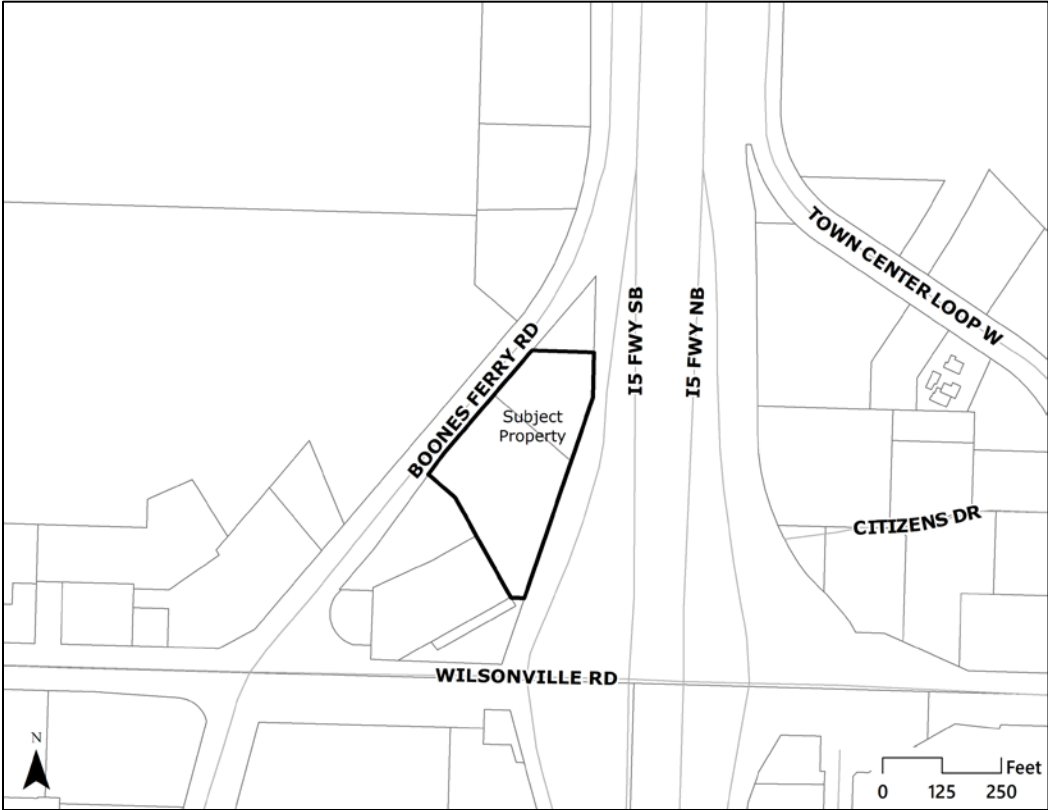
Hearing Date:	August 8, 2022
Date of Report:	July 28, 2022

Application Nos.:	DB21-0045 Stage I Preliminary Plan Modification DB21-0046 Stage II Final Plan DB21-0047 Site Design Review DB21-0048 Class 3 Sign Permit WAIV22-0002 Sign Waiver TPLN22-0004 Type C Tree Removal Plan
Request/Summary:	The review before the Development Review Board is a Class III Stage I Preliminary Plan Revision, Stage II Final Plan, Site Design Review, Sign Permit and Waiver, and Type C Tree Removal Plan for the development of a gas station and convenience store.
Location:	29760 and 29800 SW Boones Ferry Road. The property is specifically known as Tax Lots 900 and 1002, Section 14D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon.
Owner:	Wilsonville Retail/Angel LLC (Contact: Joe Angel)
Applicant:	Oregon Architecture, Inc. (Contact: Mark McKechnie)
Comprehensive Plan Designation:	Commercial
Zone Map Classification:	PDC (Planned Development Commercial)
Staff Reviewers:	Kimberly Rybold, AICP, Senior Planner Ben Schonberger, AICP, Senior Planner, Winterbrook Planning Amy Pepper, PE, Development Engineering Manager
Staff Recommendation:	<u>Approve with conditions</u> the Stage I Preliminary Plan Modification, Stage II Final Plan, Site Design Review request, Class III Sign Permit and Waiver, and Type C Tree Removal Plan.

Applicable Review Criteria:

<u>Development Code:</u>	
Section 4.001	Definitions
Section 4.008	Application Procedures-In General
Section 4.009	Who May Initiate Application
Section 4.010	How to Apply
Section 4.011	How Applications are Processed
Section 4.014	Burden of Proof
Section 4.031	Authority of the Development Review Board
Subsection 4.035 (.04)	Site Development Permit Application
Subsection 4.035 (.05)	Complete Submittal Requirement
Section 4.110	Zones
Section 4.116	Standards Applying to Commercial Development in All Zones
Section 4.118	Standards Applying to Planned Development Zones
Section 4.131	Planned Development Commercial (PDC)
Sections 4.133.00 through 4.133.05	Wilsonville Road Interchange Area Management Plan (IAMP) Overlay Zone
Section 4.140	Planned Development Regulations
Section 4.154	On-site Pedestrian Access and Circulation
Section 4.155	Parking, Loading, and Bicycle Parking
Section 4.156.01 through 4.156.11	Signs
Section 4.167	Access, Ingress, and Egress
Section 4.171	Protection of Natural Features and Other Resources
Section 4.175	Public Safety and Crime Prevention
Section 4.176	Landscaping, Screening, and Buffering
Section 4.177	Street Improvement Standards
Section 4.179	Mixed Solid Waste and Recycling
Sections 4.199.20 through 4.199.60	Outdoor Lighting
Sections 4.300 through 4.320	Underground Utilities
Sections 4.400 through 4.440 as applicable	Site Design Review
Sections 4.600 through 4.640.20	Tree Preservation and Protection
<u>Other Planning Documents:</u>	
Wilsonville Comprehensive Plan	
Previous Land Use Approvals	

Vicinity Map



Background:

The subject property is a currently vacant lot on SW Boones Ferry Road, a short distance north of the Wilsonville Road I-5 interchange. The site was previously a part of a larger holding that included property to the south, and still shares ownership with this property which is occupied by a restaurant, Ram Restaurant and Brewhouse. This area was rezoned in 1980 to allow commercial uses in anticipation of a hotel and restaurant development on the property. This plan enabled construction of the abutting restaurant; however, the hotel was never built. The Stage I Master Plan was amended in 2005 to replace the planned hotel use with a mix of office, retail, and restaurant uses, which have not been constructed. Along with these prior land use approvals, a master sign plan has been reviewed, approved, and amended numerous times over the years for the entire Stage I Master Plan area under the City’s prior sign code regulations.

The current request is for the development of a 12-pump gas station and 2,999-square-foot convenience store with a drive-thru window on Tax Lot 900. Minor modifications to the Ram Restaurant site (Tax Lot 1002), which include a shift in parking spaces, reconstruction of a landscape area, and entrance driveway modifications to accommodate truck circulation, are proposed. The development seeks to utilize current sign code allowances for onsite building and freestanding signage, with a proposed sign waiver to allow for the use of digital changeable copy fuel price displays.

Summary:

Stage I Preliminary Plan Modification (DB21-0045)

The proposed Stage I Preliminary Plan Modification modifies the planned use for the subject site from vacant to gas station and convenience store.

Stage II Final Plan (DB21-0046)

The Stage II Final Plan reviews the function and design of the gas station, drive-thru, convenience store, and associated site layout. All services are available for the site. The traffic study shows that proposed site traffic will not cause any significant impacts requiring vehicular mitigation; however, frontage improvements including a new sidewalk along Boones Ferry Road are required. The site includes parking, circulation areas, pedestrian connections, and landscaping meeting or exceeding City standards.

Site Design Review (DB21-0047)

The applicant has designed structures on the site using a common architectural palette for gas station/convenience stores. The proposed single-story building uses neutral-colored materials, glazing, and prominent signage to direct users into and through the site. Landscaping materials meet City standards.

Class III Sign Permit (DB21-0048)

The applicant has indicated on plans and in application materials multiple signs associated with the gas station and convenience store. A freestanding, pylon sign is proposed at the east property line, nearest to the I-5 right of way. A monument sign is proposed at the shared entrance to the site on SW Boones Ferry Road. Each of these signs prominently displays the corporate logo and gas prices. Building signage is proposed on the south-facing and west-facing sides of the store structure. The canopy over the gas pumps will have brand-identifying signage on its fascia, on all four sides. Finally, the applicant proposes directional signage indicating traffic circulation. The sign area for each sign is less than the maximum allowance for each sign type. The landscape design avoids conflicts between trees, shrubs, and signs. Because the applicant has proposed signs that have digital changeable images of the fuel prices, this element requires a sign waiver.

Sign Waiver (WAIV22-0002)

Because the applicant proposes to include digital price signs on both the monument and freestanding signs, a waiver is required. The waiver review criteria listed in the findings address how the digital price signs meet the applicable standards.

Type C Tree Removal Plan (TPLN22-0004)

The proposed site is generally open and has very few trees. Based on plans three trees are proposed for removal, two at the northwest corner of the property (14 inch and 11 inch maples) and one at the east side of the shared driveway entrance (14 inch maple).

The applicant proposes planting 10 new trees as part of its landscape plan. The proposed mitigation exceeds the requirement for tree removal.

Public Comments and Responses:

None Received

Discussion Points – Verifying Compliance with Standards:

This section provides a discussion of key clear and objective development standards that apply to the proposed applications. The Development Review Board will verify compliance of the proposed applications with these standards. The ability of the proposed applications to meet these standards may be impacted by the Development Review Board’s consideration of discretionary review items as noted in the next section of this report:

Traffic and Parking

The trip generation analysis within the Traffic Impact Analysis (see Exhibit B1) performed by the City’s consultant, DKS Associates, evaluated impacts from the gas station and convenience store, with subsequent site plan evaluation reflecting the existing site plan which includes a drive-thru window. Trip generation information is based on the 10th Edition of the Institute of Transportation Engineers (ITE) trip generation rates, and were based on the category “Super Convenience Market/Gas Station” and the gross floor area of the store. The proposed gas station and convenience store will generate 240 total PM Peak trips. Consistent with standard methodology, the traffic study applied pass-by trip reductions to account for vehicles already on adjacent streets likely to stop at the gas station and resume their previous route, resulting in 106 net PM Peak traffic trips. The analysis notes that a Fred Meyer gas station is located 0.4 miles west of the proposed gas station, which will reduce the demand for either location.

The Traffic Impact Analysis identifies the most probable used intersections for evaluation as:

- Wilsonville Road/Boones Ferry Road
- Wilsonville Road/I-5 Southbound ramps
- Wilsonville Road/I-5 Northbound ramps

The analysis was run to include existing conditions plus the new gas station, existing conditions plus a number of anticipated “Stage II” projects in the area, and existing conditions plus the gas station and the Stage II projects. The analysis showed that the study intersections will continue to perform at Level of Service D or better and thus meet City standards.

For the purpose of evaluating parking standards, the proposed development falls into the use category commercial retail store in Table 5 of Section 4.155. The parking minimum is 4.1 spaces per 1,000 square feet, and the parking maximum is 6.2 per 1,000 square feet. As the proposed building is 2,999 square feet, the minimum number of parking spaces is 13 and the maximum number of parking spaces is 19. The applicant proposes to utilize the 12 spaces at the gas pumps as required spaces, since they meet dimensional standards for parking, plus 6 additional spaces adjacent to the convenience store to satisfy the requirement. These 18 spaces on site meet the project's parking requirements, exceeding the minimum and not exceeding the maximum. One ADA-accessible space is proposed.

Pedestrian and Vehicular Circulation

A new sidewalk is proposed on SW Boones Ferry Road along the site frontage. Pedestrian circulation is a direct in-and-out pattern, connecting from the Boones Ferry sidewalk to the main store entrance. This internal pedestrian connection crosses in front of the drive-thru window, but the applicant has proposed a variation in materials for this path at these two locations, *i.e.*, a raised or textured sidewalk. A condition of approval will ensure this variation in materials is shown on construction plans for the development.

Proposed vehicular circulation on the site is in a counter-clockwise loop around the gas pumps. After entering the site from a shared entry point off Boones Ferry Road, vehicles proceed through the Ram Restaurant property to the entry at the far southeast corner of the lot. Motor vehicles then circulate around the gas pumps in a loop and exit at the west side of the site. For those using the drive-thru window, vehicles will reverse direction north of the gas pumps to make a smaller, clockwise loop around the west side of the store.

Drive-thru and Onsite Vehicular Queuing

The traffic study includes an analysis of site circulation and queuing for the proposed drive-thru window associated with the convenience store. The site plan shows approximately 175 feet or 7 vehicles of queue storage on site available for the drive-thru window. Additional demand would spill on to the adjacent site, Ram Restaurant, or the public street.

It is difficult to anticipate the intensity of use and the resulting queues for a drive-thru window at a gas station convenience store. A drive-thru window at a convenience store is uncommon. A fast-food restaurant or coffee shop would have much higher levels of use and more real-world examples from which to gather data. The applicant indicated the idea for the drive-thru window came from an increase in demand for this feature during the pandemic. The proposed use and vehicle demand has been evaluated based on the premise that the drive-thru will be used to sell convenience store items only.

A condition of approval requires that if the drive-thru window is used for anything other than selling goods typically sold from the convenience store, it would be a change of use that would require a new land use review. If queues from the drive-thru are larger than expected and spill out of the project site, mitigation may be required for safety improvements.

Discussion Points: Discretionary Review:

This section provides a discussion of discretionary review requests that are included as part of the proposed applications. The Development Review Board may approve or deny items in this section based upon a review of evidence submitted by the applicant.

Waiver – Digital Fuel Price Display

The applicant requests a waiver to include a digital fuel price display on the proposed monument and freestanding signs. If waiver is not approved the price sign would have to be a manual changeable sign. Changeable copy signs are listed as prohibited signs in Subsection 4.156.06 (.01) D. However, language is added that a waiver may be granted to allow them as long as it is ensured specific criteria or conditions are met including:

1. The sign shall be equipped with automatic dimming technology which automatically adjusts the sign's brightness in direct correlation with ambient light conditions and the sign owner shall ensure appropriate functioning of the dimming technology for the life of the sign.
2. The luminance of the sign shall not exceed five thousand (5000) candelas per square meter between sunrise and sunset, and five hundred (500) candelas per square meter between sunset and sunrise.

By definition, changeable copy signs must maintain a copy hold-time of at least fifteen (15) minutes.

While grouped under prohibited signs, the intention of the code is to make the signs conditionally permitted. No conditionally permitted sign section exists currently, so they were grouped in the prohibited sign section as that is where language regarding these signs previously existed in the code.

As further detailed in the findings, the proposed waiver must also be found to meet the sign waiver criteria as follows:

1. The waiver will result in improved sign design, in regards to both aesthetics and functionality.
2. The waiver will result in a sign or signs more compatible with and complementary to the overall design and architecture of a site, along with adjoining properties, surrounding areas, and the zoning district than signs allowed without the waiver.
3. The waiver will result in a sign or signs that improve, or at least do not negatively impact, public safety, especially traffic safety.
4. Sign content is not being considered when determining whether or not to grant a waiver.

Conclusion and Conditions of Approval:

Staff has reviewed the Applicant’s analysis of compliance with the applicable criteria. The Staff report adopts the applicant’s responses as Findings of Fact except as noted in the Findings. Based on the Findings of Fact and information included in this Staff Report, and information received from a duly advertised public hearing, Staff recommends that the Development Review Board approve the proposed application (DB21-0045 through DB21-0048, WAIV22-0002, TPLN22-0004) with the following conditions:

Planning Division Conditions:

Request A: DB21-0045 Stage I Preliminary Plan Modification

No conditions for this request

Request B: DB21-0046 Stage II Final Plan

PDB 1.	<u>Ongoing:</u> The approved final plan shall control the issuance of all building permits and shall restrict the nature, location and design of all uses. Minor changes in an approved preliminary or final development plan may be approved by the Planning Director through the Class I Administrative Review Process if such changes are consistent with the purposes and general character of the development plan. All other modifications shall be processed in the same manner as the original application and shall be subject to the same procedural requirements. See Finding B13.
PDB 2.	<u>Ongoing:</u> Operation of the drive-thru shall only occur in a manner consistent with the project’s traffic impact analysis in support of the convenience store use (Institute of Transportation Engineers Trip Generation Manual, 10 th Edition, Land Use Code 960 – Super Convenience Market/Gas Station). Any proposed changes to the use of the drive-thru, including but not limited to use of the drive-thru for Food and Beverage Services, including new tenants such as a coffee shop or restaurant, must be reviewed, analyzed, and approved by the Planning Director. Food and Beverage Services means establishments or places of business primarily engaged in the sale of prepared food and/or beverages, including restaurants, cafes, and fast food outlets. Use of the drive-thru in a manner inconsistent with this approval shall constitute a violation as defined in Development Code Section 4.026. See Finding B11.
PDB 3.	<u>Prior to Building Permit Issuance:</u> Where the proposed pedestrian pathway crosses the parking area and drive aisles for the drive-thru window, plans shall indicate that the pathway will be clearly marked with contrasting paint or materials and include a detectible warning surface where it crosses the drive-thru loop, clearly delineating the pedestrian pathway. See Finding B37.
PDB 4.	<u>Prior to Building Permit Issuance:</u> Construction plans shall show the location of bicycle parking within 30 feet of the main building entry. See Finding B49.
PDB 5.	<u>Prior to Temporary Occupancy:</u> All travel lanes shall be constructed to be capable of carrying a twenty-three (23) ton load. See Finding B52.

Request C: DB21-0047 Site Design Review

PDC 1.	General: Construction, site development, and landscaping shall be carried out in substantial accord with the Development Review Board approved plans, drawings, sketches, and other documents. Minor revisions may be approved by the Planning Director through administrative review pursuant to Section 4.030. See Finding C15.
PDC 2.	Prior to Temporary Occupancy: All landscaping required and approved by the Board shall be installed prior to issuance of any occupancy permits, unless security equal to one hundred and ten percent (110%) of the cost of the landscaping as determined by the Planning Director is filed with the City assuring such installation within six (6) months of occupancy. "Security" is cash, certified check, time certificates of deposit, assignment of a savings account or such other assurance of completion as shall meet with the approval of the City Attorney. In such cases the developer shall also provide written authorization, to the satisfaction of the City Attorney, for the City or its designees to enter the property and complete the landscaping as approved. If the installation of the landscaping is not completed within the six-month period, or within an extension of time authorized by the Board, the security may be used by the City to complete the installation. Upon completion of the installation, any portion of the remaining security deposited with the City will be returned to the applicant. See Finding C38.
PDC 3.	Ongoing: The approved landscape plan is binding upon the applicant/owner. Substitution of plant materials, irrigation systems, or other aspects of an approved landscape plan shall not be made without official action of the Planning Director or Development Review Board, pursuant to the applicable sections of Wilsonville's Development Code. See Finding C39.
PDC 4.	Ongoing: All landscaping shall be continually maintained, including necessary watering, weeding, pruning, and replacing, in a substantially similar manner as originally approved by the Board, unless altered as allowed by Wilsonville's Development Code. See Findings C40 and C41.
PDC 5.	Prior to Temporary Occupancy: The following requirements for planting of shrubs and ground cover shall be met: <ul style="list-style-type: none"> • Non-horticultural plastic sheeting or other impermeable surface shall not be placed under landscaping mulch. • Native topsoil shall be preserved and reused to the extent feasible. • Surface mulch or bark dust shall be fully raked into soil of appropriate depth, sufficient to control erosion, and shall be confined to areas around plantings. • All shrubs shall be well branched and typical of their type as described in current AAN Standards and shall be equal to or better than 2-gallon containers and 10" to 12" spread. • Shrubs shall reach their designed size for screening within three (3) years of planting. • Ground cover shall be equal to or better than the following depending on the type of plant materials used: gallon containers spaced at 4 feet on center

	<p>minimum, 4" pot spaced 2 feet on center minimum, 2-1/4" pots spaced at 18 inch on center minimum.</p> <ul style="list-style-type: none"> • No bare root planting shall be permitted. • Ground cover shall be sufficient to cover at least 80% of the bare soil in required landscape areas within three (3) years of planting. • Appropriate plant materials shall be installed beneath the canopies of trees and large shrubs to avoid the appearance of bare ground in those locations. • Compost-amended topsoil shall be integrated in all areas to be landscaped, including lawns. See Finding C42.
PDC 6.	Prior to Temporary Occupancy: Plant materials shall be installed to current industry standards and be properly staked to ensure survival. Plants that die shall be replaced in kind, within one growing season, unless appropriate substitute species are approved by the City. See Finding C45.
PDC 7.	Prior to Building Permit Issuance: The applicant shall provide documentation demonstrating compliance with the Oregon Energy Efficiency Code, Exterior Lighting. See Finding C52.
PDC 8.	Ongoing: Lighting shall be reduced one hour after close, but in no case later than midnight, to 50% of the requirements set forth in the Oregon Energy Efficiency Specialty Code. See Finding C55.

Request D: DB21-0048 Class III Sign Permit

PDD 1.	Ongoing: The approved signs shall be installed in a manner substantially similar to the plans approved by the DRB and stamped approved by the Planning Division. The Applicant/Owner of the property shall obtain all necessary building and electrical permits for the approved signs, prior to their installation, and shall ensure that the signs are maintained in a commonly-accepted, professional manner.
PDD 2.	Prior to Building Permit Issuance: The freestanding sign along SW Boones Ferry Road shall include the building address unless otherwise approved in writing by Tualatin Valley Fire & Rescue and submitted to the City’s Planning Division. See Finding D17.

Request E: WAIV-0002 Sign Waiver

PDE 1.	Ongoing: The Applicant/Owner shall ensure the approved sign maintains a copy hold time of at least fifteen (15) minutes. A hold time of less than 15 minutes, except in the specified emergency situations, shall be considered a Public Nuisance and abated accordingly. See Finding E1.
PDE 2.	Ongoing: The sign shall be equipped with automatic dimming technology which automatically adjusts the sign’s brightness in direct correlation with ambient light conditions, the appropriate functioning of the dimming technology shall be maintained for the life of the sign, and the sign brightness shall not exceed five thousand (5000) candelas per square meter between sunrise and sunset, or five hundred (500) candelas per square meter between sunset and sunrise. Not maintaining the dimming technology appropriately or exceeding the allowed

brightness shall be considered a Public Nuisance and abated accordingly. See Finding E7.

Request F: TPLN22-0004 Type C Tree Removal Plan

PDF 1.	General: This approval for removal applies only to the 3 on-site trees identified in the applicant’s submitted materials. All other trees on the property shall be maintained unless removal is approved through separate application.
PDF 2.	Prior to Grading Permit Issuance: The applicant shall submit an application for a Type ‘C’ Tree Removal Permit, together with the applicable fee. In addition to the application form and fee, the applicant shall provide the City’s Planning Division an accounting of trees to be removed within the project site, corresponding to the approval of the DRB. The applicant shall not remove any trees from the project site until the tree removal permit, including the final tree removal plan, have been approved by Planning Division staff.
PDF 3.	Prior to Temporary Occupancy/Ongoing: The permit grantee or the grantee’s successors-in-interest shall cause the replacement trees to be staked, fertilized and mulched, and shall guarantee the trees for two (2) years after the planting date. A “guaranteed” tree that dies or becomes diseased during the two (2) years after planting shall be replaced. See Findings F9 through F12.
PDF 4.	Prior to Commencing Site Grading: Prior to site grading or other site work that could damage trees, the applicant/owner shall install 6-foot-tall chain-link fencing around the drip line of preserved trees. Removal of the fencing around the identified trees shall only occur if it is determined the trees are not feasible to retain. The fencing shall comply with Wilsonville Public Works Standards Detail Drawing RD-1230. Fencing shall remain until authorized in writing to be removed by Planning Division. See Finding F13.

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

Engineering Division Conditions:

PF 1.	<u>Prior to Issuance of the Public Works Permit:</u> Public Works Plans and Public Improvements shall conform to the “Public Works Plan Submittal Requirements and Other Engineering Requirements” in Exhibit C1.
PF 2.	<u>Prior to the Issuance of the Public Works Permit:</u> The Applicant shall apply for City of Wilsonville Erosion Control, Grading and Building Permits. Erosion control measures shall be installed, inspected and approved prior to any onsite work occurring.
PF 3.	<u>With the Public Works Permit application:</u> The applicant shall show on the construction drawings all existing overhead utilities along the proposed development’s frontage on SW Boones Ferry Road will be placed underground in accordance with Section 4.300 of Wilsonville City Code. <u>Prior to final completeness of the Public Works Permit:</u> All existing overhead utilities along the proposed development’s frontage on SW Boones Ferry Road shall be placed underground.
PF 4.	With the land use application, the stormwater report was reviewed for general conformance with the City standards. <u>Prior to the Issuance of Public Works Permit:</u> A final stormwater report shall be submitted for technical review and approval. The stormwater report shall include information and calculations to demonstrate how the proposed development meets the treatment and flow control requirements. The site plan shall show how all source control standards will be met. Any underground injection control facilities proposed shall be Rule Authorized or Permitted by DEQ. <u>Prior to Final Approval of the Public Works Permit:</u> Storm facilities shall be constructed, inspected and approved by the City. The applicant shall record a Stormwater Access Easement for the storm facility.
PF 5.	<u>Prior to Issuance of any Occupancy Permits:</u> The applicant shall provide a site distance certification by an Oregon Registered Professional Engineer for all access points per the Traffic Impact Study.
PF 6.	<u>With the Public Works Permit Application:</u> The applicant shall submit turn templates showing the turning movements for fuel delivery trucks for review. Any modifications to the existing driveways access shall be shown on the plans. If modifications are needed, the driveway shall be reconstructed to current City standards.
PF 7.	<u>Prior to the issuance of any occupancy permits:</u> All public improvements shall be constructed, inspected, approved and accepted by the City.
PF 8.	<u>Prior to Final Approval of the Public Works Permit:</u> The applicant shall record a right-of-way dedication (width varies) along SW Boones Ferry Road.
PF 9.	<u>Prior to Final Approval of the Public Works Permit:</u> The applicant shall record an 8-foot public utility easement along SW Boones Ferry Road.

Master Exhibit List:

The entry of the following exhibits into the public record by the Development Review Board confirms its consideration of the application as submitted. The exhibit list below includes exhibits for Planning Case Files DB21-0045 through DB21-0048, WAIV22-0002, and TPLN22-0004. The exhibit list below reflects the electronic record posted on the City's website and retained as part of the City's permanent electronic record. Any inconsistencies between printed or other electronic versions of the same Exhibits are inadvertent and the version on the City's website and retained as part of the City's permanent electronic record shall be controlling for all purposes.

Planning Staff Materials

- A1. Staff report and findings (this document)
- A2. Staff's Presentation Slides for Public Hearing (to be presented at Public Hearing)

Materials from Applicant

- B1. Applicant's Narrative and Submitted Materials
 - Narrative
 - Application Form
 - Incompleteness Responses
 - Transportation Impact Study
 - Preliminary Storm Report
 - Geotechnical Engineering Study
 - Lighting Specs
 - Type C Tree Removal Plan
 - Republic Services Service Provider Letter
 - TVF&R Service Provider Permit
 - 2010 Access and Parking Easement
 - Draft Stormwater Sewer Easement
- B2. Drawings and Plans
 - Sheet G0.0 Cover, Vicinity Map, Project Scope & Data
 - Sheet G0.1 General ADA Notes
 - Sheet G0.2 Egress Plan/Code Analysis
 - Sheet 1/1 Topographic Survey
 - Sheet C1 Preliminary Grading Plan
 - Sheet C2 Preliminary Utility Plan
 - Sheet C3 Preliminary Truck Turning Plan
 - Sheet L1.1 Landscape Plan
 - Sheet A0.1 Site Plan
 - Sheet A0.2 Trash Enclosure & Site Details
 - Sheet A0.3 Schematic Lighting Plan
 - Sheet A1.0 Architectural Floor Plan
 - Sheet A1.1 RCP Plan

Sheet A1.2 Roof Plan
 Sheet A2.0 Exterior Elevations
 Sheet A2.1 Exterior Elevations
 Sheet A2.2 Exterior Color Board
 Sheet CS1 Fuel Canopy Plans & Details
 Sheet CS2 Fuel Canopy Lighting
 Sheet CS3 Fuel Canopy Underground Fuel Storage Tanks
 Sheet CS4 Propane Tank FDN Plan & Details
 Sheet S1 Monument Sign Details
 Sheet S2 Monument Sign Details
 Sheet S3 Freestanding Sign Details
 Sheet S4 Freestanding Sign Details
 Sheet S5 Freestanding Sign Details
 Sheet S6 Freestanding Sign Details
 Sheet S7 Fuel Canopy Fascia Shell Logo
 Sheet S8 Fuel Canopy Fascia Shell Logo
 Sheet S9 Fuel Canopy Fascia Shell Logo

B3. Email Correspondence from Megan Morgan dated 7/26/2022

Development Review Team Correspondence

C1. Engineering Conditions and Requirements

Other Correspondence

N/A

Procedural Statements and Background Information:

1. The statutory 120-day time limit applies to this application. The applicant first submitted the application on December 14, 2021. Staff conducted a completeness review within the statutorily allowed 30-day review period and found the application to be incomplete on January 12, 2022. The applicant submitted additional material on March 22. On April 19, staff conducted a second completeness review and found the application remained incomplete. The applicant submitted additional material on May 23. Planning Staff deemed the application complete on June 3. The City must render a final decision for the request, including any appeals, by October 1, 2022.

2. Surrounding land uses are as follows:

Compass Direction	Zone:	Existing Use:
North:	PDC	Restaurant (Boone’s Junction)
East:	N/A	I-5 Right-of-Way
South:	PDC	Restaurant (Burger King)
West:	PDI	Boones Ferry Road, Wilsonville Distribution Center

3. Previous Relevant Planning Approvals:

Case	Subject
80PC02	Zone Map Amendment, Stage I Master Plan
84PC16	Stage II Final Plan
84DR14	Site Design Review, Master Sign Plan
93PC22	Stage II Final Plan
93DR22	Site Design Review
AR05-0081	Tentative Partition Plat
AR06-0037	Final Partition Plat
DB06-0045 et. al.	Stage I Modification, Stage II Modification, Master Sign Plan Modification, Type C Tree Removal Plan
DB08-0045	Master Sign Plan

4. The applicant has complied with Sections 4.008 through 4.011, 4.013-4.031, 4.034 and 4.035 of the Wilsonville Code, said sections pertaining to review procedures and submittal requirements. The required public notices have been sent and all proper notification procedures have been satisfied.

Findings:

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

General Information

Application Procedures-In General Section 4.008

The processing of the application is in accordance with the applicable general procedures of this Section.

Initiating Application Section 4.009

The property owner, Peter Angel, signed the application.

Pre-Application Conference Subsection 4.010 (.02)

The City held a Pre-application conference (PA20-0015) on December 10, 2020 in accordance with this subsection.

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

No applicable liens exist for the subject property. The application can thus move forward.

General Submission Requirements Subsection 4.035 (.04) A.

The applicant has provided all of the applicable general submission requirements.

Zoning-Generally Section 4.110

This proposed development is in conformity with the applicable zoning district at the time of application and City review uses the general development regulations listed in Sections 4.150 through 4.199.

Request A: DB21-0045 Stage I Preliminary Plan Modification

As described in the Findings below, the request meets the applicable criteria or will by Conditions of Approval.

Planned Development Regulations

Planned Development Purpose & Lot Qualifications

Subsection 4.140 (.01) and (.02)

- A1.** The proposal is to modify a development previously approved as a planned development meeting the planned development purpose and lot qualifications.

Ownership Requirements

Subsection 4.140 (.03)

- A2.** The property owner, Peter Angel, signed the application.

Professional Design Team

Subsection 4.140 (.04)

- A3.** Mark McKechnie of Oregon Architecture Inc. is the coordinator of a professional design team including an architect, engineer, and a landscape architect.

Comprehensive Plan Consistency

Subsection 4.140 (.06)

- A4.** The proposed project, as found elsewhere in this report, complies with the Planned Development Commercial zoning designation, which implements the Comprehensive Plan designation of 'Commercial' for this property at the time of application submission.

Application Requirements

Subsection 4.140 (.07)

- A5.** The City has scheduled the proposed Stage I Preliminary Plan modification for a public hearing before the Development Review Board in accordance with this subsection and the applicant has met all the applicable submission requirements as follows:
- The property affected by the Stage I Preliminary Plan modification is under an application by the property owner.
 - The applicant submitted a Stage I Preliminary Plan modification request on a form prescribed by the City.
 - The applicant identified a professional design team and coordinator. See Finding A3.
 - The applicant stated the proposed change of use for the subject site within the previously approved master plan.
 - The applicant provided the boundary information.
 - The applicant has submitted sufficient topographic information.
 - The applicant provided a tabulation of the land area to be devoted to various uses.

- The applicant proposes a single phase of development for the proposed modification.
- Any necessary performance bonds will be required.

Planned Development Commercial (PDC) Zone

Typically Permitted Uses

Subsection 4.131 (.01)

- A6.** The proposed gas station and convenience store with a drive-thru window is occupying a previously vacant site. This use is a “retail business” as listed in this section and falls within the typically recommended use definition for the PDC zone.

Block and Access Standards

Subsection 4.131 (.03)

- A7.** No changes to blocks or access spacing are proposed.

Request B: DB21-0046 Stage II Final Plan

As described in the Findings below, the request meets the applicable criteria or will by Conditions of Approval.

Planned Development Regulations-Generally

Planned Development Purpose & Lot Qualifications

Subsection 4.140 (.01) and (.02)

- B1.** The proposed Stage II Final Plan for development of the site is consistent with the Planned Development Regulations purpose statement.

Ownership Requirements

Subsection 4.140 (.03)

- B2.** The property owner, Peter Angel, signed the application.

Professional Design Team

Subsection 4.140 (.04)

- B3.** Mark McKechnie of Oregon Architecture Inc. is the coordinator of a professional design team including an architect, engineers, and a landscape architect.

Stage II Final Plan Submission Requirements and Process

Stage II Submission Within 2 Years of Stage I

Subsection 4.140 (.09) A.

- B4.** The submission of the Stage II Final Plan is concurrent with submission of a revised Stage I Preliminary Plan.

Development Review Board Role

Subsection 4.140 (.09) B.

- B5.** The Development Review Board review considers all applicable permit criteria set forth in the Planning and Land Development Code and staff recommends the Development Review Board approve the application with conditions of approval.

Stage I Conformance, Submission Requirements

Subsection 4.140 (.09) C.

- B6.** The Stage II plans substantially conform to the concurrently submitted revised Stage I Preliminary Plan. The applicant's submitted drawings and other documents show all the additional information required by this subsection.

Stage II Final Plan Detail

Subsection 4.140 (.09) D.

- B7.** The applicant's submitted materials provide sufficiently detailed information to indicate fully the ultimate operation and appearance of the development, including a detailed site plan, landscape plans, and elevation drawings.

Submission of Legal Documents

Subsection 4.140 (.09) E.

- B8.** The Development Review Board does not require any additional legal documentation for dedication or reservation of public facilities.

Expiration of Approval

Subsection 4.140 (.09) I. and Section 4.023

- B9.** The Stage II Approval, along with other associated applications, will expire two (2) years after approval, absent the granting of an extension in accordance with these subsections.

Consistency with Plans

Subsection 4.140 (.09) J. 1.

- B10.** The site's zoning, Planned Development Commercial, is consistent with the Commercial designation in the Comprehensive Plan that applies to the property. The Boones Ferry Road improvements along the subject property frontage, in regards to sidewalk width, do not currently meet the Transportation System Plan and Bicycle and Pedestrian Master Plan requirement for sidewalks and bike lanes along Boones Ferry Road. In describing the relationship to other City Plans the 2013 TSP references the 2006 Bicycle and Pedestrian Master Plan and states it should be used for added clarity and direction when not in conflict with the TSP. Map 1 and the subsequent table in the Bicycle and Pedestrian Master Plan show this section of Boones Ferry is a "Community Walkway/Bikeway" (Project C23). The description of the project is "Provide bike lanes and sidewalks on this section of Boones Ferry Road and Barber Street..." The applicant proposes a sidewalk and planter strip along

the entirety of their 123-foot frontage on Boones Ferry Road. This is consistent with the relevant City plans to improve safety and accessibility.

Traffic Concurrency

Subsection 4.140 (.09) J. 2.

B11. As shown in the Transportation Impact Analysis in Exhibit B1, the proposed gas station and convenience store will generate 240 total PM Peak trips. For the purposes of this evaluation and based on information provided by the applicant, the drive-thru was assumed to support the convenience store use and was not analyzed to support other uses such as food or beverage service. Consistent with standard methodology, the traffic study applied pass-by trip reductions to account for vehicles already on adjacent streets likely to stop at the gas station and resume their previous route, resulting in 106 net PM Peak traffic trips. The analysis notes that a Fred Meyer gas station is located 0.4 miles west of the proposed gas station, which will reduce the demand for either location. The LOS D standard will continue to be met at the studied intersections with existing, planned, and this proposed development as follows:

- Wilsonville Road/Boones Ferry Road – LOS D, Volume to Capacity: 0.80
- Wilsonville Road /I-5 Southbound ramps – LOS C, Volume to Capacity: 0.50
- Wilsonville Road /I-5 Northbound ramps – LOS C, Volume to Capacity: 0.56

A condition of approval will ensure that operation of the drive-thru will occur in a manner consistent with this analysis and that any proposed changes to the use of the drive thru must be reviewed, analyzed, and approved by the Planning Director.

Facilities and Services Concurrency

Subsection 4.140 (.09) J. 3.

B12. The site is a vacant lot within a developed area of the City. Facilities and services, including utilities, are generally available in the immediate area to serve the proposed development. Water and sanitary sewer connections in Boones Ferry are shown on proposed plans.

The applicant has proposed a new sidewalk along the Boones Ferry site frontage which is consistent with the city's Bicycle and Pedestrian Master Plan. A pedestrian pathway between this sidewalk and the entrance to the store is included with site development.

Adherence to Approved Plans

Subsection 4.140 (.09) L.

B13. Condition of Approval PDB 1 ensures adherence to approved plans except for minor revisions by the Planning Director.

Standards Applying to Commercial Developments in Any Zone

Wholly Enclosed Commercial Operations and Exceptions Subsection 4.116 (.05)

B14. The convenience store business will be conducted wholly within a completely enclosed building. “The sale of automotive fuel” is an exception listed in this section. The drive-thru window does not exceed five percent of the floor area of the building as allowed by this section.

Commercial Uses to Meet Industrial Performance Standards Subsection 4.116 (.07)

B15. As indicated in Finding B33, the proposed development meets industrial performance standards.

Commercial Development Generally Subsection 4.116 (.10)

B16. The subject property meets the lot development standards for commercial developments as follows:

- It does not abut any more restrictive zones; thus no general setbacks are required.
- The proposed structure is 23 feet tall, less than the maximum building height of 35 feet.
- There is no limitation on minimum lot size, maximum lot coverage, or minimum street frontage.

Commercial Off-Street Parking Requirements Subsection 4.116 (.12)

B17. Off-street parking is provided consistent with Section 4.155, see Findings B39 through B49.

Commercial Signs Subsection 4.116 (.13)

B18. Signs are being reviewed in accordance with Sections 4.156.01 through 4.156.11. See Request D.

Standards Applying in All Planned Development Zones

Underground Utilities Subsection 4.118 (.02)

B19. A condition of approval will ensure that all overhead utilities along the site’s frontage will be placed underground prior to completeness of the Public Works Permit improvements.

Waivers

Subsection 4.118 (.03)

B20. The applicant does not request any waivers under this section. A sign waiver is requested under a separate section of the code.

Other Requirements or Restrictions

Subsection 4.118 (.03) E.

B21. Staff does not recommend any additional requirements or restrictions pursuant to this subsection.

Impact on Development Cost

Subsection 4.118 (.04)

B22. Implementation of standards and imposing conditions beyond minimum standards and requirements do not unnecessarily increase the cost of development. The sidewalk along Boones Ferry Road is the minimum requirement for consistency with the Transportation System Plan and Bicycle and Pedestrian Master Plan. See Finding B10.

Requiring Tract Dedications or Easements for Recreation Facilities, Open Space, Public Utilities

Subsection 4.118 (.05)

B23. Staff does not recommend any additional tract dedication for recreational facilities, open space, or easements for orderly extension of public utilities consistent with this subsection.

Habitat Friendly Development Practices

Subsection 4.118 (.09)

B24. Clearing of the subject site occurred many years ago; the site's current condition is a vacant grass field. Aside from parking lot trees in this area, which the applicant proposes to retain, no significant native vegetation or other features with significant habitat value exist on the site.

Planned Development Commercial (PDC) Zone

Typically Permitted Uses

Subsection 4.131 (.01)

B25. The proposed gas station and convenience store with a drive-thru window is occupying a previously vacant site. This use is a "retail business" as listed in this section and falls within the typically recommended use definition for the PDC zone.

Wilsonville Road Interchange Area Management Plan (IAMP) Overlay Zone

Where IAMP Regulations Apply Section 4.133.02

B26. The subject property is within the IAMP Overlay Zone, as shown on Figure I-1 of this section. The IAMP standards are thus being applied.

IAMP Permitted Land Uses Same as Underlying Zone Subject to IAMP Restrictions Section 4.133.03

B27. The applicant proposes a use consistent with the underlying PDC zoning. No IAMP requirements would further restrict the proposed use.

Access Management Applicability Subsections 4.133.04 (.01) – (.03)

B28. The applicant proposes a Stage I preliminary plan revision and approval of a Stage II Final Plan within the IAMP Overlay Zone. The access management standards and requirements thus apply. However, the applicant proposes no new accesses to City streets, and no accesses shown for closure or restriction in the IAMP exist on the site.

Access Management Plan Consistency Subsection 4.133.04 (.04) A.

B29. The applicant proposes using existing access to Boones Ferry Road, consistent with the IAMP Access Management Plan.

Joint ODOT Review of Access Subsection 4.133.04 (.04) B.

B30. The applicant does not propose any new accesses requiring ODOT and City review.

Cross Access Easements Subsection 4.133.04 (.05)

B31. The proposal does not include any tax lots identified in the Access Management Plan requiring additional consideration of cross access easements.

Traffic Impact Analysis Required Subsection 4.133.05 (.01)

B32. DKS Associates performed a Traffic Impact Analysis consistent with this subsection. See Exhibit B1.

Industrial Performance Standards

Industrial Performance Standards

Subsection 4.135 (.05)

B33. As required by Subsection 4.116 (.07), the proposed project meets the performance standards of this subsection as follows:

- Pursuant to standard A (enclosure of uses and activities), all non-parking activities and uses will be completely enclosed with the exception of fuel sales and the drive-thru window as noted in Finding B14.
- Pursuant to standard B (vibrations), there is no indication that the proposed development will produce vibrations detectable off site without instruments.
- Pursuant to standard C (emissions), there is no indication the proposed use would produce odorous gas or other odorous matter.
- Pursuant to standard D (open storage), outdoor storage of mixed solid waste and recycling will be screened from off-site view.
- Pursuant to standard E (night operations and residential areas), the proposed use is not located within 100 feet of a residential district.
- Pursuant to standard F (heat and glare), the applicant proposes no exterior operations creating heat and glare.
- Pursuant to standard G (dangerous substances), there are no prohibited dangerous substances expected on the development site. Gasoline and propane delivery and storage will be managed according to state regulations.
- Pursuant to standard H (liquid and solid wastes), staff has no evidence that the operations would violate standards defined for liquid and solid waste.
- Pursuant to standard I (noise), staff has no evidence that noise generated from the proposed operations would violate the City's Noise Ordinance and noises produced in violation of the Noise Ordinance would be subject to the enforcement procedures established in WC Chapter 6 for such violations.
- Pursuant to standard J (electrical disturbances), staff has no evidence that the proposed use would have any prohibited electrical disturbances.
- Pursuant to standard K (discharge of air pollutants), staff has no evidence that the proposed use would produce any prohibited discharge.
- Pursuant to standard L (open burning), the applicant proposes no open burning.
- Pursuant to standard M (outdoor storage), the applicant proposes outdoor storage of mixed solid waste and recycling in an enclosure at the east side of the site, with the appropriate surface material and screening consistent with City standards.
- Pursuant to standard N (unused area landscaping), no unused areas will be bare.

On-site Pedestrian Access and Circulation

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

B34. As shown on the applicant’s site plan in Exhibit B2, a pedestrian connection is proposed from the new Boones Ferry Road sidewalk to the main entrance of the store building.

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

B35. The proposed pedestrian pathway is a flat, paved path. Where it crosses the parking area and drive aisles for the drive-thru window, a condition of approval will ensure the applicant provides a detectible warning surface on the path. The pathways provide access to the main entrance of the store from the sidewalk area.

Vehicle/Pathway Separation-Vertical or Horizontal
Subsection 4.154 (.01) B. 3.

B36. The proposed design of pedestrian pathways provides for vertical separation from vehicle circulation areas.

Crosswalks Clearly Marked
Subsection 4.154 (.01) B. 4.

B37. A condition of approval will ensure the proposed pedestrian pathway is clearly marked with contrasting paint or materials and a detectible warning surface on where it crosses the drive-thru loop, clearly delineating the pedestrian pathway.

Pathways Width and Surface-5 Foot Wide, Durable Surface
Subsection 4.154 (.01) B. 5.

B38. The proposed pathway constructed of asphalt or concrete and has a width of no less than five feet.

Parking and Loading

Parking Design Standards
Section 4.155 (.02) and (.03)

B39. The applicable parking designs standards are met as follows:

Standard	Met	Explanation
Subsection 4.155 (.02) General Standards		
B. All spaces accessible and usable for Parking	☒	The applicant proposes using a combination of fueling spaces under the new fueling canopy, and spaces adjacent to the store building.

J. Sturdy bumper guards of at least 6 inches to prevent parked vehicles crossing property line or interfering with screening or sidewalks.	<input checked="" type="checkbox"/>	Parking spaces adjacent to the store will utilize bumpers to prevent interference with the walkway directly in front of the store building. Because they require through movement of vehicles, bumper guards are not appropriate or required at the fueling spots.
K. Surfaced with asphalt, concrete or other approved material.	<input checked="" type="checkbox"/>	The parking lot and proposed fueling spaces will be surfaced with asphalt or concrete.
Drainage meeting City standards	<input checked="" type="checkbox"/>	Drainage is professionally designed and being reviewed to meet City standards.
L. Lighting won't shine into adjoining structures or into the eyes of passers-by.	<input checked="" type="checkbox"/>	Existing parking lot lighting will be maintained on the site.
N. No more than 40% of parking compact spaces.	<input checked="" type="checkbox"/>	All parking spaces are proposed to be standard spaces.
O. Where vehicles overhang curb, planting areas at least 7 feet in depth.	<input checked="" type="checkbox"/>	No parking spaces are proposed in locations where they overhang curb.
Subsection 4.155 (.03) General Standards		
A. Access and maneuvering areas adequate.	<input checked="" type="checkbox"/>	The site plan shows vehicle circulation and has included a preliminary truck turning plan. The new drive-thru lane provides a minimum 12-foot travel lane for one-way travel. A condition of approval ensures that final truck turning templates are submitted for review prior to issuance of the Public Works Permit.
A.1. Loading and delivery areas and circulation separate from customer/employee parking and pedestrian areas.	<input checked="" type="checkbox"/>	The proposal does not include any loading or delivery areas nor does the City require any for commercial buildings of less than 5,000 square feet.
Circulation patterns clearly marked.	<input checked="" type="checkbox"/>	Circulation for the gas station and drive-thru use is marked with directional signs and pavement markings.
A.2. To the greatest extent possible, vehicle and pedestrian traffic separated.	<input checked="" type="checkbox"/>	The plans delineate separate vehicle and pedestrian traffic areas and separate them except for the two locations where pedestrian path crosses the drive-thru loop. These two locations are distinguished with raised/textured paving.
C. Safe and Convenient Access, meet ADA and ODOT Standards.	<input checked="" type="checkbox"/>	The proposed parking and access enable the meeting of ADA and ODOT standards.

For parking areas with more than 10 spaces, 1 ADA space for every 50 spaces.	☒	The proposal provides one ADA parking spaces for 18 total parking spaces. The ADA space is adjacent to the store entrance.
D. Where possible, parking areas connect to adjacent sites.	☒	The parking area is connected to the adjoining site to the south (Ram Restaurant). Driveway access to the site is through this property.
Efficient on-site parking and circulation	☒	The design of the parking provides safe and efficient circulation through the site, and adequate parking for users of the gas station and store.

Minimum and Maximum Number of Parking Spaces
 Subsection 4.155 (.03) G., Table 5

B40. For the purpose of evaluating parking standards, the proposed development falls into the use category of commercial retail store. The parking minimum is 4.1 spaces per 1,000 square feet, and the parking maximum is 6.2 per 1,000 square feet. As the proposed building is 2,999 square feet, the minimum number of parking spaces is 13 and the maximum number of parking spaces is 19. The applicant proposes to utilize the 12 spaces at the gas pumps as required spaces, because they meet dimensional standards for parking, plus 6 additional spaces adjacent to the convenience store to satisfy the requirement. These 18 spaces on site are within the allowable range for this use. One ADA-accessible space is proposed.

Parking Area Landscaping

Minimizing Visual Dominance of Parking
 Subsection 4.155 (.03) B.

B41. The applicant proposes landscaping at the east and west sides of the parking spaces in front of the store. This helps to minimize the visual dominance of the paved parking.

10% Parking Area Landscape Requirement
 Subsection 4.155 (.03) B. 1.

B42. The parking area for the 6 spaces in front of the store is 1,197 square feet, requiring 119 square feet of interior parking lot landscaping to meet this standard. The landscape islands at the east and west sides of this parking area satisfy this requirement. The island at the west side of this parking area is approximately 46 square feet, and the island at the east side of the parking area is approximately 86 feet, totaling 132 square feet. The 12 parking spaces at the fuel pumps are not considered a parking area as they also function as a fueling station, and do not require landscaping.

Landscape Screening of Parking

Subsection 4.155 (.03) B. 1.

- B43.** The proposed design screens the parking and circulation area from adjacent rights-of-way using the low screen landscaping standard.

Tree Planting Area Dimensions

Subsection 4.155 (.03) B. 2.

- B44.** The parking area in front of the store has only 6 spaces, and therefore is not subject to the minimum planting area requirement. A 4.5 by 19 foot planting area on the west side of this parking area contains buffer plantings.

Parking Area Tree Requirement

Subsection 4.155 (.03) B. 2. and 2. a.

- B45.** With 6 spaces, the stated ratio of one tree for every eight spaces or fraction thereof requires one parking area tree. The landscape plan shows trees in planting areas spread throughout the site, with one tree located approximately 22 feet from the eastern edge of the parking area. Trees and plantings at the exit driveway also screen parking on the site. Therefore, the equivalent aggregate amount is met.

Parking Area Landscape Plan

Subsection 4.155 (.03) B. 2. a.

- B46.** The applicant's landscape plan includes the proposed parking area.

Parking Area Tree Clearance

Subsection 4.155 (.03) B. 2. b.

- B47.** The applicant could typically maintain all trees listed for planting in the parking area and expected to overhang the parking areas to provide a 7-foot clearance.

Bicycle Parking

Required Bicycle Parking

Section 4.155 (.04) A. 1.

- B48.** A retail commercial use requires one bicycle parking space per 4,000 square feet, or a minimum of two bicycle parking spaces. The proposed 2,999-square-foot building requires two bicycle parking spaces. A staple rack that provides two spaces and meets the standard is shown on the plan at the southeast corner of the store.

Bicycle Parking Standards

Section 4.155 (.04) B.

- B49.** The applicant's plans show bicycle parking spaces at least two feet in width and 6 feet in length, with at least five feet of maneuvering space behind each space, meeting the Development Code's minimum requirements. The plans show bicycle racks anchored to

the pavement. The location of bicycle parking is approximately 40 feet from the building's main entrance, more than the 30-foot maximum allowed. A condition of approval will require the applicant to locate this bicycle parking within 30 feet of the main entry prior to issuance of the building permit.

Other Development Standards

Access, Ingress, and Egress Section 4.167

B50. Site access is via an existing driveway from Boones Ferry Road. The applicant has provided an easement agreement showing the ability for the proposed development to use this driveway and the adjacent property for vehicles to gain access to the site.

Natural Features and Other Resources Section 4.171

B51. The property is a graded, grassy, and vacant development site, bordered by paved parking areas and buildings to the south and north. Aside from the several trees along Boones Ferry to be removed and replaced, no significant native vegetation or other resources in need of protection exist on the site.

Access Drives and Travel Lanes Subsection 4.177 (.08)

B52. The design of the access drives provides travel lanes, free from obstructions. The design shows travel lanes as asphalt. Condition of Approval PDB 5 requires a 23-ton carrying capacity for the pavement. The existing and new access lanes provide sufficient emergency access to the building.

Outdoor Lighting Sections 4.199.20 through 4.199.60

B53. The proposal is required to meet the Outdoor Lighting Standards. See Request C, Findings C48 through C55.

Underground Installation of Utilities Sections 4.300-4.320

B54. The applicant proposes only underground utilities. A condition of approval will ensure that the existing overhead utilities along the SW Boones Ferry Road frontage are undergrounded.

Public Safety and Crime Prevention

Design for Public Safety, Surveillance and Access
Subsections 4.175 (.01) and (.03)

B55. The proposed site layout includes walkways reasonably close to the parking lot and building. Building windows are visible from vehicular areas and the public right-of-way, providing opportunity for “eyes on the street.”

Addressing and Directional Signing
Subsection 4.175 (.02)

B56. Addressing will meet public safety standards. The building permit process will ensure conformance. Directional signs area proposed to aid circulation throughout the site.

Lighting to Discourage Crime
Subsection 4.175 (.04)

B57. Lighting design is in accordance with the City’s outdoor lighting standards, which will provide sufficient lighting to discourage crime.

Landscaping Standards

Landscaping Standards Purpose
Subsection 4.176 (.01)

B58. In complying with the various landscape standards in Section 4.176 the applicant has demonstrated the Stage II Final Plan is in compliance with the landscape purpose statement.

Landscape Code Compliance
Subsection 4.176 (.02) B.

B59. The applicant requests no waivers or variances to landscape standards. All landscaping and screening must comply with standards of this section.

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

B60. The applicant’s planting plan implements the landscaping standards and integrates general and low screen landscaping throughout the site, and right-of-way plantings along Boones Ferry Road, consistent with professional landscaping and design best practices. In addition, the applicant proposes screening meeting the high wall standard to screen the outdoor mixed solid waste and recycling area.

Landscape Area and Locations

Subsection 4.176 (.03)

B61. The subject site is 29,905 square feet in area, requiring 4,486 square feet of landscaping to meet the 15 percent landscaping requirement. Proposed landscaping totals approximately 6,270 square feet, which covers approximately 21 percent of the site. Landscape areas shown on the plan include a planting area at the west corner of the lot near the Boones Ferry access, a landscape buffer from the sidewalk frontage and along the street, plantings along the back side of a parking island on the Ram Restaurant lot, and perimeter landscaping around the outside edge of the store. The proposed landscaping is a mix of native and non-native vegetation, including four species of trees, three species of shrubs, and five species of ground covers and grasses.

Buffering and Screening

Subsection 4.176 (.04)

B62. The same zone borders the site on two sides, with comparable commercial uses and to the north and south. These adjacent uses do not warrant any screening or buffering. The building includes a parapet that completely screens the roof, and a masonry wall and painted steel doors screen the mixed solid waste and recycling storage area.

Landscape Plan Requirements

Subsection 4.176 (.09)

B63. The applicant's submitted landscape plans are drawn to scale and show the type, installation size, number and placement of materials. Plans include a plant material list identifying plants by both their scientific and common names. An irrigation plan is included within the landscape plans.

Mixed Solid Waste and Recyclables Storage

DRB Review of Adequate Storage Area, Minimum Storage Area

Subsections 4.179 (.01)

B1. The proposed retail store requires provision of 10 square feet plus 4 square feet per 1000 square feet of floor area of mixed solid waste and recycling storage. At 2,999 square feet, the building requires 22 square feet of storage. The applicant proposes an enclosure of 350 square feet, well in excess of the minimum.

Review by Franchise Garbage Hauler

Subsection 4.179 (.07)

B64. The applicant's Exhibit B1 includes a letter from Republic Services indicating coordination with the franchised hauler, and that the proposed storage area and site plan meets Republic Services requirements.

Request C: DB21-0047 Site Design Review

As described in the Findings below, the request meets the applicable criteria or will by Conditions of Approval.

Site Design Review

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

C1. Staff summarizes the compliance with this subsection as follows:

Excessive Uniformity: The proposed development is unique to the particular context and does not create excessive uniformity.

Inappropriate or Poor Design of the Exterior Appearance of Structures: The applicant used appropriate professional services to design structures on the site using quality materials and design.

Inappropriate or Poor Design of Signs: The applicant used appropriate professionals to design permanent building and freestanding signage, which is compatible with the architecture of the building and the site. See also Request D.

Lack of Proper Attention to Site Development: The applicant employed the skills of the appropriate professional services to design the site, demonstrating appropriate attention to site development.

Lack of Proper Attention to Landscaping: The applicant proposes landscaping exceeding the area requirements professionally designed by a landscape architect, incorporating a variety of plant materials, demonstrating appropriate attention to landscaping.

Objectives of Site Design Review

Proper Functioning of the Site
Subsection 4.400 (.02) A. and Subsection 4.421 (.03)

C2. The professionally designed site has a fully developed plan for vehicular and pedestrian circulation, provides adequate landscaping, and orients the building as it relates to these elements.

High Quality Visual Environment
Subsection 4.400 (.02) A. and Subsection 4.421 (.03)

C3. A professionally designed building and landscaping along with a professional, site-specific layout supports a quality visual environment, appropriate for the aesthetic of the commercial area.

Encourage Originality, Flexibility, and Innovation

Subsection 4.400 (.02) B. and Subsection 4.421 (.03)

- C4. The applicant proposes a building, landscaping, and other site elements professionally designed and original to the site. Sufficient flexibility exists to fit the anticipated development within the site without seeking waivers or variances.

Discourage Inharmonious Development

Subsection 4.400 (.02) C. and Subsection 4.421 (.03)

- C5. As indicated in Finding C3 above the design of the building, landscaping, and other site elements support a high quality visual environment and thus prevent monotonous, drab, unsightly, dreary development. Use of long lasting materials as well as landscaping will make the site more harmonious with adjacent and nearby development.

Proper Relationships with Site and Surroundings

Subsection 4.400 (.02) D. and Subsection 4.421 (.03)

- C6. The applicant prepared a site-specific design that carefully considers the relationship of the building, landscaping, and other improvements with other improvements on and adjacent to the site, existing and planned.

Regard to Natural Aesthetics

Subsection 4.400 (.02) D. and Subsection 4.421 (.03)

- C7. The applicant does not propose to remove natural features that have significant aesthetic value, such as trees or well-established ground cover, or significant contours. The proposed additional landscaping will enhance the natural aesthetic of the site.

Attention to Exterior Appearances

Subsection 4.400 (.02) D. and Subsection 4.421 (.03)

- C8. The applicant used appropriate professional services to design the exterior of the building, utilizing neutral colors and materials.

Protect and Enhance City's Appeal

Subsection 4.400 (.02) E. and Subsection 4.421 (.03)

- C9. The long-vacant site is within a commercial area adjacent to I-5. Adding services and amenities with a quality design enhance the appeal of this area, when compared to the existing condition, an open field between two commercial sites.

Stabilize Property Values/Prevent Blight

Subsection 4.400 (.02) F. and Subsection 4.421 (.03)

- C10. The long-vacant site is within a commercial area near the I-5 Wilsonville Road interchange. Adding services and amenities with a quality design will add value to the area and prevent additional blight on the property.

Adequate Public Facilities

Subsection 4.400 (.02) G. and Subsection 4.421 (.03)

- C11.** As found in the Stage II Final Plan review (Request B), adequate public facilities will serve the site with the conditions of approval as noted in Finding B12.

Pleasing Environments and Behavior

Subsection 4.400 (.02) H. and Subsection 4.421 (.03)

- C12.** Site design has been oriented to allow for ease of surveillance, and is clearly identified as either private, semi-private, or public.

Civic Pride and Community Spirit

Subsection 4.400 (.02) I. and Subsection 4.421 (.03)

- C13.** The proposed gas station and convenience store provides additional services that foster civic pride and community spirit within the commercial area.

Favorable Environment for Residents

Subsection 4.400 (.02) J. and Subsection 4.421 (.03)

- C14.** High quality commercial services provide a favorable environment for residents by through additional opportunities to purchase goods and services.

Jurisdiction and Power of the DRB for Site Design Review

Development Must Follow DRB Approved Plans

Section 4.420

- C15.** Condition of Approval PDC 1 ensures construction, site development, and landscaping are carried out in substantial accord with the Development Review Board approved plans, drawings, sketches, and other documents. The City will not issue any building permits prior to DRB approval.

Design Standards

Preservation of Landscaping

Subsection 4.421 (.01) A.

- C16.** The proposal will not affect significant existing landscaping, including trees or mature groundcover. 10 new trees will be planted to replace three trees removed, and construction will occur on an area that is currently a vacant, grassy field between two developed sites.

Harmony of Proposed Buildings to Environment

Subsection 4.421 (.01) B.

- C17.** The applicant used appropriate professional services to design the exterior of the building to ensure harmony with the natural environment, insofar as it exists on the flat, vacant site between two parking areas and commercial buildings.

Special Attention to Drives, Parking, and Circulation - Access Points
Subsection 4.421 (.01) C.

- C18.** The applicant has worked with a professional design team and the City to ensure the shared driveway access to Boones Ferry Road serving this site meets City standards. The proposed design minimizes driveway access points on the public street and uses existing drive aisles to access the development site.

Special Attention to Drives, Parking, and Circulation - Interior Circulation
Subsection 4.421 (.01) C.

- C19.** The applicant has worked with a professional design team to ensure interior circulation received special attention. The site design provides the necessary access to the building and all parking spaces. The pedestrian circulation on the site is connected to the proposed sidewalk along Boones Ferry Road.

Special Attention to Drives, Parking, and Circulation - Pedestrian and Vehicle Separation
Subsection 4.421 (.01) C.

- C20.** The design separates pedestrian and vehicle circulation except at the locations where it crosses the drive-thru loop.

Special Attention to Drives, Parking, and Circulation - Safe and Convenient Parking Areas
Subsection 4.421 (.01) C.

- C21.** The applicant has worked with a professional design team to ensure the site integrates the adjacent site with the parking and circulation areas for the fuel pumps, store, and drive-thru window. The parking area is conveniently located for access to the building, and the parking for fueling is logically located under the fueling canopy. The parking space size and drive aisle widths are a typical design allowing adequate area for maneuvering.

Special Attention to Drives, Parking, and Circulation - Parking Detracting from Design
Subsection 4.421 (.01) C.

- C22.** The professional site planning fits the parking well with the building design, allowing the building to have a presence from Boones Ferry Road and I-5.

Special Attention to Surface Water Drainage
Subsection 4.421 (.01) D.

- C23.** The applicant proposes a professionally design stormwater system consistent with existing City standards. The stormwater plan includes a rain garden at the center of the drive-thru loop.

Harmonious Above Ground Utility Installations

Subsection 4.421 (.01) E.

C24. No above ground utility installations are proposed.

Indication of Sewage Disposal

Subsection 4.421 (.01) E.

C25. All sewage disposal will be via standard sewer connections to a City sewer line in Boones Ferry Road as part of the Stage II Final Plan.

Advertising Features Do Not Detract

Subsection 4.421 (.01) F.

C26. All advertising features fit within defined sign bands on the building, or are part of the signs that are requested within the sign permit. Placement of the signs and brand logos on the store building and fueling canopy complements the architecture of the structures and is consistent with City sign standards. See also Request D.

Screening and Buffering of Special Features

Subsection 4.421 (.01) G.

C27. The applicant does not propose any special features requiring additional screening or buffering.

Design Standards Apply to All Buildings, Structures, Signs, and Features

Subsection 4.421 (.02)

C28. The applicant's design considers the design standards for all buildings, structures, and other features.

Conditions of Approval to Ensure Proper and Efficient Function

Subsection 4.421 (.05)

C29. Staff does not recommend any additional conditions of approval to ensure the proper and efficient functioning of the development.

Color or Materials Requirements

Subsection 4.421 (.06)

C30. The colors and materials proposed by the applicant are appropriate. Staff does not recommend any additional requirements or conditions related to colors and materials.

Standards for Mixed Solid Waste and Recycling Areas

Mixed Solid Waste and Recycling Areas Colocation

Subsection 4.430 (.02) A.

C31. The proposal provides an exterior storage area for both solid waste and recyclables.

Exterior vs Interior Storage, Fire Code, Number of Locations
Subsections 4.430 (.02) C.-F.

C32. The applicant proposes a single exterior location for mixed solid waste, in a central visible location. Review of the Building Permit will ensure meeting of building and fire code. The screening enclosure is set back from the property line more than the required three feet.

Collection Vehicle Access, Not Obstruct Traffic or Pedestrians
Subsections 4.430 (.02) G.

C33. The applicant included a letter from Republic Services in Exhibit B1, indicating the location and arrangement of the storage area is accessible to collection vehicles. The location of the storage area does not impede sidewalks, parking area aisles, or public street right-of-way.

Dimensions Adequate to Accommodate Planned Containers
Subsections 4.430 (.03) A.

C34. Pursuant to a letter from Republic Services included within Exhibit B1, the dimensions are adequate to accommodate the planned containers.

6-Foot Screen, 10-Foot Wide Gate
Subsections 4.430 (.03) C.

C35. The applicant provides the required screening and gate width for the enclosure.

Site Design Review Submission Requirements

Submission Requirements
Section 4.440

C36. The applicant has provided a site plan drawn to scale and a preliminary landscape plan.

Time Limit on Site Design Review Approvals

Void after 2 Years
Section 4.442

C37. The Applicant plans to develop the proposed project within two years and understands that the approval will expire after two years unless the City grants an extension.

Installation of Landscaping

Landscape Installation or Bonding
Subsection 4.450 (.01)

C38. Condition of Approval PDC 2 will assure installation or appropriate security.

Approved Landscape Plan Binding
Subsection 4.450 (.02)

C39. Condition of Approval PDC 3 provides ongoing assurance approved landscaping is installed and maintained.

Landscape Maintenance and Watering
Subsection 4.450 (.03)

C40. Condition of Approval PDC 4 will ensure continual maintenance of landscaping in a substantially similar manner as originally approved by the Board.

Limitation to Modifications of Landscaping
Subsection 4.450 (.04)

C41. Condition of Approval PDC 4 provides ongoing assurance of conformance with this criterion by preventing modification or removal without the appropriate City review.

Landscaping Standards

Shrubs and Groundcover Materials Requirements
Subsection 4.176 (.06) A.

C42. Condition of Approval PDC 5 requires meeting the detailed requirements of this subsection. Of particular note, the applicant's landscape plan, shows at least 2-gallon containers for shrubs and 1-gallon containers for groundcover.

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

C43. As stated on the applicant's landscape plans, the plant material requirements for trees will be met as follows:

- Trees are balled and burlapped.
- Tree are two-inch caliper, except for the Western Redbud which is 1 ¾ inch.

Plant Species Requirements
Subsection 4.176 (.06) E.

C44. The applicant's landscape plan provides sufficient information showing the proposed landscape design meets the standards of this subsection related to use of native vegetation and prohibited plant materials.

Landscape Installation and Maintenance Standards
Subsection 4.176 (.07)

C45. The installation and maintenance standards are met or will be met by Condition of Approval PDC 6 as follows:

- Plant materials are required to be installed to current industry standards and be properly staked to ensure survival.

- Within one growing season, the applicant must replace in kind plants that die, unless the City approves appropriate substitute species.
- Notes on the applicant's landscape plans provides for an irrigation system.

Landscape Plan Requirements

Subsection 4.176 (.09)

C46. The applicant's landscape plan shows all existing and proposed landscape areas. The to-scale plans show the type, installation size, number and placement of materials. Plans include a plant material list. Plants identification is by both their scientific and common names. A symbol identified as 'KEC' on the landscape plans does not have a corresponding notation on the planting table. As shown in Exhibit B3, the applicant has clarified that this is Emerald Carpet Kinnikinnick (*Arctostaphylos uva-ursi* 'Emerald Carpet').

Completion of Landscaping

Subsection 4.176 (.10)

C47. The applicant has not requested to defer installation of plant materials.

Outdoor Lighting

Applicability of Outdoor Lighting Standards

Sections 4.199.20 and 4.199.60

C48. The proposal includes a new exterior lighting system for a commercial building, fueling area, and parking lot. The outdoor lighting standards apply to the new building and fueling station. Outdoor lights will be provided by under-canopy lighting at the fuel pumps, and "wall wash" lighting at the east side of the store building. A lighting plan showing compliance with the city standards has been provided.

Outdoor Lighting Zones

Section 4.199.30

C49. The subject property is within Lighting Zone 3.

Optional Lighting Compliance Methods

Subsection 4.199.40 (.01) A.

C50. The applicant has the option of the performance or prescriptive method. The applicant has chosen to comply with the prescriptive method.

Maximum Lamp Wattage and Shielding

Subsection 4.199.40 (.01) B. 1. and Table 7

C51. The applicant proposes fixtures from 3 watts to 60 watts, less than the maximum 100 watts for shielded fixtures or unshielded façade lighting in Lighting Zone 3.

Oregon Energy Efficiency Code Compliance
Subsection 4.199.40 (.01) B. 2.

C52. A condition of approval ensures that the applicant provides documentation demonstrating compliance with the Oregon Energy Efficiency Code, Exterior Lighting prior to building permit issuance.

Maximum Mounting Height
Subsection 4.199.40 (.01) B. 3.

C53. The applicant proposes a maximum mounting height of 19 feet, to the underside of the fueling canopy, less than the maximum 40 feet.

Setback from Property Line
Subsection 4.199.40 (.01) B. 4.

C54. The subject site and all surrounding properties are the same Lighting Zone 3 not requiring any setback.

Lighting Curfew
Subsection 4.199.40 (.01) D.

C55. A condition of approval ensures that the lighting will have auto-dimming or will be extinguished consistent with curfew provisions of midnight in Lighting Zone 3.

Request D: DB21-0048 Class III Sign Permit

As described in the Findings below, the request meets the applicable criteria or will by Conditions of Approval.

Sign Review and Submission

Class II Sign Permits Reviewed by DRB
Subsection 4.031 (.01) M. and Subsection 4.156.02 (.03)

D1. The application qualifies as a Class III Sign Permit subject to review by the Development Review Board.

What Requires Class III Sign Permit Review
Subsection 4.156.02 (.06)

D2. The request involves a single tenant in a new development subject to Site Design Review by the Development Review Board.

Class III Sign Permit Submission Requirements
Subsection 4.156.02 (.06) A.

D3. As indicated in the table below the applicant has satisfied the submission for Class III sign permits, which includes the submission requirements for Class II sign permits:

Requirement	Submitted	Waiver Granted		Condition of Approval	Not Applicable	Additional findings/notes
		Info Already Available to City	Info Not Necessary for Review			
Completed Application Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sign Drawings or Descriptions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Documentation of Tenant Spaces Used in Calculating Max. Sign Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Drawings of Sign Placement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Project Narrative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Information on Any Requested Waivers or Variances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Waiver request for digital changeable copy signs

Class III Sign Permit Criteria

Class II Sign Permit Review Criteria: Generally and Site Design Review
 Subsection 4.156.02 (.05) E.

D4. As indicated in Findings below, the proposed signs will satisfy the sign regulations for the applicable zoning district and the relevant Site Design Review criteria.

Class II Sign Permit Review Criteria: Compatibility with Zone
 Subsection 4.156.02 (.05) E. 1.

D5. The proposed signs are typical of freeway-adjacent gas station/convenience store sites, which are permitted in this zone. They are consistent with other development in the area and on adjacent properties. This includes freestanding signs, monument signs, building signage, and canopy fascia signage. No evidence exists nor has testimony been received that the subject signs would detract from the visual appearance of the surrounding development.

Class II Sign Permit Review Criteria: Nuisance and Impact on Surrounding Properties
Subsection 4.156.02 (.05) E. 2.

- D6.** There is no evidence, and no testimony has been received suggesting the subject sign would create a nuisance or negatively impact the value of surrounding properties.

Class II Sign Permit Review Criteria: Items for Special Attention
Subsection 4.156.02 (.05) E. 3.

- D7.** A freestanding monument sign is proposed at the driveway entrance to the site from Boones Ferry Road. This sign includes an identifying logo and digital price labels that change frequently with the fluctuating price of fuel. The sign does not block vision clearance for traffic at this intersection, and landscaping of an appropriate scale will be located around this sign. A freestanding pylon sign, 20 feet in height, is proposed at the east side of the site, facing the I-5 on-ramps. This sign also has digital changeable fuel prices (see Request E). Wall mounted signs are proposed on the south side of the store, above the entry. The building signs will be compatible with the building color scheme and architecture. Finally, the fueling canopy will have an identifying logo on the fascia of the canopy, on each side, which qualifies as a sign.

Sign Measurement

Measurement of Cabinet Signs or Similar
Subsection 4.156.03 (.01) A.

- D8.** Both the freestanding and building/canopy signs fall into the category “cabinet signs or similar.” The proposed signs are measured consistently with this subsection. Following this section, area measurements for freestanding signs are for only one side of the signs, because they have matching sides with the same information on both sides.

Freestanding and Ground Mounted Signs in the PDC, PDI , and PF Zones

General Allowance
Subsection 4.156.08 (.01) A.

- D9.** The applicant proposes two signs, a monument sign at the entry from Boones Ferry Road, and a freestanding pylon sign at the east edge of the site adjacent to the I-5 right of way. Because the site is a through lot with frontage on both the Boones Ferry Road right of way and the I-5 ramps right of way, two signs are permitted.

Allowed Height
Subsection 4.156.08 (.01) B.

- D10.** The proposed pylon sign is 20 feet tall, equaling the maximum allowed height for the sign in the PDC zone. The proposed monument sign cabinet is 5 feet, 4 ³/₄ inches tall and will be

constructed on a concrete base that is flush with the ground. Therefore, this standard is met as neither sign exceeds the 20-foot maximum.

Allowed Area

Subsection 4.156.08 (.01) C.

D11. Within the PDC zone, 64 square feet of area is allowed for signs that are “fronting Interstate 5 and parallel contiguous street sections.” The locations where this allowance applies is shown on Figure S-4, which clearly includes the east frontage of this property and the proposed pole sign. For the monument sign, the maximum sign area in the PDC zone is 32 square feet, because it is for a building with a gross floor area of less than 11,000 square feet and for a single tenant. Fuel price signs “shall not be considered in calculating the sign area or number of signs allowed.” Therefore, the areas of the signs advertising fuel prices are excluded from the total area measurements. Taking these calculations into consideration, the proposed area of the monument sign is 25.8 square feet. The proposed pole sign is 33.3 square feet. Both signs are smaller than the maximum area allowed.

Pole or Sign Support Placement Vertical

Subsection 4.156.08 (.01) D.

D12. The proposed freestanding monument sign and its foundation are proposed to be constructed in a full vertical position. Likewise, the pole sign will be fully vertical.

Extending Over Right-of-Way, Parking, and Maneuvering Areas

Subsection 4.156.08 (.01) E.

D13. The freestanding pole sign and the monument sign are not proposed to extend into or above right-of-way, parking, and maneuvering areas.

Design of Freestanding Signs to Match or Complement Design of Buildings

Subsection 4.156.08 (.01) G.

D14. The proposed signs are white with red lettering and the corporate logo, colors that are also used on the proposed building.

Width Not Greater Than Height for Signs Over 8 Feet

Subsection 4.156.08 (.01) H.

D15. The width of the pylon sign does not exceed the height of the sign.

Sign Setback

Subsection 4.156.08 (.01) J.

D16. Both signs will be placed at a location between two and 15 feet from the public right of way as required.

Address Required to be on Sign

Subsection 4.156.08 (.01) K.

D17. A condition of approval will ensure that the address will be added to the monument sign unless otherwise approved by TVF&R.

Fuel or Service Station Price Signs

Subsection 4.156.08 (.03) D.

D18. Both the pole sign and the monument sign advertise fuel prices. Each fuel price panel on the monument sign is 3.6 square feet in area. Each fuel price panel on the pole sign is 6.02 square feet in area. Both less than the maximum allowed area of 11 square feet per face per type of fuel sold. The total area of the fuel price panels is excluded from the sign area calculation per this allowance.

Signs on Buildings in the PDC, PDI , and PF Zones

Sign Eligible Facades

Subsection 4.156.08 (.02) A.

D19. The south and west building facades are sign eligible. The south façade qualifies because it has an entrance open to the public. The west facade qualifies because it faces Boones Ferry Road. The applicant has proposed signs on the both the west and south elevations. All sides of the fuel canopy are considered sign eligible as each side of the fueling station is open to the general public.

Sign Area Allowed

Subsection 4.156.08 (.02) B.

D20. The west building façade has a length of 33 feet. Therefore, the allowed sign area for the west building façade is 32 square feet. The south building façade has a length of 38 feet. Therefore, the allowed sign area for the south building façade is 32 square feet. Two signs are proposed, each 30 square feet in area, one on the west building façade over the drive-thru window, and one on the south building façade over the main entry door. The size and appearance of these two signs are exactly the same. Both these building signs are below the 32 square foot maximum.

The proposed fuel canopy structure is considered a separate building for the purpose of determining allowed sign area. The north and south canopy facades are approximately 138 feet long and are therefore allowed 72 square feet of sign area each. The east and west fuel canopy facades are approximately 48 feet long and are therefore allowed 36 square feet of sign area each. The north, south and east canopy facades each contain one sign approximately 12 feet in size, while the west canopy contains two 12-square-foot signs. All of these signs are below the allowed maximum sign area.

Length of Building Signs

Subsection 4.156.08 (.02) C.

D21. The building signs proposed by the applicant are 6 feet wide. The width of the signs is less than 75 percent of the length of their respective building elevations, which would be 28.5 feet and 24.8 feet. Likewise, the canopy signs are approximately 3.25 feet wide, which is less than 75 percent of all canopy façade lengths.

Height of Building Signs-Definable Sign Band

Subsection 4.156.08 (.01) D.

D22. The proposed building signs are attached to a background fascia element on the side of the building. The design leaves a noticeable gap between the signs and the upper and lower extent of the sign band. Likewise, the proposed canopy signs are located on a defined sign band.

Allowed Building Sign Types

Subsection 4.156.08 (.01) E.

D23. The proposed signs are wall flat signs, an allowed type.

Site Design Review

Excessive Uniformity, Inappropriateness Design

Subsection 4.400 (.01) and Subsection 4.421 (.03)

D24. Excessive Uniformity: The tenant specific design does not create excessive uniformity.

Inappropriate or Poor Design of Signs: The proposed signs are designed to complement the design of the building.

Lack of Proper Attention to Site Development: The sign design does not impact site development.

Lack of Proper Attention to Landscaping: The landscaping minimizes conflicts with visibility of signs by not placing trees immediately in front or in direct site vision of the proposed building signs.

Purposes and Objectives

Subsection 4.400 (.02) and Subsection 4.421 (.03)

D25. The signs comply with the purposes and objectives of site design review, especially objective D. which specifically mentions signs. The proposed signs are of a scale and design appropriately related to the subject site with the appropriate amount of attention given to visual appearance.

Design Standards

Subsection 4.421 (.01)

D26. The applicant has provided sufficient information demonstrating compliance with the standards of this subsection, specifically objective F. which pertains to advertising features.

There is no evidence the proposed signs will detract from the nearby buildings and/or structures due to size, location, design, color, texture, lighting, or materials proposed.

Applicability of Design Standards, Including Exterior Signs
Subsection 4.421 (.02)

D27. This review applies design standards to exterior signs, as required.

Conditions of Approval to Insure Proper and Efficient Function
Subsection 4.421 (.05)

D28. Staff recommends no additional conditions of approval to ensure the proper and efficient functioning of the development in relation to the sign.

Request E: WAIV22-0002 Sign Waiver

As described in the Findings below, the request meets the applicable criteria or will by Conditions of Approval.

Sign Waiver Review Criteria

Definitions: Changeable Copy Sign
Subsection 4.001 282. F.

E1. The proposed digital price signs will not have moving structural elements, flashing or sequential lights, elements, prisms, or other methods that result in movement. The frequency of text copy changes is proposed to be no more than twice a day, less frequent than the limit of once every 15 minutes. The sign thus meets the definition of a Changeable Copy Sign, "Any sign, digital or manual, which is designed to have the copy changed routinely and where the frequency of copy change does not exceed once every fifteen (15) minutes, except in emergency situations as requested by the City Manager or designee." Condition of Approval PDE 1 will further ensure the 15-minute hold time is maintained.

Sign Waiver Criteria: Design
Subsection 4.156.02 (.08) A. 1.

E2. The proposed freestanding sign change will improve both the aesthetics and the functionality of the sign. The use of LED sign faces will improve the functionality of the sign by allowing the sign to relay price information more accurately while improving the visibility of the sign.

Sign Waiver Criteria: Compatibility
Subsection 4.156.02 (.08) A. 2.

E3. Regarding the proposed sign being more compatible with and complementary to the overall design and architecture of the site, along with adjoining properties, surrounding areas, and the zoning district, the use of digital numbers on a price sign is consistent with

other fuel stations in the City's commercial zones which utilize digital changeable copy fuel price signs.

Sign Waiver Criteria: Public Safety, Especially Traffic Safety

Subsection 4.156.02 (.08) A. 3.

- E4.** There is no evidence the proposed sign will negatively impact public safety, especially traffic safety. As the LED lights do not flash or change intermittently, they do not pose a distraction to drivers the way a constantly changing copy sign or scrolling reader board would. Lastly, the proposed sign is to be located in a location meeting vision clearance standards.

Sign Waiver Criteria: Content

Subsection 4.156.02 (.08) A. 4.

- E5.** The content of the subject sign is not being reviewed or considered as part of this application.

Changeable Copy Sign Waiver Criteria: Dimming Technology

Subsection 4.156.06 (.01) D. 1.

- E6.** Condition of Approval PDE 2 ensures that the proposed electronic sign is equipped with automatic dimming controls that adjust the sign's brightness in direct correlation with ambient light conditions.

Changeable Copy Sign Waiver Criteria: Luminance

Subsection 4.156.06 (.01) D. 2.

- E7.** Condition of Approval PDE 2 ensures in operation the luminance of the sign does not exceed the maximum five thousand (5000) candelas per square meter between sunrise and sunset, and five hundred (500) candelas per square meter between sunset and sunrise.

Prohibited Signs Unless Approved Through Waiver

Changeable Copy Signs Prohibited Unless Approved Through Waiver and Meeting Certain Criteria.

Subsection 4.156.06 (.01) D.

- E8.** The applicant has requested a waiver to allow for a changeable copy sign as defined in Section 4.001. Condition of Approval PDE 2 ensures the specific criteria required for approval of changeable copy signs are met by requiring that the approved sign is equipped with automatic dimming technology which automatically adjusts the sign's brightness in direct correlation with ambient light conditions, the appropriate functioning of the dimming technology for the life of the sign, and the sign brightness does not exceed five thousand (5000) candelas per square meter between sunrise and sunset, or five hundred (500) candelas per square meter between sunset and sunrise.

Request F: TPLN22-0004 Type C Tree Removal Plan

As described in the Findings below, the request meets the applicable criteria or will by Conditions of Approval.

Type C Tree Removal-General

Review Authority

Subsection 4.610.00 (.03) B.

- F1.** The requested removal is connected to Site Design Review by the Development Review Board for new development. The tree removal is thus being reviewed by the DRB.

Conditions of Approval

Subsection 4.610.00 (.06) A.

- F2.** No additional conditions are recommended pursuant to this subsection.

Completion of Operation

Subsection 4.610.00 (.06) B.

- F3.** It is understood the tree removal will be completed by the time development of the proposed facility is completed, which is a reasonable time frame for tree removal.

Security for Permit Compliance

Subsection 4.610.00 (.06) C.

- F4.** No bond is anticipated to be required to ensure compliance with the tree removal plan as a bond is required for overall landscaping.

Tree Removal Standards

Subsection 4.610.10 (.01)

- F5.** The standards of this subsection are met as follows:
- Standard for the Significant Resource Overlay Zone: The proposed tree removal is not within the Significant Resource Overlay Zone.
 - Preservation and Conservation: The applicant has taken tree preservation into consideration, and has limited tree removal to trees that are necessary to remove for development. Three maple trees along the Boones Ferry Road frontage are proposed for removal.
 - Development Alternatives: No significant wooded areas or trees would be preserved by practical design alternatives.
 - Land Clearing: Land clearing is not proposed and will not be a result of this development application.
 - Residential Development: The proposed activity does not involve residential development, therefore this criteria does not apply.

- Compliance with Statutes and Ordinances: The necessary tree replacement and protection is planned according to the requirements of the tree preservation and protection ordinance.
- Relocation or Replacement: The applicant proposes to plant 10 trees as replacement for the 3 trees proposed for removal.
- Limitation: Tree removal is limited to where it is necessary for construction or to address nuisances or where the health of the trees warrants removal.
- Tree Survey: Information about the trees proposed for removal has been provided.

Review Process

Subsection 4.610.40 (.01)

F6. The proposed Type C Tree Plan is being reviewed concurrently with the Stage 2 Final Plan.

Tree Maintenance and Protection Plan

Section 4.610.40 (.02)

F7. The applicant has submitted the necessary information. See the applicant's materials in Exhibit B2.

Replacement and Mitigation

Tree Replacement Requirement

Subsection 4.620.00 (.01)

F8. The landscape plan identifies three trees on the site that need to be removed for development. Two trees are at the north edge of the site, and one is just east of the entry driveway from Boones Ferry Road. Staff notes that mitigation is required for all trees 6 inches D.B.H. and greater, resulting in three trees that require mitigation. The applicant is planting 10 trees, which meets the replacement standard.

Basis for Determining Replacement

Subsection 4.620.00 (.02)

F9. The applicant proposes removing three trees and planting 10 trees. As shown in Exhibit B2, replacement trees will meet the minimum 2-inch caliper requirement.

Replacement Tree Requirements

Subsection 4.620.00 (.03)

F10. A condition of approval will ensure the relevant requirements of this subsection are met.

Replacement Tree Stock Requirements

Subsection 4.620.00 (.04)

F11. A condition of approval will ensure the relevant requirements of this subsection are met.

Replacement Trees Locations

Subsection 4.620.00 (.05)

F12. The applicant is proposing tree planting along Boones Ferry Road and within the site in parking lot landscape areas. The proposed tree locations are appropriate for the development.

Protection of Preserved Trees

Tree Protection During Construction

Section 4.620.10

F13. Tree protection is required, specifically for existing maple trees at the east side of the Boones Ferry driveway and the east side of the parking/landscape island on the abutting Ram Restaurant property. All trees required to be protected must be clearly labeled as such, and suitable barriers to protect remaining trees must be erected, maintained, and remain in place until the City authorizes their removal or issues a final certificate of occupancy. A condition of approval will ensure the applicable requirements of this section are met.

From: [Megan Morgan](#)
To: [Rybold, Kim](#)
Cc: ["Mark@oregonarchitecture.biz"](mailto:Mark@oregonarchitecture.biz)
Subject: RE: Shell gas station - landscape plan
Date: Tuesday, July 26, 2022 12:38:46 PM
Attachments: [image003.png](#)
[image002.png](#)

[This email originated outside of the City of Wilsonville]

Hi Kim,

That is a type of ground cover/grass.
 Common name: Kinnikinnick, Emerald Carpet
 Botanical name: Arctostaphylos uva-ursi 'Emerald Carpet'
 Size: 2g

Megan Morgan

DESIGN PROJECT MANAGER, ASSOC. AIA



132 WEST MAIN STREET #101
 MEDFORD, OREGON 97501
megan@OregonArchitecture.biz
 PH: 541.772.4372

From: Rybold, Kim <rybold@ci.wilsonville.or.us>
Sent: Tuesday, July 26, 2022 11:59 AM
To: Megan Morgan <megan@oregonarchitecture.biz>; 'Mark@oregonarchitecture.biz' <mark@oregonarchitecture.biz>
Subject: Shell gas station - landscape plan

Megan,

There is a plant labeled "KEC" in the landscape plan but it is not listed in the legend. Can you tell me what that plant is?

Thank you,

Kimberly Rybold, AICP

Senior Planner
 City of Wilsonville

503.570.1583
rybold@ci.wilsonville.or.us



Exhibit C1
Public Works Plan Submittal Requirements
and Other Engineering Requirements

1. All construction or improvements to public works facilities shall be in conformance to the City of Wilsonville Public Works Standards - 2017.
2. Applicant shall submit insurance requirements to the City of Wilsonville in the following amounts:

Coverage (<i>Aggregate, accept where noted</i>)	Limit
<u>Commercial General Liability:</u>	
▪ General Aggregate (per project)	\$3,000,000
▪ General Aggregate (per occurrence)	\$2,000,000
▪ Fire Damage (any one fire)	\$50,000
▪ Medical Expense (any one person)	\$10,000
<u>Business Automobile Liability Insurance:</u>	
▪ Each Occurrence	\$1,000,000
▪ Aggregate	\$2,000,000
<u>Workers Compensation Insurance</u>	\$500,000

3. No construction of, or connection to, any existing or proposed public utility/improvements will be permitted until all plans are approved by Staff, all fees have been paid, all necessary permits, right-of-way and easements have been obtained and Staff is notified a minimum of 24 hours in advance.
4. All public utility/improvement plans submitted for review shall be based upon a 22" x 34" format and shall be prepared in accordance with the City of Wilsonville Public Work's Standards.
5. Plans submitted for review shall meet the following general criteria:
 - a. Utility improvements that shall be maintained by the public and are not contained within a public right-of-way shall be provided a maintenance access acceptable to the City. The public utility improvements shall be centered in a minimum 15-ft. wide public easement for single utilities and a minimum 20-ft wide public easement for two parallel utilities and shall be conveyed to the City on its dedication forms.
 - b. Design of any public utility improvements shall be approved at the time of the issuance of a Public Works Permit. Private utility improvements are subject to review and approval by the City Building Department.
 - c. In the plan set for the PW Permit, existing utilities and features, and proposed new private utilities shall be shown in a lighter, grey print. Proposed public improvements shall be shown in bolder, black print.

- d. All elevations on design plans and record drawings shall be based on NAVD 88 Datum.
 - e. All proposed on and off-site public/private utility improvements shall comply with the State of Oregon and the City of Wilsonville requirements and any other applicable codes.
 - f. Design plans shall identify locations for street lighting, gas service, power lines, telephone poles, cable television, mailboxes and any other public or private utility within the general construction area.
 - g. As per City of Wilsonville Ordinance No. 615, all new gas, telephone, cable, fiber-optic and electric improvements etc. shall be installed underground. Existing overhead utilities shall be undergrounded wherever reasonably possible.
 - h. Any final site landscaping and signing shall not impede any proposed or existing driveway or interior maneuvering sight distance.
 - i. Erosion Control Plan that conforms to City of Wilsonville City Code Section 8.317.
 - j. Existing/proposed right-of-way, easements and adjacent driveways shall be identified.
 - k. All engineering plans shall be printed to PDF, combined to a single file, stamped and digitally signed by a Professional Engineer registered in the State of Oregon.
 - l. All plans submitted for review shall be in sets of a digitally signed PDF and three printed sets.
6. Submit plans in the following general format and order for all public works construction to be maintained by the City:
- a. Cover sheet
 - b. City of Wilsonville construction note sheet
 - c. Land Use Conditions of Approval sheet
 - d. General construction note sheet
 - e. Existing conditions plan.
 - f. Erosion control and tree protection plan.
 - g. Site plan. Include property line boundaries, water quality pond boundaries, sidewalk improvements, right-of-way (existing/proposed), easements (existing/proposed), and sidewalk and road connections to adjoining properties.
 - h. Grading plan, with 1-foot contours.
 - i. Composite utility plan; identify storm, sanitary, and water lines; identify storm and sanitary manholes.
 - j. Detailed plans; show plan view and either profile view or provide i.e.'s at all utility crossings; include laterals in profile view or provide table with i.e.'s at crossings; vertical scale 1"= 5', horizontal scale 1"= 20' or 1"= 30'.
 - k. Street plans.
 - l. Storm sewer/drainage plans; number all lines, manholes, catch basins, and cleanouts for easier reference.
 - m. Stormwater LID facilities (Low Impact Development): provide plan and profile views of all LID facilities.
 - n. Water and sanitary sewer plans; plan; number all lines, manholes, and cleanouts for easier reference.

- o. Where depth of water mains are designed deeper than the 3-foot minimum (to clear other pipe lines or obstructions), the design engineer shall add the required depth information to the plan sheets.
 - p. Detailed plan for water quality facility (both plan and profile views), including water quality orifice diameter and manhole rim elevations. Provide detail of inlet structure and energy dissipation device. Provide details of drain inlets, structures, and piping for outfall structure. Note that although storm water facilities are typically privately maintained they will be inspected by engineering, and the plans must be part of the Public Works Permit set.
 - q. Composite franchise utility plan.
 - r. City of Wilsonville detail drawings.
 - s. Illumination plan.
 - t. Striping and signage plan.
 - u. Landscape plan.
7. Design engineer shall coordinate with the City in numbering the sanitary and stormwater sewer systems to reflect the City's numbering system. Video testing and sanitary manhole testing will refer to City's numbering system.
8. The applicant shall install, operate and maintain adequate erosion control measures in conformance with City Code Section 8.317 during the construction of any public/private utility and building improvements until such time as approved permanent vegetative materials have been installed.
9. Applicant shall work with City Engineering before disturbing any soil on the respective site. If 5 or more acres of the site will be disturbed applicant shall obtain a 1200-C permit from the Oregon Department of Environmental Quality. If 1 to less than 5 acres of the site will be disturbed a 1200-CN permit from the City of Wilsonville is required.
10. The applicant shall be in conformance with all stormwater and flow control requirements for the proposed development per the Public Works Standards.
11. The applicant shall be in conformance with all source control requirements for the proposed development per the Public Works Standards and Wilsonville City Code.
12. A storm water analysis prepared by a Professional Engineer registered in the State of Oregon shall be submitted for review and approval by the City.
13. The applicant shall be in conformance with all water quality requirements for the proposed development per the Public Works Standards. If a mechanical water quality system is used, prior to City acceptance of the project the applicant shall provide a letter from the system manufacturer stating that the system was installed per specifications and is functioning as designed.

14. Storm water quality facilities shall have approved landscape planted and approved by the City of Wilsonville prior to paving.
15. The applicant shall contact the Oregon Water Resources Department and inform them of any existing wells located on the subject site. Any existing well shall be limited to irrigation purposes only. Proper separation, in conformance with applicable State standards, shall be maintained between irrigation systems, public water systems, and public sanitary systems. Should the project abandon any existing wells, they shall be properly abandoned in conformance with State standards.
16. All survey monuments on the subject site, or that may be subject to disturbance within the construction area, or the construction of any off-site improvements shall be adequately referenced and protected prior to commencement of any construction activity. If the survey monuments are disturbed, moved, relocated or destroyed as a result of any construction, the project shall, at its cost, retain the services of a registered professional land surveyor in the State of Oregon to restore the monument to its original condition and file the necessary surveys as required by Oregon State law. A copy of any recorded survey shall be submitted to Staff.
17. Streetlights shall be in compliance with City dark sky, LED, and PGE Option B requirements.
18. Sidewalks, crosswalks and pedestrian linkages in the public right-of-way shall be in compliance with the requirements of the U.S. Access Board.
19. No surcharging of sanitary or storm water manholes is allowed.
20. The project shall connect to an existing manhole or install a manhole at each connection point to the public storm system and sanitary sewer system.
21. A City approved energy dissipation device shall be installed at all proposed storm system outfalls. Storm outfall facilities shall be designed and constructed in conformance with the Public Works Standards.
22. The applicant shall provide a 'stamped' engineering plan and supporting information that shows the proposed street light locations meet the appropriate AASHTO lighting standards for all proposed streets and pedestrian alleyways.
23. All required pavement markings, in conformance with the Transportation Systems Plan and the Bike and Pedestrian Master Plan, shall be completed in conjunction with any conditioned street improvements.
24. Street and traffic signs shall have a hi-intensity prismatic finish meeting ASTM 4956 Spec Type 4 standards.

25. The applicant shall provide adequate sight distance at all project driveways by driveway placement or vegetation control. Specific designs to be submitted and approved by the City Engineer. Coordinate and align proposed driveways with driveways on the opposite side of the proposed project site.
26. The applicant shall provide adequate sight distance at all project street intersections, alley intersections and commercial driveways by properly designing intersection alignments, establishing set-backs, driveway placement and/or vegetation control. Coordinate and align proposed streets, alleys and commercial driveways with existing streets, alleys and commercial driveways located on the opposite side of the proposed project site existing roadways. Specific designs shall be approved by a Professional Engineer registered in the State of Oregon. As part of project acceptance by the City the Applicant shall have the sight distance at all project intersections, alley intersections and commercial driveways verified and approved by a Professional Engineer registered in the State of Oregon, with the approval(s) submitted to the City (on City approved forms).
27. Access requirements, including sight distance, shall conform to the City's Transportation Systems Plan (TSP) or as approved by the City Engineer. Landscaping plantings shall be low enough to provide adequate sight distance at all street intersections and alley/street intersections.
28. Applicant shall design interior streets and alleys to meet specifications of Tualatin Valley Fire & Rescue and Republic Services for access and use of their vehicles.
29. The applicant shall provide the City with a Stormwater Maintenance and Access Easement Agreement (on City approved forms) for City inspection of those portions of the storm system to be privately maintained. Applicant shall provide City with a map exhibit showing the location of all stormwater facilities which will be maintained by the Applicant or designee. Stormwater LID facilities may be located within the public right-of-way upon approval of the City Engineer. Applicant shall maintain all LID storm water components and private conventional storm water facilities; maintenance shall transfer to the respective homeowners association when it is formed.
30. The applicant shall "loop" proposed waterlines by connecting to the existing City waterlines where applicable.
31. Applicant shall provide a minimum 6-foot Public Utility Easement on lot frontages to all public right-of-ways. An 8-foot PUE shall be provided along Collectors. A 10-ft PUE shall be provided along Minor and Major Arterials.
32. For any new public easements created with the project the Applicant shall be required to produce the specific survey exhibits establishing the easement and shall provide the City with the appropriate Easement document (on City approved forms).

33. Mylar Record Drawings:

At the completion of the installation of any required public improvements, and before a 'punch list' inspection is scheduled, the Engineer shall perform a record survey. Said survey shall be the basis for the preparation of 'record drawings' which will serve as the physical record of those changes made to the plans and/or specifications, originally approved by Staff, that occurred during construction. Using the record survey as a guide, the appropriate changes will be made to the construction plans and/or specifications and a complete revised 'set' shall be submitted. The 'set' shall consist of drawings on 3 mil. Mylar and an electronic copy in AutoCAD, current version, and a digitally signed PDF.



(541) 772-4372

132 WEST MAIN STREET, SUITE 101

MEDFORD, OREGON 97501

www.oregonarchitecture.biz

Proposed new construction of a convenience store with twelve (12) gas pump stations.
Current address: 29760 SW Boones Ferry Rd., Wilsonville, OR 97070
Acreage: .69 acres; 29,605 sq.ft.
Building GSF:3,100 GSF
Tax lots: 31W14D00900
Current Zoning: PDC – Planned Development Commercial

APPLICANT STATEMENT

September 7, 2021

Revised May 5, 2022: changes are indicated by Italic typeface

Summary of Proposal:

This project is located on .69 acres, of vacant land. The project site is bounded by Boones Ferry Road to the west and Interstate 5 off-ramp to the east. There is existing development to the north and south. There are no existing trees *within the center of the site. There are trees on the adjoining property to the south at both the east and west ends. These trees are outside the development perimeter will be able to remain. There are two maple trees in the northwest corner of the site that must be removed to accommodate the required public sidewalk.*

The development will include a 2,999 sq. ft. convenience store with a 12-gas pump station with canopy. The existing entrance from Boones Ferry Road *on the property to the south will provide access to the proposed development; no new driveways are proposed.* The convenience store will be V-B construction. A drive thru window will be installed on the west elevation. *The primary purpose of this drive-up window will be to facilitate the purchase of convenience store items. It is not intended to facilitate the delivery of food items. Those items will only be available for purchase from inside the store. That small change would also require additional staff, which is not in the owner's business plan.*

The site circulation has been revised to one way, with entrance at the east and exit to the west onto the adjacent parcel. We believe that will eliminate conflicts at the drive-through lane and at the site exit onto Boones Ferry Road. We also believe it will eliminate potential cross-traffic conflicts at the west site egress point.

A new sidewalk will be constructed along the Boones Ferry frontage, as per City requirements. Pedestrian access to the building will be from this sidewalk to the front entrance of the Convenience Store. This is the most direct route to the building from the public way. This route must cross the drive-thru lane twice, but to enhance pedestrian safety where this conflict exists we are proposing a different paving material at the crossings, and we typically elevate the surface so autos are aware that pedestrians have the right-of-way at this location.

The parking available on site does *meets the minimum and maximum City requirements, when the spaces at the pumps are included, as allowed by City Development Code.*



The existing utilities are developed beyond the project site, requiring little work *within* the street right-of-way. The existing overhead electrical lines are being reviewed by the power company to determine if there are required to be underground for the length of the project site. The overhead electrical lines extend beyond the project site to the north and south. There are no restrictions from Oregon Department of Transportation concerning the off-ramp from Interstate 5 adjoining the property.

The project will include a fuel price sign *along Boone's Ferry Road*, a pylon sign limited to 20 feet in height along the Interstate 5 property line, *and signage on the building and the canopy over the fuel pumps. The signage is addressed within the Signage Application, which is part of this application package.*

Discussion of key issues:

From the pre-application conference, one comment indicated any signs on the project site is limited to 20 feet in height. The developer accepts the 20 foot limit. *We have applied for a waiver for the fuel price sign.*

Another comment from the pre-application conference indicated the city would not allow a new driveway access to Boones Ferry Road from the project site. The City was in agreement that the driveway on the adjacent property will provide adequate access to the site.

There was a comment concerning the overhead power lines along the frontage of the project site. The city development code requires new development to provide utilities underground. The project team is in the process of coordinating with the power company on whether the overhead lines existing can or should be underground for the length of the project property.

There was a comment concerning the Right-of-Way along Boones Ferry Road, with the Engineering Department from the City indicating the ROW varies between 64 and 66 feet. The project team *has verified the width of the existing ROW and has revised the project base drawings, which now show a planter strip along the curb and a sidewalk behind it. The property owner will dedicate the land under those two improvements as part of the City ROW.*

After the pre-application conference, a Traffic Study was completed *by the City.*

The contracted garbage hauler has reviewed and accepted the Schematic Site Plan. Please see attached letter.

Code Criteria

APPLICABLE SECTIONS OF THE WILSONVILLE DEVELOPMENT CODE CHAPTER 4

Section 4.116 – Commercial Development Standards in All Zones

(.10) – Commercial developments generally

- A. No structure shall be erected closer than the right of way line then existing or the officially planned right of way of any public, county, or state road.*
- B. Minimum Front Yard Setback: None required except when front yard abuts a more restrictive district.*
- C. Minimum Rear Yard Setback: None required except when rear yard abuts a more restrictive district.*
- D. Minimum Side Yard Setback: None required except when side yard abuts a more restrictive district.*

- E. *Maximum building height: Thirty-five (35) feet, unless taller buildings are specifically allowed in the zone.*
- F. *Minimum Lot Size: No limitations, save and except as may otherwise be affected by other provisions of this Code.*
- G. *Maximum Lot Coverage: No limitation, save and except as may otherwise be affected by other provisions of this Code.*
- H. *Minimum Street Frontage: No limitation, save and except as may be necessary to provide minimum access requirements.*

Section 4.118 – Standards Applying to All Planned Development (PD) Zones

(.01) – Height Guidelines – In “S” overlay zones, the solar access provisions of Section 4.137 shall be used to determine maximum building heights.

- **The proposed project is not located in the “S” overlay zone, this section does not apply.**

(.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.

- **The proposed project will keep existing above ground and underground utilities in place, except as required by Section 4.300 to 4.320, where burying existing overhead utilities are required and approved by appropriate utility company.**

(.07) Density Transfers

- **The proposed project does not have housing density, this section does not apply.**

(.08) Wetland Mitigation and other mitigation for lost or damaged resources

- **The proposed project does not impact a resource area. This section does not apply.**

(.09) Habitat-Friendly Development Practices

A. Minimizing grading, removal or native vegetation, disturbance and removal of native soils and impervious areas.

- **The proposed site is a vacant lot, with little vegetation existing. All existing trees will remain in place. While impervious surfaces will be installed, 19% of the site will be vegetated with low water, low maintenance ground cover and landscaping.**

Section 4.131 – Planned Development Commercial (PDC) Zones

(.01) The following shall apply to any PDC zone:

A. Uses that are typically permitted:

1. Retail business, goods and sales

(.02) Prohibited Uses

- **The proposed project’s use is permitted from (.01) A and is not prohibited from (.02).**

Section 4.140 – Planned Development Regulations

(.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*

(.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 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 by the State of Oregon.*
- C. *One of the professional consultants chosen by the applicant from either 1,2, or 3, above shall be designated to be responsible for conferring with the planning staff with respect to the concept and details of the plan.*

- **The proposed project's team includes a licensed architect, landscape architect and registered engineer. The project's scope too small to require an urban planner. The architect is experienced with public bodies in the review process. The architect will be designated to be the contact between the applicant and the planning staff.**
- **Mark McKechnie, Licensed Architect; (541) 772-4372; mark@oregonarchitecture.biz**
- **Megan Morgan, Project Manager; (541) 772-4372, megan@oregonarchitecture.biz**

(.05) Planned Development Permit Process

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

- **The proposed project is under the 2-acre requirement. This section does not apply.**

- 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 the 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.*
3. *Final (Stage II) review by the Development Review Board or the Planning Director for properties within the Coffee Creek Industrial Design Overlay District.*

- **The proposed project completed the pre-application conference December 17, 2020. The applicant requests a Stage 2 review of this application and Site Design Review be combined.**
- **This application covers the requirements of the Stage 2 and Site Design Reviews.**

(.07) Preliminary Approval (Stage One)

- A. *An applicant for a Stage I approval shall be considered by the Development Review Board as follows:*
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*
- 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*

- **The requirements of this section are located on the application drawings, including the survey, and calculations for land area for various designations. There is only one use on this site.**
- **The applicant requests that the Stage 2 review of this application and Site Design Review be combined.**
- **This application covers the requirements of the Stage 2 and Site Design Reviews.**

C. *An application for a Stage I approval shall be considered by the Development Review Board as follows:*

4. *A final decision on a complete application and preliminary plan shall be rendered within one hundred and twenty (120) days after the application is deemed complete unless a continuance is agreed upon by the applicant and the appropriate City decision-making body.*

(.09) *Final Approval (Stage Two)*

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*

- **The applicant requests that the Stage 2 review of this application and Site Design Review be combined.**
- **This application covers the requirements of the Stage 2 and Site Design Reviews.**

F. *Within thirty (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 thirty (30) days have elapsed since the plan and application were sent to the agencies, whichever is the shorter period.*

- **The applicant requests that the Stage 2 review of this application and Site Design Review be combined.**
- **This application covers the requirements of the Stage 2 and Site Design Reviews.**

Section 4.154 – On-site Pedestrian Access and Circulation

B.1 Continuous Pathway System. A pedestrian pathway system shall extend through the development site and connect to adjacent sidewalks

B-2 Safe, Direct and Convenient. Pathways within the development shall provide safe, reasonably direct and convenient connections between primary building entrances and all adjacent parking areas.

B-3. Vehicle/Pathway Separation. Except as required for sidewalks...it shall be vertically or horizontally separated from the vehicular lane. Pathway is raised vertically 6 inches above abutting travel lane.

B-4. Crosswalks. Where a pathway crosses a parking area or driveway, it shall be clearly marked with contrasting paint or paving materials.

B-5. Pathway width and surface. Primary pathways shall be constructed of concrete, asphalt, brick/masonry pavers, or other durable surface and not less than (5) feet wide.

- ***Proposed project will provide direct, safe access from adjacent public sidewalk to the building. Crosswalks will be clearly marked. Crosswalk area will be raised and will be constructed of a contrasting material to provide an additional measure of identification and safety.***

Section 4.155 – Parking, Loading, and Bicycle Parking

(.02) – General Provisions

A. 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 purpose of this section.

- ***Proposed project meets the minimum/maximum parking on site and does not need to request a waiver to the parking standards.***

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.

- ***Parking under the canopy at the gas station pumps meet all the required clearances so they can be counted as site parking spaces. The site meets the minimum/maximum parking requirements.***

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.

- ***No shared parking is required.***

(.03) – Minimum and Maximum Off-Street Parking Requirements

A. Parking and loading or delivery areas and circulation shall be designed with access and maneuvering area adequate to serve the functional needs of the site.

- ***The Application package includes a truck turning diagram showing the operation of a fuel supply truck to/from Boones Ferry Road and through the site. The diagram has been prepared by a licensed Engineer.***

- B. *Parking and loading or delivery areas shall be landscaped to minimize the visual dominance of the parking or loading area*
1. *Landscaping of at least ten percent (10%) of the parking area designed to be screened from view from the public right-of-way and adjacent properties. This landscaping shall be considered to be part of the fifteen percent (15%) total landscaping required in Section 4.176.03 for the site development.*
 2. *Landscape tree planting areas shall be a minimum of eight (8) feet in width and length and spaced every eight (8) parking spaces or an equivalent aggregated amount.*
- 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.*

- ***Project site is too small to require a loading and delivery area separate from customer and employee parking. This project will interconnect with the adjacent lot. The project will also be sharing the entrance of the adjacent lot as the access point, reducing the number of entrances along Boones Ferry Road.***

G. *Tables 5 shall be used to determine the minimum and maximum parking standards for various land uses.*

- **The project is classified as e. Commercial; 1. Retail store except supermarkets and stores selling bulky merchandise and grocery stores 1500 sq. ft. gross floor area or less.**
- **The calculation for minimum parking: 4.1 parking spaces per 1000 sq. ft.**
- **The proposed convenience store is $2,999 \text{ sq. ft.} / 1,000 = 3.0 \times 4.1 = 12.3$ or 13 parking spaces.**
- **The calculation for maximum parking: 6.2 parking spaces per 1,000 sq. ft.**
- **The proposed convenience store is $2,999 \text{ sq. ft.} / 1,000 = 3.0 \times 6.2 = 18.6$ or 19 parking spaces.**
- **The proposed project will have 12 parking spaces at the gas pumps, plus 6 new parking spaces equals 16 parking spaces, which is within the allowable range.**

(.04) – *Standards for Required 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.*

- **Table 5 calculation is: 1 bicycle space per 4,000 sq. ft. or Minimum of 2. The proposed project is less than 4,000 sq. ft., 2 bicycle spaces will be provided.**

Section 4.156.01. Sign Regulations Purpose and Objectives.

- A. *Well-designed and aesthetically pleasing signs sufficiently visible and comprehensible from streets and rights-of-way that about a site as to aid in wayfinding, identification and provide other needed information.*
- B. *Sign design and placement that is compatible with and complementary to the overall design and architecture of a site, along with adjoining properties, surrounding areas, and the zoning district.*

- C. *A consistent and streamlined sign review process that maintains the quality of sign development and ensures due process.*
- D. *Consistent and equitable application and enforcement of sign regulations.*
- E. *All signs are designed, constructed, installed, and maintained so that public safety, particularly traffic safety, are not compromised.*
- F. *Sign regulations are content neutral.*

The project proposes the following signs: one freestanding pylon sign along the I-5 frontage. The pylon shall be a maximum of 20 feet tall and the sign face shall be within the limits allowed by the Development Code. The sign face will be internally lit, and it will contain an electronic reader board for the fuel price.

There will be a monument sign on the Boones Ferry frontage. It will be a maximum of 5 feet 6 inches tall and will have an electronic message reader to indicate the price of fuel. Its overall size will be within the limits allowed by the Development Code. It will be internally lit.

There will be signage on all four sides of the Family Mart building. The signage will be individual letters and they will be internally lit. The fuel canopy will have the gas company logo, internally lit, but will not have any lettering.

A full Class III signage application has been included with this Development Approval Application.

Section 4.156.02 Sign Review Process and General Requirements.

(.06) Class III Sign Permit. Sign permit requests shall be processed as a Class III Sign Permit when associated with new development, except as noted in Subsection 4.156.02 (.05) C., or redevelopment requiring DRB review, and not requiring a Master Sign Plan; when a sign permit request is associated with a waiver or non-administrative variance; or when the sign permit request involves one or more freestanding or ground mounted signs greater than eight (8) feet in height in a new location.

We have requested a waiver for the electronic reader for fuel price information for the pylon sign, noted as WAIV22-0002.

Section 4.171 – General Regulations – Protection of Natural Features and Other Resources

(.02) – General Terrain Preparation

- A. *All developments shall be planned, designed, constructed and maintained with maximum regard to natural features and topography, especially hillside areas, floodplains and other significant landforms.*
- B. *All grading, filling and excavating done in connection with any development shall be in accordance with the Uniform Building Code.*

- **The proposed project will follow the requirements of the Uniform Building Code. This proposed project will minimize as much as possible the impact on the terrain.**

(.03) – Hillsides

- **This section does not apply to this project.**

(.04) – Trees and Wooded Areas

- A. *All developments shall be planned, designed, constructed and maintained so that:*
1. *Existing vegetation is not disturbed, injured, or removed prior to the site development and prior to an approved plan for circulation, parking and structure location.*
 3. *Existing trees are preserved within any right-of-way when such trees are suitably located, healthy and when approved grading allows.*
- **The proposed project will retain and protect the existing tree at the Boones Ferry entrance and the tree east of the east entrance to the site. The 2 existing trees at the northwest corner of the property will interfere with the new sidewalk and will therefore need to be removed.**

(.05) – High Voltage Powerline Easements and Rights of Way and Petroleum Pipeline Easements

- B. *Any proposed non-residential development within high voltage powerline easements and rights of way and petroleum pipeline easements shall be coordinated with and approved by the Bonneville Power Administration, Portland General Electric Company or other appropriate utility, depending on the easement or right of way ownership.*
- **The proposed project will coordinate with Portland General Electric regarding burying non high voltage powerlines within an easement coordinated with Portland General Electric.**

Section 4.176 Landscaping, Screening and Buffering

(.02) – Landscaping and Screening Standards

A. *Subsections “C” through “I”, below, state the different landscaping and screening standards to be applied throughout the city.*

- **This section will be addressed with the Landscape Plan included in this application package.**

Section 4.175 – Public Safety and Crime Prevention

(.04) – Exterior lighting shall be designed and oriented to discourage crime.

- **The proposed project will utilize site lighting to illuminate the area to reduce crime.**

Section 4.177 – Street Improvement Standards

(.02) – Street Design Standards

A. *All street improvements and intersections shall provide for the continuation of streets through specific developments to adjoining properties or subdivision.*

- **The proposed project will be utilizing an existing adjacent entrance for access.**

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.*

- ***The City Engineer has reviewed the site and existing Right-of-Way width. The revised stie plan shows a planter strip and***

E. Corner or clear vision area

1. *A clear vision area which meets the Public Works Standards shall be maintained on each corner of the property at the intersection of any two streets, a street and a railroad or a street and a driveway.*

- **The proposed project will utilize the existing entrance on the adjacent lot. This entrance meets the clear vision requirements.**

.03 – Sidewalks

- A. Sidewalk widths shall include a minimum through zone of at least five feet.

- **The proposed project will include sidewalks no less than five feet.**

.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.*

- **The proposed project will utilize the existing access drive on the adjacent lot. This access drive will remain as is.**

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

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

(.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 sections.

- **See attached letter from Republic Services approving Site Plan for trash services.**

Section 4.199 Outdoor Lighting

Section 4.199.10 – Outdoor Lighting in General

(.01) –Purpose.

- *The proposed project will adhere to the requirements of this section concerning outdoor lighting.*

Section 4.199.20 – Applicability

(.02) – Exemptions

- A. Interior lighting
- B. Internally illuminated signs
- C. Externally illuminated signs
- F. Building Code required path lighting
- K. Code required signs
- M. Landscape lighting

- **The proposed project will not have any lighting other than the above lighting installed on the site.**

Section 4.199.30 – Lighting Overlay Zones

(.02) – *The Lighting Zones shall be:*

- C. LZ 3 – *Medium to high density suburban neighborhoods and suburban commercial districts, major shopping and commercial districts as depicted on the Lighting Overlay Zone Map.*

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*
 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*
 4. *Each luminaire shall be set back from all property lines at least 3 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.*

- **The proposed project will include exterior outdoor lighting meeting the requirements above. The manufacturer’s product information is included in the application package.**

Section 4.199.50 – Submittal Requirements

(.01) – *Applicants shall submit the following information as part of the 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 zones 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 the lighting curfew.*

(.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 A-F above) which indicates for each luminaire the 3 mounting height line to demonstrate compliance with the setback requirements. For luminaires mounted within 3 mounting heights of the property line the compliance exception or special shielding requirements shall be clearly indicated.*

- **The proposed project meets the exemptions requirements of 4.199.40(.01)4. a, mounting height line is not required.**
- **The proposed project will utilize the prescriptive method for outdoor lighting requirements. The Lighting Plan is included in the application package, indicating compliance with this section of the development code. The manufacturer’s product information is also included in the application package.**

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.

(.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.

Section 4.400 Site Design Review

Section 4.421 Criteria and Application of Design Standards

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

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

- **The proposed site is currently vacant, *but has been previously cleared for development.* Any grading changes will be minimal. The proposed project will be generally (commercial) keeping the same appearance with the neighboring (restaurants) properties.**
 - 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 or 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 proposed project site lies adjacent to highway I-5. The site is currently vacant. There are no steep slopes on the property nor any wildlife habitats.**
 - 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 the number of access points, general interior circulation, separation of pedestrian and vehicular traffic, and arrangement of parking area that are safe and convenient and, insofar as practicable, do not detract from the design of proposed buildings and structures and the neighboring properties.*
- **The proposed project will utilize the existing driveway on the adjacent lot. The project will extend the existing *public* sidewalk to the end of the project site. *As much as possible pedestrian and vehicular traffic have been separated, and where necessary, pedestrian crossings have been defined to provide safe and convenient pedestrian circulation.* The general vehicular circulation on the site has been modified to be one way around the gas pumps, and to the drive thru window.**
 - 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.*
- **The proposed storm drainage plan will meet the requirements of Oregon Department of Environmental Quality, for construction and normal operating stormwater requirements.**
 - 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.*
 - 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.*
- **Sign information is included in this application. Additional information will be under Section 4.156.01 Sign Regulations Purpose and Objectives**
 - (.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.*
- **The proposed project will not require a Conditional Use Permit, the property follows the Comprehensive Plan which allows service centers at the project location.**

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.

- **See comments under Section 4.179 Mixed Solid Waste and Recycling section.**

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 requirements of Section 4.035, the following:

- A. A site plan, drawn to scale, showing the proposed layout of all structures and other improvements...*
- 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...*
- 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...*
- D. A Color Board displaying specifications as to type, color, and texture of exterior surfaces of proposed structures.*
- 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 fees.*

- **The above drawings are included in the application package.**

Section 4.600 Tree Preservation and Protection

Section 4.600.30 Tree Removal Permit Required

- **The proposed project will remove the 2 existing trees at the northwest corner of the property to provide adequate room for the new sidewalk; a Type C tree removal plan is provided with the Removal Application.**

Section 4.620.10 Tree Protection During Construction

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

- ***Tree protection for the remaining existing tree on the adjacent site has been provided for on the Landscape Plan.***

Planning Division
Development Permit Application



29799 SW Town Center Loop E, Wilsonville, OR 97070
Phone: 503.682.4960 Fax: 503.682.7025
Web: www.ci.wilsonville.or.us

Final action on development application or zone change is required within 120 days in accordance with provisions of ORS 227.175

A pre application conference is normally required prior to submittal of an application. Please visit the City's website for submittal requirements

Pre-Application Meeting Date: December 17, 2020

Incomplete applications will not be scheduled for public hearing until all of the required materials are submitted.

Applicant:

Name: Mark McKechnie
Company: Oregon Architecture Inc.
Mailing Address: 132 Main Street, Suite 101
City, State, Zip: Medford, OR 97501
Phone: (541) 772-4372 Fax: _____
E-mail: charles@oregonarchitecture.biz


Authorized Representative:

Name: Mark McKechnie
Company: Oregon Architecture Inc.
Mailing Address: 132 Main Street, Suite 101
City, State, Zip: Medford, OR 97501
Phone: (541) 772-4372 Fax: _____
E-mail: charles@oregonarchitecture.biz

Property Owner:

Name: Wilsonville Retail/Angel LLC
Company: Wilsonville Retail/Angel LLC
Mailing Address: 6454 N Greeley Ave
City, State, Zip: Portland, OR 97217
Phone: 503-525-9100 Fax: _____
E-mail: jangel@pacificstar.biz

Property Owner's Signature:


Printed Name: Peter Angel Date: 9/10/21

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

Printed Name: _____ Date: _____

Site Location and Description:

Project Address if Available: 29760 SW Boones Ferry Rd., Wilsonville, OR 97070 Suite/Unit _____
Project Location: Vacant
Tax Map #(s): 31W14D Tax Lot #(s): 00900 County: Washington Clackamas

Request:

This request is for the approval of development, Site Design Review, sign permit and conditional use permit for a new, convenience store and 12 pump gas station located on Boones Ferry Rd.

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 checked="" 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 | |



June 3, 2022

Mark McKechnie
Oregon Architecture, Inc.
132 W. Main Street, Suite 101
Medford, OR 97501

Application Numbers: DB21-0045 through DB21-0048, WAIV22-0002, TPLN22-0004
Boones Ferry Gas Station/Store

Proposal: Stage I Preliminary Plan Modification, Stage II Final Plan, Site Design Review, Class 3 Sign Permit and Waiver, Type C Tree Removal Plan

Location/Legal: 29760 SW Boones Ferry Road, Wilsonville, OR 97070. Tax Lot 900, Section 14D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon.

Status: Notice that Your APPLICATION IS COMPLETE

Dear Mr. McKechnie:

City of Wilsonville Site Development application forms submitted regarding the property described above list you as the applicant. The City initially received your applications on December 14, 2021, for a Stage I Preliminary Plan Amendment, Stage II Final Plan, Site Design Review, and Class 3 Sign Permit. You submitted additional information on March 22, 2022, in response to the city's incomplete letter dated January 12, 2022, and on May 23, 2022 in response to the City's incompleteness letter dated April 19, 2022.

Based on the information submitted, City staff has determined your application to be complete. The date of the determination is today, June 3, 2022. The application can now move forward to presentation and hearing before the Development Review Board (DRB).

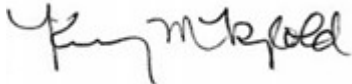
For the purpose of applying the 120-day time limit, the application was deemed to be complete today, June 3, 2022. City staff will process the application based upon the material currently on file.

Please note our request that the comments and corrections included in the attached list related to compliance, which came to City staff's attention during the completeness review, be addressed

and/or incorporated as appropriate in the final set of application materials. Please provide 5 copies of the final set of plans (reduced 11" by 17", full sheet drawn to scale and **folded**, and electronic) and other materials (both paper and electronic copies), upon receipt of this notice and once requested corrections have been made, for publication and distribution to the DRB.

If you have any questions or require additional information, please contact me at 503-570-1583 or rybold@ci.wilsonville.or.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Kimber Rybold". The signature is written in a cursive, flowing style.

Kimber Rybold, AICP
Senior Planner
City of Wilsonville

DB21-0045 through DB21-0048, WAIV22-0002, TPLN22-0004 Boones Ferry Gas Station/Store

Comments and corrections to be addressed in final application materials:

Planning Comments

- A. Show elevation and dimensions of gas pump canopy and identify locations of proposed canopy signage. Sheet CS1 is illegible.
- *SEE REVISED SHEET CS1 WITH FUEL CANOPY ELEVATIONS, DIMENSIONS AND SIGNAGE LOCATIONS.*
- B. Show drawing of pylon sign that complies with 20-foot height limit and 64-square-foot sign area limit. Panels for fuel prices are excluded from the 64-square-foot limit.
- *SEE REVISED SHEET S3.*
- C. Resubmit materials with consistent number for building square footage. Page 1 heading of revised narrative says 3,100 square feet, other references are to 2,999 square feet.
- *RESPONSE: PAGE 1 HEADING REVISED TO 2,999 SF.*
- D. Building signage is not allowed on the east and north facades of the building per Subsection 4.156.08 (.02) A. Building signage may be allowed on the east building façade in lieu of the proposed freestanding sign adjacent to I-5 as provided for in Subsection 4.156.08 (.02) B. 5. Revise drawings to show compliance.
- *RESPONSE: BUILDING SIGNAGE REMOVED FROM THE EAST AND NORTH FACADES OF THE BUILDING.*
- E. Provide dimensions for fuel price panels on the monument and pylon signs.
- *SEE REVISED SHEETS S1 AND S3.*
- F. Provide a Word version of the narrative/findings.
- *RESPONSE: WORD VERSION PROVIDED.*

Engineering Comments

- G. Revise plan set to illustrate driveway approach modifications as submitted by the project's Civil Engineer to the City's Development Engineering Manager.
- *SEE REVISED CIVIL PLANS THAT SHOW MODIFICATIONS TO THE APPROACH, C1-C3.*

Owner
 Architect
 Engineer
 Consultant
 Contractor
 Other

Date
 Job Name

May 19, 2022
Wilsonville Convenience Store
29760 SW Boones Ferry Road
Wilsonville, OR 97070
DB21-0045 – DB21-0048

Kimberly Rybold, AICP
 Senior Planner
 City of Wilsonville
 Planning Department
 (503) 570-1583
rybold@ci.wilsonville.or.us

Attached is the response to the city incompleteness letter.

If any additional information is needed I am hopeful we can handle it either over the phone or via email. I can be reached via telephone at the above number, or via e-mail at mark@oregonarchitectue.biz.

Thank you.



SIGNED: _____
 (MARK MCKECHNIE, AIA)



April 19, 2022

Mark McKechnie
Oregon Architecture, Inc.
132 W. Main Street, Suite 101
Medford, OR 97501

Application Number: DB21-0045 through DB21-0048

Proposal: Stage I Preliminary Plan Modification, Stage II Final Plan, Site Design Review, Class 3 Sign Permit

Location: 29760 SW Boones Ferry Road, Wilsonville, OR 97070

Legal Description: Tax Lot 900, Section 14D, Township 3 South, Range 1 West, Willamette Meridian, Washington County, Oregon

Status: Notice that Your APPLICATION IS NOT COMPLETE

Mark McKechnie:

City of Wilsonville Site Development application forms submitted regarding the property described above list you as the applicant. The City initially received your applications on December 14, 2021, for a Stage I Preliminary Plan Amendment, Stage II Final Plan, Site Design Review, and Class 3 Sign Permit. You submitted additional information on March 22, 2022, in response to the city’s incomplete letter dated January 12, 2022.

The application as submitted is still incomplete, based on the applicable provisions of ORS 227.178 (2) and Subsection 4.035(.05) Wilsonville Code (“WC”), due to the following missing items:

1. Incomplete written responses to applicable review criteria. As discussed in pre-application meeting comments, the city requires a project narrative with written findings explaining how all applicable criteria and standards are met by the proposal. The applicable review criteria include the following:

- On-Site Pedestrian Access and Circulation: Section 4.154 – The connection from the public sidewalk to building entrance crosses vehicles going into and out of the drive through loop. The revised narrative does not offer additional explanation about how this path is “safe, direct and convenient.” Provide details about the how pedestrian connections throughout the site meet this standard, due to location, paving treatment, or vertical or horizontal separation.
 - *The attached revised narrative addresses this criteria.*
 - *The circulation path of the parking lot and gas station have been revised to allow for improved pedestrian connections on the site. See the Schematic Site Plan on A0.1.*

- Parking, Loading, and Bicycle Parking: Section 4.155 – The revised finding states that the project “will request a waiver” for including the parking on the adjacent lot, but no additional information or waiver is included with the submitted materials. A shared parking agreement with adjacent owner may be used to satisfy minimum requirement, but this requires “satisfactory legal evidence” of a shared parking agreement for the specific number of spaces. A shared parking agreement must be accompanied by an analysis that there is sufficient parking to support the adjacent use, minus the shared spaces, or that the hours of peak parking demand do not overlap. Finally, if the 12 spaces at the gas pumps will be used to satisfy the minimum parking requirement (which staff has previously indicated to the applicant is allowed), this potentially eliminates the need for the shared parking, and the count on Sheet A0.1 should be updated.
 - *The 12 spaces at the gas pumps will be included in the parking count total and the count has been updated on sheet A0.1.*

- Signs: Sections 4.156.01 through 4.156.11 – Revised submittals have withdrawn some sign information and indicate a sign permit will be requested “later on” despite the inclusion of a Class III sign permit request. As previously communicated to the applicant, since this is new construction, Class III Sign Permit applications are typically included with the land use package as, per Section 4.031 of the Development Code, the review of sign location and size is under the jurisdiction of the Development Review Board for new construction. It is important to understand the location and size of any building and freestanding signs as they relate to the architecture and site plan for the project. Once approved by the DRB, the applicant would only need to obtain a Class I Sign Permit (staff level review) with the final sign designs.

If you elect not to complete the Class III sign permit with this application package, you would then need to go through a second Development Review Board public hearing process for approval of the project’s signs. Any required modifications to the building design or site plan to accommodate the signs could require additional

land use review. Given this, it is highly advisable to complete the Class III Sign Permit at this point. The site plan indicates locations for a monument sign and a pole sign. Written findings determining compliance with Sections 4.156.01 through 4.156.11 are necessary in order for staff and the DRB to determine whether they comply with code, and how they are integrated with the other site elements requested in the proposal. Identification of the location and size of building signs should also be included.

- *See sheets S7 – S9 for canopy fascia signage details.*
 - *See sheets S3 – S6 for free standing sign details.*
 - *See sheets S1 and S2 for monument sign details.*
 - *See updated elevations on sheets A2.0 and A2.1 with proposed building signage and the allowed area based on the façade length.*
- Tree Preservation and Protection: Sections 4.600 through 4.640.20 – The revised materials indicate two trees at the northwest corner of the property will be removed. They also indicate a future request for a Type C tree removal permit. The materials still do not address the status of a 14 inch maple that is on the east side of the driveway entrance to the property. Clarify if this tree will also be removed and address standards for tree removal for these frontage trees shown on survey drawing.
 - *This tree is to remain, see updated landscape plan on sheet L1.1.*
2. Insufficient detail in submitted plans and drawings. While some information is provided, the following specific information is missing:
- Landscape Plan
 - No tree protection or removal plan for Boones Ferry frontage trees east of driveway opening
 - *This tree is to remain, see updated landscape plan on sheet L1.1.*
 - General Site Plan
 - Gas pump parking space dimensions, if being used to meet minimum requirements
 - *The 12 spaces at the gas pumps will be included in the parking count total. The dimensions and the count have been updated on sheet A0.1.*
 - Location of propane storage tank shown on Sheet CS3
 - *See sheet CS4*
 - Architectural drawings
 - Revised elevations showing sign locations and designs
 - *See sheets S7 – S9 for canopy fascia signage details.*
 - *See sheets S3 – S6 for free standing sign details.*
 - *See sheets S1 and S2 for monument sign details.*
 - *See updated elevations on sheets A2.0 and A2.1 with proposed building signage and the allowed area based on the façade length.*

- Schematic Truck Turning Plan
 - The truck turning plan should be prepared by a registered engineer and shown on the surveyed site plan. The plan should include all of the site improvements on the RAM property, including parking spaces and landscaping islands, on this schematic.
 - *See preliminary truck turning plan on sheet C3.*
3. Insufficient information in the submitted Transportation Impact Study (TIS) to support the proposed use of the drive-thru. During scoping for the TIS, the applicant indicated that this window would be used for the sale of items within the convenience store. Given this, analysis under the Super Convenience Market/Gas Station ITE Code (960) was determined to be most appropriate for the use, serving as the basis for anticipated Transportation System Development Charges (SDCs) to be collected at the time of construction. In the response to the first incompleteness letter, the applicant noted that the drive-thru will be used for a food buffet inside the convenience store. The use of the drive-thru in this manner requires additional transportation analysis to account for the portion of the space devoted to food service use. This will also have an impact on SDCs that will be required at the time of construction.
 - *The traffic for the proposed drive-thru has been addressed, please see the revised narrative.*
 4. Correspondence from TVF&R indicating feasibility of providing services. The revised narrative cites a TVF&R permit number but does not include a copy of the service provider permit.
 - *See attached copy of the approved application and plans.*
 5. Sign Plan including:
 - Drawings or descriptions of all materials, sign area and dimensions used to calculate areas, lighting methods, and other details sufficient to judge the full scale of the signs and related improvements.
 - *See sheets S7 – S9 for canopy fascia signage details.*
 - *See sheets S3 – S6 for free standing sign details.*
 - *See sheets S1 and S2 for monument sign details.*
 - *See updated elevations on sheets A2.0 and A2.1 with proposed building signage and the allowed area based on the façade length*
 - Sign features on canopy, if proposed.
 - *See sheets S7 – S9 for canopy fascia signage details.*
 - Dimensions of pole sign.
 - *See sheets S3 – S6 for free standing sign details.*
 - Day and night versions of pole sign.
 - *See sheets S3 – S6 for free standing sign details.*
 - Details for monument sign, like connection to ground.
 - *See sheets S1 and S2 for monument sign details.*
 - Waiver for electronic changeable copy sign, if proposed.

- Completed by the City of Wilsonville; WAIV22-0002.
 - Drawings of all building facades on which signs are proposed, indicating the areas of the facades on which signs will be allowed.
 - See updated elevations on sheets A2.0 and A2.1 with proposed building signage and the allowed area based on the façade length.
6. The Stormwater Report refers to a Geotech Report that identifies 4-5" of infiltration at this site. The applicant should provide the Geotech Report with the application to confirm this.
- Geotech report provided.
7. The easement document provided shows the access, but does not address the proposed storm facility straddling the property line and the allowance for the connection to the private storm lateral. Provide a copy of a draft easement showing how these facilities will be addressed.
- See sheets C1 & C2 along with the preliminary drainage report.
 - See the provided draft easement, attached.

In addition to the incompleteness items listed above, the following questions and comments regarding compliance came to City staff's attention while reviewing the materials for completeness. This list is not intended to be a comprehensive review of potential compliance issues, which will occur upon receipt of a completed application. Please respond and/or incorporate into updated materials as appropriate.

Engineering Comments (in addition to incomplete items included above)

- A. It appears that the drainage from the parking area is proposed to be directed toward the fueling island. That drainage must be hydraulically separated from the fueling island.
- Noted, see sheets C1 & C2 along with the preliminary drainage report.
- B. An underground injection control facility at a gas station is not authorized by rule by DEQ and must be permitted. As the site has a connection to the public system, it is likely that this process will take some time to actually get permitted. Because development on this site is dependent on getting this permitted, better documentation that this can be approved by DEQ should be submitted.
- Noted, see sheets C1 & C2 along with the preliminary drainage report.
- C. The westernmost access point for the site does not meet minimum clear drive aisle requirements as noted in the 2017 Public Works Construction Standards. This minimum may be reduced to 20 feet from the back of sidewalk pursuant to the criteria identified in subsection 201.2.23.m. These criteria require on-site circulation to be designed in a way to not create a safety hazard by reducing the clear drive aisle length.

The current drive-thru configuration requires customers entering the drive-thru lane to cross over the path of customers leaving the drive-thru and others circulating throughout the site which may create conflicts and disrupt circulation on the site.

- *The westernmost site access point is existing and has a length of 21'-1", see the site plan on sheet A0.1.*
- *The circulation path of the parking lot and gas station have been revised to allow for improved pedestrian connections on the site. With the site circulation changed to have the east opening be the ingress location, and the west open be the egress location, we have eliminated the potential conflict of patrons wanting to immediately turn left into the project after clearing Boones Ferry Road and the potential hazards of cross traffic at the west site opening. See the Schematic Site Plan on A0.1 for the site traffic pattern diagram.*

Incompleteness items 1-7 need to be addressed in order to complete the applications. Please provide 3 copies of the revised project narrative, findings, and reduced 11" by 17" plans, full sheet plans drawn to scale and folded plus an electronic copy of the project narrative, findings, and plans. When you have resubmitted the application materials, staff will have up to 30 days to determine whether the application is complete. ORS 227.178. Upon determination the application is complete please provide 7 additional copies of the materials listed above. If there are revisions please provide 10 copies of the final set of plans and other materials, both paper and electronic copies.

If you have any questions or require additional information, please contact me at 503-570-1583 or rybold@ci.wilsonville.or.us.

Sincerely,



Kimberly Rybold, AICP

Owner
 Architect
 Engineer
 Consultant
 Contractor
 Other

Date
 Job Name

March 22, 2022

 Wilsonville Convenience Store

 29760 SW Boones Ferry Road

 Wilsonville, OR 97070

 DB21-0045 – DB21-0048

Kimberly Rybold, AICP
 Senior Planner
 City of Wilsonville
 Planning Department
 (503) 570-1583
rybold@ci.wilsonville.or.us

Attached is the response to the city incompleteness letter.

If any additional information is needed I am hopeful we can handle it either over the phone or via email. I can be reached via telephone at the above number, or via e-mail at mark@oregonarchitectue.biz.

Thank you.



SIGNED: _____
 (MARK MCKECHNIE, AIA)



January 12, 2022

Mark McKechnie
 Oregon Architecture, Inc.
 132 W. Main Street, Suite 101
 Medford, OR 97501

Application Number: DB21-0045 through DB21-0048

Proposal: Stage I Preliminary Plan Modification, Stage II Final Plan, Site Design Review, Class 3 Sign Permit

Location: 29760 SW Boones Ferry Road, Wilsonville, OR 97070

Legal Description: Tax Lot 900, Section 14D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon

Status: Notice that Your APPLICATION IS NOT COMPLETE

Mark McKechnie:

City of Wilsonville Site Development application forms submitted regarding the property described above list you as the applicant. The City initially received your applications on December 14, 2021, for a Stage I Preliminary Plan Amendment, Stage II Final Plan, Site Design Review, and Class 3 Sign Permit.

The application submitted is incomplete, based on the applicable provisions of ORS 227.178 (2) and Subsection 4.035(.05) Wilsonville Code (“WC”), due to the following missing items:

1. Incomplete written responses to applicable review criteria. As discussed in pre-application meeting comments, the city requires a project narrative with written findings explaining how all applicable criteria and standards are met by the proposal. The applicable review criteria include the following:

Commercial Development Standards

- Planned Development Commercial (PDC) Zones and Commercial Standards: Section 4.116 and 4.131

General Development Regulations and Standards

- On-Site Pedestrian Access and Circulation: Section 4.154: Explain how connection from public sidewalk to building entrance is “safe, direct and convenient” and provide details about pedestrian connection paving treatment, vertical or horizontal separation.
- Parking, Loading, and Bicycle Parking: Section 4.155: Provide shared parking agreement with adjacent owner used to satisfy minimum requirement. Quantify parking at gas pumps if using to meet standard. Use accurate square footage in parking calculations.
- Street Improvement Standards: Section 4.177: Explain how entry meets clear vision area standard, considering landscaping and proposed monument sign.
- Landscaping, Screening, and Buffering: Section 4.176: Explain, in narrative form, how each standard is met.
- Outdoor Lighting: Sections 4.199 through 4.199.60: Provide details about how lighting standards are met under prescriptive method. Include information about lighting under proposed canopy.
- Underground Utilities: Sections 4.300 through 4.320: Explain how utilities connect to the site. No utility plan provided.
 - *The attached narrative addresses this criteria.*

Signs

- Signs: Sections 4.156.01 through 4.156.11: Provide findings for how sign code is met. Sign permit information submitted December 27 does not have applicant findings. A DRB sign waiver to allow an electronic changeable copy sign (to list fuel prices) is required per Section 4.156.02(.08). **Written findings and the associated waiver request application fee (\$592) are necessary concurrent with the Class III sign permit request.**
 - *The sign permit is to be a separate submittal later on.*

Trees

- Tree Preservation and Protection: Sections 4.600 through 4.640.20: Address standards for tree removal for the Boones Ferry frontage trees shown on survey drawing. **Since there is tree removal proposed with development, a Type C Tree Removal Plan meeting the requirements of Subsection 4.610.40 and associated application fee (\$167) are required as part of the application package.**
 - *The 2 existing maple trees on the frontage of Boones Ferry Road that are next to the new proposed sidewalk and drive-thru will need to be removed due to their proximity to the new sidewalk. A Type C Tree application and fee will be submitted.*

2. Insufficient detail in submitted plans and drawings. While some information is provided, the following specific information is missing or internally inconsistent:

- Cover Sheet
 - Building size in project description inconsistent with other sheets

- *Building size updated to match other sheets, 3,000 SF.*
- Landscape Plan
 - No tree protection or removal plan for Boones Ferry frontage trees shown on survey
 - *There is now a landscape plan provided with this information; see L.1.*
 - Sign locations or landscaping around them
 - *There is now a landscape plan provided with this information; see L.1.*
 - *There are also sign locations shown on the Schematic Site Plan; see A0.1.*
 - Vision clearance areas at entry
 - *There is now a landscape plan provided with this information; see L.1.*
- General Site Plan
 - Correct location of signs
 - *There are sign locations shown on the Schematic Site Plan; see A0.1.*
 - Additional detail on sidewalk improvements
 - *Sidewalk & right-of-way improvements shown on the Schematic Site Plan; see A0.1*
 - Gas pump parking space locations and dimensions
 - *Gas pump parking locations and dimensions shown on the Schematic Site Plan; see A0.1*
 - Parking lot landscape island/trees on adjacent property (due to proposed circulation plan)
 - *Adjacent property parking lot landscape island/trees shown on the Schematic Site Plan; see A0.1*
- Grading Plan
 - Proposed contours
 - *See Topographic Survey on 1/1 and civil sheets C1 and C2.*
 - Need full utility plan showing water, sewer, storm sewer connections details
 - *See Preliminary Utility Plan on C2.*
 - Bioswale details
 - *See Preliminary Grading Plan on C1, Preliminary Utility Plan on C2, and Preliminary Drainage Report.*
- Truck Turn Radius Plan
 - Parking lot landscape island/trees on adjacent property (due to proposed truck circulation).
 - *Existing parking lot landscape island/trees shown on adjacent property on the Schematic Truck Turning Radius plan; see A0.5.*
- Outdoor Lighting Plan
 - Existing pole at south corner of property to remain?
 - *The existing light pole at the south corner of the property to remain, this is shown on the Schematic Site Plan; see A0.1.*
 - Illustrate any lighting proposed on the fuel canopy

- *Proposed canopy lighting shown on CS2.*
 - Indicate location of proposed wall wash lighting on building elevations
 - *See Schematic Site Lighting Plan, A0.6.*
 - Architectural drawings. Current elevations do not show adequate level of detail for building materials, features, color, etc. In addition to the submitted elevations and material information, provide the following:
 - North elevation of building
 - *North elevation shown on A2.1.*
 - Fueling canopy elevation drawings with dimensions
 - *Fueling canopy elevations shown on CS1.*
 - Color board displaying specifications as to type, color, and texture of the exterior surfaces of the proposed structures
 - *See Exterior Color Board on sheet A2.2.*
 - Details on outdoor furnishings (bike rack, garbage cans, lighting, benches, etc.)
 - *See site details on A0.2.*
 - East elevation indicates exterior doors not shown on other plans
 - *East elevation revised to show exterior door; see A2.0.*
 - Revised elevations showing sign locations and designs.
 - *The sign permit is to be a separate submittal later on.*
3. Service Provider Permit from TVF&R indicating feasibility of providing services. Please visit the TVF&R's online portal to obtain this permit: <https://www.tvfr.com/399/Service-Provider-Permit>. Show fire hydrant locations and servicing water lines on plans.
- *Service Provider Permit submitted on 2/14/22. TVFR permit # 2022-0021 approved on 02-23-22. Fire hydrants and water lines shown on the Topographic Survey on sheet 1/1.*
4. Information about drive-through window operations: services provided, volumes, and intensity. This information will help determine anticipated length of queues and potential for disrupting public sidewalk or right of way.
- *The drive-thru will be used for a small Indian food buffet that is located inside the Family Mart. This is not a chain restaurant and will only have a small kitchen so the anticipated volumes are not very large.*
5. Sign Plan revisions including:
- Drawings or descriptions of all materials, sign area and dimensions used to calculate areas, lighting methods, and other details sufficient to judge the full scale of the signs and related improvements.
 - Sign features on canopy, if proposed.
 - Dimensions of pole sign that match overall height.
 - Day and night versions of pole sign that match.
 - Details for monument sign, like connection to ground.
 - Waiver for electronic changeable copy sign.

- Drawings of all building facades on which signs are proposed, indicating the areas of the facades on which signs will be allowed.
 - *The sign permit is to be a separate submittal later on.*
- 6. Information in narrative and updated plans should confirm compliance with Transportation Systems Plan and utility systems and master plans.
 - *See attached provided narrative.*
- 7. Preliminary stormwater report to determine adequacy of proposed bioswale. It is noted that the proposed stormwater facility encroaches on the adjacent property, which is inconsistent with the City's Public Works Construction Standards that require construction of stormwater management facilities to be located onsite.
 - *See provided Preliminary Drainage Report.*

In addition to the incompleteness items listed above, the following questions and comments regarding compliance came to City staff's attention while reviewing the materials for completeness. This list is not intended to be a comprehensive review of potential compliance issues, which will occur upon receipt of a completed application. Please respond and/or incorporate into updated materials as appropriate.

- A. According to the provided survey, the building north of the site encroaches 1.1 feet into the subject property. Because there is a zero setback requirement, this is not a zoning issue, but it could be addressed (with a property line adjustment) as part of this land use application.
 - *The owner is aware of this and is dealing with it with his attorney.*
- B. Ensure items shown on the site plan and elevations match. (e.g., sign locations)
 - *Yes, see site plan on A0.1 and elevations on A2.0 & A2.1.*
- C. Sign face area for pole sign as shown (daytime version) exceeds area limit.
 - *The sign permit is to be a separate submittal later on.*
- D. Parking count in summary table does not match quantity shown on plans.
 - *See revised parking count and site plan on A0.1.*

Engineering Comments (in addition to incomplete items included above)

- A. Provide utility plan showing utility connection locations.
 - *See Preliminary Utility Plan on C2.*
- B. Show dedication for Boones Ferry Road. New right-of-way line shall be 11.5 feet from face of curb. Dedications ranges from 8.85 to 9.25 feet based upon survey data.
 - *See right-of-way proposed on Schematic Site Plan A0.1.*
- C. Show 8-foot Public Utility Easement (PUE) along Boones Ferry Road right-of-way frontage.
 - *See 8' PUE shown on the Boones Ferry Rd side; see Schematic Site Plan on A0.1.*
- D. Curb tight sidewalk not allowed. Provide 6 foot wide planter strip and 5 foot wide

sidewalk.

- *New sidewalk & right-of-way shown on Schematic Site Plan; see A0.1.*
- E. Provide proof of access easement from southern property.
- *Reciprocal Easement & License Agreement provided see attached documentation,*
- F. Truck turn schematic appears to encroach on existing parking spaces on the southern property. Revise site plan to avoid conflicts.
- *Truck turning revised to avoid parking conflicts on southern property; see A0.5.*
- G. Show clear vision area on site plan for the driveway approach.
- *See Schematic Site Plan on A0.1.*
- H. Submit Stormwater Report.
- *See provided Preliminary Drainage Report.*
- I. All existing utilities shall be placed underground along Boones Ferry Road. The utility plan shall show this.
- *See Preliminary Utility Plan on C2.*

Incompleteness items 1-7 need to be addressed in order to complete the applications. Please provide 3 copies of the revised project narrative, findings, and reduced 11" by 17" plans, full sheet plans drawn to scale and folded plus an electronic copy of the project narrative, findings, and plans. When you have resubmitted the application materials, staff will have up to 30 days to determine whether the application is complete. ORS 227.178. Upon determination the application is complete please provide 7 additional copies of the materials listed above. If there are revisions please provide 10 copies of the final set of plans and other materials, both paper and electronic copies.

If you have any questions or require additional information, please contact me at 503-570-1583 or rybold@ci.wilsonville.or.us.

Sincerely,



Kimberly Rybold, AICP

WILSONVILLE PACIFIC STAR GAS STATION TRANSPORTATION IMPACT STUDY

JUNE 2021

PREPARED FOR:



117 COMMERCIAL STREET NE, SUITE 310, SALEM, OR 97301 • 503.391.8773 • DKSASSOCIATES.COM

SHAPING A SMARTER TRANSPORTATION EXPERIENCE™

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PREPARED BY DKS ASSOCIATES

Scott Mansur, P.E., PTOE

Jenna Bogert, P.E.



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INTRODUCTION

This study evaluates the transportation impacts associated with the proposed Pacific Star gas station and convenience market to be located on SW Boones Ferry Road in Wilsonville, Oregon. The location of the proposed development is currently a vacant parcel located just to the north of The RAM Restaurant and Brewhouse. The owner desires to build a 3,460 square-foot convenience market with a drive-through window and a 12-pump gas station.

The purpose of this transportation impact analysis is to identify potential mitigation measures needed to offset transportation impacts that the proposed development may have on the nearby transportation network. The impact analysis is focused on the study intersections, which were selected for evaluation in coordination with City staff. The intersections are listed below and shown in Figure 1 (next page).

1. SW Wilsonville Road/ SW Boones Ferry Road
2. SW Wilsonville Road/ I-5 Southbound Ramps
3. SW Wilsonville Road/ I-5 Northbound Ramps

Typically, the project site driveway(s) would be included in the list of study intersections and would be analyzed for peak hour vehicle operations and safety. However, the project driveway for the gas station on Boones Ferry Road is an existing access to the RAM Restaurant and Brewhouse and therefore, has already been approved by the City. Additionally, in order to evaluate vehicle operations, existing vehicle counts would need to be collected at the driveway, but due to COVID-19 restrictions, restaurants have been either been closed or open at limited seating capacity.

Therefore, collecting new driveway counts would not have been an accurate representation of typical traffic volumes for that location. Lastly, a typical improvement at project driveways to mitigate safety and improve operations is a left turn lane into the site. The existing driveway already has a two-way center turn lane present to facilitate two-stage left turns out of the site and allow left turning vehicles into the site to queue in a separate lane and not in the through travel lane, improving operations and safety. For these reasons, the existing driveway was not included in the list of study intersections for analysis.



FIGURE 1: STUDY AREA

Table 1 lists important characteristics of the study area and proposed project.

TABLE 1: STUDY AREA AND PROPOSED PROJECT CHARACTERISTICS

STUDY AREA	
NUMBER OF STUDY INTERSECTIONS	Three
ANALYSIS PERIODS	Weekday PM peak hour (highest hour between 4pm – 6pm)
PROPOSED DEVELOPMENT	
SIZE AND LAND USE	3,460 square-foot convenience market with a drive-through window and a 12-pump gas station
PROJECT TRIPS	240 total PM peak hour trips (120 in, 120 out)
VEHICLE ACCESS POINTS	Access to the site will be provided via an existing full-access driveway located on the RAM property directly to the south.
OTHER TRANSPORTATION FACILITIES	
PEDESTRIAN AND BICYCLE FACILITIES	Sidewalks and bicycle lanes currently exist along most of Boones Ferry Road. However, there are no sidewalks directly fronting the project site.
TRANSIT FACILITIES	Bus stop for SMART Transit Route 4 and 2X is located on Boones Ferry Road, approximately 130 feet south of the project site.

EXISTING CONDITIONS

This chapter provides documentation of existing study area conditions, including the study area roadway network, pedestrian and bicycle facilities, and existing traffic volumes and operations.

STUDY AREA ROADWAY NETWORK

Key roadways in the study area are summarized in Table 2 along with their existing roadway characteristics. Adjacent to the project site, Boones Ferry Road is identified as a Collector. The functional classifications for City of Wilsonville streets are provided in the City of Wilsonville Transportation System Plan (TSP).¹

¹ Wilsonville Transportation System Plan, Amended November 16, 2020.

TABLE 2: STUDY AREA ROADWAY CHARACTERISTICS

ROADWAY	FUNCTIONAL CLASSIFICATION	LANES	POSTED SPEED	SIDEWALKS	BIKE FACILITIES	ON-STREET PARKING
SW BOONES FERRY RD	Collector	3	35 mph	Partial ^a	Yes	No
SW WILSONVILLE RD	Major Arterial	4	25 mph	Yes	Yes	No
INTERSTATE 5	Urban Interstate	4	65 mph	No	No	No

^a No sidewalks present directly fronting the project site.

BICYCLE AND PEDESTRIAN FACILITIES

There are existing marked bicycle lanes on SW Boones Ferry Road beginning at SW Wilsonville Road and ending at the northern edge of the project site. Sidewalks currently exist on both sides of SW Boones Ferry Road between SW Wilsonville Road and the northern edge of the project site, except directly fronting the project site.

PUBLIC TRANSIT SERVICE

South Metro Area Regional Transit (SMART) provides public transportation services within Wilsonville and outlying areas, including Canby, Salem, and the south end of Portland. There are two bus stops along SW Boones Ferry Road near the project site for Route 4 and 2X, with one located as close as 130 feet south of the project site.

- Route 4 (Wilsonville Road) runs east-west between Graham Oaks Park and Meridian Creek Middle School via Wilsonville Road (see Figure 2 to the right). Service is provided Monday through Friday with headways of 75-90 minutes between the hours of 5 am – 9:30 am and 3 pm – 8 pm. This bus route frequency has been reduced during COVID-19.
- Route 2X (Tualatin Park & Ride) runs north-south between Wilsonville Transit Center and the Tualatin Park and Ride. Service is provided Monday through Friday with headways around 30 minutes between 5:45 am – 10:45 pm.

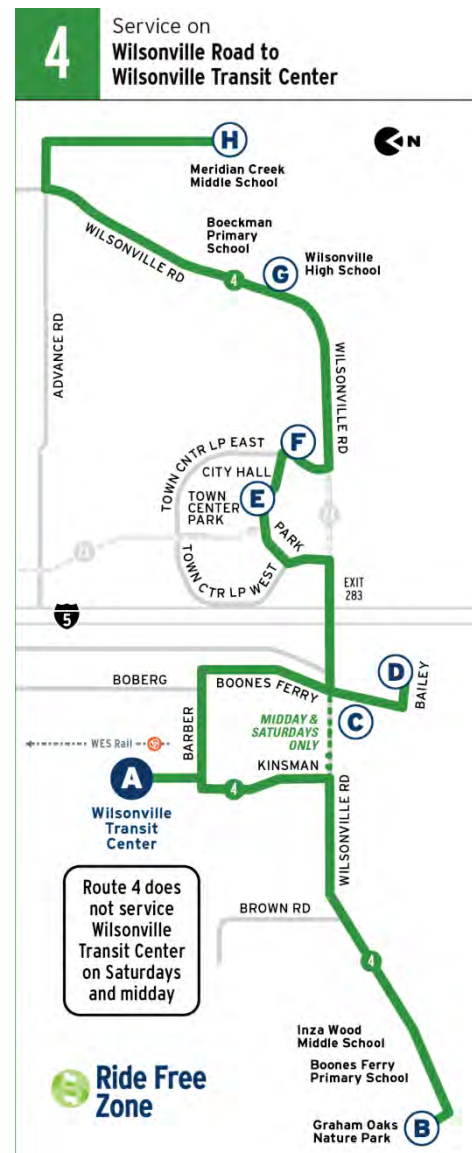


FIGURE 2: SMART BUS ROUTE 4 MAP

PLANNED PROJECTS

The City of Wilsonville Transportation System Plan (TSP) has a list of Higher Priority projects which includes the recommended projects reasonably expected to be funded through 2035. These are the highest priority solutions to meet the City's most important needs. The list includes the following projects that impact the key roadways near the proposed project site.²

- RW-03 - Widen eastbound SW Wilsonville Road east of SW Boones Ferry Road by removing the center median. This project involves lane configuration analysis to best address congestion.

EXISTING TRAFFIC VOLUMES

Historic turn movement count data was utilized for this traffic impact study. The historic data was collected during a weekday p.m. peak period (4:00-6:00 p.m.). The intersections were collected on these dates.

- SW Wilsonville Road at SW Boones Ferry Road: May 9, 2019
- SW Wilsonville Road at I-5 Southbound Ramps: November 3, 2016
- SW Wilsonville Road at I-5 Northbound Ramps: November 3, 2016

These historical counts were factored up to 2021 conditions by assuming a yearly growth rate of 2%. This yearly growth rate is a typical growth rate used in Wilsonville traffic impact studies and has been calculated using the Wilsonville Travel Demand model in previous studies.

Figure 1 shows the 2021 existing PM peak hour traffic volumes for the study intersections, along with the lane configurations and traffic control. The original two-hour traffic counts are included in the Appendix A.

² Table 5-3/Figure 5-4 and Table 5-4/Figure 5-5, Wilsonville Transportation System Plan, Amended April 15, 2019.

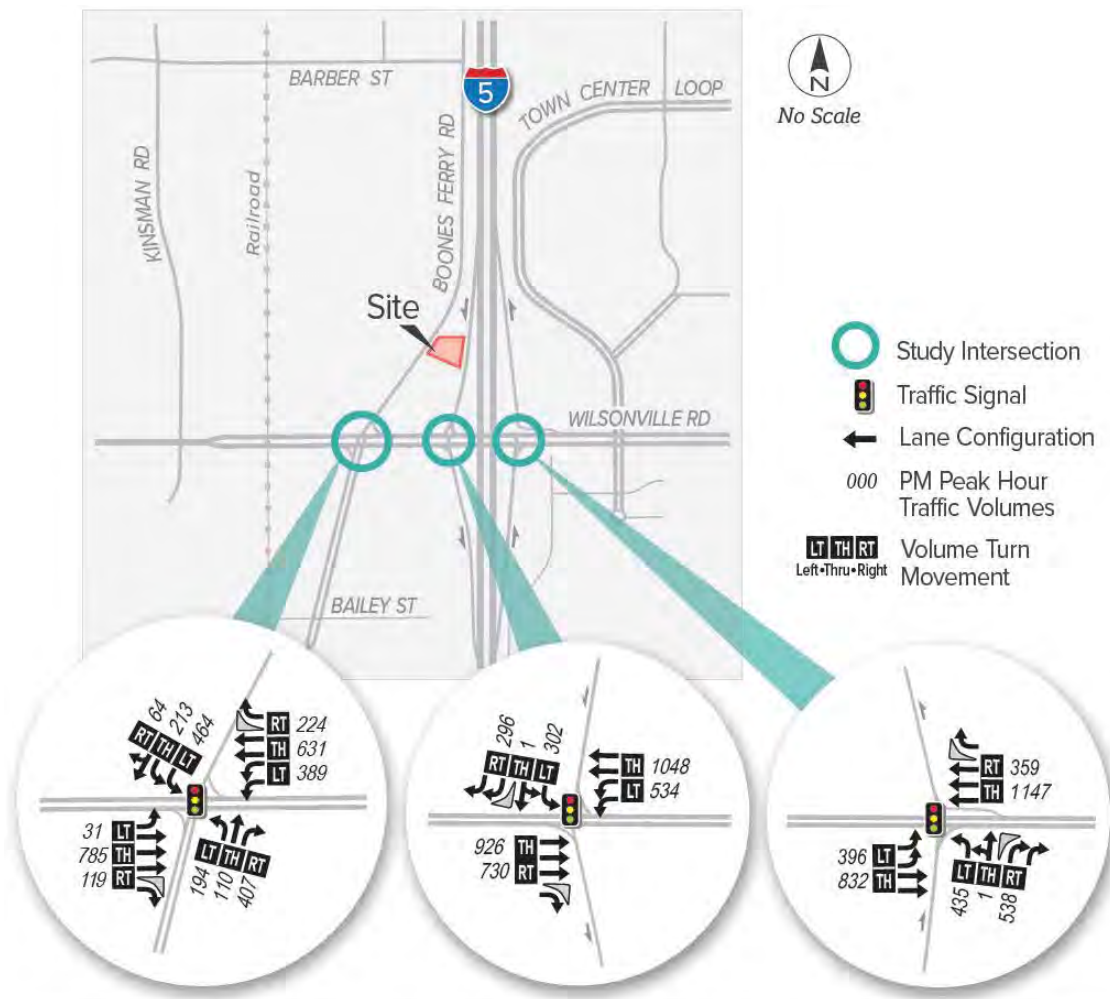


FIGURE 3: 2021 EXISTING TRAFFIC VOLUMES, LANE GEOMETRIES, AND TRAFFIC CONTROL

INTERSECTION PERFORMANCE MEASURES

Agency mobility standards often require intersections to meet level of service (LOS) or volume-to-capacity (v/c) intersection operation thresholds. Additional details about LOS and delay are provided in Appendix B.

- The intersection LOS is similar to a “report card” rating based upon average vehicle delay. Level of service A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. Level of service D and E are progressively worse operating conditions. Level of service F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity. This condition is typically evident in long queues and delays.
- The volume-to-capacity (v/c) ratio represents the level of saturation of the intersection or individual movement. It is determined by dividing the peak hour traffic volume by the maximum hourly capacity of an intersection or turn movement. When the V/C ratio

approaches 0.95, operations become unstable and small disruptions can cause the traffic flow to break down, resulting in the formation of excessive queues.

The City of Wilsonville requires study intersections on public streets to meet its minimum acceptable level of service (LOS) standard, which is LOS D for the overall intersection for the PM peak period.

For intersections under ODOT jurisdiction on Wilsonville Road, the mobility target is $v/c \leq 0.90$ when the interchange vicinity is fully developed and adequate storage is available on the interchange ramp to prevent queues from backing up on the mainline. Vehicle queues were analyzed in this report (see the [Future Queuing Analysis](#) section) and were determined not to extend onto the I-5 mainline.

EXISTING INTERSECTION OPERATIONS

An analysis of the 2021 existing intersection operations was performed at the three study intersections to determine the current operating conditions of the study area. Intersection operations were analyzed for the PM peak hour using Highway Capacity Manual (HCM) 6th Edition methodology.³ The volume to capacity (v/c) ratio, delay, and level of service (LOS) of each study intersection are listed in Table 3.

TABLE 3: EXISTING 2021 INTERSECTION OPERATIONS

INTERSECTION	OPERATING STANDARD/ MOBILITY TARGET	PM PEAK HOUR		
		V/C	DELAY	LOS
SIGNALIZED				
SW WILSONVILLE ROAD/SW BOONES FERRY ROAD	LOS D	0.76	43.4	D
SW WILSONVILLE ROAD/I-5 SOUTHBOUND RAMPS	$v/c \leq 0.90^a$	0.48	21.2	C
SW WILSONVILLE ROAD/I-5 NORTHBOUND RAMPS	$v/c \leq 0.90^a$	0.53	20.6	C

Signalized intersections:

Delay = Average Stopped Delay per Vehicle (sec)

LOS = Level of Service of Intersection

v/c = Volume-to-Capacity Ratio of Intersection

^a The mobility target for ODOT interchanges is 0.90 when the interchange vicinity is fully developed, and adequate storage is available on the interchange ramp to prevent queues from backing up on the mainline. Vehicle queues for this scenario were determined not to extend onto the I-5 mainline in this report.

As shown, all study intersections meet the operating standard (LOS D) and ODOT mobility target ($v/c \leq 0.90$) for the existing conditions. The HCM reports are provided in Appendix C.

³ Highway Capacity Manual, 6th Edition, Transportation Research Board, 2017.

PROJECT IMPACTS

This chapter reviews the impacts that the proposed development may have on the study area transportation system. This analysis includes site plan evaluation, trip generation, trip distribution, and future year traffic volumes and operating conditions for the four study intersections.

PROPOSED DEVELOPMENT

The owner desires to build a 3,460 square-foot convenience market with a drive-through window and a 12-pump gas station. The location of the proposed development is currently a vacant parcel located just to the north of the RAM Restaurant and Brewhouse.

FUTURE ANALYSIS SCENARIOS

Operating conditions were analyzed at the study intersections for the following traffic scenarios. The comparison of the following scenarios enables the assessment of project impacts:

- Existing + Stage II
- Existing + Project
- Existing + Stage II + Project

All future analysis scenarios assume the same traffic control as existing conditions. Stage II represents traffic from other developments that have Stage II approval or are under construction in Wilsonville.

TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles added to site driveways and the adjacent roadway network by a development during a specified period (i.e., such as the PM peak hour). For this study, the Institute of Transportation Engineers (ITE) trip generation rates for Super Convenience Market/Gas Station (960) were used to estimate the site's trip generation.⁴

The trip generation for Land Use 960 is calculated based on either the number of fueling positions or the size of the convenience market. Because this convenience market has a drive-through window and is larger (3,460 square feet) than a typical convenience market (average size of 2,600 square feet for City of Wilsonville), the trip generation for this analysis is based on the gross floor area of the convenience market not the fueling positions. Additionally, a Fred Meyer gas station is located 0.4 miles to the west of the proposed Pacific Star gas station. The presence of both gas stations which will reduce the demand for either gas station.

The proposed gas station provides the opportunity for pass-by vehicle trips coming from and returning to the adjacent traffic stream (i.e., SW Wilsonville Road) that would not create new trips within the study area. To estimate pass-by trips, the methodology outlined in the current ITE Trip

⁴ Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017.

Generation Handbook was used.⁵ Pass-by trips for the gas station were estimated to divert from SW Wilsonville Road onto SW Boones Ferry Road. The pass-by trips result in new turning volumes at the SW Wilsonville Road/SW Boones Ferry Road intersection, but do not increase the total traffic on SW Wilsonville Road. There are no pass-by percentages provided in the ITE Handbook for Land Use 960, therefore, the average pass-by percentage for Land Use 945 in the p.m. peak hour was utilized instead for this development as it is a very similar land use.

The trip generation for the proposed development is shown in Table 4.

TABLE 4: VEHICLE TRIP GENERATION

LAND USE (ITE CODE)	SIZE ^a	PM PEAK TRIP RATE	PM PEAK TRIPS			DAILY TRIPS
			IN	OUT	TOTAL	
SUPER CONVENIENCE MARKET/GAS STATION (960)	3,460 KSF	69.3 trips per KSF	120	120	240	2,898
		<i>Pass-By Trip Reduction (56%)</i>	-67	-67	-134	-1,622
		TOTAL NET NEW TRIPS	53	53	106	1,276

^a KSF = 1,000 square feet

As shown, the proposed development is expected to generate a total 240 PM peak hour trips (120 in, 120 out) and a total 106 net new trips (53 in, 53 out). The project trips at the study intersections are shown in Figure 4 in the following section.

VEHICLE TRIP DISTRIBUTION

Vehicle trip distribution provides an estimation of where vehicles would be coming from and going to. It is given as a percentage at key gateways to the study area and is used to route project trips through the study intersections. Figure 4 shows the trip distribution for the proposed site. The trip distribution was based on the Wilsonville Travel Demand Model.⁶

PROJECT TRIPS THROUGH CITY OF WILSONVILLE INTERCHANGE AREAS

The project trips through the two City of Wilsonville I-5 interchange areas were estimated based on the trip generation and distribution assumptions. Approximately 50% of the project trips are expected to travel through the I-5/Wilsonville Road interchange area and less than 5% are expected to travel through the I-5/Elligsen Road interchange area; that is, the proposed development is expected to generate 53 net new PM peak hour trips through the I-5/Wilsonville Road interchange area and 5 net new PM peak hour trips through the I-5/Elligsen Road interchange area.

⁵ Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, 2017.

⁶ Select zone analysis for zone 4010 in 2035 Wilsonville Travel Demand Model.

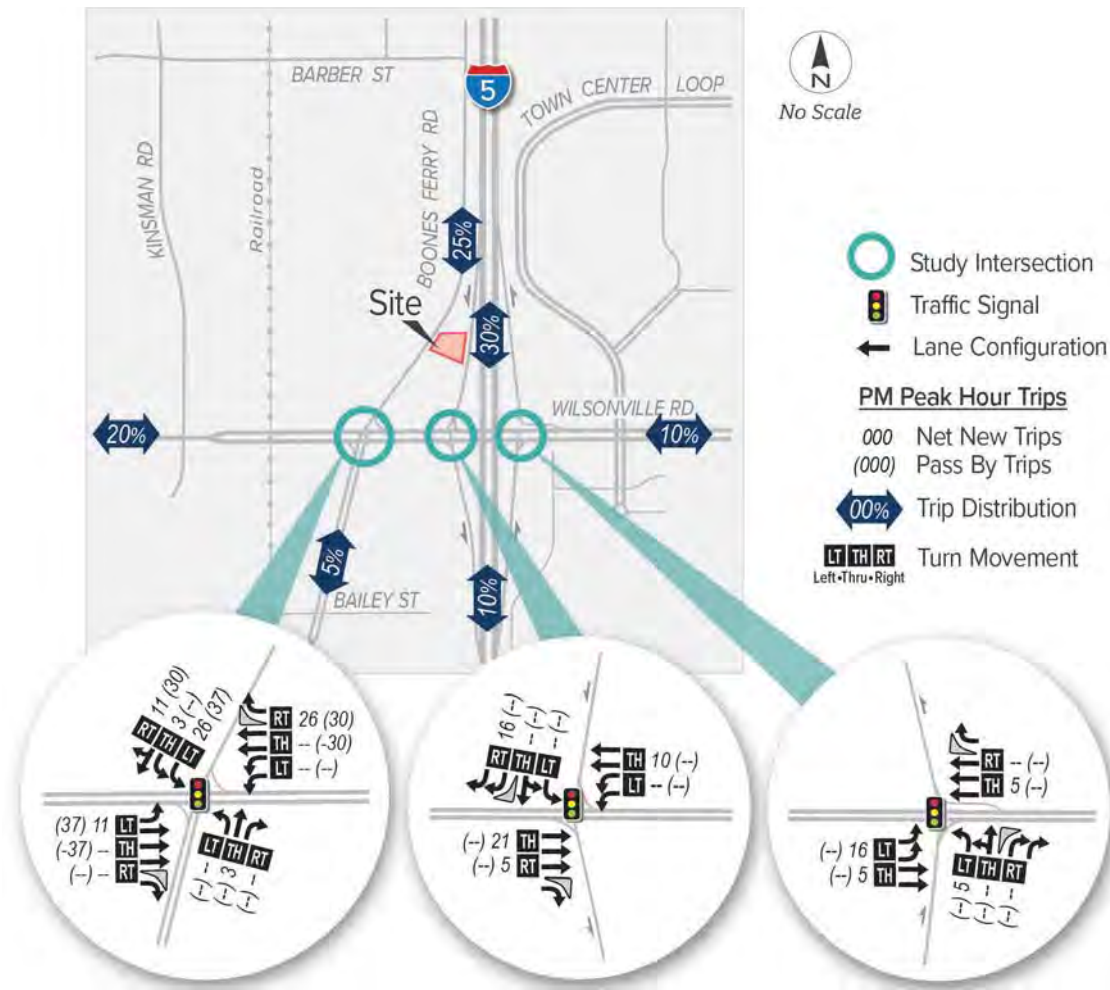


FIGURE 4: TRIP DISTRIBUTION AND PROJECT TRIPS

FUTURE TRAFFIC VOLUMES

Traffic volumes were estimated at the study intersections for the three future analysis scenarios. The future scenarios include various combinations of three types of traffic: Existing, Project, and Stage II. Stage II development trips are estimated based on the list of currently approved Stage II developments provided by City staff.⁷ The Stage II list is included in Appendix D. Figure 3, Figure 4, and Figure 5 show the PM peak hour traffic volumes for the following scenarios: Existing + Stage II, Existing + Project, Existing + Stage II + Project.

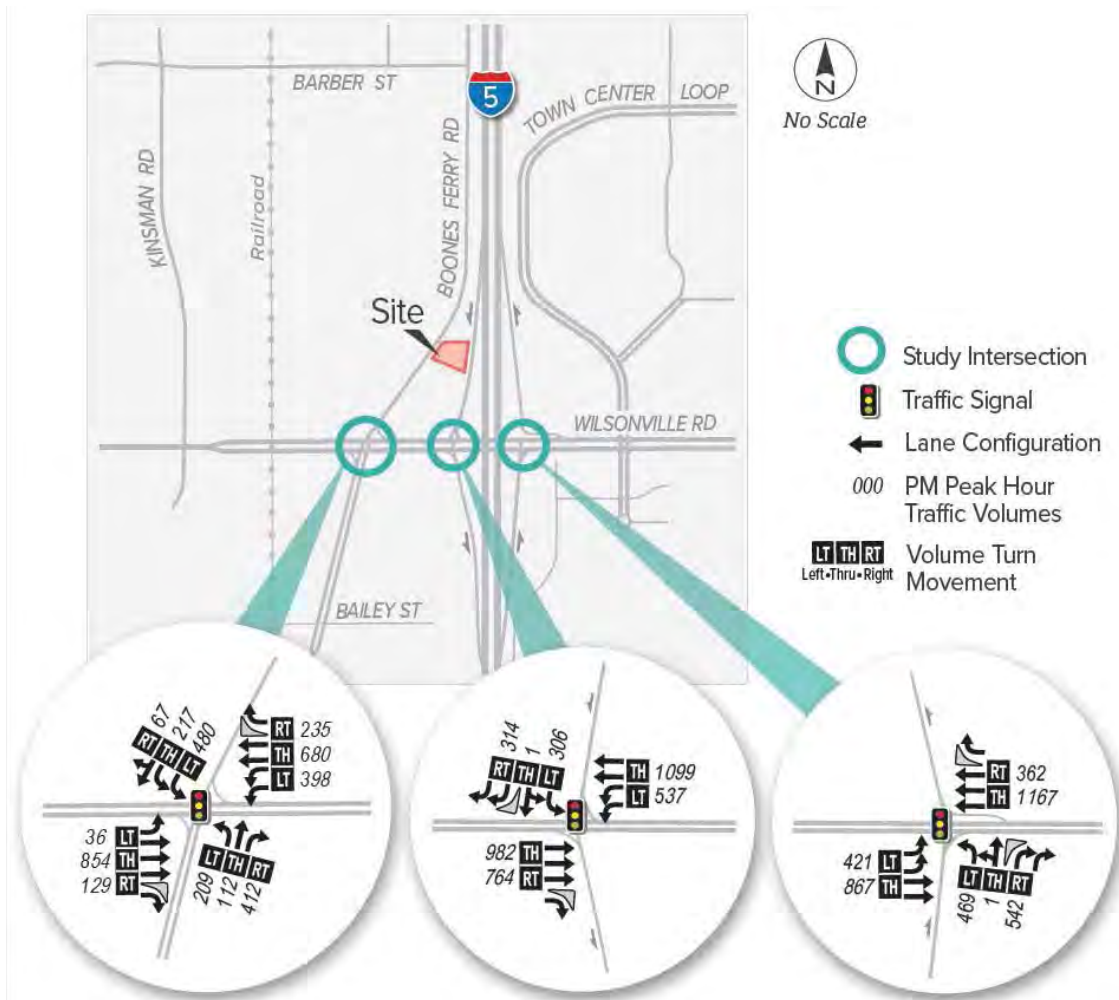


FIGURE 5: EXISTING + STAGE II PM PEAK HOUR TRAFFIC VOLUMES

⁷ Email from Daniel Pauly, City of Wilsonville, May 19, 2021.



FIGURE 6: EXISTING + PROJECT PM PEAK HOUR TRAFFIC VOLUMES



FIGURE 7: EXISTING + STAGE II + PROJECT PM PEAK HOUR TRAFFIC VOLUMES

FUTURE INTERSECTION OPERATIONS

Future operating conditions were analyzed based on the traffic volumes shown in Figure 3, Figure 4, and Figure 5. The intersection operations for the future scenarios are shown in Table 5. The HCM reports are provided in Appendix E, Appendix F, and Appendix G.

TABLE 5: FUTURE INTERSECTION OPERATIONS

INTERSECTION	OPERATING STANDARD/ MOBILITY TARGET	EXISTING + STAGE II			EXISTING + PROJECT			EXISTING + STAGE II + PROJECT		
		V/C	DELAY	LOS	V/C	DELAY	LOS	V/C	DELAY	LOS
UNSIGNALIZED										
SW WILSONVILLE ROAD/SW BOONES FERRY ROAD	LOS D	0.78	45.0	D	0.78	46.2	D	0.80	48.1	D
SW WILSONVILLE ROAD/I-5 SOUTHBOUND RAMP	V/c ≤ 0.90 ^a	0.49	24.7	C	0.48	22.7	C	0.50	24.9	C
SW WILSONVILLE ROAD/I-5 NORTHBOUND RAMP	V/c ≤ 0.90 ^a	0.55	21.2	C	0.53	20.7	C	0.56	21.5	C

Signalized intersections:

Delay = Average Stopped Delay per Vehicle (sec)
 LOS = Level of Service of Intersection
 v/c = Volume-to-Capacity Ratio of Intersection

^a The mobility target for ODOT interchanges is 0.90 when the interchange vicinity is fully developed, and adequate storage is available on the interchange ramp to prevent queues from backing up on the mainline, then the target can be increased to a 0.90 v/c ratio. Vehicle queues for this scenario were determined not to extend onto the I-5 mainline.

As shown, the study intersections are expected to meet the City's operating standard under both future analysis scenarios.

FUTURE QUEUING ANALYSIS

Based on ODOT analysis guidelines and procedures, 95th percentile queuing analysis is required to determine if the development will generate enough traffic to cause queuing and operational impacts to the I-5 interchange on SW Wilsonville Road. This queuing analysis will provide 95th percentile queues for the I-5 interchange ramps and will indicate whether vehicle queuing is anticipated to extend on to the I-5 mainline.

The 95th percentile queue is the queue length for a given movement that has only a 5% chance of being exceeded during the peak traffic hour. Table 6 show estimated the 95th percentile queues for select movements on SW Wilsonville Road under the Existing + Stage II + Project traffic conditions. If there are multiple lanes per movement, the queue reported is the average of the lanes. The queuing analysis was conducted using SimTraffic™ software and followed ODOT Analysis Procedures Manual (APM) methodology.⁸ Queuing reports can be found in Appendix H.

TABLE 6: FUTURE PM PEAK HOUR QUEUES

INTERSECTION	MOVEMENT	EXISTING + STAGE II + PROJECT	
		AVAILABLE STORAGE (FT)	95TH PERCENTILE QUEUES (FT)
SW WILSONVILLE ROAD / I-5 SB RAMPS	SB Off Ramp	475	250
	WBT	350	350
	WBL	350	325
SW WILSONVILLE ROAD / I-5 NB RAMPS	NB Off Ramp	350	300
	EBT	350	225
	EBL	350	225

Based on the results of the queuing analysis, the future vehicle queue estimates on the I-5 northbound and southbound exit ramps will be contained within the existing available storage. The Pacific Star gas station development will not impact the operations of I-5 during typical p.m. peak hour operations.

⁸ Analysis Procedures Manual, Chapter 15, Updated March 2020.

SITE REVIEW

The following sections discuss the requirements for site access and sight distance, pedestrian and bicycle facilities, and parking for the proposed development. The site plan is shown provided in Appendix I.

Based on the site plan provided, the proposed development will be accessed by an existing driveway that is located on the property directly to the south. The existing shared driveway currently provides access to the RAM Restaurant and Brewhouse. The only access to the project site is an internal driveway just north of the RAM Restaurant and Brewhouse driveway.

ACCESS SPACING

The existing shared driveway on SW Boones Ferry Road is required to meet the City's public works construction standards.⁹ The access spacing standard for an access on a Collector is to be a minimum 100 feet, but the desired spacing is 300 feet. The nearest existing access on SW Boones Ferry Road is 125 feet to the south on the opposite side of the street and therefore meets the minimum standard.

SIGHT DISTANCE

With a posted speed of 30 miles per hour, the assumed design speed of the roadway is 35 mph and the sight distance requirement along SW Boones Ferry Road is 390 feet in either direction for vehicles turning left from the minor roadway. This requirement is based on AASHTO standards.¹⁰ Preliminary sight distance was evaluated at the existing shared driveway location and was found to be sufficient to meet the stated requirements. Prior to occupancy, sight distance at any new or modified access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

SITE CIRCULATION

Based on the preliminary site plan provided, there does not appear to be sufficient turning radius for a fuel delivery truck to enter and exit the site via the existing shared driveway on SW Boones Ferry Road. It is recommended that a turn template be provided showing the entry and exit of fuel delivery trucks to determine if trucks can feasibly enter and exit the site from Boones Ferry Road and circulate through the site to access the tank fueling station. If the turning radius of the existing site driveway is not sufficient for fuel delivery trucks, internal site modifications may be needed.

Based on the preliminary sight plan, there is approximately 175 feet (or 7 vehicles) of queue storage on-site available for the drive-through window. Any queuing beyond the 175 feet will spill back onto the adjacent site (RAM Restaurant). Queues extending beyond 175 feet are not anticipated for the convenience store drive-through window as the service window was a design response to the COVID-19 lock down and it remains to be seen how much it will ultimately be

⁹ Table 2.12 Public Works Construction Standards, City of Wilsonville, 2017.

¹⁰ American Association of State Highway and Transportation Officials (AASHTO), 2018, Table 9-7.

used. If in the future, drive-through window queues are observed to consistently spill out of the project site on to Boones Ferry Road, mitigations may be needed to determine safety improvements at the site driveway.

PEDESTRIAN AND BICYCLE FACILITIES

Based on the project site plan, there are sidewalks proposed along SW Boones Ferry Road fronting the project site. Sidewalk is also shown extending from SW Boones Ferry Road on to the site, across the drive-through entry and exit points and then in front of the convenience market. The site plan shows the sidewalk that crosses the drive-through entry and exit points as a raised sidewalk. This increases pedestrian visibility and provide safer crossings for pedestrians at key vehicle-pedestrian conflict points on site.

Short-term bicycle parking is provided in front of the convenience market and existing bicycle lanes are present fronting the project site.

PARKING

The proposed project is required to comply with the City code for the number of vehicular parking stalls and bicycle parking spaces that are provided on site.¹¹ Table 7 lists the vehicular and bicycle parking requirements for the project site. The parking requirements are based on the building use.

TABLE 7: VEHICLE AND BICYCLE PARKING REQUIREMENTS

LAND USE	SIZE (KSF)	VEHICLE MINIMUM RATE	BICYCLE MINIMUM RATE	SPACES REQUIRED BY CODE		
				VEHICLE MINIMUM	VEHICLE MAXIMUM	BICYCLE MINIMUM
COMMERCIAL USES	3.46	4.1 stalls/KSF	1 stalls/4 KSF (minimum of 2)	15	21	2
TOTAL PARKING STALLS REQUIRED BY CODE				15	21	2
PROPOSED NUMBER OF STALLS				6		2

As shown above, a minimum of 15 vehicular parking stalls are needed to meet the minimum Code requirements for the project. The site plan shows 6 vehicular parking stalls on site, which does not meet the City code requirements. Nine (9) additional parking stalls will be needed.

The City code requires a minimum of 2 bicycle parking spaces for the project site. The site plan shows a single short-term bicycle rack in the front of the convenience market meeting the City requirements.

¹¹ Wilsonville Development Code, Section 4.155, Table 5, updated October 2019.

SUMMARY OF PROJECT IMPACTS

The key findings of the transportation impact study for the Pacific Star Gas Station development are discussed below.

- The project will consist of a 3,460 square-foot convenience market with a drive-through service window and 12 gasoline fueling stations.
- The proposed development is expected to generate a total of 240 PM peak hour trips (120 in, 120 out). However, it is estimated that approximately 56% of those trips will be existing pass-by trips. The total net new PM peak hour trips are 106 trips (53 in, 53 out).
- Of the net new project trips, 53 (50%) trips are expected to travel through the I-5/Wilsonville Road interchange area and 5 (<5%) trips are expected to travel through the I-5/Elligsen Road interchange area.
- The traffic operations at the three study intersections are expected to operate within the City's LOS D standard under project build conditions.
- Based on the results of the queuing analysis, the future vehicle queue estimates on the I-5 northbound and southbound exit ramps will be contained within the existing available storage.
- Prior to occupancy, sight distance at the proposed project access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.
- Based on the site plan, there does not appear to be sufficient turning radius for a fuel delivery truck to enter and exit the site via the existing shared driveway on SW Boones Ferry Road. It is recommended that the developer provide a turn template showing the turning movements for fuel delivery trucks to determine if trucks can feasibly enter and exit the site or if modifications are required.
- The site plan shows 6 vehicular parking stalls on site, which does not meet the City code requirements. Nine (9) additional parking stalls will be needed.

APPENDIX

CONTENTS (SEE PDF ATTACHMENTS)

A. TRAFFIC COUNT DATA

B. LOS DESCRIPTION

C. HCM REPORT – EXISTING CONDITIONS

D. STAGE II LIST

E. HCM REPORT – EXISTING + PROJECT

F. HCM REPORT – EXISTING + STAGE II

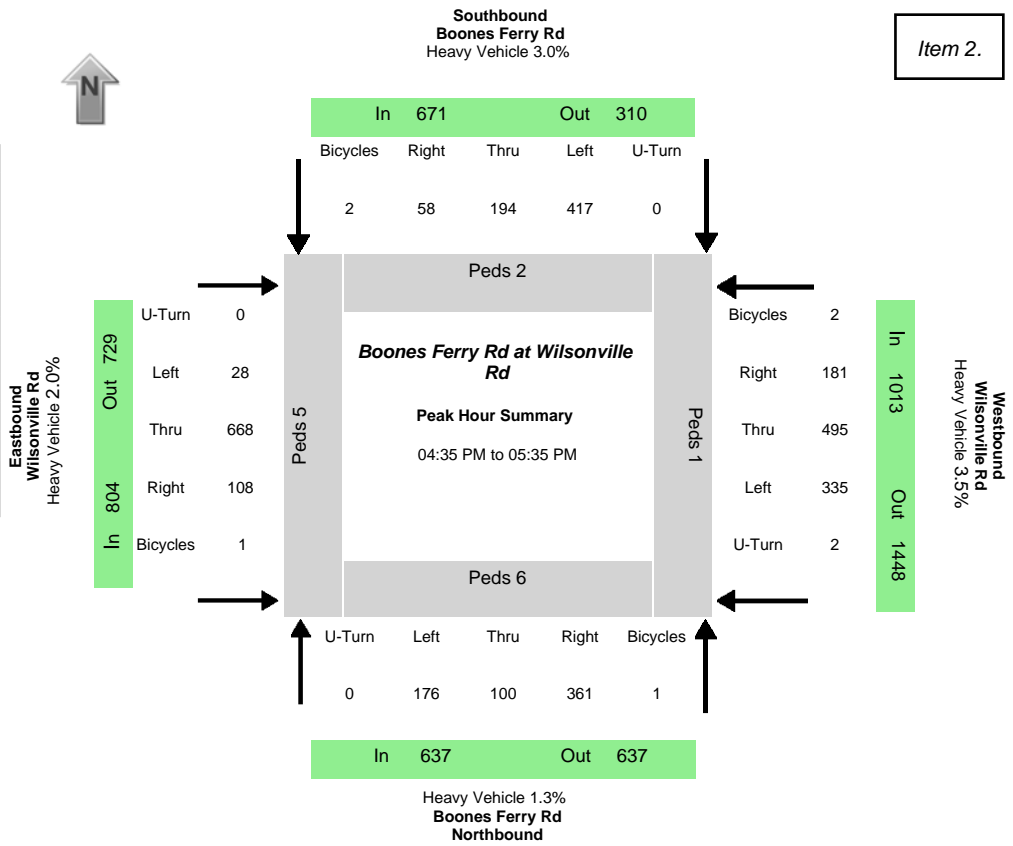
G. HCM REPORT – EXISTING + STAGE II + PROJECT

H. QUEUING ANALYSIS REPORT

I. SITE PLAN

Data Provided by K-D-N.com 503-594-4224

N/S street	Boones Ferry Rd
E/W street	Wilsonville Rd
City, State	Wilsonville OR
Site Notes	
Location	45.302915 - -122.772598
Start Date	Thursday, May 09, 2019
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	04:55:00 PM
PHF (15-Min Int)	0.95



Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
176	100	361	0	417	194	58	0	28	668	108	0	335	495	181	2	637	669	804	1013	637	309	729	1448
Percent Heavy Vehicles																							
0.0%	2.0%	1.7%	0.0%	3.4%	2.1%	3.4%	0.0%	3.6%	2.1%	0.9%	0.0%	1.5%	2.2%	11.0%	0.0%	1.3%	3.0%	2.0%	3.6%	1.6%	7.4%	1.8%	2.3%

PHV - Bicycles												PHV - Pedestrians									
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
1	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0	6	6	2	5	1	14

Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Wilsonville Rd				Westbound Wilsonville Rd				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:00:00 PM	14	8	34	0	39	15	8	0	3	65	8	0	26	34	22	0		
04:05:00 PM	12	9	31	0	47	14	14	0	2	54	8	0	18	29	24	0		
04:10:00 PM	5	10	22	0	27	21	6	0	6	57	4	0	33	53	16	0	798	
04:15:00 PM	13	7	34	0	22	17	4	0	2	48	2	0	32	39	11	0	753	
04:20:00 PM	14	12	27	0	29	19	9	0	4	54	6	0	26	33	13	0	737	
04:25:00 PM	13	5	21	0	33	23	2	0	2	56	6	0	29	30	19	0	716	
04:30:00 PM	13	6	33	0	34	14	8	0	1	53	5	0	20	47	15	0	734	
04:35:00 PM	25	5	39	0	42	12	5	0	4	53	10	0	32	43	9	0	767	
04:40:00 PM	14	11	24	0	31	17	4	0	0	51	10	0	29	45	17	0	781	
04:45:00 PM	15	9	19	0	23	22	2	0	0	72	12	0	26	18	17	0	767	
04:50:00 PM	7	10	26	0	25	10	1	0	1	58	8	0	31	47	15	0	727	
04:55:00 PM	18	10	30	0	30	26	4	0	5	39	2	0	38	48	13	0	737	3032
05:00:00 PM	13	14	31	0	40	19	7	0	5	63	7	0	19	36	22	1	779	3033
05:05:00 PM	9	5	35	0	46	12	7	0	2	60	6	0	31	55	16	0	824	3055
05:10:00 PM	17	9	27	0	38	9	5	0	4	65	11	0	20	37	11	0	814	3048
05:15:00 PM	17	6	39	0	44	20	10	0	3	27	6	0	25	42	15	0	791	3071
05:20:00 PM	13	4	31	0	45	18	8	0	0	66	13	0	24	41	16	0	786	3104
05:25:00 PM	13	5	32	0	26	16	3	0	3	58	10	0	34	39	13	1	786	3118
05:30:00 PM	15	12	28	0	27	13	2	0	1	56	13	0	26	44	17	0	786	3123
05:35:00 PM	18	5	33	0	43	20	3	0	2	48	9	0	25	25	12	0	750	3087
05:40:00 PM	14	7	17	0	24	17	7	0	1	56	9	0	26	38	18	0	731	3068
05:45:00 PM	14	7	37	0	14	12	4	0	5	53	10	0	33	52	22	0	740	3096
05:50:00 PM	23	11	37	0	21	17	3	0	4	41	10	0	24	30	21	0	739	3099
05:55:00 PM	15	7	26	0	38	18	1	0	0	47	9	0	24	38	19	0	747	3078

Data Provided by K-D-N.com 503-594-4224

Study Name	Wilsonville Rd at I5 NB ramps
Location	45.302952 - -122.768422
Start Date	11/3/2016
Start Time	4:00PM
Key Data Summary	
Peak Hour Start	4:40PM
Peak 15 Min Start	4:40PM
PHF (15-Min Int)	0.97

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRt	SBLeft	SBThru	SBRt	EBLeft	EBThru	EBRt	WBLeft	WBThru	WBRt	NBEnt	SBEnt	EBEnt	WBEnt	NBLeav	SBLeav	EBLeav	WBLeav
395	1	489	0	0	0	360	618	0	0	1043	326	0	687	1438	1107	885	0	978	1369

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRt	SBLeft	SBThru	SBRt	EBLeft	EBThru	EBRt	WBLeft	WBThru	WBRt	NBEnt	SBEnt	EBEnt	WBEnt	NBLeav	SBLeav	EBLeav	WBLeav
5.5%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0	1.3%	0.0%	0.0%	1.0%	1.8%	0.0%	2.5%	2.2%	1.0%	2.8%	0.0%	1.9%	1.2%

PHV- Pedestrians using Crosswalk

NB	SB	EB	WB
5	23	0	2

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRt	SBLeft	SBThru	SBRt	EBLeft	EBThru	EBRt	WBLeft	WBThru	WBRt
2	0	0	0	0	0	0	0	0	0	1	0

All Vehicle Volumes

Start	Northbound				Southbound				Eastbound				Westbound			
	I5 NB off ramp				I5 NB on ramp				Wilsonville Rd				Wilsonville Rd			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	22	0	30	0	0	0	0	0	24	53	0	1	0	61	22	0
4:05PM	19	0	24	0	0	0	0	0	52	66	0	0	0	95	30	0
4:10PM	27	0	32	0	0	0	0	0	28	51	0	0	0	90	28	0
4:15PM	45	0	37	0	0	0	0	0	40	44	0	0	0	89	24	0
4:20PM	26	0	38	0	0	0	0	0	29	67	0	0	0	74	32	0
4:25PM	28	0	33	0	0	0	0	0	34	51	0	0	0	82	14	0
4:30PM	34	0	40	0	0	0	0	0	23	46	0	0	0	75	27	0
4:35PM	33	0	43	0	0	0	0	0	31	38	0	0	0	63	27	0
4:40PM	26	0	47	0	0	0	0	0	39	44	0	0	0	95	31	0
4:45PM	35	0	38	0	0	0	0	0	25	47	0	0	0	96	21	0
4:50PM	39	0	55	0	0	0	0	0	36	47	0	0	0	86	24	0
4:55PM	23	0	47	0	0	0	0	0	28	48	0	0	0	76	28	0
5:00PM	26	0	27	0	0	0	0	0	35	62	0	0	0	104	35	0
5:05PM	30	0	33	0	0	0	0	0	25	55	0	0	0	95	38	0
5:10PM	39	0	35	0	0	0	0	0	31	54	0	0	0	77	26	0
5:15PM	34	0	45	0	0	0	0	0	27	56	0	0	0	64	26	0
5:20PM	41	0	36	0	0	0	0	0	22	58	0	0	0	86	21	0
5:25PM	32	0	37	0	0	0	0	0	37	54	0	0	0	101	29	0
5:30PM	36	1	53	0	0	0	0	0	33	53	0	0	0	73	22	0
5:35PM	34	0	36	0	0	0	0	0	22	40	0	0	0	90	25	0
5:40PM	41	0	34	0	0	0	0	0	14	60	0	0	0	102	28	0
5:45PM	31	0	33	0	0	0	0	0	29	66	0	0	0	77	20	0
5:50PM	32	0	34	0	0	0	0	0	35	45	0	0	0	66	15	0
5:55PM	19	0	33	0	0	0	0	0	33	54	0	0	0	84	18	0

Data Provided by K-D-N.com 503-594-4224

Study Name	Wilsonville Rd at I5 SB ramp
Location	45.30299 - -122.770351
Start Date	11/3/2016
Start Time	4:00PM
Key Data Summary	
Peak Hour Start	4:35PM
Peak 15 Min Start	4:35PM
PHF (15-Min Int)	0.97

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRt	SBLeft	SBThru	SBRt	EBLeft	EBThru	EBRt	WBLeft	WBThru	WBRt	NBEnt	SBEnt	EBEnt	WBEnt	NBLeav	SBLeav	EBLeav	WBLeav
0	0	0	138	0	178	0	842	664	485	938	0	1149	0	1116	980	0	316	1506	1423

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRt	SBLeft	SBThru	SBRt	EBLeft	EBThru	EBRt	WBLeft	WBThru	WBRt	NBEnt	SBEnt	EBEnt	WBEnt	NBLeav	SBLeav	EBLeav	WBLeav
0.0%	0.0%	0.0%	1.4%	0.0%	6.7%	0.0	1.9%	2.1%	0.8%	2.8%	0.0%	1.6%	#DIV/0!	3.4%	1.8%	0.0%	4.4%	2.0%	2.1%

PHV- Pedestrians using Crosswalk

NB	SB	EB	WB
7	8	3	1

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRt	SBLeft	SBThru	SBRt	EBLeft	EBThru	EBRt	WBLeft	WBThru	WBRt
0	0	0	0	0	0	0	0	0	0	4	0

All Vehicle Volumes

Start	Northbound				Southbound				Eastbound				Westbound			
	I5 SB on ramp				I5 SB off ramp				Wilsonville Rd				Wilsonville Rd			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0	0	0	13	0	16	0	0	83	56	0	43	64	0	0
4:05PM	0	0	0	0	10	0	15	0	0	93	63	0	50	65	0	0
4:10PM	0	0	0	0	14	0	7	0	0	62	54	0	48	56	0	0
4:15PM	0	0	0	0	10	0	19	0	0	85	60	0	35	85	0	0
4:20PM	0	0	0	0	12	0	16	0	0	83	49	0	41	81	0	0
4:25PM	0	0	0	0	12	0	12	0	0	51	52	0	41	65	0	0
4:30PM	0	0	0	0	11	0	9	0	0	64	49	0	28	61	0	0
4:35PM	0	0	0	0	10	0	20	0	0	74	89	0	28	84	0	0
4:40PM	0	0	0	0	8	0	13	0	0	63	51	0	47	77	0	0
4:45PM	0	0	0	0	14	0	8	0	0	59	51	0	49	89	0	0
4:50PM	0	0	0	0	11	0	27	0	0	68	45	0	33	66	0	0
4:55PM	0	0	0	0	10	0	11	0	0	76	33	0	43	78	0	0
5:00PM	0	0	0	0	10	0	14	0	0	78	55	0	54	78	0	0
5:05PM	0	0	0	0	15	0	16	0	0	63	62	0	43	67	0	1
5:10PM	0	0	0	0	13	0	9	0	0	78	58	0	23	76	0	0
5:15PM	0	0	0	0	11	0	15	0	0	74	52	0	41	94	0	0
5:20PM	0	0	0	0	13	0	15	0	0	63	53	0	42	66	0	0
5:25PM	0	0	0	0	10	0	18	0	0	82	60	0	49	70	0	0
5:30PM	0	0	0	0	13	0	12	0	0	64	55	0	33	93	0	0
5:35PM	0	0	0	0	12	0	25	0	0	56	46	0	44	90	0	0
5:40PM	0	0	0	0	15	0	15	0	0	58	48	0	44	82	0	0
5:45PM	0	0	0	0	22	0	9	0	0	67	38	0	25	63	0	0
5:50PM	0	0	0	0	10	0	15	0	0	81	40	0	38	82	0	0
5:55PM	0	0	0	0	7	0	22	0	0	70	40	0	44	57	0	0

TRAFFIC LEVELS OF SERVICE

Analysis of traffic volumes is useful in understanding the general nature of traffic in an area, but by itself indicates neither the ability of the street network to carry additional traffic nor the quality of service afforded by the street facilities. For this, the concept of level of service has been developed to subjectively describe traffic performance. Level of service can be measured at intersections and along key roadway segments.

Levels of service categories are similar to report card ratings for traffic performance. Intersections are typically the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is generally diminished in their vicinities. Levels of Service A, B and C indicate conditions where traffic moves without significant delays over periods of peak travel demand. Level of service D and E are progressively worse peak hour operating conditions and F conditions represent where demand exceeds the capacity of an intersection. Most urban communities set level of service D as the minimum acceptable level of service for peak hour operation and plan for level of service C or better for all other times of the day. The Highway Capacity Manual provides level of service calculation methodology for both intersections and arterials¹. The following two sections provide interpretations of the analysis approaches.

¹ 2000 *Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000, Chapter 16 and 17.

UNSIGNALIZED INTERSECTIONS (Two-Way Stop Controlled)

Unsignalized intersection level of service is reported for the major street and minor street (generally, left turn movements). The method assesses available and critical gaps in the traffic stream which make it possible for side street traffic to enter the main street flow. The 2010 Highway Capacity Manual describes the detailed methodology. It is not unusual for an intersection to experience level of service E or F conditions for the minor street left turn movement. It should be understood that, often, a poor level of service is experienced by only a few vehicles and the intersection as a whole operates acceptably.

Unsignalized intersection levels of service are described in the following table.

Level-of-Service Criteria: Automobile Mode

Control Delay (s/vehicle)	LOS by Volume-to-Capacity Ratio	
	$v/c \leq 1.0$	$v/c > 1.0$
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole

SIGNALIZED INTERSECTIONS

For signalized intersections, level of service is evaluated based upon average vehicle delay experienced by vehicles entering an intersection. Control delay (or signal delay) includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. In previous versions of this chapter of the HCM (1994 and earlier), delay included only stopped delay. As delay increases, the level of service decreases. Calculations for signalized and unsignalized intersections are different due to the variation in traffic control. The 2000 Highway Capacity Manual provides the basis for these calculations.

Level of Service	Delay (secs.)	Description
A	<10.00	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Most vehicles do not stop at all. Progression is extremely favorable and most vehicles arrive during the green phase.
B	10.1-20.0	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. This level generally occurs with good progression, short cycle lengths, or both.
C	20.1-35.0	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted. Higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, and the number of vehicles stopping is significant.
D	35.1-55.0	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Drivers may have to wait through more than one red signal indication. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. The proportion of vehicles not stopping declines, and individual cycle failures are noticeable.
E	55.1-80.0	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
F	>80.0	Forced Flow/Excessive Delays: Represents jammed conditions. Queues may block upstream intersections. This level occurs when arrival flow rates exceed intersection capacity, and is considered to be unacceptable to most drivers. Poor progression, long cycle lengths, and v/c ratios approaching 1.0 may contribute to these high delay levels.

Source: 2000 Highway Capacity Manual, Transportation Research Board, Washington D.C.

HCM Signalized Intersection Capacity Analysis
1: Boones Ferry Rd & Wilsonville Rd






























Wilsonville Pacific Star Gas Station T Item 2.
Existing PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	785	119	389	631	224	194	110	407	464	213	64
Future Volume (vph)	31	785	119	389	631	224	194	110	407	464	213	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.99	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	5085	1566	3467	3539	1606	1805	1863	1573	3400	1786	1786
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	5085	1566	3467	3539	1606	1805	1863	1573	3400	1786	1786
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	826	125	409	664	236	204	116	428	488	224	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	33	826	125	409	664	236	204	116	428	488	281	0
Confl. Peds. (#/hr)	2		6	6		2	5		1	1		5
Confl. Bikes (#/hr)			1			2			1			2
Heavy Vehicles (%)	4%	2%	1%	1%	2%	11%	0%	2%	2%	3%	2%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases			2			6			8			
Actuated Green, G (s)	4.8	31.8	31.8	19.5	46.5	46.5	17.2	17.2	36.7	21.5	21.5	
Effective Green, g (s)	4.8	31.8	31.8	19.5	46.5	47.5	17.2	17.2	36.7	21.5	21.5	
Actuated g/C Ratio	0.04	0.29	0.29	0.18	0.42	0.43	0.16	0.16	0.33	0.20	0.20	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.3	4.1	4.1	2.3	4.1	4.1	2.3	2.3	2.3	2.3	2.3	
Lane Grp Cap (vph)	75	1470	452	614	1496	693	282	291	596	664	349	
v/s Ratio Prot	0.02	c0.16		0.12	0.19		0.11	0.06	c0.13	0.14	c0.16	
v/s Ratio Perm			0.08			0.15			0.14			
v/c Ratio	0.44	0.56	0.28	0.67	0.44	0.34	0.72	0.40	0.72	0.73	0.80	
Uniform Delay, d1	51.3	33.2	30.2	42.2	22.6	20.8	44.1	41.7	32.1	41.6	42.2	
Progression Factor	1.00	1.00	1.00	1.01	0.79	0.76	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	1.6	1.5	2.2	0.9	1.3	8.0	0.5	3.7	3.9	12.1	
Delay (s)	53.7	34.7	31.7	44.8	18.8	17.2	52.2	42.3	35.8	45.4	54.4	
Level of Service	D	C	C	D	B	B	D	D	D	D	D	
Approach Delay (s)		35.0			26.6			41.3			48.8	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			36.2				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			75.1%				ICU Level of Service			D		
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th Signalized Intersection Summary
1: Boones Ferry Rd & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	 					 		
Traffic Volume (veh/h)	31	785	119	389	631	224	194	110	407	464	213	64
Future Volume (veh/h)	31	785	119	389	631	224	194	110	407	464	213	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1806	1900	1870	1870	1856	1870	1856
Adj Flow Rate, veh/h	33	826	0	409	664	0	204	116	428	488	224	56
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	2	1	1	2	11	0	2	2	3	2	3
Cap, veh/h	41	1257		412	1212		479	495	599	648	272	68
Arrive On Green	0.02	0.25	0.00	0.08	0.23	0.00	0.26	0.26	0.26	0.19	0.19	0.19
Sat Flow, veh/h	1753	5106	1598	3483	3554	1531	1810	1870	1556	3428	1437	359
Grp Volume(v), veh/h	33	826	0	409	664	0	204	116	428	488	0	280
Grp Sat Flow(s),veh/h/ln	1753	1702	1598	1742	1777	1531	1810	1870	1556	1714	0	1796
Q Serve(g_s), s	2.1	16.0	0.0	12.9	18.1	0.0	10.3	5.3	25.8	14.8	0.0	16.5
Cycle Q Clear(g_c), s	2.1	16.0	0.0	12.9	18.1	0.0	10.3	5.3	25.8	14.8	0.0	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	41	1257		412	1212		479	495	599	648	0	340
V/C Ratio(X)	0.80	0.66		0.99	0.55		0.43	0.23	0.71	0.75	0.00	0.82
Avail Cap(c_a), veh/h	112	1257		412	1212		526	544	640	841	0	441
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.91	0.91	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.5	37.3	0.0	50.6	35.0	0.0	33.5	31.7	28.9	42.2	0.0	42.9
Incr Delay (d2), s/veh	19.1	2.7	0.0	40.5	1.6	0.0	0.4	0.1	3.1	2.2	0.0	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.9	0.0	8.1	8.4	0.0	4.5	2.4	9.9	6.4	0.0	8.0
Unsig. Movement Delay, s/veh			31.70			17.20						
LnGrp Delay(d),s/veh	72.6	40.0	31.7	91.1	36.6	17.2	33.9	31.8	32.0	44.4	0.0	51.1
LnGrp LOS	E	D	C	F	D	B	C	C	C	D	A	D
Approach Vol, veh/h		984	A		1309	A		748			768	
Approach Delay, s/veh		40.0			50.1			32.5			46.9	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.0	32.1		25.8	7.6	42.5		34.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	13.0	18.0		27.0	7.0	24.0		32.0				
Max Q Clear Time (g_c+I1), s	14.9	18.0		18.5	4.1	20.1		27.8				
Green Ext Time (p_c), s	0.0	0.0		1.8	0.0	1.6		1.1				

Intersection Summary

HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved changes to right turn type.
- Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
2: I-5 SB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑	↑	↑↑
Traffic Volume (vph)	0	926	730	534	1048	0	0	0	0	302	1	296
Future Volume (vph)	0	926	730	534	1048	0	0	0	0	302	1	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	0.97	0.95					0.95	0.95	0.88
Frbp, ped/bikes		1.00	0.97	1.00	1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1543	3467	3505					1698	1703	2598
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1543	3467	3505					1698	1703	2598
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	955	753	551	1080	0	0	0	0	311	1	305
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	207
Lane Group Flow (vph)	0	955	753	551	1080	0	0	0	0	155	157	98
Confl. Peds. (#/hr)	7		8	8		7	1		3	3		1
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	2%	2%	1%	3%	0%	0%	0%	0%	1%	0%	7%
Turn Type		NA	Perm	Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases			2		6							4
Actuated Green, G (s)		59.9	59.9	22.3	86.7					14.8	14.8	14.8
Effective Green, g (s)		59.9	59.9	22.8	86.7					15.3	15.3	15.3
Actuated g/C Ratio		0.54	0.54	0.21	0.79					0.14	0.14	0.14
Clearance Time (s)		4.0	4.0	4.5	4.0					4.5	4.5	4.5
Vehicle Extension (s)		5.2	5.2	2.3	5.2					2.3	2.3	2.3
Lane Grp Cap (vph)		2769	840	718	2762					236	236	361
v/s Ratio Prot		0.19		c0.16	0.31					0.09	c0.09	
v/s Ratio Perm			c0.49									0.04
v/c Ratio		0.34	0.90	0.77	0.39					0.66	0.67	0.27
Uniform Delay, d1		14.0	22.3	41.1	3.6					44.9	44.9	42.4
Progression Factor		1.14	1.17	1.19	0.95					1.00	1.00	1.00
Incremental Delay, d2		0.3	11.5	4.2	0.4					5.4	5.9	0.2
Delay (s)		16.3	37.7	53.1	3.8					50.3	50.8	42.6
Level of Service		B	D	D	A					D	D	D
Approach Delay (s)		25.8			20.4			0.0			46.6	
Approach LOS		C			C			A			D	
Intersection Summary												
HCM 2000 Control Delay			26.8			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)				12.0		
Intersection Capacity Utilization			80.1%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
2: I-5 SB & Wilsonville Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗	↘↗	↑↑					↘	↗	↘↗
Traffic Volume (veh/h)	0	926	730	534	1048	0	0	0	0	302	1	296
Future Volume (veh/h)	0	926	730	534	1048	0	0	0	0	302	1	296
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1885	1856	0				1885	1900	1796
Adj Flow Rate, veh/h	0	955	0	551	1080	0				312	0	92
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	1	3	0				1	0	7
Cap, veh/h	0	3066		586	2838	0				439	0	368
Arrive On Green	0.00	1.00	0.00	0.34	1.00	0.00				0.12	0.00	0.12
Sat Flow, veh/h	0	5274	1585	3483	3618	0				3591	0	3007
Grp Volume(v), veh/h	0	955	0	551	1080	0				312	0	92
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1742	1763	0				1795	0	1504
Q Serve(g_s), s	0.0	0.0	0.0	16.9	0.0	0.0				9.2	0.0	3.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	16.9	0.0	0.0				9.2	0.0	3.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3066		586	2838	0				439	0	368
V/C Ratio(X)	0.00	0.31		0.94	0.38	0.00				0.71	0.00	0.25
Avail Cap(c_a), veh/h	0	3066		586	2838	0				832	0	697
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.69	0.00	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	36.0	0.0	0.0				46.4	0.0	43.7
Incr Delay (d2), s/veh	0.0	0.2	0.0	21.4	0.3	0.0				1.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	7.4	0.1	0.0				4.2	0.0	1.1
Unsig. Movement Delay, s/veh			37.70									
LnGrp Delay(d),s/veh	0.0	0.2	37.7	57.3	0.3	0.0				47.7	0.0	43.9
LnGrp LOS	A	A	D	E	A	A				D	A	D
Approach Vol, veh/h		1708		A	1631						404	
Approach Delay, s/veh		16.7			19.6						46.9	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.5	70.1		17.4		92.6						
Change Period (Y+Rc), s	4.5	4.0		4.5		4.0						
Max Green Setting (Gmax), s	18.0	54.0		25.0		76.5						
Max Q Clear Time (g_c+I1), s	18.9	2.0		11.2		2.0						
Green Ext Time (p_c), s	0.0	13.5		1.2		18.0						
Intersection Summary												
HCM 6th Ctrl Delay			21.2									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
User approved changes to right turn type.												

Unsignalized Delay for [EBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis

3: I-5 NB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	396	832	0	0	1147	359	435	1	538	0	0	0	
Future Volume (vph)	396	832	0	0	1147	359	435	1	538	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.95	0.88				
Frbp, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00	0.79				
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (prot)	3502	3574			5136	1561	1618	1622	2219				
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (perm)	3502	3574			5136	1561	1618	1622	2219				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Adj. Flow (vph)	408	858	0	0	1182	370	448	1	555	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	259	0	0	0	
Lane Group Flow (vph)	408	858	0	0	1182	370	224	225	296	0	0	0	
Confl. Peds. (#/hr)	1		1	1		1			28	28			
Confl. Bikes (#/hr)						1			2				
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	6%	0%	1%	0%	0%	0%	
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm				
Protected Phases	5	2			6		8	8					
Permitted Phases		2				6			8				
Actuated Green, G (s)	17.2	79.3			58.1	58.1	22.7	22.7	22.7				
Effective Green, g (s)	17.2	79.3			58.1	58.1	22.7	22.7	22.7				
Actuated g/C Ratio	0.16	0.72			0.53	0.53	0.21	0.21	0.21				
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	2.3	5.2			5.2	5.2	3.0	3.0	3.0				
Lane Grp Cap (vph)	547	2576			2712	824	333	334	457				
v/s Ratio Prot	c0.12	0.24			0.23		0.14	c0.14					
v/s Ratio Perm						c0.24			0.13				
v/c Ratio	0.75	0.33			0.44	0.45	0.67	0.67	0.65				
Uniform Delay, d1	44.3	5.6			15.9	16.1	40.2	40.2	40.0				
Progression Factor	1.27	1.51			1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	4.8	0.3			0.5	1.8	5.3	5.3	3.2				
Delay (s)	61.3	8.8			16.4	17.8	45.5	45.5	43.2				
Level of Service	E	A			B	B	D	D	D				
Approach Delay (s)		25.8			16.8			44.2			0.0		
Approach LOS		C			B			D			A		
Intersection Summary													
HCM 2000 Control Delay			26.9		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.55										
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				12.0				
Intersection Capacity Utilization			80.1%		ICU Level of Service				D				
Analysis Period (min)			15										
c	Critical Lane Group												

HCM 6th Signalized Intersection Summary
3: I-5 NB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	396	832	0	0	1147	359	435	1	538	0	0	0
Future Volume (veh/h)	396	832	0	0	1147	359	435	1	538	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.90			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1885	0	0	1885	1870	1811	1900	1885			
Adj Flow Rate, veh/h	408	858	0	0	1182	0	449	0	288			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	0	0	1	2	6	0	1			
Cap, veh/h	477	2697	0	0	2990		601	0	500			
Arrive On Green	0.27	1.00	0.00	0.00	0.58	0.00	0.17	0.00	0.17			
Sat Flow, veh/h	3510	3676	0	0	5316	1585	3450	0	2867			
Grp Volume(v), veh/h	408	858	0	0	1182	0	449	0	288			
Grp Sat Flow(s),veh/h/ln	1755	1791	0	0	1716	1585	1725	0	1434			
Q Serve(g_s), s	12.1	0.0	0.0	0.0	13.7	0.0	13.6	0.0	10.1			
Cycle Q Clear(g_c), s	12.1	0.0	0.0	0.0	13.7	0.0	13.6	0.0	10.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	477	2697	0	0	2990		601	0	500			
V/C Ratio(X)	0.86	0.32	0.00	0.00	0.40		0.75	0.00	0.58			
Avail Cap(c_a), veh/h	670	2697	0	0	2990		1004	0	834			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.93	0.93	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.0	0.0	0.0	0.0	12.5	0.0	43.1	0.0	41.7			
Incr Delay (d2), s/veh	6.1	0.3	0.0	0.0	0.4	0.0	1.9	0.0	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.8	0.1	0.0	0.0	5.1	0.0	5.9	0.0	3.6			
Unsig. Movement Delay, s/veh						17.80						
LnGrp Delay(d),s/veh	45.2	0.3	0.0	0.0	12.9	17.8	45.0	0.0	42.7			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1266			1552	A		737				
Approach Delay, s/veh		14.8			14.1			44.1				
Approach LOS		B			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		86.8			18.9	67.9		23.2				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		70.0			21.0	45.0		32.0				
Max Q Clear Time (g_c+I1), s		2.0			14.1	15.7		15.6				
Green Ext Time (p_c), s		12.3			0.8	14.4		3.6				
Intersection Summary												
HCM 6th Ctrl Delay				20.6								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												
User approved changes to right turn type.												
Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.												

Updated by D. Pauly 05.19.2020

Stage II Approved										
Project	Land Use	Status	Size	Total PM Peak Trips	Trip Allocation Percentage		Net New (Primary + Diverted) PM Peak Hour Trips not yet active			
					Internal	Pass-By	In	Out	Total	
Hydro-Temp: Recent agreement with the City, the project is vested and so are the traffic trips	Office/Flex-Space	Not built	60.8 KSF					44	46	90
Mercedes Benz (Phase 2)	Auto Dealership	Not built						20	26	46
Shredding Systems (SQFT does not including paint canopy and another canopy)	Industrial/Commercial	Under construction	66.8 KSF					20	46	66
Town Center Ph III and trip dedication to Miller Paint store Uses marked with "*" have not been built and PM peak hr trip sum exceeds remaining vested trip level by 2 trips. It has yet to be determined how to allocate trips between remaining buildings.	*High Turnover Restaurant (Pad 1)	Not built	7.5 KSF					24	17	47*
	Remaining Approved Total									47
Wilsonville Road Business Park Phase II	Phase 2 - office (2-story building on west parcel)	Partially Built	21.7 KSF					15	71	86
Universal Health Services	Mental Health Facility	Land Use Expired, Trip available for other uses	62K							107
Frog Pond-Stafford Meadows (Phase 2 and 3a of 10/18 study)	Residential	Partially Built, 20 homes built and occupied	46 units					16	12	26
Frog Pond-Frog Pond Meadows (Phase 3B, 4A, 4B of 10/18 Study)	Residential	Under construction	74 units					45	29	74
Frog Pond Ridge	Residential	Under construction, no homes built	71 units					43	28	71
Frog Pond-Morgan Farm	Residential	Partially Built, 33 homes built and occupied	80 units					30	17	47
Fir Avenue Commons	Residential	Built, not yet occupied	10 units					7	3	10
Magnolia Townhomes	Residential	Approved	6 units					3	2	5
Aspen Meadows II	Residential	Under construction, no homes sold and occupied	5 units					2	3	5
Canyon Creek III	Residential	Approved	5 units (traffic study was for 11)					2	3	5
Grace Chapel	Religious	Under construction	Replace commercial college with larger church including 11,705 addition					-71	-29	-100
Coffee Creek Logistics	Industrial/Commercial	Under construction	115K					16	41	57

Stage II Approved – Villebois													
Project	Phase	Status	Land Use					Total PM Peak Trips	Trip Allocation Percentage		Net New (Primary + Diverted) PM Peak Hour Trips not yet active		
			SF	Town.	Apt.	Retail	School		Internal	Pass-By	In	Out	Total
North (Entirety)	Residential	Partially built, 364 homes sold and occupied	466								65	37	102
Central	Residential	Partially Built, 734 homes (102 single family, 318 condo/row homes, 365 apartments) occupied	102	391	365	8.5 KSF					30	14	44
FOR REFERENCE SAP EAST			537	42									

FOR REFERENCE SAP SOUTH (Includes PDP 7 Grande Pointe)

560

Pending Projects for Which Traffic Analysis has been completed (except Villebois)											
Project	Land Use	Status	Size	Total PM Peak Trips	Trip Allocation Percentage			Net New (Primary) PM Peak Hour Trips			
					Internal	Pass-By	Diverted	In	Out	Total	
PW Complex on Boberg	Public	under review	15,800 office, 17,900 warehouse						11	39	50
DAS North Valley Complex	Public/Industrial	under review	174,700 sf						5	15	20

HCM Signalized Intersection Capacity Analysis
1: Boones Ferry Rd & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Project PM Peak Hour

Item 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	79	748	119	389	601	280	194	113	407	527	216	105	
Future Volume (vph)	79	748	119	389	601	280	194	113	407	527	216	105	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	12	12	12	12	12	16	12	12	12	12	12	12	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.99	1.00	0.99	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1736	5085	1566	3467	3539	1605	1805	1863	1573	3400	1754	1754	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1736	5085	1566	3467	3539	1605	1805	1863	1573	3400	1754	1754	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	83	787	125	409	633	295	204	119	428	555	227	111	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	17	0	
Lane Group Flow (vph)	83	787	125	409	633	295	204	119	428	555	321	0	
Confl. Peds. (#/hr)	2		6	6		2	5		1	1		5	
Confl. Bikes (#/hr)			1			2			1			2	
Heavy Vehicles (%)	4%	2%	1%	1%	2%	11%	0%	2%	2%	3%	2%	3%	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	NA	
Protected Phases	5	2		1	6		8	8	1	4	4		
Permitted Phases			2			6			8				
Actuated Green, G (s)	10.5	29.8	29.8	19.5	38.8	38.8	17.2	17.2	36.7	23.5	23.5		
Effective Green, g (s)	10.5	29.8	29.8	19.5	38.8	39.8	17.2	17.2	36.7	23.5	23.5		
Actuated g/C Ratio	0.10	0.27	0.27	0.18	0.35	0.36	0.16	0.16	0.33	0.21	0.21		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	2.3	4.1	4.1	2.3	4.1	4.1	2.3	2.3	2.3	2.3	2.3		
Lane Grp Cap (vph)	165	1377	424	614	1248	580	282	291	596	726	374		
v/s Ratio Prot	0.05	c0.15		0.12	0.18		0.11	0.06	c0.13	0.16	c0.18		
v/s Ratio Perm			0.08			0.18			0.14				
v/c Ratio	0.50	0.57	0.29	0.67	0.51	0.51	0.72	0.41	0.72	0.76	0.86		
Uniform Delay, d1	47.3	34.6	31.8	42.2	28.1	27.5	44.1	41.8	32.1	40.6	41.7		
Progression Factor	1.00	1.00	1.00	1.01	0.86	0.85	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.4	1.7	1.8	2.2	1.4	3.0	8.0	0.5	3.7	4.5	17.2		
Delay (s)	48.7	36.3	33.5	44.7	25.5	26.2	52.2	42.4	35.8	45.1	58.8		
Level of Service	D	D	C	D	C	C	D	D	D	D	E		
Approach Delay (s)		37.0			31.5			41.3			50.3		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			39.0		HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio			0.75										
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				20.0				
Intersection Capacity Utilization			77.4%		ICU Level of Service				D				
Analysis Period (min)			15										

c Critical Lane Group

HCM 6th Signalized Intersection Summary
1: Boones Ferry Rd & Wilsonville Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	748	119	389	601	280	194	113	407	527	216	105
Future Volume (veh/h)	79	748	119	389	601	280	194	113	407	527	216	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1806	1900	1870	1870	1856	1870	1856
Adj Flow Rate, veh/h	83	787	0	409	633	0	204	119	428	555	227	93
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	2	1	1	2	11	0	2	2	3	2	3
Cap, veh/h	105	1145		412	1005		479	495	599	723	264	108
Arrive On Green	0.06	0.22	0.00	0.08	0.19	0.00	0.26	0.26	0.26	0.21	0.21	0.21
Sat Flow, veh/h	1753	5106	1598	3483	3554	1531	1810	1870	1556	3428	1252	513
Grp Volume(v), veh/h	83	787	0	409	633	0	204	119	428	555	0	320
Grp Sat Flow(s),veh/h/ln	1753	1702	1598	1742	1777	1531	1810	1870	1556	1714	0	1765
Q Serve(g_s), s	5.1	15.5	0.0	12.9	18.0	0.0	10.3	5.5	25.8	16.8	0.0	19.2
Cycle Q Clear(g_c), s	5.1	15.5	0.0	12.9	18.0	0.0	10.3	5.5	25.8	16.8	0.0	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	105	1145		412	1005		479	495	599	723	0	372
V/C Ratio(X)	0.79	0.69		0.99	0.63		0.43	0.24	0.71	0.77	0.00	0.86
Avail Cap(c_a), veh/h	112	1145		412	1005		526	544	640	841	0	433
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.90	0.90	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	39.1	0.0	50.6	39.3	0.0	33.5	31.8	28.9	40.9	0.0	41.8
Incr Delay (d2), s/veh	28.0	3.4	0.0	40.3	2.7	0.0	0.4	0.2	3.1	3.3	0.0	13.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.7	0.0	8.1	8.5	0.0	4.5	2.5	9.9	7.3	0.0	9.7
Unsig. Movement Delay, s/veh			36.10			26.80						
LnGrp Delay(d),s/veh	79.0	42.5	36.1	90.9	42.0	26.8	33.9	31.9	32.0	44.1	0.0	55.1
LnGrp LOS	E	D	D	F	D	C	C	C	C	D	A	E
Approach Vol, veh/h		995	A		1337	A		751				875
Approach Delay, s/veh		44.7			53.6			32.5				48.1
Approach LOS		D			D			C				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.0	29.7		28.2	11.6	36.1		34.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	13.0	18.0		27.0	7.0	24.0		32.0				
Max Q Clear Time (g_c+I1), s	14.9	17.5		21.2	7.1	20.0		27.8				
Green Ext Time (p_c), s	0.0	0.3		1.7	0.0	1.6		1.1				

Intersection Summary













HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved changes to right turn type.
- Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
2: I-5 SB & Wilsonville Rd













Wilsonville Pacific Star Gas Station T Item 2.
Existing + Project PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑	↑	↑↑
Traffic Volume (vph)	0	947	735	534	1058	0	0	0	0	302	1	312
Future Volume (vph)	0	947	735	534	1058	0	0	0	0	302	1	312
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	0.97	0.95					0.95	0.95	0.88
Frbp, ped/bikes		1.00	0.97	1.00	1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1543	3467	3505					1698	1703	2598
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1543	3467	3505					1698	1703	2598
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	976	758	551	1091	0	0	0	0	311	1	322
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	203
Lane Group Flow (vph)	0	976	758	551	1091	0	0	0	0	155	157	119
Confl. Peds. (#/hr)	7		8	8		7	1			3	3	1
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	2%	2%	1%	3%	0%	0%	0%	0%	1%	0%	7%
Turn Type		NA	Perm	Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases			2		6							4
Actuated Green, G (s)		59.8	59.8	22.4	86.7					14.8	14.8	14.8
Effective Green, g (s)		59.8	59.8	22.9	86.7					15.3	15.3	15.3
Actuated g/C Ratio		0.54	0.54	0.21	0.79					0.14	0.14	0.14
Clearance Time (s)		4.0	4.0	4.5	4.0					4.5	4.5	4.5
Vehicle Extension (s)		5.2	5.2	2.3	5.2					2.3	2.3	2.3
Lane Grp Cap (vph)		2764	838	721	2762					236	236	361
v/s Ratio Prot		0.19		c0.16	0.31					0.09	c0.09	
v/s Ratio Perm			c0.49									0.05
v/c Ratio		0.35	0.90	0.76	0.40					0.66	0.67	0.33
Uniform Delay, d1		14.2	22.5	41.0	3.6					44.9	44.9	42.7
Progression Factor		1.19	1.22	1.20	0.97					1.00	1.00	1.00
Incremental Delay, d2		0.3	11.9	4.1	0.4					5.4	5.9	0.3
Delay (s)		17.1	39.4	53.3	3.9					50.3	50.8	43.0
Level of Service		B	D	D	A					D	D	D
Approach Delay (s)		26.9			20.5			0.0			46.7	
Approach LOS		C			C			A			D	
Intersection Summary												
HCM 2000 Control Delay			27.4			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)				12.0		
Intersection Capacity Utilization			80.4%			ICU Level of Service				D		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM 6th Signalized Intersection Summary
2: I-5 SB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Project PM Peak Hour

Item 2.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗	↘↗	↑↑					↘	↗	↗↘
Traffic Volume (veh/h)	0	947	735	534	1058	0	0	0	0	302	1	312
Future Volume (veh/h)	0	947	735	534	1058	0	0	0	0	302	1	312
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1885	1856	0				1885	1900	1796
Adj Flow Rate, veh/h	0	976	0	551	1091	0				312	0	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	1	3	0				1	0	7
Cap, veh/h	0	3068		583	2836	0				441	0	369
Arrive On Green	0.00	1.00	0.00	0.33	1.00	0.00				0.12	0.00	0.12
Sat Flow, veh/h	0	5274	1585	3483	3618	0				3591	0	3007
Grp Volume(v), veh/h	0	976	0	551	1091	0				312	0	113
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1742	1763	0				1795	0	1504
Q Serve(g_s), s	0.0	0.0	0.0	16.9	0.0	0.0				9.2	0.0	3.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	16.9	0.0	0.0				9.2	0.0	3.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3068		583	2836	0				441	0	369
V/C Ratio(X)	0.00	0.32		0.95	0.38	0.00				0.71	0.00	0.31
Avail Cap(c_a), veh/h	0	3068		583	2836	0				832	0	697
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.66	0.00	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	36.1	0.0	0.0				46.3	0.0	44.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	22.2	0.3	0.0				1.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	7.5	0.1	0.0				4.2	0.0	1.4
Unsig. Movement Delay, s/veh			44.50									
LnGrp Delay(d),s/veh	0.0	0.2	44.5	58.3	0.3	0.0				47.6	0.0	44.3
LnGrp LOS	A	A	D	E	A	A				D	A	D
Approach Vol, veh/h		1734	A		1642						425	
Approach Delay, s/veh		19.6			19.8						46.7	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.4	70.1		17.5		92.5						
Change Period (Y+Rc), s	4.5	4.0		4.5		4.0						
Max Green Setting (Gmax), s	17.9	54.1		25.0		76.5						
Max Q Clear Time (g_c+I1), s	18.9	2.0		11.2		2.0						
Green Ext Time (p_c), s	0.0	13.9		1.3		18.3						
Intersection Summary												
HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
User approved changes to right turn type.												

Unsignalized Delay for [EBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis

3: I-5 NB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing + Project PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	412	837	0	0	1152	359	440	1	538	0	0	0	
Future Volume (vph)	412	837	0	0	1152	359	440	1	538	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.95	0.88				
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00	0.79				
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (prot)	3502	3574			5136	1561	1618	1622	2219				
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (perm)	3502	3574			5136	1561	1618	1622	2219				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Adj. Flow (vph)	425	863	0	0	1188	370	454	1	555	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	263	0	0	0	
Lane Group Flow (vph)	425	863	0	0	1188	370	227	228	292	0	0	0	
Confl. Peds. (#/hr)	1		1	1		1			28	28			
Confl. Bikes (#/hr)						1			2				
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	6%	0%	1%	0%	0%	0%	
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm				
Protected Phases	5	2			6		8	8					
Permitted Phases		2				6			8				
Actuated Green, G (s)	17.8	79.3			57.5	57.5	22.7	22.7	22.7				
Effective Green, g (s)	17.8	79.3			57.5	57.5	22.7	22.7	22.7				
Actuated g/C Ratio	0.16	0.72			0.52	0.52	0.21	0.21	0.21				
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	2.3	5.2			5.2	5.2	3.0	3.0	3.0				
Lane Grp Cap (vph)	566	2576			2684	815	333	334	457				
v/s Ratio Prot	c0.12	0.24			0.23		0.14	c0.14					
v/s Ratio Perm						c0.24			0.13				
v/c Ratio	0.75	0.34			0.44	0.45	0.68	0.68	0.64				
Uniform Delay, d1	44.0	5.6			16.3	16.4	40.3	40.3	39.9				
Progression Factor	1.30	1.40			1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	4.9	0.3			0.5	1.8	5.7	5.7	2.9				
Delay (s)	62.0	8.2			16.8	18.2	46.0	46.0	42.8				
Level of Service	E	A			B	B	D	D	D				
Approach Delay (s)		26.0			17.2			44.3			0.0		
Approach LOS		C			B			D			A		
Intersection Summary													
HCM 2000 Control Delay			27.2		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.56										
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				12.0				
Intersection Capacity Utilization			80.4%		ICU Level of Service				D				
Analysis Period (min)			15										
c	Critical Lane Group												

HCM 6th Signalized Intersection Summary

3: I-5 NB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing + Project PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	412	837	0	0	1152	359	440	1	538	0	0	0
Future Volume (veh/h)	412	837	0	0	1152	359	440	1	538	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.90			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1885	0	0	1885	1870	1811	1900	1885			
Adj Flow Rate, veh/h	425	863	0	0	1188	0	455	0	284			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	0	0	1	2	6	0	1			
Cap, veh/h	495	2694	0	0	2959		604	0	502			
Arrive On Green	0.28	1.00	0.00	0.00	0.57	0.00	0.18	0.00	0.18			
Sat Flow, veh/h	3510	3676	0	0	5316	1585	3450	0	2869			
Grp Volume(v), veh/h	425	863	0	0	1188	0	455	0	284			
Grp Sat Flow(s),veh/h/ln	1755	1791	0	0	1716	1585	1725	0	1434			
Q Serve(g_s), s	12.6	0.0	0.0	0.0	14.0	0.0	13.8	0.0	10.0			
Cycle Q Clear(g_c), s	12.6	0.0	0.0	0.0	14.0	0.0	13.8	0.0	10.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	495	2694	0	0	2959		604	0	502			
V/C Ratio(X)	0.86	0.32	0.00	0.00	0.40		0.75	0.00	0.57			
Avail Cap(c_a), veh/h	702	2694	0	0	2959		972	0	808			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.5	0.0	0.0	0.0	12.9	0.0	43.1	0.0	41.5			
Incr Delay (d2), s/veh	5.9	0.3	0.0	0.0	0.4	0.0	1.9	0.0	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.0	0.1	0.0	0.0	5.2	0.0	6.0	0.0	3.6			
Unsig. Movement Delay, s/veh						18.20						
LnGrp Delay(d),s/veh	44.4	0.3	0.0	0.0	13.3	18.2	45.0	0.0	42.5			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1288			1558	A		739				
Approach Delay, s/veh		14.8			14.5			44.1				
Approach LOS		B			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		86.7			19.5	67.2		23.3				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		71.0			22.0	45.0		31.0				
Max Q Clear Time (g_c+I1), s		2.0			14.6	16.0		15.8				
Green Ext Time (p_c), s		12.4			0.9	14.4		3.5				
Intersection Summary												
HCM 6th Ctrl Delay					20.7							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												
User approved changes to right turn type.												
Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.												

HCM Signalized Intersection Capacity Analysis
1: Boones Ferry Rd & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing + Stage II PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	36	854	129	398	680	235	209	112	412	480	217	67	
Future Volume (vph)	36	854	129	398	680	235	209	112	412	480	217	67	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	12	12	12	12	12	16	12	12	12	12	12	12	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.99	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1736	5085	1566	3467	3539	1606	1805	1863	1573	3400	1784	1784	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1736	5085	1566	3467	3539	1606	1805	1863	1573	3400	1784	1784	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	38	899	136	419	716	247	220	118	434	505	228	71	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	11	0	
Lane Group Flow (vph)	38	899	136	419	716	247	220	118	434	505	288	0	
Confl. Peds. (#/hr)	2		6	6		2	5		1	1		5	
Confl. Bikes (#/hr)			1			2			1			2	
Heavy Vehicles (%)	4%	2%	1%	1%	2%	11%	0%	2%	2%	3%	2%	3%	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA		
Protected Phases	5	2		1	6		8	8	1	4	4		
Permitted Phases			2			6			8				
Actuated Green, G (s)	5.1	30.0	30.0	19.9	44.8	44.8	18.2	18.2	38.1	21.9	21.9		
Effective Green, g (s)	5.1	30.0	30.0	19.9	44.8	45.8	18.2	18.2	38.1	21.9	21.9		
Actuated g/C Ratio	0.05	0.27	0.27	0.18	0.41	0.42	0.17	0.17	0.35	0.20	0.20		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	2.3	4.1	4.1	2.3	4.1	4.1	2.3	2.3	2.3	2.3	2.3		
Lane Grp Cap (vph)	80	1386	427	627	1441	668	298	308	616	676	355		
v/s Ratio Prot	0.02	c0.18		0.12	0.20		0.12	0.06	c0.13	0.15	c0.16		
v/s Ratio Perm			0.09			0.15			0.15				
v/c Ratio	0.47	0.65	0.32	0.67	0.50	0.37	0.74	0.38	0.70	0.75	0.81		
Uniform Delay, d1	51.1	35.3	31.9	42.0	24.2	22.1	43.6	40.9	31.1	41.4	42.1		
Progression Factor	1.00	1.00	1.00	1.05	0.81	0.78	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	2.6	2.4	2.0	2.1	1.1	1.5	8.4	0.5	3.2	4.1	12.7		
Delay (s)	53.7	37.7	33.8	46.0	20.8	18.7	52.0	41.4	34.3	45.6	54.7		
Level of Service	D	D	C	D	C	B	D	D	C	D	D		
Approach Delay (s)		37.8			28.1			40.4			49.0		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			37.2									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.75										
Actuated Cycle Length (s)			110.0									Sum of lost time (s)	20.0
Intersection Capacity Utilization			76.5%									ICU Level of Service	D
Analysis Period (min)			15										

c Critical Lane Group

HCM 6th Signalized Intersection Summary
1: Boones Ferry Rd & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing + Stage II PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	854	129	398	680	235	209	112	412	480	217	67
Future Volume (veh/h)	36	854	129	398	680	235	209	112	412	480	217	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1806	1900	1870	1870	1856	1870	1856
Adj Flow Rate, veh/h	38	899	0	419	716	0	220	118	434	505	228	59
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	2	1	1	2	11	0	2	2	3	2	3
Cap, veh/h	48	1224		412	1174		484	500	604	661	275	71
Arrive On Green	0.03	0.24	0.00	0.08	0.22	0.00	0.27	0.27	0.27	0.19	0.19	0.19
Sat Flow, veh/h	1753	5106	1598	3483	3554	1531	1810	1870	1556	3428	1425	369
Grp Volume(v), veh/h	38	899	0	419	716	0	220	118	434	505	0	287
Grp Sat Flow(s),veh/h/ln	1753	1702	1598	1742	1777	1531	1810	1870	1556	1714	0	1794
Q Serve(g_s), s	2.4	17.9	0.0	13.0	19.9	0.0	11.2	5.4	26.1	15.3	0.0	16.9
Cycle Q Clear(g_c), s	2.4	17.9	0.0	13.0	19.9	0.0	11.2	5.4	26.1	15.3	0.0	16.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	48	1224		412	1174		484	500	604	661	0	346
V/C Ratio(X)	0.79	0.73		1.02	0.61		0.45	0.24	0.72	0.76	0.00	0.83
Avail Cap(c_a), veh/h	112	1224		412	1174		526	544	640	841	0	440
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.89	0.89	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.2	38.6	0.0	50.6	36.4	0.0	33.6	31.5	28.8	42.0	0.0	42.7
Incr Delay (d2), s/veh	16.1	3.9	0.0	46.4	2.1	0.0	0.4	0.1	3.3	2.6	0.0	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.8	0.0	8.5	9.3	0.0	4.9	2.5	10.1	6.7	0.0	8.3
Unsig. Movement Delay, s/veh			33.80			18.70						
LnGrp Delay(d),s/veh	69.3	42.5	33.8	97.1	38.5	18.7	34.0	31.6	32.1	44.7	0.0	51.6
LnGrp LOS	E	D	C	F	D	B	C	C	C	D	A	D
Approach Vol, veh/h		1073	A		1382	A		772			792	
Approach Delay, s/veh		42.4			52.7			32.5			47.2	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.0	31.4		26.2	8.0	41.4		34.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	13.0	18.0		27.0	7.0	24.0		32.0				
Max Q Clear Time (g_c+I1), s	15.0	19.9		18.9	4.4	21.9		28.1				
Green Ext Time (p_c), s	0.0	0.0		1.8	0.0	1.0		1.1				

Intersection Summary												
HCM 6th Ctrl Delay			45.0									
HCM 6th LOS			D									

Notes
 User approved pedestrian interval to be less than phase max green.
 User approved changes to right turn type.
 Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
2: I-5 SB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing + Stage II PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑	↑	↑↑
Traffic Volume (vph)	0	982	764	537	1099	0	0	0	0	306	1	314
Future Volume (vph)	0	982	764	537	1099	0	0	0	0	306	1	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	0.97	0.95					0.95	0.95	0.88
Frbp, ped/bikes		1.00	0.97	1.00	1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1543	3467	3505					1698	1703	2598
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1543	3467	3505					1698	1703	2598
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1012	788	554	1133	0	0	0	0	315	1	324
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	187
Lane Group Flow (vph)	0	1012	788	554	1133	0	0	0	0	157	159	137
Confl. Peds. (#/hr)	7		8	8		7	1		3	3		1
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	2%	2%	1%	3%	0%	0%	0%	0%	1%	0%	7%
Turn Type		NA	Perm	Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases			2		6							4
Actuated Green, G (s)		59.0	59.0	23.1	86.6					14.9	14.9	14.9
Effective Green, g (s)		59.0	59.0	23.6	86.6					15.4	15.4	15.4
Actuated g/C Ratio		0.54	0.54	0.21	0.79					0.14	0.14	0.14
Clearance Time (s)		4.0	4.0	4.5	4.0					4.5	4.5	4.5
Vehicle Extension (s)		5.2	5.2	2.3	5.2					2.3	2.3	2.3
Lane Grp Cap (vph)		2727	827	743	2759					237	238	363
v/s Ratio Prot		0.20		c0.16	0.32					0.09	c0.09	
v/s Ratio Perm			c0.51									0.05
v/c Ratio		0.37	0.95	0.75	0.41					0.66	0.67	0.38
Uniform Delay, d1		14.8	24.2	40.4	3.7					44.8	44.9	43.0
Progression Factor		1.19	1.23	1.18	1.03					1.00	1.00	1.00
Incremental Delay, d2		0.3	17.6	3.4	0.4					5.8	5.9	0.4
Delay (s)		17.8	47.3	51.2	4.2					50.6	50.8	43.3
Level of Service		B	D	D	A					D	D	D
Approach Delay (s)		30.7			19.6			0.0			47.0	
Approach LOS		C			B			A			D	
Intersection Summary												
HCM 2000 Control Delay			28.7		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			110.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			82.4%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
2: I-5 SB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T Item 2.
Existing + Stage II PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗	↗↗	↑↑					↘	↖	↗↗
Traffic Volume (veh/h)	0	982	764	537	1099	0	0	0	0	306	1	314
Future Volume (veh/h)	0	982	764	537	1099	0	0	0	0	306	1	314
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1885	1856	0				1885	1900	1796
Adj Flow Rate, veh/h	0	1012	0	554	1133	0				316	0	131
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	1	3	0				1	0	7
Cap, veh/h	0	3092		560	2830	0				447	0	374
Arrive On Green	0.00	1.00	0.00	0.32	1.00	0.00				0.12	0.00	0.12
Sat Flow, veh/h	0	5274	1585	3483	3618	0				3591	0	3008
Grp Volume(v), veh/h	0	1012	0	554	1133	0				316	0	131
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1742	1763	0				1795	0	1504
Q Serve(g_s), s	0.0	0.0	0.0	17.4	0.0	0.0				9.3	0.0	4.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	17.4	0.0	0.0				9.3	0.0	4.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3092		560	2830	0				447	0	374
V/C Ratio(X)	0.00	0.33		0.99	0.40	0.00				0.71	0.00	0.35
Avail Cap(c_a), veh/h	0	3092		560	2830	0				832	0	697
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.64	0.00	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	37.2	0.0	0.0				46.2	0.0	44.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	32.2	0.4	0.0				1.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	8.4	0.1	0.0				4.2	0.0	1.7
Unsig. Movement Delay, s/veh			47.30									
LnGrp Delay(d),s/veh	0.0	0.2	47.3	69.4	0.4	0.0				47.5	0.0	44.4
LnGrp LOS	A	A	D	E	A	A				D	A	D
Approach Vol, veh/h		1800		A	1687						447	
Approach Delay, s/veh		20.8			23.0						46.6	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.7	70.6		17.7		92.3						
Change Period (Y+Rc), s	4.5	4.0		4.5		4.0						
Max Green Setting (Gmax), s	17.2	54.8		25.0		76.5						
Max Q Clear Time (g_c+I1), s	19.4	2.0		11.3		2.0						
Green Ext Time (p_c), s	0.0	14.7		1.3		19.5						

Intersection Summary

HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- User approved changes to right turn type.

Unsignalized Delay for [EBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis

3: I-5 NB & Wilsonville Rd

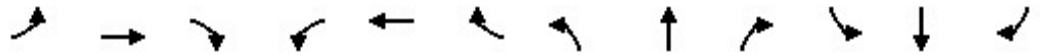
Wilsonville Pacific Star Gas Station T Item 2.
Existing + Stage II PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	421	867	0	0	1167	362	469	1	542	0	0	0	
Future Volume (vph)	421	867	0	0	1167	362	469	1	542	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.95	0.88				
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00	0.79				
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (prot)	3502	3574			5136	1561	1618	1622	2219				
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (perm)	3502	3574			5136	1561	1618	1622	2219				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Adj. Flow (vph)	434	894	0	0	1203	373	484	1	559	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	243	0	0	0	
Lane Group Flow (vph)	434	894	0	0	1203	373	242	243	316	0	0	0	
Confl. Peds. (#/hr)	1		1	1		1			28	28			
Confl. Bikes (#/hr)						1			2				
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	6%	0%	1%	0%	0%	0%	
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm				
Protected Phases	5	2			6		8	8					
Permitted Phases		2				6			8				
Actuated Green, G (s)	18.0	78.3			56.3	56.3	23.7	23.7	23.7				
Effective Green, g (s)	18.0	78.3			56.3	56.3	23.7	23.7	23.7				
Actuated g/C Ratio	0.16	0.71			0.51	0.51	0.22	0.22	0.22				
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	2.3	5.2			5.2	5.2	3.0	3.0	3.0				
Lane Grp Cap (vph)	573	2544			2628	798	348	349	478				
v/s Ratio Prot	c0.12	0.25			0.23		0.15	c0.15					
v/s Ratio Perm						c0.24			0.14				
v/c Ratio	0.76	0.35			0.46	0.47	0.70	0.70	0.66				
Uniform Delay, d1	43.9	6.1			17.1	17.2	39.8	39.8	39.5				
Progression Factor	1.32	1.53			1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	5.0	0.4			0.6	2.0	5.9	5.9	3.4				
Delay (s)	62.8	9.7			17.7	19.2	45.8	45.8	42.9				
Level of Service	E	A			B	B	D	D	D				
Approach Delay (s)		27.1			18.0			44.2			0.0		
Approach LOS		C			B			D			A		
Intersection Summary													
HCM 2000 Control Delay			28.0		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				12.0				
Intersection Capacity Utilization			82.4%		ICU Level of Service				E				
Analysis Period (min)			15										
c	Critical Lane Group												

HCM 6th Signalized Intersection Summary
3: I-5 NB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Stage II PM Peak Hour

Item 2.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘	↗↗			↗↗↗	↗	↘	↗	↗↗			
Traffic Volume (veh/h)	421	867	0	0	1167	362	469	1	542	0	0	0
Future Volume (veh/h)	421	867	0	0	1167	362	469	1	542	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.90			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1885	0	0	1885	1870	1811	1900	1885			
Adj Flow Rate, veh/h	434	894	0	0	1203	0	485	0	308			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	0	0	1	2	6	0	1			
Cap, veh/h	503	2659	0	0	2896		638	0	533			
Arrive On Green	0.29	1.00	0.00	0.00	0.56	0.00	0.18	0.00	0.18			
Sat Flow, veh/h	3510	3676	0	0	5316	1585	3450	0	2882			
Grp Volume(v), veh/h	434	894	0	0	1203	0	485	0	308			
Grp Sat Flow(s),veh/h/ln	1755	1791	0	0	1716	1585	1725	0	1441			
Q Serve(g_s), s	12.9	0.0	0.0	0.0	14.7	0.0	14.7	0.0	10.7			
Cycle Q Clear(g_c), s	12.9	0.0	0.0	0.0	14.7	0.0	14.7	0.0	10.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	503	2659	0	0	2896		638	0	533			
V/C Ratio(X)	0.86	0.34	0.00	0.00	0.42		0.76	0.00	0.58			
Avail Cap(c_a), veh/h	702	2659	0	0	2896		972	0	812			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.2	0.0	0.0	0.0	13.7	0.0	42.5	0.0	40.9			
Incr Delay (d2), s/veh	6.3	0.3	0.0	0.0	0.4	0.0	1.9	0.0	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	0.1	0.0	0.0	5.5	0.0	6.4	0.0	3.9			
Unsig. Movement Delay, s/veh						19.20						
LnGrp Delay(d),s/veh	44.5	0.3	0.0	0.0	14.2	19.2	44.4	0.0	41.9			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1328			1576	A		793				
Approach Delay, s/veh		14.8			15.4			43.5				
Approach LOS		B			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		85.7			19.8	65.9		24.3				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		71.0			22.0	45.0		31.0				
Max Q Clear Time (g_c+I1), s		2.0			14.9	16.7		16.7				
Green Ext Time (p_c), s		13.1			0.9	14.4		3.7				

Intersection Summary

HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved changes to right turn type.
- Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
1: Boones Ferry Rd & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Stage II + Project PM Peak Hour

Item 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	84	817	129	398	650	291	209	115	412	543	220	108	
Future Volume (vph)	84	817	129	398	650	291	209	115	412	543	220	108	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	12	12	12	12	12	16	12	12	12	12	12	12	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.99	1.00	0.99	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1736	5085	1566	3467	3539	1605	1805	1863	1573	3400	1754	1754	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1736	5085	1566	3467	3539	1605	1805	1863	1573	3400	1754	1754	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	88	860	136	419	684	306	220	121	434	572	232	114	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	16	0	
Lane Group Flow (vph)	88	860	136	419	684	306	220	121	434	572	330	0	
Confl. Peds. (#/hr)	2		6	6		2	5		1	1		5	
Confl. Bikes (#/hr)			1			2			1			2	
Heavy Vehicles (%)	4%	2%	1%	1%	2%	11%	0%	2%	2%	3%	2%	3%	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	NA	
Protected Phases	5	2		1	6		8	8	1	4	4		
Permitted Phases			2			6			8				
Actuated Green, G (s)	11.0	28.0	28.0	19.9	36.9	36.9	18.2	18.2	38.1	23.9	23.9	23.9	
Effective Green, g (s)	11.0	28.0	28.0	19.9	36.9	37.9	18.2	18.2	38.1	23.9	23.9	23.9	
Actuated g/C Ratio	0.10	0.25	0.25	0.18	0.34	0.34	0.17	0.17	0.35	0.22	0.22	0.22	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.3	4.1	4.1	2.3	4.1	4.1	2.3	2.3	2.3	2.3	2.3	2.3	
Lane Grp Cap (vph)	173	1294	398	627	1187	552	298	308	616	738	381	381	
v/s Ratio Prot	0.05	c0.17		0.12	0.19		0.12	0.06	c0.13	0.17	c0.19		
v/s Ratio Perm			0.09			0.19			0.15				
v/c Ratio	0.51	0.66	0.34	0.67	0.58	0.55	0.74	0.39	0.70	0.78	0.86	0.86	
Uniform Delay, d1	46.9	36.8	33.5	42.0	30.1	29.2	43.6	41.0	31.1	40.5	41.5	41.5	
Progression Factor	1.00	1.00	1.00	1.03	0.88	0.86	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.4	2.7	2.3	2.1	1.9	3.7	8.4	0.5	3.2	4.8	17.8	17.8	
Delay (s)	48.3	39.5	35.8	45.4	28.2	28.9	52.0	41.5	34.3	45.3	59.3	59.3	
Level of Service	D	D	D	D	C	C	D	D	C	D	E	E	
Approach Delay (s)		39.7			33.5			40.5			50.6		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			40.1		HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio			0.77										
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				20.0				
Intersection Capacity Utilization			78.8%		ICU Level of Service				D				
Analysis Period (min)			15										

c Critical Lane Group

HCM 6th Signalized Intersection Summary
1: Boones Ferry Rd & Wilsonville Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	817	129	398	650	291	209	115	412	543	220	108
Future Volume (veh/h)	84	817	129	398	650	291	209	115	412	543	220	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1885	1885	1870	1806	1900	1870	1870	1856	1870	1856
Adj Flow Rate, veh/h	88	860	0	419	684	0	220	121	434	572	232	97
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	2	1	1	2	11	0	2	2	3	2	3
Cap, veh/h	111	1109		412	967		484	500	604	738	268	112
Arrive On Green	0.06	0.22	0.00	0.08	0.18	0.00	0.27	0.27	0.27	0.22	0.22	0.22
Sat Flow, veh/h	1753	5106	1598	3483	3554	1531	1810	1870	1556	3428	1244	520
Grp Volume(v), veh/h	88	860	0	419	684	0	220	121	434	572	0	329
Grp Sat Flow(s),veh/h/ln	1753	1702	1598	1742	1777	1531	1810	1870	1556	1714	0	1764
Q Serve(g_s), s	5.4	17.4	0.0	13.0	19.9	0.0	11.2	5.6	26.1	17.3	0.0	19.8
Cycle Q Clear(g_c), s	5.4	17.4	0.0	13.0	19.9	0.0	11.2	5.6	26.1	17.3	0.0	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	111	1109		412	967		484	500	604	738	0	380
V/C Ratio(X)	0.80	0.78		1.02	0.71		0.45	0.24	0.72	0.77	0.00	0.87
Avail Cap(c_a), veh/h	112	1109		412	967		526	544	640	841	0	433
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.89	0.89	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.8	40.5	0.0	50.6	40.9	0.0	33.6	31.5	28.8	40.6	0.0	41.6
Incr Delay (d2), s/veh	30.2	5.3	0.0	46.4	3.9	0.0	0.4	0.2	3.3	3.6	0.0	14.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	7.7	0.0	8.5	9.5	0.0	4.9	2.5	10.1	7.6	0.0	10.1
Unsig. Movement Delay, s/veh			35.80			28.90						
LnGrp Delay(d),s/veh	81.0	45.9	35.8	97.1	44.7	28.9	34.0	31.7	32.1	44.2	0.0	56.1
LnGrp LOS	F	D	D	F	D	C	C	C	C	D	A	E
Approach Vol, veh/h		1084	A		1409	A		775			901	
Approach Delay, s/veh		47.5			56.9			32.6			48.6	
Approach LOS		D			E			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.0	28.9		28.7	11.9	34.9		34.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	13.0	18.0		27.0	7.0	24.0		32.0				
Max Q Clear Time (g_c+I1), s	15.0	19.4		21.8	7.4	21.9		28.1				
Green Ext Time (p_c), s	0.0	0.0		1.6	0.0	1.0		1.1				

Intersection Summary

HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D













Notes

- User approved pedestrian interval to be less than phase max green.
- User approved changes to right turn type.
- Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
2: I-5 SB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Stage II + Project PM Peak Hour

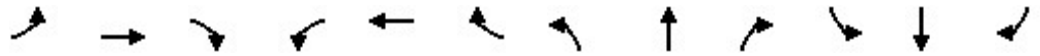
Item 2.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑	↑	↑↑
Traffic Volume (vph)	0	1003	769	537	1109	0	0	0	0	306	1	330
Future Volume (vph)	0	1003	769	537	1109	0	0	0	0	306	1	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	0.97	0.95					0.95	0.95	0.88
Frbp, ped/bikes		1.00	0.97	1.00	1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		5085	1543	3467	3505					1698	1703	2598
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		5085	1543	3467	3505					1698	1703	2598
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1034	793	554	1143	0	0	0	0	315	1	340
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	183
Lane Group Flow (vph)	0	1034	793	554	1143	0	0	0	0	157	159	157
Confl. Peds. (#/hr)	7		8	8		7	1			3	3	1
Confl. Bikes (#/hr)						4						
Heavy Vehicles (%)	0%	2%	2%	1%	3%	0%	0%	0%	0%	1%	0%	7%
Turn Type		NA	Perm	Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases			2		6							4
Actuated Green, G (s)		59.0	59.0	23.1	86.6					14.9	14.9	14.9
Effective Green, g (s)		59.0	59.0	23.6	86.6					15.4	15.4	15.4
Actuated g/C Ratio		0.54	0.54	0.21	0.79					0.14	0.14	0.14
Clearance Time (s)		4.0	4.0	4.5	4.0					4.5	4.5	4.5
Vehicle Extension (s)		5.2	5.2	2.3	5.2					2.3	2.3	2.3
Lane Grp Cap (vph)		2727	827	743	2759					237	238	363
v/s Ratio Prot		0.20		c0.16	0.33					0.09	c0.09	
v/s Ratio Perm			c0.51									0.06
v/c Ratio		0.38	0.96	0.75	0.41					0.66	0.67	0.43
Uniform Delay, d1		14.8	24.3	40.4	3.7					44.8	44.9	43.3
Progression Factor		1.25	1.27	1.19	1.03					1.00	1.00	1.00
Incremental Delay, d2		0.3	18.0	3.3	0.4					5.8	5.9	0.5
Delay (s)		18.9	48.8	51.3	4.2					50.6	50.8	43.8
Level of Service		B	D	D	A					D	D	D
Approach Delay (s)		31.9			19.6			0.0			47.1	
Approach LOS		C			B			A			D	
Intersection Summary												
HCM 2000 Control Delay			29.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)				12.0		
Intersection Capacity Utilization			82.7%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
2: I-5 SB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Stage II + Project PM Peak Hour

Item 2.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗	↘↗	↑↑					↘	↗	↘↗
Traffic Volume (veh/h)	0	1003	769	537	1109	0	0	0	0	306	1	330
Future Volume (veh/h)	0	1003	769	537	1109	0	0	0	0	306	1	330
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1885	1856	0				1885	1900	1796
Adj Flow Rate, veh/h	0	1034	0	554	1143	0				316	0	151
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	1	3	0				1	0	7
Cap, veh/h	0	3089		560	2828	0				449	0	376
Arrive On Green	0.00	1.00	0.00	0.32	1.00	0.00				0.13	0.00	0.13
Sat Flow, veh/h	0	5274	1585	3483	3618	0				3591	0	3008
Grp Volume(v), veh/h	0	1034	0	554	1143	0				316	0	151
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1742	1763	0				1795	0	1504
Q Serve(g_s), s	0.0	0.0	0.0	17.4	0.0	0.0				9.3	0.0	5.1
Cycle Q Clear(g_c), s	0.0	0.0	0.0	17.4	0.0	0.0				9.3	0.0	5.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3089		560	2828	0				449	0	376
V/C Ratio(X)	0.00	0.33		0.99	0.40	0.00				0.70	0.00	0.40
Avail Cap(c_a), veh/h	0	3089		560	2828	0				832	0	697
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.61	0.00	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	37.2	0.0	0.0				46.2	0.0	44.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	32.2	0.4	0.0				1.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	8.4	0.1	0.0				4.2	0.0	1.9
Unsig. Movement Delay, s/veh			48.80									
LnGrp Delay(d),s/veh	0.0	0.2	48.8	69.4	0.4	0.0				47.4	0.0	44.8
LnGrp LOS	A	A	D	E	A	A				D	A	D
Approach Vol, veh/h		1827		A	1697						467	
Approach Delay, s/veh		21.3			22.9						46.6	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.7	70.5		17.8		92.2						
Change Period (Y+Rc), s	4.5	4.0		4.5		4.0						
Max Green Setting (Gmax), s	17.2	54.8		25.0		76.5						
Max Q Clear Time (g_c+I1), s	19.4	2.0		11.3		2.0						
Green Ext Time (p_c), s	0.0	15.1		1.4		19.8						

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- User approved changes to right turn type.

Unsignalized Delay for [EBR] is included in calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis

3: I-5 NB & Wilsonville Rd

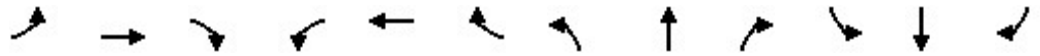
Wilsonville Pacific Star Gas Station T Item 2.
Existing + Stage II + Project PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	437	872	0	0	1172	362	474	1	542	0	0	0	
Future Volume (vph)	437	872	0	0	1172	362	474	1	542	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.95	0.88				
Frbp, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00	0.79				
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (prot)	3502	3574			5136	1561	1618	1622	2219				
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (perm)	3502	3574			5136	1561	1618	1622	2219				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Adj. Flow (vph)	451	899	0	0	1208	373	489	1	559	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	241	0	0	0	
Lane Group Flow (vph)	451	899	0	0	1208	373	244	246	318	0	0	0	
Confl. Peds. (#/hr)	1		1	1		1			28	28			
Confl. Bikes (#/hr)						1			2				
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	6%	0%	1%	0%	0%	0%	
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm				
Protected Phases	5	2			6		8	8					
Permitted Phases		2				6			8				
Actuated Green, G (s)	18.4	78.2			55.8	55.8	23.8	23.8	23.8				
Effective Green, g (s)	18.4	78.2			55.8	55.8	23.8	23.8	23.8				
Actuated g/C Ratio	0.17	0.71			0.51	0.51	0.22	0.22	0.22				
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	2.3	5.2			5.2	5.2	3.0	3.0	3.0				
Lane Grp Cap (vph)	585	2540			2605	791	350	350	480				
v/s Ratio Prot	c0.13	0.25			0.24		0.15	c0.15					
v/s Ratio Perm						c0.24			0.14				
v/c Ratio	0.77	0.35			0.46	0.47	0.70	0.70	0.66				
Uniform Delay, d1	43.8	6.1			17.5	17.6	39.8	39.8	39.4				
Progression Factor	1.34	1.41			1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	5.5	0.4			0.6	2.0	5.9	6.3	3.4				
Delay (s)	64.3	9.1			18.1	19.6	45.7	46.1	42.9				
Level of Service	E	A			B	B	D	D	D				
Approach Delay (s)		27.5			18.4			44.3			0.0		
Approach LOS		C			B			D			A		
Intersection Summary													
HCM 2000 Control Delay			28.3		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				12.0				
Intersection Capacity Utilization			82.7%		ICU Level of Service				E				
Analysis Period (min)			15										
c	Critical Lane Group												

HCM 6th Signalized Intersection Summary
3: I-5 NB & Wilsonville Rd

Wilsonville Pacific Star Gas Station T
Existing + Stage II + Project PM Peak Hour

Item 2.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕			↖↗↕	↖	↖	↕	↖↗			
Traffic Volume (veh/h)	437	872	0	0	1172	362	474	1	542	0	0	0
Future Volume (veh/h)	437	872	0	0	1172	362	474	1	542	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.90			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1885	0	0	1885	1870	1811	1900	1885			
Adj Flow Rate, veh/h	451	899	0	0	1208	0	490	0	311			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	0	0	1	2	6	0	1			
Cap, veh/h	519	2654	0	0	2865		643	0	538			
Arrive On Green	0.30	1.00	0.00	0.00	0.56	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	3510	3676	0	0	5316	1585	3450	0	2884			
Grp Volume(v), veh/h	451	899	0	0	1208	0	490	0	311			
Grp Sat Flow(s),veh/h/ln	1755	1791	0	0	1716	1585	1725	0	1442			
Q Serve(g_s), s	13.4	0.0	0.0	0.0	15.0	0.0	14.8	0.0	10.8			
Cycle Q Clear(g_c), s	13.4	0.0	0.0	0.0	15.0	0.0	14.8	0.0	10.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	519	2654	0	0	2865		643	0	538			
V/C Ratio(X)	0.87	0.34	0.00	0.00	0.42		0.76	0.00	0.58			
Avail Cap(c_a), veh/h	702	2654	0	0	2865		972	0	813			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.91	0.91	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.7	0.0	0.0	0.0	14.1	0.0	42.4	0.0	40.8			
Incr Delay (d2), s/veh	7.1	0.3	0.0	0.0	0.5	0.0	2.0	0.0	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	0.1	0.0	0.0	5.6	0.0	6.5	0.0	3.9			
Unsig. Movement Delay, s/veh						19.60						
LnGrp Delay(d),s/veh	44.8	0.3	0.0	0.0	14.6	19.6	44.4	0.0	41.8			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		1350			1581	A		801				
Approach Delay, s/veh		15.2			15.8			43.4				
Approach LOS		B			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		85.5			20.3	65.2		24.5				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		71.0			22.0	45.0		31.0				
Max Q Clear Time (g_c+I1), s		2.0			15.4	17.0		16.8				
Green Ext Time (p_c), s		13.2			0.9	14.4		3.7				

Intersection Summary

HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved changes to right turn type.
- Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.

Queuing and Blocking Report

Existing + Stage II + Project PM Peak Hour

06/16/2021

Intersection: 2: I-5 SB & Wilsonville Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	SB
Directions Served	T	T	T	R	L	L	T	T	L	LT	R	R
Maximum Queue (ft)	206	173	173	269	358	356	426	352	221	262	191	157
Average Queue (ft)	109	77	97	104	216	216	206	173	110	159	78	31
95th Queue (ft)	190	141	157	214	320	326	382	325	207	235	154	100
Link Distance (ft)		466	466	466	437	437	437	437		908	908	
Upstream Blk Time (%)					0	0	0					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	245								450			365
Storage Blk Time (%)	0											
Queuing Penalty (veh)	0											

Intersection: 3: I-5 NB & Wilsonville Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	T	T	T	R	L	LT	R	R
Maximum Queue (ft)	255	266	220	254	389	412	311	237	332	331	309	265
Average Queue (ft)	139	147	91	121	231	261	182	58	171	160	170	92
95th Queue (ft)	219	228	194	214	364	379	293	169	280	270	273	242
Link Distance (ft)	437	437	437	437	642	642	642			762		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)								300	360		360	360
Storage Blk Time (%)							0	0	0	0	0	0
Queuing Penalty (veh)							0	0	0	1	0	0

Zone Summary

Zone wide Queuing Penalty: 2

**PRELIMINARY,
 NOT FOR
 CONSTRUCTION**

IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2020-122
 DATE: 03/15/2021

REVISIONS

**GAS STATION / "C"-STORE
 FAMILY MART**
 29760 SW BOONES FERRY ROAD, WILSONVILLE OR 97070

SHEET:
A1.01

SITE PLAN GENERAL NOTES:

- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- REFER TO CIVIL DRAWINGS FOR GRADING. SITE IS REQUIRED TO MEET THE LAWS OF FHA AND ADA. ACCESSIBLE ROUTES SHALL NOT EXCEED 5% (1 IN 20) OR CROSS SLOPES SHALL NOT EXCEED 2% (1 IN 50). ALL AT GRADE SIDEWALKS ARE ACCESSIBLE ROUTES.
- JOINTS IN CONCRETE WALKS NOTED AS E.J. ARE TO BE CONSTRUCTED AS EXPANSION JOINTS. ALL OTHER JOINTS SHOWN, TO BE TOOLED CONTROL JOINTS, SEE CIVIL.
- PROVIDE CONSTRUCTION FENCING AS REQUIRED TO SECURE SITE AND BUILDING DURING CONSTRUCTION.
- SEE LANDSCAPE DRAWINGS FOR LANDSCAPE AND IRRIGATION ELEMENTS.
- EXTREME CARE SHOULD BE TAKEN TO PRESERVE EXISTING ROOTS OF TREES TO REMAIN.
- SEE ELECTRICAL DRAWINGS FOR SITE LIGHTING.

SITE DEVELOPMENT CODE REVIEW:

SITE AREA (BEFORE DEDICATION): 29,905.37sf = 0.6865ac
 SITE AREA (AFTER 8'-6" DEDICATION): 28,835.32sf = 0.6620ac

ZONING: PDC Planned Development Commercial

BUILDING AREAS:
 • BLDG 1 LEVEL 01: 3,460 sf

PARKING:
 • COMMERCIAL USES: 4.1/1000sf REQ'D
 • = 14 SPACES. (18 PROVIDED)

BIKE PARKING:
 • 1 SPACES PER 4,000 sf; or 2 SPACES MINIMUM
 • THEREFORE PROVIDE 2 BIKE PARKING SPACES.

LOADING SPACES:
 • FOR BUILDINGS LESS THAN 5,000 sf NONE REQ'D

SITE AREA CALCULATIONS

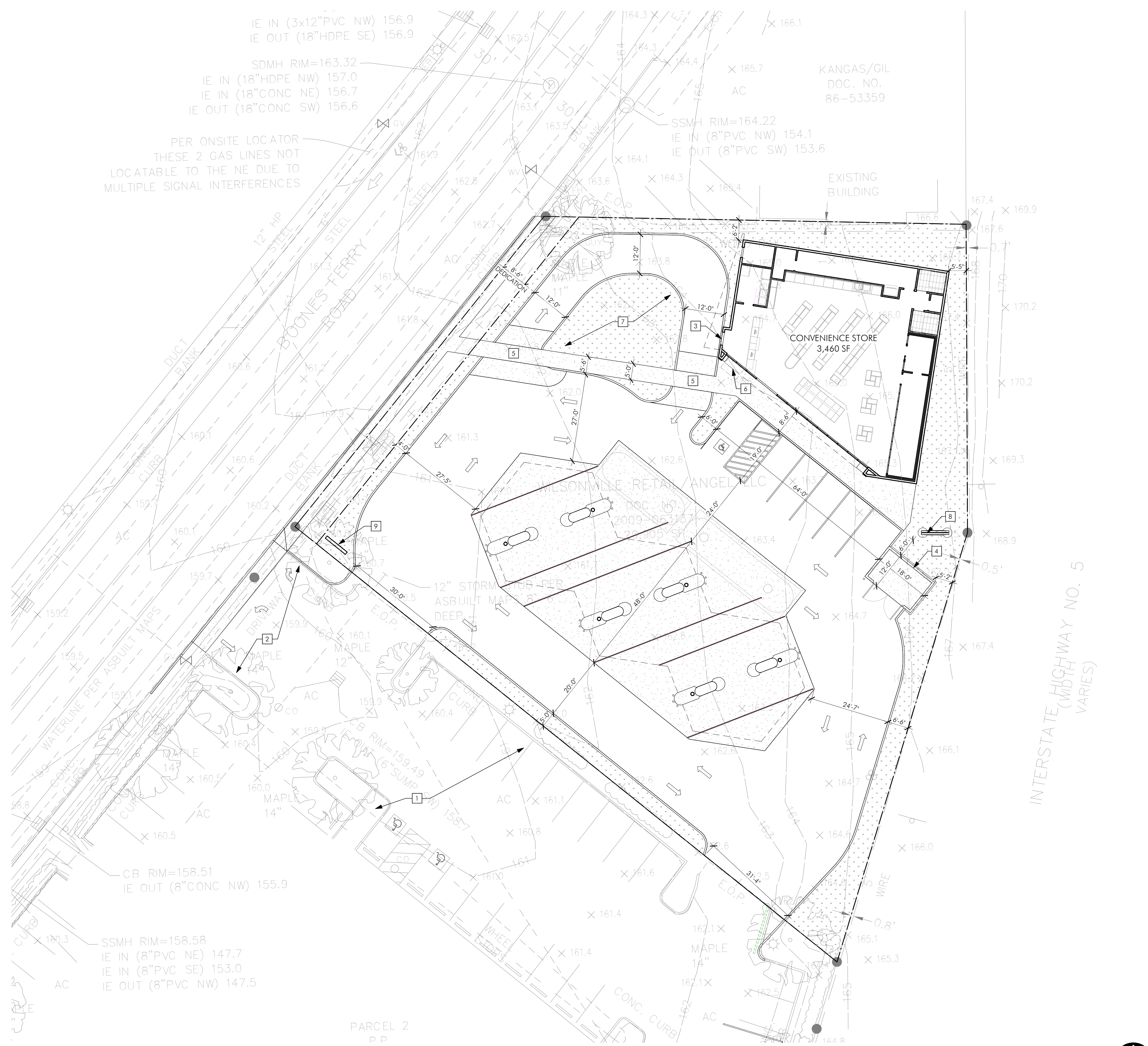
DESCRIPTION	AREA sf	PERCENT	REMARKS
ACCESSORY STRUCTURES	216.00	0.75%	TRASH ENCLOSURE
ASPHALT PAVING	12,213.90	42.36%	
BUILDINGS	3,460.00	12.00%	
CONCRETE CURBS	326.03	1.13%	
CONCRETE FUEL PAD	5,850.60	20.29%	
CONCRETE PAVING - MISC.	395.33	1.37%	
CONCRETE SIDEWALKS	1,016.81	3.53%	
LANDSCAPING	5,356.65	18.58%	15% REQUIRED
MISCELLANEOUS	0.00	0.00%	
9	28,835.32	100.00%	

CANOPY AREA CALCULATIONS

COVER DESCRIPTION	COVER AREA sf	PERCENT	COVER REMARKS
VEHICLE FUELING CANOPY	3,547.24	93.78%	
BUILDING CANOPIES	235.34	6.22%	
2	3,782.58	100.00%	

SITE PLAN NOTES:

- EXISTING CURBS, DRIVES, ASPHALT AND PARKING ON ADJACENT SITE TO REMAIN.
- EXISTING SHARED ACCESS DRIVEWAY.
- DRIVE-UP SERVICE WINDOW FOR CONVENIENCE STORE.
- TRASH ENCLOSURE
- RAISED PEDESTRIAN CROSSING
- SHORT-TERM BICYCLE PARKING
- STORMWATER FACILITY
- 30' PYLON SIGN
- 4' x 8' MONUMENT SIGN



1 SITE PLAN
 0' 4' 8' 16' 24' 48' 1/16" = 1'-0"



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 CONSTRUCTION

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PROJECT # 2020-122
 DATE: 03/15/2021

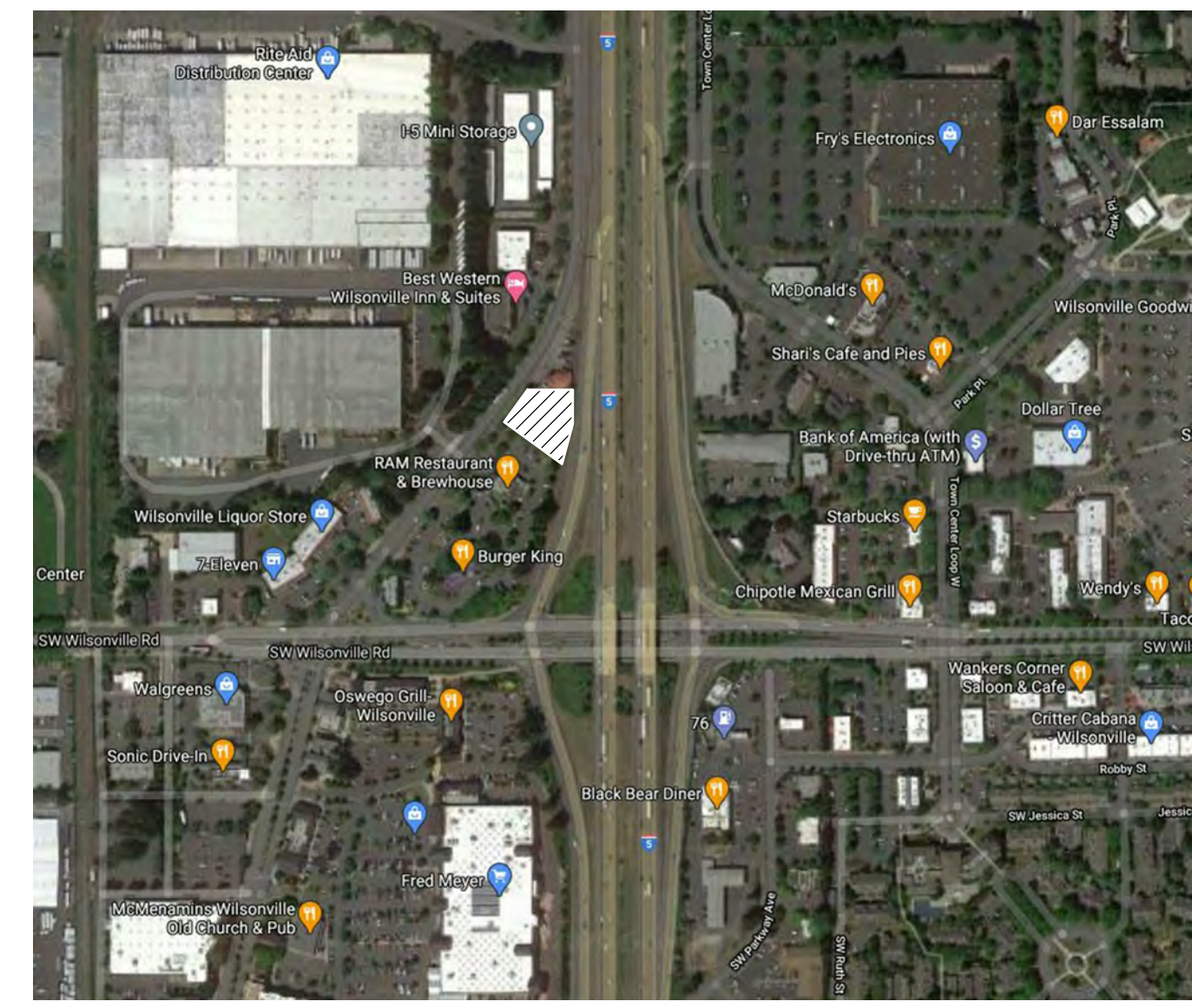
REVISIONS

FAMILY MART

GAS STATION / CONVENIENCE STORE

29760 SW BOONES FERRY ROAD, WILSONVILLE, OR 97070

SITE VICINITY MAP:



SITE MAP:



DRAWINGS LIST:

Sheet Number	Sheet Name	Sheet Issue Date	Current Revision	Revision Description	Sheet Number	Sheet Name	Sheet Issue Date	Current Revision	Revision Description
GENERAL DRAWINGS									
G0.01	COVER SHEET	03/08/2021			A4.01	DETAIL RESTROOM PLANS	03/08/2021		
G0.02	GENERAL NOTES	03/08/2021			A4.11	DETAIL STAIR PLANS	03/08/2021		
G1.01	CODE REVIEW PLANS	03/08/2021			A5.01	SITE DETAILS	03/08/2021		
G3.01	PERSPECTIVE VIEWS	03/08/2021			A5.02	UNDERGROUND FUEL TANK ANCHORAGE	03/08/2021		
G3.02	PERSPECTIVE VIEWS	03/08/2021			A5.21	EXTERIOR DETAILS	03/08/2021		
ARCHITECTURAL DRAWINGS									
A0.21	WALL TYPES	03/08/2021			A5.22	EXTERIOR DETAILS	03/08/2021		
A1.01	SITE PLAN	03/08/2021			A5.41	INTERIOR DETAILS	03/08/2021		
A1.11	LEVEL 01 - DEMOLITION PLAN	03/08/2021			A5.42	INTERIOR DETAILS	03/08/2021		
A1.21	LEVEL 01 - FLOOR PLAN	03/08/2021			A6.01	SCHEDULES	03/08/2021		
A1.21a	LEVEL 01 - FLOOR PLAN	03/08/2021							
A1.61	LEVEL 01 - REFLECTED CEILING PLAN	03/08/2021							
A2.01	ELEVATIONS	03/08/2021							
A2.02	ELEVATIONS	03/08/2021							
A2.51	INTERIOR ELEVATIONS	03/08/2021							
A3.01	BUILDING SECTIONS	03/08/2021							
A3.02	BUILDING SECTIONS	03/08/2021							
A3.11	WALL SECTIONS	03/08/2021							

PROJECT TEAM:

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 Design-Build

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SYMBOL LEGEND:

ELEVATION DATUM:
 100.00
 F.F.E.
 ELEVATION DATUM LOCATION:

SECTION REFERENCE:
 FILLED ARROW DENOTES BUILDING SECTION
 OPEN ARROW DENOTES WALL SECTION/DETAIL
 1
 1a
 1b
 1c
 1d
 1e
 1f
 1g
 1h
 1i
 1j
 1k
 1l
 1m
 1n
 1o
 1p
 1q
 1r
 1s
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 1v
 1w
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 98
 99
 100

ELEVATION REFERENCE:
 A2.51
 B
 C

DETAIL REFERENCE:
 X
 A5.30
 SIM
 X

WINDOW TYPE:
 REFER TO WINDOW ELEVATIONS SHOWN ON DRAWINGS A5.1X

DOOR NUMBER:
 100A
 DOOR SIZE OR NUMBER

PLAN NOTE DESIGNATION:
 12
 PLAN OR SIDE NOTE NUMBER

ELEVATION REFERENCE:
 F
 MARK OR DIAGONAL NOTE NUMBER

ELEVATION REFERENCE:
 2
 REVISION NUMBER

ROOM TITLE + NUMBER:
 XXXX
 ROOM
 000
 ROOM NAME
 ROOM NUMBER

WALL TYPE MARK:
 A540
 WALL OR PARTITION CONSTRUCTION TYPE. SEE LEGEND.

GAS STATION / "C"-STORE
 FAMILY MART
 29760 SW BOONES FERRY ROAD, WILSONVILLE OR 97070

SHEET:
GO.01

**PRELIMINARY,
NOT FOR
CONSTRUCTION**

IN THE EVENT CONFLICTS ARE DISCOVERED
BETWEEN THE ORIGINAL SIGNED AND SEALED
DOCUMENTS PREPARED BY THE ARCHITECTS
AND/OR THEIR CONSULTANTS, AND ANY COPY OF
THE DOCUMENTS TRANSMITTED BY MAIL, FAX,
ELECTRONICALLY OR OTHERWISE, THE ORIGINAL
SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2020-122
DATE: 03/15/2021

REVISIONS



1 3D VIEW FROM SOUTH WEST



2 3D VIEW FROM NORTH WEST



3 3D VIEW FROM PUMPS

**GAS STATION / "C"-STORE
FAMILY MART**
29760 SW BOONES FERRY ROAD, WILSONVILLE OR 97070

SHEET:
G3.01



PRELIMINARY DRAINAGE REPORT

Wilsonville Convenience Store Wilsonville, OR

Prepared by:
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Consulting Engineers and Planners
604 W. Evergreen Blvd.
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Submitted: March 2022

Revised: May 2022

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- **Soils Map**

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Appendix D: HYDROCAD MODEL OF INFILTRATION TRENCH

Appendix E: GEOTECHNICAL REPORT

CERTIFICATE OF ENGINEER

Wilsonville Convenience Store

Preliminary Drainage Report

The technical information and data contained in this report was prepared under the direction and supervision of the undersigned, whose seal, as a professional engineer licensed to practice as such, is affixed below.



This document was:

Prepared by:

Andrew J. Gunther, PE

Project Description

Site Information

The proposed Wilsonville Convenience Store site has a tax lot ID of 31W14D 0090 and a site address of 29760 SW Boones Ferry Rd, Wilsonville, OR. The site is located approximately 900 feet north of the intersection of SW Wilsonville Road & SW Boones Ferry Road along the east side of the road immediately north of the existing RAM Restaurant and Brewery. The site covers approximately 0.69 acres and is zoned Planned Developed Commercial (PDC). The site is bordered on the east by the southbound I-5 offramp.

The site is currently vacant and covered in grass. Site access will be via new driveways from the existing restaurant site to the south at the southwest and southeast corners of the property. The project would develop the existing vacant parcel into a gas station and convenience store together. The convenience store would total approximately 3,000 square feet and the fuel island would contain six gas pumps and 12 fueling positions. The convenience store would include a drive-thru on the west side of the building. In addition to site development, the project will provide partial frontage improvements along SW Boones Ferry Road including a planter strip and detached sidewalk. This would necessitate a small right-of-way dedication along the site frontage.

Existing Conditions

The site is currently vacant and covered in grass. The site is gently sloping from the northeast to the southwest with average slopes of less than 5%. Surrounding properties have been developed such that there is little or no upstream runoff entering the site. Existing conditions show that site runoff drains from northeast to southwest across the site and ultimately to SW Boones Ferry Road and/or the adjacent restaurant property to the south.

Site soils mapping by the Natural Resource Conservation Service (NRCS) was researched and indicates that the site contains Willamette silt loam, gravelly substratum (87A) type soils. In general, the NRCS considers Willamette silt loam soils to have low to moderate infiltration. The generalized typical soil profile for these soils found in the NRCS Soil Survey indicates that the shallow silt loam soils quickly transition to a more gravelly loam texture with infiltration rates generally in the range of approximately two to six inches per hour. A geotechnical investigation was recently completed by Earth Engineering, Inc. which included infiltration testing at a depth of approximately 3 feet below the native ground surface. The measured infiltration rate found in the testing was 4" per hour. Similar to the NRCS's generalized soil profile description, the site investigation found that there was increasing gravel content with greater soil depth.

Developed Conditions

As stated previously, the project proposes to develop a fueling station, 3,000 square foot convenience store with drive-thru window, parking areas and associated drive aisles. Site access would be via the restaurant site south of the project with access drives to the neighboring site at the southwest and southeast corners of the property. After development, approximately 0.11 acres of the property would be covered in landscaping and stormwater facilities with the remainder of the site covered in roof areas, pavement, and sidewalk. A canopy would be provided over the vehicle fueling areas.

In order to mitigate for stormwater impacts associated with proposed project, two separate runoff treatment and flow control systems are proposed. A northerly stormwater infiltration rain garden facility would be constructed in the landscape island that is surrounded by the drive-thru lane along the west side of the building. The other facility would be a two-step drainage system that would include a filtration stormwater planter in the proposed landscape island along the site's south boundary which would drain into a stormwater infiltration trench via an overflow drain elevated above the base of the planter. The infiltration trench would be located under the driveway aisle between the landscape island containing the stormwater planter and the vehicle fueling pad to the north. The infiltration rain garden in the north part of the site would treat and infiltrate runoff from the convenience store as well as the drive-thru loop west of the building while the filtration stormwater planter and subsurface infiltration trench in the south part of the site would treat and infiltrate the remainder of the project runoff.

For each of these facilities, the tributary pavement and sidewalk runoff would travel via surface flow across the pavement to curb cuts in the curb lines that would allow the runoff to enter the facility. Runoff from the convenience store would be collected via roof drains and directed to shallow storm sewer piping that would outlet to the base of the infiltration rain garden while runoff from the fueling canopy would be directed to roof downspouts and then piped directly to the infiltration trench in the south part of the site, allowing for a reduced size for the stormwater planter since the canopy runoff would not need pre-treatment prior to entering the infiltration trench.

While the roof canopy over the fueling island area will drain to the infiltration trench in the south part of the site, the drainage area under the fueling island canopy will be self-contained. Area under the fueling canopy will drain from north to south to a trench drain running along the south edge of the covered area. The trench drain will collect runoff only from the area under the canopy. Areas not under the fueling canopy will be sloped to drain away from the trench drain and into the treatment stormwater planter. Based on our review of the city's stormwater regulations and discussion with Wilsonville Engineering staff, we understand that the area under the canopy is to be drained first through an oil/water separator and then into a spill control manhole. This spill control manhole would be isolated with a shutoff valve on the downstream side of the manhole which would remain normally closed. Downstream of the shutoff valve, the discharge piping from the spill control manhole will drain to the city's sanitary sewer system.

It is understood that the City of Wilsonville prefers the use of surface "green" LID stormwater ponding/infiltration facilities for runoff treatment and flow control rather than subsurface facilities, where possible. PLS Engineering has tried to utilize these facility types to the maximum extent possible. Unfortunately, based on site topography and space constraints, it is not feasible to accomplish all of the site's stormwater flow control requirements using only "green" above-ground facilities. It is our understanding that the city will allow subsurface underground injection control (UIC) infiltration facilities for this property provided that they can be permitted with the Oregon DEQ. We have discussed the project in detail with Kevin Weberling, Senior Hydrogeologist with the Northwest Region of the DEQ and he believes the proposed infiltration trench can be permitted on this site as a rule authorized system. Review of state drinking well mapping indicates there are no domestic wells within 500 feet of the site and state water resource mapping indicates the site is not within the 2-year travel time of any public water supply wells. It is anticipated that a UIC permit will be required for the infiltration trench and that periodic sampling of stormwater entering the system

will be required. As a result, a sedimentation manhole fitted with a sump is proposed upstream of the infiltration trench at the point that overflow runoff from the upstream treatment rain garden would discharge.

Stormwater Analysis

Preliminary sizing for the two stormwater facilities proposed on the site has been completed using the WES BMP Sizing Tool and the resulting calculations are provided in Appendix C. The calculations are based on the drainage basins delineated on the Basin Map provided in Appendix B. As shown on the Basin Map, the site has been divided into two drainage basins with Basin 1 in the north part of the property containing the convenience store and the drive-thru area west of the building and Basin 2 containing the remainder of the property. Basin 2 was further divided into two subbasins (Basin 2 and Basin 2B) with Basin 2B containing the area of the fueling island canopy. As mentioned previously, everything in Basin 2 except for the canopy area will be tributary to the treatment stormwater planter on the south property boundary while the canopy area will drain directly to the downstream infiltration trench via trench drains lining the south side of the fuel island area.

In sizing each of the stormwater facilities using the BMP Sizing Tool, the analysis was completed using A1 type soils based on the tested infiltration rate of 4"/hour measured by the project geotechnical engineer (per report in Appendix E). Pre-development conditions were modeled as grass. As mentioned previously, the northern rain garden was sized to provide both treatment and flow control via infiltration. The sizing calculations indicate a required surface area of 532 square feet as measured 12" above the base of the facility.

The available footprint for the stormwater planter serving Basin 2 is quite limited. While conceptual calculations were performed to see if adequate area was available to construct a facility providing both treatment and runoff flow control, it was readily apparent that adequate space was not available for a surface LID facility that could infiltrate adequate runoff to meet quantity control requirements. As a result, the southern facility has been sized as a filtration stormwater planter intended only to provide stormwater treatment. The required surface area for this facility as measured at a depth of 12" above the base of the facility is 241 square feet. As space is limited to construct the stormwater planter, the growing media depth will be increased to 30 inches in this planter to reduce the required surface area. Per The City's Stormwater Planter – Filtration detail, a surface area reduction of 25% is allowed when the growing medium depth is increased to a minimum of 30 inches. This will allow the required facility surface area to be reduced by 25% from the standard 241 square feet to 181 square feet (2.5'x72.4') as shown in the preliminary drawings.

An infiltration trench consisting of a perforated pipe surrounded by drain rock is proposed downstream of the filtration rain garden to provide flow control for all runoff from Basins 2 and 2B. The capacity of the infiltration trench has been analyzed using HydroCAD. As stated earlier, infiltration testing resulted in a measured infiltration rate of 4"/hr. A design infiltration rate of 2"/hr was used in sizing the trench representing a safety factor of 2 applied to the tested rate. The analysis used a 10-year, 24-hour storm rainfall depth of 3.45" and the rainfall was assumed to follow a Type 1-A storm distribution. This analysis methodology is consistent with the guidance provided in the city's stormwater regulations. The infiltration trench has been sized to fully infiltrate the 10-year storm event and the resulting trench size is 11' wide by 3' deep by 100' long. For larger storm events, an overflow will be provided at the west end of the infiltration trench via the sedimentation/overflow manhole. The overflow piping will drain to a storm sewer stub that was previously extended to this

property when the site containing the Ram Restaurant and Brewery was developed. The storm stub ultimately discharges to the storm sewer in Boones Ferry Road.

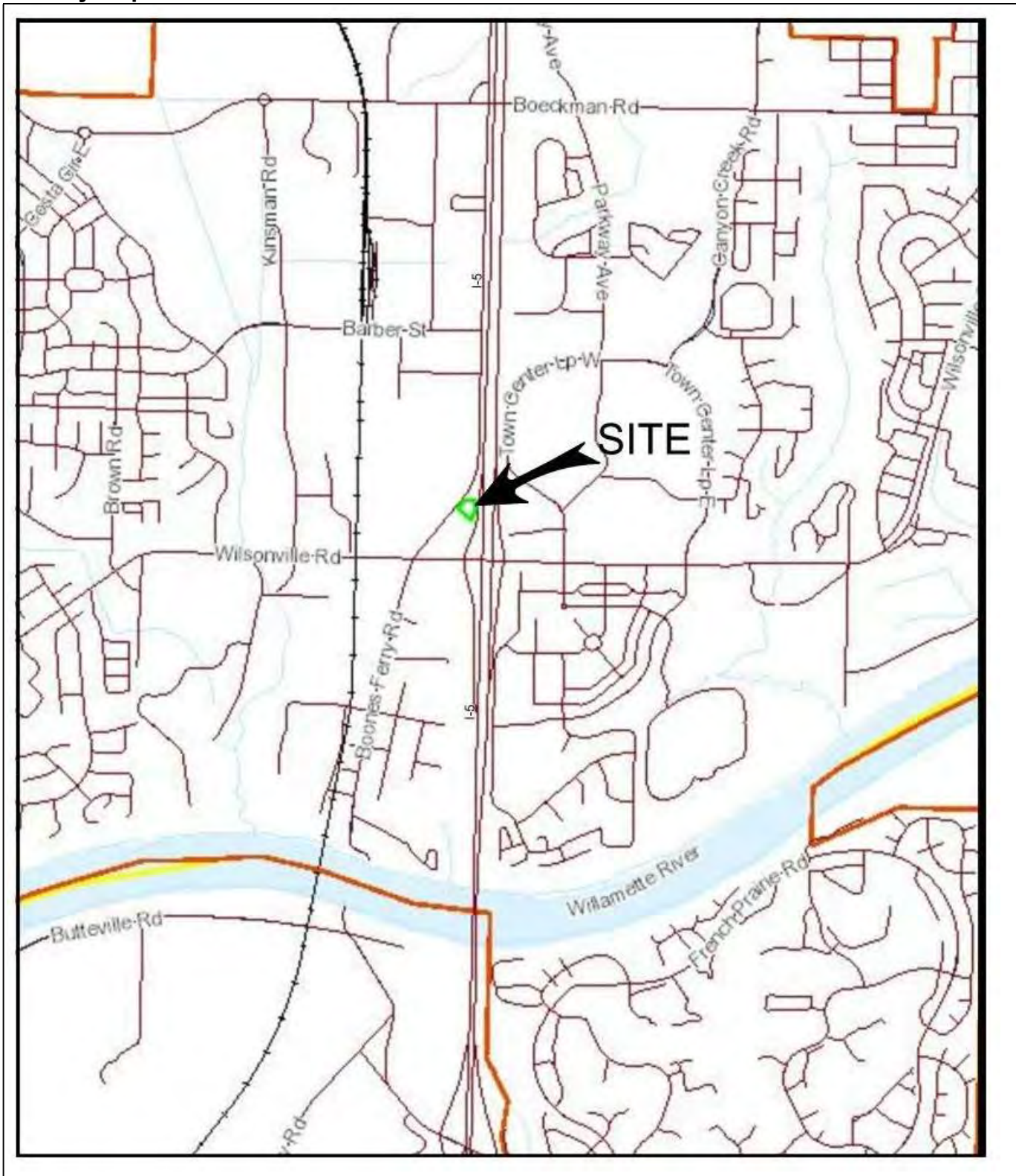
Given that the storm pipe was extended to this site from the property to the south, it is clear that a future drainage connection was anticipated when the RAM site was originally developed as a Chili's restaurant. The runoff leaving this site will be reduced compared to existing conditions as all runoff from Basin 2 which covers most of the property will be fully infiltrated for storms up to the 10-year storm and a significant portion of the runoff from Basin 1 containing the rest of the property will be infiltrated.

APPENDIX A

General Maps

- **Vicinity Map**
- **Soils Map**

Vicinity Map:



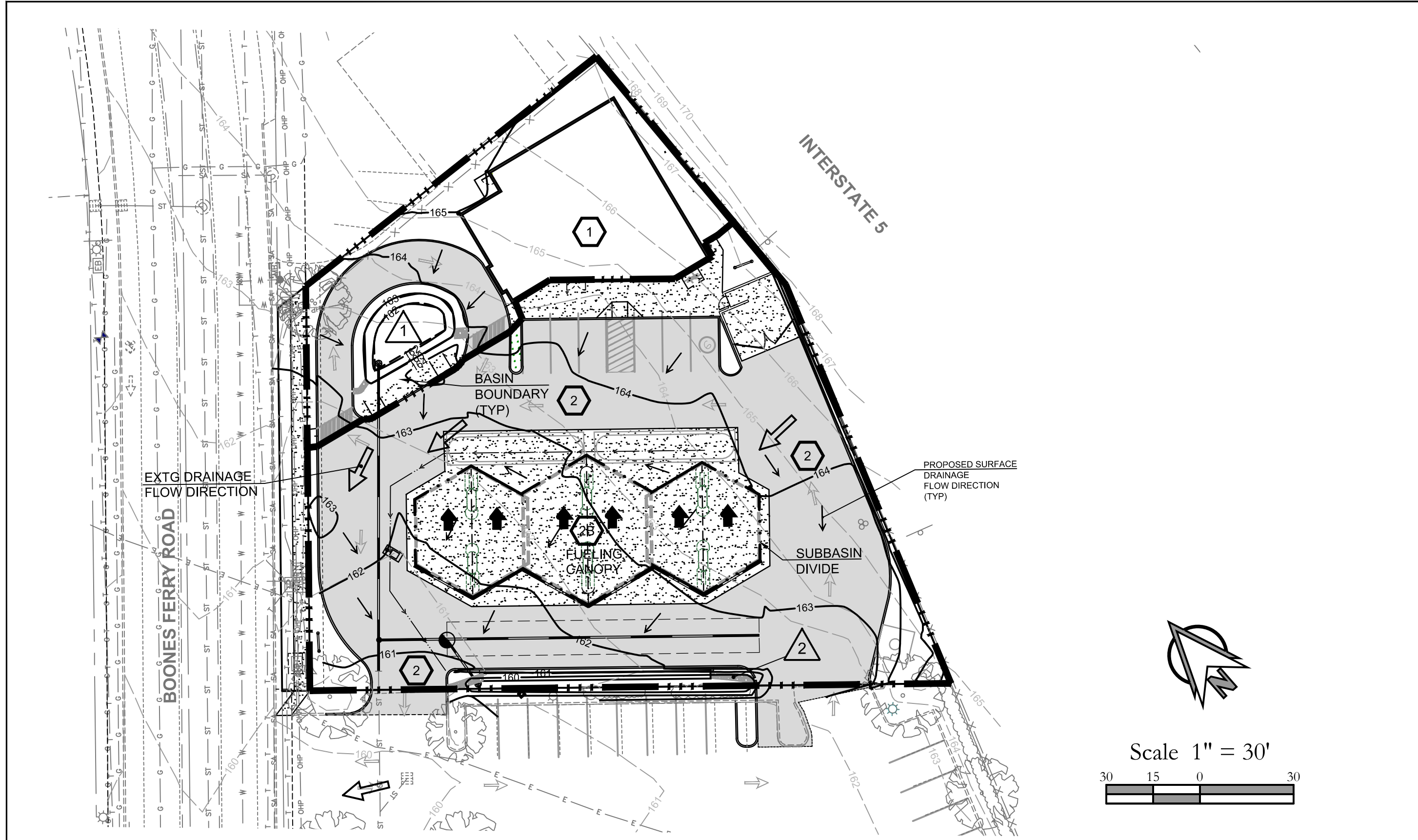
Soils Map

Willamette silt loam (87A)



APPENDIX B

Basin Map



Post Development Basin Map For:
Wilsonville Convenience Store
 A Site Located in Wilsonville, OR

PLS ENGINEERING	DESIGNED BY: AJG	SCALE: H: 1"=30' V: N/A	SHEET
	DRAFTED BY: RLS	DATE: 5-18-22	1
	REVIEWED BY: AJG	PROJECT NO.:	

APPENDIX C

BMP Sizing Tool Output Report

WES BMP Sizing Software Version 1.6.0.2, May 2018

WES BMP Sizing Report

Project Information

Project Name	Wilsonville Gas Station
Project Type	Commercial
Location	29800 SW Boones Ferry Road
Stormwater Management Area	0
Project Applicant	
Jurisdiction	OutofDistrict

Drainage Management Area

Name	Area (sq-ft)	Pre-Project Cover	Post-Project Cover	DMA Soil Type	BMP
2RG- land	2,123	Grass	LandscapeBsoil	B	BMP 2 Rain Garden
2RG - Pavement	15,435	Grass	ConventionalConcrete	B	BMP 2 Rain Garden
2RG - Roof	3,702	Grass	Roofs	B	NA
1RG Roof	3,000	Grass	Roofs	B	BMP 1 Rain Garden
1RG Land	2,633	Grass	LandscapeBsoil	B	BMP 1 Rain Garden
1RG Pave	1,534	Grass	ConventionalConcrete	B	BMP 1 Rain Garden

LID Facility Sizing Details

LID ID	Design Criteria	BMP Type	Facility Soil Type	Minimum Area (sq-ft)	Planned Areas (sq-ft)	Orifice Diameter (in)
BMP 2 Rain Garden	WaterQuality	Rain Garden - Infiltration	A1	241.1	0.0	0.0
BMP 1 Rain Garden	FlowControlAndTreatment	Rain Garden - Infiltration	A1	532.4	0.0	0.0

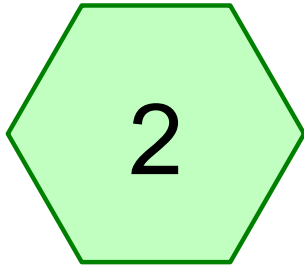
Pond Sizing Details

1. FCWQT = Flow control and water quality treatment, WQT = Water quality treatment only
2. Depth is measured from the bottom of the facility and includes the three feet of media (drain rock, separation layer and growing media).
3. Maximum volume of the facility. Includes the volume occupied by the media at the bottom of the facility.

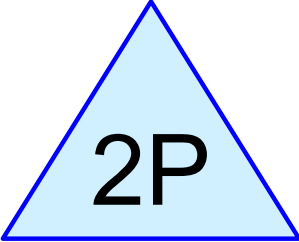
4. Maximum water storage volume of the facility. Includes water storage in the three feet of soil media assuming a 40 percent porosity.

APPENDIX D

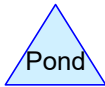
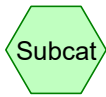
HydroCAD Model of Infiltration Trench



Basin 2



11'x100'x3'



Routing Diagram for prelim
Prepared by HP Inc., Printed 5/18/2022
HydroCAD® 10.00 s/n 04953 © 2011 HydroCAD Software Solutions LLC

prelim

Prepared by HP Inc.

HydroCAD® 10.00 s/n 04953 © 2011 HydroCAD Software Solutions LLC

Wilsonville Convenience Store
Type IA 24-hr 10-yr Rainfall=3.45"

Printed 5/18/2022

Page 2

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
 Runoff by SBUH method, Split Pervious/Imperv.
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2: Basin 2

Runoff Area=21,260 sf 90.01% Impervious Runoff Depth>3.05"
 Tc=6.0 min CN=80/98 Runoff=0.37 cfs 0.12399 af

Pond 2P: 11'x100'x3'

Peak Elev=2.73' Storage=1,211 cf Inflow=0.37 cfs 0.12399 af
 Outflow=0.08 cfs 0.11881 af

Total Runoff Area = 0.488 ac Runoff Volume = 0.12399 af Average Runoff Depth = 3.05"
9.99% Pervious = 0.049 ac 90.01% Impervious = 0.439 ac

prelim

Prepared by HP Inc.
 HydroCAD® 10.00 s/n 04953 © 2011 HydroCAD Software Solutions LLC

Summary for Subcatchment 2: Basin 2

Runoff = 0.37 cfs @ 7.92 hrs, Volume= 0.12399 af, Depth> 3.05"

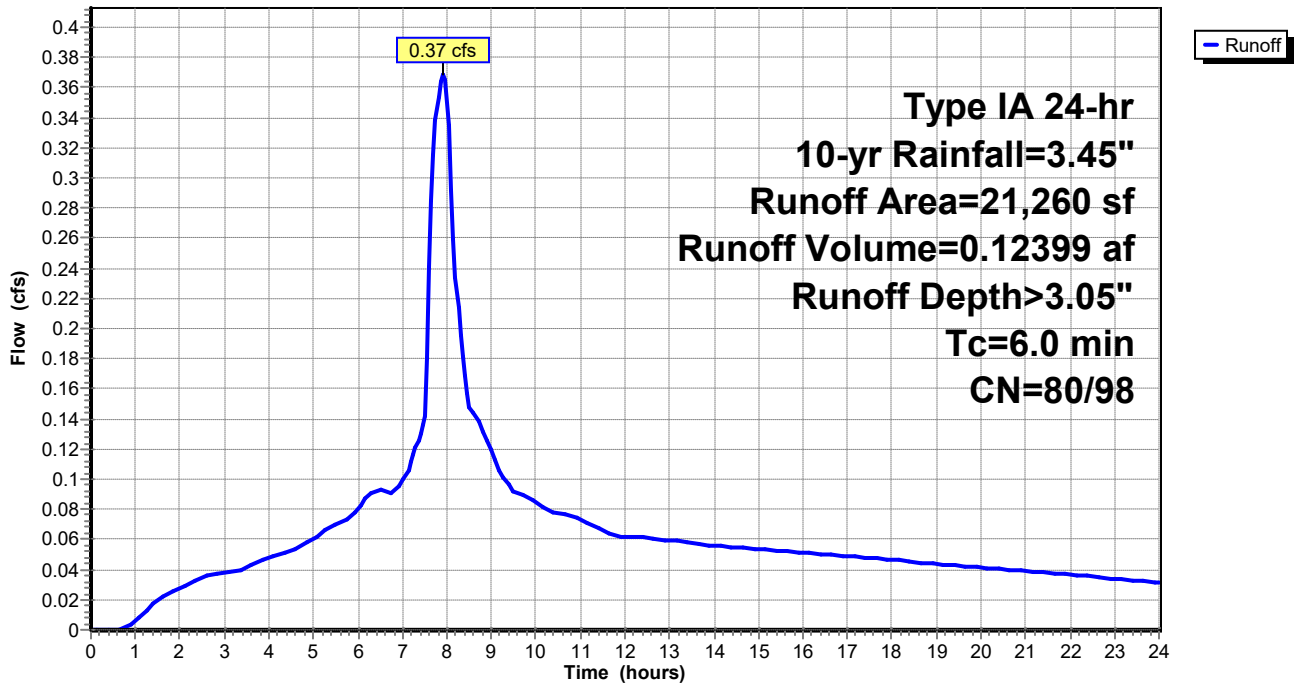
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 10-yr Rainfall=3.45"

	Area (sf)	CN	Description
*	15,435	98	pavement
*	2,123	80	landscape
*	3,702	98	roof
	21,260	96	Weighted Average
	2,123	80	9.99% Pervious Area
	19,137	98	90.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2: Basin 2

Hydrograph



prelim

Prepared by HP Inc.
 HydroCAD® 10.00 s/n 04953 © 2011 HydroCAD Software Solutions LLC

Summary for Pond 2P: 11'x100'x3'

Inflow Area = 0.488 ac, 90.01% Impervious, Inflow Depth > 3.05" for 10-yr event
 Inflow = 0.37 cfs @ 7.92 hrs, Volume= 0.12399 af
 Outflow = 0.08 cfs @ 10.28 hrs, Volume= 0.11881 af, Atten= 79%, Lag= 141.4 min
 Discarded = 0.08 cfs @ 10.28 hrs, Volume= 0.11881 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 2.73' @ 10.28 hrs Surf.Area= 1,100 sf Storage= 1,211 cf

Plug-Flow detention time= 159.4 min calculated for 0.11881 af (96% of inflow)
 Center-of-Mass det. time= 128.4 min (799.9 - 671.6)

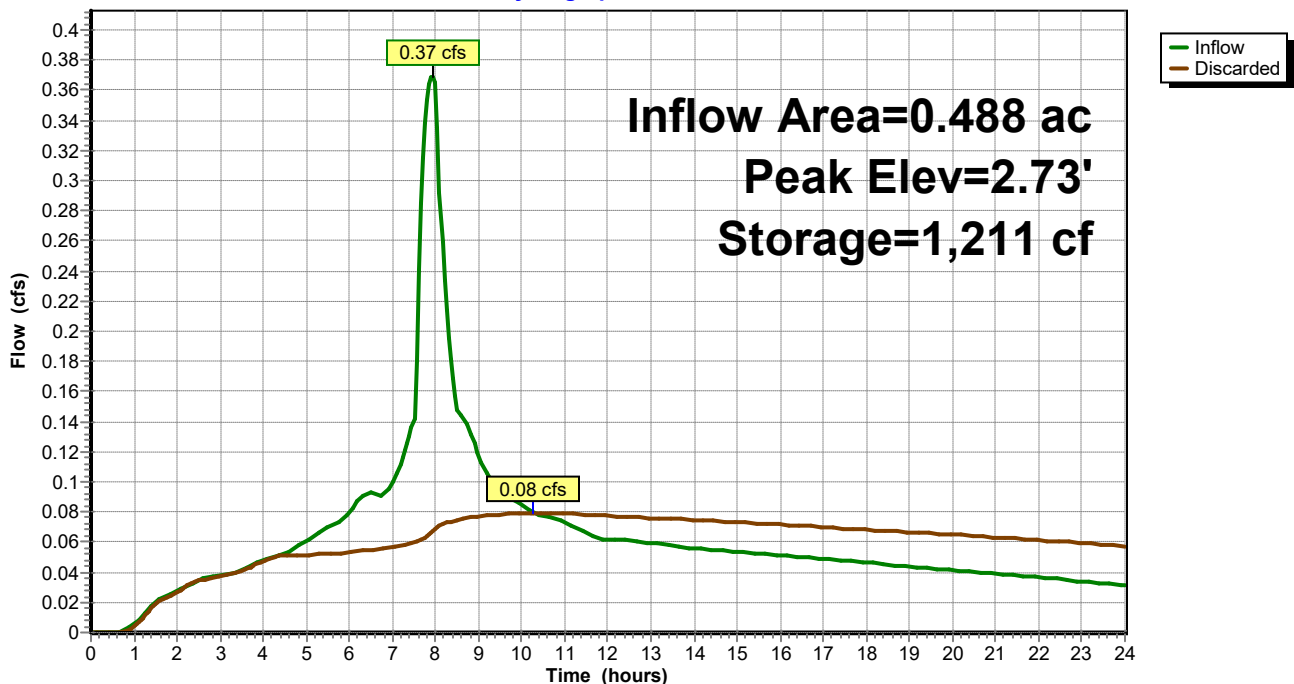
Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	994 cf	11.00'W x 100.00'L x 3.00'H Prismatic 3,300 cf Overall - 314 cf Embedded = 2,986 cf x 33.3% Voids
#2	0.50'	314 cf	24.0" D x 100.0'L Pipe Storage Inside #1
		1,308 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	2.000 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.08 cfs @ 10.28 hrs HW=2.73' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.08 cfs)

Pond 2P: 11'x100'x3'

Hydrograph



APPENDIX E

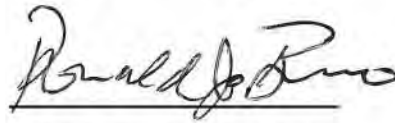
Geotechnical Report

GEOTECHNICAL ENGINEERING STUDY

Wilsonville Convenience Store
29760 Boones Ferry Road
Wilsonville, Clackamas County, Oregon 97070
Tax Lot No. (31W14D01002)

Prepared for:
Laz Ayala
132 West Main Street
Medford, Oregon 997501

Prepared By:



Donald J. Bruno, CEG
Engineering Geologist



Mia Mahedy, PE,GE
Project Engineer

Project No. G14-0322

{April 2022}

Earth Engineering Inc.
PO Box 1512, Ridgefield, Washington 98642
(360) 600-6518

Earth Engineering, Inc.

Geotechnical & Environmental Consultants

Laz Ayala
132 West Main Street
Medford, Oregon 97501

April 22, 2022
G14-0322

**Subject: Geotechnical Engineering Study
Wilsonville Convenience Store
29760 Boones Ferry Road, Wilsonville, Clackamas County, Oregon
(Tax Lot No. 31W14D01002)**

Hello Laz,

We are pleased to submit our engineering report for the subject property located in Wilsonville, Oregon. This report presents the results of our field exploration, selective laboratory tests, field testing and engineering analyses.

Based on the results of this study, it is our opinion that construction of the proposed commercial structure is feasible from a geotechnical standpoint, provided recommendations presented in this report are included in the project design.

We appreciate the opportunity to have been of service to you and look forward to working with you in the future. Should you have any questions about the content of this report, or if we can be of further assistance, please call.

Respectfully Submitted,
Earth Engineering Inc.,



Donald J. Bruno, CEG
Engineering Geologist

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{G14-0322}

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 Groundwater 2
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| Figure 4 | Typical Utility Trench Back Fill Detail |

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| Plate A1 | Unified Soil Classification- Legend |
| Plates A2-A4 | Log of Exploratory Test Pits |
| Appendix B | Field Exploration |
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INTRODUCTION

General

This report presents the results of the geotechnical engineering study completed by Earth Engineering, Inc. for the proposed convenience store and fuel pumping facility located in Wilsonville, Clackamas County, Oregon. The general location of the site is shown on the *Vicinity Map, Figure 1*. At the time our study was performed, the site and our exploratory locations are approximately as shown on the *Site Plan, Figure 2*.

The purpose of this study was to explore subsurface conditions at the site and based on the conditions encountered provide geotechnical recommendations for the proposed construction. In addition this report includes infiltration testing for stormwater design and a seismic hazard evaluation.

Project Description

Based on the information that was provided to us by Oregon Architecture and the project civil engineer (PLS), it is our understanding the site will be developed with a one story building that will provide three- thousand one-hundred (3100) square feet of floor space, a pumping island, a trash enclosure, and an asphalt paved access driveway with some vehicle parking. Construction will also include the installation of a stormwater system and subsurface utilities.

Due to the relatively flat topography, it is anticipated that earthwork cuts and fills will be less than one foot to achieve the desired design grade. The convenience store will be constructed with a metal or wood frame and a slab on grade floor.

Structural design loads were not available at the time this report was written. However, based on our experience with similar projects, we anticipate that wall and column loads will be approximately seven hundred and fifty (750) to one thousand five hundred (1500) pounds per lineal foot (maximum dead plus live loads). Slab on grade loads will most likely range from one hundred (100) to one hundred and fifty (150) pounds per square foot (psf).

If any of the above information is incorrect or changes, we should be consulted to review the recommendations contained in this report. In any case, it is recommended that Earth Engineering, Inc. perform a general review of the final design for the proposed construction.

SITE CONDITIONS

Surface

The irregular shaped property encompasses approximately seven tenths of an acre. No structures were observed on site during the time of our fieldwork (March 2022). The adjacent properties to the north and south have been developed with restaurants. The site is bordered to the east by an Interstate Highway (I-5) off ramp and to the west by Boones Ferry Road.

The property slopes gently downward from the northeast to the southwest with an overall elevation change of four feet and a gradient of about two percent (2%). The property is covered predominantly with mowed grass with some low bushes along the eastern property line.

Subsurface & Soil Classification

For this study, the site was explored by excavating three test pits at the approximate locations shown on the *Site Plan, Figure 2*. Infiltration testing was performed in one of the test pits. All soil was classified following the Unified Soil Classification System (USCS). A USCS Legend is included as Plate A1. A description of the field exploration methods is included in Appendix A.

In general, in our test pits we encountered native soil consisting of lean Clay (CL) with some gravel and cobbles to the maximum exploration depth of eleven (11) feet below the existing ground surface. Please refer to the test pit logs, Plates A-2 thru A-4, for a more detailed description of the conditions encountered.

Groundwater

During the time of our field exploration (March 2022) groundwater was not encountered in any of our test pits. It is important to note that groundwater conditions are not static; fluctuations may be expected in the level and seepage flow depending on the season, amount of rainfall, surface water runoff, and other factors. Generally, groundwater levels are higher and the seepage rate is greater in the wetter winter months (typically October through May).

General Regional Geology

General information about geologic conditions and soil in the vicinity of the site was obtained by reviewing the USGS & Oregon Water Resources Dept. Geologic Map - Quaternary Geologic Units in Willamette Valley, Oregon (1620, Dated 2001). This map provides general information about geologic units in the Wilsonville, Clackamas County, Oregon area.

Our review of existing geological information indicates that soils in the vicinity of the subject site were formed from alluvial deposits during the Quaternary Period. Outburst flood deposits from glacial Lake Missoula deposited these sedimentary soils. The material encountered in our test pits consists predominantly of native lean clay with some gravel and cobbles.

LABORATORY TESTING

Laboratory tests were conducted on representative soil samples to verify or modify the field soil classification of the units encountered, and to evaluate the general physical properties as well as the engineering characteristics of the soils encountered. The following provides information about the testing procedures performed on representative soil samples and the general condition of subsurface soil conditions encountered:

- *Moisture Content (ASTM-D2216-92)* tests were performed on representative samples. The native lean Clay has a moisture content that ranges from twenty-two to twenty-nine percent (22-29 %).

- In-Situ Soil Density (ASTM-D4564-93) utilizing the sleeve method was performed on representative samples to determine the wet and dry density of native soil. The in-situ density provides a relative indication of soil support characteristics. The average wet density of the native lean clay is one hundred and thirteen and one-half (113.5) pounds per cubic foot (pcf). The average dry density of this soil is ninety three and one-half (93.5) pcf.
- Atterberg Limits (ASTM-D4318-95) were performed on representative samples to determine the “water-plasticity” ratio of in-situ soil. This test also provides an indication of relative soil strength as well as the potential for soil volume changes with variation in moisture content. The lean Clay encountered on our test pits has an average liquid limit of thirty-five (35) and a plasticity index of seventeen (17).

Laboratory testing confirms that subsurface soil consists predominantly of lean Clay. This type of soil is sensitive to changes in moisture content. Moisture sensitive soils are discussed in more detail in the *Site Preparation and Grading* section of this report.

The results of laboratory tests performed on specific samples are provided at the appropriate sample depth on the individual test pit logs. However, it is important to note that some variation of subsurface conditions may exist. Our geotechnical recommendations are based on our interpretation of these test results.

SEISMIC HAZARD EVALUATION

The following provides a seismic hazard evaluation for the subject site. Our evaluation is based on subsurface conditions encountered at the site during the time of our geotechnical study and a review of applicable geologic maps (USGS & Oregon Water Resources Dept. Geologic Map - Quaternary Geologic Units in Willamette Valley, Oregon 2001) and the International Building Code (IBC-2015) guidelines.

In general, supportive soil at the subject site consists of stiff lean Clay. The referenced Geologic map indicates that no known active faults are located within one-mile of the subject site. Soil encountered at the site are classified as a type “D” soil in accordance with “Seismic Design Categories” (IBC 2015, Section 1805.5.12). For more detail regarding soil conditions refer to the test pit logs in Appendix A of this report.

Liquefaction:

Structures are subject to damage from earthquakes due to direct and indirect action. Shaking represents direct action. Indirect action is represented by foundation failures and is typified by liquefaction. Liquefaction occurs when soil loses all shear strength for short periods of time during an earthquake. Ground shaking of sufficient duration results in the loss of grain to grain contact as well as a rapid increase in pore water pressure. This causes the soil to assume physical properties of a fluid.

To have potential for liquefaction a soil must be loose, cohesion-less (generally sands and silts), below the groundwater table, and must be subjected to sufficient magnitude and duration of ground shaking. The effects of liquefaction may be large total settlement and/or large differential settlement for structures with foundations in or above the liquefied soil.

Based on the stiff soil conditions encountered and the absence of a near surface groundwater table, it is not likely that soil liquefaction would occur at the subject site during a seismic event.

DISCUSSION AND RECOMMENDATIONS

General

Based on the results of our study, it is our opinion the residential subdivision can be developed as planned provided the geotechnical recommendations contained in this report are incorporated into the final design. The proposed buildings can be supported on conventional shallow spread footings bearing either entirely on competent native soil or compacted structural fill. Supporting the proposed buildings on homogeneous material will significantly decrease the potential for differential settlement across the foundation area.

This report has been prepared for specific application to this project only and in a manner consistent with that level of care and skill ordinarily exercised by other members of the profession currently practicing under similar conditions in this area for the exclusive use of Laz Ayala and their representatives. This report, in its entirety, should be included in the project documents for information to the contractor. No warranty, expressed or implied, is made.

Site Preparation and Grading

The site shall be stripped and cleared of all vegetation, organic matter and any other deleterious material. Stripped material should not be mixed with any soils to be used as fill. Stripped soil could potentially be used for topsoil at landscape areas after removing vegetation and screening out organic matter.

Building & Driveway Areas:

After clearing and grading, the exposed sub-grade at building and pavement areas should be compacted to a dense non-yielding condition with suitable compaction equipment. This phase of earthwork compaction shall be performed prior to the placement of structural fill, at the bottom of all foundation excavations, interior and exterior concrete slabs, as well as the driveway-parking area, before the placement of base rock.

Structural Fill:

Structural fill is defined as any soil placed under buildings or any other load bearing-areas. Structural fill placed under footings and slab on grade should be placed in thin horizontal lifts not exceeding eight inches and compacted to a minimum ninety-five percent (95%) of its maximum dry density (Modified Proctor ASTM D1557). The fill material should be placed within two to three percent of the optimum moisture content.

Fill under pavements should also be placed in lifts approximately eight inches in thickness, and compacted to a minimum of ninety percent (92%) of its maximum dry density (Modified Proctor ASTM D1598), except for the top twelve (12) inches which should be compacted to ninety-five percent (95%) of the maximum dry density.

We recommend that structural fill consist of a well graded granular material having a maximum size of two inches and no more than five percent (5%) fines passing the #200 sieve, based on the ¾ inch fraction. It is recommended that any structural fill planned for onsite use, be submitted for approval prior to import.

The placement and compaction of structural fill should be observed by a representative from our office to verify that fill has been placed and compacted in accordance with the approved project plans and specifications.

It should be noted that the depth of excavation to competent soil at foundation footings and floor slab areas could be greater or less than anticipated depending on conditions encountered. Our test pits provide general information about subsurface soil and groundwater conditions.

Wet Weather Construction & Moisture Sensitive Soils:

Field observations and laboratory testing indicates that soil encountered at the site consists of moisture sensitive lean Clay. As such in an exposed condition moisture sensitive soil can become disturbed during normal construction activity, especially when in a wet or saturated condition. Once disturbed, in a wet condition, these soils will be unsuitable for support of foundations, floor slabs and pavements.

Therefore, where soil is exposed and will support new construction, care must be taken not to disturb their condition. If disturbed soil conditions develop, the affected soil must be removed and replaced with structural fill. The depth of removal will be dependent on the depth of disturbance developed during construction. Covering the excavated area with plastic and refraining from excavation activities during rainfall will minimize the disturbance and decrease the potential degradation of supportive soils.

Earthwork grading and foundation construction will be difficult during the wet winter and spring seasons. Based on this condition we suggest that grading and foundation construction be completed during the drier summer and fall seasons.

Foundations

Based on the encountered subsurface soil conditions, preliminary building design criteria, and assuming compliance with the preceding *Site Preparation and Grading* section, the proposed building may be supported on conventional shallow spread footings bearing entirely on six inches of compacted granular structural fill.

Individual spread footings or continuous wall footings providing support for the proposed commercial building and pump island canopy may be designed for a maximum allowable bearing value of one-thousand five-hundred (1500) pounds per square foot (psf).

Footings for a one level structure should be at least twelve (12) inches in width. Footings for a two-level structure should be a minimum of fifteen (15) inches in width. In either case, all footings should extend to a depth of at least eighteen (18) inches below the lowest adjacent finished sub grade for lateral support and frost heave considerations.

These basic allowable bearing values are for dead plus live loads and may be increased one-third for combined dead, live, wind, and seismic forces. It is estimated that total and differential footing settlements for the relatively light building will be approximately one-half and one-quarter inches, respectively.

Lateral loads can be resisted by friction between the foundation and the supporting sub grade or by passive earth pressure acting on the buried portions of the foundation. For the latter, the foundations must be poured "neat" against the existing soil or back filled with a compacted fill meeting the requirements of structural fill.

- Passive Pressure = 300 pcf equivalent fluid weight
- Coefficient of Friction = 0.40

We recommend that all footing excavations be observed by a representative of Earth Engineering, Inc. prior to placing forms or rebar, to verify that sub grade support conditions are as anticipated in this report, and/or provide modifications in the design as required.

Slab on Grade

The sub-grade for all concrete floor slab areas should be compacted to a dense non-yielding condition prior to the placement of base rock. It is important to note that the existing sub-grade soil may become too wet to re-compact due to weather conditions. If supportive soils become saturated it may be necessary to remove the unsuitable material and replace it with imported granular structural fill.

Interior floor slabs should be provided with a minimum of eight inches of compacted granular structural fill after compacting the sub-grade. In areas where moisture is undesirable, a vapor barrier such as a 8-mil plastic membrane should be placed beneath the slab.

Temporary Excavations

The following information is provided solely as a service to our client. Under no circumstances should this information be interpreted to mean that Earth Engineering Inc. is assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

In no case should excavation slopes be greater than the limits specified in local, state and federal safety regulations. Based on the information obtained from our field exploration and laboratory testing, the site soils expected to be encountered in excavations, stiff lean Clay would be classified as a Type "A" soil by OSHA guidelines.

Therefore, temporary excavations and cuts greater than four feet in height, should be sloped at an inclination no steeper than 3/4H:1V (horizontal:vertical) for type "A" soils. If slopes of this inclination, or flatter, cannot be constructed or if excavations greater than ten feet in depth are required, temporary shoring will be necessary.

Infiltration Testing

During March of 2022, infiltration testing was performed at one location at a depth of three feet below the existing ground surface. The approximate location of the infiltration test is shown on the *Site Plan, Figure 2*.

Infiltration testing was conducted in general accordance with standard engineering practices The Encased Falling Head Test consists of driving a fifteen (15) inch long, six-inch diameter pipe six inches into the exposed ground surface at the bottom of the test pit. The pipe is filled with water as the soil around the bottom and below the pipe is saturated for several hours. The pipe is filled again, and the amount of time required for the water to fall, per inch, for six inches, is recorded. This step is performed a minimum of three times. The test results are averaged and calculated in inches per hour. The following table provides the infiltration test results, soil classification and a summary of laboratory test results for soil encountered at the depth of proposed infiltration:

LOCATION	*USCS SOIL TYPE	AASHTO SOIL TYPE	DEPTH (FT.)	MOISTURE CONTENT %	% PASSING # 200 SIEVE	FIELD INFILTRATION RATE
I-1	CL	A-6	4.0	25	N/A	4 iph

It is important to note that this provides a relative indication of the average rate of groundwater infiltration at the site. The rate is dependent on the percentage of fines in the soil (i.e., silt and clay), the degree of soil saturation and the relative density of the in-situ soil. Infiltration rates can vary across the site depending on conditions encountered.

Site Drainage

The site should be graded so that surface water is directed off the site. Water should not be allowed to stand in any area where buildings or slabs are to be constructed. Loose surfaces should be sealed at the end of each workday by compacting the surface to reduce the potential for moisture infiltration into the soils. Final site grades should allow for drainage away from the building foundation. The ground should be sloped at a gradient of three percent for a distance of at least ten feet away from the buildings.

We recommend that a footing drain be installed around the perimeter of the buildings just below the invert of the footing with a gradient sufficient to initiate flow. Under no circumstances should the roof down spouts be connected to the footing drain system. We suggest that clean outs be installed at several accessible locations to allow for the periodic maintenance of the footing drain system. Details for the footing drain have been included on *Figure 3, Typical Footing Drain Detail*.

Utility Support and Back Fill

Based on the conditions encountered, the soil to be exposed by utility trenches should provide adequate support for utilities. Utility trench backfill is a concern in reducing the potential for settlement along utility alignments, particularly in pavement areas. It is also important that each section of utility line be adequately supported in the bedding material. The back fill material should be hand tamped to ensure support is provided around the pipe haunches.

Fill should be carefully placed and hand tamped to about twelve inches above the crown of the pipe before any compaction equipment is used. The remainder of the trench back fill should be placed in lifts having a loose thickness of eight inches.

A typical trench backfill section and compaction requirements for load supporting and non-load supporting areas is presented on *Figure 4, Utility Trench Backfill Detail*. Trench back fill may consist of imported granular fill provided the material is approved, placed and compacted near the optimum moisture content.

Imported granular material or on-site soil to be used as backfill should be submitted to our laboratory at least one week prior to construction so that we can provide a laboratory proctor for field density testing. If native soil is planned for use as backfill, additional testing may be required to determine the suitability of the material.

Pavements

The durability of pavements is related in part to the condition of the underlying sub grade. To provide a properly prepared sub grade for pavements, we recommend the sub grade be treated and prepared as described in the *Site Preparation and Grading* section of this report.

It is possible that some localized areas of soft, wet or unstable sub grade may still exist after this process. Before placement of any base rock, the sub grade should be compacted with suitable compaction equipment. Yielding areas that are identified should be excavated to firm material and replaced with compacted one and one quarter inch-minus clean-crushed rock. The following pavement sections are recommended for the proposed pavement areas:

- Entrance Driveway & Truck Turnaround - Four inches of Asphalt Concrete (AC) over ten inches of compacted Crushed Rock Base (CRB), over a geo-grid consisting of Tensar Triax or equivalent.
- Parking Stalls for Automobiles - Three inches of Asphalt Concrete (AC) over eight inches of compacted Crushed Rock Base (CRB) material.

The geo-grid should be placed directly on the sub grade surface of the driveway prior to placement of base rock. Appropriate geo-textiles have been designed to increase the strength of the sub grade and extend pavement life.

Asphaltic Cement (AC) and Crushed Rock Base (CRB) materials should conform to ODOT specifications. All base rock should be compacted to at least ninety-five percent (95 %) of the ASTM D1557-91 laboratory test standard.

We recommend that a minimum of eight inches of compacted CRB be placed below all exterior slabs. Exterior concrete slabs that are subject to vehicle traffic loads should be at five inches in thickness. It is also suggested that nominal reinforcement such as "6x6-10/10" welded wire mesh be installed, near midpoint, in new exterior concrete slabs and paving. Fiber mesh concrete may be used in lieu of welded wire mesh.

Additional Services & Earthwork Monitoring

Earth Engineering, Inc. will be available to provide consultation services related to review of the final design to verify that the recommendations within our purview have been properly interpreted and implemented in the approved construction plans and specifications. A representative from our office will be available to attend a pre-construction meeting to discuss and/or clarify all geotechnical issues related to the proposed project.

In addition, it is suggested that our office be retained to provide geotechnical services during construction to observe compliance with the design concepts and project specifications and to allow design changes in the event subsurface conditions differ from those anticipated. Our construction services would include monitoring and documenting the following:

- Verify that site has been adequately stripped of organic materials.
- Observe the condition of exposed bearing soils at the building area.
- Laboratory proctor tests for structural fill materials.
- Observe compaction and provide density testing of structural fill.
- Observe compaction and provide density testing of utility trench backfill.
- Provide footing inspection at building to verify soil bearing capacity.
- Verify the installation of all building and site drainage elements.

LIMITATIONS

Our recommendations and conclusions are based on the site materials observed, selective laboratory testing, engineering analyses, the design information provided to Earth Engineering, Inc. and our experience as well as engineering judgment. The conclusions and recommendations are professional opinions derived in a manner consistent with that level of care and skill ordinarily exercised by other members of the profession currently practicing under similar conditions in this area. No warranty is expressed or implied.

The recommendations submitted in this report are based upon the data obtained from the test pits. Soil and groundwater conditions may vary from those encountered. The nature and extent of variations may not become evident until construction. If variations do appear, Earth Engineering, Inc. should be requested to reevaluate the recommendations contained in this report and to modify or verify them in writing prior to proceeding with the proposed construction.

VICINITY MAP

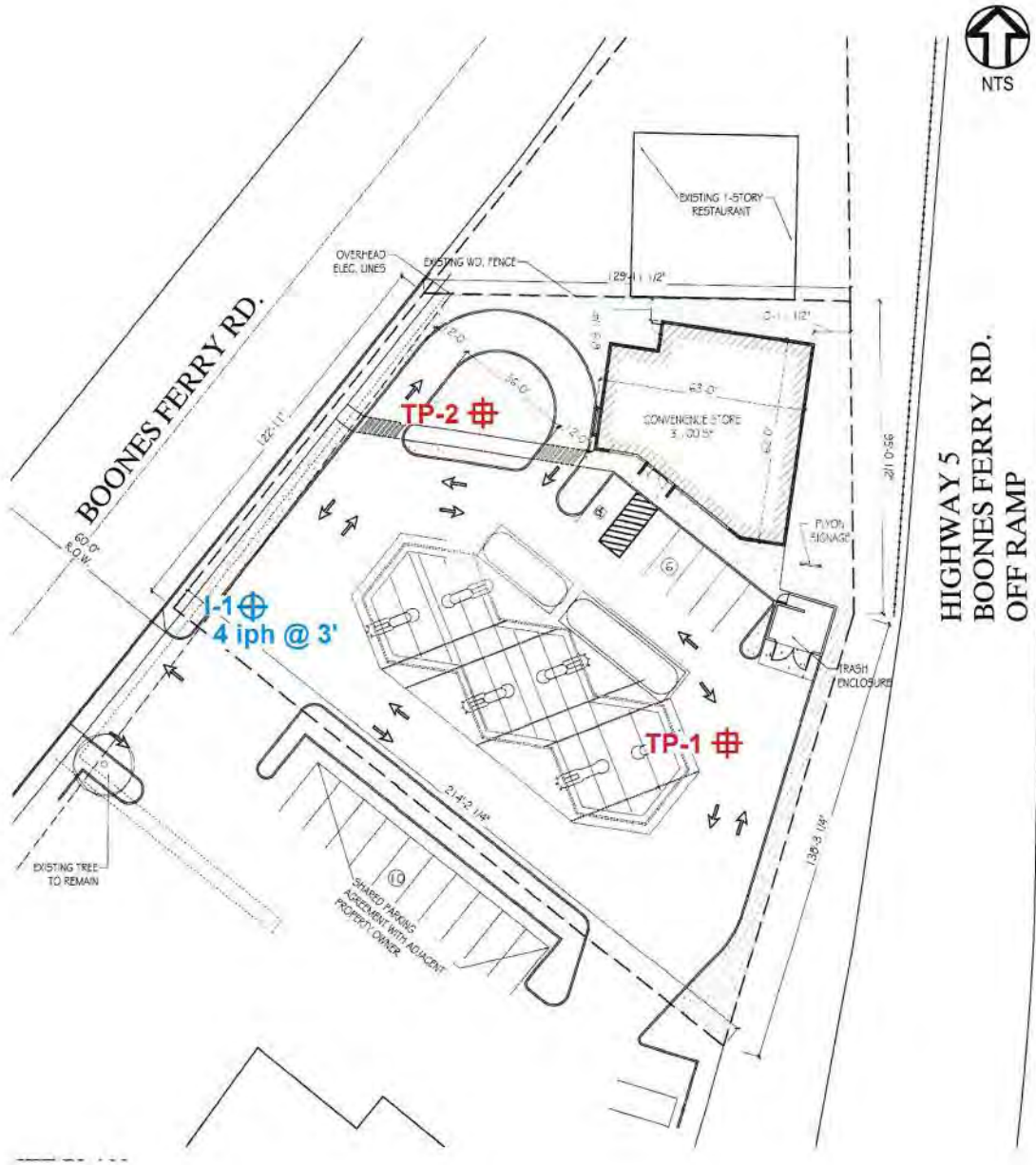


Earth Engineering

GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	LAZ AYALA	DRAWN:	CCK
PROJECT:	WILSONVILLE CONVENIENCE STORE	DATE:	4/2022
	29760 BOONES FERRY ROAD	FIGURE:	2
	WILSONVILLE, OR	PRO. #:	G14-0322

SITE PLAN

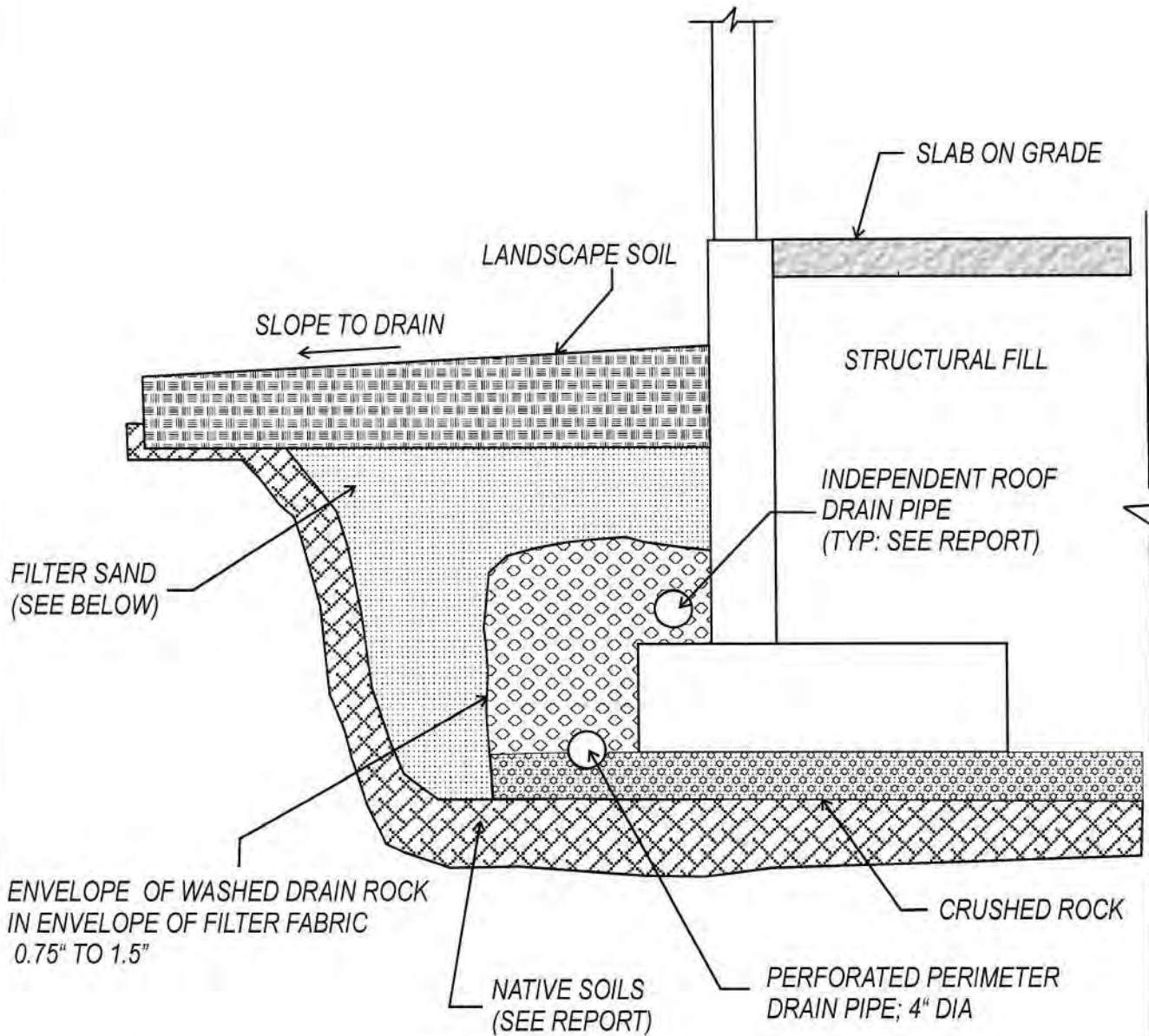


LEGEND

- ⊕ TP-1 ⊕ Approximate Location of Test Pits
- ⊕ I-1 ⊕ Approximate Location of Infiltration Test Pit



CLIENT: LAZ AYALA	DRAWN: CCK
PROJECT: WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE: 4/2022
	FIGURE: 2
	PRO. #: G14-0322



NOTES:

1. FILTER SAND - FINE AGGREGATE FOR PORTLAND CEMENT; SECTION 9-03.1(2)
2. PERFORATED OR SLOTTED RIGID PVC PIPE WITH A POSITIVE DRAINAGE GRADIENT
3. FILTER FABRIC OPTIONAL IF FILTER SAND USED

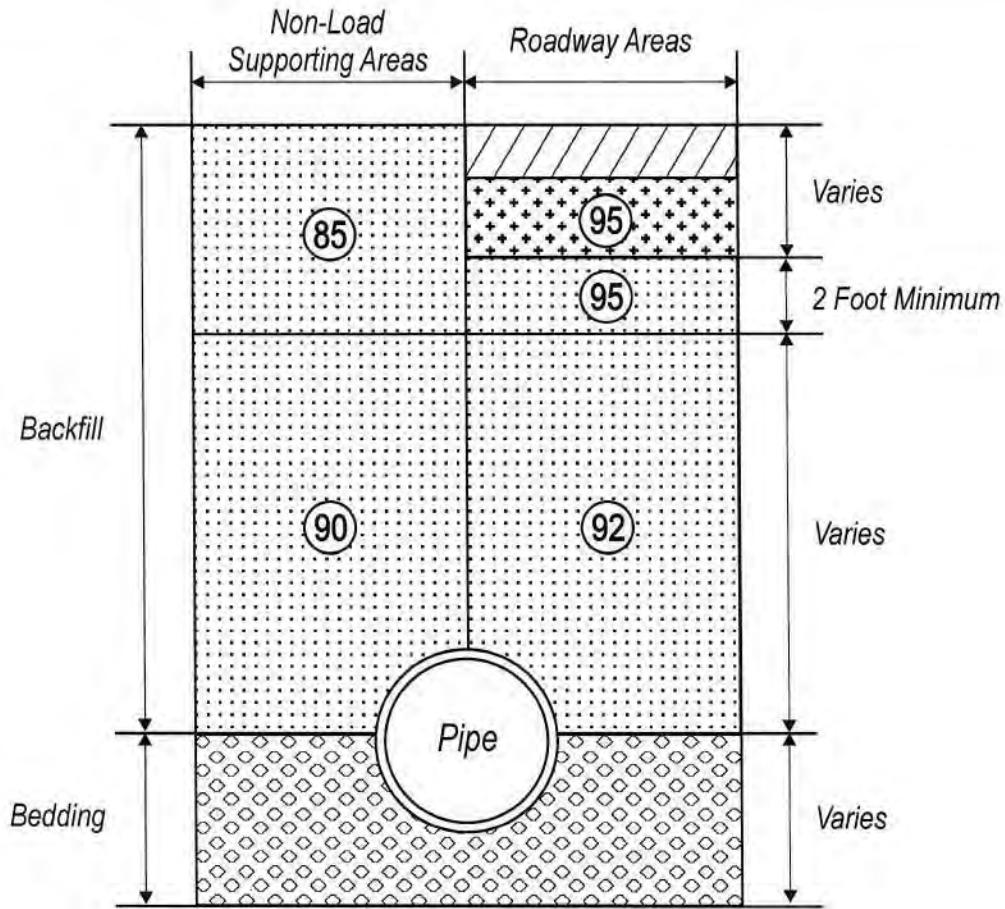
TYPICAL FOOTING DRAIN DETAIL

Not to Scale



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CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		FIGURE:	3
		PRO. #:	G14-0322



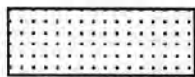
LEGEND



Asphalt or Concrete Pavement



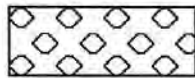
Roadway Base Material or Base Rock



Backfill: Compacted on-site soil or imported select fill material as described in the site preparation of the general Earthwork Section of the attached report text.



Minimum percentage of maximum Laboratory Dry Density as determined by ASTM Test method D1557 (Modified Proctor), unless otherwise specified in the attached report text.



Bedding Material: Material type depends on type of pipe and laying conditions. Bedding should conform to the manufacturer's recommendations for the type of pipe selected.

UTILITY TRENCH BACKFILL DETAIL

Not to Scale

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		FIGURE:	4
		PRO. #:	G14-0322

APPENDIX A
(FIELD EXPLORATION)

FIELD EXPLORATION

Our field exploration was performed on March 11th 2022. Subsurface conditions at the site were explored by excavating three test pits. The test pits were excavated to a maximum depth of eleven (11) feet below the existing ground surface. The test pits were excavated using a track-hoe.

The test pits were located by pacing from property features. The locations are shown on the Site Plan, Figure 2. Field exploration was monitored by an Earth Engineering, Inc. representative, who classified the soils that we encountered and maintained a log of each test pit, obtained representative samples, and observed pertinent site features. Representative soil samples were placed in closed containers and returned to the laboratory for further examination and testing.

All samples were identified using the Standard Classification of Soils for Engineering Purposes (ASTM D2487-93) in accordance with the Unified Soil Classification System (USCS), which is presented on Plate A-1. The test pit log and boring logs are presented in Appendix A. The final log represents our interpretations of the field logs and the results of the laboratory tests on field samples.

UNIFIED SOIL CLASSIFICATION SYSTEM LEGEND

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTION	
Coarse Grained Soils	Gravel and Gravelly Soils More Than 50% Coarse Fraction Retained on No 4 Sieve	Clean Gravels (little or no fines)		GW gw	Well-Graded Gravels, Gravel-Sand Mixtures Little or no Fines	
		Gravels with Fines (appreciable amount of fines)		GP gp	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or no Fines	
	Sand and Sandy Soils More Than 50% Coarse Fraction Passing No 4 Sieve	Clean Sand (little or no fines)		GM gm	Silty Gravels, Gravel-Sand-Silt Mixtures	
		Sands with Fines (appreciable amount of fines)		GC gc	Clayey Gravels, Gravel-Sand-Clay Mixtures	
More Than 50% Material Larger Than No 200 Sieve Size	Sand and Sandy Soils More Than 50% Coarse Fraction Passing No 4 Sieve	Clean Sand (little or no fines)		SW sw	Well-graded Sands, Gravelly Sands Little or no Fines	
		Sands with Fines (appreciable amount of fines)		SP sp	Poorly-Graded Sands, Gravelly Sands Little or no Fines	
	Silty Sands and Sand-Silt Mixtures	Sands with Fines (appreciable amount of fines)		SM sm	Silty Sands, Sand-Silt Mixtures	
		Sands with Fines (appreciable amount of fines)		SC sc	Clayey Sands, Sand-Clay Mixtures	
		Inorganic Silts and Very Fine Sands, Rock Flour, Silty-Clayey Fine Sands; Clayey Silts w/ slight Plasticity	Sands with Fines (appreciable amount of fines)		ML ml	Inorganic Silts and Very Fine Sands, Rock Flour, Silty-Clayey Fine Sands; Clayey Silts w/ slight Plasticity
			Sands with Fines (appreciable amount of fines)		CL cl	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean
More Than 50% Material Smaller Than No 200 Sieve Size	Silty Sands and Sand-Silt Mixtures	Sands with Fines (appreciable amount of fines)		OL ol	Organic Silts and Organic Silty Clays of Low Plasticity	
		Sands with Fines (appreciable amount of fines)		MH mh	Inorganic Silts, Micaceous or Diatomaceous Fine Sand or Silty Soils	
	Inorganic Clays of High Plasticity, Fat Clays	Sands with Fines (appreciable amount of fines)		CH ch	Inorganic Clays of High Plasticity, Fat Clays	
		Sands with Fines (appreciable amount of fines)		OH oh	Organic Clays of Medium to High Plasticity, Organic Silts	
Highly Organic Soils				PT pt	Peat, Humus, Swamp Soils with High Organic Contents	

Topsoil		Humus and Duff Layer
Fill		Highly Variable Constituents



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PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A1
		PRO. #:	G14-0322

LOG OF TEST PIT

(West)

I-1

ELEVATION: +/- 160.5 feet
 EXPLORATORY EQUIPMENT: TRACK HOE
 DATE: 03/11/2022

DEPTH IN FEET	SAMPLES	SOILS CLASSIFICATION	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
1	•	6" Topsoil					24	-
2								
3		Field infiltration rate - 4 inches per hour						
4	•	lean Clay (CL)		Dark Brown	Moist	Firm to Stiff	26	-
5								
6								
7	•	(Native)					23	-
8								

Bottom of test pit at 8.0 feet below existing ground surface.
 No groundwater was encountered.



Earth Engineering, Inc.
 GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A2
		PRO. #:	CM14-0322

LOG OF TEST PIT
(Northwest)

TP-1

ELEVATION: +/- 164 feet

EXPLORATORY EQUIPMENT: TRACK HOE

DATE: 03/11/2022

DEPTH IN FEET	SAMPLES	SOILS CLASSIFICATION	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
1		4" Topsoil						
1.5	X	Wet γ ~113 pcf Dry γ ~93 pcf Liquid Limit - 38 Plastic Index -19						
2		lean Clay (CL)		Dark Brown	Moist	Firm to Stiff	22	-
3		{gravel & cobbles}						
4		(Native)						
5								

Bottom of test pit at 5.0 feet below existing ground surface.
No groundwater was encountered.



Earth Engineering, Inc.

GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A3
		PRO. #:	CM14-0322

LOG OF TEST PIT
(Northwest)

TP-2

ELEVATION: +/- 163 feet
EXPLORATORY EQUIPMENT: TRACK HOE
DATE: 03/11/2022

DEPTH IN FEET	SAMPLES	SOILS CLASSIFICATION	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
1		6" Topsoil						
2	⊗	Wet γ ~114 pcf Dry γ ~94 pcf Liquid Limit - 32 Plastic Index - 15				Firm to Stiff	22	-
3								
4		{gravel & cobbles}						
5								
6	●	lean Clay (CL)		Dark Brown	Moist		29	-
7								
8								
9						Very Stiff to Hard		
10								
11		(Native)						

Bottom of test pit at 11.0 feet below existing ground surface.
No groundwater was encountered.

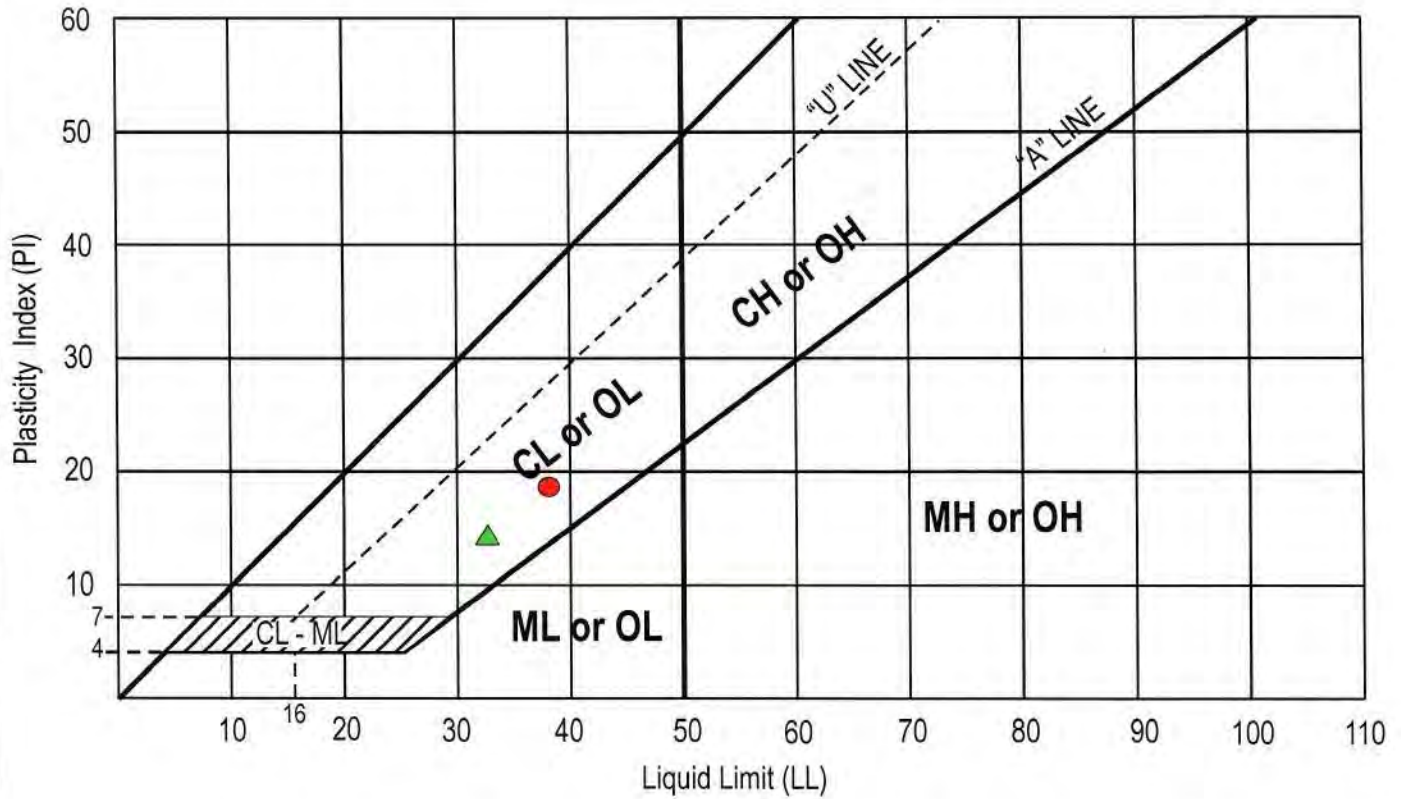


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CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A4
		PRO. #:	CM14-0322

APPENDIX B
(LABORATORY TESTING)

ATTERBERG LIMITS ASTM D4318-95



● TP-1 @ 2.0 feet bgs - lean Clay (CL)
Liquid Limit = 38 Plasticity Index = 19

▲ TP-2 @ 1.5 feet bgs - lean Clay (CL)
Liquid Limit = 32 Plasticity Index = 15



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GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	B1
		PRO. #:	G14-0322

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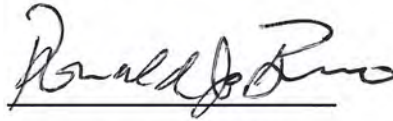
Laz Ayala
132 West Main Street
Medford, Oregon 97501

GEOTECHNICAL ENGINEERING STUDY

Wilsonville Convenience Store
29760 Boones Ferry Road
Wilsonville, Clackamas County, Oregon 97070
Tax Lot No. (31W14D01002)

Prepared for:
Laz Ayala
132 West Main Street
Medford, Oregon 997501

Prepared By:



Donald J. Bruno, CEG
Engineering Geologist



Mia Mahedy, PE,GE
Project Engineer

Project No. G14-0322

{April 2022}

Earth Engineering Inc.
PO Box 1512, Ridgefield, Washington 98642
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Earth Engineering, Inc.

Geotechnical & Environmental Consultants

Item 2.

Laz Ayala
132 West Main Street
Medford, Oregon 97501

April 22, 2022
G14-0322

**Subject: Geotechnical Engineering Study
Wilsonville Convenience Store
29760 Boones Ferry Road, Wilsonville, Clackamas County, Oregon
(Tax Lot No. 31W14D01002)**

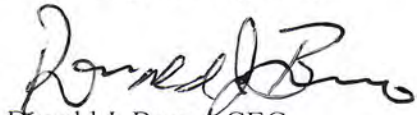
Hello Laz,

We are pleased to submit our engineering report for the subject property located in Wilsonville, Oregon. This report presents the results of our field exploration, selective laboratory tests, field testing and engineering analyses.

Based on the results of this study, it is our opinion that construction of the proposed commercial structure is feasible from a geotechnical standpoint, provided recommendations presented in this report are included in the project design.

We appreciate the opportunity to have been of service to you and look forward to working with you in the future. Should you have any questions about the content of this report, or if we can be of further assistance, please call.

Respectfully Submitted,
Earth Engineering Inc.,



Donald J. Bruno, CEG
Engineering Geologist

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{G14-0322}

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INTRODUCTION

General

This report presents the results of the geotechnical engineering study completed by Earth Engineering, Inc. for the proposed convenience store and fuel pumping facility located in Wilsonville, Clackamas County, Oregon. The general location of the site is shown on the *Vicinity Map, Figure 1*. At the time our study was performed, the site and our exploratory locations are approximately as shown on the *Site Plan, Figure 2*.

The purpose of this study was to explore subsurface conditions at the site and based on the conditions encountered provide geotechnical recommendations for the proposed construction. In addition this report includes infiltration testing for stormwater design and a seismic hazard evaluation.

Project Description

Based on the information that was provided to us by Oregon Architecture and the project civil engineer (PLS), it is our understanding the site will be developed with a one story building that will provide three- thousand one-hundred (3100) square feet of floor space, a pumping island, a trash enclosure, and an asphalt paved access driveway with some vehicle parking. Construction will also include the installation of a stormwater system and subsurface utilities.

Due to the relatively flat topography, it is anticipated that earthwork cuts and fills will be less than one foot to achieve the desired design grade. The convenience store will be constructed with a metal or wood frame and a slab on grade floor.

Structural design loads were not available at the time this report was written. However, based on our experience with similar projects, we anticipate that wall and column loads will be approximately seven hundred and fifty (750) to one thousand five hundred (1500) pounds per lineal foot (maximum dead plus live loads). Slab on grade loads will most likely range from one hundred (100) to one hundred and fifty (150) pounds per square foot (psf).

If any of the above information is incorrect or changes, we should be consulted to review the recommendations contained in this report. In any case, it is recommended that Earth Engineering, Inc. perform a general review of the final design for the proposed construction.

SITE CONDITIONS

Surface

The irregular shaped property encompasses approximately seven tenths of an acre. No structures were observed on site during the time of our fieldwork (March 2022). The adjacent properties to the north and south have been developed with restaurants. The site is bordered to the east by an Interstate Highway (I-5) off ramp and to the west by Boones Ferry Road.

The property slopes gently downward from the northeast to the southwest with an overall elevation change of four feet and a gradient of about two percent (2%). The property is covered predominantly with mowed grass with some low bushes along the eastern property line.

Subsurface & Soil Classification

For this study, the site was explored by excavating three test pits at the approximate locations shown on the *Site Plan, Figure 2*. Infiltration testing was performed in one of the test pits. All soil was classified following the Unified Soil Classification System (USCS). A USCS Legend is included as Plate A1. A description of the field exploration methods is included in Appendix A.

In general, in our test pits we encountered native soil consisting of lean Clay (CL) with some gravel and cobbles to the maximum exploration depth of eleven (11) feet below the existing ground surface. Please refer to the test pit logs, Plates A-2 thru A-4, for a more detailed description of the conditions encountered.

Groundwater

During the time of our field exploration (March 2022) groundwater was not encountered in any of our test pits. It is important to note that groundwater conditions are not static; fluctuations may be expected in the level and seepage flow depending on the season, amount of rainfall, surface water runoff, and other factors. Generally, groundwater levels are higher and the seepage rate is greater in the wetter winter months (typically October through May).

General Regional Geology

General information about geologic conditions and soil in the vicinity of the site was obtained by reviewing the USGS & Oregon Water Resources Dept. Geologic Map - Quaternary Geologic Units in Willamette Valley, Oregon (1620, Dated 2001). This map provides general information about geologic units in the Wilsonville, Clackamas County, Oregon area.

Our review of existing geological information indicates that soils in the vicinity of the subject site were formed from alluvial deposits during the Quaternary Period. Outburst flood deposits from glacial Lake Missoula deposited these sedimentary soils. The material encountered in our test pits consists predominantly of native lean clay with some gravel and cobbles.

LABORATORY TESTING

Laboratory tests were conducted on representative soil samples to verify or modify the field soil classification of the units encountered, and to evaluate the general physical properties as well as the engineering characteristics of the soils encountered. The following provides information about the testing procedures performed on representative soil samples and the general condition of subsurface soil conditions encountered:

- *Moisture Content (ASTM-D2216-92)* tests were performed on representative samples. The native lean Clay has a moisture content that ranges from twenty-two to twenty-nine percent (22-29 %).

- In-Situ Soil Density (ASTM-D4564-93) utilizing the sleeve method was performed on representative samples to determine the wet and dry density of native soil. The in-situ density provides a relative indication of soil support characteristics. The average wet density of the native lean clay is one hundred and thirteen and one-half (113.5) pounds per cubic foot (pcf). The average dry density of this soil is ninety three and one-half (93.5) pcf.
- Atterberg Limits (*ASTM-D4318-95*) were performed on representative samples to determine the “water-plasticity” ratio of in-situ soil. This test also provides an indication of relative soil strength as well as the potential for soil volume changes with variation in moisture content. The lean Clay encountered on our test pits has an average liquid limit of thirty-five (35) and a plasticity index of seventeen (17).

Laboratory testing confirms that subsurface soil consists predominantly of lean Clay. This type of soil is sensitive to changes in moisture content. Moisture sensitive soils are discussed in more detail in the *Site Preparation and Grading* section of this report.

The results of laboratory tests performed on specific samples are provided at the appropriate sample depth on the individual test pit logs. However, it is important to note that some variation of subsurface conditions may exist. Our geotechnical recommendations are based on our interpretation of these test results.

SEISMIC HAZARD EVALUATION

The following provides a seismic hazard evaluation for the subject site. Our evaluation is based on subsurface conditions encountered at the site during the time of our geotechnical study and a review of applicable geologic maps (USGS & Oregon Water Resources Dept. Geologic Map - Quaternary Geologic Units in Willamette Valley, Oregon 2001) and the International Building Code (IBC-2015) guidelines.

In general, supportive soil at the subject site consists of stiff lean Clay. The referenced Geologic map indicates that no known active faults are located within one-mile of the subject site. Soil encountered at the site are classified as a type “D” soil in accordance with “Seismic Design Categories” (IBC 2015, Section 1805.5.12). For more detail regarding soil conditions refer to the test pit logs in Appendix A of this report.

Liquefaction:

Structures are subject to damage from earthquakes due to direct and indirect action. Shaking represents direct action. Indirect action is represented by foundation failures and is typified by liquefaction. Liquefaction occurs when soil loses all shear strength for short periods of time during an earthquake. Ground shaking of sufficient duration results in the loss of grain to grain contact as well as a rapid increase in pore water pressure. This causes the soil to assume physical properties of a fluid.

To have potential for liquefaction a soil must be loose, cohesion-less (generally sands and silts), below the groundwater table, and must be subjected to sufficient magnitude and duration of ground shaking. The effects of liquefaction may be large total settlement and/or large differential settlement for structures with foundations in or above the liquefied soil.

Based on the stiff soil conditions encountered and the absence of a near surface groundwater table, it is not likely that soil liquefaction would occur at the subject site during a seismic event.

DISCUSSION AND RECOMMENDATIONS

General

Based on the results of our study, it is our opinion the residential subdivision can be developed as planned provided the geotechnical recommendations contained in this report are incorporated into the final design. The proposed buildings can be supported on conventional shallow spread footings bearing either entirely on competent native soil or compacted structural fill. Supporting the proposed buildings on homogeneous material will significantly decrease the potential for differential settlement across the foundation area.

This report has been prepared for specific application to this project only and in a manner consistent with that level of care and skill ordinarily exercised by other members of the profession currently practicing under similar conditions in this area for the exclusive use of Laz Ayala and their representatives. This report, in its entirety, should be included in the project documents for information to the contractor. No warranty, expressed or implied, is made.

Site Preparation and Grading

The site shall be stripped and cleared of all vegetation, organic matter and any other deleterious material. Stripped material should not be mixed with any soils to be used as fill. Stripped soil could potentially be used for topsoil at landscape areas after removing vegetation and screening out organic matter.

Building & Driveway Areas:

After clearing and grading, the exposed sub-grade at building and pavement areas should be compacted to a dense non-yielding condition with suitable compaction equipment. This phase of earthwork compaction shall be performed prior to the placement of structural fill, at the bottom of all foundation excavations, interior and exterior concrete slabs, as well as the driveway-parking area, before the placement of base rock.

Structural Fill:

Structural fill is defined as any soil placed under buildings or any other load bearing-areas. Structural fill placed under footings and slab on grade should be placed in thin horizontal lifts not exceeding eight inches and compacted to a minimum ninety-five percent (95%) of its maximum dry density (Modified Proctor ASTM D1557). The fill material should be placed within two to three percent of the optimum moisture content.

Fill under pavements should also be placed in lifts approximately eight inches in thickness, and compacted to a minimum of ninety percent (92%) of its maximum dry density (Modified Proctor ASTM D1598), except for the top twelve (12) inches which should be compacted to ninety-five percent (95%) of the maximum dry density.

We recommend that structural fill consist of a well graded granular material having a maximum size of two inches and no more than five percent (5%) fines passing the #200 sieve, based on the ¾ inch fraction. It is recommended that any structural fill planned for onsite use, be submitted for approval prior to import.

The placement and compaction of structural fill should be observed by a representative from our office to verify that fill has been placed and compacted in accordance with the approved project plans and specifications.

It should be noted that the depth of excavation to competent soil at foundation footings and floor slab areas could be greater or less than anticipated depending on conditions encountered. Our test pits provide general information about subsurface soil and groundwater conditions.

Wet Weather Construction & Moisture Sensitive Soils:

Field observations and laboratory testing indicates that soil encountered at the site consists of moisture sensitive lean Clay. As such in an exposed condition moisture sensitive soil can become disturbed during normal construction activity, especially when in a wet or saturated condition. Once disturbed, in a wet condition, these soils will be unsuitable for support of foundations, floor slabs and pavements.

Therefore, where soil is exposed and will support new construction, care must be taken not to disturb their condition. If disturbed soil conditions develop, the affected soil must be removed and replaced with structural fill. The depth of removal will be dependent on the depth of disturbance developed during construction. Covering the excavated area with plastic and refraining from excavation activities during rainfall will minimize the disturbance and decrease the potential degradation of supportive soils.

Earthwork grading and foundation construction will be difficult during the wet winter and spring seasons. Based on this condition we suggest that grading and foundation construction be completed during the drier summer and fall seasons.

Foundations

Based on the encountered subsurface soil conditions, preliminary building design criteria, and assuming compliance with the preceding *Site Preparation and Grading* section, the proposed building may be supported on conventional shallow spread footings bearing entirely on six inches of compacted granular structural fill.

Individual spread footings or continuous wall footings providing support for the proposed commercial building and pump island canopy may be designed for a maximum allowable bearing value of one-thousand five-hundred (1500) pounds per square foot (psf).

Footings for a one level structure should be at least twelve (12) inches in width. Footings for a two-level structure should be a minimum of fifteen (15) inches in width. In either case, all footings should extend to a depth of at least eighteen (18) inches below the lowest adjacent finished sub grade for lateral support and frost heave considerations.

These basic allowable bearing values are for dead plus live loads and may be increased one-third for combined dead, live, wind, and seismic forces. It is estimated that total and differential footing settlements for the relatively light building will be approximately one-half and one-quarter inches, respectively.

Lateral loads can be resisted by friction between the foundation and the supporting sub grade or by passive earth pressure acting on the buried portions of the foundation. For the latter, the foundations must be poured "neat" against the existing soil or back filled with a compacted fill meeting the requirements of structural fill.

- Passive Pressure = 300 pcf equivalent fluid weight
- Coefficient of Friction = 0.40

We recommend that all footing excavations be observed by a representative of Earth Engineering, Inc. prior to placing forms or rebar, to verify that sub grade support conditions are as anticipated in this report, and/or provide modifications in the design as required.

Slab on Grade

The sub-grade for all concrete floor slab areas should be compacted to a dense non-yielding condition prior to the placement of base rock. It is important to note that the existing sub-grade soil may become too wet to re-compact due to weather conditions. If supportive soils become saturated it may be necessary to remove the unsuitable material and replace it with imported granular structural fill.

Interior floor slabs should be provided with a minimum of eight inches of compacted granular structural fill after compacting the sub-grade. In areas where moisture is undesirable, a vapor barrier such as a 8-mil plastic membrane should be placed beneath the slab.

Temporary Excavations

The following information is provided solely as a service to our client. Under no circumstances should this information be interpreted to mean that Earth Engineering Inc. is assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

In no case should excavation slopes be greater than the limits specified in local, state and federal safety regulations. Based on the information obtained from our field exploration and laboratory testing, the site soils expected to be encountered in excavations, stiff lean Clay would be classified as a Type "A" soil by OSHA guidelines.

Therefore, temporary excavations and cuts greater than four feet in height, should be sloped at an inclination no steeper than 3/4H:1V (horizontal:vertical) for type "A" soils. If slopes of this inclination, or flatter, cannot be constructed or if excavations greater than ten feet in depth are required, temporary shoring will be necessary.

Infiltration Testing

During March of 2022, infiltration testing was performed at one location at a depth of three feet below the existing ground surface. The approximate location of the infiltration test is shown on the *Site Plan, Figure 2*.

Infiltration testing was conducted in general accordance with standard engineering practices The Encased Falling Head Test consists of driving a fifteen (15) inch long, six-inch diameter pipe six inches into the exposed ground surface at the bottom of the test pit. The pipe is filled with water as the soil around the bottom and below the pipe is saturated for several hours. The pipe is filled again, and the amount of time required for the water to fall, per inch, for six inches, is recorded. This step is performed a minimum of three times. The test results are averaged and calculated in inches per hour. The following table provides the infiltration test results, soil classification and a summary of laboratory test results for soil encountered at the depth of proposed infiltration:

LOCATION	*USCS SOIL TYPE	AASHTO SOIL TYPE	DEPTH (FT.)	MOISTURE CONTENT %	% PASSING # 200 SIEVE	FIELD INFILTRATION RATE
I-1	CL	A-6	4.0	25	N/A	4 iph

It is important to note that this provides a relative indication of the average rate of groundwater infiltration at the site. The rate is dependent on the percentage of fines in the soil (i.e., silt and clay), the degree of soil saturation and the relative density of the in-situ soil. Infiltration rates can vary across the site depending on conditions encountered.

Site Drainage

The site should be graded so that surface water is directed off the site. Water should not be allowed to stand in any area where buildings or slabs are to be constructed. Loose surfaces should be sealed at the end of each workday by compacting the surface to reduce the potential for moisture infiltration into the soils. Final site grades should allow for drainage away from the building foundation. The ground should be sloped at a gradient of three percent for a distance of at least ten feet away from the buildings.

We recommend that a footing drain be installed around the perimeter of the buildings just below the invert of the footing with a gradient sufficient to initiate flow. Under no circumstances should the roof down spouts be connected to the footing drain system. We suggest that clean outs be installed at several accessible locations to allow for the periodic maintenance of the footing drain system. Details for the footing drain have been included on *Figure 3, Typical Footing Drain Detail*.

Utility Support and Back Fill

Based on the conditions encountered, the soil to be exposed by utility trenches should provide adequate support for utilities. Utility trench backfill is a concern in reducing the potential for settlement along utility alignments, particularly in pavement areas. It is also important that each section of utility line be adequately supported in the bedding material. The back fill material should be hand tamped to ensure support is provided around the pipe haunches.

Fill should be carefully placed and hand tamped to about twelve inches above the crown of the pipe before any compaction equipment is used. The remainder of the trench back fill should be placed in lifts having a loose thickness of eight inches.

A typical trench backfill section and compaction requirements for load supporting and non-load supporting areas is presented on *Figure 4, Utility Trench Backfill Detail*. Trench back fill may consist of imported granular fill provided the material is approved, placed and compacted near the optimum moisture content.

Imported granular material or on-site soil to be used as backfill should be submitted to our laboratory at least one week prior to construction so that we can provide a laboratory proctor for field density testing. If native soil is planned for use as backfill, additional testing may be required to determine the suitability of the material.

Pavements

The durability of pavements is related in part to the condition of the underlying sub grade. To provide a properly prepared sub grade for pavements, we recommend the sub grade be treated and prepared as described in the *Site Preparation and Grading* section of this report.

It is possible that some localized areas of soft, wet or unstable sub grade may still exist after this process. Before placement of any base rock, the sub grade should be compacted with suitable compaction equipment. Yielding areas that are identified should be excavated to firm material and replaced with compacted one and one quarter inch-minus clean-crushed rock. The following pavement sections are recommended for the proposed pavement areas:

- Entrance Driveway & Truck Turnaround - Four inches of Asphalt Concrete (AC) over ten inches of compacted Crushed Rock Base (CRB), over a geo-grid consisting of Tensar Triax or equivalent.
- Parking Stalls for Automobiles - Three inches of Asphalt Concrete (AC) over eight inches of compacted Crushed Rock Base (CRB) material.

The geo-grid should be placed directly on the sub grade surface of the driveway prior to placement of base rock. Appropriate geo-textiles have been designed to increase the strength of the sub grade and extend pavement life.

Asphaltic Cement (AC) and Crushed Rock Base (CRB) materials should conform to ODOT specifications. All base rock should be compacted to at least ninety-five percent (95 %) of the ASTM D1557-91 laboratory test standard.

We recommend that a minimum of eight inches of compacted CRB be placed below all exterior slabs. Exterior concrete slabs that are subject to vehicle traffic loads should be at five inches in thickness. It is also suggested that nominal reinforcement such as "6x6-10/10" welded wire mesh be installed, near midpoint, in new exterior concrete slabs and paving. Fiber mesh concrete may be used in lieu of welded wire mesh.

Additional Services & Earthwork Monitoring

Earth Engineering, Inc. will be available to provide consultation services related to review of the final design to verify that the recommendations within our purview have been properly interpreted and implemented in the approved construction plans and specifications. A representative from our office will be available to attend a pre-construction meeting to discuss and/or clarify all geotechnical issues related to the proposed project.

In addition, it is suggested that our office be retained to provide geotechnical services during construction to observe compliance with the design concepts and project specifications and to allow design changes in the event subsurface conditions differ from those anticipated. Our construction services would include monitoring and documenting the following:

- Verify that site has been adequately stripped of organic materials.
- Observe the condition of exposed bearing soils at the building area.
- Laboratory proctor tests for structural fill materials.
- Observe compaction and provide density testing of structural fill.
- Observe compaction and provide density testing of utility trench backfill.
- Provide footing inspection at building to verify soil bearing capacity.
- Verify the installation of all building and site drainage elements.

LIMITATIONS

Our recommendations and conclusions are based on the site materials observed, selective laboratory testing, engineering analyses, the design information provided to Earth Engineering, Inc. and our experience as well as engineering judgment. The conclusions and recommendations are professional opinions derived in a manner consistent with that level of care and skill ordinarily exercised by other members of the profession currently practicing under similar conditions in this area. No warranty is expressed or implied.

The recommendations submitted in this report are based upon the data obtained from the test pits. Soil and groundwater conditions may vary from those encountered. The nature and extent of variations may not become evident until construction. If variations do appear, Earth Engineering, Inc. should be requested to reevaluate the recommendations contained in this report and to modify or verify them in writing prior to proceeding with the proposed construction.

VICINITY MAP

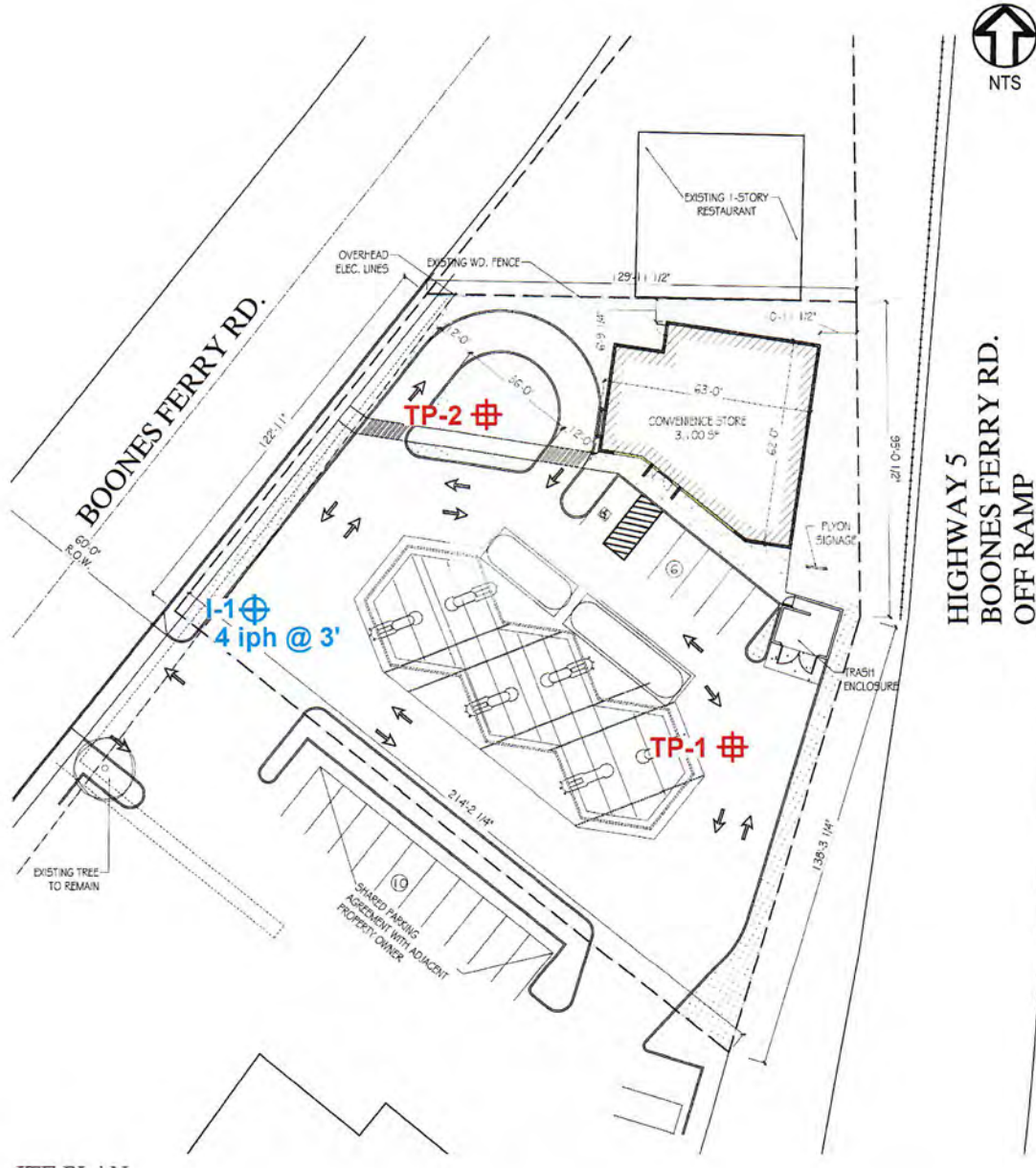


Earth Engineering

GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	LAZ AYALA	DRAWN:	CCK
PROJECT:	WILSONVILLE CONVENIENCE STORE	DATE:	4/2022
	29760 BOONES FERRY ROAD	FIGURE:	2
	WILSONVILLE, OR	PRO. #:	G14-0322

SITE PLAN

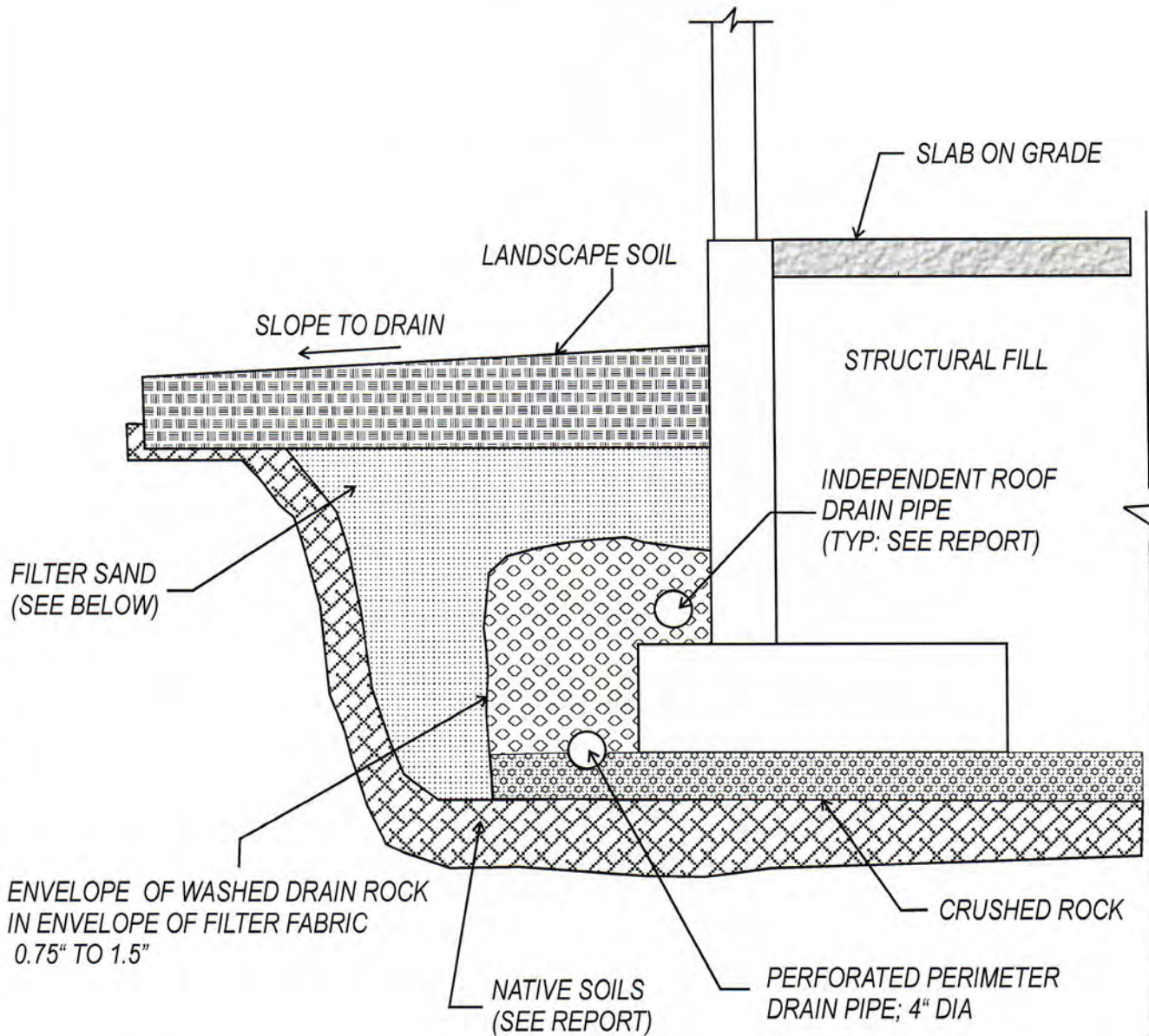


LEGEND

- TP-1** Approximate Location of Test Pits
- I-1** Approximate Location of Infiltration Test Pit

Earth Engineering
GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT: LAZ AYALA	DRAWN: CCK
PROJECT: WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE: 4/2022
	FIGURE: 2
	PRO. #: G14-0322



NOTES:

- 1. FILTER SAND - FINE AGGREGATE FOR PORTLAND CEMENT; SECTION 9-03.1(2)
- 2. PERFORATED OR SLOTTED RIGID PVC PIPE WITH A POSITIVE DRAINAGE GRADIENT
- 3. FILTER FABRIC OPTIONAL IF FILTER SAND USED

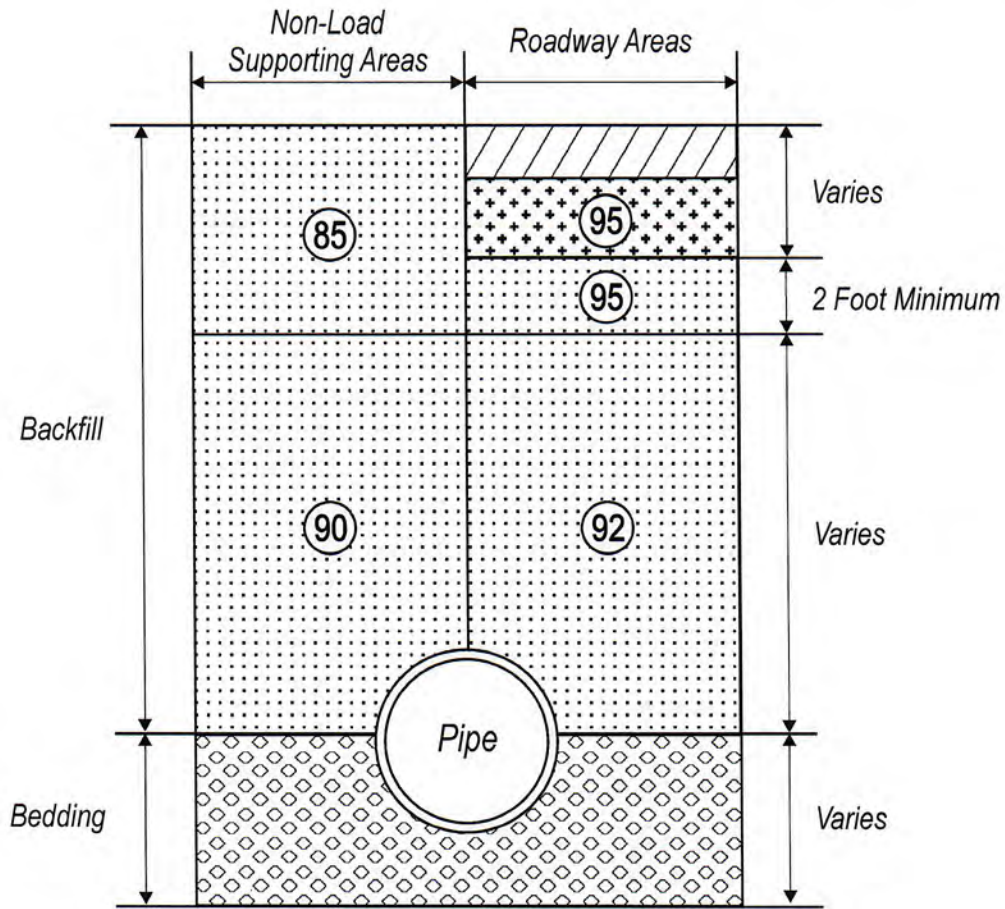
TYPICAL FOOTING DRAIN DETAIL

Not to Scale



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CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		FIGURE:	3
		PRO. #:	G14-0322



LEGEND



Asphalt or Concrete Pavement



Roadway Base Material or Base Rock



Backfill: Compacted on-site soil or imported select fill material as described in the site preparation of the general Earthwork Section of the attached report text.



Minimum percentage of maximum Laboratory Dry Density as determined by ASTM Test method D1557 (Modified Proctor), unless otherwise specified in the attached report text.



Bedding Material: Material type depends on type of pipe and laying conditions. Bedding should conform to the manufacturer's recommendations for the type of pipe selected.

UTILITY TRENCH BACKFILL DETAIL

Not to Scale

Earth Engineering, Inc.
 GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		FIGURE:	4
		PRO. #:	G14-0322

APPENDIX A
(FIELD EXPLORATION)

FIELD EXPLORATION

Our field exploration was performed on March 11th 2022. Subsurface conditions at the site were explored by excavating three test pits. The test pits were excavated to a maximum depth of eleven (11) feet below the existing ground surface. The test pits were excavated using a track-hoe.

The test pits were located by pacing from property features. The locations are shown on the Site Plan, Figure 2. Field exploration was monitored by an Earth Engineering, Inc. representative, who classified the soils that we encountered and maintained a log of each test pit, obtained representative samples, and observed pertinent site features. Representative soil samples were placed in closed containers and returned to the laboratory for further examination and testing.

All samples were identified using the Standard Classification of Soils for Engineering Purposes (ASTM D2487-93) in accordance with the Unified Soil Classification System (USCS), which is presented on Plate A-1. The test pit log and boring logs are presented in Appendix A. The final log represents our interpretations of the field logs and the results of the laboratory tests on field samples.

UNIFIED SOIL CLASSIFICATION SYSTEM LEGEND

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTION
Coarse Grained Soils	Gravel and Gravelly Soils More Than 50% Coarse Fraction Retained on No 4 Sieve	Clean Gravels (little or no fines)		GW gw	Well-Graded Gravels, Gravel-Sand Mixtures Little or no Fines
		Gravels with Fines (appreciable amount of fines)		GP gp	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or no Fines
	Sand and Sandy Soils More Than 50% Coarse Fraction Passing No 4 Sieve	Clean Sand (little or no fines)		SW sw	Well-graded Sands, Gravelly Sands Little or no Fines
		Sands with Fines (appreciable amount of fines)		SP sp	Poorly-Graded Sands, Gravelly Sands Little or no Fines
Fine Grained Soils	Silts and Clays	Liquid Limit Less than 50		SM sm	Silty Sands, Sand-Silt Mixtures
				SC sc	Clayey Sands, Sand-Clay Mixtures
				ML ml	Inorganic Silts and Very Fine Sands, Rock Flour, Silty-Clayey Fine Sands; Clayey Silts w/ slight Plasticity
	Silts and Clays	Liquid Limit Greater than 50		CL cl	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean
				OL ol	Organic Silts and Organic Silty Clays of Low Plasticity
				MH mh	Inorganic Silts, Micaceous or Diatomaceous Fine Sand or Silty Soils
				CH ch	Inorganic Clays of High Plasticity, Fat Clays
				OH oh	Organic Clays of Medium to High Plasticity, Organic Silts
Highly Organic Soils				PT pt	Peat, Humus, Swamp Soils with High Organic Contents

Topsoil		Humus and Duff Layer
Fill		Highly Variable Constituents



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GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A1
		PRO. #:	G14-0322

LOG OF TEST PIT
(West)

I-1

ELEVATION: +/- 160.5 feet
EXPLORATORY EQUIPMENT: TRACK HOE
DATE: 03/11/2022

DEPTH IN FEET	SAMPLES	SOILS CLASSIFICATION	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
1	•	6" Topsoil						
2								
3		Field infiltration rate - 4 inches per hour						
4	•	<u>lean Clay (CL)</u>		Dark Brown	Moist	Firm to Stiff	26	-
5								
6								
7	•	(Native)					23	-
8								

Bottom of test pit at 8.0 feet below existing ground surface.
No groundwater was encountered.



Earth Engineering, Inc.
GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A2
		PRO. #:	CM14-0322

LOG OF TEST PIT
(Northwest)

TP-1

ELEVATION: +/- 164 feet

EXPLORATORY EQUIPMENT: TRACK HOE

DATE: 03/11/2022

DEPTH IN FEET	SAMPLES	SOILS CLASSIFICATION	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
1	X	4" Topsoil	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
2		Wet γ ~113 pcf Dry γ ~93 pcf Liquid Limit - 38 Plastic Index -19						
3		lean Clay (CL)						
4		{gravel & cobbles}						
5		(Native)						

Bottom of test pit at 5.0 feet below existing ground surface.
No groundwater was encountered.



Earth Engineering, Inc.

GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT: AYALA

DRAWN: EG

PROJECT: WILSONVILLE
CONVENIENCE STORE
29760 BOONES FERRY ROAD
WILSONVILLE, OR

DATE: 04/2022

PLATE: A3

PRO. #: CM14-0322

LOG OF TEST PIT
(Northwest)

TP-2

ELEVATION: +/- 163 feet

EXPLORATORY EQUIPMENT: TRACK HOE

DATE: 03/11/2022

DEPTH IN FEET	SAMPLES	SOILS CLASSIFICATION	LITHOLOGY (USGS)	COLOR	MOISTURE	CONSISTENCY	MOISTURE CONTENT % OF DRY WEIGHT	PERCENT PASS NUMBER 200
1		6" Topsoil						
2	⊗	Wet γ ~114 pcf Dry γ ~94 pcf Liquid Limit - 32 Plastic Index - 15				Firm to Stiff	22	-
3								
4		{gravel & cobbles}						
5								
6	●	lean Clay (CL)		Dark Brown	Moist		29	-
7								
8						Very Stiff to Hard		
9								
10								
11		(Native)						

Bottom of test pit at 11.0 feet below existing ground surface.
No groundwater was encountered.

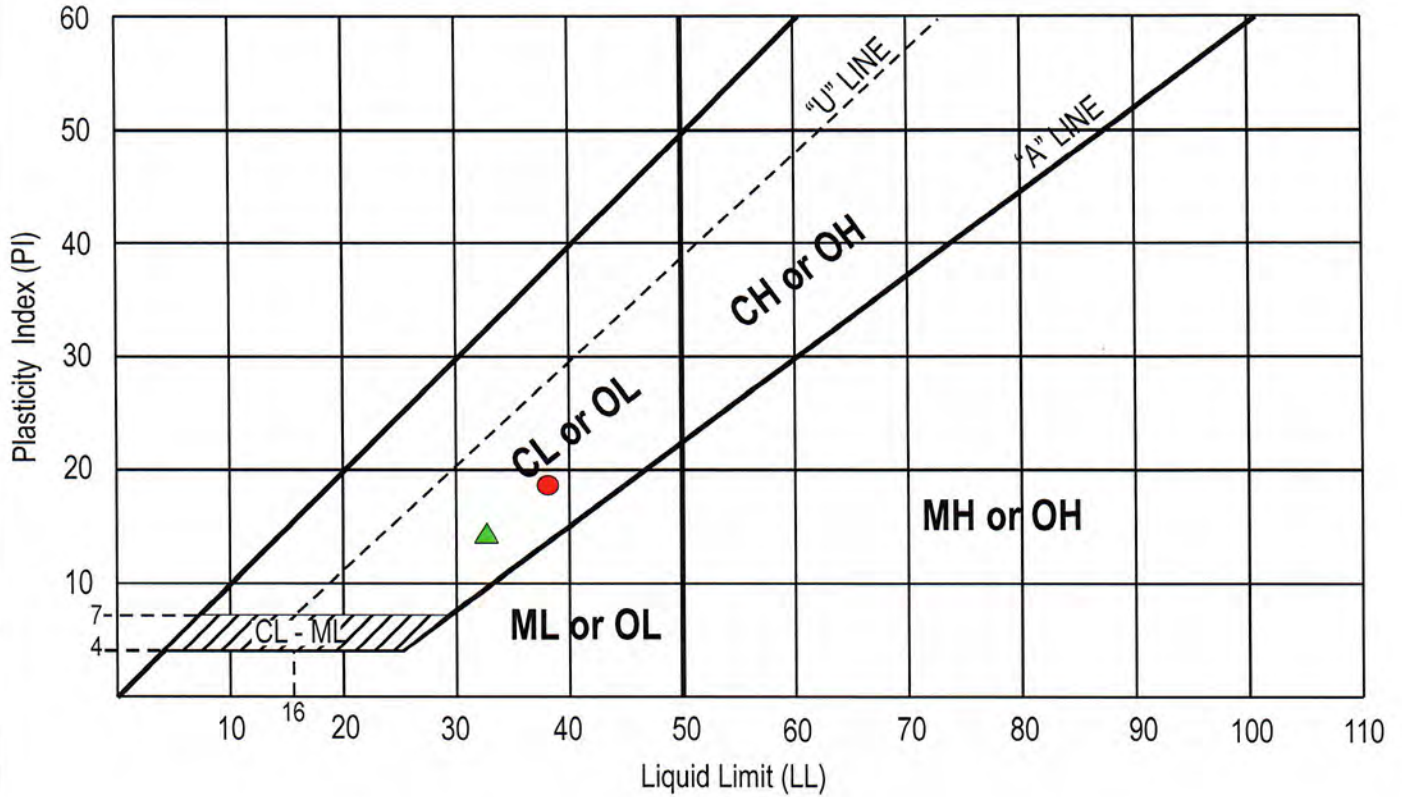


Earth Engineering, Inc.
GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	A4
		PRO. #:	CM14-0322

APPENDIX B
(LABORATORY TESTING)

ATTERBERG LIMITS ASTM D4318-95



● TP-1 @ 2.0 feet bgs - lean Clay (CL)
Liquid Limit = 38 Plasticity Index = 19

▲ TP-2 @ 1.5 feet bgs - lean Clay (CL)
Liquid Limit = 32 Plasticity Index = 15



Earth Engineering, Inc.

GEOTECHNICAL & ENVIRONMENTAL SERVICES

CLIENT:	AYALA	DRAWN:	EG
PROJECT:	WILSONVILLE CONVENIENCE STORE 29760 BOONES FERRY ROAD WILSONVILLE, OR	DATE:	04/2022
		PLATE:	B1
		PRO. #:	G14-0322

DISTRIBUTION

{G14-0322}

1 Copy

PLS Engineering
604 W. Evergreen Blvd.
Vancouver, Washington 98660

Attention: Andrew Gunther

1 Copy

Laz Ayala
132 West Main Street
Medford, Oregon 97501

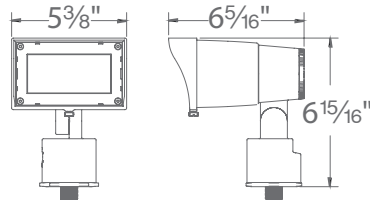
ADJUSTABLE BEAM WALL WASH 120V

5222

WAC

Item 2.

LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project: _____

Location: _____

PRODUCT DESCRIPTION

With the ability to achieve beam distributions of 3x4 to 5x6 proportions and more, expect a uniform beam wash of light in a fixture that can adapt to changing needs. A powerhouse all-in-one unit in 120 VAC or 9-15VAC provides integral brightness control, and the ability to be dimmed, while being compatible with a range of accessories.

FEATURES

- Continuously adjustable NEMA beam distribution 3x4 (35" x 60"), 4x5 (60" x 90"), 5x6 (90" x 120")
- Integral brightness control
- Simple to retrofit existing line voltage systems or coordinate well with a new commercial landscape job
- IP65 Rated, protected against powerful water jets
- Solid die-cast brass or corrosion resistant aluminum alloy

SPECIFICATIONS

- Input:** 110V - 120VAC
- Power:** 3W to 25W
- Brightness:** 200 lm to 1550 lm
- Beam Angle:** Assorted NEMA distributions
- CRI:** 85
- Rated Life:** 45,000 hours

ORDERING NUMBER

	Color Temp	Finish
5222 Adjustable beam wall wash 120V	2700K 3000K	BK Black on Aluminum BZ Bronze on Aluminum BBR Bronze on Brass

5222-_____

Example: **5222-30BZ**


waclighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050


Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

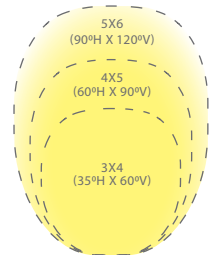
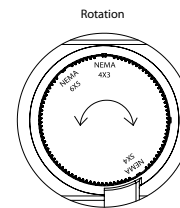
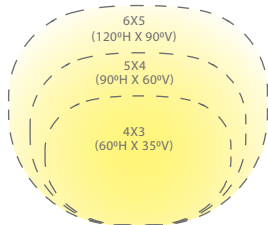
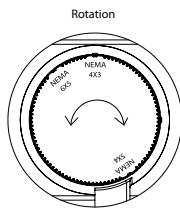
Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

NEMA WALL WASH 5222
120V **3000K**

Product	Data	NEMA 6X5					NEMA 5X4					NEMA 4X3				
		CBCP	Lumen (LM)	VA(VA)	Efficacy (lm/w)	Beam Angle(°)	CBCP	Lumen (LM)	VA(VA)	Efficacy (lm/w)	Beam Angle(°)	CBCP	Lumen (LM)	VA(VA)	Efficacy (lm/w)	Beam Angle(°)
 5221	3w	27.91	65.3285	3.7	25.19	109.4x91.9	28.37	37.5558	3.7	14.39	92.8x52.2	27.72	20.8192	3.7	8	67.4x36.8
	7W	336.2	788.195	10.317	80.92	109.4x92.1	345.4	457.954	10.628	45.45	92.7x52.4	309.9	230.858	9.789	25.1	67.4x36.8
	15W	516.2	1210.71	15.884	78.13	109.4x92.1	554.5	735.277	17.419	43.09	92.7x52.5	546.2	406.751	17.4669	23.76	67.4x36.8
	23W	697.8	1636.5	22.756	72.86	109.4x92.2	707.4	938.414	23.39	40.62	92.7x52.4	686.5	511.514	22.768	22.77	67.4x36.9
	26W	723.8	1695.49	24.054	71.34	109.4x92.0	731.9	917.018	24.11	40.78	92.7x52.4	715.5	532.971	24.064	22.42	67.4x36.9

NEMA WALL WASH 5222
120V **2700K**

Product	Data	NEMA 6X5					NEMA 5X4					NEMA 4X3				
		CBCP	Lumen (LM)	VA(VA)	Efficacy (lm/w)	Beam Angle(°)	CBCP	Lumen (LM)	VA(VA)	Efficacy (lm/w)	Beam Angle(°)	CBCP	Lumen (LM)	VA(VA)	Efficacy (lm/w)	Beam Angle(°)
 5221	3w	26.91	62.9767	3.7	24.28	109.4x91.9	27.35	36.2038	3.7	13.88	92.8x52.2	26.72	20.0697	3.7	7.71	67.4x36.8
	7W	324.1	759.82	10.317	78.01	109.4x92.1	333	441.467	10.628	43.82	92.7x52.4	298.8	222.547	9.789	24.2	67.4x36.8
	15W	497.6	1167.13	15.884	75.31	109.4x92.1	534.6	708.809	17.419	41.54	92.7x52.5	526.5	392.108	17.469	22.9	67.4x36.8
	23W	672.6	1577.58	22.756	70.24	109.4x92.2	681.9	904.631	23.39	39.16	92.7x52.4	661.8	493.099	22.768	21.95	67.4x36.9
	26W	697.7	1634.45	24.054	68.78	109.4x92.0	705.5	936.061	24.11	39.31	92.7x52.4	689.7	513.784	24.064	21.61	67.4x36.9



Architectural beam distributions from 3x4 to 4x5 to 5x6 proportions and everything in between. Always a uniform wide beam wash of light.



NEMA 5x4 ← ————— → NEMA 4x5

waclighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

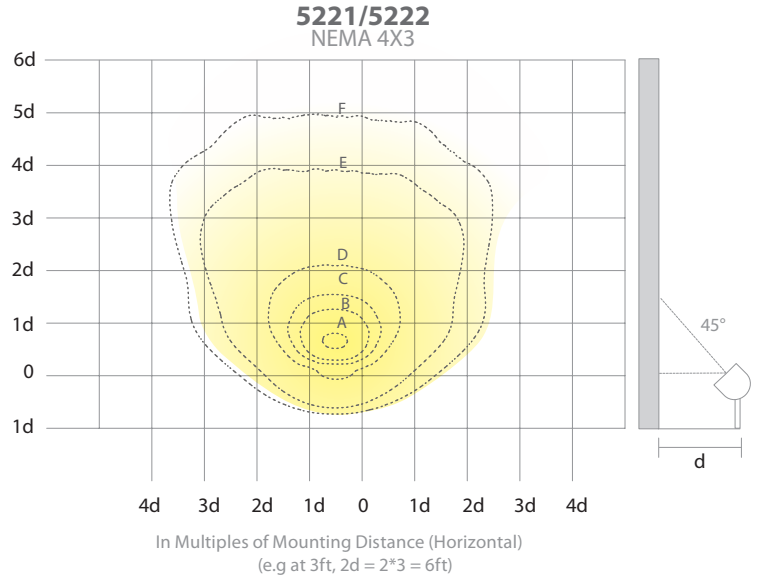
LANDSCAPE LED LANDSCAPE

ADJUSTABLE BEAM WALL WASH PHOTOMETRICS

Item 2.

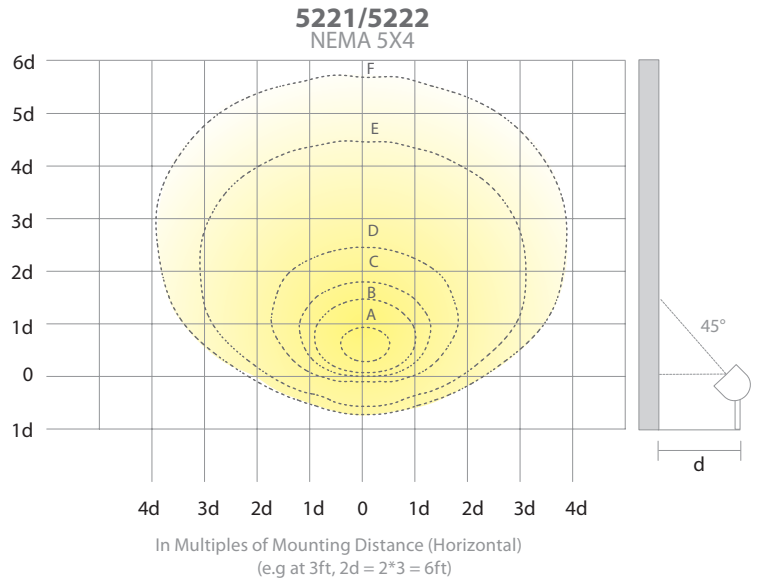
FIXTURE	MOUNTING DISTANCE (d)	A	B	C	D	E	F
5221/5222 (4X3)	3ft	27.9fc	11.3fc	5.6fc	1.5fc	0.05fc	0.02fc
	4ft	15.7fc	6.3fc	3.2fc	0.85fc	0.03fc	0.01fc
	5ft	10.1fc	4.1fc	2fc	0.53fc	0.02fc	0.01fc
	6ft	7fc	2.8fc	1.4fc	0.37fc	0.01fc	-
	7ft	5.1fc	2.1fc	1fc	0.28fc	0.01fc	-
	8ft	4fc	1.6fc	0.79fc	0.21fc	0.01fc	-
	9ft	3.1fc	1.3fc	0.62fc	0.17fc	0.01fc	-
	10ft	2.5fc	1.0fc	0.51fc	0.14fc	-	-

In Multiples of Mounting Distance (Vertical)



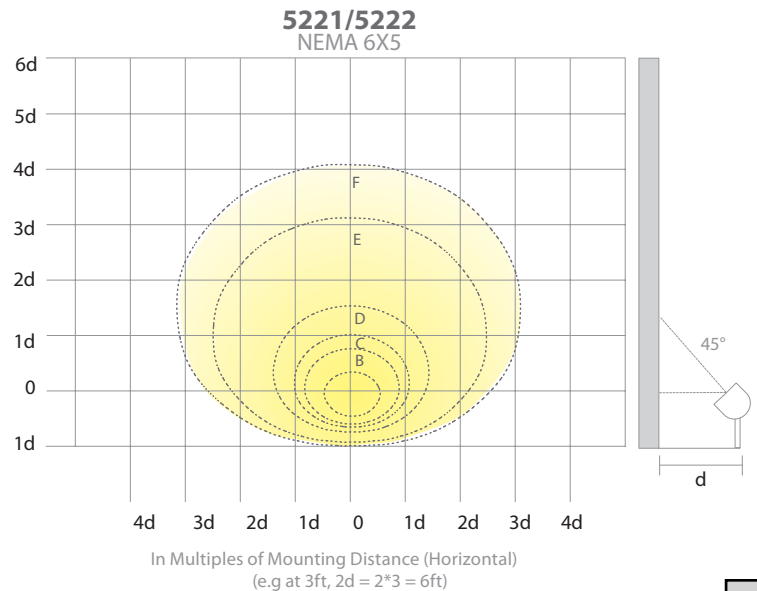
FIXTURE	MOUNTING DISTANCE (d)	A	B	C	D	E	F
5221/5222 (5X4)	3ft	28.9fc	13.4fc	7.9fc	3fc	0.36fc	0.14fc
	4ft	16.3fc	7.5fc	4.4fc	1.7fc	0.20fc	0.08fc
	5ft	10.4fc	4.8fc	2.8fc	1.1fc	0.13fc	0.05fc
	6ft	7.3fc	3.4fc	2.0fc	0.75fc	0.09fc	0.04fc
	7ft	5.3fc	2.5fc	1.5fc	0.55fc	0.07fc	0.03fc
	8ft	4.1fc	1.9fc	1.1fc	0.42fc	0.05fc	0.02fc
	9ft	3.2fc	1.5fc	0.87fc	0.33fc	0.04fc	0.02fc
	10ft	2.6fc	1.2fc	0.71fc	0.27fc	0.03fc	0.01fc

In Multiples of Mounting Distance (Vertical)










FIXTURE	MOUNTING DISTANCE (d)	A	B	C	D	E	F
5221/5222 (6X5)	3ft	28.9fc	13.6fc	8.8fc	4.1fc	0.70fc	0.32fc
	4ft	16.3fc	7.7fc	5.0fc	2.3fc	0.39fc	0.18fc
	5ft	10.4fc	4.9fc	3.2fc	1.5fc	0.25fc	0.12fc
	6ft	7.2fc	3.4fc	2.2fc	1.0fc	0.18fc	0.08fc
	7ft	5.3fc	2.5fc	1.6fc	0.75fc	0.13fc	0.06fc
	8ft	4.1fc	1.9fc	1.2fc	0.58fc	0.10fc	0.05fc
	9ft	3.2fc	1.5fc	0.98fc	0.45fc	0.08fc	0.04fc
	10ft	2.6fc	1.2fc	0.79fc	0.37fc	0.06fc	0.03fc

In Multiples of Mounting Distance (Vertical)



Accessories

14" Mounting Stake		9000-ST14-BZ	Bronze	Durable PC stake		
Surface Mount Flange/Stake		5000-SCP-BK 5000-SCP-BZ 5000-SCP-BBR	Black on Aluminum Bronze on Aluminum Bronze on Brass	Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box		
Guardian Mount		9000-SP9-BZ	Stainless Steel	Heavy duty stainless steel spike to position fixture;		
Gutter Mount Bracket		5000-GM-BK 5000-GM-BZ	Black on Aluminum Bronze on Aluminum	Stainless steel universal mounting bracket for gutter mounting fixture		
Tree Mount Junction Box		5000-TCP-BK 5000-TCP-BZ	Black on Aluminum Bronze on Aluminum	Aluminum box with stainless steel mounting screws; two 1/2" NPT threaded holes, UL 120V Listed		
		5000-TCL-BK 5000-TCL-BZ	Black on Aluminum Bronze on Aluminum	Large Aluminum box with stainless steel mounting screws; two 1/2" NPT threaded holes, UL 120V Listed		
Large Tree Mount Canopy Strap		5000-TST-BK	Black on Steel and terylene	Ratcheting device with strap to be used with Large Tree Mount Junction Box (5000-TCL)		
Optics		LENS-3X5-AMB LENS-3X5-GRN LENS-3X5-RED	Amber Green Red	LENS-3X5-BLU Blue LENS-3X5-FR Frosted LENS-3X5-SPR Spread	LENS-3X5-BEL Beam Elongating	Enhances saturation of florals and foliage

14" Mounting stake (12V), detachable shroud, 6' lead wire and direct burial gel filled wire nuts (12V) or standard wire nuts (120V) included



D-Series Size 1 LED Area Luminaire

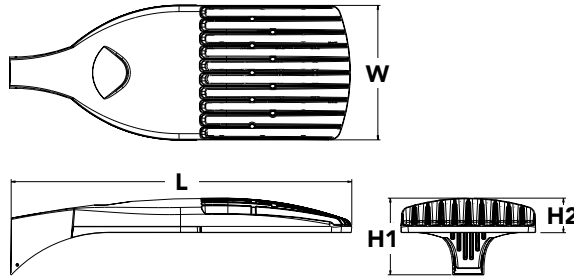


Catalog Number	Item 2.
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft ² (0.09 m ²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	Forward optics P1 P4 ¹ P7 ¹ P2 P5 ¹ P8 P3 P6 ¹ P9 ¹ Rotated optics P10 ² P12 ² P11 ² P13 ^{1,2}	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short ³ T5S Type V short ³ T5M Type V medium ³ T5W Type V wide ³ BLC Backlight control ⁴ LCCO Left corner cutoff ⁴ RCCO Right corner cutoff ⁴	MVOLT ⁵ XVOLT (277V-480V) ^{6,7,8} 120 ⁹ 208 ⁹ 240 ⁹ 277 ⁹ 347 ⁹ 480 ⁹	Shipped included SPA Square pole mounting RPA Round pole mounting ¹⁰ WBA Wall bracket ³ SPUMBA Square pole universal mounting adaptor ¹¹ RPUMBA Round pole universal mounting adaptor ⁹ Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ¹²

Control options	Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ¹³ PIRHN Network, high/low motion/ambient sensor ¹⁴ PER NEMA twist-lock receptacle only (controls ordered separate) ¹⁵ PER5 Five-pin receptacle only (controls ordered separate) ^{15,16} PER7 Seven-pin receptacle only (controls ordered separate) ^{15,16} DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ DS Dual switching ^{18,19,20}	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{20,21} PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{20,21} PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{20,21} PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{20,21} FAO Field adjustable output ^{20,21}	Shipped installed HS House-side shield ²³ SF Single fuse (120, 277, 347V) ⁹ DF Double fuse (208, 240, 480V) ⁹ L90 Left rotated optics ² R90 Right rotated optics ² HA 50°C ambient operations ¹ BAA Buy America(n) Act Compliant Shipped separately BS Bird spikes ²⁴ EGS External glare shield
		DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white



Ordering Information

Item 2.

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁵
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁵
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁵
DSHORT SBK U	Shorting cap ²⁵
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 ²³
DSX1HS 40C U	House-side shield for P6 and P7 ²³
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 ²³
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) ²⁵
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) ¹²
DSX1EGS (FINISH) U	External glare shield

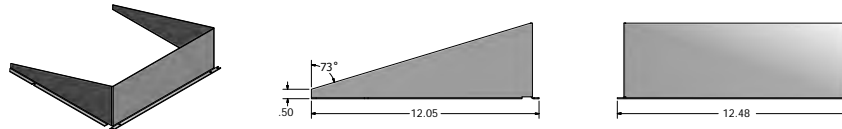
For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- HA not available with P4, P5, P6, P7, P9 and P13.
- P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
- XVOLT works with any voltage between 277V and 480V.
- XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
- Suitable for mounting to round poles between 3.5" and 12" diameter.
- Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8.
- Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
- Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- Must be ordered with NLTAIR2. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
- DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
- Requires (2) separately switched circuits with isolated neutral.
- Reference Controls Option Default settings table on page 4.
- Reference Motion Sensor table on page 4 to see functionality.
- Not available with other dimming controls options.
- Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
- For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

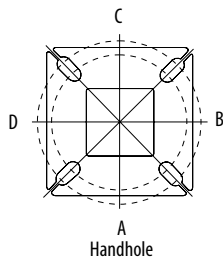
Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

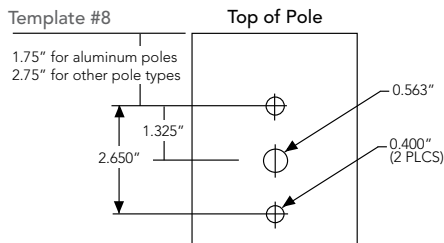
Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"



Photometric Diagrams

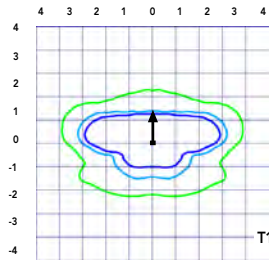
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Area Size 1 homepage](#).

Item 2.

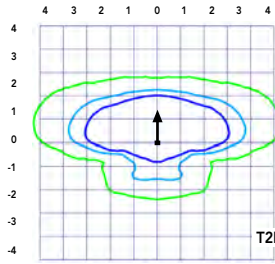
Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').

LEGEND

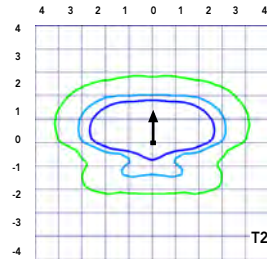
- 0.1 fc
- 0.5 fc
- 1.0 fc



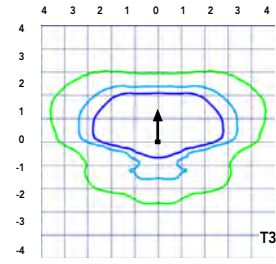
Test No. LT.L23211 tested in accordance with IESNA LM-79-08.



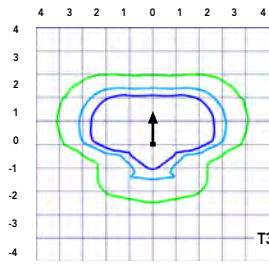
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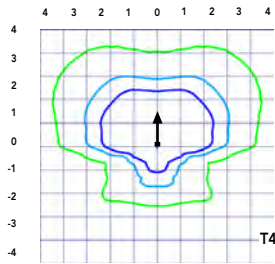
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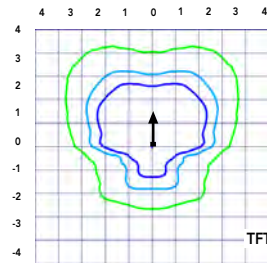
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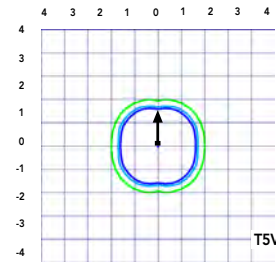
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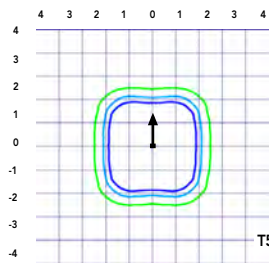
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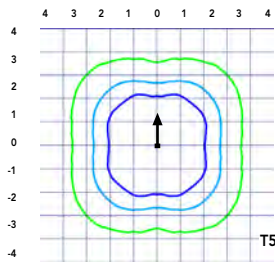
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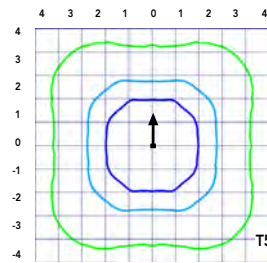
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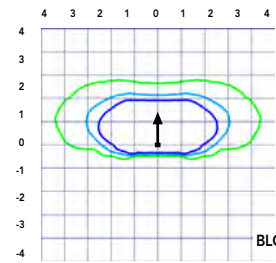
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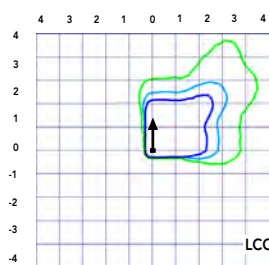
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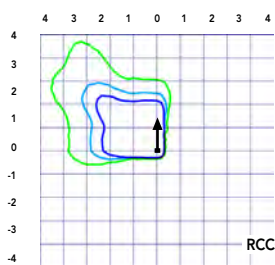
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Test No. LT.L23271 tested in accordance with IESNA LM-79-08.



Test No. LT.L23211 tested in accordance with IESNA LM-79-08.



Test No. LT.L23164B tested in accordance with IESNA LM-79-08.

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier	
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A)					
					120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FA0	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FA0 device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				TSVS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				TSW	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				TSVS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				TSW	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				TSVS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				TSW	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				TSVS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				TSW	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				TSVS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				TSW	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				TSVS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				TSW	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	P7	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				TSW	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	P8	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				TSVS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	P9	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				TSW	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics																							
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)								
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW				
60	530	P10	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134				
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133				
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136				
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131				
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136				
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133				
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137				
				TSVS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138				
				T5S	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136				
				T5M	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136				
				TSW	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135				
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112				
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80				
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80				
				60	700	P11	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
								T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
T2M	16,758	4	0					4	122	18,053	4	0	4	132	18,281	4	0	4	133				
T3S	16,205	4	0					4	118	17,457	4	0	4	127	17,678	4	0	4	129				
T3M	16,748	4	0					4	122	18,042	4	0	4	132	18,271	4	0	4	133				
T4M	16,432	4	0					4	120	17,702	4	0	4	129	17,926	4	0	4	131				
TFTM	16,857	4	0					4	123	18,159	4	0	4	133	18,389	4	0	4	134				
TSVS	16,975	4	0					1	124	18,287	4	0	1	133	18,518	4	0	1	135				
T5S	16,832	4	0					1	123	18,133	4	0	2	132	18,362	4	0	2	134				
T5M	16,828	4	0					2	123	18,128	4	0	2	132	18,358	4	0	2	134				
TSW	16,677	4	0					3	122	17,966	5	0	3	131	18,193	5	0	3	133				
BLC	13,845	3	0					3	101	14,915	3	0	3	109	15,103	3	0	3	110				
LCCO	9,888	1	0					3	72	10,652	2	0	3	78	10,787	2	0	3	79				
RCCO	9,875	4	0					4	72	10,638	4	0	4	78	10,773	4	0	4	79				
60	1050	P12	207W					T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
								T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123				
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119				
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123				
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120				
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123				
				TSVS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124				
				T5S	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123				
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123				
				TSW	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122				
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101				
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72				
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72				
				60	1250	P13	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
								T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
T2M	25,710	4	0					4	111	27,696	4	0	4	120	28,047	4	0	4	121				
T3S	24,862	5	0					5	108	26,783	5	0	5	116	27,122	5	0	5	117				
T3M	25,695	5	0					5	111	27,680	5	0	5	120	28,031	5	0	5	121				
T4M	25,210	5	0					5	109	27,158	5	0	5	118	27,502	5	0	5	119				
TFTM	25,861	5	0					5	112	27,860	5	0	5	121	28,212	5	0	5	122				
TSVS	26,043	5	0					1	113	28,056	5	0	1	121	28,411	5	0	1	123				
T5S	25,824	4	0					2	112	27,819	5	0	2	120	28,172	5	0	2	122				
T5M	25,818	5	0					3	112	27,813	5	0	3	120	28,165	5	0	3	122				
TSW	25,586	5	0					4	111	27,563	5	0	4	119	27,912	5	0	4	121				
BLC	21,241	4	0					4	92	22,882	4	0	4	99	23,172	4	0	4	100				
LCCO	15,170	2	0					4	66	16,342	2	0	4	71	16,549	2	0	4	72				
RCCO	15,150	5	0					5	66	16,321	5	0	5	71	16,527	5	0	5	72				

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found here.

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Planning Division
Development Permit Application



29799 SW Town Center Loop E, Wilsonville, OR 97070
Phone: 503.682.4960 Fax: 503.682.7025
Web: www.ci.wilsonville.or.us

Final action on development application or zone change is required within 120 days in accordance with provisions of ORS 227.175

A pre application conference is normally required prior to submittal of an application. Please visit the City's website for submittal requirements

Pre-Application Meeting Date: _____

Incomplete applications will not be scheduled for public hearing until all of the required materials are submitted.

Applicant:

Name: Mark McKechnie
Company: Oregon Architecture Inc.
Mailing Address: 132 W Main Street, Suite 101
City, State, Zip: Medford, OR 97501
Phone: 541-772-4372 Fax: _____
E-mail: mark@oregonarchitecture.biz

Authorized Representative:

Name: Mark McKechnie
Company: Oregon Architecture Inc.
Mailing Address: 132 W Main Street, Suite 101
City, State, Zip: Medford, OR 97501
Phone: 541-772-4372 Fax: _____
E-mail: mark@oregonarchitecture.biz

Property Owner:

Name: Wilsonville Retail / Angel LLC
Company: Wilsonville Retail . Angel LLC
Mailing Address: 6454 N Greeley Ave
City, State, Zip: Portland, OR 97217
Phone: 503-525-9100 Fax: _____
E-mail: jangel@pacificstar.biz

Property Owner's Signature:

Printed Name: Peter Angel Date: 02/14/22

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

Printed Name: Mark McKechnie Date: 02/14/22

Site Location and Description:

Project Address if Available: 29760 SW Boones Ferry Rd, Wilsonville, OR 97070 Suite/Unit _____

Project Location: Vacant lot

Tax Map #(s): 31W14D Tax Lot #(s): 00900 County: Washington Clackamas

Request:

This request is for the removal of the 2 existing trees at the northwest corner of the lot which will be in the way of the new proposed public sidewalk.

Project Type: Class I Class II Class III

Residential Commercial Industrial Other: _____

Application Type(s):

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

**RECEIPT (REC22-000154)
FOR CITY OF WILSONVILLE**

Item 2.

BILLING CONTACT

MEGAN MORGAN
Oregon Architecture Inc
132 W Main Street Suite 101, Suite 101
Medford, Or 97501



Payment Date: 03/03/2022

Reference Number	Fee Name	Transaction Type	Payment Method	Amount Paid
TPLN22-0004	DRB Review of Type C Tree Removal Permit Fee	Fee Payment	Credit Card	\$167.00
29760 Sw Boones Ferry Rd Wilsonville, OR 97070			SUB TOTAL	\$167.00
			TOTAL	\$167.00





September 9, 2021

Charles Wilson

Re: Oregon Architecture Inc.
29760 SW Boones Ferry Rd.
Wilsonville, OR 97070

Dear Charles,

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

The design plans that you sent 9/2/2021 depict the following:

Access onto the property through the entrance/exit apron shared with the neighboring property 29800 SW Boones Ferry Rd. is satisfactory. The anticipated traffic flow pattern for our trucks to exit the site by circling to the left and around the fuel island canopy may be prone to being blocked by customer vehicles. On such an occasion, the option to back our trucks onto the 29800 SW Boones Ferry property will allow a secondary traffic pattern for our trucks to exit the planned site.

The dimensions of the trash and recycle enclosure: 20' wide ID X 11'-4" depth OD with an additional 5'-4" depth OD to allow for personnel entry is satisfactory. The gate swing of 120 degrees, with bottom gates raised to clear landscape curb, and wind pins that hold the gates in the Open and Closed position is satisfactory.

Thanks Charles, 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 70th 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: Wilsonville Retail / Angel LLC
Address: 6454 N Greeley Ave - 29760 SW Boones Ferry
Phone: 503-525-9100
Email: jangel@pacificstar.biz
Site Address: 29760 SW Boones Ferry Rd
City: Wilsonville
Map & Tax Lot #: 31W14D-00900
Business Name: Wilsonville Convenience Store
Land Use/Building Jurisdiction: City of Wilsonville
Land Use/ Building Permit # DB21-0045 - DB21-0048
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
Construction of a new 3,000 SF convenience store with a drive-thru and 12 pump gas station.

Permit/Review Type (check one):
[x] 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 # 2022-0021
Permit Type: SPP-COW
Submittal Date: 2-14-2022
Assigned To: DFM Am
Due Date: NA
Fees Due: 0
Fees Paid: 0

Approval/Inspection Conditions
(This section is for application approval only)
(This section used when site inspection is required)
Fire Marshal or Designee: [Signature] 0430 Date: 2/23/22
Conditions:
See Attached Conditions: [] Yes [x] No
Site Inspection Required: [] Yes [x] No
Final TVFR Approval Signature & Emp ID Date

17
5m
127

Clackamas County Official Records
Sherry Hall, County Clerk

2011-021360

When Recorded Return To:
Ball Janik LLP
101 SW Main Street, Suite 1100
Portland, Oregon 97204
Attn: Christopher M. Walters



\$152.00

01487102201100213600170173

04/07/2011 11:31:35 AM

D-E Cnt=2 Stn=9 DIANNAW
\$85.00 \$5.00 \$16.00 \$16.00 \$10.00 \$20.00

RECIPROCAL EASEMENT AND LICENSE AGREEMENT

EFFECTIVE DATE: December 6, 2010

AMONG: WILSONVILLE RETAIL/ANGEL, LLC,
an Oregon limited liability property ("WR")

AND: WILSONVILLE/ANGEL, LLC,
an Oregon limited liability company ("WA")

AND: BOONES FERRY/ANGEL LLC,
an Oregon limited liability company ("BF")

Recitals:

A. WR owns the real property described in the attached Exhibit A-1 ("North Parcel"). WA owns the property described in Exhibit A-2 ("Middle Parcel"). BF owns the property legally described in Exhibit A-3 hereto ("South Parcel"). The three parcels (the "Parcels" and collectively, the "Property") are adjacent, and border Boones Ferry Road in Wilsonville, Oregon. The owner of each Parcel is referred to as an "Owner."

B. The Owners desire to (i) grant and declare reciprocal easements over curb cuts from Boones Ferry Road, over and across those portions, and only those portions, of the Parcels shown on Exhibit B hereto (the "Driveways"), for the purpose of vehicular access over and across drive aisles to and from the Parcels; (ii) grant licenses permitting access over the Driveways and any other drive aisles at the Parcels, to park on those portions of the Parcels which are, from time to time, designated for parking (the "Parking Areas"), and for pedestrian access over and from such Parking Areas to buildings located on each of the Parcels and to public right of ways and (iii) impose covenants and conditions regarding the maintenance, repair, replacement and recovery of expenses relating to the Property, all on the terms and conditions of this Reciprocal Easement and License Agreement (this "Agreement").

Agreements:

In consideration of the foregoing, the mutual covenants of the parties contained in this Agreement, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

1. **Declaration of Vehicular Access Easements.** Subject to the restrictions, covenants, and conditions set forth in this Agreement, the Owners hereby declare and create, for the benefit of all existing and future Owners of any portion of the Property and their respective tenants, customers, employees, contractors and other invitees ("Permitted Users"), a non-exclusive, perpetual easement over and across the Driveways for the purpose of access, ingress and egress to and from each such Owner's portion of the Property and to public right of ways, including without limitation access to and from all curb cuts along Boones Ferry Road.

2. **Rights and Restrictions.** Each Permitted User's use of the Driveways shall avoid interference to the use of the Driveways by every other Permitted User, and each Owner and its Permitted Users shall be prohibited from: (i) blocking, obstructing, or placing any unreasonable barrier on the Driveways, except in the event of emergencies or as required by law or (ii) using any portions of the Driveways which are not reasonably necessary or convenient for the limited purpose of obtaining access, ingress and egress to and from the portion of the Property owned by each such Owner. Each Owner and its Permitted Users shall act in good faith and use reasonable efforts to allow the mutual benefit arising from the use of, and the right of access, ingress and egress over and across, the Driveways.

3. **Site Improvements.**

3.1 **Site Manager.** So long as any Parcel is owned by WR, WA, or BF ("Current Owners"), the Current Owner (or the remaining of such Current Owners that then own Parcels, acting collectively) shall have the right, but not the obligation, to appoint, change, and discharge one or more persons or entities (the "Site Manager"), for the purposes set forth in this Agreement. If the Current Owners do not designate a Site Manager (which may be a Current Owner or a third party), then the Current Owners collectively may exercise the rights of the Site Manager.

3.2 **Approval Required.** For so long as any Current Owner owns a Parcel, except as otherwise provided herein, the construction, demolition, alteration or relocation of building footprint, driveways, parking areas, landscaping and signage ("Site Improvements") on each Owner's Parcel shall be subject to the prior written approval of the Site Manager, and no Site Improvements shall be constructed, demolished, altered, or relocated without the prior written approval of the Site Manager. For purposes of this Section, drive aisles, walkways, parking lot striping, paving and seal coating is included in the scope of the Site Improvements subject to such review and approval.

3.3 **Submission of Plans.** Unless the Site Manager approves otherwise, before the initiation of construction of Site Improvements, the Owner thereof shall first submit to the

Site Manager a complete set of plans and specifications for the proposed Improvements, including site plans, grading plans, landscape plans, striping plans, and any other information deemed necessary by the Site Manager for the performance of its approval function. In addition, the Owner shall submit the identity of the individual or company intended to perform the work and projected commencement and completion dates.

3.4 Plan Review. Upon receipt by the Site Manager of all of the information required by this Article, it shall have thirty (30) days in which to review said plans or to request any missing information or documentation. The Site Manager may require as a condition of its review that the submitting Owner remit to the Site Manager, in advance, a review fee established by the Site Manager to defray the Site Manager's anticipated costs of review, including time and expenses incurred by or fees paid to any architectural, engineering or legal professional engaged for the purpose of such review. If the Site Manager fails to issue its written approval, rejection, or request for additional data within thirty (30) days of its receipt of what is identified by the Owner as the last of the materials or documents required to complete the Owner's submission, the Site Manager's approval shall be deemed to have been granted without further action. In no event shall the Site Manager's thirty-day review period commence prior to the date on which Owner has submitted the last of any documents or information required to complete the application.

3.5 Non-conforming Improvements. If there shall be a material deviation from the approved plans in the completed Site Improvements, such Site Improvements shall be in violation of this Agreement to the same extent as if erected without prior approval of the Site Manager. In addition to their other rights, the Current Owner(s) may maintain an action at law or in equity for the removal or correction of the non-conforming structure and, if successful, shall recover from the Owner in violation all costs, expenses and fees, including without limitation attorney fees, incurred in the prosecution thereof.

3.6 Immunity. No Site Manager or Current Owner shall have any personal liability to any Owner or any other person for acts or omissions committed in good faith and without malice.

3.7 Role of Site Manager. The Site Manager shall not act in the capacity of settling disputes between Owners or resolving problems that Owners may experience. Disputes or problems experienced by Owners with respect to which the Site Manager has no express authority or role as set forth in this Declaration shall be resolved by private, lawful means chosen by the affected Owners and there shall be no recourse to the Site Manager.

3.8 Limited Authority of Site Manager. Approval by the Site Manager of any submittal is not to be construed as compliance with applicable laws, codes or permits, or approval by any governmental agency having jurisdiction over the construction of improvements. The applicant is responsible for determining the need, obtaining, and complying with, any governmental agency approval or permit.

3.9 Parking Spaces. So long as any Current Owner owns a Parcel, each other Owner shall construct and stripe the parking areas on its Parcel in a manner that maximizes and preserves the number of allocable parking spaces permitted under the Parking Master Plan, as approved in advance by the Site Manager, given the proposed use of such Parcel, the constraints of the site, the approved building footprint, and applicable legal access requirements. This provision does not require the construction of parking structures. The "Parking Master Plan" shall mean the provisions of the land use approvals then in effect for the Property regarding minimum and maximum parking spaces, as such approvals may be amended from time to time. In addition, because the current Parking Master Plan establishes cumulative parking space standards for the Property in addition to standards applicable to each Parcel, so long as any current Owner owns a Parcel, no Owner may construct or stripe on its Parcel a number of parking spaces that the Site Manager determines includes an inappropriate allocation of parking spaces to such Parcel.

3.10 Exemption. The foregoing provisions of this Section 3 do not apply to any Current Owner or the former or future Site Improvements constructed, demolished, altered or relocated by any Current Owner.

3.11 Approval Letters. Within 30 days after the written request of any Owner, the Site Manager shall submit to such Owner a letter identifying whether any particular constructed Site Improvement identified by such Owner has achieved approval (or that such approval was not required) under this Section 3. Any lender, tenant, or subsequent purchase may rely upon such letter in confirming whether particular Site Improvements conform to the requirements of this Section 3. The costs and fees of the Site Manager in processing such request shall be reimbursed by such Owner in accordance with Section 3.4.

3.12 After Current Owners. At such time as no Current Owner any longer owns a Parcel, then the foregoing approval standards shall no longer apply to future construction, and instead the future construction, demolition, alteration or relocation of Site Improvements shall not materially impair the access, ingress and egress to, through, and from any other Owner's portion of the Property, or cause any portion of the Property to be in violation of any federal, state or local law, ordinance, rule, regulation, or land use approval.

3.13 Open Access. In connection with any construction or relocation of Site Improvements, the Owner performing the construction shall not cause the blockage of any more than one of the three means of vehicular access over curb cuts to S.W. Boones Ferry Road, so that each other Owner's Parcel at all times has vehicular access to S.W. Boones Ferry Road during the course of construction.

4. Parking.

4.1 License. Subject to the rights and restrictions set forth in this Agreement, each Owner grants to the other Owners, and to their Permitted Users who are tenants or occupants of buildings on such other Owners' Parcels, a nonexclusive license (i) to vehicular access to, and the right to park on, those portions, and only those portions, of the granting

u

Owner's Property which are, from time to time, improved and designated for parking purposes, which access shall be over the Driveways and such other drive aisles as are located from time to time on the Parcels and (ii) of pedestrian access over sidewalks at the Parcels for the purpose of accessing such parked vehicles and access to public right of ways. No Owner shall impose a fee or charge for this license. This license does not create any obligation to construct or reconstruct parking areas on any Parcel within any particular time, provided any parking areas constructed shall comply with the requirements of Section 3, and provided further the parking spaces on each Parcel, and mutual access to such spaces, taken in combination with other parking spaces covered by the Parking Master Plan, remain in conformance with the Parking Master Plan and applicable laws. Each Owner and its Permitted Users shall act in good faith and use reasonable efforts to allow the mutual benefit arising from the use of this license.

4.2 Restrictions. So long as any Current Owner owns a Parcel, the Site Manager may impose and revise written rules and regulations governing parking at the Parcels, with which all Owners shall comply upon receipt of such rules and regulations ("Parking Rules and Regulations"). The Parking Rules and Regulations may, among other things, set the terms and conditions of, restrict, or prohibit, reserved spaces, the size and width of spaces, maximum vehicle sizes, overnight parking, and employee parking. The Site Manager may enforce violations of the Parking Rules and regulations by any and all means, including injunctive relief and self-help, and may impose and collect reasonable daily fines for any such violations.

5. Maintenance and Repair.

5.1 General. Except as otherwise provided in this Section 5, each Owner shall be solely responsible for the maintenance and repair of all improvements on such Owner's Parcel, without contribution from the other Owners; provided that each Owner shall be responsible for and shall pay for the cost of repair or replacement of any damage to any such improvements which results from the negligence or willful misconduct of such Owner or its Permitted Users.

5.2 Standards. Each Owner shall maintain, repair, replace, reconstruct, and keep in a clean and safe condition, as may be appropriate, the driveways, sidewalks, landscaping, external signage, and parking areas on its Parcel ("Maintenance Areas") in accordance with generally accepted standards then existing for similar property in Wilsonville, Oregon ("Maintenance"). Required Maintenance shall include, without limitation, the following:

5.2.1. Maintaining, repairing, replacing and keeping in good condition all paved surfaces; including without limitation seal coating at least once each seven years, and replacement or repaving at least each fifteen years;

5.2.2. Maintaining, repairing, replacing and keeping in good condition all curbing;

5.2.3. Removing all papers, debris, filth, and refuse, from the Maintenance Areas;

5.2.4. Washing or sweeping paved areas as reasonably required; and

5.2.5. Repairing and repainting striping, markers, directional signs, and all other similar markings as reasonably required.

5.3 Site Manager. So long as any Parcel is owned by the Current Owners, the Site Manager (or the remaining of such Current Owners that then own Parcels, acting collectively) shall have the right, but not the obligation, to arrange performance of some or all Maintenance on the entire Property ("Collective Maintenance"). Each Owner grants the Site Manager and its designated contractors an irrevocable license, upon not less than 24 hours notice, to enter upon such Owner's Parcel to inspect such Parcel for necessary Maintenance and to perform Maintenance. This right is intended to be for the benefit of the Current Owners, and neither any of such Current Owners nor the Site Manager shall have any liability to other Owners for Collective Maintenance or for any alleged deficient or defective Collective Maintenance. At any time, the Current Owners may relinquish their right to perform Collective Maintenance, in which case each Owner shall perform such Maintenance on its own Parcel in accordance with Sections 5.1 and 5.2.

5.4 Reimbursement of Repair and Maintenance Expenses. For so long as there is a Site Manager, the cost of Collective Maintenance by the Site Manager and its contractors shall be shared by and reimbursed by the Owners on such basis as the Site Manager shall reasonably determine. Such cost may include a management fee paid to the Site Manager consistent with then-market rates. It shall be deemed reasonable for the Site Manager to allocate expenses based on the respective percentage ground areas of the Parcels ("Ground Percentages"), which on this date are deemed to be 24% North Parcel, 53% Middle Parcel, and 23% South Parcel. At such time as there is no Site Manager, the Cost of Collective Maintenance shall be shared by the Owners in accordance with their respective Ground Percentages unless all Owners agree otherwise. The Current Owner who incurs such costs shall have a right to reimbursement from the other Owners within thirty (30) days of request therefor, which reimbursement request shall include copies of all paid invoices and a statement of each Owner's share of such Collective Maintenance costs.

5.5 Cooperation. In performing Maintenance, the Owners shall cooperate with each other and endeavor to avoid interference with the operation of business conducted on the other Owners' property.

5.6 Collection. If any Owner fails to promptly pay any amount due under this Agreement within thirty (30) days of written request therefor, including its share of costs of Collective Maintenance by the Site Manager, interest shall accrue upon such unpaid amounts at 12% per annum, and the Owner owed such amounts may commence a collection action in Multnomah County or any other court having jurisdiction. In addition, a lien is granted against

the property of the Owner failing to pay its share of Collective Maintenance costs, in favor of the Owner owed such sums, which lien may be foreclosed by suit, power of sale, or in any other manner permitted by applicable law. Any lien granted under this Section shall automatically be subordinate to any mortgage or deed of trust now or hereafter placed on an Owner's property, and to all renewals, modifications, consolidations and replacements of such mortgages or deeds of trust, except mortgages or deeds of trust granted to an affiliate of the Owner.

6. Liability; Indemnification; Insurance.

6.1 Limitations on Liability. No Owner, nor its agents, principals, tenants or employees shall have any liability to any other Owner or such other Owner's Permitted Users for the condition of any improvements on the Owner's Parcel.

6.2 Indemnification. Each Owner shall indemnify, defend, protect and hold harmless the other Owner's from and against any and all claims, demands, damages, losses, liabilities, and expenses (including reasonable attorneys' fees) arising out of the use of the easement and license granted hereby by such Owner's Permitted Users.

6.3 Insurance. Each Owner shall maintain public liability insurance for accidents or injuries with respect to operations on its Parcel, which insurance shall cover claims arising out of accidents and injuries on the other Parcels related to use of the easement and/or license herein by any of such Owner's Permitted Users. Each Owner shall provide evidence of such coverage to any other Owner upon request.

7. Prior Plats and Grants.

7.1 To the extent Exhibit B, or any other recorded instrument, plat or survey of any portion of the Property, designates or shows any of the access easements described herein between or among the Parcels, the easements so designated be subject to the terms and conditions of this Agreement.

7.2 This Agreement is not intended to terminate or limit any prior easement granted upon or for the benefit of any of the Parcels. Without limitation, the applicable Parcels retain their appurtenant rights under that certain Reciprocal Easement and License Agreement recorded May 21, 1996 as document number 96-036599, Clackamas County Records.

7.3 At the request of any Owner who has permissibly relocated a Driveway on its property pursuant to this Agreement, the other Owners shall, at the request of Owner, execute such amendments to documents as are requested to show the modified location of the Driveway.

8. Miscellaneous Provisions.

8.1 Easement to Run with Land; Binding Effect. The easements granted pursuant to this Agreement shall run with the land as to all property benefited and burdened thereby under this Agreement, including any partition or division of such property. The rights, covenants, and obligations contained in this Agreement shall bind, burden, and benefit the

Owners and their respective heirs, devisees, successors, assigns, tenants, mortgagees, and beneficiaries under any deeds of trust.

8.2 **Condemnation.** In the event that all or any part of the Property is condemned, or is conveyed to a public authority under bona fide threat of condemnation, this Agreement shall automatically terminate and be of no further force and effect with respect to the property so condemned or conveyed. In the event that any such condemnation or conveyance renders the easement area unusable for its intended use under this Agreement, this Agreement shall also automatically terminate with respect to the easement area so affected, provided the Owner of the encumbered parcel shall use reasonable efforts in such case to relocate the easement to a different remaining portion of such Owner's Parcel to the extent commercially feasible. Except to the extent expressly provided in this Section 7.2, the rights and obligations of the parties pursuant to this Agreement shall be unaffected and remain in full force and effect notwithstanding any such condemnation or conveyance.

8.3 **Notices.** Notices under this Agreement shall be in writing and may be delivered personally, delivered by national overnight delivery service, transmitted by facsimile, or delivered by United States mail, postage prepaid with return receipt requested, addressed to such Owner's Parcel or to such other address as the Owner may indicate by written notice to the other Owners. Any notice so delivered shall be deemed given when actually received or, if earlier, (i) in the case of facsimile transmission, on the date on which the transmitting party receives confirmation of receipt by telecopy, telephone, or otherwise, (ii) in the case of delivery by national overnight delivery service, on the next business day or the day designated for delivery, or (iii) in the case of U.S. mail, three business days after deposit therein.

8.4 **Waiver.** Failure of any party at any time to require performance of any provision of this Agreement shall not limit such party's right to enforce such provision, nor shall any waiver of any breach of any provision of this Agreement constitute a waiver of any succeeding breach of such provision or a waiver of such provision itself.

8.5 **Amendment.** This Agreement may not be modified or amended except by the written agreement of the parties, recorded in the real property records of Clackamas County, Oregon.

8.6 **Attorneys' Fees.** If a suit, action, or other proceeding of any nature whatsoever (including any proceeding under the U.S. Bankruptcy Code) is instituted in connection with any controversy, collection or foreclosure action arising out of this Agreement or to interpret or enforce any rights hereunder, the prevailing party shall be entitled to recover its attorneys' fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith, as determined by the court at trial or on any appeal or review, in addition to all other amounts provided by law.

8.7 **Severability.** If any provision of this Agreement is found by a court of competent jurisdiction to be invalid or unenforceable as written, then (i) such provision shall be

enforceable to the fullest extent permitted by law, and (ii) the invalidity or unenforceability of such provision shall not affect the validity and enforceability of the remainder of this Agreement.

8.8 Integration. This Agreement contains the entire agreement and understanding of the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous agreements between them with respect thereto.

8.9 Construction and Interpretation. The headings or titles of the sections of this Agreement are intended for ease of reference only and shall have no effect whatsoever on the construction or interpretation of any provision of this Agreement. As used herein, the term "including" is not limiting and means "including without limitation." All provisions of this Agreement have been negotiated at arm's length and this Agreement shall not be construed for or against any party by reason of the authorship or alleged authorship of any provision hereof.

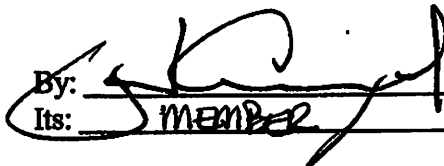
8.10 Counterparts. This Agreement may be executed in any number of counterparts, all of which together shall constitute one and the same agreement.

8.11 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon (without regard to the principles thereof relating to conflicts of laws).

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

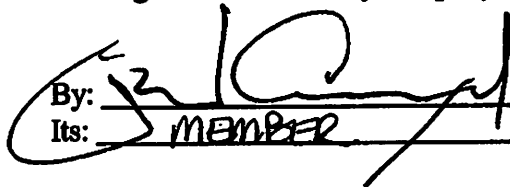
WR:

WILSONVILLE RETAIL/ANGEL, LLC,
an Oregon limited liability property

By: 
Its: MEMBER

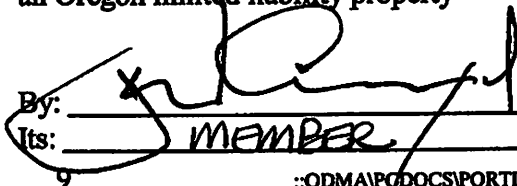
WA:

WILSONVILLE/ANGEL, LLC,
an Oregon limited liability company

By: 
Its: MEMBER

BF:

BOONES FERRY/ANGEL LLC,
an Oregon limited liability property

By: 
Its: MEMBER

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9

:::ODMA\FQ\DOCS\PORTLAND\712868\5

STATE OF OREGON)
) ss.
County of Multnomah)

This instrument was acknowledged before me on DECEMBER 9, 2010 by
JOSEPH W. ANGEL as MEMBER of
WILSONVILLE RETAIL/ANGEL, LLC.



Trina Guinn
Notary Public for Oregon
My Commission Expires 1/12/2013

STATE OF OREGON)
) ss.
County of Multnomah)

This instrument was acknowledged before me on DECEMBER 9, 2010 by
JOSEPH W. ANGEL as MEMBER of
WILSONVILLE/ANGEL, LLC.



Trina Guinn
Notary Public for Oregon
My Commission Expires 1/12/2013

STATE OF OREGON)
) ss.
County of Multnomah)

This instrument was acknowledged before me on DECEMBER 9, 2010 by
JOSEPH W. ANGEL as MEMBER of BOONES
FERRY/ANGEL LLC.



Trina Guinn
Notary Public for Oregon
My Commission Expires 1/12/2013

EXHIBIT A-1**LEGAL DESCRIPTION OF
NORTH PARCEL**

A tract of land situated in the Southeast one-quarter of Section 14, Township 3 South, Range 1 West of the Willamette Meridian, in the City of Wilsonville, County of Clackamas and State of Oregon, being more particularly described as follows:

Beginning at a point opposite and 100.00 feet Westerly of Station 531+00 on the centerline of the South bound lane of the Pacific Highway (Interstate No. 5) said point bears South $89^{\circ}57'47''$ West 1,414.87 feet and North $00^{\circ}02'52''$ West 598.60 feet from the Southeast corner of said Section 14; thence North $00^{\circ}11'21''$ West following the Westerly right-of-way line of said Pacific Highway, 95.05 feet to the Southeast corner of that certain property conveyed to Phillip R. Balsiger and Donna Mae Balsiger and described by Deed recorded June 10, 1968 as Fee No. 68-010801; thence North $88^{\circ}49'34''$ West following the South line of said Balsiger property 129.94 feet to a point on the Southeasterly right-of-way line of Boones Ferry Road (Market Road No. 27); thence South $38^{\circ}46'23''$ West following said right-of-way line 122.97 feet; thence South $51^{\circ}13'37''$ East 214.14 feet to a point on the Westerly right-of-way line of said Pacific Highway; thence North $16^{\circ}56'21''$ East following said right-of-way line 138.28 feet to the point of beginning.

EXHIBIT A-2
LEGAL DESCRIPTION OF
MIDDLE PARCEL

Parcel 2, PARTITION PLAT NO. 2007-121, in the City of Wilsonville, County of Clackamas and State of Oregon.

A-2

::ODMAPCDOCS\PORTLAND\712868\5

12

EXHIBIT A-3
LEGAL DESCRIPTION OF
SOUTH PARCEL

Parcel 1, PARTITION PLAT NO. 2007-121, in the City of Wilsonville, County of Clackamas and State of Oregon.

A-3

::ODMA\PCDOCS\PORTLAND\712868\5

13

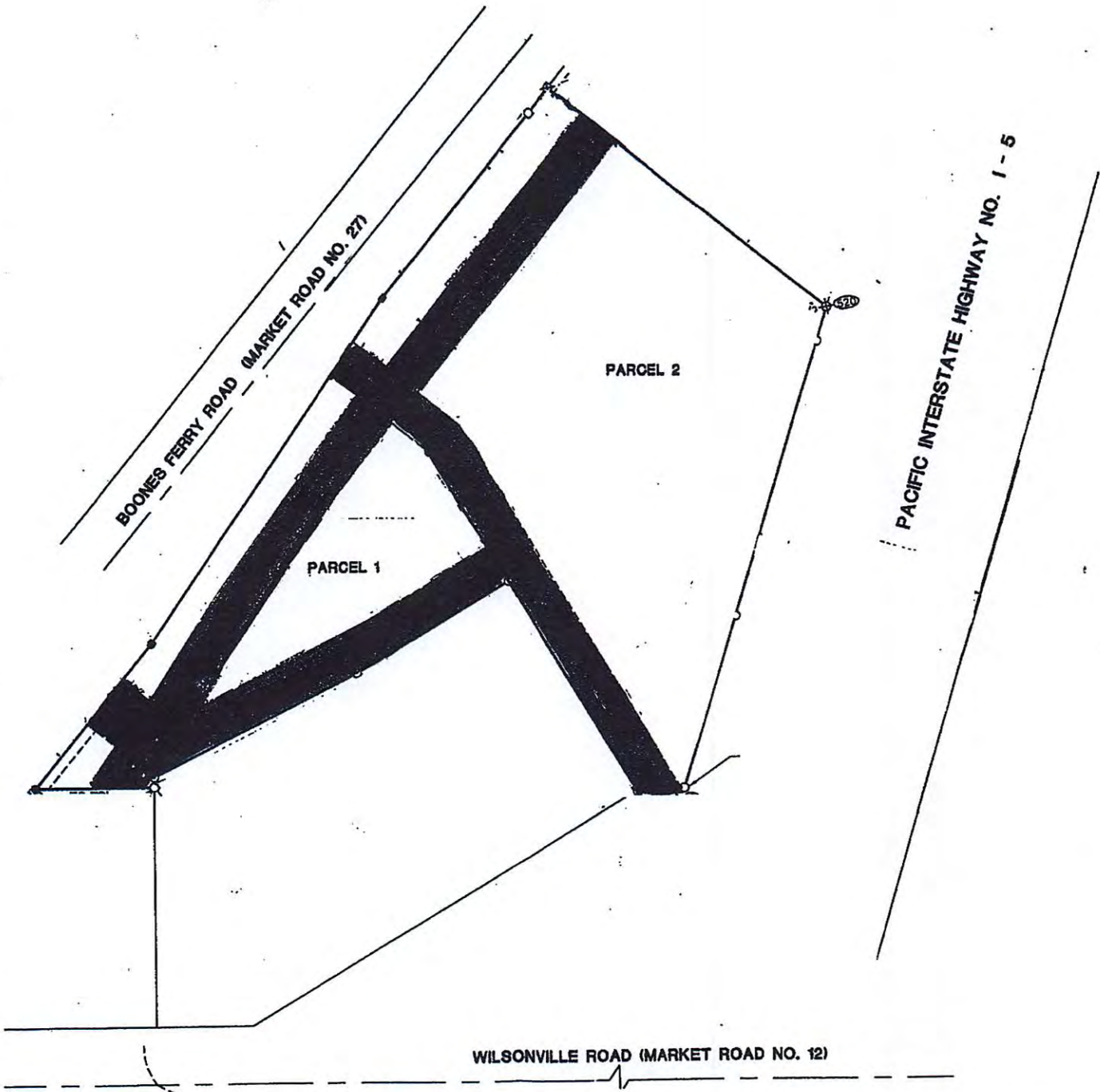
EXHIBIT B
DRIVEWAY EASEMENT LOCATIONS

B-1

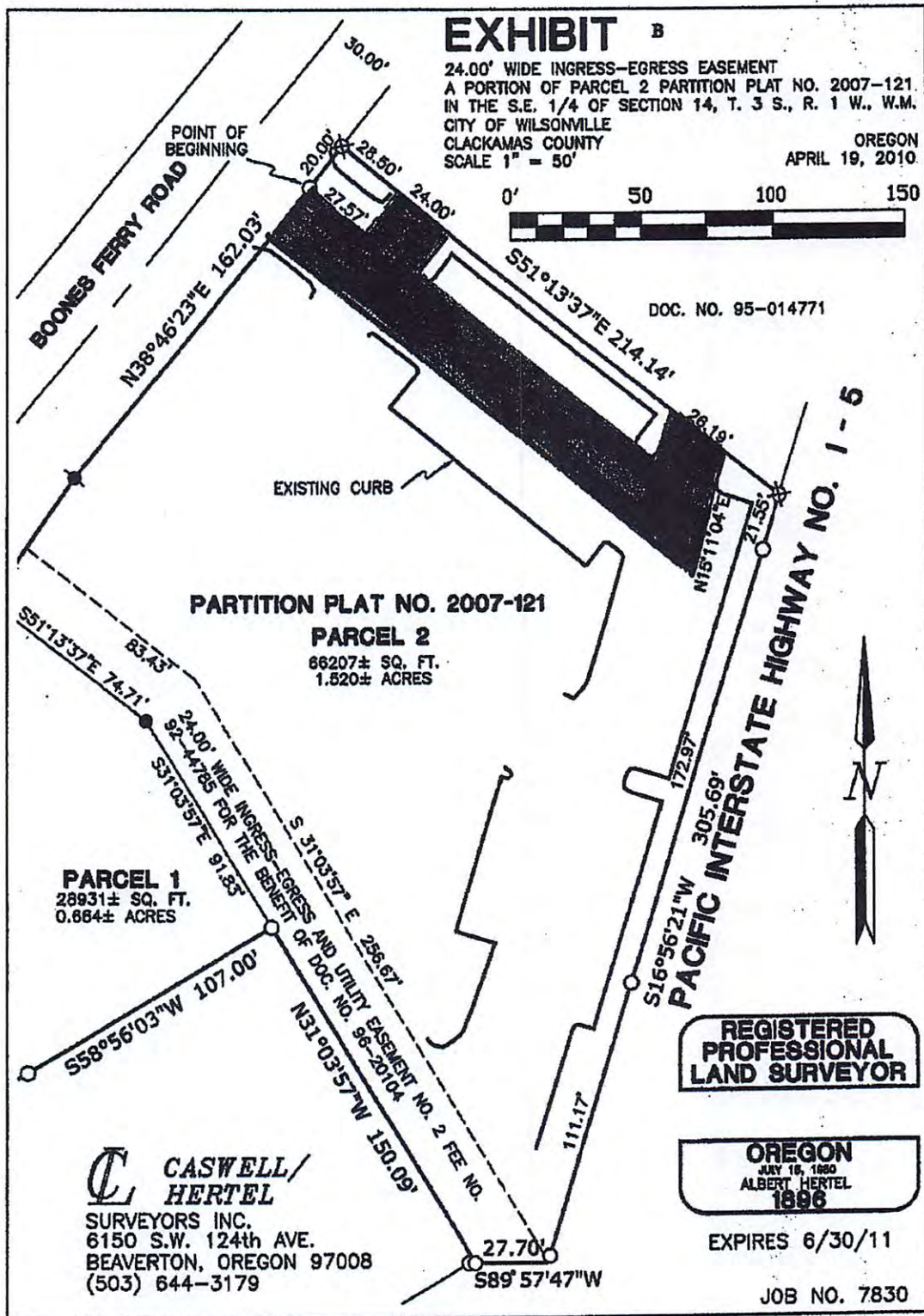
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14

EXHIBIT B
(the "Driveways")



PARTITION PLAT NO. 2007.121



B-3

::ODMA\PCDOCS\PORTLAND\712868\5

16

**CASWELL / HERTEL
SURVEYORS, INC.**

Professional Land Surveyors
info@chsurveyinc.com

6150 S.W. 124th Avenue
Beaverton, Oregon 97008-4724

Telephone 503/644-3179
Fax 503/644-3190

**LEGAL DESCRIPTION
24.00' WIDE INGRESS-EGRESS EASEMENT**

April 19, 2010

A TRACT OF LAND IN THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 14, TOWNSHIP 3 SOUTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN, COUNTY OF CLACKAMAS, STATE OF OREGON, BEING A PORTION OF PARCEL 2 PARTITION PLAT NUMBER 2007-121 A DULY RECORDED PLAT IN CLACKAMAS COUNTY RECORDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 5/8 INCH IRON ROD WITH YELLOW PLASTIC CAP INSCRIBED CASWELL PLS 737 SET ON THE NORHTWESTERLY LINE OF SAID PARCEL 2, SAID IRON ROD BEARS S38°46'23"W 20.00 FEET FROM A 5/8 INCH IRON ROD WITH YELLOW PLASTIC CAP INSCRIBED "CASWELL PLS 737 AT THE MOST NORTHERLY CORNER OF SAID PARCEL 2; THENCE ALONG THE NORTHWESTERLY LINE OF PARCEL 2 S38°46'23"W 24.00 FEET TO A POINT; THENCE S51°19'15"E 206.96 FEET TO A POINT; THENCE N15°11'04"E 47.65 FEET TO A POINT ON THE NORTHEASTERLY LINE OF SAID PARCEL 2; THENCE ALONG SAID NORTHEASTERLY LINE OF SAID PARCEL 2 N51°13'37"W 26.19 FEET TO A POINT; THENCE LEAVING SAID NORTHEASTERLY LINE OF PARCEL 2 S15°11'04"W 21.52 FEET TO A POINT; THENCE N51°19'15"W 118.75 FEET TO A POINT; THENCE N38°34'30"E 19.92 FEET TO A POINT ON THE NORTHEASTERLY LINE OF SAID PARCEL 2; THENCE ALONG SAID NORTHEASTERLY LINE OF PARCEL 2 N51°13'37"W 24.00 FEET TO A POINT; THENCE LEAVING SAID NORTHEASTERLY LINE OF PARCEL 2 S38°34'30"W 19.96 FEET TO A POINT; THENCE N51°19'15"W 27.57 FEET TO THE POINT OF BEGINNING, HAVING AN AREA OF 5836 SQUARE FEET.



EXPIRES 06/30/2011

JOB NO. 7830

B-4

::ODMAPCDOCS\PORTLAND\7128685

17

When recorded return to:

Evan H. Lenneberg
 Brix Law LLP
 75 SE Yamhill St, Suite 202
 Portland, Oregon 97214

PARTY LINE STORM WATER SEWER EASEMENT

THIS PARTY LINE STORM WATER SEWER EASEMENT (this "Easement ") is made as of _____, 2022, by Wilsonville/Angel LLC, an Oregon limited liability company ("Grantor"), and Wilsonville Retail/Angel LLC, an Oregon limited liability company ("Grantee").

Grantor is the owner of that certain real property legally described on Exhibit A, attached hereto (the "Grantor Property"). Grantee is the owner of that certain real property legally described on Exhibit B, attached hereto (the "Grantee Property"). The Grantor Property and Grantee Property are referred to herein individually as a "Property."

A storm water sewer line (the "Line") currently runs from the Grantor Property to the Grantee Property, discharging on the Grantor Property, all as further set forth on Exhibit C, attached hereto (the "Map"). However, the Grantee Property is not tied into the Line. Grantee desires to tie into the Line and discharge storm water from the Grantee Property into the Line and ultimately onto the Grantor Property. Grantor desires to grant to Grantee an easement permitting Grantee to tie into the Line and discharge storm water from the Grantee Property into the Line and ultimately onto the Grantor Property.

NOW, THEREFORE, Grantor and Grantee agree as follows:

1. Sewer Easement. Grantor hereby grants to Grantee an easement permitting Grantee to tie into the Line and discharge storm water from the Grantee Property into the Line and ultimately onto the Grantor Property, as shown on the Map, together with a non-exclusive easement for ingress and egress over and across such portions of the Grantor Property as may be reasonably required for access to and maintenance of the Line up to the point of Grantor's connection to the Line (the "Easement Area"). In the exercise of its right under this Easement, Grantee shall use its reasonable efforts to avoid causing any damage to, or interference with, any improvements on the Grantor Property or the Easement Area. After the performance of any work in the Easement Area, Grantee shall, replace and restore, at Grantee's sole cost and expense, such area and/or improvements (including, without limitation, any fences, landscaping or drainage systems or other improvements) disturbed by such work to the condition of such area and/or improvements prior to the performance of such work.

2. Maintenance. Grantor and Grantee shall each be responsible for the maintenance and repair of the portions of the Line located on their respective Property until such two separate sewer lines form one "party line". Once such two separate lines form one

"party line", all maintenance and repair costs for the "party line" portion of such sewer line shall be equally shared by Grantor and Grantee.

3. Liens. Grantee shall not permit any claim, lien or other encumbrances arising from Grantee's use of the Line to accrue against or attach to the Grantor Property.

4. Grantee Indemnity. Grantee shall hold harmless, defend and indemnify Grantor from and against all claims, demands, actions or suits, including reasonable attorneys' fees and costs, brought against Grantor arising out of or relating to the use by Grantee (including its agents, employees, contractors, subcontractors, invitees or suppliers) of the Line, except to the extent that such claims arise due to the negligence or willful misconduct of Grantor.

5. Grantor Indemnity. Grantor shall hold harmless, defend and indemnify Grantee from and against all claims, demands, actions or suits, including reasonable attorneys' fees and costs, brought against Grantee arising out of or relating to the use by Grantor (including its agents, employees, contractors, subcontractors, invitees or suppliers) of the Line, except to the extent that such claims arise due to the negligence or willful misconduct of Grantee.

6. Rights of Successors. The easements, restrictions, benefits and obligations hereunder shall create mutual benefits and servitudes running with the land and shall bind and inure to the benefit of the Grantor and Grantee, and their respective heirs, representatives, lessees, successors and assigns.

7. No Public Dedication. The easements, rights and privileges provided for in this Easement shall be for the private use of the persons and entities herein described. Such easements, rights and privileges are not intended to create, nor shall they be construed as creating, any rights in or for the benefit of the general public.

8. Modification and Cancellation. This Easement (including exhibits) may be modified or canceled only by written agreement signed by Grantor and Grantee or their successors in interest.

9. Headings. The headings herein are inserted only as a matter of convenience and for reference and in no way define, limit or describe the scope or intent of this Easement nor in any way affect the terms and provisions hereof.

10. Attorneys' Fees. In the event a suit, action, arbitration, or other proceeding of any nature whatsoever, including, without limitation, any proceeding under the US Bankruptcy Code, is instituted, or the services of an attorney are retained, to interpret or enforce any provision of this Easement or with respect to any dispute relating to this Easement, the prevailing party shall be entitled to recover from the losing party its reasonable attorneys', paralegals', accountants', and other experts' fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith. In the event of suit, action, arbitration, or other proceeding, the amount thereof shall be determined by the judge or arbitrator, shall include fees and expenses incurred on any appeal or review, and shall be in addition to all other amounts provided by law.

11. Entire Agreement/Severability. This Easement constitutes the entire agreement, and this Easement once executed and delivered shall not be modified or altered in any respect except by a writing executed and delivered in the same manner as required

by this document. Invalidation of any provision of this Easement, in whole or in part, or of any application of a provision of this Easement, by judgment or court order shall in no way affect other provisions or applications.

[Signatures on following page.]

IN WITNESS WHEREOF, this Declaration has been executed as of the day and year first written above.

GRANTOR: Wilsonville/Angel LLC,
an Oregon limited liability company
By: _____
Title: _____

GRANTEE: Wilsonville Retail/Angel LLC,
an Oregon limited liability company
By: _____
Title: _____

State of OREGON)
) ss.
County of _____)

The foregoing instrument was acknowledged before me this ___ day of _____, 2022, by _____ as the _____ of _____.

Notary Public for Oregon
My commission expires: _____

State of OREGON)
) ss.
County of _____)

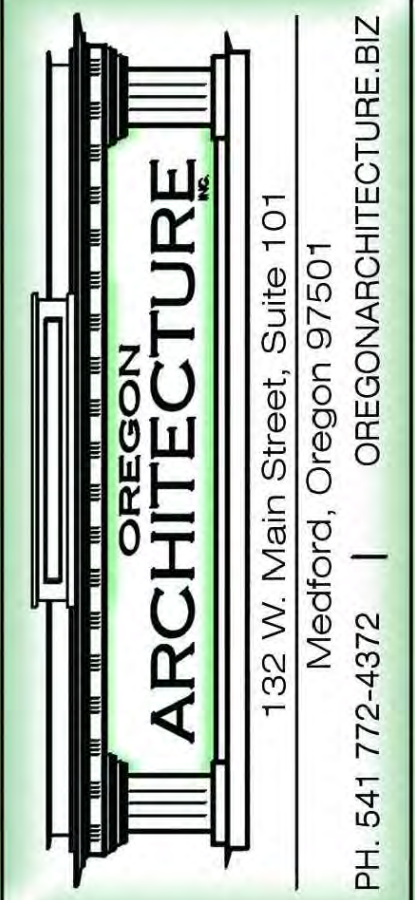
The foregoing instrument was acknowledged before me this ___ day of _____, 2022, by _____ as the _____ of _____.

Notary Public for Oregon
My commission expires: _____

EXHIBIT A
Grantor Property Legal Description

EXHIBIT B
Grantee Property Legal Depiction

EXHIBIT C
Map

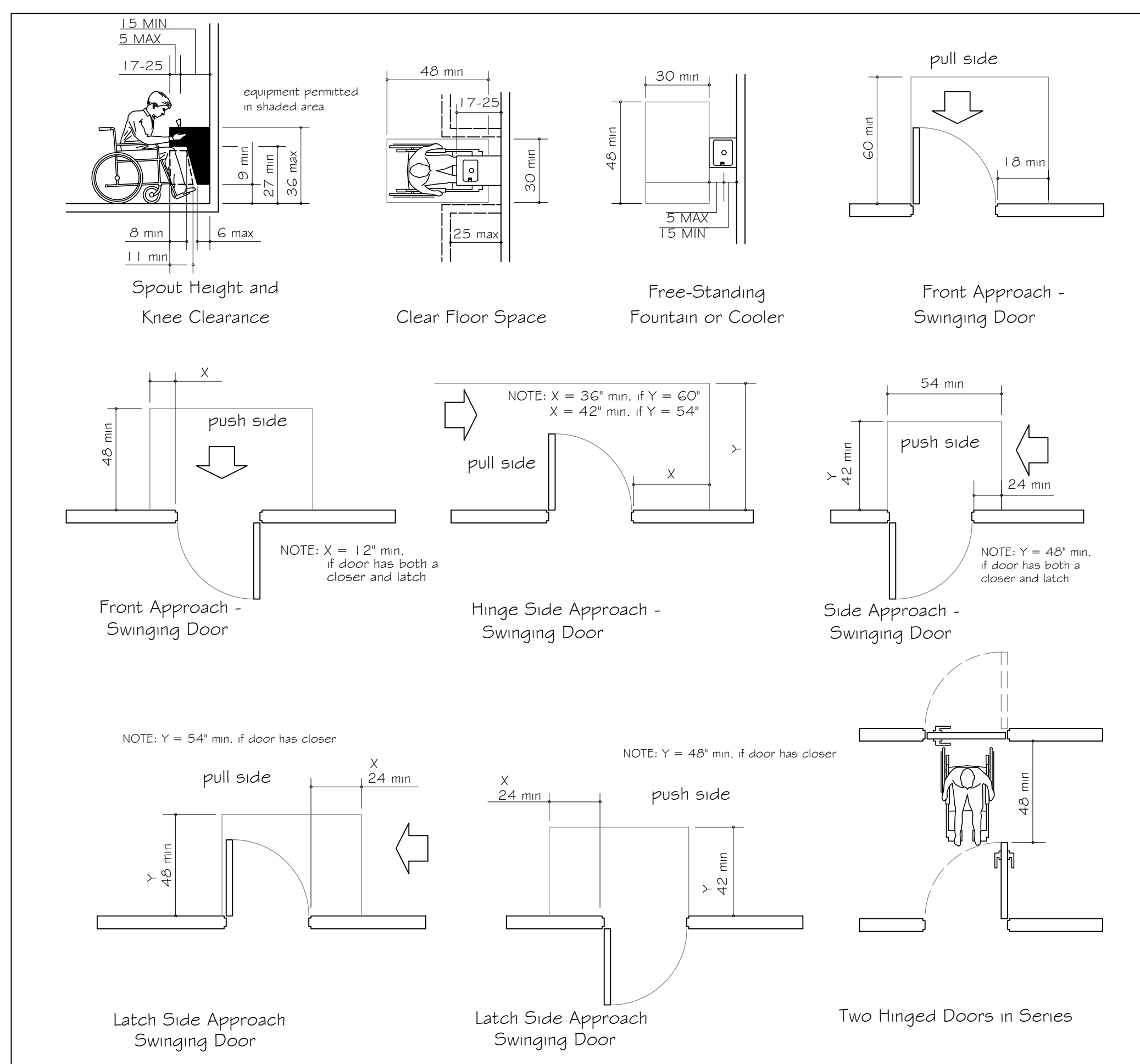


PROJECT DESCRIPTION:
WILSONVILLE
CONVENIENCE
STORE
PROJECT LOCATION:
29760 SW BOONES FERRY RD., WILSONVILLE, OR 97070
PARCEL:
31W14D-00900

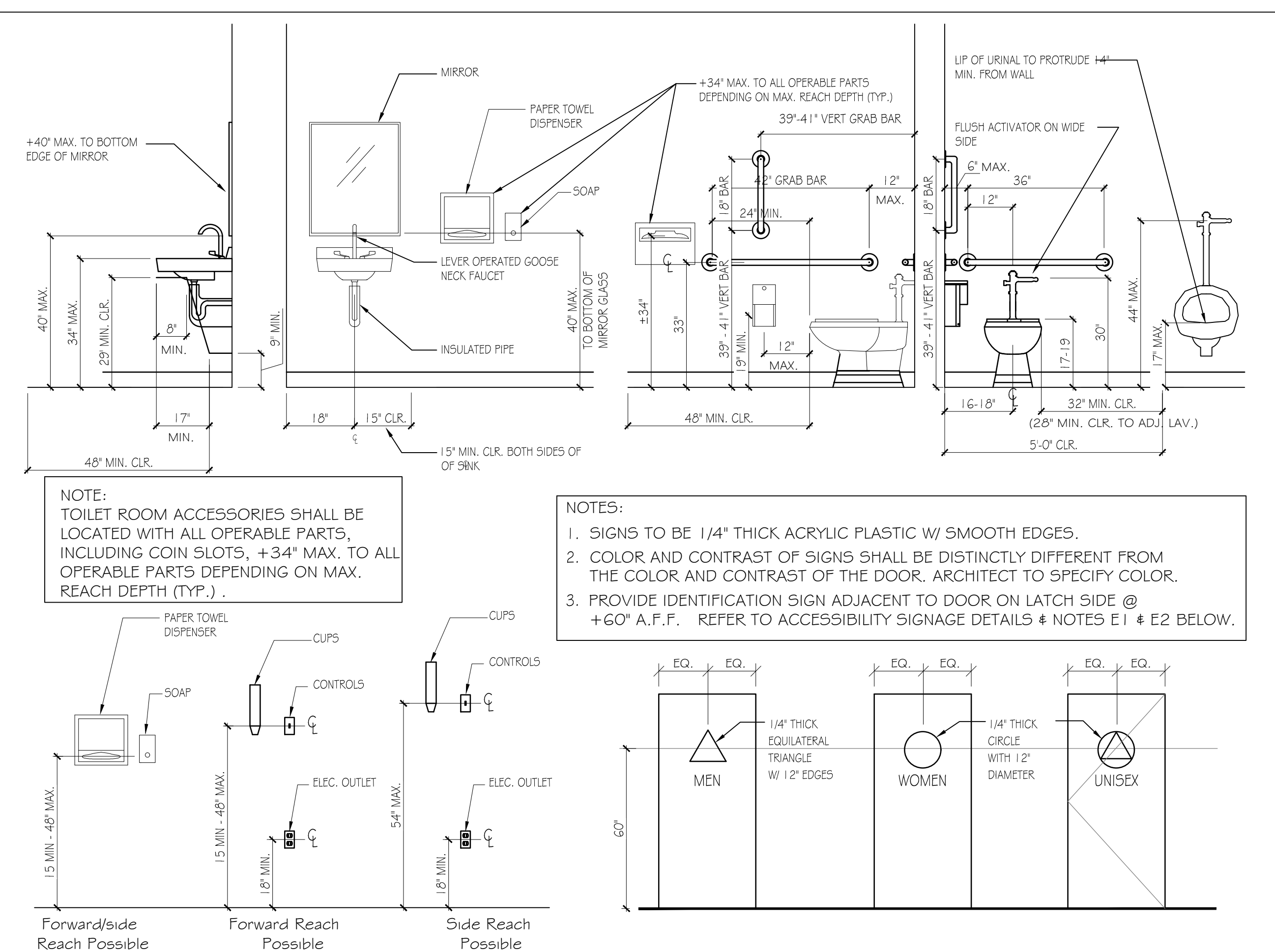
Table with columns for REVISIONS and BY. Includes fields for PLOT DATE (05-05-22), ISSUE DATE, DRAWN BY (MM), JOB NO. (4664), and SHEET.

G0.1
GENERAL ADA NOTES

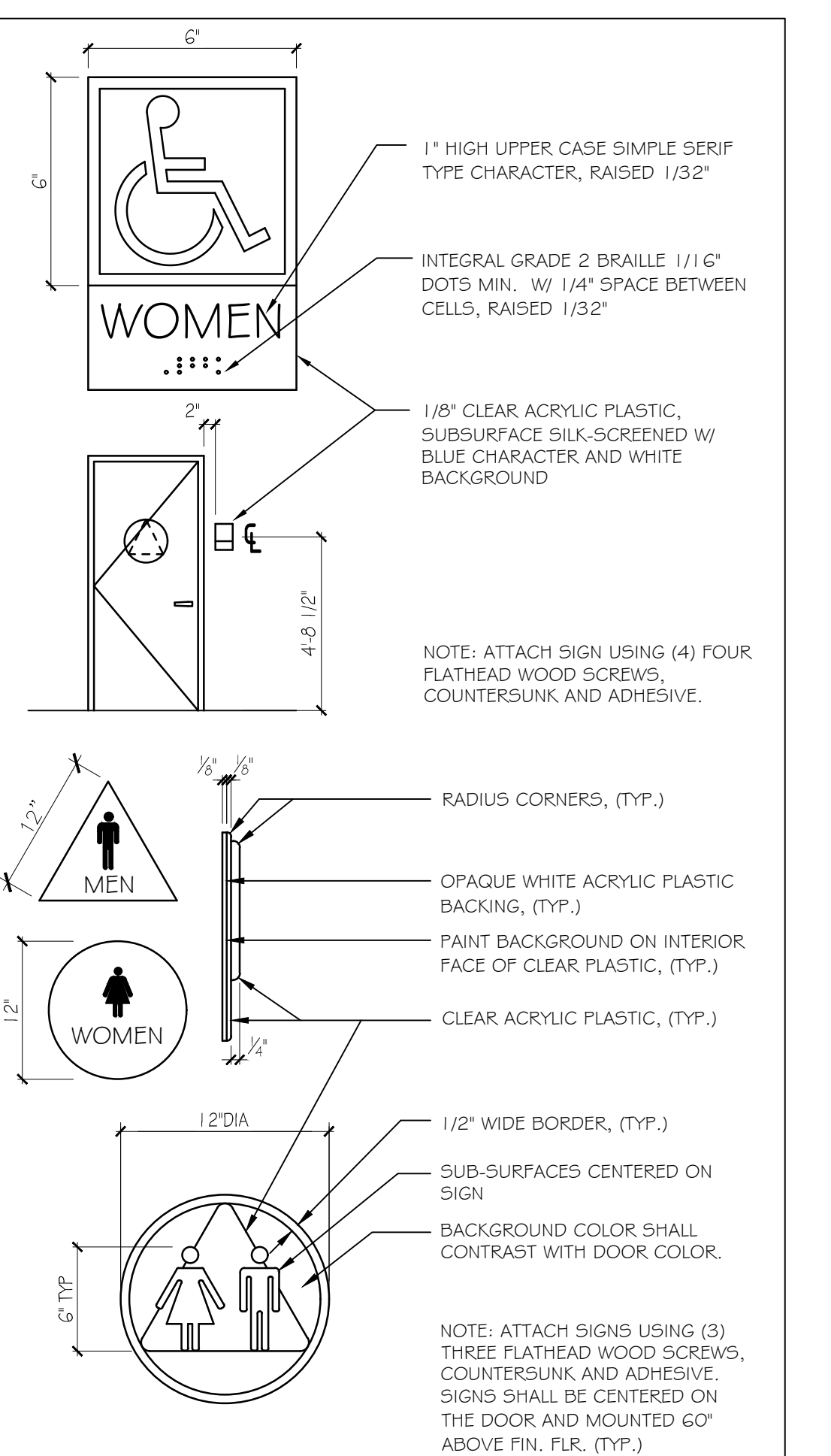
THIS DOCUMENT, THE IDEAS AND THE DESIGNS INCORPORATED HEREIN, IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND PROPERTY OF OREGON ARCHITECTURE INC., AND IS NOT TO BE USED IN WHOLE OR IN PART, FOR ANY OTHER PROJECT, WITHOUT THE WRITTEN AUTHORIZATION OF OREGON ARCHITECTURE INC., COPYRIGHT 2021.



STANDARD APPROACH CLEARANCES FOR ACCESSIBILITY



STANDARD MOUNTING HEIGHTS FOR ACCESSIBILITY



SIGNAGE DETAILS

ACCESSIBLE PATH OF TRAVEL NOTES

- A1 CORRIDOR WIDTHS: EVERY CORRIDOR SERVING AN OCCUPANT LOAD OF 50 OR MORE SHALL NOT BE LESS THAN 44 INCHES IN WIDTH...
A2 AISLE WIDTHS: EVERY AISLE SHALL NOT BE LESS THAN 36 INCHES WIDE IF SERVING ONLY ONE SIDE, AND NOT LESS THAN 44 INCHES WIDE IF SERVING BOTH SIDES...
A3 CHANGES IN LEVEL: CHANGES IN LEVEL UP TO 1/4 INCH MAY BE VERTICAL AND WITHOUT EDGE TREATMENT...
A4 SLIP RESISTANT SURFACES: SHOWERS, LOCKER ROOMS, SWIMMING POOLS, SPAS AND HOT TUB DECKS, TOILET ROOMS, EXTERIOR WALKWAYS AND OTHER AREAS SUBJECT TO WET CONDITIONS SHALL HAVE SLIP RESISTANT FLOORS...
A5 CARPET: CARPETING AND FLOOR MATS IN ACCESSIBLE AREAS SHALL BE SECURELY FASTENED TO THE UNDERLYING SURFACE, AND PROVIDE A FIRM, STABLE, CONTINUOUS AND RELATIVELY SMOOTH SURFACE...
A6 PROTRUDING OBJECTS: ANY WALKER OR POST-MOUNTED OBJECT WITH ITS LEADING EDGE MORE THAN 27 INCHES (685 MM) AND 80 INCHES (2030 MM) ABOVE THE FLOOR MAY PROJECT NOT MORE THAN 4 INCHES (100 MM) INTO A CORRIDOR, WALK OR AISLE...
A7 HORIZONTAL PROJECTIONS: STRUCTURAL ELEMENTS, FIXTURES OR FURNISHINGS SHALL NOT PROJECT HORIZONTALLY FROM EITHER SIDE MORE THAN 4 INCHES OVER ANY WALKING SURFACE BETWEEN THE HEIGHTS OF 27 INCHES AND 80 INCHES ABOVE THE WALKING SURFACE...
A8 CORRIDOR: WALLS & CEILINGS NEED NOT BE OF FIRE-RESISTIVE CONSTRUCTION WITHIN OFFICE SPACES HAVING AN OCCUPANT LOAD OF 100 OR LESS...
A9 CORRIDOR: WALLS & CEILINGS NEED NOT BE OF FIRE-RESISTIVE CONSTRUCTION WITHIN OFFICE SPACES HAVING AN OCCUPANT LOAD OF 100 OR LESS, WHEN THE BUILDING IN WHICH THE SPACE IS LOCATED IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM THROUGHOUT...
A10 DETECTABLE WARNINGS: DETECTABLE WARNINGS COMPLYING WITH SECTION 1109.10 SHALL BE PROVIDED:
A11 MACHINERY ROOMS: MACHINERY, MECHANICAL AND ELECTRICAL ROOMS THAT CONTAIN WORK SPACES SHALL BE LOCATED ON AN ACCESSIBLE ROUTE, AND BE DESIGNED AND CONSTRUCTED SO INDIVIDUALS WITH DISABILITIES CAN APPROACH AND ENTER, BUT INDIVIDUAL WORK SPACES NEED TO BE CONSTRUCTED OR EQUIPPED (I.E., WITH DESKS, SINKS, RACKS OR SHELVES) TO BE ACCESSIBLE.

ACCESSIBLE DOOR NOTES

- B1 DOOR SWING: EGRESS DOORS SHALL BE SIDE-HINGED SWINGING. DOORS SHALL SWING IN THE DIRECTION OF THE EGRESS TRAVEL WHERE SERVING AND OCCUPANT LOAD OF 50 OR MORE PERSONS OR A GROUP OCCUPANCY...
B2 HARDWARE: DOOR OPERATING HARDWARE SHALL COMPLY WITH (SEC 404.2.6 ICC), & (101.0.1.9.1, 055C) DOOR HARDWARE SHALL BE MOUNTED NOT MORE THAN 48 INCHES ABOVE THE FINISHED FLOOR...
B3 OPENING FORCE: MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 8-1/2 POUNDS FOR EXTERIOR DOORS, 5 POUNDS FOR INTERIOR DOORS AND 15 POUNDS FOR STAIRWAY DOORS AT PRESSURIZED STAR ENCLOSURE...
B4 DOOR SIZE: THE MINIMUM WIDTH OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD THERE OF AND PROVIDE A CLEAR WIDTH OF NOT LESS THAN 32 INCHES...
B5 THE BOTTOM 10 INCHES OF ALL DOORS, EXCEPT AUTOMATIC AND CONSTRUCTION: SLIDING, SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION...
B6 CHANGES IN LEVEL AT DOORS: THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR, SUCH FLOOR OR LANDING SHALL BE AT THE SAME ELEVATION ON EACH SIDE OF THE DOOR...
B7 LENGTH OF LEVEL AREA: THE LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60 INCHES AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 48 INCHES AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN ITS CLOSED POSITION...
B8 WIDTH OF LEVEL AREA: THE WIDTH OF THE LEVEL AREA ON THE SIDE TO WHICH THE DOOR SWINGS SHALL EXTEND 24 INCHES PAST THE STRIKE EDGE OF THE DOOR FOR EXTERIOR DOORS AND 18 INCHES PAST THE STRIKE EDGE FOR INTERIOR DOORS.

ADDITIONAL REQUIREMENTS

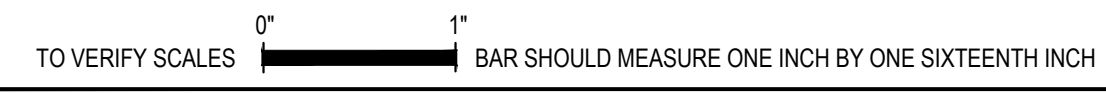
- C1 INTERNATIONAL SYMBOL OF ACCESSIBILITY: THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE AS SHOWN IN (201.0 ICC A11.7 SEC. 703.6.3) THE CHARACTER AND BACKGROUND OF INTERIOR SIGNS SHALL BE EGGSHELL, MATTE OR OTHER NO GLARE, CHARACTER AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND...
C2 OUTLETS: THE CENTER OF RECEPTACLE OUTLETS SHALL NOT BE LESS THAN 18 INCHES ABOVE THE FLOOR OR WORKING PLATFORM...
C3 SWITCHES: THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA, TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL NOT BE LESS THAN 3 FEET NOR MORE THAN 4 FEET ABOVE THE FLOOR OR WORKING PLATFORM...
C4 FIXED TABLES OR COUNTERS: IF SEATING FOR PEOPLE IN WHEELCHAIRS IS PROVIDED AT FIXED TABLES OR COUNTERS, KNEE SPACE AT LEAST 27 INCHES HIGH, 30 INCHES WIDE AND 19 INCHES DEEP SHALL BE PROVIDED...
C5 FIRE ALARM: THE CENTER OF THE FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48 INCHES ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE OR SIDEWALK...
C6 IF EMERGENCY WARNING SYSTEMS ARE REQUIRED, THEY SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL ALARMS SHALL HAVE A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE, A MAXIMUM PULSE DURATION OF 0.2 SECOND CLEAR OR NOMINAL WHITE XENON STROBE TYPE LAMP WITH AN INTENSITY OF 75 CADELA, AND SHALL BE PLACED 80 INCHES ABOVE THE HIGHEST FLOOR LEVEL WITHIN THE SPACE OR 6 INCHES BELOW THE CEILING, WHICHEVER IS LOWER.

SIGNAGE NOTES

- E1 RAISED LETTERS AND BRAILLE CHARACTERS AND PICTORIAL SYMBOL SIGNS (PICTOGRAMS): LETTERS AND NUMERALS SHALL BE RAISED NOT LESS THAN 1/32 INCH (0.79 MM) BE UPPERCASE, SIMPLE TYPEFACE AND BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE NOT LESS THAN 5/16 INCH (16 MM) OR MORE THAN 2 INCHES (51 MM) HIGH...
E2 MOUNTING LOCATION 4 HEIGHT: WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR AND BE CENTERED 60 INCHES (1525 MM) ABOVE THE FINISHED FLOOR...
E3 MOUNTING LOCATION 4 WIDTH: THE CENTER OF THE SIGN SHALL BE CENTERED ON THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE-LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL...
E4 MOUNTING LOCATION 4 CLEARANCE: THE CLEARANCE FROM THE SIGN TO THE NEAREST ADJACENT WALL, INCLUDING AT DOUBLE-LEAF DOORS, SHALL BE NOT LESS THAN 3 INCHES (76 MM) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

TOILET ROOM NOTES

- D1 FLUSH CONTROLS: FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND BE MOUNTED FOR USE FROM THE WIDE SIDE OF THE WATER CLOSET AREA AND NOT MORE THAN 44 INCHES (1118 MM) ABOVE THE FLOOR...
D2 GRAB BARS: FIXED WALL GRAB BARS: FIXED SIDE WALL GRAB BARS SHALL BE 42" (1065 mm) MIN. IN LENGTH, LOCATED 12" (305mm) MAX. FROM REAR WALL & EXTENDING 54" (1370mm) MIN. FROM REAR WALL...
D3 PARTITION CLEARANCES: THE FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A MIN. TOE CLEAR. OF AT LEAST 9" A.F.F.. TOE CLEAR. IS NOT REQUIRED FOR STALLS WITH A DEPTH GREATER THAN 60".
D4 WATER CLOSETS: IN OTHER THAN TOILET STALLS, A CLEAR FLOOR SPACE SHALL BE PROVIDED FOR EACH WATER CLOSET. THE LATERAL DISTANCE FROM THE CENTER LINE OF THE WATER CLOSET SHALL BE 16" (405mm) MIN. & 18" MAX. FROM THE SIDE WALL OR PARTITION.
D5 LAVATORY FIXTURES: A CLEAR FLOOR SPACE AT LEAST 30 INCHES BY 48 INCHES (760 MM BY 1220 MM) SHALL BE PROVIDED IN FRONT OF LAVATORIES TO ALLOW A FORWARD APPROACH COMPLYING WITH SECTION (ICC A117.1 SEC 305.3). CLEAR FLOOR SPACE SHALL INCLUDE KNEE AND TOE CLEARANCES AS PROVIDED IN (ICC A117.1 SEC 306). FAUCETS: FAUCET CONTROL HANDLES SHALL BE LOCATED NO MORE THAN 17 INCHES (432 MM) FROM THE FRONT EDGE OF THE LAVATORY OR COUNTER, AND SHALL COMPLY WITH (ICC A117.1 SEC 309). SELF-CLOSING VALVES SHALL REMAIN OPEN FOR AT LEAST 10 SECONDS PER OPERATION.
D6 LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34 INCHES ABOVE THE FINISHED FLOOR (SEE FIG. 606.3)(ICC A117.1 SEC 606). THE TOTAL DEPTH OF CLEAR SPACE BENEATH A LAVATORY SHALL BE 17"-25" (430 MM-635) OF WHICH TOE CLEARANCE SHALL NOT BE MORE THAN 6 INCHES (152 MM) OF THE TOTAL DEPTH.
D7 EXPOSED PIPES AND SURFACES: HOT WATER AND DRAIN PIPES EXPOSED UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
D8 MIRRORS, MEDICINE CABINETS, DISPENSERS AND OTHER FIXTURES: MIRRORS AND MEDICINE CABINETS SHALL BE INSTALLED SO THE BOTTOM OF THE REFLECTIVE SURFACE IS WITHIN 40 INCHES (1016 MM) OF THE FLOOR. OTHER DISPENSERS SHALL HAVE REACH RANGES AS SPECIFIED IN (SEC ICC A117.1 SEC 603.6).
D9 INTERIOR SURFACES: FLOOR SURFACES SHALL BE STABLE, FIRM, & SLIP RESISTANT, & SHALL COMPLY WITH (ICC A117.1 SEC 302). CHANGES IN LEVEL IN FLOOR SURFACE SHALL COMPLY WITH (ICC A117.1 SEC 303). TOILET ROOM FLOORS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE SUCH AS PORTLAND CEMENT, CONCRETE, CERAMIC TILE OR OTHER APPROVED MATERIAL WHICH EXTENDS UPWARD ONTO THE WALLS AT LEAST 5 INCHES.





WILSONVILLE CONVENIENCE STORE
PROJECT DESCRIPTION:
PROJECT LOCATION:
29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

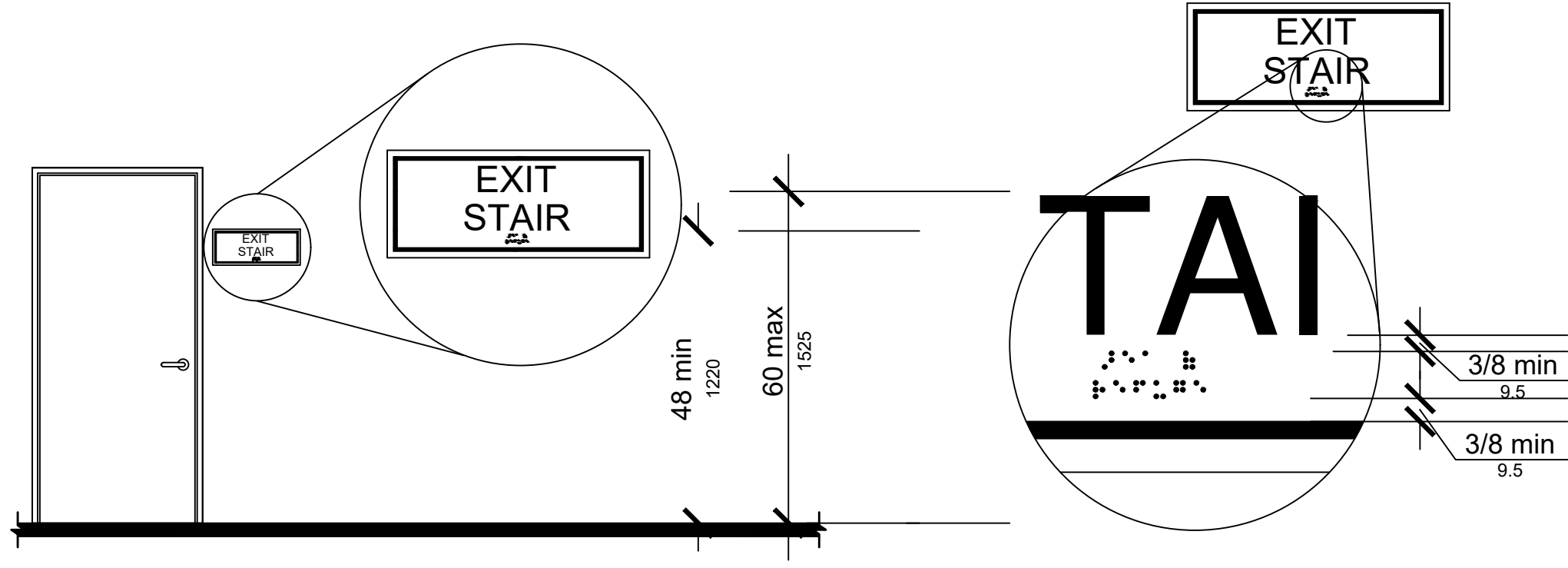
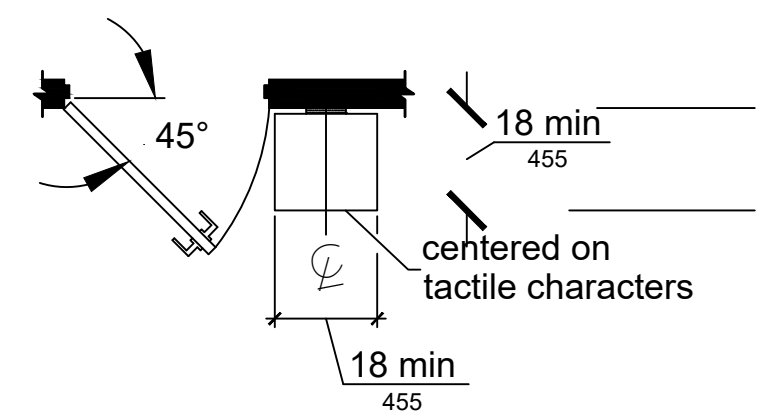
Table with columns: REVISIONS, BY, PLOT DATE: 05-05-22, ISSUE DATE, DRAWN BY: MM, JOB NO.: 4664, SHEET

G0.2
EGRESS PLAN

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SIGNAGE NOTES

A. DIRECTIONAL SIGNAGE SHALL BE PROVIDED ON EACH FLOOR AS REQUIRED TO COMPLY WITH O55C SECTION 1007.1.0 AND ANSI A117.1, SECTION 703.1.2

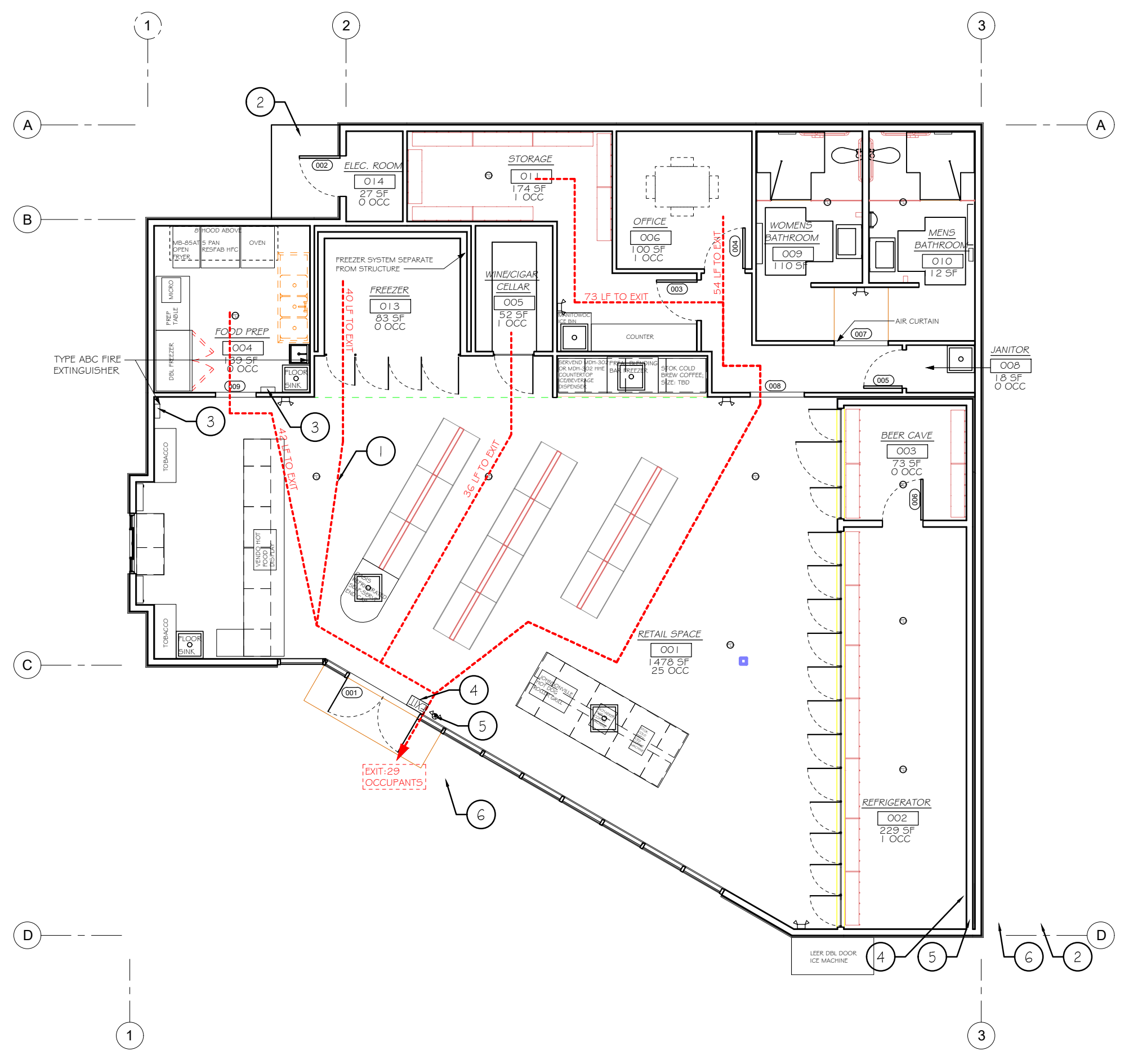


Signage Details (informational and directional)

NOT TO SCALE

KEY NOTES

- 1 EGRESS PATH TO BE MAINTAINED AND CLEAR OF OBSTACLES.
2 LANDING BEGINNING ELEV. 0'-0" TO SLOPE MAX 2% AWAY FROM BUILDING.
3 PROVIDE & INSTALL PORTABLE FIRE EXTINGUISHERS PER LOCAL FIRE MARSHAL. GENERAL CONTRACTOR TO INSTALL.
4 PROVIDE APPROVED EGRESS ILLUMINATION AND ILLUMINATED EXIT SIGNS. SEE ELECTRICAL DRAWINGS.
5 PROVIDE EMERGENCY LIGHTING WITH BATTERY BACKUP
6 "THIS DOOR IS TO REMAIN UNLOCKED AT ALL TIMES WHEN BUILDING IS OCCUPIED." THIS MAIN ENTRY DOOR IS THE ONLY DOOR PERMITTED TO HAVE DEAD BOLT LOCK. ALL OTHER DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.



EGRESS PLAN (29 occupants)

SCALE: 1/8" = 1'-0"

EXITING / GENERAL NOTES

- A. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED.
B. EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54LUX).
C. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
D. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES.
E. EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF PRIMARY POWER LOSS (1011.3 - 1011.6.3)
F. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. SEE 1008.1.8.3 FOR EXCEPTIONS.
G. DOOR HANDLES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED AT A MIN. 34" AND A MAX 48" ABOVE THE FINISHED FLOOR.
H. THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.
I. ALL EGRESS DOOR OPERATION SHALL ALSO COMPLY WITH SECTION 1008.1.9 - 1008.1.9.7
J. THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES WHEN THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED.
K. THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT-CANDLE AT THE WALKING SURFACE.
L. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES' ELECTRICAL SUPPLY. IN THE EVENT OF POWER SUPPLY FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE THE FOLLOWING AREAS:
-A. AISLES AND UNENCLOSED EGRESS STAIRWAYS IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS.
-B. CORRIDORS, EXIT ENCLOSURES AND EXIT PASSAGEWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
-C. EXTERIOR EGRESS COMPONENTS AT OTHER THAN THE LEVEL OF EXIT DISCHARGE UNTIL EXIT DISCHARGE IS ACCOMPLISHED FOR BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
-D. INTERIOR EXIT DISCHARGE ELEMENTS, AS PERMITTED IN SECTION 1027.1, IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
-E. EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1008.1.5, FOR EXIT DISCHARGE DOORWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
M. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 2702.

CODE ANALYSIS

DAR USA CONVENIENCE STORE
29760 SW BOONES FERRY RD, WILSONVILLE, OREGON 97070

-Parcel Number: 31W14D - 00900
-Lot Size: 29,905 SF
-Building Size: 3,000 SF (1 story)
-Zoning District: Planned Development - Commercial
-Construction Type: V-B

-BUILDING CODES:
2019 Oregon Structural Specialty Code (OS5C)
2019 Oregon Mechanical Specialty Code (OM5C)
2017 Oregon Electrical Specialty Code (OE5C)
2017 Oregon Plumbing Specialty Code (OP5C)
2021 Oregon Energy Efficiency Specialty Code (OEESC)

NEW BUILDING:

OCCUPANT REQUIREMENTS:
-Per 303.1:
Use groups M & S-2
-Table 506.2:
Allowable Area = 9,000 SF; Actual Area = 3,000 SF
-Table 508.4:
Separation Requirement for Type V-B, non-sprinklered
B, F-1, M, S-1 to F-2, S-2, S-3, U = 1 hr
-Table 601:
Type V-B = Exterior bearing walls, all other building elements are 0 hr
-Table 602:
Occupancy Group F-1, M, S-1, fire resistance rating requirements for exterior walls based on fire separation distance.
0 < to < 5 FT = 2 hrs
5 < to < 10 FT = 2 hrs (North wall w/in parameters, rating req'd)
10 < to < 30 FT = 0 hrs
-Table 2902.1:
Minimum number of required plumbing fixtures
FITURE RATIO REQ'D PROVIDED
WC 1:500 1/1 1
UR --- 0 1
LAV 1:750 1/1 1

EXITING REQUIREMENTS:

-Table 1004.5:
Storage, stock, shipping areas = 300 gross
Mercantile areas = 60 gross
-Section 1005: REQ'D PROVIDED
Egress width at doors < 180 occ. = 36" 36"
-1005.7.1: Door Encroachment
When fully opened doors shall not reduce required width more than 7".

-1010 Doors

- Mirrors and other reflective material shall not be placed on egress doors.
Size of door min 32" opening
The force for pushing or pulling open interior swinging egress doors shall not exceed 5lbs
Landings shall have a slope of not more than .25 units vert to 12 horizontal (2% slope)
Thresholds shall not exceed 1/2" in height above floor.
Handles shall be 34" in height,
Main egress door with key operated locking devices from the egress side must have notation,
"this door to remain unlocked when building is occupied"
*Manual Bolt locks are not permitted

-Table 1006.2.1

COMMON PATH OF TRAVEL : 'M' USE = 75'-0" < 30 occ.

-Table 1006.3.3(2):

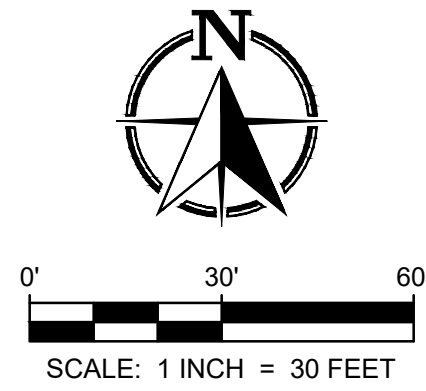
OCCUPANT LOAD GROUND: 29
EXITS REQUIRED: PROVIDED: 1:1

-Table 1017.2:

200 ft max exit access travel distance = M, OCCUPANCIES
250 ft max when sprinklered

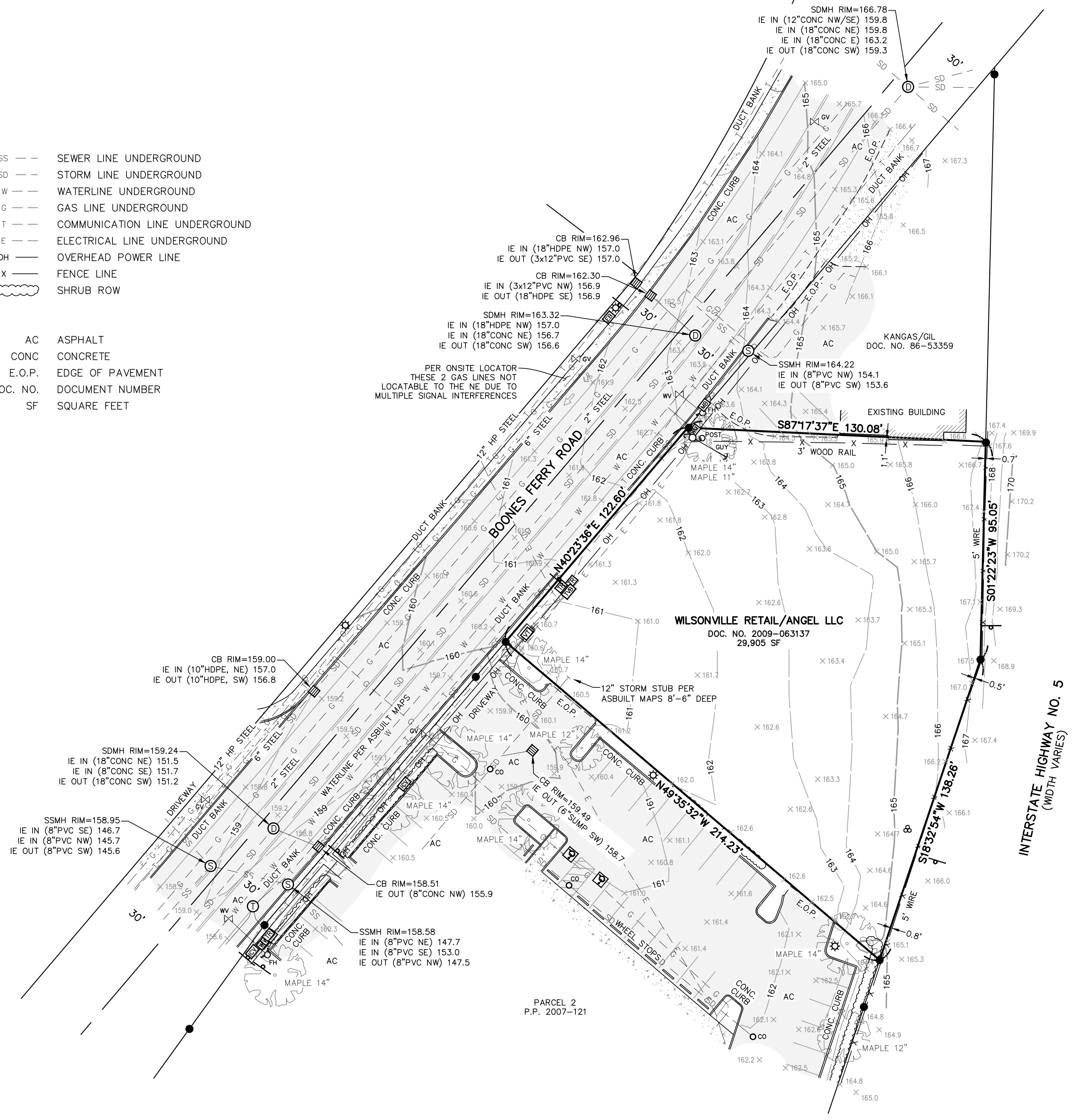
-PER 1020.2

- 44" clear width - minimum corridor width
36" clear width - minimum exit pass way with less than 50 occ.
32" clear width - minimum door clearance (ada)
28" clear width - minimum aisle way with less than 50 occupants (1017.3)
0" to 34" above finished floor - no projections into path
34" to 80" above finished floor - projections no greater than 4" allowed.



LEGEND

- FOUND MONUMENT
 - ⊙ STORM DRAIN MANHOLE
 - ⊞ CATCH BASIN
 - ⊙ SANITARY SEWER MANHOLE
 - ⊙ CLEANOUT
 - ⊞ WATER METER
 - ⊞ WATER VALVE
 - ⊞ FIRE HYDRANT
 - ⊞ IRRIGATION VALVE
 - ⊞ ELECTRICAL BOX
 - ⊞ ELECTRICAL VAULT
 - ⊞ LIGHT POLE
 - ⊞ UTILITY POLE
 - ⊞ GUY WIRE
 - ⊞ UTILITY STUB UP
 - ⊞ COMMUNICATION MANHOLE
 - ⊞ COMMUNICATION RISER
 - ⊞ COMMUNICATION BOX
 - ⊞ GAS VALVE
 - ⊞ SIGN
 - ⊞ MISC. POST
 - ⊞ MAILBOX
 - ⊞ HANDICAP PARKING
 - ⊞ CONCRETE
 - ⊞ GRAVEL
 - ⊞ DECIDUOUS TREE & TRUNK SIZE
-
- SS --- SEWER LINE UNDERGROUND
 - SD --- STORM LINE UNDERGROUND
 - W --- WATERLINE UNDERGROUND
 - G --- GAS LINE UNDERGROUND
 - T --- COMMUNICATION LINE UNDERGROUND
 - E --- ELECTRICAL LINE UNDERGROUND
 - OH --- OVERHEAD POWER LINE
 - X --- FENCE LINE
 - ⊞ SHRUB ROW
-
- AC ASPHALT
 - CONC CONCRETE
 - E.O.P. EDGE OF PAVEMENT
 - DOC. NO. DOCUMENT NUMBER
 - SF SQUARE FEET



NOTES

1. BASIS OF BEARINGS AND COORDINATE SYSTEM IS BASED ON OREGON STATE PLANE NORTH ZONE, NAD83(2011), EPOCH 2010.00. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES.
2. ELEVATIONS WERE ESTABLISHED BY GPS OBSERVATIONS TO STATION NAME "6113" PER THE CITY OF WILSONVILLE'S "CONTROL POINT DATA SHEETS". SAID POINT WAS REMONUMENTED IN 2000 AS PART OF CLACKAMAS COUNTIES CONTROL DENSIFICATION PROJECT. MARK IS A 3-1/4" BRASS CAP IN A MONUMENT BOX IN THE CENTERLINE OF WILSONVILLE ROAD APPROXIMATELY 500 FEET WEST OF SW BOONES FERRY ROAD. ELEVATION = 152.27' (NAVD88)
3. THE LOCATION OF UTILITIES SHOWN HEREON ARE FROM OBSERVED VISIBLE EVIDENCE OF ABOVE GROUND APPURTENANCES ALONG WITH SURFACE UTILITY MARKINGS BY OTHERS. ALL UNDERGROUND UTILITIES SHOWN WERE MARKED ON THE SURFACE BY AN "OREGON ONE-CALL NOTIFICATION CENTER" REQUEST. SURVEYOR MAKES NO GUARANTEE AS TO THE ACCURACY OF SAID MARKINGS, HOWEVER, THEY ARE LOCATED AS ACCURATELY AS THEY ARE MARKED ON THE GROUND.
4. PER ORS 209.150, ANY SURVEY MONUMENT REMOVED, DISTURBED OR DESTROYED SHALL BE REPLACED BY A PROFESSIONAL LAND SURVEYOR WITHIN 90 DAYS AT THE EXPENSE OF THE PERSON OR PUBLIC AGENCY RESPONSIBLE FOR SAID REMOVAL, DISTURBANCE OR DESTRUCTION.
5. FIELD SURVEYED JANUARY, 2021.

FORTY FIVE NORTH SURVEYING, LLC
 7230 3rd Street SE #145, Turner, OR 97392
 P: (503) 558-3330 E: info@ffsurveying.com

TOPOGRAPHIC SURVEY
FOR: 29800 SW BOONES FERRY ROAD
 IN THE SE 1/4 OF SECTION 14, T.3S., R.1W., W.M.
 CITY OF WILSONVILLE, CLACKAMAS COUNTY, OREGON

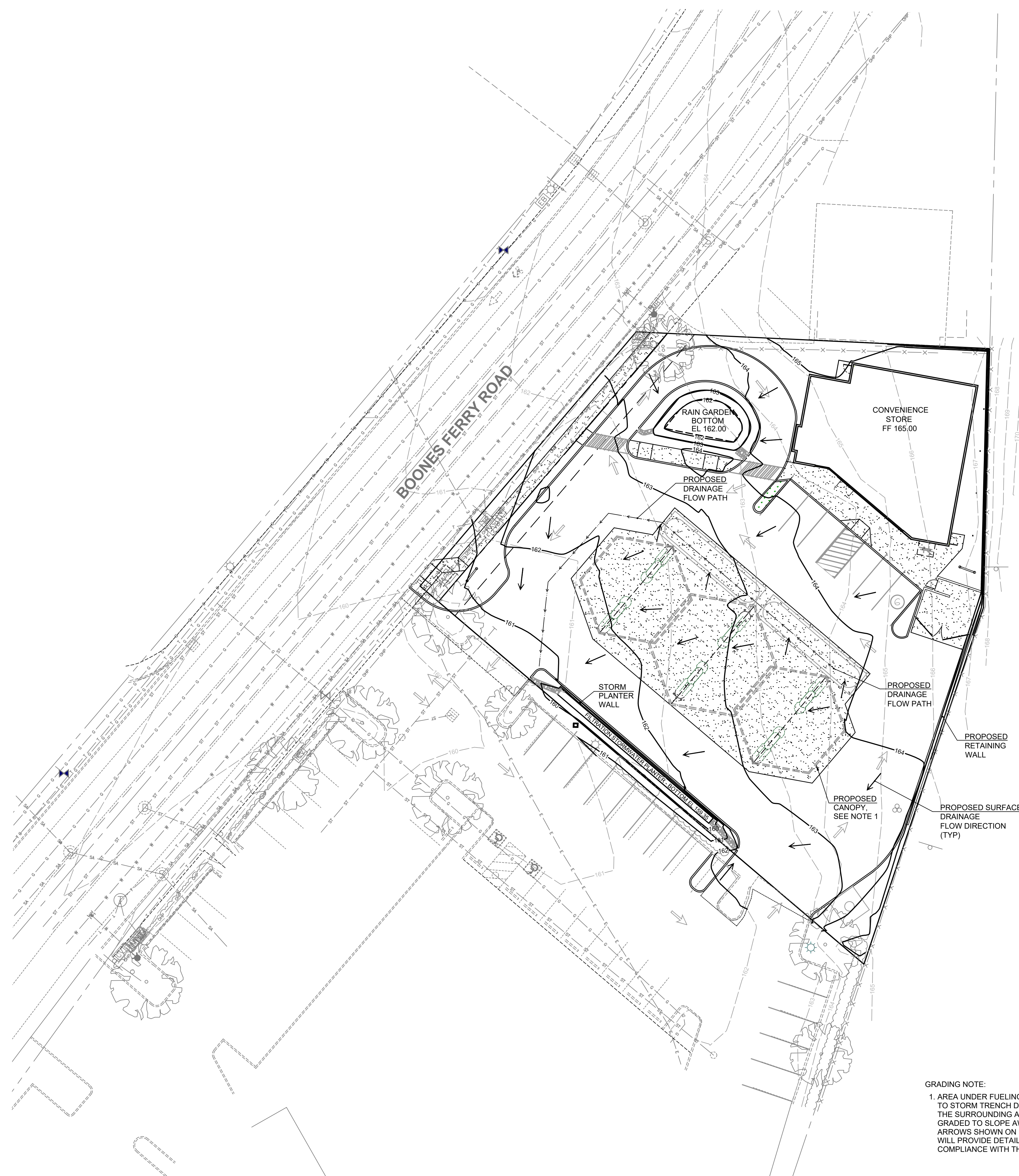
REGISTERED PROFESSIONAL LAND SURVEYOR
 OREGON 12 2017
 SEPTEMBER 12 2017
 STEVEN E. HOWELL
 91559
 RENEWS: 6-30-2021

NO.	DATE	DESCRIPTION
0	12/JAN/21	INITIAL RELEASE

JOB NO. 20-239

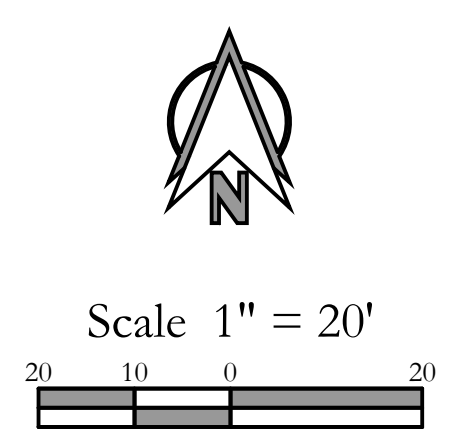
SHEET 1/1

Preliminary Grading Plan For: Wilsonville Convenience Store

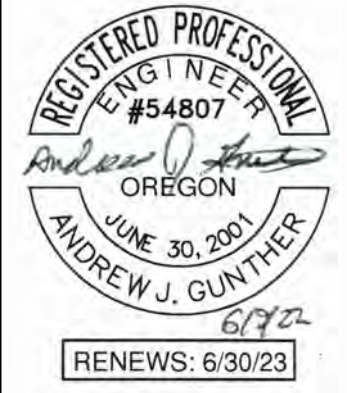


INTERSTATE 5

GRADING NOTE:
 1. AREA UNDER FUELING CANOPY IS TO BE GRADED TO SLOPE TO STORM TRENCH DRAIN ON SOUTH SIDE OF CANOPY. THE SURROUNDING AREAS NOT UNDER THE CANOPY ARE TO BE GRADED TO SLOPE AWAY FROM FUELING CANOPY PER SLOPE ARROWS SHOWN ON PRELIMINARY PLAN. FINAL GRADING PLAN WILL PROVIDE DETAILED SPOT GRADES DEMONSTRATING COMPLIANCE WITH THESE DRAINAGE REQUIREMENTS.



Revisions	
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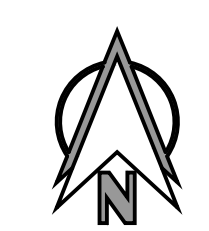
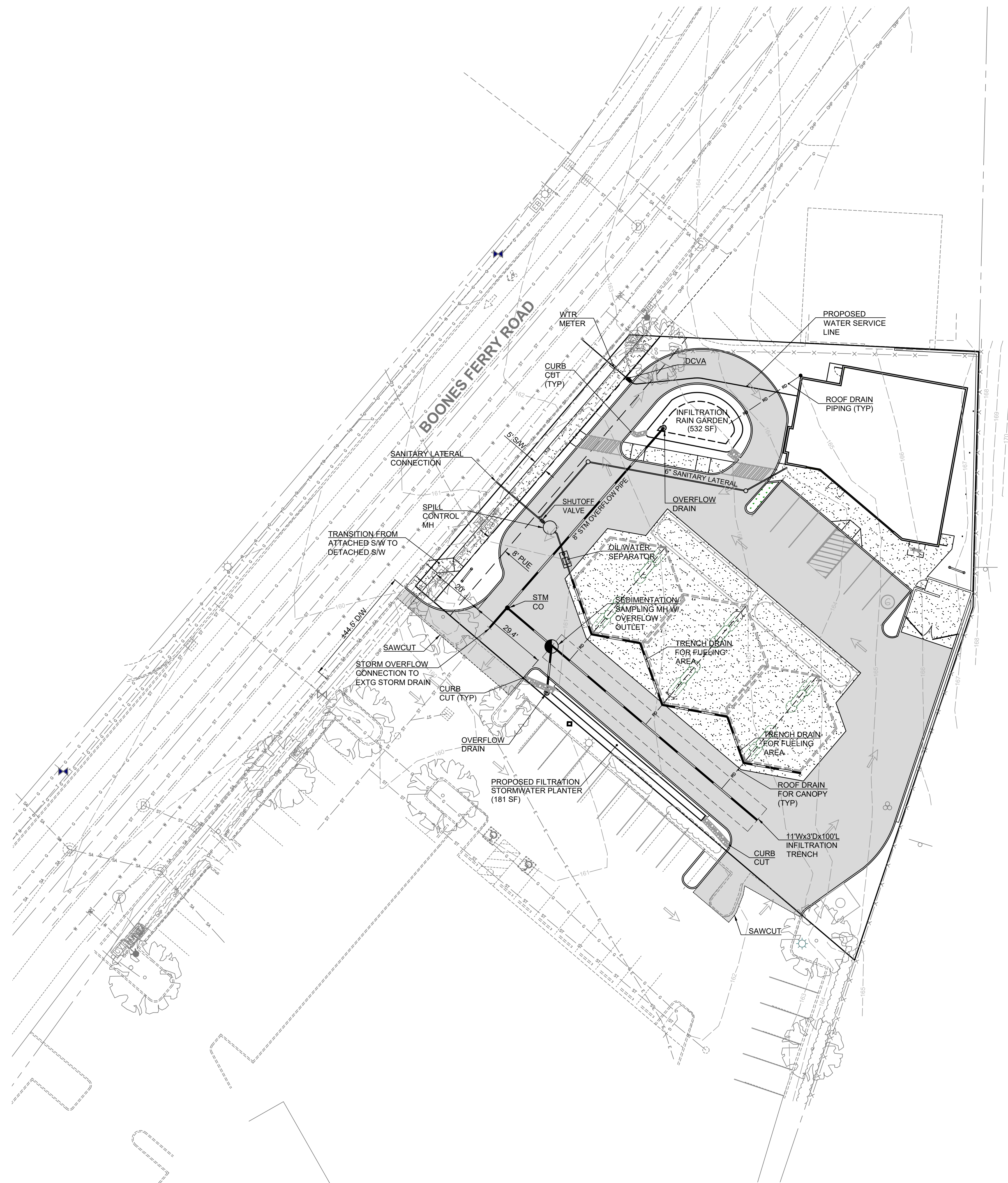
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DRAFTED BY:	RLS
REVIEWED BY:	AJG

C1
C3

Wilsonville Convenience Store

A Site Located in Wilsonville, OR

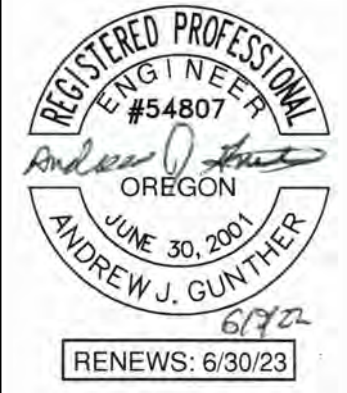
Preliminary Utility Plan For:



Scale 1" = 20'

Revisions

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Project No.	
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DRAFTED BY:	RLS
REVIEWED BY:	AJG

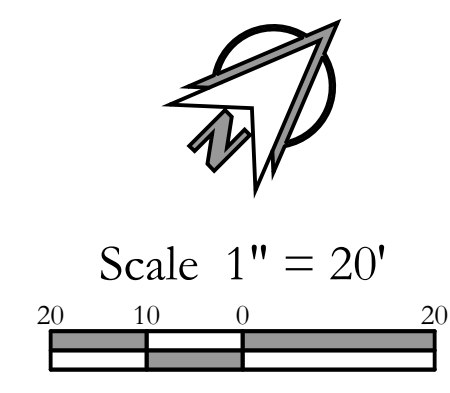
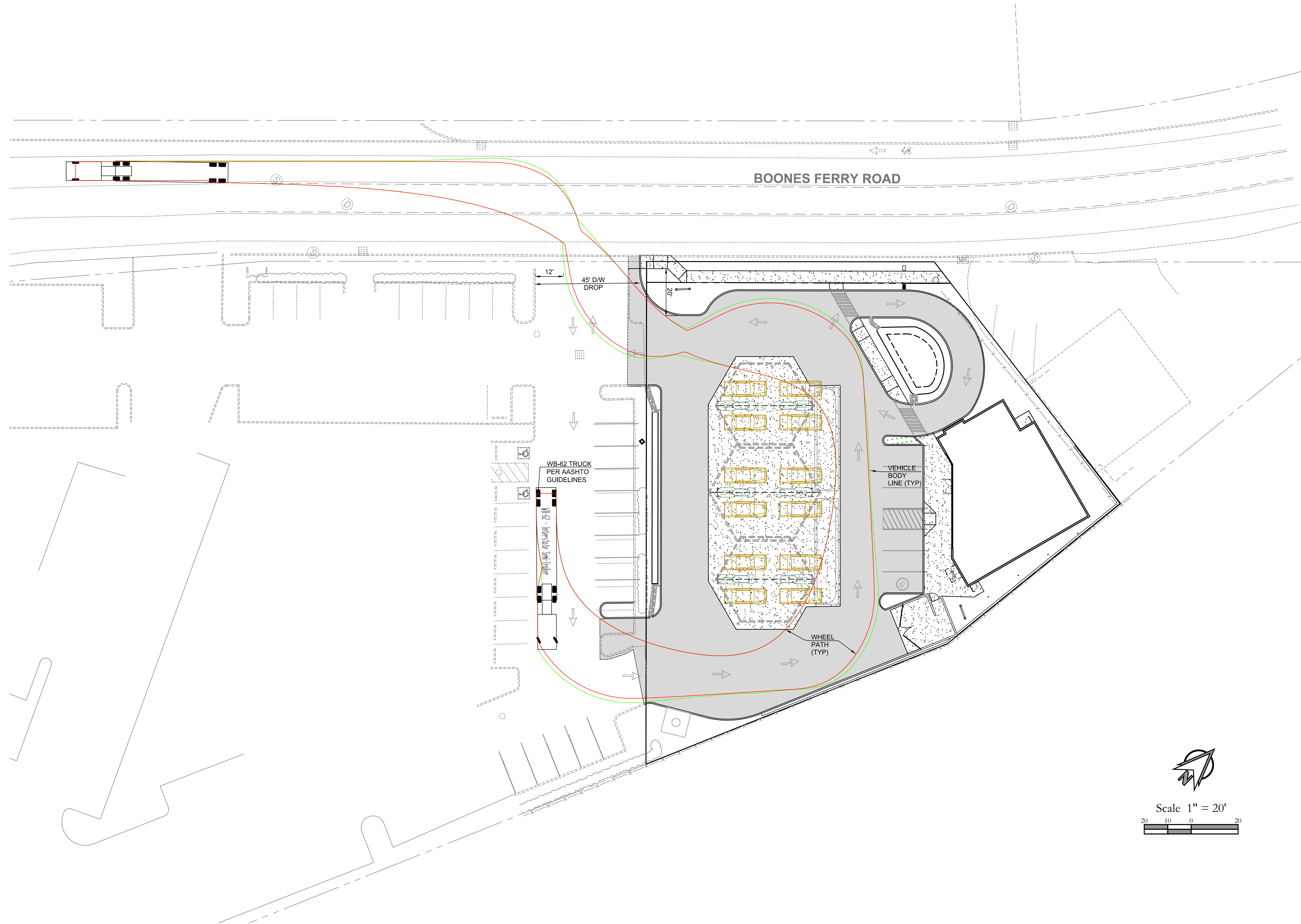
C2

C3

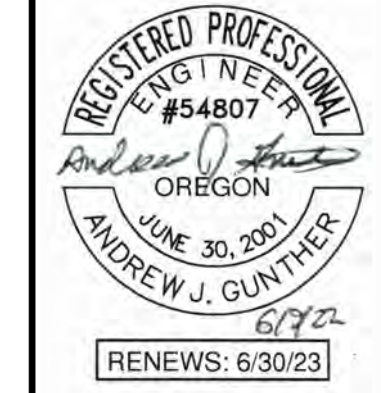
Wilsonville Convenience Store

A Site Located in the City of Wilsonville, Oregon

Preliminary Truck Turning Plan For:



Revisions	
1	
2	
3	
4	
5	
6	



Project No. N/A
 SCALE: H: 1" = 20'
 V: N/A
 DESIGNED BY: AJG
 DRAFTED BY: AJG
 REVIEWED BY: AJG

C3
C3



Madara Design Inc
Landscape Architecture, Design & Consultation
2994 Wells Fargo Rd
Central Point, Or 97502
541-664-7055
madradesign@yafatoo.com



WILSONVILLECONVENCENESTORE
Project Description:
Project Location:
29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
Parcel#: 311W14D-00900

Approved for the Owner By: _____ Date: _____
REVISIONS BY
PLOT DATE:
ISSUE DATE: 1/14/2022
DRAWN BY:
JOB NO.:
SHEET

L.1
Scale 1" = 20'

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GENERAL CONSTRUCTION NOTES

COORDINATION WITH THE EXCAVATING CONTRACTOR, GENERAL CONTRACTOR AND CIVIL PLANS IS IMPERATIVE.

- General preparation of site to include:
 - Eradication of weeds through the certified application of herbicides, allowing adequate time for kill.
 - Removal, from site, of all existing surface rock and/or debris in planting beds.
 - All shrub beds to be finish raked to a smooth condition prior to mulching.
 - Medium dark mulch to be placed in all shrub beds to a depth of 3".
- INCLUDE 365 DAYS OF MAINTENANCE from the day of acceptance. Including but not limited to:
 - Maintain planting area in a healthy, weed free condition and mow turf grass through a minimum of weekly visits during growing season.
 - Replace any material showing signs of stress.
 - Monitor irrigation for correct timing.
 - Provide owner with complete list of instructions for continued care at the end of the maintenance period.
- Plan is diagrammatic and measurements should be confirmed on-site. Any changes are the responsibility of the contractor to co-ordinate with the owners representative.

SEE CIVIL ENGINEERS DRAWINGS FOR GRADES AS REQUIRED

GRADING

- All planting beds and turf grass areas to be excavated to a minimum depth of 12" or deeper by as determined surrounding concrete and hardscapes.
- Fill planters with approved top soil or equal as determined by certified soil testing. Top soil to be tested to be able to provide superior characteristic for healthy plant growth. Fill with sufficient excess to allow for 25% compaction to achieve final grade. IE-16" of loose fill required for 12" depth after settling. Compact 8" with water filled landscape roller and follow by then compacting second half in same fashion.
- Placement of any soil to be done in coordination with suitable weather condition so as to prevent damage to soil structure.
- Sub-grading and final grade to consist of to a smooth even grade, no undulation greater than plus or minus 1" within any 10 lineal feet of distance.
- All sub-grades to be adequately firm without being overly compacted.
- Once subgrade is established the Landscape Contractor is to add mature compost at a rate of 3 cu yds per 1,000 sq ft. and then rip to blend with top soil to a depth of 8". As an alternative, pre blended soil matching the specification may be used in place of blending on site.
- Finish grade, after settling, in shrub areas to be a smooth even grade mounded 3" high in the middle of beds and ending 3" below surrounding areas. Turf grass areas to be graded smooth across lengthwise plane, rising 6" from center of area to 1" below surrounding concrete curbing. All finish grading to promote positive drainage away from structures and to be done in such a way as to eliminate puddling or collection of water.
- Landscape contractor responsible for addressing any drainage problems encountered during the course of construction, with Landscape Architect.
- SEE CIVIL ENGINEERS DRAWINGS FOR ADDITIONAL GRADING INFORMATION

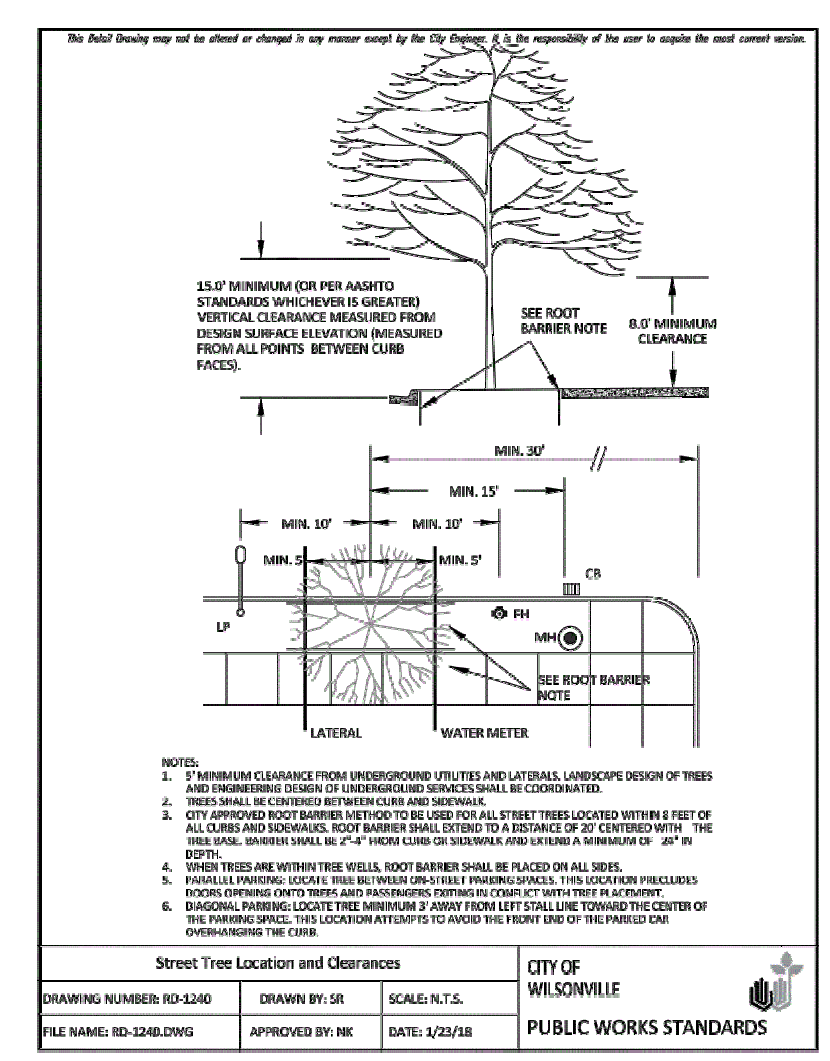
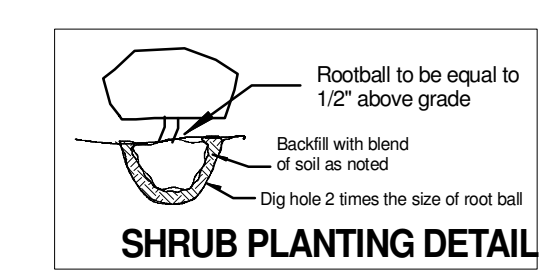
PLANT LIST

Quantity	Common Name	Botanical Name	Size
Trees			
1	Oak, Forest Green	Quercus frainetto 'Schmidt'	2"
1	Ironwood, Persian	Parrotia persica	2"
6	Maple, Rocky Mountain Glow	Acer grandidentatum 'Schmidt'	3"
2	Redbud, Western	Cercis occidentalis	1 3/4"
Shrubs			
45	Euonymus, Emerald Gaiety	Euonymus fortunei 'Emerald Gaiety'	2g
16	Laurel, Otto Luyken	Prunus laurocerasus 'Otto Luyken'	2g
9	Viburnum, David	Viburnum davidii	2g
Ground Cover / Grasses			
27	Grass, Burgundy Bunny	Pennisetum alopecuroides 'Burgundy Bunny'	2g
108	Grass, Tufted Hair	Deschampsia caespitosa	1g
21	Juniper, Shore	Juniperus conferta	2g
18	Rose, Drift, Red	Rosa 'Meigalpio'	2g
109	Rush, Soft	Juncus effusus	4" pots

All plant material are Moderate to Low Water Usage

PLANTING

- Plant material to be provided in accordance with species, sizes and quantities indicated below. Substitutions to be made with the approval of landscape architect.
- No planting to proceed until irrigation system is fully functioning in the area to be planted.
- All plant holes to be dug 2 times the volume of their root ball size. Backfill shall consist of 1/3 organic mulch, 2/3 top soil, micorrhizae supplement and 16-16-16 fertilizer as follows.
1gal 1oz
3-5gal 2oz
larger 4oz
- Plant upright and face to give best appearance or relationship to plants, structures and predominant viewing angle. Trees are to be planted so as to be straight up and down without the assistance of staking. Staking is solely for support against outside forces.
- Loosen and remove twine binding and burlap from around top of each root ball. Scarify root balls of plants exhibiting a root bound condition, being careful not to damage the root balls integrity. Stake and guy trees immediately after this work.
- Place and compact backfill soil mixture carefully to avoid injury to roots, and fill all voids.
- When hole is 2/3 filled with soil, completely soak and allow water to soak away at least two times or more, as necessary to completely water individual plants.
- Guarantee plant materials and related workmanship of installation, beginning after written acceptance of work, for one year.
 - Replace plant material not surviving or in poor condition during guarantee period.
 - Perform all replacement work in accordance with original specifications at no additional cost to Owner.
 - Damage or loss of plant materials due to vandalism, freezing or acts of neglect by others, is exempt from Contractor's replacement responsibility.



2 - Existing Maple to be removed to accommodate new sidewalk alignment

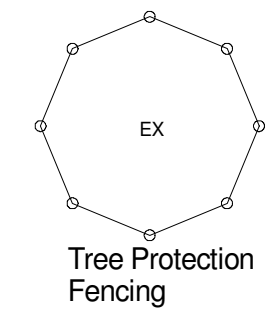
Area purposely left unplanted to allow for general maintenance

Plantings in this area meet the Vision Clearance standards 4.177 and or Sight Distance 201.2.22. Trees small stature less than 6" DBH and low ground cover no more than 24" high

Existing Maple to be removed to accommodate new entry alignment

2 - Existing 14" Maple Trees to remain with Tree Protection throughout construction

LEGEND



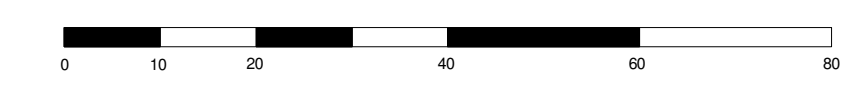
TREE PROTECTION NOTES

Trees Highlighted as symbols were marked by surveyors. Trees noted with 'EX' are existing and to remain with tree protection.

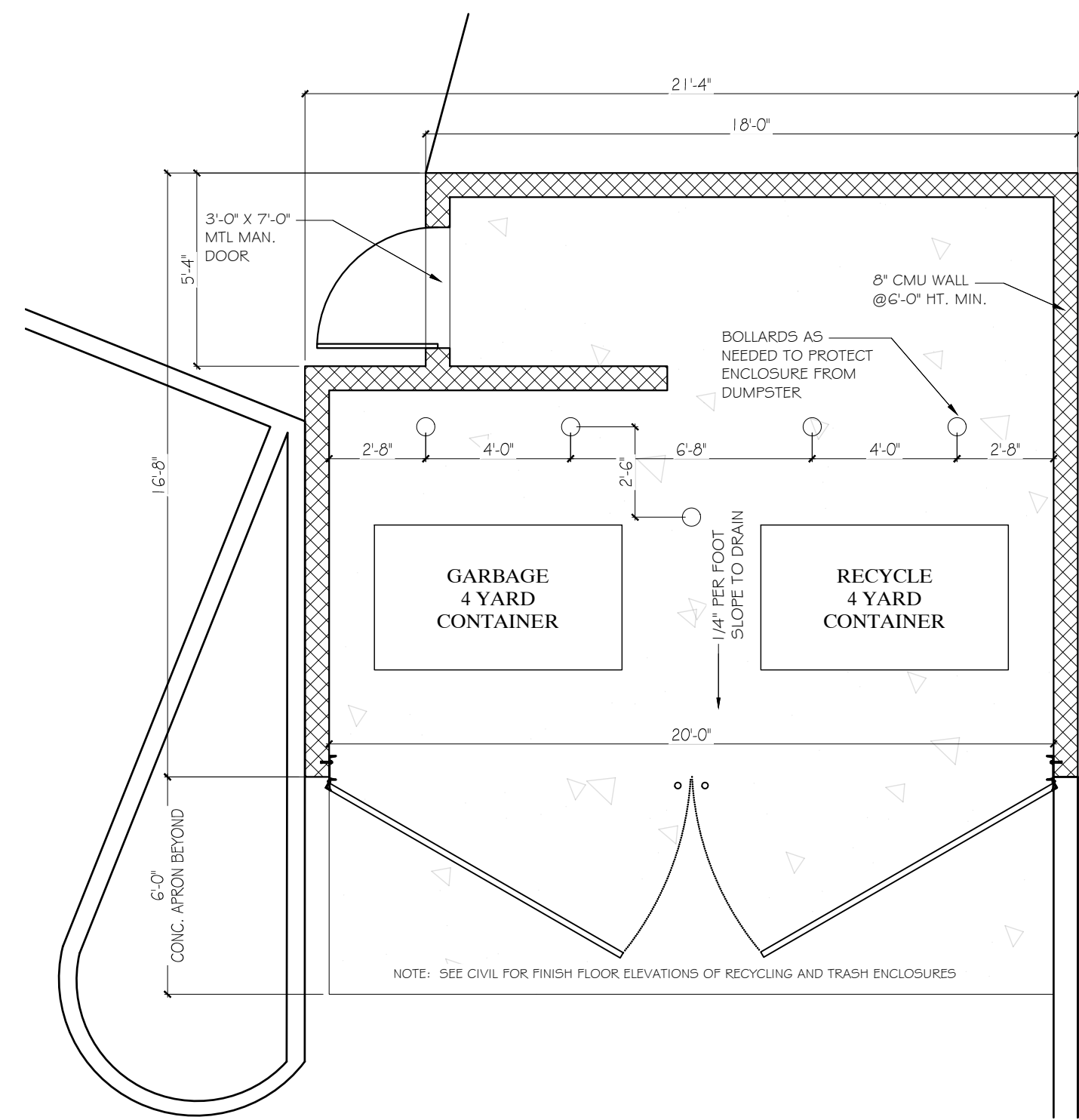
- Tree protection to be in place before any construction to commence and is under the direct supervision of the Staff Arborist.
- Tree protection to be chain link fencing, a minimum of six feet tall with steel posts placed no farther than ten feet apart, shall be installed at the edge of the tree protection zone or dripline, whichever is greater, and at the boundary of any open space tracts, riparian areas, or conservation easements that abut the parcel being developed.
- Approved signs shall be attached to the chain link fencing stating that inside the fencing is a tree protection zone, not to be disturbed unless prior approval has been obtained from the Staff Arborist for the project.
- The actual location or tree protection for this project is as noted on these plans.
- The fencing shall be flush with the initial undisturbed grade.
- Fencing shall be enclosed to prevent any unauthorized access for the full duration of construction.
- No construction activity shall occur within the tree protection zone, including, but not limited to dumping or storage of materials such as building supplies, soil, waste items, equipment, or parked vehicles, except under the direct supervision of a Staff Arborist.
- The tree protection zone shall remain free of chemically injurious materials and liquids such as paints, thinners, cleaning solutions, petroleum products, concrete or dry wall excess, and construction debris or run-off.
- No excavation, trenching, grading, root pruning, or other activity shall occur within the tree protection zone unless approved by the Staff Arborist.
- Any work necessary within the dripline is subject to prior approval and direction of the Staff Arborist.
- Trees being protected will be watered regularly throughout the growing season.
- Any damage to protected trees shall be reported to the Staff Arborist within 24 hours of observation.
- Except as otherwise determined by the Staff Arborist, all required tree protection measures set forth in this section shall be instituted prior to any development activities, including, but not limited to clearing, grading, excavation, or demolition work, and shall be removed only after completion of all construction activity, including landscaping and irrigation installation.

0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH

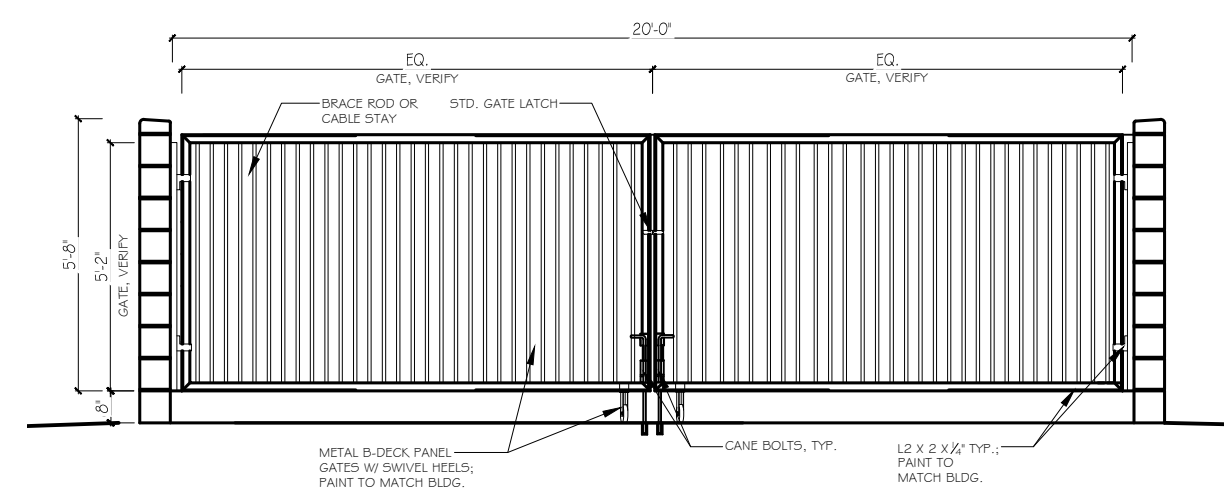
LANDSCAPE PLAN



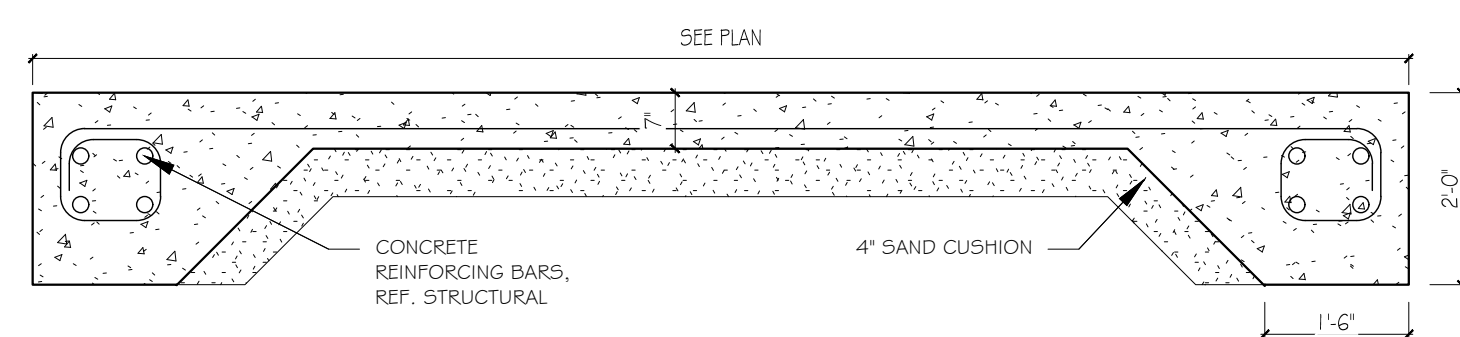
Scale 1" = 20'



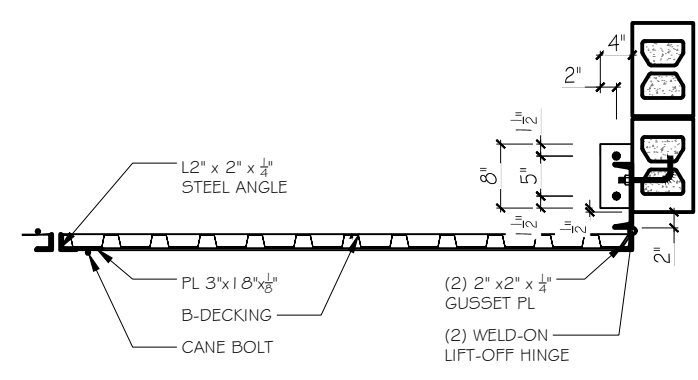
1 TRASH ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"



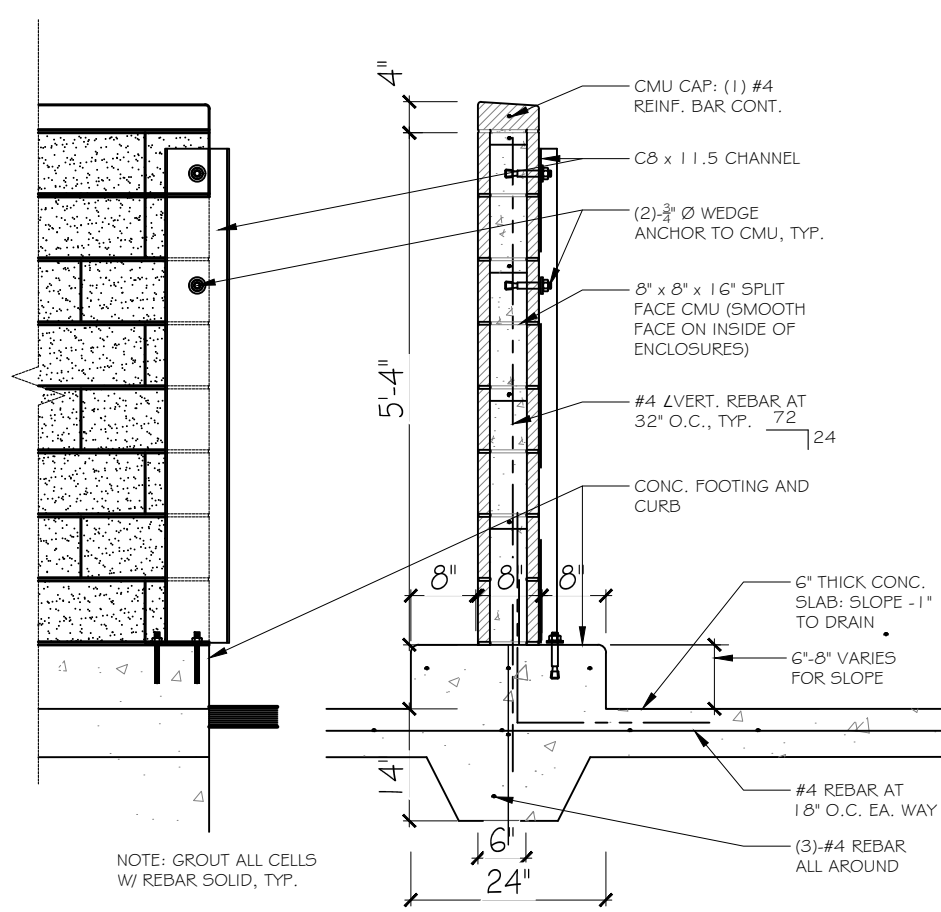
2 TRASH ENCLOSURE FRONT ELEVATION
SCALE: 1/4" = 1'-0"



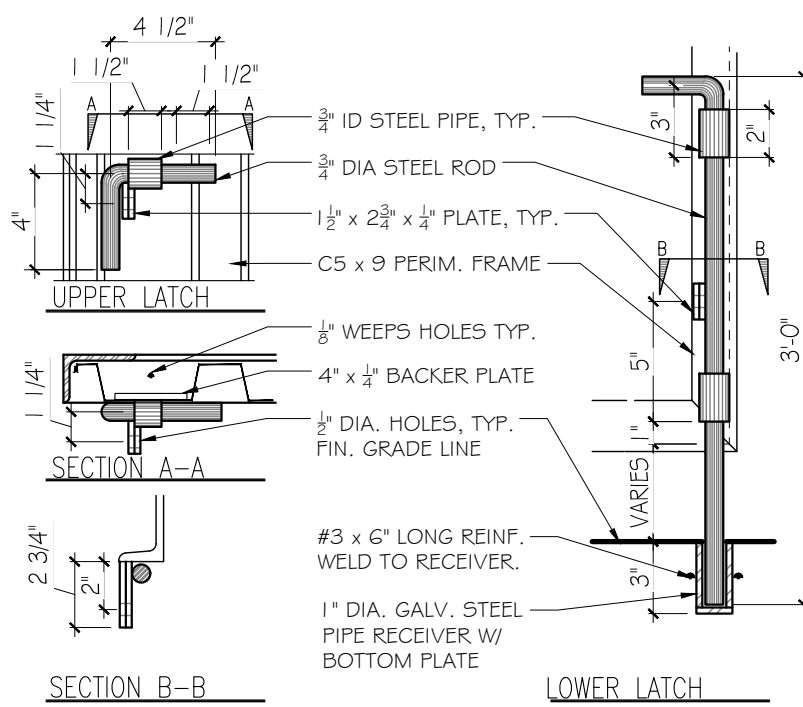
3 SLAB @ TRASH ENCLOSURE
SCALE: 1/2" = 1'-0"



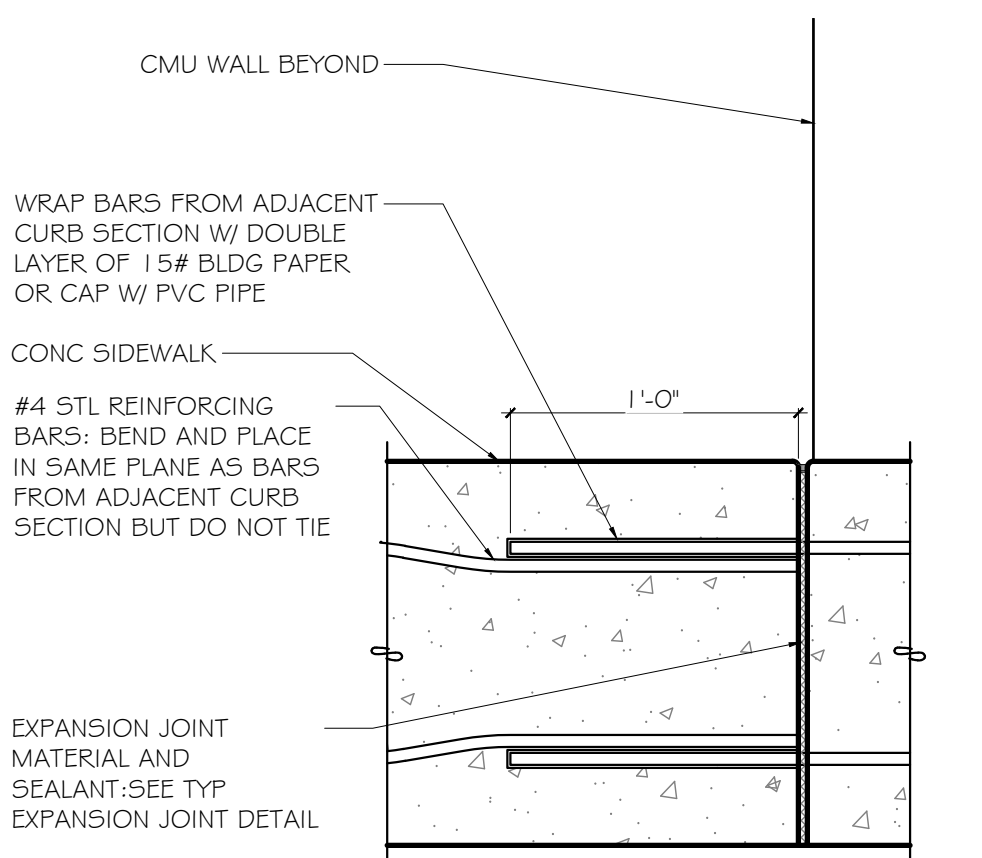
4 ENCLOSURE HINGE DETAIL
SCALE: 1/2" = 1'-0"



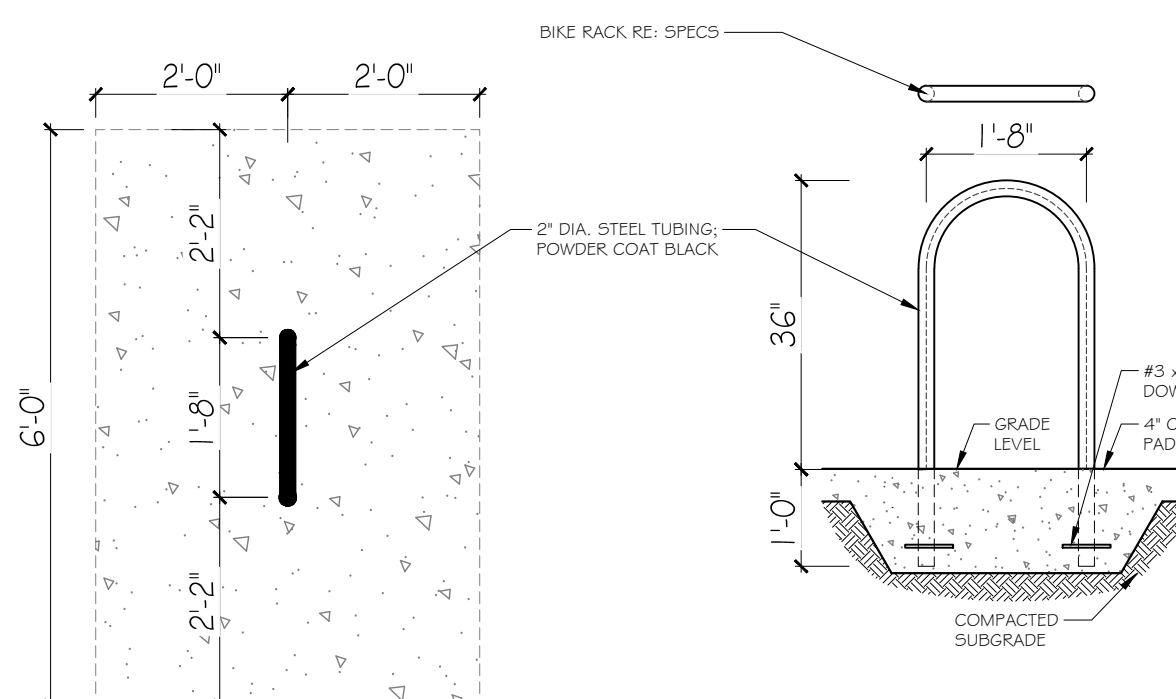
5 ENCLOSURE WALL SECTION
SCALE: 1/2" = 1'-0"



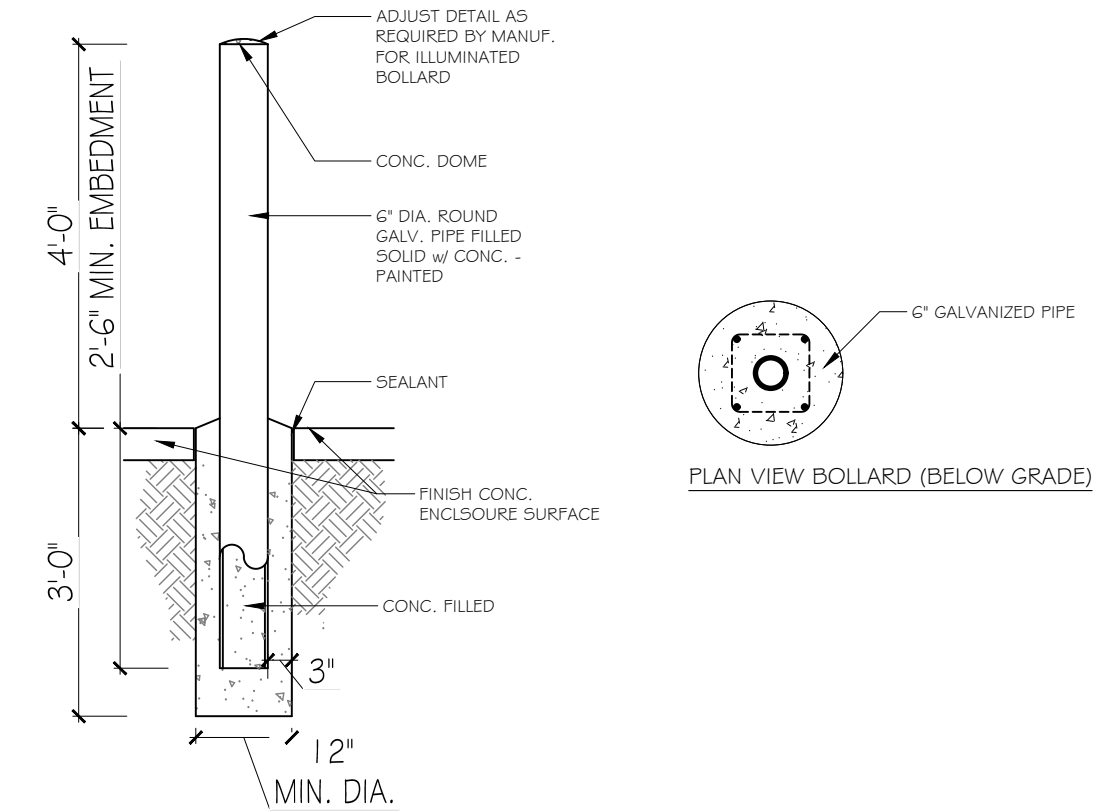
6 ENCLOSURE B-CANE BOLT
SCALE: 1 1/2" = 1'-0"



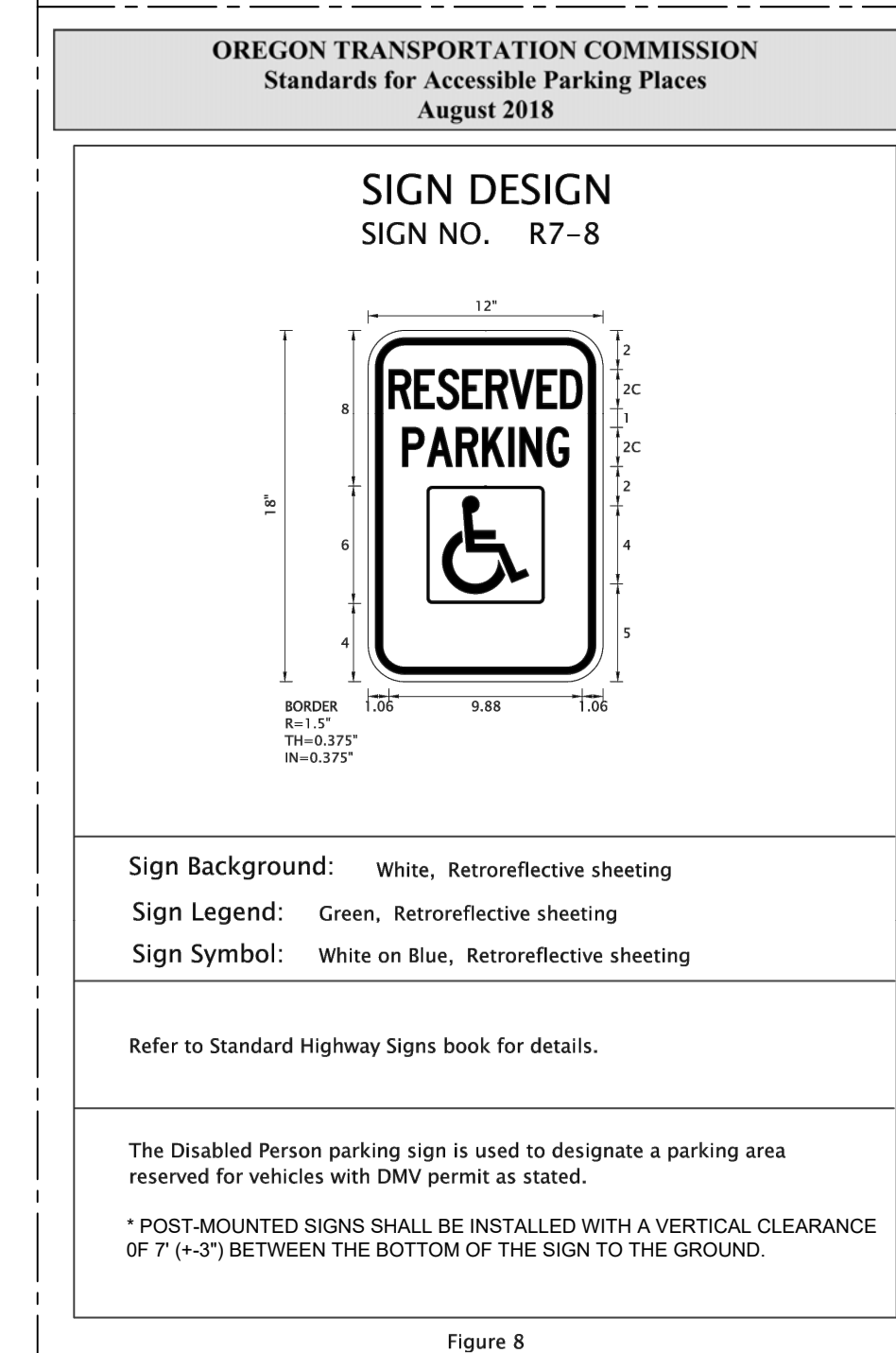
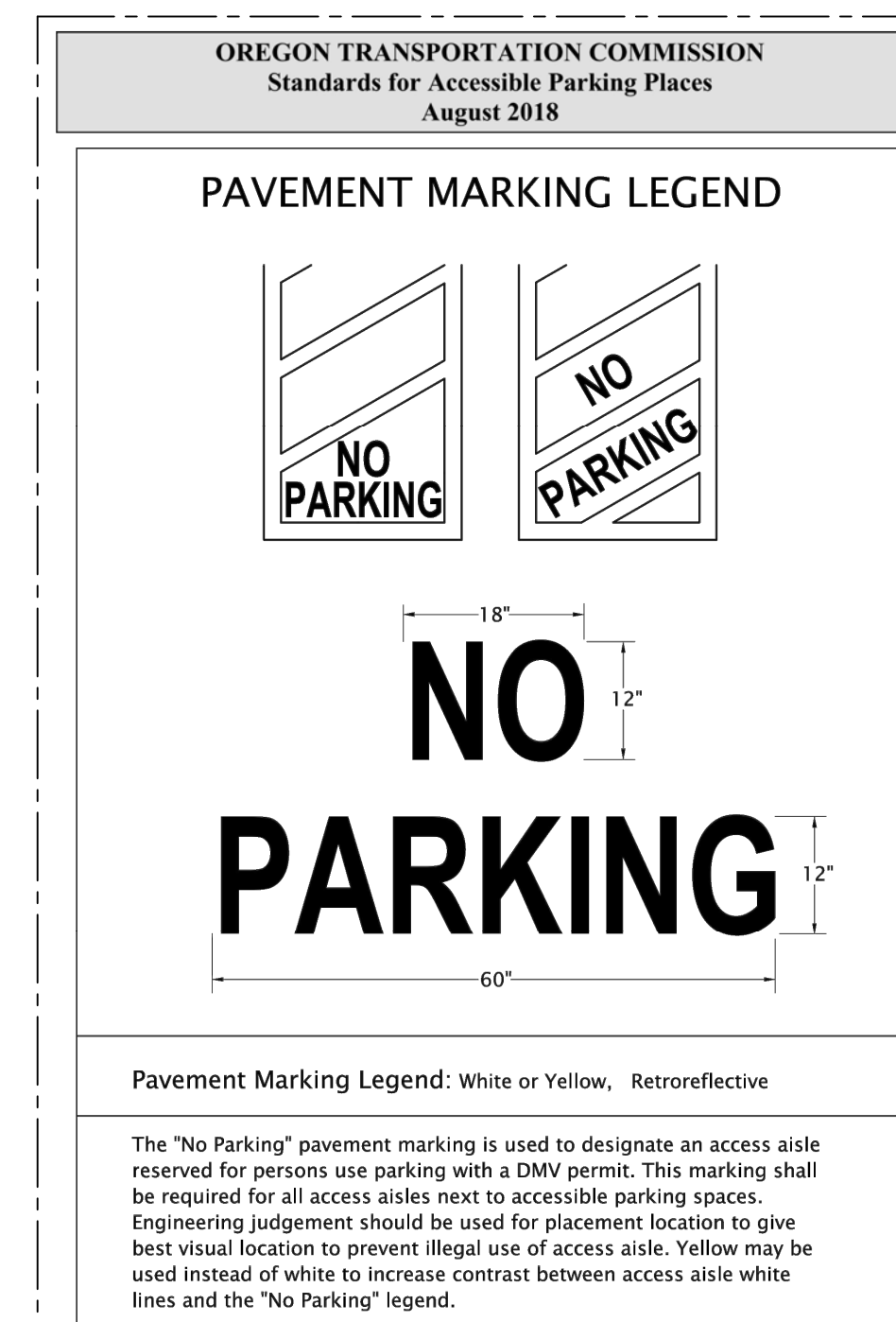
7 ENCLOSURE EXPANSION JOINT
SCALE: 1 1/2" = 1'-0"



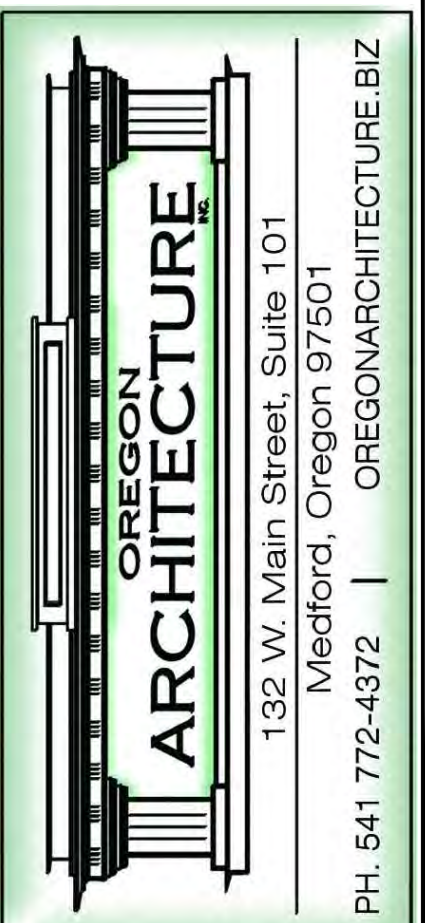
8 BICYCLE RACK
SCALE: 1/2" = 1'-0"



9 BOLLARD DETAILS
SCALE: 1/2" = 1'-0"



9 ACCESSIBLE PARKING DETAILS
NTS



WILSONVILLE
CONVENIENCE
STORE
PROJECT LOCATION:
29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

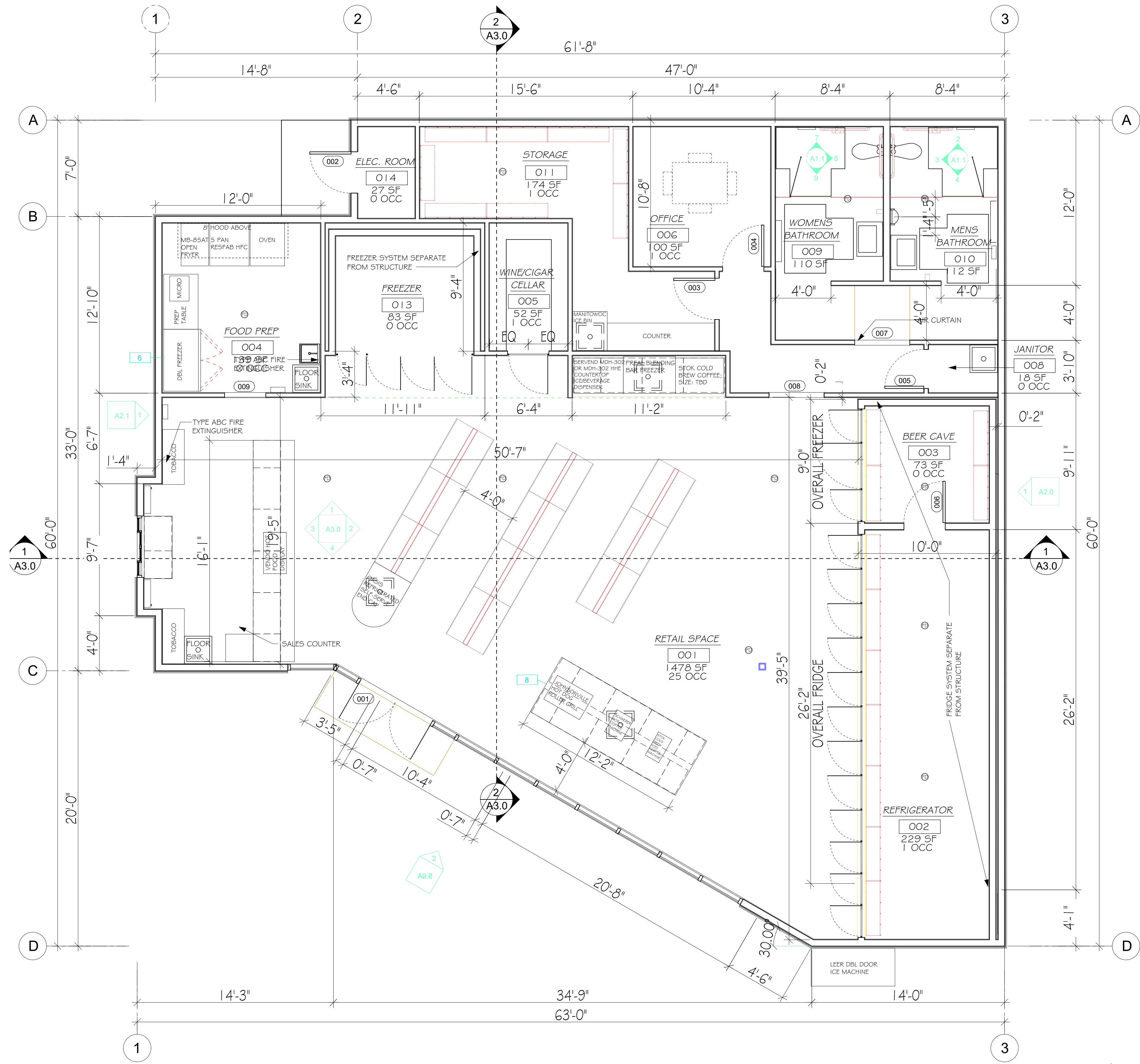
Approved for the Owner By: _____ Date: _____	
REVISIONS	BY
PLOT DATE: 05-05-22	
ISSUE DATE: _____	
DRAWN BY: MM	
JOB NO.: 4664	
SHEET	

A1.0
FLOOR PLAN

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GENERAL NOTES:

- A. ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF EACH SUB CONTRACTOR TO CHECK WITH THE ARCHITECTURAL AND OTHER DRAWINGS, ANY DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION FOR CLARIFICATION.
- B. THE CONTRACTOR SHALL FIELD REVIEW THE EXISTING SITE PRIOR TO BEGINNING CONSTRUCTION. ANY CONDITIONS THAT ARE FOUND TO BE INCONSISTENT WITH THESE DOCUMENTS OR WHERE THE INTENT IS IN DOUBT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION.
- C. DO NOT SCALE DRAWINGS, THE CONTRACTOR SHALL USE DIMENSIONS SHOWN ON THE DRAWINGS AND ACTUAL FIELD MEASUREMENTS, NOTIFY THE ARCHITECT IF ANY DISCREPANCIES ARE FOUND. NOTE THAT DIMENSIONS ARE TO FACE OF FINISH OR CENTER LINE OF WALL OR COLUMN UNLESS OBVIOUSLY SHOWN OR MARKED OTHERWISE.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION AND COORDINATION WITH OTHER CONTRACTORS TO SECURE COMPLIANCE OF DRAWINGS AND SPECIFICATIONS, AND THE ACCURATE LOCATION OF OPENINGS FOR MECHANICAL ELECTRICAL AND MISCELLANEOUS EQUIPMENT.
- E. EXITS SHALL BE OPERABLE FROM INSIDE WITHOUT A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT AND SHALL BE EQUIPPED WITH PANIC HARDWARE WHERE REQUIRED. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND INSTALLING PANIC HARDWARE AS REQUIRED.
- F. THE CONTRACTOR SHALL INVESTIGATE AND VERIFY LOCATIONS OF STRUCTURAL, MECHANICAL AND ELECTRICAL ELEMENTS AND OTHER EXISTING CONDITIONS PRIOR TO DRILLING OR CUTTING OF SLABS, CMU OR STRUCTURAL MEMBERS, NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO BEGINNING WORK.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL BLOCKING FOR ALL WALL AND CEILING MOUNTED ITEMS, INCLUDING HARDWARE, LIGHTING FIXTURES AND F.O.I.C. INTERIOR MILLWORK, STANDARDS, BRACKETS & SHELVING.
- H. ALL EXTERIOR AND INTERIOR WALL FRAMING WILL BE WOOD STUD, ALL LUMBER PLYWOOD AND CONCEALED WOOD WHEN IN CONTACT WITH CONCRETE SHALL BE KILN DRIED OR PRESSURE TREATED WOOD.
- I. ALL GWB SHALL BE 5/8" X" GYPSUM WALL BOARD AND MOLD RESISTANT FIRECODE X PANELS 5CX UL TYPE "X".
- J. SEE DETAIL 1 01AS.1 FOR WALL TYPE ASSEMBLIES.



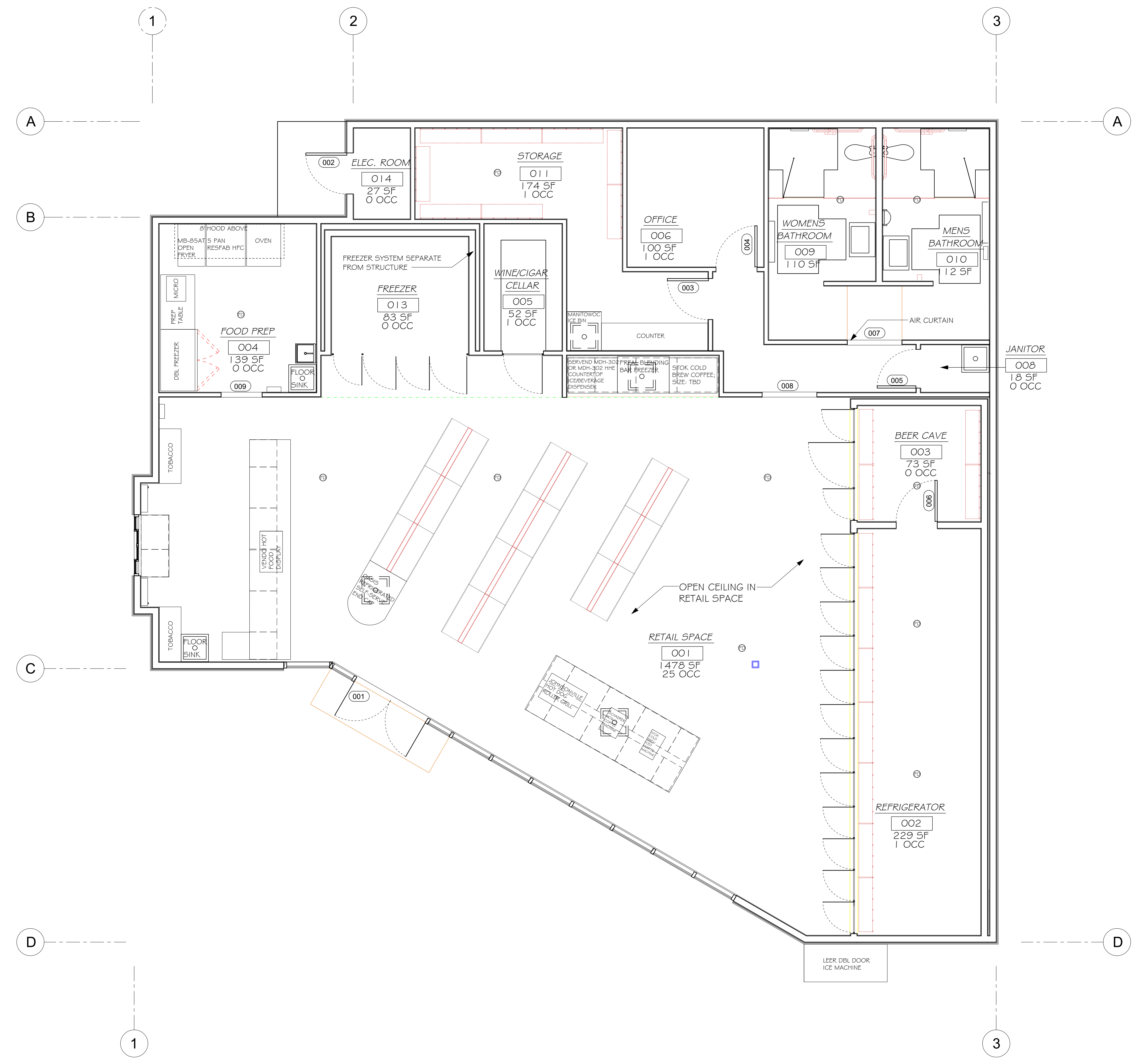
1 FLOOR PLAN
SCALE: 1/4" = 1'-0"

TO VERIFY SCALES 0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH



CEILING NOTES:

- A. ALL FIXTURES SHALL BE LOCATED IN CENTER OF CEILING UNLESS OTHERWISE NOTED.
- B. CONTRACTOR SHALL VERIFY FIXTURE QUANTITIES AND ALSO MAKE PROPER ADJUSTMENTS FOR ANY CHANGES IN PLAN DUE TO ADDITIONAL REQUIREMENTS, LOCAL CODES, ETC.
- C. FOR H.V.A.C. PLAN, SECTIONS, DUCT LOCATIONS, SUPPLY AND RETURN AIR GRILLE SIZES AND ADDITIONAL INFORMATION REFER TO MECHANICAL DRAWINGS.
- D. GENERAL CONTRACTOR TO COORDINATE ALL LIGHTING WITH ELECTRICAL DRAWINGS.
- E. PROVIDE BLOCKING AT LOCATIONS FOR ALL WALL MOUNTED EQUIPMENT, FIXTURES, AND SHELVING.
- F. THE REFERENCE HEIGHTS INDICATED ON PLAN ARE FROM APPROXIMATE FINISH FLOOR (A.F.F.).



1 RCP PLAN
SCALE: 1/4" = 1'-0"

TO VERIFY SCALES 0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH

OREGON ARCHITECTURE
132 W. Main Street, Suite 101
Medford, Oregon 97501
PH. 541 772-4372 | OREGONARCHITECTURE.BIZ

WILSONVILLE CONVENIENCE STORE
PROJECT LOCATION: 29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

Approved for the Owner By: _____ Date: _____

REVISIONS	BY

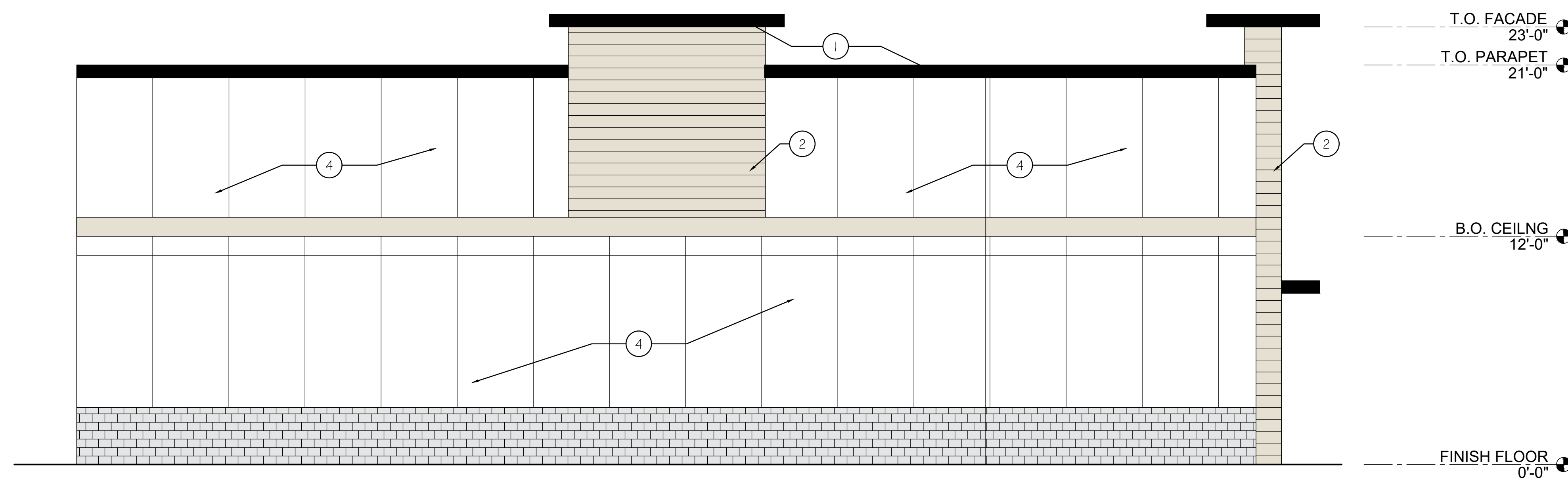
PLOT DATE: 05-05-22
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JOB NO.: 4664
SHEET

A1.1
RCP PLAN

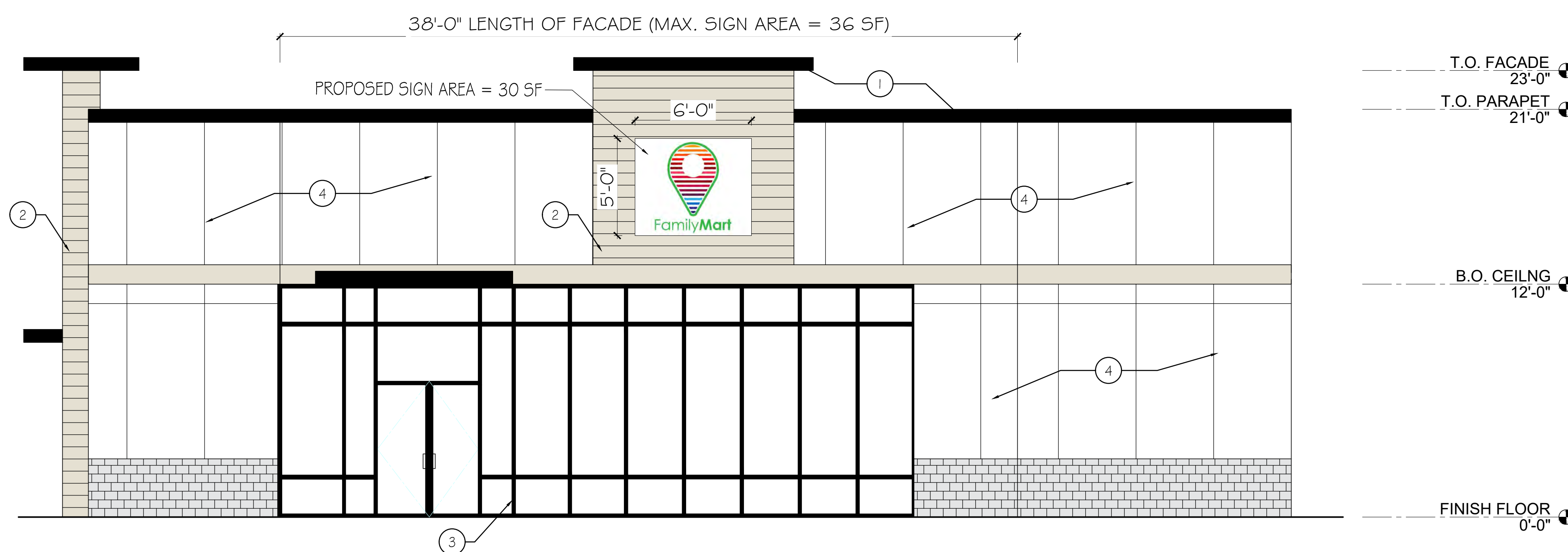


ELEVATION KEY NOTES

- ① MATTE BLACK ROOF METAL EDGE
- ② HARDIE MULTI-GROOVE FIBER CEMENT PANELS; COLOR: TIMBER BARK
- ③ ALUM. FRAME & MULLIONS
- ④ HARDIE MULTI-GROOVE FIBER CEMENT PANELS; COLOR: COBBLE STONE
- ⑤ HARDIE MULTI-GROOVE FIBER CEMENT PANELS; COLOR: ARCTIC WHITE



1 **NORTH EXTERIOR ELEVATION**
SCALE: 1/4" = 1'-0"



2 **SOUTH EXTERIOR ELEVATION**
SCALE: 1/4" = 1'-0"

TO VERIFY SCALES 0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH

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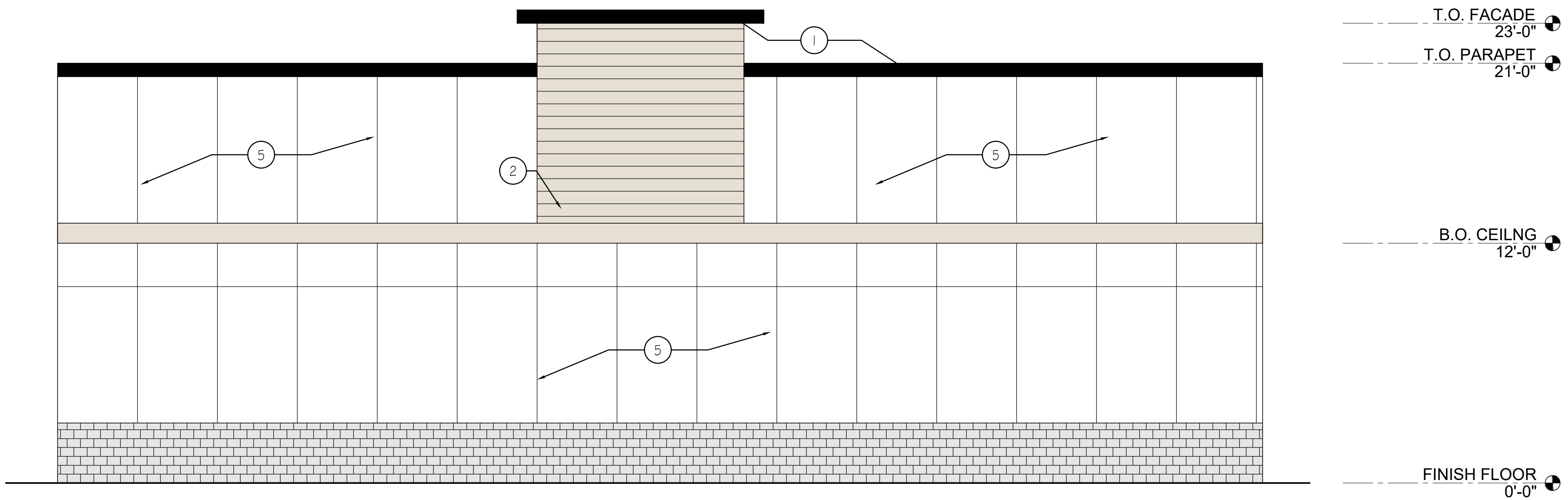
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SHEET	

A2.0
EXTERIOR ELEVATIONS

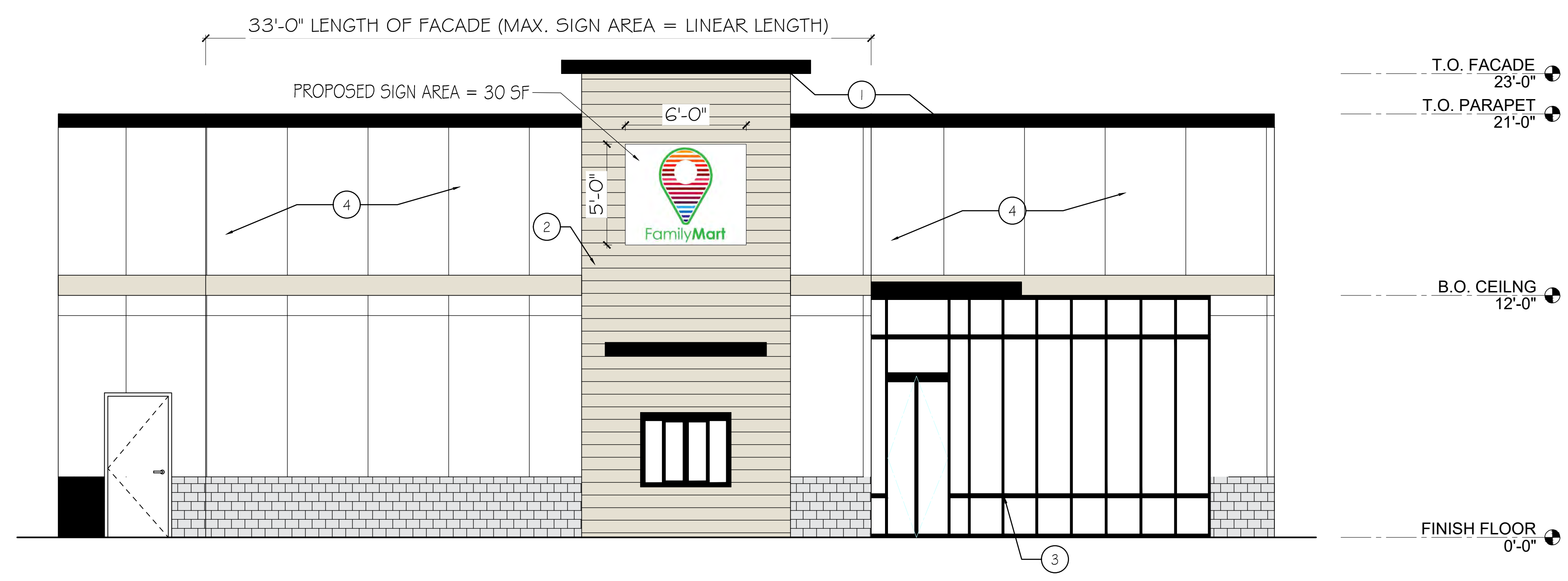


ELEVATION KEY NOTES

- ① MATTE BLACK ROOF METAL EDGE
- ② HARDIE MULTI-GROOVE FIBER CEMENT PANELS; COLOR: TIMBER BARK
- ③ ALUM. FRAME # MULLIONS
- ④ HARDIE MULTI-GROOVE FIBER CEMENT PANELS; COLOR: COBBLE STONE
- ⑤ HARDIE MULTI-GROOVE FIBER CEMENT PANELS; COLOR: ARCTIC WHITE



① **EAST EXTERIOR ELEVATION**
SCALE: 1/4" = 1'-0"



② **WEST EXTERIOR ELEVATION**
SCALE: 1/4" = 1'-0"

TO VERIFY SCALES 0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH

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A2.1

EXTERIOR ELEVATIONS



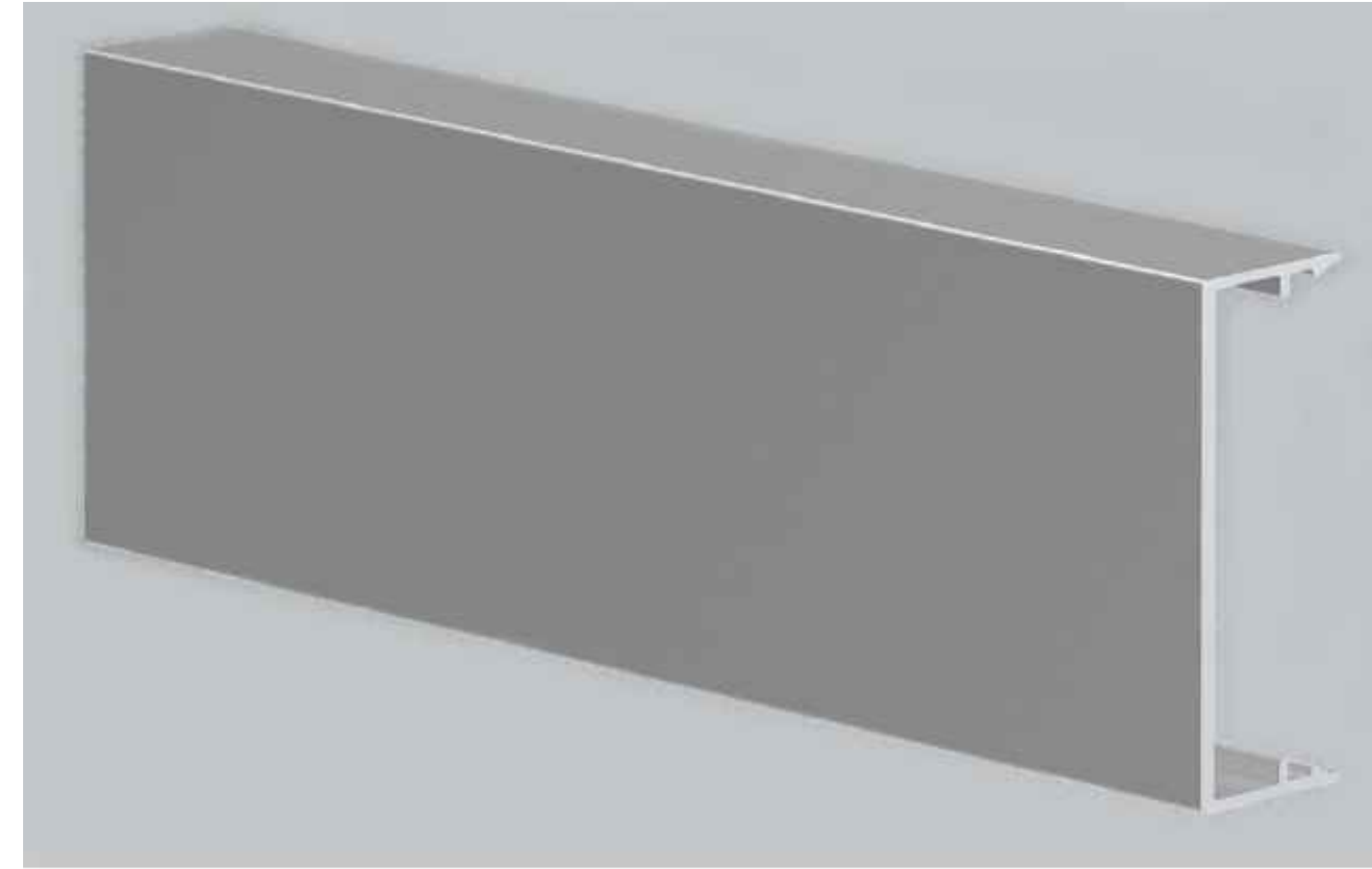
HARDIE MULTI-GROOVE PANELS
COLOR: ARCTIC WHITE



HARDIE MULTI-GROOVE PANELS
COLOR: COBBLESTONE



HARDIE MULTI-GROOVE PANELS
COLOR: TIMBER BARK



**YKK AP STOREFRONT ALUM.
FRAME & MULLIONS**
FINISH: CLEAR



matte | 39/80020
Black Matte | gloss level 2015

**TIGER DRYLAC DRIVE-THRU
WINDOW FRAM**
COLOR: BLACK ANODIZED



Matte Black

**FIRESTONE UNA-CLAD ROOF
MATERIAL**
COLOR: MATTE BLACK

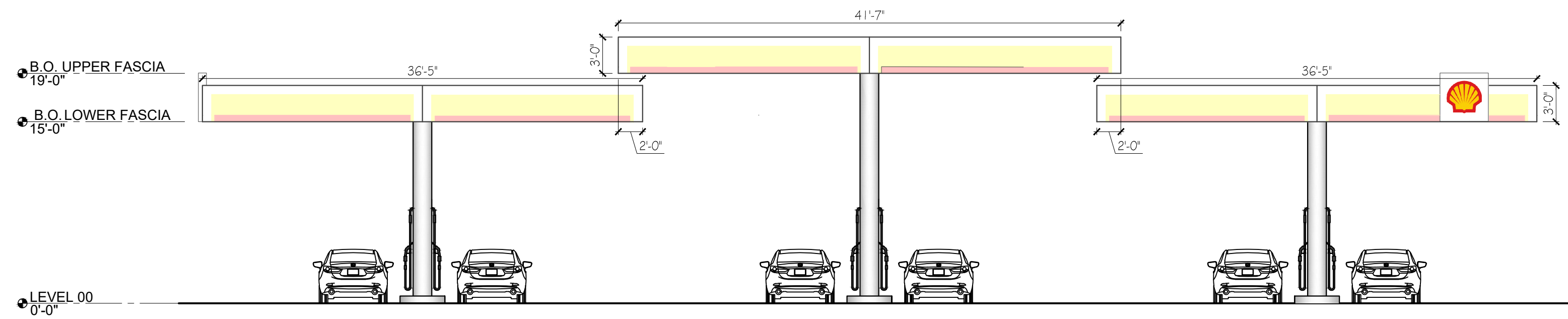


PROJECT DESCRIPTION:
**WILSONVILLE
CONVENIENCE
STORE**
PROJECT LOCATION:
29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

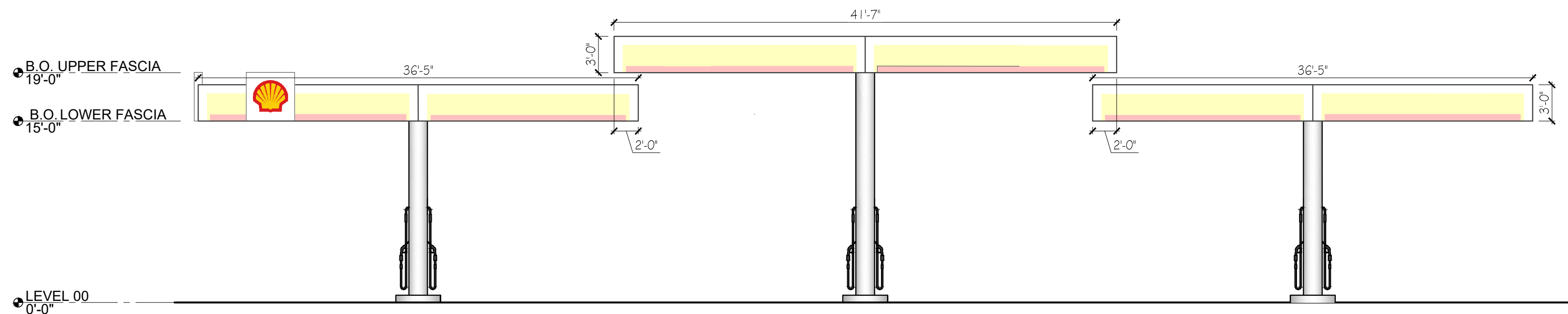
Approved for the Owner By: _____ Date: _____	
REVISIONS	BY
PLOT DATE:	05-05-22
ISSUE DATE:	
DRAWN BY:	MM
JOB NO.:	4664
SHEET	

A2.2
EXT. COLOR BOARD

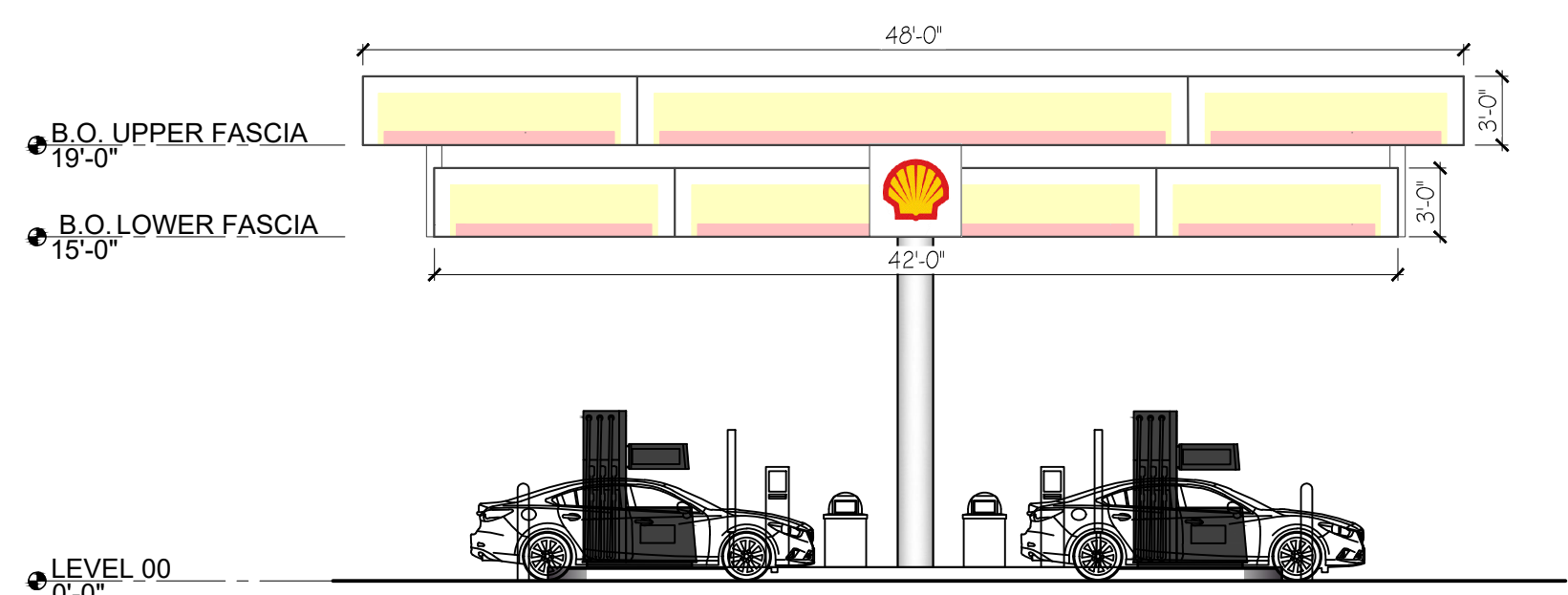
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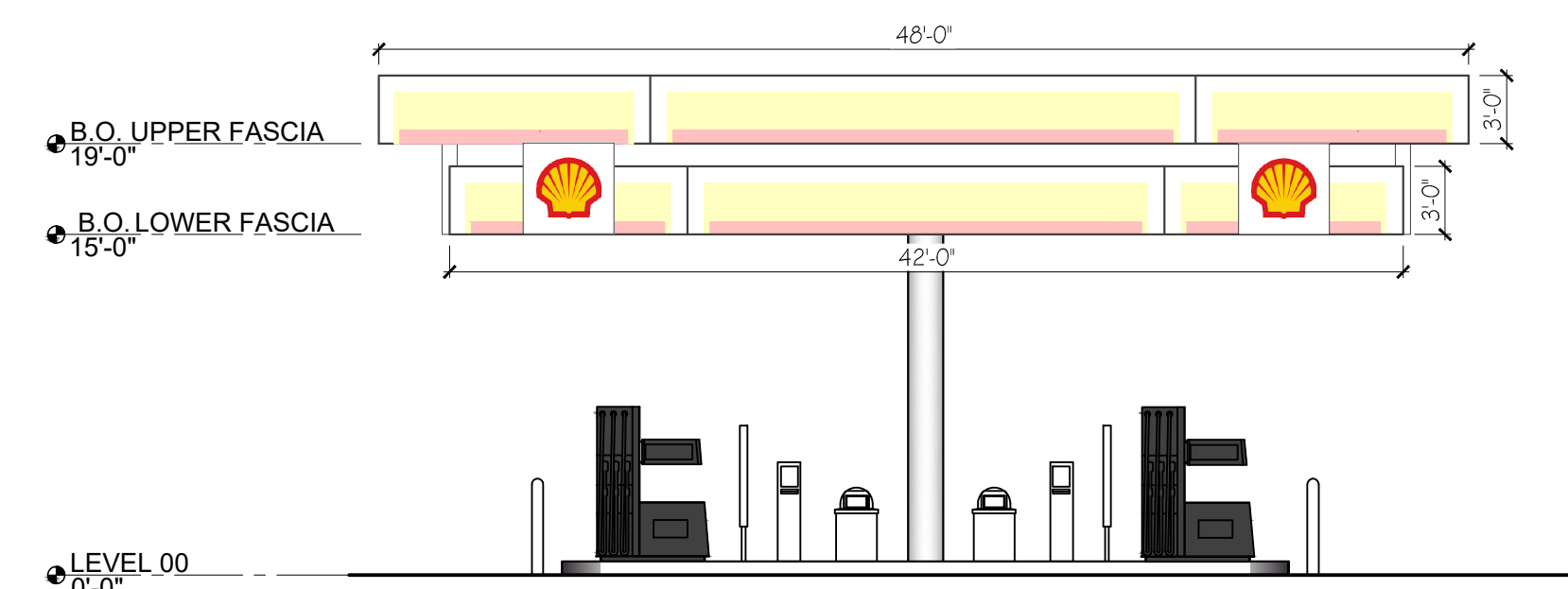
1 NORTH FUEL CANOPY ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH FUEL CANOPY ELEVATION
SCALE: 1/8" = 1'-0"



3 EAST FUEL CANOPY ELEVATION
SCALE: 1/8" = 1'-0"



4 WEST FUEL CANOPY ELEVATION
SCALE: 1/8" = 1'-0"

TO VERIFY SCALES 0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH

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ISSUE DATE:		
DRAWN BY:	MM	
JOB NO.:	4664	
SHEET		

CS1
FUEL CANOPY PLANS & DETAILS



WARELIGHT INDUSTRIAL AND COMMERCIAL LIGHTING MFR SINCE 2003

PROJECT NAME: _____
 CATALOG NUMBER: _____
 NOTES: _____
 FIXTURE SCHEDULE: _____

Square Garage Canopy Light



The Warelight Square Garage Canopy Light features a sealed die-cast housing for indoor and outdoor applications. Applications include parking garages, storage areas, walkways, entryways, and will also function as security lighting.

Features:

- Sealed die-casting profile for outdoor applications
- Wattage/Lumens
 - 27W = 3800
 - 40W = 5450
 - 60W = 8000
- Voltage: 120-270V
- Dimmable
- cULus and Wet Location listed



Series	Wattage	CCT	Finish	Voltage
WL-SQGC	27W	50K =	B =	DMV = Dimmable, 120-277V
	40W	5000K	Bronze	
	60W			

Lighting Supplier Since 2003
 WAREHOUSE-LIGHTING.COM

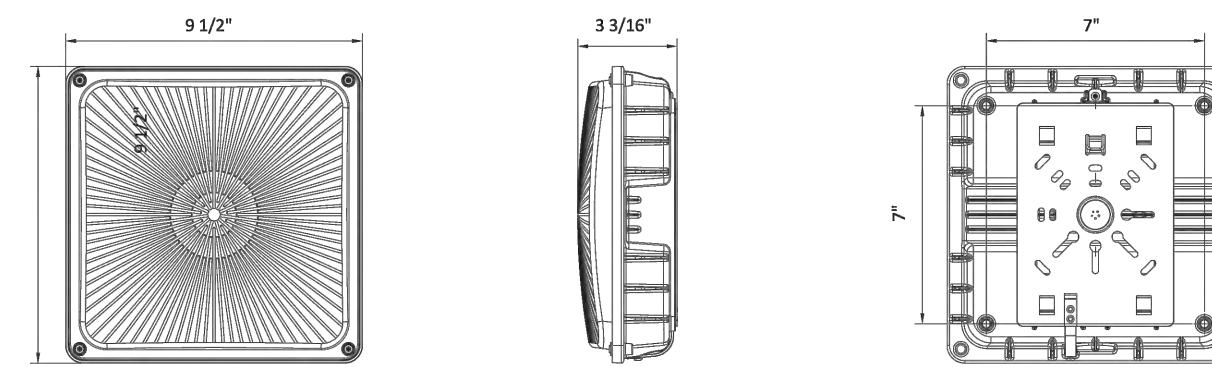
Warehouse-Lighting.com
 2750 South 163rd St
 New Berlin, WI 53151

Warehouse-Lighting.com
 Phone: 888-454-4480
 info@warehouse-lighting.com

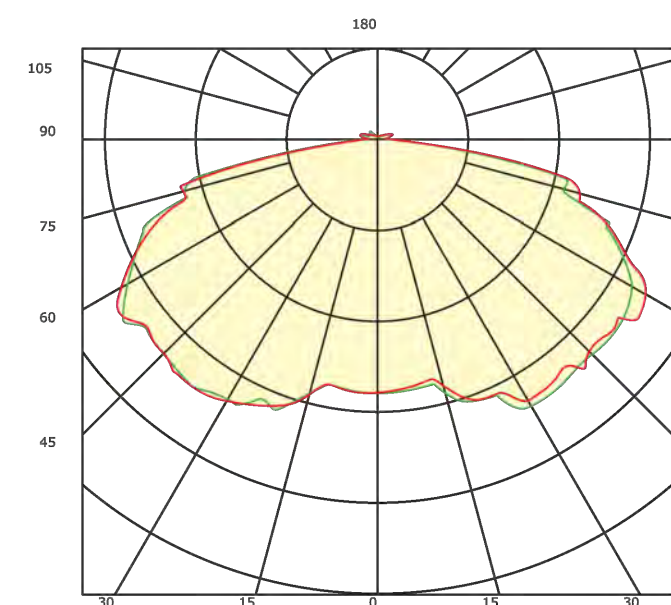
WARELIGHT INDUSTRIAL AND COMMERCIAL LIGHTING MFR SINCE 2003

SKU	Dimensions	Weight	Lumens
WL-SQGC-27W-50K-B-DMV	9 1/2" L x 9 1/2" W x 3 3/16" H	3.615lbs	3800
WL-SQGC-40W-50K-B-DMV		4.166lbs	5450
WL-SQGC-60W-50K-B-DMV		5.070lbs	8000

DIMENSIONS
 27W/40W/60W



PHOTOMETRICS



Lighting Supplier Since 2003
 WAREHOUSE-LIGHTING.COM

Warehouse-Lighting.com
 2750 South 163rd St
 New Berlin, WI 53151

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 Phone: 888-454-4480
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WILSONVILLE CONVENIENCE STORE
PROJECT LOCATION: 29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

Approved for the Owner By:	Date:
REVISIONS	BY

PLOT DATE: 05-05-22
ISSUE DATE:
DRAWN BY: MM
JOB NO.: 4664
SHEET

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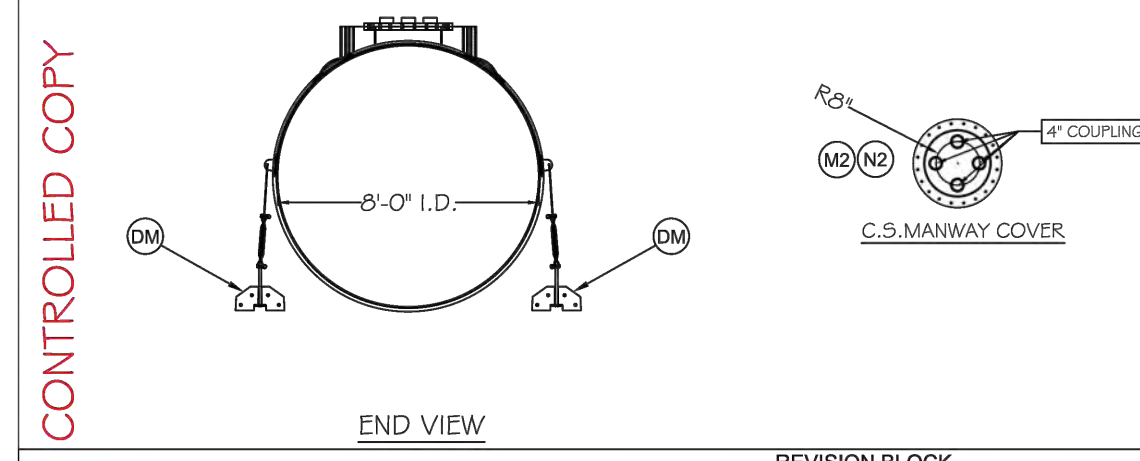
SON 150 & 152

FRP FUEL STORAGE TANK
8' Ø - 15,000 Gal.
9k/6k

TRAFFIC RATED TANK
TRAFFIC RATED LID MUST BE RECESSED IN CONCRETE SLAB

NOZZLE SCHEDULE						
NOZZLE	SIZE	MAT'L	DESCRIPTION	ADDITIONAL ACCESSORIES - NOTES	SERVICE	QTY
A	4"	FRP	INTERSTITIAL FITTING		LEAK DETECTION	2
B1	4"	FRP	FUEL COUPLING	W/ 12" X 12" STRIKER PLATE	SERVICE	1
B2	4"	FRP	FUEL COUPLING	W/ 12" X 12" STRIKER PLATE	SERVICE	1
B3	4"	FRP	FUEL COUPLING	W/ 12" X 12" STRIKER PLATE	SERVICE	1
B4	4"	FRP	FUEL COUPLING	W/ 12" X 12" STRIKER PLATE	SERVICE	1
M1	4"	FRP	MANWAY	ACCESS OPENING, SEE MANWAY COVER DRAWING	ENTROCLEANOUT	1
M2	-	C.S.	MANWAY COVER	COVER W/ 14" 4" COUPLINGS, SEE MANWAY COVER DRAWING	COVER	1
M3	4"	FRP	SUMP	42"X42" SUMP W/ 32" ID	ENTROCLEANOUT	1
M4	4"	FRP	MANWAY	ACCESS OPENING, SEE STRIKER PLATE	ENTROCLEANOUT	1
N2	-	C.S.	MANWAY COVER	COVER W/ 14" 4" COUPLINGS, SEE MANWAY COVER DRAWING	COVER	1
N3	4"	FRP	SUMP	42"X42" SUMP W/ 32" ID	ENTROCLEANOUT	1
L1	-	GALV.	LIFTING LUGS		LIFTING	4
PL	-	GALV.	POSITION LUGS		POSITIONING	2
DM	-	-	ANCHOR SYSTEM	NOT PROVIDED	DEADMAN	0
TDS	-	-	STRAP ASSEMBLY	NOT PROVIDED	TIE DOWN STRAPS	4
TB	-	-	TURBULOCULED	NOT PROVIDED	CLAMP	0

ALL INFORMATION WITHIN THIS DRAWING IS CONSIDERED CONFIDENTIAL, PROPRIETARY INFORMATION

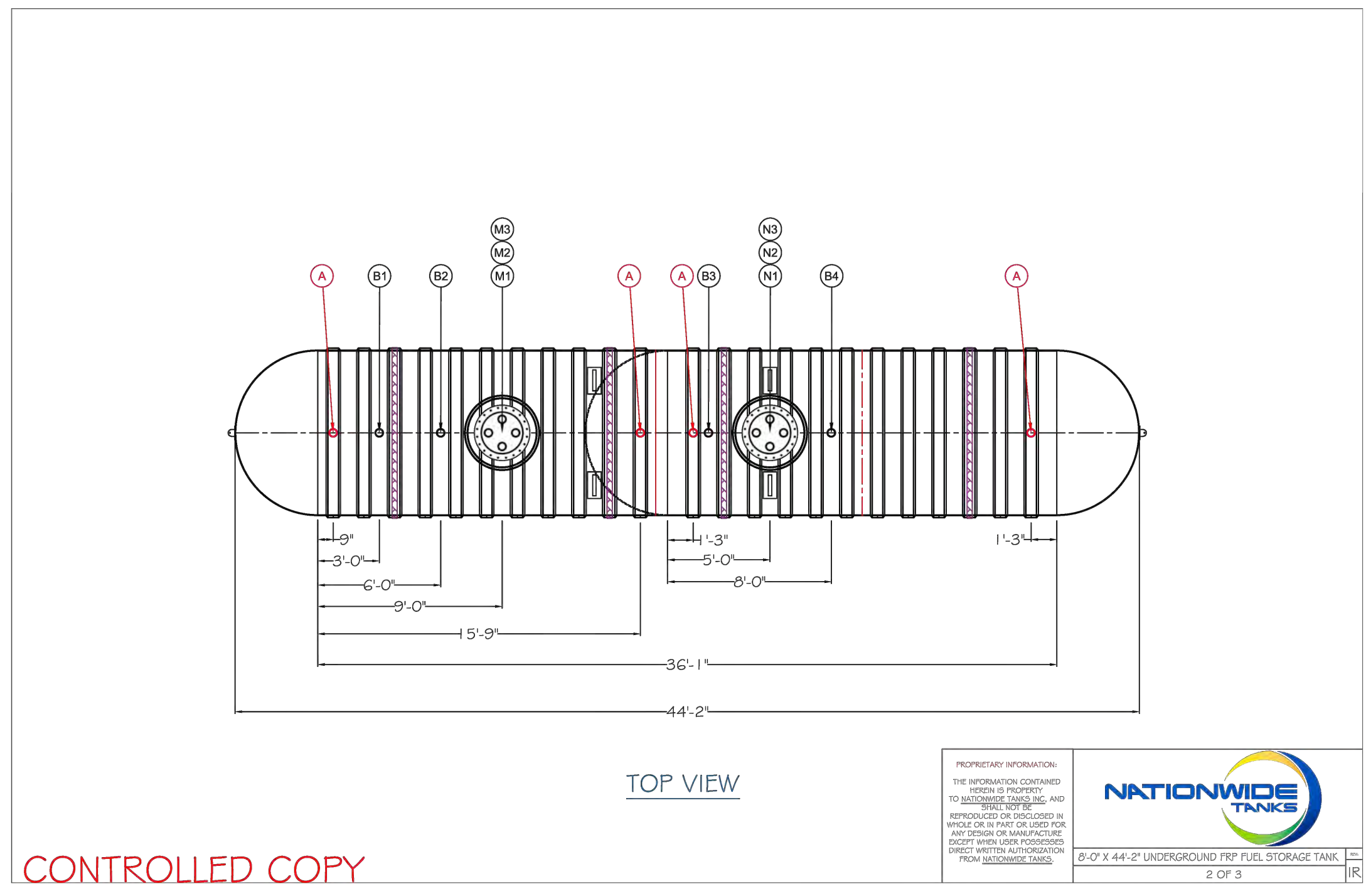


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854.500.9349
www.nationwidetanks.com

NATIONWIDE TANKS



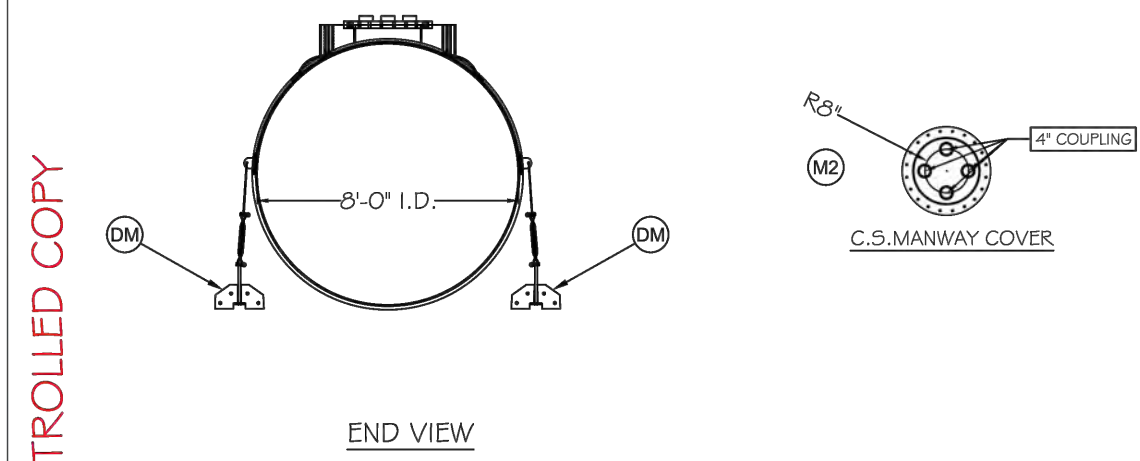
SON 149 & 151

FRP FUEL STORAGE TANK
8' Ø - 15,000 Gal.

TRAFFIC RATED TANK
TRAFFIC RATED LID MUST BE RECESSED IN CONCRETE SLAB

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B2	4"	FRP	FUEL COUPLING	W/ 12" X 12" STRIKER PLATE	SERVICE	1
M1	24"	FRP	MANWAY	ACCESS OPENING, SEE 24" STRIKER PLATE	ENTROCLEANOUT	1
M2	-	C.S.	MANWAY COVER	COVER W/ 14" 4" COUPLINGS, SEE MANWAY COVER DRAWING	COVER	1
M3	4"	FRP	SUMP	42"X42" SUMP W/ 32" ID	ENTROCLEANOUT	1
L1	-	GALV.	LIFTING LUGS		LIFTING	4
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TB	-	-	TURBULOCULED	NOT PROVIDED	CLAMP	0

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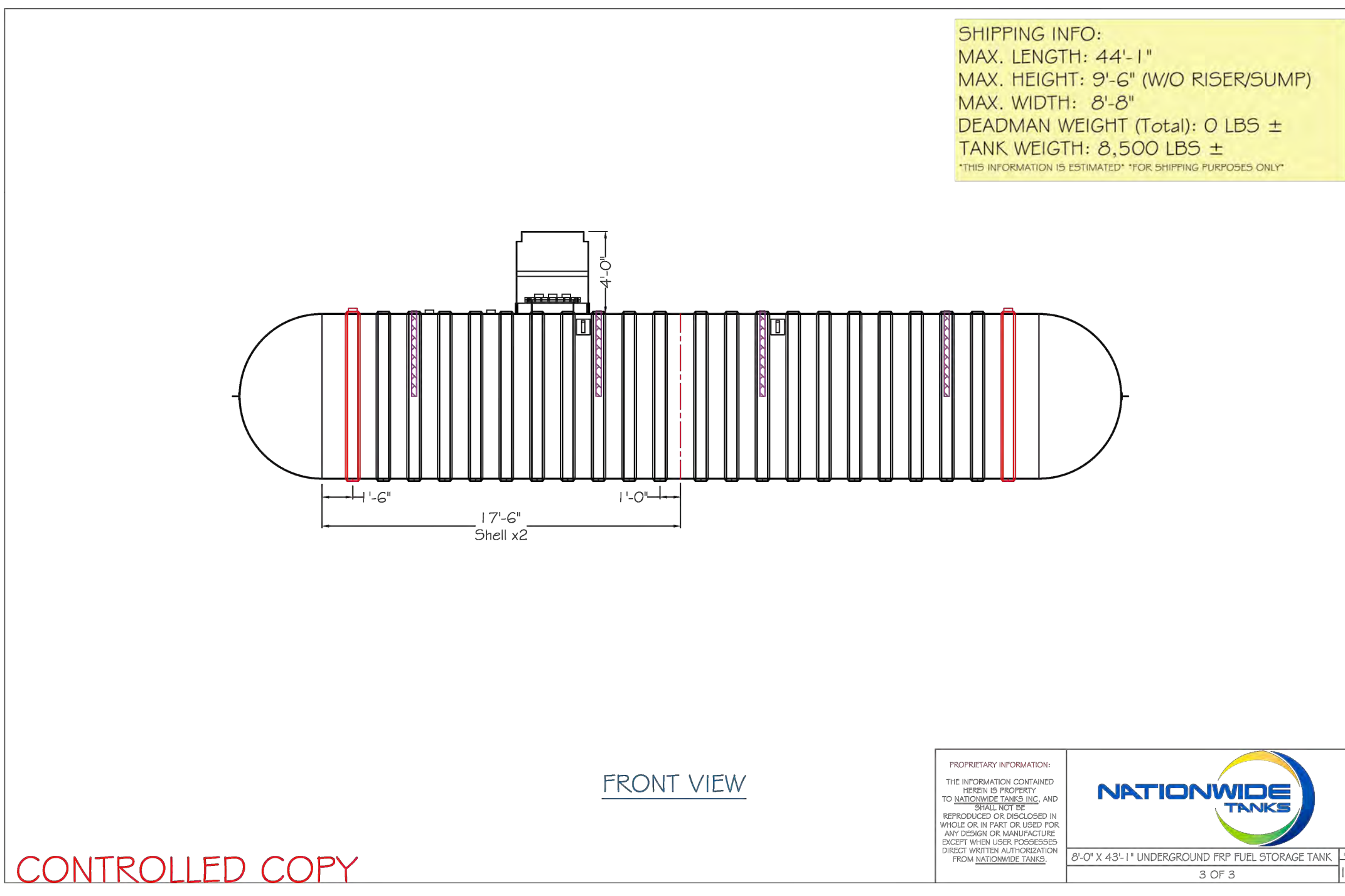


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REVISION	DESCRIPTION
IR	INITIAL RELEASE

DATE: 04/12/2022 DRAFTER: [Signature]

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NATIONWIDE TANKS



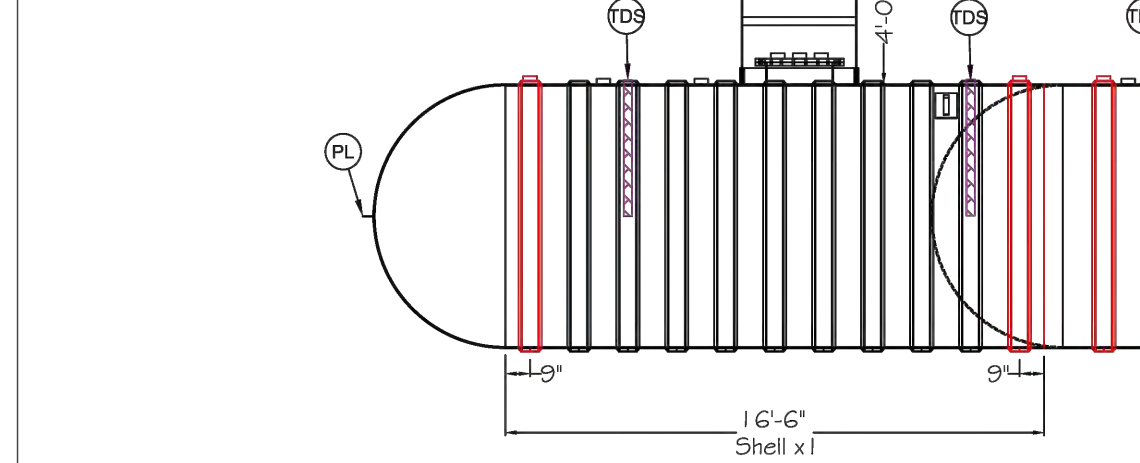
SON 150 & 152

FRP FUEL STORAGE TANK
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9k/6k

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B4	4"	FRP	FUEL COUPLING	W/ 12" X 12" STRIKER PLATE	SERVICE	1
M1	4"	FRP	MANWAY	ACCESS OPENING, SEE STRIKER PLATE	ENTROCLEANOUT	1
M2	-	C.S.	MANWAY COVER	COVER W/ 14" 4" COUPLINGS, SEE MANWAY COVER DRAWING	COVER	1
M3	4"	FRP	SUMP	42"X42" SUMP W/ 32" ID	ENTROCLEANOUT	1
M4	4"	FRP	MANWAY	ACCESS OPENING, SEE STRIKER PLATE	ENTROCLEANOUT	1
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N3	4"	FRP	SUMP	42"X42" SUMP W/ 32" ID	ENTROCLEANOUT	1
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PL	-	GALV.	POSITION LUGS		POSITIONING	2
DM	-	-	ANCHOR SYSTEM	NOT PROVIDED	DEADMAN	0
TDS	-	-	STRAP ASSEMBLY	NOT PROVIDED	TIE DOWN STRAPS	4
TB	-	-	TURBULOCULED	NOT PROVIDED	CLAMP	0

ALL INFORMATION WITHIN THIS DRAWING IS CONSIDERED CONFIDENTIAL, PROPRIETARY INFORMATION



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REVISION	DESCRIPTION
IR	INITIAL RELEASE

DATE: 04/12/2022 DRAFTER: [Signature]

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NATIONWIDE TANKS



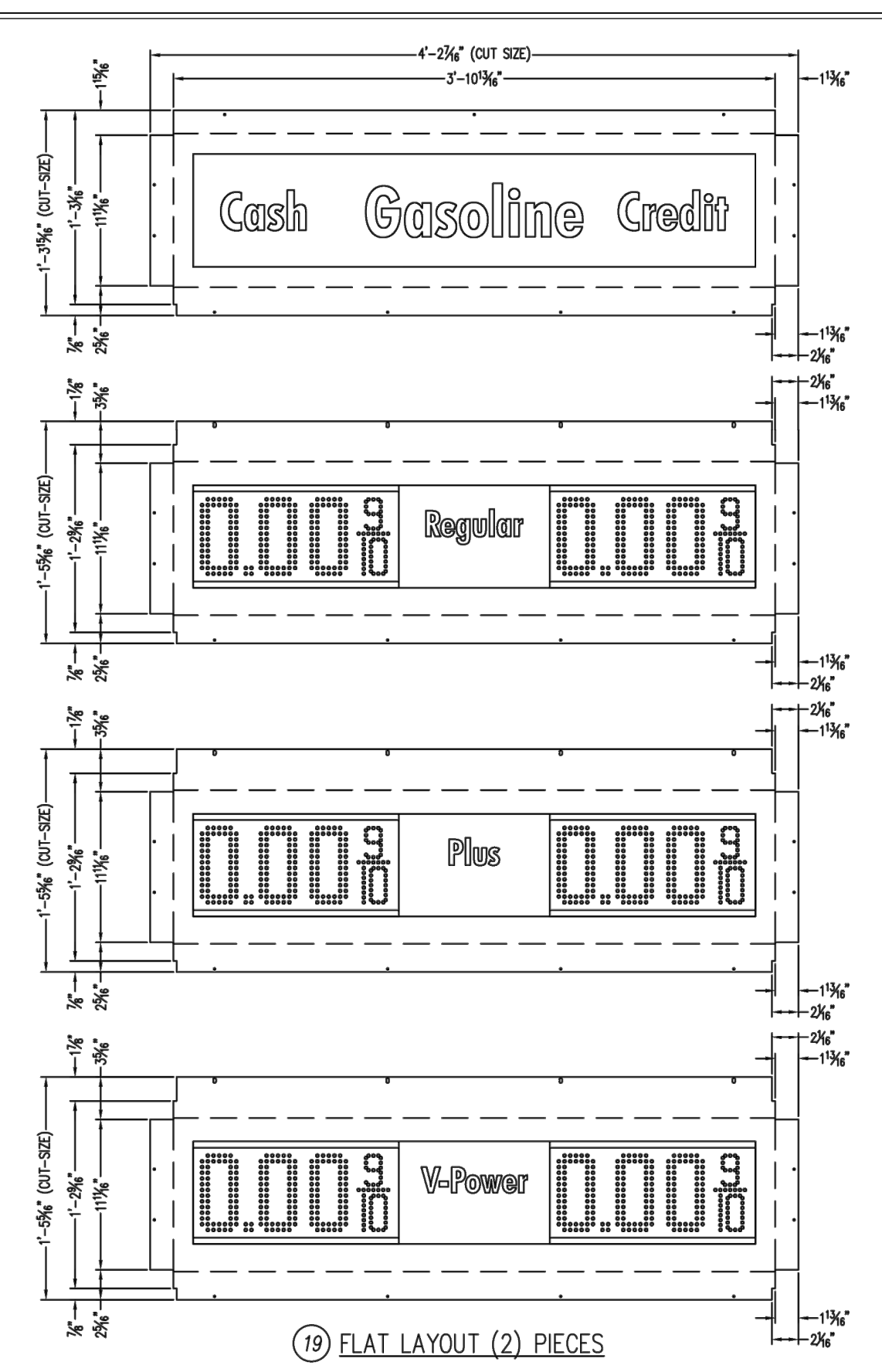
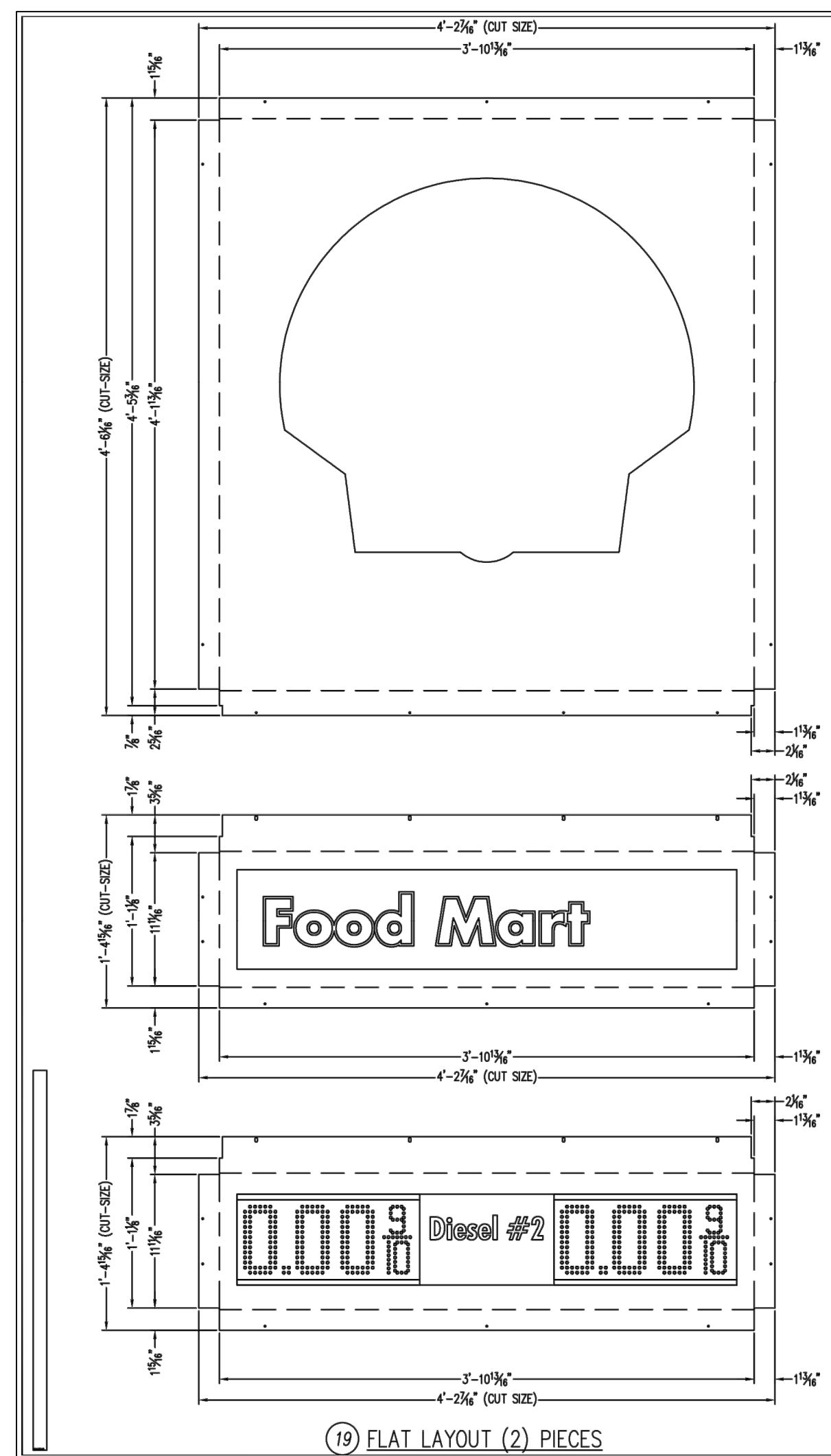


WILSONVILLE CONVENIENCE STORE
PROJECT LOCATION: 29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

Table with columns: REVISIONS, BY, DATE. Includes fields for Approved for the Owner By, Date, PLOT DATE: 05-05-22, ISSUE DATE, DRAWN BY: MM, JOB NO.: 4664, SHEET.

S2 MONUMENT SIGN DETAILS

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Table with columns: Voltage (120 AC), Splice (1), Current (14.4 AMPS), Drawn By (JNV), Date (3/9/21). Includes fields for Sign Size (43.08 SQ. FT), Design Load (30 PSF), Client (SHELL), and Part Number (SSRZLED58-202).

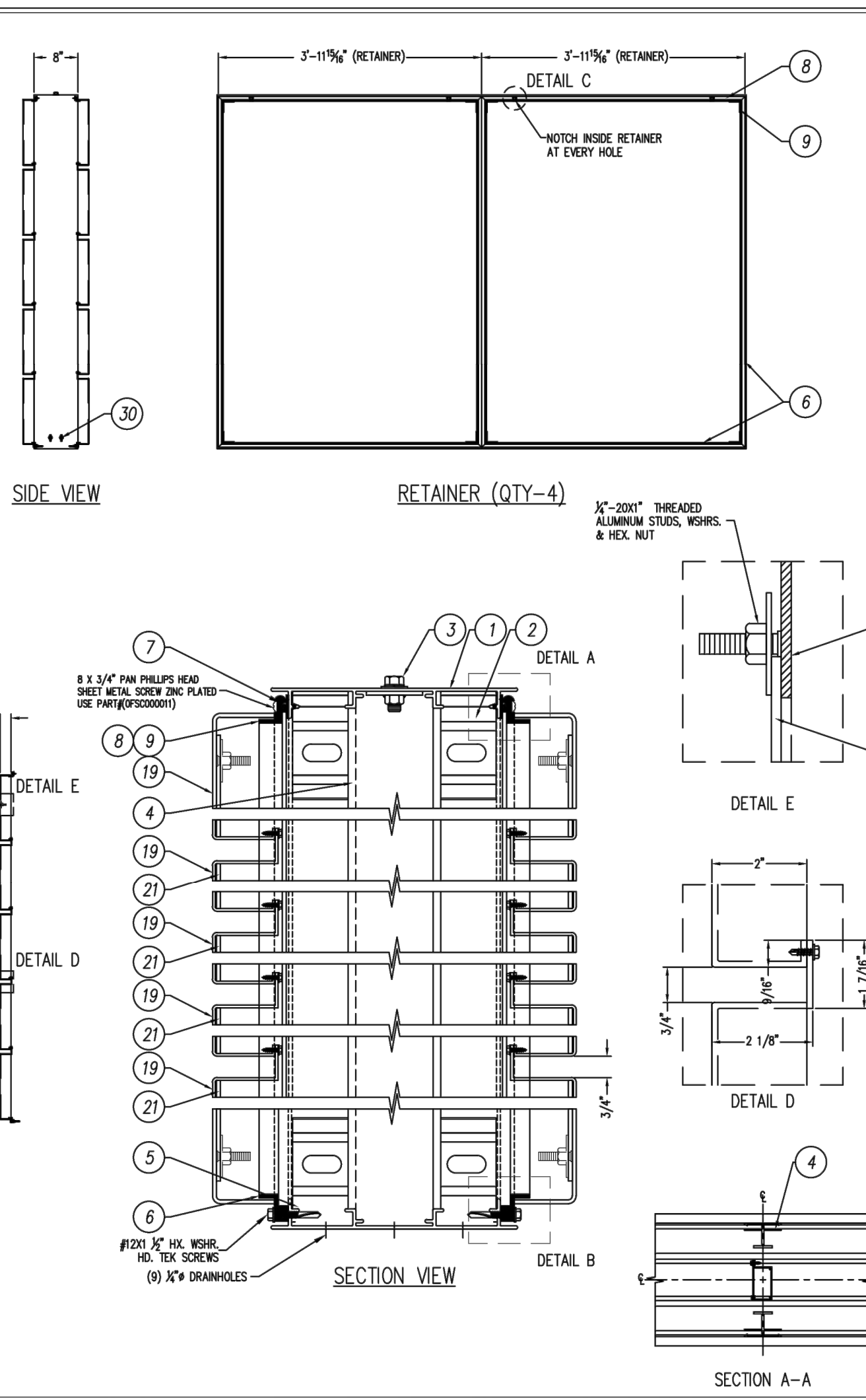
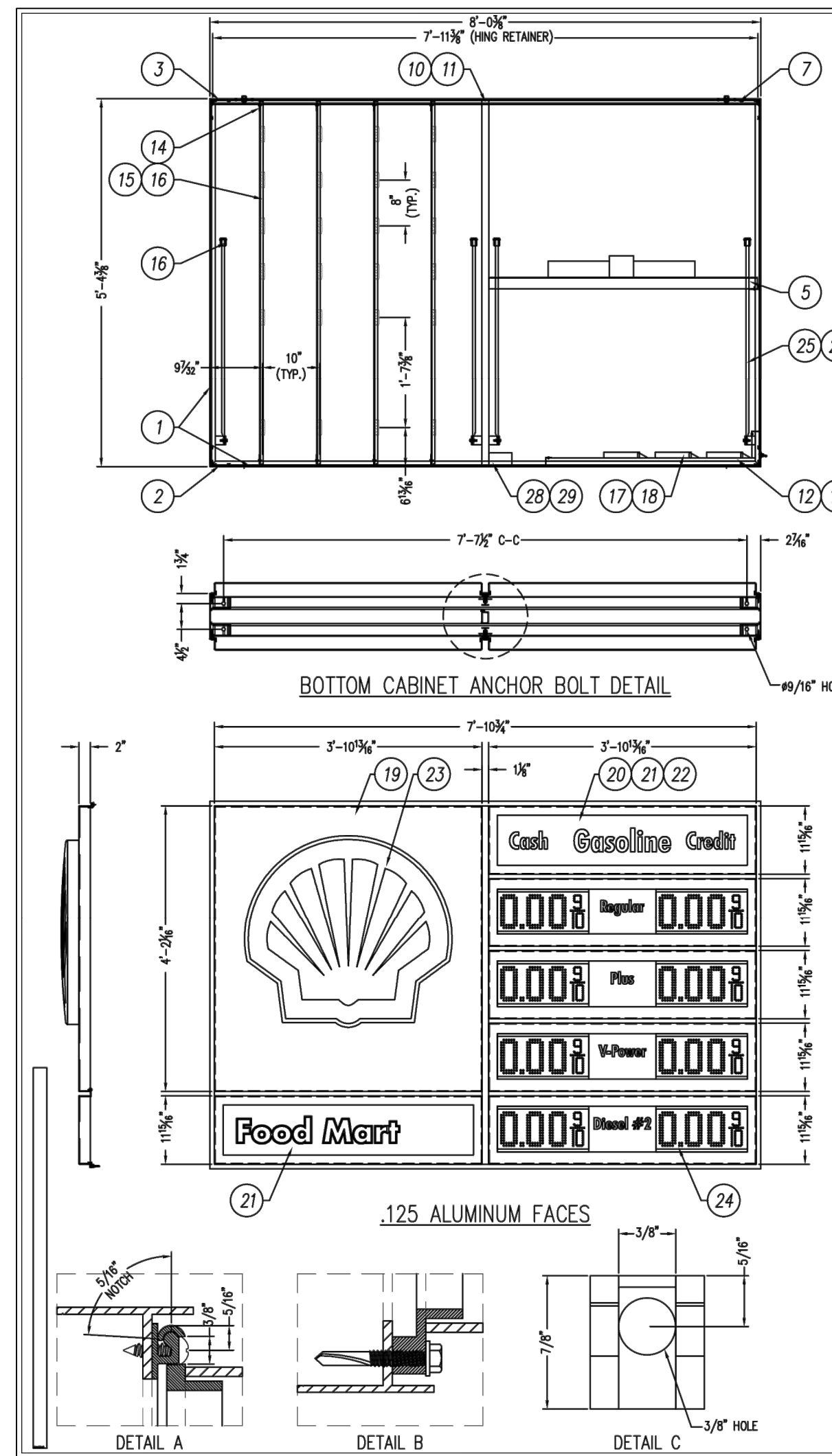


Table with columns: REV. DESCRIPTION, DATE, BY. Row 1: INITIAL DRAWING RELEASE, 3/9/21, JNV.

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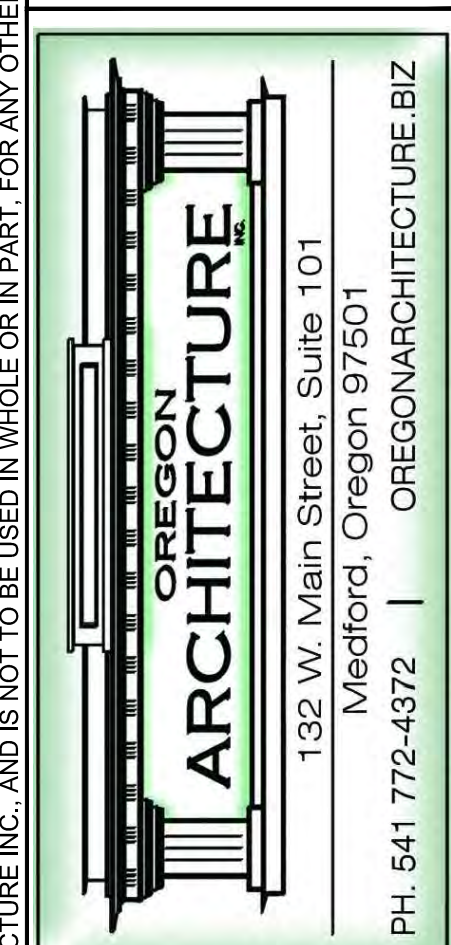
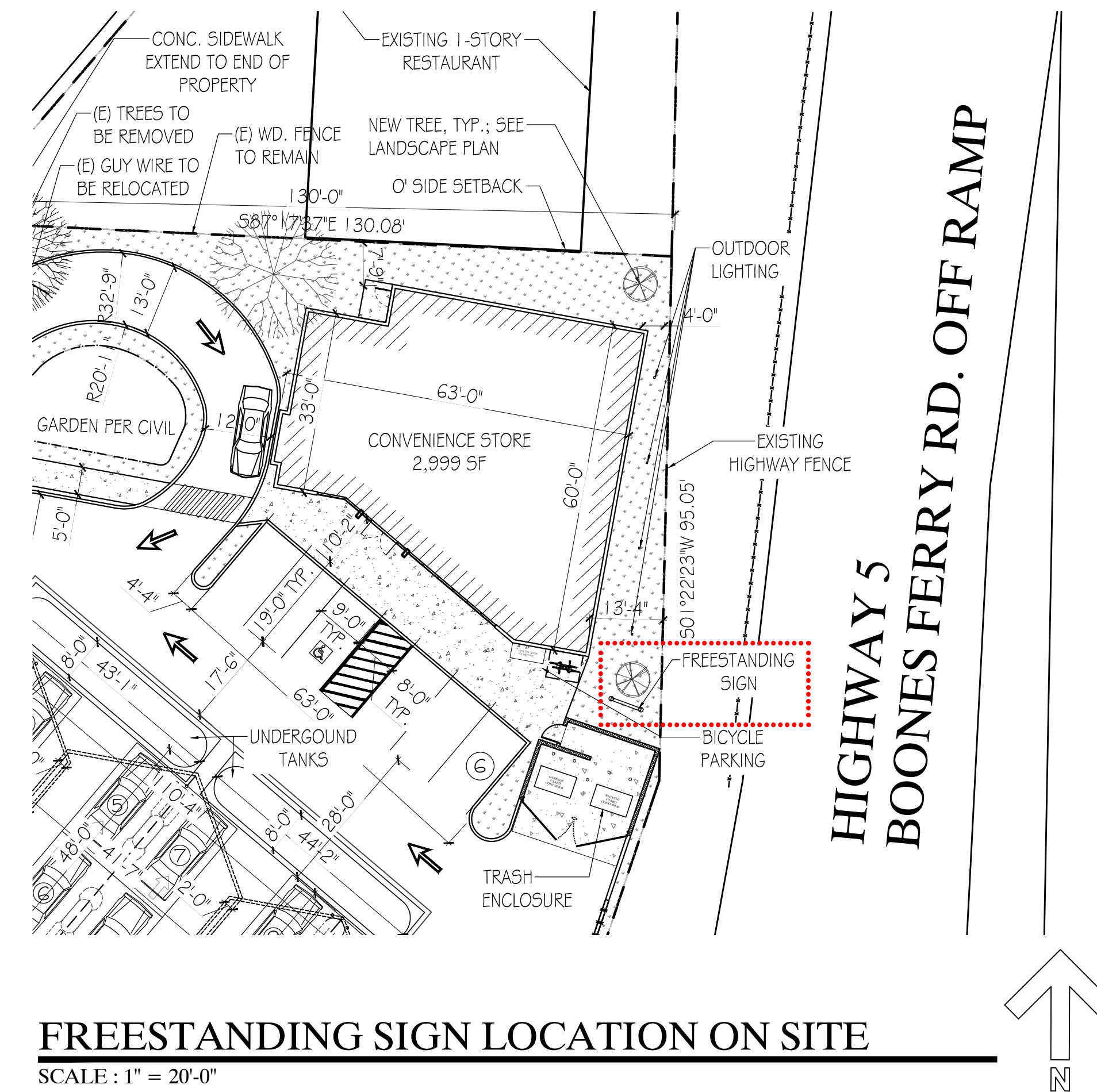
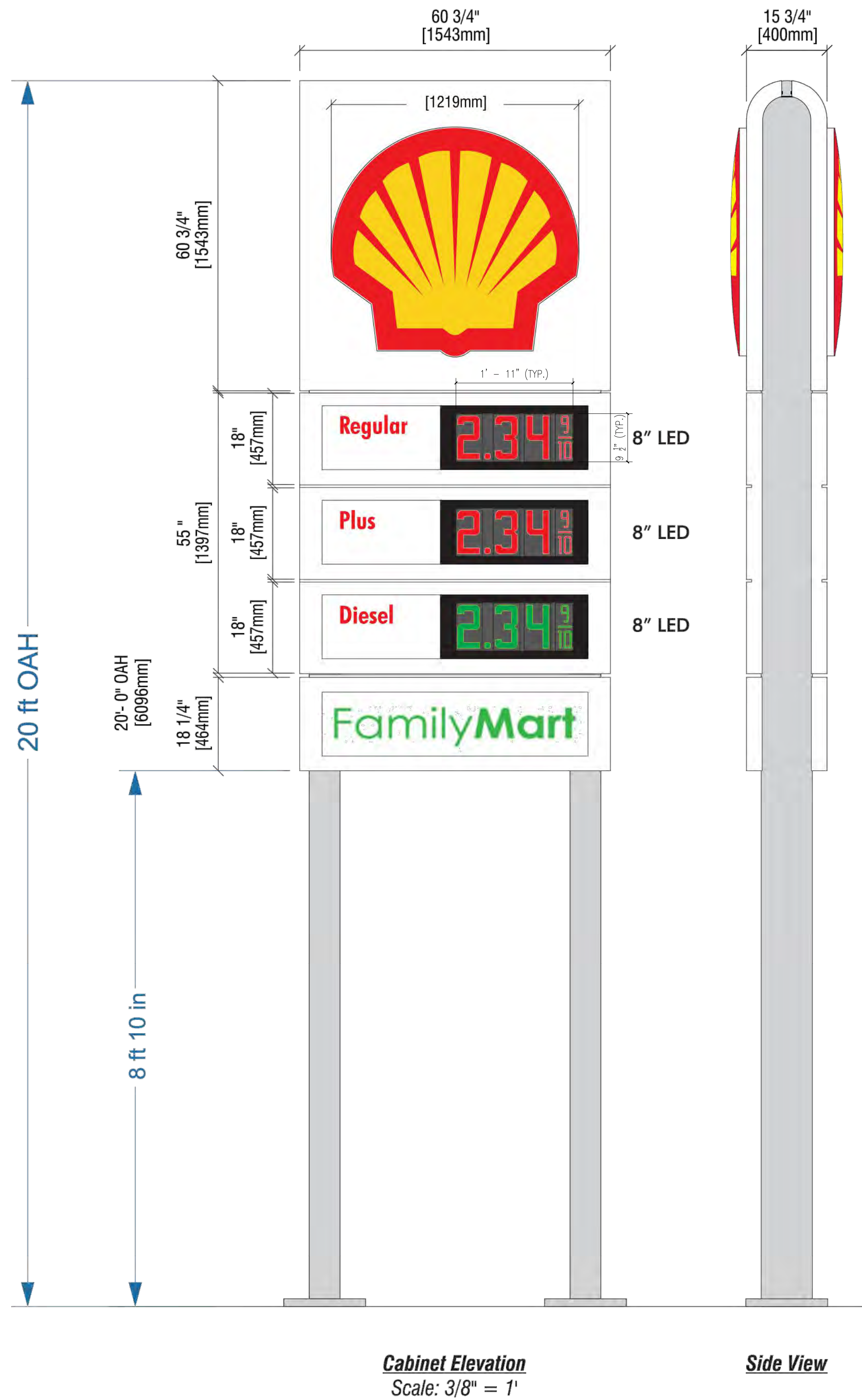
Table with columns: NO, PART #, DESCRIPTION, QTY. Lists various parts like 1. DEXT005F08 8" FRAME SECTION, 2. DMF02P 1.5" X 3.5" X 1.250" ANGLE, etc.

Table with columns: Voltage (120 AC), Splice (1), Current (14.4 AMPS), Drawn By (JNV), Date (3/9/21). Includes fields for Sign Size (43.08 SQ. FT), Design Load (30 PSF), Client (SHELL), and Part Number (SSRZLED58-202).

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NEW 4.5M System
RVI_Evolution Global

NOTE: Family Mart logo
required prior to production

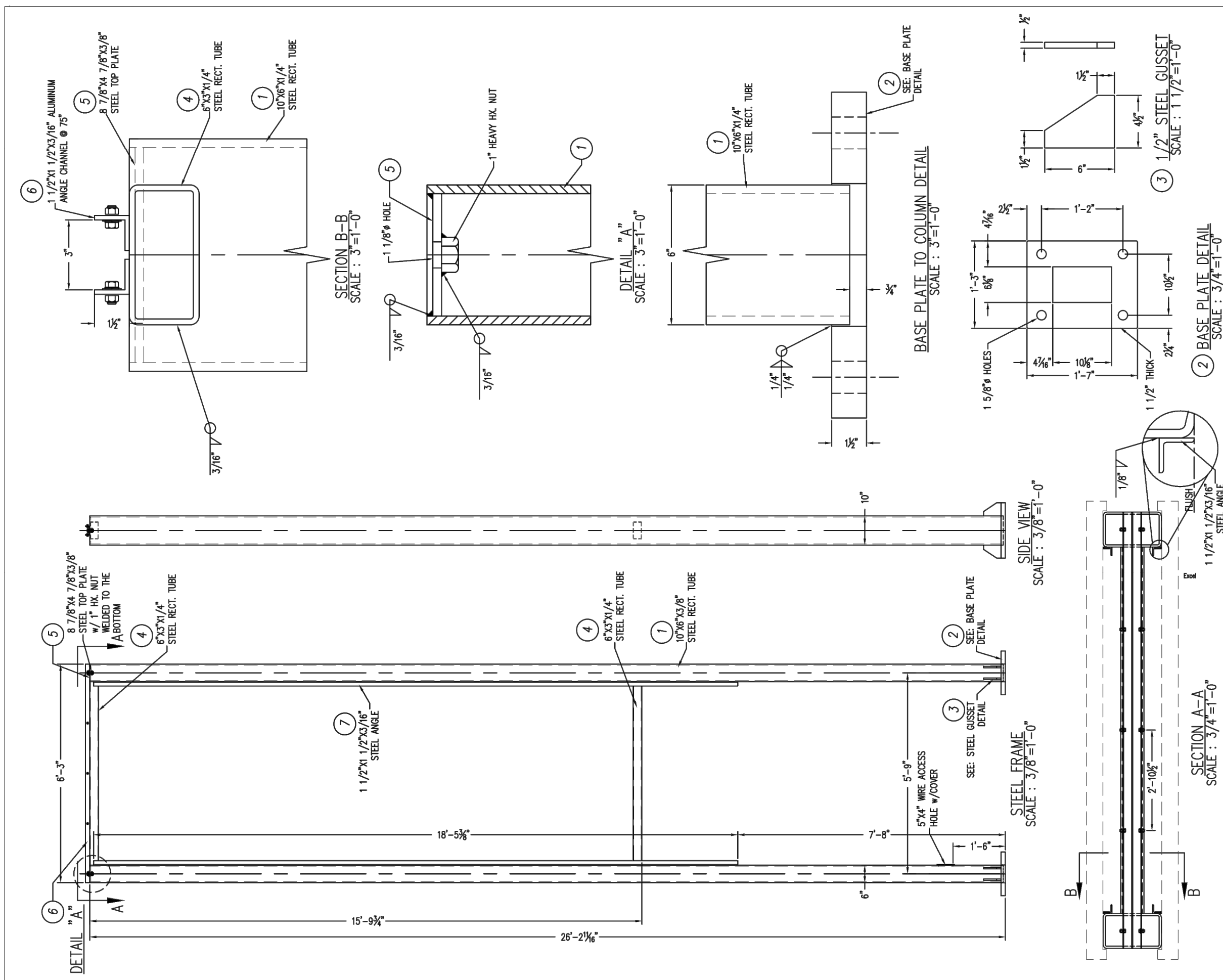


WILSONVILLE CONVENIENCE STORE
PROJECT LOCATION: 29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

Approved for the Owner By:	Date:
REVISIONS	BY
PLOT DATE:	05-05-22
ISSUE DATE:	
DRAWN BY:	MM
JOB NO.:	4664
SHEET	

S3
FREESTANDING SIGN DETAILS

* NOTE: SIGN DIMS TO BE ADJUSTED TO MEET THE OVERALL SIGN DIMENSIONS SHOWN ON SHEET S3.

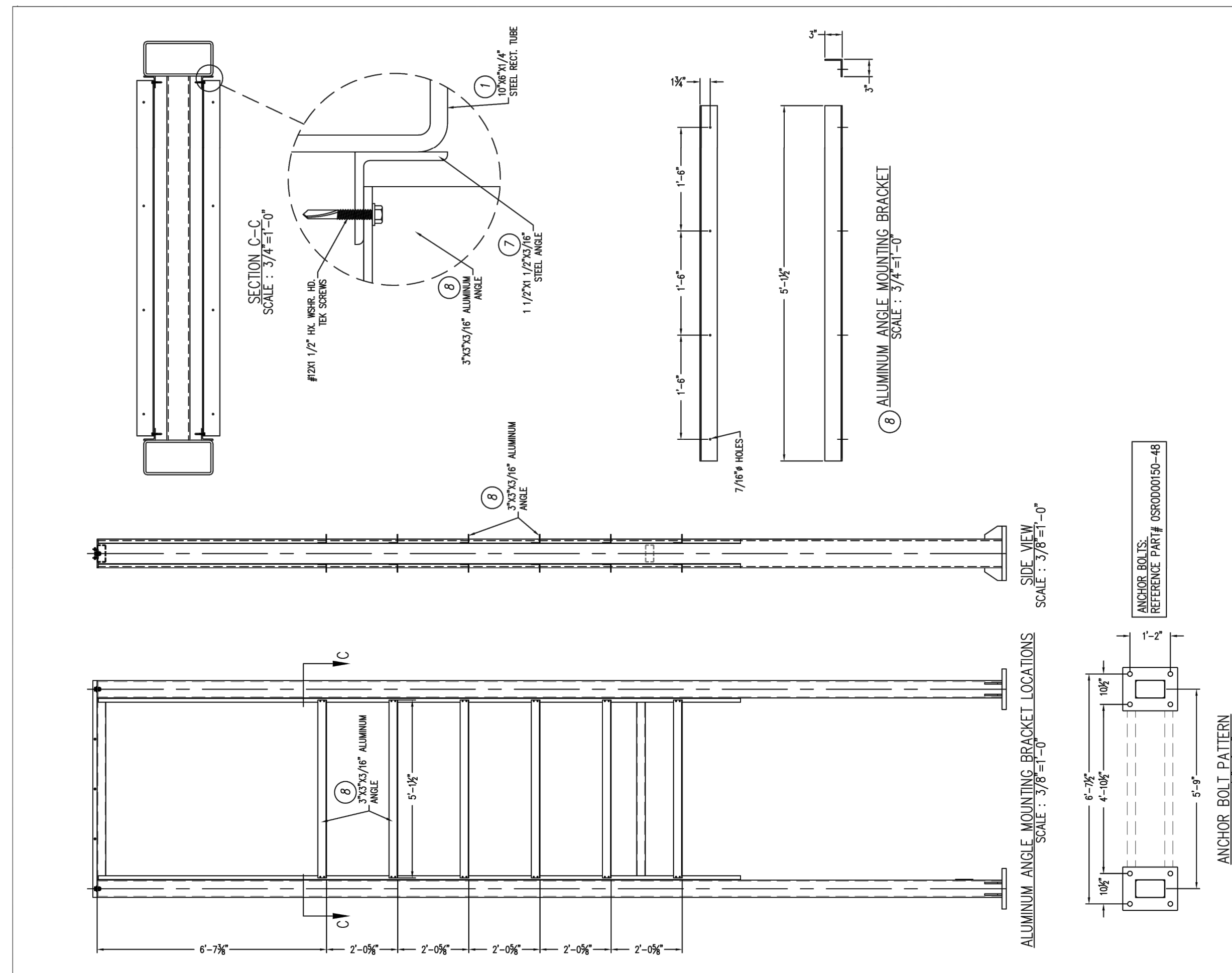


Sign.Resource
A Royceston Group Company
800 423-4283 - 323 771-2098 - Fax 323 560-7143
Website: www.SignResource.com

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NO.	PART #	DESCRIPTION	QTY
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Part Number: EQR26TP-365, Drawing No: EQR26TP-365, Rev: A

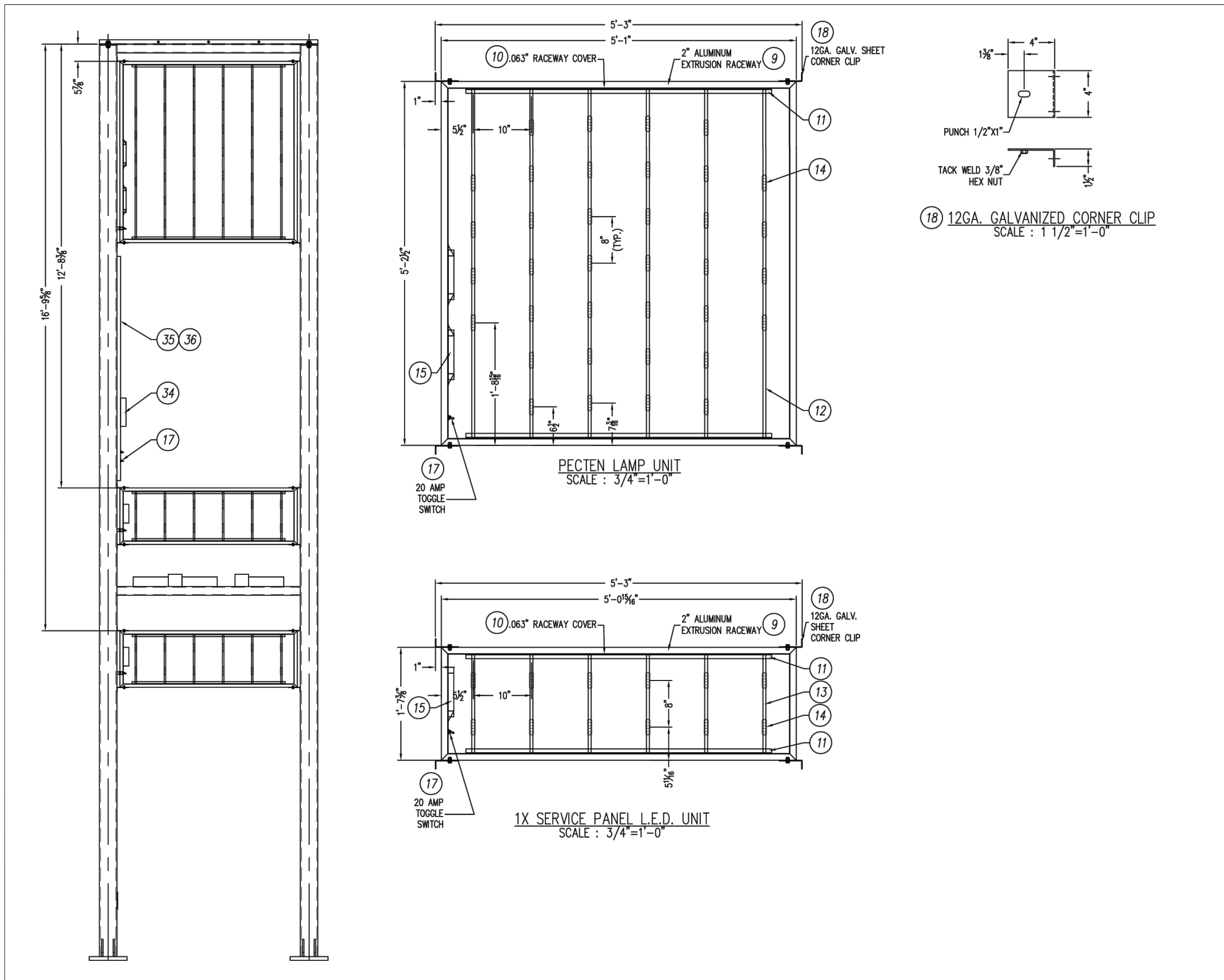


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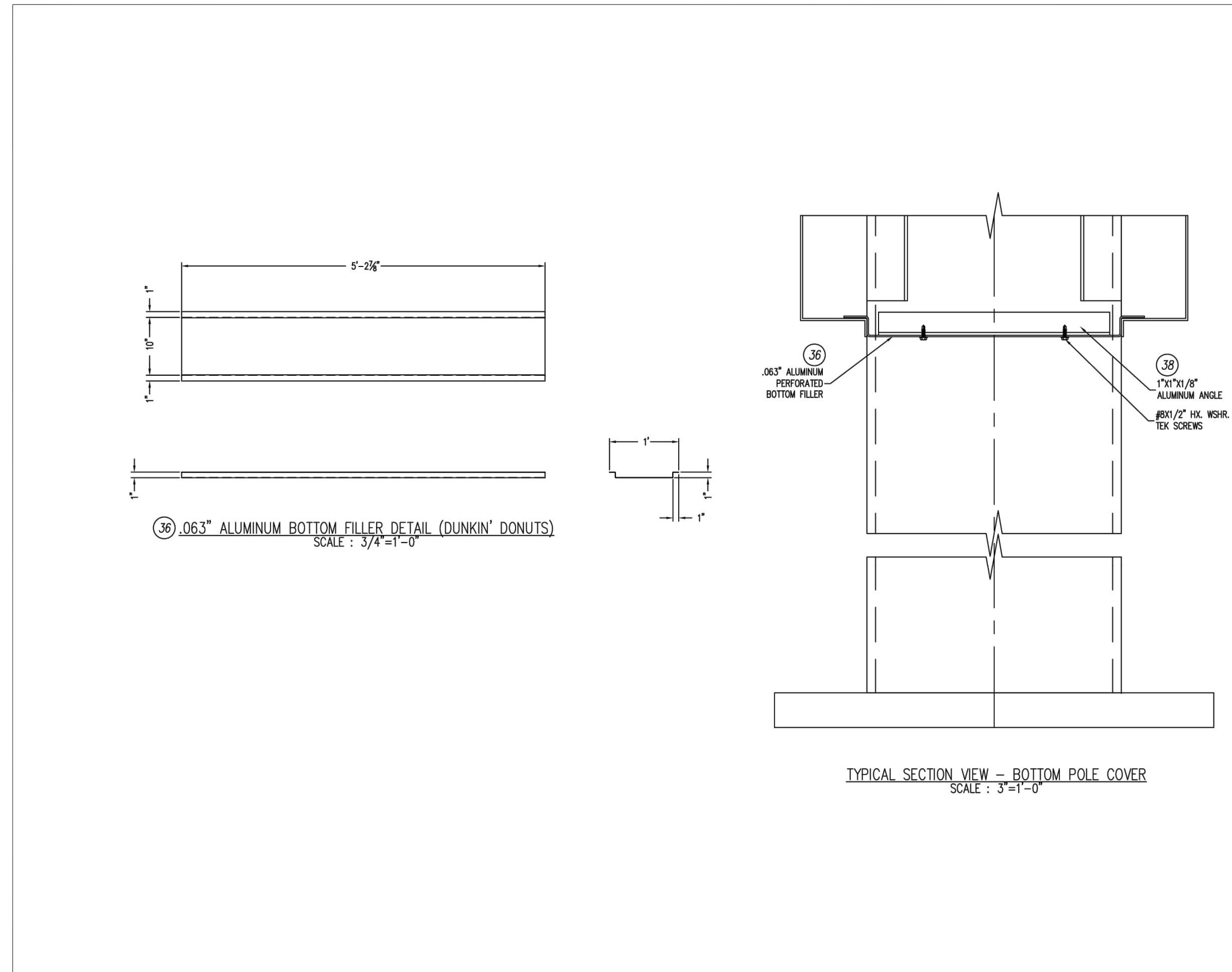


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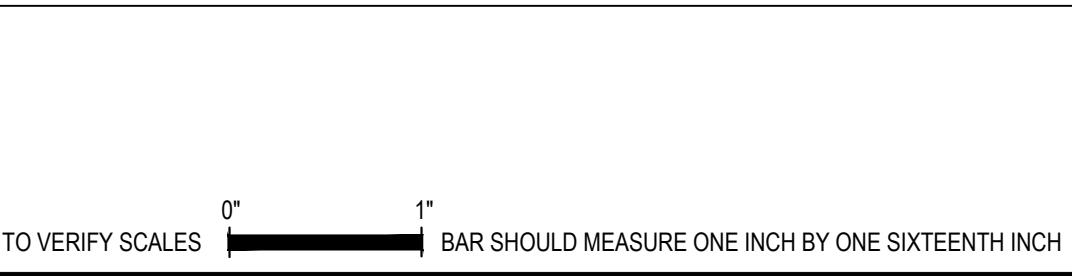


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NO.	PART #	DESCRIPTION	QTY
1	081000020	3/4\"/>	

Part Number: EQR26TP-365, Drawing No: EQR26TP-365, Rev: A



REG. ARCHITECT
Mark McKechnie
Medford, Oregon 97501
4666
STATE OF OREGON

ARCHITECTURE
132 W. Main Street, Suite 101
Medford, Oregon 97501
PH. 541 772-4372 | OREGONARCHITECTURE.BIZ

WILSONVILLE
CONVENIENCE
STORE
PROJECT LOCATION:
29760 SW BOONES FERRY RD, WILSONVILLE, OR 97170
PARCEL: 31W14D-00900

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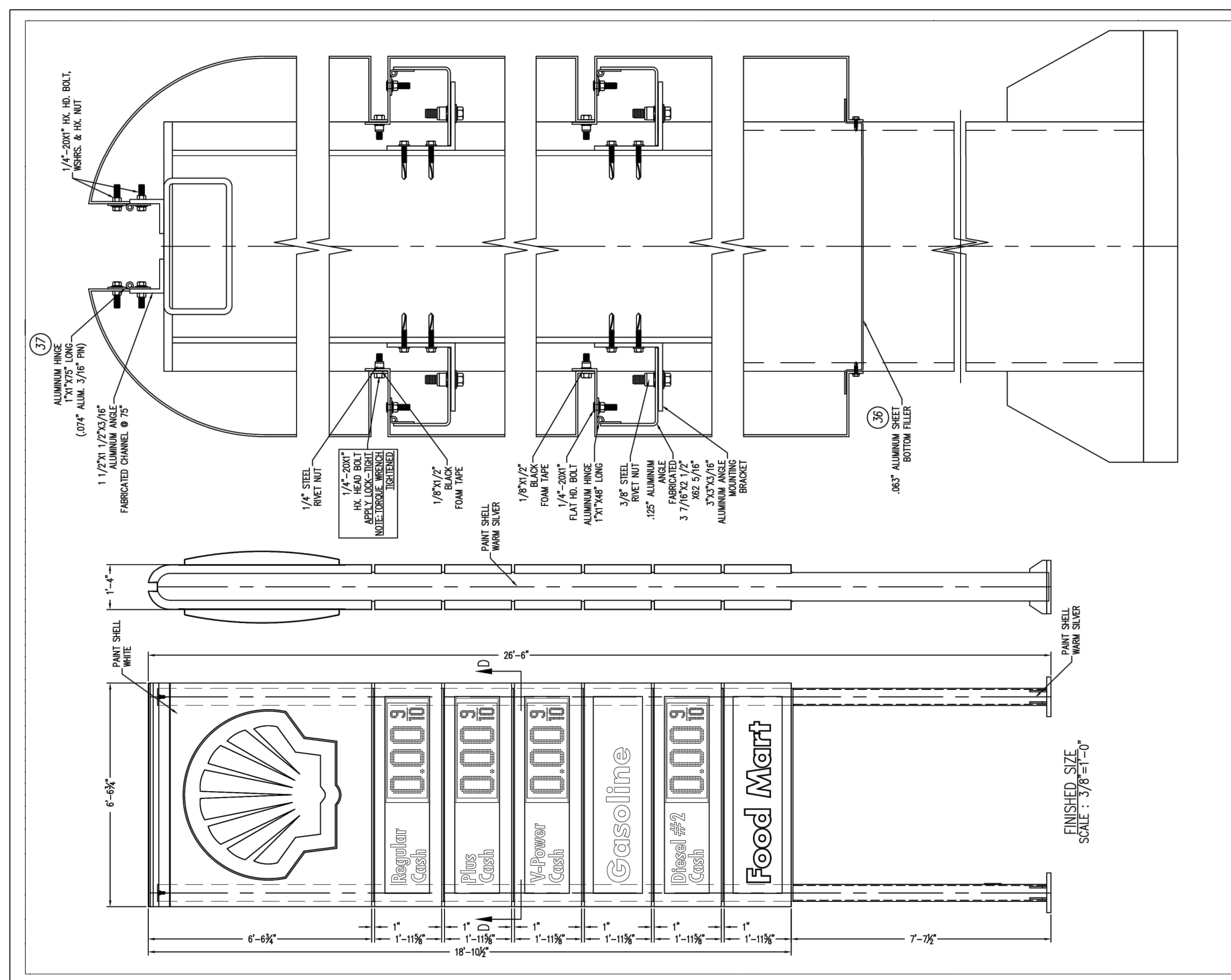
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REVISIONS	BY

PLOT DATE: 05-05-22
ISSUE DATE: _____
DRAWN BY: MM
JOB NO.: 4664
SHEET

S4
FREESTANDING SIGN
DETAILS

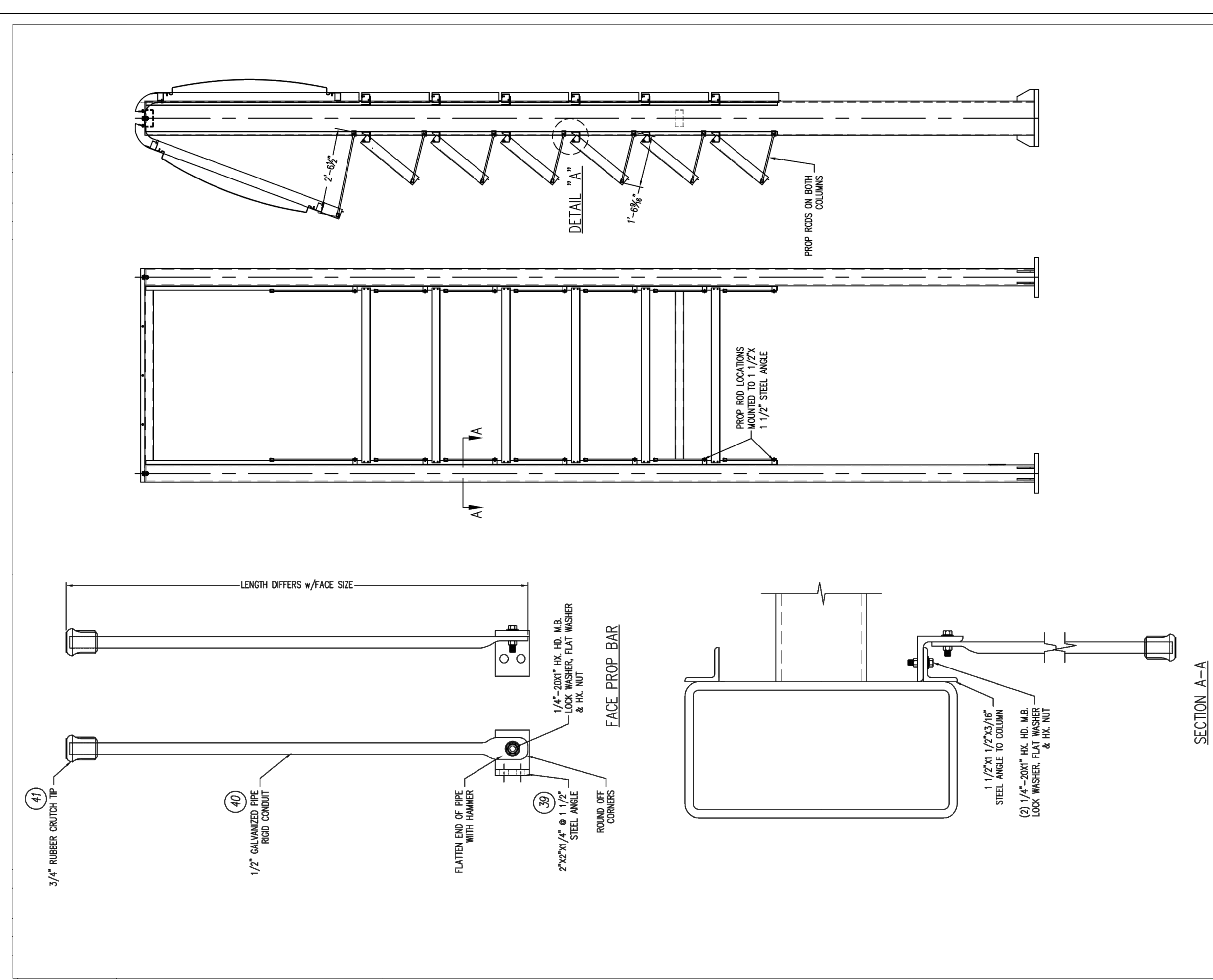
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Voltage	120 AC	2	TWO	11.40 AMPS	C. ITO	04/19/22
Design	26'-6" O.A.H. ILLUMINATED DOUBLE SIDED FACE MONOLITH SIGN					
Site Size	123.9 SQ. FT.	110 MPH	SHELL	10	OF 11	
Part Number	EQR26TP-365	Drawing No.	EQR26TP-365	Rev.	A	

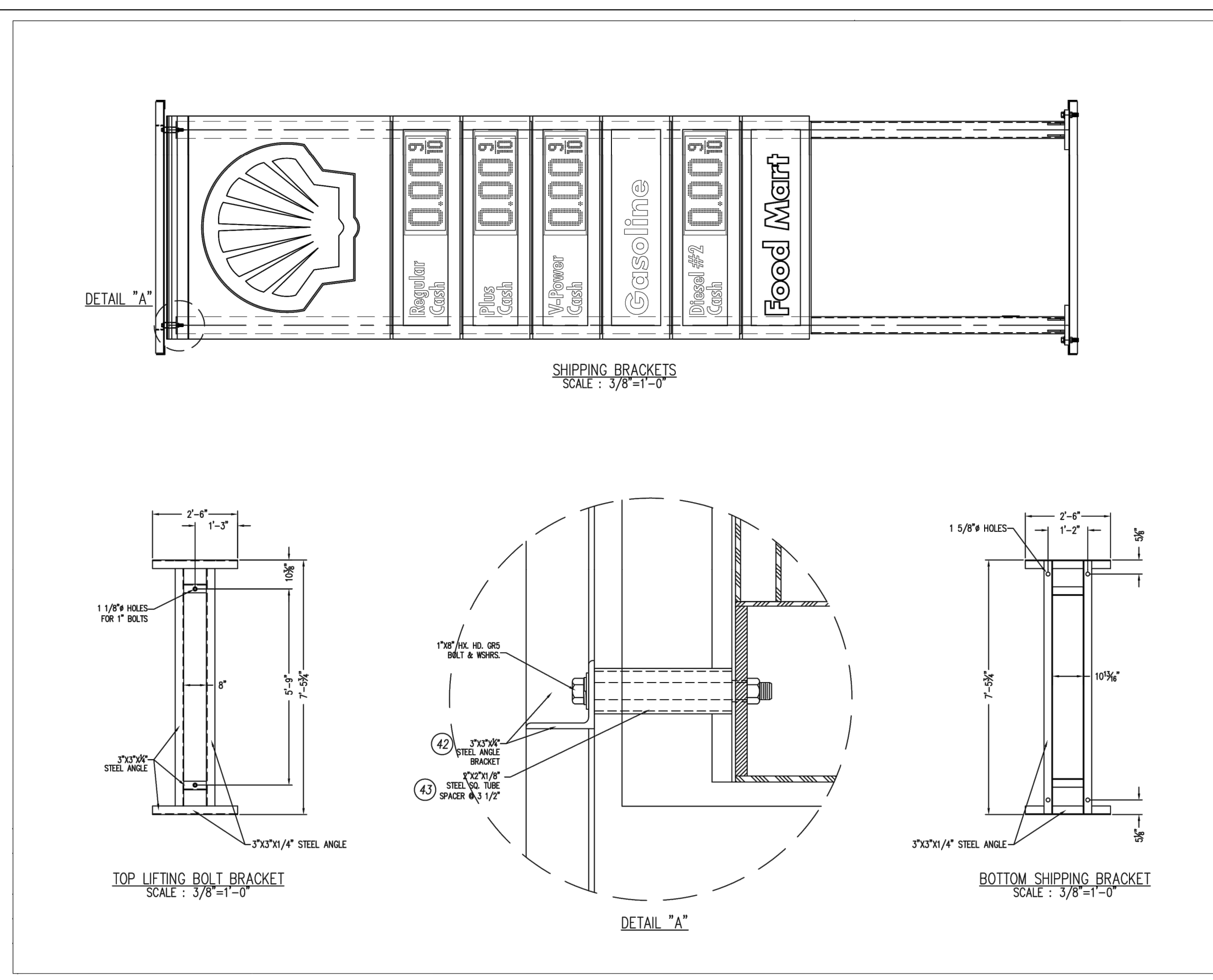
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TO VERIFY SCALES 0" 1" BAR SHOULD MEASURE ONE INCH BY ONE SIXTEENTH INCH

REGISTERED ARCHITECT
Mark McKechnie
Medford, Oregon 97501
4666
STATE OF OREGON

OREGON ARCHITECTURE
132 W. Main Street, Suite 101
Medford, Oregon 97501
PH. 541 772-4372 | OREGONARCHITECTURE.BIZ

WILSONVILLE CONVENIENCE STORE
PROJECT LOCATION: 29760 SW BOONES FERRY RD, WILSONVILLE, OR 97070
PARCEL: 31W14D-00900

Approved for the Owner By: _____ Date: _____

REVISIONS	BY

PLOT DATE: 05-05-22
ISSUE DATE: _____
DRAWN BY: MM
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SHEET

S6
FREESTANDING SIGN DETAILS

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**DEVELOPMENT REVIEW BOARD MEETING
AUGUST 8, 2022
6:30 PM**

Item 3.

Board Member Communications:

3. Results of the May 23, 2022 DRB Panel B meeting

City of Wilsonville

Development Review Board Panel B Meeting Meeting Results

DATE:	MAY 23, 2022	TIME END: 8:13 P.M.
LOCATION:	29799 SW TOWN CENTER LOOP EAST, WILSONVILLE, OR	
TIME START:	6:30 P.M.	

ATTENDANCE LOG

BOARD MEMBERS	STAFF
Nichole Hendrix	Daniel Pauly
Katie Dunwell	Ryan Adams
Jason Abernathy	Miranda Bateschell
Michael Horn	Amy Pepper
John Andrews	Cindy Luxhoj
	Kim Rybold
	Shelley White

AGENDA RESULTS

AGENDA	ACTIONS
CITIZENS' INPUT	None.
CONSENT AGENDA	
<ol style="list-style-type: none"> Approval of minutes of the March 28, 2022 DRB Panel B meeting Approval of minutes of the April 25, 2022 DRB Panel B training session 	<ol style="list-style-type: none"> Approved with one correction Approved as presented
PUBLIC HEARING	
<ol style="list-style-type: none"> Resolution No. 403 Black Creek Group Industrial Project: Lee Leighton, AICP, Mackenzie – Representative For BTC III Grahams Ferry IC LLC – Applicant and Gary S. Rychlick As Trustee of the Eileen Rychlick Trust and individually, and Susan M. Rychlick – Owners. The applicant is requesting approval of a Stage 1 Preliminary Plan, Stage 2 Final Plan, Site Design Review, Waivers, Class 3 Sign Permit and Type C Tree Removal Plan for development of a 148,279 square foot warehouse / manufacturing building with accessory office space located between SW Grahams Ferry Road and SW Garden Acres Road. The subject site is located at 25020 and 25190 SW Grahams Ferry Road on Tax Lot 100 of Section 3D, Township 3 South, Range 1 West, Willamette Meridian, Washington County, Oregon. Staff: Cindy Luxhoj, AICP, Associate Planner <u>Case Files:</u> DB21-0085 Stage 1 Preliminary Plan DB21-0086 Stage 2 Final Plan DB21-0087 Site Design Review DB21-0088 Waivers DB21-0089 Class 3 Sign Permit DB21-0090 Type C Tree Removal Plan 	<ol style="list-style-type: none"> Staff Report was approved unanimously with the addition of Exhibits A3 and B4. Resolution No. 403 was adopted unanimously.

BOARD MEMBER COMMUNICATIONS	
4. Results of the April 11, 2022 DRB Panel A meeting	4. No comments
5. Recent City Council Action Minutes	5. No comments
STAFF COMMUNICATIONS	

**DEVELOPMENT REVIEW BOARD MEETING
AUGUST 8, 2022
6:30 PM**

Item 4.

Board Member Communications:

4. Results of the July 25, 2022 DRB Panel B meeting

City of Wilsonville

Development Review Board Panel B Meeting Meeting Results

DATE: JULY 25, 2022	
LOCATION: 29799 SW TOWN CENTER LOOP EAST, WILSONVILLE, OR	
TIME START: 6:30 P.M.	TIME END: 7:24 P.M.

ATTENDANCE LOG

BOARD MEMBERS	STAFF
Nicole Hendrix	Daniel Pauly
Katie Dunwell	Amanda Guile-Hinman
John Andrews	Kimberly Rybold
	Cindy Luxhoj
	Amy Pepper
	Shelley White

AGENDA RESULTS

AGENDA	ACTIONS
CITIZENS' INPUT	None.
CONSENT AGENDA	
1. Approval of May 23, 2022 Minutes	1. Approved as presented.
PUBLIC HEARING	
2. Resolution No. 404 Wilsonville Industrial Yard: AAI Engineering – Applicant's Representative for Davidsons Boones Ferry Industrial LLC – Owner/Applicant. The applicant is requesting approval of a Zone Map Amendment from Future Development Agricultural-Holding (FDA-H) to Planned Development Industrial (PDI) for 0.55 acre (Tax Lot 800), and adopting findings and conditions approving a Stage 1 Master Plan, Stage 2 Final Plan, and Site Design Review for a 54,664-square-foot industrial yard. The subject site is located at 28505 and 28635 SW Boones Ferry Road on Tax Lots 800 and 900, Section 14A, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Staff: Cindy Luxhoj, AICP, Associate Planner <u>Case Files:</u> DB22-0001 Wilsonville Industrial Yard -Zone Map Amendment (ZONE22-0001) -Stage 1 Master Plan (STG122-0001) -Stage 2 Final Plan (STG222-0001) -Site Design Review (SDR22-0001)	2. Resolution No. 404 was approved 2 to 1 with Katie Dunwell opposed.
BOARD MEMBER COMMUNICATIONS	
3. Recent City Council Action Minutes	No comments.
STAFF COMMUNICATIONS	None.

**DEVELOPMENT REVIEW BOARD MEETING
AUGUST 8, 2022
6:30 PM**

Board Member Communications:

5. Recent City Council Action Minutes

City Council Meeting Action Minutes
April 4, 2022

City Council members present included:

Mayor Fitzgerald
Council President Akervall
Councilor Lehan
Councilor West – 7:04 p.m.
Councilor Linville

Jeanna Troha, Assistant City Manager
Zoe Mombert, Assistant to the City Manager
Ryan Adams, Assistant City Attorney
Beth Wolf, Senior Systems Analyst
Philip Bradford, Associate Planner
Dan Pauly, Planning Manager
Andrea Villagrana, Human Resource Manager
Dustin Schull, Parks Supervisor
Mark Ottenad, Public/Government Affairs Director

Staff present included:

Bryan Cosgrove, City Manager
Kimberly Veliz, City Recorder

AGENDA ITEM	ACTIONS
REGULAR MEETING	START: 7:00 p.m.
<u>Mayor’s Business</u>	
A. Wilsonville Wildcats Week Proclamation	The Mayor read into the record a proclamation declaring April 4-8, 2022 as Wilsonville Wildcats Week. Council then took photos with the Wildcats boys’ basketball team.
B. City Attorney Employment Agreement	Council moved to approve Amanda Guile-Hinman’s employment agreement as City Attorney from May 2, 2022 to April 30, 2024, as outlined in the employment agreement, 5-0.
C. Upcoming Meetings	Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.
<u>Communications</u>	
A. Representative Courtney Neron 2022 Legislative Session Presentation	Representative Neron delivered a summary of the legislature’s accomplishments during the 2022 State legislative session.
B. Wilsonville Little League Bleachers - CEP	Brian Clark briefed Council on the Wilsonville Little League project to build new bleachers with funds provided by the Community Enhancement Program.
<u>Consent Agenda</u>	The Consent Agenda was approved 5-0.
A. <u>Resolution No. 2961</u> A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Construction Contract With Northstar Electrical Contractors, Inc To Construct Street Lighting LED Conversion – Phase 2 Project (CIP #4722)	

- B. **Resolution No. 2965**
A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Professional Services Agreement With Jarrett Walker And Associates, LLC For The Update Of The Transit Master Plan.

- C. **Resolution No. 2968**
A Resolution Of The City Of Wilsonville Approving A Goods And Services Contract With Northwest Playground Equipment, Inc. For the Villebois Regional Park 7 And 8 Amenities.

- D. Minutes of the March 21, 2022 Council Meeting.

New Business

- A. None.

Continuing Business

- A. None.

Public Hearing

- A. **Ordinance No. 857**
An Ordinance Of The City Of Wilsonville Annexing Approximately 12.95 Acres Of Property Located To The North Of SW Frog Pond Lane Into The City Limits Of The City Of Wilsonville, Oregon; The Land Is More Particularly Described As Tax Lot 500, And A Portion Of SW Frog Pond Lane Right-Of-Way, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Darrell R. Lauer, Sandi L. Lauer, Petitioners.

- B. **Ordinance No. 858**
An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Clackamas County Rural Residential Farm Forest 5-Acre (RRFF-5) Zone To The Residential Neighborhood (RN) Zone On Approximately 12.80 Acres To The North Of SW Frog Pond Lane; The Land Is More Particularly Described As Tax Lot 500, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Venture Properties, Inc., Applicant.

After a public hearing was conducted, Ordinance No. 857 was adopted on first reading by a vote of 5-0.

After a public hearing was conducted, Ordinance No. 858 was adopted on first reading by a vote of 5-0.

<u>City Manager's Business</u>	City Councilors were reminded their Statement Economic Interest for the Oregon Government Ethics Commission needed to be completed by April 15, 2022.	<i>Item 5.</i>
<u>Legal Business</u>	There was none.	
ADJOURN	8:25 p.m.	

City Council Meeting Action Minutes
April 18, 2022

City Council members present included:

Mayor Fitzgerald
Council President Akervall
Councilor Lehan - Excused
Councilor West
Councilor Linville

Ryan Adams, Assistant City Attorney
Kerry Rappold, Natural Resources Manager
Matt Palmer, Associate Engineer
Cindy Luxhoj, Associate Planner
Kimberly Veliz, City Recorder
Jeanna Troha, Assistant City Manager
Zoe Mombert, Assistant to the City Manager
Dwight Brashear, Transit Director
Kelsey Lewis, Grants & Programs Manager
Brian Stevenson, Program Manager

Staff present included:

Bryan Cosgrove, City Manager
Philip Bradford, Associate Planner

AGENDA ITEM	ACTIONS
REGULAR MEETING	START: 7:00 p.m.
<u>Mayor's Business</u>	
A. Upcoming Meetings	Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.
B. Community Tourism Grant Recommendations	Council made a motion to award Wilsonville Arts & Culture Council's tourism grant request for \$8,000 for Wilsonville Arts & Culture's Art Festival and Summer Performance Series and award Rotary's tourism grant request for \$5,000 for Wilsonville Rotary Foundation's Summer Concert Series as recommended by the Tourism Promotion committee. Approved 4-0.
<u>Communications</u>	
A. Oregon Transportation Association System Innovation Award	Oregon Transportation Association (OAT) awarded SMART staff with the 2021 System Innovation Award.
B. Earth Day	Staff announced upcoming City sponsored events to celebrate Earth Day.
<u>Consent Agenda</u>	
A. <u>Resolution No. 2967</u> A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Renewal Of The Personal Services Agreement With Scott Edwards Architecture, LLP For The Architectural Services During Construction For The Public Works Complex Project (Capital Improvement Project #8113).	The Consent Agenda was approved 4-0.

B. Resolution No. 2969

A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Construction Contract With Blackline, Inc. For The 2022 Slurry Seal Project (Capital Improvement Project 4014).

C. Minutes of the April 4, 2022 City Council Meeting.

New Business

A. OTAK, Inc. Settlement Agreement

Council made a motion to accept the settlement agreement with OTAK, Inc. Passed 4-0.

Continuing Business

A. Ordinance No. 857

An Ordinance Of The City Of Wilsonville Annexing Approximately 12.95 Acres Of Property Located To The North Of SW Frog Pond Lane Into The City Limits Of The City Of Wilsonville, Oregon; The Land Is More Particularly Described As Tax Lot 500, And A Portion Of SW Frog Pond Lane Right-Of-Way, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Darrell R. Lauer, Sandi L. Lauer, Petitioners.

Ordinance No. 857 was adopted on second reading by a vote of 4-0.

B. Ordinance No. 858

An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Clackamas County Rural Residential Farm Forest 5-Acre (RRFF-5) Zone To The Residential Neighborhood (RN) Zone On Approximately 12.80 Acres To The North Of SW Frog Pond Lane; The Land Is More Particularly Described As Tax Lot 500, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Venture Properties, Inc., Applicant.

Ordinance No. 858 was adopted on second reading by a vote of 4-0.

Public Hearing

A. Ordinance No. 859

An Ordinance Of The City Of Wilsonville Annexing Approximately 13.24 Acres Of Property Located Between SW Boeckman Road and SW Frog Pond Lane at 7070 SW Frog Pond Lane and 7151 SW Boeckman Road; The Land Is More Particularly Described As Tax Lot 1501, Section 12D, And Tax Lot 4500, Section 12DC, Township 3 South, Range 1

After a public hearing was conducted, Ordinance No. 859 was adopted on first reading by a vote of 4-0.

West, Willamette Meridian, Clackamas County, Oregon. Kathy Ludwig, Amy Thurmond, Gregory Cromwell, Matthew Hall, Matthew Kirkendall, Gary Moon, Jaelene Moon, Kurt Moon, Laurel Moon, Petitioners.

B. Ordinance No. 860

An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Clackamas County Rural Residential Farm Forest 5-Acre (RRFF-5) Zone To The Residential Neighborhood (RN) Zone On Approximately 4.06 Acres, And To The Public Facility (PF) Zone On Approximately 9.18 Acres Located Between SW Boeckman Road and SW Frog Pond Lane At 7070 SW Frog Pond Lane and 7151 SW Boeckman Road; The Land Is More Particularly Described As Tax Lot 1501, Section 12D, And Tax Lot 4500, Section 12DC, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. West Hills Land Development LLC, Applicant.

After a public hearing was conducted, Ordinance No. 860 was adopted on first reading by a vote of 4-0.

C. Ordinance No. 861

An Ordinance Of The City Of Wilsonville Annexing Approximately 10.46 Acres Of Property Located West Of SW Stafford Road North Of SW Frog Pond Lane at 6725 SW Frog Pond Lane; The Land Is More Particularly Described As Tax Lots 401 And 402, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Sheri Miller, James Mehus, Jeremiah Kreilich, Brian Powell, Petitioners.

After a public hearing was conducted, Ordinance No. 861 was adopted on first reading by a vote of 4-0.

D. Ordinance No. 862

An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Clackamas County Rural Residential Farm Forest 5-Acre (RRFF-5) Zone To The Residential Neighborhood (RN) Zone On Approximately 10.46 Acres Located West Of SW Stafford Road North Of SW Frog Pond Lane at 6725 SW Frog Pond Lane; The Land Is More Particularly Described As Tax Lots 401 And 402, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. West Hills Land Development LLC, Applicant.

After a public hearing was conducted, Ordinance No. 862 was adopted on first reading by a vote of 4-0.

<u>City Manager's Business</u>	No report.
<u>Legal Business</u>	No report.
ADJOURN	8:10 p.m.

Item 5.

City Council Meeting Action Minutes
May 2, 2022

City Council members present included:

Mayor Fitzgerald
Council President Akervall
Councilor Lehan
Councilor West - Excused
Councilor Linville

Dustin Schull, Parks Supervisor
Kimberly Veliz, City Recorder
Jeanna Troha, Assistant City Manager
Beth Wolf, Senior Systems Analyst
Zoe Mombert, Assistant to the City Manager
Dan Pauly, Planning Manager
Cindy Luxhoj, Associate Planner
Zach Weigel, City Engineer
Mike Nacrelli, Civil Engineer
Kimberly Rybold, Senior Planner
Bill Evans, Communications & Marketing Manager
Matt Lorenzen, Economic Development Manager

Staff present included:

Bryan Cosgrove, City Manager
Amanda Guile-Hinman, City Attorney
Ryan Adams, Assistant City Attorney

AGENDA ITEM	ACTIONS
WORK SESSION	START: 5:00 p.m.
A. Frog Pond East and South Master Plan	Council provided input to staff on components of the Frog Pond East and South Master Plan.
B. Airport Good-Neighbor Policies	Consultants sought Council’s direction on the Airport Good-Neighbor Policies drafted to provide direction for elected officials and staff advocating on the City’s behalf during regional planning efforts related to the Aurora Airport.
C. Guaranteed Maximum Price (GMP) for Willamette River Water Treatment Plant (WRWTP) Expansion	Staff briefed Council on Resolution No. 2970, which authorizes the City Manager to execute an amendment to the CM/GC contract with Kiewit Infrastructure West Co. for a GMP to construct the WRWTP Expansion Project (CIP# 1144).
REGULAR MEETING	
<u>Mayor’s Business</u>	
A. Upcoming Meetings	Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City. The Mayor appointed Councilor Linville to be the City’s representative to the Clackamas Workforce Partnership Board.

Communications

- A. Mero Update

- B. Stump Grinding Community Enhancement Program Update

Councilor Gerritt Rosenthal provided a snapshot of Metro’s progress on several regional policy initiatives.

Staff briefed Council on the Stump Grinding project funded by the Wilsonville-Metro Community Enhancement Program.

Consent Agenda

- A. Minutes of the April 18, 2022 City Council Meeting.

- B. **Resolution No. 2970**
 A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute An Amendment To The Construction Manager/General Contractor(CM/GC) Contract With Kiewit Infrastructure West Co. For A Guaranteed Maximum Price To Construct The Willamette River Water Treatment Plant Expansion Project (Capital Improvement Project 1144).

The Consent Agenda was approved 4-0.

New Business

- A. **Resolution No. 2971**
 A Resolution Of The City Of Wilsonville Establishing The Wilsonville Vertical Housing Development Zone (VHDZ) Program And Local Criteria.

Resolution No. 2971 was adopted 4-0.

Continuing Business

- A. **Ordinance No. 859**
 An Ordinance Of The City Of Wilsonville Annexing Approximately 13.24 Acres Of Property Located Between SW Boeckman Road and SW Frog Pond Lane at 7070 SW Frog Pond Lane and 7151 SW Boeckman Road; The Land Is More Particularly Described As Tax Lot 1501, Section 12D, And Tax Lot 4500, Section 12DC, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Kathy Ludwig, Amy Thurmond, Gregory Cromwell, Matthew Hall, Matthew Kirkendall, Gary Moon, Jaelene Moon, Kurt Moon, Laurel Moon, Petitioners.

- B. **Ordinance No. 860**
 An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Clackamas County Rural Residential Farm Forest 5-Acre (RRFF-5) Zone To The Residential Neighborhood (RN) Zone On Approximately 4.06 Acres, And To The Public Facility (PF) Zone On Approximately 9.18 Acres Located Between SW Boeckman Road and SW Frog

Ordinance No. 859 was adopted on second reading by a vote of 4-0.

Ordinance No. 860 was adopted on second reading by a vote of 4-0.

Pond Lane At 7070 SW Frog Pond Lane and 7151 SW Boeckman Road; The Land Is More Particularly Described As Tax Lot 1501, Section 12D, And Tax Lot 4500, Section 12DC, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. West Hills Land Development LLC, Applicant.

C. Ordinance No. 861

An Ordinance Of The City Of Wilsonville Annexing Approximately 10.46 Acres Of Property Located West Of SW Stafford Road North Of SW Frog Pond Lane at 6725 SW Frog Pond Lane; The Land Is More Particularly Described As Tax Lots 401 And 402, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. Sheri Miller, James Mehus, Jeremiah Kreilich, Brian Powell, Petitioners.

Ordinance No. 861 was adopted on second reading by a vote of 4-0.

D. Ordinance No. 862

An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Clackamas County Rural Residential Farm Forest 5-Acre (RRFF-5) Zone To The Residential Neighborhood (RN) Zone On Approximately 10.46 Acres Located West Of SW Stafford Road North Of SW Frog Pond Lane at 6725 SW Frog Pond Lane; The Land Is More Particularly Described As Tax Lots 401 And 402, Section 12D, Township 3 South, Range 1 West, Willamette Meridian, Clackamas County, Oregon. West Hills Land Development LLC, Applicant.

Ordinance No. 862 was adopted on second reading by a vote of 4-0.

Public Hearing

A. Ordinance No. 863

An Ordinance Of The City of Wilsonville Annexing Approximately 8.72 Acres of Property Generally Located Between SW Garden Acres Road And SW Grahams Ferry Road Into The City Limits Of The City Of Wilsonville, Oregon; The Land Is More Particularly Described As Tax Lot 100 and A Portion Of SW Grahams Ferry Road Right-Of-Way, Section 3D, Township 3 South, Range 1 West, Willamette Meridian, Washington County, Oregon. Gary S. Rychlick As Trustee Of The Eileen Rychlick Trust, Gary S. And Susan M. Rychlick, As Individuals, Petitioners.

After a public hearing was conducted, Ordinance No. 863 was approved on first reading by a vote of 4-0.

<p>B. <u>Ordinance No. 864</u> An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Washington County Future Development - 20 Acre (FD-20) Zone To The Planned Development Industrial - Regionally Significant Industrial Area (PDI-RSIA) Zone On Approximately 8.17 Acres Generally Located Between SW Garden Acres Road and SW Grahams Ferry Road; The Land Is More Particularly Described As Tax Lot 100, Section 3D, Township 3 South, Range 1 West, Willamette Meridian, Washington County, Oregon. BTC III Grahams Ferry IC LLC, Applicant.</p>	<p>After a public hearing was conducted, Ordinance No. 864 was approved on first reading by a vote of 4-0.</p>
<p><u>City Manager's Business</u></p>	<p>No report.</p>
<p><u>Legal Business</u></p>	<p>Announced that the City Attorney and Assistant City Attorney planned to attend the Oregon City Attorney's annual conference on May 13-14, 2022.</p>
<p>ADJOURN</p>	<p>9:12 p.m.</p>

City Council Meeting Action Minutes
May 16, 2022

City Council members present included:

Mayor Fitzgerald
Council President Akervall
Councilor Lehan
Councilor West
Councilor Linville

Amanda Guile-Hinman, City Attorney
Delora Kerber, Public Works Director
Dan Pauly, Planning Manager
Kimberly Veliz, City Recorder
Jeanna Troha, Assistant City Manager
Zoe Mombert, Assistant to the City Manager
Cindy Luxhoj, Associate Planner

Staff present included:

Bryan Cosgrove, City Manager

AGENDA ITEM	ACTIONS
WORK SESSION	START: 5:04 p.m.
A. Community Enhancement Grant Recommendations	Council heard shared details of Wilsonville-Metro Community Enhancement Committee recommendation for grant awards.
B. Wilsonville Framework for Inclusive Engagement	Staff detailed plans to establish strategies to create framework for more inclusive public engagement on City projects.
C. Fireworks Ban	Council discussed the drafting of guidelines to invoke a temporary citywide ban on fireworks usage during periods of extreme heat.
D. WRWTP Operations and Maintenance Agreement	Staff informed Council of Resolution No. 2974, which authorizes the City Manager to execute the third amendment of operations and maintenance contract between the City, Tualatin Valley Water District (TVWD), and Veolia Water North America - West, LLC for The Willamette River Water Treatment Plant (WRWTP).
REGULAR MEETING	
<u>Mayor's Business</u>	
A. Fireworks Ban – Placeholder	This item will return at a future City Council meeting.
B. Upcoming Meetings	Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.

C. Boards and Commissions Appointments / Reappointments

Budget Committee – Appointment

Appointment of Synthea Russell to the Budget Committee for a term beginning 5/16/2022 to 12/31/2022. Passed 5-0.

Library Board - Appointment

Appointment of Natalie McNown to the Library Board for a term beginning 7/1/2022 to 6/30/2026. Passed 5-0.

Library Board - Reappointment

Reappointment of Yasmin Ismail to the Library Board for a term beginning 7/1/2022 to 6/30/2026. Passed 5-0.

Tourism Promotion Committee - Appointment

Appointment of Lin Anderson to the Tourism Promotion Committee for a term beginning 5/16/2022 to 6/30/2024. Passed 5-0.

Tourism Promotion Committee - Reappointments

Reappointment of Brandon Roben and Rohit Sharma to the Tourism Promotion Committee for a term beginning 7/1/2022 to 6/30/2025. Passed 5-0.

Communications

A. 2022 Public Works Week Proclamation

Council viewed a video highlighting a few of the many contributions made by Public Works staff to protect the health, safety, and quality of life of community members.

Consent Agenda

A. **Resolution No. 2964**

A Resolution of the City of Wilsonville Adopting the FY 22/23 Five-Year Action Plan and Annual One-Year Implementation Plan for the Wilsonville Tourism Development Strategy.

B. **Resolution No. 2974**

A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute The Third Amendment Of Operations And Maintenance Contract Between The City Of Wilsonville, Tualatin Valley Water District, And Veolia Water North America - West, LLC For The Willamette River Water Treatment Plant.

The Consent Agenda was approved 5-0.

C. Resolution No. 2977

A Resolution Of The City Of Wilsonville Amending The 2012 Stormwater Master Plan Project List (Table 9-2 – Prioritized CIP Projects) To Add Project Mc-1: Meridian Creek Culvert Replacement.

D. Minutes of the May 2, 2022 City Council Meeting.

New Business

A. Kiva Building Roof Truss Repair

Council directed staff to move forward with Option 2 for the restoration of the Kiva Building, which is to remove and replace damaged and deficient trusses. Passed 5-0.

Continuing Business

A. Ordinance No. 863

An Ordinance Of The City of Wilsonville Annexing Approximately 8.72 Acres of Property Generally Located Between SW Garden Acres Road And SW Grahams Ferry Road Into The City Limits Of The City Of Wilsonville, Oregon; The Land Is More Particularly Described As Tax Lot 100 and A Portion Of SW Grahams Ferry Road Right-Of-Way, Section 3D, Township 3 South, Range 1 West, Willamette Meridian, Washington County, Oregon. Gary S. Rychlick As Trustee Of The Eileen Rychlick Trust, Gary S. And Susan M. Rychlick, As Individuals, Petitioners.

Ordinance No. 863 was adopted on second reading by a vote of 5-0.

B. Ordinance No. 864

An Ordinance Of The City Of Wilsonville Approving A Zone Map Amendment From The Washington County Future Development - 20 Acre (FD-20) Zone To The Planned Development Industrial - Regionally Significant Industrial Area (PDI-RSIA) Zone On Approximately 8.17 Acres Generally Located Between SW Garden Acres Road and SW Grahams Ferry Road; The Land Is More Particularly Described As Tax Lot 100, Section 3D, Township 3 South, Range 1 West, Willamette Meridian, Washington County, Oregon. BTC III Grahams Ferry IC LLC, Applicant.

Ordinance No. 864 was adopted on second reading by a vote of 5-0.

Public Hearing

A. None.

City Manager’s Business

Shared the Budget book includes photos submitted by community members.

	Informed staff is working with Wilsonville Community Sharing on a lease agreement for Art Tech/Kiva building, Item 5.
<u>Legal Business</u>	No report.
ADJOURN	8:10 p.m.

City Council Meeting Action Minutes
June 6, 2022

City Council members present included:

Mayor Fitzgerald - Excused
Council President Akervall
Councilor Lehan
Councilor West
Councilor Linville

Jeanna Troha, Assistant City Manager
Beth Wolf, Senior Systems Analyst
Keith Katko, Assistant Finance Director
Katherine Smith, Assistant Finance Director
Zach Weigel, City Engineer
Matt Palmer, Associate Engineer
Cricket Jones, Finance Operations Supervisor
Robert Wurpes, Chief of Police
Ryan Adams, Assistant City Attorney
Zoe Mombert, Assistant to the City Manager

Staff present included:

Bryan Cosgrove, City Manager
Amanda Guile-Hinman, City Attorney
Kimberly Veliz, City Recorder

AGENDA ITEM	ACTIONS
WORK SESSION	START: 6:00 p.m.
A. None.	
REGULAR MEETING	
<u>Mayor's Business</u>	
A. Wilsonville Wildcats Week Proclamation	The Council President read a proclamation declaring June 6 - 10, 2022 as Wilsonville Wildcats Week. Council then presented a proclamation to the Wilsonville Wildcats Girls Soccer Team.
B. Library Board Appointment	<u>Library Board - Appointment</u> Appointment of Richard Spence to the Library Board for a term beginning 6/6/2022 to 6/30/2025. Passed 4-0.
C. Upcoming Meetings	Upcoming meetings were announced by the Council President as well as the regional meetings she attended on behalf of the City.
<u>Communications</u>	
A. Clackamas County Sherriff's Office New Online Database	Details were shared of Clackamas County Sherriff's Office new online reporting system. In addition, Council was shown Clackamas County's Call Activity Dashboards.
B. Wilsonville Community Sharing Update	Wilsonville Community Sharing updated Council on how City's grant funding helps Wilsonville residents in need.

Consent Agenda

The Consent Agenda was approved 4-0.

- A. **Resolution No. 2963**
A Resolution To Allocate Community Enhancement Funds For Fiscal Year 2022/2023.

- B. **Resolution No. 2972**
A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Professional Services Agreement With Wallis Engineering For Engineering Design and Construction Support Services For the Charbonneau Utility Repair: Village Greens Circle And Edgewater Lane Project (Capital Improvement Projects 1500, 2500, 4500, And 7500).

- C. **Resolution No. 2975**
A Resolution Of The City Of Wilsonville Authorizing Support Grant Agreement With Wilsonville Community Sharing.

- D. **Resolution No. 2976**
A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Progressive Design Build Agreement With Tapani | Sundt A Joint Venture For Design And Construction Of The Boeckman Road Corridor Project (Capital Improvement Project #2102, 4205, 4206, 4212, 7067).

- E. **Resolution No. 2978**
A Resolution Of The City Of Wilsonville Authorizing The Sole Source Selection Of Delta Connects Inc. To Supply And Service Delta Controls HVAC Controllers For All City Facilities.

- F. Minutes of the May 16, 2022 City Council Meeting.

New Business

- A. None.

Continuing Business

- A. None.

Public Hearing

- A. **Resolution No. 2973**
A Resolution Of The City Of Wilsonville Authorizing A Supplemental Budget Adjustment For Fiscal Year 2021-22.

After a public hearing was conducted, Resolution No. 2973 was approved 4-0.

<p>B. <u>Resolution No. 2980</u> A Resolution Declaring The City’s Eligibility To Receive State Shared Revenues.</p> <p>C. <u>Resolution No. 2981</u> A Resolution Declaring The City’s Election To Receive State Shared Revenues.</p> <p>D. <u>Resolution No. 2982</u> A Resolution Of The City Of Wilsonville Adopting The Budget, Making Appropriations, Declaring The Ad Valorem Tax Levy, And Classifying The Levy As Provided By ORS 310.060(2) For Fiscal Year 2022-23.</p>	<p>After a public hearing was conducted, Resolution No. 2980 was approved 4-0.</p> <p>After a public hearing was conducted, Resolution No. 2981 was approved 4-0.</p> <p>After a public hearing was conducted, Resolution No. 2982 was approved 4-0.</p>
<u>City Manager’s Business</u>	No report.
<u>Legal Business</u>	No report.
URBAN RENEWAL AGENCY	
<p><u>URA Consent Agenda</u></p> <p>A. <u>URA Resolution No. 324</u> Authorizing the City Manager to Execute a Progressive Design Build Agreement with Tapani Sundt A Joint Venture for Design and Construction of the Boeckman Road Corridor project (CIP No. 2102, 4205, 4206, 4212, 7067)</p> <p>B. Minutes of December 20, 2021 Urban Renewal Agency Meeting.</p>	The URA Consent Agenda was approved 4-0.
<p><u>New Business</u></p> <p>A. None.</p>	
<p><u>Continuing Business</u></p> <p>A. None.</p>	
<p><u>URA Public Hearing</u></p> <p>A. <u>URA Resolution No. 325</u> A Resolution Of The Urban Renewal Agency Of The City Of Wilsonville Adopting The Budget, Making Appropriations, And Declaring The Intent To Collect Tax Increment For Fiscal Year 2022-23.</p>	After a public hearing was conducted, URA Resolution No. 325 was approved 4-0.
ADJOURN	9:20 p.m.

City Council Meeting Action Minutes
June 20, 2022

City Council members present included:

Mayor Fitzgerald
Council President Akervall
Councilor Lehan
Councilor West
Councilor Linville

Jeanna Troha, Assistant City Manager
Zoe Mombert, Assistant to the City Manager
Dan Pauly, Planning Manager
Kelsey Lewis, Grants & Programs Manager
Eric Loomis, Transit Operations Manager
Dwight Brashear, Transit Director
Mike Nacrelli, Civil Engineer
Chris Neamtzu, Community Development Director
Katherine Smith, Assistant Finance Director
Mark Ottenad, Public/Government Affairs Director

Staff present included:

Bryan Cosgrove, City Manager
Amanda Guile-Hinman, City Attorney
Kimberly Veliz, City Recorder

AGENDA ITEM	ACTIONS
WORK SESSION	START: 5:04 p.m.
<p>A. <u>Resolution No. 2979</u> A Resolution Of The City Council Adopting The Diversity, Equity And Inclusion (DEI) Committee Strategic Plan.</p> <p>B. Board/Council Retreat Recap</p> <p>C. Statewide Transportation Improvement Fund (STIF) Planning for FY 24-25</p> <p>D. Frog Pond East and South Master Plan</p> <p>E. Construction Excise Tax (CET) for Affordable Housing</p>	<p>City Council heard an overview of Resolution No. 2979, which adopts the Diversity, Equity and Inclusion Committee Strategic Plan.</p> <p>Consultant summarized recommendations gathered at the Board/Council Retreat to yield enhanced collaboration among the groups.</p> <p>Staff presented draft Statewide STIF priorities for the FY 2024-25 biennial planning process.</p> <p>Staff shared an update on the Frog Pond East and South Master Plan, and sought Council direction.</p> <p>Due to time constraints this item was moved to the July 18, 2022 Work Session.</p>
REGULAR MEETING	
<p><u>Mayor's Business</u></p> <p>A. Wilsonville Wildcats Week Proclamation</p> <p>B. Upcoming Meetings</p>	<p>The Mayor read a proclamation declaring June 20 - 24, 2022 as Wilsonville Wildcats Week. Council then presented a proclamation to the Wilsonville Wildcats Girls Golf Team.</p> <p>Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.</p>

<p>C. Willamette Falls Locks State Commission Remaining Funds</p> <p>D. Fireworks Ban</p>	<p>Council moved to authorize the City Manager to communicate to Clackamas County the City Council's permission to advance the City's unspent Willamette Falls Locks Commission funds to the account of the new Willamette Falls Locks Authority. Passed 5-0.</p> <p>The City will continue to educate residents on the importance of firework safety.</p>
<p><u>Communications</u></p> <p>A. None.</p>	
<p><u>Consent Agenda</u></p> <p>A. Resolution No. 2983 A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Second Amendment To The Professional Services Agreement With Murraysmith, Inc. To Provide Construction Inspection Services For The Corral Creek And Rivergreen Lift Stations Rehabilitation Project (Capital Improvement Project #2105)</p> <p>B. Resolution No. 2984 A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute An Amendment To The Professional Services Contract With Moore Iacofano Goltsman, Inc. For Frog Pond East And South Master Planning.</p> <p>C. Minutes of the June 6, 2022 City Council Meeting.</p>	<p>The Consent Agenda was approved 5-0.</p>
<p><u>New Business</u></p> <p>A. None.</p>	
<p><u>Continuing Business</u></p> <p>A. None.</p>	
<p><u>Public Hearing</u></p> <p>A. None.</p>	
<p><u>City Manager's Business</u></p>	<p>No report.</p>
<p><u>Legal Business</u></p>	<p>Council moved to approve the dismissal of a suit previously filed against the Oregon Department of Aviation and the Oregon Aviation Board. Passed 5-0.</p>

	Council passed 5-0 two motions to update conflicting sections of the City's public contracting code.
URBAN RENEWAL AGENCY	
<u>URA Consent Agenda</u> A. URA Resolution 326 A Resolution Of The City Of Wilsonville Urban Renewal Agency Authorizing The Execution Of A Lease Agreement With Wilsonville Community Sharing For Use Of Space In The Art Tech Building. B. Minutes of the June 6, 2022 Urban Renewal Agency Meeting.	The URA Consent Agenda was approved 5-0.
<u>New Business</u> A. None.	
<u>URA Public Hearing</u> A. None.	
ADJOURN (Second Executive Session)	8:51 p.m.

City Council Meeting Action Minutes
July 18, 2022

City Council members present included:

Mayor Fitzgerald
Council President Akervall – Excused
Councilor Lehan
Councilor West
Councilor Linville

Kimberly Veliz, City Recorder
Jeanna Troha, Assistant City Manager
Bill Evans, Communications & Marketing Manager
Delora Kerber, Public Works Director
Matt Lorenzen, Economic Development Manager
Chris Neamtzu, Community Development Director
Dan Pauly, Planning Manager
Zoe Mombert, Assistant to the City Manager

Staff present included:

Bryan Cosgrove, City Manager
Amanda Guile-Hinman, City Attorney

AGENDA ITEM	ACTIONS
WORK SESSION	
START: 5:04 p.m.	
A. Construction Excise Tax (CET) for Affordable Housing	Council directed staff to continue studying the pros and cons of the City establishing a Construction Excise Tax.
B. Frog Pond East and South Master Plan	Staff shared an update on the status of the Frog Pond East and South Master Plan. Council then provided direction on their desired mix of housing types.
REGULAR MEETING	
<u>Mayor’s Business</u>	
A. Civics Academy Graduation	Street signs were awarded to the graduates of the Civics Academy, Class of 2022.
B. Appointment of City Manager Pro Tem	Council appointed Assistant City Manager Jeanna Troha as City Manager Pro Tem for the period July 19, 2022 through July 23, 2022 and then again, August 1, 2022 through August 14, 2022. Furthermore, Council appointed City Attorney Amanda Guile-Hinman as City Manager Pro Tem for the period July 24, 2022 through July 31, 2022. Passed 4-0.
C. Upcoming Meetings	Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.

<u>Communications</u> A. City of Wilsonville Receipt of the Bronze Walk Friendly Communities Designation.	Staff shared news of the City of Wilsonville's designation as a Walk Friendly City by the University of North Carolina Highway Safety Research Center.
<u>Consent Agenda</u> A. Resolution No. 2987 A Resolution of the City of Wilsonville Authorizing the City Manager to Execute the Tri-County Metropolitan Transportation District of Oregon (TriMet) Subrecipient Agreement B. Minutes of the June 20, 2022 City Council Meeting.	The Consent Agenda was approved 4-0.
<u>New Business</u> A. Resolution No. 2979 A Resolution Of The City Council Adopting The Diversity, Equity And Inclusion (DEI) Committee Strategic Plan.	Resolution No. 2979 was adopted 4-0.
<u>Continuing Business</u> A. None.	
<u>Public Hearing</u> A. None.	
<u>City Manager's Business</u>	The City Manager provided an update on the recruitment of the Arts and Culture Program Coordinator and Behavioral Health position. Council was then informed staff would push out information on tolling via the City's website, and social media platforms.
<u>Legal Business</u>	No report.
ADJOURN	8:33 p.m.