



City of Florence

DESIGN ACCEPTANCE PLANS PACKAGE

ReVision Florence Hwy 101 and Hwy 126 Streetscaping

November 2016



Murray, Smith & Associates, Inc.
Engineers/Planners

777 High St. #200
Eugene, Oregon 97401

PHONE 541.741.2975
FAX 541.744.3875

In Association With:

DLA, Inc.
OBEC Consulting Engineers
Kittelson & Associates, Inc.
Epic Land Solutions, Inc.

CITY OF FLORENCE

ReVision Florence

Hwy 101 and Hwy 126 Streetscaping

Design Acceptance Plans Package

TABLE OF CONTENTS

VOLUME 1 - DESIGN NARRATIVE

Design Narrative	<u>PAGE</u>
Introduction	1
Project Background	1
Project Cost Estimate	2
Project Design Team	2
Existing Highway Conditions	3
Highway 101	3
Highway 126	3
Project Constraints	4
Topography	4
Hydrology and Geology	4
Environmental Constraints	4
Utilities	6
Right of Way	6
Public Involvement	7
Design Criteria	7
Proposed Design	8
Typical Sections	8
ADA Facilities	8
Landscape and Streetscape	9
Lighting	9
Signal Modifications	11
Traffic Control	11
Mobility	12
Drainage	13
Stormwater Management	13
Utility Undergrounding	13
Access Management	14
Design Exceptions	14
Conclusions	15

Appendices

- Appendix A – Preliminary Project Schedule
- Appendix B – 30% Cost Estimate
- Appendix C – Right-of-Way Programming Estimate
- Appendix D – ReVision Florence Outreach Summary
- Appendix E – Illumination Design Concepts Memo
- Appendix F – Work Zone Traffic Analysis Memo
- Appendix G – Truck Turning Movements
- Appendix H – Utility Undergrounding
- Appendix I – Access Management Worksheet

VOLUME 2 - DESIGN ACCEPTANCE PLANS (Separate Document)



TECHNICAL MEMORANDUM

DATE: November 30, 2016

PROJECT: ReVision Florence
30% Design for Hwy 101 and Hwy 126 Streetscaping

TO: Megan Messmer, Assistant to the City Manager/PIO
City of Florence
250 Hwy 101
Florence, OR 97439

FROM: Chris Link, P.E.
Murray, Smith & Associates, Inc.

REVIEW: Bill Hollings, P.E.
Murray, Smith & Associates, Inc.

RE: Design Acceptance Narrative

Introduction

This Design Acceptance Package (DAP) presents project design elements and summarizes project-related activities performed by the design team to date. The DAP package includes the 30% Plans, estimate and various supporting materials included as appendices.

The Draft DAP Plans represent the approximate 30% design level. The DAP is intended to confirm the general geometry of the project so that right-of-way (ROW) and environmental impacts can be determined to the extent necessary to begin the ROW acquisition and environmental permitting processes.

After a two-week period for City and ODOT review and comment, a Design Acceptance Workshop (DAW) will be scheduled. The Draft DAP will be presented, comments and design team proposed responses will be discussed, and necessary design modifications will be made.

Project Background

The Hwy 101 and Hwy 126 Streetscaping Project is located along the US101 corridor between the Siuslaw River Bridge and OR126 (MP 190.22 to MP 190.84) and along OR126

from US101 to Spruce Street (MP 0.02 to MP 0.24). Key goals of this project include streetscape improvements along US101 that are visible and attract visitors and business to the area. The intent is to develop designs that will build upon revitalizing and sustaining the Downtown area as a destination, while maintaining a very livable area for the community residents. Anticipated improvements include:

- Widened sidewalks and ADA improvements
- Curb extensions/bulb outs
- Median treatments
- Safer crosswalks (to increase safe access from one side of the highway to the other)
- Continuation of existing bike lane from OR126 to the bridge.
- Pedestrian scale lighting
- Street furniture (benches, bike racks, trash receptacles, resting areas, art)
- Information signage of areas of interest
- Landscaping improvements

This project is currently being funded by the City and the Florence Urban Renewal Agency.

The project is being designed in tandem with ODOT's US101: OR126 JCT. – Siuslaw River Bridge 1R pavement preservation project. The overall goal is to construct the City's streetscape improvements in 2018, prior to ODOT's pavement preservation project. A project schedule is included in **Appendix A**.

Project Cost Estimate

The current 30% construction cost estimate is \$5,776,000 million. This includes utility undergrounding, construction engineering and a 30 percent contingency. The construction cost estimate is based on the 2015 average bid item prices published on the ODOT website.

The overall project cost estimate is \$7,021,000 million (rounded) including construction, preliminary and final engineering, and right-of-way.

The *30% Estimate* is included with this submittal and in **Appendix B**.

Project Design Team

The Project Design Team (PDT) for this work is comprised of the following members:

Megan Messmer, City's Project Manager
Chris Link, PE, Consultant's Project Manager, MSA
Bill Hollings, PE, Consultant's Principal in Charge, MSA
David Dougherty, Lead Landscape Architect, DLA Inc.
Anthony Yi, PE, Lead Traffic Engineer, Kittelson and Associates, Inc.

Additional resources and expertise are available to the PDT as needed. These resources include ODOT technical staff, additional MSA technical staff, and subconsultants to MSA.

MSA's role includes general project design, utility coordination and overall project management. The subconsultants comprising this team are DLA Inc. (DLA) for landscape architecture; OBEC Consulting Engineers, Inc. (OBEC) for production of additional survey; Kittelson & Associates, Inc. (KAI) for traffic engineering; and Epic Land Solutions, Inc. (Epic) for right-of-way services.

Existing Highway Conditions

In general, conditions along the US101 and OR126 corridors are not conducive to pedestrian and cyclist use and comfort. Sections of sidewalks are disconnected and in disrepair. There are few safe pedestrian street crossings and the distances across highways are imposing. Bicycle lanes are not well defined. The general feel of these streetscapes may be described as 'bleak', lacking in human scale and visual interest. The existing landscape vegetation is sparse or nonexistent. Private parking lots abut public sidewalks with little or no landscape buffer. Pedestrian scale lighting does not exist. Wayfinding signage and connections to Old Town Florence are inadequate. When implemented, the project will transform this corridor into a vibrant, active and inviting streetscape, consistent with the City's vision.

Highway 101

This section of US101 is classified as a Statewide route under the State Classification System and is part of the National Highway System as identified by the Oregon Highway Plan (OHP, 1999). Per the OHP, the project area is a designated State Freight Route and is a Federally Designated Truck Route. The functional classification of US101 within the projects limits, as identified in the ODOT Highway Design Manual (HDM), 2012, as an Urban Principal Arterial. This section of US101 is also classified as a Special Transportation Area (STA) by the OHP.

In general, US101 is a four-lane highway with a striped median/turn lane, on-street parking, curb, and sidewalk. US101 tapers down to a two-lane highway prior to the Siuslaw River Bridge at the south end of the project area. The existing highway does not include dedicated bike lanes, has limited pedestrian accessibility, and is deficient of streetscape and landscaping that will allow this area to reach its highest potential. The existing conditions of this section of the highway placed an emphasis on moving freight and did not address the need for pedestrians, bicyclists and local vehicular traffic.

The posted speed for this section of US101 is 30 MPH.

Per ODOT's scoping notes for the project, the 2014 average daily traffic (ADT) is 11,000 to 16,000 vehicles per day. According to the 2015 Safety Priority Index System (SPIS) map, there are no top 5 percent and 10 percent SPIS sites within the US101 project limits.

Highway 126

This section of OR126 is classified as a Statewide route under the State Classification System and is part of the National Highway System as identified by the OHP. Per the OHP, the project area is a designated State Freight Route and is a Federally Designated Truck

Route. The functional classification of OR126 within the projects limits, as identified in the ODOT HDM, is “Urban Principal Arterial”.

OR126 generally consists of one travel lane in each direction with a striped median/turn lane, curb and sidewalk. Near the intersection with US101 there are additional right turn lanes.

The posted speed for this section is 35 MPH.

Per ODOT’s scoping notes for the project, the 2014 average daily traffic (ADT) is 7,800 to 9,500 vehicles per day. According to the 2015 Safety Priority Index System (SPIS) map, there are no top 5 percent and 10 percent SPIS sites within the OR126 project limits.

Project Constraints

Topography

This project is located on relatively flat terrain within the City of Florence. Connecting side streets generally slope down and away from US101, particularly on the southern end of the project. Elevations within the project range from 26 to 34 feet.

Hydrology and Geology

Hydrology: All roadway runoff is collected in a piped storm drainage system along US101. The drainage system flows south and is discharged offsite to Siuslaw River. ODOT District 5 Maintenance staff has reported standing water near the south end of the project at the bridge and noted that the storm drainage system may be at capacity. Per input from the City, at this time the project is not intending to upsize the storm main.

Geology: No geotechnical studies have been completed specifically for this project at this time. Geotechnical studies will likely be required during the next phase of the project for the proposed gateway features at Quince Street and Maple Street.

Environmental Constraints

Wetlands –Wetlands and waters of state/US are not anticipated to be impacted.

Biological – No impacts to threatened and endangered species are anticipated. Endangered Species Act (ESA) clearances can be addressed through a No Effect Memo. ODOT is performing all environmental clearances for the project and will prepare the No Effect Memo.

Water Quality – The ODOT Hydraulics Manual provides the following triggers for water quality on projects:

- Producing new impervious surface area. Does not include:
 - Minor actions such as constructing sign or signal post pads, etc., or

- Non-pollutant generating areas such as detached bike paths and detached sidewalks
- Changing the total Contributing Impervious Area (CIA).
- Reconstructing a roadway from the subgrade. Does not include pavement overlays or inlays, nor spot reconstruction.
- Changing the type, location, direction, length or endpoint of the pre-project stormwater conveyance system.
- Replacing or widen a stream crossing structure including adding new bridge decks or retrofitting bridge deck drainage
- Requiring a Clean Water Act Section 404 permit and actively involving modification of impervious surfaces.

The project will not be adding new impervious surfaces or changing existing drainage patterns. Although, the project will adjust the curb and inlet locations, none of the existing drainage patterns will be modified (curb will not be installed where it did not previously exist and runoff will continue to be collected in the existing piped drainage system). No other triggers for water quality included in the ODOT Hydraulics Manual will be included in the project. As such, impacts to water quality of receiving waters are not anticipated.

While not required by ODOT or regulatory agencies, the City would like to include water quality stormwater planters where feasible to provide enhanced treatment. Locations of the proposed stormwater planters are included in the 30% plans.

Historical and Archaeological - Per ODOT's scoping notes for the project, there may historically eligible structures within the project corridor, however, the limited strip easements for sidewalk/ADA ramp upgrades will not result in an adverse effect finding under Section 106 of the NHPA. The project can likely be cleared using ODOT's Section 106 programmatic agreement.

Per ODOT's scoping notes for the project, since the project area is already fully developed, no archaeological surveys will be conducted. Setting database research will be needed and archaeological monitoring will likely be necessary during construction, depending on the depth of excavations.

ODOT is performing all cultural resource studies and will prepare the necessary clearance documentation.

Hazardous Materials – Based on a cursory review of potential environmental conditions, the project team has identified three gas stations that currently or historically have underground storage tanks. A Hazardous Materials Corridor Assessment (HMCA) is anticipated to be performed by the consultant team during the next phase of the project to determine the risk of

encountering hazardous materials. Depending on the results of the HMCA, additional testing may be performed to evaluate subsurface soil conditions within the project corridor.

Noise Impacts – A noise study is not required for this project as there are no traffic capacity improvements associated with the project, nor are any of the travel lanes being realigned closer to potential noise receptors.

Permits – If the project is constructed as a stand-alone City contract, as is currently planned, an ODOT Permit to Occupy or Perform Operations upon a State Highway will be obtained to allow for work within US101 and OR126. Utilities relocating for this project within ODOT right-of-way will also need to obtain this permit from ODOT District 5.

Utilities

Utilities located within the project corridor and potential utility conflicts have been preliminarily identified and the findings are documented in the *Utility Assessment Technical Memorandum*. The memo lists utility owners with facilities in the project corridor, contact information by utility, and potential conflicts with utilities. The analysis is based on mapping provided to date from the utilities, surveyed locations of utility features and field observations from site visits.

Utilities with facilities within the project include the City of Florence (water and sanitary sewer); Central Lincoln PUD (aerial electrical and street lighting); CoastCom (aerial and underground fiber optics); Charter Communications (aerial communications); Century Link (aerial and underground communications); and ODOT (storm sewer and signals).

Potential conflicts have identified with utilities within the project limits. In some cases, conflicts may be avoided by design modifications or resolved by adjustment or relocation of the utility facility in conflict. Following acceptance of DAP, MSA will issue conflict notices to affected utilities. It is anticipated that some of the potential conflicts identified will be eliminated as the design is developed, and depth information becomes available.

Utility undergrounding along US101 is also being considered by this project and is discussed in more detail later in this document.

A complete copy of the *Utility Assessment Technical Memorandum* is included with this submittal.

Right-of-Way

Based on the proposed 30% design, temporary construction easements (TCEs) and permanent easements will be required to construct the proposed sidewalk, driveways, ADA ramps and landscaping. All proposed easements are shown in the 30% Plans.

TCEs are proposed along US101 to provide access to form and pour the sidewalk, driveway and ADA ramps; match existing grade behind the new sidewalks with asphalt slope paving or minor

earthwork; match the existing grade behind the new driveways with asphalt paving; and potentially behind the ADA ramps to allow for pedestrian routing during construction. No permanent sidewalk or curb is included in the TCEs.

Small permanent easements are proposed at various locations along US101 to accommodate ADA ramps and certain driveways. Permanent easements are also proposed on OR126 at Quince Street and Redwood Street to accommodate landscaping, streetscaping and gateway features.

A total of 36 right-of-way files are anticipated for the project. The estimated project right-of-way costs is \$525,000. This includes the acquisition cost, consultant administration costs, ODOT review costs, and expenses (title reports, etc.). A *Right-Of-Way Programming Estimate* is included in **Appendix C**.

Public Involvement

The City has developed a website for the project that includes project background, conceptual design information, and budget and schedule information. The website can be found at the following link: <http://www.ci.florence.or.us/urbanrenewal/revision-florence>

An Open House was conducted during the conceptual design development on February 23, 2016. The City sent direct mailing invitations to approximately 975 business and resident addresses in and around the project area. Prior to main open house, a special event for the Rotary club was held to provide an opportunity for many of the local business owners to view the conceptual design. The open house included the large roll map of the concept design as well as examples of gateways and treatments. The project team presented the design to attendees and answered questions regarding the design concepts.

On February 24, 2016 the project team presented the conceptual design to the FURA board with a recap of input from the open house the previous night. A video of the presentation was recorded and posted to the City's website.

In October 2016 the City conducted additional outreach via an online survey. Results of the survey can be found in **Appendix D**.

To date, there has been a high level of interest from the public. Generally, the public has been supportive of the proposed pedestrian, safety and landscaping improvements to US101. Additional public outreach, including an Open House, is anticipated during final design phase of the project.

Design Criteria

For all project elements, the design criteria, references, and standard values have been tabulated and are presented in the previously submitted *Design Criteria Technical Memorandum*. 4R New Urban STA standards, per Chapter 6.2.2 of the HDM are generally used for US101. 3R Urban Non-Freeway standards are used for OR126.

Proposed Design

Typical Sections

The proposed typical section for US101 will consist of a 14-foot median/left turn lane, two 11-foot inside travel lanes, and two 12-foot outside travel lanes. In areas with on-street parking, a 5-foot bike lane, 7-foot parking and an 8-foot sidewalk is proposed. In areas without on-street parking, a 6-foot bike lane, 6-foot landscape buffer and an 8-foot sidewalk is proposed. The project does not propose to modify the typical section on OR126.

Curb extensions are proposed at certain intersections to accommodate ADA ramps, reduce the pedestrian crossing distance and provide space for landscape and streetscape elements. Landscaped median islands will also be added at certain crosswalk locations to allow an ADA landing in the median of the highway.

In order to install the new curb and gutter, a sawcut is proposed 2 feet from the face of the gutter. This area will be paved back with 3 inches of ACP wearing course, 4 inches of ACP base course, and 12 inches of aggregate base over subgrade geotextile.

Paving in US101 and side streets beyond the sawcut will be performed under the US101: OR126 JCT. – Siuslaw River Bridge 1R pavement preservation project being designed and administered by ODOT.

ADA Facilities

All existing ADA ramps within the project corridor along US101 will be replaced with the project. Per ODOT's current guidance, two ADA ramps are provided at each corner, unless a crossing is closed. Pedestrian crossing closures on US101 are proposed at the following locations:

- 8th Street – south crossing
- 7th Street – north crossing
- Nopal Street – north crossing
- Maple Street – south crossing / Laurel Street – north crossing
- 2nd Street – north crossing
- 1st Street – north crossing
- 1st Street – south crossing
- Old Town Way – north crossing
- Old Town Way – south crossing

Work on OR126 is limited to landscape and streetscape improvements behind the existing walks. As such, the existing pedestrian access route will not be impacted and ADA ramps on OR126 will not be required to be replaced with the project.

Existing pedestrian signal and push button features were reviewed with respect to the sidewalk improvements and will be upgraded, as required, to meet ADA standards. See below for additional discussion regarding the signals.

Preliminary ADA ramp details, including proposed pedestrian signal improvements, are included with the 30% Plans.

Landscape and Streetscape

The vision for the proposed streetscape is to transform the existing US101 and OR126 corridors into an inviting and vibrant pedestrian friendly environment. Through street realignments and utilizing City and ODOT owned right of ways, new pedestrian oriented places have been included and are shown in the 30% plans. These include plazas, gateways and amenities that reflect the identity envisioned for downtown Florence.

Specifically, the plans illustrate plazas, gateways and pedestrian surfaces with paving that reflect the movement of water. This is achieved by using colored paving in curved forms evoking the ebb and flow of tide and sand. Within the plazas and along the corridors pedestrian amenities include plinths to display local art, benches, litter receptacles and bike racks. Pedestrian scale ornamental lighting provides illumination for safety and enhances nighttime use.

Gateway features are proposed at Quince Street and Maple Street. At Quince Street, obelisk features that are inspired by the adjacent bridges are proposed. At Maple Street, a gateway element that spans the street and is inspired by the City's historic buildings, signage or bridge components is proposed. Additional design and collaboration with the City will be required during the next phase of the project to determine the type, size and costs for these features.

The landscape plantings are primarily native to reflect the natural vegetation along the coast and in the Florence area. Street trees are proposed throughout the corridor to provide pedestrian scale and interest. Buffer plantings are used wherever possible to soften the transition to adjacent parking lots and properties. Along US101 stormwater planters will provide treatment of the highway runoff before it discharges into the river. Overall, the plantings are used for function and aesthetics and will combine with the other amenities to help transform the streetscape.

The proposed landscape and streetscape plans are included with the 30% Plans.

Lighting

As part of the project KAI, in coordination with the City and design team investigated three illumination design concepts to improve pedestrian scale lighting while potentially improving the existing roadway lighting along US101. The three options that were evaluated included a variety of both highway and pedestrian scale fixtures, and two options also included utilizing the existing cobra fixtures mounted on existing utility poles. Each option

was evaluated using photometric analysis to determine the necessary spacing and number of poles.

Option 1, New Era and Celeste Fixtures – This option assumes that all existing highway lighting is replaced entirely by new lighting to illuminate both the roadway and sidewalks. Since this option assumes the removal of the existing HPS cobra fixtures, Option 1 was designed to meet ODOT roadway lighting standards. Option 1 assumes a dual fixture combination on a single light pole, with a New Era fixture mounting height of 27'-5" that faces the highway, and a Celeste fixture at a mounting height of 15' that faces the sidewalk. These light pole and fixture combinations were assumed in locations with a landscape strip. In locations without a landscape strip, a light pole with only the New Era fixture was assumed.

Option 2, Domia Fixture - Option 2 focuses only on pedestrian scale lighting using a decorative pole and fixture. For purposes of the photometric analysis, this option also assumes that LED cobra heads will replace the existing HPS cobra heads and no additional highway lighting will be added. It is important to note that the placement and number of Domia fixtures was based on utilizing the roadway cobra fixtures and essentially filling in dark spots along the sidewalk network with new Domia fixtures. As such, the spacing of Domia fixtures are not necessarily consistent and the quantity of fixtures and cost estimate are reflective of this approach and should not be compared to the other options. However, if desired it is possible to provide a uniform light pole layout to improve overall aesthetics.

Option 3, Marina Fixture – Like Option 2, this this option focuses only on pedestrian scale lighting using a decorative pole and fixture, and assumes that LED cobra heads will replace the existing HPS cobra heads along Highway 101, and no additional highway lighting will be added. Similar to Option 2, it is important to note that the placement and number of Marina fixtures was based on utilizing the roadway cobra fixtures and essentially filling in dark spots along the sidewalk network with new Marina fixtures. As such, the spacing of Marina fixtures is not necessarily consistent and the quantity of fixtures and cost estimate are reflective of this approach and should not be compared to the other options. However, if desired it is possible to provide a uniform light pole layout to improve overall aesthetics.

While all three options can improve the sidewalk lighting as compared to existing conditions, with the City's desire to underground the existing utilities and remove the existing wooden utility poles and HPS cobra fixtures along US101 within the study area, Option 1 provides adequate lighting along both the roadway and sidewalk network, while also having the ability to be decorative to match the new pedestrian streetscape design along US101. As such, Option 1 has been used for the purposes of the 30% plans and estimate. The proposed preliminary illumination plans are included with the 30% Plans.

Illustrations, details and costs for each of the lighting options can be found in the *Illumination Design Concepts Memo* in **Appendix E**.

Signal Modifications

The existing signals have been reviewed with respect to the sidewalk improvements. Additionally, ODOT Region 2 traffic has provided the following project specific guidance that was used to assess whether signal modifications will be required to meet current ADA requirements.

- The critical feature for push buttons is the vertical reach (42-48 inches), horizontal reach (24 inches for existing features and 10 inches for new), and a level landing (2 percent or less, 30-inch by 48-inch).
- Two ramps per corner are required.
- The push buttons should be separated by 10 feet if possible, but is not required for this project.
- A 10-foot distance from the bottom of the truncated domes to the push button should be provided where possible, but is not required for this project.
- Push button posts without pedestrian signal heads are acceptable.
- The pedestrian signal heads (complete with mount) should be upgraded where possible, but at a minimum countdown modules are required.
- The push button mounts should be the same style at each intersection, and if possible, upgraded to current standard.

Based on this criteria, pedestrian signal improvements are proposed at all four quadrants of the US101/OR126 intersection and the US101/Rhododendron Drive intersection. No modifications to the traffic signal poles and mast arms are proposed. The proposed improvements are shown on the Preliminary ADA ramp details in the 30% Plans. Detailed signal modification plans will be developed for the final design phase of the project.

Traffic Control

It is anticipated that the curb and sidewalk construction adjacent to US101 will be generally be accomplished by closing a lane on the highway during allowable lane closure hours listed below. Where space allows some of the work on US101 may be accommodated by closing the existing shoulder/parking on US101 while maintaining all lanes of traffic. Work on the side streets will likely require a full or partial closure with a detour. Flaggers will be utilized for construction at a signalized intersection.

For pedestrian accommodation, it is anticipated that the curb and sidewalk construction can be accomplished by closing the sidewalk a block at a time with sidewalk closure and detour signing according to TM844. Depending on the Contractor's staging, a sidewalk diversion

could also be used at the corners to provide a pedestrian route around the work zone. A preliminary pedestrian routing detail is included in the 30% plans.

A work zone traffic analysis was performed to determine allowable lane closures on US101. The following is a summary of the findings:

- Single lane closures are allowed between 7PM and 6AM on Weekdays. Weekdays are defined as Monday through Thursday.
- Lane closures are not recommended during the following time periods:
 - January and February – 10AM to 6PM
 - March and April – 8AM to 6PM
 - May and June – 7AM to 7PM
 - July – 6AM to 7PM
 - August and September – 7AM to 7PM
 - October – 8AM to 6PM
 - November and December – 10AM to 6PM
- Weekend (11AM on Friday to 7PM on Sunday) and holiday closures are not recommended.
- Any deviation from the ODOT District 5 lane closure guidelines must be requested and approved by District 5.

A complete copy of the work zone analysis can be found in the *Work Zone Traffic Analysis Memorandum* in **Appendix F**.

Mobility

In general, the un-signalized intersections within the project limits were designed to “accommodate” an SU-40, S-BUS-36 (school bus), and a fire truck. The project team also reached out to adjacent businesses along the corridor to confirm delivery routes and vehicles. Based on input from these businesses, certain intersections were designed to “accommodate” larger vehicles (WB-67 or tanker trucks) to continue to provide delivery access to these businesses.

ODOT Region 2 Traffic has indicated that the signalized intersections within the project shall be “designed for” a WB-67. Currently, the existing US101/9th Street intersection “accommodates” the WB-67 design vehicle at the SW and SE quadrants (the east leg of this intersection is OR126 which has higher truck volumes and is fully designed for the WB-67).

Currently, the existing US101/Rhododendron Drive intersection “accommodates” the WB-67 design vehicle at all four quadrants. Due to right-of-way and budget constraints, the proposed design continues to “accommodate” a WB-67 versus fully designing for the WB-67 at these locations. A design exception has been requested from ODOT.

Per ODOT Region 2 Traffic, the minimum required curb to curb clear width along US101 for oversized loads is 28 feet. The minimum proposed curb to curb width on the project is 30 feet (located at the median islands).

Truck turning movements and delivery route exhibits can be found in **Appendix G**.

Drainage

Drainage modifications will be required due to the new curb locations and curb extensions. This will typically include new or relocated inlets and associated piping. Modifications to the storm main along US101 are not proposed at this time, except as required to connect the new or relocated inlets. Preliminary drainage plans and profiles are included with the 30% Plans.

Stormwater Management

As noted in the Water Quality section above, no triggers for water quality and stormwater management are included in the project. While not required by ODOT or regulatory agencies, the City would like to include water quality stormwater planters where feasible to provide enhanced treatment. Locations of the proposed stormwater planters are included in the 30% plans.

The stormwater planters are located in the landscape buffer area between the bike lane and the sidewalk. The proposed planters are 30 to 50 feet long, depending on the location. Runoff enters the planters through curb openings and is filtered as the water percolates through the vegetation, growing medium, and gravel. Overflow “beehive” inlets are provided at the downstream end of the planters to collect runoff during high flows. Based on the current design, runoff from approximately 1.5 acres of US101 can be treated with the proposed stormwater planters. Additional details will be developed during the Final design phase of the project.

Utility Undergrounding

The City has expressed interest in potentially undergrounding aerial utility facilities currently located along US101 to improve the aesthetics of the US101 business area. MSA has coordinated with Central Lincoln PUD and other utilities with overhead facilities to determine feasibility and preliminary costs for utility undergrounding along US101 within the project corridor.

Aerial power and communication facilities exist along both sides of US 101 and cross the highway in at least four locations. Power is owned by Central Lincoln PUD. The power along US101 is a secondary circuit for the existing street lighting while the aerial power

crossings are primary circuits. The communication facilities are owned by CenturyLink, Charter and CoastCom. These facilities are a combination of copper wires and fiber optic lines.

It is anticipated that joint trenches will be utilized along US101 to underground the aerial facilities. Any crossings of US101 are assumed to be installed using directional drilling to avoid open trenches across the highway.

One pole-mounted transformer at 8th Street would need to be converted to a pad-mount type. Switch gears would not be required. Up to two power service drops would likely need to be converted to underground configurations, likely requiring new meters. Five to six communication service drops would need to be converted to underground.

Based on preliminary conversations and design input with the affected utilities, MSA has prepared a conceptual level estimate of \$720,000 to complete the undergrounding. (Note that the cost to install underground power along US101 for the street lights is incorporated in the cost for the illumination and is therefore not included in the utility undergrounding cost). To date, only CenturyLink and CoastCom have provided costs for the undergrounding of their facilities; Central Lincoln PUD and Charter still need to verify quantities and costs for their facilities.

A preliminary utility underground concept figure and estimate is included in **Appendix H**.

Access Management

The majority of driveways along the project will be replaced at the same location and width as currently exists; however, there are certain driveways that will be modified or closed with the project. Modifications or closures are included in the project when driveways are in conflict with ADA facilities, when spacing standards are not met and the property has reasonable alternate access, and where existing approaches exceed widths recommended by the ODOT HDM or where there are three or more approaches to the highway.

ODOT has sent methodology letters to property owners with affected driveways on US101. For modified driveways to City owned streets, the City, with support from the project team, will be contacting property owners.

Proposed modifications to driveways on the project are identified in the Access Management Worksheet in **Appendix I**.

Design Exceptions

A design speed-posted speed concurrence was previously requested and approved for US101 as part of ODOT's pavement preservation project. The design speed will be 30 MPH, the posted speed limit in the project area.

A design exception request has been submitted to ODOT to maintain the existing signalized intersection geometry that accommodates a WB-67 versus fully designing for the WB-67.

A design exception request has also been submitted to ODOT for the proposed 8-foot curbside sidewalk along US101 (City of Florence standard is 8 feet for US101 while ODOT's STA standard is 10 feet).

Design Exceptions relating to ADA ramps are not anticipated.

Conclusions

This Design Acceptance Package presents the project design elements developed and activities performed to date and represents the approximate 30 percent design level. The following critical steps must occur to allow the project to go to bid:

- Gain Agency (ODOT and City) concurrence on all project design elements presented in the DAP.
- Complete access management process.
- Begin and complete the right-of-way acquisition process for the proposed easements.
- Receive approval of proposed design exception requests.
- Begin and complete environmental clearances (by ODOT).
- Confirm funding availability.
- Execute a Contract Amendment for final design, right-of-way acquisition, and bidding engineering services.
- Complete Advance and Final Plans, Specifications and Estimates.

Through the collaboration of the Project Design Team, the general geometry of the project has been determined such that right-of-way needs and potential environmental impacts have been determined.

[illegible]

ReVision Florence - Hwy 101 and Hwy 126 Streetscaping

Project Name: ReVision Florence - Hwy 101 and Hwy 126 Streetscaping County: Lane Description: Streetscaping Date: November 2016				Client: City of Florence Anticipated Bid Let: 2018 Calculated By/Entered By: CMC Checked By: CSL		
30% COST ESTIMATE - REVISION FLORENCE						
BI NO.	ITEM	CODE	UNIT	QUANTITY	UNIT COST	ENGINEER'S ESTIMATE
TEMPORARY FEATURES AND APPURTENANCES						
	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC (5% of CC)	0225-0100000A	LS	1	\$175,000.00	\$175,000.00
	EROSION CONTROL (1% of CC)	0280-0100000A	LS	1	\$35,000.00	\$35,000.00
					Subtotal	\$210,000.00
ROADWORK						
	CONSTRUCTION SURVEY WORK (1% of CC)	0305-0100000A	LS	1	\$35,000.00	\$35,000.00
	REMOVAL OF PIPES	0310-0100000F	FOOT	510	\$35.00	\$17,850.00
	REMOVAL OF SURFACINGS	0310-0103000J	SQYD	3,700	\$10.00	\$37,000.00
	REMOVAL OF INLETS	0310-0104000E	EACH	15	\$450.00	\$6,750.00
	REMOVAL OF MANHOLES	0310-0105000E	EACH	3	\$1,800.00	\$5,400.00
	CLEARING AND GRUBBING	0320-0100000A	LS	1	\$5,000.00	\$5,000.00
	GENERAL EXCAVATION	0330-0105000K	CUYD	4,500	\$14.00	\$63,000.00
	SUBGRADE GEOTEXTILE	0350-0105000J	SQYD	3,600	\$1.00	\$3,600.00
					Subtotal	\$173,600.00
DRAINAGE AND SEWERS						
	12 INCH STORM SEWER PIPE, 5 FT DEPTH	0445-035012AF	FOOT	1,024	\$55.00	\$56,303.50
	CONCRETE MANHOLES, WITH INLET	0470-0103000E	EACH	9	\$3,800.00	\$34,200.00
	CONCRETE MANHOLES, SHALLOW	0470-0105000E	EACH	1	\$2,750.00	\$2,750.00
	CONCRETE MANHOLES, LARGE PRECAST	0470-0106000E	EACH	1	\$5,800.00	\$5,800.00
	CONCRETE INLETS, TYPE CG-2	0470-0307000E	EACH	14	\$2,500.00	\$35,000.00
	CONCRETE INLETS, 24" BEEHIVE	0470-	EACH	12	\$2,500.00	\$30,000.00
	ADJUSTING INLETS	0490-0105000E	EACH	1	\$1,225.00	\$1,225.00
	MAJOR ADJUSTMENT OF MANHOLES	0490-0123000E	EACH	1	\$1,700.00	\$1,700.00
	MANHOLES OVER EXISTING SEWERS	0490-0123000E	EACH	8	\$5,250.00	\$42,000.00
					Subtotal	\$208,978.50
BASES						
	AGGREGATE BASE	0641-0102000M	TON	3,700	\$20.00	\$74,000.00
					Subtotal	\$74,000.00
WEARING SURFACES						
	LEVEL 3, 1/2 INCH ACP	0745-0331000M	TON	800	\$35.00	\$28,000.00
	PG 64-22 ASPHALT IN 1/2 IN ACP	0745-0620000M	TON	50	\$500.00	\$25,000.00
	EXTRA FOR ASPHALT APPROACHES	0749-0100000E	EACH	22	\$600.00	\$13,200.00
	EXTRA FOR ASPHALT SLOPE PAVING	0749-0108000J	SQFT	4,700	\$5.50	\$25,850.00
	CONCRETE CURBS, CURB AND GUTTER	0759-0103000F	FOOT	6,500	\$21.00	\$136,500.00
	CONCRETE CURBS, STANDARD CURB	0759-0110000F	FOOT	2,100	\$20.00	\$42,000.00
	CONCRETE ISLANDS	0759-0122000J	SQFT	513	\$12.30	\$6,309.90
	CONCRETE DRIVEWAYS	0759-0126000J	SQFT	13,300	\$7.00	\$93,100.00
	CONCRETE WALKS	0759-0128000J	SQFT	37,500	\$6.00	\$225,000.00
	EXTRA FOR NEW SIDEWALK RAMPS	0759-0153000E	EACH	64	\$1,000.00	\$64,000.00
					Subtotal	\$658,959.90
PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS						
	SIGNING	0940-	LS	1	\$50,000.00	\$50,000.00
	ILLUMINATION (OPTION 1 - includes poles, fixtures, trenching, conduit and wiring)	0970-	LS	1	\$760,000.00	\$760,000.00
	LANDSCAPE LIGHGTING (Optional)	0970-	LS	1	\$160,000.00	\$160,000.00
	TRAFFIC SIGNAL MODIFICATION (US101/OR126)	0990-0102000A	LS	1	\$19,000.00	\$19,000.00
	TRAFFIC SIGNAL MODIFICATION (US101/RHODODENDRON DR.)	0990-0102000A	LS	1	\$14,000.00	\$14,000.00
					Subtotal	\$1,003,000.00
RIGHT OF WAY DEVELOPMENT AND CONTROL						
	STORMWATER PLANTERS	1012-	SQFT	2,900	\$11.00	\$31,900.00
	TREES	1040-	EACH	186	\$250.00	\$46,500.00
	PLANT BED (24" topsoil, amendments and irrigation)	1040-	SQFT	48,010	\$8.00	\$384,080.00
	COLORED CONCRETE PLAZA	1095-	SQFT	4,500	\$10.00	\$45,000.00
	COLORED CONCRETE CROSSWALK	1095-	SQFT	7,300	\$12.00	\$87,600.00
	BENCHES	1095-	EACH	18	\$1,200.00	\$21,600.00
	ART PLINTHS	1095-	EACH	11	\$750.00	\$8,250.00
	CYCLE RACKS	1095-	EACH	14	\$600.00	\$8,400.00
	TRASH BINS	1095-	EACH	7	\$700.00	\$4,900.00
	GATEWAY (NOPAL ST.)	1095-	EACH	1	\$150,000.00	\$150,000.00
	GATEWAY (QUINCE ST.)	1095-	EACH	2	\$35,000.00	\$70,000.00
	IRRIGATION SYSTEM	1120-0100000A	LS	1	\$50,000.00	\$50,000.00
					Subtotal	\$908,230.00
MOBILIZATION						
	MOBILIZATION (10%)	0210-0100000A	LS		10%	\$323,676.84
					Subtotal	\$323,676.84
SUBTOTAL FOR CONSTRUCTION						\$3,560,500.00
	CONSTRUCTION ENGINEERING (12%)	-			12%	\$427,260.00
	CONTINGENCIES (30%)	-			30%	\$1,068,150.00
	UTILITY UNDERGROUNDING (Pending additional review and input from utilities)	-				\$720,000.00
TOTAL FOR CONSTRUCTION						\$5,775,910.00
	DAP DESIGN (Includes survey and design through 30%)	-				\$319,854.00
	FINAL DESIGN (Estimated, to be determine once scope is complete for final design phase)	-				\$400,000.00
	RIGHT OF WAY ADMINISTRATION (Personnel fees and miscellaneous expenses)	-				\$359,000.00
	RIGHT OF WAY ACQUISITION	-				\$166,000.00
PROJECT TOTAL (Rounded)						\$7,021,000.00

City of Florence Programming Estimate

File #	Owner Name	Mailing Address	Situs Address	APN	Current Use	Permanent Easement			Temporary Easement			Total Land Value	Improvement Cost	Description of Improvements	Damages	Description of Damages	Appraisal		Appraisal Review		Acquisition		Relocation Study		Relocation Asst		Total Personnel Cost	Relocation Benefits	Title Insurance Cost	RW HQ Cost	Legal and Contingencies	Miscellaneous Cost	Total	Comments
						Area	Area Units	Value	Area	Area Units	Value						Hrs	Cost/Hr	Hrs	Cost/Hr	Hrs	Cost/Hr	Hrs	Cost/Hr	Hrs	Cost/Hr								
1	ABEL INSURANCE AGENCY	PO BOX 1780, COOS BAY, OREGON 97420	875 HWY 101	18-12-27-41-07902-000 18-12-26-32-06500-000	COMMERCIAL				1,114	Sq. Ft.	1.96	\$2,184		7-11 Property, 55% shrubs, 25% decorative rock 20% Paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,984	
2	BOB MILES LLC	2175 HIGHWAY 101	813 HIGHWAY 101	18-12-27-41-10500-000	SERVICE STATION, GAS STATION	16	Sq. Ft.	14.00	1,917	Sq. Ft.	1.96	\$3,982	\$25	50% paving , 30% shrubs, 10% grass, 10% bark, perm ease - 50/50 grass paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$16,807	
3	SIUSLAW VALLEY BANK	PO BOX 280	777 HIGHWAY 101	18-12-27-44-00100-000	FINANCIAL BUILDING	378	Sq. Ft.	6.50	705	Sq. Ft.	0.91	\$3,099	\$375	perm ease - 80 paving, 10 grass planter box tce - 90 paving, 10 grass TCE area may impact sign				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$16,274	
4	KDH BLDG LLC	733 HIGHWAY 101	733 HIGHWAY 101	18-12-27-44-00401-000	OFFICE BUILDING				400	Sq. Ft.	1.96	\$784		7 medium bushes, 70% decorative, 10 square feet concrete path, TCE area may impact sign				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,584	
5	MCAHON, THOMAS M	811 WILLAMETTE ST	715 HIGHWAY 101	18-12-27-44-00402-000	OFFICE BUILDING				235	Sq. Ft.	1.96	\$461		Concrete path, shrub, ground cover, bark dust, 30% paving, 40 % shrub, 20 ground cover, 10 bark				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,261	
6	MCKAY'S FLORENCE LLC	LAKESIDE, OR 97449	685 HWY 101	18-12-27-44-05800-000 18-12-27-44-05701-000	COMMERCIAL				1,450	Sq. Ft.	0.91	\$1,320		paving, irrigation box, bark dust, curbing x 2, ground cover, 9 small shrubs, 10% ground cover, 30% paving, 60 Ground Cover				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,120	
7	HENNESSEE TODD & AMANDA	5969 CANARY RD, WESTLAKE, OREGON 97493	1417 6TH ST	18-12-27-44-05801-000	COMMERCIAL	16	Sq. Ft.	14.00	738	Sq. Ft.	1.96	\$1,671	\$75	Perm Ease - 2 shrubs, bark TCE - Irrigation, paving, shrubs (11)				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,546	
8	LA FIRENZE LLC	10 WATERFORD DOWNS	575 HIGHWAY 101	18-12-27-44-07300-000 18-12-27-44-07200-000	STORES, D11:G11RETAIL OUTLET				934	Sq. Ft.	1.96	\$1,831		2 TCEs (370,564)Antique Shop 100% paving, potential impact to ingress and egress, parking.				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,631	
9	GIBERSON (WILLIAMS, DAVID R)	PO BOX 69	549 HIGHWAY 101	18-12-27-44-07100-000	STORES, RETAIL OUTLET				227	Sq. Ft.	1.96	\$445		100 % pavement. Access to the front door in question.				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,245	
10	WRAY, STEVEN L	PO BOX 398	539 HIGHWAY 101	18-12-27-44-07000-000	MISCELLANEOUS COMMERCIAL				91	Sq. Ft.	1.96	\$179		100 % pavement. Access to the front door in question.				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$12,979	
11	PELAYO, ALIFONSO	PO BOX 2216	529 HIGHWAY 101	18-12-27-44-06900-000	RESTAURANT, BAR, FOOD SERVICES				91	Sq. Ft.	1.96	\$179		100 % pavement. Access to the front door in question.				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$12,979	
12	PETERSEN, LILLIAN F	PO BOX 96	519 HIGHWAY 101	18-12-27-44-06800-000	STORES, RETAIL OUTLET				45	Sq. Ft.	1.96	\$89		100 % pavement. Access to the front door in question.				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$12,889	
13	BROWER GEORGE F	PO BOX 1835, FLORENCE, OREGON 97439	481 HWY 101	18-12-27-44-10600-000	COMMERCIAL	32	Sq. Ft.	14.00	885	Sq. Ft.	1.96	\$2,183	\$25	90 paving, 10% grass				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$15,008	
14	BROWN STACY A	5688 LAKE ST, FLORENCE, OREGON 97439	435 HWY 101	18-12-27-44-10601-000 18-12-27-44-10700-000	PARKING LOT, PARKING STRUCTURE COMMERCIAL				351	Sq. Ft.	1.96	\$688		90 paving, 10% grass				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,488	
15	MCMULLEN PROPERTIES LLC	PO BOX 357, FLORENCE, OREGON 97439	345-423 HWY 101	18-12-34-11-02000-000 18-12-34-11-01800-000 18-12-34-11-01801-000 18-12-27-44-10800-000	COMMERCIAL				5,235	Sq. Ft.	1.96	\$10,261		90 paving, 10% grass				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$23,061	
16	PINKNEY, JOLENE A	PO BOX 298	249 HIGHWAY 101	18-12-34-11-03300-000	STORES, RETAIL OUTLET	396	Sq. Ft.	14.00	1,480	Sq. Ft.	1.96	\$8,445	\$250	95% paving, 5% grass				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$21,495	
17	GANNON, BENNETT	83933 CLOUD NINE RD	185 HIGHWAY 101	18-12-34-11-04401-000	RESTAURANT, BAR, FOOD SERVICES				514	Sq. Ft.	1.96	\$1,008		100% paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,808	
18	CEWC CORPORATION	PO BOX 187	155 HIGHWAY 101	18-12-34-11-04400-000	HOTEL / MOTEL	50	Sq. Ft.	6.50	1,426	Sq. Ft.	0.91	\$1,623	\$50	100% paving, 5 parking spots, small round retaining wall.				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,473	
19	JK LAND & INVESTMENTS LLC	90585 N FORK RD	386 HIGHWAY 101 310 HIGHWAY 101	18-12-27-44-06400-000 18-12-34-11-01700-000	COMMERCIAL,LUMBER, BUILDING MATERIALS				1,067	Sq. Ft.	0.91	\$971		95% paving, 5% grass				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,771	
20	PEPPERMINT PROPERTIES II LLC	1345 OLIVE ST, EUGENE, OREGON 97401	396 HWY 101	18-12-34-11-01100-000	COMMERCIAL				963	Sq. Ft.	1.96	\$1,888		Paving, planter box, potential sign, parking, access impact,				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,688	
21	FIRST, KLAMATH S	20085 NW TANASBOURNE DR	430 HIGHWAY 101	18-12-27-44-11700-000	FINANCIAL BUILDING				216	Sq. Ft.	1.96	\$424		Paving, potential access in front driveway				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,224	
22	LUKER, RUSSELL A	233 GREEN LN	478 HIGHWAY 101	18-12-27-44-11900-000 18-12-27-44-11800-000	STORES, RETAIL OUTLET				342	Sq. Ft.	1.96	\$671		paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,471	
23	Gini May Clawson (GINI, JAMES)	PO BOX 386	490 HIGHWAY 101	18-12-27-44-12000-000	STORES, RETAIL OUTLET				134	Sq. Ft.	1.96	\$263		paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,063	
24	TIDEWATER BUILDING INVESTORS LLC	9700 BERNHARDT CREEK RD	494 HIGHWAY 101	18-12-27-44-12100-000	MISCELLANEOUS COMMERCIAL				86	Sq. Ft.	1.96	\$169		paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$12,969	
25	SAPP, TIMOTHY N	PO BOX 1776	498 HIGHWAY 101	18-12-27-44-12201-000 18-12-27-44-12200-000	COMMERCIAL				182	Sq. Ft.	1.96	\$357		paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$13,157	
26	FERNDAL TRUST	9811 W CHARLESTON BLVD	514 HIGHWAY 101	18-12-27-44-06600-000	COMMERCIAL				1,288	Sq. Ft.	1.96	\$2,525		95% paving, 5% landscaped timber/planter				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$15,325	
27	101 FLORENCE LLC	5490 CAMERON ST, LAS VEGAS, NEVADA 89118	586 HWY 101	18-12-27-44-06601-000	COMMERCIAL				818	Sq. Ft.	1.96	\$1,604		100% paving				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,404	
28	FEDERAL, FREEDOM SAVINGS	425 PIKE ST	620 HIGHWAY 101	18-12-27-44-06200-000	FINANCIAL BUILDING	33	Sq. Ft.	14.00	503	Sq. Ft.	1.96	\$1,448	\$25	Perm Ease - Paving TCE - Paving shrubs, landscaped timbers, potential edge of building, 70% shrubs, 30% paving, landscaped timbers				\$3,500		\$1,500		\$5,000					\$10,000		\$1,500	\$500	\$550	\$250	\$14,273	

City of Florence Programming Estimate

29	DOMINICKS FINER FOODS INC	5918 STONERIDGE MALL, PLEASANTON, CALIFORNIA 94588			COMMERCIAL				789	Sq. Ft.	1.96	\$1,547		75% Shrubs, walkway, 20 small shrubs, light pole, bus stop, curb, paving				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$14,347	
30-1	SAFEWAY INC STORE #363	1371 OAKLAND BLVD STE 200, WALNUT CREEK, CALIFORNIA 94596-4349	710 HWY 101	18-12-27-44-00600-000 18-12-26-33-00700-000	COMMERCIAL FOOD STORE, MARKET				1,977	Sq. Ft.	0.91	\$1,800		2 TCEs #1. 817 SF Large Curb, 10 small plants, shrub #2. 1160 SF Curb, bark, shrubery (20 small plants) laurelhedge, 2 medium trees, irrigation system,				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$14,600	
32	CLAWSON, DARBY C	PO BOX 1132	820 HIGHWAY 101	18-12-26-32-06603-000	RESTAURANT, BAR, FOOD SERVICES	7	Sq. Ft.	14.00	708	Sq. Ft.	1.96	\$1,486	\$5	100 % pavement. Access to the front door in question.				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$14,291	
33	FLORENCE URBAN RENEWAL AGENCY	250 HWY 101, FLORENCE, OREGON 97439		18-12-26-32-07800-000	COMMERCIAL VACANT	74	Sq. Ft.	14.00				\$1,036	\$50	100 % paving				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$13,886	
35	POLLMAN, REINARD A	1845 HIGHWAY 126		18-12-26-32-07201-000	COMMERCIAL	284	Sq. Ft.	14.00				\$3,976	\$150	95% grass, 5% concrete				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$16,926	
36	ASPEN QUINCE LLC	PO BOX 25430		18-12-26-32-08100-000	COMMERCIAL	490	Sq. Ft.	14.00				\$6,860	\$300	vacant lot, 95% grass, 5 % paving				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$19,960	
37	FLORENCE COASTAL HARDWARE CO	PO BOX R, FLORENCE, OREGON 97439	1750 HWY 126	18-12-26-32-06601-000	COMMERCIAL	1,040	Sq. Ft.	6.50				\$6,760	\$1,200	asphalt, 2 parking spots				\$3,500		\$1,500		\$5,000						\$10,000		\$1,500	\$500	\$550	\$250	\$20,760	
						2,816			26,911			\$74,217	\$2,530					\$122,500			\$52,500			\$175,000			\$350,000			\$52,500	\$17,500	\$19,250	\$8,750	\$524,747	

KEY ASSUMPTIONS:

Assumes no hazardous materials will be required to be relocated as part of project.

Assumes no litigation or appeals process will be required to administer payments.

Estimate completed assuming any relocation of existing utility within acquisition area will be relocated by the appropriate entirety, costs not considered in this estimate.

Temporary Construction Easements are for a duration of 3 years, with a one year period of use.

Assumes any damages real property/improvements within the Temporary Construction Easement area will be replaced/reconstructed as part of this project.

Assumes that improvements within Temporary Construction Easements are protected in place.

Assumes project will avoid impacting structres and private signs in or near Temporary Construction Easement area.

Access during business hours will be maintained.

Estimate contains ≈4% contingency to account for settlements above just compensation and condemnation.

TOTAL ROW COST
ESTIMATE: \$524,747

ReVision Florence Outreach Survey Summary

On behalf of the Florence Urban Renewal Agency (FURA), the City of Florence conducted an outreach survey regarding the ReVision Florence streetscape project. The goal of this outreach survey was to build upon the feedback that was received at the FURA open house earlier in the year when the design concepts or ReVision Florence were presented to the community. Since the initial open hours, the FURA Board, City Council, and City staff have provided both written communication and in-person communication with key stakeholders in the affected area, key members of our community, interested citizens, and the general public. This general outreach has been provided in the form of the City newsletter, City website, weekly City Manager radio program, FURA and City Council meetings, face-to-face meetings with property and business owners, and discussions with individuals as they ask general questions about the project.

The survey was sent out on September 22, 2016, to 665 recipients from the City's various email distribution lists. It was also posted on the City's social media accounts and shared with several local social media groups. A copy of the survey can be found in Attachment 1. As of Monday, October 24, 2016, the City received 106 survey responses with the results demonstrated below.

Project Awareness

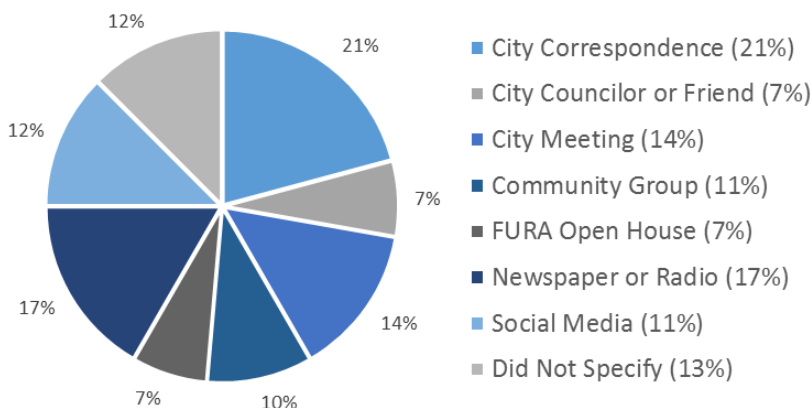
With all of our outreach over the past year on this project, we wanted to know if our respondents had heard about this project prior to either being sent the survey or finding in on social media. Of the 106 respondents, 72 of them stated that they had previously heard about ReVision Florence. Of those 72 respondents, 63 shared how they heard about ReVision Florence. The majority of respondents had heard about ReVision Florence through some form of City Correspondence, which included the City Newsletter. Information shared via the Siuslaw News, KCST, and KXCR made up the Newspaper or Radio category. Several others had heard about ReVision Florence via the various City Meetings, including the City Council, FURA, and Planning Commission. Another means of

Had you heard of ReVision Florence prior to the survey?

Yes, 68%

No, 32%

How did you learn about ReVision Florence?



communication that seems to have been effective is the City's Social Media accounts, as well as discussions at various Community Groups, which included the Chamber of Commerce, the Florence Garden Club, Rotary, and the West Lane Emergency Operations Group.

Through this process, we thought it would be important to hear how people view the current condition of the Highway 101 corridor that is proposed to be revitalized through ReVision Florence, and what they think about the design concept. To do this, we asked two simple questions after providing a brief overview of the project and the conceptual design. We wanted to know what respondents' general comments regarding the existing conditions along Highway 101 and their general comments regarding the proposed ReVision Florence streetscape conceptual design. Since these two questions were qualitative in nature, it is difficult to quantify them. In reviewing the answers, key phrases, words, and themes were pulled out to create word clouds that best represent the comments received. The full responses to both questions are available upon request.

The overall response to the current conditions (right) of the Highway 101 corridor in between the bridge and the Highway 126 intersection was that of needs improvement and that it is not representative of what Florence has to offer, while there were a few respondents who liked it the way it is. There was an underlying feeling of the corridor not being safe for pedestrians and bicyclists, as well as being unappealing, uninviting, ugly, and outdated.



ReVision Florence Outreach Survey Summary

General comments regarding the proposed ReVision Florence streetscape conceptual design.



There was positive feedback on the landscaping and added greenery with the caveat that vegetation needed to be kept short in order to retain visual access to the local businesses. Specific landscaping requests included adding flower baskets, incorporating rhododendrons, and utilizing the native species to the area. The incorporation of public art was received well by most, while some did not appreciate it. The concern was that it would be kept tasteful and understated. Many did not want it to become distracting or overwhelming. There were a few comments that expressed the desire to utilize vegetation as public art focuses.

in several of our meetings. As the project progresses, the actual design will include more public input and be finalized. With most items, there were some who did not like it. As we develop the final design we can address some of the expressed concern. In addition to the arch, there were comments on the medians. Some respondents liked them, while others didn't want them included. One item of note, the design concept that was presented in the survey was not the final design and several of the initial medians proposed in the concept have been removed.

As mentioned previously, there were a few who would like the area to remain the way it currently is today as a way to keep the small town feeling. Those comments often centered around the idea that spending funds on ReVision Florence was not their priority. Some had suggestions on where the funding should be spent, such as education. Those concerns would require education on how different services are funded within our community and where the funding for this project would come from. This will be a task as we move forward with the project planning and design, as well as construction if directed so by FURA.

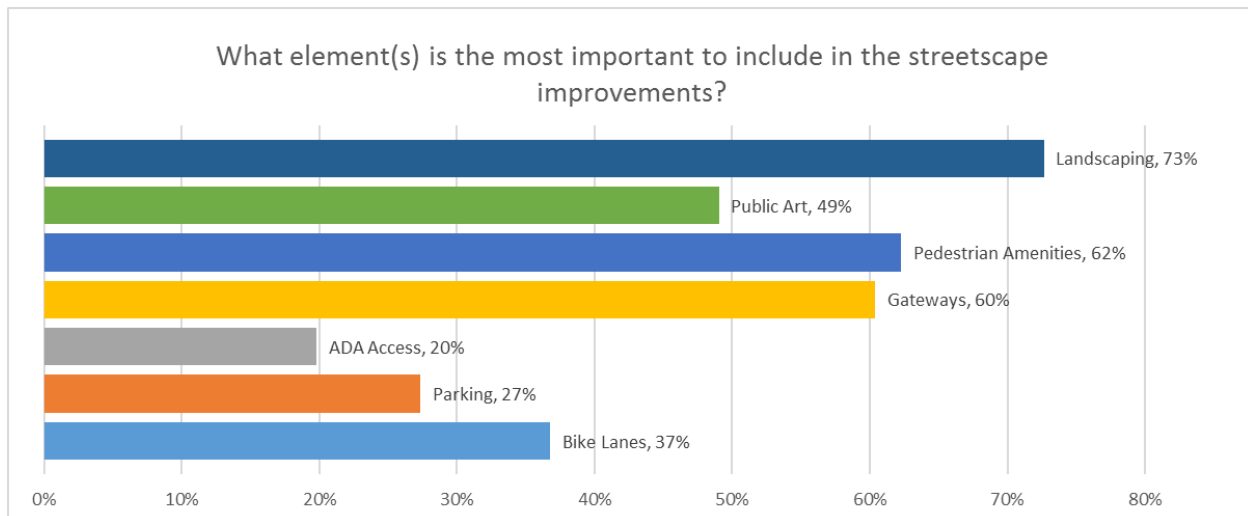
Building upon the comments of why are we funding this project, there were several that liked the project but had the question of how would the funding gap be made up. This is reasonable to ask as we are working on that very question. As we move forward through the 30% Design Acceptance Package (DAP), we will have a more accurate estimate from the engineers on the project costs. The initial estimates were very high level based on the concept. We continue to seek funding from our government partners and will do so as we progress to finalize a funding package.

In addition to the comments received on the design concept, we received input outside the scope of work of this project. Similar to the previous question, there is the desire to continue improvements north along Highway 101 to extend through Florence. There were also many comments about the condition of the buildings along the corridor and that they need a face lift. We have recognized this through our recent FURA projects and there were recommendations to revive the façade improvement program or something similar. This project is seen as an economic development driver with the goal of the positive outcomes from ReVision Florence resulting in surrounding property owners improving the curb appeal of their properties as well as triggering interest in the area from potential developers and new businesses to fill the vacant spaces.

Project Elements

Throughout the project, the FURA Board has discussed which elements they thought were important to incorporate into the streetscape design with ReVision Florence. Several elements of the project were already scheduled to be included into the ODOT pavement rehabilitation project for this section of Highway 101. ODOT was scheduled to repave the roadway, restripe the travel lanes, add striping to indicate bike lanes, and make need ADA accessibility improvements to several of the sidewalk intersections.

As a result of the FURA discussion, coordination with ODOT, and in speaking with the public at the FURA Open House, seven elements stood out as important to include. Those include defining bike lanes, improving parking, ADA accessibility, gateway features, pedestrian amenities, incorporating public art, and providing landscaping along the corridor. Respondents of the survey were asked to choose which of these item were the most important to them. They were not limited on how many they could choose.



The results of this survey question matched what the FURA Board and staff had been hearing anecdotally in that there is a desire to make the area more aesthetically pleasing through landscaping, public art, gateway treatments, and pedestrian amenities such as better lighting, benches, bicycle racks, trash receptacles, etc. Those treatments to the streetscape will transform Highway 101 from a simple transportation corridor to more of a city street with a safer feel for multi-modal transportation. Bike lanes and parking were also important to not based on their level of priority. The current roadway is vast and incorporates areas for bicyclists and parked cars on the sides. Unfortunately, those areas are currently not marked or designated for those purposes. ReVision Florence will help to define the roadway uses.

We thought it important to ask the respondents if there were any elements that they thought we missed. Forty respondents stated that there were other items that should be included. Those items included:

Are there any elements that you think should be added to the ReVision Florence project?

No, 62%

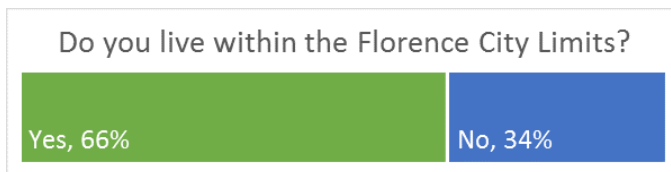
Yes, 38%

- Revitalization of Existing Buildings
- Design Standards/Architectural Guidelines
- Hanging Baskets & Planter Boxes
- Banners Representing Florence
- Include Rhododendrons
- Water Fountains & Vertical Elements
- Festive Lighting (Tree Lights)
- Rain Shelters
- Defined Crosswalks with Lights
- Crosswalk North of Bridge at the Staircase
- Bicyclist & Pedestrian Enforcement
- Raised Dividers in Center Turn Lane
- More Beautification in Old Town
- Dog Friendly Elements
- Slowing Down Traffic
- Better Traffic Control at Kingwood
- Redo Highway 101 & 126 Intersection
- Roundabout at Highway 101 & 126
- Traffic Lights on Highway 126 at Spruce Street and Quince Street
- RV Parking & Parking for Special Events
- Attracting People North of 9th Street
- Highlight Public Transportation
- Solicit Input from the Confederated Tribes of the Coos, Lower Umpqua, & Siuslaw Indians
- Include Native Plants with Tribal Significance
- Highlight Commercial/Sport Fishing Industry
- Incorporating Community Volunteerism

These items can be evaluated by the FURA Board for possible inclusion into the final design, including suggestions such as types of plantings, public art, or other specific features.

About the Respondents

As with any solicitation of input, it is important to know who you are hearing from. We asked respondents if they lived within the Florence City limits, and, if not, where they lived. Seventy of our respondents lived within the City of Florence. Of the thirty-six who lived outside the City limits, fourteen live within the Urban Growth Boundary (UGB), eight live north of Florence, eleven live south of Florence, two live east of Florence, and one lives in Eugene. The respondent pool was overwhelmingly local to the Florence area.



We also inquired as to whether they owned or operated a business in Florence. Twenty-four of the respondents stated that they owned or operated a business in Florence. The majority of those businesses were located in either in Old Town or along Highway 101. We have worked to communicate with the businesses

within the Urban Renewal District, as well as the greater Florence area, about the project. It is the goal of FURA and the City to keep these business community involved in ReVision Florence since it will have an impact on economic development in our community as well as a direct impact on the businesses along the corridor, both during and after the project is constructed.

The City continually strives to increase our ability to communicate with the public about ReVision Florence and the many other projects and services that we provide. Through this survey, sixty-three respondents signed up to receive the City newsletter via email. We will continue to provide information on this project via the newsletter, social media, the City website, at meetings, and through one-on-one conversations.

Conclusion

The overall response to ReVision Florence via this survey was in line with the general response that we have received over the past year. The majority of people are positive and excited about the streetscaping that will be incorporated along the Highway 101 corridor between the Siuslaw River Bridge and the Highway 126 intersection. There is an overall feeling that it has been neglected and needs a face lift. Again, there were still the individuals who do not think there is a problem with the current conditions and think the funding could be spent elsewhere. These are expected, provide a different perspective, and are appreciated. Those viewpoints can be built into the design by building on what people love about Florence and enhancing those elements. The City understands the desire to keep the small town feel and that it is the reason many people move to Florence, including many local officials.

The majority of citizens do not see the difference between ODOT and the City of Florence when it comes to the maintenance and responsibility of the State highway. As a City, we understand that and know that partnering with ODOT on the highway rehabilitation they have planned for this stretch will allow the project to be done in a cohesive manner. The coordinated project will occur in two phase, with each entity completing their portion of the project. The resulting outcome should be seamless to the public as they see a completed streetscape and repaved highway.

ReVision Florence Outreach Survey



The Florence Urban Renewal Agency (FURA) has been working with the Oregon Department of Transportation (ODOT), Murray Smith & Associates (MSA), and Dougherty Landscape Architects (DLA) on the designs for ReVision Florence. The desire of the Urban Renewal Agency and the City is to build upon what is great about Florence and to put our best foot forward for our citizens and visitors as they travel through our beautiful community.

ODOT will be repaving the segment of Highway 101 from the Siuslaw River Bridge to the Highway 126 intersection. Their paving project will also include ADA improvements along the highway. To leverage the work being planned for 2017-18 by ODOT, the FURA Board is working on a streetscape design for the Highways 101 and 126 corridors. ReVision Florence will improve the visual aesthetics of these major transportation facilities through the heart of our community.

Over the past year, we have been working with our community and local business owners to develop ReVision Florence in a way that will make the areas safer for pedestrians and bicyclists, more attractive for visitors, provide visual cues to drivers to slow down, and to promote economic development for current and future businesses in our community.

ReVision Florence will coordinate with the work ODOT has planned to repave Highway 101 and will provide streetscaping along the Highways 101 and 126 corridors. This will include:

- Defining Bike Lanes and Parking along the highway.
- Building ADA compliant sidewalks.
- Adding gateway features to Florence and Old Town.
- Adding pedestrian amenities to improve walkability, including lighting, benches, bike racks, trash receptacles, etc.
- Incorporating Public Art.
- Adding Street landscaping.



For full details on ReVision Florence and future updates, visit the ReVision Florence project page.
[\[http://www.ci.florence.or.us/urbanrenewal/revision-florence\]](http://www.ci.florence.or.us/urbanrenewal/revision-florence)

Had you heard of ReVision Florence prior to this survey?*

- Yes
- No

If yes, how did you learn about ReVision Florence? _____

What do you think about ReVision Florence?

We are interested in your general thoughts and comments regarding the existing conditions and proposed improvements of the Highway 101 corridor between the Siuslaw River Bridge and the Highway 126 intersection. (Traffic, Pedestrian Safety, Bicyclist Safety, On Street Parking, Visual Appeal, Sidewalks, Business Access, etc.)

General comments regarding the existing conditions along Highway 101* _____

General comments regarding the proposed ReVision Florence streetscape conceptual design* _____

What element(s) is the most important to include in the streetscape improvements?*

- Defining bike lanes.
- Improving parking along the highway.
- Improving ADA accessibility.
- Gateway features to Florence and Old Town.
- Pedestrian amenities to improve walkability, including lighting, benches, bike racks, trash receptacles, etc.
- Incorporating Public Art
- Street Landscaping

Are there any elements that you think should be added to the ReVision Florence project?*

- Yes
- No

If yes, what would you suggest? _____

About You

Do you live within the Florence City Limits?*

- Yes
- No

If not, do you live within the Urban Growth Boundary (UGB)?

- Yes
- No
- Unsure

If you do not live in Florence or the Florence UGB, or you are unsure, where do you live? _____

Do you own a business in Florence?*

- Yes
- No

If yes, where is it located? _____

Would you like to receive the City newsletter via email?*

- Yes
- No

If yes, what is your email address? _____

Note: We will only use your email address to share City information. We will not share it with other entities.



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.273.8169

DRAFT MEMORANDUM

Date: November 28, 2016

Project #: 20376

To: Mike Miller, City of Florence
Megan Messmer, City of Florence
Chris Link, Murray, Smith & Associates, Inc.

From: Anthony Yi, P.E., Sara Parks

Project: Florence Streetscape - Preliminary Engineering Design

Subject: Illumination Design Concepts

As part of the Highway 101 Streetscape Project in Florence, Oregon, Kittelson & Associates, Inc. (KAI), in coordination with the City of Florence and design team investigated three illumination design concepts to improve pedestrian scale lighting while potentially improving the existing roadway lighting along Highway 101. The project area runs along Highway 101 from OR 126 to Old Town Way. The purpose of this memorandum is to provide a summary of the three illumination design options, preliminary cost estimates, and the recommended improvements.

BACKGROUND

The City plans to improve the streetscape along Highway 101, including the roadway lighting between OR 126 and Old Town Way to enhance the overall pedestrian environment. While street lighting does exist along Highway 101, the existing street lights consist of high pressure sodium (HPS) cobra fixtures mounted on wooden utility poles. These existing HPS fixtures are located at no particular spacing and based on an initial assessment of the existing street lighting system, highway light levels do not currently meet the Oregon Department of Transportation (ODOT) standards for street lighting based on the Traffic Lighting Design Manual, which defaults to the Illumination Engineering Society (IES) and American Association of State Highway and Transportation Officials (AASHTO) lighting standards. While the existing street lighting system does not meet ODOT's roadway lighting standards, because this is a streetscape project the scope included evaluating fixtures that improve the lighting along the sidewalk network and not necessarily the goal of meeting ODOT's roadway lighting standards.

The three options that were evaluated included a variety of both highway and pedestrian scale fixtures, and several options also including utilizing the existing cobra fixtures mounted on existing utility poles. All of the street lighting options were chosen in coordination with the City, DLA Inc., and Murray, Smith

& Associates, Inc., and based on what is envisioned for the overall streetscape project. Each option was evaluated using photometric analysis to determine the necessary spacing and number of poles.

The photometric analysis parameters for the highway and sidewalk were based on the roadway's functional classification and surrounding land use. As an arterial in a commercial environment, the corridor has a design light level of 1.3 foot-candles (fc) and a design uniformity ratio (i.e. the ratio of the average maintained light level to the minimum light level) of 3:1 or less, according to ODOT's standards. While both ODOT and the City of Florence do not currently have pedestrian scale lighting requirements, light levels published by the Illumination Engineering Society (IES) were used as a guideline. Per IES RP-8-14, walkways in low pedestrian conflict areas should have design light levels greater than 0.2 or 0.4 foot-candles (fc) and a design uniformity ratio of 10:1 or 4:1 or less depending on the location of the walkway. All lighting analyses utilized the AGi32 lighting program to calculate the photometric results of the following lighting options.

OPTION 1 – NEW ERA AND CELESTE FIXTURES

This option assumes that all existing highway lighting is replaced entirely by new lighting to illuminate both the roadway and sidewalks. Since this option assumes the removal of the existing HPS cobra fixtures, Option 1 was designed to meet ODOT roadway lighting standards. Option 1 assumes a dual fixture combination on a single light pole, with a New Era fixture mounting height of 27'-5" that faces the highway, and a Celeste fixture at a mounting height of 15' that faces the sidewalk. An illustration of the New Era and Celeste fixtures and light pole assembly is provided in Appendix A.

These light pole and fixture combinations were assumed in locations with a landscape strip. In locations without a landscape strip, a light pole with only the New Era fixture was assumed. Key details of Option 1 are summarized below along with the photometric analysis results summarized in Table 1.

- Manufacturer: Cyclone
- Fixture and Pole combination:
 - Pole #1 - New Era (NEL3001 with a M530 arm) and Celeste (CR18P1 with a M203 arm)
 - Pole #2 - New Era (NEL3001 with a M530 arm) only
- Pole: PM 40
- Base: BM 11
- Preliminary Cost Estimate: \$760,000
 - 39 Pole #1 (New Era and Celeste) fixtures/poles/bases/foundations.
 - 24 Pole #2 (New Era only) fixtures/poles/bases/foundations.
 - Junction boxes, conduit, and wiring.

Table 1. Option 1 (New Era and Celeste) Lighting Results

Facility	Classification	Value Type	Light Level (fc)	Uniformity (Ave/Min)
US 101 (N of Rhododendron Dr.)	Major	Recommended	≥ 1.3	$\leq 3.0 : 1$
		Design	1.4	2.8 : 1
US 101 (S of Rhododendron Dr.)	Major	Recommended	≥ 1.3	$\leq 3.0 : 1$
		Design	1.4	2.8 : 1
Hwy 101 / Rhododendron intersection	Major / Collector	Recommended	≥ 2.2	$\leq 3.0 : 1$
		Design	2.2	2.4 : 1

See Appendix A for detail sheets of the light pole and fixtures, a sample of the photometric analysis, and results.

OPTION 2 - DOMIA FIXTURE

Option 2 focuses only on pedestrian scale lighting using a decorative pole and fixture. An illustration of the Domia fixture and light pole assembly is provided in Appendix B. For purposes of the photometric analysis, this option also assumes that LED cobra heads will replace the existing HPS cobra heads and no additional highway lighting will be added. It is important to note that the placement and number of Domia fixtures was based on utilizing the roadway cobra fixtures and essentially filling in dark spots along the sidewalk network with new Domia fixtures. As such, the spacing of Domia fixtures are not necessarily consistent and the quantity of fixtures and cost estimate are reflective of this approach and should not be compared to the other options. However, if desired it is possible to provide a uniform light pole layout to improve overall aesthetics. The street light details are summarized below and the photometric analysis results are summarized in Table 2.

- Manufacturer: Cyclone
- Fixture: Domia (SY21P1 with a M534 arm)
- Pole: PD 12 (15')
- Base: BD 15
- Preliminary Cost Estimate: \$430,000
 - 34 Domia fixtures/poles/bases/foundations, junction boxes, conduit, and wiring.
 - 24 LED cobra fixtures.

Table 2. Option 2 (Domia) Lighting Results

Facility	Classification	Value Type	Light Level (fc)	Uniformity (Ave/Min)
US 101 (N of Rhododendron Dr.)	Major	Recommended	≥ 1.3	$\leq 3.0 : 1$
		Design	0.9	9.2 : 1
US 101 (S of Rhododendron Dr.)	Major	Recommended	≥ 1.3	$\leq 3.0 : 1$
		Design	0.9	9.2 : 1
Hwy 101 / Rhododendron intersection	Major / Collector	Recommended	≥ 2.2	$\leq 3.0 : 1$
		Design	0.8	4.0 : 1

As shown above in Table 2, while light levels are not met along the roadway and at the Highway 101/Rhododendron Drive intersection, as previously stated the purpose of Option 2 is to improve the lighting along the sidewalk network. See Appendix B for detail sheets of the light pole and fixtures, a sample of the photometric analysis, and results.

OPTION 3 - MARINA FIXTURE

The Marina is a post-top decorative fixture. An illustration of the Marina fixture and light pole assembly is provided in Appendix B. For purposes of the photometric analysis, this option focuses only on pedestrian scale lighting using a decorative pole and fixture, and assumes that LED cobra heads will replace the existing HPS cobra heads along Highway 101, and no additional highway lighting will be added. Similar to Option 2, it is important to note that the placement and number of Marina fixtures was based on utilizing the roadway cobra fixtures and essentially filling in dark spots along the sidewalk network with new Marina fixtures. As such, the spacing of Marina fixtures are not necessarily consistent and the quantity of fixtures and cost estimate are reflective of this approach and should not be compared to the other options. However, if desired it is possible to provide a uniform light pole layout to improve overall aesthetics. The street light details are summarized below and the photometric analysis results are summarized in Table 3.

- Manufacturer: Cyclone
- Fixture: Marina (CN11T4UF)
- Pole: PD 12 (15')
- Base: BD 46
- Preliminary Cost Estimate: \$400,000
 - 29 Marina fixtures/poles/bases/foundations, junction boxes, conduit, and wiring.
 - 24 LED cobra fixtures.

Table 3. Option 3 (Marina) Lighting Results

Facility	Classification	Value Type	Light Level (fc)	Uniformity (Ave/Min)
US 101 (N of Rhododendron Dr.)	Major	Recommended	≥ 1.3	$\leq 3.0 : 1$
		Design	1.0	9.6 : 1
US 101 (S of Rhododendron Dr.)	Major	Recommended	≥ 1.3	$\leq 3.0 : 1$
		Design	1.0	9.6 : 1
Hwy 101 / Rhododendron intersection	Major / Collector	Recommended	≥ 2.2	$\leq 3.0 : 1$
		Design	0.7	3.6 : 1

As shown above in Table 3 and similar to Option 2, while light levels are not met along the roadway and at the Highway 101/Rhododendron Drive intersection, as previously stated the purpose of Option 3 is to improve the lighting along the sidewalk network. See Appendix C for detail sheets of the light pole and fixtures, a sample of the photometric analysis, and results.

CONCLUSION

As previously stated, the City and design team evaluated three illumination design concepts to improve lighting along the sidewalk network as part of the overall Highway 101 streetscape project between OR 126 to Old Town Way. While all three options can improve the sidewalk lighting as compared to existing conditions, with the City's desire to underground the existing utilities and remove the existing wooden utility poles and HPS cobra fixtures along Highway 101 within the study area, Option 1 provides adequate lighting along both the roadway and sidewalk network, while also having the ability to be decorative to match the new pedestrian streetscape design along Highway 101.

We trust this memorandum provides you with sufficient information related to the lighting options that were considered for the Highway 101 streetscape project. Please feel free to contact us with any questions or comments.

Appendix A – Option 1 (New Era and Celeste)

A

B

C

D

E

F

PAINT SPECIFICATION

ALL CAST IRON AND STEEL LIGHT POLE PARTS ARE TO BE FACTORY POWDER COATED "BLACK".

2" SCH. 40 GALVANIZED STEEL PIPE
(2 3/8" O.D. X .154" WALL)

REMOVABLE POLE TOP CAP

5'-6"

CYCLONE LUMINAIRE #NEL3001
(BY OTHERS)SINGLE-BOLT SIMPLEX MOUNT
(LOCATED 270° C.W. FROM HANDHOLE)5" SCH. 40 GALVANIZED STEEL PIPE
(5.56" O.D. X .258" WALL)CYCLONE ADAPTER #CP4721
(BY OTHERS)CYCLONE LUMINAIRE #CR18P1
(BY OTHERS)

2'-2"

2' SCH. 40 GALVANIZED STEEL PIPE
(2 3/8" O.D. X .154" WALL)
(LOCATED 90° C.W. FROM HANDHOLE)

28'-0" POLE HEIGHT

27'-5"

15'-0"

(4) 1 1/4" SLOTS ACCEPTING:
(4) 1" x 36" F1554,
GALVANIZED ANCHOR BOLTS
1" A36 STEEL PLATE
9"Ø BOLT CIRCLEBASE PLATE DETAIL
SCALE: 2XAPPLY SILICONE SEALANT
AT INSTALLATION

30"

HI SPLIT CAST IRON BASE
WITH REMOVABLE ACCESS DOOR

18"Ø

VI-HI-S1/2'-S1/5'6"-S/28'PROJECT
TITLE:

FLORENCE, OREGON

DISTRIBUTOR:

CONTRACTOR:

REPRESENTATIVE: COLUMBIA PACIFIC SALES



SPECIFIED BY:

SCALE: FULL

DATE: 11/10/16

JOB NO.:

CAD FILE: FLORENCE-15A

29579 AWBREY LANE EUGENE, OREGON 97402 PHONE (541) 688-7741 FAX (541) 461-0951

A

B

C

D

E

F

New Era + Celeste

Roadway	Classification		Light Level (fc)	Uniformity (Ave/Min)
US 101	Major	Recommended	≥1.3	≤3.0:1
(N of Rhododendron Dr.)		Design	1.4	2.8:1
US 101	Major	Recommended	≥1.3	≤3.0:1
(S of Rhododendron Dr.)		Design	1.4	2.8:1

Intersection	Classification		Light Level (fc)	Uniformity (Ave/Min)
US 101	Major/Collector	Recommended	≥2.2	≤3.0:1
Rhododendron Dr		Design	2.2	2.4:1

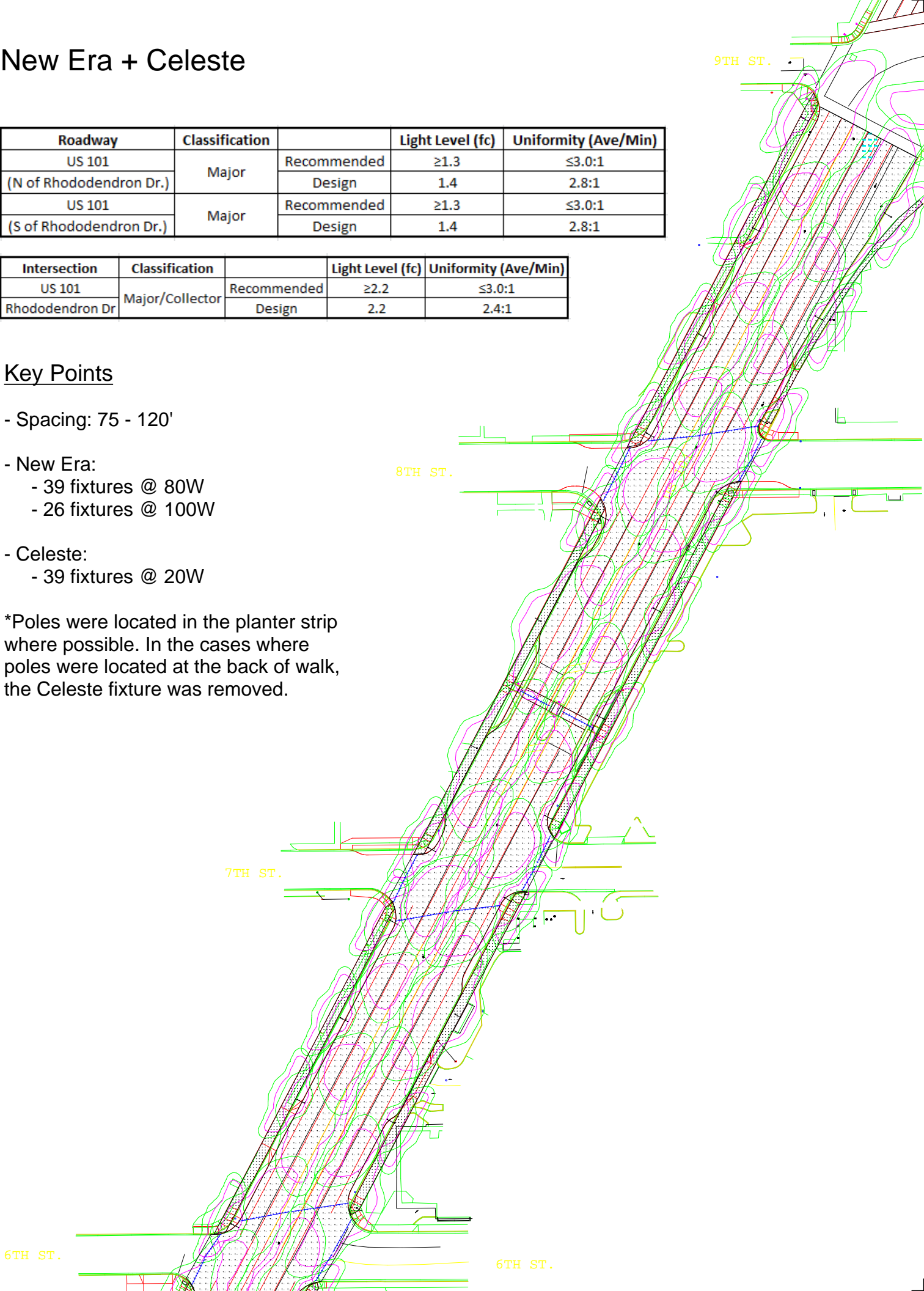
Key Points

- Spacing: 75 - 120'

- New Era:
- 39 fixtures @ 80W
- 26 fixtures @ 100W

- Celeste:
- 39 fixtures @ 20W

*Poles were located in the planter strip where possible. In the cases where poles were located at the back of walk, the Celeste fixture was removed.

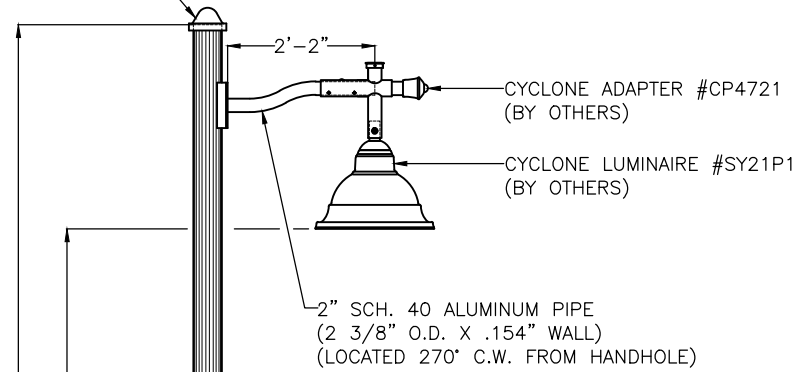


Appendix B – Option 2 (Domia)

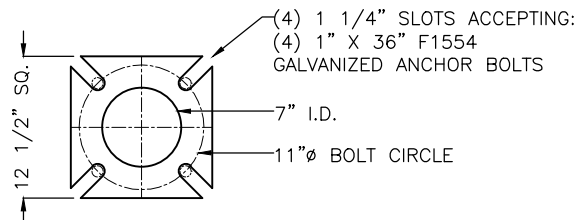
PAIN T SPECIFICATION

ALL CAST ALUMINUM LIGHT POLE PARTS ARE
TO BE FACTORY POWDER COATED "BLACK".

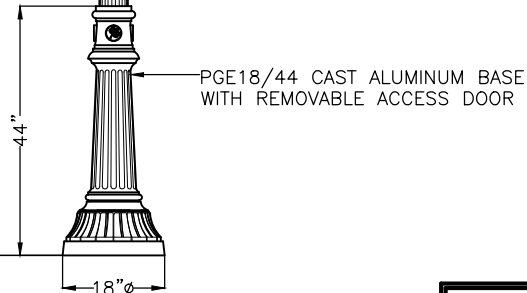
REMOVABLE POLE TOP CAP




.188" WALL, 5" O.D.,
12 FLAT FLUTED STRAIGHT
ASTM B221, 6061-T6 EXTRUDED ALUMINUM POLE



BASE DETAIL
SCALE: 2X



VI-PGE18/44/S1/2'/CA/18'

PROJECT TITLE:	FLORENCE, OREGON		
DISTRIBUTOR:			
CONTRACTOR:			
REPRESENTATIVE:	COLUMBIA PACIFIC SALES		
 CAST IRON & STEEL RECOGNITIVE STREET LIGHTS	SPECIFIED BY:		
	SCALE: FULL	DATE:	11/10/16
	JOB NO.:	CAD FILE:	FLORENCE-15
29579 AWBREY LANE EUGENE, OREGON 97402 PHONE (541) 688-7741 FAX (541) 461-0951			

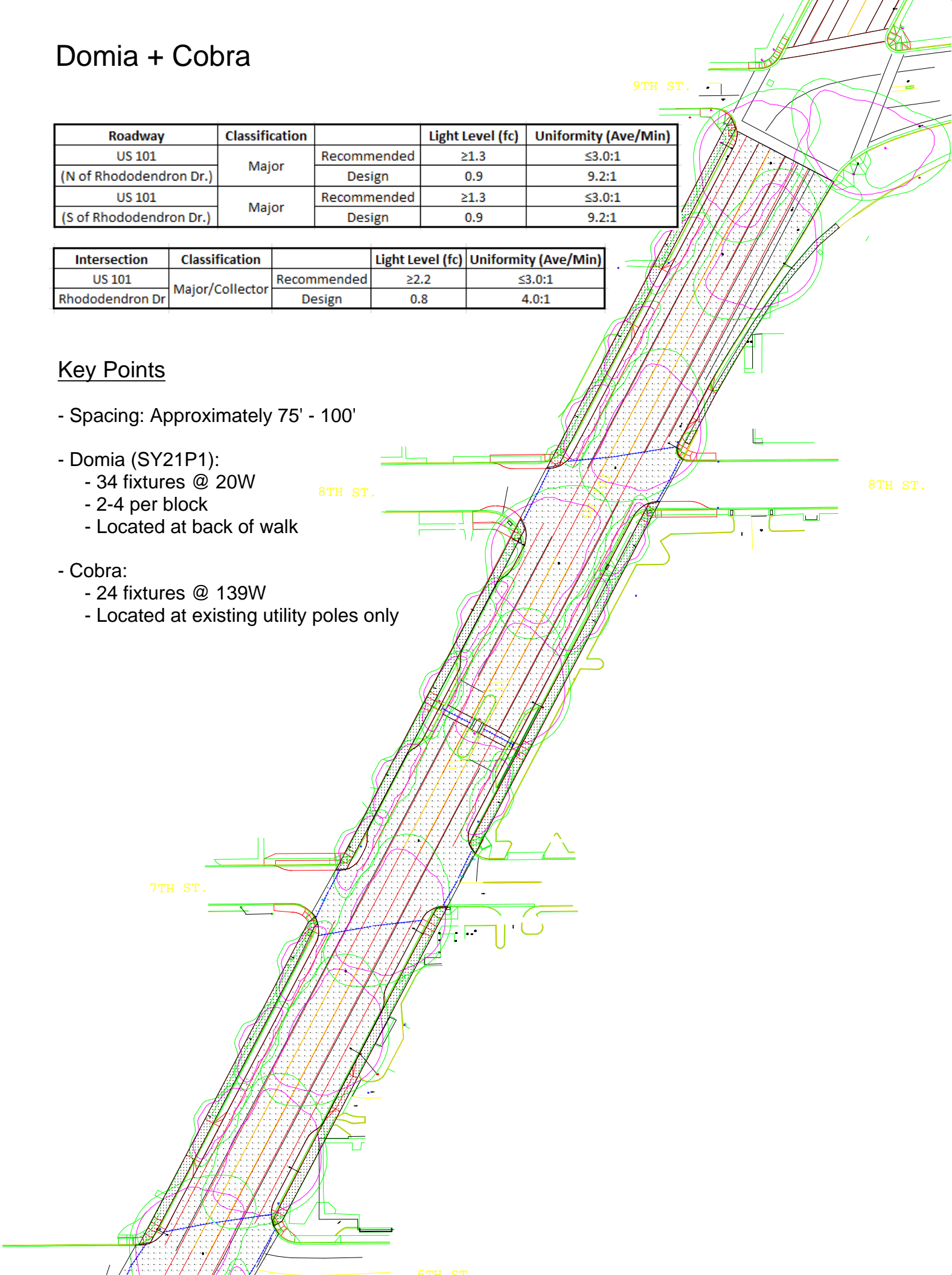
Domia + Cobra

Roadway	Classification		Light Level (fc)	Uniformity (Ave/Min)
US 101	Major	Recommended	≥ 1.3	$\leq 3.0:1$
(N of Rhododendron Dr.)		Design	0.9	9.2:1
US 101	Major	Recommended	≥ 1.3	$\leq 3.0:1$
(S of Rhododendron Dr.)		Design	0.9	9.2:1

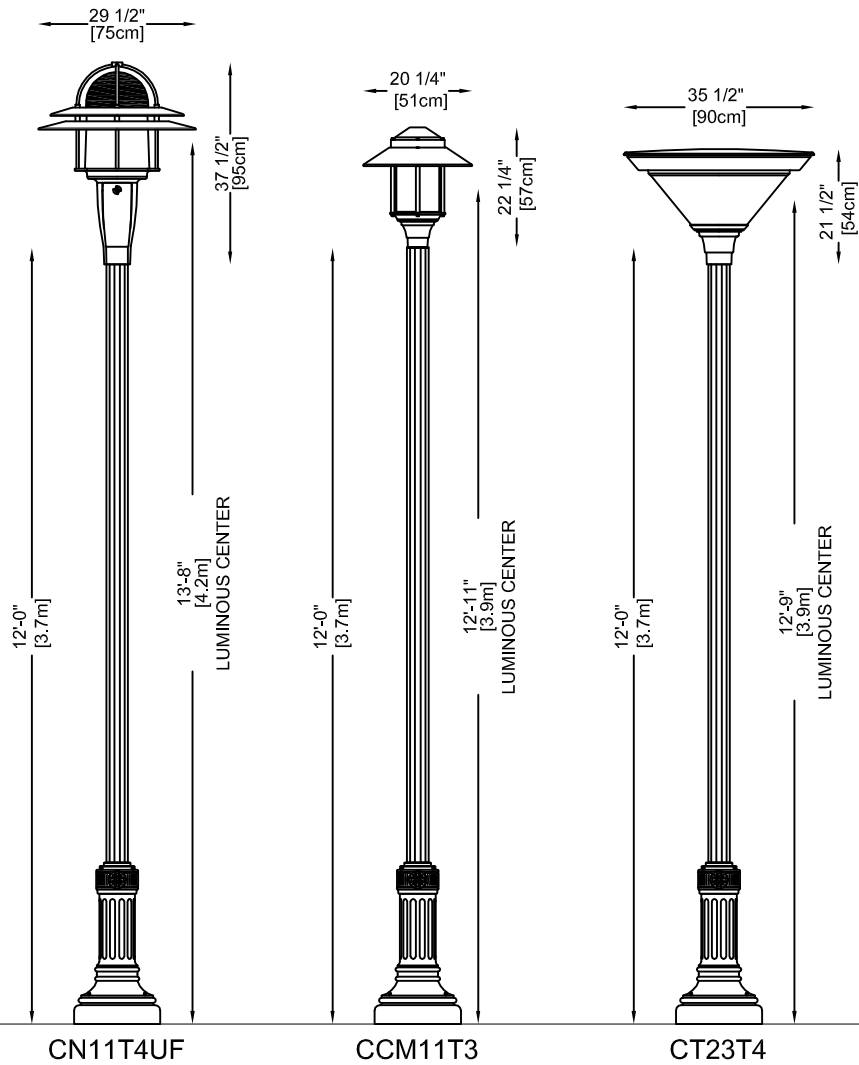
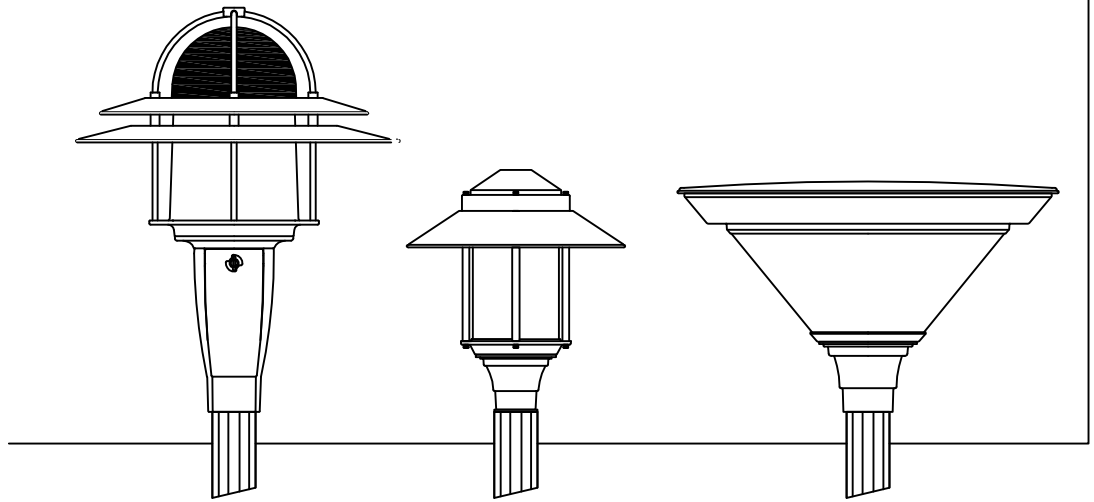
Intersection	Classification		Light Level (fc)	Uniformity (Ave/Min)
US 101	Major/Collector	Recommended	≥ 2.2	$\leq 3.0:1$
Rhododendron Dr		Design	0.8	4.0:1

Key Points

- Spacing: Approximately 75' - 100'
- Domia (SY21P1):
 - 34 fixtures @ 20W
 - 2-4 per block
 - Located at back of walk
- Cobra:
 - 24 fixtures @ 139W
 - Located at existing utility poles only



Appendix C – Option 3 (Marina)



CN11T4UF

CCM11T3

CT23T4

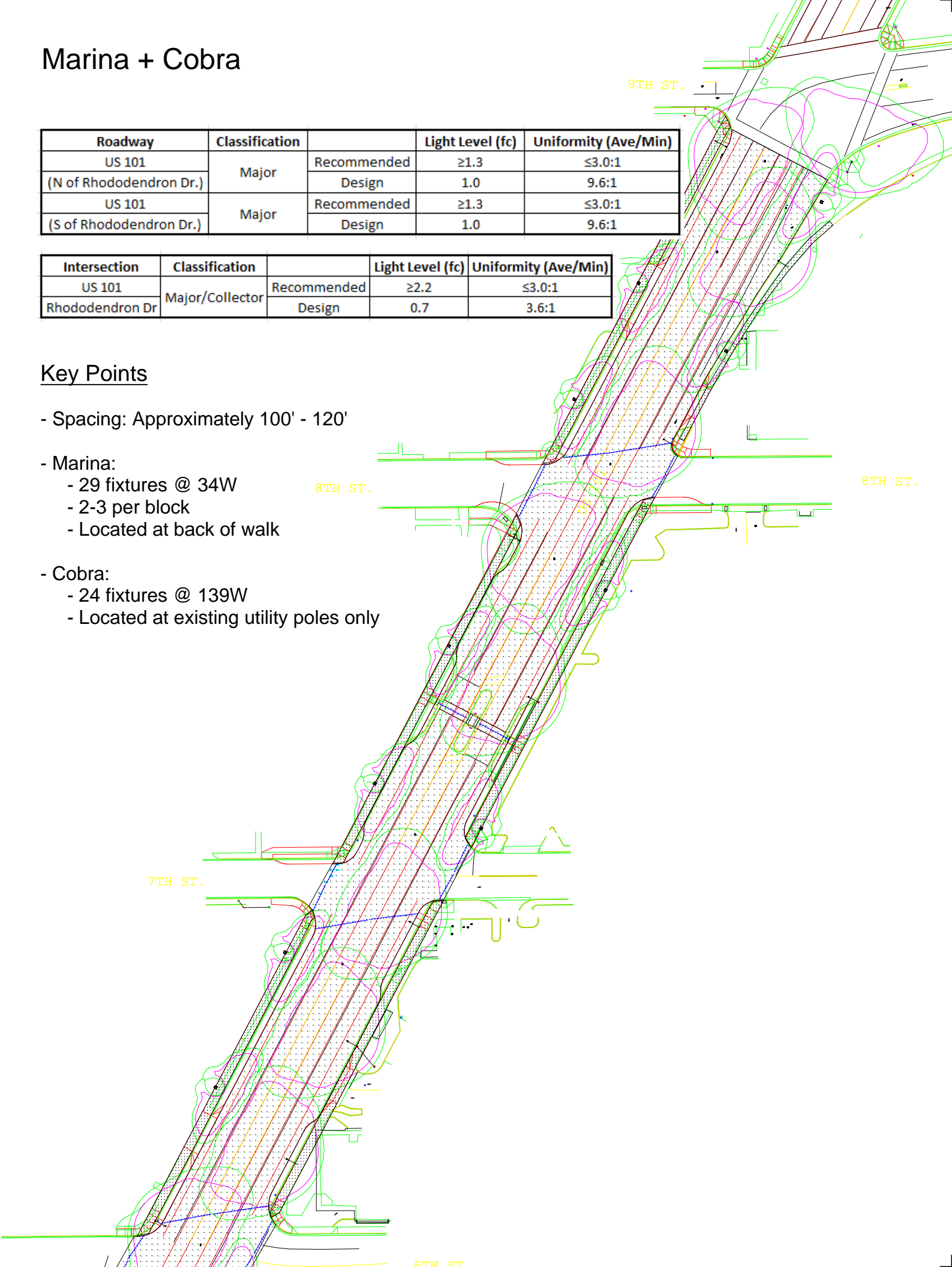
Marina + Cobra

Roadway	Classification		Light Level (fc)	Uniformity (Ave/Min)
US 101	Major	Recommended	≥1.3	≤3.0:1
(N of Rhododendron Dr.)		Design	1.0	9.6:1
US 101	Major	Recommended	≥1.3	≤3.0:1
(S of Rhododendron Dr.)		Design	1.0	9.6:1

Intersection	Classification		Light Level (fc)	Uniformity (Ave/Min)
US 101	Major/Collector	Recommended	≥2.2	≤3.0:1
Rhododendron Dr		Design	0.7	3.6:1

Key Points

- Spacing: Approximately 100' - 120'
- Marina:
 - 29 fixtures @ 34W
 - 2-3 per block
 - Located at back of walk
- Cobra:
 - 24 fixtures @ 139W
 - Located at existing utility poles only





KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.273.8169

MEMORANDUM

Date: November 28, 2016

Project #: 20376

To: Mike Miller, City of Florence
Megan Messmer, City of Florence
Chris Link, Murray, Smith & Associates, Inc.

From: Anthony Yi, P.E., Sara Parks

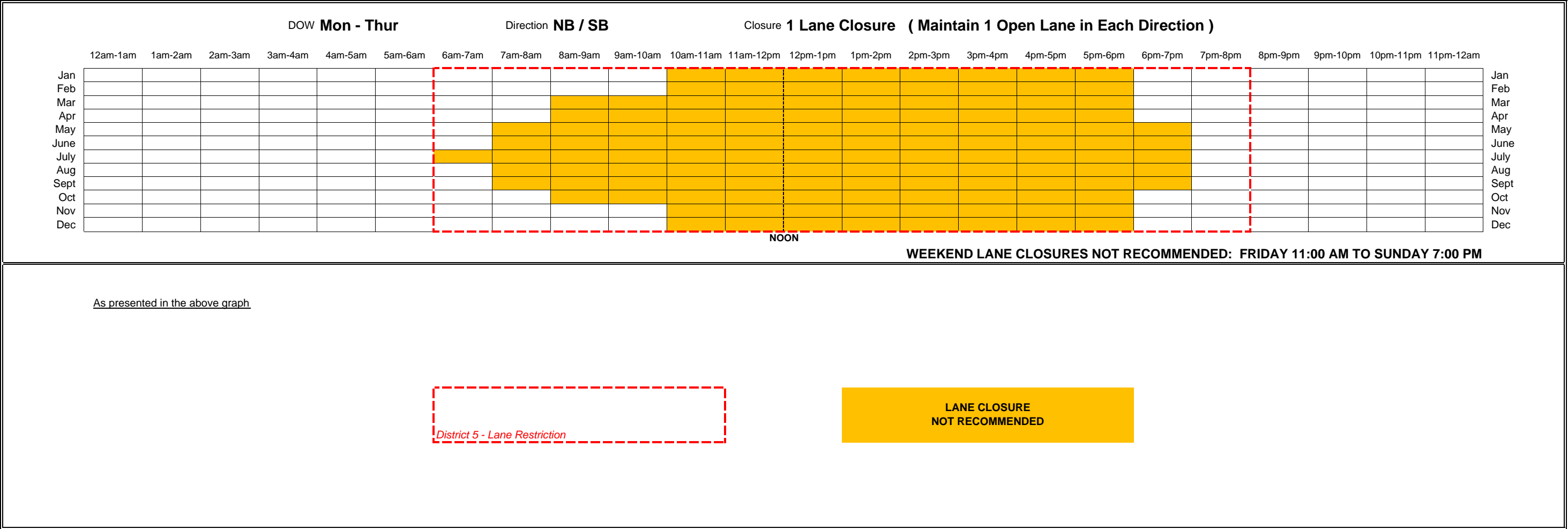
Project: Florence Streetscape – Preliminary Engineering Design

Subject: Work Zone Traffic Analysis

As part of the Highway 101 Streetscape Project in Florence, Oregon, a work zone traffic analysis was performed by ODOT to identify opportunities for lane closures along Highway 101 between OR 126 and Old Town Way. The work zone traffic analysis was based on average annual daily traffic (AADT) volumes collected at the automatic traffic recorder (ATR) located along Highway 101 (ATR 20-026), north of OR126. Per ATR 20-026, year 2015 traffic volumes ranged between 13,000 and 15,000 AADT, with a heavy vehicle percentage of 18-20%. Typically of other recreational routes, Highway 101 experiences seasonal fluctuations, with peak traffic volumes occurring during the summer months of July and August. Highway 101 is part of the National Highway System (NHS) and the segment south of OR126 is classified as a Reduction Review Route (RRR). Attachment A includes the recommended lane closure restrictions per ODOT District 5 and summarized below are key findings.

- Single lane closures are allowed between 7PM and 6AM on Weekdays. Weekdays are defined as Monday through Thursday.
- Lane closures are not recommend during the following time periods:
 - January and February – 10AM to 6PM
 - March and April – 8AM to 6PM
 - May and June – 7AM to 7PM
 - July – 6AM to 7PM
 - August and September – 7AM to 7PM
 - October – 8AM to 6PM
 - November and December – 10AM to 6PM
- Weekend (11AM on Friday to 7PM on Sunday) and holiday closures are not recommended.
- Any deviation from the ODOT District 5 lane closure guidelines must be requested and approved by District 5.

Attachment A – District 5
Recommended Lane Closure
Restrictions



Google Maps Florence

76 Gas Station Delivery Route



Imagery ©2016 Google, Map data ©2016 Google 50 ft

MSA
9/19/16

Google Maps Florence

Los Amigos Burrito Delivery Route



Imagery ©2016 Google, Map data ©2016 Google 50 ft

Google Maps Florence

Pro Lumber Delivery Route



Map data ©2016 Google 50 ft

MSA
9/19/16

Safeway & Safeway Gas Delivery Route



Imagery ©2016 Google, Map data ©2016 Google 100 ft

Google Maps Florence

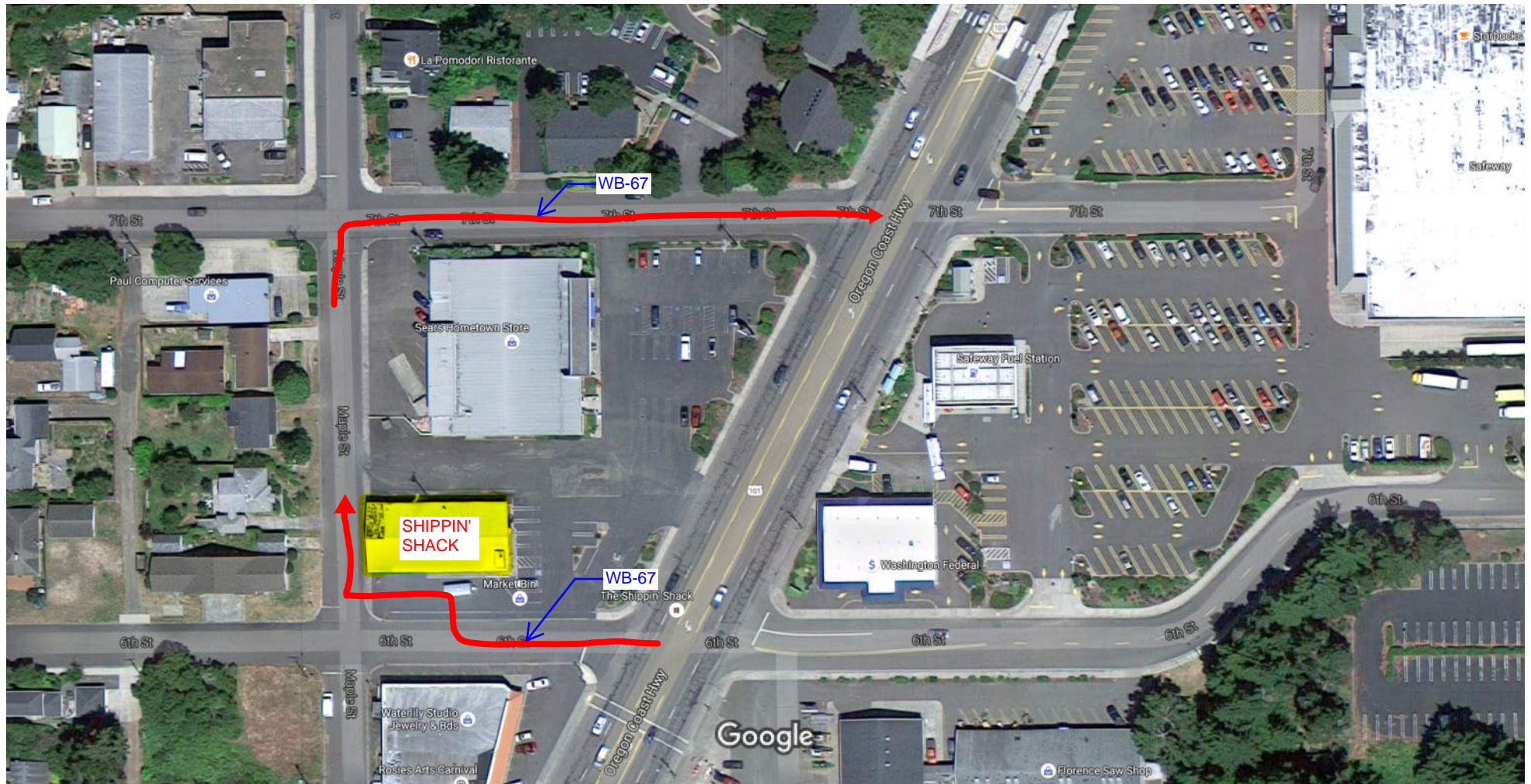
Sears Delivery Route



Imagery ©2016 Google, Map data ©2016 Google 50 ft

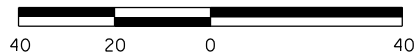
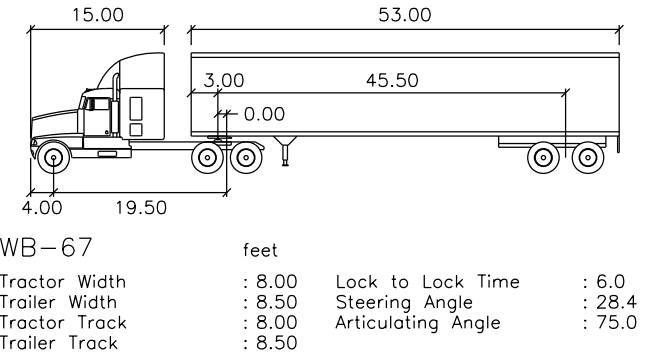
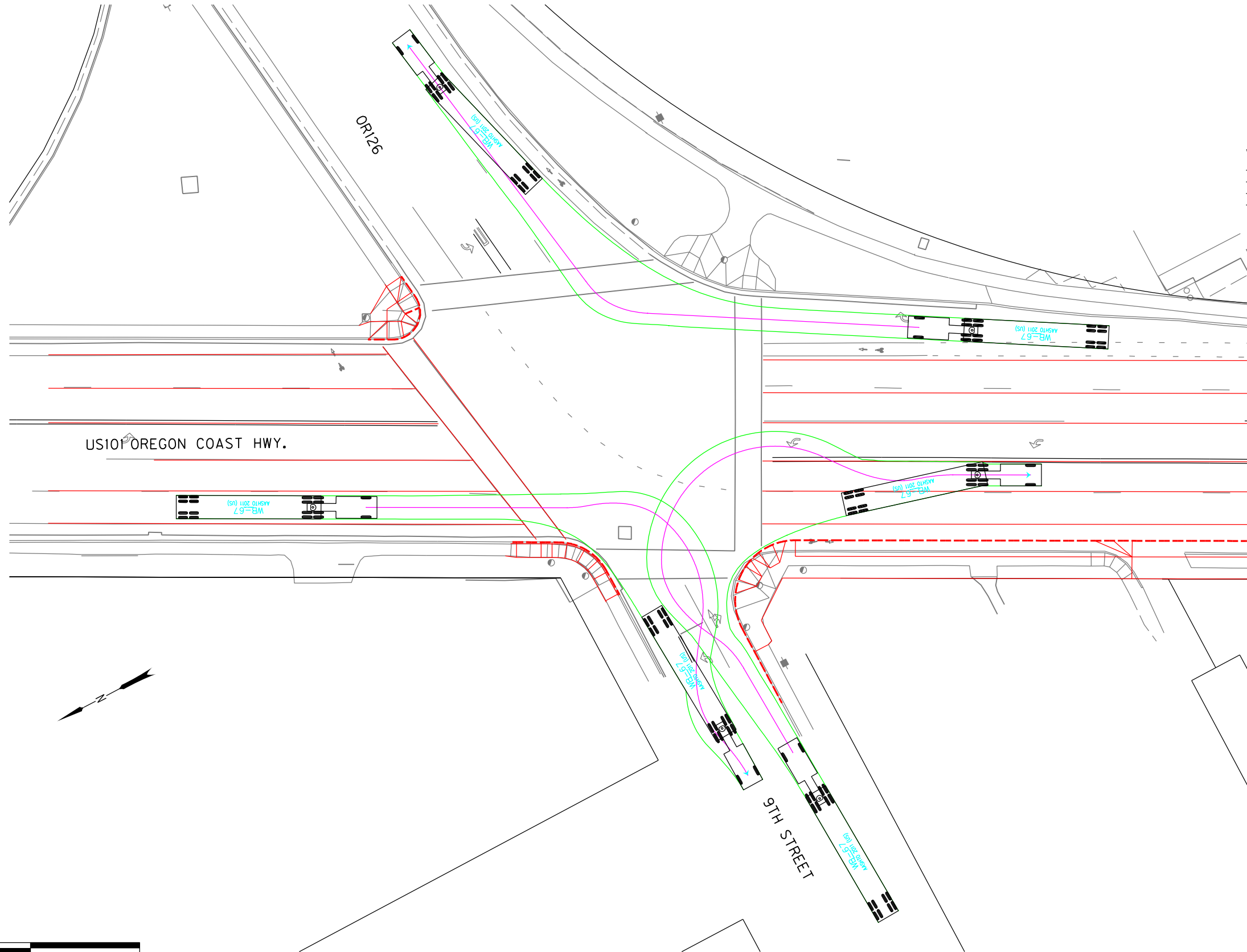
Google Maps Florence

Shippin' Shack Delivery Route



Imagery ©2016 Google, Map data ©2016 Google 50 ft

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:02:58 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



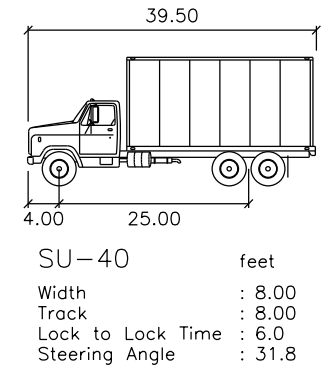
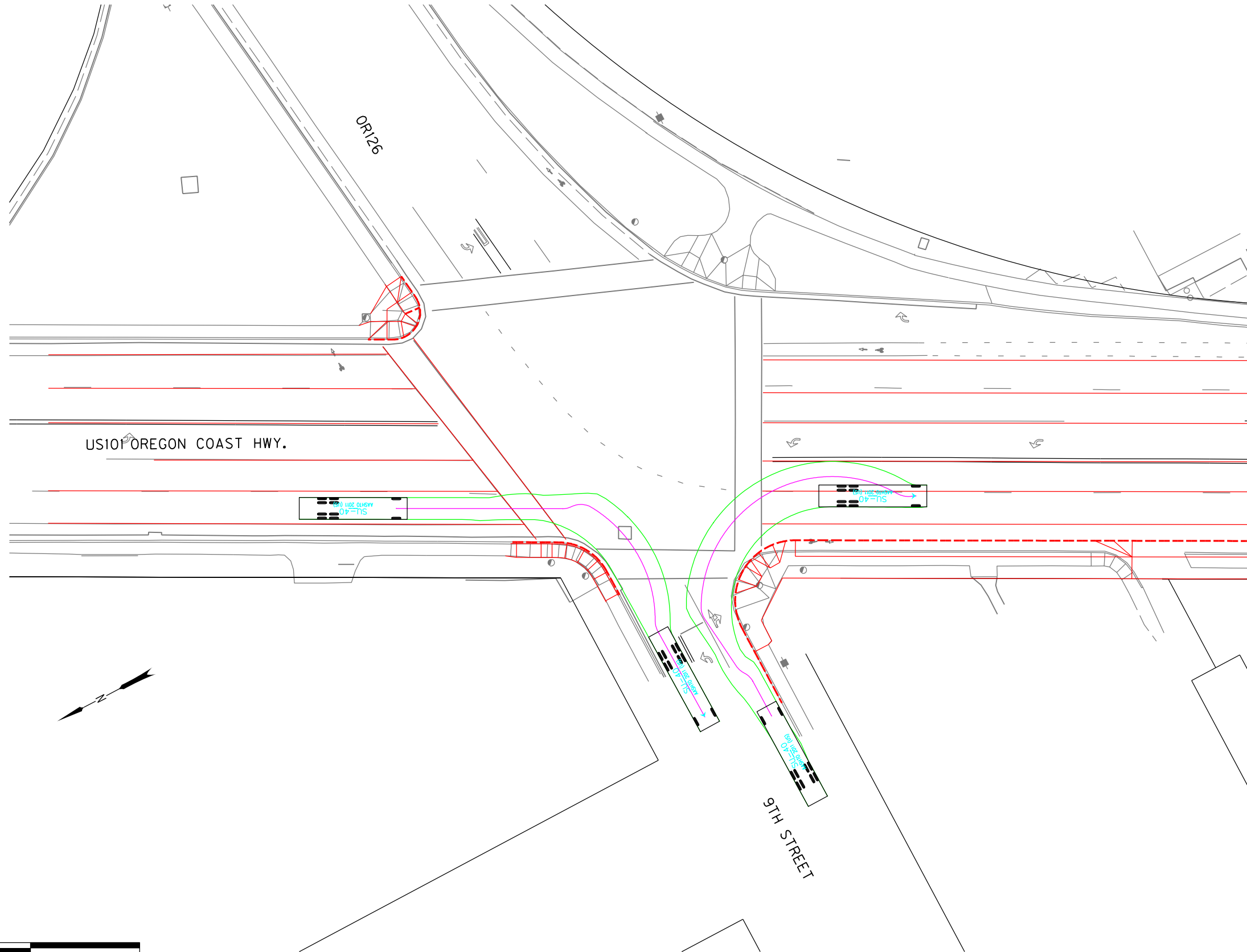
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND OR126/9TH STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-1
4 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:04:45 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

CITY OF FLORENCE, OREGON

HWY 101 AND HWY 126
STREETSCAPING

TRUCK TURNING WORKSHEET
US101 AND OR126/9TH STREET

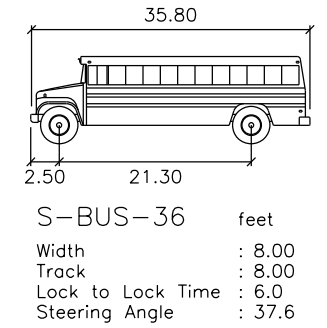
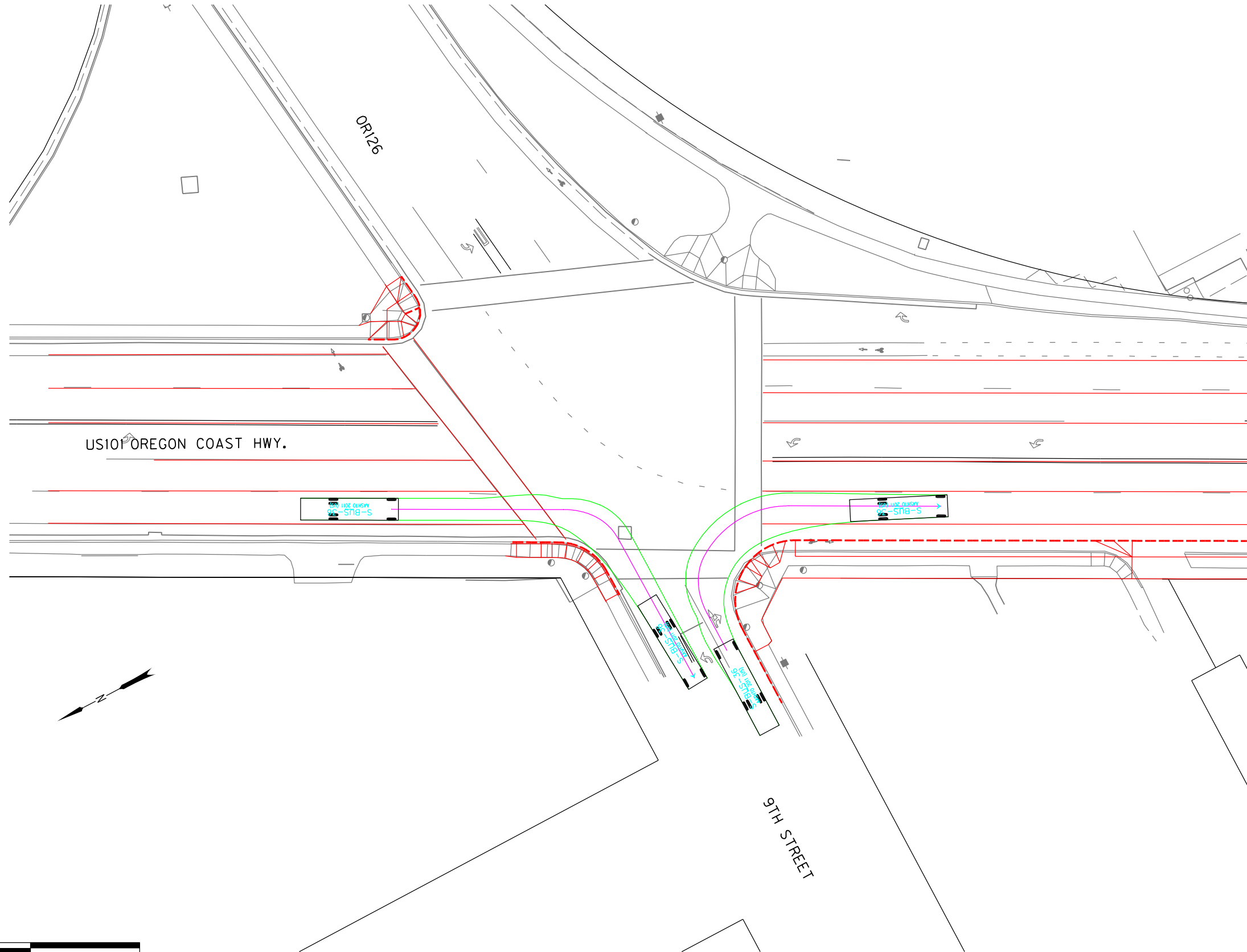
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-1

4 of X

G:\PDX_Projects\216\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:09:55 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC	DESIGNED
HCM	DRAWN
CSL	CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

**HWY 101 AND HWY 126
STREETSCAPING**

CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND OR126/9TH STREET**

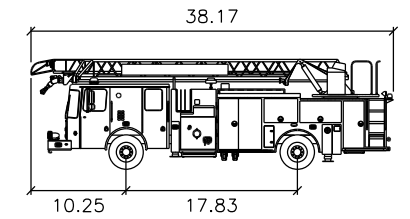
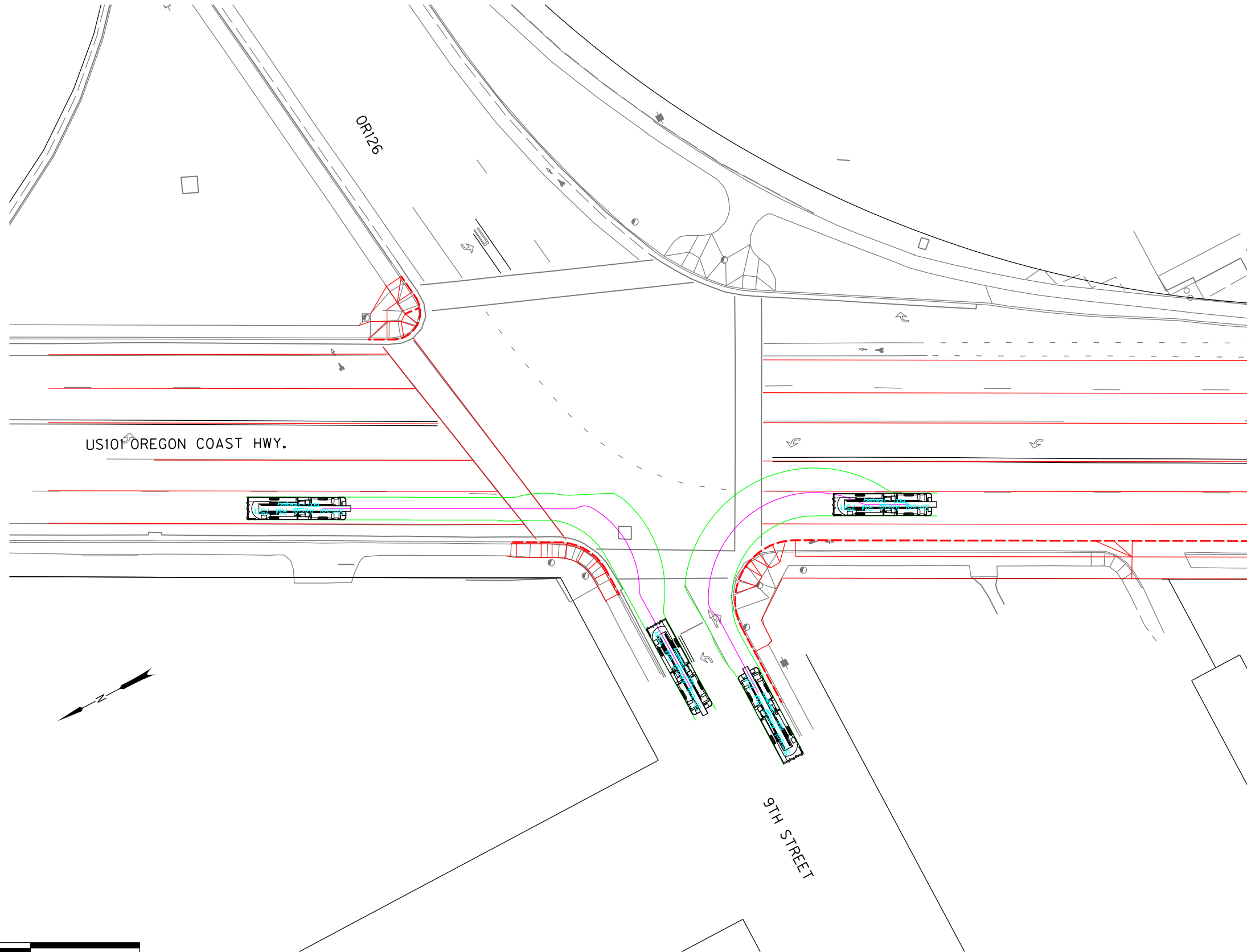
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

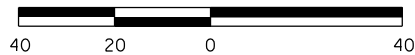
C-1

4 of X

G:\PDX_Projects\2016\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:10:44 PM CSL



Smeal Aerial RM 75ft
inches
Width : 8.33
Track : 7.92
Lock to Lock Time : 6.0
Steering Angle : 45.0



PLAN
Scale: 1" = 20'-0"


30% - SUBMITTAL

NO.	DATE	BY	REVISION

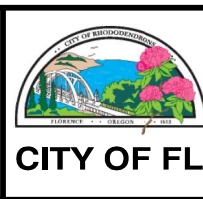
NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



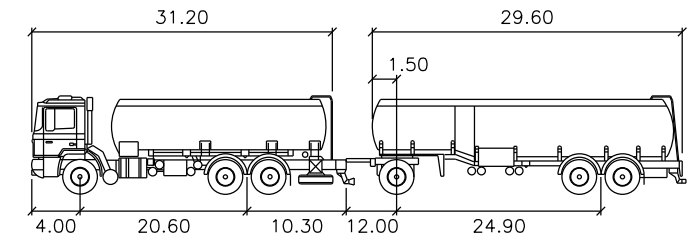
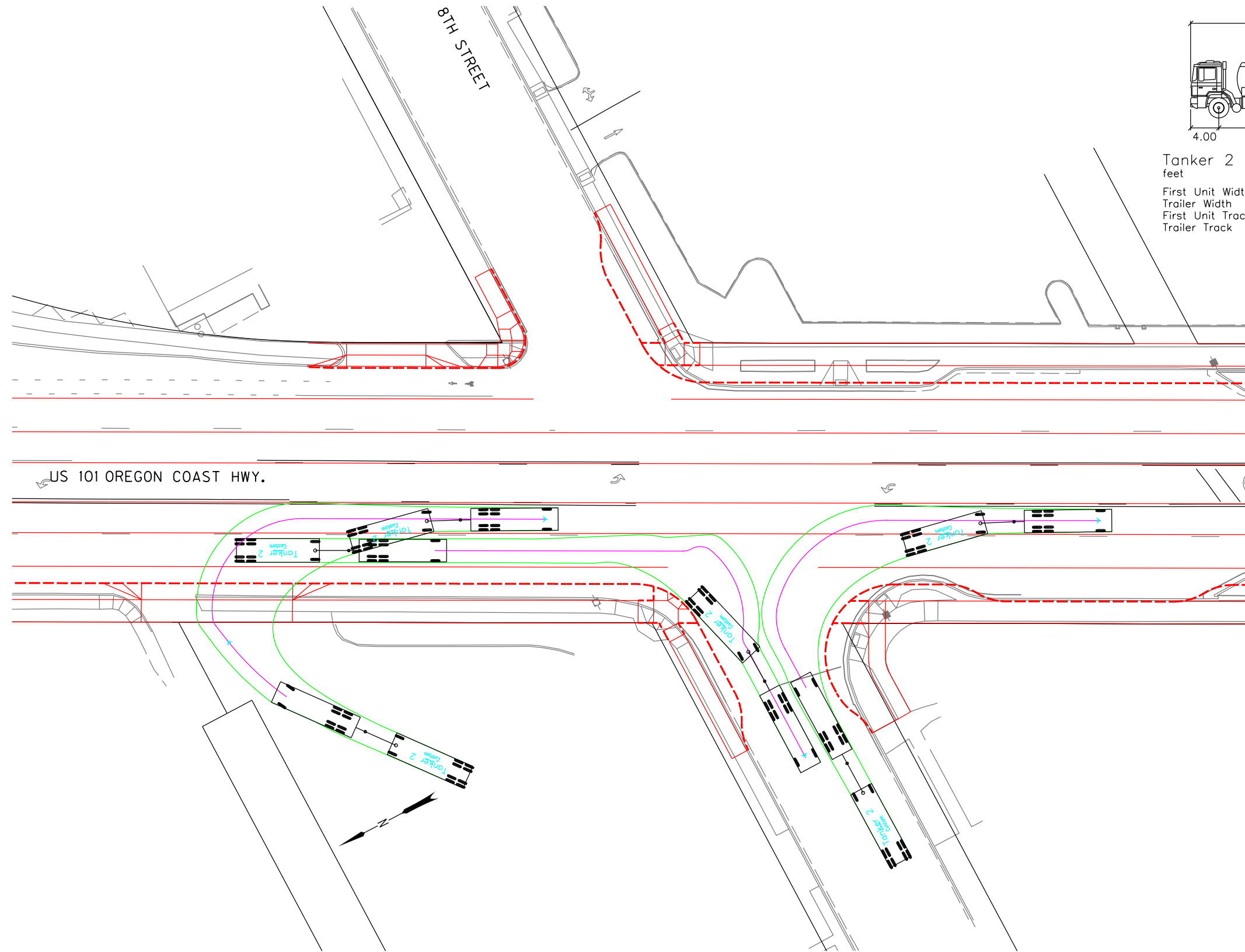
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND OR126/9TH STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-1
4 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:13:11 PM CSL



Tanker 2
feet

First Unit Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 40.0
First Unit Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

MSA

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

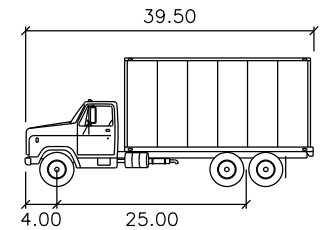
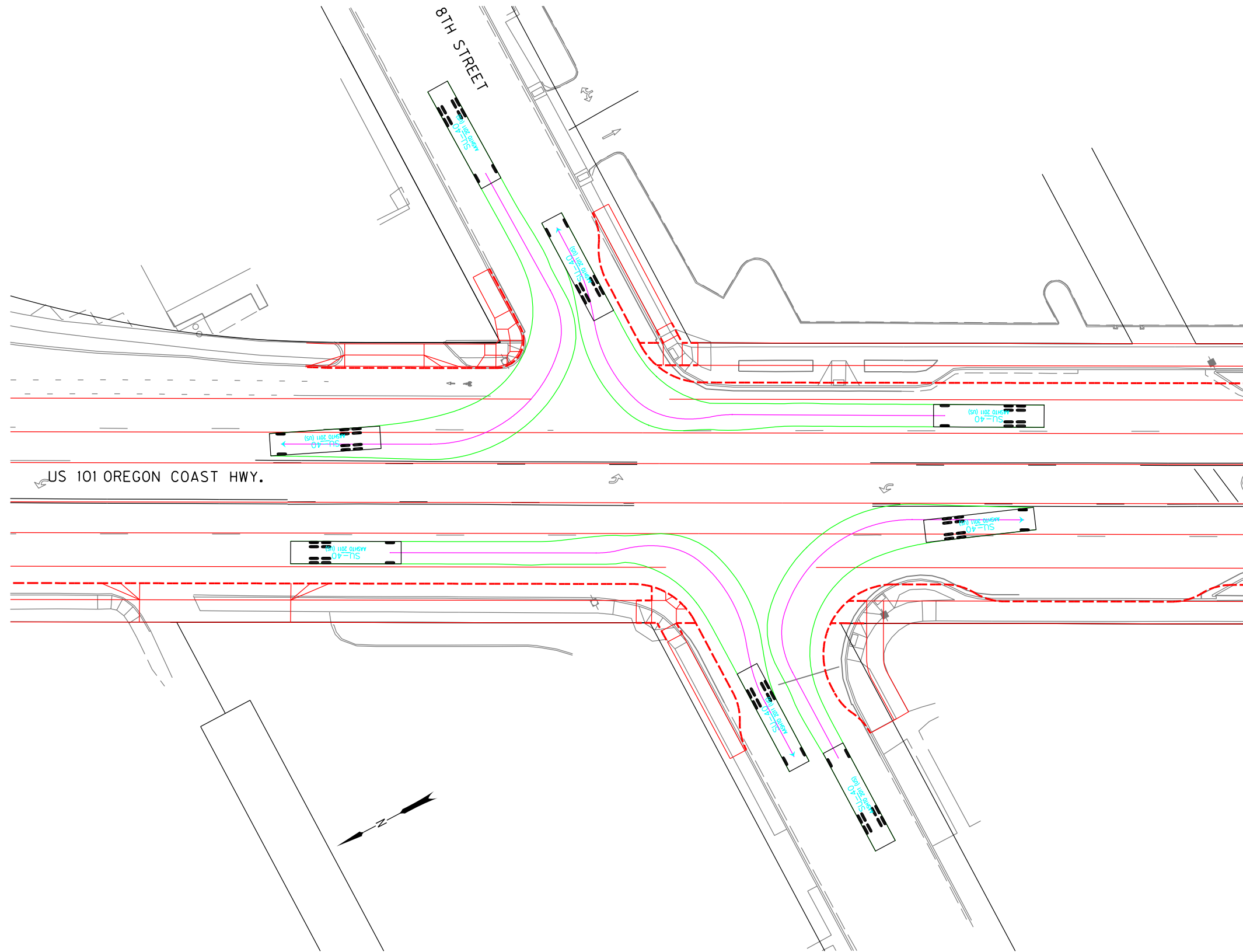


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

TRUCK TURNING WORKSHEET US101 AND 8TH STREET			
PROJECT NO.:	16-1848.801	SCALE:	AS SHOWN
DATE:	SEPTEMBER 9, 2016		

SHEET
C-2
5 of X

G:\PDX_Projects\216\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:17:23 PM CSL



SU-40 feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 31.8



PLAN

Scale: 1" = 20'-0"


30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022



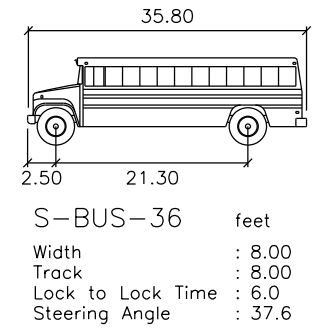
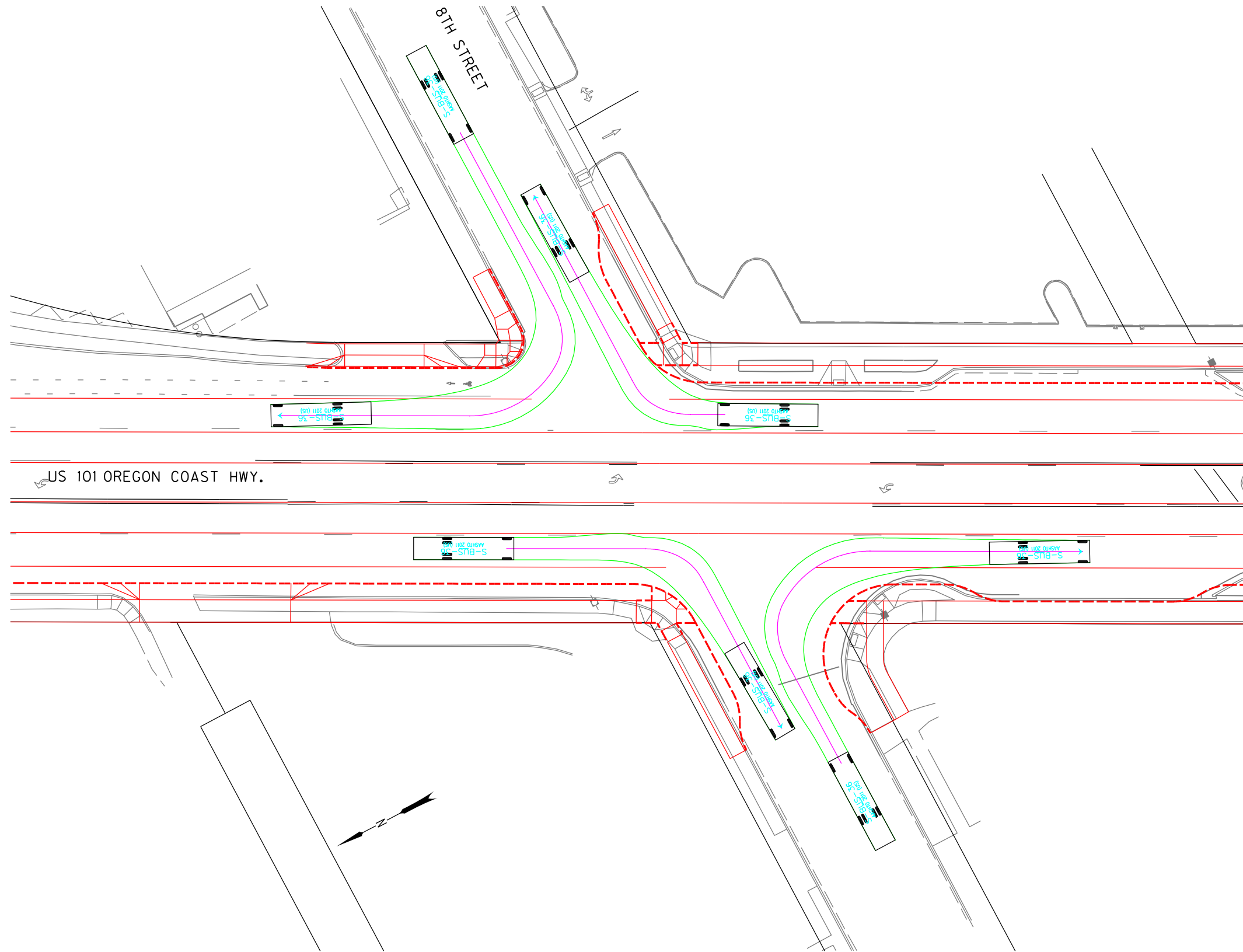
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND 8TH STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-2
5 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:18:36 PM CSL



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

CITY OF FLORENCE, OREGON

**HWY 101 AND HWY 126
STREETSCAPING**

**TRUCK TURNING WORKSHEET
US101 AND 8TH STREET**

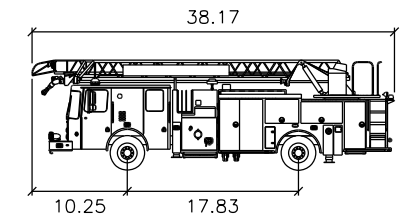
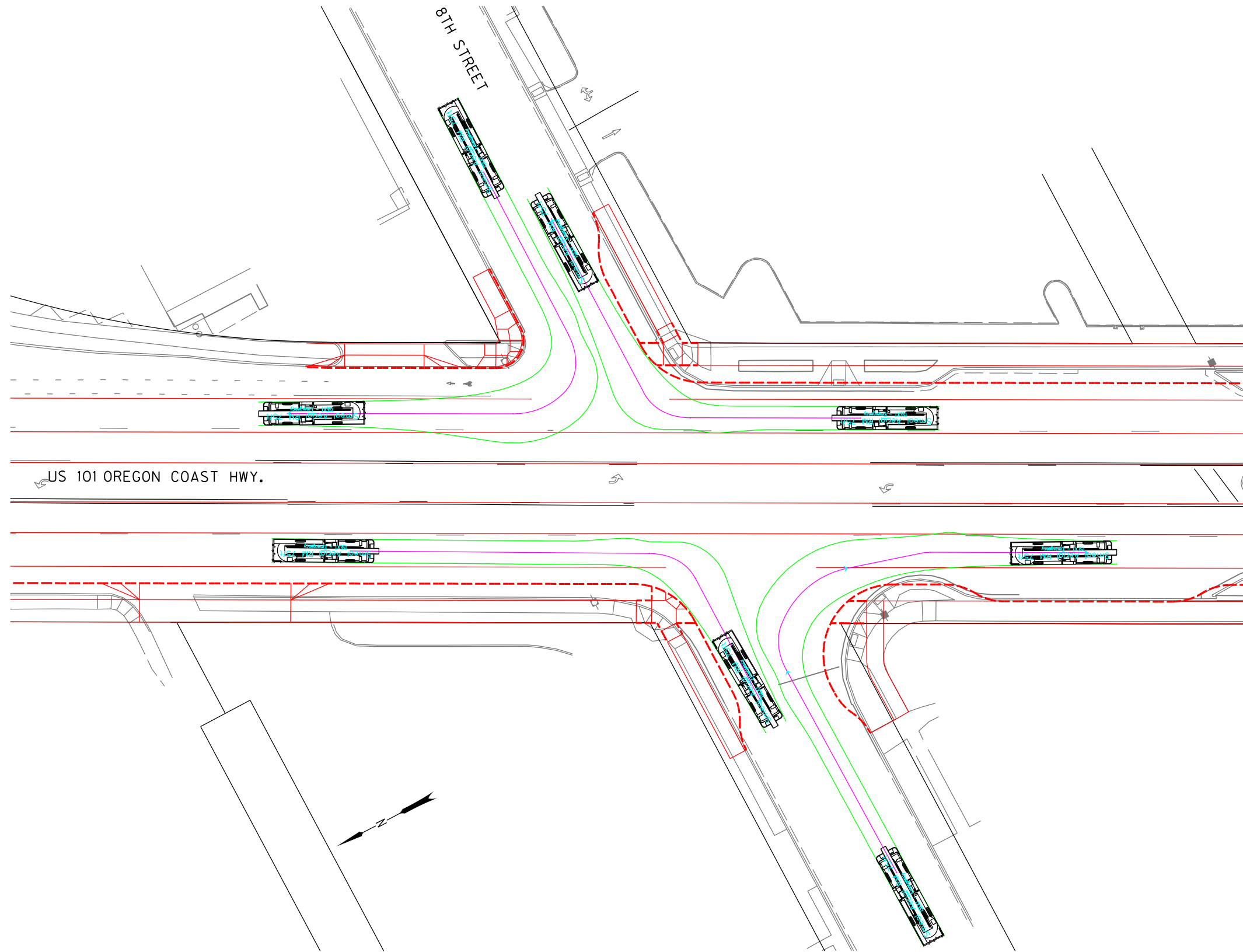
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-2

5 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:19:25 PM CSL



Smeal Aerial RM 75ft

	inches
Width	: 8.33
Track	: 7.92
Lock to Lock Time	: 6.0
Steering Angle	: 45.0



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

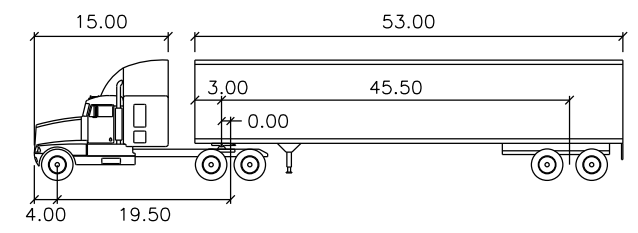
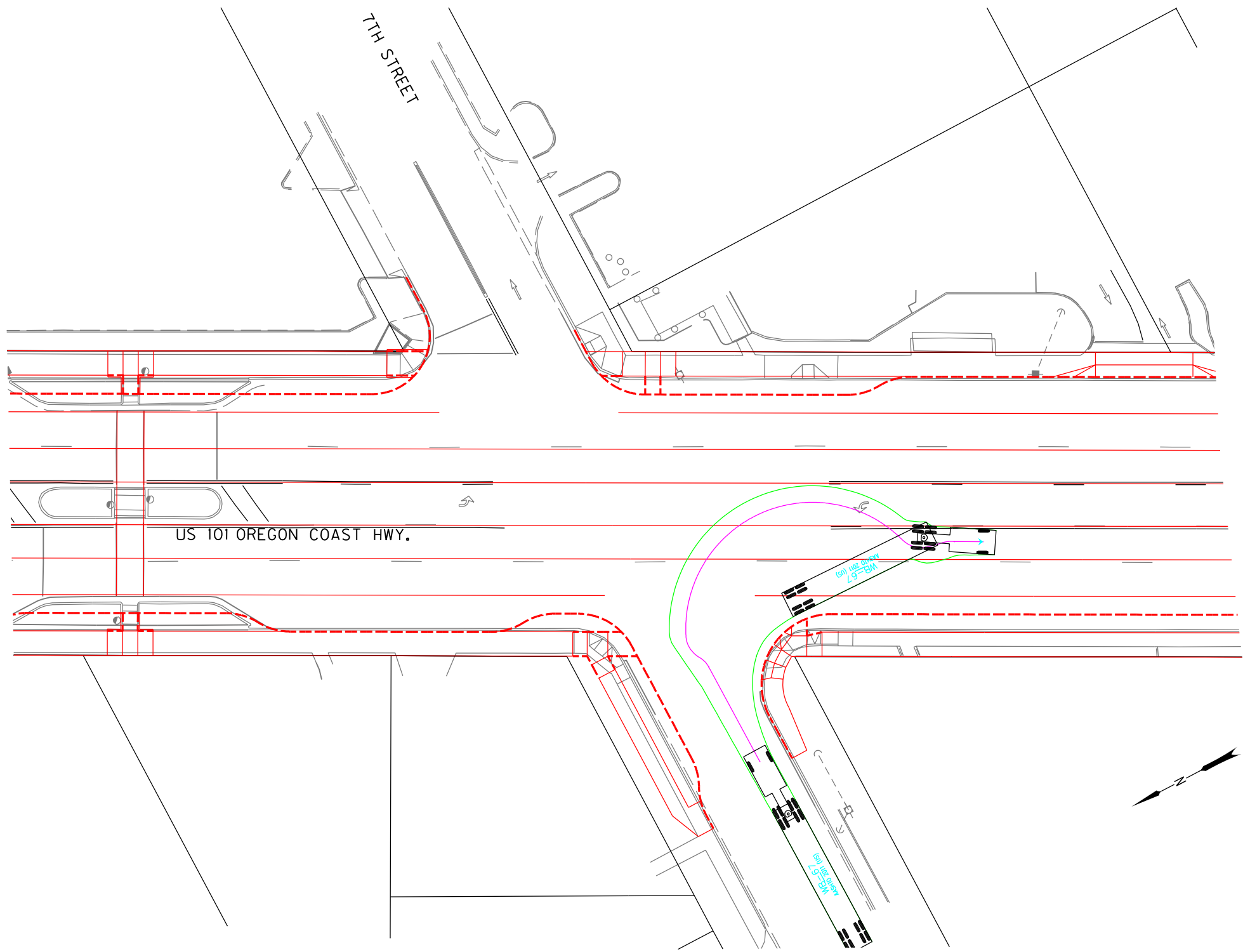


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

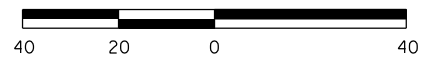
TRUCK TURNING WORKSHEET US101 AND 8TH STREET			
PROJECT NO.:	16-1848.801	SCALE:	AS SHOWN
DATE:	SEPTEMBER 9, 2016		

SHEET
C-2
5 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:21:45 PM CSL



WB-67		feet	
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



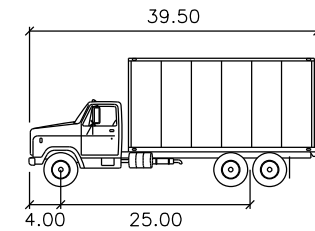
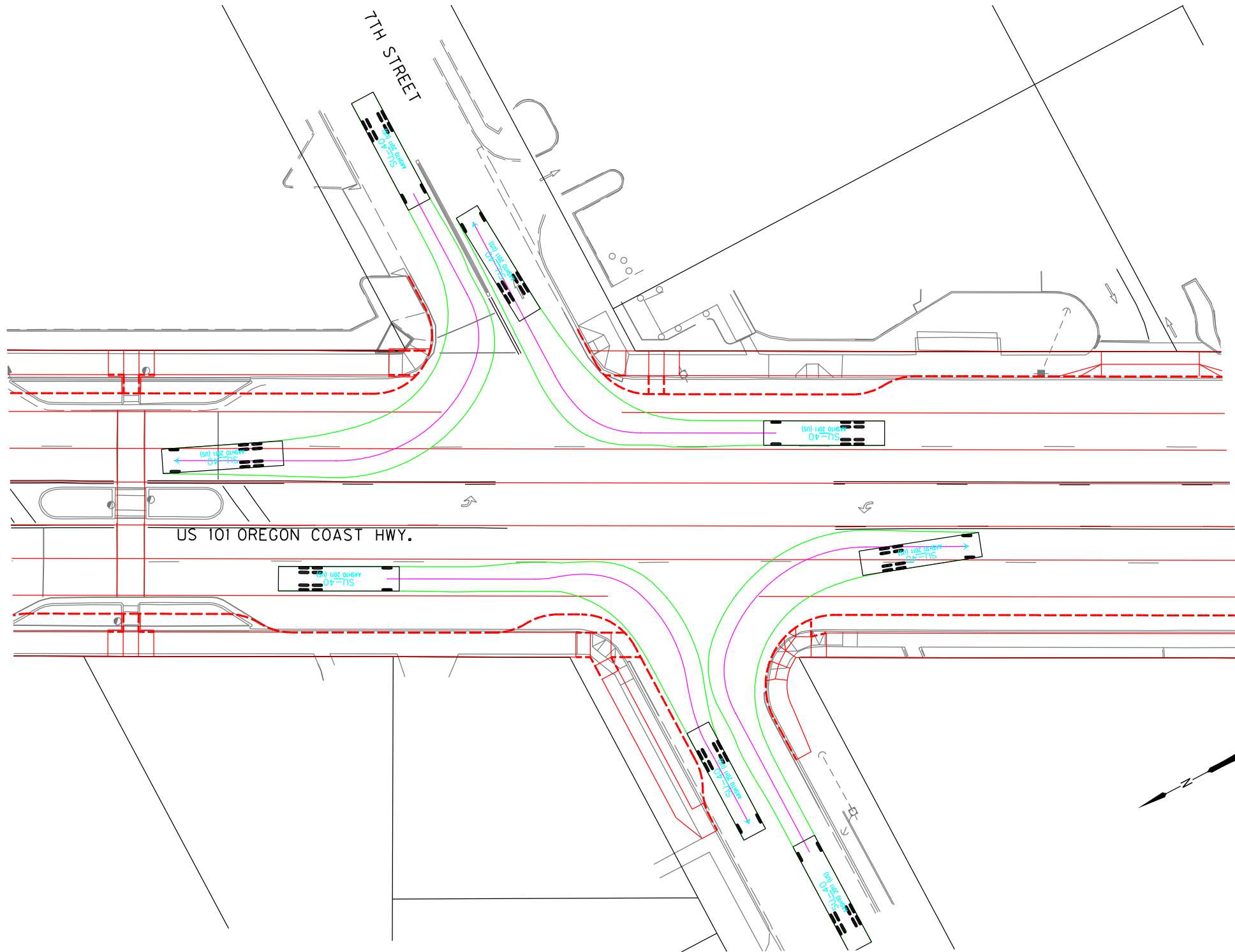
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND 7TH STREET**

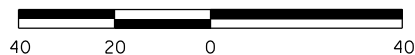
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-3
6 of X

G:\PDX_Projects\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:22:58 PM CSL



SU-40 feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 31.8



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL


NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

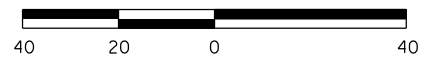
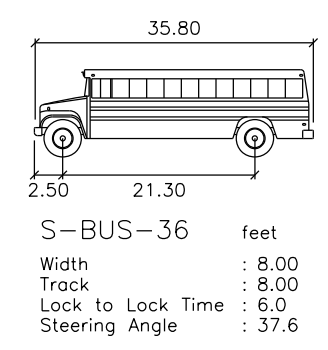
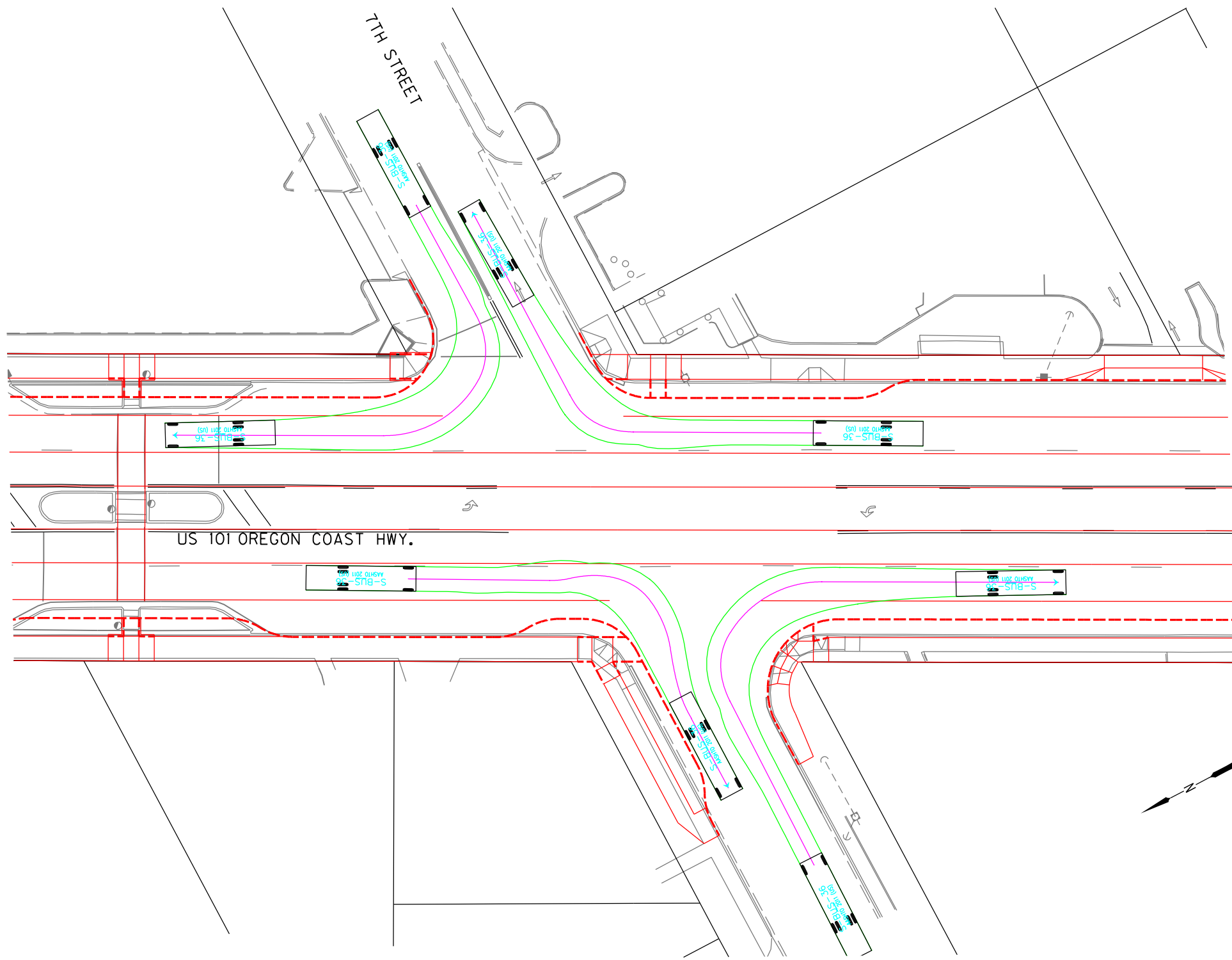
MSA Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022


HWY 101 AND HWY 126
STREETSCAPING
CITY OF FLORENCE, OREGON

TRUCK TURNING WORKSHEET
US101 AND 7TH STREET
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-3
6 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:26:39 PM CSL



PLAN
Scale: 1" = 20'-0"


30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

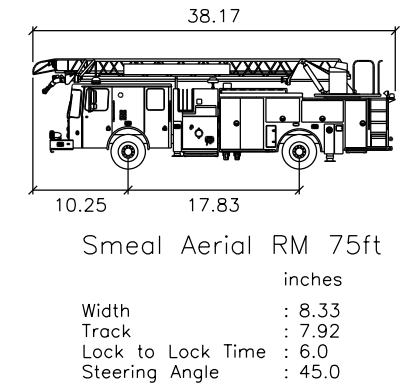
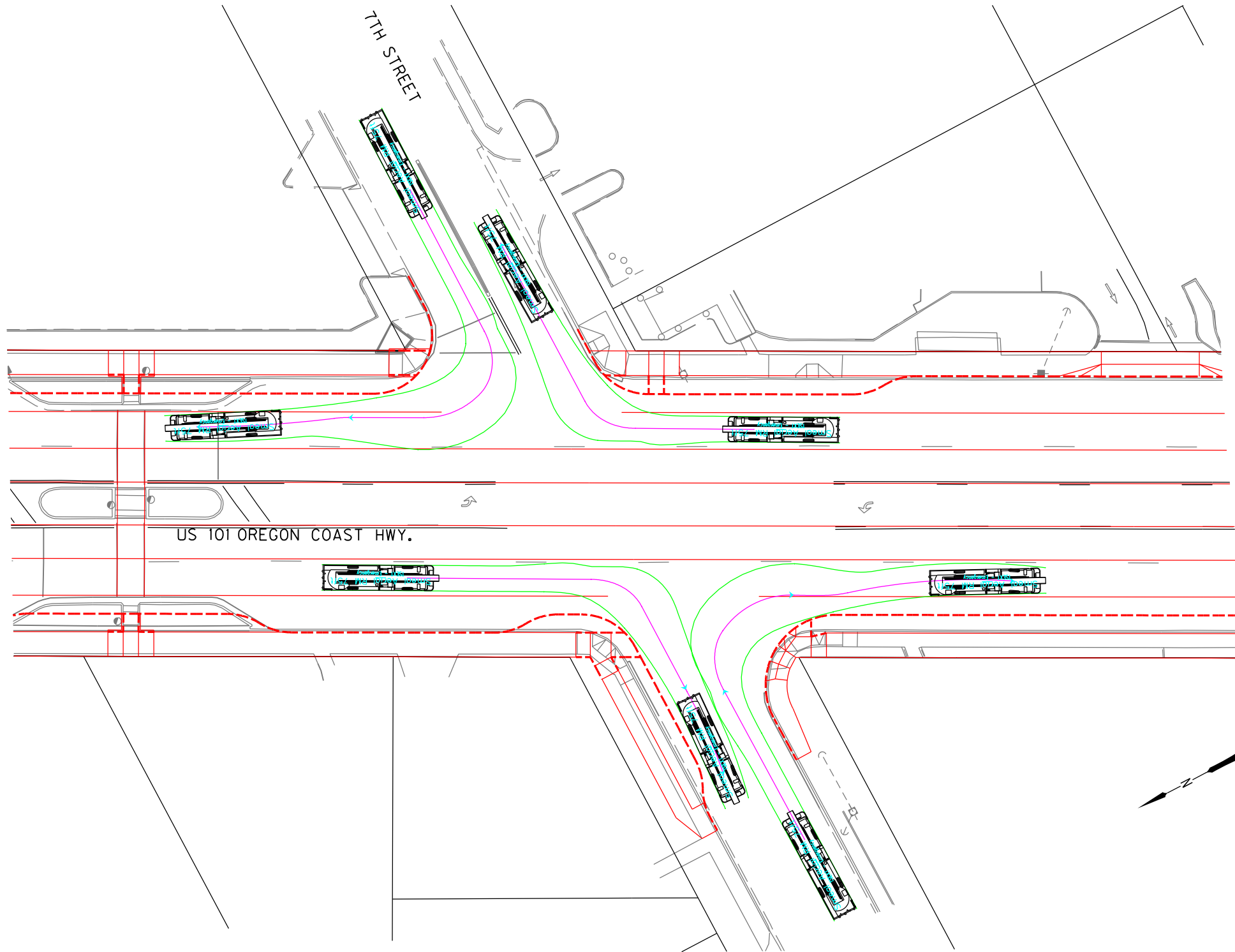


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND 7TH STREET**
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-3
6 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:27:44 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



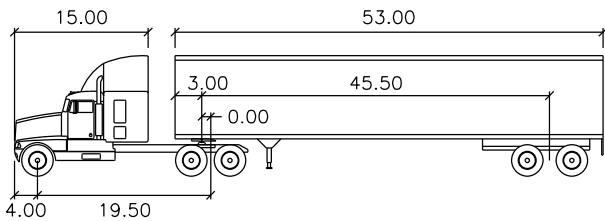
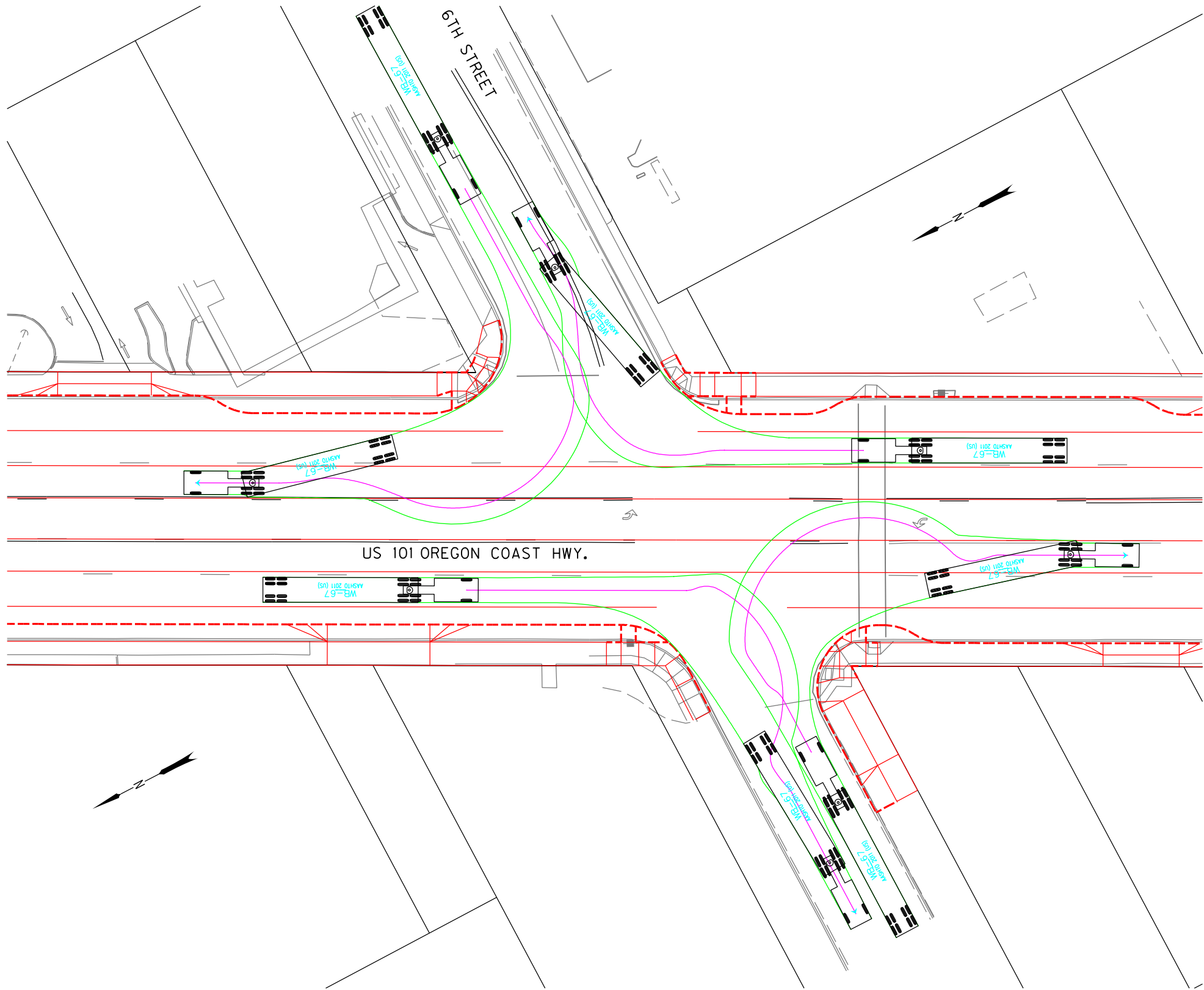
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND 7TH STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-3
6 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:29:48 PM CSL



WB-67	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



CITY OF FLORENCE, OREGON

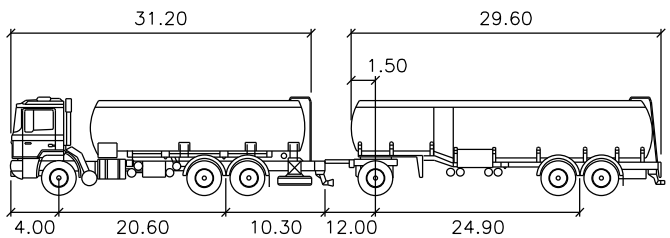
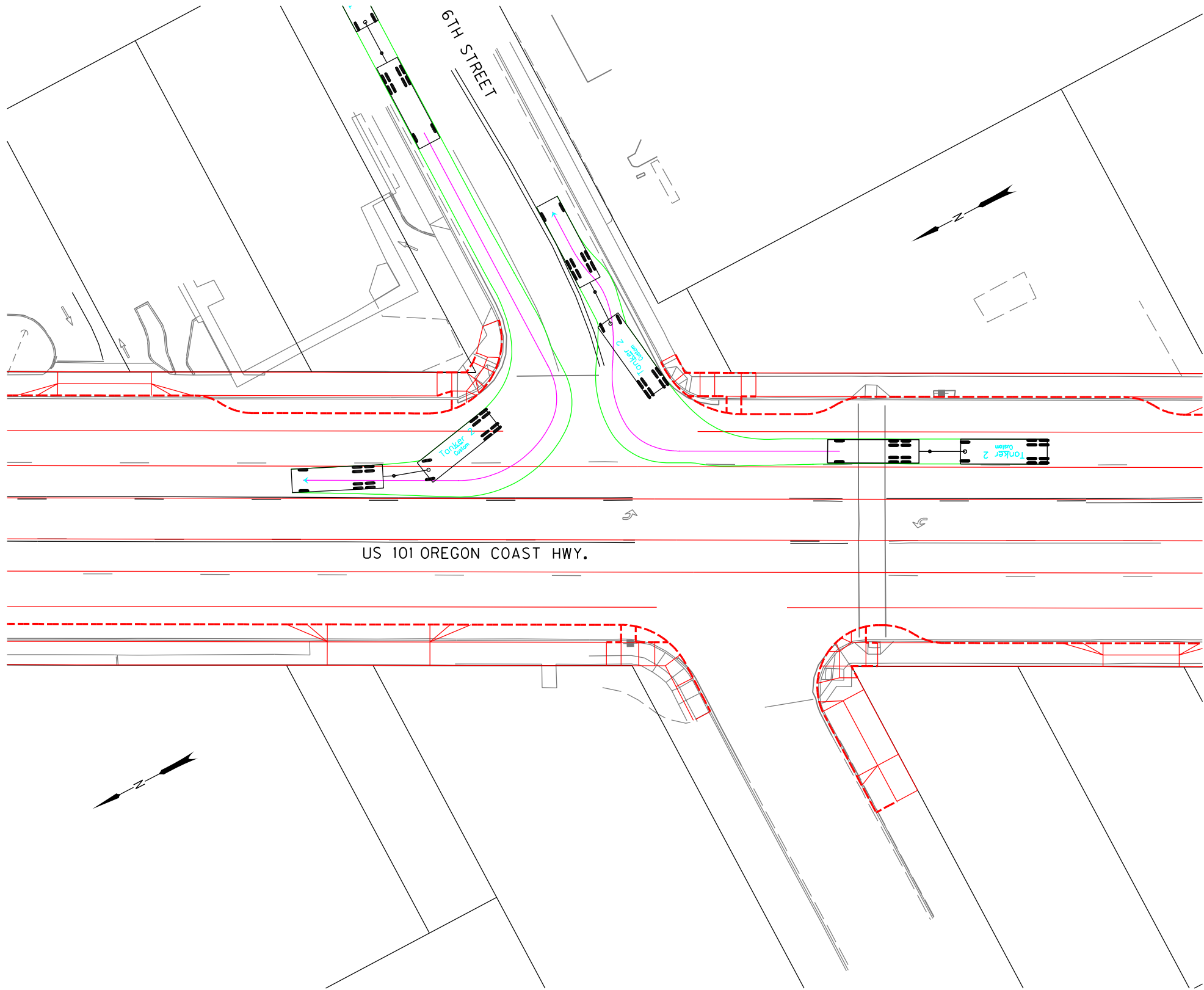
**HWY 101 AND HWY 126
STREETSCAPING**

**TRUCK TURNING WORKSHEET
US101 AND 6TH STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-4
7 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:30:41 PM CSL



Tanker 2			
feet			
First Unit Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 40.0
First Unit Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE	
0 1	
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE	

CMC	DESIGNED
HCM	DRAWN
CSL	CHECKED

PRELIMINARY ONLY DO NOT USE FOR CONSTRUCTION	
SEPTEMBER, 2016	
MURRAY, SMITH & ASSOCIATES, INC. Engineers/Planners	



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

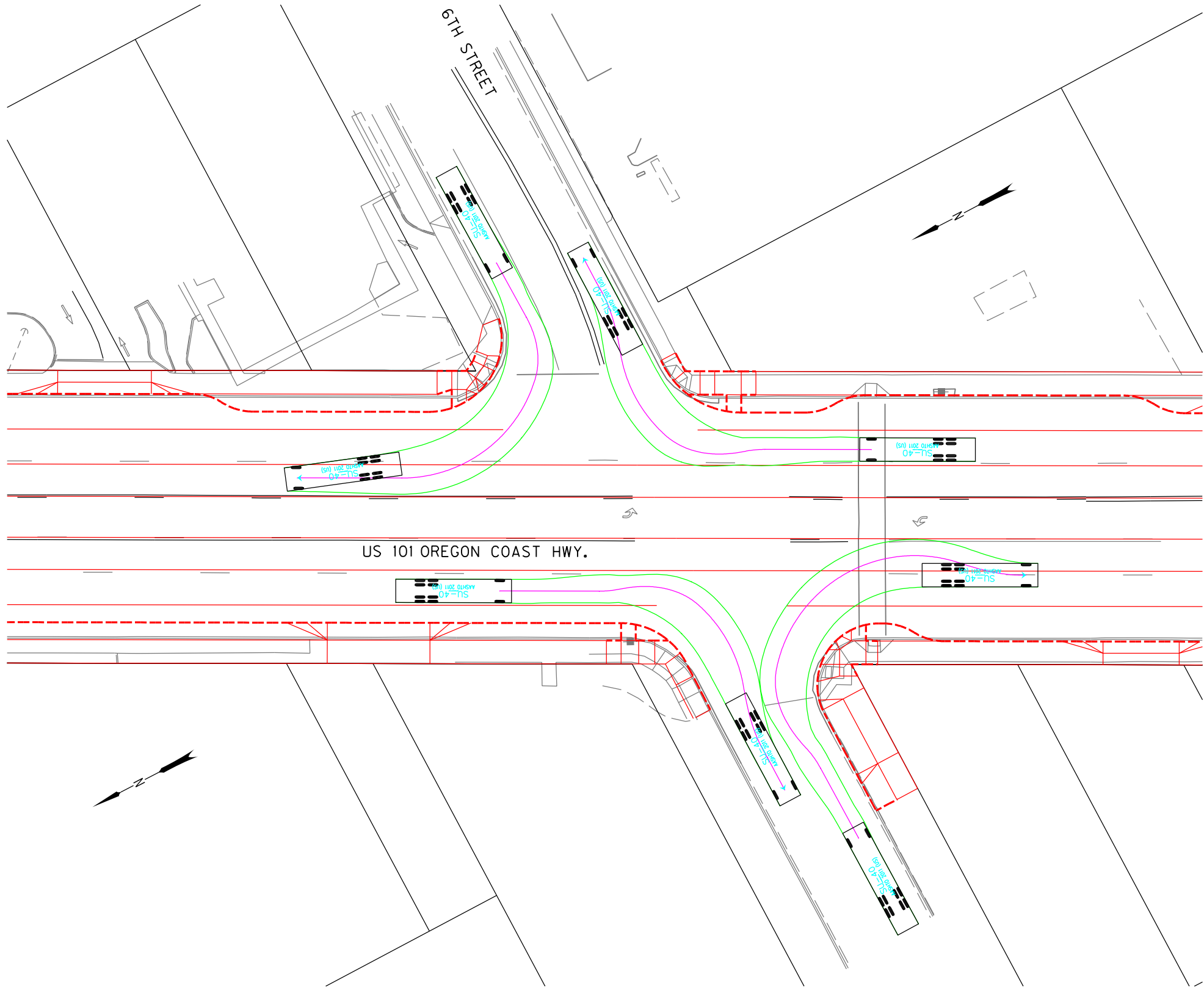


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

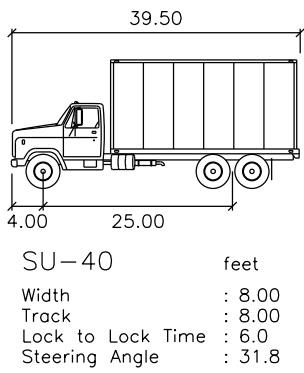
TRUCK TURNING WORKSHEET US101 AND 6TH STREET			
PROJECT NO.:	16-1848.801	SCALE:	AS SHOWN
DATE:		SEPTEMBER 9, 2016	

SHEET
C-4
7 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:31:13 PM CSL



PLAN
Scale: 1" = 20'-0"



30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022



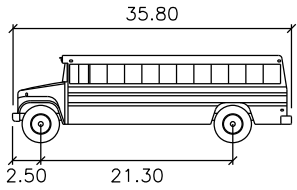
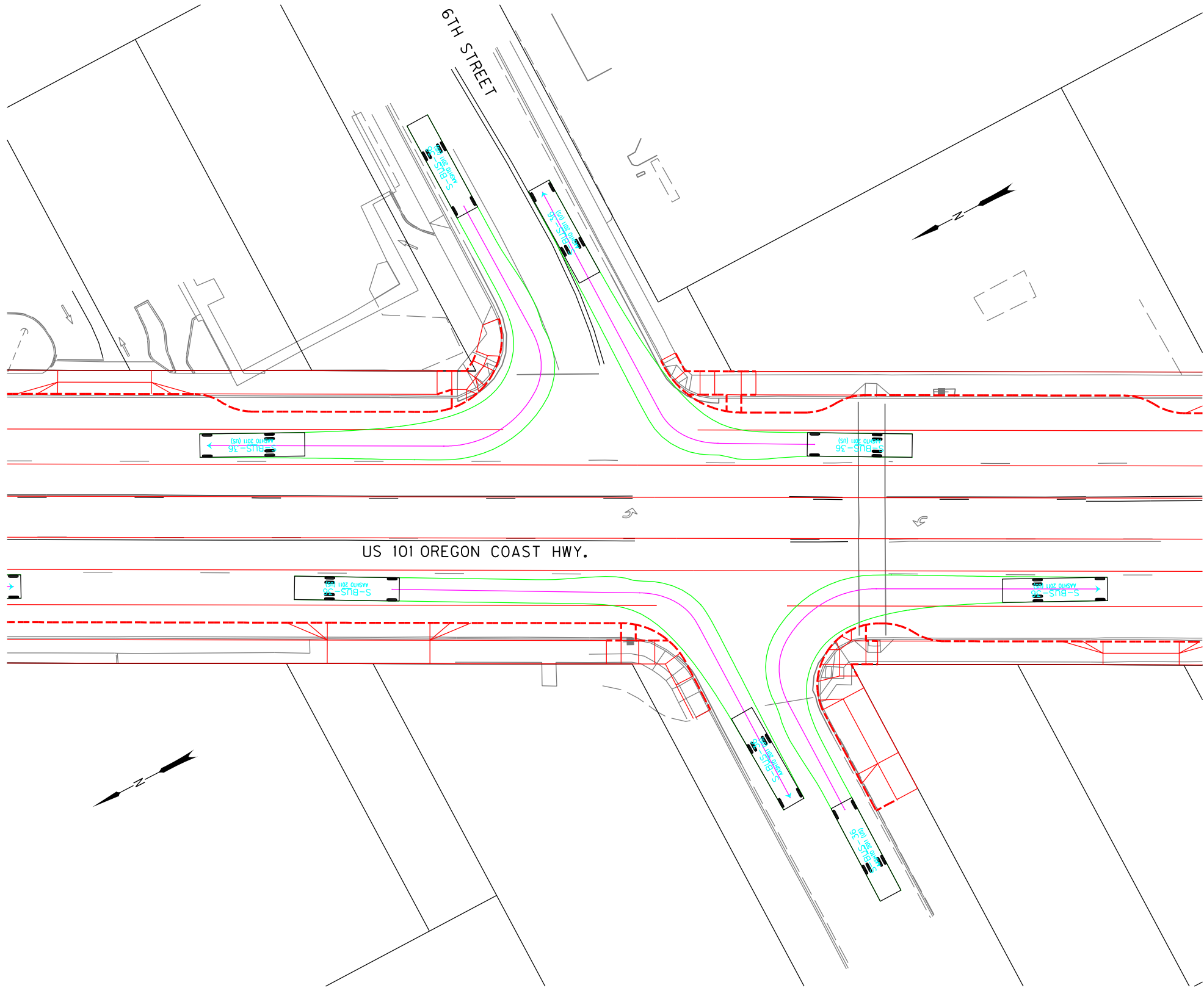
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND 6TH STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-4
7 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:32:02 PM CSL



S-BUS-36 feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 37.6



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



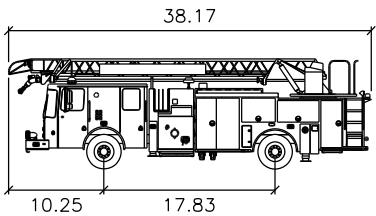
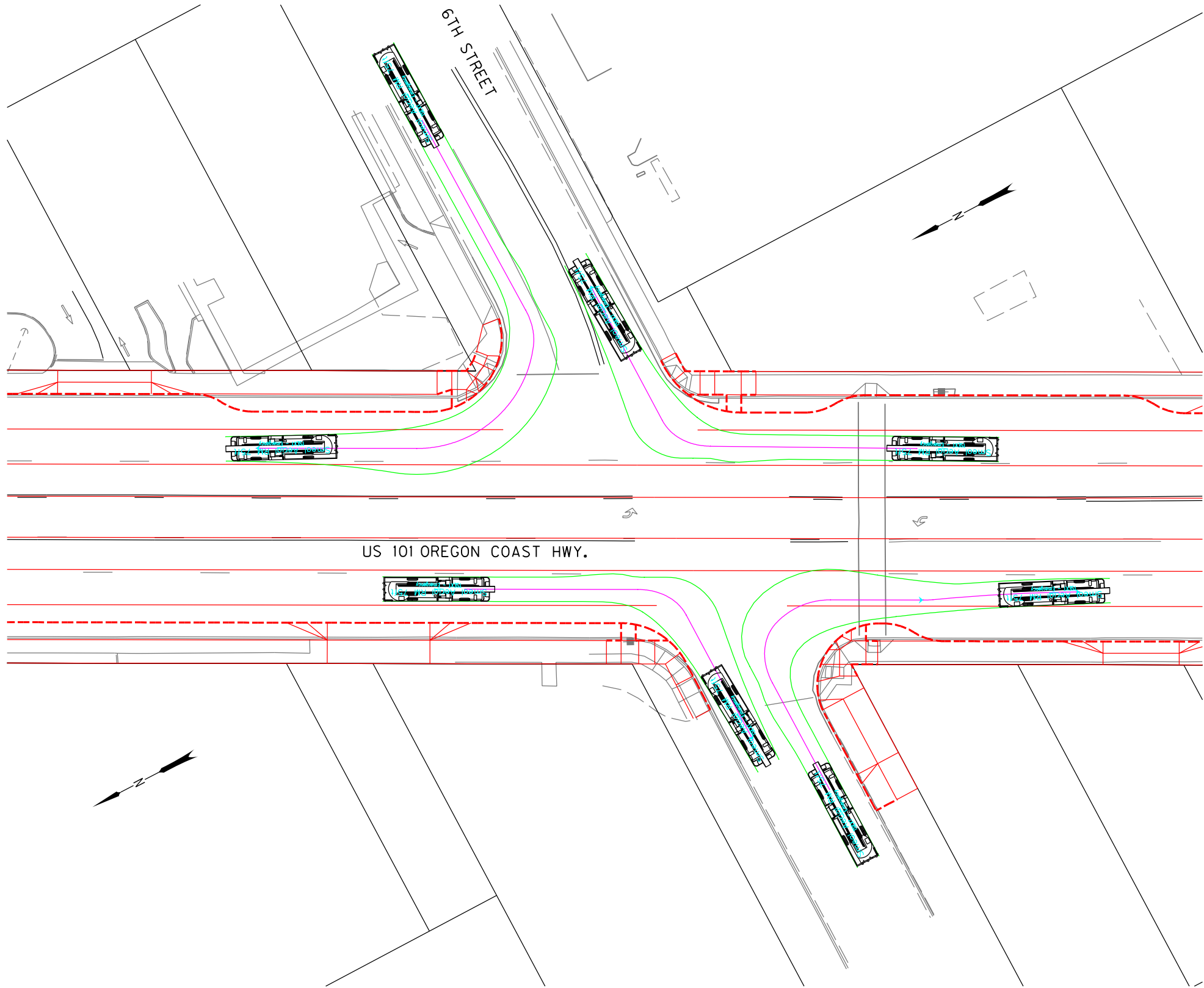
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND 6TH STREET**

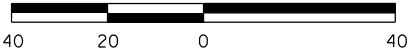
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-4
7 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:32:33 PM CSL



Smeal Aerial RM 75ft
inches
Width : 8.33
Track : 7.92
Lock to Lock Time : 6.0
Steering Angle : 45.0



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC	DESIGNED
HCM	DRAWN
CSL	CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204

PHONE 503-225-9010
FAX 503-225-9022

CITY OF FLORENCE, OREGON

**HWY 101 AND HWY 126
STREETSCAPING**

**TRUCK TURNING WORKSHEET
US101 AND 6TH STREET**

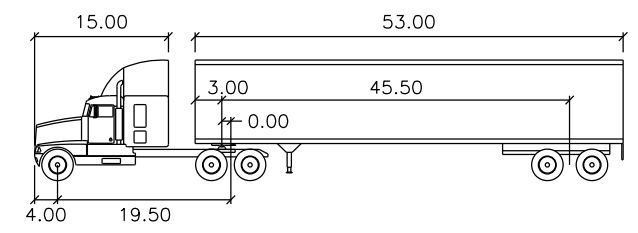
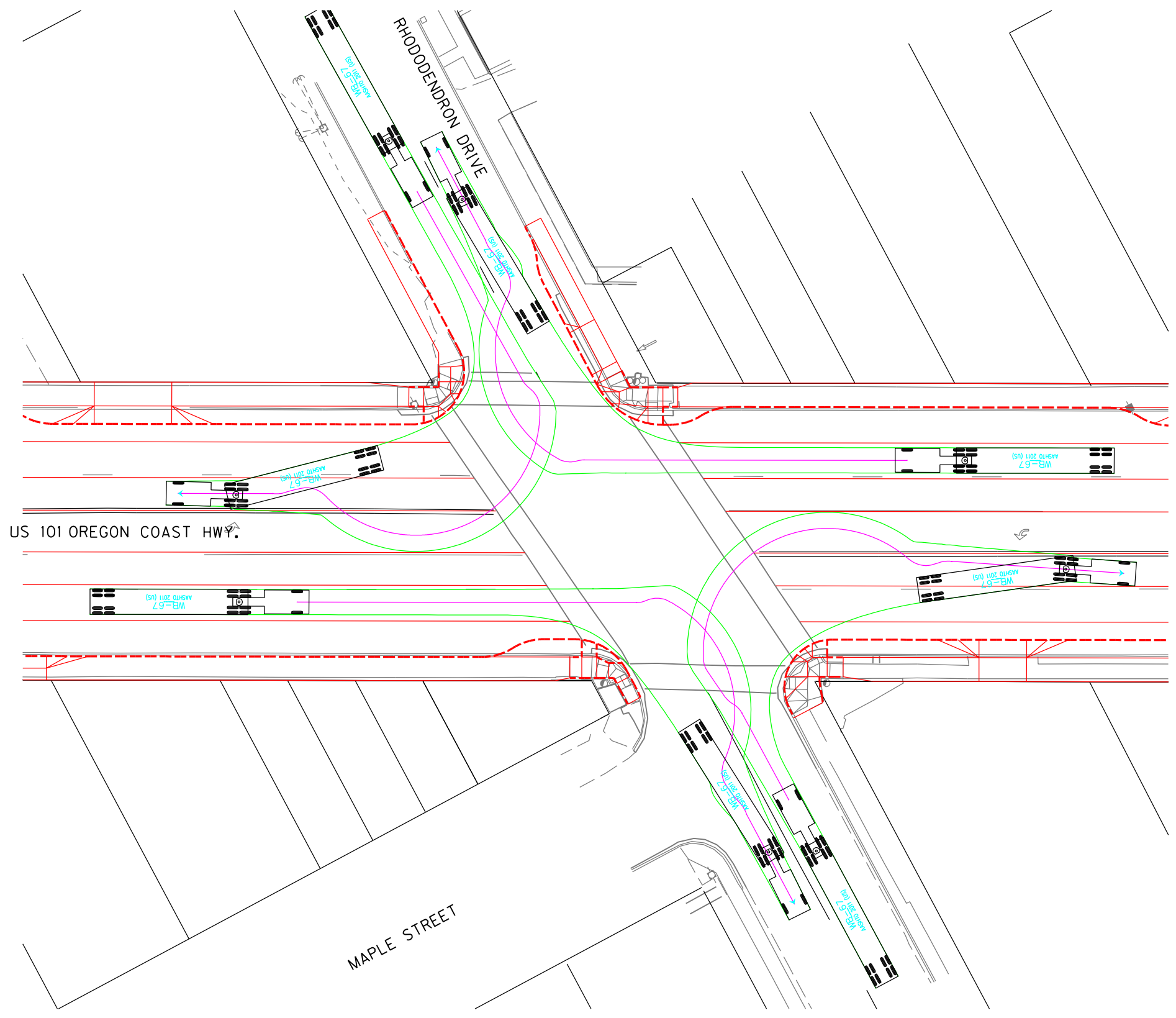
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-4

7 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:35:41 PM CSL



WB-67	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

PLAN
Scale: 1" = 20'-0"


30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



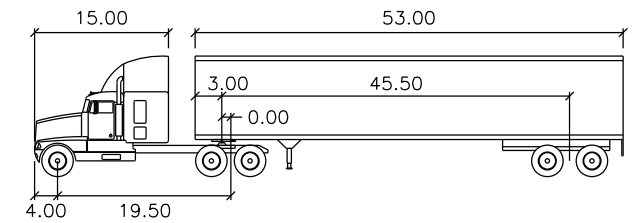
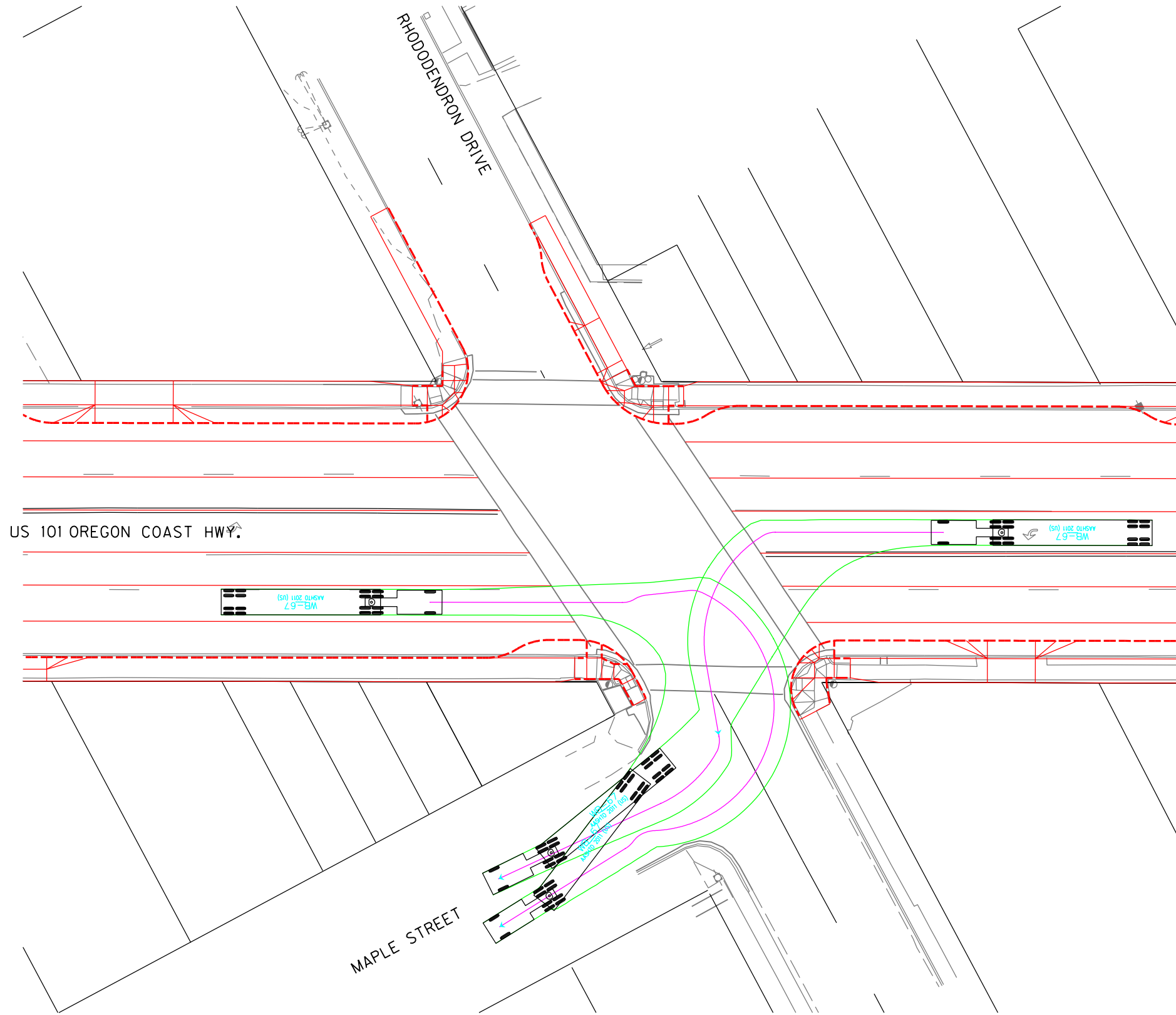
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND RHODODENDRON DR**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-5
8 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:36:37 PM CSL



WB-67	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

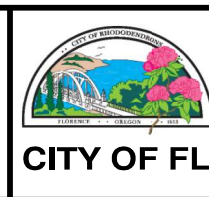
NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



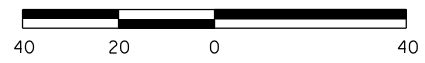
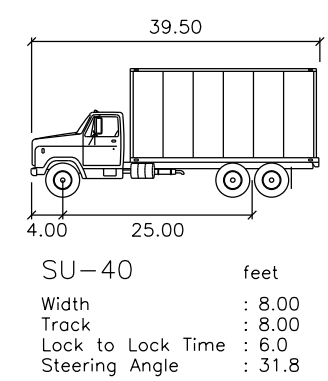
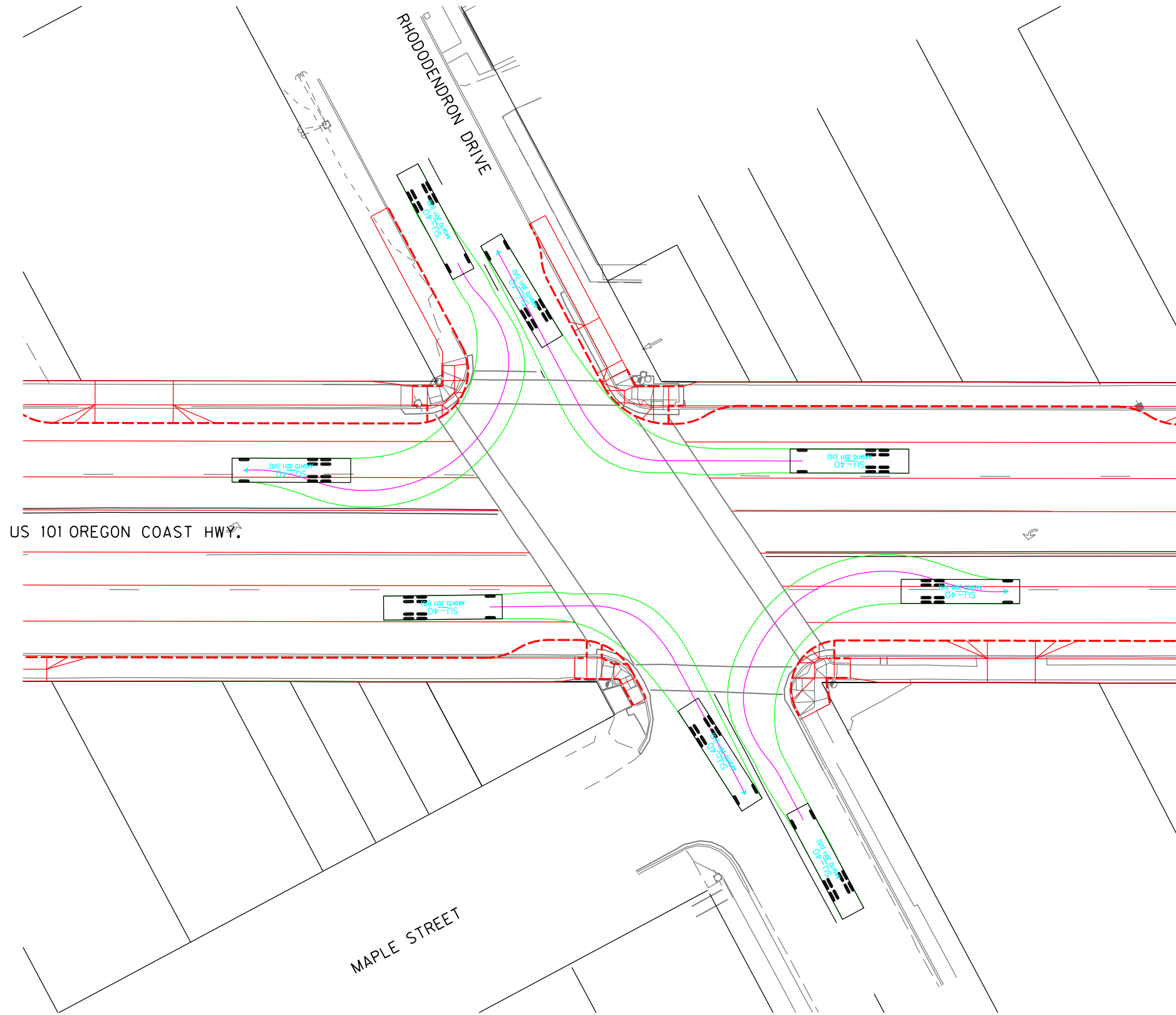
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND RHODODENDRON DR**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-5
8 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:37:56 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

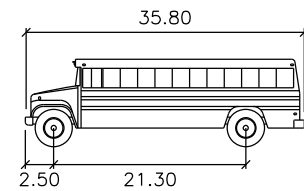
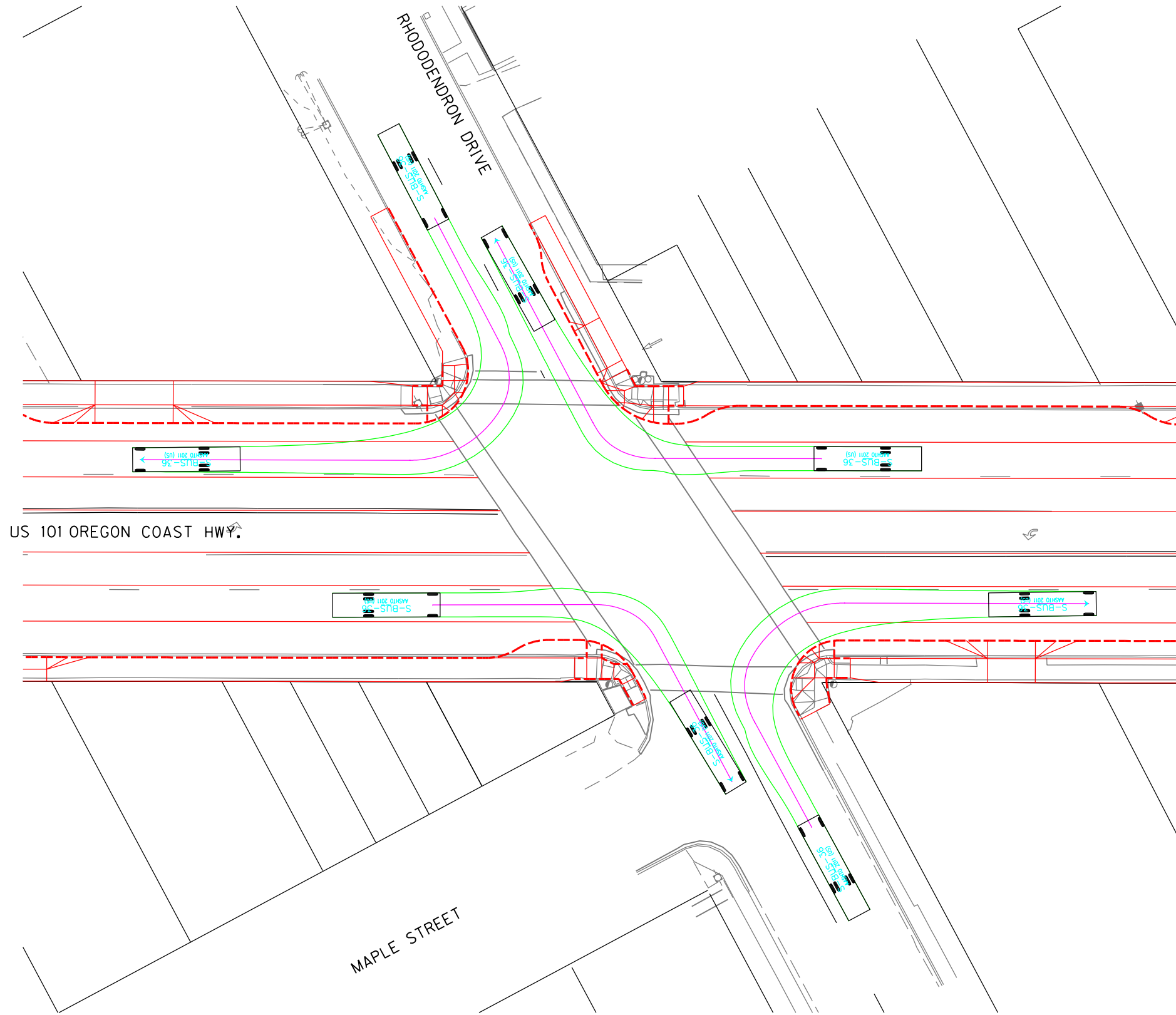
**HWY 101 AND HWY 126
STREETSCAPING**

CITY OF FLORENCE, OREGON

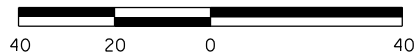
**TRUCK TURNING WORKSHEET
US101 AND RHODODENDRON DR**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:39:32 PM CSL



S-BUS-36 feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 37.6



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

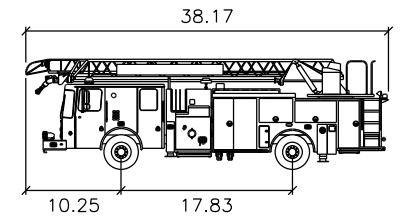
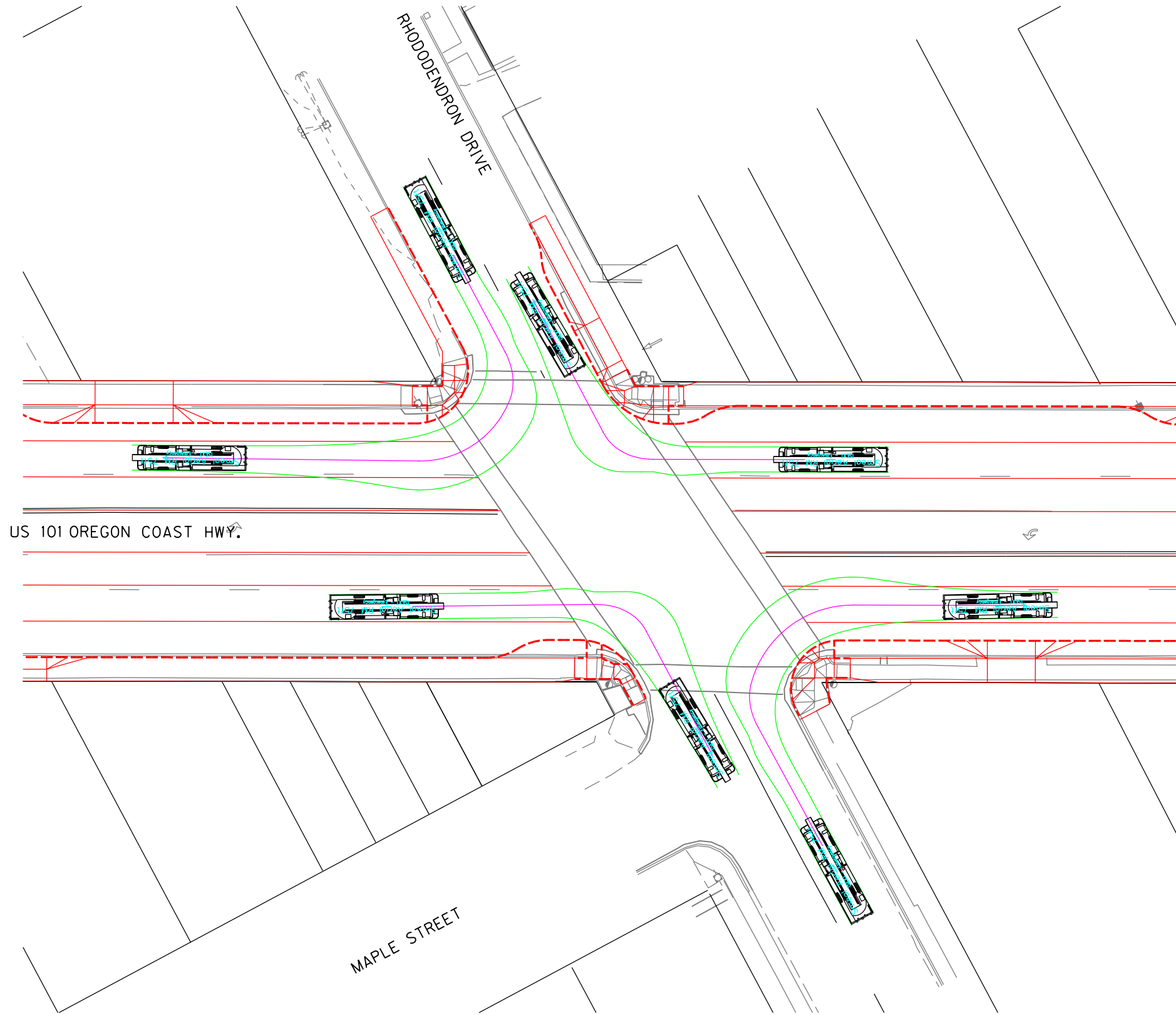
MSA Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

 HWY 101 AND HWY 126
STREETSCAPING
CITY OF FLORENCE, OREGON

TRUCK TURNING WORKSHEET
US101 AND RHODODENDRON DR
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-5
8 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:40:45 PM CSL



Smeal Aerial RM 75ft

	inches
Width	: 8.33
Track	: 7.92
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022



**HWY 101 AND HWY 126
STREETSCAPING**

CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND RHODODENDRON DR**

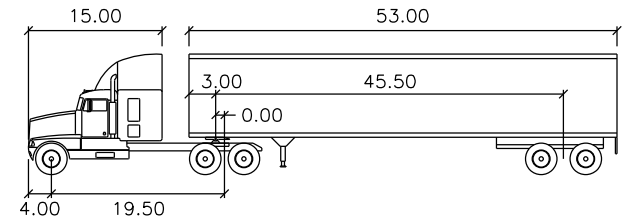
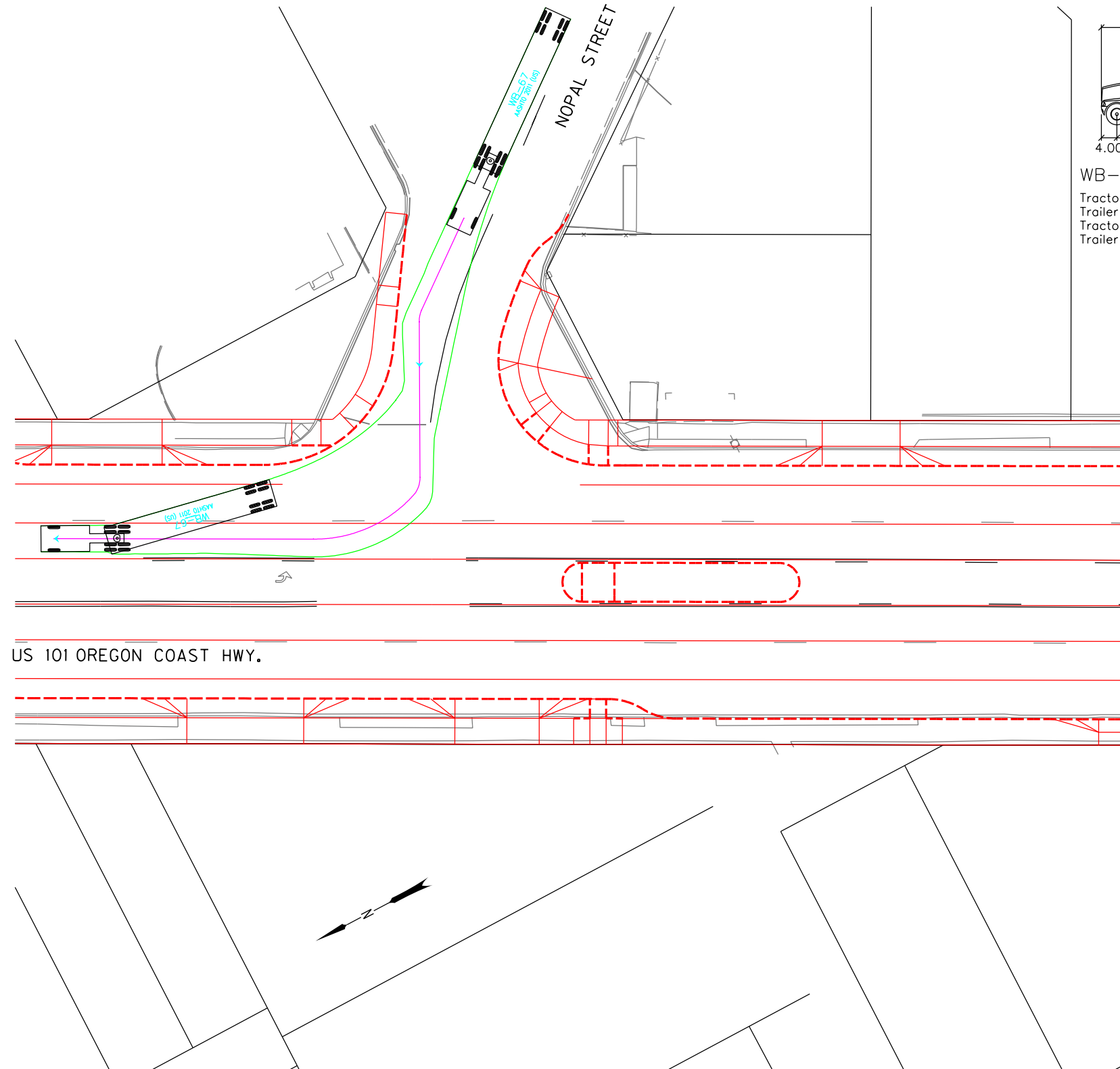
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-5

8 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:43:46 PM CSL



WB-67	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

MSA

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



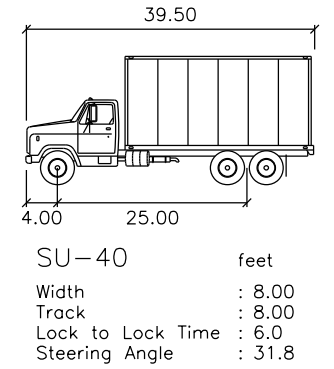
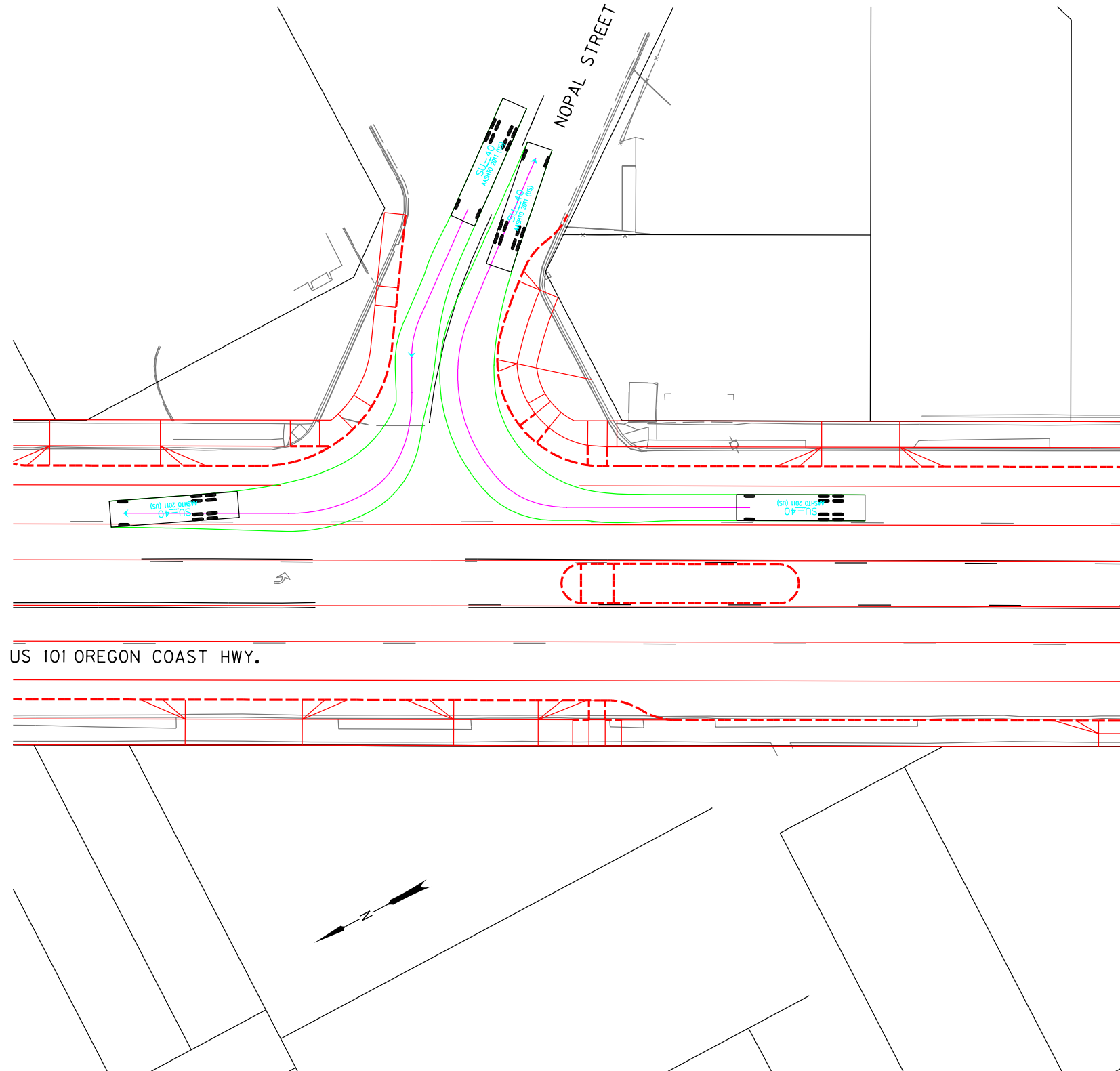
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND NOPAL STREET**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-6
9 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:44:46 PM CSL



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204

PHONE 503-225-9010
FAX 503-225-9022

CITY OF FLORENCE, OREGON

**HWY 101 AND HWY 126
STREETSCAPING**

**TRUCK TURNING WORKSHEET
US101 AND NOPAL STREET**

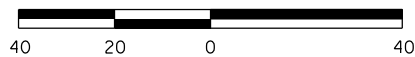
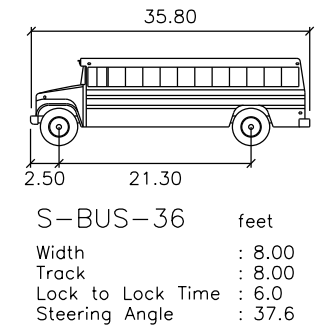
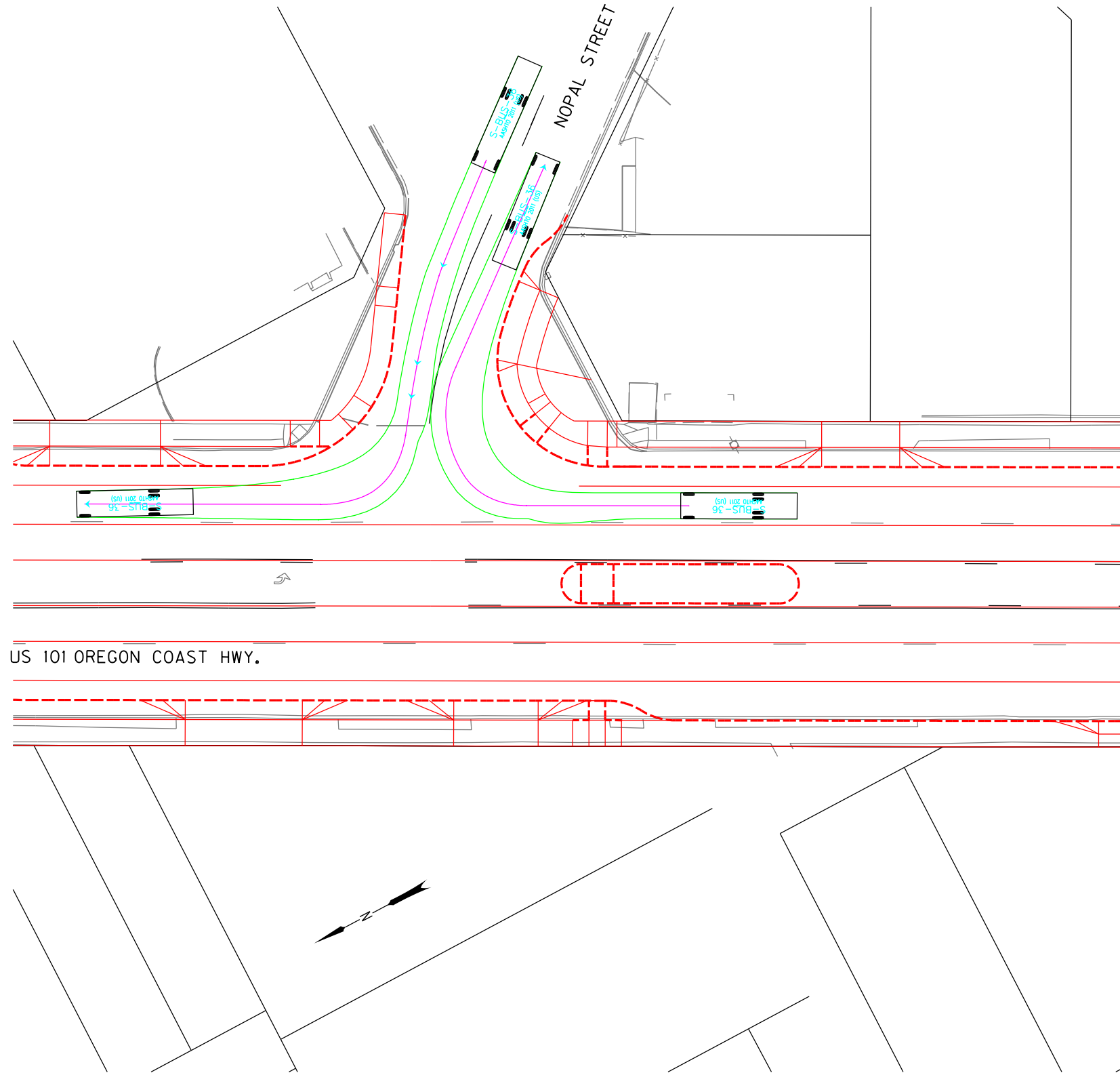
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-6

9 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:46:54 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

**HWY 101 AND HWY 126
STREETSCAPING**

CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND NOPAL STREET**

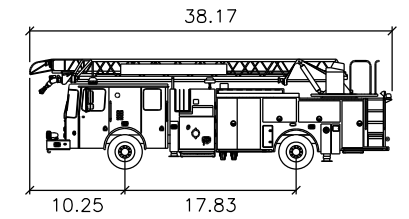
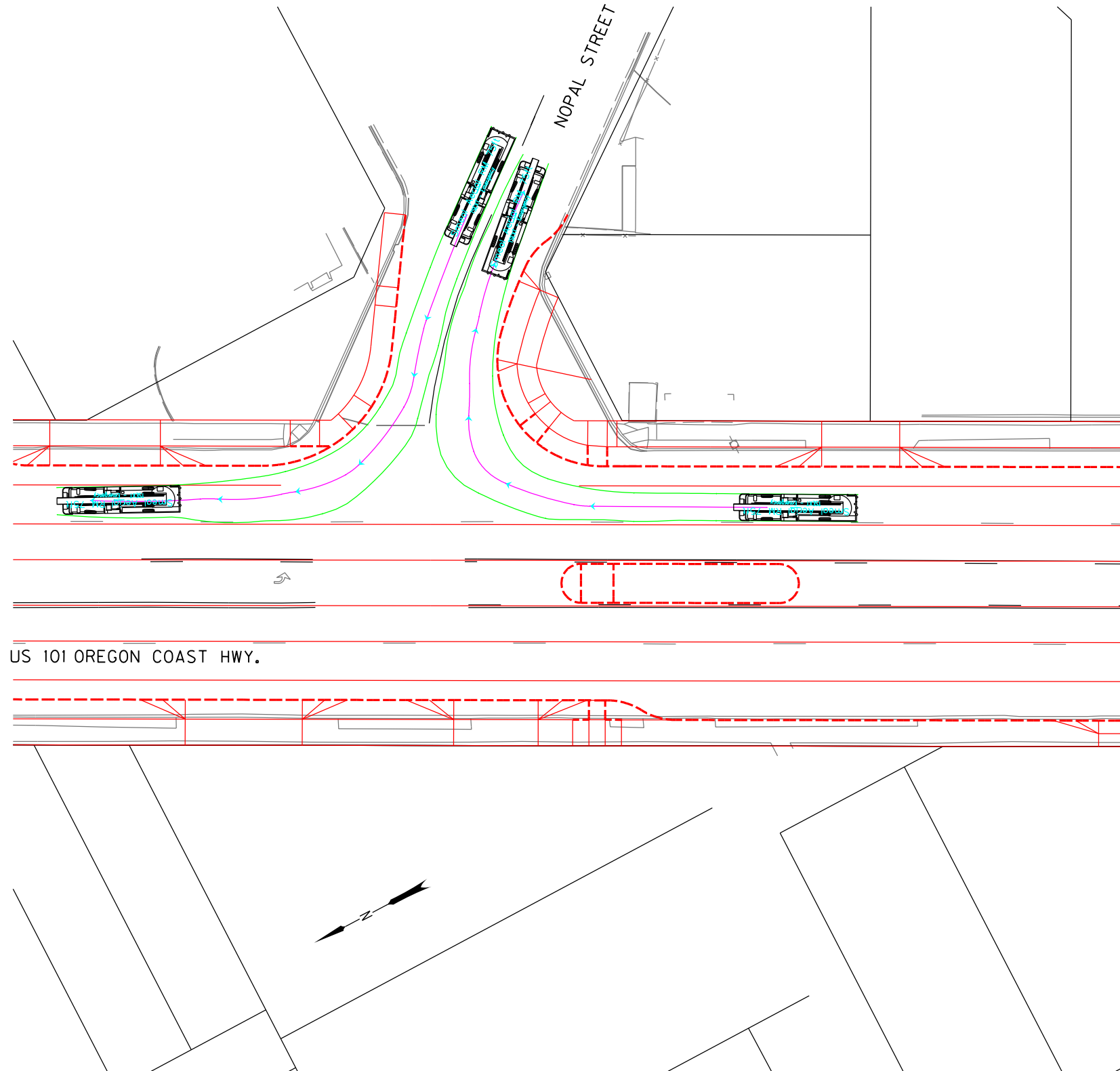
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-6

9 of X

G:\PDX_Projects\2016\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:48:03 PM CSL



Smeal Aerial RM 75ft
inches
Width : 38.17
Track : 10.25
Lock to Lock Time : 17.83
Steering Angle : 45.0



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204

PHONE 503-225-9010
FAX 503-225-9022

CITY OF FLORENCE, OREGON

**HWY 101 AND HWY 126
STREETSCAPING**

**TRUCK TURNING WORKSHEET
US101 AND NOPAL STREET**

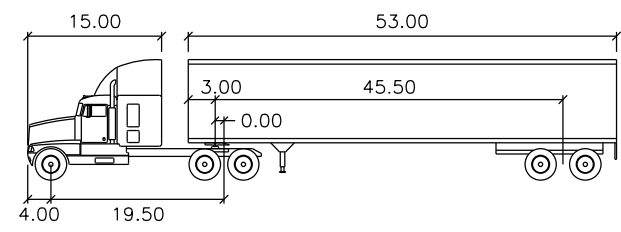
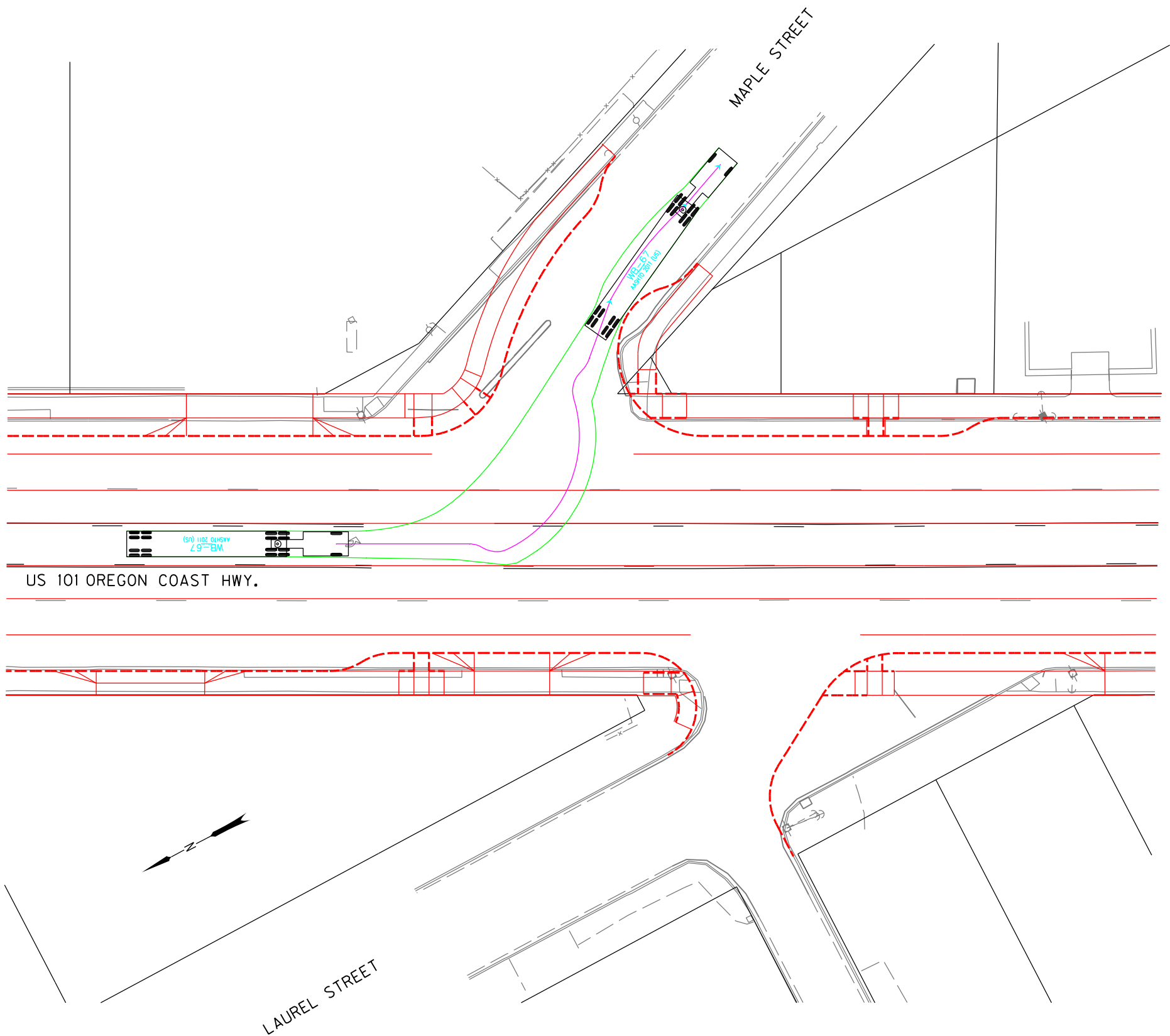
PROJECT NO.: 16-1848.801
SCALE: AS SHOWN
DATE: SEPTEMBER 9, 2016

SHEET

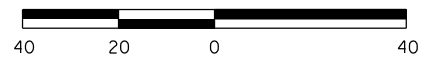
C-6

9 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:49:23 PM CSL



WB-67	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC DESIGNED
HCM DRAWN
CSL CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

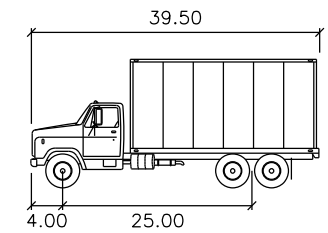
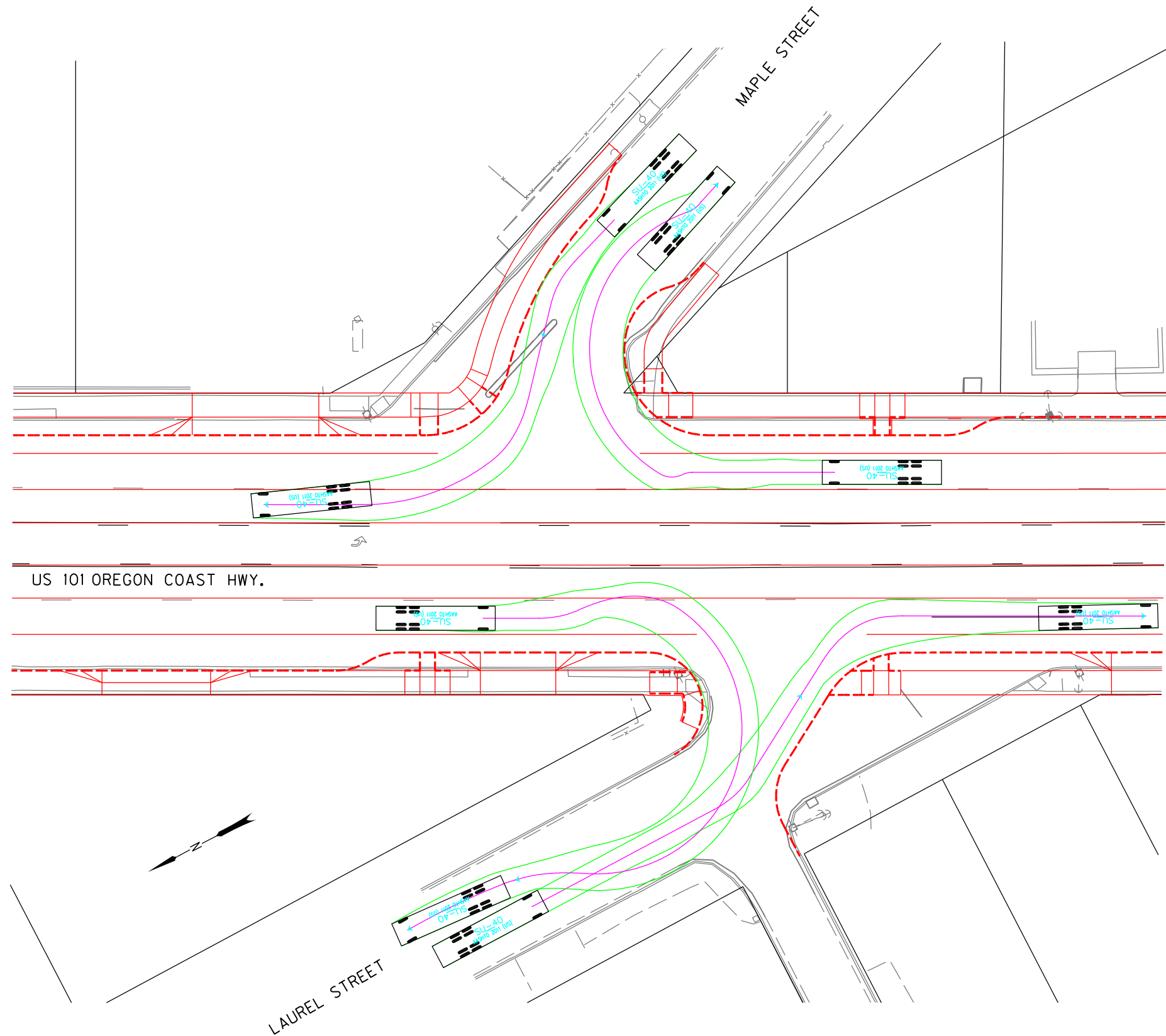


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

TRUCK TURNING WORKSHEET US101 AND MAPLE/LAUREL STREETS			
PROJECT NO.:	16-1848.801	SCALE:	AS SHOWN
		DATE:	SEPTEMBER 9, 2016

SHEET
C-7
10 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:50:51 PM CSL



SU-40 feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 31.8



PLAN

Scale: 1" = 20'-0"


30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022



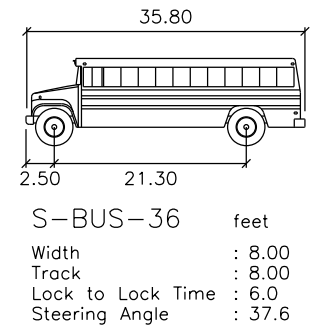
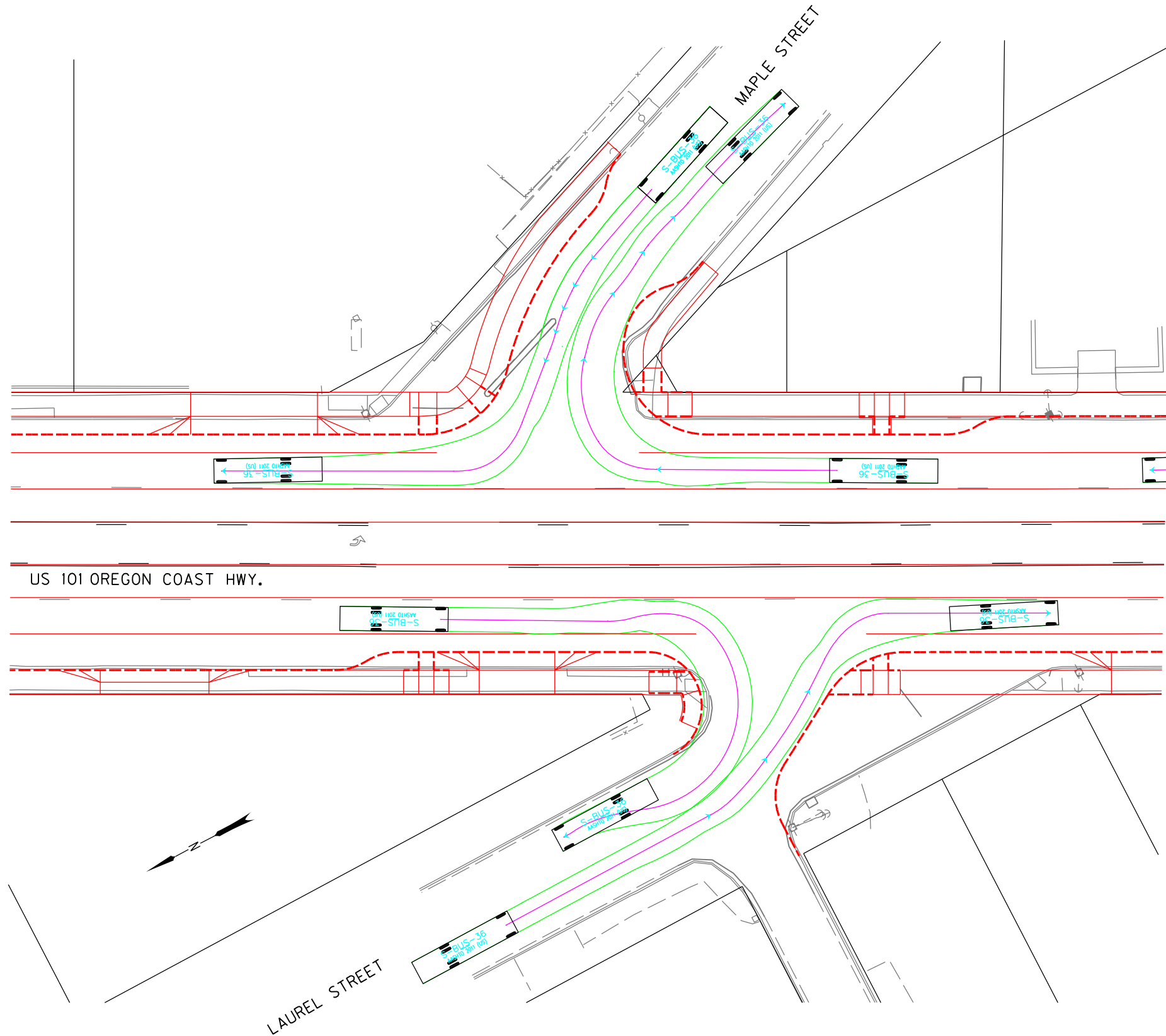
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND MAPLE/LAUREL STREETS**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-7
10 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:54:21 PM CSL



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



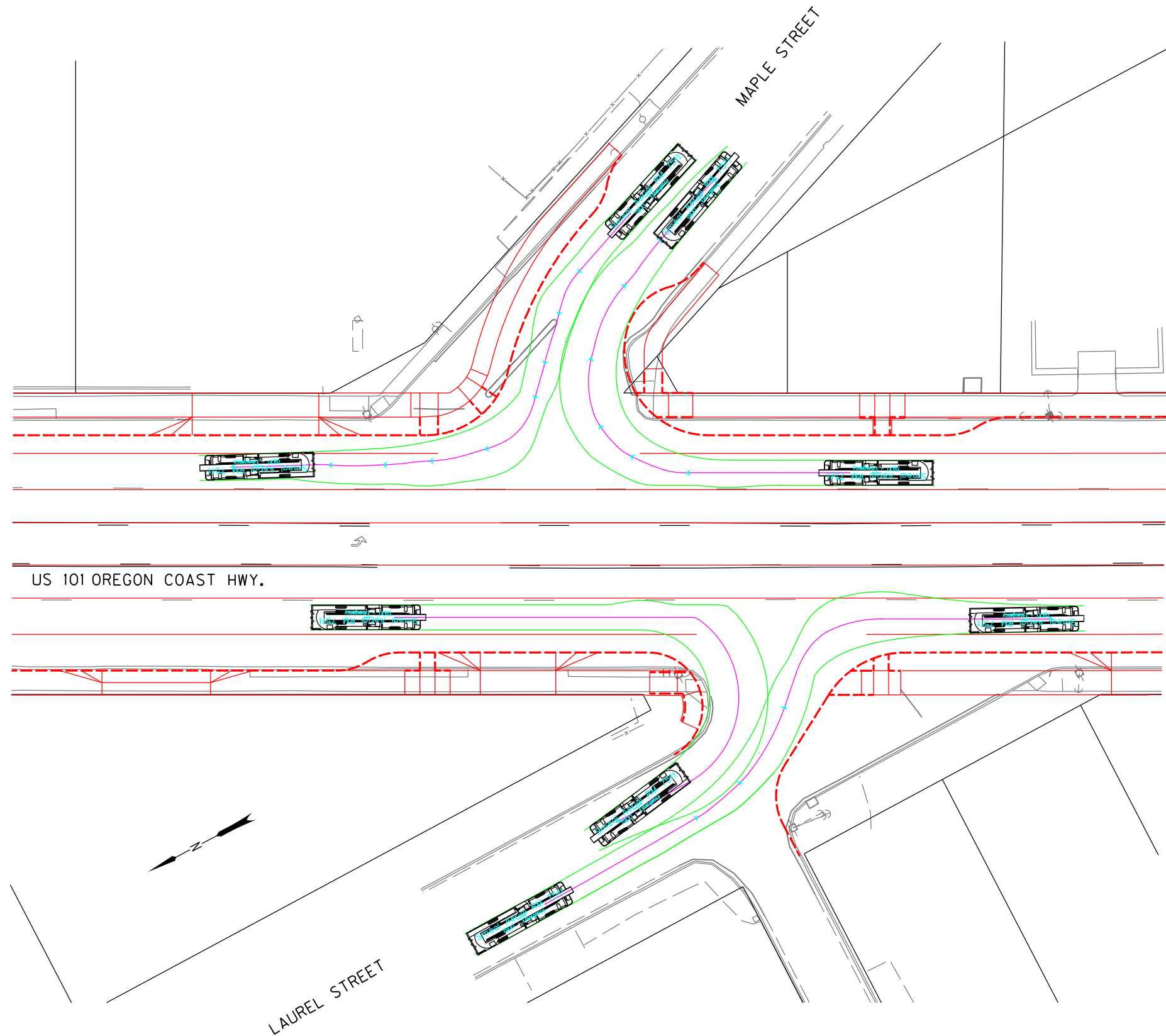
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**TRUCK TURNING WORKSHEET
US101 AND MAPLE/LAUREL STREETS**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

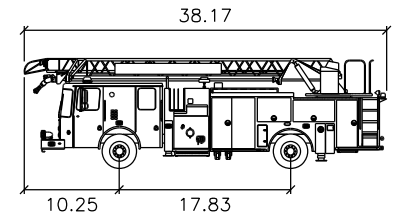
SHEET
C-7
10 of X

G:\PDX_Projects2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:55:32 PM CSL



PLAN

Scale: 1" = 20'-0"



Smeal Aerial RM 75ft

Width : 8.33
Track : 7.92
Lock to Lock Time : 6.0
Steering Angle : 45.0

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204

PHONE 503-225-9010
FAX 503-225-9022

CITY OF FLORENCE, OREGON

**HWY 101 AND HWY 126
STREETSCAPING**

**TRUCK TURNING WORKSHEET
US101 AND MAPLE/LAUREL STREETS**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-7

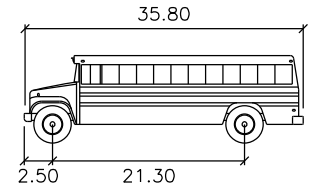
10 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:57:08 PM CSL

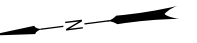


PLAN

Scale: 1" = 20'-0"



S-BUS-36 feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 37.6



30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

MSA

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

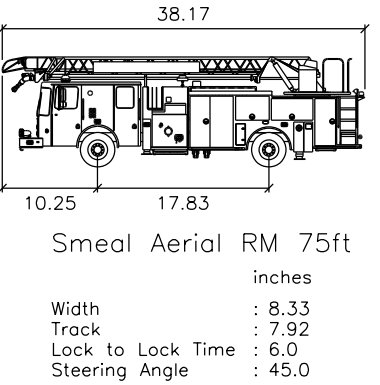
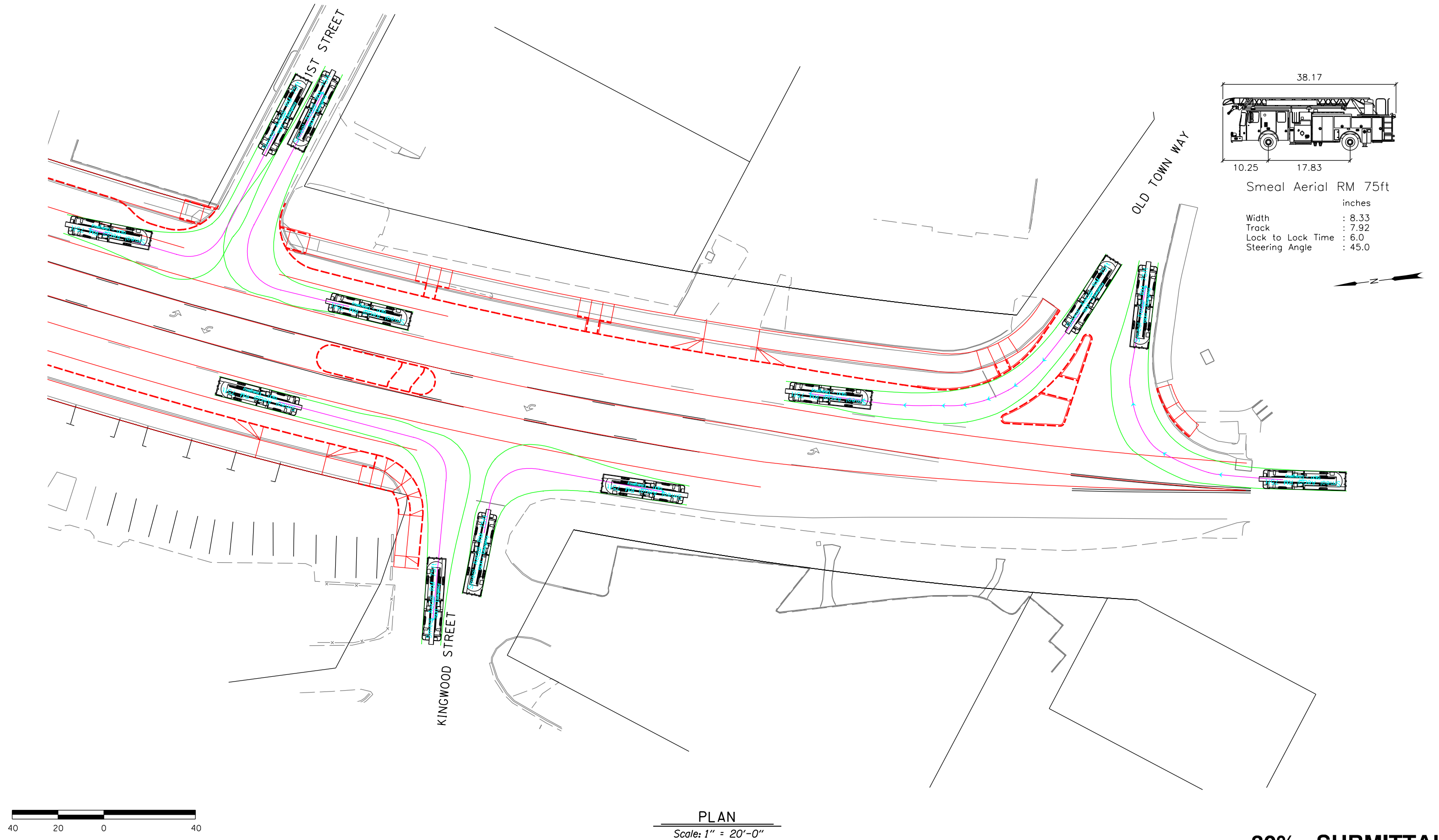


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

TRUCK TURNING WORKSHEET
US101 AND 1ST/KINGWOOD/OLD TOWN WAY
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-8
11 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:57:38 PM CSL



30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

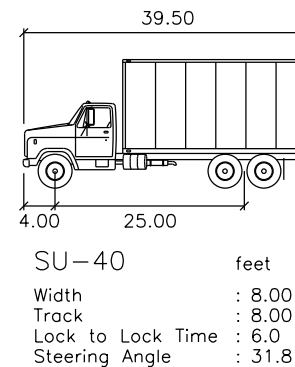
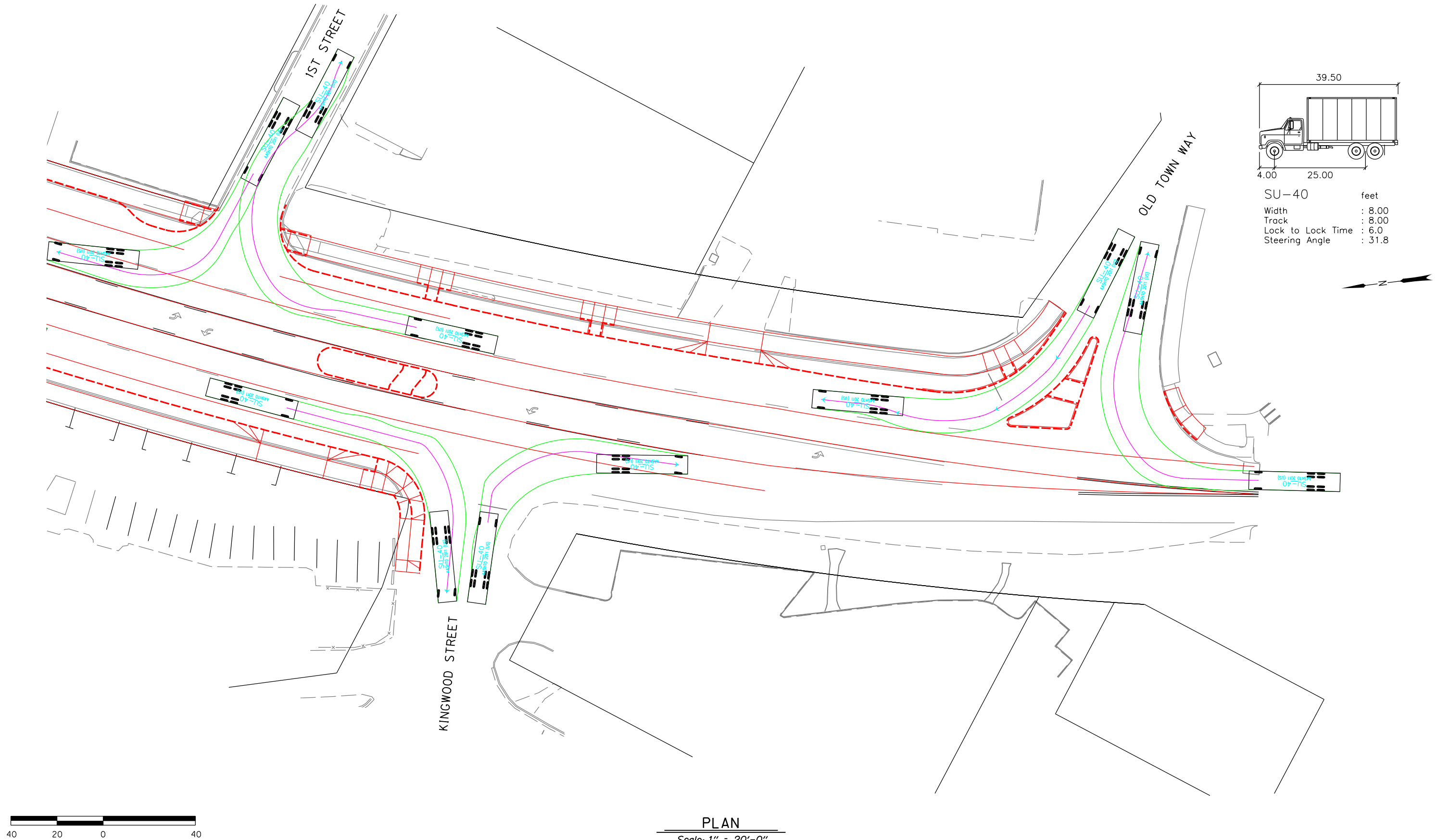
MSA Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022


CITY OF FLORENCE, OREGON
HWY 101 AND HWY 126
STREETSCAPING

TRUCK TURNING WORKSHEET
US101 AND 1ST/KINGWOOD/OLD TOWN WAY
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-8
11 of X

G:\PDX_Projects\216\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\Truck Turning.plt :: Default 9/21/2016 1:56:36 PM CSL



30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

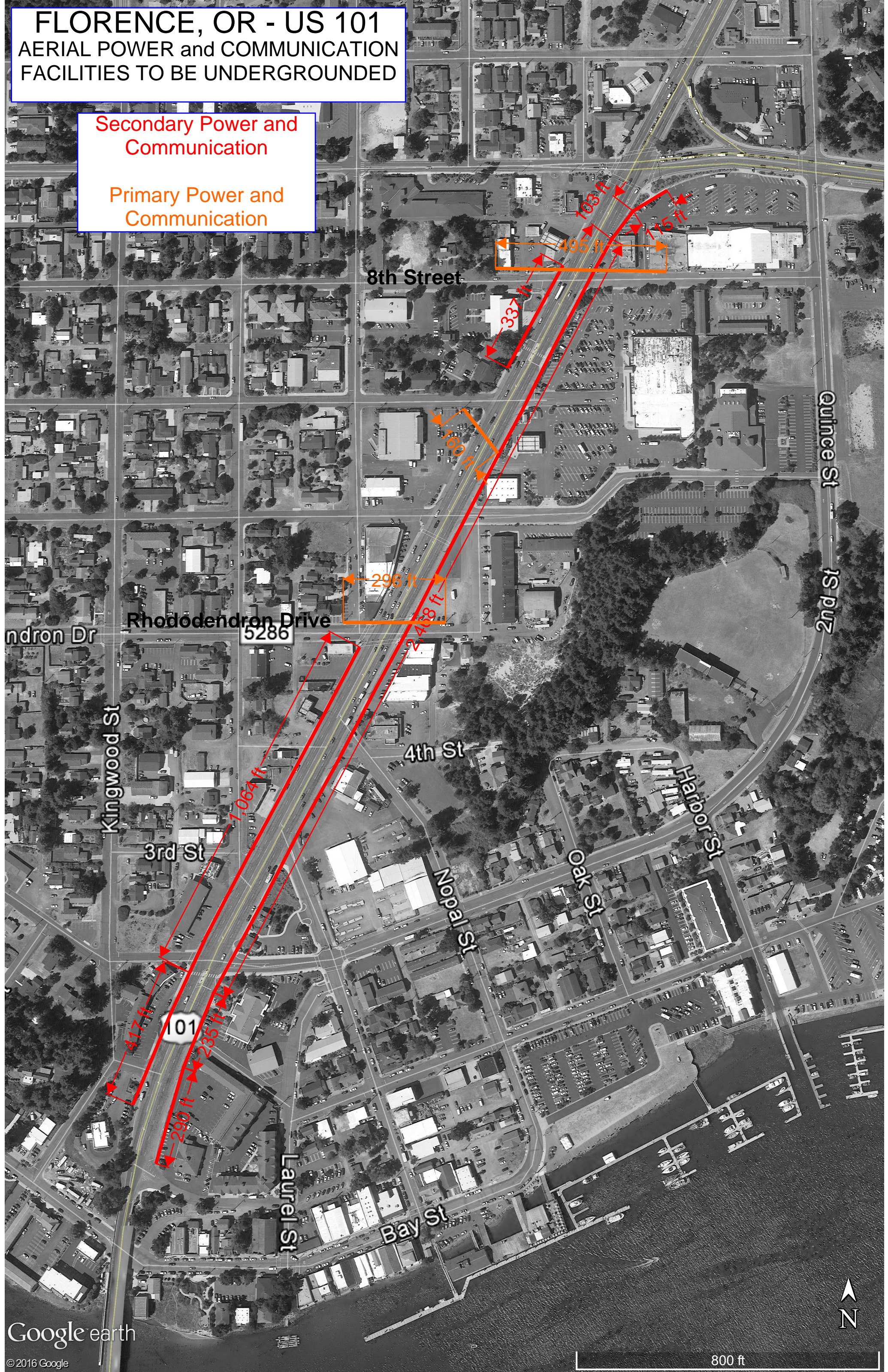
TRUCK TURNING WORKSHEET
US101 AND 1ST/KINGWOOD/OLD TOWN WAY
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-8
11 of X

FLORENCE, OR - US 101
AERIAL POWER and COMMUNICATION
FACILITIES TO BE UNDERGROUNDED

Secondary Power and
Communication

Primary Power and
Communication

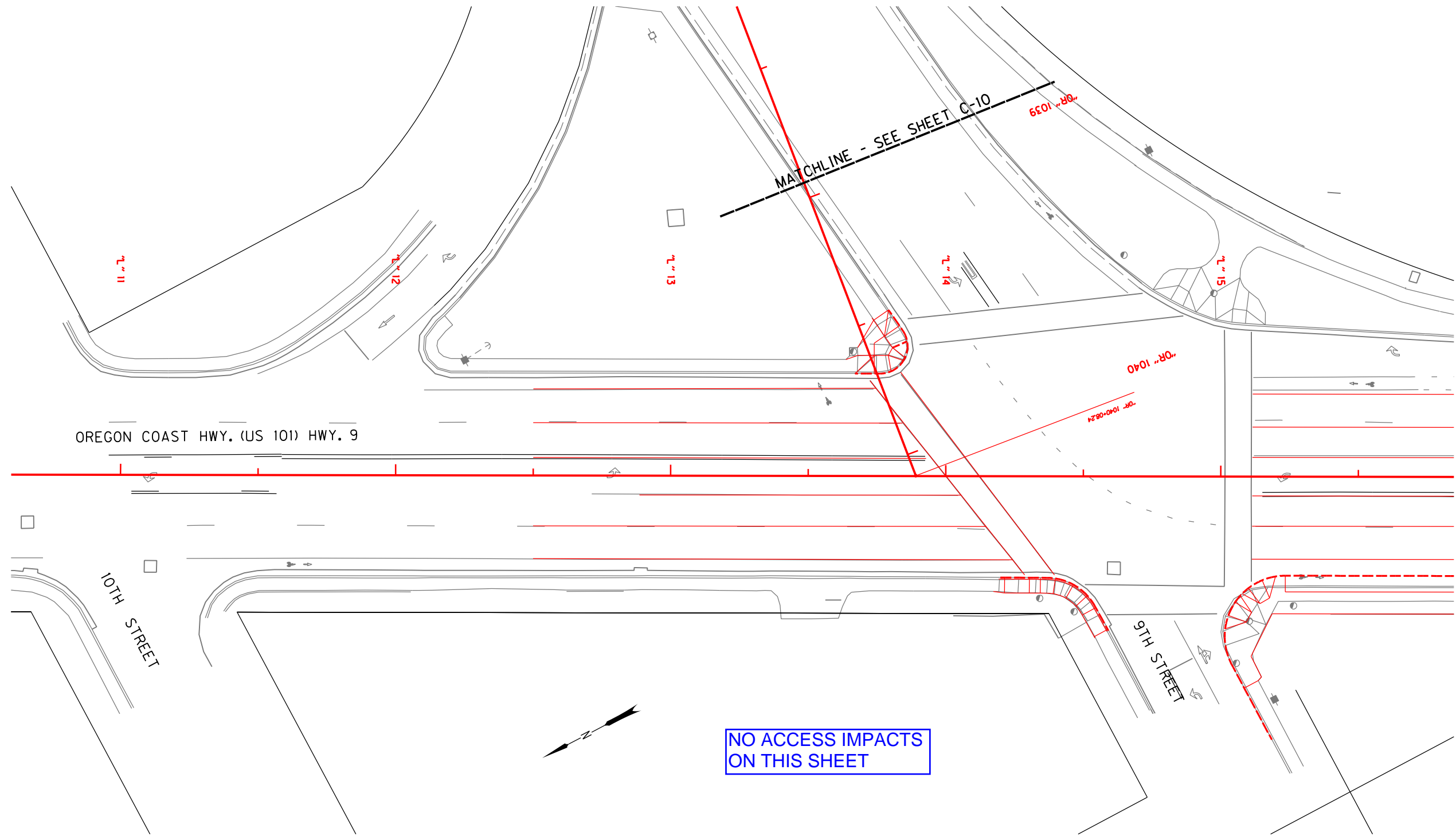


City of Florence
US 101 Streetscaping Project
Utility Undergrounding Feasibility Study
Conceptual Level Cost Estimate (November 2016)

GENERAL	Unit	Estimated Quantity	Unit Price \$/Unit	Amount \$	Comments
Mobilization, Bonds, Insurance and Demobilization (2.5%)	LS	1	\$12,000	\$12,000	Mobilization also part of the overall Project
Traffic Control (2.5%)	LS	1	\$12,000	\$12,000	Traffic control also part of the overall Project
Erosion and Sediment Control (1%)	LS	1	\$5,000	\$5,000	EC also part of the overall Project
Surveying (1%)	LS	1	\$5,000	\$5,000	
Conduit Trench Excavation and Backfill - (Single to Multiple Conduit Installation)	LF	5,049	\$25.00	\$126,225	Backfill also part of sidewalk construction.
Excavation & Disposal of Contaminated Soil	CY	50	\$150.00	\$7,500	Little to no contaminated soils expected
Horizontal Directional Drilled Conduit Crossings (including conduit material cost)	LF	1,083	\$55.00	\$59,565	Assumed all US101 crossings will be HDD
Bollards	Ea	6	\$750.00	\$4,500	Assumed 2 transformers to protect
	General Sub Total			\$231,790	
CLPUD					
3" PVC Conduit Installation	LF	200	\$2.50	\$500	Assumed 2 service drops
4" PVC Conduit Installation	LF	0	\$2.75	\$0	Item included in lighting estimate.
6" PVC Conduit Installation	LF	1,818	\$4.50	\$8,181	Assumed 2-6" needed for primary power circuit
Underground Utility Conversion (1 ph or 3 ph service; private side - includes misc. changes and work behind meter to restore service) Complete	Ea	2	\$4,000.00	\$8,000	One identified, one more possible
New Meter installation (includes existing meter box removal and existing conduit removal)	Ea	2	\$800.00	\$1,600	Assumed both require new meters
Furnish and Install Vaults	Ea	3	\$7,000.00	\$21,000	Large vault such as 612 Vault (12'x6'8"). Assumes one vault for each primary power crossing of US 101
Furnish and Install Pad-mount Transformers (3-Phase)	Ea	2	\$20,000.00	\$40,000	One identified at 8th St; one additional possible.
Conductor (Materials & Installation)	LS	1	\$29,270.00	\$29,270	Power distribution conductors (\$10/LF). Verify with CLPUD
Overhead Utility Removal (conductor, transformers)	LS	1	\$5,000.00	\$5,000	
Pole Removal	Ea	28	\$1,500.00	\$42,000	Assumed all poles along 101
	CLPUD Sub Total			\$155,551	
CHARTER COMMUNICATIONS					
2" PVC Conduit Installation	LF	1,060	\$2.00	\$2,120	
4" PVC Conduit Installation	LF	0	\$2.75	\$0	
Service Connections (Includes work to restore service to private property)	Ea	1	\$2,500.00	\$2,500	Confirm quantity with Charter
Cross Connect Cabinets and Concrete Pads	Ea	2	\$3,000.00	\$6,000	Confirm quantity and cost with Charter
Furnish and Install Charter Vaults	Ea	3	\$3,000.00	\$9,000	Verify quantity and cost with Charter
Cable (Materials & Installation)	LS	1	\$10,600.00	\$10,600	Verify with Charter.
Overhead Utility Removal (Existing Cable, Etc.)	LF	1,060	\$5.00	\$5,300	
	Charter Communications Sub Total			\$35,520	

CENTURYLINK					
Service Connections (Includes work to restore service to private property)	Ea	4	\$2,500.00	\$10,000	Quantity confirmed with CenturyLink
Underground Facilities (Materials & Installation)	LS	1	\$90,000.00	\$90,000	Per CenturyLink email 11-28-16; includes conduits, cables and appurtenances.
	CenturyLink Sub Total			\$100,000	
COASTCOM					
3" PVC Conduit Installation - Directional Drilling	LF	1,000	\$20.00	\$20,000	Per CoastCom
Fiber piull, vault placement and splicing	LS	1	\$5,000.00	\$5,000	Per CoastCom
	CoastCom Sub Total			\$25,000	
STREET LIGHTING					* Light pole footing, junction box, pole & luminaire not included.
2" PVC Conduit Installation	LF	0	\$2.00	\$0	Included in lighting estimate
3" PVC Conduit Installation	LF	0	\$2.50	\$0	Included in lighting estimate
Light Pole Footing, Junction Box, Ground Rod Installation*	Ea	0	\$2,500.00	\$0	Included in lighting estimate
Poles, Luminaires, Fixtures*	Ea	0	\$4,000.00	\$0	Included in lighting estimate
	Lighting Sub Total			\$0	
SUMMARY					
Total				\$548,000	
Total with 30% Contingency	30%			\$720,000	

G:\PDX_Projects\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:45:49 PM CSL



NO ACCESS IMPACTS
ON THIS SHEET

PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



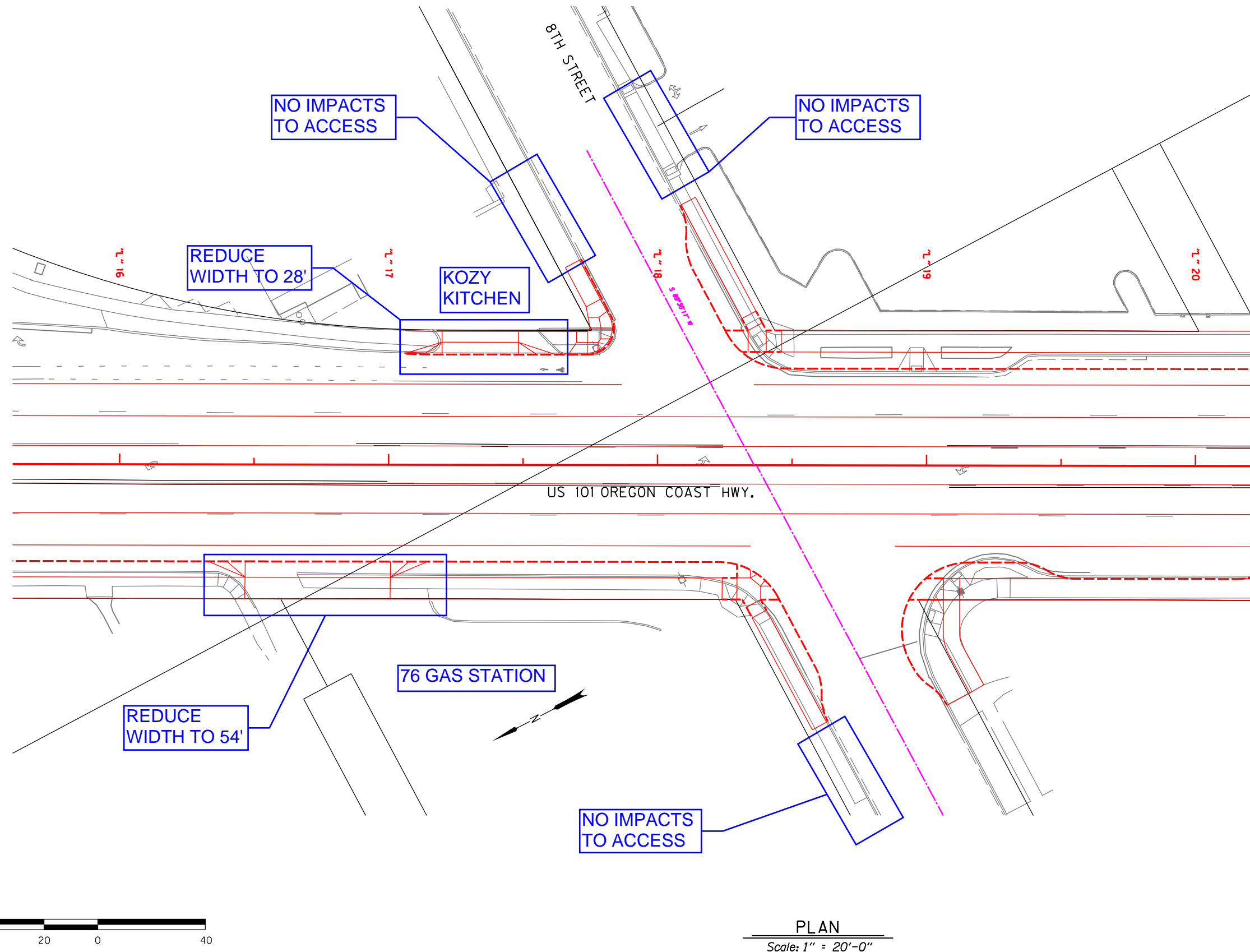
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX**

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-1
4 of X

G:\PDX_Projects\16-1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:46:56 PM CSL



30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

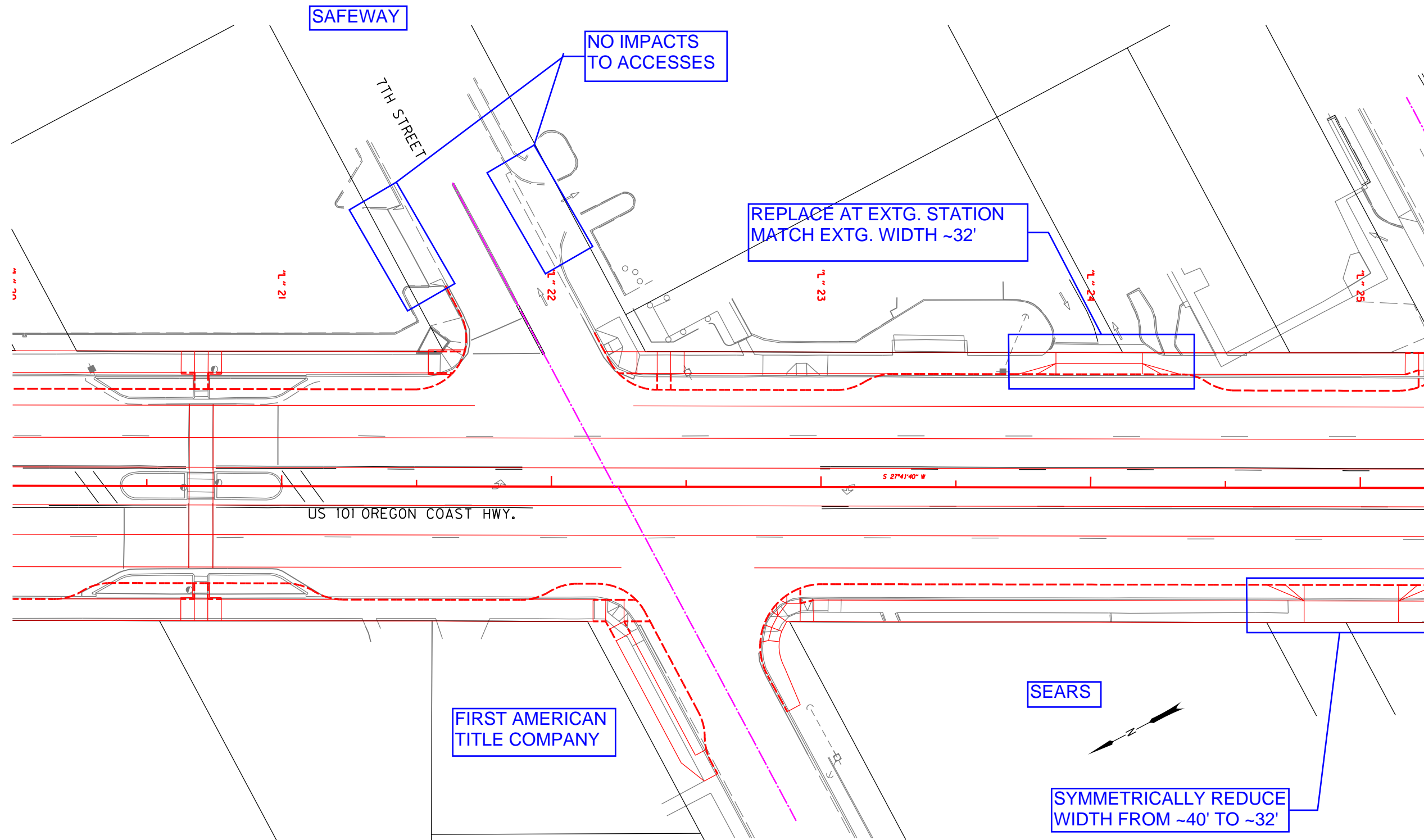


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX**
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-2
5 of X

G:\PDX_Projects\16-1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:47:08 PM CSL



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

0 1

IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

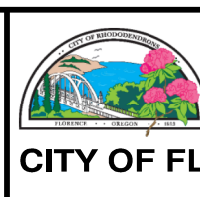
PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

MSA Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022



HWY 101 AND HWY 126
STREETSCAPING

CITY OF FLORENCE, OREGON

GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX

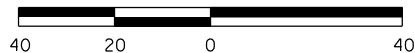
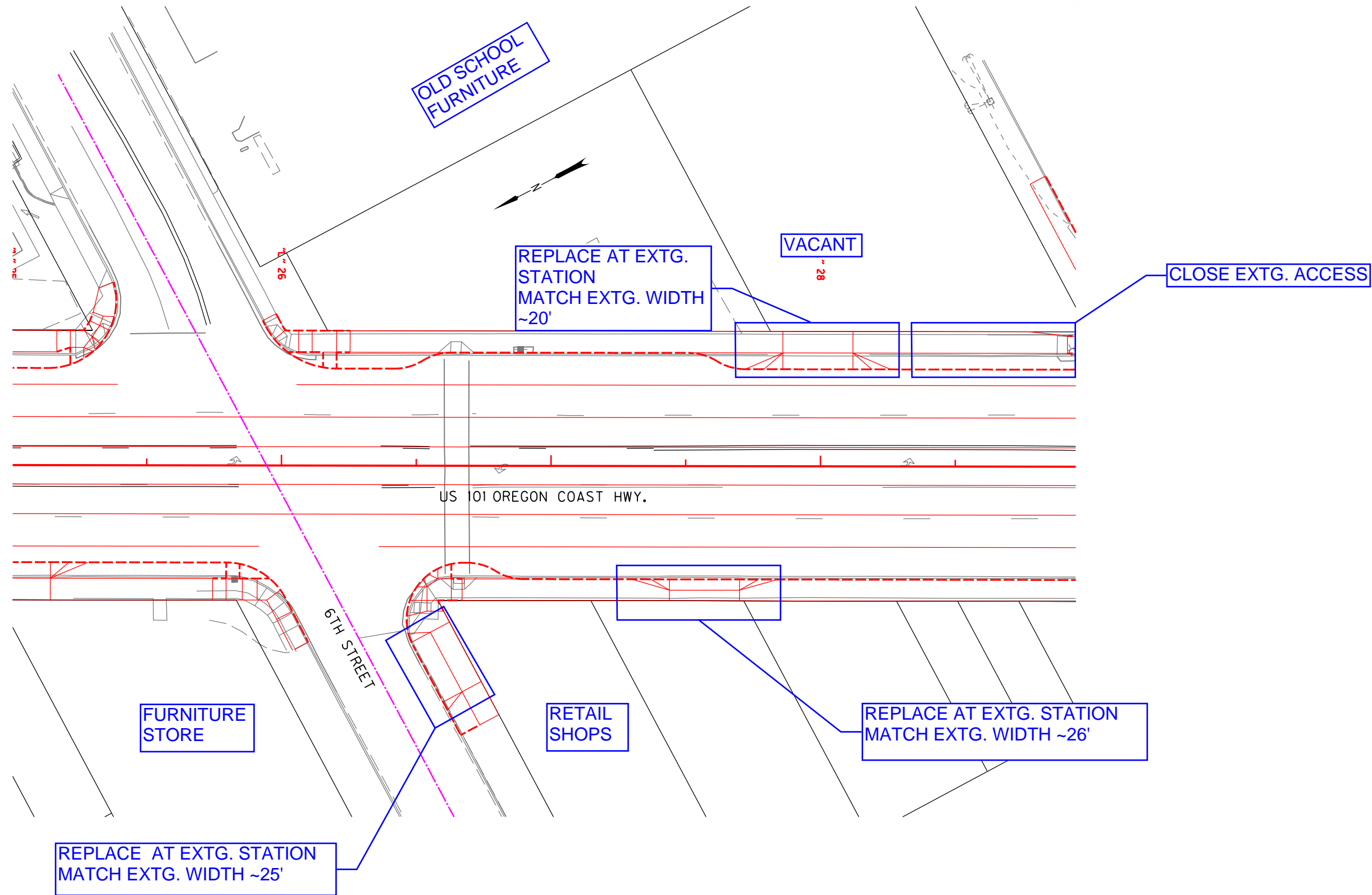
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-3

6 of X

G:\PDX_Projects\2\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:47:22 PM CSL



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

0 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

MSA Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

 HWY 101 AND HWY 126
STREETSCAPING

CITY OF FLORENCE, OREGON

GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX

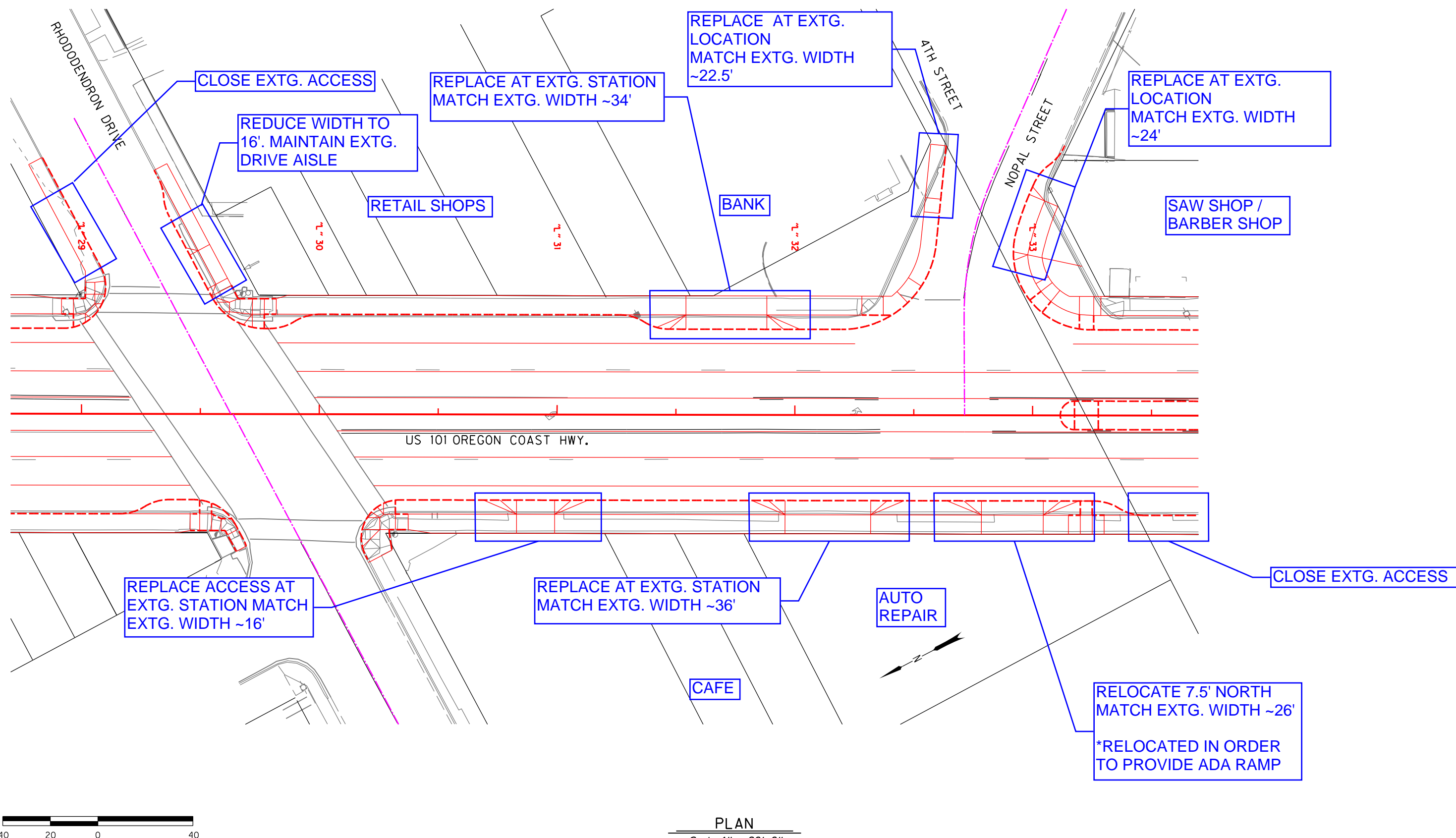
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-4

7 of X

G:\PDX_Projects\16-1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:48:44 PM CSL




30% - SUBMITTAL

NO.	DATE	BY	REVISION


NOTICE
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022

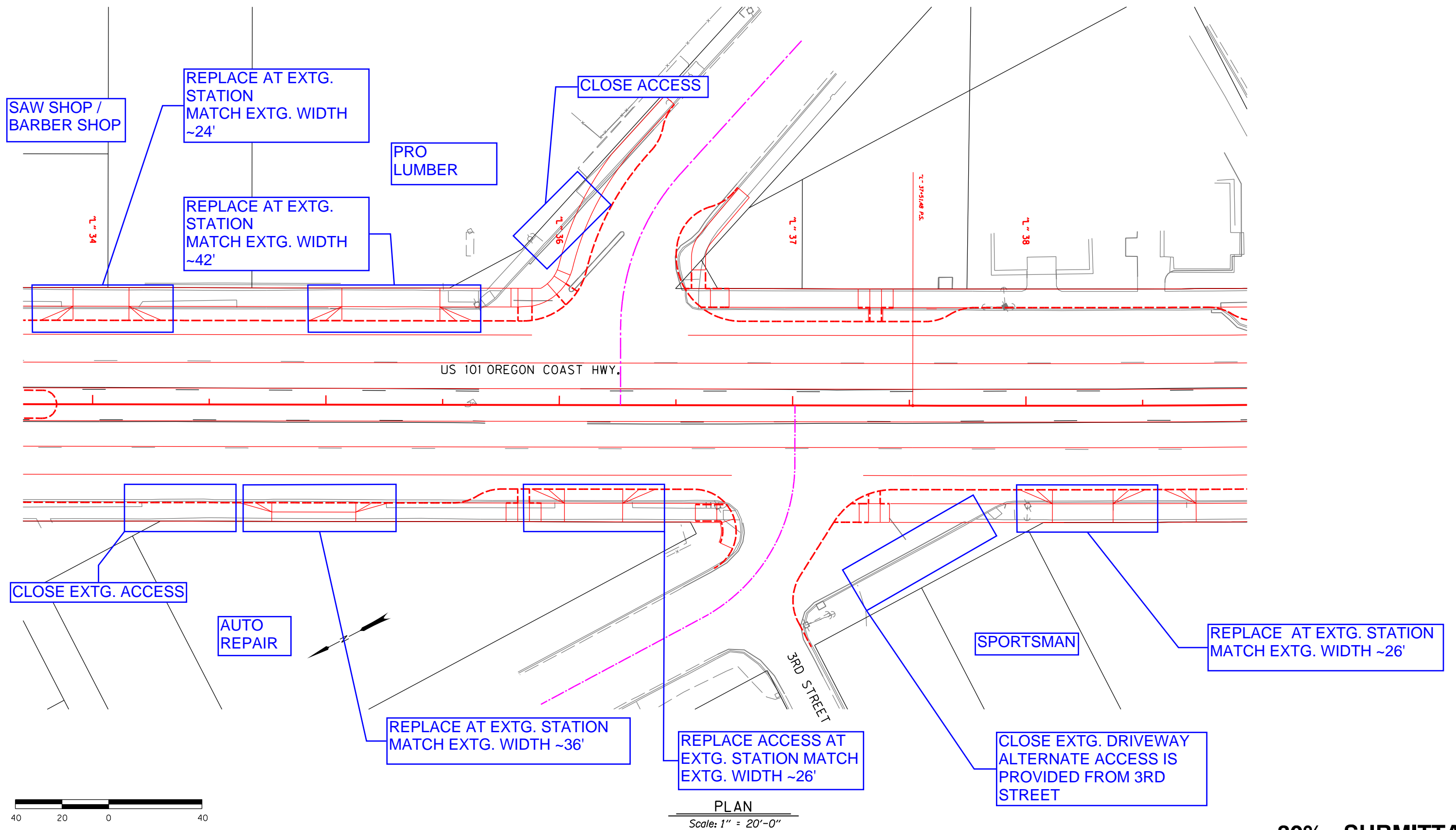


**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX**
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-5
8 of X

G:\PDX_Projects\16-1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.p11 :: Default 9/15/2016 9:49:03 PM CSL



30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

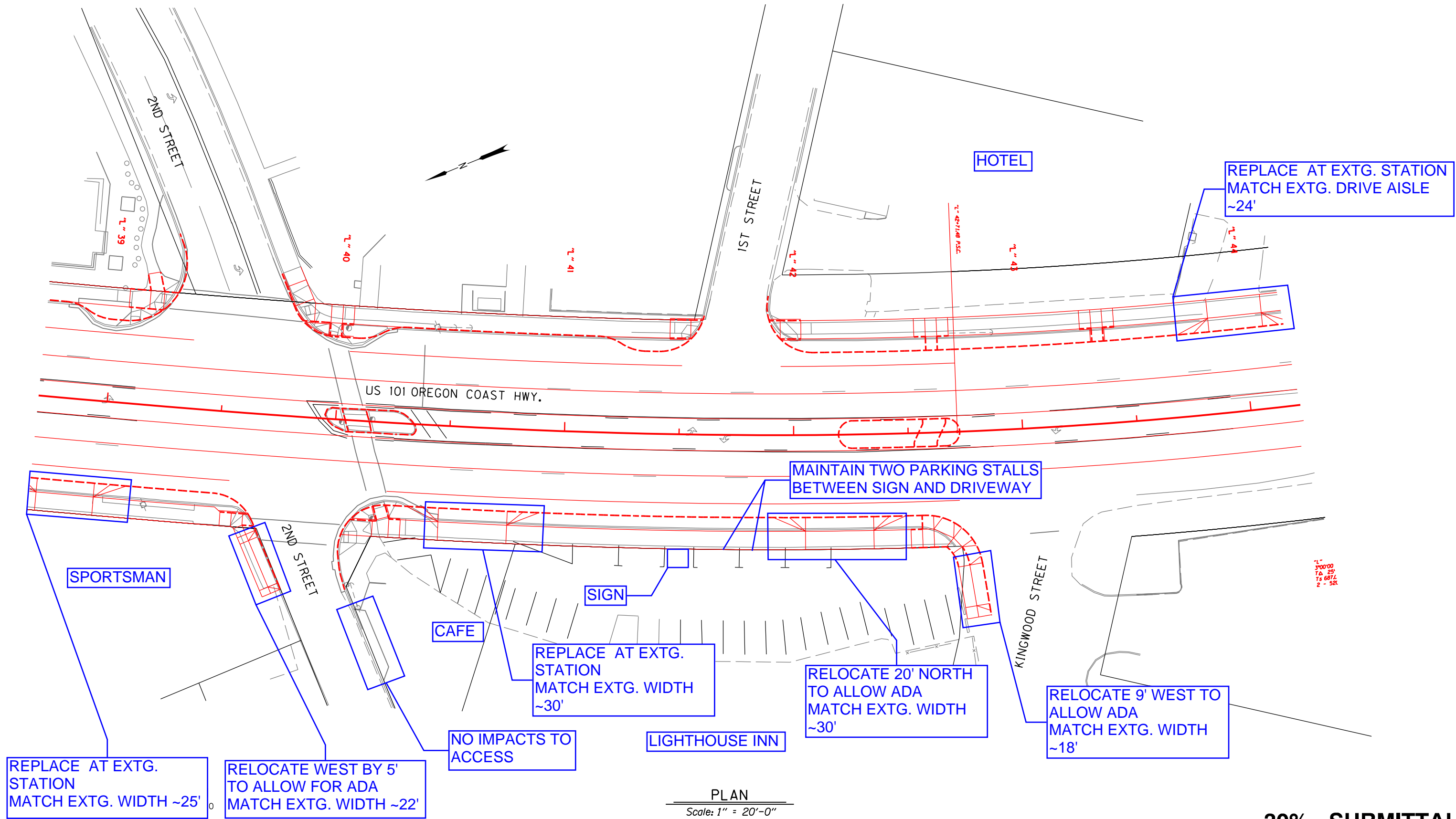
MSA
Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022


HWY 101 AND HWY 126
STREETSCAPING
CITY OF FLORENCE, OREGON

GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-6
9 of X

G:\PDX_Projects\16-1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.p11 :: Default 9/19/2016 12:48:12 PM CSL



30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1" =
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

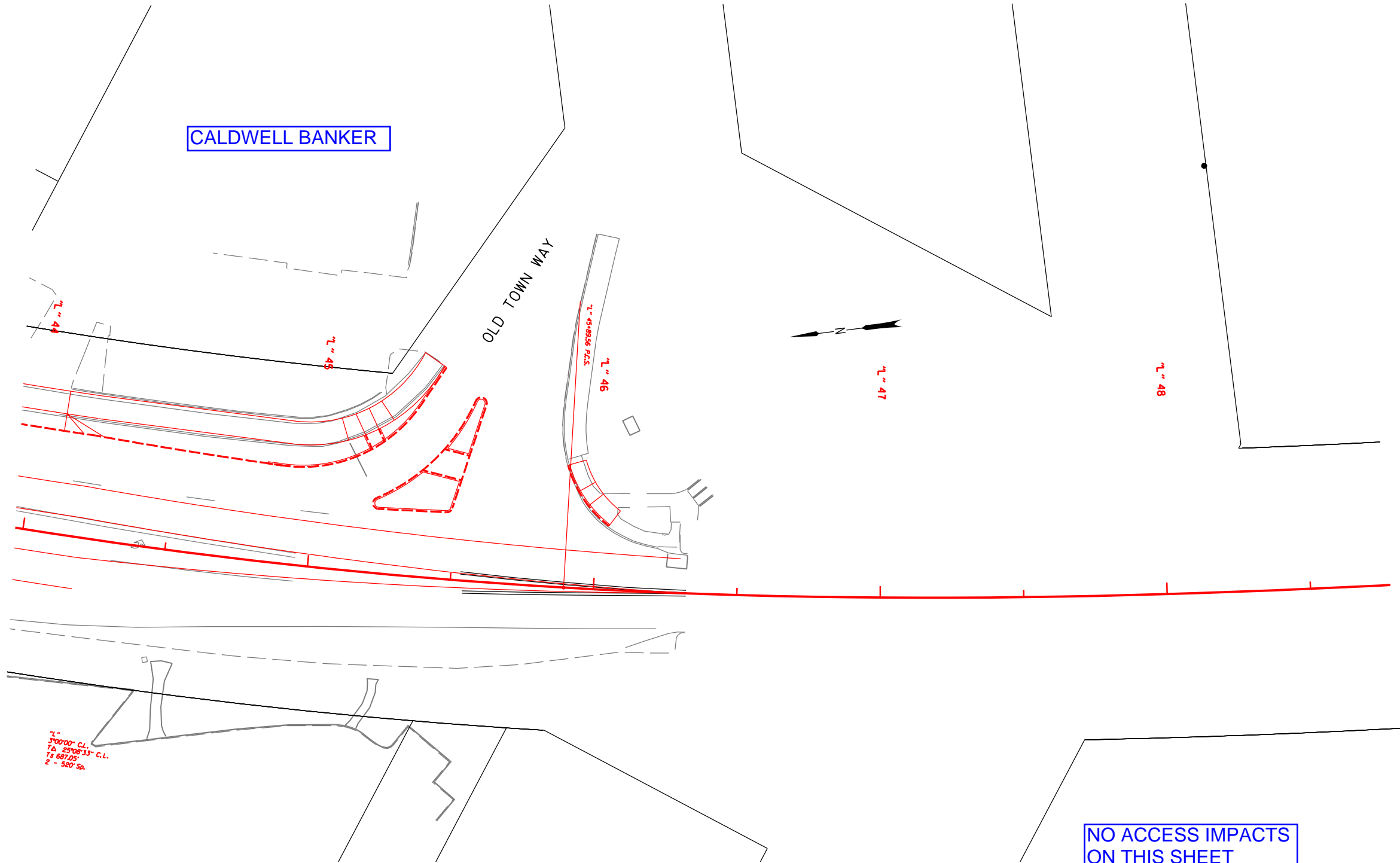
MSA Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170 PHONE 503-225-9010
Portland, Oregon 97204 FAX 503-225-9022

 HWY 101 AND HWY 126
STREETSCAPING
CITY OF FLORENCE, OREGON

GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-7
10 of X

G:\PDX_Projects\16-1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:49:33 PM CSL



PLAN
Scale: 1" = 20'-0"


30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE
0 1
IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204
PHONE 503-225-9010
FAX 503-225-9022



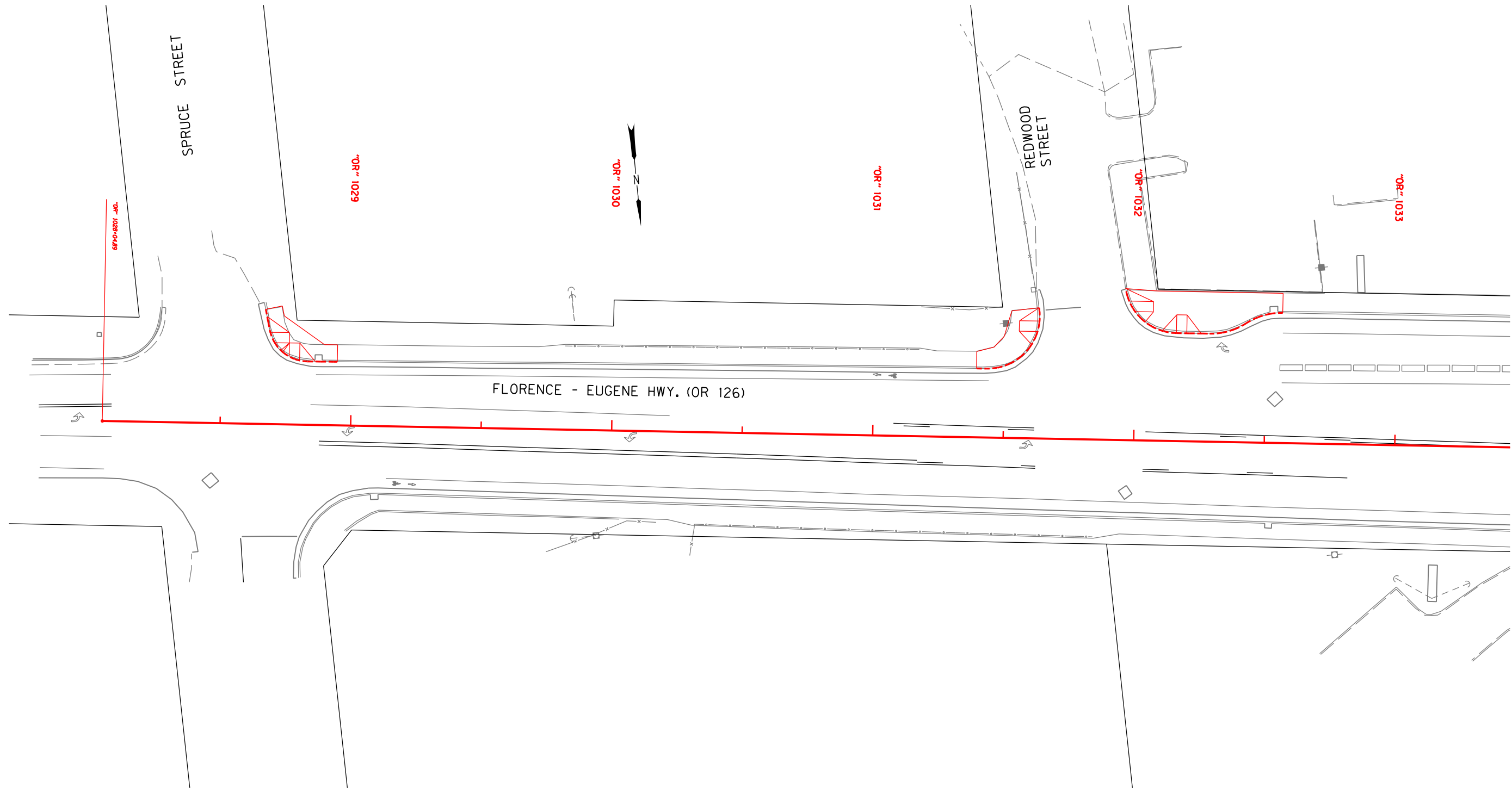
**HWY 101 AND HWY 126
STREETSCAPING**
CITY OF FLORENCE, OREGON

**GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX**

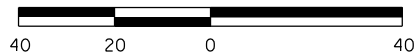
PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET
C-8
11 of X

G:\PDX_Projects\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:49:44 PM CSL



NO ACCESS IMPACTS
ON THIS SHEET



PLAN
Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION
SEPTEMBER, 2016
MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners

Murray Smith & Associates, Inc.
Engineers/Planners
888 SW 5th Ave., Suite 1170
Portland, Oregon 97204

PHONE 503-225-9010
FAX 503-225-9022

**HWY 101 AND HWY 126
STREETSCAPING**

CITY OF FLORENCE, OREGON

**GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX**

PROJECT NO.: 16-1848.801

SCALE: AS SHOWN

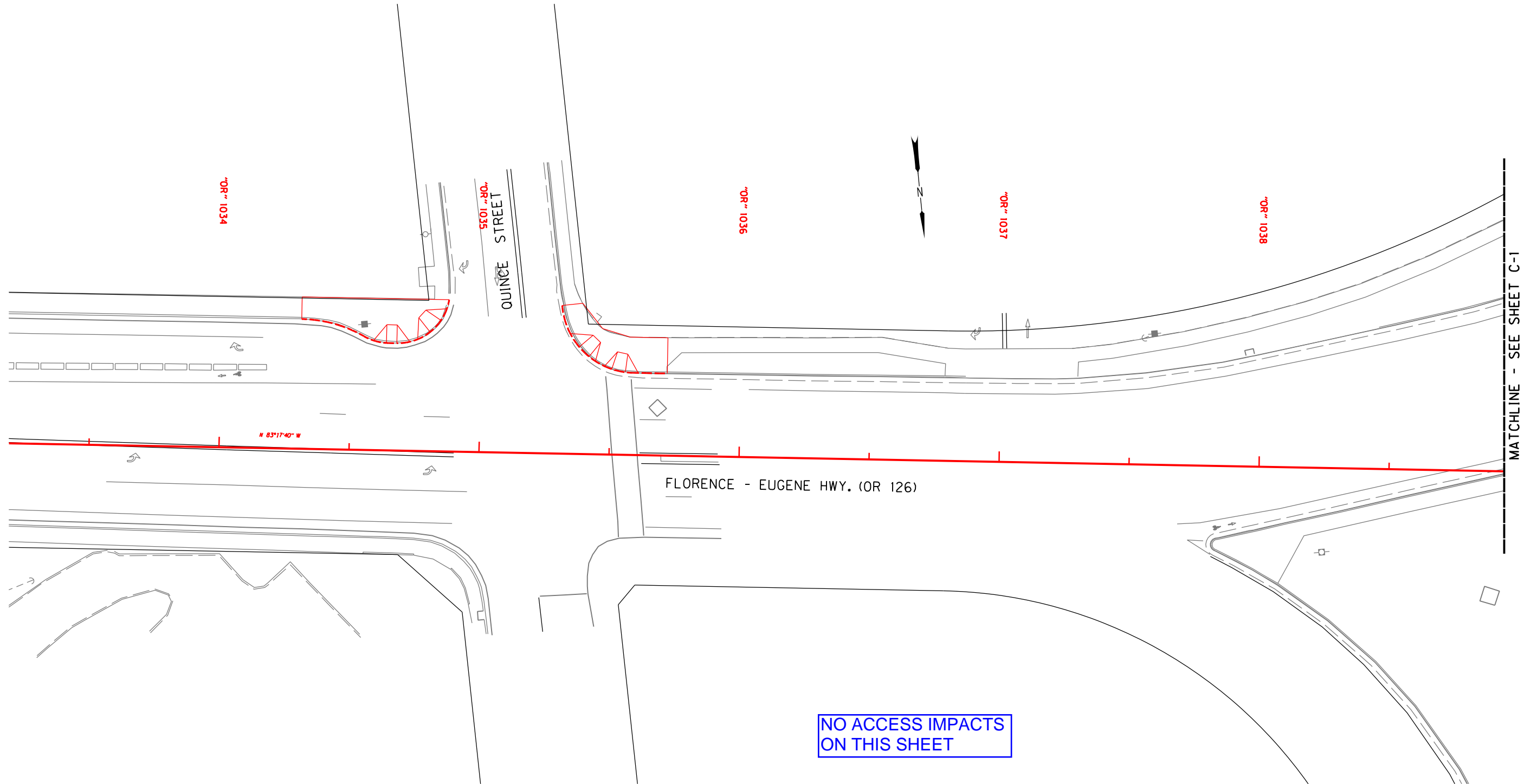
DATE: SEPTEMBER 9, 2016

SHEET

C-9

12 of X

G:\PDX_Projects\16\1848 - Florence 30 percent Design for Hwy 101\CAD\Sheets\16-1848-OR.plt :: Default 9/15/2016 9:49:54 PM CSL



PLAN

Scale: 1" = 20'-0"

30% - SUBMITTAL

NO.	DATE	BY	REVISION

NOTICE

0 1


IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CMC
DESIGNED
HCM
DRAWN
CSL
CHECKED

PRELIMINARY ONLY
DO NOT USE FOR CONSTRUCTION

SEPTEMBER, 2016

MURRAY, SMITH & ASSOCIATES, INC.
Engineers/Planners



Murray Smith & Associates, Inc.
Engineers/Planners

888 SW 5th Ave., Suite 1170
Portland, Oregon 97204

PHONE 503-225-9010
FAX 503-225-9022



CITY OF FLORENCE, OREGON

HWY 101 AND HWY 126
STREETSCAPING

GENERAL CONSTRUCTION PLAN
STA X+XX TO STA X+XX

PROJECT NO.: 16-1848.801 SCALE: AS SHOWN DATE: SEPTEMBER 9, 2016

SHEET

C-10

13 of X